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PIONEERS OF SPACE LAW

ANDREW G. HALEY

(1904 - 1966)



EDITED BY
STEPHEN E. DOYLE

Andrew G. Haley

Space Law Pioneer

by Stephen E. Doyle

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Andrew G. Haley: Space Law Pioneer

By Stephen E. Doyle,¹ BA, JD

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In preparing this biography we sought information from personal friends, relatives, work colleagues and acquaintances, in genealogical sources, newspapers, official records, books and articles about Andrew G. Haley, and from archived files originally accumulated by him as working files during his life. It is essential, if history is to be faithfully and accurately recorded, that historical accounts draw on the people directly involved in events to the maximum extent, and on those familiar with involved personalities and events.

Andrew G. Haley, Jr. provided a copy of a handwritten account of *The Family Chronicle* by Kathleen Haley Binet.² She was an older sister of Andrew, Sr. and the wife of Ludger Joseph Binet. That account provides a good deal of source material for the family tree's Haley, Gallagher and Binet branches. Andrew's older brother, Christopher Thomas Haley (1903-1999), self-published a memoir in 1981,³ in which he presented some family history, parts but not all of which are clearly drawn from his sister Kathleen Binet's family chronicle. AGH Jr. also provided a bonanza of family memorabilia, including photo albums, scrapbooks and news clippings that cover a period from the 1920s to the 1960s. From these and other sources, we have enriched and illustrated this biography of a truly remarkable man.

In addition to many others who contributed, I owe special thanks to the managers and staffs of the Archive Collections of the Smithsonian National Air and Space Museum, the California Institute of Technology, the Jet Propulsion Laboratory, the University of Washington, the Law Library of the University of Mississippi, the Georgetown University Library, and the Public Library in Pasadena, CA. Among family members I want to thank explicitly Andrew G. Haley, Jr. and his cousin, Professor Andrew John Vogt (retired), who contributed essential and enabling information for this account of a visionary man.

The author alone is responsible for the contents and opinions herein, and all unattributed subjective evaluations are exclusively those of the author. This study is one man's view of the life, works, and contributions of Andrew G. Haley, sometimes honestly critical, but far more often salutary. Despite his few shortcomings, he lived an extraordinary and productive life.

Concerning sources for the information on which this biography is built, there are two primary edited collections: (1) R. D. Crane (ed.), *Papers and Articles by Andrew G. Haley*, 7 Volumes, 1925-1962; and (2) S. E. Doyle (ed.), *A. G. Haley, Letters and Materials*, 25 Volumes, 1870-1980 (includes relevant *post mortem* documentation). These two collections

² Kathleen Haley Binet, *The Family Chronicle*, a hand written chronicle completed 4 March 1970, 18 pp. Cited hereinafter as *Binet Chronicle*. A copy is available in the University of Mississippi Law Library archive collection in the *Papers of Andrew G. Haley*; <http://airandspace.law.olemiss.edu/team/resources/andrew-haley/>, last visited 11 May 2021.

³ C. Thomas Haley, *Great Grandfather Tells All*, self-published, 1981, 179 pp. A copy is available in the University of Mississippi Law Library archive collection in the *Papers of Andrew G. Haley*; <http://airandspace.law.olemiss.edu/team/resources/andrew-haley/>, last visited 11 May 2021.

are assembled chronologically. Individual paper pagination is in Crane's collection. The Doyle collection has no pagination. The date on a document or a publication fixes its location in the collection, so materials in either collection can readily be found by date. The collections are cited hereinafter by title. Both collections are in the present author's possession, but they are to be offered to the University of Mississippi Grisham Law Library for inclusion in the Haley Papers archived there.

Stephen E. Doyle

Hampstead, North Carolina

Foreword

This biography of the life and times of a giant among the pioneers of the space age is truly delightful reading and will find a special place among biographical literature. Andrew G. Haley was unique, being at the forefront of rocketry as well as space law and policy. He was a co-founder and second President of the pioneering space venture Aerojet Engineering Corporation, which he formed with Theodore Von Kármán, Frank Malina, and other inventors of rocket technology. Later, having authored some of the earliest publications in the field, Haley was also a pioneering architect of space law and policy.

Haley's interests were not confined to space. He was deeply interested in political and policy issues. As a young man he served as a congressional staffer and had close contact with Senators and other national and local politicians. He was a writer and a journalist from his boyhood, and he wrote on a variety of issues in newspapers and authored half a dozen books and a slew of scholarly publications on communications and space law and policy. He was an early telecommunications law expert and practiced law in Washington, DC, and in the State of Washington. He helped draft federal legislation, including the *Radio Act of 1927* and the *Federal Communications Act of 1934*.

He was an ardent promoter of national and international cooperation in space-related activities. He was the originator and inspiration behind several space-related organizations beginning with the most prominent international space organization, the International Astronautical Federation (IAF), and its sister organizations. He served as the co-founding officer and General Counsel of those organizations. He was also a post WWII member, officer, and director of the American Rocket Society, which he stimulated to grow and expand through development of regional sections in the 1940s and early 1950s.

He was a highly imaginative man, able to apply his legal background to the highly technical and fast developing field of space and his early and incessant advocacy for allocation of frequency bands for space services was pivotal to the development of space activities. His full and multifaceted life included being a brilliant theoretician and practitioner of telecommunications and space law, the author of visionary publications, a man of constant activism, a brilliant negotiator of commercial interests, a strategic planner, and the bearer of the confidence and trust of pioneering rocket scientists.

That, in brief, is the man and his work portrayed in the seminal biography, which Dr. Doyle has so skilfully recorded to provide a holistic view of this iconic figure. As noted by the author, the biography “seeks to illuminate the background, the life, the accomplishments, and the challenges that shaped Haley’s complex personality”. He was a legend who was a very savvy, debonair renaissance man with a short-tempered domineering personality.

Above all, this biography illustrates that Andrew Haley will be remembered for having provided the analytical framework within which to see the evolving rules of space law, and for pioneering the establishment of a series of national and international organizations to support

the work of the international space community. His achievements on the world scene are as wide-ranging as they are inspiring, and he stands out with an irrefutable claim to be an iconic figure in the field of space.

Dr. Doyle's long association with Andrew Haley, renders him eminently qualified to be the biographer of this unique personality. Dr. Doyle's meticulous work has enabled him to recount in great detail Haley's eventful journey. The author's personal experiences and observation of Haley make the text so much more valuable. The author spent more than eight years researching the life of Haley and his considerable work. According to him, it has been a "labour of love" which is to be admired. The author carefully combed through Haley's rocketry-related papers at the Air and Space Museum of the Smithsonian Institution and legal and policy-related papers at the Center for Air and Space Law at the University of Mississippi during multiple visits in order to bring us a complete picture of this rare man. Dr. Doyle has organized and presented an immense amount of material in this publication in a highly readable manner woven into an engaging, historical account.

This publication speaks of how a group of rocketeers fared with their pioneering work and the course of the Aerojet Engineering Company, of how organizations like the International Astronautical Federation (IAF), the International Academy of Astronautics (IAA), and the International Institute of Space Law (IISL) were formed. It includes the work of the International Telecommunication Union, the Federal Communications Commission, and the US Congress in radio frequency band allocations and regulating the telecommunication and broadcasting industries as well as the decisive role played by Haley in all these endeavours.

The author seizes every opportunity to introduce the reader to the lives of numerous people in Haley's life. Throughout the narrative, we journey with members of his family, beginning with his immigrant grandfather to the members of the generation that followed him, and we meet his numerous business and academic associates in multiple countries. None more enduring and meaningful than the lifelong friendship and business association of the trio of Haley, the visionary with a keen legal and business acumen, Theodore von Kármán, the rocket scientist/aerodynamicist, considered one of the greatest minds of the twentieth century, and the rocket inventor/engineer Frank Malina, who were the first and second Directors of NASA's Jet Propulsion Laboratory (JPL). In this biography, we visit the lives of those great men, just as we do with many of Haley's family and other friends.

I first met Andrew Haley in 1964 as a graduate student when he lectured to us as a visiting lecturer at the Institute of Air and Space Law at McGill University, where I had the privilege of meeting Steve Doyle as a fellow student. Not long after, I was fortunate to meet Haley at the 1965 IAF Congress in Athens, Greece. The same year, he was at the United Nations at a Preparatory Committee for a World Space Congress, and by then, I was a junior officer at the UN serving the Committee on the Peaceful Uses of Outer Space as Secretary to the Committee Chairman.

I had seen Haley up close at the time because he happened to be a close associate of my Director at the time, Ambassador Abdel-Ghani, who represented the UN at IAF Congresses for many years. On each occasion I saw Haley, I found him to be a towering figure – regardless whether he was among diplomats, or space scientists, engineers, managers, lawyers, historians, and writers who attended those gatherings. Much later, I was privileged to carry on his legacy

when, many years apart, I was honoured to be his successor as President of the International Institute of Space Law (IISL), of which he was the Founder President and General Counsel. The vision he had, and the campaign he carried out, over several more than a decade, in a multitude of scholarly publications and extensive lecture tours throughout the United States and Europe, saw fruition only when the space treaties and regulations were adopted by the United Nations, in which I had the opportunity to participate. But sadly, his life was cut short on the eve of emerging UN space treaties, leaving behind a growing and impeccable memory.

Dr. Doyle has been successful in giving the reader an insightful yet compelling and fascinating account of Haley's eventful life. Intimate details are not spared, and many anecdotes in it make the presentation interesting. Though it is hundreds of pages long, the book moves quickly across the years using short chapters, and briefer sections within them, making it easy reading. The text alternates between the author's narration and the narration of some of Haley's voluminous papers and personal and business correspondence, peppered verbatim throughout the book resulting in objective reportage. Though it is a veritable treatise on the early development of law and organizations covering space activities, it is also an inspiring, hopeful memoir that is a real page-turner.

Nandasiri (Nandi) Jasentuliyana

Director, United Nations Office for Outer Space Affairs (1984-1999)

Deputy Director General, United Nations, Vienna (1993-1999)

President, International Institute of Space Law (1994-2007)

President Emeritus, International Institute of Space Law (from 2007)

Prologue

Washington, DC, February 1962

When I met Andrew G. Haley, he was a 58 years old, well-established proprietor of a successful law practice in Washington, DC. At that time, I was a rising third year student at Duke University School of Law. A former Haley employee, who had come to do research at Duke, recommended me to Haley to assist in the preparation of a book on space law. At Haley's invitation and expense, in February 1962, I flew from Durham, NC, to Washington, DC, to be interviewed for the position, which would be a law clerkship in his firm for the summer of 1962.

Entering Haley's office area at Haley, Bader & Potts was like entering a small museum. He displayed many selected awards, commendations, photographs with politicians, and one large oil portrait of himself dominating one wall of the office. He was brusque and disinclined to engage in small talk. We spent no time talking about the past events that led up to the meeting. We focused immediately on questions related to my writing experience, research experience, academic performance, period of availability, and willingness to accept his salary offer. The answers to the initial questions apparently being satisfactory in his view, the immediate purpose of the meeting became to agree on a salary and the date on which I would report for work.

He explained that Robert Crane had spent several months collecting and compiling Haley's papers, articles, congressional testimonies, and biographical data and arranging a six-volume publication of the collection.⁴ It was a one-of-a-kind chronological compilation, bound in black buckram, each book, measuring 9 x 12 x 2 to 3 inches. The collection included many manuscripts of papers, articles, and presentations, as well as reprints of articles by and about Haley. Haley said he would provide that collection for reference, and a list of chapter headings. My job, should I accept it, would be to generate an integrated manuscript of a book on space law based on more than 150 of his collected works. Did I think I could get it done in a summer (nominally 90 days)? I said I thought so, and he said "OK, come back on June 1 and we will have a place for you to work. I will also have one or two clerks here who can assist you as needed. Thanks for coming in".

That was the end of the less than 10-minute job interview. I flew back to Durham later the same day, contemplating all the way what it was going to be like working for this dynamically assertive man, who apparently had a high opinion of himself and the importance of his work. It portended to be a fascinating, if demanding, summer and I wondered if I had bitten off more than I could chew. Meanwhile, Haley arranged to send to me the first six

⁴ *AGH, Papers and Articles*, in 7 volumes, privately bound, 1962-1966, at the University of Mississippi, Grisham Law Library archives. Documents in this collection are bound chronologically; search by date.

volumes of the Crane compilation so that I could become familiar with their contents. The full consequences of that interview are presented later in this biography.

Washington, DC, October 1966

Haley died in September 1966 approaching the age of 62, about nine months after I had left employment in his firm to enter government service at the Federal Communications Commission. I was invited by his son to assist in the recordation and organization of his father's files and personal papers, which I did, working evenings and weekends. The family decided to offer the collected papers and files to the Smithsonian Institution Air and Space Museum Library. The Smithsonian accepted the industrially-related portions of the files involving Haley's work as a cofounder and president of the Aerojet Engineering Corporation from March 1942 to August 1945. There were also files on Haley's international travels and involvement in astronautical organizations, with more than 500 photographs taken during his years at Aerojet and many of the meetings recorded in the files.

The balance of the surviving files comprised personal correspondence files, family business, some organizational records, and daily reading files from his law firm for years from 1955 to 1966. There were also boxes of personal photographs and scrapbooks with this portion of the papers. This balance of the materials was donated to the Center for the Study of Space Law at the University of Mississippi, under the direction of Professor Stephen Gorove. The two archived collections, one in Washington, DC, one in Oxford, Mississippi, were of roughly equal volumes of about 35 file transfer boxes each.

Shingle Springs, CA, Summer 2010

Fast forward into the next century. In 2010, almost 45 years after Haley's death, I was contacted by Professor Joanne Gabrynowicz, who had succeeded Stephen Gorove as the Director of the Center for the Study of Space Law. She had been asked by the Grisham Law Librarian at Ole Miss to determine the content of about 35 file boxes stored in the basement of the library because the space they occupied was needed and a decision would have to be made what to do with the contents of the boxes. When she looked into the boxes, Prof. Gabrynowicz found my name in several places in the files. Through a mutual friend, George Robinson, she obtained my number and called to ask me if I would come to Oxford to examine these boxes with her to determine the provenance and significance of the contents. I made two trips to Mississippi from California, and after several days of examination, the files were identified, and generally organized. It became an in-house effort to go through all the files, record them in an electronic 'finder', and to make the archived files available for researchers through the internet. This work was done subsequently by students at the renamed National Remote Sensing and Space Law Center at the University of Mississippi, under the Direction of Prof. Gabrynowicz.

This historical reference work brought me into contact once again with Andrew G. Haley, Jr. and through several exchanges by letter and phone, we agreed that I would undertake

the preparation of a draft manuscript of his father's biography. To assist, he sent me family scrapbooks, boxes of photo albums, and many keepsakes from his father's youth. With this figurative gold mine of personal family information, and with access to the archived records, I thought I could complete a draft biography for the family's consideration within a year or two.

Hampstead, NC, 2020

Now, it is ten years later. Compiling the Andrew G. Haley biography has been a 'labor of love' and I have enjoyed doing it, despite the length of time required. Several trips to the Smithsonian and to Oxford, Mississippi, were required for me to complete surveys of the contents of the archived files. I was also provided with personal commentary by Andrew, Jr. and by Andrew John Vogt, a nephew and ward of Andrew G. Haley, Sr. The life of Andrew G. Haley was exceptional in many regards, but even after years of study reflection and drafting, I am confident that there could be more told about the life of this man.

Andrew Gallagher Haley was known to me as an employer, benefactor, supervisor, mentor, and an exemplar, for both positive and negative behavior. I knew and worked for Haley over several years, and with the assistance of members of his immediate family and extensive archived records, we based this biography on personal observations as well as historical records and many written testimonies by other observers of Haley's life as it occurred.

In considering the life of this pioneer of space law, it should be remembered that Andrew G. Haley was, from the beginning of his professional life, a communications attorney. Over time, his expanding law practice became very lucrative. In addition to all else he accomplished, Haley was a renowned and successful communications attorney, especially with reference to national and international broadcasting law.

In addition to a life-long career working to help draft and then practice radio and communications law, he served in the merchant marine as a telephone operator at sea; he was a lawyer in the federal civil service; he was briefly in the US Army Air Corps during WWII; he was an industrial manager; and he was an organizational officer and innovator in key national and international astronomical organizations. In addition, he was a prolific commentator on and an originator of some concepts of space law during the last eleven years of his 62-year lifetime. In his personal life, he was a husband, father, and guardian, all relationships in which he began in good stead, but which somewhat deteriorated in time, leaving him manifestly lonely in his later years.

Haley considered himself "a lawyer by profession [who] devoted a major part of his lifetime to 'working with his hands in rocketry' and to practicing law in the technical fields, namely, radio, television, hydroelectric power, and in all branches of rocket propulsion".⁵ His law practice was his primary and sustaining source of income for his last 20 years of life (1946-1966). During the late 1950s, he was also president of the Missiles-Jets & Automation Fund, Inc. and the Missiles-Jets & Automation Management Company. Missiles-Jets was an aerospace mutual fund. This fund was consolidated with the Axe Sciences Fund in 1960, in

⁵ From a personal *Curriculum Vitae* issued by Haley in 1960, in *AGH, Papers & Articles. op.cit. supra*, note 4.

which Haley served as a Vice President and a Director. During his later life he served diligently on multiple organizational and corporate Boards of Directors.

After working with him in astronomical matters for several years, it became clear to me that he was a unique and innovative architect of space law; and objectively considered, he was a paladin of space law who earned repeatedly consideration as a renowned champion even if not formally a 'knightly hero'.

During his lifetime, Haley wrote six books, of which two were commercially published; two were self-published; and two were never published. He wrote more than 200 articles, lectures, and papers in a span of ten years dealing with astronomical law, policy, and international cooperation in astronautics. He was a self-appointed organizer and editor or co-editor of proceedings of several international symposia on the law of outer space. He also contributed to works by others, including introductions, entries, and chapters in a variety of books and encyclopedias.

Herein is my best effort to capture the essence and the substance of this extraordinary lifetime spent almost continually in the service of others, and his later years supporting international cooperation in space law and astronautics. Some commentators have considered him the 'first practicing space lawyer in the world'.

Stephen E. Doyle

Chapter 1. An Inauspicious Beginning

Andrew Gallagher Haley was born in Tacoma, Washington, on 19 November 1904. The birth was normal but unusual, because Andrew's parents and his five brothers and sisters lived in San Francisco, California. When the fetus was near end of term, Andrew's mother (*née* Kathleen Rose Gallagher) was visiting her parents, Hugh and Ann Gallagher, and her sister, Margaret, who lived with their brother and parents in Tacoma, Washington. Kathleen remained in Tacoma until after the New Year. On 31 December 1904, Andrew was baptized at the Church of the Holy Rosary in Tacoma.

At that time, transportation was a complex, time consuming process when travelling hundreds of miles interstate. The older Haley children were likely residing with their father in San Francisco at the time of Andrew's birth in Tacoma. The family was soon reunited in San Francisco, where Andrew was the sixth child in an Irish Catholic family. Christopher J. Haley, Andrew's father, was head of the household. At the time of Andrew's birth, Christopher was a newly appointed foreman in a firm manufacturing wooden staves, pipes, and vessels used for the transport and storage of water.

Life for infant Andrew was comfortable with a loving mother and admiring siblings who helped daily in the maintenance of the family home. When old enough, everyone had daily chores to make the management of the home feasible. The elder children helped with the personal hygiene of the younger, and cleaning of the house was a shared chore. Children set the table, washed and dried the dishes, and as they became capable, each of them helped make the beds in the morning.

School was a major event in the days of the children, but they all came together for family dinner each evening. Chopping, fetching and stacking of wood was a daily exercise to keep sufficient wood in the kitchen stove, not only to cook meals, but also to heat irons and water for laundry and bathing, which were often done in the same wash-tub. The sun's energy had been collected and stored in the wood, and the kitchen stove facilitated extraction of that energy to support many activities of the Haley family life.

In the first decade of the 20th century, electricity was a luxury affordable by few. There was no electricity in the Haley home in San Francisco. In the evening, light was provided by oil lamps, which also required a degree of daily cleaning and maintenance. In this family, nothing came freely. Whatever was required was produced by work and cooperative effort. There were no laggards. The family was a cooperative, interdependent team, and everyone in the family had significant, contributing roles. Kathleen Rose managed the household and her children lovingly and effectively.

As the children attained teen age, they sought part-time work after school and/or on Saturdays. Whenever practicable, the older children realized they could help considerably by adding to the available family resources. They found the necessary time to study their lessons, and as they grew, they learned to use their time wisely and productively. They all learned by

experience at an early age the meaning of the aphorism “waste not, want not”, and that it applied to time as well as material things.

As the children grew, their mother, Kathleen Rose, became increasingly insistent upon assembly for a family supper each night. She had been raised in this way on a farm in Montrose, Iowa, and she realized that regular communal meals provided the natural setting for verbal exchanges of family information, current events, identification and discussion of grandparents and other relatives, and significant events of family history. Family suppers in the Irish tradition were the source of much of the glue that welded families together in caring for and about one another.

The use of wooden pipes and wooden cisterns was common in the late 19th and early 20th centuries. They were broadly employed in city water supply and in sewage systems. The western and northwestern United States were well supplied with wood. Fortunes were made by harvesting the forests and providing a rapidly expanding population with required building materials. Wood was broadly and immediately available.

Christopher J. Haley and his younger brother William had studied together at St. Ignatius School in San Francisco in the later 1880s and early 1890s. Christopher had concentrated his studies in mechanical engineering, focused on the production and use of wood for water transport and containment systems. When Christopher graduated in 1892, he was readily employed as a machinist in wooden pipe manufacturing. The population in the San Francisco region had grown extraordinarily during the last quarter of the 19th century and the need for new and more durable water and sewer transport systems grew steadily with the population. It was a dynamic field of competitive enterprise and there was plenty of work for diligent and dedicated workers interested not only in the production of existing systems, but also in the design of new and improved systems. Although Christopher was employed as a machinist in a wooden stave factory in the 1890s, he was destined soon to become well known as a designer of new and better water management systems.

Some months after his graduation from St. Ignatius School, Christopher met a fascinating girl named Kathleen (Kate) Rose Gallagher, from Montrose, Iowa. She had recently moved with her family from Iowa to San Francisco. In due course her family moved again and settled in Tacoma, Washington. Christopher found this fascinating young woman exciting and inspiring. Drawn together by their common Irish heritage, the couple kept company and spent hours walking together in San Francisco. The relationship eventually blossomed, and Christopher Joseph Haley married Kathleen Rose Gallagher at St. James Church in San Francisco on 25 January 1894.

Years later Andrew J. Vogt recalled:

Grandma [Gallagher] Haley described to me how her ancestors came to the USA. She said that the British were putting Irish people on ships that went to England and they overloaded them so that the ships would capsize on the way to England. A family member managed to get the family on a ship headed to Canada. They came to Canada and came down the St. Lawrence River. Eventually family members made it to Montrose, Iowa on the Mississippi.⁶

⁶ From a commentary on a draft of this biography sent to S. E. Doyle 12 Jan. 2020; in *AGH, Letters and Materials*, a chronological collection of relevant documentation in 25 volumes, cited hereinafter as *AGH, Letter & Materials*.

After farming for years in Iowa, the Gallaghers had decided to relocate their family to the West Coast; settling first in San Francisco, then purchasing a home in Tacoma, Washington. The relationship between Christopher Haley and Kathleen had developed during the Gallagher family's time in San Francisco.

The Haley couple's honeymoon included a visit and tour at the recently established Lick Observatory about 20 miles from downtown San Jose, California. Kathleen was fascinated by the mysteries of and the spectacular nature of the heavens. The couple settled in Hampton Court in the South Park area of San Francisco. At that time, Hampton Court was considered fashionable and very respectable. Surviving evidence of Hampton Court in San Francisco in the early 21st century is the park oval from the center of the court, which lies below Interstate Route 80 as it exits the Oakland Bay Bridge and passes above San Francisco's South Park area.

In 1901 and 1903, the *US Cities Directories* listed Christopher and Kathleen living in San Francisco. Christopher was identified as a machinist. In 1904, the year Andrew was born, Christopher was listed the first time as a foreman. His proficiency at work was opening new opportunities. Christopher and Kathleen eventually would have ten children, arriving over a span of more than two decades. Their first child was Kathleen Ellen, born 19 October 1894 in San Francisco. Gertrude was born 30 January 1897 and Joseph Patrick was born 13 August 1898. The family grew when Mary was born 23 April 1900, and Christopher Thomas was born 8 January 1902, all in San Francisco. Although the family was still resident in San Francisco, Andrew Gallagher was born in Tacoma, possibly because Kathleen Rose had gone to Tacoma to visit her family for the Thanksgiving holiday and for physical and emotional support when Andrew arrived. With the birth of Andrew, Christopher J. and Kathleen had six of their children.

The Haley and Gallagher families' histories include constant references to church weddings and baptisms, all in Roman Catholic churches; continual evidence of the influential impact of their religion on the families. They attended church regularly. As they matured, men and women of both families became members of religious affiliated care-giving organizations and service organizations in their immediate communities. Also, they generally attended church-sponsored schools and put their children in such schools. Collectively, they were families of devout Irish Roman Catholics committed to the care and support of less comfortable members of their communities. This was the family mindset into which Andrew was born and in which he grew to adulthood.

Like the other members of the Haley family, Christopher and Kathleen raised their children in the love and fear of God, giving each child the best education to be had, consistent with their resources. All the Haley children attended parochial schools, and, when possible, academies and prep schools. While he studied at St. Ignatius, Christopher was a League of the Cross Cadet. The League was a Roman Catholic confraternity requiring total abstinence from alcohol. The league was founded in London in 1873 to unite Catholics, clergy and laity, in the warfare against intemperance, in order to improve religious, social, and domestic conditions. Christopher was also an active member of St. Joseph's Union in 1889, the object of which was to aid and protect homeless and destitute children.

The pattern of providing each child the best education to be had was not only a family practice to promote college educations, but also to sustain a family commitment to the Roman Catholic Church. The end result of seeking and providing the best available education to children was well summed up by Andrew's older brother, C. Thomas Haley (1902-1999), in a letter written to his family which was the first page in his self-published memoir, *Great Grandfather Tells All*. In 1981, C. Thomas Haley wrote: "I am so very proud of my family. The children of my brothers and sisters have all distinguished themselves. There are doctors, lawyers, engineers, educators, military men, two Rear Admirals and one Colonel, distinguished writers, artists, scientists, and one ordained priest to bless us all";⁷ tangible evidence of a family dedication to quality Christian education of their children.

In the spring of 1906, Christopher Haley was offered a position in which he could apply more innovation to his work, and at a higher salary. Consequently, he relocated his family from San Francisco to Seattle, Washington. The demand for more and better wooden water management systems was driven in the northwest as it had been in San Francisco, by constant population expansion. From the time Christopher was originally hired in San Francisco in 1892, the application of his skill in designing, strengthening and facilitating the production of wooden water pipes had been noted and capitalized upon by his employer. Christopher's capabilities were also evident to industrial competitors.

In 1906, when Christopher decided to move his family to Seattle, the population in greater San Francisco exceeded 400,000. He had enjoyed advancements in his company partly because he not only produced designs and improvements, but also managed others employed in the hands-on work of producing wooden staves. He had done that work himself for ten years. His proposed improvements were insightful, money and time saving, and they kept coming. Not one to rest on his laurels, Christopher seemed driven to constantly improve any design or system he was asked to work on. His workdays often included several late hours at a drafting table at home. In modern terms, he was a workaholic. His was a profound example of a strong work ethic to all his sons. For her part, Kathleen was equally a model work ethic for her daughters, showing them her industry, emotional support, integrity, and loyalty as a wife and a mother.

Talent such as Christopher's was not easily hidden from competitors. Christopher was required to choose, more often than he liked, whether to stay where he was or to accept the increased salary and authority he was offered by a company competitor. Christopher was obviously a 'free agent' in the work force and was willing to move if the terms and conditions offered made a move attractive. The family continued to grow when the seventh child, Margaret, was born in Seattle on 8 October 1906.

In 1908, the family was moved from Seattle to near Olympia, Washington, at the southern end of Puget Sound. During the family's initial time near Olympia, life remained spartan. They had no electric power, oil lamps were in use for lighting. Irons, used to press laundry, had to be heated on top of the wood burning stove. Initially, there was indoor cold water but an outside privy. Andy's brother, C Thomas Haley, later recalled:

⁷ C. T. Haley, *Great Grandfather Tells All*, *op. cit. supra* note 3 at p. 1.

In time the electric power lines were extended to our area. The installation of modern plumbing in our home, and then the use of electric power brought about the greatest changes in our home near Olympia. Mama had a water powered washing machine, and we all enjoyed the luxury of frequent baths, in a conventional bathtub. The electric lights made schoolwork easier for those who were in school. They developed a profound interest in reading. Their discussions of what was read stirred the imagination of those of us not yet in school. Besides myself, there was my brother, Andy, and my sister, Margaret. Margaret was the youngest of our family at that time, perhaps too young to learn much of what was being discussed. Our inspiration mostly came from Mama.⁸

Describing the annual picnic held at Priest Point Park on Puget Sound, Thomas wrote about the wonderful foods, the games, the contests, and the fireworks to cap it all off. Then, on the way home, “[t]he younger ones would be sound asleep on the journey home. On that day we would travel in a buggy rented for the day. It would be some time before more than a dozen people in Olympia would have automobiles”.⁹ While living near Olympia, on 23 September 1909, Kathleen Rose delivered a female child, her eighth. Recorded as Haley Haley in state records, the infant child died on 29 September 1909.

Andy’s brother, Thomas, recounted another series of events in Olympia which had a significant impact on pre-school Andrew Haley.

At that time, sometime in 1909, there was much talk about the approach of Halley’s Comet. Brother Andy, as young as he was, struggled, one might say, to learn everything possible about Halley’s Comet. He was quite successful in his quest for knowledge. This was due to the good fortune of having a neighbor, an elderly gentleman who was a retired professor of astronomy. He had taught at the University of Washington. Don’t recall the name of the professor – but what I shall never forget was the sight of Andy and this kind man, as they met for hours for so many days. The usual meeting place was just outside the picket fence at one side of our property. [...] Andy was a good listener. He was only four years of age at this time. We now realize that even at that early age he showed signs of genius.¹⁰

Another, better position came available to Christopher in just three years. He was offered a significant role in design and management of wooden water pipe production by a firm in another population expansion center – Vancouver, British Columbia. Christopher decided to move his family once again.

Some apparently unrelated events

On 1 May 1881, a boy named Theodore von Szolloskislak Kármán was born in Budapest, Hungary. In his biography, von Kármán explained that “I have shortened it to von, for even to me, a Hungarian, the full title is almost unpronounceable”.¹¹ This boy prodigy could, at the age of eight, correctly multiply two five-figure numbers in his head, and accurately recite matters

⁸ *Id.* at 39.

⁹ *Id.* at 49-50.

¹⁰ *Id.* at 39-40.

¹¹ T. von Kármán and B. Edson, *The Wind and Beyond*, 17, Little, Brown & Co., Boston (1967).

such as the progress of the planets in the solar system.¹² At age 17 (1898), he enrolled in the Royal Joseph University of Polytechnics and Economics in Budapest. In his biography, von Kármán wrote: “Economics, which was a major faculty in the Royal Joseph, I left alone, which may help account for my subsequent ineptitude in financial matters”;¹³ which was a significant omission.

In 1902, upon graduation from the university, von Kármán entered the Austro-Hungarian Army. He served one year. Following military service, he returned to Budapest as an assistant professor at the Royal Joseph. In 1906, von Kármán was granted a two-year fellowship to Georg-August University in Göttingen, Germany, where he was a docent.¹⁴ This remarkable young man one day would need help for a family member with an immigration problem. That help would be provided by Andrew G. Haley. Later, von Kármán’s admitted ineptitude in economics (especially financial management) would have a profound influence on Haley’s life.

On 2 October 1901, in Windsor, Missouri, a boy named Charles Stark Draper was born to Martha Washington Stark Draper and Charles Arthur Draper. C. Stark Draper later led the development of navigation of human flight to the Moon and safely back to the Earth.

In New York, in 1906, George White’s wife, Minnie, gave birth to their second daughter, Ethna, who later became a significant participant in the life of Andrew G. Haley.

In addition, on 20 October 1912, in Brenham, Texas, a son was born to Czechoslovakian immigrants, Frank Malina, Sr. and Carolin Marek Malina. Except for several years in his early youth spent in Czechoslovakia, that boy, Frank Joseph Malina, grew up and was educated in Texas.

The activities of these five people: Andrew G. Haley, Theodore von Kármán, Ethna White, Frank Malina, and C. Stark Draper would become closely intertwined in time, despite the diversities in times and places of their births, and the widely separated paths of their early lives.

¹² *Id.* The opening chapters of this biography of von Kármán produce a fascinating story of a remarkable youth.

¹³ *Id.* at 27.

¹⁴ *Id.* at 34.

Chapter 2. The Canadian Years

Vancouver, British Columbia, Canada, 1911

Christopher Haley's family was moved from Olympia to Vancouver, British Columbia, where they arrived on 17 April 1911. The *Canadian Census* of 1911 listed the family of Christopher J. Haley in Vancouver as: Christopher, head of the household (age 41), wife Kathleen (age 35), Kathleen Ellen (16), Gertrude (14), Joseph (12), Mary (10), C. Thomas (8), Andrew G. (6), and Margaret (4). Life would become somewhat more stable for the growing children. At age six, Andrew entered elementary school in Vancouver. He studied there until he completed grade 8 in June 1919.

As he grew older and attended school regularly, Andrew became aware that there were substantial differences in the interests and concerns of different family members. What impressed him profoundly was that despite their differences, they were all a family, and they came together almost every evening of their lives to thank God for their blessings and to give thanks for their supper. As a young boy, Andrew had been impressed by frequent talks with a neighboring retired professor of astronomy who piqued young Andrew's interest in the moon, the planets, the stars, and the cosmos. Andrew's mother was always interested in astronomy and the stars since visiting the Lick Observatory on her honeymoon in 1894. She had encouraged Andrew to spend available time with the neighboring professor and to come and talk with her about what he had learned. Andrew appreciated the interest and audience combined in his mother. Such intellectual interaction between them continued for many years.

Kathleen Rose Haley's last two children were William Michael, born 20 October 1913, while visiting back in Portland, Oregon, and Nancy, born 26 March 1916 in Vancouver, British Columbia. During the years immediately following Nancy's birth, the relationship between Kathleen and her husband, Christopher, was notably deteriorating. Kathleen began considering establishing a home separate from her husband, but it was not clear how that realistically could be arranged. Christopher claimed to love the children, but he was rarely comfortable in their presence. He could not help considering the work to be done, the designs that could be perfected and the satisfaction he derived from proving the effectiveness of a new design. In Christopher's mind, time with his children was often a distraction from his important work. The difference between Kathleen's love and devotion to the children and Christopher's aloof preoccupation with work was unavoidably perceived by the children.

Living in Vancouver, with the children attending local catholic schools, Christopher became more and more preoccupied with his work and the needs for better stove designs, especially for high pressure wooden water containment and transport systems. His workdays were long and his temper was short. Christopher was demanding of his children, expecting them to excel in school and to behave well at home. The slightest infraction brought a forceful reprimand, and any significant shortcomings could bring sterner punishment. The role of

disciplinarian had fallen to a short-tempered parent with high demands for performance by his children. Relations between Kathleen and Christopher were deteriorating as a result.

Nevertheless, there likely were memorable family events that took hold in Andrew's memory. He might well have remembered a particular Sunday afternoon after church when the family was together at the dinner table. Andrew's older brother may have asked his father "Where is our family from, and who were our grandparents?". Most of the children knew they were "from the States", where they were born, but they didn't know much more than that.

It would have been a long time since Christopher had focused on recollections of his youth, but he might have remembered a family meeting much like the present one at which his father told about his early life.¹⁵ His father's name was William Aloysius Haley. Christopher probably started to recall and repeat the account, and as he did, one memory led to another, and the story unfolded. Christopher recalled that his father began by telling about the place where he was born, and then how he became a sailor who traveled nearly all around the world. And, interestingly, the story began in Canada.

"My father was William Aloysius Haley," Christopher would have said.

When I was a boy my father told us that he had grown up in a fishing and sealing village in Newfoundland named Harbour Grace. In 1852 he was sixteen years old. He said his life was pretty much fishing, working in fish processing facilities, or sealing in the winter. But one cool, bright July morning he had decided to leave his home. Fishermen of the village were repairing nets, or loading their boats, or already out on the water. William had decided this was the day he would 'go up to Boston'.

Fascinated, the children would listen intently. Christopher would recount that his father had grown up in this bustling fishing and sealing community and had seen summers come and go without a change. Whether at home, in a fish processing plant, or out on the water, William saw everything that lay before him was familiar, unchallenging, and increasingly unrewarding, except for the marginal revenue he was able to contribute to the family coffers. As he grew older his life was an increasingly unsatisfactory routine, with no promise of change.

William decided to seek and find change, challenges, more visibility, and more opportunity than he could see in his future at Harbour Grace. He packed his serviceable clothing and a small sack of savings in a seabag and prepared to set sail for Boston. Because of conversations with itinerant seamen he had met in Harbour Grace, William believed life would surely be different there. He believed he would find opportunities that would never come to Harbour Grace, and he was determined to seize upon such opportunities to broaden his life experience and open a new threshold to his future. He kissed his tearful mother goodbye, lifted his seabag to his shoulder, and strode confidently toward the water and his new life.

Once aroused, recalled memories can stimulate remarkably more memories stored but not forgotten in the mind. As he talked to the children, Christopher would have begun to enjoy the unfolding of memories which he had not recalled for years. He continued:

¹⁵ The historical materials in the ensuing paragraphs are based upon the family historical account contained in Kathleen Haley Binet's *The Family Chronicle*, cited at note 2 above, supplemented by available census reports.

My father's voyage to Boston was almost three days over relatively calm waters with a modest wind. To reduce the cost of his transport, he had signed on as a seaman, basically a deck hand, providing routine handling of lines and cleaning duties in the deck and hold areas. It was not only good sailing weather, it was also a convenient quiet time for William to contemplate his future. He believed that if he could sign on a commercial cargo vessel, he might be able to sail the Atlantic and even the Mediterranean Sea. If he crossed to Europe, he might get to sail the English Channel, the North Sea and the Baltic. He said he had many such romantic dreams.

First, William would have to sign onto the crew of a trans-ocean sailing vessel. Seamen he had spoken with assured him that there were always opportunities for able bodied men in major ports to sign on new vessels or vessels that had lost crewmen to illness, death or desertion; but ignoring the implication that sailing was not the healthiest occupation, William was determined to go to sea on a large merchant vessel. He was no longer interested in bobbing about on the North Atlantic for a few days or weeks on a fishing vessel. The love of the deep sea was in his blood. There was so much to be seen, he just wanted to go.

My father said that he had been waiting almost an hour when he was told that the First Mate would see him. He stood erect and walked briskly into the small room hoping to give an aura of self assurance, but not knowing what to expect. He said that when he arrived in Boston he was awed by the numbers of people, the size and numbers of sailing vessels, the merchant houses and the new ships that were arriving regularly seeking able bodied seamen for their crews. This was nothing like Harbour Grace, and he was excited to see the opportunities available to him in Boston.

Now, he was presenting himself as an able-bodied seaman ready to serve on a recently christened clipper ship.

William had never been on a clipper ship, but he was confident that he could learn the ropes quickly. Asked about his health, he confidently reported his good health and added that he was strong and willing to work. He could claim some modest time at sea on fishing boats, and three days as crewman on the schooner on which he arrived in Boston, but he really had no idea what was wanted or would be expected of him on this ship's crew. He said he was ready to find out, if he could just have a chance.

The new clipper ships carried a great deal of sail on all masts and rigged to masts, to maximize the capture of wind. They were tall-sparred, slender and durable ships that sailed dauntlessly through fair or foul weather to deliver their cargos speedily to intended ports. The five to six months previously required by larger, slower ships to go from New York around Cape Horn to San Francisco was shortened routinely to substantially less than 150 days. Christopher continued:

Dad's interview was brief. The First Mate was impressed by his size and his appearance as a strong, healthy young man ready to serve onboard ship in any capacity, so he was signed onto the crew. Over time he found work as a seaman on several clipper ships running from east to west of North America and back, with a gradually rising grade on the crews, and eventually he sailed to Europe and to the orient and back.

So, Christopher would have concluded telling his children, "That's how my father became a sailor". The children would have been fascinated by the account, but they were reaching the

end of their attention spans, so the family meeting dissolved, and the post dinner clean up began. Life went on in Vancouver, but such an epic narrative by Christopher would have stimulated more questions, and more sessions on family history likely followed during subsequent months.

Christopher really enjoyed telling his children of his father's life. Christopher did not know nearly as much about his mother's life, because she rarely discussed her family background. He knew some things about his mother. She had informed him that she was born in Cahersiveen, County Kerry, Ireland, in January 1842, where she was baptized.

Of the eight children born to Ellen Murphy Fitzgerald and James Fitzgerald, the only girl was Mary Ellen Fitzgerald. She came to New York as a young woman in the late 1850s. In New York she met and married John Owens. They had a son named John. Shortly after the child was born, the father died in an accident. As a widow, Mary Ellen travelled with her son across the continent, including briefly through part of Mexico, to visit her cousin, Cornelius Murphy, who was the Point Bonita lighthouse keeper.¹⁶ Mary Ellen took up residence with her son, John, in San Francisco. Gradually this additional part of the family history was recounted at family meals. The more the children learned about their ancestors the more they wanted to know.

The years in Vancouver passed very quickly for Andrew. He looked forward to his daily school and lessons and greatly enjoyed his teachers' and his mother's urging him to write. His writing was a recreation to and a release for the imaginary dreams that built up within him. He diligently observed the behavior of his older sisters and brothers and continually drew lessons from them in social behavior and family devotion. Throughout the years in Canada, the Haley children were drawn together in a remarkable way, in part because they were keenly aware of their American origins, which set them apart from the local family children; and in part by the daily challenges and pressures of their dominant and demanding father.

Through all these years Andrew's mother, Kathleen, was an uncomplaining, constantly available manager of the children's lives and welfare. She ensured they were all properly dressed, often doing some modifications of hand-me-down clothing from Christopher to a son, or from one child to another, and she ensured provision of regular and nutritious meals. She worked long days and often into the night to get it all done, but she never complained or objected to her leadership role, because that is what mothers did in large Irish families. Her mother had taken care of her and her siblings with quiet diligence and dignity in Montrose, and she believed that was her role to play with Christopher.

As the children grew and the years passed, Kathleen watched the internal family discipline problem worsen. She felt powerless to change the people or the circumstances involved. Christopher was daily a burden to the children in what Kathleen considered excessive pushing of the children to perform well in school and at home. Also, Christopher was always ready to administer stern discipline when he felt it was needed.

Eventually, Kathleen considered separating from Christopher. Divorce was not an acceptable option in this devout Catholic family, but Kathleen needed something more than her sometimes ineffectual intervention in the increasingly hostile relations she saw developing

¹⁶ Point Bonita is the southern-most tip of the Pacific coast of Marin County on the north side of the Golden Gate Bridge, CA.

between the children and their father. Eventually, Kathleen secured legal assistance and filed a petition for a court approved, legal separation from Christopher. The petition was opposed by Christopher and formal hearings were held to help in resolving the issue. Kathleen worried about the physical and mental health of her children, while Christopher used his few waking hours at home making his children ‘toe the line’. According to Andrew J. Vogt, the eldest of the children, Kathleen Ellen, testified against the separation, as did Andrew, who was the youngest child who had reached the age of reason (7 or older). Gertrude, Joseph, Tom and Mary testified in favor of the separation.¹⁷

Kathleen Rose was pressed to develop some kind of plan for what would be done with the children and where she and the children would live if the petition at court were successful. Kathleen’s sister Margaret reportedly had long since established a reputation as the sweetest and most self-sacrificing member of the Gallagher family. Considering the facts prevailing in the family in 1918, it is not difficult to imagine a letter from Margaret in Tacoma to Kathleen in Vancouver. Some such communication, oral or written, would have preceded the facts that eventually developed in the family in 1919.

October 3, 1918

Dear Sister Kate,

Your situation at home deeply saddens us. It seems clear to me that however your separation petition to the court is decided, you need to consider relocating from the home you currently share with Christopher and all your children. There is not a lot of money in any of our pockets, so the choices are relatively few. Since Mother Mary died last year, I have been reexamining our need to keep this big house here in Tacoma. Thomas and I shared this house with Mom and Dad, but now they are both gone and we are rattling around in this place, while you are looking for a place to relocate your family.

Whatever you decide to do is up to you, but I want you to know, without any doubt, that Thomas and I would be happy to have you and the children come here and live with us in Tacoma. It would require that we plan in advance and arrange for some additional beds, maybe a few sets of military style bunk beds, but I am sure you have the clothes, towels and bedding your crew will require. We have the rooms and the desire to help in this critical time for you, but it is obviously up to you.

You will have to reach some kind of understanding with Christopher about the children, but depending on how your court petition is decided, and what provisions are made for custody of the children, it is perfectly agreeable to us that you and all the children could come here to live with us. You may even want to make known to the court that you have this option available. We assume the teenagers could find some sort of work to help meet the family expenses. The biggest change for us will be the amount of food and milk we will need in the house. I think we will need another, larger ice box for spoilable food storage. We will also need some additional chairs and a larger table. I know where we can get reasonably priced, used furniture nearby.

Maybe some of you could come here during the Christmas holidays and you could assess the situation first-hand. We can arrange some temporary sleeping arrangement for as many children

¹⁷ From a commentary on the draft of this biography sent to S. E. Doyle 12 Jan. 2020; in *AGH Papers and Materials*.

as you bring with you. Please come, and let us discuss this matter further, without the confusion and bluster that Christopher would create.

We would love to have your company here and we pray that the Lord will inspire your judge to allow your separation and let you out of the pressure you have been under in recent years.

Your loving sister,
Margaret.

Kathleen would have regarded such a letter as a Godsend, and would have prayed in thanksgiving that the question of where to go now had at least a tentative answer. Her resolve to separate the children from Christopher would have been deepened by the knowledge that such an alternative was available.

With the final disposition of the pending petition for separation approved by the court, Kathleen had spent several hours in discussions with Christopher to resolve the question of custody of the children. Christopher was still working and he could not assume responsibility to care for the children, their clothes, their meals and receiving local doctors or going to special school events. When all this had been talked out, it was agreed that Kathleen would move, with the children, to Margaret's in Tacoma, but Kathleen agreed to visit Christopher regularly and it was agreed that any of the children could visit him and live with him, if they wished, during school vacations. Christopher would not give up his house in Vancouver so that Kathleen and or the children could visit when convenient or desired. The fact is, Christopher's life would be greatly simplified and his parenting responsibilities would be greatly reduced, if not eliminated. Christopher agreed to continue financial support for the children.

According to the Canadian Census of 1921, Christopher and Kathleen Haley were still residents in Vancouver in 1921, although all their children had moved in 1919 to live with their aunt Margaret in the State of Washington. Kathleen was obviously commuting to spend time in both houses as she labored to maintain some measure of harmony within the family. Margaret's support, guidance and advice helped considerably.

Chapter 3. The Haleys Return to America

Tacoma, Washington, 1919

After the Vancouver schools had closed for the summer of 1919, the Haley family gathered their things, packed their bags, and proceeded to the Gallagher home in Tacoma, Washington. The new life in Tacoma was very different from Andrew's early youth. Before attending high school, conversations at the dinner table were Andrew's primary view of the outside world beyond his home and immediate neighborhood. Andrew especially liked it when his father recounted elements of the family's history. On a few occasions, Andrew found his mother a font of knowledge about her parents and grandparents. His ancestors sounded like fascinating people. He quietly wished he could meet more of the people he heard about, but at that time there was very little travel and only limited postal contact. In a family such as his, living in Canada, correspondence required considerable time and the effort to draft and prepare letters for mailing. The primary sources of historical and family information for the boy had been his school and the family dinner table conversations, which he cherished. He was a bright and inquisitive child, always searching, questioning, and digesting whatever information he could collect.

Family assembly at dinner was a centuries old tradition within the Irish community, whether in Ireland or abroad. The family assembled each evening, thanked God for His blessings, and took dinner together. For Kathleen it had been done in Montrose, in San Francisco, Seattle, or in Vancouver, and it would be the practice with her children in Tacoma. Tardiness for dinner was frowned upon; avoidable absence was soundly criticized. In Tacoma, Andrew spent a great deal more time away from his home and family than he had ever experienced in Vancouver. He left home in the morning to attend school and was gone for the day, working part time at the *Tacoma News Tribune*, until returning home in the evening for dinner with the family. Some months after arrival in Tacoma, Andrew left home after dinner to man the switchboard at the newspaper until midnight, where he also could study for school.

Now, a day at St. Leo's High School in Tacoma was quite different from his grade school experience. There were clearly defined studies to be conducted, but over time Andrew came to understand that he could decide what extra curricula activities he would pursue, and they were readily available in exchange for time and effort. Life was becoming less constrained. More opportunities to broaden experience were being offered, and which available choices he would make were his decisions – no one else's. He liked making his own decisions without any other's help or advice. This was a new dimension of free mental experience. Andrew accommodated himself to the process very rapidly. He thrived on freedom of choice and his increasing time and ability to read. Content of the school library and information available at the *Tacoma News Tribune* opened new vistas on the entire world; but they required finding the time to read in order to learn. The range and depth of intellectual pursuits in his

mind were increasing constantly, and there was a strengthening impulse emerging: a desire to write his view of fictional and non-fictional life and events for others to see and perhaps respond.

While in St. Leo's Jesuit High School in Tacoma, in addition to working afternoons and nights at the newspaper, Andrew found time to participate in numerous extra curricula activities. The high school year book, *The Recorder*, for Andrew's senior year (1922-23) attests to the extraordinary energy and breadth of interests and skills Haley possessed. He was the Editor-in-Chief of the yearbook; described therein as an "Hibernian newspaperman". His senior portrait showed him to be a tall, slender, crystal blue-eyed teenager. He was Manager of Athletics (1922-23); Senior Class Vice-President; Secretary, served on the Philalethic¹⁸ Senate (1921-22); played football (1922); was Secretary of Solidarity (1923); engaged in Public Debate (1922); and won the Gold Medal for the Catechetical¹⁹ Essay.

In Drama, he played three separate roles during his high school years: Mr. Jamison in the 3-act comedy 'Put and Take'; Marcus Brutus Snap in 'A Night Off'; and King Rene in 'In the Fool's Bauble'; and he provided publicity for all these productions. At his high school commencement, he received a Distinguished Award for Service to the School Activities and Regulations. He also received his Gold Medal for the Best Essay in Christian Doctrine; and he gratuitously included as an annex to the school's yearbook an original short story entitled 'The Scoop of the Consulate'. In addition, biographer Shirley Thomas later reported that Haley described his interest in radio in later life as an outgrowth of collaboration with friends in high school in the operation of a crystal set station.²⁰ The inescapable conclusion generated by consideration of his activities while in high school is that this young man was a dynamic, creative, articulate, athletic, and flexible person, to whom clocks must have been chief enemies during his young life, because his days were so full of activities and commitments, both work and play.

Although he was new to the neighborhood when entering St. Leo's ninth grade at age 14, Haley had no problem making friends readily of those with whom he came in regular contact. In a later memoire about Haley, a friend of many years noted that "I know my experience with Andy as a friend and a client was not unique and was duplicated throughout the world with others – it was Andy's way of making you and yours feel that you were someone special – and what a grand and glorious feeling that was. I shall never forget it".²¹ Haley's facility in making friends is also recounted with affection by a youngster Haley knew at school named Jim Russell. They spent a lot of time together and enjoyed one another's company until, at age 15, Russell joined the Merchant Marine and went to sea. But their relationship did not end there, because their paths crossed repeatedly in later life.²²

One remarkable thing about observing Haley's energy level in high school is that it did not abate when he went on to college or in his professional life. His was a lifetime full of

¹⁸ The Greek word φιλαλήθης (pronounced "fill-a-LAY-thayss") was used by ancient writers such as Aristotle and Plutarch, meaning "a lover of truth". Public speaking and debating groups and societies often used the word Philalethic in their organizational titles.

¹⁹ Of or relating to religious teaching by means of questions and answers.

²⁰ S. Thomas, *Men of Space*, volume 7 at 139, Chilton Publishers, Philadelphia, New York, 1965.

²¹ Letter from Tom Olsen to A. G. Haley, Jr., dated 31 Dec 1970, in *AGH, Letters & Materials*.

²² See Letter from ADM. James S. Russell, USN Ret., to A. G. Haley, Jr., dated 6 Oct 1970, in *AGH, Letters & Materials*.

multi-tasking, commitments, and leadership. It rarely, if ever, took more than a year or two after joining an organization for Andrew to assume a prominent and productive leadership position in the organization. He was an assertive, confident leader, never interested in being a submissive follower. From an early age his self-assurance, confidence, and competence earned respect and repeatedly catapulted him into leadership positions.

Andrew was employed from the age of about 15 during non-school hours by the *Tacoma News Tribune*. He exhibited a great versatility at the newspaper, initially working in circulation, later additionally manning the telephone switchboard at night, also writing about local high school activities; and then working on the city desk covering general news, police, and court activities. All this experience was made possible because, as Andrew's older brother, C. Thomas Haley reported, Andrew was befriended by the publisher of the *Tacoma News Tribune*.

After school [Andy] worked in the circulation department office until seven o'clock in the evening. He was on that job for about a year before he was brought to the attention of the publisher, Frank S. Baker. Mr. Baker was intrigued by what Andy was contributing to the open-letter column of the *Tacoma News Tribune*. He called Andy into his office and talked with him at length. This was the first of many talks they would have. Mr. Baker encouraged Andy to accept some additional work. He would work the telephone switchboard from seven-thirty in the evening to midnight. It was not a busy time and Andy was able to study and do his school homework, while the work would help to familiarize him with newspaper routine. He would prepare himself for the work Mr. Baker had in mind for him.

During the last three years of his four years in high school Andy covered every branch of news reporting. Mr. Baker made sure that Andy learned something about all phases of news reporting. This was to mean more to Andy than he could know at that time. His interest [and ability] in communications was to mean so very much in the years to come.

This kindly publisher did much to develop Andy's mind and ambition. The publisher would meet many important people. So, often he would summon Andy to meet and talk with many of these visitors. Among those Andy met were United States Senators and Congressmen.²³

In 1923, while a senior in high school, Andrew was listed in the *Tacoma City Directory* as the Circulation Manager of the *News-Tribune*. It has been reported that “[h]e made \$47 a week at his peak – which was a superior income in those days for a teenager”.²⁴ Andrew Haley completed high school at St. Leo's [Jesuit] High School in Tacoma in June 1923. He departed Tacoma for Washington, DC, at the end of August.

Young Andrew's virtual inoculation with news ink was valuable experience supporting his future hortatory writing and reporting concerning communications law, and space law. While serving in the newspaper's circulation department, he also served as the editor of 'Live Wire' from 1920 to 1923, a weekly carriers' staff bulletin. He also took note and apparently never forgot how easy it was, with very little effort, to get his name, or that of his

²³ C. T. Haley, *op. cit. supra* note 3, at 40.

²⁴ *Broadcasting Magazine*, “Our Respects to Andrew Gallagher Haley”, November 11, 1957, p. 24, Washington, DC.

family in the newspaper, simply by writing down names, facts, dates, and places and reporting them. Andrew developed early a habit to report to the local paper, in writing who did what, when, where, and sometimes why. His work as a switchboard operator at the newspaper at night would also influence his pursuits in later life. Andrew probably first met Wesley Lloyd while employed at the *Tacoma News-Tribune*. Lloyd was also working at the newspaper and he would play a significant role in young Andrew's future career.²⁵

Andrew was energetic, quick to see things that could be done better, and a self-starting activist in any subject area of interest to him. During his boyhood Andrew maintained good relations with his sisters and brothers, as well as aunts, uncles, and cousins with whom he had regular contact. He was affable and had interests in many subjects. During his early adult life, in Washington, DC, he also took an interest in politics and working with politicians. Numerous newspaper clippings survive reporting many key milestones in Andrew's life. He notified the *Tacoma News-Tribune* regularly when accomplishments of interest were reportable, and the *Tribune* faithfully reported them. Having achieved the milestone of graduation from St. Leo's High School, in June 1923,²⁶ Andrew's moderately comfortable life of home, family, and part-time work came to an end. His living environment and demands on his time changed markedly in a few months.

²⁵ *Ibidem*.

²⁶ St. Leo's is now Bellarmine, which was founded in 1928 as an all-boys school, and became the first coeducational Jesuit School in the nation in 1974 when it merged with Aquinas and St. Leo's schools. The date of Bellarmine's creation is commonly accepted as 1928, despite the fact that its component institutions, Saint Leo's Grammar and High School (1912) and Aquinas Academy for Girls (1893) were founded earlier.

Chapter 4. To Washington, DC, and Europe

Traveling to Washington, DC, 1923

Andrew sat back in his cushioned seat, swaying gently with the motion of the car on the rails, listening to the metronome-like beat coming softly from under the car. A new phase of his life was about to begin. He took the relaxed travel time to write letters to the members of his family he believed would be interested in what he was about to experience. He had booked passage on a sleeper car for the portion of his trip from Tacoma to Chicago, but he booked the more economic coach for the leg from Chicago to Washington, DC. It took almost five days to complete the trip. The registration at Georgetown University was uncomplicated; and through the University he found available local housing shared with other newly arriving students. Andrew settled in readily to the process of studying, and soon found outlets for favorite pastimes. For writing, he joined the staff of *The Hoya*, the student produced newspaper of the University. For debating, he joined and surprisingly, in his first semester there, was elected President of the Philalethic [Debating] Society of the University.

Through contacts Andrew had established in Tacoma, he began to visit local offices of Washington State Congressmen, and through their good offices he was appointed a part-time staff member of the Democrats' Congressional Committee in Washington, DC. He also contacted and was soon appointed a part time clerk of the National Catholic Welfare Conference (NCWC) in the District. The NCWC was a service organization helping immigrants to locate, obtain employment, and settle in America. This was a natural undertaking for Haley, who often had heard of the support to others given by his immediate and extended family members.

In January 1924, Andrew was enrolled as a member in the Ancient Order of Hibernians (AOH) in America. Membership in the AOH is limited to men 16 or older, who are practicing Roman Catholics, of Irish birth or descent, and who are citizens or intend to become citizens of the United States. It is America's oldest Irish Catholic Fraternal Organization founded in the Pennsylvania coal regions and New York in May 1836. The fraternity was formed and exists to protect the welfare of immigrant Irish Catholics and Irish clergy. The fraternity grew rapidly in the United States during the 1830s and 1840s to protect the increasing Irish immigrants and their church property during the influx of Irish immigrants caused by the Irish potato famine in the 1840s. Known to the Irish as "The Great Hunger", the potato blight resulted in more than one million dead men, women, and children in Ireland. Additionally, more than one million fled the country. In the early twentieth century, although many of the reasons for the AOH were dissipating, the organization remained as an historical remnant of the past destitute state and social subjugation of many Irish arriving in America in the 1840s

and 1850s. For Andrew, this was an association with like-minded and Catholic Irishmen. He cherished that Irish heritage.

When Andrew was established in the routine of his studies and school, he made a special point to visit the offices of the congressmen he knew, and wherever possible he sought opportunity to meet other members of Congress. His part time work at the Democrat's Congressional Committee provided added means of meeting and supporting congressmen and their staff members. In his first year at Georgetown, Andrew had selected a course in liberal arts, involving history, creative writing, economics, and other liberal arts. He continued in these courses through his freshman and sophomore years.

Visiting Europe, 1925 – 1926

In the summer of 1925, Andrew was offered the opportunity to sign onto the crew of an Atlantic passenger liner operated by the United States Lines. He accepted that opportunity with delight and during June, July, and August 1925 he made at least ten trans-Atlantic crossings, serving as a ship-board telephone operator on the *SS Leviathan*. When he returned to school in September 1925, he made a major change in his course of study. He entered the afternoon study sessions of the Georgetown School of Law and began working in a three-year program toward a law degree to be earned in 1928.

This commitment to afternoon class work and evening studies left him free to pursue his part-time positions and regular visits with members of Congress during the mornings. As a student of the law, Andrew was employed as a part-time researcher in the office of Washington State's Senator Clarence C. Dill. Senator Dill was deeply interested in communication law and Andrew was able to make some informal drafting contributions when the long obsolete *Radio Act of 1912* was replaced by the *Radio Act of 1927*. In October 1925, Andrew joined the Law Department of *The Hoya* and was an active contributor of news for *The Hoya* from the Georgetown Law Faculty continually until graduating from the law school in June 1928.

During his young life, Andrew had become closely associated with his older sister Gertrude. When he left Tacoma to study on the other side of the continent in the nation's capital, he maintained at least sporadic correspondence with Gertrude and her husband Frank Bader. Haley encouraged his sister to write to him to provide news from home. In 1925, Andrew's sister Gertrude and her husband Frank visited Andrew in Washington, DC. He later wrote to them referring to that visit and encouraged Gertrude to send him the negatives of any pictures they took which had turned out well. He was fascinated from a young age by photography. Throughout his life he took pains to photograph events, people, and places he visited and to be photographed as he travelled, whether with his family, on personal outings, or on business. His personal records are replete with candid photos of him, his family, and various associates at all ages and stages of his life.

In December 1925, Andrew was invited by a congressman (unnamed) to accompany him and his family (including a daughter) to a dance at the US Naval Academy in Annapolis, near Washington. Andrew later reported this outing to his sister Gertrude with apparent pleasure. Although not mentioned in the letter home, Andrew likely also visited with his

boyhood friend Jim Russell, who was at the time a senior at the Naval Academy. Russell had left the merchant marine to attend the Academy from 1922 to 1926. He would reenter Andrew's life again in the early 1940s.

In early May 1926, Washington State's Senator Wesley L. Jones, Chairman of the Senate Commerce Committee, wrote to the United States Lines in New York, asking them to bear Andrew G. Haley in mind for the first vacancy that occurs in the position of telephone operator after the first of June. On 8 May, Senator Jones wrote to Haley telling him that, with reference to his desire to secure a position as telephone operator on the *Leviathan*, he had received a letter confirming that Haley would be considered for the first opening that occurred.

Again, Haley sailed repeatedly on the *SS Leviathan*. He made eight trans-Atlantic crossings in the summer of 1926. The passenger ship *Leviathan* cruised between New York, France, England, and returned to New York. The New York outbound voyages first went to Cherbourg, France; then, across the English Channel to Southampton, England; or first to Southampton, then to Cherbourg; then returned to New York. Each round trip was an excursion lasting about twelve days.

Trips were taken by Andrew during June, July, and August in 1925 and in 1926. These 'summer jobs' on the *Leviathan* were between his early school years at Georgetown. There is no record of his serving aboard ship in the summer of 1927. In view of the fact that he registered to take the Washington, DC, Bar Examination in the fall of 1927, it is probable that he spent the summer of 1927 'cramming' for the bar examination he would soon be facing. After graduation, Andrew also worked on the United States Lines' *SS Leviathan* and the *SS George Washington*, making at least three transoceanic roundtrips in the months of March, April, and May 1929.

While a law student at Georgetown University, Haley studied in seminars under the prominent scholar of international law, Professor James Brown Scott. Haley also performed clerical and collating work involved in studies of the importance of Spanish jurists in international law. Being well-trained in Latin by the Jesuits, he translated from the Latin one tract of Vitoria and two essays of Suárez.²⁷ This work for Professor Scott later provided significant background and foundational content for Haley's writing on space law.

Considering that his grandfather, William Aloysius Haley, served on clipper ships for many years, one might observe that there was an inherited trace of salt water in Andrew's veins, to explain his love of the sea. Among surviving papers in his personal files is a short essay he wrote or copied, probably for his own pleasure, describing his emotional appreciation of his opportunities to sail the ocean during his young adulthood. From time to time this urge to express himself in writing would take hold, and the result was often a carefully crafted essay, law review article, or sometimes a letter, almost as if he were proving to himself that his

²⁷ Francisco de Vitoria and Francisco Suárez are best-known as members of the major 16th- and 17th-century intellectual movement known as the 'School of Salamanca' or the 'second scholastic'. They were Spanish theologians who worked within the heritage of the natural law theology of Thomas Aquinas, shaping Thomist teaching to answer questions that the original had not posed. Vitoria addressed the question of the *ius gentium* both in his regular lectures on Aquinas's *Summa theologiae* and in his occasional essays "*relectiones*". Suárez addressed the question of the *ius gentium* in the course of his massive treatise *On the Laws and God the Lawgiver* of 1612. In this work, he developed further Vitoria's position in the commentary on the *Secunda secundae*.

opinions about things were worth recording for posterity. In 1926, contemplating his recent adventures sailing across the Atlantic, Andrew apparently wrote:

He who has not heard the cry of “Anchors Aweigh”, has not truly felt the thrill of adventure. He who has not listened to the barked commands of officers, to the creaking of cordage, to the rustle of baggage and the bustle of travelers, to the staccato laboring of tugs and the booming of deep-throated whistles, to the cheers of farewell and the sobs of parting, has not really known the fullness of life. He who has not made a sweetheart of Mother Earth has not known the exquisite satisfaction of a great love. To wander her broad and kindly bosom is more intriguing than paying court to any near-charming girl. The nadir of romance, adown from the zenith, is the deck of a vessel bound for far places. The measure of romance is the step of a youth in some land of his imagining – for his is a cadence of footsteps seldom heard on earth. He who is not courageous enough to brave the Circian²⁸ charms of the sea, will not know the full soul of joy; and if the only romance he is acquainted with is philandering with some anxious maiden, his will be a drab existence. His progeny will not have warm blood filled with a fine appreciation of things, nor red blood crimsoned with achievement, nor ardent blood fired by ambition and steeped with adventure.²⁹

The final sentence of this short essay provides a glimpse of how Andrew thought of himself in his young adulthood: an appreciator of things, flush with achievement, and a possessor of ambition steeped with adventure. This style of vocabulary-rich, almost formal 19th century prose would reappear aperiodically in personal papers, most often in letters, in Andrew’s later life.

Haley did not know of, and if he did, he would not have appreciated the significance of a January 1926 letter to the Secretary of Commerce, Herbert Hoover. On 26 January 1926, Harry Guggenheim wrote to announce the planned establishment of the Daniel Guggenheim Fund for the Promotion of Aeronautics. An initial \$500,000 grant had been given to New York University’s College of Engineering in 1925 to establish a School of Aeronautics. The Fund eventually contributed \$3,000,000 in parts to half a dozen major universities between 1925 and 1930. The Fund was terminated in April 1930. This Guggenheim action determined a good deal of the middle adult years of Andrew G. Haley’s life.

In 1927, the Washington, DC, *City Directory* identified Andrew G. Haley as a student in the District, living at 1331 28th Street, NW, serving as a clerk at the National Catholic Welfare Conference (NCWC). Andrew earned his law degree at Georgetown in June 1928. Shortly thereafter he was admitted to the Bar of the District of Columbia. In 1929, after he had earned his law degree at Georgetown, the Washington, DC, *City Directory* listed Andrew G. Haley as the Assistant Director of the Legal Department of the NCWC. Haley had no qualms about promoting himself and his capabilities. As he matured and gained additional experience and responsible positions in organizations, he would publicly recite such facts as a declaration of his legitimacy and capabilities. Many of his later papers begin with a page or two of his

²⁸ This is likely a misspelling of Circean, referring to the mythical Greek goddess Circe, goddess of magic, herbs and potions. Haley was a casual student of Greek mythology. He would incorporate references to mythology in his correspondence from time to time.

²⁹ From an unpaginated family scrapbook provided by A. G. Haley, Jr.

titles, accomplishments, and contacts. He was convinced somewhere in his early life that “he who tooteth not his own horn, the self same shall not be tooteth”.³⁰

Andrew made multiple Atlantic crossings in the spring of 1929 on the *SS Leviathan* and the *SS George Washington*. Following this maritime service, he returned to the Tacoma/Seattle area where, admitted to the Bar of Washington State, he entered private law practice. When not travelling between Seattle/Tacoma and Washington, DC, Andrew was in private law practice; he also regularly engaged in political campaigning for local congressional candidates in Seattle/Tacoma in 1930 and in 1932.

³⁰ An anonymous aphorism learned by the author from an associate at Aerojet-General Corporation, James Palmer.

Chapter 5. California Institute of Technology, Pasadena, California

While Haley was still in school at Georgetown, and later while busying himself in Washington, DC, with politics and the affairs of the US House of Representatives, another story of future relevance to his life was unfolding at the far end of the United States, in Pasadena, California. Dr. Robert Millikan, the Chairman of the Executive Council of the California Institute of Technology (Caltech), was interested in placing Caltech at the center of what Millikan perceived as an emerging aeronautical community in southern California. Several significant aircraft manufacturing companies were selecting sites in the Los Angeles area for their production plants. Millikan learned that the Guggenheim Foundation was in the process of funding the establishment of aeronautical study centers at the Universities of Michigan, New York University (NYU), and at the Massachusetts Institute of Technology (MIT). In a visit with Daniel Guggenheim in New York, Millikan obtained a conditional commitment from Guggenheim also to fund the creation of an aeronautical studies center at Caltech.

As a condition of funding, Guggenheim required Millikan to provide from Europe an intellectual leader and renowned aerodynamics educator to serve as head of the proposed new aeronautical laboratory at Caltech. After consulting with Dr. Paul Epstein on the Caltech faculty, in 1926 Millikan invited a Hungarian aerodynamicist of renown, whom Millikan had previously met at a conference in Europe, to come to the United States for a visit and discussion of the establishment of the new aeronautical laboratory at Caltech. Guggenheim, funding the invited travel, added significantly to the purposes of this proposed visit.

The invitee, Theodore von Kármán, was at that time a professor at the Aachen *Technische Hochschule*.³¹ Coincidentally, at about the same time (1926), Admiral Yoshida, at the Japanese Embassy in Berlin, extended an invitation to von Kármán to visit Japan for six months, to help Japan's leading airplane manufacturer, Kawanishi Machinery Manufacturing Company in Kobe, to establish a major aeronautical laboratory and Japan's first wind tunnel for research work in aeronautics.³²

Von Kármán decided to combine the trips. He requested a year-long leave of absence from Aachen, to visit the US from September to Christmas (1926), and then to spend the rest of the 1926-27 academic year in Japan. Theodore's sister Josephine, (known in the family as Pipö), agreed to accompany him on the United States' segment of the trip. Josephine often

³¹ T. von Kármán with L. Edson, *The Wind and Beyond: Pioneer in Aviation and Pathfinder in Space*, Little, Brown & Co., Boston, 1967. Materials in this biography of von Kármán provided the substantive content of the following paragraphs. See also M. H. Gorn, *The Universal Man, Theodore von Kármán's Life in Aeronautics*, Smithsonian Institution Press, Wash, DC, 1992, 202 pp.

³²Von Kármán with Edson, *op cit. supra*, note 31at 121. The Kawanishi Company later produced the Japanese Zero aircraft.

travelled to accompany and support her unwed brother. She provided multiple exceptional language skills, including fluent English.

New York City and Long Island, Fall 1926

When Josephine and Theodore von Kármán disembarked in New York, they were met by a retired naval officer, Admiral Hutchinson I. Cone, the Deputy Director of the Daniel Guggenheim Fund for the Advancement of Aeronautics. The von Kármáns were escorted to the Guggenheim home in Port Washington, Long Island for what von Kármán later described as a very pleasant weekend visit. In his biography, von Kármán described what he was asked to do by Guggenheim.

My mission for the Guggenheim Foundation in 1926 was twofold. I was to spend several weeks in Pasadena, California as advisor for the projected aeronautical laboratory at Caltech. The remainder of the time was to be devoted to lectures at various universities and institutions engaged in aeronautical research, including presentations to the National Advisory Committee for Aeronautics and the Air Force.³³ (Sic)

In sequence, von Kármán first visited Pasadena for several weeks of discussion and planning activities with Millikan and his staff at Caltech. During that time plans for a new wind tunnel were discussed and developed by Millikan and associates with von Kármán's assistance. The von Kármáns then visited the Grand Canyon, toured, and then he lectured at the University of Michigan, New York University, and at the Massachusetts Institute of Technology (MIT). To conclude his obligations to Guggenheim, von Kármán visited Washington, DC, where he gave lectures to the National Advisory Committee for Aeronautics (NACA) and members of the US Army Air Corps, and found time to visit Orville Wright in Dayton, Ohio. This broad exposure of von Kármán to the leading minds in aeronautics in the United States, obviously allowed Guggenheim to collect informally assessments of the knowledge and capabilities of this proposed leader of the Caltech laboratory.

At Christmas time 1926, Theodore's sister, Pipö, returned to her mother at the family home in Vaals, Holland, near Aachen, Germany. Theodore left the United States for Japan. When he arrived by ship in Yokohama, his Japanese hosts met him and took him to a mountain retreat hotel to rest for ten days before permitting him to do any work.

Yokohama, Japan, 1927

In 1927, the Japanese were at an early phase of their aeronautical industrial development. The Kawanishi Company wanted von Kármán to design a wind tunnel. There was no experimental wind tunnel in Japan. Much of the basic science of aeronautics was lacking and von Kármán

³³ *Id.* at 123. At that time, the "Air Force" would have been more properly referred to as the US Army Air Corps.

had a major task to establish a basic understanding of aeronautics among his hosts. During his stay in Japan, von Kármán also instructed the Japanese how to make effective metal propellers.³⁴ To design the wind tunnel, von Kármán insisted he had to have assistance. The Japanese agreed, and von Kármán's assistant Erich Kayser was summoned from Aachen to come to Japan to assist with the wind tunnel design work. In March 1927, von Kármán returned home. Kayser remained in Japan to work with the Japanese on the wind tunnel design and construction.

Writing for his biography in 1956 and 1957, von Kármán soberly reported: "Although my work in Aachen was absorbing me fully, I could see ominous signs of impending disaster as early as 1928 in Germany. The growth of the anti-Jewish sentiment in the country, the strengthening of nationalistic spirit and the progress of the Nazis were all portents of bad things to come".³⁵

Late in 1928, additional significant events occurred when von Kármán visited the United States for a second time. At Caltech, as he was completing an examination of the progress on the new wind tunnel, Dr. Millikan took him aside and asked whether or not he would accept the job of director of the new aeronautical laboratory being established at Caltech. Von Kármán agreed to think about it. A short time later, von Kármán reported, quite by coincidence, Dr. William F. Durand, head of the Mechanical Engineering Department at Stanford University in Stanford, California, told von Kármán he was retiring the following year, and Durand offered von Kármán his academic chair.

Although the offers were appealing and flattering, they were not immediately deemed acceptable by von Kármán for several reasons.³⁶ Von Kármán was reluctant to change continents at this time in life (nearly age 50) to accept an academic position considered of lower social prestige in America than in Europe. As a reflection of the effectiveness of the American press, his mother considered the United States a land overrun by misfits, rogues, and gangsters, and she said she would not consider moving there. In addition, von Kármán truly enjoyed teaching at Aachen and cherished the many friendships he had established throughout Europe over the years. Initially, expressly with regret, von Kármán declined both the offers, from Stanford and Caltech.

Aachen, Germany, 1928 – 1929

The social and political conditions in Germany continued worsening throughout 1928 and 1929 and the ascendancy of the Nazis in Germany caused great concern to von Kármán. By late 1929, brother and sister, Theodore and Josephine, agreed that they should leave Germany. They eventually overcame their mother's reluctance to move to the land of misfits and gangsters. In October 1929, on the threshold of the Great Depression, von Kármán decided to accept the reiterated and increased salaried job offer from Millikan. In December 1929, the trio, Pipö, Theodore and their mother, left Europe and moved to Pasadena, California.

³⁴ *Id.* at 133.

³⁵ *Id.* at 140.

³⁶ *Id.* at 141-142.

Ever the conservative, von Kármán did not sever all ties with Europe. As he explained in his biography, “I did not at that time sever my official connection with Aachen. My ties to Europe were too strong. Instead, I took a leave of absence promising that I would spend part of each year in Aachen. I did spend the summer of 1931 in Aachen and returned to Pasadena in the fall. I also visited Germany in 1932”.³⁷ The Nazi party became continually more oppressive in Germany and in 1933, Adolph Hitler took over the Government of Germany. At that point, the Ministry of Education required von Kármán either to return to Germany or to resign his position at Aachen. Convinced that he had little choice, given the situation in Germany, von Kármán resigned his post at Aachen in 1933 and turned full attention to his work at Caltech in California.

Von Kármán continued working in aeronautical education and industrial consultation at Caltech throughout the 1930s and built a reputation for excellence in education and extraordinary perspicacity in consulting with industry and governments on matters involving aeronautics. One of the graduate students who came to Caltech on a scholarship to study in the mid-1930s was a young Texan named Frank Malina. Malina had earned a bachelor’s degree in engineering at Texas A&M in 1934 and was granted a scholarship to a Master’s degree program at Caltech. He would become one of the major players in the developing history of Caltech and later would become a significant player in the life of Andrew G. Haley.

³⁷ *Id.* at 145-146.

Chapter 6. After Law School: Travelling and Settling

Washington, DC, 1928 – 1929

In April 1928, Haley mailed ‘A Summary of the Principal Features of the Pardoning Laws of the Several States’, to John Philip Bramer who was one of several Assistant Secretaries of the American Prison Association in 1926. In 1928, he was affiliated with the Catholic Protective Society, serving as the Director of the Division of Protective Care of the Catholic Charities of the Archdiocese of New York. This substantial survey of the laws of the United States and some Canadian Provinces must have required tens of hours to discover, record and compile. This was one of Haley’s activities spawned in the National Catholic Welfare Conference (NCWC). During this period, he also began freelance writing for catholic magazines including the *NCWC Bulletin*, *The Commonweal*, and *America*, a role for which his time at St. Leo’s had prepared him well.

During his years at Georgetown University, including his summers serving in the Merchant Marine, the maturing Andrew Haley developed a strong sense of self-reliance and a clear sense of his own importance in the institutional environments and political environments in which he found himself. His self-confidence was fed by early achievements, such as his acceptance into a major national university, his trans-ocean voyages to France and England in the summer months of 1925 and 1926, and, in 1927, passing the Washington, DC, Bar Association admission tests, while still a student in law school.

The Georgetown University Yearbook was titled *Ye Domesday Booke*. In the 1928 edition, Andrew G. Haley was listed with his LL.B. Degree. His home was listed as Tacoma, Washington, and a short paragraph recited that:

Better known as either ‘Shakespeare’ or ‘Gallagher’, during his five years with us he has been to Europe eight times, to Panama once, across America and Canada numerous times, and what not! Besides trying to learn the law, he’s a journalist, and has written for periodicals and the *Congressional Record*. He has held class offices, has featured the Law School in the *Hoya*, and has been enthusiastic and loyal.

The entry also noted that he served in Georgetown Pre-legal; was President of the Pre-Legal Debating Society; was a member of Delta Theta Phi; was in the Carroll Law Club; was an associate editor of *Ye Domesday Booke* ‘28; a Law School editor of the *Hoya* ‘25 to ‘28; Class Secretary ‘26; Prom Committee ‘27; Smoker Committee ‘26; and was a member of the DC Bar Association.

Hoboken, New Jersey, 1929

In April 1929, before returning to Washington State, Haley signed on to take more round-trip cruises to Europe. He wrote and saved the following account of his preparations for one of those trips:

April 18, 1929. I arrived Monday morning, April 15, to take a job as telephone operator on the *SS George Washington* at Hoboken, N. J. The ship is laid up at Tietjen and Lanes' dry dock at the foot of 14th Street, and is cold, torn to pieces inside and quite dismal. I was assigned a tough bunk, cold and airless. I slept most of the day – or at least tried to in the noise and hammering, + turned in again early in the evening.

Next morning I went to New York, collected some wages due me from my previous voyage [in March] on the *Leviathan*, tried to see Col. Kline of the Sea Service Bureau but failed because he was out, and after collecting my laundry from an ocean going place near 9th and W 219th St., I returned to the ship, turned in a couple of hours + went on watch at 5. The night officer-steward, named Ralph, a sort of a martinet, made the night watch do a scrub-out, in which I had to participate. I got a couple of hours sleep, + so didn't feel the 15 hour stretch so much. It was very chilly though.

Thursday I called on Father LeBuffe of "*America*" + had a short talk. I found myself totally out of money, so I borrowed a nickel from a Schulz Cigar Store clerk + and went down to the battery + and saw T. H. Mulholland, immigration man for the N.C.W.C. [National Catholica Welfare Conference] in N.Y.C. He cashed a check for \$10.00 for me. We went over the work of his office with the idea of me writing an article about "America Receives the Immigrant". We then went over to Ellis Island + a guide took me through along with a group of N.C.W.C. workers from New Jersey. Mulholland is a fine chap – patient, pleasant and enthusiastic – a rare specimen. I phoned Mr. Schuster of the *Commonweal* + Father Parsons of "*America*" + got appointments with them both. I returned to the boat to go on another 15 hour watch.

Hoboken is certainly like a foreign country, very little English spoken – that distinctly American Institution, prohibition, seems not to be known at all. "Gus", a former chief steward of the Republic conducts an open saloon, 15¢ for beer + 50¢ for good whiskey. He is located at 115 Hudson St. Another saloon on 14th St. near the ferry to 23rd St. N.Y.C. is quite open and even conducts a free sandwich counter, ultra-American in its history. This is a good thing, as sailors are bound to get their "likker" + an open saloon is better than some bawdy house or the like. The bartenders are quite honorable with the men's money too.

I paid the Schultz Cigar man back his nickel + bought him a pack of Camels. The men on this night watch are a study. Mostly good fellows, but of course the inevitable trouble-maker is present – a fat bouncing fellow who pokes his nose in everything. I balled him out sharply this evening + he was too surprised to react.

While downing a beer at Gus' yesterday I ran into a Frank Coghlan (sic) – an interior decorator. He was lonesome + in the lucre, so he adopted me + a poor kid from the "American Legion" as drinking partners. We dashed from one place to another as his guests, finally ending up on the

Hoboken Ferry singing “It’s always fair weather” + taking care of the guffiest looking drunk I ever saw – a short fellow, with a face like a St. Bernard dog, who claimed his income was \$25.00 a day, and we could all sit on a tack. I left Frank after putting him on a taxi + and came back to the ship. This morning we are scheduled to move from this darn dry dock to Pier 4, the regular berth of the U.S. Lines.³⁸

This abbreviated diary account of a few days in Hoboken clearly shows how profoundly the Jesuits at St. Leo’s school in Tacoma had influenced Haley in shaping his writing interests. With the discomfort, duties, and lack of rest he recounted, he noted visits to editorial offices of publishers on whom he was relying. Having been awarded First Honors in Christian Doctrine and having received the Gold Medal for the Best Christian Doctrine Essay in high school, it is no surprise that Haley turned early to establishing a writing status supporting *America*, the national magazine of the Jesuits, and the *Commonweal*, the monthly Catholic layman’s magazine. Haley provided articles of national interest to both these magazines from the late 1920s well into the 1930s.

When he returned to Washington state in 1929, he was ready to seek his fortune based on his native abilities, energy, and competence, and he began to realize he could control his own life if he managed it well.

Haley was willing to work for others to gain position advantages, but from his early adult years, it is clear he wanted to be his own boss, to make his own decisions, and to move ahead in life and profession at his pace, not at the paces of those around him. He learned early the techniques of publicity and the value of carefully placed investments, support and political contributions. But, investments, support, and contributions required personal time and money, so his success would be dependent somewhat upon his ability to earn and apply money in his future life. Eventually, this energetic, articulate, ambitious young man would not depend upon others to make his way in life, he would chart and steer his own courses.

Among the inherent drivers that sustained his remarkable work ethic and his ambitions were his love for the wide open and invigorating northwestern region of the country, which he would visit repeatedly throughout his life; his desire to be his own boss, which would lead him into private law practice; his love for writing, which would manifest itself continually intensifying until his death; and his compartmentalized love and respect for his family, which his personality would lead him to alternately ignore and dominate, almost to oppression.

Freelance writing, 1928 – 1932

From 1928 to 1930, Haley was prolific in works submitted to Catholic publications including the *NCWC Bulletin*, and the magazines *Commonweal* and *America*. The recognition and any compensation provided for these literary efforts also strengthened his sense of independence. His brother Thomas reported that “Andy paid most of his school and living expenses from the earnings his writing produced”.³⁹ At this time in his life he was deeply interested in and

³⁸ AGH, *Papers & Materials*.

³⁹ C. Thomas Haley, *Great Grandfather Tells All*, self-published, 1981, p. 41.

impressed by the various support services offered to immigrants by the National Catholic Welfare Conference, and other organizations supporting immigrants, such as the Ancient Order of Hibernians.

In June 1928, Haley wrote an article for the *NCWC Bulletin* about ‘Petitioning Congress’, which described the means of contacting and urging action by members of Congress, but also described a number of pending bills and new laws related to immigrants and their status in the United States. In July 1928, he published in the *NCWC Bulletin* a ‘Legislative Review of the Seventieth Congress’ highlighting significant bills and laws, including immigration laws. In August 1928, he published in the *Commonweal* a discussion of ‘Nationalism at the Crossroads’, highlighting four recent publications explaining the significant differences between nationalism and patriotism, and emphasizing that nationalism is an excess of focus on the citizens of the country to the exclusion of others, whereas patriotism is a manifestation of love for the country as a part of the world community. At one point Haley quotes one of the authors declaring that nationalism is the antithesis of patriotism.

In February 1929, Haley published in the *Commonweal* an article on the ‘Father of the Philippines’, extolling the work and virtues of recently retired Chief of the Bureau of Insular Affairs⁴⁰ Maj. Gen. Frank McIntyre, whom Haley described as a master of tact and of statecraft. The Philippine Government was so disappointed to see him retire, the Philippines opened an Office of Trade Commissioner in Washington, DC, and invited Maj. Gen. McIntyre to accept the post, which he did.

In May 1929, Haley published in the *Commonweal* an article entitled ‘DORA’, an acronym for the British Defense of the Realm Act. Haley described that law as an example of unnecessary, and inconsistent restrictions on personal freedoms, and concluded equating DORA to the US laws on prohibition. Also, during May 1929, Haley published an article in *America*, somewhat sarcastically titled ‘America Welcomes the Immigrant’. After reviewing many injustices and inadequacies of American immigration law, Haley concluded: “The palpable defects in the immigration laws, their needless severity, the fact that the theorists are using them as a vehicle to enforce illogical and unreasoned plans, will eventually make the term ‘immigration law’ a synonym for ill-considered legislation”. This would suggest the validity of Jean-Baptiste Karr’s 19th century claim that “the more things change, the more they stay the same”.⁴¹

In February 1930, Haley published in *America* an article entitled ‘The Filipino in America’, which is largely a lament about the exploitation of immigrants by the preying members of society, and disappointment about the insufficient instruction in Catholicism in the Philippines, resulting in many immigrants drifting away from the Catholic Church after arrival in America. Catholicism was so deeply engrained in Haley’s mind, it distressed him to see Catholics drifting away from their responsibilities to the church.

⁴⁰ The Bureau of Insular Affairs was a division of the United States Department of War. The Bureau oversaw civil aspects of administration of several territories from 1898 until 1939.

⁴¹ Jean-Baptiste Alphonse Karr in *Les Guêpes*, July 1848.

The American Interplanetary Society, New York City, 1930

While Haley was in private practice in Washington State, in early April 1930, a small group, primarily a few science fiction writers and journalists, decided to establish an organization which could meet periodically and consider means of advancing the public perception and understanding of astronautics.⁴² On 4 April 1930, eleven men and one woman, led by G. Edward Pendray, David Lasser, and Laurence Manning, met in the Pendray apartment in New York City, to formally establish the American Interplanetary Society (AIS). The Society was intended to promote interest in and experimentation toward interplanetary expeditions and travel.⁴³ Historian Frank H. Winter observed that “[u]nquestionably, the founders of the American Interplanetary Society were inspired by their own and others’ tales of flights to other worlds rather than upon any technical foundation. In brief, they were romantics, not engineers”.⁴⁴ In an unassociated activity, on 15 October 1932, the Institute of Aeronautical Sciences (IAS) also was incorporated in New York. There was no discernible relationship between these two new organizations, but that would markedly change a little more than 30 years later, when they would be combined to form a new aerospace organization.

The AIS used publicity, persuasion, and practical plans for experimentation to stimulate growth in membership. Solicitation of advice and technical information from the US Army and from rocketeer Robert Goddard produced no significant responses, so the group was left to proceed on its own. In April and May 1931, Mr. and Mrs. Pendray travelled to Europe and visited the Berlin suburb location of the *Verein für Raumschiffahrt (VfR)*, the German rocket society that had begun in 1927. There, the Pendrays witnessed firing of the Repulsor, a small experimental combustor built by VfR members. The Pendrays returned home with news of their experience and excited about the suggested possibility that the AIS might do similar actual hardware experimentation.

Because of the limitation of funds, only a modest start was made in AIS experimental development of combustion systems. Added to the general lack of public interest was the fact that space travel, and those who spoke seriously about it, were considered unrealistic, if not somewhat unhinged. In April 1934, considering the society name not scientific enough and more likely to repel than attract members, the Society membership agreed to change the organization’s name to the American Rocket Society (ARS). This name remained unchanged for almost 30 years. The ARS initiated several rocket projects which are summarized by astronautics historian Frank Winter,⁴⁵ who concluded that four ARS rockets built from 1932 to 1934 “did not yield any significant technological breakthroughs. Rather that period was a learning process in the fundamentals of rocketry”.⁴⁶

⁴² F. H. Winter, *Prelude to the Space Age: The Rocket Societies 1924-1940*, National Air and Space Museum, Smithsonian Institution, Washington, DC, 1983, contains an extraordinary, well researched, and detailed account of various national societies formed and their experimental programs.

⁴³ F. H. Winter, “The American Rocket Society 1930 – 1962”, Vol.33, No. 8 *Journal of the British Interplanetary Society* 303-311, August 1980.

⁴⁴ *Ibidem*.

⁴⁵ *Id.* at 306.

⁴⁶ *Ibidem*.

Practicing law in Washington State, 1930 – 1932

In 1930, at home in Tacoma, Washington, Haley intended to engage in private law practice. To provide a minimum assured income while he established his practice, on 1 July 1930, Haley was appointed Deputy US Marshall in Tacoma. This assignment was not to last however, because he wanted to practice law and to be active in local politics. These were activities he could not pursue while serving as a Deputy US Marshall. Haley resigned his position as Deputy Marshall in late summer of 1930 to take up the practice of law with Bates and Peterson, and S. A. Gagliardi, attorneys practicing in the Washington Building in downtown Tacoma. While practicing law in Tacoma, Haley became involved in a noted case in which he directly petitioned the President of the United States, Herbert Hoover, to use the government's influence on behalf of his client. The story was reported with a photograph of Haley and his client in the *Tacoma Daily Ledger* on Thursday, 24 September 1931.

On 30 August 1931, the American fishing vessel *St. Patrick*, under the command of its owner, John F. Sumich, was seized by a Canadian Fisheries Patrol vessel a quarter of a mile on the American side of the international boundary near San Juan Island. Seizure of the \$14,000, Tacoma-built craft aroused substantial interest among local fishermen, who feared that such actions by the Government of Canada would significantly hamper fishing in the Puget Sound area.

While fishing on that August morning, the pump machinery used to withdraw nets from the water broke down and the crew turned off the *St. Patrick's* engine to make repairs. The vessel, in the strong rip tide of Haro straight, drifted while the crew made repairs. A Canadian patrol vessel approached and sent a skiff in charge of an officer to the *St. Patrick*, to inform Capt. Sumich that his vessel, nets, gear, and equipment were seized by the Government of Canada. According to Capt. Sumich, the Canadian vessel then moved on to approach another American fishing boat. The *St. Patrick* was left to drift another 45 minutes before it was secured and towed to Victoria, British Columbia. Capt. Sumich and his nine-member crew were detained two days in Victoria.

Sumich reported that when the *St. Patrick* was boarded, Capt. Peter Carevich of the *Luxor*, standing close by, took soundings and could not get bottom within 78 fathoms of line. Sumich pointed out that such deep water is only found on the American side of the border. There is no such depth on the Canadian side.

On 23 September 1931, Andrew Haley, acting as attorney for Capt. Sumich, submitted to President Herbert Hoover a petition requesting the United States Government to secure the immediate release of the *St. Patrick*. The petition declared that while the illegal seizure itself was not necessarily unfriendly, because of the facts of the case, continued detention of the American vessel would be. No official intervention in the case is known to have occurred.

Haley's petition asked the government to secure immediate release of the vessel or to provide counsel for Capt. Sumich to take the case into Canadian courts. Haley pointed out that many affidavits prove the *St. Patrick* was in American waters at the time of its seizure. Even if the vessel drifted across the international boundary, Haley contended, her helpless condition would forbid confiscation under international law. The noteworthy aspect of the report is that Haley had no reservations in approaching the highest level of government authority when it

was in a client's interest. In a corrected write up containing his biography for the Marquis Company's *Who's Who in America*, Haley encapsulated this period of his life with the notations "Admitted to the DC Bar, 1928, Wash. Bar, 1929; prvt. law practice, Tacoma, 1929-1933".⁴⁷

Haley loved to write and became committed to it as an essential function when he began to derive necessary revenue to supplement his income. When he returned to the Seattle/Tacoma area to continue engaging in private law practice there, he created and assumed the role of Editor of the *Civic Review* in Seattle. This was a weekly pamphlet review of public affairs in the area. Subscription was \$0.10 per copy or \$5.00 per year. It advertised itself "for the thinking citizen". It claimed to be independent, non-partisan, fearless, and devoted solely to the welfare of the community and the State of Washington. This provided Haley with a thumb on the pulse of civic and public affairs in the area, and further developed his writing and newspaper skills. It also provided modest but steady infusion of revenue. As creator, owner, and editor of the *Civic Review*, Haley was not required to share its revenues with anyone other than the printer, nor was he required to get anyone else's approval of what he chose to write and to publish. He fully intended from the outset to be "independent, non-partisan, fearless", and devoted to the public welfare.

During 1930, in addition to practicing law and writing and publishing the *Civic Review*, Haley became engaged in political campaigning. Ralph A. Horr, a Kansan, moved to Washington State in 1908 and settled in Seattle, where he graduated from the University of Washington law department in 1911. He served as chief deputy county treasurer of King County in 1911 and 1912. He was chairman of the Republican Committee for King County. He was an unsuccessful candidate for mayor of Seattle in 1918 and served from August 1918 to March 1920 in the US Infantry. Later, when Horr stood for election to Congress in 1930, Haley was an active campaigner on his behalf. When Horr was elected, he appointed Haley as one of his secretaries, who travelled with him to Washington, DC. Although Horr's congressional district included Seattle and Kitsap counties, he told the press: "I selected a Tacoma man for this position because the interests of that city are so near those of my district". It is likely Horr selected Haley because of his energy, creativity, and capability to publicize events.

While serving as Secretary to Congressman Horr, Haley displayed his penchant for organization and publicity in a variety of ways in support of the Congressman and Mrs. Horr. A brief note in the *Tacoma News Tribune* on 12 January 1932, clearly displays Haley's creative, energetic style of operation. In January 1932, Col. Theodore Roosevelt, III, often referred to as Theodore, Jr. was appointed to the position of Governor-General of the Philippine Islands. Theodore 'Ted' Roosevelt III, (1887 – 1944) was an American government, business and military leader. He was the eldest son of President Theodore Roosevelt. The younger Roosevelt had been instrumental in forming the American Legion in 1919, following service in the US Army during World War I. He later served as Assistant Secretary of the Navy and Governor of Puerto Rico (1929 – 1932), before being appointed Governor-General of the Philippines for 1932 – 1933. Returning to the Army in 1940, he led the first wave of troops at Utah Beach

⁴⁷ From an enclosure to an A. G. Haley letter to The A. N. Marquis Company, dated February 23, 1955 in *AGH, Letters & Materials*, at archives of the University of Mississippi Law School Library. See note 2 above.

during the Normandy landings in 1944, earning the Medal of Honor for his command. He died in France 36 days later, with the rank of Brigadier General.

In 1932, Haley was acutely aware of the celebrity and accomplishments of this man. As a way of using that notoriety to magnify the presence and significance of Congressman Horr, Haley had the following notice published in the Seattle papers:

COL. ROOSEVELT INVITED HERE

Col. Theodore Roosevelt, new governor of the Philippines, has been invited by Representative Ralph A. Horr to visit Tacoma and Seattle on the way to his new post at Manila.

According to word received here Tuesday from Andrew G. Haley, secretary to Mr. Horr, Col. Roosevelt is expected to announce his decision at an early date, it was reported.

Representative Horr desires civic Agencies in Tacoma to wire invitations to Col. Roosevelt as soon as possible, according to Haley. These invitations should be addressed in care of the bureau of insular affairs, Washington, D. C.

As it turned out, Roosevelt did not stop and visit Seattle on his way to the Philippines, but it was a valiant attempt by Haley to enlist his support.

Washington, DC, 1932 – 1934

Following the democrat's sweep on the coattails of Franklin Delano Roosevelt in the election of 1932, Haley was named Administrative Assistant to the newly elected Congressman, Wesley Lloyd of Washington. This was interesting, because Haley had just been serving as a secretary to Republican house member Ralph Horr, and now he was appointed to the staff of a Democrat. Apparently, employment was more important than party affiliation to the pragmatic Haley. It is likely that Haley's personal energy, writing skills, and competence in obtaining publicity were capabilities making him attractive as supporting staff to any politician who took the time to consider his skills. He also brought a familiarity with the methods of operation and the halls of the US Congress, earned during several years of part-time service there while a student at Georgetown and as secretary to Ralph Horr.

During the period from 1930 to 1933, as a staff member of a State of Washington Congressmen, Haley travelled frequently from Seattle/Tacoma to Washington, DC, and back on congressional business. One of Haley's scrap books of the period contains a weekly listing of the National Theatre for the week beginning Monday, 5 December 1932. Haley was back in Washington at the time. The main feature of the playbill was 'By special arrangement with the

Irish Free State Government, the ABBEY THEATRE IRISH PLAYERS' would be featured in the shows of the week. On Friday, 9 December 1932, Haley attended a performance put on by the Abbey Players which he found so insulting to Irish clergy and personally offensive, faithful to the Ancient Order of Hibernians, he wrote and sent a formal complaint about the performance to the President of the Irish Free State. There is no evidence that a reply was ever received. Dubbed in high school 'a Hibernian newspaperman', Haley had since become a member of the Ancient Order of Hibernians, and he took his Irish heritage seriously.

With the election of Wesley Lloyd in 1932, Haley accepted appointment to the position of Administrative Assistant to the Congressman and continued his life in Washington, DC. Wesley Lloyd, was born at Arvonia, Osage County, Kansas, on 24 July 1883, where he attended the public schools. He studied at Baker University and Washburn College in Kansas. Lloyd engaged in newspaper work in Kansas City and Topeka, and graduated from the Kansas City Law School in 1906. He was admitted to the bar the same year; moved to Tacoma, Washington, in 1906, and engaged in newspaper work until 1908, when he commenced the practice of law in Tacoma. He served as a corporal in the Washington National Guard from 1918 to 1920; was elected as a Democrat to the Seventy-third and Seventy-fourth Congresses, serving from 4 March 1933, until his death from a heart attack in his apartment in Washington, DC, on 10 January 1936.

In 1933, on the nomination of Washington State's Senator C. C. Dill, Haley was admitted to the Bar of the Supreme Court of the United States. He continued assisting Senator C. C. Dill part-time in the development of a new regulatory law applicable to the broad field of telecommunication, whether voice communications or electronically printed, and whether transmitted by wire or radio. Also in 1933, with support and endorsements from congressional members from the State of Washington, Haley was appointed to a legal position in the Federal Radio Commission. This was a full-time position in the federal civil service. The entire, rapidly expanding field of electronic communications was to be covered by a new *Communications Act of 1934*, which established the Federal Communications Commission (FCC), a five-member regulatory body to provide and maintain appropriate regulatory machinery, and issue operational licenses as required for communication systems to serve the public interest, convenience, and necessity.

When the Federal Communications Commission was established in 1934, replacing the Federal Radio Commission, Haley was named to the Legal Division. As of 25 May 1934, Haley was an Assistant Attorney in the Legal Division. An interesting passage appears in a tribute to Andrew Haley published in *Broadcasting* magazine in November 1957. A synoptic career summary reports in part that:

In 1933 Mr. Haley received an appointment to the Federal Radio Commission as an attorney. Colleagues still remember him as the nemesis of broadcasters who touted illegal products on the air (goat glands, cancer cures, birth control drugs).⁴⁸

In addition to being memorable to his colleagues at the Commission, Haley was always noted when he was present at social or political gatherings. He was sociable, affable, and unabashed

⁴⁸ *Broadcasting*, "Our Respects to Andrew Gallagher Haley", November 11, 1957, p. 24.

when approaching a stranger with outstretched hand, offering the greeting “Hi. I’m Andy Haley”. His ego would not be ignored, in any company.

Despite his open, charming, and bustling personality, beneath the surface Haley was under considerable pressure. Examination of bank statements and cancelled checks in his papers shows that Andrew Haley was substantially supporting his mother, Kathleen Rose Haley, in Washington State. He sent her between \$150 and \$200 each month in 1932, 1933, and 1934. It is difficult to confirm, but this support probably dated back to 1929, when he returned to live and work in the Seattle/Tacoma area. During 1934, cancelled checks indicated he was also paying haberdashers’ bills for his younger brother William Michael and occasionally sending checks to his sister Margaret. The family obviously hung together, and Andrew was one of the enabling, sturdy linchpins on which it depended.

On 20 March 1933, through the office of the Commanding General, Third Corps Area, Capt. Andrew G. Haley was appointed to the Reserve of the Army of the United States and assigned to the Judge Advocate General’s Department. The appointment would be valid for five years. Acceptance of this appointment required that Haley be formally sworn in. He completed and signed his Oath of Office on 25 March 1933, but the appointment was effective from the 20th of the month. In this status, Haley was subject to the call to active duty by the President at any time. He was required to serve a brief active duty period to become acquainted with military service. He served 14 days on active duty, from 12 to 25 April 1933, in the Contracts Section of the US Army Judge Advocate General Department, Military Justice Division in the Arlington, Virginia, Pentagon. An Army Reserve Officer’s commission was just another feather in the cap of this increasingly self-assured, ambitious, and maturing personality.

After five years as a student at Georgetown University (1923 – 1928), and five years of private law practice, freelance writing, politicking, campaigning, and functioning on congressional staffs (1929 – 1934), Haley had developed his self-confidence and his professional skills to a high level of personal comfort. He had become his own boss concerning many details of his personal life, and he had been free to move wherever opportunity arose for advancement.

Rock Creek Park, Washington, DC, 1933

In the fall of 1933, Andrew Haley met a fascinating woman. Delphine Hélèn Delacroix was a different kind of person than any Andrew had ever known or understood. Delphine Delacroix was born in Mobile, Alabama, in July 1905, and raised in Alabama and Mississippi, “of the colonial families prominently connected with the royal government of old Louisiana. Her direct ancestors included the Auderts, who were the French royal commandants of Mobile, and the Eslavas, who were the Spanish royal treasurers of Mobile and large land owners in the Louisiana Colony”.⁴⁹ After the untimely death of her father Charles Ernest Delacroix, in 1910 (at age 32), Miss Delacroix lived for some part of her youth with her mother and her Aunt

⁴⁹ From a newspaper clipping in a scrapbook of the Haley Family compiled in the 1930s.

Frances in the home of her maternal grandfather, John J. Clarke, in Whistler, Mobile, Alabama. After the death of her father, her family moved to Meridian, Mississippi, where her education continued in a convent.

In 1930, the *Federal Census* shows Delphine was living with her Uncle, Elliott C. Brooks, in Meridian, Mississippi. One year later Delphine was employed as a secretary by Floyd B. Powell, Vice President and General Manager of the Southern Central Life Insurance Company. During 1933, she accompanied her mother and stepfather, J. Y. Chambers, when the family moved to Campbellsville, Kentucky. In the fall of 1933, she visited Washington, DC, where she had temporary residence with her mother's sister Frances. In February 1934, Delphine, at age 29, took up residence with her mother's sister, Miss Frances M. Clarke, at the fashionable Connecticut Apartments in Washington, DC. Delphine was a stately and attractive brunette who spoke with a soft southern accent acquired during her childhood in Alabama and Mississippi. Attractive in appearance, she had charm, poise and a touch of elegance in her demeanor.

Miss Delacroix met Andrew G. Haley while riding horseback in Rock Creek Park in Washington, DC. Eventually, at Delphine's invitation, Andrew visited Delphine's mother, and other family members in Campbellsville. One of the things Haley discovered in Campbellsville was a curious appellation used for Delphine by her family members. Among the family, she was known as Aunt Dede. Haley adopted this name and used it consistently thereafter. Many of his later personal letters to his wife began with the salutation "Dear —" or "Dearest Aunt Dede"; and many of her letters to him were signed "Aunt Dede". Back in Washington, DC, Delphine and Andrew kept company with one another for some months, until they were married on 1 December 1934 at the church of Our Lady of Perpetual Help in Campbellsville, Kentucky.

Washington, DC, 1934 – 1939

By 1934, Haley had matured to an established civil servant with a significant position as a legal counsel in the Federal Communications Commission, the nation's principal regulatory structure overseeing the important and rapidly developing field of radio communications. He enjoyed and fostered contacts in the US Congress, in both House and Senate. Through visits, cocktail meetings, luncheons, and dinners, Haley maintained and nourished those congressional relationships throughout his adult life. Such affiliations provided him not only the personal gratification of political recognition, but also multiple active links to the power of the federal government.

The period 1934 to 1939 was a highly dynamic and formative period in the life of Andrew Haley. During these five years he established practices, habits, and character markers that would be with him for three decades, until his death in 1966. He had passed from an energetic, adventurous youth, through the rigors of professional qualification and establishment, and his life settled into a work routine that would vary little, except for substantially increased travel, during the next 30 years.

He established himself as a lawyer. He had begun doing informal legal work even while a student at Georgetown. Research he was doing and the legal drafting in Senator Dill's office were significant training. When he had passed the Washington, DC, bar exam and was admitted to practice there, he was very promptly transferred to the legal staff in the National Catholic Welfare Conference (NCWC). Shortly after that he returned to his home in Tacoma and was soon admitted to practice in Washington State. He sought and accepted legal involvement in local cases, including a plodding issue of what would be required to control the height of a new bridge above a waterway in the Seattle area. To this experience he added the earlier discussed admiralty case that involved suing of the Government of Canada for the release and return of a US fishing vessel the Canadians had confiscated.

While in government employ, Haley could not consider himself independent, to act as and when he chose, but he learned early how to gain that kind of freedom. He wanted to control his own rate and place of work. To do that he knew he had to become a manager rather than be managed. His method of achieving this independence was to work longer and harder than those around him so that he stood out as an ambitious achiever, eligible for management. He served as legal counsel of the Federal Radio Commission from September 1933 until May 1934, when the Radio Commission was succeeded by the Federal Communications Commission pursuant to the *Federal Communications Act of 1934*. Within 18 months in the new agency (FCC), Haley had earned a senior position in the FCC's legal office. At the Commission, Haley served as Chief of the Litigation Section, the Decision Section, and as manager of Complaints and Investigations Section, easily the most voluminous and wide reaching of the legal problems dealt with by the Commission. When he took on the responsibility of managing Complaints and Compliance, he managed disposition of the budget to support those activities. He set the frequency and duration of travels required to interview persons involved in his complaint and compliance work. During the 1930s he travelled by train frequently and widely across the country. Travel between major US cities could require days at a time, compared to the 1940s and 1950s, when such travel by commercial air would require a few hours, at the most.

When Haley visited the Chambers' home in Campbellsville, he saw a different world from that in which he had grown up. There were servants in the house: a cook, a part time day maid, and a non-resident handyman to care for the house and yard. The family lived at leisure, always comfortable and somewhat formally polite. This was a new experience for Haley. He had not previously been exposed intimately to the daily lives of people who lived that way. He could not help comparing how self-dependent he and his siblings had been and how effective a home manager his mother had been. There were no maids or cooks or handymen helping in the daily management of the Haley family household of Andrew's youth. The family did what was needed, and his mother provided the leadership, management, and guidance required. Although Haley saw these differences in the lives of Aunt Dede and his mother, it is by no means clear that he fully appreciated their significance.

When he took Aunt Dede as his wife, he expected that she would be the manager in their new home, she would maintain it, cook the meals, take care of the laundry, and do all other things necessary to keep the house in order. That was what Irish wives and mothers did. What neither Haley nor Miss Delacroix gave much attention to, was the fact that these household maintenance duties were not a part of her earlier life, and a whole new lifestyle

would be imposed upon Aunt Dede by her marriage. Substantial on-the-job training would be required. Polite southern leisure was to be replaced perforce by big city independence and expediency.

Colonel of the Ether

As a sidelight, probably growing out of his future wife's family's political associations in Kentucky, Haley, who had been employed in the Federal Radio Commission for two years, was appointed a Kentucky Colonel. A 15 December 1933 news piece reported that Kentucky's Governor, Ruby Lafoon, created military aides in the grade of Colonel to assist him in meeting the most unusual emergencies that might confront the Commonwealth of Kentucky. He had colonels of the land, sea, and air on his staff, but he had no Colonel of the Ether. In earlier times the space beyond the atmosphere, through which radio waves propagated, were referred to as the "ether". To remedy this lack in his staffing structure, the Governor announced the appointment of Andrew G. Haley, of Tacoma, Washington, as his 'Colonel of the Ether', in charge of the Commonwealth's signal corps. Colonel Haley's first general order was to abolish static within the confines of the Commonwealth! Governor Lafoon was Kentucky's governor from 1931 to 1935, serving through the difficult years of recovery from the economic stress of the Great Depression. Among his legacies, Lafoon was well known for appointing a record number of Kentucky colonels. Most notable among them was Harland Sanders, who used the title 'Colonel' when advertising in connection with his chain of Col. Sanders' Kentucky Fried Chicken restaurants.

Following their Campbellsville, Kentucky, wedding on 1 December 1934, the newlyweds spent a few days together in Chicago and then returned to Washington, DC. Haley continued employment as a regulatory attorney in the Legal Division of the Federal Communications Commission (FCC). In early December 1935, the prominent New York News and Gossip Columnist Walter Winchell included a brief note in his column 'On Broadway' reporting that "[t]he Andrew Haley's expect a little Governor near Christmas". On 15 December 1935, the couple's first child, Delphine Delacroix Haley was born in Washington, DC. Now the duties of motherhood were added to Aunt Dede's functions and she applied herself assiduously to making the necessary adjustments in her life. In addition to maintaining the Haley household, Aunt Dede found herself required to dress and care for daughter Delphine and to prepare for and participate in vacation trips to members of the Haley family in the northwest, as well as organize and host often spur-of-the-moment social gatherings from time-to-time at home.

Hereinafter, for clarity and consistency, when we write of Haley's wife we use the name Aunt Dede, as Haley and the family did. After December 1935, when she was born, we will refer to the first Haley child as Delphine – for the balance of this work, occasionally differentiated as the younger Delphine.⁵⁰

⁵⁰ Occasionally the name Delphine will appear in quoted correspondence referring to Delphine Hélène, who can be identified by context as Mrs. Andrew Haley.

On 26 January 1938, their second child, Andrew G. Haley, Jr. also was born in Washington, DC. Both children were alert, healthy and attractive infants and their parents took great satisfaction in taking them to visit family members in Kentucky and in the northwest. Haley continued employment at the FCC throughout the 1930s, and during those years he frequently travelled on business and occasionally with his family on well photographed vacation trips. The vacation trips invariably evidenced Haley's strong and abiding interest in the northwest. Andrew's family took opportunities repeatedly to visit other family members and several increasingly popular national parks in the northwest during summer vacations in the latter 1930s.

There are a large number of candid photographs taken during the 1930s at a wide range of locations. The photographs include many of the relatives and associates, especially of the Haley branch of the family. After 1930, there were no more summers spent crossing the Atlantic Ocean. By 1935, Haley's life had become work and family centered. In addition to other pursuits, Haley continued his efforts to write. During the 1930s, it is interesting to see the gradually increasing number of family photographs in which politicians and political personalities appear. Now, as a regulatory attorney, when spare time existed for him in the mid-1930s, Haley chose to fill it writing articles for legal journals.⁵¹

In May 1934, he published a well-researched, detailed, and informative article titled 'RADIO LAW – Broadcasting and the Public Interest Involved' in the *Georgetown Law Journal* at Haley's alma mater. Publication coincided with the date of Haley's succession from the FRC to the FCC. The extent of detail and footnotes in the article indicate that it had been in development for some time prior to publication. Two years later, in May 1936, another article appeared titled 'The Broadcasting and Postal Lottery Statutes', in the *George Washington Law Review* of George Washington University, where Haley had earned a Bachelor's Degree in 1934. The article was longer and more detailed than the 1934 Georgetown article and it elaborated and explained many of the issues Haley faced in his daily work at the FCC.

At home in Washington, DC

With a wife and an emerging family, Haley now had a home and a base of personal operation from which he could maintain not only professional but also social contacts with his colleagues in work, his contacts in government, academia, and selected industrialists. The practice he had followed since his teen years of noting and recording reportable facts, names, places, dates of events, and providing them to newspapers, were practices now of a second nature, and he added

⁵¹ Some of Haley's publications during this period included; A. G. Haley, "Radio law – Broadcasting and the Public Interest Involved", *Georgetown Law Journal*, 1-27, May, 1934; "The Broadcasting and Postal Lottery Statutes", *Geo. Wash. Law Review*, 475-496, 1936; reprinted as U. S. Congress, 75th Cong., 3rd Sess., Senate Doc. No. 137, USGPO, Jan. 1937. During the mid-1930s Haley also wrote for the Roman Catholic lay magazines *Commonweal* and *America*.

appropriate trade journals in the communications business to his targets of publication opportunities.

If there was a reason to give credit or recognition to an individual important to him, Haley would prepare a list of invitees, arrange a dinner at his home or elsewhere, then provide the information to local or interested news sources, where the details would be published. Haley's name, and sometimes his wife's name would be prominent in the opening paragraph, but the list of invitees was what primarily drew the attention of editors and readers to the various pieces published.

Haley was not alone in this practice, which was well known and practiced by senior industrial personalities and senior government officials for years. Haley was not at a high level of national reputation or notoriety, but he always included in his guest lists some personalities who were well-known or in senior positions in the government. These prominent personalities were not required to show up at the various events, and sometimes they did not show up. To suit the purpose of publicity, they only needed to be listed as 'invited'.

As time passed in the 1930s, Haley became increasingly accustomed to consuming alcohol, not only at evening events, or in the evening at home, but with gradually increasing frequency he would indulge in a cocktail or two with his lunch. His enjoyment of alcohol, coupled with a life of often self-induced stress, would eventually take its toll in the erosion of internal organs. He did not often complain in public about his internal abdominal distress, but by the end of the 1930s he was likely suffering undefined internal discomforts, which became more manifest as time went on. His ego would have considered it a weakness to complain openly about transient abdominal stress; believing it would pass.

One prominent person appears frequently in the Haley family photo albums of the 1930s, Washington's US Senator Homer Truett Bone. Sen. Bone was born in Franklin, Johnson County, Indiana, on 25 January 1883. He attended Indiana public schools and was employed for a short time in the postal service. He later worked in the accounting and credit department of a furniture company. He graduated from the Tacoma Law School in 1911 and was admitted to the Washington State Bar the same year. Bone commenced practice in Tacoma, Washington, where he served as a special deputy prosecuting attorney of Pierce County in 1912; and was the Corporation Counsel of the Port of Tacoma, from 1918 to 1932.

Homer Bone was elected to and served in the Washington State House of Representatives from 1923 to 1924. He was an unsuccessful candidate for the Republican nomination in 1928 to the Seventy-first US Congress; but was elected as a Democrat to the United States Senate in 1932 and was reelected in 1938, serving as a US Senator from 4 March 1933, until his resignation on 13 November 1944. He was chairman of the Senate Committee on Patents from 1939 to 1944, when he was appointed by Franklin D. Roosevelt and served as a Judge of the United States Circuit Court of Appeals for the Ninth Judicial Circuit from 1944 to 1956. From 1956, he resumed the practice of law in San Francisco and sat on the bench occasionally until 1968, when he returned to Tacoma, Washington, where he died in 1970.

Senator Homer Bone first appears in the Haley family photo albums in 1934 on an outing to the Port Republic battlefield, south of Harrisonburg, Virginia. Several candid and posed pictures were taken of the Senator alone, and others with Andrew Haley. Apparently on the same day, or at least a similar trip, the two men visited the Gettysburg battlefield, where

more pictures were taken. The friendship between Haley and Bone, which eventually broadened to include their spouses, existed for many years. Additional pictures show the Senator with the Haley family in 1936 in outdoor activities in Washington State. Another prominent political personality begins appearing in the Haley family photos in the mid 1930s – the owner of radio station KIRO, Seattle, Mr. Saul Haas.

In a biographical sketch of Saul Haas, Frank Chesley reported that Haas met Homer Bone while serving as a news reporter for the *Seattle Star*. According to Chesley, “Haas found a progressive soul mate in Homer T. Bone, a zealous, sharp-tongued champion of public power and an advocate for the worker, the farmer, and the ‘common man’. Their empathy for the worker paralleled an abiding hatred of some of the buccaneer capitalism practiced at the time”.⁵² Chesley also reported that in 1932, Haas managed Bone’s Senate campaign when Bone won election easily in the Democrat sweep that year led by Franklin D. Roosevelt.⁵³

Saul Haas was born in New York City’s Lower East Side on 12 June 1896. After finishing high school at age 16, Haas and a friend rode freight trains to the west, fleeing the eastern inner-city environment. They stopped in Lewiston, Idaho, where Haas attended the Northern Idaho College of Education and taught school briefly. Continuing westward, Haas found a position in 1918 as a reporter with the *Portland (Oregon) News*. He married Jesse Nores in 1919 and they tried unsuccessfully to establish a newspaper in Port Angeles, Washington. During 1920, the couple returned to New York, where Haas went to work for Hearst’s International News Service (INS) until 1921, when he transferred to the Seattle, Washington’s INS bureau as its manager. Haas returned to the northwest, but left the INS after a brief period, when he joined as a reporter the struggling newspaper of the Seattle Labor Council, known as the *Seattle Union Record*. In 1925, Haas joined with Harry Ault to buy the *Seattle Union Record*. They divided work by Ault serving as publisher and Haas serving as the editor and a minority stockholder. When the *Record* failed, Haas obtained employment at the *Seattle Star*.⁵⁴

As a companion and political supporter of Senator Bone, Haas appears with Sen. Bone in a number of family vacation photos of the Haley family in the mid-1930s. It is also likely Haas and Haley had more than one conversation about the FCC and its regulation of radio stations. Haas was deeply interested in and involved in radio station ownership and operation during the 1930s and throughout the latter half of the 1930s Haley was a senior regulatory attorney on the FCC staff.

In January 1937, an article by Haley appeared as a government document. ‘*The Law on Radio Programs*’ was Senate Doc. No. 137, Presented by Senator Bone, during the 75th Congress, 3rd Session. It was an integration of Haley’s 1934 and 1936 law review articles. It was likely used as an information document to send to constituents who had questions about radio regulations. It was a well-done survey of the entire field of the then applicable radio regulations. During his years as a legal counsel with the FCC, Haley served in charge of or Chief of several sections including Complaints and Investigations, Decisions, and Litigation.

⁵² HistoryLink.org – the Free Online Encyclopedia of Washington State History; Haas, Saul (1896-1972), by Frank Chesley, 7 Jan. 1904; http://www.historylink.org/index.cfm?DisplayPage=output.cfm&file_id=5632, last visited 25 May 2021.

⁵³ *Ibidem*.

⁵⁴ *Ibidem*.

In Litigation he served as government counsel in hundreds of cases, many argued before courts of appeal. His work experience was broad and concentrated in the many issues involving broadcasters and the FCC. In addition, Haley coordinated or supervised the work of staff lawyers working with the FCC's Broadcasting and Common Carrier Bureaus.

In 1938, the War Department's Adjutant General, H. N. Gilbert, wrote to Capt. Andrew G. Haley (USAAC JAG/RES) to inform him that, by order of the President, Haley was reappointed in the US Army Reserve in the grade and section he then held for another five year term, which would begin on the day following the last day of his current appointment (19 March 1938). To activate the reassignment, he was obliged to repeat his Oath of Office, which he did on 9 February 1938. This extended his unobtrusive enlistment in the US Army Officers' Reserve until 20 March 1943.

Chapter 7. Caltech Hosts Consideration of Rocketry – 1934 – 1939⁵⁵

Pasadena, California, 1934 – 1939

Frank Malina arrived at the Guggenheim Aeronautical Laboratory of the California Institute of Technology (GALCIT) in the fall of 1934 with a scholarship as a candidate for a master's degree in mechanical engineering. Malina's graduate work was undertaken initially under the supervision of the GALCIT staff. Malina successfully completed his studies and was awarded a Master of Mechanical Engineering degree in 1935. He immediately applied to pursue a master's degree in aeronautical engineering, this time under Professor Theodore von Kármán's supervision. During the 1935 – 1936 school year, Malina was appointed as an Assistant Instructor on the GALCIT staff. Malina also established collaboration with von Kármán and Maurice A. (Tony) Biot, and agreed to prepare the illustrations for their co-authored textbook on *Mathematical Methods in Engineering*, subsequently published by McGraw-Hill in 1940.

When Malina had successfully completed his studies in 1936 and had been awarded a Master of Aeronautical Sciences degree by Caltech, he immediately enrolled to pursue a doctorate under Theodore von Kármán and focused on the concepts of rocket propulsion and the behavior of vertical sounding rockets. Malina and von Kármán were becoming an informal team, mutually enjoying working out mathematical and practical principals of rocketry.

Early in 1935, Malina found a co-enthusiast for rocketry in William Bollay, also a student at GALCIT. In a seminar presentation in March 1935 at Caltech, William Bollay presented a description of rocketry work undertaken by Eugen Sänger in Vienna, Austria. He added commentary to the Sänger work, describing his own work and interest in rocketry. This seminar and its focus on rocketry were featured in a local newspaper article seen by a pair of local rocket enthusiasts not affiliated with Caltech. The pair of men came to von Kármán to declare their interest in the subject and to ask with whom they might be able to work at Caltech to help build a liquid rocket engine. Von Kármán referred the two to Frank Malina.

That is how Malina met John W. Parsons and Edward S. Forman in 1935. Neither Parsons nor Forman was college-trained,⁵⁶ therefore they lacked qualifications for appointment

⁵⁵ In addition to sources identified in note 31, above, some history of Caltech's Guggenheim Aeronautical Laboratory during the 1930s is well described in F. J. Malina, "The U. S. Air Corps Jet Propulsion Research Project, GALCIT Project No. 1, 1939-1946: A Memoir", in R. C. Hall (ed.), *History of Rocketry and Astronautics*, AAS History Series, Volume 7, Part II, at 153-201, Univelt, Inc., San Diego, 1986. Much of the material in the following paragraphs is drawn from the Malina memoir.

⁵⁶ See G. S. James, *et alia*, "Evolution of Asphalt Propellants from World War II/JPL Aerojet Research to Postwar Spin-Offs by the Rocket Research Institute", in F. H. Winter (ed.), *History of Rocketry and Astronautics*, AAS History Series Volume 28, 109, 110, note 5, where it is recorded that "Parsons has been misleadingly identified as an amateur chemist. The *extant Biographies of Aerojet Engineering Corporation Personnel of 1943-44* shows he attended the University of Southern California in 1935-36, majoring in chemistry, although he did not graduate.

to the Caltech faculty. Recognizing their desirable talents, Malina asked von Kármán for permission to work with the pair at Caltech informally, on a non-reimbursable basis, and von Kármán agreed. Parsons and Forman agreed to this arrangement because it gave them access to personnel and resources to facilitate their hobby of building experimental rockets. Soon, two other Caltech students, Apollo M. O. (AMO) Smith and the Chinese student Hsue-shen Tsien⁵⁷ joined the Malina group, along with Bollay, Forman and Parsons. Later, another student, Weld Arnold, joined the group and served as the photographer. A well-researched account of the members and work of this group is presented in Fraser Macdonald's book, *Escape from Earth*.⁵⁸

During 1936, the commanding officer of March Field, near Pasadena, came to Caltech to attend various meetings assembled to discuss the problems being encountered by lighter than air vehicles in which the armed services were interested. Caltech Executive Director Robert Millikan introduced then Col. Henry (Hap) Arnold to Prof. von Kármán. In his biography von Kármán later wrote:

Arnold impressed me from the first. He was a stocky, broad-shouldered West Pointer with inquisitive eyes with a blunt but acute way of asking questions, which I enjoyed answering. He was also a literate man and endeared himself to me when I learned that like my own father he had written children's stories.

I met him again in 1938, shortly after he became Chief of the Army Air Corps, a famous meeting at which we discussed rockets as a means of assisting bomber take-off. There was never any doubt in my mind that he was the greatest example of the US military man – a combination of complete logic, mingled with a far-sightedness and superb dedication.⁵⁹

Subsequently Brig. Gen. Arnold further endeared himself to von Kármán by agreeing in 1939 to arrange funding for a project von Kármán had been promoting for several years. Arnold was convinced that the US Army Air Corps had to reduce its research dependence on the availability of facilities owned by other agencies. With von Kármán's urging, he arranged funding for the design of the nation's most advanced wind tunnel. Arnold authorized the wind tunnel for Wright Field near Dayton, Ohio. It was to be a 20-foot, 40,000 h.p. wind tunnel, the first of its kind.⁶⁰

Also, in 1936, Caltech had granted a research fellowship to Martin Summerfield, a prodigious student who had graduated from Brooklyn College with a BS in Physics at the age of 20. He was awarded an MS by Caltech in 1937 and a PhD in 1941. During 1940, while rooming with Frank Malina at Caltech, Summerfield became interested and involved in the

He also worked as a chemist with the Hercules Powder Company, Pinole, California in 1934 and similar firms and was Chief Chemist, Halifax Explosives Company, Saugus, California, from 1935-1939".

⁵⁷ Qian Xuesen was a scientist who made important contributions to the missile and space programs of both the United States and People's Republic of China. The name he used while in the United States was Hsue-Shen Tsien or H.S. Tsien. A definitive biography of Qian Xuesen, his name after returning to China, is Iris Chang's book, *Thread of the Silkworm*, Basic Books, 1995.

⁵⁸ F. MacDonald, *Escape from Earth: A Secret History of the Space Rocket*, Public Affairs, New York, 2019, 371 pp. w/ index.

⁵⁹ T. von Kármán with L. Edson, *The Wind and Beyond: Pioneer in Aviation and Pathfinder in Space*, Little, Brown & Co., Boston, 1967, at 225.

⁶⁰ *Id.* at 226.

work of the GALCIT Malina Group. Summerfield brought interest and capability related to liquid fueled rockets, and during the initial research period it is recorded that he made fundamental discoveries regarding hydrocarbon fuel burning times and regenerative cooling. This knowledge moved the early work on liquid engines at GALCIT from the realm of technical impossibility to possibility.⁶¹

From 1935 to 1938, the six enthusiasts in the informal GALCIT rocket research group combed the literature on rocketry, propellants, and appropriate construction materials. They devised simple experiments to prove aspects of the materials and propellants they studied, and eventually actually built and tested small experimental combustors. Malina was meticulous about recording data acquired as they progressed in their studies. Under the overall supervision of Professor von Kármán, Malina was the rocket research project leader; Parsons was the propellant expert; Forman was the materials and manufacturing contributor; and Bolly, Smith, and Tsien continually contributed hours of reading, analysis, discussion, and calculations to the work of the group. Another notable personality appeared at CalTech, but he was not immediately involved in the rocket work of the Malina Group. William E. Zisch, a young man from Colorado, was hired at Caltech in 1938 as secretary jointly to Dr. Clark Millikan (Robert's son) and Theodore von Kármán. During 1938, John Parsons is credited with conceiving the value of slow burning rocket propellant of constant thrust. Use of constant thrust solid propellant was actively developed by Caltech during its JATO work in the early 1940s.⁶²

Together, members of the small Malina group provided from personal sources the money and materials they could scrounge up to pursue their work on rocketry. It was not long before the group was building and testing small rocket engines, one of which drew official opprobrium when it exploded in Caltech facilities. The group, nick-named the Suicide Squad, was banished to do their experimental work in the unpopulated Arroyo Seco (a dry stream bed) near the Institute. The informal GALCIT rocket research work continued into 1939.

In September 1939, Hitler's troops marched into Poland, initiating the Second World War. President Roosevelt appealed to the European nations not to bomb civilian populations or unfortified cities. At that time the United States was significantly concerned about the threat of war, but was not an engaged combatant.

⁶¹ Among others on the internet, for more information on Summerfield, see the biography comprising volume 15 of a series of Memorial Tributes compiled by the National Academy of Engineering at <https://www.nap.edu/read/13160/chapter/65> see p.388 *et seq.*, last visited 25 May 2021.

⁶² E. M. Emme, *Aeronautics and Astronautics 1915 – 1960*, p. 37, NASA, GPO, Washington, DC, 1961.

Chapter 8. Leaving Federal Service for Private Law Practice

Washington, DC, 1939 – 1942

During the period 1935 – 1939, Haley was continually involved in radio license monitoring, processing and investigating complaints, and handling both initial station licenses and renewals. He travelled frequently to cities located throughout the country and built both his personal confidence and his reputation while dealing with most of the contentious issues to be brought before the Federal Communications Commission for decision. Consequently, he became well known to the commissioners as well as to his in-house legal colleagues, and to the lawyers and station owners with whom he had to deal continually. He was a careful examiner and worked diligently to ensure a complete record would be assembled before any of his cases were presented before the Commission.

Interestingly, although transportation in his youth was dominated early by horse drawn transportation, railroads had expanded during the first quarter of the 20th century and by the time he had graduated from high school, *i.e.* 1923, railroads had spanned the continent and developed substantial intercity transportation links by rail to facilitate transport of people, commodities and mail. The automobile emerged early in the century and by the end of the first quarter of the century larger cities had paved their major roads, but intercity travel was still done on unpaved roadways. As faster and more efficient transportation systems became available, Haley was quick to adjust to and adopt new opportunities to support his travel.

During the latter part of the 1930s, Haley usually travelled alone and Aunt Dede was at home to care for the children. She was a devoted and caring mother and did everything in her power to make the children's lives comfortable and full of love. Her son recalls that she often attended Roman Catholic mass services in the early morning on weekdays. Haley and Aunt Dede exchanged newlyweds' ardent love letters during his business trips in 1935 and 1936, but there are comparatively few letters in the remaining papers and scrapbooks in the period 1937 to 1939. In these years, a separation began gradually to open between the couple. Aunt Dede found herself alone much of the time with children to care for and a home to run as she gradually grew into the role of a devoted mother and housekeeper. But she had not married to be left at home as a nursemaid and housekeeper. These roles were being carried out, but with gradually increasing disappointment and displeasure. Eventually, during the 1940s, Aunt Dede would make known her dissatisfaction and needs for help in the management of her household.

During the 1930s, Haley gradually had intensified his contacts with the senators and congressmen representing his home State of Washington in Washington, DC. He not only published articles related to the regulatory work he was involved in, but he frequently obtained reprints of the articles and distributed them to the individual FCC Commissioners, his superiors

at the FCC, and to all the congressional personnel he knew. He did work that mattered to him, and he wanted that work to matter to those who knew him.

When he distributed reprints of his works, he would routinely receive polite acknowledgements, thanks, and praise for the publications. These responses sustained his growing confidence and added to his own opinion of his personal relevance and importance. As his competence and self-assurance increased, he moved closer to his long-held goal of entering private practice in his own law firm. Unfortunately, the diligence with which he pursued his work and writing detracted from the time he would spend at home with his family. Over time, cumulative absences would begin to take a toll on the family's cohesion.

In time, Aunt Dede's loneliness late in the day led to her use of alcohol as a substitute for Andrew's company. She continued caring for two children and maintaining their household. Haley was increasingly travelling across the country. The family occasionally travelled together on vacation trips to the family homes of relatives in Kentucky and in the northwest, and apparently, they enjoyed visits with the children to several state parks in the northwest. Numerous photographs survive depicting these family outings. Frequently, the family was joined by political personalities or associates of Haley's, or other family members. By 1939, Haley was becoming sufficiently confident that he could succeed commercially as a private attorney.

As an employee of the government, Haley realized that he did not have the freedom to move which he had earlier enjoyed. He was on a rigidly fixed scale of income, and, as a government employee, any effort to supplement his income might lead to conflicts of interest, or extraneous commitments of time and effort incompatible with performance of his official duties as a government attorney at the FCC. Haley's assigned work week of 40 hours was most often voluntarily 55 to 60 hours, or more. The broadcasting industry was expanding. Entry of new participants in broadcasting was increasing. The availability of legal representation for radio station owners and would-be broadcasters was a limited cadre of informed legal counsels. In these conditions, Haley decided it was time for him to leave government service and to establish himself as a private attorney, particularly holding himself available to represent station owners before the FCC.

He had spent more than ten years of his life drafting, learning, and assisting in the implementation of the radio law. Why not now take on the role of legal counsel, and earn some of the available income being paid for competent legal advice? Haley's children were increasing in age. School expenses would soon be added to his sustained support for some family members and for all the professional and social expenses that he had to support. In private practice, he would have to rent office space and pay a secretary. It would not be easy, but he had an indomitable spirit and self-confidence that would carry him through the challenge.

In 1939, Andrew G. Haley and W. Theodore Pierson left the FCC staff, and opened private law offices in the Earle Building in Washington, DC, specializing in the practice of federal administrative law, especially matters before the FCC. With this action, Haley changed his life irrevocably, with no more reliance on an assured income and no sure work tomorrow in the absence of a retained or a new client. Now life included not only work, but also the essential self-marketing in which a start-up lawyer must engage. In order to have work and

earn his living, Haley had to put himself and his capability in front of prospective clients. Thus, opportunities to speak in public before an informed audience or to publish observations and opinions in professional journals, newspapers, or magazines became a necessary part of his life. If he were to succeed, the world needed to learn about Andrew G. Haley. A start-up law practice requires a great deal more than the representation of clients; clients have to be found, engaged and satisfied with service. Conduct of publicity would become a continuous essential function in his life.

The personal and family publicity practices Haley had employed during the 1920s and 1930s, whether intentional or not, were the very practices he would now have to use to survive in the competitive market of Washington, DC's, legal advisors. Haley proved to be remarkably proficient in this part of his increasingly complicated life. One significant cost of this new lifestyle was it further limited his time at home with his wife and children. The personal relations gap between Haley and his wife and children slowly widened.

At this time in his life, moving from the relative comfort of government employment to the competition of private law practice, Haley would have to rely on his native skills, the congeniality of his personality, and his legal training and experience to succeed. A later assessment of Haley's personal skills and characteristics were recorded by Henry Owen, a friend and later collaborator, in these terms:

Most of all, I remember Andy as a man carefully directed in his own mental processes, demanding in his own time, always exerting discipline among his colleagues and associates but, in each instance, with heart, kindness and understanding. He was indeed a noble human being.

His abilities and his accomplishments in his practice of law will be reiterated again and again because his successes within the communications profession are legion. But from them all comes the one central observation: Andy understood human relationships and could comprehend the need for the vital balances between contesting parties whether individual versus individual, individual versus government, government versus industry or any other combination. He recognized both the need for liberty and freedom and the cause for control and restraint.

As a generalist, a man educated and conversant with the broad study of the laws, he was also able to grasp the complex details and to comprehend the elaborate technology of space and astronautics. This accomplishment reflected not only a profound intellect but [also] a mental and physical discipline of the most unusual quality, for his knowledge of space was acquired during a time when the mere concept was yet shrouded in mystery and cloaked in confusion and contradiction.⁶³

So Haley restructured his life and his professional behavior to accommodate the needs and challenges of private law practice. The personal demands on his time and attention would continually draw him away from attention to his family. Based on his life experience, he believed his wife would provide for their children's emotional well-being. His father had worked long hours and his mother had cared for a family of nine children. The widening separation within his family was very gradual. Its consequences accumulated slowly, generally unnoticed or ignored by him.

⁶³ AGH, *Letters & Materials*.

Aunt Dede was faithful and dedicated to the family. She served as a hostess at the Haley home for cocktail parties or dinners (usually catered), and she did all she could to reassure the children of her love and their well-being. To Haley, the management of the home, the family, and care for the children were responsibilities of the wife/mother, so that the breadwinner was allowed the time and freedom to succeed in his chosen profession. He had been well educated and trained to carry out his professional duties. In contrast, the roles that fell upon Aunt Dede were positions requiring a great deal of on-the-job training and she had limited resources to help with this development in Washington, DC. During school holiday periods and whenever other opportunities arose, Aunt Dede would take the children away from Washington to visit the more comfortable environment in the home of her mother and step-father in Campbellsville, Kentucky. This was of no concern to Haley, it provided him more freedom of activity at home and at work.

Now Haley's life became full, not only researching, writing, and delivering legal processes, petitions, complaints, responses, comments on rule makings, *amicus curiae* briefs, and the like, but also being involved in family affairs, with two young children at home, social and political events, luncheons, cocktail parties, vacation trips, and participation in local and professional organizational activities. Occasionally he would arrange a day of recreation spent with friends at a local racetrack, or a day on a boat on Chesapeake Bay, fishing with friends, clients, or government officials. On some occasions, Aunt Dede would accompany him on these outings. What little spare time he had, Haley occupied himself with his lifelong recreational preference, writing. He wrote about law and policy and had many opinions he wanted to record, apparently more to stimulate the discussion he loved, than to prove any particular point. He never quit pursuing the debating processes in which he began training in high school and continued at Georgetown University. He enjoyed spirited discussion and especially enjoyed such discussions with those he knew in positions of political or financial influence. Haley was never reluctant to express and defend his opinions. He seemed to enjoy especially the discussion when he had an able opponent challenging him. With time, these discussions became increasingly lubricated with alcohol.

During his years in the civil service in Washington, DC, Haley appreciated opportunities to get out of the metropolitan area and relax in outdoor activities. One of his favorite pastimes was fishing with friends. In a personal memorial sent after Haley's death to Andrew, Jr. by Dr. J. Bay Jacobs, Mrs. Haley's obstetrician recounted some entertaining anecdotes involving Haley.

There were innumerable interesting facets about the human side of this person. I will merely relate a few incidents that came to my mind.

We took some interesting fishing trips together, starting from Solomon's Island, Maryland. In our party were included Senator Bone, who later was appointed to the Ninth Circuit Court of Appeals, former US Senator Hugh Mitchell and his father who was President of the Civil Service Commission, and Mr. [Walter H.] Maloney, a member of the US Coal Commission. At times our wives were present. On one occasion Mrs. Haley, who was well along in her second pregnancy (Andy Jr. *in utero*), seemed to hook a big fish. It was a hard pull and when we cautiously got it to the surface, it proved to be a rusty baby carriage. [...]

Almost thirty years ago my wife had a prolonged labor, lasting three days. Mr. Haley stayed at the hospital with me for practically the entire time, and of course when the boy was born we were jubilant. This was not appreciated by Mrs. Haley because she felt that he had never displayed so much concern when she was in labor.

As the years went by and Andy became better known internationally, we were unable to meet very often. However, he was always available when I needed a favor. When on foreign missions, he frequently mailed us gifts and always wrote to us.

Dr. Jacobs continued in his memoir to praise Haley as one of the most intelligent men he had ever known. He also listed additional specific anecdotes about particular activities and times he spent with Haley. One such incident indicates that a mild intra-family hostility was already emerging in the 1930s.

When the children were small [after 1938], Mrs. Haley frequently spent time with her parents in Campbellsville, Kentucky, where they owned a Coca-Cola bottling plant, and lived in a beautiful stone house. Andy and Senator Bone frequently visited and would relate their enjoyable experiences to me. I agreed to make a trip with Andy. We left Washington, DC, about 7:00 a.m. Andy was a good driver and I learned much from making the trip – it improved my driving ability. We arrived about 9:00 p.m., carried our luggage into the house and immediately a family argument ensued between Andy and his wife. Andy picked up his bag, instructed me to get mine and said “We’re going back to Washington”. We sat in the car and being very tired, I suggested that we go into the house again and drink up their liquor. He agreed and we remained several days.⁶⁴

This anecdote exhibits the growing dissatisfaction of Aunt Dede with her position isolated from the daily life and affairs of her husband. It also records an example of Haley’s impetuosity and temper which emerged from time-to-time, particularly in relations between him and his wife. In Haley’s mind, Aunt Dede was expected to care for and run the family, not complain about the isolation and lack of assistance.

Early in 1941, an officer with the Navy Department’s Bureau of Aeronautics, Cal M. Bolster, was studying at Caltech where he learned about Professor Theodore von Kármán’s concern that his sister, Josephine (Pipö), was having trouble with the Department of Justice’s Office of Immigration in Washington, DC. With the outbreak of the war in Europe, the nationality and loyalty of non-citizens was coming under close scrutiny by the US Government. Josephine had a student visa that had expired. Von Kármán said that if his sister could not be granted a permanent visa, meaning that she would have to leave the United States, he would not remain in the United States. He, his elderly mother, and his sister could move to another country where they could be together.

Bolster contacted a senior naval officer named James Russell, a boyhood friend of Andrew Haley’s. Jim Russell called his “Irish attorney friend” (Haley) in Washington to ask if there was something Haley could do to assist the von Kármán family. The following account is taken from an oral history in the form of an interview with A. B. Cristman, Historian, Naval Weapons Center, China Lake, California. Later, Admiral Russell (USN Retired) provided the

⁶⁴ From a memoir provided to AGH Jr. during November 1970 in *AGH, Letters and Materials*, explained in Acknowledgements, above.

following account to Andrew Jr., who was contemplating a work to commemorate his father's life.

I called Andy and I explained the circumstances. I said "Andy, could you help us?" He said, "I would consider it my patriotic duty to do so". Then, I said "Well, what are your terms?" He said "All I ask for are my expenses and I will find a way to get Pippa [sic] something other than a student quota visa on her passport". He went over to the State Department and obtained an opinion from one of the leading attorneys at the State Department. Armed with that opinion he came out [to Pasadena] and gathered up von Kármán and his sister and went out of the country in Tijuana, Mexico. There he confronted the American Counsel in Tijuana with the State Department opinion. Pippa's passport was stamped 'non quota' and they came back across the border.⁶⁵

Haley not only had an administrative law practice in Washington, DC, Porter and Haley, but also worked for many years with the National Catholic Welfare Conference, where he had developed a good working knowledge of immigration law. As a result of this assistance to the von Kármáns, Martin Summerfield later wrote that:

Josephine de Kármán received her immigrant visa. It is now known to all that von Kármán and his family remained in the U. S., the country of their choice, and the U. S. aerospace industry has never forgotten its debt to von Kármán. It is fair to say that the U. S. aerospace industry owes an additional vote of gratitude to Haley for his contribution in this way to U. S. air power.⁶⁶

The result of this assistance also was described later in the biography of Theodore von Kármán in these words: "I contacted my friend Andrew G. Haley, a lawyer in Washington, DC, who had endeared himself to me in early 1941 by helping my sister get a permanent visa to the United States".⁶⁷ So the ex-patriot Hungarian aerodynamicist and the Washington attorney, previously strangers to one another, first met to resolve a matter of immigration status for von Kármán's sister. Neither man could have predicted at the time the consequences of this brief association. This was not the only contact von Kármán had with Haley in 1941. In April, von Kármán wrote to Haley and requested Haley to support a friend's application to the FCC for a position as an interpreter. Haley did so, and reported the contact to von Kármán.

Pasadena, California, 1938 – 1941

The Malina Group continued its studies and worked diligently to perfect a reliable solid rocket motor. However, as von Kármán noted in his biography, at that time, "neither industry nor government had shown the slightest interest in the possible practical side of rockets". The lack of enthusiasm for rocketry in the general population was no impediment to the diligence of study, data collection, theoretical calculations, and group discussions within the Suicide Squad.

⁶⁵ See C. N. Nowicks, D. K. Allison and P. S. Buchanan (eds.), *Index of Oral Histories Relating to Naval Research and Development*, 166, David W. Taylor Naval Research and Development Center, January 1985. Relevant portions of the interview were provided to Andrew G. Haley Jr. by Adm. J. Russell (USN Ret.) with a letter dated 6 October 1970, in *AGH Letters & Materials*.

⁶⁶ AIAA, *Astronautics and Aeronautics*, Nov. 1966.

⁶⁷ T. von Kármán with L. Edson, *The Wind and Beyond*, 256, Little, Brown & Co., Boston, 1967.

Malina was the operational head of the group, but they all contributed in varying degrees to the continuing work. Forman and Parsons were anxious from the outset to start building and test firing rockets, but under von Kármán's discipline, Malina insisted that the theoretical mathematics and rationality of designs be put in place before hot fire testing would be done. Bolay, Tsien, and Summerfield were similarly dedicated to developing the theoretical bases of their work.

In August 1938, one industrialist, Ruben Fleet, President of Consolidated Aircraft Co. of San Diego, contacted GALCIT asking for information on the possibility of using rockets to assist the take-off of heavy aircraft. Following a visit with Mr. Fleet, in San Diego, Malina prepared a written report, with which von Kármán agreed, encouraging development of this type of rocket motor.⁶⁸ In May of 1938, USAAC Col. Arnold visited von Kármán's labs at Caltech and at that time informally discussed uses of rockets for aircraft take off assistance. Later in the year Arnold was advanced to the rank of Brigadier General and was reassigned to headquarters duties in the US Army Air Corps. Arnold was reportedly "fascinated" with the idea in Malina's report for Reuben Fleet. In the Fall of 1938, Brig. Gen. Arnold invited Prof. von Kármán and Malina to attend a meeting to be held in Washington, DC, to discuss Malina's concept. That meeting was of a committee, of which von Kármán was a member, under sponsorship of the National Academy of Sciences, to consider certain pending research problems faced by the US Army Air Corps. Among issues to be considered:

[Brig. Gen.] Arnold listed improvement of the visibility of the windows of bomber aircraft in icing conditions and the development of some form of assisted takeoff with rockets for large heavy bombers from small fields, such as one might expect to find on the Pacific islands.⁶⁹

The Washington committee meeting actually occurred in December 1938. The first contract with Caltech to result from that meeting was to develop a work program directed toward "development of super performance aircraft". It was a \$1,000 study contract entered into by GALCIT in January 1939 to prepare a formal proposal and work plan to develop take off assistance systems for aircraft. Work on the program plan was complete by June 1939 and a multi-year \$400,000 work program was proposed. The proposed work was acknowledged by the government as important, but Caltech's proposed cost was well beyond available governmental funds.

Technical developmental work commenced on a phased program to be funded in increments. On 1 July 1939, CalTech received a \$10,000 contract from the National Academy of Sciences to begin work on jet assisted take-off (JATO). This was the first governmental commitment of money for research and development of rocketry at Caltech. It was known as GALCIT Project No. 1. Work was continued on rocket development into 1940 and by March, the work was beginning to yield positive results. On 15 June 1940, Malina, Parsons, and Forman submitted a Final Report for 1939 – 1940, on Jet Propulsion Research, GALCIT Project No. 1. On 25 June, Maj. Benjamin Chidlaw of the Army Air Corps Materiel Command decided to assume direct sponsorship of the GALCIT Project. Contract No. W-535-ac-20260

⁶⁸ *Id.* at 243.

⁶⁹ *Ibid.*

was awarded to Caltech by the Army Air Corps to continue design and development of rockets for application to ‘super performance’ of aircraft.⁷⁰

International tension increased continually during 1940. The war in Europe escalated. German forces overran France and the Low Countries, and the Germans were bombing major cities such as Rotterdam. The US commitment to support of England increased, and in September 1940 the US Government inaugurated the draft into military service. This was the first peacetime conscription in United States history.⁷¹

Haley received a letter dated 21 March 1941, announcing his appointment to the US Army Officers’ Reserve Corps, with the explanation that “[t]his appointment is made in view of the fact that since the effective date of your present appointment you have qualified for appointment with eligibility for assignment, active duty, and promotion in peacetime”. The letter of appointment acknowledged that Haley had previously served 14 days on active duty, referencing the period 12 to 25 April 1933, when he served as a reserve officer in the Contracts Section of the JAG Department’s Military Justice Division. Haley signed the Oath of Office confirming the new appointment on 1 April 1941. On 22 May 1941, Haley was promoted to the rank of Major in the US Army Officers’ Reserve. He signed the Oath of Office confirming this promotion on 4 June 1941.

In April 1941, Malina had written to his parents in Texas that: “[t]here is a great deal of interest in rockets from all directions. Our project is making some progress. This week we are hopeful – last week we felt pretty blue. The whole outlook changes from one experiment to another”.⁷² In mid-May, he wrote: “[o]ur flight to Washington was uneventful. Martin [Summerfield] got rather air sick, but recovered quickly upon getting his feet on the ground. I stayed in Washington about 7 hours and then took the train with Dr. von Kármán for Dayton”. When time was of the essence, it was becoming increasingly the habit of the personnel travelling across the country to take advantage of the emerging commercial air services, or in some cases as passengers on Air Corps aircraft on a space-available basis. As the Second World War progressed, the airplane was replacing the train as the preferred method of national, long-distance, business travel, especially for those supporting the war effort.

Successful development requires production – 1941

After completion of a number of successful JATO flight tests in August 1941, it was becoming increasingly clear that the development and testing of the rocket capability was concluding. The small group of GALCIT rocket experimenters started considering establishing a capability for production of the JATO units. Successful tests had been conducted at March Field, near Pasadena, demonstrating convincingly that jet assisted take-offs, using small, end burning solid propellant rocket boosters attached to aircraft, would shorten runway required lengths and significantly increase aircraft payload capabilities. In von Kármán’s words, “test results at

⁷⁰ R. C. Hall, *A Selective Chronology, GALCIT-JPL Developments, 1926-1950* at p. 16, JPL, 8 September 1967.

⁷¹ *The Selective Training and Service Act of 1940*, also known as the *Burke-Wadsworth Act*, Pub. L. 76-783, 54 Stat. 885, enacted 16 September 1940.

⁷² *Malina Papers*, Jet Propulsion Laboratory, Archives, Box 21, folder 11.

March Field [in August 1940] with the Ercoupe exceeded our highest expectations. They showed that JATO could shorten takeoff distance by as much as 50 per cent”.⁷³

When Malina brought to von Kármán the idea of creating a separate company to manufacture rockets, the matter was discussed for weeks among von Kármán, Malina, and their colleagues. Von Kármán reported that an independent business seemed like a good idea, but the group debated for weeks whether to license the JATO units to established manufacturers, make the rockets themselves at Caltech, or drop the issue of production and just become consultants to others.

On 7 December 1941, the Japanese attacked the US Pacific Fleet while it was anchored in Pearl Harbor, Honolulu, Hawaii. On the next day, the United States declared war⁷⁴ on the Empire of Japan. The situation at Caltech, working on JATO development would inexorably become involved in the national war effort. With regard to the question of manufacturing JATO units, von Kármán wrote in his biography: “I went forth to talk to some experts. Jack Northrop, who himself had started an airplane factory in a garage, didn’t exactly say our idea was nonsense, but he wasn’t too encouraging. I received similar answers from Cliff Garrett, founder and President of Air Research Corporation, and from several friends at Hughes Aircraft”.⁷⁵ Von Kármán reported that the executives consulted did not see how a rocketry company could survive as an independent company with one customer – the government. These negative responses were considered but essentially ignored by the dedicated and emotionally committed Malina group.

While returning from a trip to Dayton by train in mid-February 1942, von Kármán and Malina discussed and drew up a plan to establish the required business enterprise as a partnership. Malina wrote to his parents on February 16 that “[o]n the trip Dr. Kármán and I laid out the set up for a company [partnership]. The next month will decide if we will or will not go through with it”.⁷⁶ Later in February 1942, at von Kármán’s invitation, Haley visited with Theodore von Kármán, Frank Malina, and others, in von Kármán’s Pasadena home to discuss the possible alternatives for JATO production.

⁷³ Von Kármán and Edson, *op. cit. supra*, note 67, at 250.

⁷⁴ Public Law 77-328, 55 Stat. 795. On 11 Dec. 1941, four days after the United States declared war against Japan, Nazi Germany declared war against the United States, in response to a claimed series of provocations by the United States, when the US was still officially neutral during World War II. The decision to declare war was made by Adolf Hitler, almost without consultation. Later that same day, the United States declared war on Germany.

⁷⁵ Von Kármán and Edson, *op. cit. supra*, note 67, at 256

⁷⁶ *Malina Papers*, Jet Propulsion Laboratory, Archives, Box 22, folder 1.

Chapter 9. Emergence of the Aerojet Engineering Corporation

In an interview done in 1978, Malina told his interviewer that Air Research had actually made a proposal at that time [early 1942], and “[t]hat’s when Kármán pulled in Andrew G. Haley as a legal advisor. When he [Haley] came out here [from Washington, DC, to Pasadena] he said ‘Well, I don’t think that’s a very good offer they’re giving you’”.⁷⁷ Malina reported that the offer made was basically to take on the group as consultants if they would give up all their patent rights. Haley said, “[w]hy don’t you fellows set up your own company? I’d be willing to join you. All we have to do is put up about two hundred dollars apiece; we’ll get incorporated in Delaware, and get going”.⁷⁸

Von Kármán wrote in his biography:

In January and February 1942, [Frank] Malina, [Andrew] Haley, [Martin] Summerfield, [Ed] Forman, [John] Parsons and I met in the living room of my home to lay the foundations of our rocket company. To show our seriousness of purpose we agreed to put up two hundred dollars apiece. This I might say was a considerable gamble in those days for a theoretical professor, his former graduate students, and two young rocket tinkerers – only Haley had business experience.⁷⁹

Von Kármán also reported that on 19 March 1942, the incorporation papers creating Aerojet Engineering Corporation were filed with the government [in Delaware].⁸⁰ “Each founder agreed to contribute \$200. However, none of the Malina Group had the \$200. Haley agreed to advance \$2,500 to cover all the costs of getting the company started”.⁸¹ He was eventually repaid by the others as the business developed.

Haley initially assumed the position of Aerojet Corporate Secretary, so that he could return to what was at that time his private law practice in Washington, leaving the fledgling company in the hands of President von Kármán; three Vice Presidents: Forman, Parsons, and Summerfield; and Treasurer Malina. Malina described the structure of officers of the new corporation in a letter to his parents, and identified von Kármán, Haley, and himself as the Board of Directors of Aerojet.⁸²

Corresponding with his family in Brenham, Texas, Malina described the period of 1941 and 1942 as a time of challenge nearing fruition of the work on ‘the project’ and a period in which he and Dr. von Kármán travelled frequently to the east to visit Washington, DC, and

⁷⁷ F. J. Malina interview by Mary Terrall, 14 Dec. 1978, 10, in the Archives of the California Institute of Technology.

⁷⁸ Von Kármán and Edson, *op. cit. supra*, note 67, at 251.

⁷⁹ *Id.* at 257.

⁸⁰ *Id.* at 258.

⁸¹ *Aerojet, The Creative Company*, a composite history, Chapter I, p. I-9, S. F. Cooper Company, Los Angeles, 1997.

⁸² Malina Papers, letter dated 22 March 1942, Box 22, folder 1.

Dayton, Ohio, (Wright Field) for consultations and contract negotiations with government officials. Malina never described the work to his parents, nor its purpose, maintaining a complete substantive secrecy in his correspondence with his family. His letters referred often to long nights at work and frequently commented on the physical condition of Dr. von Kármán; usually mentioning his remarkable stamina and sometimes expressing concern about von Kármán's durability and health under the demanding circumstances.

On 29 March 1942, one week after the incorporation of Aerojet, Haley sent the following unexpected letter to von Kármán:

March 29, 1942

Dear Doctor von Kármán:

I have just returned from a brief "flying" trip to Tacoma to arrange some personal affairs. While en route I received a telegram from the Army calling me to active duty on my reserve commission. The matter has been very precipitate and I have had no time to arrange the myriad things that need my attention and disposal.

It is with great regret that I must resign as secretary and director of Aerojet Engineering Corporation. My former office and secretary, however, will finish up the bookkeeping and formal details of the organization of the company and send you the books and records as the documents come in from Delaware. She will also take care of the stock stamps required by law. She will send my successor as [corporate] secretary the seal. I will complete the details on the trust certificates the stockholders have approved.

I suggest great caution in selecting a new director and secretary, because of the importance of the work we set out to do.

I hope to see you and Pipa [sic] soon. It is always a grand experience to spend an evening with you.⁸³

Respectfully,
Andrew G. Haley

The required period on Haley's active duty did not have a stated duration, but it entailed all the obligations of an army officer, including the required resignations from other organizations. As it turned out, this intervention of an active-duty period would not deter Haley from later working with the company. His activation did require him to place himself on furlough from the Washington, DC, law firm Porter and Haley, but he did not formally terminate his relationship with the firm.

Funding of \$1,000 to GALCIT for the original study contract in 1940 came from the US Army Air Corps, through the National Academy of Sciences. It was anticipated during the spring that following the program proposal submission in June, there would produce an award of a \$10,000 research/development contract which occurred on 1 July 1940. Incremental additions to funding thereafter came through contracts directly between the Air Corps and

⁸³ In *AGH, Letters and Materials*.

Aerojet. As the work continued, during the spring of 1942 the US Navy's interest in obtaining JATO units for their use also emerged.

On March 30, 1942, probably prior to receipt of the Haley resignation letter, Dr. von Kármán had sent a confidential letter to Comdr. C. M. Bolster in the Navy Department's Bureau of Aeronautics. Von Kármán wrote:

In reply address not the signer of this letter, but:
Mr. Andrew G. Haley, Sec'y
Aerojet Engineering Corp.,
Earle Building, Washington, DC

March 30, 1942

Dear Commander Bolster:

I have received the papers in connection with our proposal for the jet reaction motors sent by the Bureau of Supplies and Accounts to our Secretary, Mr. Andrew G. Haley. Due to significant improvements in the jet units made during the last month, I have suggested a number of changes to Schedule 500-4887 (Aeronautics) and sent them to the Bureau of Supplies and Accounts and asked this Bureau to await your approval of the changes.

The changes were brought about by the replacement of gasoline by aniline as a fuel. [A recitation of six reasons for the fuel replacement is included.] The letter continued:

It was decided to raise the price of Item 1 to cover extra engineering services that the schedule requires in connection with the acceptance demonstration of Item 1 at the Naval Engineering Experimental [Test] Station.

To speed delivery, von Kármán then suggested that the Navy waive the acceptance demonstration recited under Item 2 of the Navy's order. The letter continued:

It appears to us now that reliability of the unit would be sufficiently proved by the acceptance tests of Item 1 and the successful completion of the forthcoming Army flight tests. However, if you desire the demonstration test of Item 2, we will be happy to comply.

We are ready to commence manufacture immediately upon receiving a letter of intent.⁸⁴

Sincerely yours,
Th. Von Kármán, President
Aerojet Engineering Corporation.

On the same day, von Kármán sent a letter to Haley, transmitting a copy of his letter to Cmdr. Bolster and explaining to Haley the proposed changes. In the letter, von Kármán asked Haley if it would be proper to use 'Pat. Applied for' in reference to their rockets; von Kármán

⁸⁴ *Ibid.*

also asked Haley to provide a “corporate seal to affix to such papers as require it”. He made a few additional administrative requests and then advised Haley that:

The address 3330 East Colorado Street [apparently on the letterhead for the first time] refers to a very nice building we rented for a year. Monthly rent \$160; however location and space facilities are so superior to less expensive places that I decided to rent this.

Would you please take care of the Certificate at the bottom of page 9 in the schedule for bid?

With best regards,
Th. von Kármán, President
Aerojet Engineering Corporation

It is clear from this short letter that von Kármán was relying heavily on Haley for administrative assistance, especially in managing the legal affairs of the company. With Haley’s withdrawal there would be a substantial weakening of the company management. There was not sufficient talent or business experience among the Vice Presidents to provide industrial management guidance or support to von Kármán. On 30 March, Haley began attending a Military Service School in a course titled a Judge Advocate General Refresher. This course ended 14 May 1942.

In the spring of 1942 [April, May, and June], even while serving on active duty for the Army, Haley was apparently commuting to California from Washington, DC, where he still lived with his wife and children, and maintained a furloughed status in the law office known as Porter and Haley. Haley was receiving Aerojet correspondence at his law office address in the Earle Building in Washington, DC. Clearly, von Kármán was dependent upon Haley’s presence to manage Aerojet affairs. Malina, Summerfield and the others were still active, but they were largely preoccupied by the technical work for which they were responsible at Caltech, also supporting some academic courses and additional R&D contracts. On 22 April 1942, writing on GALCIT letterhead, von Kármán wrote to Haley:

Dear Andy:

I am enclosing the [stock] certificates duly signed. The reason for the delay was my absence during the last week. [...]

I received your telegram this morning, and I am glad that the contract will be awarded. We have already started with the manufacturing of the parts which need longer delivery time. The flight tests are going with excellent results and will be finished probably tomorrow.

I believe it would be advisable if you could come here about the weekend of May 9. I had the intention to go to Washington this week, however, I postponed my trip since I believe I will be able to do much more at a somewhat later date. Your coming here would have two objectives. First, we have to have a written agreement with the Institute [Caltech], and I believe you are the man to negotiate it. Second, we talked over the future program with the Army Air Corps representative who conducted the tests, and it appears that we have to make, in the near future, proposals to the Material Division for further development involving about 25 to thirty units for service tests. I should like to talk over these proposals with you, and after that, we have to go to Wright Field for negotiations.

Concerning the negotiations with the Institute, Dr. R. A. Millikan, who is the Chairman of the Executive Council, will return May 6 from the East, so that the first of the week of May 10 appears to be a good time for the negotiations. I would be very glad if you could make arrangements concerning your trip.

Yours as ever
Th. von Kármán

Among Haley's personal papers the following imprecisely dated document appears. This carbon copy is informal evidence of a meeting of the Aerojet Board of Directors in early April 1942.

MINUTES OF MEETING OF THE BOARD OF DIRECTORS

von Kármán
Marango Street, Pasadena, California, on April, 1942.

Present: Dr. Theodore von Kármán and Dr. Frank Malina, constituting a quorum of the Board.

Upon motion, duly made, seconded and carried, it was

RESOLVED: That the Board of Directors accepts with regret the resignation of Mr. Andrew G. Haley as secretary and director of the corporation.

The chairman then stated that the next business before the meeting was the selection of a director and a secretary to succeed Mr. Haley.

Mr. Theodore Coleman was nominated for director of the corporation, to hold office until his successor was elected. No other nominations having been made, the polls were duly opened, and all the directors having voted by ballot, the chairman declared the polls closed. Thereupon the directors there present examined the ballots and declared Mr. Coleman elected.

Mr. Frank J. Malina was nominated for secretary of the corporation, to hold office until his successor was elected. No other nominations having been made, the polls were duly opened, and all the directors having voted by ballot, the chairman declared the polls closed. Thereupon the directors present examined the ballots and declared Mr. Malina elected.

There being no further business before the meeting, it was adjourned pursuant to the call of the chairman.⁸⁵

On 29 April, Malina wrote in a letter to his parents that: "[t]he past month has slipped away and with it our big spring job. The results were quite satisfactory and everyone is pleased. We have been struggling for this event for six years".⁸⁶ The rocket tests were producing positive results and the seriousness of going to production was weighing on all concerned.

⁸⁵ In *AGH Letters & Materials*.

⁸⁶ *Malina Papers*, Jet Propulsion Laboratory, Archives, Box 22, folder 1, dated 29 April 1942.

Chapter 9. Emergence of the Aerojet Engineering Corporation

Discovery of dysfunctional management, 1942

Within a few months following Aerojet's incorporation [May 1942], the Army Air Corps contracting office notified von Kármán that the Army decided not to renew its research contract in progress at Aerojet. A precise account of the reason for the termination of the Army's contract relationship with the Aerojet Engineering Corporation is not recorded in Haley's files. An historical anecdote was later told to the author in the early 1980s by a senior, long-time Aerojet official.⁸⁷ Apparently, in the spring of 1942, the Army sent auditors to Pasadena to review the books on the Army's study contract being performed by Aerojet Engineering under von Kármán's leadership. When the auditors asked von Kármán to show them the company books for an audit, he offered them his personal check book. Then von Kármán explained that when money was received from the government, he deposited it to his checking account. That was the money he used to purchase materials and to pay employees, with his personal checks.⁸⁸ The auditors promptly left. When they returned to their offices with this intelligence, noting the non-existence of any company books or other records, the contracting office issued its notice in May of 1942 that the study contract in place, scheduled to end in June, would not be renewed.

Von Kármán reports in his biography that when he received this notice of contract termination, he and Malina immediately travelled by train to visit Colonel Frank Carroll, in charge of Air Corps research and development at Wright Field in Dayton, Ohio. Colonel Carroll told them that the decision was made in Washington, and hinted that they might find an answer to the question of why the contract would not be renewed at Air Corps headquarters. In a subsequent meeting with Colonel Ben Chidlaw, in the Pentagon, when asked why Aerojet's contract was being stopped, von Kármán reports that "Chidlaw sighed. 'We like you very much Doctor, but only in cap and gown to advise us what to do in science. The derby hat of the businessman doesn't fit you'".⁸⁹ According to von Kármán, Chidlaw recommended that von Kármán find someone who knew something about doing business with Washington and send him to represent Aerojet. Clearly, the auditors' recent account of Aerojet's dysfunctional management took its toll.

⁸⁷ During a conversation between William Back, an Aerojet-General Vice President, and S. E. Doyle in the fall of 1981.

⁸⁸ Initially, von Kármán weekly would set up a card table in the work area and employees would line up to be paid. Each employee would tell von Kármán what his agreed wage was and the number of hours he had worked for the week. Von Kármán would mentally calculate the wage, write his check and pay the employee. No taxes were withheld, and no other records of the transaction were kept.

⁸⁹ Von Karman and Edson, *op. cit. supra*, note 67 at 259.

Von Kármán immediately called his friend, now the Army Air Corps' commanding officer, Brigadier General Henry (Hap) Arnold, to ask the General to assist him by providing competent management skills to help run Aerojet. During that call von Kármán suggested Andrew Haley, who was at that time a recently activated major on duty as Chief of the Military Affairs Division of the Office of the Air Judge Advocate, US Army Air Corps, in the Pentagon. General Arnold subsequently called Haley to his office and informed him that von Kármán had requested that Haley be sent to Pasadena to help manage the Aerojet Corporation.

Many years later, Haley described the ensuing exchange to biographer Shirley Thomas. "I assured General Arnold that I was quite happy with my Air Corps duties and was then planning to join the staff of a new command overseas. 'Maybe you really have in mind a nice post in Greenland or Iceland', he commented with a twinkle in his eye. The hint was too broad to be ignored, so I promptly accepted his opinion that my place was with Aerojet."⁹⁰ Before nightfall that same day, Haley was excused from full-time duty in the Air Judge Advocate's Office to permit him to visit California and develop a plan to assume the position of President and General Manager of Aerojet Engineering Corporation.⁹¹ Haley proceeded immediately to visit Pasadena, to assess the situation, and to lay plans for his family to join him in California.

From 4 June to 26 August 1942, Haley nominally served at the Pentagon as Chief of the Military Affairs Division of the Judge Advocate General's Division of the US Army Air Corps, although he was in that same period regularly visiting Pasadena, California, at the direction of Brig. Gen. Arnold, preparing to assume control of the Aerojet Engineering Corporation. During this time, Haley also maintained a furlough status in his private law practice at Porter and Haley.

On 27 and 28 June 1942, as directed by Brig. Gen. Arnold, to make the record show why Haley was being released from active duty, von Kármán wrote two letters addressed to the Commanding General, Materiel Center, Army Air Force, Wright Field, Dayton, Ohio, but marked for attention of Colonel F. G. Carroll. The letters explained the background and reasons for a request to release Major Haley, for assumption of the role of managing the Aerojet Engineering Corporation. Colonel Carroll, Chief of the Experimental Engineering Section at Wright Field, forwarded these letters to the Commanding General in the Pentagon on July 16, with his favorable endorsement. On July 20, the Commanding General concurred in Colonel Carroll's recommendation and requested that his office be advised of final action taken.

In a memorandum for record, dated July 22, Major Haley agreed to and concurred in the release from active duty, and set forth the duties he expected to carry out upon assuming full control of Aerojet. Haley wrote:

My duties with Aerojet would include coordinating the work of the production, engineering and developmental staff; expediting the procurement of materiel; arranging for the expansion of the assembly-line facilities to meet requirements; making adequate arrangement with subcontractors; obtaining qualified additional personnel not now engaged in vital war work; maintaining liaison with the Army, Navy and aircraft manufacturing companies and coordinating on ordnance; maintaining the operation of the company within the framework of state and Federal laws;

⁹⁰ S. Thomas, *Men of Space*, vol. 7, Chilton Books, NY, 1965, p. 140.

⁹¹ Von Kármán and Edson, *op. cit. supra*, note 67, at 259.

processing contracts and arranging for production within the requirements of the contracts; maintaining general administrative control; making necessary financial arrangements; arranging for personnel to succeed me upon return to active duty.⁹²

From a starting point with a handful of part-time academic help, Haley was committed to transform Aerojet from an idea on paper to an operational production firm, producing highly sophisticated and explosive rocket devices at the earliest possible date. He started hiring essential staff personnel when the new contract was assured in June, and he would continue to expand the staff and management structure in a remarkably short time. Haley had a good grasp on what needed to be done. Now it was up to him to do it.

Haley's two children were aged 6 and 4; Delphine would have to be enrolled in school; and his household and wife would have to be moved. He went ahead alone to California to begin to get matters in order. The family relocation would take place following the end of the school year and when a suitable home was identified. Haley was continued on active duty for a few months, as he commuted between Washington, DC, and Pasadena, California, and the formal paperwork for his release was completed. He formally took his position as President and General Manager of the Aerojet Engineering Corporation on 1 September 1942.⁹³

Coping with War Powers Acts

Shortly after Haley assumed the presidency of Aerojet, the US Congress, on 2 October 1942, adopted *The Stabilization Act of 1942*,⁹⁴ which was an act to amend the *Emergency Price Control Act of 1942*, to aid in preventing inflation, and for other purposes. The act authorized and directed the US President to issue an order stabilizing prices, wages and salaries to the levels that they had as of 15 September 1942. Haley was just in the process of creating a working staff within the Aerojet Corporation, and he was hiring professionals who were not on the staff on 15 September 1942, so he had some clarification and negotiation to go through with the National War Labor Board. One of the key hires Haley made on 18 November 1942 was the appointment as Aerojet's Business Manager of William (Bill) Zisch, former secretary to Millikan and von Kármán. After several exchanges of telegrams and letters, and a visit to government offices in Washington, DC, by Haley, a satisfactory conclusion was reached on the issues of salaries for the new managers at Aerojet.

Fearing that Malina might be activated with the US Army Engineering Reserve, to which he belonged, Dr. von Kármán facilitated submission of an application for Malina's deferment from the draft in January 1942. The application explained that "Dr. Malina is in charge of an Army Air Corps project conducting confidential research of primary importance for improving the performance of combat airplanes". It also stated that the importance of the project was indicated by a recent request of the Air Corps to speed up the research as much as possible. As a result, the Secretary of War promptly authorized a reclassification of Malina to

⁹² In *AGH, Letters & Materials*, 22 July 1942.

⁹³ *Ibid.*

⁹⁴ Public Law 77-729.

a special reserve status in which he could only be called to active duty by order of the Secretary of War.

On 25 February 1942, a month before the company was established and three months before Haley was engaged to manage Aerojet, a Work Order appears to have been issued in support of a proposal being submitted to the US Navy to develop JATO units for Navy use. The Work Order contained the following Special Instructions:

The attached proposal for a contract between the Bureau of Aeronautics, Navy Department, and the Aerojet Engineering Corporation, is entirely prototype in nature, and only the main problems may be anticipated. The attached proposal outlines the subject matter.

The Engineering Department is instructed to perform all the engineering and design necessary. The Production Department will build the units, in collaboration with the Engineering Department. Both Departments are yet to be organized, but these instructions will govern.

As all elements of this proposal are experimental and indeterminate, specific instructions may not be issued. In general, work will be done as fast as possible. This means that Engineering will commence immediately, and Production will be set up after approval of the Navy contract. All departments will be instructed to follow the exact contract when issued.

The Accounting Department [which also did not exist at this point] will capitalize all expenses attributable to the work done pursuant to this work order.⁹⁵

This Work Order was later stamped with the company name and the proposal enclosed explicitly refers to the Aerojet Engineering Corporation. Such documents were part of the missing documentary history of the pre-company activities, which Haley was obliged to create so that a logical progression in work development could be documented for historical and accounting purposes. Although they predate formation of the corporation, such retroactive documents were created to provide previously unwritten records of the company founders' first several months of relevant work.

Another stark example is seen in the following 'Reference Sheet' prepared in connection with US Navy contract No. 4741. It records an agreement between the Navy Department, Bureau of Supplies and Accounts, and Aerojet Engineering Corporation, Contractor, executed May 11, 1942 and delivered October 1, 1942. The \$20,000 contract is to produce two Motors, Jet Reaction (one 500 pound thrust and one 1,000 pound thrust) using red fuming nitric acid and aniline propellants. The title page of the document bears this note:

Inasmuch as the items under this contract have already been completed and delivered, the contract has not been reproduced for distribution purposes. The original contract is on file in the safe, and upon request from authorized persons, can be made available for reference.

The planned but not completed distribution included copies for Drs. von Kármán, Malina, Summerfield, Millikan; Messrs. Haley, Parsons, Forman, [E. G.] Henry, Beehan, Zisch, [W. Harry] Johnston, [James G.] McCain, Cross, and Lawler; and to company departments of

⁹⁵ In AGH, *Papers & Materials*, 25 Feb. 1942.

Engineering (5), Production (5), Accounting, and Mail and Files. In this way, a semblance of early company records was built up after the facts. They showed the proper sequence and substance of the early unrecorded activities carried out by von Kármán, Malina, *et alia*, while the nascent company was forming.

There are numerous descriptions of Haley's impacts on the organization, staffing, and performance of Aerojet.⁹⁶ Under von Kármán's and Frank Malina's leaderships, the technical work proceeded well at Aerojet, but the business management, personnel, and financial record keeping had been given no attention. Malina and von Kármán also had the distraction of managing research and development work being done under other contracts to Caltech. In addition, von Kármán and Malina also had graduate students to monitor and mentor; and Malina was occasionally preoccupied with responsibilities he held as a consultant to the US Conservation Corps on wind erosion.

The promise of Haley's installation as President provided the confidence required by the Army & Navy contracting offices to allow Aerojet to continue its critical JATO work under a new production contract, issued in June 1942. For Haley, the early summer of 1942 was spent assessing the problems, getting organized, seeking office space, setting up a new company book of accounts, constructing from records available an historical record of finances, identifying and hiring required additional personnel, and planning the relocation of his personal family and household. Haley was announced as President and General Manager of Aerojet Engineering on 26 August 1942,⁹⁷ but his US Army termination was not effective until 31 August 1942. Therefore, Haley formally became President and General Manager of Aerojet on 1 September, serving continually as President until August 1945.

In the summer of 1942, Haley had rented a home on South Hill Street, not far from the Aerojet facility on East Colorado Blvd., Pasadena. Remaining on active-duty status while organizing Aerojet probably facilitated obtaining military orders for the movement of his family and household from Washington, DC, to Pasadena, during the summer of 1942. In the fall, daughter Delphine was admitted to the second grade at a Catholic school, St. Phillip's, in Pasadena. She had completed the first grade at Our Lady of Lourdes School in Bethesda, Maryland, in the 1941 – 42 school year. Andrew, Jr. was still a year too young to start school. He did enter first grade at St. Phillip's in September 1943.

Aunt Dede was in the habit of walking her daughter, Delphine, to school each day and going to the school to escort her home each afternoon. While engaged in these walks and visits to the school, Mrs. Haley struck up a relationship with a neighbor who was similarly escorting her child to school. Mrs. Haley and Mrs. Donahue became good friends over time and their relationship complimented a gradually increasing working relationship between Andrew Haley and William Donahue, a local attorney in Pasadena. Over several years, the families became well acquainted with each other, and children of the families often played together while their parents visited at each other's homes.⁹⁸

⁹⁶ As Examples, see Thomas, *Men of Space*, *op. cit. supra* note 90, at 140-142; Von Kármán and Edson, *the Wind and Beyond*, 256-260, *op. cit. supra*, note 67; and A. G. Haley, *Rocketry and Space Exploration*, 157-158, D. van Nostrand Co., Princeton, 1958.

⁹⁷ Von Kármán and Edson, *The Wind and Beyond*, 259, *op. cit. supra*, note 67.

⁹⁸ Information in this paragraph was drawn from an interview on 12 March 2016 by the author with Bebe Donahue McDermott, a surviving daughter of William Donahue.

While managing Aerojet, Haley worked very closely with Theodore von Kármán and Frank Malina and the other GALCIT personnel from the old ‘Suicide Squad’; but GALCIT continued its parallel research and development work, while Haley and his newly formed cadre of industrial managers and growing engineering staff took over the production work to produce JATO motors for the Army and the Navy.

William L. Gore, who later served as Aerojet’s Vice President, Government, and Industry Liaison, wrote in a personal memoir about Haley an operational assessment and a personal appreciation of the man. This is one of several such memoirs provided to Haley’s son included here as a typical sample of the memories and attitudes that Haley generated while working at Aerojet. Bill Gore wrote:

My first recollected contact in writing with Andy Haley was in the early months of 1942. This was a meeting at Theodore von Kármán’s house, attended by Doctors Clark Millikan, Fritz Zwicky, Martin Summerfield, Frank Malina, Jack Parsons and Mr. Haley.

At this period, I was assigned as a Test Pilot at the Naval Engineering Experimental Test Station, Annapolis, Maryland. Our subject task was to test both liquid and solid propellant (JATO) Jet Assisted Take-off devices for the Ships Installation Division of the Bureau of Aeronautics, USN. Our installations and flights test of these various types of JATOs, furnished by government and private sources required the use of the Air Station at Annapolis for Flying Boats and Amphibians and at the Naval Air Station, Patuxent River, Maryland for the land planes and flying boats.

One of our first commercial companies to produce a successful JATO was Aerojet Engineering Company of Pasadena, California. Its President was Andrew G. Haley. My first official meeting with Mr. Haley was in the Pasadena offices of [Aerojet] in November 1942 and the purpose of this meeting was to outline in detail the contemplated test program for the SAS-200 JATO to be first tested on a Grumman F4F-3 (Bu No. 12249) Wildcat fighter.

This meeting was of extreme importance to me – first off it was the initial contact with a person whom I grew to know, admire and respect like a second father, and secondly, it was the first contact with the head of an industrial organization [...] whom the Armed Services were to greatly depend on [for] the development and producing of vital products needed in the war.

Mr. Haley started off the meeting by putting everyone at ease and telling us how proud he was to be a part of the team to implement the GALCIT JATO work into a useful development for helping our country win the war. His attitude conveyed to all was one of praise to the Navy and the Armed Services and to his employees. He did at this first meeting set the stage for a friendly and productive format of the many critical meetings which took place in the future. His attitude, untiring energy, genuine friendship and constant loyalty were to be his most remembered qualities, which he practiced all the time I knew him.

On March 4, 1943 we were to demonstrate at Naval Air Station [NAS] - Patuxent, the application of five SAS-200 JATOs to the Assistant Secretary of the Navy, Mr. Brown, the Chief of Naval Operations for Air, Admiral John McCain and Captain C. M. Bolster, head of the Ships Installations Branch of the Bureau of Aeronautics.

The aircraft chosen was a Grumman F4F-3 Wildcat fighter. The aircraft was towed from an unheated hangar to the flight line where, at the proper time, the warm JATO, which had been

stored in a heated truck overnight, would be installed. Lo and behold – the airplane would not start. This particular airplane was equipped with a shotgun starter which simply fired a cartridge and the ensuing gases were supposed to push a piston and start the engine. It was so cold that each cartridge fired rotated the propeller only about four inches. After firing all the cartridges that could be found at NAS Patuxent, we requested NAS Philadelphia to fly down more cartridges.

In the middle of this situation, wherein the subject test was the most important happening in our world, Andy Haley kept giving us hot coffee and encouragement and said repeatedly everything would turn out O.K.

After new cartridges were supplied from Philadelphia we again went to work in earnest and with determination to start the bloody engine. Twenty minutes prior to the Secretary's arrival and with four starter cartridges remaining, the engine started. The ensuing tests for Secretary Brown were most successful – in fact so successful that we received approval to proceed with the entire JATO program.

From that day forward any successful test we had was known as a “Haley”.

Throughout the war as Aerojet Engineering Corporation developed and produced the liquid droppable, the 5-8-10-12AS – 1000 solid JATO units, my personal and official path would cross with Andy Haley many times. Each time was a new experience and almost in every case my life or my official endeavors were enhanced by our meetings.⁹⁹

Contracts to Aerojet were realized and they quickly multiplied, including work on basic research required, on prototype development, and for production work. The company was required to expand its scope very early to enter design and development work as well as some basic research on materiel and propellants. Haley was required to manage diligently the challenges of building and maintaining company records, expanding, moving to more capacious facilities to accommodate a constantly expanding work force, obtaining required new test facilities, all of which were essential to meet the expanding work requirements stimulated by the Second World War and the increasing demand for JATO units to support Army and Navy aviation operations.

Meanwhile, independent of Aerojet, Caltech continued work on new non-profit development and production of rocket propelled weapons for the military services. In his biography, Robert A. Millikan, the Chairman of the Executive Committee which managed Caltech throughout the Second World War, summarized the productivity of Aerojet and Caltech in monetary terms.

The total value of government contracts entered into by Caltech [C.I.T.] for supplying the armed forces with C.I.T. rockets [*i.e.*, rocket propelled weapons] was \$88,000,000. In addition, Aerojet's sales to the government of C.I.T.-developed assisted take-off motors was \$12,400,000, so that C.I.T.'s contribution to World War II in the field of jet propulsion was, as measured in the dollar

⁹⁹ From a memoir sent by letter to A. G. Haley, Jr., dated 5 March 1971, in *AGH, Letters & Materials*.

war contracts, of which M.I.T. had the main ones relating to radar and C.I.T. the main ones related to rockets, were all [except Aerojet] carried through at actual cost with no profits to anyone.¹⁰⁰

A somewhat glamorized and exaggerated biography of John W. Parsons by George Pendle was published in 2006 under the title *Strange Angel: the Otherworldly Life of Rocket Scientist John Whiteside Parsons*. In that work, Pendle somewhat exaggerates the role of Parsons in the creation of the Aerojet Engineering Corporation. Parsons had a contributing role there, but it was not to the exclusion of others whose roles were ignored by Pendle for the dramatic sake of his story. Parsons was a largely self-educated chemist, specializing in explosives and solid propellants. He was not a ‘rocket scientist’. The Pendle work is well researched and generally well documented. One topic of recurring focus in the Parsons’ story is the presence of Andrew Haley in Parsons’ life.

Although writing 40 years after Haley’s death, Pendle spoke with Haley family members and others who knew him to assemble a brief personality assessment, which is accurate, based on the opinions of others. Pendle wrote that:

Haley was a Falstaffian figure, a rotund businessman known for his ability to get what he wanted, maintaining all the while a mischievous Irish sense of humor. [...] Haley seemed the ideal man to help the rocketeers in their cause. As well as knowing how Washington worked [...] he was also a man touched by romantic enthusiasms. A lover of poetry, songs, and bonhomie, he was more than willing to believe in the dream of rockets.¹⁰¹

Curiously, despite extensive research on the topic of the creation of the Aerojet Engineering Corporation, Pendle nowhere mentions that Haley provided all the initial capital with which the corporation was founded (providing loans of \$200 apiece to each of the other co-founders), and that Haley organized and supervised the filing of the incorporation documents.¹⁰² Parsons was named a Vice President of the new corporation, and his role was principally to manage development of propellants. He did this work effectively.

A significant fact recognized by Pendle was that the relationship between Aerojet and GALCIT was from the beginning “rather incestuous”. GALCIT was staffed and supported by Caltech faculty and graduate students, but Aerojet was left to fill its staffing needs from an outside work force that was still not very interested in or excited by rocketry. Most serious, experienced engineers considered the dabbling in rocketry a waste of time. Robert Millikan, the Chairman of the Executive Council of CalTech had an early negative attitude toward rocketry and in 1941 had counseled Malina to get out of it and get a job in the aviation industry.

The lack of support for rocketry presented the problem which Haley had to solve – how to staff a commercial organization with qualified workers to produce reliable and safe rockets. This was a major aspect of Haley’s initial challenge when he took over as President of Aerojet. He met this challenge with unrelenting purpose undertaking the education and

⁹⁸ *The Autobiography of Robert A. Millikan*, at 249, Arno Press, New York, 1980. Millikan’s reference to MIT is to the teaching laboratory established in the 1930 by Charles Stark Draper to teach guidance, navigation, and control of mobile bodies. In 1970 the MIT laboratory was renamed for its founder the ‘Draper Lab’.

¹⁰¹ G. Pendle, *Strange Angel: the Otherworldly Life of Rocket Scientist John Whiteside Parsons* 193, Harcourt, New York, 2005.

¹⁰² Von Kármán and Edson, *The Wind and Beyond*, *op. cit. supra*, note 67 at 258.

emotional excitement of every candidate he managed to bring into the workforce of Aerojet. David A. Young was the first full-time engineering employee hired by Haley in June. During 1942 and into 1943, von Kármán, Summerfield, and Malina were working both in Aerojet and at GALCIT. Forman and Parsons became Aerojet employees in June 1942 to establish eligibility for salaries. Most of the other members of the original Malina group dissipated with time, many moving from Caltech to other emerging or established companies.

“Haley seemed the ideal man to help the rocketeers in their cause”, wrote Pendle. We should contemplate this statement for several reasons. Haley was not a rocket engineer. His exposure to technical engineering up to this point in his life was to the technical aspects of electrical engineering involved in radio and telecommunications. Despite von Kármán’s opinion to the contrary, Haley was not an experienced businessman. He had never owned a business (other than a small law firm), or had a major management position in a manufacturing business, beyond managing the circulation department of the *Tacoma News Tribune* as a teenager in the early 1920s. He had no previous experience soliciting and hiring staff and managers for an industrial production facility, and initially he knew very little about the whole business of rocketry and its problems of design, development, production, and testing. What made him the ‘ideal man’ for his management task was his self-confidence, his competence to perceive, organize, and deal with complex issues, his manly charm and boisterous good humor, and his perseverance. Having taken on the task to manage Aerojet, as requested by Brig. Gen. Arnold, he was unlikely to permit it to defeat him or cause him any embarrassment. Pendle was correct – considering his competence, dedication, and level of commitment, Haley certainly was “the ideal man” for the job.

Haley later wrote of this early period at Aerojet Engineering that it was soon apparent that, to get the job done which the Armed Services envisioned for the company, new and better testing grounds would be required. A site was selected at Azusa, California, and Haley was able to obtain Defense Plant Corporation financing for early projects. However, the dollar volume of the contracts for liquid and solid propellant JATO units and for other developments, including some basic research, mounted so fast that it was increasingly difficult for the financial authorities in the Army and Navy Departments continuously to provide what amounted to almost 100% financing of the operations of the company.¹⁰³

The Haley children were in school during weekdays but at home on weekends and during holidays. Aunt Dede was now the president’s wife, another new role for her with the attendant social responsibilities to accompany her husband to appropriate social events, organize, and serve as hostess for social events at her home or sponsored by her husband, re-establish her household in new surroundings, and do this all without complaint or failure. Before long, Haley was convinced that Aunt Dede deserved more assistance and support than he was in a position to provide, so he employed a married couple who agreed to assist his wife in the cooking, cleaning and maintenance of the household, and from time to time, temporary oversight of the children when the parents were otherwise involved.

¹⁰³ See A. G. Haley, *Rocketry and Space Exploration*, 157, Van Nostrand, New York, 1958.

Managing Aerojet Engineering Corporation, 1942 – 1944

At the beginning of June 1942, Malina wrote to his folks that he had a secretary and the company was growing. He wrote: “I hope that the organization is soon built up to relieve me of responsibilities. Right now I am Treasurer and Secretary, since our Secretary [Haley] is now an Army officer. No dividends so far”. By 20 June, he notified his parents that he was appointed Chief Engineer in the company and was appointed an Assistant Professor at Caltech. Although Malina attempted to resign from his consulting position with the US Conservation Corps, he was appointed to membership on a committee to study soil erosion and he remained with the Corps to do that work.

The Army of the United States issued a Certificate of Service on 31 August, declaring Andrew G. Haley had served on active duty from 28 March to 31 August 1942, indicating that his military service had been with the Judge Advocate General’s Department, Washington, DC. Throughout that period Haley had maintained an inactive [furlough] status in the law firm Porter and Haley in Washington, DC. After 1 September 1942, Haley, no longer on active duty, could reactivate his status as a member of the law firm in Washington, and when in Washington, his business address was at the law firm’s offices in the Earle Building.

The day before Christmas, 1942, Haley wrote a letter of appreciation to Lieutenant Colonel A. W. Rigsby on the staff of the Judge Advocate General, Brig. Gen. Myron C. Cramer, indicating that he was established in his position and making progress in his assignment at Aerojet. The letter also promised a briefing for General Cramer in January. It was apparently Haley’s goal to establish a personal relationship with General Cramer as a basis for contact and possible collaboration in the future. The letter also noted for the record that “my permanent residence has been changed from 7207 Bradley Boulevard, Bethesda, Maryland, to 295 South Hill Street, Pasadena, California”.

In March 1943, Dr. von Kármán wrote a letter to Haley at the Earle Building address of the law firm in Washington, DC, asking for Haley’s assistance to obtain permits for von Kármán and his sister Josephine to travel to Mexico City for a vacation and to re-enter the United States. Mindful of the problem his sister had faced in 1941, von Kármán wanted documentary assurance that they would have no trouble reentering the United States. Working with the State Department, Haley arranged for the necessary documentation. In mid-1943, Theodore and Pipö von Kármán enjoyed a vacation trip to Mexico City, where Dr. von Kármán was able to relax and recharge his energy, as his doctor had ordered.

In May 1943, the Navy’s Bureau of Aeronautics issued a contract to Aerojet for a variety of JATO units, spares, servicing equipment, and training courses amounting to \$2,192,412. With the contract was an authorized advance of \$1,750,000 or 80% of the total contract price. Because the company was still expanding, the staff had to be hired and trained to work on major new contracts, and in some cases new physical facilities had to be purchased or leased to accommodate the new work required by the contract. On 19 June, a Navy contract for a few thousand JATO units in the amount of \$649,962 provided for an advance of \$400,000 with additional advances upon request. On 30 November 1943, the Navy issued to Aerojet a contract for 500 JATO units and miscellaneous support, in the amount of \$327,444 with an advance of \$225,000 with additional advances available upon approval. With less than

\$100,000 in capitalization, Aerojet could not accept a large contract without such a substantial advance to cover the enabling costs of work to be done. This became a pattern of Aerojet contracting with the Army and the Navy producing what would, in time, become a major problem for Haley.

On 2 September 1943, Haley (as President) and Malina (as Secretary), assisted by the Pasadena law firm of Riccardi, Webster and Donahue, filed a Certificate of Amendment to the Certificate of Incorporation of the Aerojet Engineering Corporation to modify the terms of Article 4, authorizing the Corporation to issue up to two thousand (2,000) shares of common stock. Records exist showing the filing of this certificate with the Secretary of State of California, and in Delaware. Apparently records of this transaction were not well organized and the effort would be repeated by General Tire personnel more than a year later.

After Aerojet's creation in 1942, Malina, Summerfield, and others at CalTech were contributing to work by Aerojet and to separate technical studies being done at CalTech. A prime example of this dual employment was clear in the origins and conduct of CalTech's Project ORDCIT. On 28 March 1944, von Kármán, Malina, Summerfield, and Hsuh Shen Tsien completed a Comparative Study of Jet Propulsion Systems [Rockets] Applied to Missiles and Transonic Aircraft. This document was forwarded to the US Army and to the Army Air Corps as Memorandum JPL-2. As a consequence of this study, on 22 June 1944, US Army Ordnance awarded CalTech Contract W-04-200-ORD-455 to develop long range missiles and suitable launching equipment.¹⁰⁴ This work, independent of Aerojet, was managed by Malina and eventually produced the Private 'A' and the Corporal missiles.

In early 1944, defense contracting officials told Haley they could not continue indefinitely granting to Aerojet programs involving millions of dollars when the company did not have a basic 10% of its own capital with which to perform the contracts. As President of the company, Haley was anxious to locate an investor(s) who would sustain the Aerojet achievements, rather than having the company fold and go out of business when the war ended. As a further complication in his life, because of the classified confidential and secret nature of most Aerojet contracts, Haley was not at liberty to discuss very much detail of the company's business matters with potential investors to gain their confidence for investment. He was limited to discussions with approved companies, already government contractors with security clearances, and he had to have permission to discuss investment each time.

¹⁰⁴ R. C. Hall, *A Selected Chronology*, *op. cit. supra* note 70 at p. 25.

Chapter 10. General Tire & Rubber Co. and Aerojet Engineering Corp.

Seeking help in New York City, 1944

During the spring of 1944, Haley was in New York City looking for potential investors, when he met on the street his former colleague at the FCC, attorney W. Theodore Pierson.¹⁰⁵ Reportedly they went into the King Cole Room in the Regis Hotel where they reminisced about the time intervening since they left the FCC. In the discussion, Haley described his role at Aerojet and the need now to find an equity investor to reduce his company's capital dependence on the government. Haley showed Pierson a list of ten companies he was canvassing to invest in Aerojet as potential sources of equity. On the list was the General Tire & Rubber Co. of Akron, Ohio.

Pierson was serving as the Washington attorney dealing with broadcasting interests owned by General Tire. He told Haley he was planning to have dinner that evening with the co-founder and president of General Tire, William F. O'Neil. Pierson arranged for Haley to join him at dinner with O'Neil and the two men, Haley and O'Neil, spent most of the evening discussing the Aerojet situation. O'Neil agreed to consider investment. He subsequently directed Dan Kimball, a trusted General Tire Vice President and Washington Representative, to research the matter. Upon assurance from Kimball that the Aerojet Engineering Corporation was as described by Haley, and likely to receive more contracts, O'Neil agreed to a purchase of Aerojet stock. The Government's capital equity requirement for Aerojet might thus be satisfied.¹⁰⁶

The major problem remaining was how Aerojet could obtain the resources of General Tire while allowing the founders to maintain control of the corporation. Experienced entrepreneurs know that venture capitalists, which General Tire was being invited to be, will rarely, if ever, venture a substantial capital investment without taking control of the venture. It is not the habit of 'venture' capitalists to venture much capital. They want assured control and return on their investment, usually within three years. To obtain investment, entrepreneurs, very often at the mercy of the investors, are required to surrender control of their institution. As it turned out, it was so in this case.

The Aerojet stock purchase by General Tire would require several months to organize and implement, and some administrative action was desired prior to General Tire's making the purchase. As part of the arrangements agreed, Dan Kimball would be appointed a Vice President of Aerojet. In June 1944, Kimball became a Vice President of Aerojet and named

¹⁰⁵ Aerojet History Group, *Aerojet the Creative Company*, Ch. 1 at 24, Los Angeles, 1995.

¹⁰⁶ *Id.* at 24 to 25. The following series of events is drawn primarily from this source.

Arthur Rude as Controller. Rude was later elected Executive Vice President and also joined von Kármán, Haley, and Malina as a member of the Board of Directors.¹⁰⁷

Rude had been the owner of the Los Angeles General Tire Dealership, the largest such dealership west of Chicago. On the advice of Rude, the GALCIT-preoccupied Frank Malina was replaced in May 1944 as Secretary and Treasurer of Aerojet Engineering by appointment of T. Edward Beehan. In due course, Haley would resign as President and Kimball would succeed to the Presidency. At that point, Rude would remain Executive Vice President, putting Kimball and Rude completely in charge of Aerojet after Haley left in August 1945. But there were some significant dealings and issues to resolve between June 1944 and August 1945.

Theodore von Kármán diagnosed with cancer, June 1944

In the early summer of 1944, in the middle of the initial intercompany negotiations, Theodore von Kármán still serving as Chairman, Board of Directors, Aerojet Engineering, was diagnosed with intestinal cancer and was relocated promptly to New York City to be conveniently located for the medical treatments (surgery) he was to receive. An initial surgery resulted in development of two hernias, so von Kármán remained in New York well into the late summer.

Initially, as desired in Akron, the implementation of the General Tire stock purchase would require a separation of the manufacturing and research elements of Aerojet into two separate corporations, to facilitate the assumption by General Tire and Rubber of the manufacturing element, while the research capabilities of the Aerojet Corporation would go on in a separate corporation under the management of its founders. This course was not followed explicitly, but was accomplished in effect by developing separate divisions within Aerojet for manufacturing and for research and development. Unfortunately for the founders, this meant that when General Tire took control of the Aerojet Board of Directors, it controlled both divisions.

On 5 July 1944, Haley forwarded a detailed letter on Aerojet letterhead to the management of The General Tire and Rubber Company in Akron, Ohio, laying out what he believed were the agreed relationships between Aerojet and General Tire as of that time. It was agreed by mid-1944 that the procurement of metal parts for Aerojet contracts with the government would be the responsibility of General Tire, and from that time forward, profit on the jointly worked contracts would be split 50/50 between Aerojet and General Tire. Haley noted that he was writing to confirm the earlier understanding concerning services to be furnished by General Tire in connection with the procurement of metal components required in the production by Aerojet of certain jet assisted take-off units for the Bureau of Aeronautics, Navy Department.

Also on 5 July 1944, Aerojet Engineering Corporation entered into a prime contract with the Bureau of Aeronautics, Navy Department, designated as NOa (s)-4178. Item 1 of this contract called for the delivery of 5,000 8AS-1000 solid JATO units; and item 2 called for the delivery of 13,000 12AS-1000 solid JATO units. This was the first extensive production

¹⁰⁷ See the letter of 22 June 1944 from Dan Kimball to A. H. Rude in Los Angeles, in the Von Kármán Papers, Caltech Archives, Box 56, folder 7.

contract received by Aerojet. It was made possible by the assurance that General Tire and Rubber would finance the costs of the contract, eliminating the need for substantial advances by the Government.

Substantially, all of the contracts heretofore entered into by Aerojet with the Army and the Navy had been financed with substantial advance payments from the Government. Haley indicated that the Board of Directors of Aerojet had adopted the view that it would be of great benefit to the Corporation to proceed with business on the basis of private financing. Officers of General Tire had declared their willingness to finance the contract. Haley considered this action to be highly beneficial to Aerojet, while relieving the Government of a financial and administrative burden, which relief, Haley knew, the Government not only wanted, but required.

Haley also considered it desirable for Aerojet to make use of General Tire managerial and production experience, and officers of General Tire agreed to make available certain of their managerial personnel, and the facilities of General Tire for the procuring of metal components needed to perform contract NOa (s) – 4178. The final evolution of a sound and permanent working basis, Haley wrote, would require a certain amount of time and study, but it appeared that the Bureau of Aeronautics desired the immediate production of the units called for under item 2 of contract NOa (s) – 4178, namely, to manufacture, assemble, charge, and prepare for shipment 13,000 12AS-1000 solid propellant jet assisted take-off units. Therefore, Haley urged, an immediate, temporary working arrangement must be agreed.

In consideration of General Tire's action in financing the performance of item 2 of the contract NOa (s) – 4178, and in further consideration of furnishing Aerojet with certain managerial personnel, and considering General Tire's action in making the facilities of its organization in procuring the metal components needed in performance of item 2 of the contract NOa (s) – 4178, Haley wrote that it was mutually understood and agreed that General Tire would be paid by Aerojet the sum of sixty thousand (\$60,000) dollars, said fee to be payable in eight equal consecutive installments of seven thousand five hundred (\$7,500) dollars each on the first day of the month, commencing 1 August 1944.

Haley concluded his letter by noting that it was also mutually understood and agreed that, at a later date, Aerojet would subcontract to General Tire & Rubber Co. the procurement and delivery of the metal components required in connection with the performance of item 1 of the contract NOa (s) – 4178. Haley invited acceptance of this agreement by the provision of the signature of an officer of General Tire on a space provided at the end of the letter. Letters apparently crossed in the mail.

The next day, Haley wrote again to General Tire in response to a letter dated 21 June 1944 from William E. Fouse, Vice President and co-founder of General Tire. In his letter, Haley responded to proposals for an agreement made by Fouse for future working arrangements between Aerojet and General Tire. Haley wrote:

July 6, 1944
General Tire & Rubber Company
Akron, Ohio

Gentlemen:

Reference is made to your letter of June 21, 1944, signed by W. E. Fouse, Vice President and Treasurer, outlining your understanding of an agreement whereby your company finances future contracts entered into between this company and its customers; and which also outlines an option for the future operation of Aerojet Engineering Corporation.

The Stockholders of this company are in agreement with the provisions of the first four paragraphs of said letter as verbally amended in a conversation between Mr. Dan A. Kimball and the president of this Company on July 6, 1944. The first four paragraphs as amended now read as follows:

“This memorandum will serve as the understanding which we have reached concerning transactions between the General Tire & Rubber Company and your company pertaining to a certain government contract to be let to you by the Navy approximating \$4,000,000.

“You, as we understand, are to receive the prime contract and will assign said contract to us for financing purposes. You will further sub-contract to us the metal parts at cost. We shall pay you an engineering fee of Five Percent (5%) of the monies received under the prime contract and Fifty Percent (50%) of the net profits derived from said contract. Any other contract which we approve shall be on the same basis. The manufacturing of said articles shall be done on the premises which you now occupy or any other premises necessary.

“We shall have the right to use your personnel but it shall be under our management, and the total Aerojet overhead costs shall be distributed equitably between the prime contract aforesaid and the contracts you now have with the Army and the Navy.

“As sub-contractor, we shall have the right to inspect the above-mentioned prime contract and, should we not approve the same, this understanding shall be terminated without any further obligation to us.”

With regard to the last two paragraphs we agree in principle that an equitable arrangement between Aerojet Engineering Corporation and your company shall be entered into which will provide for the best possible operating arrangement and will protect the interests of both parties. The stockholders as a group will present an option to you and Mr. Fouse upon your arrival here on July 11, 1944.

Very truly yours,
AEROJET ENGINEERING CORPORATION
Andrew G. Haley, President¹⁰⁸

On 7 July Haley wrote a long letter to von Kármán at the Hotel Westbury in New York City. The letter described a visit to the Aerojet facilities on 4 July by Captain Webb, Navy Bureau of Aeronautics general representative, and his aide, Lt. Cmdr. Stevenson.

They spent several hours with us and the visit was prefaced by a lecture delivered by our foremost mentor, Dr. Zwicky. We then took a trip through the plant in Pasadena, and, after seeing the reaction of lithium silicide in water (it was quite impressive), we proceeded to Azusa. At Azusa we witnessed tests of [several JATO motors] and the nitric methane formic acid research

¹⁰⁸ See the von Kármán Papers, Caltech Archives, Box 56, folder 7.

experimental motor. We went through the Propellant Plant and Proving Grounds and also through the Research Gulch. We showed them the ring channel for testing the hydropulse and the set up for testing the aeropulse.

Haley reported that “[h]eretofore Captain Webb has been very cool to this operation, but because of the very great Navy interest, I think his opinions have diametrically changed”. The letter gave a detailed account of a test flight at Barstow of a jet-propelled glider using Aerojet JATO units, which Haley believed was the first ever flight of a rocket propelled aircraft in the United States. Then Haley described a series of events related to procuring new contracts from the government, including a note that he had designated Martin Summerfield to represent von Kármán in a negotiation at Wright Field which resulted in a \$150,000 contract for a turbo rocket.

The letter to von Kármán continued:

Our arrangement with General Tire & Rubber Company is coming along very nicely. I inclose herewith a copy of the informal agreement as drawn up without legal advice by the officers of General Tire. I also inclose copy of a letter from Mr. Kimball to Mr. Rude. We held the stockholders’ meeting last night with all present except you and Dr. Summerfield. It was a very pleasant meeting and the results thereof are incorporated in the Minutes prepared by Mr. Beehan. I also inclose copy of our reply to General Tire, which was signed by all the stockholders subject, of course, to your final approval. In the light of all the circumstances the stockholders were unanimous in their feeling that this is an excellent deal and that we are extremely fortunate in obtaining the help of General Tire. Mr. A. M. Rude who has been their representative out here for twenty-five years has reported for work with us in the capacity of Controller. He is a very fine gentleman and is certainly interested in conserving every dollar. This is an excellent spirit in the organization at this time. We most thoroughly agree with you that emphasis hereafter should be placed on production items.

The personnel as a whole are cooperative and doing the best they can. However, as a result of Mr. Hoyt’s industrial survey we propose to make very extensive cuts and this naturally has repercussions so far as individual cases are concerned.

Delphine and the children seem to enjoy California more all the time and as a result they are happy and good natured. We are all getting along splendidly. I hope that Father Lany has written you as he promised.

As the hour is growing late, I will close with affectionate regards to you and give my love to Pipö.

Respectfully yours,
[signed “Andy”]
Andrew G. Haley

Von Kármán had been away from Aerojet for medical care in New York since early in June. Haley was doing his best to keep Dr. von Kármán advised of current developments and working to assure him that the interests of the company were being well and properly managed in his absence. Substantial correspondence would be exchanged between Haley and von Kármán in

coming weeks to keep him fully informed and to provide him with opportunities to approve of the progress in the relationship developing between Aerojet and General Tire.

As a part of the Aerojet – General Tire negotiations progressing at that time, the stockholders (including all the founders) of the Aerojet Corporation participated directly in defining the relationship between the two companies. Following a General Tire visit to Aerojet in Pasadena on 11 July 1944, a special meeting of the stockholders was held on 14 July 1944. The record of that meeting is contained in a letter from Andrew Haley to Dr. von Kármán dated 15 July 1944. This letter provided a detailed account of some of the innermost thoughts of Andrew Haley at that time, and made clear the fact that although he felt compelled to concede certain advantages to General Tire in the circumstances prevailing, he believed that “if our operations during the next six months blossom forth with final technical success [referring to the hypopulse and aeropulse engines in development], that all these agreements will be modified in favor of Aerojet”. On 15 July 1944, Haley wrote to von Kármán:

Dear Doctor:

General Tire and Rubber Company Negotiations

I hand you herewith copy of Minutes of a Special Meeting of the Stockholders of Aerojet Engineering Corporation held on July 6, 1944. I believe that these Minutes are self-explanatory and carry the history of the negotiations up to the Second Special Meeting of the Stockholders held July 14, 1944. The Minutes of the second meeting have not yet been written so I shall relate the facts in this letter.

Mr. W. E. Fouse, a co-founder, Vice President and Treasurer of the General Tire and Rubber Company and Mr. Dan A. Kimball, Director of Government Operations arrived here on Tuesday, July 11, 1944 to enter into final negotiations or to reject any affiliation in its entirety. The situation revealed to these gentlemen was not encouraging. The Navy was still holding back payments on overhead costs which created a deficit of \$50,000 in our operating revenues. Although we made a strong demand for this reimbursement of overhead, the Navy in fact arbitrarily turned us down. [...] Even if our overhead were reimbursed in full, we still require during the month of July an additional sum of \$135,000 to meet contract obligations not covered by advance payments. Therefore, on the financial side we require immediate financing in the order of \$175,000 which General Tire did not anticipate and which covered contractual obligations from which they would not derive any profit whatsoever. Furthermore, in September we would need approximately \$400,000 to finance our own contract NO a (s)-3515. On the latter item it is true that we probably could go to Washington and get financial relief, but it would only be another case of pressing the officers who have been so indulgent with us in the past. I might add also that with regard to the July, August, September obligations, we could probably muddle through, but it would be under the terrific strain of failing to pay sub-contractors and material vendors for from sixty to ninety days after their accounts become due. Such financial juggling (although possible) at this stage of our very large production operation would be extremely detrimental and might result in law suits and refusal to perform further on the part of the vendors. In brief, the problem is one of current financing of operations as distinguished from ultimate losses on operations. As a matter of fact I have had a most thorough analysis made of current contracts, and, after allowing a 100% cushion, it appears that we should have a clear profit on these contracts of \$100,000. General Tire does not share in this expected profit. However, as I pointed out before, Mr. Fouse was greatly discouraged

by the prospect of furnishing \$400,000 in the next three months for financing our contracts out of which his company would receive no profit.

The second and even more serious factor is our failure up until this moment to establish a reproducible solid unit. Whereas, the Aerojet people feel that we will standardize the process in the next few days, it has been pretty hard for Mr. Fouse to share in this expectation. He was under the impression that we could actually produce now and when he found that it was still a matter of expectation, he was ready to go home. He pointed out that he was placing orders for \$500,000 worth of metal parts and materials which might never be used, and, therefore, might be a complete financial loss to his company. It took considerable effort to instill him with enough confidence in the prospective standardizing of the process to go ahead and place the orders.

The original tentative agreement dated June 21, 1944 submitted by General Tire provided for a 5% engineering fee. This provision was made so that we would have available about \$200,000 for operating capital, but it was arranged on the basis of General Tire sub-contracting the entire prime contract. The Navy said that we could not enter into such a sub-contract, so the theory of the 5% fee was wiped out. Furthermore, it appears that we need twice that sum. There are many other factors, too involved to relate, including intricate problems of taxes, which caused us to agree to eliminate the 5% fee feature. However, in the new agreement dated July 14, 1944 more important concessions are made to us. Under this agreement we will share 50% in a company, which will not be solely a patent company, but which will have the following functions and assets:

It will do all research and development engineering.

It will make its own contracts with all parties for research and development, and any profits there from, will be its profits.

General Tire will pay to this research company royalties, which royalties will be the property of the research company.

The research company will be given all facilities of Aerojet needed for research and engineering development, and such facilities will be its corporate property.

The research corporation will own all the patents.

Dr. Malina is at Wright Field so he was unable to attend the stockholders meeting. However, the rest of us considered the agreement very carefully, and we all feel that it is excellent in the light of our urgent requirements.

In addition to the formal agreement by the stockholders and General Tire, there is a second agreement set forth in a letter dated July 14, 1944 where by General Tire provides incentive bonuses for certain key men who make contributions to the research and engineering development company above and beyond all other financial considerations. The idea behind this arrangement is, for example, you are retained by the research company and earn \$1,000 per month. Such sum is paid to you as a matter of course. In the meantime a fund of \$80,000 is being accumulated and the Board of Directors of the research company may decide to grant you a bonus of 1/10 the amount accumulated or an additional income of \$10,000 for the year. Although the foregoing is roughly stated, it expresses the general idea behind the supplementary letter. The supplementary letter expressly does not provide that the \$80,000 shall be distributed among the shareholders

because, obviously, this sum should be paid out to the key men strictly on the basis of merit and contribution to the success of the operation.

I do not hesitate to state that if our operations during the next six months blossom forth with final technical success, that all these agreements will be modified in favor of Aerojet. They are the best we can hope for in the light of the technical situation whereby we hope to standardize the solid propellant and to evolve the aeropulse and the hydropulse. However, at this time none of these paths has been achieved.

No one will ever realize the amount of tense planning and anxiety that I have gone through during the past year to arrive at this point, and inevitably, the only expression one way or the other will be that I sold the company out. The tremendous emergencies of this date will be forgotten and no one will remember the providential assistance that General Tire brings to us when we needed it most.

However, I have the satisfaction of knowing that Herbert Hoover, Jr. did not succeed in a similar attempt to finance his Consolidated Engineering Corporation, and Dr. Zwicky was with me during an entire day when, for the last time, I tried to induce Mr. Rafferty, Executive Vice President of all the Union Carbide and Carbon Companies to finance us. I not only made the proposal directly, but Dr. Zwicky also made a very direct proposal without any success.

I would greatly appreciate your action in signing the two originals of the agreement dated July 14, 1944 and returning them to me airmail. Please sign on the first line of each of these originals. A stamped and addressed envelope is enclosed for your convenience. They should be returned just as soon as possible as General Tire has already deposited for our benefit the sum of \$150,000 to meet current liabilities. A third copy of the agreement is enclosed for your files.¹⁰⁹

Respectfully yours,
[signed "Andy"]
Andrew G. Haley

Dr. von Kármán complied with Haley's request to sign and return the documents promptly, and within a few days Haley was able to send to von Kármán another set of documents which represented all the terms of the agreements reached and the records of special meetings held to accomplish the agreements. On 21 July 1944 Haley wrote:

Dr. Theodore von Kármán
Hotel Westbury
15 West 69th Street
New York City, N. Y.

Dear Doctor:

The enclosed documents, when duly signed, will consummate the agreement with General Tire and Rubber Company initiated by the Stockholders in meetings held in Pasadena on July 6 and July 14, 1944.

¹⁰⁹ See the von Kármán Papers, Caltech Archives, Box 56, folder 7.

The enclosures are as follows:

- Waiver by Voting Trust Certificate Holders of Certain Provision of Voting Trust Agreement.¹¹⁰
- Minutes of a Special Meeting of the Stockholders of Aerojet Engineering Corporation.
- Waiver of Notice of a Meeting of the Board of Directors of Aerojet Engineering Corporation.
- Minutes of the Meeting of the Board of Directors. (This is a carbon copy of the original minutes, which you may retain for your files.)

Would you be so kind as to sign the three documents requiring your signature and return them to me. An envelope is enclosed for your convenience.

As soon as I receive the signed minutes from you, I shall have certified copies executed and forwarded to General Tire, as they require them to complete their file on the negotiations that have just culminated.

Hoping you are enjoying good health, and extending to you and Pipö my kindest personal regards, I remain

Sincerely yours,
[signed "Andy"]
Andrew G. Haley, President
Encl. 4¹¹¹

Again, Dr. von Kármán signed and returned the documents as requested, and Haley duly copied and forwarded certified copies to General Tire. With these formalities completed, it remained for the two organizations to proceed in the work undertaken pursuant to the government contracts, and to work out the divisions of responsibilities and the manner of management to be applied in all cases. There was, in addition, the matter of the agreed sale and transfer of stock to be consummated.

WWII winding down, GT&R assuming control

In early August 1944, Haley was engaged in program review and contract negotiations at Wright Field in Dayton, Ohio. T. Edward Beehan, Corporate Secretary, wrote to Haley in Ohio, presenting a topical summary of events occurring in Pasadena since Haley's departure for the trip to Dayton. The letter reported receipt of authorization to proceed with construction of additional facilities in Azusa, but noted a prevailing cloud of confusion about the sponsorship of the work. The Army and the Navy were in discussions to work out the problems. Beehan reported that there were negotiations in progress through the Navy to purchase 30 abandoned buildings at Camp Santa Anita to extend propellant plant facilities. "If successful, this will

¹¹⁰ A Voting Trust was established by the original co-funding shareholders of Aerojet Engineering Corporation, placing the voting power of all shares in the control of Theodore von Kármán. The trust was dissolved several months prior to the purchase of the Aerojet stock by General Tire and Rubber Company in 1945.

¹¹¹ See the von Kármán Papers, Caltech Archives, Box 56, folder 7.

speed up the completion of the expansion by several weeks, and will result in a large saving of construction costs.” Beehan reported that Col. Joiner had visited the office and was disappointed that the transfer of the propellant plant from the Army to the Navy had bogged down.

On 26 September 1944, the war in Europe appeared to be approaching an end. The Aerojet Corporation received a notice from the Navy’s Bureau of Aeronautical Research (BuAer), dated 8 September 1944, alerting companies of the need to plan for an orderly shutdown of war support contracts. Referring to the BuAer communication, Haley wrote a memorandum to A. H. Rude on the subject ‘Plans for Handling Employees of Navy Suppliers on Day of Cessation of European Hostilities’. Haley noted:

Mr. Hermann recommends that if capitulation occurs on Saturday we should stop work and pay the employees for the day, but he suggests that we work Sunday. He further states that if the capitulation occurs during a week day we stop work and have a layoff of 24 hours and pay for one regular shift.

I think we should make arrangements to pay for one regular shift in any event, to grant the day’s holiday and to set up adequate guards to prevent destruction of property.

A. G. Haley
President

As President, Haley was paying attention to maintaining care of the corporation property, as well as the welfare of his employees.

In late 1944, checking the status of the Aerojet Corporation’s authority to issue stock, it was believed that the last amendment of the Articles of Incorporation, increasing authorized stock to 2,000 shares, apparently had been filed only with the Secretary of State of California, but not in Delaware. To ensure the amendment was properly recorded, on 8 December 1944 a Certificate of Amendment was filed with the Secretary of State of Delaware amending the Aerojet Articles of Incorporation to authorize issuance of 2,000 shares of stock. This certificate was signed by A. H. Rude (Vice President) and T. E. Beehan (Secretary). This is clear evidence that the General Tire presence in Aerojet operational management existed for some time in advance of the Aerojet stock purchase by General Tire, which occurred formally in January 1945. The filing was unnecessary, duplicating one done a year earlier by Aerojet officers.

In October 1944, a limited issuance of Aerojet Engineering Corporation stock occurred in which Aerojet issued 74 shares each to Dan Kimball, Arthur Rude and Andrew G. Haley, and ten shares were issued to William Zisch, who had taken the position of Aerojet General Manager. The 222 shares issued to Kimball, Rude and Haley were shares previously owned by Edward Forman and John W. Parsons, who had decided to sell their shares to the company, with strong encouragement from Haley. This was shortly after Kimball and Rude joined Aerojet as Vice Presidents and began supplemental staffing to support their contributions to Aerojet management. On 9 December 1944, the outstanding Aerojet stock certificates were consolidated, so that each stockholder would have only one stock certificate which would include all previously issued shares, which in some cases involved as many as

five separate issuances. As a result of the consolidations of holdings, the Aerojet certificate numbered stockholders as of 9 December 1944 were:

#51	Andrew G. Haley	226 shares
#52	Theodore von Kármán	271 shares
#53	T. Edward Beehan	39 shares
#54	Frank J. Malina	111 shares
#55	Clark B. Millikan	45 shares
#56	Martin Summerfield	126 shares
#57	Fritz Zwicky	50 shares
#58	Dan A. Kimball	74 shares
#59	Arthur H. Rude	74 shares
#60	William E. Zisch	10 shares
	TOTAL	1,026 shares

Although Haley had not formally ended his ties to Aerojet, by January 1945 he had begun a relationship with the office of US Senator Hugh Mitchell (the other Washington Senator with Senator Magnuson) as an advisor on post war industrial structure. Senator Mitchell had introduced a Senate Bill titled the *National Air Policy Bill*, to establish a National Air Policy Board, and for other purposes.¹¹² Haley prepared and submitted to Sen. Mitchell's office on 21 January 1945 a series of questions for the aviation industry representatives to address during planned hearings on that bill. Haley also prepared and submitted a general outline of hearings on the post war aircraft industry seeking information and advice on how the wartime aviation industry should be reconverted to a peacetime industry.

GT&R purchased 50% of Aerojet stock, January 1945

In January 1945, fifty percent of the outstanding shares of Aerojet common stock were sold by the stockholders to General Tire & Rubber Company. General Tire originally offered \$50,000, but the final agreed price was \$75,000, or \$126.50 per share. In anticipation of the stock purchase, General Tire had appointed a few key management personnel, but with the exceptions of Forman and Parsons, they retained in place substantially the management recruited and trained under von Kármán, Malina, Summerfield and Haley. On 11 January 1945, all of the outstanding Aerojet stock certificates were cancelled, and a new set of certificates was issued as follows:

#61	General Tire & Rubber	513 shares
#62	Theodore von Kármán	136 shares
#63	Frank J. Malina	56 shares
#64	Arthur H. Rude	37 shares
#65	Fritz Zwicky	25 shares
#66	T. Edward Beehan	19 shares
#67	Clark B. Millikan	22 shares

¹¹² Senate Bill 1639, introduced on 3 December 1945.

#68	Martin Summerfield	63 shares
#69	Dan A. Kimball	37 shares
#70	Andrew G. Haley	113 shares
#71	<u>William E. Zisch</u>	<u>5 shares</u>
	TOTAL	1,026 Shares

A quick tally shows that the total shares outstanding were divided in half, each former stockholder retaining half of his stock, and General Tire & Rubber Company took the other half of the stock in exchange for \$75,000, distributed among the reduced shareholders in proportion to their holdings.¹¹³ Noting that General Tire's appointees Beehan, Kimball, and Rude collectively held 93 shares in addition to General Tire's 513 shares, the control of the Aerojet Engineering Corporation passed at this point to the General Tire & Rubber Company. Haley's compensation for surrender of 113 shares was \$14,294.50. Compensation for others was in proportion to their shares surrendered.

In early March 1945, in addition to the Senate Subcommittee support he was providing, Haley was centrally involved in securing a manager of research for Aerojet. On 4 March he cabled the following instructions to his secretary, Joanna O'Connor, at his law office in the Earle Building in Washington:

PLEASE TELEPHONE COMMANDER WURFEL THAT I HAVE BEEN IN TOUCH WITH DR. NORTON V. MOORE FORMERLY ASSOCIATE DIRECTOR OF RESEARCH OF CURTISS WRIGHT BUFFALO REGARDING ACCEPTING POSITION OF MANAGER OF RESEARCH AT AEROJET. I ALSO CONTACTED DR. VON KARMAN WHO WILL TALK TO MR. MOORE BY TELEPHONE SUNDAY AND ARRANGE FOR MOORE TO COME TO WASHINGTON. ASK WURFEL TO CONTACT KARMAN. ALSO TELEPHONE KARMAN TELLING HIM THAT YOU ARE AVAILABLE AT ALL TIMES INCLUDING EVENINGS TO PERFORM SECRETARIAL SERVICES FOR HIM. IN FUTURE TELEPHONE HIM FROM TIME TO TIME TO SEE IF YOU CAN BE OF SERVICE TO HIM.

A communication to Aerojet on 2 March 1945 from Lt. Cmdr. C. W. Stevenson in the Naval Office of Aeronautical Research touched upon the proposed rearrangement of Aerojet management occurring as a result of the General Tire participation in Aerojet management. The letter obviously raised some questions about who was in charge. On 9 March, Haley submitted a detailed memorandum to Messrs. Kimball, Rude, O'Neil and Fouse addressing the Stevenson communication. Haley wrote that:

I was relieved from active duty with Headquarters, Army Air Forces, by order of General Arnold, to direct the formation and operation of Aerojet. If I no longer have a useful place in the Aerojet organization, I should so advise General Arnold, and seek reinstatement in the Army. This is especially indicated in the light of the proposed new war man-power legislation.

¹¹³ There is in *AGH, Letters & Materials* a record, dated 11 January 1945, which shows all the details (owners, certificate numbers, dates of issue, and share counts) of stock issuances from the corporate beginning in 1942 until the GT&R stock purchase in January 1945. Originally the founding stockholders agreed to assign their shares to a voting trust controlled by Professor von Kármán giving him control of the corporation from the outset. The trust was dissolved prior to the GT&R purchase.

Haley went on to note that with the advent of General Tire's organizational presence he had tried to avoid conflict of official jurisdictions or overlapping of functions. Haley believed that the making of conflicting decisions, for example, might result in a serious misunderstanding and confusion in the top official positions. Haley noted that this had resulted in almost complete de-emphasis in the fields in which he had previously been most active, namely, contract negotiations with the Army and Navy, and official direction of the actual operations. Then Haley observed that "since the advent of General Tire these functions have been in the capable hands of Mr. Kimball and Mr. Rude respectively. Haley complained that normal matters (not impinging on the specific duties of the other officials of the company) were not coming to his attention, and he wrote "I bid fair to assume a role never before known to me in any activity, that of a figurehead". Haley continued:

The foregoing remarks are but prefatory to some positive recommendations I desire to make as to my own position in the company. I believe the following functions would afford a satisfactory working basis:

Administration of all legal activities

This would include

- (1) examination from a legal stand point of Aerojet's commitments necessarily involved in prime contracts entered into by General Tire;
- (2) passing upon all Aerojet prime contracts;
- (3) passing upon Aerojet sub-contracts with General tire;
- (4) active administration from a policy standpoint of the Aerojet patent department, including directly appraising the situation in the Patent Office with respect to claims and reporting thereon to the Board of Directors, and the formulation of policy with respect to foreign applications;
- (5) generally handling the current legal problems of the company.

Official administration of the Research Department

The basic negotiations between us assumed that Aerojet would have direct cognizance over the research operations. I personally organized [and] secured the first contracts, and hired many of the personnel of the Research Department. I desire rather detailed administrative authority over this activity, the policies to be pursued and the scope and extent of the research undertaken. I would contemplate creating a Research division, and the promulgation of a system whereby the work would progress with a minimum of delay.

Long-range planning

In collaboration with the other Directors I would desire the authority to pass upon the scope of the work to be undertaken by Aerojet. As to spot decisions on individual items or contracts proposed to Aerojet, I would be the sole center of coordination of opinions, having the duty of making the final decision (after adequate consultation) in line with established company policy.

Company organization

Any general plan for company organization and the filling of any key posts would be submitted to me for recommendation and the approval of the Board of Directors would be secured before final promulgation.

Publicity and public relations

I would establish adequate working arrangements with Mr. Mason so our efforts would be coordinated for the best interests of General Tire and Aerojet. I have a particular aptitude for such work, and the most desirable avenues of national publicity media are open to me as a result of a lifetime of acquaintance and association therein. I also have a wide acquaintance among public and private agencies of great importance to our work, including the chief executives of major aircraft and related industries, and the heads of governmental bodies having regulatory power over activities which will certainly be of importance to us. I desire prime cognizance in this field.

Official position

The duties of the President are defined by the By-laws as follows:

“21. The president shall be the chief executive officer of the corporation; he shall preside at all meetings of the stockholders and directors, shall be *ex officio* member of all standing committees, shall have general and active management of the business of the corporation, and shall see that all orders and resolutions of the Board are carried into effect.

“22. He shall execute bonds, mortgages and other contracts requiring a seal, under the seal of the corporation, except where required or permitted by law to be otherwise signed and executed and except where the signing and execution thereof shall be expressly delegated by the Board of Directors to some other officer or agent of the corporation.”

In the actual functioning of any company the acts of the Board of Directors are carried into effect by its officers and employees. My understanding of the foregoing is realistic, but I would necessarily require adherence to the orders and resolutions of the Board of Directors. My position in this regard must be respected.

I would appreciate advice concerning your views or decisions on the foregoing.

Andrew G. Haley
President

Haley was obviously feeling the effects of encroachment on his authority by the presence of Kimball and Rude in his company, and he wanted a clear understanding of what his duties were. He invited the General Tire management to express their views and opinions on his declaration. He was already working as a consultant for the Senate and he still had a functioning administrative law firm in the District of Columbia, so he was comfortable enough to declare his wants in the face of the now controlling General Tire and Rubber personnel.

During March 1945, there developed a problem in the final testing and preparation for shipment of a large number of the Aerojet JATO units. When this matter came to Haley's attention, he proceeded directly to the facility where the operations were stalled and took action to resolve the problems. Despite the fact that it had been agreed that Kimball and Rude would be responsible for production matters, on 13 March 1945 Haley sent the following telegram to Arthur Rude at two addresses:

MR. ARTHUR H. RUDE
CARE OF W. O'NEIL
GENERAL TIRE & RUBBER COMPANY
AKRON, OHIO

MR. ARTHUR H. RUDE
THE GENERAL TIRE & RUBBER COMPANY
1026 17TH STREET N.W. SUITE 400
WASHINGTON, D. C.

SPENT SATURDAY EVENING, SUNDAY AND MONDAY AT THE PROPELLANT PLANT. STRAIGHTENED OUT INSPECTION DIFFICULTIES AT SHIPPING POINT. SHIPMENTS SO SLOW I VETOED ALL OBJECTIONS AND OBTAINED DAY AND SWING CREWS THROUGH ADMIRAL DEFREES. RESULT TODAY WE SHIPPED IN EXCESS OF 1000 MOTORS. RETURNING TO PROPELLANT PLANT TONIGHT TO INSURE FORMULATION OF SIX LOTS FOR CHECKING.

ANDREW G. HALEY

This telegram clearly showed the familiarity of Haley with the operations of Aerojet to an extent that could not have been matched by either Kimball or Rude, and Haley knew it. He took the action needed to address a major backlog in production shipping, and got the job done. He also insured that William O'Neil saw the message to Rude concerning the actions taken. Such behavior was not calculated to win respect or appreciation, but rather to show that having a title does not necessarily mean that one has all the capabilities normally encompassed by the title. To some extent, Haley was feeding the impression of the General Tire personnel that he was gradually becoming equivalent to a loose cannon on deck. He was losing ground in control of the company and it began to weigh on him and his regard for others in the company.

On 27 March 1945, Dan Kimball wrote to the Navy to clarify any lingering questions about who had what roles and what authority as between Aerojet and General Tire. Kimball wrote:

To: Bureau of Aeronautics Representative (BAR)
Aerojet Engineering Corporation
285 West Colorado Street
Pasadena 1, California
From: D. A. Kimball
Subject: Outline of duties of A. G. Haley, A. H. Rude, D. A. Kimball

With reference to your memorandum of March 10, 1945, apparently there are some points which I have not fully covered, and which I will endeavor to cover in this letter.

Outline of duties of Mr. Rude, Mr. Haley and myself are as follows:

Mr. Rude is Executive Vice President of Aerojet and of the General Tire & Rubber Company of California. He and myself are authorized to speak on behalf of both the General Tire & Rubber Company and Aerojet. Mr. Rude is responsible for the complete operation of Aerojet. All BAR/Aerojet contracts with either company should be through Mr. Rude or myself, or our designated representatives.

Mr. Haley is President of the company, and it was at his request that Mr. Rude assumed executive direction of the company. Specifically Mr. Haley is administrator of all legal activities involving examination from a legal standpoint of Aerojet's commitments, and passes on all of Aerojet's

prime contracts; is active administrator of Aerojet's Patent department, including the formulation of policy with respect to foreign applications, and in general handles the legal problems of the company.

In the domestic operation of the company, Mr. Haley is the official administrator of the Research Department. This responsibility was specifically assigned to him at a meeting of the Board of Directors. In recognizing his acquaintance among scientists, it was felt that he could greatly strengthen the personnel of the Research Department and supervise the company's policies on the scope and extent of research.

In view of the situation and rapid growth of Aerojet, the Directors have also asked Mr. Haley to coordinate and make available complete plans for the next few years.

Of necessity Aerojet must keep in touch with the different scientific institutions, laboratories and manufacturers of various types. Mr. Haley has handled this work in the past, and in view of the assumption of the operational responsibilities by Mr. Rude, we are asking Mr. Haley to spend more time in the handling of this work.

In the case of myself, I am handling the negotiations between the Navy, and other government agencies and Aerojet and the General Tire & Rubber Company.

In answer to your paragraph with regard to the relationship between the General Tire & Rubber Company of California and Aerojet, this is to advise you that effective April 1, 1945, the General Tire & Rubber Company of California will purchase all metal parts for the major production contracts which we now have and furnish them to Aerojet. We believe that this and other changes we are making will greatly simplify and clarify the work that is now being done.

Dan A. Kimball, Vice President
cc: Andrew G. Haley, President

This letter was no surprise to Haley. It reflected many of the positions he had taken in his memorandum on the same general subject on 9 March. What was disappointing was the strident directness and clarity of Kimball's assertion that he would handle all negotiations between the Navy and Aerojet and General Tire. There was no doubt that Haley would have very little if anything to say about future contracts with the government. This was a clear departure from Haley's intention, and fueled a growing flame that was causing Haley to consider moving on with his life, leaving Aerojet. On 12 April 1945, President Franklin D. Roosevelt died in office, and by law, Vice President Harry S. Truman was promptly sworn in succeeding to the Presidency of the United States.

Haley is offered a position with the US Congress

On 28 June 1945, Haley sent a note, in telegraphese, from Washington to Dan Kimball at Aerojet, Pasadena, which read:

Senate Special Committee to Investigate National Defense Program has set up Subcommittee on Aviation and Light Metals which will investigate airframe companies, aircraft accessories companies, power plant companies, air common carriers, Army and Navy aviation program, future aviation developments and experimentations, all aspects of reconversion, effect government regulations and formulate plans for next 30 years. I have been offered post of Counsel for this Subcommittee, which will hold hearings throughout the United States and appropriate points throughout the world. This Committee is popularly known as Truman Committee or Mead Committee. Would appreciate your thinking this over and giving me your considered opinion as to whether I should accept job when I arrive Pasadena Saturday.

Senator Mead was a senator from New York who had succeeded Harry Truman as Committee chairman in January 1945, after Truman was elected Roosevelt's Vice President in November 1944. Neither Kimball nor other managers at General Tire objected to Haley's accepting this position, because he was making it clear to those paying attention that he was considering leaving Aerojet. The war was clearly coming to an end soon following the unconditional surrender of Germany on 8 May 1945. On 26 July, the Allies issued the Potsdam Declaration which recited numerous conditions and called for unconditional surrender of Japan. Japan refused to surrender under the terms of the Potsdam Declaration.

At this point, Haley was in correspondence with the IRS in an effort to retain a salary at Aerojet based on 75% of his work effort, acknowledging that 25% of his work effort was devoted to his private law practice in Washington, DC. In a letter dated 25 July, the IRS confirmed to Haley that he justified a \$1,100/mo. salary from Aerojet, "[s]o long as you carry on all the responsibilities of the position of President and continue to spend the greater part of your time in carrying out the duties of such position". It was clear to Haley that he was not allowed to exercise all the duties of the President of the company, and he was clearly inclined to spend the bulk of his time in Washington, at his law practice. On 25 July, Haley wrote a detailed letter to Arthur Rude requesting support in preparing details for response to the War Powers Western Classification Committee concerning the cost valuation of Aerojet products. The letter was signed by Haley without a title, which was a departure from his usual practice.

On 3 August, Haley wrote a letter to Dan Kimball at General Tire and Rubber Company confirming his intention to sell to General Tire his remaining 113 shares of Aerojet stock for the price of \$150/share, effective 3 August. As the war was coming to an end, he was not only leaving the company, he was terminating his ownership interest in the company. The sale would produce \$16,950 cash for Haley; money that would be very useful in his reentry into civilian life and the return of his family to Washington, DC.

The United States dropped atomic bombs on the Japanese cities of Hiroshima and Nagasaki on 6 and 9 August respectively. Faced with an imminent invasion of the Japanese archipelago by the United States and allies, the possibility of additional atomic bombings, and the massing Soviet invasion of Manchuria in progress, Japan formally surrendered on 2 September 1945. On the same day that Hiroshima was bombed, 6 August, Haley wrote a letter to his Aerojet Secretary, Ann Zieske, which read:

Dear Ann,

As you know I have resigned as President and Director of Aerojet and am now working for the Mead Committee. Will you please bring the books up-to-date and also assemble my personal files so that we can square off and have these matters handled through my Washington office.

Also please advise Mr. Beehan to cancel Miss [Joanna] O'Connor's \$50 a month salary. Forward any War Bonds or financial credits to Miss O'Connor at this office.

I probably will be in Pasadena this Thursday or Friday and I would like to get the books and files from you at that time.

You have been a very good and faithful secretary and I keenly regret losing your services.

Very truly yours,
Andrew G. Haley

Although his resignation was submitted early in August, the formal retirement from his position was recorded as 31 August 1945. Haley had already accepted his appointment as a consultant to the Mead Committee. Sometime in mid-August, the following undated Press Release, likely drafted by Haley, was released by Aerojet:

IMMEDIATE RELEASE

Andrew G. Haley, founder and president of the Aerojet Engineering Corporation for the past three years, has resigned the office of president and director to resume the practice of law at his offices in the Earle Building, Washington, DC. In company with a group of distinguished scientists including Dr. Theodore von Karman, Dr. Fritz Zwicky, Dr. Martin Summerfield and Dr. Frank J. Malina, Mr. Haley organized and guided through the war years the jet propulsion and rocket power plant facilities located in Pasadena and Azusa, California. Although most of the work undertaken by Aerojet is classified, one of the products, namely "JATO" units used for the assistant take-off of land-based airplanes and sea planes, has been mentioned prominently in the press and periodicals. JATO units have been particularly valuable in the sea rescue work.

Prior to the war Mr. Haley had an extensive practice in the fields of broadcasting, television, experimental radio, hydro electric power, and aeronautics. Immediately following his resignation he was appointed Advisor on Aircraft to the Subcommittee on Aviation and Light Metals of the Special Senate Committee to Investigate the National Defense Program, popularly known as the Truman committee or the Mead Committee. Mr. Haley is arranging hearings on the problems of reconversion and the future of aviation in the United States. He will terminate this connection when the final report to Congress on aviation is completed sometime in October.¹¹⁴

This press release was the last page in the industrial management chapter in Haley's life. Because the war was ending, there was no need for him to return to active duty when finished at Aerojet, which had been the previous plan. Haley received an honorable discharge from the US Army effective 31 August 1945. Although he would return to his law practice in Washington, he would soon be returning to Pasadena in connection with a broadcasting effort. He also had families of siblings living in the Pasadena area. His earlier expectation that he

¹¹⁴ AGH, *Letters & Materials*.

would finish his work with the Senate Committee in October was too optimistic. He worked on the subcommittee effort, including substantial travel, until the spring of 1946.

Chapter 11. Return to the Nation's Capitol

With the US Senate, Washington, DC, 1945 – 1946

In his work as Counsel to the Special Senate Committee to Investigate the National Defense Program, Subcommittee on Light Metals and Aviation, travel was not only required to hearings sites in the United States, but Haley also traveled to Europe in late 1945 for hearings there involving the US Government's aviation interests and operations in Europe after the war. Haley's travel to Europe for hearings included a visit with von Kármán in Paris as well as a visit to Zurich, Switzerland. This travel was facilitated by assistance from the US Senate directed to the US Ambassador in Paris.¹¹⁵

The Senate work lasted for close to one year following Haley's departure from Aerojet. Hearings for western companies were held in Seattle, Washington, commencing 24 August 1945 and including testimony from Boeing Aircraft Co., Consolidated Vultee Aircraft Corp., Douglas Aircraft Co., Lockheed Aircraft Corp., North American Aviation and Northern Aircraft. Haley assisted in organizing and participated in all sub-committee hearings.

Hearings for companies in the east were convened in Washington, DC, including testimonies from Bell Aircraft Corp., Curtis-Wright Corp., Fairchild Engine and Airplane Corp., Grumman Aircraft Engineering Corp., Glenn L. Martin Co., Republic Aviation, and United Aircraft Corp. After he prepared questions to elicit industrial testimony, Haley participated at the hearings, and participated in drafting the sub-committee's final report. This employment by the US Senate gave Haley an excellent, paid bridging opportunity to relocate his family to the Washington, DC, area, to re-enter his law practice, and to reorganize his law firm, to care for clients by whom he previously had been retained and for those newly acquired. This placid transition included an effort to reorganize, rename and revitalize the law firm. On 1 December 1945 the following announcement was released:

MYRON C. CRAMER
MAJOR GENERAL, UNITED STATES ARMY (RETIRED)
FORMERLY THE JUDGE ADVOCATE GENERAL OF THE ARMY
AND
ANDREW G. HALEY
ANNOUNCE THE FORMATION OF A PARTNERSHIP
FOR THE PRACTICE OF LAW
UNDER THE FIRM NAME OF
CRAMER & HALEY

¹¹⁵ See letter dated 23 Oct. 1945 from Senator James M. Mead to US Ambassador Jefferson Caffery in Paris introducing Haley and requesting the Ambassadors assistance while Haley would be in and returning from Paris, in *AGH, Letters & Materials*. See also the telegram from Mitchell to Caffery, dated 26 Oct. 1945 in the same source.

EARLE BUILDING
WASHINGTON, D. C.

THEY ALSO ANNOUNCE THAT
PHILIP M. BAKER
FORMERLY COUNSEL, FEDERAL COMMUNICATIONS COMMISSION
WILL BE ASSOCIATED WITH THE FIRM

This announcement was accompanied by an extensive press release detailing the professional experience of each of the three attorneys. Maj. Gen. Cramer had retired from the US Army on 30 November and the law firm was open for business on 1 December. Six months later, in June 1946, Maj. Gen. Cramer was asked to agree to be recalled to active duty to serve as the only American judge on the 11-nation war crimes tribunal convened in Tokyo, Japan. He agreed and was reactivated on 10 July 1946. He arrived in Tokyo on 20 July and took his seat on the tribunal on 22 July. He served as a judge for two and a half years thereafter, contributing to decisions concerning the guilt of Japanese wartime political leaders. In this role, General Cramer was the first Army officer in history to sit as a judge on an international military tribunal. As a consequence of Cramer's departure, in mid-1946, Haley was left alone as the proprietor of the law firm Cramer & Haley, with Philip Baker as an associate. In Haley's tumultuous life there is no better validation of Robert Burns' observation that "[t]he best laid schemes o' Mice an' Men gang aft agley".¹¹⁶

Haley knew that he would have to spend some time out of Washington visiting clients and that there were many routine matters to be tracked and acted upon even when he was not present in Washington, DC. He decided to employ a full-time dedicated secretary who could act as an executive assistant, if necessary, during his absence from his office. There were always telephonic and telegraphic communications available, so even when he was on travel he was not 'out of touch'. What he required was a competent, thinking, self-starting individual who could function in the authority vacuum of his absence without unraveling or trammeling the many activities he always had in process.

He conducted several interviews and ultimately selected a woman of Irish heritage (a comfort factor), mature, experienced in office operations for several years, an efficient typist, a cool, level-headed pragmatist who would consider any problem that arose readily manageable with good sense and attention. He wanted a reliable assistant who would be extraordinarily loyal, competent, cheerful, innovative and a confident personal secretary. The woman he selected was Ethna White. She was Haley's age (42) and had been working in a retail automobile dealership in Washington, DC. Although she was hired as his secretary, as his law firm grew, and other administrative staff was acquired to serve the needs of the firm's increasing number of attorneys, she also became the firm's office manager. Ethna White remained Haley's personal secretary and executive assistant throughout the balance of his life and continued as Office Manager in the law firm for a decade following his death.

Ethna was one of several children from a farm family in Delaware. Andrew Vogt reported that Ethna's father was a protestant Irishman who had worked as a Capitol policeman. He said Ethna was born in the District of Columbia. Her father moved the family to a farm in

¹¹⁶ Lines from R. Burns, "To a Mouse".

Viola, Delaware when she was ten. Ethna went to high school in Delaware, but eventually she and her father moved back into DC. Her brother was killed near the close of WWII in the Battle of the Bulge. Mrs. Haley and Ethna White moved in common social groups in the district and Aunt Dede may have introduced Ethna to Haley when he was seeking a secretary. Years later, occasionally for relaxation, Haley would drive Ethna to Viola and join her at the home of one of Ethna's high school friends, Maude Jester, for dinner and sitting on the front porch.¹¹⁷

Ethna would become an invisible but essential part of the Haley family management as well as the management of his office. Years later, Haley's son reported that "Ethna was the glue that held things together for us. She saw to it that our needs were met; she kept track of us all and she kept us informed about all matters of importance". She was 70 when she retired from the law firm in 1975.

When Haley left Aerojet in August 1945, his return to Washington had no noticeable effect upon his relationship with the von Kármán family. Haley was still the administrator of business, diplomatic, and many financial aspects of the von Kármáns' lives. They depended upon Haley for procurement of visas for travelling, for hotel arrangements when convenient, for mail forwarding and provision of information about activities involving Aerojet not otherwise available through von Kármán's contacts with Dan Kimball and others at Aerojet. Haley was von Kármán's first consultant on any issue involving legal or financial matters about which there was any concern. Von Kármán also gave Haley signature authority on his personal checking account so that, if an issue requiring expenditure of funds arose while von Kármán was travelling abroad, Haley could write a check on von Kármán's account to settle the matter while von Kármán was still abroad.

To some extent, Haley's contacts with Frank Malina were also sustained but on a less regular and dependent basis. Malina sometimes would seek Haley's advice or assistance with legal questions, but during the early 1950s his interest in the fluctuating value of his retained Aerojet stock would be the principal subject of contacts. Malina did not call on Haley for advice or assistance very often while he continued at CalTech, becoming the first director of the newly created Jet Propulsion Laboratory there in 1945.

Dorothy Bullitt's Broadcasting Brain Trust 1946 – 1947

Shortly after he had returned to law practice in Washington, DC, Haley was invited to an interview by a prominent woman from Seattle, Washington, who was inexperienced in but interested in the broadcasting field. Dorothy Stimson Bullitt¹¹⁸ realized that she had no practical experience in the broadcasting arena. If she were to succeed in a broadcasting venture she was contemplating, she would need help. She decided to form a small team to support her broadcasting ambitions. A biography written four decades later reported that Dorothy Bullitt's entry into broadcasting was gradual. Her biographer wrote that "Dorothy's professional

¹¹⁷ From a commentary on the draft of this biography sent to S. E. Doyle 12 January 2020; in *AGH Letters and Materials*.

¹¹⁸ For a detailed and fascinating biography, see Haley, Delphine D., *Dorothy Stimson Bullitt: an Uncommon Life*, Sasquatch Books, Seattle, 1995. Delphine D. Haley was Andrew Haley's daughter.

involvement with radio grew slowly. She had no long-range plan. She knew her children were grown, her real estate business was stable, her role as a civic leader was well established, and that there were no challenges on the horizon”.¹¹⁹ Dorothy Stimson Bullitt thrived on challenges. As her biographer noted, during the 1940s in Seattle, radio was a competitive, all-male business arena.

Dorothy Bullitt knew two prominent Seattle broadcasters, neither man “one of my favorites”.¹²⁰ But they dominated the market. KOMO was an NBC affiliate owned by O. D. Fisher, a personal friend of David Sarnoff, head of NBC. Fisher had a reputation as a skinflint and a ‘rough dealer’. Dorothy told her biographer, “I found him to be a cold, bitter person and very greedy. He was never very fond of me and became even less so once we began competing in broadcasting”.¹²¹ The other dominant station was KIRO, a CBS affiliate, owned by Saul Haas. Haas is described by Dorothy’s biographer as “a difficult personality. Tall and bejeweled, with hair that sometimes fell over his puffy eyes, he had a reputation for late night telephone tirades during which he often fired his employees and then rehired them the next day. [...] His office reflected a love for politics and a disdain for too much order. Its walls were lined with photos of friends from Roosevelt on down”.¹²² Haas had an ambition to make KIRO the most influential station in the Puget Sound region. With such established talent against which to contend, Dorothy Bullitt well knew in 1946 she could not enter successfully the field of broadcasting as a novice station owner without a good deal of help.

The first team member Dorothy recruited was her younger cousin Fred Stimson. He loved electronics. He had a workshop filled with gadgets that fired his imagination. “An amateur engineer, gifted but without focus, he had joined the Coast Guard during the [Second World] War, patrolling Puget Sound with the auxiliary radio team. [...] He began to talk with his cousin Dorothy about communications and broadcasting. He encouraged her to get into broadcasting.”¹²³ Dorothy told her biographer she “recalled his saying ‘because you like people, and in broadcasting people are everything’. Then he’d go on to persuade me that I could broadcast good music, which was something I was complaining about – the rotten music on radio. I told him that I didn’t know anything about it and he said he would help me where he could”.¹²⁴ Dorothy admitted that after about a year, her cousin had softened her up to the idea of owning a station. “In return, Dorothy toughened up her cousin. She convinced him to get his engineering papers so that he could work as night engineer for her station, and she delivered the ultimatum that he quit drinking or be fired. He did both, and it saved his life.”¹²⁵

Dorothy did some research. From what she learned, she was drawn to FM (frequency modulation) as a broadcasting mode because it produced clearer and finer tones than AM (amplitude modulation) could deliver. FM receivers also operated with far less static than AM receivers.

¹¹⁹ *Id.* at 204.

¹²⁰ *Ibid.*

¹²¹ *Ibid.*

¹²² *Ibid.*

¹²³ *Id.* at 205.

¹²⁴ *Ibid.*

¹²⁵ *Ibid.*

I began to realize that maybe we could broadcast good music that would be more beautiful than anything anyone could hear on AM, and that it wouldn't be too expensive once we had the right equipment. I thought: 'Three or four people could run this and it would be a good, inexpensive way to get into broadcasting – That's all we want, that's all we need'. Besides, how else would I break into the business? The O. D. Fishers and the Saul Haas' were ahead of me with AM. I wanted to get into the stream and FM looked like the way to do it.¹²⁶

The next necessary step was to find a businessman who didn't already have a good job to see if he might be willing to take the risk of joining Dorothy's team. She knew of a man who had been in business and had managed several larger enterprises, and who had just recently returned to the Seattle area after military service. Dorothy contacted Henry Owen to ask if he had affiliated himself with anything in the area. He had some offers, but he said "I'll be right down". "He came down and Fred and I talked with him and he said 'Well, I don't know anything about radio, but I'll think about it and I'll give you an answer by Monday'. He went to the library and took home an armload of books about broadcasting and read them all and said 'I'll go with it. It sounds to me like any other business – you spend money, you make money, and you run it right'."¹²⁷

Dorothy understood early that she would need a lawyer to deal with the maze of red tape in Washington. She interviewed several attorneys. Among them was Andrew G. Haley. Eventually Dorothy chose "the one I liked as soon as I met him – a young lawyer named Haley. My notes read: 'He is a young, aggressive, very knowledgeable young man from Tacoma. I like his personality – he seems to have more spirit than the others. I think he's the one'". In 1946, Haley was comparatively a 'young' 42 years old; Dorothy Bullitt was 54.

Dorothy's biographer was Delphine Delacroix Haley, Andrew G. Haley's daughter. In the ensuing paragraphs of Dorothy Bullitt's biography, the biographer is writing not only about Dorothy's candidate for her broadcasting team, but also about her father, a man she had grown up with and knew as well as anyone ever knew him. By permission of Delphine Haley's estate, the following paragraphs are drawn from the Bullitt biography.

Andrew G Haley was a tall, dark-haired Irishman whose most noticeable physical traits were a large head, a hooked nose, and a girth that even in his late thirties [*i.e.*, before 1945] suggested a thorough love of food and drink. Most outstanding were his brilliant blue eyes, which could twinkle with wit, warm with sentimentality, or focus into piercing lasers when scanning for the weak spots that he found. As a young attorney at the Federal Communications Commission (FCC), Haley had drafted [helped draft] the *Communications Act of 1934*. He left the FCC in 1939 for private practice in which he handled scores of cases and proceedings before the commission. When Dorothy Bullitt interviewed him, Haley was back from the war and once more practicing communications law in Washington, DC. The six [five] FCC commissioners who made final rulings issuing broadcast licenses were Haley's personal friends. 'They regarded Andy as the fairest and wisest and relied on him themselves for counsel,' Dorothy once said.

Andrew Haley, at his best, was a larger than life Falstaffian character, the sort who could host two dinner parties at the same restaurant, with neither group knowing the other existed. Unafraid of action, he took bold steps that were backed by solid thinking; he had a gift for quickly judging

¹²⁶ *Id.* at 206.

¹²⁷ *Id.* at 207.

character, and a charm spiced by a dramatic flair that got his message across. He also had some very human faults. A complex powerful man, he was both driven and bedeviled by a temperament that he took little time to control or understand. He was a heavy drinker, a habit that precipitated scenes that were alternately hilarious or horrible. At his worst, he was possessed of a temper that once caused his dismissal from court when he threw an inkwell at a man he was cross examining. Andy Haley knew when he met equal force, so his excesses were not apparent to Dorothy Bullitt as she interviewed him. She trusted him immediately. ('It was just something that rang a bell. I believed in him.') He encouraged her to step into areas she had never dreamed of and to know that she would succeed. Dorothy's daughter Harriet described Haley as 'Mother's launching platform. He empowered her to do things she hadn't thought of before and was probably responsible for her success in broadcasting.'

As she came to know Andy over time, Dorothy became alternately furious and forgiving of his excesses in favor of the service he rendered and the friendship that grew between them. The lady and the lawyer recognized and enjoyed each other, sensing the drive they shared. Phone lines crackled with their calls discussing the what-if's and the what-next's in her adventure into broadcasting. When he called to say 'Meet me at the airport at three o'clock,' she learned to ask 'Which three?' [...]. For years, she flew east and he west to discuss her unfolding career, sitting with him over papers in his office or plotting over drinks in her sunroom before the fire. She tolerated him because she needed him and enjoyed him. He was tough, gave her orders, challenged her. She relished it, responded, and was proud of the results. Time proved how fond she was of this hard-driving, hard-drinking brash man who pushed her patience. 'Andy was *very* blunt when he didn't like my ideas. Sometimes he would look at me and say "Are you crazy?" Other times he'd order me around. [...]

Remembering the years of Haley histrionics, Dorothy smiled and gave a shrug that suggested mixed amusement with annoyance. 'There were moments when I couldn't find him or he'd fail to appear or he'd fall asleep in an important meeting,' she said, brandishing a fist. 'Then I would have *killed* him if I'd had a knife handy, but somehow he always brought his own forgiveness with him.' Daughter Harriet recalled: "Mother would come to me, flapping her pockets, saying 'I'm so mad at Andy! And you know what makes me even madder? *I can't stay mad.*' Mother never could dislike him because she was crazy about him. He had high expectations of her and made equally high demands. You learn to love someone who'll do that for you."¹²⁸

Haley's relationship with Dorothy Bullitt continued until he died in 1966. On many occasions, after he had held a meeting with station personnel or other clients in the Seattle area, Haley was invited to spend a night or a weekend with Dorothy at her home. They would sit and drink, and talk late into the night before retiring. They had an intellectual bond not dependent on physical attraction. They challenged one another, understood one another, and were entertained by the verbal dueling they would do about their respective knowledge of Greek mythology. They found one another's company relaxing, intellectually satisfying, filling needs that could not be filled elsewhere or by others.

There was a fourth member of Dorothy's group who brought another key part of the management team capabilities. Dorothy had met Gloria Chandler earlier in the 1940s during a Junior League meeting in Seattle, and liked her. She was already in the radio business. Gloria

¹²⁸ *Id.* at 208-211. Included here by permission from the estate of Delphine D. Haley.

never married and spent considerable energy on her career as director of public affairs for the Junior League. She was a trained actress.

Dorothy's biography records that "she [Gloria] read and produced children's stories on the radio, mimicking various parts with a facile voice that could capture Tinker Bell as well as Captain Hook. She had won awards and respect nationwide as an expert on literature and drama for young people. [...] After everyone had gone to bed, Gloria and Dorothy sat up and talked about broadcasting."

Gloria was on the active staff of the NBC station in Chicago and she knew the mechanics of programming, about which I knew nothing, Dorothy recalled. 'A program for me was just something that came on the air.' [...] Dorothy realized that in this new friend was a valuable resource, who saw the potential of broadcasting. Here was a woman who had ideas, creativity, and critical skills – a change from many of Dorothy's other female associations. Gloria also had important contacts in the broadcasting business and was happy to share them. [...] In years to come Gloria Chandler was her companion, consultant, and closest friend."¹²⁹

So the four individuals, Fred Stimson, Henry Owen, Andy Haley, and Gloria Chandler, each with distinctive talents, characteristics and personalities, agreed to support Dorothy Bullitt's attempts to enter broadcasting. Andy Haley had the charge of leading the group in all aspects of policy and practice that would involve getting a radio or TV license issued, keeping it through periodic renewals, and, in time, adding other broadcasting stations with the blessings of the FCC.

In 1947, Dorothy bought KEVR in Seattle, a small, struggling AM radio station. When she applied to the Federal Communications Commission to change the call letters to KING (for King County, Washington), she learned that KING was already registered to an old merchant ship, the *SS Watertown*. Dorothy turned the matter over to Haley. He located the then current owner of the call sign KING and proceeded to obtain an agreement for Dorothy to acquire the call sign.

In 1948, the FCC awarded Dorothy Bullitt a license for KING-FM. She programmed the station to broadcast her favorite, classical music. So, before 1950, KING-FM was on the air and the necessary brain trust to support Dorothy's broadcasting career was in place. The foundation was laid for an eventual broadcasting empire in the Puget Sound area, a goal of which Saul Haas had dreamed, but Dorothy Bullitt would realize.

Dorothy Bullitt was only one of dozens of clients Haley had in the western United States, but whenever he went into the northwest, he found an opportunity to visit Seattle and Dorothy Bullitt. They clearly liked and drew energy from one another's company. Haley's daughter, Delphine, later owned a houseboat that was docked in the Seattle area. When Delphine was in the Seattle area, Haley would also visit with her. The period 1947 to 1950 was also the period of Haley's establishment and operation of KAGH. In due course Dorothy Bullitt had considerably better broadcasting success in Seattle than Haley did in Pasadena.

¹²⁹ *Id.* at 212.

Haley joins the American Rocket Society

After leaving Aerojet in 1945, as a means of maintaining contacts in and an awareness of developments in rocketry in the United States, Haley joined the American Rocket Society (ARS) and became active in its programs. The society had languished during the war years and its debilitated state presented a new organizational challenge to Haley. Within two years he breathed new life into the society, organized meetings, solicited expanded membership, promoted creation of regional chapters, and generally stimulated the society's growth and development. The ARS had grown slowly since 1934. Progress was reported regularly in a periodic publication, originally the *Bulletin of the American Interplanetary Society*, but after April 1934 more simply *Astronautics*. As in other countries where rocketry was of interest to fledgling organizations, the intervention of the Second World War would change this situation completely. In Germany, the USSR, England, France, and the United States, serious rocket development was pursued throughout the Second World War, with the result that by 1945 dramatic new levels of technological understanding and achievement had been reached. For those who knew what was happening, the reality of extra-atmospheric rocket flight was in hand, and the challenge of Earth orbital flight was before those with the competence and the willingness to accept the challenge.

One significant initiation in the post-war era by Haley was to organize and conduct an annual meeting of the Society, and these meetings were consistently annually held and serially numbered following WWII. They were numbered from the first postwar meeting, the Annual Meeting of 1945. A confusing issue arose in 1955, when the annual meeting was formally titled the 'Twenty-Fifth Anniversary Annual Meeting', referring back to the date of 1930, when the ARS predecessor, the American Interplanetary Society was formed. In the on-going post-war annual meeting sequence, the meeting in 1955 was the Eleventh Annual Meeting of the Society.

Although his law firm prospered and was slowly growing, Haley's willingness to assume voluntary management positions led to his being elected to positions of increasing authority within the ARS. In 1945, William Gore, who had served in Washington as Aerojet-General's Vice President for Washington Operations, later wrote a brief account of this period in Haley's life:

In 1946-47 one of the major goals outside [Aerojet] company activities was to endeavor to bring the American Rocket Society up to a "Creditable Technical Organization" status. One of the first people to seek advice and assistance in this matter was Andy Haley. As before, Andy lent a helping hand personally and financially and through his efforts [we] were able to convince Dr. von Karman to become a member and with this event taking place the American Rocket Society (ARS) started to get off the ground and soon became one of the top technical societies in the country.

It is hard to realize that in the early days of the ARS there were not sufficient funds to even purchase stamps to send correspondence. Andy came to the rescue and personally donated his personal funds, plus untold hours of his time to enhance the ARS – IAF and all things which eventually led to our sending a man to the moon. [...] In retrospect I personally never knew a man

who was so unselfish and was a greater personal inspiration, who gave his personal resources and energies.¹³⁰

Another major institutional initiative was Haley's recommended creation of the ARS Space Flight Committee, which would address subjects of national space policy and recommend programs of merit. The ARS formed the committee in 1952 and named Haley initial chairman. He quickly built a strong cadre of members and began a sustained urging of national space programs. Haley's involvement with the ARS led eventually to his involvement with the creation of the International Astronautical Federation (IAF), in which he also assumed roles of increasing management responsibility during the 1950s.

But there was an unrealized dream that Haley wanted to pursue. He wanted to try his skill at managing a personally owned broadcasting facility. This enterprise would take him back to Pasadena.

¹³⁰ From a letter dated 5 March 1971 from W. L. Gore to A. G. Haley, Jr., with personal memoirs about A. G. Haley in *AGH, Letters & Materials*.

Chapter 12. Broadcasting Station Ownership

KAGH, Pasadena, California 1946-50

Even though he had relocated his family to the Washington, DC, area, Haley had an abiding interest in California. During his time in California, he had established contacts in the communications and the entertainment business sectors. When reviewing a draft of this biography Haley's nephew, Andrew John Vogt recalled:

AGH clients over the years included: Meredith Publishing Company in Des Moines, Iowa (*Fred Bowen, President; Ed Meredith Secretary?*, Payson Hall at some point *President of Meredith Broadcasting Company*), Don Reynolds (Oklahoma, a Museum in DC has his name on it), Bing Crosby, Gene Autry, Mickey McClung (female, California), Art Linkletter, Walt Disney (The Disney team came to DC sometime in the 50s, set up shop at the [Haley] firm, and scouted locations in Virginia, eventually deciding against another Disneyland in this area. During their visit to DC and hereabouts there was one forbidden word, namely "Disney", since if realtors got wind of it, prices would go through the roof), ABC (Haley, McKenna, and Wilkinson [were] employed [by] them and James McKenna and Vernon Wilkinson left the firm, taking ABC with them), Rogan Jones (Bellingham, Washington, Elroy McCaw (his son formed McCaw Communications), George Hatch (Utah), KING Broadcasting (Dorothy Bullitt, Stimson Bullitt, Henry Owen, Ancil Payne, Otto Brandt, and Payson Hall eventually).¹³¹

Haley had relocated his home to Washington, DC, but many of his clients and friends were resident in California or other western states, so he was drawn to continue operations of some kind in the west.

Andrew Haley never wrote extensively about his entry into radio broadcasting as a station co-owner in Pasadena, California, probably because it was not a roaring success. In order to put a commercial radio station on the air, it was necessary to have assigned frequencies on which to broadcast. Frequency assignments were made by the Federal Communications Commission (FCC) upon application in Washington, DC. No one had to advise or assist Haley in completing the necessary steps to accomplish assignment of frequencies. He had been directly engaged in that process for 15 years. During the last half of 1946, Haley initiated the applications to obtain daytime AM and FM broadcasting licenses from the FCC.

Another requirement for starting a new station is the availability of financial resources to pay construction costs, equipment costs, advertising costs, and manpower costs, all of which have to be met before any income is earned by the station. One of the collaborators who joined Haley in funding his new station venture was Tom Olsen, who was an early client of Haley's

¹³¹ From a commentary on the draft of this biography sent to S. E. Doyle 12 Jan. 2020; in *AGH, Letters and Materials*.

in Olympia, Washington. Olsen had purchased KGY-AM in Olympia in 1939. In a memoir about his relationship to Haley Olsen wrote:

It was not long before I learned I would be needing the services of an attorney, one licensed to practice before the FCC. Search for such a man was made easy by overwhelming recommendations of a man who was making a name for himself as a radio attorney, Andrew G. Haley. While it turned out that we were born and raised within 25 miles of each other in the Pacific Northwest, and just two years separated our ages, our paths had never crossed. But as it was inevitable with a man like Andy, normal client-attorney relationship soon blossomed into a friendship.

There were times when I felt like Andy's expanding interests into fields such as space law, rocketry, astronautics would have to mean that he should be given the opportunity to pass my small account on to someone else. When I suggested this, he would have none of it.

In fact, we even found time to jointly participate in an early-day venture in the then new field of FM radio. We both found much pleasure, if not much profit, in putting FM station KAGH on the air in Pasadena, California.¹³²

The stations contemplated by Haley would be located in Pasadena, but the stations would be serving metropolitan areas of Los Angeles. Considering the breadth of the service area contemplated, and capitalizing on the location in Pasadena, the station's partnership settled early on the name the Rose Bowl Broadcasters, Ltd. Initially, the company leased limited space in the Central Building in Pasadena, from which to operate.

A good deal of planning and development would be required to bring a new station, with new equipment into a new establishment. Haley knew he had neither the technical capability nor the time to manage all that would be needed. Early in the planning, Haley prevailed upon his brother-in-law, Ernest Vogt, to take control of the planning and management that would be necessary to put a new station on the air.

Ernest Vogt was a professional engineer with a history of significant achievements in both maritime radio operations and commercial broadcasting. He had been engaged for more than 15 years in maritime radio services for United Fruit. Later, he served as a consultant to business and commercial radio operators during the 1930s; and he had written and published a textbook on radio operations in the early 1940s. In November 1946, Vogt, who had been employed as an engineer at Aerojet, was resident in Pasadena, California. Haley solicited Vogt's assistance in the planning and organization of his proposed new broadcasting facility and Vogt agreed to take on management of the affair. He evidenced an exemplary seriousness, professionalism, and dedication to his work. In an early letter to Haley, he showed the quality of work he would do on the station project. On 3 November 1946 he wrote to Haley:

Dear Andy,

¹³² From a letter dated 31 December 1970 from T. Olsen to A.G. Haley, Jr., with personal memoirs about A. G. Haley, Sr., in the *AGH, Letters & Materials*.

In connection with preparing a plan of action to get the new station on the air, it would be appreciated if you would forward the following material at your earliest possible convenience.

1. A copy of the complete file on KAGH, including:
 - a. Complete original application submitted.
 - b. Any amendment which may have been filed.
 - c. Any "if and when" contracts entered into which you may have entered for press service, equipment, etc.
2. Copy of the actual Construction Permit (CP), including:
 - a. Date construction must be started.
 - b. Date construction must be completed.
 - c. Date operation should be scheduled to begin.
3. Five copies of the necessary forms required for application to modify CP and application for license. The following possible amendments are foreseen at this time:
 - a. Amendment re change in partnership.
 - b. " " " " site.
 - c. " " " " hours of operation.
 - d. " " " " antenna.
 - e. " " " " equipment.
4. Two copies of the latest revised:
 - a. FM Rules and Regulations.
 - b. Standards of Good Engineering Practice for FM Stations.

I will forward you shortly a tentative program for a plan of action for December.
With kindest personal regards,

Very truly yours,
Ernest J. Vogt

Haley was looking upon this project as he did upon so many of his efforts, as an owner, manager, director, and inspirational leader. His communications with Vogt were invariably almost parental in terms, always concerned with costs and obligations, economy, efficiency, and consistency of relationships with all persons involved in the project. He was inclined to describe his thinking in his correspondence, in the manner he had displayed repeatedly at Aerojet, when writing to the leaders of General Tire and Rubber Company. While Vogt's letter of 3 November was in the mail, on 4 November Haley wrote to Vogt:

Dear Ernest:

I received a copy of Tom Olsen's letter, and I am afraid you missed the main point of the letter. He states:

"He also asked upon what basis I would be willing to do this. In reply to this, I believe \$15 per day expenses plus travel from and to Olympia would be in line. This amount and subsequent expenses on my part would not necessarily have to be immediately forthcoming and could either be applicable to my fifteen percent, or deferred until such time as KAGH is operating in the black."

In the foregoing statement, he is not referring to his 15% interest in the station ownership – he is referring to a 15% commission on any advertising he gets. Thus, he offers to spend two or three weeks on the basis of paying his travelling expenses from Olympia to Pasadena and return, plus \$15 a day for expenses, plus 15% of the gross income for the many advertising accounts he picks up.

The analogy in my case is simple. I will come out to Pasadena during December and work for the station. On the same basis, I should be paid my travel to and from Washington, DC, plus \$15 a day expenses, plus 15% for whatever advertising contracts I shall obtain. Similarly, Mr. Donahue is willing to use his good offices in making advertising contacts, so, by the same token, he should be paid 15% commission on any contracts he secures.

As a matter of fundamental principle, I believe it is desirable to pay an advertising solicitor 15% commission, but in Mr. Olsen's case, I am just wondering whether we should incur the expenses of transportation to and from Olympia and a \$15 a day expense account. Furthermore it should be made perfectly clear to Mr. Olsen that the accounts on which he would receive such commission must be solely and exclusively his own and not accounts that have been initially inspired by anyone else.

I still think it will be desirable to have someone experienced in advertising solicitation to make an intensive 20-day campaign in Pasadena, but on the other hand my original thought was that we should do this at the least possible cost and to the greatest benefit of the partnership. Certainly, I do not intend to ask for any commissions, expenses, or the like, and I will do my best to get free help, such as Ed Baker. As soon as possible, you should see what sort of a deal can be made with the man recommended by Fran Conrad – I believe his name is O'Mara – with respect to a sales brochure. We have not yet touched upon the various types of selling we will have to do as soon as we obtain some clear thinking on the point, we should make decisions.

Please show this letter to Martin Summerfield and talk the matter over with him. I have real confidence in Martin's judgment and general perspective and the two of you can think the matter out quite well. I think it would be desirable for you to take Martin with you during your conference with Conrad and O'Mara. [Summerfield was still living in Pasadena, employed by Aerojet.]

My final point is that we should get the ball rolling with a lot of enthusiasm and I think we are at the right psychological point to make the station a paying proposition.

I will send you my check for my subscription in the next few days and I think the others should also send their checks along to you. If they are in before December 1, 1946, it will be alright.

Very truly yours,
Andy
Andrew G. Haley

Haley always asked for and expected from any associate work effort or competence he demanded of himself. He consistently set an example of how he wanted people around him to work. It was always a very high standard, because he drove himself physically and emotionally to succeed in whatever he undertook, and he expected those working with or for him to show the same level of dedication and effort. As an example of how he thought the selling of

advertising on the proposed radio stations should be handled, he wrote solicitation letters himself for others to see and emulate. On 30 November he wrote:

Mr. Joe Friedman, President
Trav-ler Karenola
Radio and Television Corp.
571 West Jackson Boulevard
Chicago 6, Illinois

Dear Mr. Friedman:

I am the Principal owner of Rose Bowl Broadcasters, Ltd., licensee of the first Class A FM station authorized in the Los Angeles area. We are now in the process of constructing this station.

I hand you herewith a map showing the coverage and population served by the station. This map was compiled in accordance with the Standards of Good Engineering Practice of the Federal Communications Commission and is certified to be true and correct by the radio consulting engineering firm of Colton and Foss, Inc. The population count was made strictly in conformity with the FCC Standards and neither the coverage nor population served contains the slightest puffing. As you may know, the population has greatly increased since 1940 but this map and the information contained thereon is taken strictly from the formal application filed with the Commission and contains the information on which the Commission officially acted in granting the application.

So far as I can ascertain, we will be the first FM station on the air in Los Angeles operating on the regular FM frequencies.

At first we thought we would operate non-commercially but after extensive conversations with experts representing cross-sections of opinion, we decided it would be better for the new FM service for us to make a real effort to start out on a successful commercial basis.

At the present time, we propose to operate from 5:00 to 11:00 p.m., but this schedule may be extended depending upon our success in obtaining advertising support.

Because of the comparatively low capital investment, we will be in a position to offer excellent segments of time at a very reasonable rate.

You will observe that we have a primary signal in all the built up area of the Los Angeles metropolitan district, with the exception of the coastal cities. Our secondary coverage serves well beyond the Los Angeles metropolitan district, and present experience in FM propagation indicates that we will have a good signal in the green as well as the red areas.

I am leaving for Los Angeles on December 5, 1946 to complete the construction of the station and I would greatly appreciate a conference with the appropriate official of your company to determine whether you will accept advertising time on the station.

I also desire to know whether it is possible to obtain an agency for the selling of your receivers. We are a well financed group and will be prepared to meet any reasonable demands in connection

with such an agency. You can rest assured that we would go to the limit in promotional work with you.

I would appreciate an early reply from you with respect to this matter.

Very truly yours,
Andrew G. Haley

In late 1947, supported by local Pasadena attorney William Donahue, the partnership submitted to the Pasadena City Planning Commission a proposal for the construction of a new radio station in the exclusive Hastings Ranch residential development subdivision, at the intersection of Sierra Madre Villa Avenue and Sierra Madre Boulevard. Haley proposed construction of a new \$85,000 broadcasting facility on a six-acre tract in the Hastings Ranch subdivision. He proposed the project to include broadcasting studios for both AM (1300 kc) and FM (98.3 mc) program origination, with two 210-foot antenna towers. After a substantial delay handling the affair, the planning commission of Pasadena turned down the construction permits for the new stations, KAGH AM & FM.

Unwilling to accept a bureaucratic refusal, in early 1948, Haley pursued an appeal to the city of Pasadena's Board of Directors. The proposal had support by two Hastings Ranch property owners and politically famous brothers, Ed and Harold Pauley. The brothers' father, wealthy oil man E. L. Pauley, spoke in their behalf favoring the granting of the permit to construct the stations. Haley promised the city directors that the entire station project would be well-landscaped to fit well into the neighborhood. The action by the city directors, which overrode the planning commission, followed and was obviously dependent upon Haley's agreement to purchase and landscape a triangular plot of land adjoining the proposed station site. The city directors had feared this site would be used to establish a service station. The decision was not unanimous; the vote on the Board of Directors was 4 to 3 in favor. In thanking the city directors for their decision, Haley's attorney William Donahue assured the directors that the station would be a real asset to the City of Pasadena.¹³³

Ernest Vogt, who had been working for some time at Aerojet, left his Aerojet position as an engineer and assumed responsibility for management of the establishment of the new radio stations. Haley remained resident in Washington, DC, but would travel occasionally to California to meet with Ernest Vogt and others working on the station's initial planning and organization. During the period January to June 1947, there were a number of organizers and marketers employed by Haley to set up the station and to market its time to potential advertisers.

As station owner, Haley was aggressive, demanding, and unyielding to those he hired to help. As matters progressed, the patience of many wore thin. On 8 January 1947, Haley had written to George H. Patton in Sherman Oaks, California, announcing that the managers of KAGH offered him employment as a marketing manager at \$600/month and 5% of the gross cash receipts of the station. If he wished to accept the offer, he was directed to report to Ernest Vogt at the company office in the Central Building at 9:00 o'clock Wednesday morning on 15 January 1947. Then, on 10 January, he wrote to Ernest Vogt:

¹³³ "City Overrides Planners, Grants KAGH Variance", *Pasadena Independent*, Wed., 7 April 1948, p.5., col. 1.

Dear Ernest,

1

Please make every effort to communicate with Tom Olsen and George Patton so that the affairs of KAGH will get straightened out and our program will get underway. There are a large number of details which must be attended to and if you feel that you do not have the time, please telephone me collect immediately.

I cannot enumerate each of the details but the following is a sample of what must be done:

1. Establish simple but adequate bookkeeping installation.
2. As we will have to actually disburse salaries commencing January 31, 1947, the routine of Social Security and withholding tax deductions must be worked out – proper forms obtained from the local Social Security Board, Internal Revenue Service, State authorities, etc. If this is not done, great confusion will result and we will be subject to penalties. [Haley did not want to revisit the circumstances of his initial weeks of work at Aerojet.]
3. [was skipped in numbering.]
4. We must determine whether announcers-operators, etc. must belong to unions and which unions, if any.
5. A file cabinet, typewriter desk, and chairs must be moved into the offices so that headquarters will be provided for efficient working conditions.
6. I am interested in being advised about our lease arrangement [in the Central Building].
7. Establish rates and print rate cards – this is essential.
8. The telephone should probably be at least a two place rotary on the Ryan exchange.
9. The stationery item is most important and it should be ready for use by January 15, 1947. A supply of letterheads and envelopes should be sent to me immediately.

I am at a loss to determine the best means of communications. I have not heard a word from you concerning the O'Mara conference. The bogging down of these things is the open reason for our lack of progress. I would appreciate being telephoned collect at least twice a week, say on Sundays and Wednesdays, to get a complete progress report. If there are details which you cannot take care of, turn them over to George Patton without hesitation or delay. New Class A stations are coming into Los Angeles and if we don't get the jump we are lost. I certainly want to work Patton to the hilt as I am paying out good money for his services, so please assign him any task without hesitation. I will be most anxious to hear from you on Sunday. Please have Patton and Olsen also on the line. You can reach me at my office, District #####, or at Hobart #####, Extension ###.

I hand you herewith the file on KAGH which I desire you to hand over to Patton. Some of the advertising leads contained therein are set forth on a separate sheet attached hereto which you can give Mr. Patton. (I surely wish I knew what happened with O'Mara. On such important matters, please telephone me collect.)

Michael advises me that the typewriter at the house was rented from a Pasadena concern for \$3.50 a month. I suggest you have Patton remove it from the house to the office and retain it until a good typewriter can be obtained.

Very truly yours,
Andy
Andrew G. Haley¹³⁴

¹³⁴ AGH, *Letters & Materials*.

P. S. On second thought, I suggest you hand the correspondence folder over to George Patton and let him follow the leads from the correspondence folder. There is no purpose in my simply listing the names. Tell him not to contact Mike Cory of the May Company, as I desire to do that myself. With respect to the bookkeeping problems, I suggest that you or Patton get some girl around town who is a bookkeeper to set up the books and make an arrangement starting – say April 1, 1947, for her to make the entries. This should not cost more than \$20 a month as there will be so few entries to make.

Would you please pick up all letters, literature, documents, etc. from Delphine as they apparently harass her.

I send you herewith my check for \$731.44, which is the balance of my 30% assessment. When Olsen arrives, please collect his check for \$900.

Patton must have notified Vogt that he accepted the offer of employment in advance of his directed reporting date of 15 January. As soon as Ernest Vogt had received Haley's 10 January letter, he transmitted the same sense of urgency, the need for concerted action, and the wide scope of actions required in a letter to George Patton, dated 13 January 1947. The following letter shows no hesitancy in assuming that Patton was committed to the job and capable to perform.

Dear George,

It is imperative that all concerned with KAGH make an immediate concerted effort to get the ball rolling and to keep it rolling if we are to get on the air by March 17. I am extremely anxious to maintain continuity of action and to keep a stream of reports flowing back to Andy showing positive results – every day! This calls for an output of energy the next few weeks which will make agency life pallid by comparison! All concerned with have to pitch in and do whatever requires doing. We cannot allow any single phase to bog down. The following are a few of the items I would like you to get started on immediately.

1. Put the heat on the So. Calif. Radio and Electric Appliance Association brokerage deal. Check with O'Meara, (sic) Kerwin and try to arrange for Quinn to submit our proposal to the Board of Directors at the earliest possible moment. By the time this reaches you, I will have rate information to you by phone or through Olsen. Keep in touch with Olsen on this deal and report to me by phone. Ask O'Meara (sic) to forward half a dozen extra copies of the Association Membership List to me. Get ditto copies of a sample week's program schedule from Olsen at the Knickerbocker. I will forward additional copies to you under separate cover.
2. Check every lead in the file of correspondence I gave you. I would like a report on each one.
3. Dig up a reliable "travelling" bookkeeping outfit to set up our books and have them contact me at the above phone. We want someone who can set up our books and who can supply full information on Social Security, Withholding Tax, License Fees, Unions, Amortization, etc., and who will make periodic (once a month) entries for a nominal fee.
4. We have decided to have a cocktail party for distributors only on February 10 at the Town House. We will probably follow this with an Agency party just before we go on the air.

Please check with Town House re arrangements. Let me know what the cost will be before you make commitments. Figure on about 50 people – 60 at the most. Get me a list of leading distributors who should be invited. Write details direct to Andy, 1703 K Street NW, Washington. Phone me.

5. We must accumulate a record library and should have at least 2000 records on hand by Mar. 17. You should be able to make [arrangements] with one or more of the leading record distributors for free records in return for a plug on the air. Vox Productions has already offered this and I am following up on it. Check with Olsen on this – he has several ideas. This is important.
6. Call Troutman, Central Building, and build a fire under him to get us a blueprint of the elevator housing atop the building. We need it for the Building Inspector.
7. See Ellingwood at Johns-Manville and give him a shot in the arm about installing our soundproofing within the week.
8. Check with Ken Kline at Radio Specialties in LA regarding Audak lateral pickups. If he has any in stock (I had a tip today that he has) nail two of them for us if price is less than \$60 each. If over this, phone me immediately.
9. Check with the Pasadena Planning Committee at Pas City Hall and ascertain how high a tower (six inch pipe) they will permit us to put atop the elevator housing on the Central Bldg.
10. Check with CAA at Santa Monica and ascertain if they will approve a 16 foot pole 6 inch diameter atop the Central Building and whether or not a beacon light will be required. Talk with Frank Allen or Jim Reid.
11. Ascertain the number of FM receivers within our contours. This should be available from the distributors. Send copies to Haley, Summerfield and me.
12. Obtain a mailing list of music lovers in the area from Hollywood Bowl Philharmonic and similar organizations. Send copies to Haley, Summerfield and me.
13. Check with same organizations re their giving us a plug on their program cards. We have reason to feel that they will do so because of their interest in furthering good music.
14. Visit leading civic and musical personalities (show them our program schedule) and solicit their endorsement of KAGH for use in our brochure.
15. Contact Restaurant Owners' Association re nightly dinner music on a brokerage basis, featuring different restaurants each week on a rotating basis. Sound out distributors re supplying free FM receivers for the general promotion of FM. Sell them spot immediately after dinner music.

Please phone me every night, and let me know the score. Please meet me at my home Thursday – 7 PM. We will phone Haley from here at 8 PM. [11:00 PM in Washington, DC] He is very anxious to talk with you and will want a report on your activities.

Very truly yours,
Ernest J. Vogt¹³⁵

The unreal expectation that all that was required to be done could be completed in time to allow the station to go on the air by 17 March began to fade well before the end of January. Although a plan was formed to bring the stations into service from the Central Building prior to occupancy of the new building proposed to be constructed, eventually it was clear that more

¹³⁵ AGH, *Letters & Materials*.

time would be required for physical setup and for marketing. In a weekly report to Haley written on 22 January 1947, George Patton wrote:

Dear Andy,

Since I've not reported to you directly for some time, [I] thought it best to address this letter to you personally with copies to Ernest [Vogt] and Martin [Summerfield].

We are having the rate cards and stationery printed, and it will be ready in approximately ten days. Jack O'Mara is handling this end of it and I have checked on him today.

Finally talked to Bill Quinn, Managing Director of Southern California Radio and Electrical Appliances Association. Bill is a nice fellow who I'd judge to be about 60 years old. His big drawback is that he is not very visionary and sees no reason to start plugging for FM sets when the Association is already on the air, selling electrical appliances of all types which include of course, AM sets.

He is a very small figure in the total organization, being more or less the chief office boy, so I have also contacted Mr. Jerry Costigan, who is Chairman of the FM Radio Committee, which committee is dedicated to learning how to approach the selling job needed on the FM. As such, he gives lectures to different dealers and other associations, and in general is a good missionary worker for our cause. I'm going to a lecture tonight where he is speaking and will meet with him when it is over. He of course is very much interested in our plans and I believe we'll be able to do business with the Association through him.

As you probably know by now, the cocktail party at the Town House has been set up for February 10th, at an approximate cost of \$250.

I spent quite a bit of time in the last three days contacting the various record companies in order that we can work free deals for phonograph records. At present we're a cinch to get free records from Capitol, and I believe Victor will work out a similar good deal for us. Columbia handle their record promotions from Bridgeport, Connecticut and I am going to have to write to them on our stationery in order to do any good. Decca, on the other hand, have had an 11-year policy of not giving any phonograph records to radio stations. The Los Angeles office is trying to get this rescinded locally, as they are at a disadvantage in competition.

Have also contacted ASCAP and BMI,¹³⁶ and the following is true. It will probably be to our advantage to get a blanket sustaining and a blanket commercial license from ASCAP due to the fact we will use a predominant number of tunes by their authors. Following are their rates:

SUSTAINING

- a. Per program 1% of our rate card.
- b. Blanket \$1.00 per month - \$50,000 gross per year.
\$50,000 - \$150,000, we pay highest ¼ card rate per month.
Over \$150,000 gross – highest ½ rate per mo.

¹³⁶ ASCAP (American Society of Composers, Authors, and Publishers) and BMI (Broadcast Music, Inc.) are American public performance organizations, which collect publishing royalties (performance royalties) for the public performance of musical works.

COMMERCIAL

a. Per program – 8% gross commercial time.

Under this arrangement, a log must be kept of every musical arrangement, number of tune, composer, lyric, writer, publisher and license affiliation.

b. Straight 2 ¼ % of the gross of station, subject to a deduction of 15% agency commission if paid, and 15% blanket deduction for sale expenses.

Checked on SESAC and AMP¹³⁷ licenses and after having talked to Mr. Shephard, who is the big man at KHJ-Don Lee Mutual, and [I] am convinced that these two licenses are far too expensive for the amount of money they will cost us. SESAC have a few Victor Herbert tunes, a few of McDowell's tunes, and a great many hillbilly tunes. AMP have predominantly Spanish composers. If you'd like to have me go ahead and try to get licenses for each of these, I'll try to do so. From my conversation with Mr. Shephard, however, he was not too impressed and felt that they were a necessary evil for network stations.

BMI¹³⁸ on the other hand is handled entirely out of New York and make their own deals with each station. This information was obtained from their local office which is merely a puppet organization.

The thing holding us back now is the fact that all these folks require us to write them on our letter heads, so I'm now setting up these different deals and waiting until Jack O'Mara can get our stationery. I've impressed upon him the importance of getting this immediately, and he's doing all he can, I'm sure.

As for our first commercial lead, Tom Olsen suggests we give an hour free each Sunday for the Federated Churches in Pasadena, and then carry no other religious programs, so my two church leads are not going to do me any good. Central Chevrolet are considering an hour, but I have contacted a lady who does a Prudence Penny type of homemaker show, and she will get her own sponsors for a 15-minute or half-hr. show across the board. She is going ahead with the deal and will make me an offer as soon as she gets her sponsors lined up.

I had lunch with Dave Taylor today. Dave is production manager for Foote, Cone and Belding here in Hollywood, and among other things he produces the Standard Symphony hour on Saturday nights. Next season they intend to test out FM and see what technological "bugs" they run into before going on full time FM.

This about sums up my work in the past week.

Yours sincerely,
George
George H. Patton¹³⁹

¹³⁷ SESAC was originally the Society of European Stage Authors and Composers, a performance-rights organization (PRO) in the United States. Since the organization stopped using its full name in 1940, it is now known exclusively as SESAC. AMP was a PRO of predominantly Spanish composers.

¹³⁸ Broadcast Music, Inc. (BMI) was a PRO created in New York in February 1940.

¹³⁹ *AGH, Papers & Materials*.

Correspondence of this kind continued well into the spring and long telephone conversations coupled with occasional visits by Haley to Pasadena were not able to make the clock stop while time consuming essential work had to be done. Haley's and everyone else's patience wore thin with his chronic and unrealistic demands for performance.

Pasadena, California, June 1947

With KAGH, Haley was pursuing in Pasadena the same course on which he led a prominent client in Seattle and numerous other owner/clients to pursue over the years. By mid-June, three months after the original target of 17 March, Haley was ready to begin service, broadcasting first on his FM band on Sunday, 15 June 1947. The FM broadcasting was primarily music. It apparently found a larger audience than expected. In a news clipping on 20 June 1947, Haley is quoted saying "Apparently there are more FM receiving sets now in homes than most of us realize". This conclusion resulted from the receipt of more than 180 phone calls to the new station during the first eight hours of its broadcasting.

Pasadena, California, July 1948

Thirteen months later, the new station building was completed and occupied and KAGH was ready to begin AM broadcasting. KAGH AM went on the air for the first time at 8:00 am 22 July 1948. On 21 July, KAGH President, Andrew G. Haley, sent the following telegram to T. von Kármán: "You are cordially invited to participate in the dedication of Pasadena's new standard broadcasting station KAGH between 4:00 and 5:00 o'clock Thursday afternoon July 22, 1948 at 800 North Sierra Madre Villa Avenue, Pasadena, California". The main feature of that opening day was a four-hour special program, from 4:00 to 8:00 pm, with Don Forbes, former aid to the Richfield Reporter: Bill Thompson, the voice of the 'Old Timer' and 'Wallace Wimple' of the 'Fibber McGee and Molly' show.

Thompson interviewed a host of celebrities on the air for Haley. The station's Program Manager announced that celebrities invited to come by the studio during the four hours would be civic leaders, including mayors from all San Gabriel Valley communities and persons such as popular regional Congressman John Carl Hinshaw, Dr. Lee A. Du Bridge, President of CalTech, Pasadena City Manager Don McMillan, and Roman Catholic Bishop Joseph T. McGucken.¹⁴⁰ The announcement listed the invited guests; one would have to listen to hear them.

The list of prominent show business people who sent telegrams to Haley congratulating him on the opening of the new station reads like a Who's Who of Hollywood. Congratulatory telegrams arrived from June Allyson, Edward Arnold, Lionel Barrymore, Bing Crosby, Dan Dailey, Dennis Day, Linda Darnell, Betty Grable, Bob Hope, Betty Hutton, Van

¹⁴⁰ "KAGH Gets Salute Today", *Pasadena Star News*, 22 July 1948, p. 21, col. 5. See also "KAGH Opens AM Station at Pasadena on 1300 kc", *Broadcasting*, 26 July 1948, p. 59; and "KAGH" Broadcasting Los Angeles, 16 Aug. 1948, p. 20, and the stations full page ad in the same edition at p. 11.

Johnson, Allan Ladd, Dorothy Lamour, Ray Milland, Margaret O'Brien, Ozzie and Harriet, and Dick Powell.

Other notable salutations were received. A recorded salute from Ireland featured congratulations from former Irish Prime Minister, Eamon de Valera, along with music by the Irish Symphony, conducted by Sir Hamilton Harty. Other salutes included programs from the BBC in London; from Radio France in Paris; from New Zealand; from Bellingham, Washington; and from Long Beach and Burbank, California. Senior city officials of Pasadena dropped in as well as CalTech professors Fritz Zwicky and William H. Pickering. It was an auspicious opening, and thereafter, the stations broadcast daily from 6:00 am to 8:00 pm, under their daytime operating license.¹⁴¹ Publicity could not have been greater. Haley once again showed his competence in reaching the public and stimulating its interest.

The AM station's programming was mixed, with music, features, and news. From time to time, Haley would arrange special programs he believed would be of interest to a broad audience in the San Gabriel Valley. As an example, Haley invited the Catholic prelate Rt. Reverend Francis J. MacIntyre, Archbishop of Los Angeles, to deliver an address over KAGH during Brotherhood Week, which addressed the topic of tolerance.¹⁴²

By mid-year 1947, Ernest Vogt's wife Margaret was having increasing health difficulties with her tuberculosis. Ernest decided to relinquish his management role to devote more time to his wife's support. Unfortunately, Margaret died in December 1947.

In time, the operation of the station had become an established financial liability to Haley. Revenues from advertisers were not sufficient to meet the stations' investment and operating costs. At one point, Haley indicated in correspondence with Martin Summerfield that he was losing \$2,500 a month on the stations' operations. *Billboard* reported on 22 October 1949, that "Film comic Eddie Bracken will petition the Federal Communications Commission (FCC) for permission to buy Pasadena indie [independent] station KWKW in partnership with the Jenkins and Lodge ad agency. Sale is contingent on approval of KWKW's plan to buy out rival Pasadena indie KAGH and KARS-FM, both owned by attorney Andy Haley".¹⁴³ On 13 February 1950, *Broadcasting* magazine reported that "KALI goes on the air [on 16 February] and KAGH goes off the air". The magazine reports that Aubrey Ison, former general manager of KAGH, would be general manager of KALI and several other KAGH staff members would also be retained by KALI. Haley was working to sell his stations, but attendance at an international radio conference in Montreal, P. Q., Canada, required that he and his wife relocate to Montreal in September 1949 for several months. In Montreal, Haley would serve as a legal adviser in a conference on international broadcasting.

Montreal, Quebec, Canada, September to December 1949

¹⁴¹ "KAGH Launches Regular Schedule", *Pasadena Star News*, 23 July 1948, p. 19. See also "KAGH Opens New Studios", *Pasadena Independent*, Sun., 25 July 1948, p.17, col. 1.

¹⁴² "For Brotherhood", *Pasadena Independent*, 25 Feb. 1949, p. 17, col. 4.

¹⁴³ *Billboard*, 22 Oct. 1949, p. 5.

While participating in that international radio conference in the fall of 1949 in Montreal, Haley wrote to William Donahue, who had resigned as Haley's attorney in Pasadena. Haley wrote informing Donahue that the Pasadena city fathers were pressuring him to landscape or plant the triangular lot he had purchased adjoining the station property. Haley was alerting Donahue that, because he was the attorney of record, he might be questioned about the intention to plant the triangle. Haley assured Donahue that the necessary arrangements were made and that the planting was likely in progress by the time his letter arrived. Because KAGH was not a money-making proposition, Haley was in arrears in payments to Donahue for his legal services. This same letter, dated 3 November 1949, assured Donahue that when the pending sale of the stations was completed, Donahue would receive the money owed to him.

Haley was president and director of KAGH, Inc., in Pasadena, California, from 1947-1950. KAGH went on the air on 1300 kc AM, in July 1948. By 1950, Haley also owned KARS-FM,¹⁴⁴ also in Pasadena. In 1950, the Southern California Broadcasting Company purchased KAGH and KARS-FM.¹⁴⁵ With the sale of KAGH and KARS-FM, Haley was out of the station ownership business, but running strong in his private law practice supporting other station owners across the country. He also continued to hold adjacent land associated with the station property, gradually seeking buyers for the land, but not finding any ready buyer.

With his continuing interest in radio, Haley served as legal advisor to the Secretaries General of three contemporaneous ITU conferences held in Atlantic City, New Jersey, during 1947: 1) the International Radio Conference, 16 May to 2 October; 2) the International Telecommunication Conference, 2 July to 2 October, and 3) the International Conference on High Frequency Broadcasting, 16 August to 22 September 1947. The American, Gerald C. Gross, a close friend of Haley's, was elected Secretary General for this series of ITU conferences in Atlantic City and he arranged for Haley's appointment as a legal advisor to Gross' office. Haley also subsequently served as an adviser to the US Delegation at the 4th Inter-American Radio Conference in Washington, DC, 25 April to 9 July 1949, and, as noted earlier, he served as an industry adviser to the US Delegation at the First Session of the Third North American Regional Broadcasting Conference in Montreal, PQ, Canada, 13 September to 8 December 1949. Bilateral talks between the US and Cuban delegations were held in Cuba during February 1950, and the Second Session of the Third Regional Conference met in Washington, DC, later in 1950. Haley was also an industry advisor at the Mexican-United States Broadcasting Conference in Mexico City, 1954 and in Washington, DC, 1956. All these activities kept Haley involved and current in the development of national laws and policies and regional international agreements related to the continually expanding field of communications, as he represented station owners and others from across the country.

From time to time, Haley offered a service to his clients that added to his reputation and the confidence of his clients in his capabilities. He would organize a day of meeting with clients or a client group at which he would present a survey of current applicable station operational rules and program logging regulations and would present examples of how the required documentation should be completed. He would explain and caution concerning "payola" and "plugola". Broadcasters generally had to reapply to renew their station licenses

¹⁴⁴ *Ibid.*

¹⁴⁵ "Pasadena Shift: Thursday 16 February", *Broadcasting*, 13 Feb., 1950, p. 26.

every three years of service and the content of these applications could be critical if there were competing business interests seeking to take over an established frequency. These half-day or one-day training sessions became a regular part of Haley's client relationships.

Although he became increasingly active in astronautics during the early 1950s, and later elaborated and commented on development of space law, Haley remained active in his fundamental and routine practice of communication law, which included occasional appearances before Congress related to international agreements and regulations for broadcasters.¹⁴⁶ His continuing communications law practice was his primary and sustaining source of income. His gradually increasing undertakings with the American Rocket Society, the International Astronautical Federation, and the Department of State during the 1950s were usually performed without compensation, *pro public bono*, although institutions sometimes covered some of his travel expenses. For most of his early international astronautical travel Haley was not funded, even when representing the American Rocket Society at the International Astronautical Federation. His personal expenses for local ground travel, entertainment, and frequent meals with several guests were also self-funded.

A return to Aerojet stockholding

On 15 July 1947, Martin Summerfield, who was still employed at Aerojet and teaching at Caltech, wrote to Haley:

Dear Andy,

I was just informed by Beehan [Secretary/Treasurer of Aerojet] that the General Tire people are planning to place on sale about July 23 the remainder of the authorized shares of Aerojet stock. I would like to obtain your advice as to what I should do.

The new shares (about 950, as compared with about 1050 existing shares) will be offered on a pro rata basis to all existing stockholders at a price of \$350 per share. If any of the minority stockholders do not buy their portion of the offering, G. T. [General Tire] will buy any shares that remain. B. stated that Rude mentioned the possibility that G. T. may offer the minority stockholders \$50 per share for their rights to purchase new shares. (This puzzles me!) Furthermore, G. T. may desire to purchase, at \$350 per share, at least 25 of the old shares from any of the minority stockholders willing to sell in order to acquire about 975 additional shares, in all. It seems that this degree of ownership would permit G. T. to consolidate the tax reports of Aerojet with their own.

¹⁴⁶ As examples, see U. S. Congress, Hearings before the Senate Committee on Foreign Affairs, Subcommittee on the North American Regional Broadcasting Agreement and the Mexican Broadcasting Agreement, "Statement of Andrew G. Haley", July 11, 1957, USGPO, Wash., DC, 1957; and another statement before the same subcommittee on January 24, 1960, 82nd Cong. 2nd Sess., USGPO, Wash., DC, 1960; U. S. Congress, Hearings before a Subcommittee of the House Committee on Interstate and Foreign Commerce, 86th Cong., 2nd Sess., "Statement of Andrew G. Haley", June 1960, USGPO, Wash., DC, 1960; and testimony and a statement in U. S. Congress, Hearings before the House Committee on Science and Astronautics, 87th Cong., 2nd Sess., May 10, 1961, USGPO, Wash., DC, 1961.

According to Beehan, the present "book value" of the stock is about \$750 per share, about twice the selling price of the new shares. In addition, the forecast is that the company's cash position will improve considerably during the remainder of 1947, so that a dividend can be declared, if G. T. so desires, about January 1, 1948. You will recall that, although the company made a good profit in the past fiscal year, no dividend was declared on the ground that the cash balance was too small, most of the profit being tied up in "work in progress". The payments on these contracts are now rolling in, and the cash balance is starting to grow. The new shares will be eligible for a slice of this cash profit.

I am not sure of our rights in this matter, but do you think it is proper to: (1) sell new shares at a price less than book value when the company is currently in a sound condition, and future prospects are good, and (2) cut in half the participation of the minority stockholders in the next dividend, especially since it will be paid with cash resulting from "book profits" earned in the previous fiscal year when dividends were skipped?

I don't like to impose on you in this matter with our troubles, but any advice you care to give will be appreciated. I understand Dr. von Kármán has already decided to refuse any of the new shares and is not desirous of selling any of his present shares. Beehan is now contacting Frank in Paris. As for myself, I am not inclined to purchase any new shares in view of the present tight control of the company by G. T.; there is no assurance that dividends of appreciable magnitude will ever be declared again.

Incidentally, you may recall that I wrote a protest that was entered in the minutes of the last stockholders' meeting. It aroused some heated discussion. A copy of it is enclosed.

Sincerely yours,
Martin
Martin Summerfield

In due course, the General Tire & Rubber Co. board authorized the sale of stock as described by Beehan and the sale was formally approved by the Corporate Commissioner of the State of California. Sixty (60) shares were authorized for purchase by Summerfield. Haley and Summerfield discussed the matter by phone on 20 September and on 27 September, Summerfield wrote to Haley with reference to that phone call and a tentative agreement reached during that call.

[...] I have acknowledged receipt of the offer [of 60 shares] and I have executed the assignment of 12 [of the 60] shares to GT&R [at \$50 per share].

Having agreed to purchase 48 shares at \$350 per share, I am obligated to pay \$16,000 to Aerojet before November 19, 1947. As we have agreed, you will lend me \$16,000 before that date to enable me to make the purchase. You will be protected by an agreement that I will sign, in which your loan will be secured by the full value of 40 shares of stock.

I would prefer it if you would arrange the transaction so that the source of my funds would not be disclosed to Aerojet for a little while, lest they construe it as a violation of the spirit of the offer. (Lord knows the "spirit of the offer" is quite sour already, in view of the way it was attempted to freeze out the minority stockholders!) Can this be done by writing the loan agreement in such a

manner that unless I return the loan by, say, March 1, 1948, I will have to assign 40 shares to you? That date precedes the annual stockholders' meeting so that you will be able to vote the shares.

Any method you decide to use will be acceptable to me. Perhaps the transaction can be consummated when you come to Pasadena.

Haley replied to this letter on 10 October, agreeing to Summerfield's request and assuring him that the money he requested would be made available on a timely basis; and indicating that he would be visiting Pasadena on 10 November for a week or so. "I am also working out a constructive platform for the next October [stockholders'] meeting. We will go over that in due course." The next related event was a letter dated 15 November 1947 from Summerfield to Beehan at Aerojet. Summerfield wrote:

Dear Mr. Beehan:

Enclosed you will find my personal check for \$16,800.00 (sixteen thousand and eight hundred dollars), submitted as full payment for 40 shares of Aerojet stock at \$350.00 per share. This purchase is in accord with your formal offer of September 18, 1947.

I would appreciate it if you would arrange for the stock certificate to be issued to me as soon as possible. It is a matter of importance to me, in arranging my financial affairs.

Please sign the carbon copy of this letter and return to me, in acknowledgement of your receipt of my check.

Very truly yours,
Martin Summerfield

Despite the fact that they had had no contact for more than two years, in November 1947, John Whiteside Parsons sent a handwritten letter to Haley. Parsons had terminated his relationship with Aerojet before Haley left his position there, so the letter arrived as a surprise to Haley. Parsons wrote:

Dear Andy,

Since I will be in the east during the period of December 12 to December 28, I would very much like to see you. I plan to be in Washington in the middle of the period, and certainly hope to get together. With my assistant, W. L. Doyle I will visit the major military and civil rocket agencies in the east.

While there, we also plan to discuss the possibility of getting our own contracts for propellant and missile research and development, either for a company of our own, or for some existing company. We have several programs and proposals prepared, and I would very much like to talk them over with you. I am supervisor in charge of propellant research N. A. A. and these proposals are an outgrowth of the work I have directed here for the past year, which has fortunately been very successful. I feel that with my background and present success I can improve my position and contribute something of real significance to the rocket program. At least I can try.

Candy is now in Luzano, [Laussane?] Switzerland, studying. In some ways I would like to join her, but I don't see much chance of earning a living there. I am rather worried about her in view of the present European situation. I know you are better informed on that than I, and I would like your advice.

Perhaps I have changed some. I want very badly to raise some children, and I don't have the messianic urge any more – at least along occult lines. I did take your advice and work out my own philosophy, and it rather surprised me.

Andy, in spite of the fact that I have not seen you for a long time, I still regard you as one of my best friends. It will be a real pleasure to see you again.

As ever, Jack

On 29 November Haley replied to the letter:

Dear Jack,

I was most happy to receive your very nice letter of November 24, 1947 and I sincerely hope that you will allocate as much time as possible to Washington, DC so that we can have a fine visit together.

I have so much to talk to you about that it seems futile to even approach an outline in this letter. It is sufficient to say at this time that I believe your present approach to life is sound – particularly if it is founded on your own philosophy arrived at after all these years of fruitful experience.

I, too, consider you to be one of my very best friends and the news of your forthcoming visit is really splendid. Do you have plans to spend Christmas with anyone in particular? Well, we can discuss that when we get together.

Very truly yours,
Andy
Andrew G. Haley

No evidence has been found that this proposed visit to Washington by Parsons ever occurred.

Among the Haley documents held in the archives of the Smithsonian Air and Space Museum, there is a handwritten account of the Aerojet corporate stockholdings dated 12 June 1948, which showed the changes that had occurred in holdings since 1945. Obviously General Tire & Rubber Company had strengthened its holdings since the original purchase in 1945. The tally showed that Martin Summerfield increased his holdings by 8 shares and the only other change was Haley's re-entry into Aerojet stock ownership with a block of 40 shares obtained from Summerfield. The handwritten tally showed:

Distribution of Shares at Aerojet 12 June 1948

<u>Stockholder</u>	<u>Old</u>	<u>New</u>	<u>Total</u>
General Tire and Rubber	700	926	1626
Josephine de Kármán	100	0	100
Martin Summerfield	63	8	71

Frank Malina	56	0	56
Andrew G. Haley	0	40	40
Theodore von Kármán	36	0	36
Fritz Zwicky	25	0	25
Clark B. Millikan	22	0	22
T. Edward Beehan	19	0	19
William E. Zisch	5	0	5
Total	1026	974	2000

Haley was not returning to an active role at Aerojet in any sense, but he took this opportunity to establish a means of staying current on the activities and fortunes of the company.

On 20 June 1948, Martin Summerfield wrote to Haley complaining that the Aerojet annual stockholders' meeting had been postponed a second time to 26 July, noting that "neither O'Neill nor Kimball could manage to be in Pasadena next Monday ([June 28] busy at the Republican convention). Perhaps you can attend at this new date".¹⁴⁷ Summerfield went on to comment on the Aerojet financial statement which he had been studying prior to the meeting. He was expressly dissatisfied with the amount of the announced dividend. "Aerojet earned a net profit after taxes of \$453,172.84 during the Fiscal Year ending Feb. 28, 1948. This corresponds to \$226.59 per share, based on 2,000 shares. The dividend of \$10.00 suggested by Kimball seems insignificant by comparison."¹⁴⁸

One of the most frequent topics of correspondence between Haley and Summerfield during the late 1940s centered on Summerfield's total disappointment and dissatisfaction with the General Tire management decisions being made at Aerojet. The corporate managers had plausible arguments justifying some of their most penurious decisions concerning stock dividends, but they were never convincing to Summerfield. Haley was a readily available pressure release valve through which Summerfield passed his almost chronic complaints. Haley simply took the complaints in stride and moved on until he returned to his position as a stockholder. At that point he began to take Summerfield's complaints more seriously and he discussed the problem of GT&R management decisions more frequently and for the purpose of seeking their revision.

The years of 1947, 1948, the winter of 1948 – 49, and the spring of 1949, were periods of Haley's concentration on two things: (1) building the clientele of his law firm; and (2) bringing KAGH operations to success. He devoted some attention to improving the organization and operation of the American Rocket Society (ARS), but his major effort during this time was to build and strengthen his law practice.

In April 1949, Haley wrote two letters addressing the continuing problem of GT&R managing the affairs of Aerojet in a manner beneficial to GT&R but at the expense of any appreciable return on their efforts and investments for the minority stockholders. One letter was to Martin Summerfield:

Dear Martin,

¹⁴⁷ *Haley Smithsonian Papers*, Box 1, folder 35.

¹⁴⁸ *Ibidem*.

I have been working quietly on our various projects and only regret that through force of circumstances we have not got (sic) together, and now I am afraid that we will again miss each other as you will be at Princeton next Wednesday and will remain there throughout May – and I will be in Pasadena on April 15, 1949 and will remain there for about two weeks.

If the stockholders' meeting is held on May 5th, I will endeavor to stay over to attend the meeting.

I feel a real sense of obligation with respect to the plans we discussed over the past two years. Here are my proposals and I hope you will give me your comments and views so that if you are absent I can give them full expression.

Aerojet should reinstate the contracts originally held by the founders and make payments out of the gross profits – not out of the contracts or overhead – so that the military will have no say about the matter. These contracts were cancelled purely as an accommodation to General Tire and ordinary justice indicates that they should be reinstated.

The dividend policy of Aerojet is most unsatisfactory because two factions conflict, namely, General Tire does not need dividends and the proceeds received by General Tire are taxed, with the result that General Tire undoubtedly would prefer never to declare a dividend but to build up surplus in Aerojet. The minority stockholders, on the other hand, need the dividends and in the ordinary course of business payment should be made. This matter can be taken care of by authorizing Class B non-voting stock or preferred stock and issuing such stock to minority stockholders only as a bonus. Thereafter, dividends could be paid on the Class B or preferred stock only.

General Tire constantly tries to effect amalgamations with its other interests, changing policy – making, personnel, and so on. The minority stockholders are not consulted with respect to these matters and it is essential that they be represented on the Board of Directors. This can be accomplished by the minority stockholders combining to vote their stock cumulatively for one director – and the same purpose might be achieved through negotiation. For example, this year we should request that Dr. von Kármán be put on the Board of Directors, with the understanding that he will serve one year and thereafter the minority stockholders will rotate on the Board of Directors. I believe it will be possible to have Dr. von Kármán elected this year and if there is any opposition to the rotation idea, at the next stockholders' meeting we will simply accumulate our votes and elect the next man in line, preferably you.

At the stockholders' meeting we should explore thoroughly the plans of General Tire with respect to consolidations, sales supervision, and the like. This is a matter so complicated that I would like to discuss it with you personally.

I must rush over to the State Department so I will make this letter brief. I am very happy over your fine Princeton appointment and I believe that with a little quiet negotiation you will eventually end up with an excellent permanent scholastic appointment.

Please give my affectionate regards to Eileen and I look forward to seeing you at Princeton, or Washington, when I return from Pasadena.

Very truly yours,
Andrew G. Haley.

On the same day that he wrote to Martin Summerfield Haley wrote a letter labeled PERSONAL to Bill Zisch, with whom Haley had worked for many years at Aerojet, and in whom he anticipated that he would find a sympathetic ear to his planned approach to GT&R. Haley wrote:

Mr. William E. Zisch, General Manager
Aerojet Engineering Corporation
Box 296
Azusa, California

Dear Bill,

I have been giving some quiet thought to the agenda of the next stockholders' meeting and, as I am most anxious to avoid any appearance of being other than constructive, I thought I would just informally advise you in advance of my thinking. I realize that as General Manger you have an obligation to your principals to advise them of matters such as this, so I want you to know in advance that I am not writing you in confidence. And, on the other hand, my comments are only tentative so I prefer at this time that they would not receive widespread circulation which might only result in undesirable gossip. It is obvious therefore, that my purpose in writing you is to obtain the benefits of your criticism and advice and to give you an adequate opportunity to oppose these suggestions (if you see fit) if they are brought up at the forthcoming stockholders' meeting.

I believe there is a fundamental and irreconcilable conflict in the basic viewpoint of the General Tire and Rubber Co. *vis-a-vis* the minority stockholders in that I can see no practical reason for General Tire ever to desire the declaration of dividends, whereas the minority stockholders desire and need annual dividends. It is only right and proper for General Tire and Rubber Co., as a matter of policy, to want profits to cumulate in the surplus fund as a protection against lean years and as a fund for expansion. Furthermore [and I may be mistaken in this], from General Tire's viewpoint the declaration of dividends may only create an undesirable tax situation. On the other hand, each of the minority stockholders in proportion to his overall capital worth, has an important investment in Aerojet on which he should receive an adequate annual return. This proposition is fundamental in capitalistic economy. Any reasonable man must consider that the position of General Tire on the one hand and the minority stockholders on the other hand are both fundamentally sound. Accordingly, reasonable men should find a solution for the situation. Two courses of action immediately are presented, namely (1) amending the charter to authorize the issuance of Class B non-voting stock for the purpose of giving such stock to the minority stockholders, or (2) amending the charter to authorize the issuance of Preferred stock for the purpose of giving such stock to the minority stockholders. I believe (1) is the better because after considering the financial position of the company annually, the directors will be in a position to set the amount of the dividend and the dividend can be paid only on the Class B stock, thus eliminating the necessity of General Tire sharing in the proceeds. Course (2) might involve a set annual obligation which would not have the virtue of flexibility. I think I will come to the meeting with a proposed amendment to the charter covering this point. In any event, I would appreciate receiving your comments and criticisms.

There are many other inter-corporate problems involving tax matters and the like which should be brought out in the open for discussion as the minority stockholders might very well find ways to

assist General Tire in conforming the operation to the general pattern of the overall set up of the majority corporate stockholder.

I have used the term “minority stockholder” in its general sense – there may develop a difference of approach between those who are employed by Aerojet and those who are not. I can readily see where the employed stockholders can receive direct benefits from the corporation in the forms of bonuses, increased salaries, and so on. However, the interest of each should be fundamentally the same as bonuses and salaries should only be measured on the basis of merit and should have no reference in any case to the capital investment of the person involved.

The next point I will discuss is the reinstatement of the contracts between the corporation and its founders. Those contracts were only abrogated under heavy pressure from me for the purpose of clearing up the corporate obligations so that General Tire would have a free hand. The desired end of my arbitrary action has been accomplished long since and the contracts should be reinstated with von Karman, Malina, Summerfield and myself. The contracts should be paid out of the gross profits of the company so that they may not be challenged by the governmental agencies. I will not go into a long dissertation on the background of this matter and I will conclude this discussion by simply stating that the action should be taken as being basically fair and just.

The minority stockholders should be represented on the Board by at least one director. This statement is not intended in any way in derogation of the service of Eddie Beehan. You and Eddie are both fulltime executives of the corporation and as such really are not in a position to express the views of the minority stockholders. From the company’s standpoint, I believe that both you and Eddie should serve on the Board of Directors, but I also believe that the minority stockholders as such should have a separate and independent representative. Unless he positively refuses to serve, I intend to nominate Dr. von Karman to serve as director. It is not my intention to engender any captious controversy but I want to point out frankly that if the minority stockholders accumulate their votes, they can elect a director. I appreciate the fact that neither the charter nor the by-laws provide for cumulative voting, and I also realize that we are incorporated under the laws of Delaware but, nevertheless, we are domesticated in California and the privilege of cumulative voting is conferred by statute in California. Under all the circumstances – most of which are not touched upon here – I am confident that if the matter came in litigation, cumulative voting would be upheld by the courts. In any event, I propose to advocate continuous representation on the Board of Directors of the minority stockholders.

I believe the last proposition is important to us because of certain actions during the past several months. For example, as you are well aware, I have no personal differences with Trevor Gardner. I wish him nothing but the best in the world. I object on two grounds, however, to his appointment as General Sales Manager for Aerojet and other companies controlled by General Tire, namely (1) that we have better qualified men for the job presently employed fulltime by Aerojet, and (2) the interests of Aerojet are bound to be injured by the appointment of a general sales manager who also represents other companies. There is another consideration of lesser importance, namely, the general sales manager should be subordinate to Aerojet’s own top level management. Another illustration involves any actions tending toward consolidations with other companies or the acquisition of related businesses by the parent company. These complications may very well end up in diminishing the importance of Aerojet and its ultimate financial standing.

The foregoing are the main points I have in mind at this time. I hope that the annual report and the agenda of the meeting will not be perfunctory. In making this statement, I am in no way criticizing

our Secretary (for whom I intend to vote) as I know that he is fully capable of writing a most detailed report and of preparing an exhaustive agenda.

I have written this hurriedly as I am about to leave for Chicago. I hope to arrive in Pasadena April 15, 1949 and to stay for a few weeks. During this period I would like very much to see you and Eddie and talk these matters over before presenting them to the minority stockholders.

With every kind wish to you, Eddie, and all the staff of Aerojet, I am

Very truly yours,
Andy
Andrew G. Haley¹⁴⁹

Within a week, Martin Summerfield replied to a copy of Haley's letter, not only to agree with everything Haley had written, but also to give Haley several comments Summerfield wished to have explicitly stated at the stockholders' meeting. Summerfield wrote to Haley:

Dear Andy,

I am in complete agreement with the proposals that you wish to present at the Aerojet stockholders' meeting on May 2, 1949. In order that my vote may be cast in favor of these motions I have entered your name on my proxy form.

In speaking for me, you may state that:

A representative of the minority stockholders should be elected to the Board this year, preferably Dr. von Karman.

It should be the policy of the company to declare dividends commensurate with a stock value of the order of \$1,000 per share.

The field of activity of Aerojet as compared with the Marquardt division, the Pulse-jet division, the Foothill division, the Akron Company, and Parsons-Aerojet should be clarified.

With regard to the matter of consulting agreements with the founders, I believe that Aerojet has already lost much ground as a result of its refusal to engage such services. The present precarious position in the solid propellant field is only one instance of this.

Please convey my regrets to the people at the meeting that I am unable to be present.

Eileen joins me in sending our best regards to Delphine and the children.

Sincerely,
Martin Summerfield

With that encouraging response from Summerfield in hand, Haley also received a reply from Bill Zisch dated 22 April, that read:

¹⁴⁹ In *AGH, Letters & Materials*.

Dear Andy:

This is to acknowledge receipt of your letter of April 8, 1949.

It is my firm opinion that the treatment afforded to the minority stockholders by the General Tire and Rubber Company has been exceptionally fair and reasonable and, further, since I am aware that certain of the points discussed in your letter are under consideration by the Board of Directors, as a result of which I am confident continued fair and reasonable action will be taken, I found it quite unnecessary to concern myself directly with the problems raised in your letter except as I may be requested to do so by our Board of Directors or members thereof.

Frankly, Andy, it is clear to me that my position with Aerojet requires that to the best of my ability I serve the total interest of Aerojet in the manner prescribed by my superior. Further, in view of my confidence in the good judgment and fairness of the majority stockholder, I find it quite unnecessary and therefore have no desire, to participate in any minority stockholder action. Therefore, I would be appreciative of your consideration if such comments, as covered in your April 8 letter, be directed to those associated with the company directly or indirectly who you believe it to be their responsibility to represent the minority stockholders.

The above is a frank expression of my feelings in the matter and I hope you will take it in the cooperative and constructive manner in which it is intended.

Very truly yours,
Bill
W. E. Zisch
General Manager¹⁵⁰

The notable consequences of the Haley/Summerfield dissatisfactions with GT&R management of Aerojet affairs were: (1) the decision at the 1949 Aerojet stockholders' meeting to declare a \$50 per share dividend for all stockholders; and (2) a Board decision authorizing an amendment to the corporate Articles of Incorporation (done by Rude and Beehan in January 1951) to provide for a class B stock for which the Board would have the power to pay separate dividends, as Haley had proposed. The 1949 dividend of \$50/share was well below the level Summerfield had indicated he thought was fair, but it was five times greater than the \$10/share dividend that had been suggested earlier by Kimball.

In July 1949, in an arrangement recommended by Dr. von Kármán, Martin Summerfield accepted an invitation to move from Pasadena to Princeton University in New Jersey to become general editor of a new Princeton Series on *High Speed Aerodynamics and Jet Propulsion*, the purpose of which was to provide supporting literature for these rapidly developing fields. Three years later Summerfield turned over his editorship to Joseph V. Charyk, and continued full-time as a professor at Princeton. His change of address notice requested that correspondence expected to arrive after 30 August 1949 should be directed to his new residence on College Road in Princeton.

¹⁵⁰ *Ibid.*

Continuing the Third North American Regional Broadcasting Conference, 1950

We noted earlier that during the last third of the year 1949, Haley served as an industry advisor at the Third North American Regional Broadcasting Conference held in Montreal, Canada. In order to reach a new agreement on the use of the normal broadcasting bands in the North American Region, the delegations of the Bahamas, Canada, Cuba, the Dominican Republic and the United States of America met in Montreal. The Canadian Government had entrusted to the General Secretariat of the ITU the task of providing a secretariat for the conference. The conference was originally scheduled to run from 13 September to 15 November 1949, but the complexity and contentiousness of issues involved, especially between the United States and Cuba, resulted in the conference being prolonged into December. By 8 December, conferees realized that a good deal of time still would be needed to bridge certain divergences of opinion as well as technical matters, so it was decided to adjourn the conference and reconvene later. Haley participated again as an advisor in later sessions of the conference held on a bilateral basis in Havana, Cuba, and then multilaterally in Washington, DC, during 1950.

Because Haley and his wife would be in Montreal in attendance at the conference for several months, their daughter Delphine (age 14) was enrolled at Villa Maria in Montreal, and Andrew Jr., (age 11) was enrolled at Loyola Lower School in Montreal. After the conference concluded Haley arranged for his wife and the children to visit Aunt Dede's mother and family in Campbellsville, Kentucky, for the Christmas holidays, after which the children returned to school in Montreal. Apparently both children liked the school environments in which they were living. Haley was impressed with the schools, believing that the children had learned more than in any previous schools. With parental consent, the children chose to remain in place for the balance of the school year 1949-1950.

1950 was an extraordinarily eclectic and unsettled year in the life of Andrew Haley. On 27 January 1950 he and his wife, Aunt Dede, sailed on United Fruit's *SS Vegarua* to Havana, Cuba, for a continuation of the Montreal conference, basically bilateral technical discussions between the United States and Cuba, which ended on 7 March 1950. The multilateral conference (2nd session) reconvened in Washington, DC, on 6 September 1950, where the conference concluded on 15 November 1950. Haley served as a US Delegation legal adviser to all sessions of the conference.

Haley and Aunt Dede left Havana, Cuba by air on 8 March 1950 and flew via Texas and Arizona to California. Station KAGH was still on the air and struggling to maintain solvency. After a week visiting with family in Pasadena, the Haleys visited Ernest Vogt who was in a sanatorium in Denver, Colorado being treated for TB. During April, the Haleys went back to Montreal to visit with their children during the schools' Easter recess. Some members of the family travelled to Quebec City, where they visited the shrine of St. Anne de Baupré. St. Anne is venerated in the Roman Catholic Church as the mother of Mary, and the grandmother of Jesus Christ. After school closed for the year in May, the Haleys collected their children in Montreal and took them to the northwestern United States, where they and Aunt Dede visited with family, while Haley returned to Washington, DC, in May "to get some work done". In September of 1950, Ernest Vogt succumbed to TB. With no other immediate relative to assume

the responsibility, Haley made necessary funeral arrangements on behalf of the family, and ensured that Haley relatives in the Pasadena area, primarily the Bader family, would continue their care for the Vogt children, who had resided with the Baders since their mother's death.

During 1950, Haley became involved in a significant effort to establish a viable competitor to Aerojet. He recognized he needed a large company with substantial resources and a willingness to take on the risks associated with an emerging technology. It would not be easy to duplicate an organization the size of Aerojet, and there were not a lot of trained personnel who could set up and readily operate the facilities necessary to produce rockets effectively and competitively. This was a course Haley had traversed once at the urging of the US Army Air Corps in 1942. He had learned a lot of lessons at Aerojet and he knew now far more about the attendant challenges than he had known in 1942 in Pasadena.

During the late summer of 1950, Haley was exploring the availability of former war production facilities which might be available for lease or purchase. He was surveying possible locations for a production facility and for proof testing rockets of various sizes and fuels. On 28 November 1950, Martin Summerfield, who was now well-established in Princeton, wrote to Theodore von Kármán describing in some detail the project in which Haley was involved, and asking if von Kármán would comment on the desirability of Summerfield's joining with Haley in this new venture at the cost of his position at Princeton. Summerfield wrote:

Dear Dr. von Kármán:

I am writing to ask your advice on whether I should permit myself to get involved in a new industrial rocket program that is shaping up at this moment. Frankly, the principal inducement would be a considerable addition to my income and standard of living, but I am hesitating because it may encroach upon a course of life here at Princeton that I find pleasant, stimulating and promising (to which you very kindly brought me), and because it would represent a break with certain professional associations and friendships.

I hope you will forgive me for troubling you with a problem of my personal career at this time. Marie Roddenberry [secretary to von Kármán] has told me that you are taking a much-needed rest as a result of overwork. I hope you are now feeling better and that you will soon return to normal work.

Specifically, the story is the following: Andy Haley is promoting a new venture in the field of rockets and has brought me into the negotiations. The interested parties are the Minnesota Mining and Manufacturing Company and Mr. Edwin Pauley and his Pacific Rubber Company. The MMM Co. is one of the largest industrial corporations in the United States. The latest balance sheet shows assets of \$100 million, of which about \$30 million is in cash at present, and a substantial fraction of this cash is considered available to back the new enterprise. Last year it had sales of \$114 million, with a net profit (after taxes) of \$14 million. This year's sales will probably exceed \$150 million. The main plant is in St. Paul, Minn., and there are about 30 other plants in all parts of the country.

I have met most of the top officers of the company, and have had many conversations with Mr. Lloyd A. Hatch, Vice President in charge of Research and New Products. I have been most favorably impressed by the management of the company, particularly their sharp comprehension of the business and the technical factors involved in the proposed new enterprise. In a short time

they have achieved an understanding that GT&R did not have even after they bought Aerojet. Since the 3M empire has grown almost entirely from its own inventions (many of which are really ingenious), the management is possessed of a firm faith in the value of its technical staff, and is inclined to be willing to enter new fields that have prospects of growth.

Mr. Hatch made a favorable impression on me as an individual. He is a learned and interesting man, as well as the clear and forceful executive you would expect to find in a large corporation. A revealing incident occurred while we were in the Huntington Hotel recently: He telephoned the bell captain to send up a newspaper. The bell boy entered carrying a copy of the *Examiner*. He recognized it immediately as a Hearst newspaper and returned it to the bell boy saying "I don't want to read the news that badly!" He told us that he has never bought a Hearst or a McCormick newspaper and doesn't intend to start now. This from the executive of a hundred million dollar corporation was unexpected!

Mr. Pauly is probably known to you. I have met him in these conferences; he seems to be mainly a promoter, and undoubtedly a very capable one. It is my guess that his principle contributions to the venture will consist of the essential connections by which access to contracts can be obtained. This will last for at least two more years. His Pacific Rubber Co. has some experience that will, of course, be essential.

With this combination of financial resources, industrial ability, government connections, and with a rapidly increasing military budget for rockets of all types, it is inevitable that this enterprise will succeed, provided the experienced technical people can be obtained. That is why I (among others) have been approached.

The motivation on Andy's part is clear to me. First, his radio business has taken a severe drop due to emergency restrictions, and he is seeking an arrangement that will supplement his income until conditions improve. Aerojet has definitely rejected his request for a connection as legal counsel. I was present at a meeting he had with Mr. Rude in Azusa last July at which he suggested a retainer of about \$300/month, which I consider fairly modest, but after 5 months no action has apparently been taken. In addition, Andy has a deep desire to regain position and income that were lost when GT&R bought Aerojet. This is understandable: there is a matter of personal pride involved. Finally, this new enterprise will strengthen his present association with Pauly, and this will thus fit in with his legal business.

Although I do not share in each of Andy's motives, I do regard him as a very good friend, and at his request I have joined in the initial discussions with Mr. Pauly and 3M. However, whether Andy is really responsible for this particular threat to Aerojet's business is beside the point. A tremendous budget has been announced for rockets and guided missiles; and business people everywhere know that the business is profitable. *Barron's Weekly* recently carried a big story on how lucrative Aerojet's profits are, and how important a part of the GT&R earnings it contributes. Competition is bound to grow. Of course, there is competition in the liquid field, but the solid field is wide open.

The 3M officials have been trying to learn as much as possible about the business during the past month. I have participated in some of the conferences in Washington and in Pasadena, and I made one trip to Minneapolis. Through Pauly and Haley they have conferred with Mr. McCone, Gen. Putt, Gen. Swafford, Adm. Bolster, and others; they have been investigating plant locations; and their technical staff has been studying the subject of rockets. I think they will soon decide whether to make the plunge, and as it looks now, I think the decision will be affirmative.

My personal position is complicated by the following factors:

Under no circumstances will I abandon the editorship of the series at this stage. It is a program that I enjoy to the utmost, and I shall always be grateful to you for the opportunity.

I believe that I can have an appointment in the Princeton Aero Department at the conclusion of this program, if I desire it. I am going to teach a course in combustion next spring, and a course in rockets in the fall of '51. Both Sayre and Perkins have suggested that they would like to have me remain here at Princeton.

On the other hand, regular professional salaries at Princeton are not high, but I believe that someday Aerojet would be willing to offer me a consulting arrangement that would augment my university income. I believe that Zisch would be willing. However, five years have elapsed since I resigned from Aerojet and they have been consistently unwilling to consider it. I have refrained from seeking a competitive consulting arrangement because I have many friends at Aerojet and I do not desire to compete with them. Also, now that you are back with the company, I would prefer to be associated with Aerojet. But I believe that GT&R does not want me. They have engaged many consultants: Folsom, London, Zucrow (few in the Engineering Dept. wanted this), Sabersky (who used to work for me in project X), Stewart, etc., but they have never approached me. Do you think I should continue to pass up other opportunities?

A flattering aspect of the negotiations with 3M and Pauly is that, if they decide to go ahead, they want me to be Technical Director of the company on a full time basis. The salary would be about \$18,000 per year (which I like), the location is going to be either Southern California or the San Francisco area (both of which I like), and in addition the present negotiations envisage a stock-sharing scheme of which my share would be about 2%. The Technical Director, according to their organization plan, is the boss of the Engineering Department, the Research Department and the Proving Grounds. It is a big job indeed.

However, as I said above, I look upon the offer as flattering, but that is all. I have told them I do not think I am adequate for the administrative responsibilities involved, and this I really believe. But my main reason for declining it is that I prefer not to leave Princeton at the present time. What I would prefer is to make a long-term consulting contract with the company, help them get organized, and then let others direct the daily affairs of the business, Whether they will agree to this counter proposal I do not know.

I should have written to you sooner about this, but it is only in the last few days that the 3M people began to show definite signs of interest in me. Now they are driving for an early decision on my part.

I would very much appreciate your advice and comments on the affair at your earliest convenience.

Both Eileen and I send you our best wishes for a speedy and full recovery and a return to your normal active program. Give our best regards to Pipa. (sic)

Sincerely yours,
Martin

The absence of any further correspondence or information about this venture in the files suggests that Summerfield's expectation of a positive decision to proceed with the project was probably erroneous. There is no readily discoverable evidence that the venture was ever formally launched.

¹⁵¹ In *AGH, Letters & Materials*.

Chapter 13. Unexpected Haley Family Expansion

Haley's next younger sister, Margaret, who had married Ernest Vogt, died of tuberculosis in December 1947. The Vogt family had moved to Pasadena in the early 1940s when Ernest was hired as Assistant Chief Engineer at Aerojet Engineering. Margaret and Ernest Vogt had two children, Andrew John (1943) and Mary Michaela (1945). Haley knew that Ernest had first met Haley's sister at the Glockner Sanitarium in Santa Fe, New Mexico, during the early 1930s, so it was not a surprise to Haley when Ernest also succumbed to tuberculosis in 1951. At Ernest Vogt's death, the *Washington Star* ran an obituary, which noted that the American Rocket Society (ARS) had voted him one of the five men who had contributed the most to rocketry to date. Ernest's son Andrew assumed that Haley had something to do with his father receiving this honor.¹⁵²

Because of the abiding illness of the Vogt parents, the children, Andrew John and Mary Michaela, lived for several years at the home of another of Haley's sisters and her family, Gertrude Bader, in Pasadena. In the 1940s, Frank Bader also had come to work at Aerojet and served for many years in the financial department as Aerojet's chief in-house auditor. After Ernest Vogt succumbed to tuberculosis in 1951, Haley voluntarily assumed guardianship of the two Vogt children, then aged eight and six. He took them into his home from 1951, where he and Aunt Dede undertook to raise them along with their own two children, Andrew and Delphine. Not surprisingly, the Vogt children spent substantial time in boarding schools as they grew.

In 1951, the Haleys had purchased a home on Huntington Street in Northwest Washington, DC. In order to house the Vogt children, a new room was added to the house. In 1951, the Haley children were 16 and 13 and the Vogt children were eight and six, so alternate schools were required for the children. Aunt Dede now had a substantial family and a large home to manage. She was gradually becoming less confident of her own ability to cope and she relied increasingly on alcohol to help minimize her discomfort.

Many years later, Andrew Vogt recalled some events at the Huntington Street home:

AGH and Aunt Delphine had separate bedrooms. She was often in hers, which was centrally located, and Mary and I would sit with her and hear her stories. AGH's bedroom was off to the side. When he was in town he often came home early and retired to his bedroom to read *Scientific American* and *Aviation Week*. Aunt Delphine would come pounding on his door to get him to interact, but he had it locked from the inside. Every so often, on a weekend morning, all of us would be pleased to find Aunt Delphine and AGH in his bedroom together reading in bed and sweetness and light would prevail for a while.¹⁵³

¹⁵² From a commentary on the draft of this biography sent to S. E. Doyle 12 Jan. 2020; in *AGH, Papers and Materials*.

¹⁵³ *Ibid.*

From 1951 on, Andrew Haley engaged in increasingly frequent and longer duration foreign and domestic travel to meet with and support his increasing number of clients in the communication industry. To relieve some of the family management burdens on Aunt Dede, a German couple, Emil and Elsa, were hired to live in and to assist in cooking, housekeeping, and home and yard maintenance. After a few years, they were replaced by Alfred and Anna Boese. Andrew Jr. recalled that “[e]very morning breakfast was prepared by Anna at 7:00 o’clock [...]. Alfred sometimes worked at my Dad’s office doing menial jobs like mimeographing FCC releases”.¹⁵⁴

The relationship between Haley and his wife remained strained. When alone, or at evening meals at home in Washington, DC, the two frequently quarreled about a wide range of topics. Gradually, Aunt Dede increased her use of alcohol in an effort to make her life tolerable. Some of the children were at boarding schools for part of each year, but they were all home together briefly during holiday school recesses. Sometimes, these holiday reunions were held at the Campbellsville home of Aunt Dede’s mother in Kentucky.

During summer months, the children were either employed as clerks at the law firm or sent to live with other family members, where they might work at summer jobs. Anticipating his increasing foreign travel, during the 1950s, one of the summer jobs of Haley’s wards was the writing and addressing of hundreds of greeting cards, which Haley had acquired in bulk on previous trips. The children were directed to write a brief greeting and to describe in one short sentence what he was doing at a particular location. Haley would take these hand-addressed cards with him when he travelled. At his hotel, he would give a bell hop a bundle of pre-addressed cards, the necessary money to purchase the local postage, a substantial tip for purchasing and applying the postage, and then mailing the cards. Everyone Haley knew for whom he had a mailing address would receive cards bearing greetings from Haley at sporadic intervals from all over the world.

In some years, the Vogt children also were involved in summer camps for teenagers organized by the church. As the children grew older, Haley continually urged them to practice faithfully the obligations imposed by Catholicism. When he was in a position to do so, Haley required the children to attend mass every Sunday and on church holydays, although he rarely attended himself when he was ‘busy’. Haley had a lifetime of devotion to Catholicism, and he did not want to see his children or his wards drift away from the church.

As he grew older, Haley was an increasingly emotional man and, when under the influence of alcohol, he could be compulsive and short tempered. He was deeply immersed in his legal work and in his voluntary organizational work done for domestic and international organizations. He travelled a great deal in the 1950s, domestically to meet with clients in different cities and to conduct technical meetings or seminars, and abroad to attend technical meetings, organizational meetings, and conferences. One of his young family quipped, “[w]hen he went on travel we had a vacation from him at home”.

Haley’s presence in the family home raised the level of tension and contributed to the widening gaps between him and his wife, as well as between him and his children. As the older children were generally educated at boarding schools, it was not surprising that as they reached

¹⁵⁴ From an e-mail letter to the author from Andrew, Jr. dated June 20, 2017.

college age and attained majority, in the 1950s and early 1960s, they chose to leave home and take up independent residences when they could. Haley knew he was difficult to live with and that he was demanding and psychologically punishing to those close to him at home, but, as his daughter Delphine later observed, he was unwilling, and perhaps unable, to change his behavior. He became more dependent on alcohol in time to ease his self-inflicted and increasing emotional isolation and loneliness. Before he was 60, Haley was consuming some amount of alcohol every day. In the late 1950s and early 1960s, Aunt Dede suffered deteriorating health from alcoholism and was institutionalized several times in attempts to break the hold alcohol had on her. Despite these efforts, she also was perhaps unwilling as well as unable to break her dependence on alcohol.

Chapter 14. Helping Create the International Astronautical Federation

In the early 1950s, the list of Haley's clients and his firm were growing, and his time was primarily dominated by the demands of his law practice. Also, during the early 1950s, Haley published articles dealing with rocketry and spaceflight¹⁵⁵ and had newspaper interviews which dealt with space flight and travel to the moon and beyond. His attention to issues of space law did not appear in public until 1955, when he was 51 years old.¹⁵⁶

Principal additional occupations for Haley during the period from August 1951 to September 1953 were the continual conduct of correspondence and document drafting for the resolution of numerous issues involved in the creation of the International Astronautical Federation (IAF) and travelling to Europe to participate in the related meetings. Work on creation of the IAF began in Paris in September/October 1950. An international meeting in Paris was named by its organizer, the International Astronautical Congress. The meeting involved representatives of non-governmental organizations interested in astronautics from eight countries. Several United States' rocket societies had been invited, but did not attend; neither did the also invited USSR.

Haley's involvement began in the summer of 1951. He was sent as one of two representatives to the second IAF Congress to represent the American Rocket Society (ARS) in London in September 1951. Haley was coupled with an engineering counterpart, a naval Lt. Commander, Fredrick C. Durant, to represent the ARS. The second such meeting, labeled the Second International Astronautical Congress, was organized and hosted by the British Interplanetary Society (BIS) in London. Haley was designated ARS representative for legal and constitutional issues expected to arise, and Durant was to represent the ARS on any technical or engineering issues involving astronautics. Durant was also to read a technical paper at the conference on behalf of Wernher von Braun, one of half a dozen papers expected to be presented.

From the outset, it was planned that the London meeting would include official administrative meetings to address creation of a new organization (the International

¹⁵⁵ As examples see "How a Rocket Works," an address to the Academy of Sciences of St. Louis, March 1, 1954; "Some Future Problems for the Space Technicians," a paper presented to the American Rocket Society Space Flight Symposium meeting in New York City, Dec. 1, 1954; "Outposts in the Sky," *The American Weekly*, newspaper insert; or "Immediate Prospects in Rocketry and Astronautics," being an address to the National Capitol Section of the American Rocket Society, Washington, DC, April 14, 1955.

¹⁵⁶ Among Haley's earliest presentations dealing with space law are: "Jurisdiction beyond the Earth," presented to the Rotary Club of Charlotte, Charlotte, N. C., June 7, 1955, and "Basic Concepts of Space Law – The Unmanned Earth Satellite," a paper delivered to the 25th Anniversary Annual Meeting of the American Rocket Society in Chicago Nov. 14-18, 1955. This latter paper was a major introduction to significant topics, on many of which Haley believed the legal community had to find agreement in the near future.

Astronautical Federation). In addition, there would be time allocated for presentation of technical papers by individual authors addressing astronautical topics. Wernher von Braun, who was at that time an ARS member working for the US Army at its Redstone Arsenal in Huntsville, Alabama, prepared a paper for the meeting, but was not able to attend. It was arranged that Fredrick C. Durant would read to the meeting von Braun's paper, titled 'The Importance of a Satellite Vehicle as a Step toward Interplanetary Flight'.

The Durant-Haley team, which was brought into being in 1951, continued through the collaboration of these two men for more than a decade. In 1953, Durant was elected President of the ARS and Haley was elected Vice President. Durant was also elected third President of the International Astronautical Federation (IAF), serving from 1953 to 1955, while Haley also served as Vice President of the IAF. Haley was elected President of the ARS in 1954 and served as fifth President of the IAF from 1957 to 1959. Anyone knowledgeable about international cooperation in astronautics during the 1950s knew the names and personalities of Fredrick C. Durant and Andrew G. Haley. Haley and Durant remained alternately friends, critics, correspondents, and associates in astronautical organizations and activities until Haley's death in September 1966. Durant survived until October 2015.¹⁵⁷

First International Astronautical Congress, Paris, France, 1950

In the wake of the Second World War, a desire to collaborate internationally in astronautics was spawned in the Federal Republic of Germany (FRG). On 22 June 1949, the Board of Directors of the regenerated German Society for Space Research, *Gesellschaft für Weltraumforschung (GfW)*, had been deliberating ways to promote international communication and collaboration among non-governmental groups of professional rocketeers. The Board adopted a resolution to encourage international cooperation. In English, the resolution communicated to societies in France and Great Britain read:

The development of the large liquid-fueled rocket has advanced so far that the question of spaceflight now arises and its practicability can be confidently affirmed.

The rocket is not only a weapon, but also is an instrument of peaceful research. The *GfW* therefore considers one of its most important tasks to be the emphasis of the peaceful possibilities of space travel and the promotion of space flight as a new means of research.

The drives toward interplanetary space and future research on space flight are international tasks. Cooperation between scientists and engineers of all nations culminated in the present successful position. [Refers to distribution of German V-2 rocket technology to the US, USSR, UK and France.]

The *GfW* therefore recommends an international meeting of all societies for rocket development, interplanetary travel, and space research, to foster friendly relations, and a successful exchange of

¹⁵⁷ See his biography at <http://www.astronautix.com/d/durant.html>, last visited on 20 May 2021.

knowledge and to explore the possibilities of forming an international association for astronautics.¹⁵⁸

The *GfW* resolution was signed by Heinz Gartmann and H. H. Kölle on behalf of the Board of Directors of the *GfW*.¹⁵⁹ With this resolution, three of the leaders of the *GfW*, Gartmann, Kölle, and Günther Löser, contacted Arthur V. Cleaver, at the British International Society (BIS) and Alexandre Ananoff of the *Groupement Astronautique Française*.¹⁶⁰ The British were asked to serve as hosts for an international meeting in London. The BIS leadership believed it would take two years to prepare properly for a major international congress on astronautics, so the BIS agreed to host such a meeting in London in 1951. Thus, a new international non-governmental organization was proposed in the informal collaboration of members of national, non-governmental astronautical groups in Europe. As conceived, the new entity would be dedicated to the advancement of astronautics and improvement in public awareness of and support for potential peaceful uses of rocket technology ‘to foster friendly relations’.

The BIS reported in the September 1949 edition of its *Journal of the British Interplanetary Society (JBIS)*, that discussion was taking place with the *Gesellschaft für Weltraumforschung (GfW)*, Stuttgart regarding the conference. In its April 1950 edition, the *JBIS* reported that “it has been provisionally agreed that [an international conference] should be held in London in September 1951”.¹⁶¹ The news item noted that the *GfW* was also discussing with Alexandre Ananoff, of the *Groupement Astronautique Française*, the possibility of a preliminary international meeting of representatives of interested national societies to be held in Paris. In Paris, Alexander Ananoff undertook, almost single-handedly, the organization of the first international meeting of interested societies in the early fall of 1950.

The 1st Congress met in Paris from 30 September to 2 October 1950. Mr. Ananoff circulated invitations to all the rocket and astronautical groups known to him at the time. In response, delegates came to Paris from Argentina, Austria, Denmark, the Federal Republic of Germany (FRG), France, Spain, Sweden, and the UK. Although notice of the meeting was sent to the American Rocket Society (ARS), no American representation was sent to the 1950 meeting. Letters of support and encouragement were sent to France from the ARS and the Detroit Rocket Society. An invitation to the USSR was not acknowledged. After WWII, Soviet Premier Joseph Stalin had established a firm policy that Soviet scientists were not to participate in international nongovernmental scientific meetings. Accomplishments of Soviet science were to be closely held.

The opening session of the conference, held in the Richelieu Grand Amphithéâtre at the Sorbonne on 30 September, was attended by more than 1,000 people. Heads of the national

¹⁵⁸ This translation is taken from Schwartz, L. E., *International Organizations and Space Cooperation*, World Rule of Law Center, Duke University, Durham, N. C., 1962, p. 56; see also Shepherd, L. R., “The International Astronautical Federation”, vol. 1, no. 5 *Spaceflight*, London, pp. 159-163; and US Congress, *A Chronology of Missile and Astronautic Events*, Report of the House Committee on Science and Astronautics, 87th Cong., 1st Sess., House Report No. 67, hereinafter cited as *Cong. Chron.*, GPO, Wash., DC, March 1961, p. 13.

¹⁵⁹ Haley, A. G., *Space Law and Government*, Appleton-Century-Crofts, New York, 1963, p. 347.

¹⁶⁰ *Id.* at 347-348.

¹⁶¹ *JBIS*, April 1950, p. 137.

delegations were introduced and made brief remarks. On the second day, October 1, a private working session convened in the French Aero Club in Paris. Many matters were discussed, including the nature and functions of a potential international body, the number of representative societies allowable from one country, the need for increased international cooperation, and possible formation of a European society, which failed to gain support. In the afternoon, the delegates visited the Observatory at Meudon, where some fine work on solar astronomy was described to the visitors.

On the third day, October 2, the group assembled again at the Aero Club. The delegates wished to produce some tangible result of the meetings, and after some additional discussions a resolution was agreed, recommending provisional establishment of an international federation. It was agreed that the details of the federation functions should be discussed before the next Congress, which was agreed to be organized by the BIS in London in 1951. The BIS spokesman asked the delegates to send to the BIS by year-end 1950 their proposals on:

Constitution of the Permanent Committee of the Federation

Voting procedure to be adopted by this Committee, with some regard to membership figures for the constituent societies

Organization required to be set up for collaboration in technical studies, exchange of publications, etc.

The group hoped that these details could be substantially agreed during the coming year, so that formal business in London could be done quickly and the permanent federation could be officially inaugurated. A general structure for the conference in London was outlined. Time would be reserved for procedural matters, public discussions, and presentations of technical papers.

A second brief field trip was held in the afternoon. Participants were guests at the atomic facility at Chatillon, in the southwest suburbs of Paris. In the evening, a brief final working session adopted the resolution discussed during the morning. The resolution was subsequently issued to the Press by conference organizer Alexander Ananoff. An English version of the resolution, read:

The delegates participating in the First International Astronautical Congress announce with great pleasure that the meetings of 1st and 2nd October, 1950, held in private session at the French Aero Club, have resulted in a strengthening of the bonds of friendship and fraternity which give a definite promise of closer collaboration between the different national astronautical associations.

The following decisions were taken by a unanimous vote:

The creation of an international organization for the study and development of interplanetary flight.

Having regard to the short time available for discussion and the difficulty of inaugurating an organization of such importance, it was decided that it would not be started until next year, during the Second International Astronautical Congress.

This congress will be held in London, in September, 1951.

As from the present date, the delegates of each country represented will send to the organizers of the Second International Congress at London their suggestions and proposals concerning the foundation of an international organization.

The British Interplanetary Society [BIS] agreed to collect, co-ordinate and distribute all the proposals which will be sent to them in this way.

The delegates undertook to study in advance all the details and proposals which will be made to them, with the object of minimizing as much as possible the work, and avoiding useless discussion, during the London Congress.

It will not be until the International Astronautical Congress in London that the final decisions will be taken concerning the functioning of an "International Federation of Astronautical Societies." Its inauguration will then be formally proclaimed.

Until the creation of this organization, it has been decided that a provisional body, an international Bureau, shall be set up, having for its chief a neutral member: Dr. Eugen Sänger [Austria], and for members of its Committee the chiefs of the delegations represented at the First International Astronautical Congress, of whom the names follow:

Argentina	Prof. Tabanera	Germany	Dr. Löser, Herr Jungklaas
Austria	Dr. Cap	Great Britain	Mr. Cleaver
Denmark	Dr. Hansen	Spain	Señor Mur
France	M. A. Ananoff	Sweden	Mr. Hjerstrand

To conclude the proceedings, two films were shown: a US Army silent film showed German V-2 launchings conducted at the White Sands proving grounds in New Mexico. That was followed by the well-known 'Destination Moon', a Technicolor science fiction movie produced in the United States in 1950 by George Pal. During the period of the meeting a collection of relevant exhibits was mounted, gaining considerable public interest at the *Palais de la Découverte* (Discovery Palace), a science museum in Paris.

The Second International Astronautical Congress, London, England, 1951

On 1 November 1950, A. V. Cleaver, Chairman of the BIS, wrote to William Gore, President of the ARS, inviting the ARS to be represented at the planned London meeting in September 1951. Cleaver concluded his letter noting that "if for some reason you feel unable to collaborate, we should at least welcome a frank and friendly explanation of those reasons, since even that would be helpful to us in our present deliberations".¹⁶² While coordinating a number

¹⁶² Letter from A. V. Cleaver to W. A. Gore, dated 1 November 1950; found in the Smithsonian's Udvar-Hazy Archive Center, Chantilly, VA, in the Papers of Fred Durant. This was probably an edited version of a circular letter sent to all known societies.

of early mailing exchanges, the BIS extended invitations to 16 societies in ten countries and to 15 publications dealing with astronautics.¹⁶³

Another more detailed letter was sent by Cleaver, dated 9 December 1950, to all the societies which might be interested in participating in the 1951 meeting. He explained that Part 1 of the Congress would involve working sessions on organizational matters. These sessions would be held Monday/Tuesday, 3 and 4 September, a.m. and p.m. Wednesday, September 5, would be an open day with no meetings. Part 2 of the Congress would involve Technical Sessions for presentations of papers on Thursday and Friday, 6 and 7 September, in four 3-hour sessions. On Saturday, 8 September, there would be a popular, *i.e.*, open to the public, technical session from 3 to 6 p.m., during which representatives of national societies could speak briefly and in English about their ideas of technical solutions to the general problem of interplanetary flight. The Congress would conclude with a banquet at 7 p.m. Saturday the 8th, hosted by the BIS at the St. Ermin's Hotel. ARS President Gore replied to this letter for the ARS in February 1951, indicating that the ARS would be represented in London in September.

As a consequence of his long years of teaching and traveling in Europe, Theodore von Kármán had a well-deserved reputation as an outstanding teacher in mechanical engineering, especially aerodynamics. During 1950, he worked closely with Maj. Gen. Hap Arnold to establish a new Advisory Group for Aeronautical Research and Development (AGARD) in the North Atlantic Treaty Organization (NATO). Von Kármán was provided an office at the US Embassy in Paris and the US Air Force provided support staff for him in carrying out the duties of AGARD's first Chairman. While von Kármán was resident in Paris, the University invited him to teach there. He was pleased to have that additional role. Sometime before Christmas 1950, Haley wrote to von Kármán a personal newsy letter about family activities and extended an invitation to von Kármán:

When you are here in January, I wonder whether you would give an informal half-hour talk in Washington to the combined National Capital, Maryland and New York Sections of the American Rocket Society? It would be a great favor to me as the new President – but I do not want to impose on you – and I would not want the occasion to be one of prior preparation – just an informal word from the Old Master.¹⁶⁴

In Early January 1951, von Kármán wrote a relaxed, personal letter to Haley addressing several topics and replying to this invitation:

Dear Andy,

I am sending to you and the whole family, Delphine, brother and sister, the kindest wishes for a happy and prosperous New Year. I regretted very much that we missed each other by crossing the Atlantic Ocean in two opposite ways. In this moment I am in Torino [Italy] where I spent the Christmas holidays with my good friend Gabrielli and his wife. I am going back to Paris in a few days to continue my lectures at the University. The scientific work and teaching did me lots of

¹⁶³ *Papers of Fred Durant*, Smithsonian's Udvar-Hazy Archive Center.

¹⁶⁴ From a letter fragment in the *von Kármán Papers* at Caltech Archives, Box 12, folder 9; also in the *AGH, Letters & Materials*.

good and if I can I do not want to interrupt this process before the end of the scholastic year, i.e. till the month of June. I hope the Air Force will see my point and let me alone in Paris.

It seems that on your suggestion the Air force assigned Burton Mills to me. He really did and does an excellent job. He got a very good apartment for me, including service, where I live with a young Spanish aeronautical scientist whom the government sent to Paris to attend my lectures. I invited him to stay with me because he is very tactful and an excellent mathematician who helps me very much in the preparation of my lectures. He also will prepare a Spanish edition of my lectures.

In addition to taking off from me all worries about details in the material life Mills and his wife prepared a collection of photostatic copies of the subject I am treating in my lectures. I have only to indicate a paper which appeared in some scientific journal last year or 50 years ago, within a day or so he has the paper and in two more days I have [a] photostatic copy for my exclusive use. He is really exceptionally good in that; very modest and loyal. I am glad to have him. [...]

With best greetings for all in old friendship,
Theodore von Kármán¹⁶⁵

Haley was reinforcing his relationship with Professor von Kármán even before he knew he would be travelling to Europe in 1951, because he had been urging von Kármán to join and support the ARS. The reestablishment of a stronger relationship with von Kármán at this time would have substantial importance in the coming years of both their lives.

In May 1951, the BIS circulated a document compiling views received to that time from all the respondents, along with BIS commentary on the compiled views.¹⁶⁶ Topics included were:

- 1) Aims, objects and functions of the Federation
- 2) Membership of the Federation
- 3) Finances of the Federation
- 4) Officials and Secretariat of the Federation
- 5) Voting Procedure of the Federation Members

Under each heading, the varying views of the societies were identified with each submitting society's name. It appears the British believed the new organization might well be named a 'Federation'. This letter, listing responses to date, indicated letters received from the United States were submitted to the BIS from the American Rocket Society (ARS), the Pacific Rocket Society (PRS), and the Detroit Rocket Society (DRS). The ARS and PRS indicated an intention to participate in London, while the DRS supported the idea of a new international organization, but regretted it could not participate. The final section of the BIS circular of May 1951 contained proposed rules of procedure for application to the meeting to convene in London.

¹⁶⁵ A letter in the *von Kármán Papers* at CalTech Archives, Box 12, folder 10; also in the *AGH, Letters & Materials*.

¹⁶⁶ Letter from G. Löser to a. V. Cleaver dated March 21, 1951, copied to E. Sanger and A. G. Haley, transmitting attachments in 2 parts: (1) draft Proposals for the Constitution of the IAF, and (2) the 1949 Statutes of the International Council of Scientific Unions for informational (comparative) purposes; in the Smithsonian's Udvar-Hazy Archive Center in Chantilly, VA, in the Papers of Fred Durant.

In July, the BIS circulated its reconsidered views and comments on the Draft Constitution of the International Astronautical Federation. On 17 July 1951, the ARS wrote to the BIS identifying Andrew G. Haley as “[o]ur representative at the discussions of constitutional matters involved in setting up the I. A. F.”. That letter also identified Lt. Comdr. F. C. Durant, III, US Navy, as planning to be present in September in a personal capacity, and that he would present a paper on behalf of Wernher von Braun.

Haley looked forward to the opportunity to travel to Europe to participate in the London Conference in September. He took advantage of this opportunity to meet with other officials in Europe, as well. On 16 July, Haley’s friend Gerald Gross, who was serving as Assistant Secretary General of the ITU in Geneva, wrote to Haley to invite a visit to Geneva. Gross wrote:

Dear Mr. Haley:

I am sure you are aware that the Extraordinary Administrative Radio Conference will convene in Geneva on August 16, 1951, for the purpose of achieving world-wide agreement on certain extremely important parts of the radio spectrum. This conference will be the most important Radio Conference held since Atlantic City. As Legal Adviser to the Secretariat at Atlantic City and also at the F. I. A. R.¹⁶⁷ I believe you would be deeply interested in observing the work done at the forthcoming conference.

If you can allocate the time I suggest that you come to Geneva during the course of the Conference and study the developments. You’ll also have an excellent opportunity to meet your former associates and the radio delegates from throughout the world.

With best personal wishes I am,
Sincerely yours,
Gerald C. Gross
Assistant Secretary General¹⁶⁸

Whenever his work schedule permitted, Haley would travel across the Atlantic by ship. He made arrangements for his trip to Europe sailing to Le Havre, France on the French Lines *SS Liberté* from New York on 21 August 1951, arriving at Le Havre on 26 August. He also arranged for Francis Colt De Wolf at the State Department to send a telegram to appropriate US Embassy officials in Paris and Geneva, reading:

Andrew G. Haley, prominent Washington lawyer interested in telecommunications, sailing on French Lines LIBERTE August 21st arriving Paris August 26. Then Geneva for a few days and finally London. Is attending Second International Congress on Astronautics in London September 3 to 7. Please arrange to see Mr. Haley.

The actual travel away from home showed the kind of absence Haley was willing to tolerate with a competent team to backstop his efforts at his law firm, and the expectation that his wife

¹⁶⁷ Fourth Inter-American Radio Conference held 14 April to 9 July 1949 in Washington, DC.

¹⁶⁸ AGH, *Letters & Materials*.

could well manage the home front and family without his presence. His travel schedule included:

22 to 28 August - 6 days travel on the *SS Liberté* from New York to Plymouth and Le Havre
28 to 29 August – 2 days in Paris
30 to 31 August – 2 days in Geneva
1 to 8 September – 9 days in London
9 to 11 September – 3 days in Dublin, Ireland
12 to 19 September – 7 days in Paris
20 to 25 September – 5 days on the *SS Liberté* from Le Havre to New York.

He would have been away from home about 34 days. Then there would be necessary visits to clients to catch up on developments that occurred while he was away. While Haley's purposes were ambitious and noble and his accomplishments were laudable, the cost to his family cohesion was increasing, yet he seemed to consider his absence not important. He was convinced that he had a responsibility to represent the ARS in London, but also to maintain a strong working relationship with Gerald C. Gross in Geneva, because the ITU was at the center of power and responsibility in managing the use of radio frequencies world-wide. Haley could see early that the use of radio would be an important element of the conduct of spaceflight. Although it was not being considered or discussed as a pressing issue because there were no near-term expectations of 'space flight', Haley believed that dedicated radio frequencies were going to be essential in due course. Maintaining a close liaison with Gerald Gross would give him a link to the ITU management.

Despite repeated requests and collaboration of others to support the idea, Haley was unsuccessful in coaxing Dr. von Kármán to accompany him to Europe as a means of distracting him from the intense loneliness and depression he was feeling following the death of his sister Josephine in Pasadena on 2 July 1951. Haley did manage to involve von Kármán in his travel to the extent of arranging with a resident driver in Paris the chauffeured use of von Kármán's car, which resided in Paris pending von Kármán's return to complete a teaching program he was involved in at the Sorbonne.

When travelling abroad, Haley would use his contacts at US Embassies, at international organizations, national societies, or even hotel staffs to find typists who could efficiently prepare letters for him on matters of current importance. Some of his letters were sent to Ethna White with directions, guidance, appreciation, or advice. A typical letter to Ethna from Geneva on 31 August concluded: "I am really imposing on our good friend Ruth Walter who has kindly volunteered to write [*i.e.* type] several letters. So I will close, but not without telling the recipient of this letter to keep on working twenty-two hours a day and if I catch her loafing during my absence I will have to pay her a bonus". Haley typically couched serious admonitions in a feigned humorous pronouncement, but the real point was rarely lost. Later he frequently used this technique in correspondence with his adult children.

Another letter written in Geneva on 31 August was sent to Dr. von Kármán. At this point von Kármán was 62 years old. The letter involves several topics, but it is an excellent example of the degree of emotional attachment, concern, and utility Haley had for von Kármán.

This letter shows the nature of Haley's continuing relationships with von Kármán, long after the Aerojet relationship had ended.

Dear Dr. von Kármán:

I greatly appreciate your kindness in making available your very fine automobile and the services of your chauffeur, Mr. Vassel.

I am now proceeding from Geneva to London and I will release Mr. Vassel and the car in Paris.

My addresses are as follows:

Sept. 1-8: Hotel Curzon, 37 Clarges Street, Mayfair, London W.1.

Sept. 9-11: Irish [actually U. S.] Embassy, Dublin

Sept. 12-18: Hotel Continental, Paris.

I am pleased to advise you that after lengthy negotiations the Cuban Government favorably discussed [agreed?] to granting visas to your brother and sister-in-law. We can discuss this matter when I see you in Paris. If you will not be in Paris by September 18, please notify me immediately so that I will be able to handle the matter in the manner you desire.

I am deeply impressed with the desirability of making available to you on a full-time basis a loyal, efficient and understanding secretary. I have always believed that the army officers assigned to you have never fully qualified on the last two qualifications. I have had a chance to observe very closely Mr. Burton E. Mills, who has been in charge of your chauffeur. [As the Chairman of NATO's AGARD, Dr. von Kármán had a position in the US Embassy, Paris, akin to a Military Attaché. It is this position for which Haley proposed a dedicated secretary.] Mr. Mills is a graduate of MIT and is greatly interested in serving you during your stay in Europe. He seems fully conversant with the details of the job and you could rely upon him more than any of your former attachés. He understands that he will have a job around the clock and that he would have to do everything from packing your bags to scientific translations. I believe that he has executive capacities well beyond anyone who has been your aide in the past. He is inspired to assist you because everyone in France seems to be concerned about you, and from the little what (sic) he has seen of you he has developed a lively affection. I would not dare to recommend him if I did not believe that he liked you very much and had sized up the job in an excellent manner.

He is now on temporary leave of absence from the Air Force Cambridge Research Laboratories, but has advised me that he can easily obtain an extension for a year from Dr. John Marchetti, the Director of the Laboratories.

Confidentially, Col. Weldon told me that he has requested Headquarters Air Force to assign an officer to his staff who would have the duty of taking care of you. I have always felt that these officers were worse than useless because they had other duties and other ambitions. I believe that Mr. Mills as a civilian would devote his entire time to you and therefore give you the service that you require. I believe that his attitude is loyal and friendly – and this is most important.

As your friend I have the temerity to suggest the foregoing to you.

With appreciation and affection I remain,
Sincerely yours,

In 1951, there were several American rocket organizations represented at the astronomical meeting in London, including the ARS, represented by Haley and Durant, the Detroit Rocket Society, the Pacific Rocket Society, and the Reaction Research Society.¹⁷⁰ Representatives also participated from Argentina, Austria, Federal Republic of Germany, France, Great Britain, Italy, the Netherlands, Spain, Sweden and Switzerland. This meeting decided formally to create the International Astronautical Federation (IAF).¹⁷¹ The delegates authorized the formation of a secretariat in Switzerland under Secretary Joseph Stemmer. Eugen Sänger (Austria) was elected President, and Günter Löser (FRG) and Andrew Haley (US) were elected Vice Presidents. From this date forward, during the 1950s, Haley served tirelessly in attempting to gain recognition of the IAF by other international organizations, including especially the International Council of Scientific Unions (ICSU), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the International Civil Aviation Organization (ICAO), and the International Telecommunication Union (ITU), among others.

At the opening working session of the 2nd Congress, BIS President Arthur C. Clarke welcomed the delegates assembled. After some preliminary notices and business, Mr. Clarke introduced Eugen Sänger, the elected head of the Provisional Federation Committee. At this opening session, which surveyed all delegates on their attitudes toward acceptability of the draft constitution circulated in advance, only Durant spoke for the ARS.

During working sessions on matters of differing opinions, Sänger set an early standard by promptly calling for and receiving votes to resolve differences. The second working session convened at 10 a.m. on Tuesday the 4th. This session opened with a vote establishing the official existence of the IAF. The session proceeded to discuss voting procedure in the Federation at some length. The BIS proposed a scaled voting structure reflecting the membership size of each society. Haley entered the discussion for the first time at this point and rather forcefully asserted:

We (ARS) are unable to agree to the BIS proposals in principle. We have no alternative to offer, but would like to adjourn [probably to discuss informally the matter and resolve the differences]. We do not want a preponderance of votes for it would discourage the smaller Societies but it would also be a simple thing for 100 Societies to be formed in the USA at the present time. The ARS is growing fast and any constitution must be framed to prevent a preponderance of Americans making future international meetings a farce.

The meeting continued in discussion of voting procedure and Durant entered the discussion to object to any relationship between voting rights and the amount of money paid to the

¹⁶⁹ In *AGH, Letters & Materials*.

¹⁷⁰ The Reaction Rocket Society was founded by George James on 6 January 1943. Originally it was the Southern California Rocket Society. The organization's name was changed to the Glendale Rocket Society two months later. Ultimately, the society changed its name to the Reaction Research Society around 1946 to encompass more aspects of propulsion beyond rocketry. Most of the research and experimentation of the RRS was with solid, liquid, and hybrid rocketry.

¹⁵⁶ See A. G. Haley, *Rocketry and Space Exploration* 230, *op. cit. supra* note 103; and L. R. Shepherd, "The International Astronautical Federation", vol.1, no. 5, *Spaceflight*, 159-163, London.

Federation. Durant urged that all countries be represented. Haley again intervened and suggested a small subcommittee be formed to resolve the matter. A. C. Clarke then proposed a sub-committee meet in the afternoon comprising Haley, Löser, E. V. Sawyer, A. V. Cleaver, and A. Hjertstrand. Clarke's sub-committee proposal was unanimously supported.

Discussion then proceeded to the 1952 Congress. The *GfW* immediately offered to organize and host the next Congress in Stuttgart, FRG. Following immediate support from the BIS and the ARS, the proposal was unanimously adopted. H. H. Krölle proposed that the Congress be arranged for the first week in September 1952. The meeting then took up the question of the presidency of the new Federation. Upon motion by A. V. Cleaver nominating Eugen Sänger, Sänger spoke on behalf of Ananoff, whose proxy he held, and expressed the desire that the President of the Federation be a delegate of a Society. This amendment failed by a vote of 1 to 13 and was followed immediately by a unanimous vote of election of Sänger as first President of the IAF. On the frequency of future congresses, Haley once again spoke:

I would like to see Congresses held annually and be made [financially] consistent, rather than be left a voluntary matter each time. This is a very rapidly changing science and I think annual meetings are desirable.

The BIS agreed, but urged that if it were not possible to meet annually, other provisions could be made. Then the meeting took up the issue of financing. Haley early volunteered:

As a nation we are used to giving amounts to other nations. The views of the ARS are conditioned and they believe that they will have to contribute more than other Societies. To solve that problem the United Nations has a "Point Contribution" and I suggest we set out with 300 points and have a Finance Committee to decide how many points of the whole each Society must pay.

He later added to these remarks the following:

You cannot work on the basis of total membership only, for there are exchange difficulties in many countries. The Secretariat must be sure of its funds and I would like to see it [*i.e.*, the level of contributions] on a stable basis.

The issue remained unresolved and Sänger proposed that the matter be further considered during the inter-Congress period and be resolved in Stuttgart in 1952. A. C. Clarke then asked for approval of a previously drafted, releasable statement for the press. The statement read:

An International Federation of Astronautics has been set up with Dr. Eugen Sänger as President covering the following countries: Argentina, Austria, France, Germany [FRG], Great Britain, Italy, United States, Sweden, and Switzerland. The next International Congress will take place in Germany (probably Stuttgart or Frankfurt) about September 1952.

It was unanimously approved. Attention then turned to membership of the IAF's Governing Council, which was to be known as the Bureau. During the general exchange of views on this topic Haley said: "Before we adjourn, I would like to point out the inter-relationship of voting, a Council and Finances". Further consideration of Council composition was put off.

Then the topic of Vice Presidents arose. Dr. Löser was elected unanimously Executive Vice President of the IAF, with power to delegate his post to another German if he leaves Germany. A. C. Clarke moved election of an American Vice President “to secure American participation and to act as a clearing house for all American Societies”. Durant immediately amended this motion by adding A. G. Haley’s name as the candidate. The matter was further debated and the session was closed without bringing the question to a vote.

The third working session in London was convened on Tuesday the 4th at 2:30 p.m. A subcommittee on voting procedures was meeting in parallel in a separate room. The session opened with a brief but inconclusive further discussion of vice presidencies. The next topic taken was Central Archives of the IAF. Sängler opened the topic with a suggestion of a permanent secretariat address in Switzerland and conference correspondence sent to the next Congress organizer. Clarke and Durant supported Sängler’s proposal and Clarke proposed Stemmer (Swiss) as Honorary Secretary of the IAF, who would maintain the permanent Secretariat. Stemmer agreed and it was the sense of the meeting that the matter was agreed by consensus.

The next topic which arose was ‘Practical Work for the Federation’. Discussion ranged over press relations, spokespersons, the respective roles of national societies and the Federation in giving information to the press. The topic was not concluded when the members of the voting subcommittee returned to the main meeting. At this point A. C. Clarke called the vote on three issues.

There should be a second Vice President in the USA. It would be Haley.

The IAF should have a central archive and permanent address in Switzerland, and Mr. Stemmer should be Honorary Secretary.

Further suggestions on the Constitution and nomenclature recommendations should be sent to the *GfW* for consideration at the 1952 Congress.

All three issues passed. With these issues resolved, attention was turned to Voting Procedure. The matter of voting procedure was far from agreed, although the subcommittee reported an agreed proposal as:

National societies with 20 to 200 members would have 1 vote.

National societies with 201 to 400 members would have 2 votes.

National member societies with 401 to 600 members would have 3 votes.

Thereafter, one additional vote for every 200 more members, or portion thereof.

Cleaver (BIS) formally moved the adoption of this proposal, but Durant asked, “[m]ay we hear the opinions of those who were not in the Subcommittee?”. Ensuing discussion quickly evidenced that there was little agreement in the wider plenary group on voting procedures. Dr. Irene Sängler Bredt made an alternative proposal involving the scientific qualifications of a society’s members. The discussion broadened away from the Subcommittee proposal. Then, Haley intervened once again:

The number of votes will be an indication of the amount of the contribution of each society. I disagree with the proposals. I did not oppose them merely because I wanted to see progress also. My own idea was one vote for each society or for each nation, and now since neither the B. I. S. nor the *GfW* take in solely fully qualified scientists, some allowance may be made for this. We must take into account the limit of quality as time goes on. The ARS firmly believes that one vote should be given to each country, but we are prepared to put up more than a proportionate amount of the money.

To resolve the issue for the time being, Chairman Sanger called for the vote on the subcommittee proposal and it failed on a vote of 6 to 6. Two voting members were absent. The Chairman then called the vote on the Haley proposal of one nation, one vote. This motion carried 6 to 3 with 3 abstentions. Then Haley declared: "I propose the motion that the drafters of the constitution take into account the quality of membership in connection with Voting Procedure". This motion carried 10 to 1. Three voting members were not present. Thus, voting procedure was left to be resolved at the 1952 Congress in Stuttgart.

In the Technical portion of the Congress there were several papers read, including:

"The Importance of a Satellite Vehicle as a Step toward Interplanetary Flight", by Wernher von Braun; presented by Lt. Cmdr. F. C. Durant (ARS)

"The Artificial Satellite", written and presented by Leslie R. Shepherd (BIS)

"Orbital Rendezvous Problems", written and presented by Ralph A. Smith (BIS)

"Interplanetary Travel between Satellite Orbits", written and presented by Lyman Spitzer, Jr. (USA)

Another business meeting was convened at 6:00 p.m. Thursday, which was attended by Dr. Sanger, Dr. Loser, A. G. Haley, Dr. I. Bredt, and Mr. A. V. Cleaver. The memorandum of record on this meeting indicated that the following matters were agreed in principle. The details of the agreement and their implementation would be worked out later by Dr. Loser.

Voting

During the period between the IInd IAF Congress and the IIIrd, and at the IIIrd, each Society attending the IInd Congress will have the privilege of casting 1 vote. The *GfW*, BIS and ARS, however, agree that the permanent constitution will include provisions that one vote will be cast by the principle Society in each nation attending a Congress, and the Council of the IAF will be composed of only such Societies. Any other Society, however, which was voted membership at the IInd Congress, or any new principal Society of a nation attending a Congress for the first time at the IIIrd Congress, or any other Society voted membership by the IAF Council thereafter, may become a non-voting member, and have the following privileges:

Participation in all the activities of the IAF and reception of its services

Attending the Congress and engaging in all discussions and debates in plenary sessions

Requesting the President of the Congress for permission to vote on any specific issue or question, and upon receiving the unanimous permission of the Council, casting such vote.

Curiously, signatures on this memorandum, which was typed on BIS letterhead, include A. C. Clarke and F. C. Durant (for ARS), neither of whom were listed as attendees at the meeting. The only other signature is that of Günther Löser. Although substantial progress was made in London in 1951, there was still no constitution of the Federation, but there were now elected officers. A constitution would be prepared for consideration at the 3rd Congress.

Following the 2nd Congress, Haley visited Dublin, Ireland, to explore possible opportunities to invest in land in Ireland, and returned to Paris for a brief visit to explore terms of possible relationship of the IAF with UNESCO, which Haley explored in discussions with his friend Frank Malina, now a UNESCO official. Subsequently he returned to Washington, DC, and the pursuit of his law practice in the United States.

On 3 December 1951, Haley received a letter from The United Nations Association of Japan, Inc., offering another opportunity to advertise the New Federation to another international audience. The letter read:

Dear Mr. Haley:

The Japan Industry & Trade Magazine of Osaka, Japan is devoting two issues to the questions of both the Japanese Peace Treaty and the United Nations in a troubled world.

I am quite sure that Mr. Sato, the publisher would welcome a message from the International Astronautical Federation on these subjects as viewed from your organization's particular interests. Could you please arrange for such a message to be sent to me as soon as possible? It would probably appear in the January issue of the magazine.

Hoping to hear from you soon, I am,
Most sincerely yours,
William G. Hughes, Representative¹⁷²

Shortly after conclusion of the 2nd Congress, Haley had prepared a press release that he distributed to various newspapers and publications in the United States and to reporters who had attended the 2nd Congress at the invitation of the BIS. Now he was being offered the opportunity possibly to obtain publication of the substance of that press release in Japan. Haley replied, on 6 December:

Dear Mr. Hughes,

In response to your letter of December 1, 1951 I am giving a report of the Second International Astronautical Congress and perhaps you can use some portions as material for the January issue of *The Japan Industry & Trade Magazine of Osaka, Japan*.

The Second International Astronautical Congress was held in London, England, on September 3-8, 1951. Host for the week-long convention was the British Interplanetary Society. The purpose of this Congress was to establish an International Astronautical Federation and to present technical papers on the problems of realizing earth satellites and interplanetary travel. Presiding at the Congress was Provisional President Dr. Eugen Sanger, who was elected as first President of the

¹⁷² In AGH, *Letters & Materials*.

International Astronautical Federation. Dr. Günter Löser (*GfW*) and Andrew G. Haley (American Rocket Society) were elected Vice-Presidents for matters relating to Europe and the United States respectively. Also attending the Congress were Prof. Hermann Oberth and Dr. Irene Bredt.

In addition to the United States and Great Britain, authorized delegates were present from societies in France, Sweden, Germany (British and US Zones), Austria, Switzerland, Italy, Spain and Argentina. Representing the American Rocket Society Andrew G. Haley, as General Counsel, was principal delegate on parliamentary matters, and Lt. Cmdr. Frederick C. Durant III (U.S.N.) acted as principal delegate on technical matters.

Lt. Cmdr. Durant presented a paper for ARS member Dr. Wernher von Braun entitled “The Importance of Satellite Vehicles in Interplanetary Flight”. The subject of this paper was the keynote of the Congress. The importance of the artificial satellite as a take-off point for interplanetary travel received complete acceptance by the assembled delegates. Dr. von Braun’s paper was actually a synopsis of a book, entitled “Mars Project” to be published shortly. The scientific appendix of this work presents data and calculations showing that the artificial satellite and subsequent circumplanetary flight are technically feasible today if money, personnel, material, and technical direction were made available. This realization that the manned artificial satellite is a logical and expected step beyond current rocket-powered missiles has never been so universally accepted by professional engineers and scientists.

Steps were taken to standardize nomenclature and symbols relating to rocket propulsion and astronautics. In addition, a home address in Switzerland is being obtained. An international archive has been established to provide reference material on subjects relating to astronautics. Ing. Josef Stemmer of Baden will coordinate this effort. Vice-Presidents Löser and Haley were directed to prepare a draft constitution, which will be circulated to the member societies prior to the next meeting. The next meeting of the Federation will be in 1952 at Stuttgart.

I would like to add that the International Astronautical Federation would certainly welcome Society members from Japan.

Sincerely yours,
Andrew G. Haley, Vice President
International Astronautical Federation¹⁷³

After Prof. von Kármán rented an apartment in Paris in which to reside while delivering a series of lectures at the University in Paris, Frank Malina wrote to Haley on 7 December 1951 reporting the ‘news from Paris’.

Dear Andy,

Just a short note to tell you some of the news from Paris.

“The Boss” [T. von Kármán] is comfortably settled in an apartment not very far from Rue de la Huechette, which Mills helped to locate. He has staying with him a Spanish engineer who has been sent to Paris to audit the lectures which Kármán is giving at the Sorbonne. I drop by the apartment now and then for a chat or a game of chess. On the whole he has been well, and so engrossed in

¹⁷³ *Ibid.*

the preparation of his lectures that he doesn't have much time to suffer from his sorrow [recent death of his mother].

Margie [Mrs. Malina] is doing very well with our second baby [Alan], however we will be glad when the month of May has come and gone. Roger [first boy] is full of life and should begin to talk soon.

I have been busy at the office [UNESCO] as well as in the colored chalk [art work]. I am still wondering if you had any difficulty getting $x=p(y)$ [an art work] through customs.

We would very much enjoy a letter from you. How about dictating a letter to Ethna before Christmas?

With best of regards from Margie and myself,

Sincerely,
Frank¹⁷⁴

There is no record in the Haley files of correspondence from Haley to Malina in December 1951. Haley would have been involved in planning for the approaching holidays and especially arranging for gifts for Aunt Dede and the children. Christmas holidays were one of the few times each year when the entire family assembled to interact, celebrate the holidays, and exchange gifts. For Haley, this period was set aside to help compensate for his inattention during the year. It was his habit to present elaborate or expensive gifts to all the family members. Ethna White would silently collect intelligence during the fall months to recommend timely and appropriate gifts to be presented by Haley. This was another example of how she faithfully assisted both professional and family affairs in many ways.

During January 1952, Dr. Eugen Sänger circulated to the IAF's participating societies and related officials a copy of the 'Draft Proposals for the Constitution of the International Astronautical Federation' for review and comment. Following discussion of the draft by the Board of Directors of the ARS, on 26 March 1952, C. W. Chillson, President of the ARS, sent the following letter:

Dear Dr. Sänger:

The National Board of Directors of the American Rocket Society has carefully considered the "Draft Proposals for the Constitution of the International Astronautical Federation" and has authorized me to advise you of their approval with the following reservations:

Article 3, (a) provides that "The Finance of the I. A. F. shall be provided by the member societies according to a Point Contribution System. A certain number of points shall be set out and the Finance Committee appointed by the I. A. F. Council shall decide how many points of the whole each member-society must pay. The foregoing is accepted with the reservation that the American Rocket Society will contribute no more than 35% of the total contributions from member-societies, and in any event no more than 50 cents per Member or Associate Member, and 25 cents per Student

¹⁷⁴ Malina Papers at JPL Archives, Box 2, folder 6.

Member in good standing of the American Rocket Society as of May 1 of each year. It is recommended that yearly budgets be prepared and submitted to contributing Member Societies for advance approval.

Article 2, (b) should be amplified to state “The Member-Societies of the I. A. F. shall retain their full autonomy, with the right to secede from the I. A. F. if they desire, at any time.”

It is a pleasure to be able to thus report the American Rocket Society’s concurrence in the growing interest in astronautics. I sincerely hope that our affiliation with the I. A. F. will bring many mutual benefits and that the I. A. F. will be able to effectively implement the broad and farsightedly conceived aims and objectives as set forth in the Constitution draft.

Very truly yours,
Signature of C. W. Chillson
President, ARS

During March 1952, IAF Vice President, Dr. Günter Löser, and IAF Secretary, J. A. Stemmer, circulated to the interested societies IAF Bulletin Nr. 2, to which he attached a draft agenda for the 3rd Congress requesting recipients to inform the Secretary of the IAF as soon as possible of any amendments to the agenda. Also attached was a draft of the proposed constitution of the IAF. The draft constitution dealt with:

- General Aims, Objectives and Activities of the I. A. F. (Articles 1 through 7)
- Domicile and applicable law (Article 8)
- Membership of the I. A. F. (Articles 9 through 20)
- The Government of the IAF (Articles 21 through 23)
- The Officials of the I. A. F. (Articles 24 through 33)
- The Finance Committee (Articles 34 through 36)
- The Voting Procedure of the I. A. F. (Articles 37 through 39)
- The Finance of the I. A. F. (Articles 40 through 43)
- Withdrawal from the I. A. F. (Article 44)
- Winding-up of the IAF (Articles 45 through 46)
- Modification of this Constitution (Articles 47 through 48)
- Authoritative Text (Articles 49 and 50)

The last enclosure was a list of the names and addresses of 160 participants in the activities of the IAF up to the period of the 3rd Congress. In a separate enclosure, Dr. Löser, who identified himself as Vice President for European Affairs, provided three other documents:

(1) Comments on the Draft Proposals for the constitution of the International Astronautical Federation. It was suggested that societies should write to the Honorary Secretary if there is any disagreement with the proposals for the draft Constitution. As of May 1, 1952, no comment would be taken as full agreement.

(2) Statutes (1949) of the International Council of Scientific Unions. “These statutes are submitted for information purposes only. The IAF plans to join this Council. Decision on this question is expected to be made by vote of the IAF Council at the IIIrd International Congress of Astronautics (Stuttgart, Sept. 1952).”

(3) Proposals for the foundation of the International Institute for Astronautics, which had been produced in collaboration between Haley and Sänger, with review by Dr. von Kármán. “These proposals are submitted as a basis for discussion at the Stuttgart Congress, Sept. 1952.”

The early summer of 1952 was busy for Haley preparing arrangements and publicity for an ARS Washington-Baltimore Section Regional Meeting scheduled for June 6. Haley had organized this new section as its Chairman, and he attempted to have Dr. von Kármán address the meeting, but von Kármán, in Paris, was unable to schedule the time to visit in June. As an alternative, Haley invited Arthur C. Clarke, the well-known science fiction writer, popularizer of astronautics, and President of the British Interplanetary Society. Haley was pleased with the turnout for the meeting which indicated not only that the ARS was growing, but also that the intensity of interest in astronautics was also growing apace. Haley was not only contributing to the national management of the ARS, he was actively facilitating formation of local groups, by helping create regional sections of the Society, which promoted local luncheons or dinners from time to time throughout the year.

Later in June, while Haley was occupied with extensive correspondence with the German organizers for the forthcoming International Congress to be held in Stuttgart, a tragic accident occurred in Pasadena, California. John W. Parsons, who was a friend of Haley’s, one of the co-founders of Aerojet, was killed in an accident at his home when explosive materials he was packing ignited and destroyed several rooms of the house he was vacating, preparing to travel to Mexico. About a month later, Haley received a note from the brother of Parsons’ wife, transmitting a letter that Parsons apparently had written the day of the accident, but had not had the opportunity to mail.

Mr. Andrew G. Haley
3815 Huntington Street
Washington, D. C.

Dear Andy,

It has been long since I have enjoyed your good company. Often I have thought of you and wished that I might see you again. I have learned one thing since those times – that honest friendship means very much, and the glamour and designs of worldly affairs mean very little.

Fortunately, I made this discovery before Dr. [von Kármán] left for Europe, and was able to tell him that I loved him and wanted his friendship – that all my attitudes and devices meant that and nothing more.

I wish I had known it when we were together, we might have known each other better, and communicated more happily. True, we had an extraordinary adventure, but against the prime reality of human relations it was secondary, magnified out of proportion by the intermesh of culture compulsions.

Well, I am off to Mexico now, and I hope very much that you will be able to visit me, so that we can renew our friendship in a more auspicious clime. I will be located in a mountain resort about 200 miles out of Mexico City in a house built by the Inquisitor General of Mexico in the 16th

Century. I have made acquaintances among some of the old families there, and look forward to a pleasant stay while I explore possibilities in Mexico.

My first business will consist of setting up special pyrotechnic effects for the Mexican studios; I will also be representative of a Macao firecracker agency. With this as bread and butter, I will explore the possibilities of commercial explosives and oil well shooting.

A good friend of mine, Dell Lietel, owner of the special effects company with whom I will be associated in Mexico, will be in Washington in August. I have presumed to suggest that he get in touch with you on the basis that you might be able to tell him something of the situation in Washington.

If you can visit me in Mexico, drop me a line and I will arrange to meet you in Mexico City. San Miguel is a beautiful town a million miles away from modern civilization. I look forward to seeing you there.

With best wishes,
Jack¹⁷⁵

There is no record that Dell Lietel ever contacted Haley. The news of Jack Parsons' death was a sad shock for Haley. He had not maintained any continual contacts with John Whiteside Parsons, but he liked him as a man and a friend. Aspects of the Haley/Parsons relationship were elaborated in a biography of sorts of Jack Parsons. Parsons was only a transient character in an earlier chapter in Haley's life, but he was memorable.¹⁷⁶ Another biography, focused on the life of Frank Malina also tells details of the lives of Parsons and Forman.¹⁷⁷

The Third International Astronautical Congress, Stuttgart, Fed. Rep. of Germany, 1952

The 3rd International Astronautical Congress convened in Stuttgart, FRG, on 1 September 1952. Of this Congress, Haley later wrote that participants "heard Hermann Oberth discuss 'Private Research in Astronautics', a paper which might well keynote all Congresses".¹⁷⁸ In the paper, Oberth outlined many space problems which should be investigated with the aid of astronautical societies in preference to large, government funded, classified research programs. In this way, Oberth proposed to establish a basis for world cooperation in astronautics. Haley also recorded that:

The Constitution of the International Astronautical Federation, which had been drafted during the previous year by the Löser-Haley committee, was adopted. The principal of one vote per nation, regardless of the size of the country or the number of its rockets or astronautical societies, which

¹⁷⁵ AGH, *Letters & Material*.

¹⁷⁶ See G. Pendle, *Strange Angel: the Unworldly Life of Rocket Scientist John Whiteside Parsons*, Houghton Mifflin Harcourt, Boston, 2005.

¹⁷⁷ See F. MacDonald, *Escape from Earth: A Secret History of the Space Rocket*, Public Affairs, New York, 2019, 371 pp. w/index.

¹⁷⁸ A. G. Haley, *Rocketry and Space Exploration* 231, Van Nostrand, New York, 1958.

was advocated strongly by the American Rocket Society [Haley] at London, was approved. It was decided that the ARS would be the voting member from the United States.¹⁷⁹

A new cadre of officers was elected, including some incumbents: Eugen Sänger was re-elected President, Haley and L. R. Shepherd, of the BIS, were elected Vice-Presidents, and J. A. Stemmer was re-elected Secretary.

One paper presented at the 3rd Congress, which received very little notice, was legally significant. Prof. Dr. Alex Meyer, the Director of the Air Law Institute at Cologne, was the dean of German Air Law scholars. Meyer's first publication on space law, entitled 'Space Law', was a short set of prefatory remarks combined with a brief bibliography, prepared to introduce the topic of space law to the readership of a legal journal being revitalized in Germany to deal with Air Law. 'Space Law' appeared in the first volume of the University of Cologne's *Journal of Air Law*.¹⁸⁰ However, Meyer's first discursive paper on Space Law, 'Legal Problems of Flight into the Outer Space', was read during the 3rd International Astronautical Congress in Stuttgart.¹⁸¹

Meyer's work was an influential statement dealing with several issues that were receiving increasing attention, including the upper limit of national sovereignty and the possibility of the use of space for military purposes. This paper was important because it was presented to an international audience of experts from astronautically active countries. It drew on sources in English, French and German language publications, and it demonstrated that the thinking of many commentators in several countries should be taken into account in developing legal positions on the increasing activities potentially leading to space flight. Historically important positions in the 1952 Meyer paper included:

- Czechoslovakian Vladimir Mandl published a comprehensive monograph on space law in 1932;¹⁸²
- A separate body of applicable laws is required for regulation of space flight;
- Outer space begins where airspace ends, possibly at 200 to 300 kilometers;
- Law for aerial navigation applies only to aircraft flying in the atmosphere;
- Space flight operations will be so different, they will require different laws;
- There may be useful analogies available between existing air laws and needed space laws;
- Legally no state can extend its sovereignty to outer space, where there can be no borders and there is no possibility of exercising effective control (sovereignty);
- Military, police, sanitary and customs arguments justifying sovereignty [in airspace] do not apply in outer space;
- Outer space has to be considered a free space, like the high seas;
- Regulations for spacecraft entering outer space are needed;

¹⁷⁹ *Ibid.*

¹⁷³ Meyer, A., "Weltraumrecht" [Space Law], *Zeitschrift für Luftrecht*, vol.1, 1952, pp.234-236. This paper appeared in English as "Legal Problems of Spaceflight," in the *Annual Report of the British Interplanetary Society*, 1952, pp.353-354

¹⁷⁴ This paper appeared in US Congress, *Legal Problems of Space Exploration: A Symposium*, prepared for the use of the Senate Committee on Aeronautical and Space Sciences, 87th Cong., 1st Sess., Doc. No. 26, GPO, Wash., DC, March 1961, pp. 8-19.

¹⁸² V. Mandl, *Das Weltraumrecht, ein Problem der Raumfahrt*, (Space Law, a Problem of Space Flight), Bensheimer, Mannheim, Berlin-Liepzig, 1932, 48 pp.

- All operators of vehicles of any kind are required to exercise due care;
- There may be useful analogies between the status of space vehicles and seadromes;¹⁸³
- Spaceflights must adhere to required Air Law when passing through the atmosphere;
- Objects in spaceflight or in orbit about the earth are to remain subject to originating nation's sovereignty;
- Citing O. Schachter: nations should agree to abstain from using outer space for war purposes.

Early in his paper Dr. Meyer acknowledged his use of and reference to the 1932 monograph of Vladimir Mandl on space law.¹⁸⁴ Mandl's was the earliest monograph ever published attempting to survey the full scope of legal issues relating to outer space.

The Fourth International Astronautical Congress, Zurich, Switzerland, 1953

The IVth IAF Congress convened in Zurich, Switzerland, 2-8 August 1953.¹⁸⁵ Three new societies were admitted to the IAF, one each from South Africa, the US (Philadelphia Astronautical Society), and Yugoslavia, and observers announced the intention of newly organized societies to join in the following year from Egypt, Israel, Japan and Spain. As a consequence of the disbanding of Ananoff's *Groupement Astronautique Francais*, France was not represented at the IVth Congress. F. C. Durant III, who was then the President of the ARS and heading the delegation from the United States, was unanimously elected President of the IAF for 1953-54.¹⁸⁶ Among other decisions taken were:

- A.G. Haley (US) was elected to a third term as a Vice President;
- Friedrich Hecht (Austria)¹⁸⁷ was elected a Vice President;
- Josef Stemmer (Switzerland) was re-appointed Federation Secretary;
- Following discussion of the need for a Federation publication, a committee was named comprising Casiraghi, Hecht, Ordway, Sanger and Shepherd, to develop plans for a proposed quarterly journal to be known as *Astronautica Acta*; and
- Haley reported the constitutional reasons for lack of success in affiliating with ICSU, and obtained authority to proceed with meetings about affiliation with UNESCO.

¹⁸³ An extensive development of the idea of seadromes comprises a major part of Welf Heinrich's dissertation, *Air Law and Space*, done at the Georg-August University in Göttingen, Germany in 1953; English translation in *St. Louis University L. J.*, Spring 1958, pp. 11-69; reprinted in U. S. Congress, *Legal Problems of Space Exploration*, Doc. No. 26, Senate Committee on Aeronautical and Space Sciences, 87th Cong., 1st Sess., March 22, 1961 at 271-329.

¹⁸⁴ V. Mandl, *Das Weltraum Recht*, *op. cit supra*, note 182.

¹⁸⁵ "Fourth IAF Congress at Zurich Attracts More Than 200 Scientists", *ARS Journal*, Nov.-Dec. 1953, p. 384.

¹⁸⁶ Haley, A. G., "International Cooperation in Rocketry and Astronautics", *Jet Propulsion*, November 1955, 627, 630.

¹⁸⁷ Friedrich Hecht (1903-1980) was an analytical chemist at the University of Vienna. He was especially interested in chemical problems related to space research. His expertise was in radiochemical analysis techniques. He was founder and a vital member of the "Viennese school of meteorite and cosmic research", which was the first group in Austria to investigate moon samples in the beginning of the 1970s.

Shortly after the IVth Congress, Haley accomplished re-establishment of the IAF International Relations Committee to support his efforts to build a broader acceptance of the IAF among other international scientific organizations. There were no papers addressing space law read during the IVth Congress. Haley would have noted this with regret, but he was so occupied in the constitutional and affiliation activities, he had no time left for addressing the legal issues emerging. Functioning as a lawyer was compensated when he did it for his clients. The IAF was consuming enough of his uncompensated time on organizational matters.

With the conclusion of the 1953 Congress, the IAF remained a matter of concern to Haley becoming the central focus of his international astronautical efforts. Haley continued to attend annual congresses and took increasing part in discussions and proposals to consider sub-organs of the IAF. As Chairman of the IAF's International Relations Committee, Haley worked tirelessly recommending and promoting association of the IAF with ICSU, UNESCO and with the ITU, at a minimum to be recognized as an associated organization with permission to participate and to speak at the various organizations' meetings. This was a formidable task because of the relative youth and lacking reputation of the IAF, but Haley was persistent.

The Fifth International Astronautical Congress, Innsbruck, Austria, 1954

At the Vth IAF Congress, IAF membership increased, an institutional publication was established, and the Federation agreed to establish new study groups. There was one paper presented at the Vth Congress addressing space law. The French, who had been notably absent from IAF meetings since 1952, arrived with a substantial delegation, but because they had not yet formed a national astronautical society, France did not apply for membership in the Federation. The USSR continued to abstain from involvement in the IAF. The American Astronautical Society and Astronautical Societies in Brazil, Egypt, Japan and Spain were accepted into IAF membership. It was agreed to establish the publication *Astronautica Acta*, later renamed more grammatically correct in Latin *Acta Astronautica*.

The single paper on space law was presented by Prof. Aldo Armando Cocca of Argentina. The paper had more sociological than legal implications. The paper called for the international community to work more closely together to accomplish cooperative space flight. "In summary", Cocca wrote, "if the studies, plans, tests and knowledge are under a universal public dominion, the vehicle that emerges from these studies should obtain the same juridical status. In which case, the conquest of interplanetary space will be a conquest by humanity". Fred Durant was re-elected President of the Federation for 1954-55. Haley later reported that "The ARS took a strong stand at the Congress against continuation in office, contending that offices should be rotated among delegates of all societies, large and small. Otherwise, a clique would dominate the Federation, resulting in ultimate disintegration".¹⁸⁸ The theory of this approach was attractive, but the reality influencing the selection of officers also involved an individual's status in his homeland, his freedom and ability [with resources] to travel, and the international reputation of the candidate. Outside of the US and the major European countries, it was not easy to find official candidates satisfying these informal qualifications.

¹⁸⁸ A. G. Haley, *Space Law and Government* 351, Appleton-Century-Crofts, New York, 1963.

As Haley's attention to the affairs of the IAF increased during the mid-1950s, his role in the ARS was also requiring more time. Haley was elected Vice President of the ARS in 1953, and then President in 1954. He took his responsibilities to the IAF and the ARS very seriously. Consciously or not, at this point in his life he put his attention to his family in a second priority. Haley believed that Aunt Dede was capable and he was confident that his wife could manage the family home and children with a minimal amount of his time and attention. His reference for this attitude was recollection of the fact that his mother had effectively managed a family of nine children with relatively little support or presence of his father, who worked long days and often in his home at night.

Haley also believed he was clearly a significant leader in the organizational efforts at home (USA) and abroad relating to astronautics. He was receiving awards, commendations and merited praise for his many efforts involving astronautics. His travel was increasing not only in frequency, but also in the durations of his absences from home. His family would soon start to disperse as the children matured, but he seemed not to care. There was apparently no account taken by him of the effects of his behavior upon his family ties.

Chapter 15. Historian of Astronautical Rocketry

One of Haley's early contributions to astronautical literature was his sponsorship and contribution to assembly and publication of an illustrated history of the international progress in rocketry from the 13th century to the middle of the 20th century. Apparently drawn to this topic from the early 1940s, Haley collected information from many sources. In his positions of leadership in the ARS and the IAF he was able to solicit and obtain current and reliable information on rocketry activities not only in the United States but also from numerous competent countries around the world in various stages of rocketry development. By 1954 he decided it was time to stop collecting data and to consolidate and publish it.

All of this history of rocketry was essentially introductory material to the story he wanted to present, which was the story of the Guggenheim Aeronautical Laboratory at the California Institute of Technology (GALCIT), the spin-off of the Aerojet Engineering Corporation, and GALCIT's role as predecessor of NASA's Jet Propulsion Laboratory in Pasadena. Because he was engaged in an expanding and demanding private law practice, assisting in managing affairs of the American Rocket Society, holding management positions of increasing responsibility, traveling extensively and being engaged in the promotion and support of the emerging IAF, his efforts on rocket history were relegated to available spare time, of which this indefatigable human machine had precious little. Behind all these activities were the largely ignored issues of his family's separation from his daily life.

Haley had limited time to work on his desired history book. To compensate, he hired assistant editors to help in the sorting of photographs and information, writing and general assembly of the book. Haley intended to incorporate early fictional history about space travel and to present a history of actual rocket development from the Chinese use of rockets in the 13th century, tracing fiction tales for the next 600 years to the 19th century British work of William Congreve on maritime rocketry, then development of barrage rockets for warfare, culminating with the dramatic emergence of rocketry capable of space flight after WWII.

He began collecting materials for preparation of a manuscript, originally titled *All the World's Rockets*, in the early 1940s. Several editions of draft chapters of that unpublished manuscript survive in his personal papers. He was apparently updating and correcting assistants' manuscripts continually, because all the sequentially typed draft chapters bear revisions entered by his hand.

During the spring of 1955, he began to apply significantly more personal time to his interest in completing the book on the history of rocketry. After collecting information sporadically from varying sources on different aspects of the development of rocketry, he initiated a concerted effort to assemble available information. He wrote circular letters to US industrial sources and to foreign astronautical groups requesting information, photos, and biographies of key personnel involved in the development of rocketry.

In May 1955, he entered into an understanding with Frederick I. Ordway, III and Heyward E. Canney, Jr. that they would assist him in the assembly, sorting, and captioning of photographs, and in drafting material for his intended book on 'All the World's Rockets'. Previously, Haley had roughly drafted limited portions of the book, but he wanted a concerted effort to complete the task. He wrote to Ordway and Canney four times during July 1955 with requests and directions for work he wanted done. By 1 September, Haley was still not satisfied with the effort to date. Haley obtained an expression of interest in publishing his book from Macmillan Publishers in New York. He arranged a meeting of the publisher with Ordway, Canney, and Haley at Ordway's home to go over the book outline and determine the format and requirements for including illustrations and photographs.

At that meeting, the publisher made known their requirements for the text and the picture credits. Haley was assured that the requirements were clear and that the experience of Ordway would produce the necessary professionalism required to complete the text. During September and October Haley was busy with clients, travels, and the VIth IAF Congress. Work on the book continued through October 1955, but the work results were still unsatisfactory to Haley and to the publisher. As a result, Haley decided to terminate the work in an emotionally generated and ill-considered letter to Ordway and Canney in late October 1955.

On the same day that Haley announced his termination of the work effort of Ordway and Canney, he wrote to an old colleague at Aerojet, A. M. O. Smith, asking that Smith arrange with a third party the preparation of 31 historical illustrations depicting early fantasies and developments in the evolution of rocketry. Haley sought an estimated cost, and a time schedule on which the work could be done. Surprisingly, a few days later, after a 'termination' meeting with Ordway, Haley once again wrote to Ordway soliciting his opinions on the best way to proceed toward publication of the book. Apparently, Ordway was able to convince Haley that the situation was not as bad as he had assessed and the project was salvageable. On the following day Haley wrote to the Secretary of Defense, Charles E. Wilson, asking for a Defense Department review of the text with its illustrations to be sure there were no sensitive materials included in the draft.

While these on-again-off-again developments were occurring with the book on rocketry, Haley also formulated and circulated to several possible publishers the first two draft chapters of a proposed book on 'Basic Concepts of Space Law'. This material was extracted from recent papers and articles he had written. Multiple replies were received in November 1955 and Haley discovered there was an interest of several publishers in producing a book on 'Space Law'. A substantial part of this book had yet to be written.

On 16 December 1955 Haley wrote to Henry McCurdy at the Macmillan Company:

Dear Mr. McCurdy:

We are at the final stages in the preparation of the manuscript of my book "All the World's Rockets". I am having a meeting of my editorial staff in Washington in my office from January 3 to 8, 1956. On that occasion we will thoroughly refine the book, we will obtain last minute pictures and information from the Department of Defense, and we will obtain clearance from the Department of Defense. This cooperation has already been arranged with the office of Secretary Wilson.

It would be very good if you or one of your assistants could spend a few hours with us in Washington, say on Friday or Saturday, January 6th or 7th.

Sincerely yours,
Andrew G. Haley

The meeting was convened in January, but once again the status of the book was not satisfactory to Haley. The Macmillan company representative did not attend the meeting and Haley concluded that significant additional work would be required before he would approach another publisher. Sporadic correspondence with selected space law interested publishers took place during 1956 and 1957, but there was no commitment made on either side to produce a manuscript, or to publish one, sight unseen. So, the matter muddled along, while more data accumulated. His law firm required attention, articles for publications continued to appear, and, having been elected IAF President in October 1957, Haley maintained a close watch on the development of the International Astronautical Federation, including his establishment of an IAF Permanent Committee on Space Law.

Eventually, in late 1957, dissatisfied with the work of others, Haley decided to apply personally the time necessary to complete the work on rocketry to his satisfaction. He was rewarded for his work by the publication by Van Nostrand in 1958 of *Rocketry and Space Exploration - the International Story*.¹⁸⁹ The book which ultimately appeared was not in the form Haley had envisaged at the outset, although it was entirely acceptable to him. His original plan was to include condensed biographies of important contributors, to have original artwork done to depict early developments (prior to the 19th century); and he wanted substantial photography of the 20th century rockets. His editorial assistants had neither the information base Haley had, nor the vision he held of the finished work.

Over a span of two years, he hired several 'editors' to help in the writing, researching names of persons in available photographs, and compiling and consolidating the texts and photographs. At one point he had directed that pictures and texts should occupy equal volume in the book. As matters turned out, the publisher's editors isolated the photos from the texts, including them in separate, small collections inserted throughout the text, ranging from 10 to 30 photos in each of eight 'photo clusters' in the 334 page text.

In the Author's Preface to the ultimately published book on rocket history Haley wrote:

I have been assisted by scores of persons in the writing of this book. Indeed, whole passages on rocket systems are the products of teams of collaborators. If I give credit to one person, I would neglect another, so I will simply thank the excellent cadre, one and all, who helped me, and they may silently enjoy the criticism I undoubtedly will receive for mistakes and omissions of my own making for failing to follow their texts.¹⁹⁰

¹⁸⁹ A. G. Haley, *Rocketry and Space Exploration - the International Story*, Van Nostrand Co., New York, 1958, 334 pp.

¹⁹⁰ *Id.* at viii.

Unique to this history is its presentation of a participant's perceptions of the early history of the International Astronautical Federation and the identification and description of about 30 national societies dedicated to rocketry or astronautics, which, in 1958, was the body of societies comprising IAF membership. The work includes another special feature included as Appendix 1: 'Consideration on the Results of Indefinite Decrease in Weight of Engines'. This is a translation into English of an article written in French by Robert Esnault-Pelterie, published in the March 1913 issue of the *Journal de Physique* in Paris. It was a significant and seminal theoretical work on rocketry that assured Esnault-Pelterie a place in the history of astronautics. It had not been published previously in English.

Haley's 1958 book is commendable in connection with the history of rocketry, and it is also one of the very few sources in English in which one can find details about the emergence of non-governmental astronautical organizations around the world following WWII. Haley felt a continual compulsion to inform all potentially interested persons about the organizational developments related to rocketry at home and abroad.

Haley's contributions to the recorded history of rocketry and astronautics were substantial considering the time in which they were published; but much of his work has now been supplemented by publications within and outside of government providing well researched and verified histories of rocketry, international cooperation in astronautics, and the conduct of activities in outer space. The Haley book is very well illustrated with what is likely the only collection in one place, other than *Jane's Weapons*, of photographs of all the early civil and military rockets developed in the United States from the 1930s to the time of publication, 1958.

Biographer Shirley Thomas wrote about Haley's historical rocketry book that:

Rocketry and Space Exploration serves to establish Haley in yet another realm – history. This 334 page volume, with its profusion of rare and intriguing photographs, will be the reference to a period of space development that has been largely neglected in the literature. His recounting of the events can be both concise and complete because he was a participant in this pioneering era.¹⁹¹

There is probably no better illustrated survey of the accomplishments in rocket development during the first half of the 20th century than Haley's account. An unpublished text manuscript of *All the World's Rockets*, including the introduction and chapters 1 through 7, is in the Haley archived materials collected at Ole Miss. This project was pursued, revised, expanded, re-titled and eventually appeared as the book *Rocketry and Space Exploration* in 1958.¹⁹²

¹⁹¹ S. Thomas, *Men of Space*, Vol. 7, p. 157, *op.cit. supra* at note 90.

¹⁹² See on line the content of the Andrew G. Haley Collection, Law School Archives, University of Mississippi Grisham Law Library, the University of Mississippi. See <https://airandspace.law.olemiss.edu/team/resources/andrew-haley/>, last visited 20 May 2021.

Chapter 16. An Organization Builder and Leader

Ideas about space law were emerging in different countries, some developing in parallel, some re-enforcing others; but until 1950, national aeronautical programs and aeronautical legal thinking remained confined in separate language channels. There were few public efforts of cross-communication and no non-governmental institutions working on a sustained basis to span national frontiers or linguistic boundaries of various aeronautical programs. The creation of the German *Verein für Raumschiffahrt (VfR)* in 1927 had offered one early opportunity for international collaboration. By the time of the Society's dissolution in 1933, it had a members' roster of more than 1,000 members drawn from at least Austria, Czechoslovakia, France, Germany, Italy, the USSR, the United Kingdom, and the United States, among other countries, but it remained a German controlled Society and program.¹⁹³

Government funding of rocket development during the Second World War years (1939-1945) particularly in Germany, the USSR and the United States, advanced the state of the art of rocketry more in those seven years than it had advanced in the previous 500 years. The German developmental work at Peenemünde, which led to the bombardment of Belgium, France, and England by V-2 rockets, dramatically demonstrated the importance of long distance military rocketry to the world. Following the cessation of hostilities in 1945, several earlier national societies, which had been suspended, were reinvigorated and new aeronautical societies began to appear.¹⁹⁴

As noted earlier, from late in the second half of the 1940s, living once again in Washington, DC, and pursuing his expanding private law practice, Haley demonstrated his penchant for leadership when he gradually assumed roles of increasing management responsibility in the American Rocket Society (ARS). He established and served as head of the National Capital Section of the ARS during the late 1940s. He served as the Society's General Counsel from 1950 to 1963. He served on the ARS Board of Directors in 1951 and 1952. He helped establish and was initial chairman of the Society's Space Flight Committee in 1952, five years before Sputnik was launched. He was elected Vice President of the Society in 1953

¹⁸⁶ See the *Bulletin of the American Interplanetary Society*, New York, published as a newsletter by that Society for its members, starting from June 1930. All early numbers of the Bulletin contain news of activities abroad and many contain paragraphs devoted to descriptions of the work in progress at the VfR. See also detailed accounts of the early years in Winter, F. H., *Prelude to the Space Age - - The Rocket Societies 1924 - 1940*, Smithsonian Institution Press, Washington, DC, 1983.

¹⁸⁷ There is no better pre-war history of national organizational efforts than Frank H. Winter's *Prelude to the Space Age*, op. cit. note 186; a good general survey of the post-war organizational efforts is in Andrew G. Haley's *Rocketry and Space Exploration*, D. van Nostrand Co., New York, 1958, 334 pp., especially Chapter 13. See also, Ley, W., *Rockets, Missiles, and Men in Space*, Signet Books, New York, rev. ed., 1969.

and President in 1954. Haley was re-elected a Director for the period 1955 to 1957, and in January 1956, he was elected Chairman of the Society's Board of Directors.¹⁹⁵

While chairing the ARS Spaceflight Committee in 1952, he perceived that the regulatory community should begin the task of defining appropriate radio frequencies to enable the safe and reliable conduct of spaceflight. Without clear and protected radio channels, launch vehicles could not be tracked reliably, information could not be telemetered reliably, one could not safely monitor, control, and communicate with or through satellites in space. The entire complex of tracking, telemetering, and communication services, and more, would depend totally on the provision of frequencies in internationally allocated bands, and ensuring the protection of those frequencies from harmful interference by other users.

As early as 1952, the internal work of the ARS began concentrating on the prospects of man-made satellites through the work of the Society's Space Flight Committee. The ITU had not allocated any radio frequencies for space services of any kind. In the absence of any demonstrable need to do so, no national governments undertook to study space communication needs because there were no spacecraft. Haley realized there would have to be allocations made to get the clear, world-wide frequencies needed to even conduct reliable experimental space flight launches and vehicle tracking. His increasingly prominent roles in the ARS and the IAF gave him 'bully pulpits' to declare publicly the needs for national and international work on radio frequencies. He had no reluctance to use his positions to advantage and to rally support by ARS members. His major challenges during the mid-1950s proved to be obtaining a commitment and action out of a generally lethargic governmental structure in the United States and from the International Telecommunication Union (ITU) in Geneva.

From 1952, and throughout his ensuing career, Haley was motivated by the belief that: "[i]n the context of communications, it cannot be emphasized too often that radio controls, guidance, tracking and scanning are essential elements in the use and safety of space travel. Abuses of allocations leading to confusion of radio commands could result in extensive losses and irreparable damage".¹⁹⁶ Haley began public assertion of the need for space system spectrum allocations in 1953. Following his work in the *ad hoc* and later permanent Space Flight Committee of the ARS, Haley was instrumental in establishing the ARS Committee on Space Communications and Guidance in which he also was a leading force for years.

During summer months in the 1950s, when other commitments would allow, Haley would take his family on vacation trips to the Northwest. Trips might start with a brief visit to the Campbellsville family home of J. Y. Chambers, Aunt Dede's stepfather, and they might include stops for short visits with clients in different cities, but in theory, these were vacation trips. In the summer of 1953, Haley, his son (age 15) and his daughter (age 17) were assembled in a large sedan. They left Washington, DC, bound for Seattle by car. Haley established rules to maintain the orderliness he desired while travelling. His daughter Delphine provided the children with a printed set of his announced rules. The following list is from a copy of these rules which turned up in a cache of family photos in 2018.

¹⁹⁵ Haley diligently exercised responsibilities in each of these positions resulting in a well organized collection of relevant correspondence and working papers for the 1950s.

¹⁹⁶ A. G. Haley, *Space Law and Government* 172, Appleton Century Crofts, New York, 1963.

1. Under all conditions to be cheerful, sweet, thoughtful and alert.
2. If you can't be pleasant, just say you are out of sorts and we'll know what's the matter with you.
3. One of the things I will stand for least is imitating my habits, such as being short tempered and swearing.
4. If you are pleasant, alert, and cooperative, I will pay no attention and let you do what you want, including driving the car and having more freedom.
5. The main thing for children is to have better habits. This means that without my telling you you must:
6. whenever possible (such as today) wash your shirts and sox;
7. take your Poundex¹⁹⁷ two times a day;
8. take a bath when practical, at least every other day;
9. wash your hands with soap and water at least two times a day;
10. in public toilets never touch any fixtures with your hands – no door knobs, fixtures, handles or anything else; use toilet paper or paper towels instead of your hands;
11. always use your napkin – and always wipe the grease from your face;
12. write monnie [Mommie] once a day;
13. whenever we stop pictures must be taken by one camera. Cameras must be kept loaded at all times.

When reviewing the draft manuscript of this biography, Andrew John Vogt recalled:

We (Delphine, Andy, Jr., Mary and I) made several trips across the country with AGH by car, visiting the Midwest, Salt Lake City, Colorado, Rapid City (South Dakota), Montana (including a dude ranch), Glacier National Park, Spokane Minneapolis, Seattle and Tacoma, Bellingham, Vancouver, BC, Wenatchee, etc. Delphine took dictation from AGH and at one time he had her take down a set of rules. One of our great victories at the time was changing one of his rules from “Do not imitate my bad habits” to “Do not imitate any of my habits, which are bad”. He also spat out the window often, and it was wise to keep the back window shut to avoid inflow. On these trips we visited with his clients who were a very interesting and diverse bunch of people.

AGH went to dinner in New York with Mary and Delphine (Delphine told me about this incident). Violinists wandered from table to table to entertain the guests. AGH became irritated by their proximity, borrowed a lipstick from one of the ladies in the party, drew a line on the floor, and told the violinists not to cross it. Delphine reported that they came right up to the line, but did not cross it.¹⁹⁸

The incidental opportunities to travel with the children would arise as school vacations occurred and the flexibility of Haley's schedule would allow him to take the time to travel on the ground with the children. These opportunities provided infrequent but pleasurable interludes.

In a meeting in 1954 initiated by then ARS President Haley, Commissioner George E. Sterling of the US Federal Communications Commission in Washington, DC, presented his views (very likely partly drafted by Haley) to the ARS National Capital Section on needs for

¹⁹⁷ Poundex was a popular dietary supplement in the 1950s featured in the Whelan's Drug Store chain.

¹⁹⁸ From a commentary on this biography sent to S. E. Doyle 12 Jan 2020; contained in the *AGH, Letters and Materials*.

regulation of satellite uses of radio. This early, authoritative statement was intended to stimulate some US Government concern about the need for rules and regulations related to radio usage in emerging astronautical capabilities. Sterling's short paper did not propose solutions so much as it called attention to emerging issues that would require national and international attention of regulators. The clear global nature and impacts of radio uses in astronautics are repeatedly manifest in the paper. As Commissioner Sterling wrote, "I believe that there will be many technical problems as well as regulatory problems associated with communications in connection with rockets that travel far from the Earth. I am not aware of any study which has been made in this regard, but I think it would be a very fruitful field for exploration".¹⁹⁹

Also during 1954, on behalf of the ARS, Haley, as President, submitted a proposal prepared by the ARS Space Flight Committee to the National Science Foundation to sponsor a study of 'The Utility of an Artificial Unmanned Earth Satellite'. The US Armed Services were already at work on this subject in classified studies. The National Science Foundation took no action on the ARS proposal. Despite repeated failures to cause government action, in December 1954 the ARS presented Haley with a special award – a plaque with the engraving "... in appreciation for distinguished service and untiring efforts on behalf of the Society during his term as President".

On 9 April 1955, Andrew's father, Christopher Joseph Haley died in Seattle at the age of 84. In a published obituary it was noted that Christopher Haley was well known as an engineer and manufacturing expert in the wood pipe and tank industry. The historical Catholicism of the Haley family was manifest in Christopher's wake and burial arrangements. A rosary was prayed at the funeral home that hosted his wake, and a Requiem High Mass was said at St. James Cathedral in Seattle before interment at the Holyhood Cemetery in Seattle on 12 April 1955.

Before leaving Washington, DC, for Seattle to attend his father's funeral Haley wrote to his older sister, Mary Ryan who was living in California:

Dear Mary,

[...] I am leaving presently to go to Seattle to attend Papa's funeral. He greatly enjoyed your cheerful correspondence and I am sure you are happy you were so nice to him. I was pretty tough on occasions but I do not feel particularly unhappy because he certainly understood my motives. On the other hand, I was very nice to him on several occasions. This is gratifying. It just proves that one never should be unkind to anyone.

With love to you and all the family,

Andy²⁰⁰

¹⁹⁹ Sterling, G. E., "Utilization of Radio Frequencies in Connection with Rockets", *Jet Propulsion*, vol. 24, no. 5, Sep. - Oct. 1954, pp. 322-23.

²⁰⁰ In *AGH, Letters & Materials*.

Another letter was sent related to his father's death. Haley wrote to Stimson Bullitt, Dorothy Bullitt's older brother, who was a partner in the law firm Bullitt & Mohl, in Seattle. Haley wrote:

Dear Stim:

I spoke very briefly with Joseph [Haley's brother] about my father's little estate and I believe the situation was left that I would talk to you when next I was in Seattle. On further thought, I believe it wholly unnecessary and undesirable for me to talk with you about the estate. I think you should proceed to settle the estate as expeditiously as possible, to make the distribution, and to release Joseph as the Administrator.

I would certainly do this right down the line and strictly in accordance with your views of the law. My mother never had a divorce from my father, but there was a legal separation and some sort of property settlement, If this means that she is still entitled to half of his estate, then I think she should have every penny of what might be distributed to her without regard to anyone else. In other words, I suggest that you simply take care of the matter right down the line and expeditiously.

I am quite opposed to any advances to any of the children. It is impossible to weigh the equities of one against the other and none should have the temerity to ask for an advance. This comment, of course, has nothing to do with the immediate payment of all charges against the estate.

With kindest personal regards, I am

Sincerely yours,
Andy
Andrew G. Haley
cc: Mr. Joseph P. Haley

Haley's dealings with family affairs often appeared perfunctory and emotionless, but his relations with all his family over the years were somewhat strained by the isolation he imposed upon himself by his attention to his business and international organization affairs. In a poem written about Haley by his sister Gertrude,²⁰¹ he was referred to as 'the eagle' and she noted there:

He brooks no lowly perch,
Where gregarious ones find safety
And small pleasures;
His love is loneliness,
Among his loved. [...]

It was her observation that "his love is loneliness, among his loved". She was able to perceive that he loved his family, but apparently simultaneously loved the isolation caused by his travels and professional pursuits.

²⁰¹ See the brief poem in its entirety at the conclusion of the final chapter of this book.

When Haley left the position of President of the ARS in December 1954, he continued to maintain close contact with the Society's leadership and would occasionally draw upon his experience as President to try to assist his successor, Dr. Richard W. Porter, Director of the Satellite Division of General Electric. An example of the advice and historical background he would offer from time to time was contained in a letter to Porter sent in May 1955 concerning the upcoming VIth International Astronautical Congress to be held in Copenhagen, Denmark. Haley wrote:

Dear Dr. Porter,

I have been working away on organizing a group of people to attend the International Astronautical Federation meeting in Copenhagen August 1-8, 1955. Last year I went with von Karman to Innsbruck and he arranged to hold a meeting of his committee in that city, thereby enabling such people as Dryden, Ranney, Alperin and others to attend. I had several conferences with von Karman on the subject of this year's meeting and it will be impossible for him to attend because of a NATO conflict due to a meeting at approximately the same time which will be held in Ottawa. We have, however, suggested to many scientists that they should attend.

In some instances it is helpful to have a formal invitation. Would you be so kind as to write an invitation to the following people:

Dr. Morton Alperin
Air Research and Development Command USAF
29 South Grand Avenue
Pasadena 2, California

Dr. Wolfgang Klemperer
Douglas Aircraft Company
Santa Monica, California

Dr. W. D. Ranney
California Institute of Technology
Pasadena, California

I am sending a copy of this letter to Fred Durant [IAF President] with the thought that he, too, might send an invitation on the official letterhead of the I. A. F.

I appreciate your invitation to me to attend the meeting. In connection with my own attendance there is some background you should know. During the London and Stuttgart meetings I gained the definite impression that there was a pretty solid plan to make the I. A. F. a sort of Central European vehicle. Sanger was settling down to be permanent president (in my estimation) and the publication of the *Acta Astronautica* was being steam-rolled for Vienna. Others, such as Dr. Shepherd, shared my view – as the official minutes will indicate – and with Dr. Shepherd on the record [I] made comments concerning the *Acta Astronautica* becoming a Central European organ. The situation was somewhat relieved by Fred's election as President – but Fred [Durant] seemed to be wholly in accord with the objectives of the Central European group. I also desired to see rotation in office such as we have in the American Rocket Society. Having attended half a dozen international conferences as United States Delegate, I also was imbued with the thought that it was

desirable for the American Rocket Society to avoid aggrandizing office. Accordingly, at Innsbruck it was made known in advance that I was a candidate for no office and that our delegation would nominate Shepherd for President and Tabanera for Vice-President. We found that the *Acta Astronautica* was so completely under the control of Springer-Verlag that there was no sense in even mentioning the British proposal – which was in every sense, in my opinion, a better proposal and was very substantially less costly.

On all fronts I was completely defeated – with the exception, of course, of the election of Tabanera – but that was a decent gesture in which everyone concurred. Having been defeated I have been totally quiet on all matters and I accept the decision of the majority. It goes without saying that if you have any instructions to give concerning the official aspects of the Congress I will conform to them implicitly. I also will support Fred right down the line and in full accordance with your instructions. We all maintain our own viewpoints and theories of policy and can well understand where any one of us may be wrong at any time. Therefore, when a matter is resolved, that is the end of it so far as I am concerned.

I would like to know from you just who will constitute the official delegation, who will be the spokesman, and so on.

With all good wishes, I am

Sincerely yours,
Andrew G. Haley²⁰²
Cc: Mr. Frederick C. Durant III

Because he maintained a strong continuing sense of responsibility to encourage the growth of and participation in the International Astronautical Federation, Haley took every practical opportunity to promote the interests of the Federation. A letter written in June 1955 indicative of this attitude is:

Hon. Walter C. Buchanan
Sub-Secretary, S. C. O. P.
Xola E. Universidad
Mexico, D. F.

Dear Mr. Buchanan:

I recall with great pleasure many good visits with you during the course of the bilateral broadcasting conference held in Mexico City last November and December. I also recall with pride your kindness in permitting me to give a lecture on astronautics at the auditorium of the *Secretaria de comunicaciones y obras publicas*.²⁰³ As a result of that lecture great interest in astronautics and space travel was engendered in Mexico. And the Mexican interplanetary Society has been formed.

I am anxious to see the Mexican Interplanetary Society become a member of the International Astronautical Federation. Since its organization the International Astronautical Federation has held International Congresses in Paris [1950], London [1951], Stuttgart [1952],

²⁰² In *AGH, Letters & Materials*.

²⁰³ Secretariat of Communications and Public Works.

Zurich [1953], Innsbruck [1954], and this year's Congress will be held in Copenhagen from August 1 to August 7.

Each of these meetings has been attended by many of the foremost scientists in the world, including physicists, chemists, engineers, and so on. Scores of persons attending these meetings are well known to you. If you should desire a list of the delegates and observers I will be glad to furnish such information.

At the present time the following societies are members of the Federation:

American Rocket Society, Inc.
American Astronautical Society, Inc.
Agrupacion Astronautica Espanola
Associazione Italiana Razzi
British Interplanetary Society
Dansk Interplanetarisk Selskab
Egyptian Astronautical Society
Gesellschaft fur Weltraumforschung e. V.
Japan Astronautical Society
Nederlandse Vereniging voor Ruimtevaart
Norsk astronautisk forening
Oesterreichische Gesellschaft fur Weltraumforschung
Sociedade Interplanetaria Brasileira
South African Interplanetary Society
Schweizerische Astronautische Arbeitsgemeinschaft
Swedish Interplanetary Society
Yugoslav Astronautical Society

I have been hoping that the Mexican Government would see fit to send a representative to the Copenhagen Congress so that the Americas will be well represented through Mexico, Argentina, Brazil, and the United States. I believe that Chile is also sending a delegate. I realize full well that it is most inappropriate for me to suggest the name of such a delegate. Having worked with the Mexican Society, however, I think it is entirely correct to point out that Mr. Nunez has worked untiringly to establish the Society and that he is thoroughly informed on the international aspects of the effort. I think that Mexico would be most efficiently represented by Mr. Nunez.

I am writing you on the basis of friendship, with the hope that you may be interested in the idea I have advanced. To properly implement the protocol I am also writing to Hon. Carlos Lazo, Secretary of S. C. O. P.

With warm personal regards to you and your family, and expressions of highest esteem, I am

Sincerely yours,
Andrew G. Haley²⁰⁴
cc: Hon. Carlos Nunez
Mr. Frederick C. Durant, III

²⁰⁴ In *AGH, Letters & Materials*.

On the same day, Haley also wrote directly to Carlos Nunez forwarding to Nunez copies of his letters to the Secretary and Sub-Secretary of Mexico's S. C. O. P. and advising Nunez he was sending copies of the correspondence to Fred Durant, recommending that Durant write a letter of invitation to Nunez. Haley also told Nunez he was writing to IAF VP Tabanera in Argentina asking him also to write a letter of invitation to Nunez.

Haley was always willing and able to do this kind of promotional support for foreigners who expressed any interest in the IAF, but he always took measures to ensure that the objects of his support were well aware of his support, which was his way of building support for his own policies and positions in the organization. As a result, from the mid-1950s until his death, Haley undoubtedly enjoyed the broadest base of personal support of any office holder in the IAF. This was his chosen field of international operations and he wanted to have a broad cadre of supporters on whom he could rely.

On 17 June Haley wrote a personal, newsy letter to Frank Malina in Paris:

Dear Frank:

Mr. Bramwell [Haley recommended Malina tax attorney] spends considerable time traveling, which is his excuse for not writing you sooner. There does not seem to be any explanation at all for the non-delivery of his letter to you of March 10, 1955. He has given me a copy of his letter to you of June 9, 1955, and I will do nothing about securing another tax attorney for you unless you so instruct me. I have another firm in mind should you still wish to make a change.

I have been getting the quotations on Aerojet since my cable to you of June 8, 1955. The first of this week it dropped to 95 bid and has remained through today. It is really puzzling to try to figure the why's and wherefore's. Ethna checks every two weeks on certain securities and, for example, the following is a report on G. M. Giannini preferred stock: Jan. 17 - 150; Jan. 30 - 160; Feb 14 - 180; Feb. 28 - 210; Mar. 15 - 220; April 28 - 285; May 16 - 192; May 31 - 180; and finally, June 15 - 186. Now I wonder if it will start rising again.

At the present time I do expect to go over to Copenhagen for the IAF Congress. I may go on the *SS Mauretania* in company with some of the ARS people - or, if I get pressed for time, I may go by plane.

You may be interested to know that Andrew, Jr. graduated from prep school and will enter college in the fall. He has taken a position in Seattle, Washington, with the Highway Department [living and working with his Uncle Joe Haley] and is working with a survey group. We believe it will be a wonderful experience for him. He is 5' 11" now so you can see we have a young man on our hands.

Please pardon my delay in writing - we have been extremely busy - and with kindest regards to you and Marjorie. I am

Sincerely yours,
Andy
Andrew G. Haley²⁰⁵

²⁰⁵ In *AGH, Letters & Materials*.

On 22 June 1955, Haley wrote a characteristic letter to a retired client/friend in which he recorded recent travel experiences. Letters of this kind are frequent in the Haley correspondence files. They are certainly messages to the recipients, but they are also examples of his method of work, of his travel, and of his penchant for successive meeting schedules he set for himself. There are many of these letters, several included at different places in this biography. The letters were written to friends, clients, relatives, and associates. They not only describe his life, but they substantially help to record it when taken in the aggregate. The letter included here demonstrates the continual urgency Haley programmed into his own life, without regard to the consequences for others of his intensive movement from place to place.

Mr. C. L. McCarthy
Placerville, California

Dear Mc:

I have been intending to write to you daily for a long time - and even to visit you – but both projects have failed miserably. I could have written you a brief letter but I wanted to do something good by you and in so doing I have neglected you altogether. This is a shame and I felt really hurt with myself when I got your nice note of June 20, 1955.

First, give my love to Zella and thank her for her wonderful letter from Rochester which was delivered to me in some ungodly place but I remember vividly that it made me feel very much better at the time as I was greatly worried about you. It was comforting to know that she was with you and she deserves a bright star in her crown.

I suppose you have read accounts in the trade magazines of the NARTS Conferences. I thought the arrangements were all right but the magazines were very critical of the use of the two hotels – the old Wardman Park and the Shoreham. It didn't bother me a bit – as I didn't look at any of the exhibits, didn't attend any of the meetings, and didn't give a damn anyway. I hung around the air-conditioned suites of Meredith Publishing Company and Crosley Corporation, and I really had more space than I needed. The counsel for Crosley, Pierson & Ball – wanted my support for Subscription Television so they let me have all the facilities I needed – and Zenith paid for most of the drinks. They are also counsel for Zenith, which accounts for the tie-in. I started out being against Subscription Television but after listening to the hard-boiled arguments, I just couldn't find too many reasons to oppose it. My attitude was clinched when Ed Meredith emphatically announced that he was for it. The logic is – why the hell let the amusement industry benefit by Subscription TV, let the broadcasting industry have the benefit. The amusement industry doesn't support the broadcasting industry worth a damn. Furthermore, there is a limit to the advertising dollar, so let's take a few pennies away from the amusement industry as distinguished from the advertising dollar and thereby strengthen the broadcasting industry financially at the expense of the amusement industry. And so on, and so on. The ultimate end of the logical processes is – if Subscription TV is any damn good, let's keep it for the broadcasting industry and not give it to the amusement industry.

Last week I was in Salt Lake City and you may be interested in an account of my hair-breadth experience with the airline. I had arrived in Salt Lake City at 5:00 a. m. on Tuesday, expecting to finish in time to be in Cincinnati for another appointment on Friday but things progressed slowly and my Cincinnati appointment was changed to 11:00 a. m. Saturday. We had finished the very

complicated negotiation in Salt Lake City shortly after midnight Friday night. I had been assured that I would be taken care of on Flight 646 leaving Salt Lake City at 1:30 a. m. and arriving in Chicago on time to catch the Delta-C&S²⁰⁶ tourist airplane which would arrive in Cincinnati shortly after 10:00 a. m. on Saturday morning. When I breathed a sigh of relief after winding up the extremely complicated and often vexatious negotiations in Salt Lake City shortly after midnight, I called the United Airlines and found that Flight 646 had already left Boise en route to Salt Lake City and that it was loaded to capacity and that I couldn't possibly board the plane for the flight to Chicago – this despite great pressure on my behalf by the publishers of the *Salt Lake City Tribune* and the *Ogden Standard Examiner*. All of my colleagues were crestfallen and, after partaking of refreshments to revive our spirits, we all went out to the Airport to take the chance that something favorable might happen.

One of my colleagues was determined to bribe a passenger to get off and let me on – he said that he had met Charles Sawyer (former Secretary of Commerce and the lawyer I was to meet in Cincinnati) and that he would see to it personally that I was on time for the Saturday conference. The airplane arrived shortly after we reached the Airport and still the report was unfavorable for me. The good Lord, however, intervened, in the form of a delayed connecting carrier having a passenger for flight 646. As the connecting carrier did not arrive on time, the passenger agent gave me his seat and I left for Chicago in a blaze of glory and in the midst of the sighs of relief of the many people at the Airport who were concerned over the matter.

In Chicago I was surprised to find that my reservation on the Delta C&S had been cancelled. I showed the passenger agent my ticket with the familiar “OK” on it and he said I should have given Delta notice and I replied that that was quite impossible as I had just arrived from Salt Lake City a few minutes before my reporting in. He then talked to higher officials and they approved my flight on to Cincinnati. The flight left a little late but favorable winds caused us to reach Cincinnati almost on time. At the Airport I engaged a taxicab and arrived at Mr. Sawyer's office at five minutes to eleven.

Incidentally the Salt Lake City transaction included the purchase of KUTV [television Salt Lake City], KUTA [AM Salt Lake City], KOPR [Boise], KLIX and KLIX-TV [Twin Falls], and KGEM [Boise]. It also means that the present owners have to sell KALL Salt Lake City, and probably KLO Ogden. It is quite a complicated picture.

Do you remember Joe Eaton? He got canned as General Manager of WKLO at Louisville and I felt sorry as hell for him. However his father died a few weeks later and he inherited a million bucks from him. Then his wife's father died and they inherited a nice sum on that side of the family. So now Joe Eaton is in the pink and is running for Lieutenant Governor of Kentucky. He surely came up smelling like a rose and here all the time I was trying to find him a job.

Keith Kiggins certainly has made a rapid recovery. The efficiency of his heart has increased from 25% of normal to about 85% of normal. I told Keith that you were sick and he said he would drop you a line.

I forgot to tell you early in the letter that I had intended to proceed from Salt Lake City to San Francisco but, as you will have already observed such would have been utterly impossible in view of the Saturday morning conference with Sawyer in Cincinnati.

²⁰⁶ Delta, Chicago and Southern Airline.

I presently plan to come to the West Coast late in August or early in September. In the meantime, I have to go to Copenhagen on the rocket business the first week in August. Whatever I do, I will surely put it on the schedule to see good old Mc and Zella.

I have to dash up to Boston now and I hope to be back in a couple of days. I know that you had one of the roughest operations in the book and I am wondering just what the prognosis is. I am not curious in an invidious sense but if the prognosis is very bad I would change some plans and duck out to see you specially. If our visit will wait a couple of months, then let's leave it that way.

In any event, hurry up and get well, you old bastard, and remember there is nothing too much for me to do if you require any help.

With affectionate regards to Zella and you, I am

Sincerely yours,
Andy²⁰⁷

Another typical Haley letter was written on 27 June 1955 to a clergyman who was an acquaintance of Haley's and a former Vatican Astronomer, Father Walter J. Miller, S. J., then visiting at Fordham University in New York. This was a typical Haley request for a *quo* as a result of a previous *quid*. Haley wrote:

Dear Father Miller;

A very good friend of mine and one of best telecommunications experts, Mr. Arthur A. Gladstone, and his wife will be in Rome August 8-11, 1955, and will stop at the Hotel Imperiale.

I appreciate that this is the vacation month and that scarcely anyone will be in Rome or its environs and I am writing only on the chance that you may know someone at Castle Gandolfo who might show the Gladstones the Vatican Astronomical Observatory and the Astronomical Library, and perhaps arrange for [a visit at] one of the large Papal receptions [audiences?].

I appreciate the fact that you will not have left America during the period that the Gladstones will be in Rome – I thought perhaps you could write to one of your colleagues at Castle Gandolfo and send a carbon copy of your letter to the Gladstones at the *Hotel Imperiale* and they could arrange to follow through.

I have long neglected the matter of the pictures taken at the Mayflower reception [the *quid*] but I am having copies made for you and Robert [his brother] and hope to get them in the mail to you before very long.

With every good wish, I am

Respectfully yours,
Andy
Andrew G. Haley²⁰⁸

²⁰⁷ In AGH, *Letters & Materials*.

²⁰⁸ *Ibid*.

On the same day, in another letter along the same lines, Haley wrote to Frank Malina with regard to an anticipated visit to Paris by the Gladstones. Haley wrote:

Dear Frank:

One of America's distinguished telecommunications experts, Mr. Arthur A. Gladstone, *attaché* of the Federal Communications Commission, and his wife, will be in Paris August 19-25, 1955, and will stop at Hotel Garnier. Besides being a telecommunications expert, Mr. Gladstone is also interested in art – and they are friends of Dr. von Karman.

I realize full well that you are very busy and cannot devote time to sightseeing with Mr. and Mrs. Gladstone, but I would appreciate your kindness in giving them a ring and making suggestions as to points of interest and interesting events. If there should happen to be an art exhibit in which you had entries, it would be nice if you would invite them to attend. In other words, any small courtesy you might extend to Mr. and Mrs. Gladstone will be greatly appreciated.

I look forward to seeing you in Paris the latter part of July. I will advise you the exact date. With every good wish, I am

Sincerely yours,
Andy
Andrew G. Haley²⁰⁹

The International Telecommunication Union (ITU)

As the 1950s unfolded, it became increasingly clear that there were significant challenges ahead in the areas of radio frequency management and the international allocation of sufficient radio frequency bands to meet the anticipated needs of astronomical radio. Activities within the US defense establishments had access to substantial radio frequencies reserved for government research and development and for national emergency uses. In addition, with sufficient research funds, the defense requirements could be shifted to higher, unused and as yet unregulated frequencies as technology was developed at MIT's Lincoln Labs for DOD to work in higher ranges of the radiomagnetic spectrum. Beyond the defense sector, however, there were not large amounts of uncommitted spectrum, and it was becoming clear that international arrangements would be necessary to support radio frequency uses involving earth-orbiting satellites. Outside of Defense Department funding of higher frequency research, there was limited serious governmental attention to this issue in the early 1950s. Substantial growth and development were occurring in mobile radio applications in aeronautical and maritime radio services, and in astronomical radio research, but there was no activity addressing space radio communication or tracking services, and Haley believed this could become a major problem if not addressed.

²⁰⁹ *Ibid.*

The slowly mounting pressure to do something about the foreseeable needs of astronomical radio was clarifying during the mid-1950s, but there was no demonstrable compelling need for action. The problems of astronomical radio regulation were not given immediate attention. There were a great many other international allocation issues to be dealt with driven by expanding current terrestrial uses of radio, or immediately desired uses. The accelerating nature of the rate of expansion of the industrial use of radio in the mid-20th century is not generally appreciated. Consider the historical sequence of growth in the world's use of regulated radio frequencies, as shown in the following table:

20th Century ITU Global Allocations of Radiomagnetic Spectrum²¹⁰

Year	Conference Site	ITU Allocated Frequencies	Total Allocated
1906	Berlin	from 188 kHz to 1,000 kHz	812 kHz
1912	London	from 150 kHz to 2,000 kHz	1,850 kHz
1927	Washington	from 10 kHz to 23,000 kHz	~ 23,000 kHz
1932	Madrid	from 10 kHz to 60,000 kHz	~60,000 kHz
1938	Cairo	from 10 khz to 200 MHz	~200 MHz
1947	Atlantic City	from 10 khz to 10,500 MHz	~10,500 MHz
1959	Geneva (GWARC)	from 10 kHz to 40,000 MHz	~40,000 MHz
1971	Geneva (GWARC)	from 10 kHz to 275 GHz	~275 GHz
1979	Geneva (GWARC)	from 9 kHz to 400 GHz	~400 GHz

There was an explosive expansion of use of the radio spectrum during the Second World War years, because relevant technologies advanced particularly in microwave applications (note the extent of upward adjustment in the top of the international allocation table in 1947 compared to 1938, and again from 1959 to 1971). Major drivers in this expansion included land mobile services, aeronautical services, and space services. In the mid-1950s, there were no internationally allocated astronomical or space service bands, and comparatively explosive growth in other frequency uses continued. Following WWII, the use of microwave facilities began an accelerating growth for voice and record services in land based systems. as well as in mobile services. As new services arose, expanding technology and lowered costs also contributed accelerating factors to the use of radio. Although there were high frequency radio services in international and maritime communications, these were unreliable services subject to sun-spot interruptions. The use of undersea cables grew, but they were often saturated by demand in very short periods following their entry into service.

Today we accept as routine in our lives the operation of telephones, reception of radio and television programs, use of the global internet, daily meteorological imagery in our weather forecasts, global radio navigation services, fixed and mobile radio services, television covering live events of global interest, such as the World Cup Soccer Matches, the Olympic Games, breaking news of major countries' election results, and other important news, natural disasters,

²¹⁰ One Hertz is a cycle per second; kHz are x (10³); MHz are x (10⁶); GHz are x (10⁹). A GWARC is an ITU Global World Administrative Radio Conference, as distinguished from a Regional Administrative Radio Conference (RARC). These Conferences formally adopted agreed international radio band allocations for the International Radio Regulations.

historic or military events. Today, such events can be witnessed in real time, simultaneously on a global basis by tens of millions of people.

A wondrous array of domestic and global services is provided today using advanced operational space systems. When one retraces the regulatory pathways by which the world community comes together to enable orderly planning, implementation, and interference-free operation of the many domestic, regional, and global space radio communication services, one discovers the visionary, pioneering role played by Andrew G. Haley, who helped blaze the international regulatory trails to enable these radio services to develop globally.

To appreciate Haley's role, it is essential to know something of the role and structure of the International Telecommunication Union (ITU). Here is a brief description of some early ITU meetings dealing with astronomical radio. This background will contribute to understanding relevant Haley activities in promoting global frequency band allocations for multiple space radio communication services beginning in the 1950s.

The ITU is the world's primary international organization for coordination of radio communication systems using the radio frequency spectrum. In dealing with telephone, telegraph, and radio communications, the Union sets standards and procedures to facilitate governments' and operators' efforts to resolve potential interference between operational systems. In the discharge of its radio regulatory responsibilities, the ITU works through Global and Regional Administrative Radio Conferences and the International Consultative Committee on Radio, referred to as the CCIR, after its French language initials.²¹¹ The CCIR comprises several Study Groups. These international study groups are open to participation by Member State Governments, private sector operators, and other organizations involved in communications. They cooperate to develop recommendations for radio communication and frequency management. These recommendations are considered and adopted from time to time by CCIR Plenary Assemblies, and then Regional and World Administrative Radio Conferences of the Union.²¹²

The Union previously maintained an International Frequency Registration Board (IFRB), a five member board elected at World Administrative Radio Conferences (WARCs) and supported by the Union's secretariat in Geneva, Switzerland.²¹³ The IFRB maintained records of the frequency band allocations for the various globally authorized services contained in the ITU Radio Regulations, and recorded the specific assignments by Member Administrations of all radio frequencies licensed for use. The IFRB was renamed the Radio Regulation Board (RRB) at the ITU's 1992 Additional Plenipotentiary Conference held in Geneva, among other sweeping changes in the Union's structure and terminology. To maintain order in the use of radio spectrum it is essential to have specific radio services perform in particular agreed frequency bands of the radio spectrum as a means of avoiding interference between different services.

²¹¹ *Comité consultatif international pour la radio*; which is today the Radio Communication Sector of the ITU (ITU-R).

²¹² Although the ITU has modified and renamed its major organs during the past quarter century, the functions performed by the ITU remain essentially as described herein.

²¹³ In 1992, the Geneva Additional Plenipotentiary Conference decided to replace the IFRB by a part-time Radio Regulations Board (RRB). Following a transitional period during which the five full-time members of the IFRB became five part-time interim members of the RRB, the first nine-member Radio Regulations Board was elected at the Kyoto Plenipotentiary Conference in 1994 and took up its duties on 1 January 1995.

ITU World Administrative Radio Conferences negotiate and allocate bands of radio frequencies for use by particular services, and the Member States' Administrations (national governments) then license (assign) particular frequencies in an authorized service band for use by a particular licensee. All assignments are then reported to the ITU and entered into the international frequency register maintained by the RRB. Some definitions for the various services defined in the Radio Regulations have been modified and new services have been added over the years at Radio Conferences.²¹⁴

In November 1955, as part of his intensifying radio spectrum allocation campaign, Haley presented an article in the ARS monthly technical publication *Jet Propulsion* in which he asserted that “[t]he tremendous demand for radio spectrum in connection with the exploration of space and the colonization of other planets would certainly require the International Telecommunications Union to make adequate provisions therefore”.²¹⁵

In the same month, Haley published a seminal paper on ‘Basic Concepts of Space Law’ before the 25th Anniversary Annual Meeting of the ARS in Chicago. In this paper he documented post World War II history of the ITU, and he highlighted roles and functions set forth in the ITU Convention calling attention to ITU obligations to:

1. Maintain and extend international cooperation for the improvement and rational use of telecommunications,
2. Promote development and most efficient operation of technical facilities by establishing standards and operating rules to improve telecommunication services, and
3. Harmonize the actions of nations in the attainment of these common ends.

Haley concluded these observations with the view that the various sub-organs of the ITU, with cooperative arrangements with the United Nations, comprise a great deal of management machinery already existing to meet the needs of space communications. He concluded with a recommendation to undertake numerous activities, including a study of communication requirements, requesting the IFRB to advise the CCIR what frequency bands might be available, and taking preliminary steps to initiate formal proceedings to accomplish needed frequency allocations.

While Haley was progressing in responsibilities and positions in the ARS, he was also progressing in positions in the International Astronautical Federation (IAF) in Paris. Briefly tracing his roles of increasing responsibilities in the IAF: he was elected a Vice President of the IAF at the organizational meeting in London in 1951, serving in that role until 1956. He was a co-drafter of the IAF’s constitution (1951-52), and he was an original co-chair and later Chairman of the IAF International Affairs Committee during the 1950s. Haley was elected President of the IAF, serving in that position for two terms - 1957-59. He also served as IAF

²¹⁴ Today the ITU Radio Regulations identify 41 radio communication services, including the following space radio services: fixed-satellite, inter-satellite, space operation, mobile-satellite, land mobile-satellite, maritime mobile-satellite, aeronautical mobile-satellite, broadcasting-satellite, radio determination-satellite, radio navigation-satellite, maritime radio navigation-satellite, aeronautical radio navigation-satellite, radiolocation-satellite, Earth exploration-satellite, meteorological-satellite, space research and radio astronomy. See ITU Radio Regulations, Edition 2016, Article 1, Section 3, pp. 8-12.

²¹⁵ A. G. Haley, “International Cooperation in Rocketry and Astronautics”, 627, 632, *Jet Propulsion*, Nov. 1955.

General Counsel from 1958 to 1966, which placed him *ex officio* on the managing Council, initially known as the Bureau of the IAF.

Haley recorded fully and faithfully his sustained roles and diligent activities in promoting the interests of the IAF.²¹⁶ Throughout the balance of his life, he attended annual international aeronautical congresses and kept a hand in the management of the IAF, even if later only by offering informal advice. All these activities were in addition to the continuing day-to-day management and conduct of the affairs of his law offices. Even though the frequency and durations of his travels increased, especially during the last half of the 1950s, Haley had a functioning, expanding and profitable law firm operating in Washington, DC. During this period, Ethna White performed remarkable coordination and management in her roles as Executive Secretary to Haley and Office Manager of the firm. When Haley was not in Washington any required immediate command decisions were made by Haley's nephew, Michael Bader and confirmed by Haley by telephone. Ethna White also monitored the activities and welfare of the Haley children and wards who were becoming increasingly scattered in boarding schools and universities.

The principal negative impact of all these organizational activities and frequent travels was Haley's separation from and isolation of his family. His wife, Aunt Dede, craved his continuing support and reassurance more than he was aware or could appreciate. During the increasing vacancies in her relationship with her husband, Aunt Dede increasingly sought the relief given by alcohol. By the mid-1950s, her health began to fail and her physical and emotional stability were slowly deteriorating. Although the Haley and Vogt children saw this process taking place, they were powerless to do anything about it. At one point Haley resorted to assigning to his children topics for discussion at family dinners to preclude the emergence of arguments with his wife. However, vociferous arguments still occurred between Haley and Aunt Dede at evening family meals, and this disrupted state of relationship gradually worsened with time. To isolate himself from the accusatory shouting of his wife, Haley would retire to the isolation of his bedroom and lock the door. He was painfully aware of the worsening problem, but he took no corrective action and sought no help to find a solution. He was just too busy.

²¹⁶ A. G. Haley, *Rocketry and Space Exploration* 229-237, Van Nostrand Co., Princeton, N. J., 1958.

Chapter 17: Proposing and Commenting on Space Law from 1955

In parallel with his aspirations to report the history of rocketry, Haley simultaneously was compiling information for papers, articles, and speeches on space law. While he integrated in his mind the various topics, he began work on another manuscript, with the title *The First Book of Space Law*, and later titled *The Law of Outer Space: A First Approximation*. That manuscript was several years in preparation during the mid-1950s but was overtaken by events, because Haley disappointedly learned that there had been other monographs, dissertations, and books previously published on the topic of space law. He subsequently decided that although his would not be the first book on space law, his would be a comprehensive, well researched and definitive work, which few others had the experience to produce. We herein highlight some of the original ideas and suggestions Haley endorsed or contributed to the development of space law during the mid-20th century.

Having managed the Aerojet Engineering Corporation for three years, having spent close to a decade in the management of the ARS in increasingly responsible roles, having spent four years in the formative work and constitutional drafting of the IAF, having worked diligently to obtain a place for the IAF among significant international governmental organizations addressing international aspects of astronautics, and having spent increasing time promoting and supporting development of international allocation of radio frequencies for astronautics, Haley saw himself as a unique contributor to the development of astronautics, because no one else brought his mix of backgrounds and experience to addressing the issues. Humility was not one of Haley's strong suits. He often began major conference papers with a page or more of his personal history and positions he held to establish his qualifications and often included a list of his works on space law for ready reference by his audience. Sometimes these lists appeared as footnotes on an early page; sometimes they were appended to the paper as a select bibliography. Clearly, Haley intended that no one in any audience he ever addressed would leave the event wondering who he was.

In astronautical radio, Haley undertook a sustained campaign during the 1950s to urge and convince the US Government and the International Telecommunication Union to initiate radio frequency band allocations for astronautics. Haley correctly and fervently believed that dedicated radio frequencies are essential to the safe and reliable conduct of spaceflight. When he began this effort in the early 1950s, Haley was not fully aware of the procedural steps that would be required to accomplish global allocations of frequency bands for astronautics; but even if he had been aware, his determination would have surely carried him through the national and international bureaucratic mazes. Haley was well versed in the domestic regulation

of radio communications, but he had a good deal to learn about the process of international radio regulation.

Andrew Haley had to become familiar with the enabling provisions of the ITU Convention which described the composition, purposes and structure of the Union; including the International Frequency Registration Board (IFRB) [now the Radio Regulations Board (RRB)]; the International Radio Consultative Committee (CCIR); the International Telegraph and Telephone Consultative Committee (CCITT); the Assemblies of the CCIR and CCITT; the elected officials and Secretariat of the Union; Plenipotentiary Conferences; Administrative Radio Conferences, the Administrative Council; the Member States (Governments), and the private sector members that participate directly in the work of the CCIR & CCITT. (See the content of Chapter 16, above.)

Compliance with the procedures in place required a learning process for Haley. He did not have to be told twice what to do to accomplish this task. He quickly learned that it would involve:

1. Formulating comprehensive proposed recommendations to be considered (and he understood the advantage of bringing proposals from authoritative industrial and governmental sources);
2. Taking the proposal to the appropriate US CCIR National Committee Study Group;
3. Working with government and other private sector experts to arrive at agreed recommendations for adoption by a CCIR National Committee Study Group;
4. Advocating adoption of the recommendation(s) by the National Executive Committee for the CCIR to be forwarded to the appropriate ITU Study Group(s);
5. Supporting the technical work at international meetings within the appropriate ITU Study Group(s) to adopt the US proposals and broaden support for them, and to forward them to the next international ITU CCIR Plenary Assembly for consideration and adoption;
6. If the CCIR Plenary Assembly actions resulted in recommended changes or additions to existing International Radio Regulations, they would have to be considered and adopted at a World Radio Conference for inclusion in the next edition of the ITU International Radio Regulations.

Inevitably this is a multiyear process demanding perseverance, supported with resources, energy, expertise, and persuasion. Typically, as a proposal progressed through the system, it was continually modified, sharpened, strengthened, and validated at each stage of review.

Haley was interested in and worked to explore the feasibility of organizations such as the American Rocket Society (ARS) and the International Astronautical Federation (IAF) submitting petitions and resolutions for consideration and participating (by permission) in meetings of the ITU. Considering the importance of the role of radio in space flight, Haley believed that it is quite obvious that in the field of telecommunications, science and government must keep ahead of other advances in space flight by at least a decade.

Until 1954, Haley was preoccupied by his growing law practice, his management responsibilities in the ARS, and his committee work and constitutional drafting for the IAF. The offices of the ARS were located in New York and for the IAF, Paris. He frequently visited New York because he had clients there. He visited Paris two or three times a year during the first half of the 1950s and he faithfully attended the annual International Astronautical

Congresses of the IAF, held each year after 1950 in a different country. The IAF meetings generally ran a week in the late summer or early fall.²¹⁷ From early in its history the IAF management team (the Bureau) held a spring meeting to organize and plan the program and to consider and accept or reject abstracts of papers offered for the fall Congress. These meetings were initially held in different countries, but after 1958 regular IAF spring planning meetings have been held in Paris, France.

During 1954, Haley began presenting public addresses relating to developments in rocketry, the international cooperation being accomplished through the IAF, and how the emerging technologies in astronautics were going to change the world. He had long thought about the legal implications of this development, but he had not publicly shared his views on the nature of and needs for space law.

Although he retained a full and active role in his law firm in Washington, DC, by 1955, Haley was finding more time in which to develop and manage preparation of papers and addresses dealing with space law. During 1955, he delivered six formal addresses. Three addressed astronautics and rocketry generally, and three specifically addressed space law. He had three articles published during the year, but none dealt with space law.²¹⁸

The earliest of Haley's public presentations on space law was unpublished remarks, entitled 'Jurisdiction beyond the Earth', presented to a luncheon meeting of the Rotary Club of Charlotte, North Carolina, on 7 June 1955.²¹⁹ He began by pointing out that the 19th century fictional writings on space travel had given way to 20th century efforts establishing the foundations of astronautical engineering. "Discussions have left the field of broad theory and have become centered on the idea of establishing in space a ship or station that will circle around the earth as an artificial satellite."²²⁰ However, he claimed that this would be only the first step toward eventual exploration and use of space, the moon and other celestial bodies. Haley reported that scientists were predicting the feasibility of lunar exploration within 25 years. He claimed that this activity would give rise to questions of sovereignty, the legal status of space, the moon and the planets. Actually, US astronauts of Apollo 11 set foot on the moon just 14 years later.²²¹

Haley noted that historically it was thought that ownership or sovereignty over land included ownership and sovereignty over the space above the land, without limit.

²¹⁷ The first six IAF Congresses were held in Paris, 30 Sept.-2 Oct, 1950; London, 3-8 Sept. 1951; Stuttgart, 1-5 Sept. 1952; Zurich, 2-8 Aug. 1953; Innsbruck 5-7Aug. 1954; and Copenhagen 2-6 Aug. 1955. Subsequent congresses are discussed in the text below.

²¹⁸ See A. G. Haley and Rosen, "On the Utility of an Artificial Unmanned Earth Satellite" 25 *Jet Propulsion* 1 (1955); A. G. Haley, "International Cooperation in Rocketry and Astronautics" 25 *Jet Propulsion* 627 (1955); and A. G. Haley, "Outposts in the Sky", *The American Weekly*, p.10, Feb. 20, 1955.

²¹⁹ A copy of those remarks survives in the *Papers & Articles by AG Haley*. In 1962 Robert D. Crane was employed by Haley to collect and have bound together chronologically more than 200 manuscripts and copies or article reprints of works by and about Haley, eventually resulting in an 7 volume set of bound papers, referred to hereinafter as the *AGH, Papers & Articles*. In most volumes the papers are tabbed by title and arranged chronologically. At this writing the *Papers & Articles by AG Haley* are in the possession of SE Doyle, but in due course they will be contributed to the A. G. Haley collected papers archived at the Law Library of the University of Mississippi.

²²⁰ Taken from a copy of the Charlotte remarks in the *AGH, Papers & Articles at p. 1*.

²²¹ Apollo 11 landed on the moon on 20 July 1969.

It is submitted, however, that a more practical solution is for each nation to own only the “air space” over its land. It is well established that the legal title to this airspace extends just so far as the reasonable possibility of man’s occupation and dominion.²²² Today this realm of possibility has been set at approximately forty miles. Beyond this limit, space should be free just as the oceans are free for use by all nations.²²³

Haley believed that the whole idea of national sovereignty beyond the earth should be eliminated. Selected ideas or suggestions drawn from other writers appear in many Haley papers, with credit to the original authors; some ideas were drawn from centuries earlier. One characteristic of Haley’s contribution was the integration into a conceptual whole of facts of history, achievements of technology, and the anticipated future needs of society as he saw them. Haley referred to that ‘whole’ as the fundamental bases of a true law of outer space, similar to but different in kind from existing international law. It was a consistent practice in Haley’s writing to present historical information and sometimes historical explanations as sources from which he drew conclusions in his work. He compiled knowledge, experiences, ideas, and views from many sources into his works. He was an accomplished integrator of disparate facts and ideas as well as a contributor of original thought.

Concerning the moon and the planets, he wrote: “[s]ince no nation has yet made any claim on space, this would be a good time [1955] for the United Nations to demonstrate that it can be a strong force for international and interplanetary cooperation”.²²⁴ Haley noted recent commentary to the effect that customary practices of nations would eventually give rise to appropriate international laws. Concerned about such an approach, he wrote: “jurisdiction beyond the earth must be settled in a more definitive fashion. The world has had enough of anarchy. Strict rules must be laid down for nations to follow while out in space.”²²⁵ In summary, in his June 1955 luncheon presentation, Haley recommended:

- The establishment of earth satellites is only a *first step* toward future exploration and use of outer space;
- Beyond the generally agreed limit of the airspace, outer space, like the oceans, should be free for use by all nations;
- No nation should have the right to acquire any portion of outer space;
- Any idea of national sovereignty beyond the earth’s airspace should be eliminated;
- General laws, similar in purposes but different in kind from those applicable to the law of the sea, are needed for outer space;
- The UN should take the lead in establishing a body to formulate the needed laws;
- The law should encourage scientific use and experiment;
- There should be free and equal access to exploration and use of outer space;
- A vehicle in space should carry the flag of its country of origin and the ship should be subject to the jurisdiction of the country of origin;
- Common control among all nations would eliminate the possibility of use of the moon for aggressive war;

²²² Thrasher vs. City of Atlanta, 173 Ga. 514; 173 West’s *Southeastern Reports*. 817.

²²³ Taken from a copy of the Charlotte remarks in *AGH, Papers & Articles at p. 3*.

²²⁴ *Id.* at 7.

²²⁵ *Ibid.*

- The UN should be the central organization to establish a body to make and enforce appropriate rules for use of outer space;
- Use of resources of the moon would result in control of the resources used [such as fish taken from the ocean], but there would be no ownership of the resources remaining in place;
- Unsettled national claims in the Antarctic provide a picture of what unregulated space could be like, with unresolved conflicting and overlapping claims of national sovereignty.

Most of the recommendations Haley presented in his 1955 address appeared more than a decade later in the United Nations' Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, opened for signature in January 1967. Unfortunately, Haley never saw that day, having died in September 1966.

Within four years after Haley referred to Antarctica as an example of what nations should not want to have happen in space, the nations with conflicting and overlapping Antarctic claims assembled in Washington, DC, and on 1 December 1959 eleven national representatives²²⁶ signed the text of a new international treaty with historic implications.²²⁷ The *Antarctic Treaty* declared:

- The Antarctic would be used for peaceful purposes only;
- Military activities were prohibited;²²⁸
- There would be freedom of scientific investigation and international cooperation, as in the IGY, subject to provisions of this treaty;
- Contracting parties agree to exchange plans for use of the Antarctic, to exchange scientific personnel in Antarctica, and to share observations and results, which will be freely available.
- Parties are encouraged to cooperate with UN Specialized Agencies interested the Antarctic;
- Acts or activities under this treaty will not be used as a basis for asserting jurisdictional claims;
- Nuclear explosions and disposal of radioactive materials are prohibited;
- This treaty will not affect uses of the high seas within the area south of 60° south latitude;
- Parties may inspect one another's facilities, ships and aircraft used in the area;
- Facilities and personnel sent to Antarctica shall be subject to the jurisdiction of the state of origin; and
- Parties shall ensure that activities of nationals in Antarctica shall be in compliance with the UN Charter.

²²⁶ Nations represented were Argentina, Belgium, Chile, France, Japan, New Zealand, Norway, South Africa, the USSR, the United Kingdom, and the United States of America. All participants signed the agreed text.

²²⁷ The Antarctic Treaty; opened for signature 1 December 1959 in Washington, DC; entered into force 23 June 1961; texts at 402 UNTS 71; 12 UST 794; TIAS 4780. The treaty entered into force when ratified by all eleven signatories. The treaty text is also at Appendix 1. A in Haley's *Space Law and Government*, 427-433, Appleton-Century-Crofts, New York (1963).

²²⁸ Explicitly prohibited were any measures of a military nature, establishment of military bases or fortifications, military maneuvers, and testing of any type of weapons. Use of military personnel or equipment for scientific purposes was explicitly permitted.

Remaining ‘boiler plate’ provisions dealt with resolution of disputes, amendment of the treaty, depository, official languages, and ratification. A detailed study of the precedents and contents of the Antarctic problems and available alternative solutions was done in 1959 by Phillip C. Jessup and Howard J. Taubenfeld. The study was titled *Controls for Outer Space and the Antarctic Analogy*. Published in the summer of 1959, the book discussed many of the same issues highlighted by Haley in 1955, suggesting that an *Antarctic Treaty* could serve as a significant, helpful example of how facilities in outer space could be authorized and used.²²⁹ In concluding, Jessup and Taubenfeld wrote in 1959 that:

There is no perfect solution to the organization of outer space for the benefit of mankind, but if history can serve as evidence, many of the traditional popular approaches to such problems cannot be expected to give good results there. The occasion for a fresh approach has arrived. We do not despair that the moment will be seized.

[...] The experiences reviewed in this book show that through a long stretch of history states have evolved a variety of devices for cooperative and administrative activities whenever it seemed to them desirable to have a joint rather than a single nation regime. The motivations have been as various as the forms – political, economic, technical, ideological, humanitarian. In recent years a still stronger motivation – human survival – has been added. The need and the incentive have never been greater than now. Steadily the trend on the face of the earth has been toward organized multinational action in the common interest. There will be no reversal of that trend as man moves on into outer space.²³⁰

For different reasons and with a totally different perspective, these authors came to the same conclusion Haley had come to earlier: the historical use of existing municipal and international laws as models for the future would be both ineffective and inappropriate in the case of outer space. Objectively considered, the writing by Haley was a significant precursor to the 1959 *Antarctic Treaty* as well as the 1967 *Outer Space Treaty*.

Other matters distracted Haley in 1955 including an oft-repeated request by Frank Malina, to provide him with up to date information about the value of the Aerojet-General stock, which Malina held. On 8 June 1955, Haley sent Malina a telegram reporting that “Aerojet 97 today 98 yesterday going down slowly. Guess you should unload”. Malina was tracking the price of his shares because from time to time he was supplementing his limited income in Paris by selling shares of his stock when it was necessary. Malina appreciated Haley’s interest and advice, but his motivations were more precisely tied to his current need for money than to any other rationale for sale.

In June 1955, Haley was continuing in the role of General Counsel to ARS and the Society’s Executive Secretary, James Harford was careful to keep in close contact with Haley about any matters of potential liability to the ARS by actions of its members. A good example of the kind of problems referred to Haley and the substance of the responses he would give to Harford are contained in a Haley letter to Harford dated 7 June:

²²⁹P. Jessup & H. Taubenfeld, *Controls for Outer Space and the Antarctic Analogy*, Columbia University Press, New York (1959).

²³⁰*Id.* at 282.

Dear Jim:

This is a response to the second point raised in your letter of April 29, 1955, regarding the legal liability of the Society in the event that “written testimony” were given by Mr. George P. Sutton [a Director of the Society] on behalf of the Society as to the “reliability” of plans for a static test stand to be constructed by the Lindenhurst High School, Lindenhurst, New York. Your inquiry raises an issue as to whether the Society may take part in rocket experimentation.

It is not within the corporate powers of the Society to engage in experimentation in the field of rocketry. As stated in my letter dated November 1, 1952 (addressed to Mr. C. W. Chillson [Society President]) and February 14, 1955 (addressed to Mr. Joseph J. Schons, President of the Twin Cities Section), the 1947 amendments to the certificate of incorporation eliminated the previous provisions for participation by the Society in rocket experimentation. In those letters, I discussed the legal principles pertaining to the liability of the Society for participation by its members and agents in experimentations. I advised that the Society could be held liable for personal injury or property damage arising from experimental activity, if the Society were to exceed its corporate powers by authorizing one of its members or agree to participate in a rocket testing activity.

In accordance with the foregoing opinions, the Society has adhered to a policy of forbidding experimental activity by its members which would in any way involve the Society. The Society has advised its members that if they carry on rocket experimentation, they must act in the name of a person or entity legally distinct from the Society.

Mr. Sutton, as a Director of the Society, should not give written testimony as to the reliability of the proposed test stand. In order to be able to give such “testimony” Mr. Sutton would have to study the plans prepared by the high school, make suggestions for changes therein, possibly make an inspection of the premises, and take other steps to aid and participate in the actual construction of the stand. If Mr. Sutton were to do so, he would be engaging actively in an experimental project; and if he did so as a representative of the Society, the Society could be held liable for damages resulting from accidents at the test stand.

I have written you a separate letter with regard to Mr. Sutton’s making general comments on the plans for the test stand. In these comments, he would not discuss the safety or reliability of the test stand. Under such circumstances, he would not be participating in the experimental projects, and the Society would not be rendered subject to liability for personal injury or property damage at the test stand.

Sincerely yours,
Andrew G. Haley²³¹
cc: George P. Sutton

On 29 July 1955, the White House issued a Press Statement that President Eisenhower “has approved plans by this country for going ahead with the launching of small, unmanned earth-circling satellites as part of the US participation in the International Geophysical Year which takes place between July 1957 and December 1958”. NASA Historian Eugene Emme reported that scientific responsibility for the launch plans was assumed by the National Academy of Sciences, fiscal responsibility for the program was with the National Science Foundation, and

²³¹ In *AGH, Papers & Materials*.

logistic and technical support would be provided by the Department of Defense.²³² On the following day the USSR similarly announced its plans to launch an earth satellite.²³³ Despite their significance, these announcements did not receive wide notoriety in the general press. Haley noted these announcements and soon was incorporating their significance into his public papers.

On 1 September 1955, Haley was working to ensure the timely delivery of his wards to their school later in September, but he had a multi-city client tour arranged which extended beyond the children's opening date of school. Determined to make all his commitments with clients, and family members in Seattle, he wrote to the head of the school in Washington, DC:

Mother Superior
Blessed Sacrament School
5841 Chevy Chase Parkway
Washington 15 DC

Dear Mother Superior:

My wards [and niece and nephew], Mary Michaela Vogt and Andrew John Vogt, who are orphans and are living with me, have been attending Blessed Sacrament School for the past few years. The records will show that they have made excellent grades. My business has kept me in Europe most of the summer and I placed the children in the care of my sister in Pasadena.

I am leaving now for Spokane, Seattle, San Francisco and Pasadena, and I would like to have the children return with me from Pasadena. This would mean that they could not report to school until September 27 or 28, 1955. I would, however, keep them up in their school work and would arrange to get their books from you immediately.

This would be a great convenience to me and I would deeply appreciate your consent to this arrangement. In any event, however, I want them to continue in Blessed Sacrament.

Will you kindly telephone my Secretary, Miss Ethna White, at District #-##### (or her home phone over the weekend, Columbia #-#####) your decision and she will communicate it to me.

Respectfully yours,
Andrew G. Haley²³⁴

Haley never hesitated to request that others accommodate themselves to the necessities he placed on himself to travel at times and in manners most convenient to him. His personal records indicate that most people were willing to grant him the politely requested accommodations he desired. Haley's Executive Secretary, Ethna White, would usually handle the drafting and dispatch of such correspondence. It was always done with politeness and respect.

²³² E. M. Emme (ed.) *Aeronautics and Astronautics: An American Chronology of Science and Technology in the Exploration of Space 1915-1960*, 78, NASA, GPO, Washington, DC, 1960.

²³³ *Ibid.*

²³⁴ In *AGH, Papers & Materials*.

As his legal practice continued, Haley also began to emphasize his work on space law. The earliest comprehensive published work on space law produced by Haley was the presentation of ‘Basic Concepts of Space Law’ to the American Rocket Society (ARS) 25th Anniversary Annual Meeting held in Chicago in November 1955. Haley had been thinking about aspects of the subject for at least a decade. This paper was a purposeful broadening of the sharing of his views with the rest of the world. Only a well encapsulated précis of this 72-page paper could have been orally presented to the conference. It was published by the ARS as a Reprint No. 277-55, and was subsequently edited and published in *Jet Propulsion*,²³⁵ the ARS monthly technical journal.

This paper was a comprehensive compilation of Haley’s accumulating thoughts on space law up to the end of 1955. The ABSTRACT at the front of the paper begins “[t]his paper is the first writing of the introduction to, and the first chapter of, a work on Basic Concepts of Space Law.” The paper began with a recitation of the history of the development of national and international establishment of the absolute sovereignty of nation states over their superjacent airspace. After detailed history of the sovereignty of states over their airspace Haley noted that:

In the last few years the concept of the “aeropause” has been developed. The term arises in a biological and physical, rather than a political or juridical concept. “As the word suggests, it designates the altitude at which the atmosphere ends and space begins in so far as they affect the pilot and the vehicle.”

In this November 1955 paper, Haley recounted the contributions of Spaniards Francisco de Vitoria (1483-1546), Francisco Suarez (1548-1617), and Dutch jurist Hugo Grotius (1583-1645).²³⁶ All three philosophers contributed to the theories of Natural Law which emerged in the late medieval and early modern periods. Haley argued that Grotius saw the limitations of national and international laws established by societies as a means of governing society. Grotius contended there were discoverable principles of Natural Law that are superior to manmade, municipal laws; and Haley contended that Natural Law should form the basis of the law of nations for outer space.

In Haley’s view, this same Natural Law described by Vitoria, Suarez, and Grotius is a far more appropriate basis for the development of space law, than a reliance on the hodge podge of national and international laws currently in place. Haley wrote:

“We may look [...] to the writings of publicists on natural law and principles of absolute equity, but we must always keep in mind that these principles relate to man on earth, and may be extended

²³⁵ A. G. Haley, “Basic Concepts of Space Law”, 25:11 *Jet Propulsion*, 951-957 and 968, Nov. 1956

²³⁶ While a student at Georgetown University in the 1920s, Haley had a dedicated period of international law studies at Oxford University (1927-28). At that time he wrote about the history of international law development, focusing initially on selected 16th and 17th century Spanish and Dutch philosophers and political theorists. This work, including performing translations from some original Latin texts, was done under the supervision of Professor James Brown Scott, a renowned expert in international law teaching at Georgetown University. Haley’s familiarity with Latin dated from his early 1920’s training at St. Leo’s High in Portland.

to other intelligent beings only to the extent that their natures are also preserved in absolute freedom and they are accorded absolute justice.”²³⁷

After an extensive and detailed presentation of the views of Thomas Aquinas, Vitoria, Suarez, and Grotius, Haley concluded that:

There is no doubt that international law today is only self-serving, axiomatic law which is nothing more than municipal law. Wars, colonialism and strong nationalism throughout the world have thus overwhelmed the sound basis of international law for which Vitoria and others argued. [...]

Disregarding the law of nature and placing wholly in its stead mutable laws is not a sound foundation upon which the world community can build its rules of conduct in opening the new frontier in space. [...]

[I]t is evident that present day international law must be disregarded in evolving a new system for jurisprudence for space travel.²³⁸

Having presented his arguments for a comprehensive new approach to law-making for the needed space law, he turned his attention to ‘1. The Unmanned Earth Satellite’. This section of the paper began with discussion of the ancient maxim “*Cujus est solum ejus est usque ad coelum et ad inferos*” (Whose is the soil, his it is up to the sky and to the depths.) Haley then presented a lengthy historical discourse describing the 20th century history of the development of the concept of absolute sovereignty of nations over the airspace above their national territory, culminating with a description of the International Civil Aviation Conference held in Chicago in 1944. That conference adopted a convention which provides that: “[t]he contracting states recognize that every state has complete and exclusive sovereignty over the airspace above its territory”.²³⁹

Thereafter, he explicitly stated his belief that no man-made object or vehicle may pass over a sovereign territory without the express or implied permission of the sovereign –“and this has no reference to the height at which the passage is made as long as such passage might by any remote possibility be a means of acquiring intelligence concerning the sovereign or being a threat in any manner to the sovereign.” Haley asserted that “[t]he United States at the present time [1955] forbids the aerial photographing of certain government installations, and the law does not exempt such photographing because of any height factors that might be involved.”²⁴⁰

Haley went on to note that the inauguration of the unmanned earth satellite programs contemplated by the scientists of the International Geophysical Year (IGY) may be the most felicitous incident of the generation. “The entire program could have been stopped by the protest of a single sovereign nation over which the satellite might pass. [...] The inauguration of the program in a peaceful and uncomplicated manner is a great achievement of scientists

²³⁷ A. G. Haley, “Basic Concepts of Space Law” a presentation to the 25th Anniversary Annual Meeting of the American Rocket Society, Chicago, November 14-18, 1955; ARS Reprint No. 277-55.

²³⁸ *Ibid.*

²³⁹ Convention on International Civil Aviation concluded in Chicago in December 1944, Article 1.

²⁴⁰ Haley. *op. cit. supra* note 235 at 955.

throughout the world.”²⁴¹ After explaining the history of the IGY and the July 1955 announcements of planned unmanned satellites by the US and the USSR, he concluded that “[t]he Scientists have benefitted mankind as a whole in a field where the lawyers might well have failed”.²⁴²

He then examined recent writing on the topic of the upper limit on national sovereignty; namely, papers by Prof. John Cobb Cooper²⁴³ and UN attorney Oscar Schachter.²⁴⁴ Haley quoted both pundits on their views of how the upper limit on national sovereignty should be determined. Cooper had proposed that the sovereignty of any state in space should extend as far as then scientific progress of any state permits control of space above it. Haley dismissed the Cooper theory as permitting a state endowed with extraordinary scientific progress to extend its empire into deep space. In contrast, Schachter answered the question ‘How far up does the territory of a state extend?’ as follows:

The most reasonable rule would seem to be one that defines the air space in terms of the atmospheric elements necessary to “lift” aircraft; a limit expressed in these terms would be in keeping with the purposes and intent of the treaties relating to aviation, which have thus far defined the upper limits of state sovereignty.²⁴⁵

Haley’s reaction to Schachter’s proposal was that it was unrealistic in that the atmosphere, or the ability to ‘lift’ an airplane have no critical reference to the problems with which we are confronted.²⁴⁶ Having no suggestion to offer, Haley proposed: “[t]he United Nations should set up a Commission on the legal aspects of the problem – and especially endeavor to achieve an understanding among all nations on the question of jurisdiction”.²⁴⁷ Haley declared no compromise could be made with the basic proposition that the area beyond the aeropause [end of air space] may be claimed by no nation and any use made of space beyond the aeropause will be for the benefit of all mankind and to the detriment of no other intelligent creature.²⁴⁸

He then turned his attention to the issue of communications and the critical enabling role radio would have to play in the exploration and use of outer space. He declared that we must remember that the day is not distant when the problems of remote control will multiply tremendously and, with the advent of manned space flight the problems of communicating intelligence will become quite complicated and will require more and more use of the radio spectrum. This discussion included a recitation of the history of ITU meetings and ITU activity from 1945-1955. Haley asserted that the ITU engages in four general courses of action: (1) it is instrumental in allocating radio frequencies and registering radio frequency assignments; (2) it seeks to establish the lowest rates possible consistent with efficient service; (3) it promotes measures for ensuring the safety of life through the cooperation of telecommunication; and (4)

²⁴¹ *Id.* at 956.

²⁴² *Ibid.*

²⁴³ J. C. Cooper, “High Altitude Flight and National Sovereignty”, 4:3 *Int’l Law Quarterly*, 411-418, July 1951.

²⁴⁴ O. Schachter, “Legal Aspects of Space Travel”, 11 *JBIS*, 14-16, January 1952.

²⁴⁵ 11 *Journal of the British Interplanetary Society (JBIS)*, 14, Jan. 1952.

²⁴⁶ *Op. cit. supra*, note 235 at *Jet Propulsion* 956-957.

²⁴⁷ *Id.* at 957.

²⁴⁸ *Id.* at 959.

it makes studies and recommendations and collects and publishes information for the benefit of its member administrations.²⁴⁹

He recited the enabling provisions of the ITU Convention and described the roles and functions of key ITU sub-organs, as previously noted. He then explained the feasibility of organizations such as the ARS and IAF submitting petitions and resolutions for consideration and participating (by permission) in meetings of the ITU. Observing the availability of institutions to accomplish the needed work, Haley concluded his paper with the recommendation that nations should immediately set in motion specified study activities.²⁵⁰

In summary, the basic concepts Haley communicated in this 1955 paper included:

- Solving problems of space law finds no adequate assistance from modern international law;
- Adopting precedents from existing laws will perpetuate profound errors;
- A useful body of precedent can be found in the historical concepts of Natural Law;
- The law developed by human society can be applied to man as man, but not to others;
- Thomas Aquinas, Francisco Vitoria, Francisco Suarez and Hugo Grotius proposed and explained why international law should be based on Natural Law founded on reason, not municipal law;
- It is well established law that the sovereign has absolute control over a nation's superjacent airspace;
- This right to control national over flight has not historically been subjected to a height limit;
- International consent (non-objection) to the over flight of publicly announced satellites planned for the IGY (July 1955) suggested that there is a freedom of over flight for peaceful and scientific purposes;
- National statutes around the world declare sovereign control of superjacent "airspace"; but beyond the airspace there should be a freedom of peaceful passage;
- Under no conditions should jurisdiction extend beyond the airspace, except to vehicles in space;
- The UN should set up a Commission to address legal problems and settle jurisdictional questions;
- Use of outer space may be undertaken by mankind only if use is for the benefit of all mankind and not to the detriment of any other intelligent creature;
- The use of radio will be critical and enabling to astronautics;
- Manned space flight will complicate regulatory problems, because more and more use of the radio spectrum will be required;
- Multiple uses of satellites as radio repeating and communicating systems are proposed;
- The International Telecommunication Union is the appropriate body to establish global frequency allocations for astronautical communications;
- In telecommunications, government must keep ahead of advances in space flight by at least a decade; Multiple activities of import should be immediately set in motion:
- A study of astronautical communication requirements should be undertaken by the CCIR;
- The IFRB should advise the CCIR what frequency bands might be available for astronautical uses;

²⁴⁹ *Id.* at 968.

²⁵⁰ These recommended actions were deleted from the *Jet Propulsion* publication, in favor of a more generalized argument that the ITU should be relied upon to solve the problems faced.

- UNESCO should send representatives to ITU meetings addressing radio frequency matters;
- The ITU should send representatives to UNESCO sessions dealing with astronomical radio uses;
- After the studies suggested, the ITU should initiate formal proceedings to accomplish the needed allocations of radio frequencies for satellites and vehicles travelling in outer space; and
- The ARS, IAF and interested astronomical organizations should participate in the proceedings of the CCIR, the IFRB and UNESCO, lending the tremendous scientific talents of their members to assist.

At this point in his life and work with the organizations identified, Haley was apparently unaware of the institutional nature and internal methods of work of the UN specialized agencies. He had an incorrect understanding of how the agencies worked, and failed to recognize that the works of the agencies are the products of the contributions and agreements of their member states. The specialized agencies have no independent authority or responsibilities beyond those assigned by the members. Haley considered the listed specialized agencies as independent organizations, free to act independent of their membership. He would quickly learn how important this distinction in authority is and how the complicated UN system works at the collective will of its member states to accommodate its ends and objectives.

In late 1955 (ten years after Haley left Aerojet), *Life* magazine ran an article about the O'Neils, who owned General Tire & Rubber, in which it was stated that the General Tire & Rubber Co. was called upon to save Aerojet because little had been accomplished by that company. Haley, serving at that time as President of the American Rocket Society, wrote to the editors of *Life* to clarify the matter and correct the record erroneously described in the *Life* article. After identifying himself and explaining his role in the early management of Aerojet Engineering Corporation, Haley's letter to *Life* magazine read in part:

Nothing could be farther from the truth than to say that General Tire was called in because little had been accomplished. I called General Tire and Rubber in for just the opposite reason, namely, the existing orders and potential orders aggregated millions of dollars, whereas our invested capital was only \$68,000. We had our facilities all lined up and mostly built, including the experimental and manufacturing plant at Azusa. But we could find no banking or commercial capital to help us finance the performance of the contracts. What sane banker would fool with rockets!?! The contracts were good as gold, however, and General Tire had sense enough to see this. In addition to essential money, General Tire also brought in [Dan A.] Kimball and [Arthur H.] Rude, both of whom contributed effectively to the administration of the company.²⁵¹

Although it was ten years after the fact, Haley's letter clearly described the motivations and consequences of the General Tire & Rubber Company's takeover of the Aerojet Engineering Corporation in 1945. Considering the discomfort Haley felt in his final six months with the company, the letter's salutary references to Kimball and Rude were certainly magnanimous.

²⁵¹ In *AGH, Letters & Materials*.

During 1956 Haley publicly presented three more papers addressing space law. In addition, he had four articles published during the year, one on international cooperation and three on space law. He had served in 1954 as president of the American Rocket Society (ARS) and was in 1956 the ARS Legal Counsel, and Chairman of the IAF International Affairs Committee working continually to obtain participation status for the IAF in astronautically related governmental international organizations.

During 1956, Haley's foreign travels resulted in absence from his home for more than ten weeks, in addition to multiple 2 to 4 days trips to visit clients in the US. These increasingly frequent periods of absence from his home weighed heavily on his wife. While his children considered his foreign travels a 'vacation' from the tension of his presence in the house, Haley's absence was increasingly distressing and depressing to Aunt Dede. To mollify her loneliness, she repeatedly travelled to her family home at Campbellsville, to visit with her mother and her sister Bernice Delacroix. The use of alcohol also helped mitigate her loneliness.

On 9 March 1956, a year and a half before the launch of Sputnik, on behalf of the IAF Haley submitted to the CCIR a proposal that the CCIR establish a new Study Group for extra-terrestrial communications.²⁵² Haley wrote on behalf of the IAF to Professor Balthasar van der Pohl (1889-1959), Director of the CCIR. In that letter the IAF reviewed progress to date in development of earth orbiting satellites and in planning for cislunar²⁵³ and circumlunar space vehicles, highlighting the importance of radio communications for guidance of such space flight activities. The IAF urged that the CCIR was the only international body capable to study and regulate globally the subjects of astronautical radio communications, and urged appropriate study be completed so that a report could be rendered to the ITU Administrative Radio Conference planned for Geneva in 1959. No reply to this letter has been discovered.

In mid-June 1956, Haley presented again his address titled 'Space Law – Basic Concepts', to the 75th Annual Convention of the Bar Association of Tennessee in Nashville, Tennessee. The paper was subsequently published in the *Tennessee Law Review*²⁵⁴. This paper, heavily drawing on the 1955 Chicago paper, discussed the need for international cooperation and evolving rules for space travel, and limitations which should be imposed on the exercise of national jurisdiction. It contained detailed history of the development of air law and the significance of the IGY program as a counter to the potential objections of States to peaceful and scientific over flight by space vehicles.

Haley again urged that the United Nations should set up a Commission to study the legal and jurisdictional questions and an effort should be made to reach an understanding among all nations on those questions. He wrote that through the UN, or by multilateral treaty making, the principles should be established that whereas each state may bar the passage of unfriendly high altitude rockets and satellite vehicles, none may prevent the passage of rockets and vehicles conducting scientific investigations, although the latter must conform to rules of

²⁵² A. G. Haley, "The Law of Space and Outer Space, a paper presented to the Southwest Regional Conference on International Law, University of Southern California," 05/03/1960 at p. 29; subsequently published in 33 *Southern California Law Review* 370 (1960) and reprinted in part in 10 *Law Review Digest* 77 (1960).

²⁵³ Referring to space between the Earth and its Moon.

²⁵⁴ 24:5 *Tennessee Law Review* 643-657, Fall, 1956.

safety adopted by conventions. He wrote that under no conditions should any jurisdiction be claimed, either by individual states or by the United Nations, over the areas beyond the airspace.

The concluding portion of this paper was devoted to the necessity and importance of the allocation of radio frequencies by the International Telecommunication Union at the earliest possible time and repeated in a condensed form the recommended steps for future action presented at the end of his Chicago 1955 paper, described above. Haley noted that as spaceflight activities approached “[...] science and government must advance more rapidly in the field of telecommunications than in any other field. Fortunately, a great deal of the management machinery is already set up in the various agencies of the International Telecommunication Union and through the cooperative arrangements with the United Nations”.²⁵⁵ However, it is one thing to have resources available; it is another to make timely and effective use of them. Haley recommended once again that the existing machinery be used:

To undertake a study in the CCIR of the communication requirements of contact with and remote control of manned and unmanned earth satellites and vehicles traveling beyond the airspace;

To ask the International Frequency Registration Board (IFRB of the ITU) to advise the CCIR what frequency bands might be available to meet such requirements;

To exchange representatives at the ITU, the IAF and UNESCO meetings discussing use of radio for earth satellites and spaceflight.

Following these initial steps, the ITU should convene formal proceedings to allocate frequencies internationally for remote control of and communication with space vehicles.²⁵⁶

A similar set of proposals had been sent earlier by Haley in a letter on behalf of the IAF to the ITU Secretary-General, Aurelio Marco Andrada, on 16 April 1956. That letter contained the four study recommendations presented in Haley’s Tennessee speech, with a fifth point: namely, that the IAF should be allowed to send representatives to the appropriate meetings of the CCIR and the IFRB dealing with frequency planning issues.²⁵⁷ The ITU responded on 11 June 1956 informing Haley that the ITU considered the matters presented in his 16 April letter as appropriate for the administration of individual member nations.²⁵⁸

The point of this ITU letter was to advise Haley that the ITU does not take up subjects it chooses; it takes up subjects brought to its sub-organs by member Administrations. This was an indirect notice to Haley that the US State Department was his proper channel of access to the ITU. When Haley spoke with State Department officials, they made it clear that the FCC was the proper starting point to affect national positions on frequency band allocations. For

²⁵⁵ A. G. Haley, “Space Law – Basic Concepts”, 24 *Tenn. Law Rev.* 643 (1956), reprinted in 6 *L. Rev. Digest* 71 (1956). The paper was digested and published in the *Law Review Digest*, 71-82, March-April 1957.

²⁵⁶ *Ibid.*

²⁵⁷ See the account in A. G. Haley, “Space Age Radio Frequency Allocation”, *Astronautics & Aeronautics*, May 1966. See also A. G. Haley, “The International Astronautical Federation and Space Communications”, Remarks before the Delegates to the Administrative Radio Conference of the ITU, Geneva, Oct., 1959, in *AGH, Papers & Materials*.

²⁵⁸ *Ibid.*

Haley, in 1956 this was an essential lesson learned. Fortunately, he was well-versed in the operational procedures of the FCC.

The IAF (*i.e.*, Haley) believed that the issues raised could not be resolved effectively by actions of individual nations. Globally established and globally maintained allocations were required. Haley renewed the IAF's proposals to the ITU and while pursuing status for the IAF to work in the ITU, he initiated parallel proposals to the US Federal Communications Commission (FCC), as informally recommended to him by State Department officials. On behalf of the ARS, Haley submitted proposals in a series of administrative rule-makings, as the FCC prepared itself to participate in international ITU meetings supporting the Department of State. Haley was now working through appropriate forums in his national bureaucracy.

During the summer of 1956 Haley initiated contact with the German, Welf Heinrich, Prince of Hanover. Heinrich later recalled his early affiliation with Haley:

Our common interest in researching the juridical problems of space brought us together. One day, I found a letter in my in-box in Frankfurt, by which Haley informed me that he got my address from German scientists in America and that he should like to learn some details of my studies and of my dissertation about "Air Law and Interstellar Space", which I had written in 1952-53.

In this dissertation I dealt with problems of sovereignty of a state concerning the altitude in vertical direction as well as with the juristic effects of men, who in future will be working in space, which involves the erection of artificial satellites and the landing on strange celestial bodies.

Although, according to his age, he might have been my father, we soon became friends during his first [subsequent] visit to Germany in 1956. We discovered we were both fascinated by space-research, and we decided to collaborate in this field.²⁵⁹

The nature of the contemplated collaboration was undefined, but a mutually attractive association emerged which was to manifest itself most significantly in 1957, as described later herein.

Haley left Washington, DC, late in August 1956 to travel to Europe for a series of technical meetings and conferences. He first attended the 6th General Assembly of the NATO Advisory Group for Aeronautical Research and Development (AGARD), held in Brussels, Belgium, on 29 to 31 August 1956. During the 1950s, Haley attended meetings of NATO's AGARD whenever he could, taking these opportunities to visit with his long-time friend Dr. Theodore von Kármán, the chairman of AGARD. In addition, this was one of the forums in which, as an attentive observer, Haley was able to supplement and update the applicable technical information which he had begun acquiring as President of Aerojet Engineering from 1942 to 1945. It was his practice to attend international technical meetings involving Dr. von Kármán when he could for both reasons: to visit with von Kármán, and to acquire current technical or scientific information.

At the beginning of September, as General Counsel of the ARS and as Vice-president of the IAF, Haley informally went to the VIIIth Plenary Assembly of the ITU's International Consultative Committee on Radio (CCIR), in Warsaw, Poland. A record of the first informal Haley meeting with the CCIR Director was recorded by the head of the US Delegation to that

²⁵⁹ From a letter dated 31 December 1970 from W. Heinrich to A. G. Haley, Jr., in the *AGH, Letters & Materials*.

CCIR Plenary Meeting.²⁶⁰ In a letter written years later to Andrew G. Haley, Jr., Mr. Cross wrote:

[...] I am mindful of the time he [Haley] came to Warsaw, Poland (in 1956, I think).²⁶¹ The CCIR was having its Plenary Assembly there at this time and Andy Sr. wanted the opportunity to present the case for space communications to this international technical body and possibly arouse its interest. I was Chairman of the US Delegation to this Assembly meeting and we had 15 – 20 of the foremost technical radio people in this country as members of our delegation. The CCIR is the primary technical organization of the ITU as regards radio, and its recommendations usually find their way into the International Radio Regulations. Attendance at this plenary meeting consisted of around 250 of the best technical minds in radio from practically every civilized country in the world.

We had been in Warsaw several weeks when I began getting letters and telegrams from Andy Sr. wanting to come to Warsaw and talk about space communications. You must bear in mind that at this time most people, particularly the technical radio brains, looked on the possibility of space travel as something in a never, never land category and were prone to greet anything said about it with a skeptical smile or a knowing wink. However, I was well acquainted with Dr. van der Pohl, the then Director of the CCIR and because of my faith in your father and his urging me to do so I told him to come on to Warsaw and arranged for him to have a private meeting with Dr. van der Pohl. He did not know Dr. van der Pohl and was not an official member of the US Delegation so without my preparing the way it is doubtful if he could have obtained an audience. Anyway he came to Warsaw and got his private audience with Dr. van der Pohl. Later he always declared this was the opening wedge in getting space communications off the ground and was prone to give me much more credit than I deserved, as all I did was get him the requested audience. He did the rest.

In a letter to the State Department several years later, Haley reported that he intended to attend the VIIIth Plenary Assembly of the CCIR to propose a plan for space communications. His account of the event was:

[...] Upon arrival in Warsaw I was received most cordially by the United States delegation. The USSR delegation was completely aloof and one of the delegates to that meeting, Mr. G. M. Ouspensky, advised me that the skies of Russia were to be maintained inviolate and that the earth-orbiting satellites would not be permitted to obtain data concerning Russia – especially data which might be transmitted to another foreign power by radio.

Dr. Balth van der Pol, of Holland, Chairman of this meeting, was reluctant to even talk to me. Through the good offices of the United States delegation I was able to meet with several friendly delegations. Furthermore, I was able to have excellent conferences with Dr. E. Metzler, who succeeded Dr. van der Pol as Director-General of the CCIR.²⁶²

Haley's trip to Europe included participation at the AGARD meeting in Brussels (29-31 August), and the ITU meeting in Warsaw (31 August - 4 September). He then took the

²⁶⁰ A letter to A. G. Haley, Jr. from John S. Cross, dated March 7, 1970, in the *AGH, Letters & Materials*.

²⁶¹ 23 August - 27 September 1956 - Warsaw, Poland. CCIR – VIIIth Plenary Assembly.

²⁶² Letter from A. G. Haley to R. A. Jones, Department of State, dated 22 May 1961, at p. 5; in *AGH, Letters & Materials*.

opportunity to stop in Brussels to attend with von Kármán the 9th International Conference of Applied Mechanics, 5-10 September 1956. His next stop was in Barcelona, where the *Comité Spécial de l'Année Géophysique Internationale* (CSAGI) met 10-13 September 1956. Attendance at this meeting of the global planning committee for the IGY was another convenient add-on to the trip. From Barcelona he proceeded to Rome to attend the VIIth International Astronautical Congress (IAC) from 13 to 22 September. Following the IAF Congress, Haley proceeded to Venice to attend the Guided Missile Conference of the Aircraft Industries Association from 24 to 27 September). By the time he returned to Washington, DC, he had been, once again, a full month away from home. Aunt Dede had spent the time visiting her mother and sister in the Campbellsville, Kentucky Chambers' family home.

As noted earlier, in July 1956, both the United States and Soviet Union had announced their intentions to establish earth orbiting satellites to support the scientific work of the International Geophysical Year (IGY), which would extend from 1 July 1957 to 31 December 1958, but there were at that time no allocated frequency bands reserved for space flight radio activities. As satellites were now being developed and built, Haley's aggravating insistence on prompt action was being increasingly justified by events. There was still no relevant, conclusive action.

While Haley was travelling in Europe, on 20 September 1956 the first Jupiter C (a three-stage ABMA-JPL Redstone missile²⁶³) was launched from Cape Canaveral. The missile attained an altitude of 680 miles and travelled 3,300 miles down range.²⁶⁴ This flight demonstrated more than enough booster power to place a modest payload (100 kg) in a low-earth orbit (150 miles). This launch was not widely regarded as significant although it was more than a year in advance of the USSR's launch of Sputnik.

By Presidential direction, DOD would not conduct the first American orbiting of a satellite. This was to be done by a civilian developed Viking rocket. The civilian Project Vanguard attempted its first Viking launch on 6 December 1957. The televised launch failed in a spectacular fireball on the launch pad. On 31 January 1958, almost four months after the launch of Sputnik, the first successful US launch of an earth satellite placed Explorer 1 in low earth orbit. Ironically, this launch was aboard a US Army Jupiter C launch vehicle. That launch vehicle was available more than a year earlier, but President Eisenhower did not want to permit a military launch of America's first artificial satellite. When Viking failed the Jupiter C was the only available alternative.

From 14 September 1956 Haley was in Rome. He met informally with Italian astronautical officials and relaxed for a few days. He then attended the VIIth IAC from 17 to 22 September. The IAF admitted new member societies from the USSR, France, Poland, and Germany, most of which societies Haley had visited within the past year and urged to join the IAF. At the VIIth Congress, Haley presented his next significant work on space law, titled 'Space Law and Metalaw – A Synoptic View'. The main additional contribution of this paper was the introduction of the concept of Metalaw.

In brief, Haley professed a belief in the likelihood that eventually man will establish contact with other sentient life forms in the universe. He considered the mathematical

²⁶³ The missile was developed by the Army Ballistic Missile Agency and the Jet Propulsion Laboratory.

²⁶⁴ Emme, *Chronology* 83, *op. cit. supra* note 232.

probabilities presented by leading astronomers compelling. He declared that humanity should not invade the ecosphere of another intelligent life form without previous establishment of communications with that life form, and ensuring that in dealing with such entities “[w]e should do unto others as they would be done unto”. Haley argued that treating other forms of life as we would be treated (the human ‘Golden Rule’) could be fatal to them.

The Rome 1956 paper contained reworked elements of the Chicago 1955 paper, some substantial elaboration of the nature and history of anthropocentric law and the justification for considering Metalaw. Haley believed, “[i]n the not distant future, lawyers, scientists and sociologists will undertake studies of a substantive statement of metalaw and as a by-product of these studies our own anthropocentric law undoubtedly will be improved”.²⁶⁵

The Rome paper also included some condensed discussion of the roles of Vitoria, Suarez, and Grotius in developing concepts of Natural Law. Although the order of presentation is altered, the substance of the paper was heavily drawn from the Chicago 1955 paper, with modest elaborations. The paper concluded with a speculation by Haley that in time there may be created on earth an independent and sovereign Authority to regulate activities in space. Haley urged that exploitation of resources beyond the airspace should be subject to licensing by the Authority. He asserted that in no case might a license be withheld unreasonably. He declared “[t]he Board administering the Authority would be constituted on the fairest basis then known to humankind”. In conclusion he wrote:

The jurisdiction of the Authority would extend over the surface of the earth and over earth space ships while maneuvering in free space. From the beginning colonialism would be forbidden, and the lunar and planetary communities would be independent – thus projecting into space free and enlightened groups of human beings, spiritually conditioned to face the problems of carving out new living space from new land.²⁶⁶

The anticipation of the emergence of a sovereign Authority by Haley was a highly speculative and almost romantic view of the political future of humankind. It was clearly an indication of Haley’s basic view favoring internationalization and greater collaboration among the nations of the earth in the process of exploring and using outer space. This paper was published in the *Harvard Law Record*²⁶⁷ using the same title. The Harvard presentation is unedited from the

²⁶⁵ A. G. Haley, “Space Law and Metalaw – A Synoptic View”, a presentation to the VIIth Annual Congress of the IAF, Rome, Italy, 19 September 1956, 10; the paper is contained in *Proceedings* of the Congress. Examples of Haley’s anticipated discussion and elaboration of Metalaw can be found in E. Fasan, *Relations with Alien Intelligences*, Berlin Verlag, 1970; P. M. Sterns, “SETI and Space Law: Jurisprudence and Philosophical Considerations for Humankind in Relation to Extraterrestrial Life”, 46 *Acta Astronautica* 759-63, (1970); P. M. Sterns, “Metalaw and Relations with Intelligent Beings Revisited”, 20 *Space Policy* 123-30 (2004); G.S. Robinson, “Ecological Foundations of Haley’s Metalaw,” 22 *Journal of the British Interplanetary Society* 266-274 (1969); and G.S. Robinson, “Metalaw” – prolegomena to quantification of *jus naturale*, 40 *The George Washington Law Review* 709-725 (1971-1972).

²⁶⁶ A. G. Haley, *op cit. supra*, note 258 at 25. This was a foreshadowing of the UN *Agreement Governing the Activities of States on the Moon and Other Celestial Bodies*, opened for signature on 18 December 1979; more than 13 years after Haley’s death.

²⁶⁷ *Harvard Law Record* (Vol. 24, No. 2) edition of 8 Nov. 1956. The paper was translated into German and published in 1957:6 *Zeitschrift für Luftrecht* (Journal for Air Law), Vol. 2, page 1, as *Weltraumrecht und Recht ausserhalb der Erde* (Space Law and Law beyond the Earth), although subtitled in English “Space Law and Metalaw: a Synoptic View”. The paper also appeared in two parts in the publication *Weltraumfahrt*, issue 2, page

Rome version, except the editors at Harvard inserted 22 topical sub-titles throughout the paper to help guide the reader through its complexity.

During the VIIth Congress' morning technical session held on 19 September in Rome, a significant discussion arose involving Haley and a renowned, retired Italian lawyer and professor of aeronautical law, Antonio Ambrosini. Ambrosini was a longtime pedagogue in Italy who had also spent six years (1947-53) teaching air law in Argentina. Ambrosini took the floor to comment on the two papers presented that morning, one written by Aldo Armando Cocca of Argentina, and the other by Andrew Haley. Selections from Ambrosini's commentary include:

I will carry out the pleasant task of reading Cocca's paper primarily out of the affection that ties me to him since he was my student in Argentina. [Ambrosini read Cocca's paper to the audience.]

[...] The first observation that one deduces from the whole of this Congress is that the legal aspect of the problem of intersidereal [interstellar] flight has not had much luck, I would say, because we have found ourselves in this hall with only two papers before us, that of Mr. Haley and that of Dr. Cocca. This is important because from my perspective they do not deal with the essential facts of the problem. What is the reason for this? [...] I would say it is due to a sort of disinterest on the part of jurists [...] of the whole world in these problems. It is perhaps due to the fact that we are still wandering in the field of uncertainty or, better said, in the realm of fantasy. Jurists do not generally love to build without the data of experience. We, who keep our feet solidly on the ground as jurists do not love those abstractions that technicians and scientists in general use for their work. [...] Allow me to say that I reaffirm my faith in the law as we actually conceive it, in the sense that the fundamental principles of this law, in my opinion, will be sufficient to regulate interplanetary flight as well. Some changes in detail, some small new provisions are always necessary, but the general structure of that which are the general rules of, let us say, human behavior because the law as made for men cannot but hold in my opinion. [...] And what is this meta-language which we have heard talked about today? It seems it should be formulated in this manner "Do unto others as you would have them do unto you." It is a commandment of Christ that is already a concept of our law. It is enough to recall three cardinal and fundamental points: "*Honeste vivere, alterum non laedere, suum cuique tribuere*. [live honorably, do no harm to another, give to each his own].

Here was the attitude Haley had been opposing from the beginning of his public presentations. Ambrosini represented all that Haley found inadequate: relying on existing law, building slowly based on experience and keeping the anthropocentric golden rule in place. Several speakers commented on the subjects introduced in the two papers. One intervention was by Prof. Musto, in general agreeing with Ambrosini and urging three points for consideration: (1) outer space should be free for use by all, (2) there should be a recognized right for spacecraft to land in another state's territory, and (3) space should be used exclusively for peaceful purposes. Time had expired and the session was about to conclude. Haley took the floor to speak despite the fact that the chairman was about to adjourn the session, already running late. Haley's final commentary was:

57 and issue 3, page 69; and in the *Proceedings of the VIIth International Astronautical Congress*, Rome, Italy, Sept. 1956.

My only regret is that we did not exchange these papers several weeks ago so that we could understand each other better. I am deeply distressed after listening to Prof. Ambrosini [...] that he has not the slightest idea what I said. No comment that the Professor has made has the slightest reference to my paper. In my paper for example, I bring out the fact that at first, we hope only, when a national body authorizes to promulgate uniform regulations, we are willing to take take-off and landing procedures. We regret that we did not point out the fact that we certainly should have some sort of an organized juridical session and I hope that the next time we have one, we will be able to exchange our papers earlier. Because most of the material mentioned by Prof. Ambrosini and Prof. Musto was studied by me in a very lengthy paper at Chicago a year ago. I have one or two thousand annotations on the present state of the law of the world, throughout the world in practically every country, but that also is apparently not known. And it illustrates another fact, that one of the finest papers prepared by Dr. Heinrich, Prince of Hanover, and I did not know about it. I found it in Germany, and it was a source of great consolation to me to know that our ideas coincided. And without any previous checking either. I think that another gentleman who was here this morning, Prof. Musto, came out with many statements almost exactly in the same language as it appears in my Chicago paper. This is a second paper [by me] and now the [my] first paper is coming up.

These *ad lib* comments are not entirely coherent, because Haley was worked up into a state of emotion and did not put his ideas very clearly or succinctly. He was clearly upset and determined to do something about the situation in which he found himself. This was a situation he would want never to recur. Something should be done about the organization and planning of legal sessions at the IAF Congresses. Haley took it upon himself to rectify this situation, to ensure that it never would happen again. After being elected President of the IAF at the succeeding Congress in Barcelona, he would be in a stronger position to influence future meetings.

Another event occurred at the VIIth IAF Congress in Rome that was lost in the background noise of a large assembly of aeronautical scientists and engineers, but it was an important beginning of a relationship that would become very significant to Haley in coming years. In a brief memoir prepared in 1970, Prof. Charles Stark Draper, founder of the MIT Draper Laboratories, wrote:

Astronautics, the name associated with the science and the technology of travel among the stars, provided the central theme for an IAF Congress in Rome during the autumn of 1956. As it happened, I was on a trip through Europe [...] and plans included a visit to the meeting. Many of the subjects to be discussed had been of concern to my people in the Instrumentation Laboratory at the Massachusetts Institute of Technology for some ten years so I felt more than passing interest in the IAF Conference.

One area, new to me but receiving considerable attention, was space law. As I listened to the various discussions of laws for the future, I was particularly impressed with the ideas, eloquent presentations, and obvious leadership of one individual. I had heard vaguely of this man's activities in building industrial organizations on the research contributions of Dr. Frank J. Malina, Professor Theodore von Kármán, and their associates at the Jet Propulsion Laboratory at the California Institute of Technology. Against the background of World War II the entrepreneurial exploits of Andrew G. Haley had already become legendary. Although my knowledge of details

was slight, I had the feeling that Andy would be among the most able of the men just then coming to grips with the novel problems of space. Many people had already recognized his comprehensive understanding of technological, political, industrial and legal situations, while his ability to fashion viable organizations from available individuals and whatever other resources might be at hand was unquestioned. I was sure even in 1956 that fate had brought me into contact with a great man.

In Rome, I was aware that Andy was giving his associates a fundamental awareness of the legal problems that would appear when men began to move through space without natural barriers, artificial boundaries, or laws to define and control their journeys. I had no significant part in these activities, but I remember admiration for the individuals who were already working on principles for establishing order in regions as yet penetrated by men only through the ideas of science fiction writers.

It was a pleasure to be accepted by Andy as a colleague and to accompany him on explorations of Roman food and drink, a region of human achievement in which he was an expert of great distinction. After Rome I saw Andy from time to time in Paris, Madrid, Los Angeles, San Francisco, Washington, and various other places.²⁶⁸

This familiarization with Haley would result in later years in a drafting of C. Stark Draper to lead one of the several astronomical institutions in which Haley had a formative role, as recounted in Chapter 31, below.

The members of the IAF in attendance at the VIIth Congress were invited to participate in a Papal Audience held during the conference. Many of the participants showed up for the audience and the leadership of the IAF engaged in discussions with the Pope about the substance of the meeting in progress in Rome. Papal assistants had obviously spent some time preparing a message for the audience; the Pope spoke at length about the value of pursuit of knowledge and the gaining of new information through astronautics. The comments offered by the Pope were selectively used by Haley in several of his succeeding papers. From Rome, Haley attended the Guided Missile Conference of the Aircraft Industries Association, 24 to 27 September in Venice, Italy. He then returned to his home in Washington, DC.

Haley was always interested in providing unsolicited guidance and advice to successor Presidents of the American Rocket Society. He would write, not only to express his willingness and desire to work with the President, but also to make known what he would appreciate the President doing for him. Following his return from Europe, Haley learned that Naval Commander Robert C. Truax, an active pioneer in rocketry development in the 1940s and early 1950s, was being promoted to be President of the ARS in 1957. In October 1956 Haley wrote to Truax:

Dear Bob:

I inclose two of the satellite stamps I obtained in Rome.

I am delighted to hear that you were able to attend the [ARS] September meeting in Buffalo and I am heartened by the great news that you will be in a position next year to actively serve as

²⁶⁸ From a *Personal Memoir* by C. S. Draper sent to Andrew G. Haley, Jr. with a letter dated 14 September 1970, in *AGH, Letters & Materials*.

President. I am sorry that Noah has been sick this year, but it will be heartwarming to see you preside at the meeting in November. [ARS Annual Meeting, 24-26 November, NYC] I really believe the turning point in the activities of the American Rocket Society dates from 1951 when you gave your courageous speech upon being given the Goddard Award, and when I followed you on the platform with a fully prepared talk so similar to yours that I cut my appearance down to one minute and I stated simply that I concurred with your viewpoints.

During the year I was President, we held meetings regularly and only on one occasion did we have a quorum of Directors. This caused us to amend the constitution to provide for the Executive Committee but it was a distressing experience for me and it was the only reason I permitted my name to go on the ballot for election to the office of Director, after I was nominated, as I knew I would get to each meeting and I hoped thereby to assist Dr. Porter in having a quorum. I certainly will not run for office again, as I believe all the members should share the work as well as the honors.

In the field of international astronautics, I have been quite active. During the past six months I have attended the NATO Guided Missile Symposium in Munich April 23-27; The Sixth General Assembly of the Advisory Group for Aeronautical Research and Development [AGARD] in Brussels, August 29-31; the Eighth Plenary Assembly of CCIR in Warsaw, August 31–September 5; the Ninth International Congress of Applied Mechanics in Brussels, September 5-9; the meeting of CSAGI (*Comite Special de l'Annee Geophysical Internationale*, in Barcelona, September 9-12; the VIIth Annual Congress of the IAF [in Rome September 17-22]; and the Guided Missile Seminar in Venice, September 24-27.

At the Congress in Rome I was elected Chairman of the International Affairs Committee and I am making a real effort to go to the UNESCO meeting at New Delhi within the next three weeks – for the purpose of having astronautics recognized in the activities of UNESCO. This is all very expensive and time consuming as far as I am concerned but I think these efforts are well worth the price if they are productive in the field of astronautics.

At the Rome Congress 16 out of the 22 delegates stated that they desired me for President of the IAF but I absolutely refused. During the Plenary Session I was nominated Vice President from the floor but I immediately quoted General Sherman's statement to the effect that I would not run and, if elected, I would not serve.

The only office I really would like during the next year is to again be chief of the ARS Delegation at the IAF Congress in Barcelona next October. I believe I will have made a great deal of progress in the international field which I would like to redound to the credit of the ARS, and I have the practical further purpose – as I always personally pay my own expenses – of requiring such an official capacity in order to justify the introduction of these expenses to the Internal Revenue Service.

I look forward to seeing you in New York at the Annual Meeting and I desire to reiterate my pleasure in having had the privilege of calling you last November to ask if you would accept the Vice Presidency, and I now offer you my complete and earnest cooperation during your forthcoming administration.

With warm personal regards, I am

Sincerely yours,

Haley was looking forward to the ARS Annual Meeting in November for several reasons, one of which was his intention to chair his annual symposium on Space Law and Sociology. This year he had commitments to participate from R. Adm. Chester Ward Prof. J. C. Cooper, Dr. William Brewster and Col. William Davis. He arranged for a cocktail party for the speakers and their guests at his suite in New York the evening prior to the Tuesday morning symposium. Haley wrote to request ARS Secretary, Mrs. A. C. Slade, to reserve rooms for his speakers and ensure he would have a large enough suite to accommodate the cocktail party. "I will also need enough room for Delphine and perhaps Andy. We are looking forward to a great time at the Annual Meeting." Selection of speakers to be invited to speak at conference sessions which Haley organized invariably served Haley's personal and/or business interests as well as the professional interests of the meetings.

Early in October 1956, Haley was concerned about his son, Andrew settling into a new environment, because he had just entered the University of Michigan in September. On 5 October, Haley wrote to the President of the Newman Club²⁷⁰ and to the Roman Catholic Chaplain at the University in Ann Arbor. Haley sent both men his son's name, local address and telephone number. He wrote: "I am anxious that he join the Newman Club and that he partake generally in the activities of Catholic students". In Haley's mind, the welfare of his children and their commitments to Catholicism were not to be taken for granted.

²⁶⁹ *Ibid.*

²⁷⁰ The Newman Centers are named after a 19th century English intellectual and convert, John H. Newman, who wrote *The Idea of a University*. Newman Centers function as a meeting place for young Catholic students to further religious ideals and goals, and to participate in prayer, study, religious services, community service and relationship building activities.

Chapter 18. To India and Back

In early November 1956, Haley departed Washington, DC, on a trip to New Delhi, India, to attend the 9th Session of the UNESCO General Conference, scheduled for 5 November to 5 December. This was a dedicated trip, planned with only brief stops in various cities for flight connections.

The trip was interrupted by a serious health problem for Haley because of generally ignored internal problems in his body. Alcoholism, his life style, and his lack of anything approaching a balanced diet were gradually wearing away internal organs, but he chose to smile and bear the pain until it reached an intolerable level. A substantial account of this trip was written by Haley to his family while he was on his way home. The style of the prose and the integration of history, religion, and geography with his ongoing life experiences present characteristic examples of his view of himself, his life and the world around him. Returning en route to Paris, in the air and approaching the end of his trip, Haley wrote:

Flying by BOAC.

[November 1956]

Dearest Aunt Dede, Delphine, Andrew, Andrew John, Mary Michaela,

Somewhere over the Gulf of Oman, the Arabian Sea, and exactly over Jodhpur I bring you love and greetings. The sea and dessert are overcast and I am terribly lonesome and sick – not sickness of the flesh which is really not important but of the spirit because I am without anyone to love or hate. Next to me and mildly embarrassed is Sister Joseph Mary of the Holy Cross Nuns – of Dumbarton College in Washington, D. C. and of the high school of Sissy Britches,²⁷¹ because I have accused her of selecting two names beyond human imitation, and I insist that she should be the mother superior, instead of what she is – a sweet little girl – perhaps 22 completely imbued with the love of God and so dignified and just as human as Margaret.²⁷² The vocation to be the bride of Christ is quite beyond human understanding. There are many Keys to the Kingdom and I suspect there are many Nuns – such as Auntie Greeta²⁷³ – even without portfolio. But there is a greatness reposing in the dedication to something Beyond.

Over Hyderabad I thought of the hapless miser – the richest man in the world – but maybe the poorest of human beings, and then I thought of the great and unselfish friends I have had – and to thank God for a rich life and to deplore my own selfishness and inability to return greatness for greatness.

²⁷¹ This is a nickname referring to young Delphine.

²⁷² Haley's sister, Margaret Haley Vogt.

²⁷³ Haley's sister, Gertrude Haley Bader.

And so I passed on to my Anabasis.²⁷⁴ This to me is a journey devoid of self for all people and humanity – even if I suspect in a direct way I want to protect my own family and people. But the people in my mind are only those who are not evil. By now I have dear friends among the Newfoundlanders, the Irish, English, Scotch, Dutch, German, Turkish, Lebanese, Iraqi, Iranian, Egyptian, Neutrals, Pakistanis, Ceylonians, Boluchistans, Afghanistani and so on – all of whom – God bless them – I love.

And so back to my journey on behalf of new worlds and the conquest beyond – which the Pope so beautifully described (our little Nun is sound asleep and breathing through her wide open mouth like the sweet little child she is – innocent, dignified and awfully tired) and so again I look back on my journey so I can have you with me as best as possible. (Little Sister has awakened and is prettifying herself as only a natural beauty can do – her eyes sparkle and she starts reading her Office and brings out her beads).

Payson Hall left me at Idlewild, [late 6 Nov.] with the admonition of the face of God shining on me – as it always does with him – so I started my journey eastward. Half way across the Atlantic we encountered a terrific storm – which I subdued with 1/3 qt of Bourbon. Everyone got deathly sick but me and after the 10th drink I didn't care whether the plane went down or not. After three hours the gale subsided and I fell asleep to awaken in the Land of the Leprechauns and all True Reality – the enchanting and holy Soil of Ireland. [Early 7 Nov.]

And now it is two weeks later and I am flying over the Isle of Elba in the Ligurian Sea, en route from Athens to Paris after a brief stop in Rome. So we must go back and try to capture the events of the trip.

My first major stop en route east was at Frankfurt where I was met at the airport [early afternoon, 7 Nov.] by Dr. Welf Heinrich, Prince of Hanover. I had a four hour stop-over – so he took me to a private room at the airport – all by ourselves with a waiter garbed as a Field Marshal – a fireplace and silver service for Kings. We had a two hour lunch and all the schnapps one could drink and we talked gloriously of world politics and the day that together we would go to Mars – the moon is too close! We talked about mein sister and mein grandfazzer – kings and queens galore and all the royal secrets.

And then I sailed off for Istanbul – the land of the Turks, I had some genuine Turkish coffee. Then off to Beirut, where I had a drink at the very fine airport [8 Nov.] and was glared at with venom until the Arabs found out I was an American, and not English.²⁷⁵ Our airplane was allowed to land because it was German.

The thousands of miles kept reeling off and soon we were in Bagdad – which turned out to be quite the opposite to the city of magic carpets. We landed in the evening [9 Nov.] and I was supposed to connect with KLM in the morning for a direct flight to New Delhi – some 3500 miles by the necessary route. I got out to the airport in the early morning [10 Nov.] and had to stand around for twelve hours. The airport was miserable and the waiting most tiresome. Radio communications from the west were completely out by reason of the Suez trouble. Finally we

²⁷⁴ A march from a coast to the interior; like that of Cyrus into Asia in 401 BC, as narrated by Xenophon in his work *Anabasis*.

²⁷⁵ On October 29, 1956, Israeli, French, and English armed forces pushed into Egypt toward the Suez Canal after Egyptian President Gamal Abdel Nasser (1918-70) nationalized the canal in July of that same year, initiating the Suez Crisis.

found that the KLM plane had gone by way of the Sudan. To my despair I was told that I could not get away for a minimum of three days and the delay would probably be a week. At this point I met my venerable and fine friend the Hindu Chand. He consoled me and advised me to contact BOAC who had the flights three days hence. This I did and was advised two flights would come in on Sunday [11 Nov.] – but both had been fully reserved for weeks and high official refugees were coming through in gobs from Western Asia. This was indeed bad but the great Chand – who also was stuck and therefore most thoughtful said – call now the American Ambassador. This I also did and the Ambassador called the British Ambassador who called BOAC and I was given No. 1 priority as Stand-by on both flights. That night [8-9 Nov.] I got sick from the insides, which has bothered me for many years. I felt dreadful and at dawn the next morning [9 Nov.] I went to the Hospital Dar es Salam – run by the Seventh Day Adventists from Takoma Park, Maryland. The good doctor Kaiser said I had overstressed myself by not resting for three days and like Dulles I needed radical care – the Norwegian Adventist nurse exclaimed something like – “*Mein Gott vot a great stomacher!!*” I was pretty well ransacked but the repair work would require 10 days or more so later I got a cab on to the hotel. I told the driver to take me to some places of interest – and [on 9 Nov.] he took me to the Golden Mosque. Here he engaged a muezzin or priest who showed me the sights of the mosque from various gates and roof tops – but did not take me into the walled enclosure of the most magnificent of all mosques. I was aware of the Iraqis staring at me – but thought nothing of it. When I got back to the hotel the management was horrified – two Englishmen had been murdered in this very place coming from a night club during the after midnight hours! The embassy had called to tell me to stay in the hotel because of the extreme unrest and no one knew where I was! I had gone to the worst possible place – the Holy of Holies!

I was sick and my spirit was low – but I rested and then in the evening [9 Nov.] the telephone rang – Ah – the good Hindu Chand. He told me of the trouble – but nevertheless would I tomorrow drive with him to see the ancient Babylon? We would cross the Tigris and the Euphrates and glory in the ancient civilization of the Sumerians. And he – the Hindu Chand was loved by the populace. His presence would protect me against the Iraqi mobs. Yes! Must be the answer, for am I not the new Hammurabi²⁷⁶ – and should I fear visiting the scene of the Great Law Giver? So the next day [10 Nov.] I went with the Lord Krishna Chand to Babylon over a road about as terrible as can be imagined – for 200 miles. I saw the palace of Hammurabi – Daniel and Lion’s Den – and so on – but when I got to the Fateful palace of Nebuchadnezzar (?) – just at the wall of the fateful words of *Mene - Teke* – etc. nature and the medicinals of the good Seventh Day Adventists overtook me, and the good Lord Krishna Chand and our guide – who is a direct descendent of the Hittites - left in a hurry to view the Chaldean remnants while I left a bit of dung of Old Ireland beneath the throne of the great Assyrian while a jackal and his wife looked on from a short distance with obvious approval and expectation. Although personally distressed I was happy to give pleasure to some creature. After availing myself of something like papyrus – I was heartened by hideous catcalls from children hiding in the ramparts of the Lion of Judah.

And so back to Bagdad and my search for a magic carpet. The doctor came and said my trip was the worst possible adventure I could have undertaken. Sunday [11 Nov.] came and at dawn I persuaded the authorities to give the Lord Krishna Chand also a priority. And now the fateful waiting for the flying machines – one tourist, one first class. Finally at ten we were told the tourist was coming in at twelve – the first class was still expected. I checked the manifests. 2 vacancies on the tourist and 2 on the first class!! What to do. The good Lord Krishna said – a bird on the field is worth all birds still on the wing. I took the Tourist seats. The last and only. Off we flew [11 Nov.] to Basra, Kuwait, Bahrain, Muscat in the Persian Gulf, and then across the Arabian Sea

²⁷⁶ A passing reference to Haley’s introduction of a new concept of law in outer space: Metalaw.

to Karachi. But alas as we approached Karachi an engine on the venerable BOAC Tourist DC4 gave out – and we could not proceed the remaining 800 miles from Pakistan to India. Another day [12 Nov.] waiting and fretting – nervous stress and longing for home! By now we were told the first class flying machine had lost two engines and could not leave Istanbul for 5 days because the Turkish govt had seized the replacements – thus taking advantage of the Suez trouble.

Invictus!²⁷⁷ The engine was repaired and off we took the next day [13 Nov.] across the mighty Indus and the Frontier of Mother India. The good Lord Krishna Chand was happy for both of us. We greeted the Sun [14 Nov.]– he with the great Lord Vishnu and I with the Sweet Savior Christ – both of the essence of goodness. So we come back to reality - below is the panoply of Paris [20 Nov.] – we are about to land – and as the Lord Payson Hall says – may the grace of God shine upon your face.

Love to all – Andy²⁷⁸

During the period of 14 to 19 November, Haley represented the IAF at the 9th Session of the UNESCO General Conference in New Delhi. During the conference, the IAF was admitted to an international organization observer status by a majority vote. However, the next day all the new international organization memberships were suspended pending further study, because some members were concerned that too many new organizational members were being admitted. Haley’s trip to New Delhi was to secure the membership vote. The next day that accomplishment was nullified pending further consideration.

After several days and some lecturing at various locations in New Delhi, Haley flew westward through several connections to Athens, where he stopped to visit with the King and Queen of Greece and the Queen’s brother. Haley was carrying films relating to rocketry and space travel used for his lectures in India. He showed these films for the royal family. From Athens, he flew to Rome to connect on to Paris. In Paris Haley visited his long-time friend Frank Malina, who gave him one of his ‘light pictures’ as a gift to take home. Haley was back in Washington on 25 November, 19 days after his departure.

²⁷⁷ *Invictus* is a popular poem from the late nineteenth century by the English author William Ernest Henley. *Invictus* is Latin for “unconquered”. The speaker in the poem proclaims his strength in the face of adversity.

²⁷⁸ In *AGH, Letters & Materials*.

Chapter 19. Return to the Speaking Circuit

Another substantial paper (66 pages) titled ‘The Present Day Developments in Space Law and the Beginnings of Metalaw’, was presented to the 26th Annual Meeting of the American Rocket Society (ARS) in New York City, meeting from 26 to 29 November 1956.²⁷⁹ Opening with recollection of contents of the November 1955 paper to the ARS, reiterating points about the limitations of national and international laws, Haley declared again the value of Natural Law as a basis for the development of the law of outer space. The paper contained a brief retelling of the history of Air Law leading up to the establishment of absolute sovereignty over every nation’s superjacent air space. He recalled provisions of his June 1956 paper to the Tennessee Bar Association and noted that the IGY had essentially established the right of innocent over flight by space vehicles.

Haley then recalled his September 1956 Rome paper in which he introduced the concept of Metalaw and its rationalization; then he asserted “[a]nd now, on this distinguished occasion of the 26th Annual Meeting of the [ARS], we are happy to be able to indulge in a limited series of optimistic observations and conclusions”. He then recounted the background and development of the program of the IGY and the US and Soviet announcements of plans to launch scientific satellites. Referring to a Rome 1956 IAF meeting visit with the Pope, Haley quoted a lengthy statement made by the Pope of the Roman Catholic Church, which concluded:

If until now man felt, so to speak, that he was enveloped by the Earth and that he must be content with the fragmentary information which came to him from abroad, it would seem now that the opportunity presents itself to him to break the barrier and to achieve new truths and knowledge, which God has spread profusely in the world.²⁸⁰

The paper continued with a lengthy discourse about the development of customary international law, and how that process has come about, and urged again the values of Natural Law as the basis for space law. Haley again spent several pages developing the argument supporting the tacit consent of states to the over flight of their territories by satellites by their lack of opposition to the announced program plans of the IGY satellite program.

He then presented, for the first time in his publications, an inclusive descriptive account of the Specialized Agencies of the United Nations and described in general terms how each of several UN Specialized Agencies will figure into the development of law and order in space flight. As chairman of the IAF International Affairs Committee, seeking relations with other international organizations, Haley had spent considerable effort familiarizing himself with the roles of the specialized agencies. This 1956 New York paper includes discussion of

²⁷⁹ Published as ARS Reprint No. 378-56 in the *Papers & Articles of AG Haley*. This paper, re-titled “Space Law and the Beginnings of Metalaw” was reproduced in three parts in editions of the *Canadian Oil Journal*, Edmonton, Alberta: Vol.8, No. 7, March 1957; Vol. 8, No. 8, April 1957; and Vol. 8, No. 9, May 1957.

²⁸⁰ Reprint at 15-16.

the UN Economic and Social Council (ECOSOC), the United Nations Educational Scientific and Cultural Organization (UNESCO), the International Civil Aviation Organization (ICAO), the International Labor Organization (ILO), the World Health Organization (WHO), the International Telecommunication Union (ITU), the World Meteorological Organization (WMO), and the Universal Postal Union (UPU). Then followed several pages devoted to the history and functions of the ITU, its International Consultative Committee on Radio (CCIR), and references to how important it would be to have early allocations of radio frequencies for space services. Factored into these specialized agency descriptions, where relevant, were descriptions of the roles of the IAF in relation to several of the agencies, especially the ITU.

The concluding section of this 1956 New York paper was devoted to discussion, and again, justification for the development of the concept of Metalaw, and its critical importance to the future of mankind in space – “[...] the rule should be that space outside an individual’s zone of sensitivity is free space to which the traditional freedom of the seas may apply”.

A consistent pattern had emerged in the process of Haley’s publishing papers. Using staff of his law firm and other sources, Haley provided texts of earlier papers for inclusion where appropriate and advised the drafting author(s) what issues the paper should address and what conclusions should appear. Although there were a multiplying number of papers appearing in the mid-1950s, they were very often reworked versions of earlier papers, moderately revised and re-titled to be offered to another audience. As an example, the Paris 1956 paper was re-titled ‘Space Law and Metalaw – Jurisdiction Defined’ and was presented to the ARS Spring Meeting in Washington, DC, from 3 to 6 April 1957²⁸¹ and again at the Technical University of Stuttgart on 13 April 1957.²⁸² Hereinafter we call out the new material and new ideas appearing in Haley’s works, without reference to the repetitious backgrounds and argumentation.²⁸³ When only a title change and one or two page introductions were used to recycle papers, Ethna White would take the dictation to modify the introductory materials, and she would provide alternative title pages with which Haley could arrange multiple copies of new papers prepared as he travelled for various audiences. Many hotels provided the necessary duplicating services. In this way Haley was continually seeking to ‘spread the word’ about achievements in astronautics, about the new science and capabilities emerging, and about his view that this increasing use of astronautics, particularly through international cooperation, would inevitably draw the people of the world closer together.

²⁸¹ ARS Abstract No.397-57.

²⁸² Translated into French, this paper appeared as “*Droit de l’Espace et ‘Metadroit’*”: *Limites de Jurisdiction*, in *Revue Générale de l’Air*, Paris, 1957; also as “Space Law and Metalaw – Jurisdiction Defined” in 24:3 *Journal of Air Law and Commerce* 286-303, summer 1957; also in German as “*Weltraumrecht und Recht Ausserhalb der Erde, Abgrenzung der Rechtsgebiete*”, in *Weltraufahrt*, 1957.

²⁸³ An interesting perception of how a team of attorneys and specialists contributed to Haley’s papers is contained in W. J. Potts, “Reflections on *Space Law and Government*”, 39:1 *Journal of Space Law*, 121-127, 2013. Haley drew on members of his firm, student interns, political associates and key government employees to compile and integrate information he believed warranted publishing. Nothing went into publication bearing his name until he had read, usually edited, and approved a document’s publication, regardless of who had prepared an initial or final draft.

Chapter 20. Changes in the Life and World of Andrew Haley

In the January 1957 edition of *Jet Propulsion*, Haley published a general survey of the Rome 1956 IAF Congress, including quotation of part of the Pope's address to the IAF members attending the Papal audience. Included was a photograph of the Pope in conversation with Haley and Fred Durant, with the caption 'God did not intend to limit man's knowledge'. This was another Haley effort to advance the interests of astronautics; but one could not ignore the personal promotion of Andrew G. Haley, which became more pronounced with time.

During 1957, two events profoundly affected Haley's life. The USSR launched Sputnik on 4 October and, within one week thereafter, Haley was elected President of the IAF. These two events resulted in a major change in Haley's efforts concerning space law. He developed an extraordinary perception of himself, and about the importance of the IAF. During 1957, he had five articles published on topics of space law. During the 4th quarter of 1957, Haley presented almost fifty lectures on space law at universities and other available forums, most of them with Welf Heinrich in the United States. A few lectures were presented alone.

In February 1957, Haley presented 'Current International Situation and the Legal Involvements with Respect to Long Range Missiles and Earth Circling Objects', to an Astronautics Symposium in San Diego, sponsored by the Air Force Office of Scientific Research in cooperation with Convair Division of General Dynamics Corporation. In this paper Haley reversed his earlier position of opposition to Oscar Schachter's proposal to have the upper limit of sovereignty based on the upper limit of aircraft flight. Haley initially thought that Schachter's dealing with aircraft and aerial flight would not help define the upper limit of national sovereignty, the 'aeropause'.

In his San Diego paper, Haley introduced the concept of the von Kármán primary jurisdictional line, being approximately 275,000 feet (52 miles) above the earth, as the height beyond which a vehicle in motion can no longer be sustained by aerial lift. This concept of the von Kármán line would become a major element in almost all of Haley's subsequent publications dealing with space law. Early in the paper Haley wrote:

A meticulous review of the writings of experts in the field, as well as my own papers on the subject, left me with the belief that it is most desirable to state as finally as possible a scientific definition of the precise area where the jurisdiction of terrestrial law ends and the jurisdiction of space law begins.²⁸⁴

²⁸⁴ Original manuscript in *AGH, Articles & Papers*, at p. 3. The paper was published in its entirety in the book *Vistas in Astronautics*, 310-323, Pergamon Press, New York, Paris, London, Los Angeles, 1958.

He then offered observations of numerous commentators of the period including John Cobb Cooper, Oscar Schachter, Welf Heinrich, Alex Meyer, C. Wilfred Jenks P. K. Roy, and Ming-Min Peng. Following an elaborate survey of the opinions of these commentators, Haley wrote:

After concluding the review, it seemed to me that the jurisdiction of space law might well be defined in scientific accuracy. At about this point in my quest, I received a telephone call from Dr. Theodore von Karman inviting me to spend the evening with him. He had just arrived in Washington from Paris. [...] As always [when dealing with aerodynamics] Dr. von Karman formulated a precise answer to the jurisdiction of space law.²⁸⁵

A rambling, quasi-scientific explanation followed, which essentially concluded that the primary jurisdictional line should lie at the altitude 275,000 feet, or 52 miles above the earth. Haley labeled this the ‘von Kármán primary jurisdictional line’. In another variation of his belief that space law must be a unique manifestation or rules applicable to a unique environment of human behavior, Haley wrote:

The legal problems which will arise in connection with space travel will be vastly more complicated and in many respects entirely different from those which faced civilization when it abandoned God’s wind for the steamship and when it took to flight in the air.²⁸⁶

A late section of the February 1957 San Diego paper reviewed comments made by President Eisenhower and Henry Cabot Lodge directed to the UN Disarmament Commission supporting a notion of ‘open skies’ and arguing against militarization of outer space. Haley reported that the British immediately endorsed the American proposal, but the USSR just as swiftly condemned it. Haley explained the Soviet position without commenting on its substance, in an attempt to maintain political neutrality in light of his position in the IAF. The paper concluded with reference to growing congressional interest in space flight and cited Representative Frank M. Karsten’s earlier introduction of a Bill to the House of Representatives to create a Joint Congressional Committee on Extraterrestrial Exploration to make continuing studies of activities and problems relating to the development of extraterrestrial exploration and travel.²⁸⁷

Haley’s oft repeated urging of early UN action was now joined with a call for early congressional action, both of which failed however for want of any public perception of a need for such activity. There were no manmade or crewed objects in outer space. To most people Haley was calling for unnecessary actions; however, his persistence was unabated.

During February and March 1957, Haley was substantially involved in correspondence, planning, and arrangements for planned meetings of the IAF International Affairs Committee and a meeting of that committee with UNESCO officials, on 15 to 16 April in Paris. Haley hoped to have his committee meet at UNESCO. on his long friendship with Frank Malina, Haley asked Malina to arrange and confirm details of the desired meetings. Malina had been an employee of UNESCO from 1947 to 1953. The meeting with UNESCO

²⁸⁵ *Id.* at 24-25.

²⁸⁶ *Id.* at 31.

²⁸⁷ Frank M. Karsten, “A Bill to Create a Joint Committee on Extraterrestrial Exploration”, HR 7443, 84th Cong., 1st Sess., 2 Aug. 1955; reintroduced as HR 7443 in 1957.

was to gain formal approval of observer status for the IAF, which had been granted and suspended at New Delhi. Malina was in contact with and visited appropriate UNESCO officials and gained support for the IAF visit and meetings. While in Paris, Haley would also attend the annual spring meeting of the IAF Bureau on 17 to 18 April, and then return home. As noted earlier, spring IAF meetings were held each year to plan the fall Congress, and to notify authors of submitted abstracts whether or not their proposed papers were accepted for presentation in the fall.

Haley's International Affairs Committee comprised Haley as chairman, Les Shepherd (UK), Eugen Sanger (Austria), A. Hjerstrand (Sweden), and Teofilo Tabanera (Argentina). Because committee member attendance was sporadic, Haley invited a number of 'consultants' to meet with his committee, to ensure he would have an impressive assembly of well known figures to support his meeting with UNESCO. Of the eleven consultants invited, only Gen. P. J. Bergeron (France), Kosta Sivsev (Yugoslavia), Alex Meyer (FRG), and Welf Heinrich (FRG) accepted. The IAF committee and consultants met on 16 April, and they met with UNESCO officials on 17 April, when Haley exacted a UNESCO promise that the IAF status would be resolved finally at the next UNESCO Council Meeting in the following month.

There was one aspect of his visits to Paris that Haley never wrote about, but many around him were aware of and sometimes involved in. He enjoyed visiting racetracks and considered betting on horses a recreational, enjoyable pastime. His nephew Andrew Vogt recalled:

AGH played the horses from time to time. Once he won a bunch of money in France and talked about the "miracle of Lourdes" since the track was near there. We accompanied him to the track a few times, and he would give each lady \$20 to bet with. His prowess at the racetrack led him to start looking at the Washington Evening Star's listing of races for the coming day, making his picks, and then comparing with the next day's results. He did this for a period of months and concluded that his trips to the track had just been lucky.²⁸⁸

American Society of International Law, Washington, DC, 26 April 1957

The American Society of International Law (ASIL) held its 50th Annual Meeting from 25 to 28 April 1957 in Washington, DC. During this conference a notable session was convened in the evening of 26 April, entitled 'International Air Law'. The session included an assembled panel to hear and comment on a paper presented by Prof. John Cobb Cooper entitled 'Legal Problems of Upper Space'. Haley was not present at this meeting. He was attending a NATO Guided Missile Symposium in Munich with von Karman, from April 23 to 27, 1957.²⁸⁹

²⁸⁸ From a commentary on this biography sent to S. E. Doyle 12 Jan 2020; contained in the *AGH, Papers and Materials*.

²⁸⁹ On repeated occasions, NATO's AGARD meetings in Europe enabled Haley to meet with Dr. von Karman and to visit others in Europe and, particularly, in Paris. Any opportunity to visit Paris was an opportunity to visit his friend, Frank Malina, with whom he and von Karman had worked as co-founders of Aerojet Engineering Corp. in 1942 and with whom he had maintained correspondence for years. Haley also took advantage of his trips to Europe to meet with senior officials in various countries involved in the national astronautical or rocket societies as he continually worked to increase participation in the IAF.

The ASIL assembled a substantial number of well informed commentators to discuss Cooper's paper. The panelists included Oliver J. Lissitzyn of Columbia University, Chairman; Prof. Cooper as the primary speaker; P. K. Roy, Director of the Legal Bureau of ICAO; Dr. Alex Meyer of the University of Cologne, Germany; H. Alberta Colclaser of the US Department of State; Arnold W. Knauth, New York Attorney; and Oscar Schachter, Director, Legal Division of the UN. All of the panelists offered commentary on Professor Cooper's paper, after which commentary was offered by attendees including Professor Quincy Wright, Professor Myers McDougal of Yale; and others. From the perspective of Andrew G. Haley, who read the details of this meeting in the *Proceedings* of the Conference later in 1957, there was a significant introduction to new material introduced by Dr. Alex Meyer. Commenting on Cooper's paper, Dr. Meyer said, among other things:

In fact, a number of lawyers of different countries have already dealt with these problems, and it may interest you perhaps to know that an Austrian lawyer, Wladimir (sic) Mandl, published in 1932 a pamphlet with the title *Law of Outer Space*.²⁹⁰ It may interest you perhaps, too, that a thesis elaborated by Prince Wolf (sic) Heinrich of Hanover,²⁹¹ a brother of the Queen of Greece, has been tested by the Institute of Air Law at Cologne.²⁹²

It is significant to note this meeting in Haley's biography because Meyer was the source from which Haley learned more of the earlier works by Mandl and Heinrich, and in Haley's personal life Welf Heinrich would play a major role in the next several years. English language commentators in the US and in England tended up to this time to concentrate their study and commentary on space law on other English language pundits. Dr. Meyer was a forcing factor who led many leading commentators to start considering pundits' commentary in languages other than English.

During April 1957, the FCC released a Notice of Inquiry (first step in a formal rule-making) to examine the most desirable and appropriate allocation of frequencies in the radio spectrum between 25 and 890 megacycles (Mc/s) (FCC Docket No. 11997). On 25 November 1957, Haley, on behalf of the ARS filed a first round of formal comments in this proceeding proposing for the first time in the US that radio frequencies be allocated for use in communications from Earth to vehicles in space, and for communications between stations on Earth and places or objects in space. The ARS advised the FCC that desirable frequency propagation characteristics existed at that time in the frequency band below 200 Mc/s, in the 400-600 Mc/s range, and in other portions of the radio-magnetic spectrum. The ARS filed

²⁹⁰ Vladimir Mandl was a Czechoslovakian attorney, not Austrian, and his publication was *Das Weltraum Recht – Ein Problem der Raumfahrt* (Space Law – a Problem for Spaceflight), a 48 page monograph in German, published in Leipzig, Germany in 1932.

²⁹¹ Welf Heinrich, Prince of Hanover, was an attorney practicing law in Frankfurt, Germany, who completed a thesis titled "Air Law and Space", submitted to the Faculty of Law and Political Science, Georg-August University in Göttingen, Germany in 1953. The thesis can be found in English in *Saint Louis University Law Journal*, Spring 1958, pp. 11-69; also in US Congress, *Legal Problems of Space Exploration – A Symposium*, prepared for the Committee on Aeronautical and Space Sciences, US Senate, Doc. No. 26, 87th Cong., 1st Sess., 22 March 1961, pp. 271-329.

²⁹² *Proceedings of the American Society of International Law*, 50th Annual Meeting, Washington, DC, 25-28 April 1956 at 98.

subsequent revised and expanded comments in this same docket on 31 October 1958, and on 3 April 1959.

Now, on behalf of the ARS, Haley was engaged fully in the appropriate domestic procedures to influence global radio spectrum allocations, and he reveled in it. There was no institutional structure in which he was more comfortable working than in the FCC. He had helped draft the law creating the Commission and had served as an attorney on its staff for five years. These were familiar domestic woods with well worn pathways, but now he was treading new pathways, not previously travelled by him, leading to international frequency band allocations.

With support from the ITU's Deputy Secretary-General, Gerald C. Gross, on behalf of the IAF, Haley again sought a direct IAF association with the ITU in a letter dated 10 May 1957. The ITU's governing Administrative Council, in its May 1957 meeting in Geneva, decided to include the IAF in the list of international organizations to be notified of the planned 1959 ITU Administrative Radio Conference in Geneva, and authorized IAF participation in that conference.

The spring and summer of 1957 involved another major undertaking by Haley which included major support roles by Theodore von Kármán and Frank Malina. Haley had for some time contemplated the creation of an investment fund to manage investments in the expanding field of astronautics. He had spent substantial time and effort telling businessmen in the US and in Europe that there was a major period of industrial growth beginning and he decided to be a part of that industrial expansion. He consulted repeatedly with Dr. von Kármán in the early summer months and by the fall of 1957 he had collected invited investment commitments and formally established the Missiles – Jets & Automation Fund. A personal biography published by Haley listed him as President of the Fund, and of a management company created to manage the fund.

The Fund operated under Haley's management for several years. It enjoyed modest growth and some notoriety in the business press. But the fund weakened over time and eventually was consolidated with another technical fund, described later herein.

Another initiative was taken in May 1967. Having learned that Welf Heinrich, Prince of Hanover, had completed the world's first doctoral dissertation addressing the topic of space law, Haley wanted to take advantage of his friendly association with Prince Heinrich. He invited the Prince to join him on a US national tour of universities and law faculties to discuss space law later in 1957. Haley offered to make all the arrangements, and to pay all the consequential costs. With Prince Heinrich's approval, on 13 May 1957 Haley launched a circular to selected universities, law faculties and selected ARS Regional Sections offering a visit by Heinrich and Haley to present information on space law. With very few exceptions, the topic generally was not found in university catalogues and was not a part of the curriculum in law schools. The letter read:

Dear _____:

The tremendous implications of the present world activities in connection with rockets and guided missiles, and the International Geophysical Year in connection with earth-circling satellites, and

indeed of manned space flight which, technically, is not more than 20 years distant, have escaped the attention of a group of scientists who are most concerned, namely, the legal profession.

I have just returned from a lecture tour in Europe and I made arrangements with one of the most expert students in the field of space law, Dr. Welf Heinrich, Prince of Hanover, to join with me in a lecture tour which would cover a few of the great Law Schools of America.

Prince Welf wrote his doctoral dissertation at the Georg August University, Göttingen [Germany] in 1953. Although he is a grandson of the Kaiser and a lineal descendent of George III, the viewpoints of Prince Welf with respect to colonialism, and of the problems which face humanity in the space age, are as sound as those ever enunciated by the great lawyers of our democracy.

On the lecture tour we propose each to speak for twenty minutes. We also propose to show slides and moving pictures covering the latest developments of space technology which should last from twenty minutes to one hour, depending on the advice of the sponsor.

I do not have adequate printed copies of the doctoral thesis of Prince Welf but I could lend you a copy if you so desire. I inclose reprints of two of my most recent papers which have been published in the Harvard Law Record. I also inclose a bibliography of articles written by me and a few which have been written about me.

We request no reimbursement or expenses for either subsistence or travel and no fees for the lectures. If you have a fund from which you could contribute honoraria, such as for the hotel bill or for travel from one point to another which in no instance should exceed more than \$50 to \$75, we would be glad to accept such assistance, but keep in mind, such honoraria are quite unnecessary if the least problem is connected therewith.

We are attending the VIIIth Annual Congress of the International Astronautical Federation (IAF) meeting in Barcelona, Spain, October 7 – 12, 1957, and will not return to the United States until October 18, 1957. Our nation-wide speaking tour must be during the dates October 22 through November 30, 1957. If you are interested in our lecture and moving-picture exhibition, please let us know within the next two weeks and we will work out a date with you.

Very truly yours,
Andrew G. Haley²⁹³

Enclosures

During June 1957, on a totally separate topic, Haley undertook substantial correspondence and a visit to New Hampshire to solidify plans for school in the fall for the Vogt children. Andrew John had graduated from the Blessed Sacrament School in Chevy Chase, completing eighth grade at the top of his class. At age 13, Andrew John was admitted to a summer school at Phillips Academy in Exeter, New Hampshire, a well-known ‘preparatory school’, where he was expected by Haley to attend school for grades 9 to 12. To keep the two children in relative proximity to one another Haley arranged for Andy’s sister, Mary Michaela, to enter and board at the Presentation of Mary Academy in Hudson, New Hampshire. Mary had completed grade 6 at Blessed Sacrament School in Chevy Chase MD. Mary’s education up to this point had

²⁹³ In *AGH, Letters & Materials*.

been centered in the DC area. She had attended the Blessed Sacrament School in Chevy Chase for grades one through six, except for part of the sixth grade when she and her brother stayed with their Aunt Gertrude in Pasadena.

During the summer of 1957, Haley remained in Washington or travelled to client locations in the United States. In addition to work at the law firm and managing the writing of texts for an historical study, he devoted substantial time to managing the schooling of his wards, the Vogt children, as well as continuing to urge his son Andrew to perform well in college in order to qualify to enter law school, obtain a law degree, and assume a role in the Haley law firm. Andrew Jr. was willing to apply himself in college, but he was not convinced that the practice of law was the career path he wished to follow. In self-defense, and to avoid a falling out with his father, he entered an unobtrusive period of passive resistance to his father's plans for him, but he avoided a direct confrontation on the issue. The Vogt children, on the other hand, understood that satisfaction of the goals and challenges presented by Haley were really firm requirements. Haley was paying all the costs of their maintenance and educations, and he expected in return their compliance with his wishes. Although he was at times a stern task master in dealing with all the children, it was not for lack of parental affection and love, so much as it was his desire that the children would all apply themselves to get the best education available and remain involved in and supporting the Roman Catholic Church. His love was at times a 'tough love'.

Correspondence increased during the summer months and by September an impressive tour was taking shape including proposed lectures and presentations all over the United States during November 1957. As of 28 September, Haley wrote:

HRH Welf Heinrich Prince of Hanover
Grünau, Almtal
Austria

Dear Prince Welf:

I have read with extreme care, many times, your lecture on "Jurisdiction in Outer Space." I must say that I, myself, and my colleagues believe that this is one of the most capable discussions we have seen so far. We have also timed your lecture with technical accuracy and find that read as a medium pace it will last 18 minutes. This is perfect!

May I next tell you that I am delighted with your invitation to appear before the "*Evangelische Akademie*" in Loccum during January or February in 1958 to talk on some aspect of the subject of "The Human Being in Space." I have, of course, heard of the great intellectual "Loccum" center and I am most pleased and flattered that you thought of me in connection with reading a paper at this most distinguished center of learning, and I am sure the meeting at Loccum will be most interesting and to me most valuable as an intellectual exercise.

Our lecture tour is progressing very nicely. You will have five days in New York to orient yourself. I have reserved a room at the Barclay Hotel which, as I have explained, is not the most elite but it is very respectable and very pleasant.

We spend the morning and afternoon of Monday, November 4, at Princeton University, and during the evening we have dinner and lecture at the Physicians Scientific Society, one of the most distinguished organizations in America.

Early the next day we go to Detroit and thence to the University of Illinois, Northwestern University, University of Wisconsin, and on to the University of Minnesota, five of the greatest universities in the world.

We need a day and a half with my dear friends, Dr. and Mrs. Charles W. Mayo, at Mayowood, Rochester, Minnesota, and Missoula, Montana, where we talk to the University of Montana.

We then cross over great ranges of mountains to the Columbia River and Spokane, Washington. At Spokane we speak at Gonzaga University and before the Bar Association of the State of Washington.

The next day we see the world's greatest hydroelectric project – Coulee Dam. Thence, across the vast Cascade Mountains to Seattle where we lecture to the University of Washington.

We then proceed to San Francisco, California, and talk to a select audience at the University of California; and thence to Los Angeles where we talk again to select audiences. Here we find time for another vacation interlude, such as in Minneapolis, and we view the great Redwood forests, and other sights. We proceed across the Great Salt Lake to Salt Lake City where we talk to an audience at the University of Utah.

We proceed down to Holloman Air Force Base and White Sands Proving Ground and talk to the universities and American Rocket Society Sections in that area – but I am terribly sorry that we will be unable to show you these great scientific installations in detail because of our regulations against showing these installations to aliens. We will meet, however, many of the most interesting workers in the field.

We then proceed to Denver, Colorado, where we will have the finest accommodations and we will spend three days in the Rocky Mountain area and talk to the University of Colorado at Boulder, Colorado.

We will proceed on to the East Coast making two or three more appearances, and end up with a final lecture in Washington, DC.

I am sure that you will be a bit tired but that you will enjoy the entire journey and you will be pleased to meet many of the most important and, certainly, the most interesting people in America.

I will meet you at the boat when you arrive on October 29, 1957. Then I will leave you to your own devices until we start our lecture tour on Monday, November 4, 1957.

With kindest regards, I am

Sincerely yours,
Andrew G. Haley²⁹⁴

²⁹⁴ *Ibid.*

After many of the Heinrich/Haley visits had been essentially agreed as to dates, places, and times, the USSR launched the world's first artificial satellite on 4 October 1957 and the entire speaking tour gained a reinvigorating interest from the hosting institutions and from the public at large.

Chapter 21. A Readjustment of World Perceptions

The Soviet Union launched the first manmade satellite, Sputnik, or officially ‘Elementary Satellite 1’, into low Earth orbit on 4 October 1957. The launch took place from site 1/5 at the 5th Tyuratam range in Kazakh SSR (now known as the Baikonur Cosmodrome in Kazakhstan). Despite the fact that the launch had been announced in advance with the payload described in open literature, there were no believers in the West that the USSR would precede the US into space. Surprise at the Soviet success was world-wide and it changed the nature of the world’s perception of and belief in the power of modern technology. The launch stimulated new political, military, technological, educational, and scientific developments, which would permanently alter the attitude of people toward the relevance of Andrew G. Haley and his ilk, continually promoting a need for imminent action on the creation of space law.

Sputnik’s radios transmitted on 20.005 and 40.002 Mhz. At that time anyone possessing a short wave receiver could hear the Russian satellite as it orbited the earth. Directions, provided by the American Radio Relay League, were to “tune in 20 megacycles sharply, by [listening for] the time signals, authorized to be given on that frequency. Then tune to slightly higher frequencies. The ‘beep, beep’ sound of the satellite can be heard each time it rounds the globe”.²⁹⁵ One reason for the Russians choosing 20.005 megacycles was that 20 megacycles was a universally recognized and reserved band, for use only to broadcast international time signals. Anyone with a shortwave receiver could easily find and was probably familiar with this particular frequency.

This satellite launch for the International Geophysical Year (IGY) occurred on the eve of the VIIIth International Astronautical Congress held in Barcelona, Spain, from 6 to 12 October 1957. *Sputnik*’s radio signals continued for 21 days, until on-board batteries were exhausted on 26 October 1957. The satellite burned up upon reentering the atmosphere 90 days after launch, on 4 January 1958.

World reaction to the launch of Sputnik was profound. The assembled scientists and engineers in Barcelona repeatedly questioned the few Soviet scientists in attendance about details of the launch vehicle and the satellite, but the information available was scarce and very summary. The launch was announced in Washington, DC, in the evening of 4 October at a Soviet Embassy cocktail reception for members of the *CSAGI*, who were assembled there to review and discuss the progress of the IGY. That event is well recounted in a book by Walter Sullivan.²⁹⁶

At the VIIIth Annual International Astronautical Congress in Barcelona, Haley published ‘Space Law – The Development of Jurisdictional Concepts’. At the outset, Haley referred to his earlier papers and in a footnote listed all of his relevant works published since

²⁹⁵ “How to Tune”, *San Antonio Light*, 05/10/1957, p. 1.

²⁹⁶ W. Sullivan, *Assault on the Unknown*, McGraw-Hill, New York, 1961.

1955. He offered a summary of the recent discussion concerning space in the UN Disarmament Conference observing that:

The foregoing paraphrases rather vividly illustrate the fact that officials of the chancelleries of the nations of the world are groping for correct answers. They must have a reasonable definition of the limitation of “airspace”, a term which now appears in many treaties and in the municipal statutes of most of the nations of the world. They desire help from qualified social and natural scientists. I urge that at a plenary session of this Congress, the President of the International Astronautical Federation be authorized to appoint a committee of seven persons, consisting of four physicists and three lawyers, who will draft a definition of “airspace” and recommend a rule delimiting airspace jurisdiction, such definition and rule to be supported by a statement of Findings of Fact and Conclusions of Law.²⁹⁷

He then repeated arguments he had previously published in support of the concept of the von Kármán primary jurisdictional line. A substantial portion of the balance of the paper deals with official scientists’ views and opinions of commentators on the appropriateness of any particular selected altitude. Haley reaffirmed his belief that the decision to determine an upper limit on sovereignty must be based upon sound science. The paper also repeated his presentation and arguments concerning Metalaw. In a 7 January 1958 letter to Antonio Pèrez-Marin, in Madrid, Haley enclosed this paper and referred to it as “the very best article written by me on the subjects of space law and metalaw”.

The timing of submission of this paper is not coincidentally just prior to the election of Haley to the Presidency of the IAF at Barcelona. He already knew the names of his nominees for the committee his paper was urging to be formed. Following his election, it was up to him, as the newly elected President of the IAF, to form his recommended committee.

During the VIIIth Congress, Josef A. Stemmer, Secretary of the IAF, raised a number of legal issues related to inconsistencies between the IAF Constitution and the law of Switzerland, where the IAF Secretariat was located. The British delegation moved to create a Committee to reconcile the IAF Constitution with the Swiss law. After discussion and amendment, a broader motion was passed which authorized a new committee to consider even new additions to the Constitution. IAF outgoing President, Les Shepherd, appointed a constitutional review committee comprising Haley (USA) as Chairman, Fritz Gerlach (Germany), Alla Massevitch (USSR), Georges Delval (France), Leonard J. Carter (England), and J. A. Stemmer (Switzerland). The Congress also elected Haley President of the IAF for the year 1957 to 58. Haley personally took this election as a call to devote more time, effort and personal fortune to promoting the interests of the IAF.

The committee strongly recommended by Haley was “to define the regions of jurisdiction of air law and space law”. This committee was authorized by the plenary with a designated Chairman, John Cobb Cooper.²⁹⁸ Other members included two Americans, two

²⁹⁷ Paper reprint in *AGH, Papers & Articles*, at 6-7. The paper was also published in the *Proceedings of the IAF Congress*.

²⁹⁸ A. G. Haley, “The International Astronautical Federation”, *The Federal Bar Journal* 470, at 471-72, Oct. – Dec. 1957. J. C. Cooper was at that time General Counsel of the International Air Transport Association, Montreal. In 1951, Cooper was the founding Director of the International Institute of Air Law at McGill University. In 1952 he was awarded an LL.D. by McGill University. From 1951 to 57 he was Professor of

from the USSR, plus other members from other countries to be selected by Cooper. Haley urged that this 'Cooper Committee' should produce a report to be submitted to the attention of the Secretary General of the United Nations and the Secretary General of the International Civil Aviation Organization, with the statement that the members of the Committee would be available to cooperate with appropriate officials of those organizations. In concluding a later account of the VIIIth IAF Congress, Haley reported that:

There is also what is known as the Sanger/von Karman/Haley proposal to create in the Federation an Academy of Astronautics. Persons would be elected to the Academy for life tenure, and there would be a rotating directorate chosen from the members of the Academy. Only scientists of real accomplishment in the natural and social sciences would become members of this Academy. The administrative and executive activities of the Federation would be discharged by the Council, as at the present time, but all actions taken by the officers would be subject to the general supervision and control of the Academy.²⁹⁹

This proposal had been made earlier using different institutional names, starting in 1952 and annually discussed at the IAF Congresses. Now, in his role as President of the IAF, Haley was determined to bring this proposal to the fore and have it acted upon by the IAF Plenary. There was interest in the proposal, but there was no support for the included recommendation to put the IAF management under the control of the Academy. Despite Haley's promotion of a decision, as in the past, the proposal was tabled for consideration at a later time.

International Air Law at McGill. After serving as the first Director of the International Institute of Air Law he was named a Professor Emeritus.

²⁹⁹ *Id.* at 474.

Chapter 22. A National Space Law Tour

When Sputnik was launched by the USSR on 4 October, Haley felt vindicated in his long standing efforts to get official attention directed toward space law. Now that there was a satellite circling the earth and broadcasting a signal that could be heard worldwide, many of his arguments began to hit home with national and international officials, especially in the realm of radio frequency usage management.

In May 1957, Haley began working to arrange a tour of major universities and law schools with Prince Welf Heinrich to lecture on space law. The completed arrangements involved visits from 4 to 30 November 1957 constituting an extraordinary tour to declare the needs for and to discuss the nature of space law, and to broaden public and professional awareness of the IAF and its role in the development of the necessary law. Haley spent considerable time and personal resources to communicate with universities, bar associations, ARS regional sections, and any other possibly interested groups, offering to visit during October and November to present lectures, slides and motion pictures.

Subsequently, following the establishment of the first annual International Colloquium on the Law of Outer Space, Haley and Heinrich co-edited the *Proceedings* of that colloquium. In the Introduction to the Proceedings Haley described the 1957 joint tour in this way:

The concept of the International Astronautical Federation Colloquium on Space Law evolved from conversations between [Haley and Heinrich] during the course of a lecture tour of American Universities which we undertook in the Fall of 1957, and at subsequent meetings in Europe. Lectures on “The Law of Outer Space” were given at the Universities of Princeton, Detroit, Chicago, Michigan, Northwestern, Wisconsin, Minnesota, Montana, Montana State, Gonzaga, Washington, California (Berkeley), California (UCLA), Utah, Colorado, St. Louis, Washington (St. Louis), Harvard, Georgetown, American, Maryland, and so on; and [later] in Europe by one or the other of [us] at the Universities of Paris, Stockholm, Copenhagen, Berlin, Munich, Stuttgart, Madrid, Lisbon, Belgrade, Prague, Warsaw, Moscow, Leningrad, the Evangelical Academy at Loccum, and so on; and before numerous learned societies and many technical institutes and groups.

The attendance at these lectures pointed up the profound interest of world-renowned teachers and practicing jurists, on the one hand, and thousands of students and members of the public, on the other hand, in the subject of the law of outer space. The ultimate importance of space jurisprudence to thinking men, and especially experts in the social sciences, was demonstrated beyond question.³⁰⁰

³⁰⁰ A. G. Haley and W. Heinrich (Eds.) *Proceedings of the First Colloquium on the Law of Outer Space*, The Hague, 1958, iii, Foreword, Springer Verlag, Vienna, 1959; see also A. G. Haley, *Space Law and Government* 355, Appleton-Century-Crofts, New York, 1963.

Welf Heinrich and Andrew Haley toured as a team addressing varied topics, including ‘Law and Economics of the Space Age’. Heinrich presented Part One, involving background information and introducing several topic areas to be developed in the following Haley comments. Heinrich referred to his own preparation of the first doctoral dissertation on space law,³⁰¹ but explained that he was an academic student dealing with the topic, whereas Haley, who would follow shortly, was extraordinarily well prepared by experience to deal with and explain the needs for and proposed contents of the required law. Heinrich discussed problems involved in seeking to apply laws of international civil aviation to space flight, and discussed the need for an upper limit on national sovereignty. His dissertation had studied extensively the law relating to aerodromes (aircraft landing areas floating on the high seas) and in his thesis he drew parallels between aerodromes and spacecraft. The thesis subjects were not all included in his tour presentation.

Part Two of the presentation was a condensation of the papers Haley had been producing since 1955. Identifying himself as the President of the IAF, Haley recited a series of questions he had been asked by ‘people from all over the world’. The questions were actually a litany of those he had been trying to have the UN answer. Haley addressed the upper limit on national sovereignty, the beneficial consequences of the IGY, the emergence of the von Kármán primary jurisdictional line, citing opinions of astronautical medical experts and others in support of his positions. He condensed and repeated positions from his 1957 Barcelona paper. Surprisingly, Haley’s early lectures on this tour did not initially address the need for radio spectrum allocations. Titles were slightly varied, and topics were added or subtracted from the presentations to suit the audiences at the various locations where lectures were held.³⁰²

The final tour schedule included several schools and institutions that entered the list in October and during November. By the end of November, approximately 25 lectures had been delivered in a space of 26 days. The tour of the US was followed up by visits by Haley or Heinrich, or the pair, at universities and institutions in Europe during the first quarter of 1958. During the American tour Haley was fêted as the guest of honor at the Annual Banquet of the Holloman Section of the ARS in Alamogordo, New Mexico; a dinner also attended by Welf Heinrich. At this dinner Haley was listed as the principal speaker. Although Welf Heinrich was introduced, he did not speak.

After the US tour, Haley published an article in the ‘magazine of world astronautics’ 2:11 *Missiles and Rockets* entitled ‘Law Must Precede Man into Space’, which bemoaned the fact that the issues involved in establishing space law were being considered by the UN Commission on Disarmament. Haley wrote, “[t]he statement of space law problems and the formulation of jurisdictional concepts and the regulatory rule should long since have been

³⁰¹ The thesis was submitted to the Georg-August University in Göttingen, Germany in 1953; it is presented in English in the *Saint Louis University Law Journal*, Spring 1958 at 11-69; also reprinted in US Congress, *Legal Problems of Space Exploration – A Symposium*, 271-329, Senate Doc. No. 26. Committee on Aeronautical and Space Sciences, 87th Cong., 1st Sess., 22 March 1961, GPO, Wash., DC.

³⁰² Selections from both Heinrich remarks and Haley remarks were published in the *St. Louis University Law Journal*, Spring, 1958. A more precise and detailed listing of the institutions and organizations visited in the United States is presented at pp. 536-37 of A. G. Haley, *Space Law and Government*, Appleton-Century-Crofts, New York, 1963.

undertaken by the appropriate juridical bodies of the United Nations and of the International Civil Aviation Organization”.³⁰³

The article then launched into the history and circumstances that surrounded the initial formulation of the von Kármán primary jurisdictional line and elaborated with illustrations the scientific validation of the concept. It continued with reference to the 19th century establishment of the Decatur Doctrine,³⁰⁴ and extrapolated parallels between the freedom of the seas and the freedom of outer space and the responsibility of states to regulate ships of their states and the comparable responsibility of states to regulate their spacecraft. The article also repeated much of the reasoning and justification Haley had previously published for the establishment of an upper limit to national jurisdiction at the limit of the airspace.

Independent of the tour that had recently concluded, in early December 1957, Haley presented a paper entitled ‘The Russian Satellite – Legal and Political Problems’ to the 12th Annual Meeting of the ARS convened in New York, from 2 to 5 December. This paper, like the tour lectures, was in two parts, however part one was written by John Cobb Cooper, and part two by Haley. Although Cooper was a co-author, the oral presentation at the ARS meeting was done by Haley. Like Haley, Cooper believed a clear and globally accepted definition of the upper limit of national sovereignty was an immediate need and the matter should be resolved at the earliest possible time. As of 2020, there is no internationally agreed definition of the upper limit, although there are practices of states during the past 60 years which support a finding that by international customary law the upper limit appears to be accepted at about 50 miles. Cooper’s part one of the ARS paper is a detailed analysis of the reasons for and justification of declaration of an upper limit. Cooper concluded his contribution with the opinions that:

Only the United Nations itself can now serve as a forum for further discussion. Recent press reports indicate some possibility of an “outer space” United Nations trusteeship to enforce future agreed rules of spacecraft good conduct. This might work. But whatever the ultimate answer, every day that passes with no attempt at real international discussion of the legal status of space beyond the air space and the legal status of the flight instrumentalities using such space only adds to the chances for fatal international confusion and perhaps conflict.³⁰⁵

Fortunately, despite no formal international action on this issue for decades to come, the consequences of inaction described by Cooper never transpired. In part two of the paper, Haley reviewed the history of the creation of the ‘Cooper Committee’ at the 1957 Barcelona IAF

³⁰³ A. G. Haley, “Law Must Precede Man into Space” *Missiles and Rockets*, 67-70, Nov. 1957.

³⁰⁴ In maritime law, all parts of the high seas are not part of the territorial sea or internal waters of a state. Since the Middle Ages, a number of maritime states asserted sovereignty over large portions of the high seas, such as the claims of Genoa in the Mediterranean and of Great Britain in the North Sea and elsewhere. The Decatur Doctrine of the 19th century declared that the high seas in time of peace are open to all nations and may not be subjected to national sovereignty. This ‘freedom of the seas’ was proposed by the Dutch jurist Hugo Grotius as early as 1609, but did not become an accepted principle of international law until the 19th century. Freedom of the seas was ideologically connected with other 19th-century freedoms, particularly laissez-faire economic theory, and was vigorously pressed by the great maritime and commercial powers, especially Great Britain. Freedom of the high seas is now recognized to include freedom of navigation, fishing, the laying of submarine cables and pipelines, and over flight of aircraft and spacecraft.

³⁰⁵ From a copy of the manuscript in *AGH, Papers and Articles*, at 10.

Congress and injected an extensive note referring to his papers on the topics raised by Cooper. He then dealt briefly with the issue of the need for radio frequency allocations, and then referred to the title of a Russian work, and included verbatim a lengthy inserted section taken from Ary Shternfel'd, *'To Whom Does Outer Space Belong?, Iskusstvennue sputniki zemli'* [Artificial Satellites of the Earth], as a recitation of the official Soviet position on the upper limit, and an indication that working together in good faith, the nations of the earth can solve this perplexing issue. There were no other topics dealt with in this paper.

Radio frequency issues arise

In late 1957, the FCC issued a Notice of Inquiry in Docket No. 12263, intended to elicit information from the public and industry to help prepare for participation in the planned ITU Administrative Radio Conference in Geneva in 1959. Even while still on tour, on 25 November, Haley issued a Press Release stating that “[t]he problem of space communications will receive first official action because of the filing by Andrew G. Haley, on behalf of the American Rocket Society, of a formal appearance and comments in the official inquiry ordered by the Federal Communications Commission into the use of radio frequencies.” Haley submitted to the FCC a proposal that urged the Commission to provide frequencies for emerging space and satellite communications. In part, Haley’s Press Release promised that:

Information submitted regarding the foregoing matters will enable the [American Rocket] Society to develop several points in the proceeding. These include:

Fundamentally, the present international radio allocations agreement makes no provision for radio communications involved in space operations, either mobile or fixed [services].

A need exists for world-wide review of the spectrum requirements of space communications projects, and for the promulgation by treaty of regulations and definite frequency assignments for such communications.

Recommendations may be made at this time concerning the portions of the spectrum from 25 mc to 890 mc which are most suitable for space radio communications.

By this filing, Haley was putting the Commission on notice that the ARS would be submitting a comprehensive allocation plan proposal to accommodate space communications. In subsequent hearings before the Commission with regard to the Inquiry, the ARS (Haley) arranged for 17 expert witnesses to testify to the need for international allocations of frequency bands for various services.

On 20 December 1957, the IAF renewed its proposal to the ITU in Geneva that the CCIR set up a Space Communications Study Group. On 23 January 1958, Haley, as General Counsel of the ARS, filed comments in the FCC proceeding proposing that the FCC create new radio services for an Astronautical Mobile Service, an Astronautical Radiolocation Service, an Astronautical Radionavigation Service and authority for stations to operate in each service.

Multiple specific frequencies were proposed to be allocated in 14 separate radio frequency bands. These same bands were proposed by the IAF (Haley) to the CCIR's Study Group XI meeting in Moscow later in the summer of 1958.

In the *Federal Bar Journal* for October to December 1957, Haley published an information piece about the International Astronautical Federation, listing all its members and summarizing the major decisions taken at the VIIIth International Astronautical Congress, including creation of the 'Cooper Committee' to study jurisdictional questions, and noting his election as President of the IAF. The piece ended with a summary by Haley of the actions he intended to take as President to make the world more aware of the importance of astronautics and how he intended to advance the key role of the IAF.

One additional institutional response to the launch of Sputnik was the awakening of awareness in the American Bar Association of the need to address the subject of space law. Homer Angelo Chairman of the ABA Section on International and Comparative Law noted, "[o]bviously recent events have demonstrated the timeliness and urgency of establishment of a committee in the Association".³⁰⁶ Haley later reported that "[t]he organization of the Committee thus moved swiftly: by December 1957, a Committee on the Law of Outer Space was officially established within the Section of International and Comparative Law, with David F. Maxwell, then immediate past president of the ABA, as chairman [...]"³⁰⁷ Haley was appointed vice-chairman of the Committee, and an impressive list of prominent attorneys and academicians were named committee members, including Frank Simpson, III, as secretary, Loftus Becker, John Cobb Cooper, Arnold Knauth, Albert C. Lazure, Edward Levi, Leon Lipson, Myres McDougal, John Ritchie, III, Robert Sullivan, and Adm. Chester Ward. This committee would become very active in monitoring and reporting developments in space law for the Association membership through reports and articles in the *ABA Journal*.³⁰⁸

Despite the satisfaction he derived from addressing many audiences in the United States and abroad, Haley had intensifying problems dealing with his family at home. Aunt Dede required occasional hospitalization to deal with dehydration, a consequence of her alcoholism. Because her health was failing, he needed to provide an environment of support for her which he did not have time to provide personally. He noted her increasingly frequent visits with her mother Maude and sister Bernice to offset his absences and to obtain needed morale and physical support. Haley was increasingly aware that something had to be done.

In the wake of criticism and concern expressed about the USSR successfully preceding the United States into space, on 4 December 1957, a much ballyhooed launch of the US-IGY's Vanguard (TV-3) satellite was scheduled. The launch failed on live national television in a colossal fireball on the pad at the Cape Canaveral Air Force Station Launch Complex 18. There being no other substitute available, the decision was made to proceed with a planned launch of Explorer 1 on a modified Jupiter C launch vehicle named the Juno rocket.

³⁰⁶ A. G. Haley, *Space Law and Government*, 382, *op. cit. supra* note 300.

³⁰⁷ *Ibid.*

³⁰⁸ *Ibid.*

Chapter 23. A New Year and New Challenges – 1958

1958 was a year of continued lecturing and apostolic speech-making by Haley. He spoke to more than thirty-five audiences in more than ten countries, mostly in Eastern and Western Europe, about space law and to at least half a dozen other audiences about international developments in cooperation in astronautics. During the year, he had more than a dozen space law articles published and another dozen articles on developments in international cooperation in astronautics. He was invited by the State Department to serve as a member of a US Delegation to an international meeting of the ITU. Now he was part of an authoritative group with potentially profound influence on the international allocation of radio frequency bands. Completing a long-sought Haley goal, in May 1958, the Executive Board of UNESCO voted to approve the decision made in New Delhi in November 1957, conferring non-governmental international organization observer status on the IAF.

The Haley children were coming of age. Daughter Delphine had graduated in June 1957 from Rosemont College in Pennsylvania with a BA in French Literature. Following graduation, she took a position with the Renault Car Company in New York. Son Andrew, who had begun college at Gonzaga University in Spokane, Washington, transferred for his sophomore year (1957-58) to the University of Michigan. Haley's wards, the Vogt children, at ages 14 and 12 were at boarding schools and learning to live their own lives, although they had an exclusive dependence on Haley for financial support and maintenance. In addition to a sense of responsibility to provide love, care and attention, Haley's interest in the children was motivated by a desire to strengthen and sustain their Catholicism and to motivate their best academic performances. In addition, he expected that Aunt Dede would take care of the emotional support of the children. In his mind, he simply did not have time for all that family stuff. Although the family continued annual assemblies in Washington, DC, during the Christmas and Easter school recesses, Aunt Dede was spending more time away from Washington, visiting at her Campbellsville family home. Her health continued gradually deteriorating as she wrestled with an increasingly depressing sense of loneliness.

Although the Haley/Heinrich tour in the United States concluded late in November, Haley continued alone seeking and obtaining opportunities to present the general paper titled 'Space Law' to any available and interested audience. One such presentation was made to the Judge Advocate General Division Reserves, at the Pentagon on 14 January 1958. Interestingly, Haley maintained circumspect neutrality about possible military uses of outer space, except for his strongly held view that the United States should not, under any circumstances, allow the USSR to establish a base on the moon, even if it meant going to war. But when he spoke to military audiences, he avoided declaring his view on military uses of space. Haley consistently asserted the view that astronautics would be a world unifying force in time, although his idea

of the duration of time required was several generations. With the amounts of information he was able to assemble, there were too many unanswered questions involving the technology, the politics, the economics, and the practical operability of systems for Haley to reach and hold any conclusions on military uses of space. In any case, he likely considered any such thoughts classified for security reasons. Consequently, he rarely addressed in public military uses of outer space.

Haley was by no means restricted to presentation of formal papers at conferences and in published technical journals. Whenever opportunity arose, he would give interviews to any interested journalist who would take the time to sit and listen to his accounts, usually focused on the state of the art in launch capability, travel to the moon, or some aspect of space communications capability. In the 19 January 1958 issue of the Sunday *Washington Post* newspaper supplement the *American Weekly*, Haley published an article titled 'Can Russia Claim the Moon?' A subtitle at the beginning of the article read: 'Silly question? No, lawyers and scientists say it had better be settled – and soon'. The article was written in a simple style comprehensible by a layman. It stated early that:

Some top scientists and legal authorities believe that these rights, which at present are not defined by any international law, must be decided by the United Nations.

They believe that the need for a new branch of law – space law is in the interest of everyone, everywhere, and they are convinced that the need grows more urgent every day.

Here, Haley ascribed to the knowledgeable community of scientists and lawyers the views he held personally, and he wanted to impress on as many people as possible his view of the urgency of the need for space law. In this presentation he chose to use an alarmist approach to the problem:

If the Russians get to the Moon first, they can claim it. If we get there first, we can. This is my opinion.

If Russia should announce it intended to take possession of the moon, it probably would do three things: send a rocket to plant the Red Star on the moon's surface; send a two- or three-man rocket around the moon; claiming the reverse side by virtue of discovery and mapping; land a small colony on the moon.

If these steps were taken, Russia would have very valid claims of sovereignty to assert in any appropriate world judicial tribunal.

As this article is written, plans for taking these steps are under way in Russia. Russian scientists have disclosed them.

Seeking to further fuel the anxiety of his readers, Haley wrote:

The moon race between the U. S. and the U. S. S. R. is on, and the Mars race will follow. Just now it is a race without rules, and you can guess how badly rules are needed from what John Cobb Cooper told the American Rocket Society recently. He is the former Director of the Institute of

International Air Law, McGill University. He said: “every day that passes with no attempt at real international discussion of the legal status of space beyond the air space and the legal status of the flight instrumentalities using such space only adds to the chances for fatal international confusion and perhaps conflict”.

Only the United Nations, he said, “can serve as a forum” for this discussion.

But, in the end, Haley concluded that “many legal experts believe that, under space law, the satellite will remain everybody’s moon”. Clearly, the article was intended to raise public awareness of Haley’s perceived growing need for space law, and to urge once again some definitive United Nations action on the question of the need for such law. Having been carried in the Sunday *Washington Post*, even if not read immediately, the article was very likely delivered to the homes of members of Congress, Presidential advisers, and senior government officials in numerous agencies of the government. The master of publicity was at work again.

On 20 January, Haley wrote to James C. Hagerty, Press Secretary to the President, “[w]ill you please give me the text of any references which President Eisenhower has made in recent weeks to space law, international cooperation and control of outer space, and so on. I will need the exact text to use in connection with an international lecture tour of Europe upon which I am about to embark”. He sent the same request to Lincoln White, Chief, News Division, Department of State. On 24 January, Hagerty replied: “I am happy to enclose several press releases which I hope will be helpful to you in connection with your lecture tour of Europe”. White also replied with similar information. In Haley’s mind two purposes were served by these exchanges. Haley obtained recent relevant comments made by the President and the Secretary of State, and he put his name before the President’s Press Secretary and a senior State Department official announcing a planned lecture tour in Europe. It is likely that the exposure of his name and plans was a strong secondary motive of the requests.

Also on 20 January, *The Wall Street Journal* ran an article titled ‘Space Lawyers Ponder Ownership of Moon, Plot Spatial Borders’, and presented a subtitle reading ‘Dr. Haley Puts “Sky’s” Ceiling At 52 Miles; Others Apply Rules of Sea to Space’. The article identifies Haley as President of the IAF and General Counsel of the ARS, and reports that Haley “is talking currently with UN ambassadors about the urgency of action”.

Haley began a series of public presentations in early 1958, focused on the economic potential and impacts of the development of astronautics. The first of this series, titled ‘Financial Aspects of the Age of Space’, was presented to the American Friends of Hebrew University in New York on 30 January 1958. Haley invariably began his economic discussions by referring to the ARS Space Flight Committee’s 1953 recitation of benefits to be derived from space flight projects. Gradually, during this new series of presentations, he added more detailed, statistically based commentary on the implications for American industrial growth.

On 30 January, Haley wrote a letter to Dr. E. J. Opik at the Armagh Observatory in Northern Ireland and to other Irish scientists urging the creation of an Irish Astronautical Society, which could then become a member of the International Astronautical Federation. Dr. Opik immediately undertook planning for a meeting of interested persons in Dublin on 22 February. Because Haley was previously scheduled to speak to the American Management Association in New York at noon on 21 February, he determined that there was no viable means

for his arrival in Ireland before early morning on 23 February, a Sunday. Unwilling to forego his efforts to have an Irish Astronautical Society established, Haley decided to proceed to Ireland at the most expedient time by plane to Shannon and then fly to Dublin; or, if no flight were available from Shannon to Dublin, he would hire a car and drive the two and a half to three-hour trip from Shannon to Dublin and be in Dublin by noon. Dr. Opik could not arrange a meeting on Sunday, 23 February, but believing ‘where there’s a will, there’s a way’, Haley undertook by correspondence to organize a meeting for Sunday afternoon at the Hotel Russell, Dublin, from 3:00 to 5:00 p.m.

In Des Moines, Iowa, on 31 January Haley presented the paper ‘The Law of Space and Financial Implications’, in which he expanded his earlier themes to include the direct impact of astronautics and space projects on the economy of the United States. This elaboration of financial potential of space flight was apparently popular among selected audiences with high interest in business aspects of astronautics. The new list of potential audiences in the business aspects of space was a major draw for Haley, who was pleased to expand his audience.

On this same day, in sharp contrast to the failed Vanguard launch in December 1957, the US successfully launched its first satellite. Explorer-1, launched on a modified ABMA-JPL, Jupiter C, was the US-IGY scientific experiment of James A. van Allen. It detected the first energetic charged-particle radiation belt around the Earth.³⁰⁹

On 6 February, Haley presented his economic implications paper again with a slightly modified title reading ‘The Space Age and Financial Implications’ to the Chamber of Commerce, Chambersburg, Pennsylvania. Haley accomplished the diversity of locations in which to present his papers by relying substantially on other people. He did not go to all these locations simply to present papers. He generally visited different cities for a meeting with a particular client or a potential client. Through the good offices of the businessmen he visited, Haley solicited and obtained invitations to speak to local organizations. In addition to travelling to visit clients of his law firm on business, Haley was able thereby to ‘piggy-back’ presentations on space law in many smaller, local groups at luncheon and dinner meetings.

Even though he was an attorney, Haley rarely, if ever, declined an opportunity to address a distinguished audience, whether lawyers, scientists, businessmen, or the general public. As president of the IAF for 1958, he considered it his obligation to speak to any available audience for the purpose of promoting astronautics in any possible way. In early February, he was invited to address the Rotary Club of Washington, DC, and he chose to present a luncheon address titled ‘The Utility of Rocket Devices’.

To this audience of leading businessmen of Washington, DC, Haley was not declaring the need for law, nor the problem of the upper limit of national sovereignty; he was intent upon convincing this audience that there was a great deal of business potential in the emerging activities involved in astronautics. He began the paper with a history of the creation and early meetings of the ARS Space Flight Committee, noting his initial chairmanship and explaining that among the earliest matters considered by the committee were the feasibility and utility of space projects.

In this paper Haley focused on the utility of space flight. He listed weather prediction, transcontinental and international communications for radio and television [not mentioning the

³⁰⁹ The second radiation belt was discovered by Explorer-3 later in 1958.

telephone or message traffic], surveillance of terrestrial operations in remote areas, and the provision of the space environment's offering of a vacuum, extremely low temperatures, and large temperature differences, intense radiation from infrared to x-rays, and weightlessness. He wrote that these environmental conditions may benefit medical science. "The immediate politico-military utility is perhaps the most apparent and, by comparison, most readily realizable. [...] The spectacular scientific utility of instrumental earth satellites is too well recognized to be iterated in detail".³¹⁰ He continued listing opportunities for exploration and use of space objects and the experiments that could be performed. In a more philosophical tone, he then observed that:

Space flight makes no exception to the general rule. It is not realistic to sit back and wait for the utility of space flight to be "proved" to everybody's satisfaction (if this were possible at all), because this cannot be done without the benefit of the knowledge to be gained by space explorations. The development process has to start somewhere, and the initial "down payment" must be made. Moreover, space flight in all its foreseen and unforeseen manifestations is a long development process which spans the activity of generations. Therefore, it is futile to try to ascertain utility of long-range space flight in terms of the present civilization and its needs alone.³¹¹

In another observation, Haley wrote: "[p]olitically, space flight cannot help but make still more apparent the impracticality of war as a means of solving differences between nations".³¹² He summarized the messages in his paper in a concluding paragraph:

Whether one looks at the long-range or at the more immediate prospects, potentials and utilities of space flight, one finds the prospect most intriguing, the potential breathtaking and the utilities far from imaginary. The interest of the public in the potential of space flight has grown enormously in recent years. This interest may indeed provide the momentum needed to broaden and perpetuate this country's astronautical activities far beyond presently conceived projects.³¹³

On 15 February 1958, Haley air mailed to 26 individuals in Ireland notice of his intention to convene a meeting in Dublin on February 23 and invited all the recipients to participate in that meeting, and if possible, bring a friend or a guest. The meeting would convene at 3:00 p.m. at the Hotel Russell in Dublin. In his notice/invitation, Haley suggested that invitees consider possible establishment of an astronautical group within the existing Irish Astronomical Society, or establishment of a new, stand-alone Irish Astronautical Society. When he left Washington to visit Ireland, Haley had no idea how many recipients would respond favorably to his invitation.

On 21 February, Haley presented the paper 'The Commercial Implications of Missiles, Satellites and Space Flight' to the American Management Association in New York City. This paper presented substantially the same information as the February 1958 presentation to the Rotary Club of Washington, DC, with the sequence of materials reworked and with some more

³¹⁰ From the paper copy in the *AGH, Papers & Article*, at 4.

³¹¹ *Id.* at 6.

³¹² *Id.* at 7. This observation was a topic later examined by the UN Institute for Disarmament Research in a three-year study which reached the same conclusion. See S. E. Doyle, *Civil Space Systems: Implications for International Security*, Dartmouth, Aldershot, 1994, 271 pp.

³¹³ From the paper in *AGH, Papers & Articles*, at 8.

argumentation supporting the necessity to move ahead with space projects as a stimulus to the economy of the United States. Mindful that again his audience was business managers, not lawyers, Haley skipped all his usual argumentation in favor of specific areas of space law, and attempted to drive home the need for a new awareness on the part of businessmen of the enormous economic potential of space projects. In support of his position favoring an awakening of businessmen to the importance of space flight projects, Haley wrote:

The President of the Aircraft Industries Association predicted on December 26 last, that programs in the fields of missiles and space technology would make up more than 35% of the aviation industry's sales by the end of 1958. He further predicted that unfilled orders for missiles were expected by the end of 1958 to comprise at least 50% of the aviation manufacturers' total military backlog. By 1960, at the latest, more than 50% of the entire aviation industry production will be devoted to missiles, satellites and space flight projects.³¹⁴

A substantial portion of the paper is then devoted to a listing of major industrial companies in the United States, summarizing for each company the areas of work concentrated on or related to astronautics. This was another of Haley's pep talks to industrialists to promote awareness and understanding of the values of spaceflight. In conclusion he wrote: "[t]hese cascading consequences, whose potential exceeds our imagination – just as the consequences of Columbus' discovery exceeded his expectations – may be among the most important contributions of space flight to the future of mankind".³¹⁵ This sentence became an oft repeated part of the conclusions of many papers, particularly those addressing economic impact. Along with his effort to convince others of the emerging and potentially explosive growth in industrial involvement in astronautics, Haley was slowly convincing himself that this may be something he ought to be taking seriously. If there were substantial potential here, maybe there was money to be made.

³¹⁴ *Ibid.* The paper was published in *The Commercial and Financial Chronicle*, dated March 13, 1958 with the slightly modified title "The Commercial Implications of Missiles-Satellites-Space Age".

³¹⁵ In *AGH, Papers & Articles*, at p. 16; in the *Chronicle* at p. 8.

Chapter 24. The First European Tour, February and March 1958

As the President of the IAF, passing through Ireland on the first leg of a planned European tour, Haley invited a number of interested local persons to an assembly on 23 February in Dublin to consider creation of an Astronautical Society to become Ireland's IAF member.³¹⁶ For this mixed audience of engineers, technicians, and likely businessmen, Haley described his recently compiled analysis of the economic consequences of developing astronautics and space projects. This was a positive message of encouragement to anyone interested in the science and/or economics of astronautics.

The title of his tour paper was 'Space Flight as a World Economic Solution'. Several but not all of the papers in this series of economic assessments are included in the *Collected Haley Papers*, but the texts of all are essentially the same, with modified brief introductory material and a fresh title. For this European tour, he deemphasized the value of astronautics to the US economy, strengthened references to the value to European business, and expanded his evaluation to predict significant increases in the economic growth of nations undertaking space flight activities.

On 23 February, when he met successfully with senior officials of the Irish Astronomical Society and others at the Russell Hotel in Dublin, he obtained a unanimous agreement that an Astronautical Division within Ireland's Astronomical Society would be created. This would bring like-minded people interested in astronautics together. After this meeting, he took a short flight to London where he had a working dinner discussing IAF developments with Dr. and Mrs. Les Shepherd, of the British Interplanetary Society.

On 24 February, after Haley had left for Europe, Dr. von Kármán signed and mailed nine letters prepared for him by Haley's office. These letters, addressed to selected senior scientists in the US, France, Germany, the UK, and the USSR, either expressed pleasure at the knowledge that the recipient had accepted an invitation to present a paper at the IXth IAF Congress, scheduled for 25 to 30 August 1958 in Amsterdam, or urged reconsideration of a reported decision not to prepare a paper. Such multiple mailings were a common practice of Haley's, but it was somewhat unusual for him to prevail upon Dr. von Kármán to engage in such an effort. Involving von Kármán was prompted by Haley's desire that there be a strong showing of senior scientists at the forthcoming IAF Congress, which would be the first organized during his presidency. Haley believed that using Dr. von Kármán's status as a world renowned scientist was the best way to get other renowned scientists to participate. As long as

³¹⁶ Haley had a special interest in Ireland, and obviously considered retirement there, when he undertook an investment in 1958 in partial ownership of Connaught Hall, a historical house located in Dublin.

Haley prepared the work for signature, von Kármán was always ready to help in any way to foster the growth of and participation in the IAF.

For the next stop on his European tour, on the morning of 25 February 1958, Haley flew to Stuttgart, FRG, where he was met at the airport by officials of the *Deutsche Gesellschaft für Raketentechnik und Raumfahrt* (DGRR, German Society for Rocket Technology and Spaceflight) and Welf Heinrich, Prince of Hanover. In Stuttgart, Haley addressed the German Rocket Society, presenting there the tour paper with a modified title ‘New Perspectives of Space Law and World Economics’. Following presentation of this paper, Haley and the DGRR officials were invited to join Welf Heinrich for dinner at a local *Hofbräu* before retiring. In the morning, Haley travelled with the Prince to Hanover, Germany, where he met other members of Welf Heinrich’s family and was the house guest of the senior Hanover, Prince Ernst August, at the country house of Marienburg Castle, a royal family residence bedecked with centuries-old artifacts.

The following day, Haley presented a paper at the *Evangelische Akademie Loccum* (Evangelical Academy at Loccum), a study center belonging to the Lutheran Church of Hanover, and very close to the traditional home of Welf Heinrich. Heinrich accompanied Haley on this visit to the Academy, where Heinrich presented a paper addressing ‘What Are the Upper Limits of State Jurisdiction over Airspace?’ and Haley presented ‘Law of the Space Age – Spiritual and Scientific Considerations’. Addressing an evangelical institution, Haley could not do better than to open his presentation with a quotation from the Bible. He wrote:

When I consider the forces of religion and science shaping the jurisprudence of the Space Age, I think of the ineffable words of Christ recounting His Lesson from a lamp:
No man, when he hath lighted a candle, putteth it in a secret place, neither under a bushel, but on a candlestick, that they which come in may see the light.

The light of the body is the eye: therefore when thine eye is single, thy whole body also is full of light; but when thine eye is evil, thy body also is full of darkness.
Take heed therefore that the light which is in thee be not darkness.
If thy whole body therefore be full of light, having no part dark, the whole shall be full of light, as when the bright shining of a candle doth give thee light. [Luke 11: 33-36]

This Lesson has many meanings to many people. To me the Lesson conveys the thought that the scientist performs a most worthy task by enlightening mankind; and when science is used for good and desirable purposes, all mankind benefits, but all mankind falls upon dark days when the ends of science are evil. We must follow the Master’s admonition that our civilization be full of light, and that the shadow of evil be eliminated from our natural and social sciences.

Haley then reverted to earlier materials he had published, declaring that society can anticipate great value and progress, “[t]o begin with, space flight encourages closer ties among nations”. He also presented a series of quotations from recent religious publications in Europe, and quoted extensively from the Pope’s address to the IAF delegates in Rome in 1957. He then drew on his recent papers describing rapid growth in the aerospace industry and the importance that space flight would have economically as well as politically.

Discussing the rationale of reliance upon Natural Law in the formulation of space law, Haley drew on the works of Thomas Moore, Vitoria, and Grotius. The concluding portion of the paper contained extensive quotations from President Eisenhower encouraging the strengthening of the United Nations and the need to exclude military uses from outer space.

Following this presentation, Haley traveled to spend the weekend in Paris where he was able to visit with Drs. von Kármán and Malina. From Paris, Haley intended to visit Brussels on 3 March for a conference with senior Belgian scientists and academicians. Air travel complications caused him to miss some planned meetings, but he was able to confirm that an Astronautical Society had been formed in Belgium.

Haley next visited The Hague for one day, to meet with Dutch astronautical organization officials to review preparations for the IAF Congress to be held in Amsterdam in August, and to present a paper titled ‘The Law of Outer Space – Scientific and Economic Considerations’. The address was presented to a combined session of the *Nederlandse Vereniging voor Ruimtevaart* (Dutch Society for Space) and *Koninklijke and Nederlandse Vereniging voor Luchtvaart* (Royal and Dutch Aviation Association) convened at The Hague. This was the standard tour paper. The next morning Haley met in The Hague with the Bureau of the International Council of Scientific Unions (ICSU) to discuss possible cooperative relationships between ICSU and the IAF. During this meeting the parties agreed to form a committee to study alternative effective means for the two organizations to relate to each other. The committee would include three members from each organization, and would work to present a report on their recommendations by mid-August 1958. This timing would allow the IAF to take up and consider the committee report during the IAF Congress in Amsterdam in late August. Following his meetings in Holland Haley flew to Hamburg and on to Berlin.

While Haley was touring in Europe, on the basis of earlier presentations he had made to the US National Committee for the CCIR, Study Group VI, the US National Committee drafted and proposed a new question for study: ‘Protection of Frequencies Used by Artificial Earth Satellites or Other Space Vehicles for Communication and Positional Observation’, dated 24 February 1958.³¹⁷ This new question was approved by the US CCIR Executive Committee in Doc. No. 166 of 4 March 1958 and was forwarded to the Director of the CCIR in Geneva on 14 March 1958. Now the appropriate elements of the bureaucratic system would be engaged in accomplishing study of the frequency band allocations Haley had been urging for several years.

Haley’s next tour stop was at the *Deutsche Gesellschaft für Raketentechnik und Raumfahrt* in Berlin on 5 March. This presentation was titled ‘The Law of Outer Space – Scientific and Economic Considerations’. On this tour, Haley would often arrive in a city early in the day, make his presentation later in the day and leave the city late in the day or early next morning. Over time, the presentations were becoming more condensed and focused on key issues and relevant economic considerations. In addition to his formal presentations, particularly on weekends not otherwise occupied, Haley would host luncheons or dinners to which he invited local astronautical officials. At these working meals, he would promote the

³¹⁷ Department of State, Telecommunications Division, TD Serial No. 908, International Consultative Committee (CCIR), Doc. No. 26, 10/06/1960, “United States and International Action in CCIR and ITU On Space Telecommunications”, p. 1; in *AGH Letters & Materials*.

IAF, encourage local participation therein, and make short presentations of locally relevant matters tuned to the interests of his guests. Such events often involved extensive exchanges of business cards, allowing Haley to capture the names, titles and addresses of the many officials he had met, and to whom he would likely be writing in the future. The costs of these meetings (and meals) were borne by Haley because there was no other source on which to rely. He had some support for travel and hotel costs, but his informal promotional meetings usually were at his expense and for his satisfaction.

On 6 March, Haley traveled through East Berlin to Prague, Czechoslovakia, where he was the guest of Dr. Rudolph Pesek at the Technical University of Prague. There was at the time no astronomical group Haley could address, but he met with several senior scientists and academics urging them to consider establishment of a national society and participation in the IAF.

While Haley travelled in Europe, his Executive Secretary, Ethna White, tracked his progress, communicated with him almost daily by phone, and kept him current on developments at home. An example of the kind of hand-holding Ethna did while Haley was on the road is in a note she sent to him dated 5 March 1958. She would send airmail letters to hotels on his forward schedule a few days in advance of his arrival. On 5 March, Ethna wrote:

Dear Andy.

Just sent you a cable in care of Rector Katetov at the Karlova University, Prague, to advise you of a call received this afternoon from a Mr. George J. Feldman saying he had been made Director of a Select Committee established by a Resolution of the House "to investigate problems of outer space." John W. McCormack is Chairman; Joseph W. Martin is also on the Committee. Mr. Feldman, understanding that you are the outstanding authority on the subject, desires your assistance on the Committee and asked me to send him a collection of your writings so he could acquaint himself with them. I asked what your official capacity would be, if you agreed to serve, and he said to assist with the Committee and, also, to give testimony concerning the problems involved. Will you advise whether you are willing to serve? I told him you would return March 24. See copy of letter.

Hope you are getting mail. Did the Diner's Club card arrive in Paris all right?

Did the Russian visa come through all right? I guess you will have the final answer on Friday when you reach Warsaw.

Bye now,
Ethna White

c/o Dr. A. Masevitch
Moscow, USSR

Haley made a presentation to the *Polskie Towarzystwo Astronautyczne* (Polish Astronautical Society), in Warsaw, Poland, on 7 March. At this point in the tour, Haley expected to visit Moscow and go to Helsinki, but his hosts in the USSR were not available because of travel and illness, so his Moscow and Helsinki visits were cancelled. It is not clear where he travelled during the next five days, but he may have spent some of that time with Malina in Paris.

On 12 March, Haley was in Sweden where he addressed the Air Law Seminar of Stockholm University, presenting the paper titled ‘The Law of Outer Space – Scientific and Anthropocentric Considerations’. The paper was subsequently published by the Swedish Interplanetary Society in *Astronautik* (Astronautics).³¹⁸ In consideration of the interests of his audience, this paper was a return to his long time themes of the need for space law, with an emphasis on Metalaw. The opening portions of the paper presented again the circumstances of the ARS Space Flight Committee’s study of the utility of space projects. At the end of this discussion Haley demonstrated his unabashed optimism for the future of mankind, observing that:

Culturally and sociologically space flight encourages closer ties among nations. Just as the earth satellite provides measurements of planetary character not obtainable otherwise, so will space tend to stress the fundamentally unifying characteristics of man over the local anomalies of custom, history and place in which he is born. When these anomalies have lost their devastating capability of arousing misunderstanding, distrust, hatred and even war among peoples, without, however, losing their ability to contribute to the local color and individuality of human culture, the degree of freedom and, consequently, the richness of human life will have been increased immeasurably.³¹⁹

Haley was obviously convinced that space projects would lead inevitably to a world more integrated, more interdependent and freer from conflicts and war. He always mentioned the criticality of individual freedom because he knew it was the essential element supporting a growing industry and an expanding economy. Despite the fact he visited and spoke in some of the world’s most suppressive regimes at the time, he always referenced individual freedom in his assessments. The balance of the paper, with references to Metalaw and the information in his Rome 1957 IAF paper, put substantial emphasis on the submissions to the UN by US Secretary of State Dulles and President Eisenhower urging the exclusion of military uses of outer space. These portions of his papers relied heavily upon the documentation he had obtained from the White House and the State Department on the eve of his tour. Haley concluded this paper:

I conclude my lecture with a thought President Eisenhower expressed on November 7, 1957:

“What the world needs today even more than a giant leap into outer space, is a giant step toward peace. Time and again we have demonstrated our eagerness to take such a step. [...] Never shall we cease to hope and work for the coming of the day when enduring peace will take these military burdens from the backs of men, and when the scientist can give his full attention, not to human destruction, but to human happiness and betterment.”³²⁰

In the end, Haley’s paper in Sweden was a strong declaration of his view of the value of space flight as a unifying factor among the nations of the world. He made reference to his legal

³¹⁸ A. G. Haley, “The Law of Outer Space – Scientific and Anthropocentric Considerations”, Vol. 1, No. 2, *Astronautik*, 65-77, 1958.

³¹⁹ *Id.* at 70.

³²⁰ *Id.* at 77.

writings, but in this paper, he chose to emphasize the importance of space-related activities to the attainment of world peace.

During the rest of March Haley made brief visits, to Copenhagen on 14 March where he addressed the Danish Interplanetary Association; in Zurich on 16 March, he visited IAF Secretary Josef Stemmer to discuss IAF business. He visited Belgrade, Yugoslavia, on 17 March and then to Rome on 19 March to address the Italian Rockets Association. In Rome, he presented 'The Space Age and Economics', and conferred with the Italian Rockets Association leadership. From Rome Haley made a visit to Palermo, Sicily, to attend the Third Combustion Colloquium of AGARD and to visit with Dr. von Kármán, Chairman of AGARD, remaining there after the meeting for a 2-day rest. From Palermo Haley proceeded to Paris on 24 March and visited there with officials of UNESCO, continuing to discuss his efforts to establish a collaborative liaison between UNESCO and the IAF. The topic of discussion was no longer whether the two organizations would have a liaison, but rather how the topics addressed would relate and what kinds of projects they might undertake. He also had an opportunity to confer with the French astronomical society officials, and visit with long-time personal friend Frank Malina and his family. From France, Haley went to London, where he met with Les Shepherd of the BIS. From London he proceeded home to Washington, DC.

In April 1958, the US State Department's *Foreign Service Journal* presented a revised and updated copy of Haley's paper from the ARS publication *Jet Propulsion*, November 1955, describing an overview history of the development of international cooperation in astronautics, including a condensed meeting-by-meeting account of the several annual International Astronautical Congresses of the IAF held since 1950.³²¹

Adverse effects of Haley's almost relentless travels during the fall of 1957 and the spring of 1958 were accumulating at home. Aunt Dede was alone with the responsibility of care for the house, assisted by Anna and Albert, a live-in German couple. Delphine was living in New York and the Vogt children were at home or attending boarding schools. When travelling Haley communicated almost daily with Ethna White in his office in Washington, DC, but there is very little record of Haley's contact with his wife or family. He apparently spoke with Aunt Dede by phone when she was available at times convenient to him. During this period, Aunt Dede was drawn to alcohol to ease the vacancy in her life left by her constantly travelling husband. During part of the time she went to Campbellsville, Kentucky, to visit with her mother. Daughter Delphine was employed by the Renault Group in New York. Son Andrew was continuing his studies and returned for his collegiate junior year to Gonzaga University in Spokane. Andrew Vogt, at age 15, was in his first year at Phillips Academy, Exeter, and Mary Michaela was in junior high; both in boarding schools. The home at Huntington St. was becoming a family home without a family, except during holiday periods when schools were in recess. Primary residents were the German servant couple. From time to time, when family members such as Haley's brothers or sisters or their children would visit the Washington, DC, area, Haley would offer his home as a place to stay.

During April 1958, Haley traveled to Montreal, Canada to present 'The Sociological Implications of Astronautics' to the Canadian Astronautical Society (18 April). This paper was a consolidation of key points from several earlier papers, but contained no new commentary or

³²¹ A. G. Haley, "International Cooperation in Astronautics" *Foreign Service Journal*, April 1958.

proposals. Haley was constantly conscious of the facts that not everyone heard his papers and it was no slight to use previously presented information to another foreign audience who would otherwise have no means of learning what he had to say. Although his papers may have been repetitive, he worked carefully to ensure they were never being presented to an audience which had previously heard them.

Speaking again as President of the IAF and General Counsel of the ARS, Haley read a paper on ‘Legal Problems of Outer Space Occupancy’ to the International Society of Aviation Writers assembled at the UN in New York (23 April). This is another rework of earlier papers which opened with an almost plaintive assertion that “[a]t first we may hope only for an international body authorized to promulgate uniform regulations relating to take-off and landing procedures, communications, and for the general safety of the people of earth”. But Haley projected that space flights will multiply and eventually “all the ancient problems of law will be reasserted under vastly more complicated circumstances”. He then recited a series of benefits to be derived from space flight, and concluded the paper rather abruptly without any reference to the historical accounts he formerly offered defending Natural Law as a source of space law. He also did not mention any aspect of Metalaw. Considering the title, it is surprising that this paper is not one of Haley’s usual thorough discussions of perceived legal needs and issues.

In May he visited the Milwaukee Bar Association (6 May), presenting ‘The Law of Outer Space – Scientific and Anthropocentric Considerations’. The paper opened:

On this occasion, I will not discuss the subject of Metalaw which, on many previous occasions, I have defined as the law governing the rights of intelligent beings of different natures and existing in an indefinite number of different frameworks of natural law. Instead, I will endeavor to probe into the meaning of scientific achievements in astronautics for the purpose of evaluating the effect of these achievements on human conduct.

Haley then included an account of the early meetings of the ARS Space Flight Committee and the recitation of benefits to be derived from space projects. He noted again that we cannot now know all the consequences of space flight, until we conduct projects and expand our knowledge. Contrary to his declaration at the outset of the paper, Haley then presented an extensive discussion of Metalaw and a justification for it. He inserted a substantial summary of the US tour with Welf Heinrich and drew from that lecture series comments he previously made about Metalaw. Referring then to Ary Shternfel’d’s book *To Whom Does Outer Space Belong?* published in Moscow in 1956, Haley listed “certain preliminary international norms in the field of astronautics”:

At the creation of a UN Commission for coordination of scientific research in the field of astronautics;

- (a) exchange of information by scientists and technicians;
- (b) freedom of international projects and limitation of private initiative in the field of astronautics;
- (c) control and coordination of tests, including the program of selected routes, speeds, time coordinates of take-off, decent;

- (d) methods of reducing the number of accidents connected with the takeoff, flight and descent of objects (thus, for instance, it is possible to limit the route of the test flight from one pole to the other to space above waters and to certain territories, to take preventive measures against radioactive infections, to set up runways on ice covered areas, etc.);
- (e) prohibition against the placing into aircraft of any kind of military load; prohibition against, or at least limitations upon the utilization of astronomical objects for military purpose;
- (f) imposition of sanctions against states which violate agreements on the peaceful application of astronautics;

And Haley concluded:

It is quite clear that all these questions, in spite of their complexity, can be solved if there is a positive approach by the negotiating parties and if artificial satellites are utilized only for peaceful scientific purposes.

Haley repeated his dissatisfaction with the nature of extant international law as a source for space law and drew again upon work of Aristotle as an authority supporting his position on the unsatisfactory nature of international law as a hodgepodge of municipal law; citing also Vitoria and Grotius. He then gave some credit to ICAO, the ITU's CCIR, and UNESCO for becoming involved in IAF meetings and beginning to study issues of space law. "Slowly, but surely, the international nature of space travel regulation is being recognized. [...] As there exists no body of statutory or case law appropriate for space travel and as all problems in connection therewith are international in nature, an international formulation of space law must evolve." Anticipating that no real concerted action would be taken, he repeated that: "it may be too much to hope that civilization will contain these matters, [...]." Once again, he devoted substantial attention to President Eisenhower's declarations and proposals at the UN, and again he quoted the paragraph with which he concluded his Stockholm paper in March 1956 (quoted above) as the concluding paragraph of this paper.

The next day, Haley addressed the New York University Law Review Alumni Association in New York City (7 May). Although the title was changed to 'Law, Rockets and the Space Age', this paper is the same that was presented the previous day in Milwaukee.

In Washington, DC, the House of Representatives convened a series of hearings during April and May 1958 under the general title *Astronautics and Space Exploration*.³²² The Eisenhower Administration had prepared and submitted a bill to the Congress proposing the creation of a national aeronautical and space agency. Both the Senate and the House of Representatives conducted hearings on the bill. Haley presented an invited statement to the Select Committee on Astronautics and Space Exploration on 8 May. Professor John Cobb Cooper, and Loftus Becker, a legal advisor to the State Department, had testified the previous day and Haley began his remarks with comments on the testimonies of Cooper and Becker.

³²² The Eisenhower Administration introduced H.R. 12575 in the House on May 24, 1958. The Bill was referred to the House Select Committee on Astronautics and Space Exploration. The Bill passed the House on June 2, 1958 and passed the Senate on June 16, 1958. The House and Senate differences were resolved in a joint conference committee, which reported out a reconciled Bill on July 15, 1958. The final draft was agreed to by the House and by the Senate on July 16, 1958. The Bill was signed into law by President Dwight D. Eisenhower on July 29, 1958.

Haley basically agreed with Cooper on the upper limit issue, but found Becker's comments internally inconsistent. Haley's comments were directed to the upper limit issue and drew on the von Kármán rationale of the primary jurisdictional line at 275,000 feet (52 miles). He repeated in his testimony supporting arguments drawn from recognized experts and said:

Mankind must mature appreciably to create an international authority having sole and complete jurisdiction over space flight, and such an achievement must await the wise action of future generations.

We are simply not prepared for it today. That makes all the more important the domestic legislation that you enact and the domestic agencies that you set up.

No single nation has a paramount claim to outer space nor a monopoly on the scientific genius which will soon make its exploration and exploitation a reality.

The field of astronautics will progress only as international cooperation in the field is achieved.³²³

Haley then recited the IGY history of informally establishing the right of innocent scientific passage of spacecraft above national territories. He made a summary declaration of the need for, and his establishment of the concept of Metalaw, but it is not fully explained and justified as in his earlier writings on the subject. As attachments to his testimony there were 1) a lengthy curriculum vitae, 2) a comprehensive bibliography of his relevant writings up to the date of the hearings, and 3) a reprint of the Haley article titled 'The International Astronautical Federation', published in the *Federal Bar Journal* at the end of 1957. This last article summarized the actions of the VIIIth International Astronautical Congress and reported Haley's election as President of the IAF. Apparently because of a lack of time to consider the matter, Haley's testimony did not address any part of the draft Bill under consideration, the administration's proposal to create a space agency.

On 8 May 1958, Haley filed a registration statement with the Securities and Exchange Commission covering a proposed public offering of 500,000 shares at \$10/share in the Missiles-Jets and Automation Fund. The *New York Times* reported on 9 May that "[t]he fund will concentrate investments in common stocks in the fields designated by its title, but it will also have the right to invest in bonds, preferred stocks and government securities".³²⁴

One week later, Haley visited the University of Virginia ARS Student Chapter in Charlottesville (15 May). This presentation was basically the paper used for the earlier European tour. For this audience, the title was revised to 'Economic and Legal Developments in Connection with the Age of Space'. Although the organizers of the visit were student members of the ARS, likely engineering and science students, Haley chose to expose them to the legal and economic considerations he had been presenting in Europe for several months. The new title appeared also to be an attempt to draw to the meeting other potentially interested persons at the university.

³²³ US Congress, *Astronautics and Space Exploration*, Hearings before the House Select Committee on Astronautics and Space Exploration, 85th Cong., 2nd Sess., April and May, 1958, 1431-1447, at p. 1439.

³²⁴ *NYT*, 9 May 1958 at p. 31.

Chapter 25. Second European Tour, May and June 1958

On his way to Europe for another visit, Haley stopped in Montreal for consultation with the Honorary Secretary of the Canadian Astronautical Society (18 May) to discuss the affairs of that organization. From Montreal, Haley flew to Spain, starting another tour of Western and Eastern Europe. His opening European visit was with the National Institute of Aeronautical Technology Honoring Esteve Terradas in Madrid (20 May). Haley continued the delivery of his basic tour messages in a paper titled ‘The Law of Outer Space – Scientific and Economic Considerations’. This basic tutorial had served well during his earlier tour and was already translated and appearing in European non-English language publications. It was a useful primer on astronautics to those who were not fully involved in the subject.³²⁵

From Spain, Haley visited Paris for 22 and 23 May, where he met with Dr. von Kármán, Prof. E. Vassey, Capt. I. R. Maxwell, Gen. Paul J. Bergeron, and many others on preparations for a meeting of the International Council of Scientific Unions (ICSU) and the IAF International Relations Committee. Haley then proceeded to Copenhagen, *en route* to Moscow. While in Copenhagen (May 25 and 26), Haley conferred with several members of the Danish Interplanetary Society. He proceeded to the airport of Copenhagen on 26 May, to join the US Delegation *en route* to Moscow for participation in the ITU’s planned CCIR Study Group XI Meeting.

Moscow, USSR, May – June 1958

Once he was in Moscow, Haley arranged to speak at the University of Moscow on 29 May. This presentation included a summary of the principal items of business discussed by the participants in CCIR Study Group XI. In other business, the Xth International Astronautical Congress of the IAF had been tentatively planned to be held in Moscow, but the crowded schedule of other conferences and meetings planned in Moscow would make it very difficult to host a meeting the size of an IAF Congress. Haley agreed with the Soviets that the 1959 alternative location of London would be available to host the Xth Congress. The IAF plan for Congresses in coming years was agreed as London in 1959, Stockholm in 1960, Washington, DC, in 1961. A meeting in Moscow could follow the US meeting, in 1962. As matters

³²⁵ With an introductory note declaring that Haley was a member of several Spanish societies involved in astronautics, this paper was published with illustrations in Spanish as “*Derecho Interplanetario*” (Interplanetary Law) in 10:41 *Ingenieria Aeronautica* 7-19, May-June, 1958.

developed, the 1962 Congress met in Varna, Bulgaria. More than a decade would pass before the first IAF Congress would be held in the USSR, at Baku in 1973.

Having come to Moscow to participate in the CCIR Study Group XI meeting, Haley took the opportunity to present one of his most basic papers to the Commission on Astronautics of the Soviet Academy of Sciences (29 May). The paper, titled ‘The Law of Outer Space – Scientific and Anthropocentric Considerations’ was a recasting of major parts of earlier papers, but carefully assembled to demonstrate to the Academy members that the sitting President of the IAF had a comprehensive grasp of space law and its impact upon society. Haley had previously arranged with his hosts to have his paper translated into Russian so that it could be circulated among Soviet professionals and students in the astronautical field. Consequently, he gave the drafting of this paper more effort than he ordinarily would. Another presentation of the paper was made at the University of Leningrad at the request of Haley’s hosts in Moscow. They wanted the faculty at the University of Leningrad to hear the lecture he had delivered in Moscow on 29 May. Haley was happy to accommodate them with a two-day round trip to Leningrad.

With regard to Haley’s associations with and presentations to the Russians, Henry Owen later wrote:

Andy Haley was singularly qualified to deal with the Russians, particularly in the early days of space exploration. Who more than this big, bluff, outspoken, warm and open human being could deal with the secretive peasant mentality of the technically sophisticated Russian? Andy did not proceed from a position of fear, suspicion or anxiety. He instead worked from the fundamental conclusion that the past is truly prologue and that this country had no need for fear of open information because Americans uninhibited by threat and coercion, could and would always out-think, out-develop and in truth out-do our opponents whoever they might be.

As much as anyone, Andy reflected Pericles’ admonition, “The secret of happiness is liberty, and the secret of liberty is a brave heart.”³²⁶

An extended session of the CCIR Study Group XI was held in Moscow during May and June 1958. Haley participated at that meeting as an advisor to the US Delegation and on behalf of the IAF. At that meeting, the US Delegation advanced the cause of astronautical radio, and a new formal CCIR study program was agreed. Sessions of CCIR Study Groups V and VII took place later, in August 1958, in Geneva. Fully understanding the old rubric ‘the squeaky wheel gets the grease’, Haley also submitted to those Geneva meetings a proposal on behalf of the IAF for relevant studies. Following the CCIR Meeting in Moscow, Haley stopped in Paris long enough to present ‘The Law of Outer Space – Scientific and Financial Considerations’ (9 June). Audience responses to papers containing economic subjects was very positive, encouraging Haley to continue to offer this subject at almost any opportunity. In Paris, his lecture was presented to the *Société Française d’Astronautique* (the new French Astronautical Society).

Before re-crossing the Atlantic, Haley made one more stop in Europe. On 10 June, he attended a meeting organized by the International Astronautical Federation in Lisbon, Spain, where he presented once more his tour paper on economic considerations of astronautics.

³²⁶ Letter from H. Owen to A. G. Haley, Jr. dated 22 February 1971, in *AGH, Letters & Materials*.

Mindful of the audience response to this paper when delivered earlier in Europe, and given a broad European audience, Haley elected to offer the paper ‘Space and the World Economy’, which was a revised and updated version of papers devoted to space and economics, which were the mainstay of his offerings in Europe since early in the year.

After the meeting in Lisbon, Haley returned home to Washington, DC. Among his archived papers for this period are copies of the drafts of two chapters Haley prepared or had prepared for inclusion in his anticipated book titled *The Law of Outer Space – A First Approximation*. These chapter titles were: a) The First Sanctions of Space Law among Nations; and b) The First Violations of Space Law. Reference is made to a third chapter, titled the First Legal Proceedings Involving Space Law, but the text of that draft is not in the bound collected papers. These draft chapters contain extensive notes evidencing substantial research. Later, Haley abandoned this drafting effort although he had produced a total of twelve draft chapters.³²⁷ Subsequently, this effort involved an entirely new approach to producing a book on Space Law.

Focusing on economic implications of astronautics

During the first half of 1958, Haley had undertaken and directed considerable research on the evolving economics and future economic potential of an expanding astronautical industry. There was no comparable talent or effort devoted to this question, because no one was as driven as Haley to collect and disseminate this information. He considered it a major obligation of his role as President of the IAF. It was no surprise to Haley or to those who knew him that when the US aerospace industry leadership wanted to address business forecasting in the astronautical portions of the market, they would invite Haley to submit his views on the subject. Haley had already amassed and organized substantial information on the relevant actual and projected economics. The more he talked about this issue of economic development, the more attractive it became to him as an area in which he might well invest his own time and money.

Back in the United States, for a presentation to the Rotary Club of New York in New York City on 12 June, Haley used the title he had used in May in Moscow, but the paper was likely orally edited to focus on the areas of conclusions and predictions of things to come. ‘The Law of Outer Space – Scientific and Anthropocentric Considerations’ was a flexible title that allowed him to include and pursue almost any topic in astronautics that he chose. Although some editing and updating had been done, there was not much new information in this paper. The contents are summarized above in discussion of the paper presented in Stockholm in March 1958.

Haley published an article titled ‘Law of Outer Space – A Problem for International Agreement’ in 7:2 *The American University Law Review*, June 1958. This article was a consolidated rework of earlier papers on the history of international law, the importance of Natural Law to the formulation of needed space law, and the topics the new law would have to

³²⁷ A copy of the draft book in its entirety is included in the archives of the *Haley Papers* at the University of Mississippi.

address. The article concluded with the sentence: “[i]t is not too much to hope that civilization will contain these matters, for lack of containment would project our destructive forces and philosophies throughout the Cosmos”.³²⁸

Also, in June, Haley submitted a written report to the leadership of the IAF summarizing highlights of his visit to Moscow in May and early June. He explained that he desired to participate in the meeting of Study Group XI in Moscow. “I also desired to discuss generally the problem of radio and television in astronautics and in this informal manner I hoped to make the delegates from 34 nations [at the CCIR meeting] aware of many aspects of astronautical communications.”³²⁹ Haley also had other IAF-related goals. He wanted to clear up problems he had had with Russians in connection with their IAF participation, their hosting of an IAF Congress, and their contributions to the newly established IAF Constitution Revision Committee.

This report to the IAF leadership included references to all the meetings occurring between 19 May and 12 June 1958. Anticipating that the report would be distributed to Soviet IAF officials Haley took pains in his report to praise his hosts in the USSR for the hospitality, high quality accommodations, numerous technical and civil tours, memorable evening meals and entertainment. He expressed deep appreciation for all these features of his visit in the USSR, considering them to have been courtesies extended to the office of the IAF President.

Apparently, reaction to the Report to the IAF Presidium of 27 June 1958 was positive and Haley decided to follow it with a President’s Report to the IAF Council and heads of member Societies of the IAF. This was a more comprehensive report beginning with a description of the US tour undertaken with Welf Heinrich during November 1957.³³⁰ He then reported the first European tour from 22 February to 22 March 1958, identifying all the cities visited,³³¹ with a note that “[c]onsiderable organizational work [re: the IAF] was also accomplished”. That was followed with a description of the 19 May to June 11 tour (the second European tour).³³²

In addition, Haley indicated that during January 1958 he had held 18 individual interviews with 18 national ambassadors³³³ to the United Nations in New York. “A most

³²⁸ A. G. Haley, “Law of Outer Space – A Problem for International Agreement” in 7:2 *The American University Law Review*, 70-77, at 77, June 1958; in *AGH, Papers & Articles*.

³²⁹ A. G. Haley, “Report to the Presidium and Member Society officials of the International Astronautical Federation”, copy in the *AGH, Letters & Materials*.

³³⁰ Lectures were given at Princeton University, University of Detroit, University of Michigan, University of Chicago, Northwestern University, University of Wisconsin, University of Michigan, University of Chicago, Northwestern University, University of Wisconsin, Butte, Montana, Civic Group of Seattle, University of Minnesota, University of Montana, Gonzaga University, University of Washington, University of California (Los Angeles and Berkeley), Salt Lake City Chamber of Commerce, University of Utah, Denver Chamber of Commerce, University of Colorado, St. Louis University, University of Washington, Harvard University, Georgetown University, American University, Catholic University and University of Maryland, among others.

³³¹ Cities visited included Dublin, London, Stuttgart, Hanover, Loccum, Paris, Brussels, The Hague, Berlin, Prague, Warsaw, Stockholm, Copenhagen, Belgrade and Rome. Lectures were also given at the Lutheran Evangelical Academy and to university audiences in Berlin, Warsaw, Prague, Copenhagen and Belgrade.

³³² The cities of Madrid, Paris, Copenhagen, Moscow, Leningrad, Prague and Lisbon were visited and lectures were given at the University of Moscow, Leningrad, Prague, Paris, Lisbon and at the Technical University in Madrid.

³³³ Meetings were held with Ambassadors to the UN from Egypt, Italy, Poland, Mexico, Sweden, Israel, Austria, Ireland, Greece, The Netherlands, Ceylon (now Sri Lanka), Germany, France, Norway, Turkey, India, Korea and Ghana.

interesting interview was had with the Ambassador from New Zealand, Sir Leslie Munro, then President of the UN General Assembly, and the author of several excellent articles on the problems of Outer Space.” In his report, Haley wrote that new astronautical societies were created in 13 countries and correspondence was in process with interested persons in 7 more countries. Thus, astronautical leaders around the world were informed of his diligent efforts.

Haley then reported that in May 1958, the Executive Committee of UNESCO voted to confer non-governmental international organization observer status to the IAF; and extensive negotiations were conducted with ICSU leading to creation of an ICSU/IAF Committee to discuss inter-organization cooperation.³³⁴ Discussions were also held concerning cooperation of the IAF with the *Federation Aeronautique Internationale*. Haley further reported on the communications he had conducted concerning radio frequency allocations for astronautics and indicated that correspondence was conducted with major scientific personalities in all parts of the world. In many cases these last referenced communications were encouragements and extensions of individual invitations to attend IAF Congresses. Haley clearly sought to ensure commendable growth in the size of and participation in the IAF. The report concluded with information related to the activities and future of the IAF. Remarkably, the report did not present or involve any aspects of space law.

³³⁴ This Committee was to determine how ICSU and the IAF would interact. The committee comprised Harrie S. W. Massey (UK), Convenor; P. Swings (Belgium) and F. Whipple (USA) for ICSU; and Theodore von Kármán (USA), Co-Convenor; Leonid Sedov (USSR) and E. Vassey (France) for the IAF.

Chapter 26. Continuing Commentary and Practice – 1958

In the summer of 1958, Frank Malina – living in Paris since 1948 – applied through the US Embassy to the Passport Office of the Department of State for a renewal of his expired US Passport. He was subsequently informed by the US Embassy Paris that the State Department would not approve a renewal of his passport. Malina asked on what grounds the State Department refused to approve the renewal. He received no answer to this question.

Malina contacted Haley in Washington, forwarding copies of all the relevant documents, and asked Haley to represent him in the matter. During all of July and the first ten days of August, Haley was in telephone and written correspondence with government bureaucrats seeking to discover why there was a problem and to gain the renewal. After six weeks of effort, the US Embassy Paris was authorized to issue a new passport to Frank Malina, which it did on August 12. Receipt of the passport allowed Malina to join his wife and children on a vacation visit to his wife’s family in England during mid-August.

The reason for denial of the Malina passport was tied to past allegations of his participation in the Communist Party. However, during 1957 in the court cases of *Briehl vs. Dulles* and *Kent vs. Dulles*, among others, the Supreme Court had concluded that such allegations, without a proper application of due process, were not sufficient justification to deny issuance of a passport to an American citizen. Haley’s insistence upon a clarification of the reasons for denial of issuance of a passport to Malina resulted in the decision by the Passport Office to authorize the issuance of the passport to Malina. There is a more detailed discussion of the circumstances surrounding this matter in Fraser MacDonald’s book *Escape from Earth*.³³⁵ Malina returned to Paris about August 20 to receive a visit by Haley, his son, and the Vogt children, all of whom Malina took on a three-day motor tour of selected scenic parts of France, where there were many historic castles.

On August 23, Malina, Haley and Haley’s accompanying family members went to Amsterdam for participation in the IXth IAF Congress, where Haley was elected President of the IAF for a second term. Haley subsequently wrote that the IXth Congress attracted the largest attendance in IAF history, producing more than 70 technical papers by scientists and engineers from 14 countries.³³⁶ A committee on the revision of the IAF Constitution was created to consider a proposal to divide the IAF into three divisions: 1) space sciences, 2) space technology, and 3) social sciences relating to space problems. In part, this proposal was made during discussions with UNESCO and with ICSU as a means of facilitating ICSU relations

³³⁵ See F. MacDonald, *Escape from Earth: A Secret History of the Space Rocket* at pp. 260-262, Public Affairs, New York, 2019.

³³⁶ Interesting to note is the fact that the 70th International Astronautical Congress, held in Washington, DC, in October 2019 had more than 6,800 attendees from 80 countries. World interest and participation in the IAF continue to grow. See *Aerospace America*, December 2019, at 80.

with the IAF. The Committee was to receive, evaluate and coordinate proposals from up to 30 member societies in 25 countries.³³⁷

At the IXth IAF Congress in Amsterdam, an application was received by the IAF from the Astronautical Society of the Republic of China [Taiwan], which was approved by the Credentials Committee of the Federation. When the membership application came up for a vote in the Plenary Meeting, the USSR delegates, Academicians Leonid Sedov and Kyrill Ogorodnikov, voiced adamant objection to the admission of the Society. As IAF President, Haley called for a five-minute recess during which he took the USSR delegates aside and told them that their conduct was unbecoming. Haley explained that the Federation is a non-governmental international organization and political considerations are expressly forbidden in connection with decisions of the Societies, and that indeed the laws of many of the countries from which the member societies receive charters expressly so provide. The Russians reluctantly acquiesced to consideration of the vote, the session was reconvened and the vote on Chinese membership was unanimously favorable with a sole abstention, the USSR.³³⁸

Meanwhile, the CCIR Study Group VI met in Geneva during July and August 1958. The IAF (Haley) had submitted a lengthy proposal for consideration during those sessions, including recommended questions to be studied and proposed segments of the spectrum to be considered for allocations to space services. By this time other administrations were joining both the United States and the IAF to propose and consider recommended actions. At the conclusion of the work of Study Group VI in Geneva (August 1958), decisions were taken to recommend that the CCIR consider the following:

The CCIR

Considering

- a) the rapid development of rockets in general and of artificial satellites in particular;
- b) the transmission of radio signals between the earth and extraterrestrial positions in space is now an established fact;
- c) the use of satellites as measuring and observation stations and possibly as relay stations;
- d) that extraterrestrial objects may well be consecutively above different countries of the world, thus necessitating international collaboration; and
- e) that radio communication between extraterrestrial objects and the earth will be of utmost importance;

decides that the following questions should be studied:

1. What frequencies are especially suitable for penetration of the layers of the earth's atmosphere?
2. What are the influences on these frequencies of the hour of the day, the season, the geographical location and solar activity?
3. What deviations in propagation direction can be expected by the penetration of the ionosphere?
4. What, if any, will be the differences in propagation between in-going and out-going signals relative to the earth?

³³⁷ A. G. Haley, *Space Law and Government* 355-56, Appleton Century Crofts, New York, 1963.

³³⁸ Letter from A. G. Haley to R. A. Jones, Department of State, dated 22 May 1961 at p. 2; in *AGH, Letters & Materials*.

5. Are special phenomena to be expected that do not occur in transmission between two points on earth?
6. What is the possible influence of the troposphere on wave propagation to and from extraterrestrial objects?

NOTE: Study Group V will consider the tropospheric propagation effects, Study Group VI the ionospheric propagation effects.

The IAF, in the person of Andrew Haley, finally was beginning to have a substantive impact on the work and work products of the ITU's CCIR.

In the July 1958 edition of the *New York Law Forum*, Haley published a paper entitled 'The Law of Space – Scientific and Technical Considerations'.³³⁹ This was a tightened-up text with ample notes to satisfy the quality requirements of a law review. Other than a report that the US "has obtained temporary clearance from the ITU to use frequencies in the area of 107.9 mc to 108.1 mc" for its IGY satellites, there is no new information in this text, but it is well written and consistent with several papers on the included topics delivered earlier in the year.

After more than two years of effort to get the IAF focused on issues of space law, Haley, in his position as President of the IAF, was finally able to promote, organize and produce an international meeting of interested lawyers sponsored by the IAF. Earlier in 1958, Haley had invited by mail lawyers from all over the world to join a committee on Space Law, which Haley named the IAF Permanent Committee on Space Law. His next effort was to organize, coordinate, conduct, and co-edit *Proceedings of The First International Colloquium on the Law of Outer Space*, convened at The Hague, Holland, on 29 August 1958, following the IXth IAF Congress in Amsterdam. This was the first of what would become a series of annual international assemblies of interested lawyers. As of this writing, after 60 years, the annual series of meetings continues and becomes broader and more effective each year as the world's primary international astronomical legal forum.

Haley's paper in the First Colloquium, titled 'The Law of Outer Space – An Immediate Problem', was a declaration of immediate need for the creation of space law. Haley wrote;

I will [...] take issue immediately with those who maintain that legal problems are not now presented to the world community, and therefore urge that national and international action and cooperation are at this time premature. I think this viewpoint is untenable – yes, and even dangerous. I earnestly believe that law must precede man into space.³⁴⁰

Haley then proceeded to identify what he considered ten immediate problems requiring attention.

- 1) Because of the many needs for and uses of radios in spaceflight, a regulatory regime of radio frequency usage is required.

³³⁹ A. G. Haley, "The Law of Space – Scientific and Technical Considerations" 4:3 *New York Law Forum* 262-274.

³⁴⁰ A. G. Haley and W. Heinrich (Eds.) *Proceedings of the First Colloquium on the Law of Outer Space*, 5, Springer Verlag, Vienna, 1959.

- 2) Any radio transmitter launched into orbit or deeper space must be able to be terminated to avoid long term interference problems.
- 3) Any objects launched into space must have guidance capability so that they can be eliminated at the end of their useful lives by direction back to the earth or into the sun.
- 4) All objects launched into earth orbit or deeper space must be under the control of the sender because flight authorizations and coordination will be essential.
- 5) Missile tests and spaceflights should be notified to the world community in advance.
- 6) All objects launched into space should bear identification markings designating the sending authority.
- 7) International agreement is needed early with regard to uses and control of television, photography and other sensing devices.
- 8) The UN should establish a Commission to define the limits of sovereignty.
- 9) W. Heinrich and I toured 26 universities and other organizations in the US last year, urging that the moon and other space objects should be placed beyond the reach of national jurisdiction by treaty.
- 10) I [Haley] have consistently urged since 1954 that we must face the space law problems of drafting, enforcing and administering regulations relating to safety, sanitation, health, asylum, equipment, navigation, emigration and immigrations, all of which regulations should conform to the most universal and enlightened principles of freedom and the use of property, and promulgate a code defining public and private liability for damage.

We should note that item 10) is questionable, self-serving, and somewhat overstated, even for Haley.

Unfortunately, the attention Haley was paying to the issue of accumulating space debris (items 3 and 4 above) was not taken up as a major issue by the UN until 30 years after Haley's death. This is a significant example of Haley's vision of the future vs. the apathy of the public and those in positions of power. During those 30 years of neglect, as space debris increased, critics of the situation multiplied but the problem inexorably worsened. Eventually, the United Nations General Assembly acknowledged and agreed to address the issue of space debris in the 1990s.

Having produced this litany of needs, Haley reverted to earlier papers and earlier arguments and rationales dealing with the issues of the upper limit on national sovereignty, the von Kármán primary jurisdictional line, the roles and importance of the ITU, and the unacceptability of the history of Soviet total avoidance of radio usage notifications to the ITU. Haley then reviewed the history of his roles on behalf of the ARS imploring actions by the FCC, and his contributions on behalf of the IAF, including the history of CCIR activities from 1956 to 1958. The paper concludes with a lengthy and detailed presentation of the latest recommendations of the ARS and the IAF for consideration by the ITU. The final annex to the paper is an impressive bibliography of about 40 papers produced by Haley from 1955 to 1958. What is not immediately clear to an observer is that many of these papers are 75% or more repetitious, despite their varying titles and places of presentation.

The contributions Haley made in stimulating the colloquia and organizing the International Institute of Space Law are well recorded elsewhere,³⁴¹ and a summary of

³⁴¹ See A. G. Haley, *Space Law and Government* 364-370 and the sources cited at 364, note 34, op. cit. supra note 337.

highlights on formation of the IISL is below in Chapter 30. *Proceedings of the First Colloquium*, co-edited by Haley and Heinrich, were published by Springer Verlag in Vienna, 1959;³⁴² and these important historical proceedings were re-published in Paris in 1997³⁴³ with permission of Springer-Verlag by the International Institute of Space Law (IISL), with support of the UN Office of Outer Space Affairs, under the direction of Nandasiri Jasentuliyana.

In August 1958, the Dutch publication *Avia/Vliegwereld* (Avia/World of Flight) published 'The Law of Outer Space – Scientific and Anthropocentric Considerations', which is a lightly edited and illustrated version of the lecture repeated during the first European tour in the Spring of 1958. In September, an article by Haley titled 'The Rule of Law in the Space Age' was published in the State Department's *Foreign Policy Bulletin*.³⁴⁴ This article is an edited version of earlier papers, probably edited by the *Bulletin* staff. Subheadings in the article ask 'Who may leave the Earth?', 'Who may not leave?', then announce 'Use of Air Space', 'Law of Nature Useful' [which obviously should have been 'Natural Law Useful'], 'Need for a Space Authority', and concludes with a brief bibliography of recommended additional reading.

At the Canadian Bar Association meeting in Toronto on 10 September, Haley presented a paper titled 'Space Law – Some Current Problems and Solutions', which was a reworked version of the paper presented at the IISL Colloquium at The Hague. The new title was somewhat less assertive, but still an accurate description of the paper's content. This edition of the paper concluded with two substantial CCIR study proposals, which Haley had a substantial hand in moving through the US National Executive Committee for the CCIR, containing details of US proposals for modification of the International Radio Regulations of the ITU. Support by the CCIR National Committee included support by corporations, industrial organizations, and relevant government agencies. In the beginning, Haley was often alone as a motivator. Eventually he had to be and was accompanied and supported by many to accomplish his desired objectives.

Following the Congressional hearings on the Administration's draft space agency Bill during spring 1958, Congress passed the legislation and President Eisenhower signed the *National Aeronautics and Space Act* into law on 29 July 1958. This law created the National Aeronautics and Space Administration (NASA), which consolidated and built on the historical facilities and work of NACA, the National Advisory Committee for Aeronautics and its several field centers.

During early October in Washington, DC, the International Council of Scientific Unions (ICSU) formed its Committee on Space Research (COSPAR). That committee held its first meeting in London on 14 and 15 November 1958, at which the First COSPAR Space Science Symposium was organized to be held in Nice, France in January 1960. Here was another international organization with which the IAF would seek affiliation, but it was not immediately successful because ICSU considered COSPAR a science organization, and ICSU leaders perceived the IAF as a dominantly engineering organization. To Haley, COSPAR was

³⁴² A. G. Haley and W. Heinrich (Eds.), *op. cit. supra*, note 340.

³⁴³ Because of relative unavailability of the proceedings of the first 3 colloquia, the IISL re-published proceeding of all three in 1959.

³⁴⁴ A. G. Haley, "The Rule of Law in the Space Age", *Foreign Policy Bulletin* 189-191, 1 Sept. 1958.

a Johnny-come-lately compared to the IAF, but he recognized the utility of a forum for international exchange of the emerging scientific information being discovered by space-competent nations, which were increasing in number.

A new presentation was made to a dominantly legal audience in the Committee on Astronautics of the Federal Bar Association on 9 October in New York, titled 'Law of Outer Space – Radio Controls Urgently Needed'. In this paper, Haley focused on the needs for early regulation of the space flight uses of radio frequencies and reported again his roles on behalf of the ARS and the IAF urging early international agreement on radio spectrum allocations to support astronautics. The paper's content was well developed, parts of it having been used several times earlier. At a meeting of the American Institute of Electrical Engineers,³⁴⁵ in Washington on 15 October Haley presented another paper focused on radio spectrum issues. This paper was titled 'Law of Outer Space – Yesterday's Problems'. It contained again the account of all the work done at the CCIR since 1955. The implication of the sarcastic title that the problems were in the past was not reflected in the paper, which highlighted repeatedly the need for early future international action to preserve order in the use of radio in astronautics.

At a meeting of the Military Librarians Group of the Special Librarians Association at Ft. McNair, Washington, on 15 October, Haley addressed an audience not often available to him. His presentation to this group of librarians was titled 'Some Immediate Jurisdictional Problems' and dealt largely with the upper limit on national sovereignty and the need for international agreement to keep nations from seeking to extend national territories into space. Two days later Haley spoke to the Delta Theta Phi Law Fraternity in Washington. The title of this presentation was 'The Law of Outer Space' and it was the usual primer, much of which was taken from the paper developed for the Heinrich/Haley tour in 1957. This was a modest luncheon address. Haley spoke at many such informal, unrecorded gatherings held locally as he travelled forth and back across the country.

Haley made a presentation to the Institute on World Organization, at Headquarters of the American Association of University Women, Washington, DC, 23 October 1958. The title was new – 'Law of Outer Space – Practical Legal Rules for Human Conduct', but the content is the same paper Haley had been presenting earlier in the year in any non-legal forum to which he could gain access. He was repeatedly trying to raise public awareness, to cause a sense of urgency about the need for action on the topic of space law, and to present his own views on the upper limit of national sovereignty, on the need for a UN Commission, on the need for immediate action on astronomical radio frequency band allocations, and introducing his concept of Metalaw to as many audiences as he could. His paper titles change in this period (1957-1958), but generally the content is the same, although often restructured and incidentally updated to the time of presentation in order to include relevant current events.

Occasionally a new paper appeared, such as that on space vehicle torts, discussed below. In his next appearance, Haley addressed the National Capital Section of the ARS and the US Army Corps of Engineers at Ft. Belvoir on 8 November. Although the paper's title,

³⁴⁵ The American Institute of Electrical Engineers (AIEE) was an organization of electrical engineers that existed from 1884 through 1962. On January 1, 1963, it merged with the Institute of Radio Engineers (IRE) to form the Institute of Electrical and Electronics Engineers (IEEE).

‘Scientific and Social Developments of Outer Space’, does not mention space law, arguments about the law are substantially included.

Haley always ensured his availability for ARS annual meetings. He spoke again at the 13th Annual Meeting in New York, on 18 November 1958. This presentation was a scaled down version of earlier papers on the immediate needs for internationally agreed allocations of radio spectrum to maintain order in astronomical radio. The paper had a concise account of the USSR’s failure to coordinate in advance any of the radio frequencies used in their series of launches since 1957, and discussed the work to date of the ARS and the IAF, through the FCC and the State Department to get actions moving in the CCIR to develop new allocation plans. Haley invariably mentions his continual, driving role in seeking these actions on behalf of the ARS and the IAF. This presentation is coupled with a presentation by Philip B. Yeager, a House staff consultant in the Congress, who addresses the subject ‘Planning for the Space Age’ and reviews the major content of the recently passed *National Aeronautics and Space Act of 1958*. A third paper was delivered by MIT lecturer Samuel E. Eastman on the topic ‘Planning for the Space Age: the *National Aeronautics and Space Act of 1958*’, which adds to the presentations done by Haley and Yeager. All three papers are included in ARS Reprint No. 714-58, suggesting that the three authors were presented as a panel addressing the recent passage of the NASA Act.

In the first week of December 1958, Frank Malina represented the IAF at the General Conference of UNESCO, held in Paris, and subsequently reported to Haley that the General Conference confirmed the decision of its Council in May to admit the IAF as an international organization in consultative status. In addition, the topic ‘Exploration of extra-terrestrial space’ was added to the fields of science in which UNESCO could be active, although no budget was provided for any specific work. Haley was delighted to have this achievement accomplished during his presidency of the IAF. It was the product of several years of his effort as chairman of the International Affairs Committee of the IAF.

Chapter 27. Sputnik Changed the Emphasis on Space Law Commentary

Until Sputnik was launched in October 1957, there were no man-made objects functioning in space. During the year 1958, the United States joined the Soviet Union in successfully launching operational space craft with the result that the need for some kind of regulatory control became a pressing reality. In December 1958, based upon proposals from the US, the USSR and other countries to form a committee to work on issues emerging from the development of astronautics, the UN General Assembly established an *ad hoc* committee. This would provide a temporary forum in the United Nations separated from the ongoing disarmament discussions to take up and consider the peaceful uses of outer space.

UNGA Resolution 1348 (XIII) established an *ad hoc* Committee on the Peaceful Uses of Outer Space (COPUOS), composed of 18 members,³⁴⁶ to consider and report back on: 1) the activities and resources of the United Nations, the specialized agencies and other international bodies relating to the peaceful uses of outer space, 2) organizational arrangements to facilitate international cooperation in this field within the framework of the United Nations, and 3) legal problems which might arise in programs to explore outer space.

Although included in the original designated membership of the *ad hoc* Committee, the USSR, Czechoslovakia, and Poland declined to participate in the work of the Committee, because the Soviet delegate charged that the membership had a one-sided character which was not consistent with an objective consideration of this important problem. Before work began, the United Arab Republic and India also declined to participate, believing that a Committee on this subject without the participation of the USSR could not produce any useful product. The 13 remaining countries decided to proceed with the assigned work.

On 16 January 1959, as President of the IAF, Haley wrote to Dr. Mario Amadeo, Vice Chairman of the *ad hoc* Committee on the Peaceful Uses of Outer Space at the UN in New York to inform him that the IAF had organized a Permanent Legal Committee on the Law of Outer Space within the framework of the IAF. Haley wrote: "I would greatly appreciate your kindness in sponsoring the Permanent Legal Committee of the IAF for consultation with the *ad hoc* Committee on the Peaceful Uses of Outer Space of the United Nations".

The letter listed a number of 'immediate legal problems': (1) the need for order and regulation in the use of radio and the orderly planning of frequencies for space services; (2) the need for a requirement that space objects using radios should be equipped to terminate radio emissions at the end of the vehicle's useful life; (3) no objects should be placed in any orbit in

³⁴⁶ The members were: Argentina, Australia, Belgium, Brazil, Canada, Czechoslovakia (now Czech Republic and Slovakia), France, India, Iran, Italy, Japan, Mexico, Poland, Sweden, the Union of Soviet Socialist Republics (now, principally the Russian Federation), the United Arab Republic (now Egypt), the United Kingdom and the United States.

outer space which cannot be returned to earth or otherwise destroyed; (4) because it is expected that objects in space will become larger and more durable with time, it cannot be safely assumed objects reentering the atmosphere will be atomized, therefore there must be a required means of removal or destruction of orbital vehicles without generation of space derelicts and debris; (5) space flight operations must be coordinated with other flight activities in the atmosphere and should be coordinated through ICAO or a similar organization; (6) all space objects should carry apparatus that will render them readily identifiable; (7) agreements among nations should be immediately undertaken with respect to the use of television, photography, and any observational equipment whatsoever; (8) there should be organized within the UN or by special, universal treaty making a Commission to define the limitations of sovereignty of the nations of the earth; (9) the moon and other celestial bodies should be explicitly beyond the jurisdiction or any claim of jurisdiction by the nations of the earth; and (10) in a remarkably sweeping declaration, the international community must face the needs for drafting, administering and enforcing regulations relating to safety, sanitation, health, asylum, equipment, navigation, emigration and immigration, “[...] all of which regulations would conform to the most universal and enlightened principles of freedom and the use of property”, and there should be promulgated a code defining public and private liability for any damage caused. These were the same ten issues requiring immediate attention which Haley had presented to the First International Colloquium on the Law of Outer Space, at The Hague in August 1958. There is no known record of a response to Haley’s request to Dr. Amadeo.

The participating 13 members of the *ad hoc* Committee met 25 times during the first half of 1959 and on 25 June 1959, unanimously adopted a Final Report to the General Assembly. The report of the *ad hoc* Committee, in response to the third area of inquiry (legal problems), listed six priority legal problem areas which were believed to be amenable to early resolution:

- 1) Whether the satellite programs of the IGY had, in fact, established that outer space is freely available for exploration and use by all in accordance with existing and future international law and agreements;
- 2) What type of injury and kind of conduct should establish liability for injury or damage caused by space vehicles; the committee recommended studies of a proposed agreement providing for compulsory jurisdiction of the International Court of Justice, and of the experience of ICAO with the “Convention on Damage Caused by Foreign Aircraft to Third Parties on the Surface.”
- 3) Allocation of radio frequencies to space vehicles;
- 4) Prevention of interference between space vehicles and aircraft;
- 5) Identification and registration of space vehicles and the coordination of launchings; and
- 6) Problems resulting from the re-entry, descent and landing of space vehicles in nations other than those from which they were launched.

Other problems, ranked lower in order of priority, included:

- 7) Definition of the boundary between airspace and outer space;
- 8) The exploration of celestial bodies, although this was not considered an immediate problem;

9) Interference of space vehicles with one another.

Of these nine items presented in the *ad hoc* Committee report, Haley had addressed all in earlier papers. On the issue of definition of the upper limit on national sovereignty, Haley, like Cooper, considered this an immediate and urgent problem, but the *ad hoc* Committee explicitly categorized the issue as ‘lower in priority’ than the first six issues listed.

The UN had taken a major step which pleased Haley, but it was a long way from satisfying him. There was no longer a need to declare the UN an appropriate forum and to urge taking up the issues of space law. The UN had taken the responsibility to address the issues, and the UN was in the process of selecting and prioritizing legal matters to be dealt with. The launch of Sputnik, and numerous subsequent launches by the US and the USSR eliminated the argument that there was no need to regulate astronomical activities.

In December 1959, following several months of negotiations between the US and the USSR on the issue of committee membership, the General Assembly established a permanent Committee on the Peaceful Uses of Outer Space (COPUOS) with 24 members³⁴⁷, and reaffirmed the committee’s mandate in UNGA Resolution 1472 (XIV). The most important operational feature of the COPUOS was its rule, from the outset, that there would be no voting. Decisions would be arrived at by consensus. This was one of a very few organs in the UN system which operated with a consensus rule. This was basically provision of a veto power over the work of the committee by any committee member. Decisions would only be taken when there were no dissenting members of the committee. Because initially the US and the USSR had the only operational launch capabilities, agreement between them was essential in addition to consent of the other committee members. Other committee members participated fully in committee discussions, but they rarely raised objections to a matter on which the US and the USSR agreed. Objections in such cases were generally satisfactorily placated by moderate language adjustment to accommodate any objecting view.

Since 1959, the COPUOS has been serving as a focal point for global political cooperation in the peaceful exploration and use of outer space, maintaining close contacts with governmental and non-governmental organizations concerned with outer space activities. The committee provides a forum for annual exchanges of information relating to outer space activities, supports an international near-equatorial launch site for scientific missions in Thumba, Kerala, India, and assists in promoting international cooperation.

Following the model of the *ad hoc* Committee, the COPUOS organized itself to work through two subcommittees, a Scientific and Technical Subcommittee and a Legal Subcommittee. The complex of emerging scientific, technological, and legal issues is initially examined by the two COPUOS Subcommittees, which meet early each year and report to the parent committee usually meeting each June. The parent Committee annually prepares a draft resolution for consideration by the General Assembly, which annually adopts a resolution discussing the peaceful uses of outer space. Regular annual meetings of the COPUOS have

³⁴⁷ The revised member list added the unshaded countries: Albania, Argentina, Australia, Austria, Belgium, Brazil, Bulgaria, Canada, Czechoslovakia [*now Czech Republic* and Slovakia], France, Hungary, India, Iran, Italy, Japan, Lebanon, Mexico, Poland, Romania, Sweden, the Union of Soviet Socialist Republics [*now Russian Federation*], the United Arab Republic [*now Egypt*], the United Kingdom and the United States.

been held since 1962. Documentation on this history is publicly available through the UN Office of Outer Space Affairs (OOSA) in Vienna.³⁴⁸

³⁴⁸ <http://www.unoosa.org/> last visited on 27 May 2021.

Chapter 28. Maturing ITU Allocations of Frequency Bands for Astronautics

A total change in the sea state of international law occurred following Sputnik's launch by the Soviet Union on 4 October 1957. By that time, the United States had further considered the studies proposed at the previous meetings of the CCIR Study Groups V and VI. The US obtained co-sponsor signatures from 14 nations on a proposal for further ITU study, which was certified for consideration at the CCIR Plenary Session held in Los Angeles in April 1959. As a result of deliberations at Los Angeles, the US delegation was successful in having the entire mix of issues involved in astronautical radio considered in detail at the ITU Administrative Radio Conference held in Geneva from August to December 1959.

Drawing on earlier papers on the subject, Haley published 'The Importance of Astronautical Radio in the Space Age' in the AFCEA³⁴⁹ journal *Signal* in May 1959. Beginning with references to the lack of Soviet preflight coordination of radio frequencies used in early satellites, Haley once again reviewed the work of the CCIR, the IAF and the ARS to get the ITU to address the relevant issues and develop the required allocations on the basis of international agreement. The article concludes: "[i]n a word, the statesmen of the world must awaken to the fact that by ignoring the legal and sociological problems of space exploration, especially as to radio frequencies, they are leaving the door open to social and scientific pandemonium".³⁵⁰

A South American tour – July 1959

In July 1959 Haley made a modest, two-stop tour in South America. On 15 July, he addressed the First Inter-American Symposium on Astronautics in Sao Paulo, Brazil, presenting 'Sociological Transition – Space Law and Metalaw'. The paper was a reorganization of materials from earlier papers with an introduction declaring that sociological changes were in process and would be beneficial in many ways. He repeated the discussion of the emergence of Natural Law and urged it as a basis for space law, citing Vitoria, Suarez and Grotius. He then introduced his proposals concerning Metalaw, the reasons for its establishment, and his full panoply of arguments in favor thereof.

Two days later, he spoke at the *Asociacion Argentina Interplanetaria* in Buenos Aires, presenting 'Astronautics – The Advent of a New Age'. This paper began with a discussion of the need for new transportation systems and essential communication systems

³⁴⁹ Armed Forces Communications and Electronics Association (AFCEA).

³⁵⁰ A. G. Haley, "The Importance of Astronautical Radio in the Space Age" *Signal* 82-83, at 83, May 1959.

before it lapsed into the oft repeated discussions of sources of law, the need for new space law and the need for Metalaw. The balance of the paper is a masterful reorganization of elements of several earlier papers, adding nothing new until the concluding paragraph. In that paragraph Haley showed he was gradually shifting from a dismayed commentator emphasizing the lack of action on developing space law, to a moderately optimistic observer describing how space law will emerge. Haley wrote:

More study of the escape corridors and the problems it presents will be necessary before any final decision can be made of whether, as Dr. Pépin states, territorial sovereignty should cease at the aeronautical frontier – the Kármán line – or whether some measure of direct control over this region should be provided, perhaps along the lines suggested by Mr. Cooper. Whatever the final decision may be will depend on the data produced by the scientist and the creativity of the lawyer acting with full understanding of the scientific facts.

Haley was watching carefully and contemplating the successes occurring in the operational regimes of space flight. Earlier in the paper he took note of the fact that: “[d]espite a certain amount of understandable security secrecy, there is also a great deal known about the scores of space-penetrating missiles developed and tested by many nations of the world, including France, Great Britain, USSR and the United States”. He followed and remained currently informed on space flight programs since 1957 and acknowledged a new base of scientific information being assembled, which was the primary reason for his new optimism about space law development.

Reviewing the manuscript of this biography prior to publication, Haley’s nephew Andrew John Vogt was reminded of Haley’s travel to Latin America, causing him to recall a trip Haley made with his older brother Joseph. As Andy Vogt recalled:

AGH visited South America sometime in the 50s and brought along my Uncle Joe, his older brother. Uncle Joe said that everybody – scientists in Argentina and elsewhere – was curious to meet him because he was AGH’s brother and might give them some insight into AGH. Uncle Joe was a character in his own right: he had a girth and a size similar to AGH’s. He worked for the Washington State Highway Department for 40 some years. He retired with the pension of a brigadier general. [...] [H]e worked at the highway department from his early twenties. He told me that he had several opportunities to become political – State Highway Commissioner or Deputy Commissioner, but he had resisted them because he wanted to remain in the Civil Service. He was involved in building and maintaining highways all over the state. He took me on a tour of Interstate 5 through Seattle before it was open to the public, and I once accompanied him to the San Juan Islands to examine some surveying markers.³⁵¹

The ITU’s CCIR convened meetings of its Study Groups V and VII in Geneva during August 1958. With reference to these Study Group meetings and to the extended sessions of Study Group IX during May and June 1958 in Moscow, Haley later reported that:

³⁵¹ From a commentary on the draft of this biography sent to S. E. Doyle 12 Jan. 2020; in *AGH, Letters & Materials*.

Under the direction of Mr. [Francis Colt] DeWolf and the staff of the State Department, the United States delegation, of which Mrs. Florence T. Dowling was an official delegate, again advanced the cause of astronomical radio and, although I solicited the assistance of the USSR delegation, the Executive Officer thereof Dr. Krasnoselsky, no cooperation whatsoever was provided by the USSR group and their attitude of fear of “open skies” was again obvious. [...] A program was agreed upon and the United States’ Committee for Study Group VI drafted a proposed new question for the study: “Protection of Frequencies used by Artificial Earth Satellites or Outer Space Vehicles for Communication and Positional Observation.” [...]

The whole problem of astronomical radio was considered in detail at the ITU Administrative [Radio] Conference August-September 1959 [in Geneva]. Here again the entire initiative reposed with the United States delegation which was headed by Commissioner T. A. M. Craven, of the Federal Communications Commission.

At the Xth International Astronautical Congress in August-September 1959 in London, Haley was the outgoing IAF President, having served two years in that post. On 31 August, he presented a paper entitled ‘Accomplishments of the International Astronautical Federation and Some Proposed Objectives’, which was an account of his two years as IAF President and included some recommendations for future actions. He did not stand for election to any of the historic offices of the Federation, but the Congress elected him unanimously to the newly created post of General Counsel, which would continue his presence in the managing Bureau of the Federation. In addition, the IAF Council directed Haley to participate on behalf of the IAF in the Administrative Radio Conference that was meeting at that time in Geneva. Haley participated at Geneva in two roles: 1) on behalf of the IAF and 2) as an advisor to the US Delegation.³⁵² At the Xth IAF Congress, Leonid I. Sedov, Chairman of the Commission for Astronautics of the Soviet Academy of Sciences, was unanimously elected to the IAF Presidency. Sedov was the first Russian to serve as IAF President.

Haley’s presentation at the Second International Colloquium on the Law of Outer Space, held in conjunction with the IAF Congress in London, was titled ‘Space Exploration – The Problems of Today, Tomorrow and in the Future’. This was a slightly revised version of portions of papers delivered during the previous year. The reason for bringing these topics to this world-wide forum was Haley wanted his observations and messages to be seen and heard by the broadest audiences available. The assembly of representatives of IAF member societies was gradually building toward an annually available global audience.

A major organizational achievement of the Xth Congress in London was taking a long postponed decision in the Federation’s Plenary to create the International Academy of Astronautics. This Academy had been discussed by the IAF leadership for more than five years and its composition and roles were repeatedly proposed and adjusted; but in 1959, the decision was finally taken to create the Academy. A summary of the process of that creation is presented in Chapter 31, below.

The Xth Congress Plenary Assembly also unanimously agreed to a comprehensive revision and update of the IAF Constitution. As the newly elected General Counsel, Haley was instructed to prepare the necessary provisions, which were circulated in April 1959 to all the

³⁵² See the letter from A. G. Haley to R. A. Jones, dated 22 May 1961 in *AGH, Letters & Materials*.

Member Societies for review and comment. The revisions, as explained by Haley, “did not change the fundamental philosophy of the IAF in any respect but simply was a housekeeping job and it also provided for more efficient and effective administration”. Soon after he had received the draft revisions, IAF President Sedov called for a meeting of the ‘Presidium’ – Vice Presidents and officers of the IAF – in Heidelberg from 23 to 27 May 1960. The group numbered 13 representing nine of the major country members. The working session addressing the Constitutional revisions was convened on 26 May. As reported to the State Department in a later letter Haley described the events that transpired.

Dr. Vladlen Vereshchetin, of the USSR Foreign Office, told me the preceding afternoon that he and Academician Sedov had been in telephone conference with the Department of Foreign Affairs of the Academy of Sciences in Moscow and that they desired to confer with me that evening. I did not desire to confer with them privately on the one hand, and, on the other hand, I had prior commitments so I could not have a conference with them that evening. The morning session started out with substantially all of the previously listed attendees. Sedov instructed Vereshchetin to talk for him. Vereshchetin has an excellent command of the English language. At first he went through the amended Constitution to suggest changes in punctuation, grammar and syntax.

He then made several proposals – (1) that the USSR and the USA should always have a Vice President (or President) in the “Bureau” [governing body] of the IAF; (2) That the “Bureau” could reach no decision without the approval of the USSR and the USA; and (3) that no business could be considered at the General Assembly of the IAF during a plenary congress without the prior approval of the “Bureau”. This meant, in fact, that the USSR or the USA had complete veto rights even down to the matters which might be considered and voted upon at a plenary session of the General Assembly itself. All those attending the meeting were obviously baffled by this strange proposal.

My first inclination was to express profound disapproval on behalf of the American Rocket Society but I remained silent for a moment because I realized this was not the place to break up the organization – it preferably should be done at a public meeting of all the Societies and not just members of the Presidium meeting in private. I then called for a recess and I related the history of the IAF to Sedov and Vereshchetin, pointing out the fundamental work done by the British Interplanetary Society, the German Society for Rocket Technology and Spaceflight, the French Astronautical Society, etc., and also pointing out that the principal initial assistance came from those sources and stating that we had absolutely no desire to abandon the rule of the majority. I stated my own position which was steadfastly maintained since the beginning of the Federation that no nation, large or small, should have more than one voting member and that no matter how small a national society was it nevertheless was entitled to the same vote as the behemoth American Rocket Society, or any other society. They listened with patience to my discussion, and, finally, they broke up the discussion by stating that no matter if they both agreed completely with my viewpoints there was nothing they could do about it as they were under instructions of the Moscow Foreign Office.

I then talked to Dr. Leslie Shepherd, of the British Interplanetary Society, who was not as alarmed as I was and he stated he could handle the BIS and that he agreed that we should not break up the meeting at this point. I talked to others, such as Dr. J. M. J. Kooy, of the Netherlands Society, Mr. Åke Hjertstrand of the Swedish Society, and Dr. von Kármán, and we all agreed that we should hear the Russians out.

It was thereafter understood that all the Societies already had copies of my April draft of the Constitution and it was agreed that the USSR draft of the Constitution would be written and distributed by Mr. Sedov to all the Societies. I refused to take on the task of the distribution of copies of the USSR draft of the Constitution. The USSR draft of the Constitution was worked out and approved by Sedov and the meeting was adjourned on Saturday, May 27, 1960. It was distinctly understood that none of us had the right to bind the governing bodies of our own Societies – and that the USSR draft was not accepted. It was distributed for information only and for consideration at the next Congress which was scheduled to be held in Stockholm, August 15-20, 1960.

[Later] It just happened that an old friend of mine, Prof. Teofilo M. Tabanera [Argentina], was visiting me in Washington. With Prof. Tabanera, I went over my original draft of the Constitution, and the USSR revision thereof, and I made the remark that the USSR is now engaging in a new form of colonialism. Prof. Tabanera said very little but I know he understood fully the implications of the USSR maneuvers.

The XIth Congress of the IAF was duly convened and, as predicted [...]. The Russians immediately demonstrated unwillingness to cooperate with the Western Societies in any respect. We were able to organize and inaugurate the International Academy of Astronautics and the International Institute of Space Law. The USSR refused to participate in either organization. We then acted upon the report of the Finance Committee for the forthcoming fiscal year. The USSR resisted the payment of any substantial dues and their resistance was futile as all other Societies voted against the USSR with the possible exceptions of Poland and Czechoslovakia.

Finally, the question of revising the Constitution was called on the Agenda by president Sedov. He made the longest speech in the Congress in favor of the revisions. His statement lasted at least an hour. He was seconded by General Anatoli Blagonravov who also made an extensive speech in favor of the USSR draft of the Constitution.

At this juncture, Professor Tabanera arose and quoted from two of the most obnoxious provisions of the USSR draft and said “Ah, I cannot quite understand these provisions”, reading them. “It looks like those of us who have struggled against colonialism for so many generations are now faced with a new and strange form of scientific colonialism.” His remarks, while brief, were sharp and to the point. He no sooner sat down than there was a general scramble for recognition. He was supported by Norway, Sweden, Brazil, Spain, Denmark, Austria, and others, and, finally, by the American Rocket Society. At this point Sedov and Blagonravov were obviously angry and dismayed. Sedov said the jokes about colonialism were in the worst possible taste – but he had no effective arguments as to why the USSR and the USA should have the inherent veto power contained in the USSR draft. The American Rocket Society again suggested that the matter be studied for another year and Sedov called for a vote of the two propositions. The revised draft of the Constitution was rejected by all Societies except those from Czechoslovakia, Poland, and the USSR, and the appointment of a committee was unanimously agreed upon. The Committee consisted of:

Vladimir Kopal, Czechoslovakia, L. R. Shepherd, United Kingdom, Leonid I. Sedov, USSR, Professor E. Brun, France, William H. Pickering, USA and Andrew G. Haley, USA.

From that time on, the USSR delegation was obviously worried and non communicative. [...]

Under the Sedov presidency a meeting of the Bureau of the IAF was held in Paris on 4-5 March 1961. Prior to the meeting I communicated to Dr. Kopal of Czechoslovakia, Dr. Smirnoff of Yugoslavia, and to Academician Sedov, in strong, one-syllable words, the fact that the American Rocket Society would never accede to the principle of “veto” even if such failure to accede would mean the destruction of the Federation. The attitude of unrelenting sternness was also reflected by Dr. Pickering and Dr. Seifert, who attended the meeting. The draft Constitution submitted by Dr. Kopal still contained the provision requiring a USA and USSR Vice President, and also contained substantial veto privileges.

Strangely enough, during the course of the meeting, Academician Sedov yielded on both points and a Constitution was agreed to, which is democratic in all respects. [...] I attach as Exhibit 3, a copy of the proposed new Constitution. This draft was approved unanimously by all delegates attending the Paris meeting.³⁵³

Faced with a unified opposition the Soviet representatives acceded to the wishes of the democratic member states and the apolitical character of the Federation was maintained. The Soviets remained moderately active and continued to submit technical papers, although for many years only a handful of the accepted authors would appear at the Congresses held at a distance from the Eastern Bloc countries. Soviets attending were permitted to present their own and countrymen’s papers.

Work proceeded apace in the ITU because many delegations were now convinced of the need for appropriate frequency allocations for space flight activities. As background for the continuing ITU meetings, the US Delegation Report on the Study Group V and VI Meetings in Geneva in August 1958 contained the following record.

B. Selection and Presentation of Materials for the International Radio Conference.

After some discussion in the Study Group, it seemed that there were two principal items of sufficient importance to require submission, through the Director of the CCIR, to the International [Administrative] Radio Conference to be held next year (1959) in Geneva.

The first of these concerns the “Protection of Frequencies and for Radio Astronomical Measurements” and is before the CCIR at present as Warsaw Recommendation No. 173. This recommendation has been very slightly modified, and thereby strengthened, in Document VI/92.

The other item has to do with the “Protection of Frequencies Used by Artificial Earth Satellites or Other Space Vehicles for Communication and Positional Observation.” The particular text is contained in the amended version of Annex (b) to document VI/93, which was in turn based on a United States preparatory contribution contained in Document VI/18. As a result of representations made with the support of Document VI/87 (which is also Document V/44) by Mr. A. G. Haley, President of the International Astronautical Federation, an international organization now accredited to the ITU, it was decided that the question should be put directly to administrations at this time with the hope that responses might be received in time for consideration at the IXth Plenary Assembly in Los Angeles. This was accomplished in accordance with para. 2 of Article 7 of the International Telecommunication Convention (Buenos Aires 1952)

³⁵³ Letter from A. G. Haley to R. A. Jones, Department of State, dated 22 May 1961, at pp. 7-13; in *AGH, Letters & Materials*.

by obtaining signatures of authorized representatives of 14 different administrations (12 signatures are the minimum necessary). The matter was handled by the Secretariat in such a way that the 12 signatures covered a separate question from Study Group V having the same title and contained in Document V/41-Rev.”

Action by the United States Committees for CCIR Study Group V and VI on Questions 168 (V) and 169 (VI).

The United States committees prepared a proposed Recommendation to respond to these questions which was approved by the United States CCIR Executive Committee in Document No. 210 of 08/12/1958. This proposed Recommendation was forwarded by the Director of the CCIR and published as Document No. 75 of the IXth CCIR Plenary Assembly, Los Angeles, April 1959.

United States Committee for CCIR Study Group VIII.

This Committee drafted a proposed new question entitled “Monitoring at Fixed Monitoring Stations of Radio Transmissions from Space Vehicles,” which was approved by the Executive Committee in Document No. 211 of 08/12/1958. This was forwarded to the Director of the CCIR and appeared as Document No. 417 of the IXth Assembly.

Following the 1958 Study Group sessions in Geneva, the IAF and numerous national administrations began their preparations for two major ITU conferences scheduled in 1959: 1) the IXth Plenary Assembly of the CCIR, to be held in Los Angeles in April 1959, and 2) the Administrative Radio Conference to be held in Geneva from August to December 1959. As background for the CCIR Plenary Assembly in Los Angeles, Haley arranged for the IAF to supply to more than 950 delegates from all of the participating nations copies of the recent ARS comments and copies of testimony of a score of technical experts given under ARS auspices to the FCC in its preparatory studies in the United States. The CCIR Assembly decided to combine Study Group IV (Ground Wave Propagation) into Study Group V (Tropospheric Propagation) to form a new Study Group V (Propagation, Including the Effects of the Earth and the Troposphere). A new Study Group IV was created dealing with Space Systems, “to study systems of telecommunications with and between locations in space”.

By 1959, the US had further considered the studies proposed at the previous meetings of the CCIR Study Groups V and VI. As a result of deliberations at Los Angeles in April, the US Delegation and other agreeing administrations were successful in having the entire mix of issues involved in astronomical radio considered in detail at the ITU Administrative Radio Conference held in Geneva from August to December 1959. The State Department recorded that “[c]oncurrently with the actions subject to the CCIR, the United States Preparatory Committee for the Radio Conference considered the frequency needs for the new service of space telecommunications and included proposals for frequency allocation to the service”.³⁵⁴

The 1959 ITU Administrative Radio Conference was held in Geneva from 17 August to 21 December 1959. The principal task of the Conference was to consider possible revisions to the Radio Regulations and Additional Radio Regulations adopted in Atlantic City in 1947. This task was significantly complicated by the major developments in radio communication

³⁵⁴ Department of State Document, *op. cit. supra*, note 317, at page 4.

that had taken place between 1947 and 1959. After four months, and despite a variety of technical challenges, the Conference was able to reach acceptable solutions after considering more than 6,000 proposals to revise the Radio Regulations.

Overall, the Conference succeeded in recognizing and responding to the developments in radio spectrum usage. Among its accomplishments, the Conference agreed to accept new procedures and stricter technical performance requirements for radio equipment as a means to improve the efficiency of the operation of stations using frequencies within the radio spectrum allocated to each service. In addition, it was essential to revise Article 1 of the Radio Regulations to incorporate several new definitions in response to the swift advances in radio engineering and the emergence of new radio services, namely: the space services, the earth-space services, and the radio astronomy service.

On 18 September 1959, Haley submitted a paper to the Administrative Radio Conference entitled ‘The International Astronautical Federation and Space Communications’, which was a detailed account of all that the IAF had contributed to the background efforts and documentation leading up to this conference. Participation in the conference was open to all the member countries of the ITU, although not all attended. Once again Haley was able to reach a global audience. During the conference Haley also delivered an address entitled ‘Space Communications’ which detailed all his roles and the support of the ARS as well as the IAF in the work of the CCIR leading up to the conference.

The 1959 Administrative Radio Conference made provision for frequencies to be used for research in space telecommunications and entered these provisions in the International Radio Regulations. Recognizing that new satellite technologies and systems were developing rapidly in the late 1950s, the conference adopted Recommendation No. 35: ‘Relating to the Convening of an Extraordinary Administrative Radio Conference (EARC) to Allocate Frequency Bands for Space Radiocommunication Purposes’. The Recommendation refers to the studies already undertaken by the CCIR and calls on the ITU Administrative Council to take into account the results of the work of the CCIR and the information to be provided by Administrations in making the final determination of the need to convene an EARC.

A subsequent commentator on the significance of the 1959 Administrative Radio Conference in Geneva noted that “it was an important event for space telecommunications. For the first time a ‘space service’ was established by the Regulations, and frequencies were allocated for this service on a shared channel basis”.³⁵⁵ Milton Smith went on to note that “[w]hile these allocations were for space research purposes only, the launch of Sputnik in 1957 and subsequent satellite launches, demonstrated that demands on the radio spectrum would increase rapidly”. Smith also reported that the 1959 Administrative Radio Conference in Geneva adopted a Recommendation “to hold a conference in 1963 to allocate additional frequency bands for space purposes, if warranted by technological progress”.³⁵⁶ The years of urging by Haley were beginning to pay off as space flight technology sprinted forward, propelled by the USSR’s and the US’ rapidly developing satellite, computer, and rocket launch vehicle technologies.

³⁵⁵ Milton L. Smith, *International Regulation of Satellite Communications*, 59, Martinus Nijhoff, Dordrecht, 1990.

³⁵⁶ *Ibid.*

Mindful of the progress in the 1959 conference's recommendation to consider convening an EARC in 1963, a detailed proposal entitled 'A Basic Program for the 1963 Extraordinary Administrative Radio Conference on Space Communications' was prepared by Haley on behalf of the IAF. That document was published in gradually improving forms in the US well prior to the 1963 EARC and was submitted to all delegations at the beginning of the 1963 conference. In 1963, for one month ITU conferees deliberated, discussed and negotiated all the various national proposals submitted and took decisions making extensive additions to the International Radio Regulations to define and accommodate astronomical radio communications.

Chapter 29. On the Downhill Side of Championing Space Law

Following his penchant for creation of thoughtful and forward looking papers, Haley produced a new paper on ‘Space Vehicle Torts’ which was published by the *University of Detroit Law Journal*³⁵⁷ in February 1959. This article took up some issues which had been mentioned in earlier papers, but this article was a major assessment of the law existing concerning torts and the needs for future rethinking of this field of law with regard to activities in outer space. Haley later received a letter from the Office of the Judge Advocate General of the US Navy, Civil Law Division expressing appreciation for the quality and thoroughness of the article, indicating that “[t]he comments on the Federal Tort Claims Act were especially helpful to us”. Haley rarely received this kind of expressed appreciation from an agency of the Government, let alone the US Navy’s JAG Office. Later reworked and substantially expanded, this paper became Chapter 8 of Haley’s 1963 book *Space Law and Government*.

In another appearance in the US Congress, again before the House Committee on Science and Astronautics in Washington, DC, on 4 March 1959, speaking in his capacity as President of the IAF and General Counsel of the ARS, Haley presented hurriedly assembled testimony during hearings on ‘Radio and Television Communications – Space Service and Earth/Space Service’. Haley’s written presentation was in seven parts:

1. Comments on jurisdiction
2. Sixteenth Notice of Inquiry, FCC, In the Matter of Revision of the Radio Regulations of the ITU
3. Comments of the ARS as to the Sixteenth Notice of Inquiry
4. A description of the ITU and its related activities in the form of earlier A. G. Haley papers
5. Public Notice of the FCC, “Letter to Press Wireless Regarding Space Communications”
6. United Press International News Service Article “Would Moon Hit Validate Claim?” by Robert Musel
7. Conclusions [describing needs for actions drawn from earlier Haley papers].
8. Appendix A: Curriculum Vitae, Andrew G. Haley
9. Appendix B: Bibliography of contributions by A. G. Haley on Space Law, Metalaw, Astronautics, International Relations

The opening comments on jurisdiction are a substantial restatement of classic Haley space law positions. Parts 2 through 6 are primarily the documents indicated, including relevant attachments of pertinent earlier Haley papers. Part 7 contains conclusions and

³⁵⁷ A. G. Haley, “Space Vehicle Torts”, 36:3 *University of Detroit Law Journal* 294-314, February 1959; reprinted in the July 1959 *Insurance Law Journal*.

recommendations, mostly directed to questions of radio frequency authorizations and safety of flight activities as priority areas of concern.

Two days later, Haley presented a paper to the Ninth Annual Conference of National Organizations, hosted by the American Association for the United Nations in Washington, DC. This presentation is a new paper, not a copy of earlier materials, entitled ‘The Peaceful Uses of Outer Space’. After a summary tour of new and recent space activities generating new knowledge, such as the discovery of the Van Allen Belts of radiation about the Earth, Haley discussed the economic and industrial expansion that was coming, driven by astronautics, and repeatedly referred to the need for early regulatory actions. In concluding Haley noted:

The spectacular scientific achievements of instrumental earth satellites are today well recognized. To the geophysical, geodetic and astrophysical benefits, more advanced television stations will add meteorological and astronomical observations unequalled on the earth’s surface. Lunar probes will extend research on cosmic radiation, meteoritic dust, and the geomagnetic field far out in space. [...]

In fostering such development space flight is likely to contribute more material and spiritual improvements in living standards all over this planet than any other single economic or social measure. [At this point there was no indication of what was to come from the combination of space relays, the personal computer, telephone technology and the internet.] It brings this about simply by creating gradually a more intense feeling of belonging to the same planetary community. This will provide the necessary conditions for greater effectiveness of economic and social measures aimed at raising the dignity, as well as the responsibility, of man. Such improvements, in turn, will not only increase the utility of space flight, but will unlock creative forces in all facets of human civilization.

And then he declared, once more:

These cascading consequences, whose potential exceeds our imagination – just as the consequences of Columbus’ discovery exceeded his expectations – may be among the most important contributions of space flight to the future of mankind.

The brief closing paragraph was not new, but the rapidly expanding accomplishments summarized in the paper were accelerating developments in many areas of economic and scientific growth. His conclusions based upon the societal impacts of the technology appear even more valid in 2020 than they were when they were written in 1959, in light of the accumulated developments during the following half century.

Haley’s repeated assertions that advances in astronautical technologies will draw the world closer together, reduce the threat of war, and promote globalism appear naïve today, but such hopes were not uncommon in the mid-twentieth century. It was the invasion of Iraq by allied forces followed by a mismanaged occupation that created the environment enabling the rise early in the 21st century of the Islamic State in Iraq and Syria (ISIS), also known as the Islamic State of Iraq and the Levant³⁵⁸ (ISIL). The emergence and spread of global terrorism,

³⁵⁸ The Levant is a geographical term that refers to an area in the Middle East. The Levant is bounded by the Taurus Mountains to the north, the Mediterranean Sea to the west, the northern Arabian Desert to the south and

and the multiple *de facto* immigrations of Middle Eastern refugees into Western Europe, the United States and Canada portend a near-term global future of social unrest rather than a coming together of the international community in harmony. Unfortunately, the technological capabilities of the twenty-first century, especially the expanding social media, are used more often in national or sectarian interests promoting separatism while being rarely used to promote an inclusive harmonization of the interests of nations.

As the 1950's drew to a close, Haley was a recipient of increasingly frequent books on space law written in many languages. Because of his repeated visits to, and tours in Europe he was able to manage some reading and a little speaking in German and French, and had reached a capacity to understand some Russian; but he was receiving books from Eastern Europe, Latin America and Scandinavia, many in languages he could neither read nor understand. He would find a person in Washington who could translate the books' titles and tables of contents, and with that much knowledge he could send meaningful comments and thank you notes to the authors. Because of his multiple roles in the IAF, the IAA and the IISL, literati in the astronautics world sent complimentary copies of their works to Haley, primarily for the purpose of notifying him that they had been published. Few if any foreign contributors could have expected that he could actually read their works.

Haley's presentation to the ARS Space Law and Sociology Committee in New York on 20 March 1959, titled 'Some Practical Suggestions for World Cooperation through the International Astronautical Federation' is another new paper, specially constructed for the anticipated audience. With high visibility at the meeting site of the Carnegie Endowment for International Peace in New York City, Haley presented a brief primer on rocketry development in a few countries prior to WWII and then identified developments since WWII. He quickly arrived at the creation of the IAF in Paris, 1950, and presented summarily a year-by-year history of the growth of the IAF during the 1950s, briefly describing key activities and decisions at each of the annual international congresses. He then presented brief recaps of the space capabilities in 31 countries (those hosting member societies in the IAF) and described the work that he had done on behalf of the IAF to establish cooperation among international organizations including ICSU, UNESCO, and the ITU, with elaboration of the recent activities of the ITU's CCIR. The early history of rocketry and a substantial part of the IAF history in this paper were drawn from Haley's 1958 book *Rocketry and Space Exploration – The International Story*.

Appended to his paper is a list of 151 names and addresses of attorneys who comprised the Permanent Committee on Space Law of the IAF as of 15 March 1959. This committee was set up by Haley during his 1958 Presidency of the IAF. It was the core international group of interested attorneys who supported convening an annual International Colloquium on the Law of Outer Space and eventually the creation of the International Institute of Space Law of the IAF.³⁵⁹

At the Space Age Forum of the Southwest in Dallas, Texas on 14 April, 1959, Haley presented 'Law of Space – Space Sovereignty', which begins with a series of challenging

Upper Mesopotamia to the east. The term is used to designate modern events, peoples, or states including Cyprus, Egypt, Iraq, Israel, Jordan, Lebanon, Palestine, Syria, and Turkey, which are considered Levant countries.

³⁵⁹ See Chapter 30 below.

questions about development of needed transportation devices to go into space, and quickly raises the necessity to have adequate and appropriately agreed global allocations of dedicated radio spectrum to support space flight. As he had done previously on several occasions, Haley described two stages of immediate development of space flight capabilities. He conservatively predicted that a phase one, from about 1958 through 1970, would produce instrument carrying satellites weighing up to ten tons with indefinite power supplies, with a long operational life, and to be made recoverable when necessary. “Studies of the moon will be made by encircling satellites carrying sensing instruments. We may also see instrumented satellites sent for planetary and solar research and ‘prowling about the domains of Venus and Mars’.” Haley claimed the world’s scientists will conceive and execute experiments on a scale heretofore undreamed of, and of literally cosmic proportions.

Phase two will introduce human space flight. Next, he wrote, we should expect launching of huge earth satellites, large enough to hold crews of from 4 to 10 persons. “And, finally, we should be able to accomplish what Hermann Oberth predicted 35 years ago – explorations by man himself to the moon, first by circumnavigation and then by landing.” Haley pointed out that accomplishment of these achievements will require a large and versatile engineering and industrial base. He then pointed out that “[p]erhaps an attempt to indicate the effect which these events have on the law as we know it and on space law would be helpful”, and this leads into the discussion of jurisdiction, von Kármán’s primary jurisdictional line, and the legal status of outer space, all of which he had discussed repeatedly in recent years.

What is novel in this presentation is the sequence of inquiry, prediction and anticipated satisfaction of needs based on collaboration between scientists and lawyers in solving the emerging problems. Mindful of developments at the UN, Haley gradually was shifting from predicting dire consequences of non-action to offering positive statements of anticipation that the needs of space law would be met through international cooperation. This was a major change in Haley’s thinking and writing about the creation of space law.

Third European tour – Eastern and Western Europe, Africa, and the USSR

During the spring of 1959, Haley made another extensive tour that included Europe, Africa, and the USSR. He presented a lecture/address before universities or scientific groups in Vienna, Warsaw, Moscow, Prague, Belgrade, Athens, Cairo, Johannesburg, Rome, Barcelona, Madrid, Lisbon, Amsterdam, and Paris. He continued in all these places to urge active national space programs, creation, and support of non-governmental organizations for international cooperation, and participation by such national groups in the IAF. At all these locations he presented a common paper with slight variations depending upon his audience. The paper was titled ‘Law of Space – Space Sovereignty’.

At the 14th Annual Meeting of the ARS in Washington, DC, in November 1959, Haley made a presentation to the ARS Space Law and Sociology Committee entitled ‘Space Law – Retrospect and Promise’.³⁶⁰ He offered a comprehensively rewritten statement of positions he

³⁶⁰ This paper is an ARS Reprint No. 972-59, contained in the *A. G. Haley, Papers & Articles*.

had held earlier. He presented it in his capacity as the General Counsel of the American Rocket Society and included specific references to many recent operational accomplishments in space. He began with a list of six ‘peaks’ of human activity in space:

- 1) the first earth-orbital unmanned space vehicle;
- 2) the first probe into space reaching beyond the gravitational control of earth;
- 3) the first landing on the moon of an unmanned space vehicle;
- 4) the first lunar-orbiting unmanned space vehicle;
- 5) the first earth-orbiting manned vehicle; and
- 6) the first landing of man on the moon.

He then recounted the achievements of the USSR in: 1) the launch of earth-orbiting Sputnik in October 1957; 2) the launch in January 1959 of Mechta (Lunik I), an intended moon impact vehicle which missed the moon and entered a heliocentric orbit; 3) the launch in September 1959 of Lunik II, which landed on the moon, making scientific measurements; and 4) the launch of Lunik III in October 1959, which circled the moon, photographed its far side, and returned the images to earth. Haley then alarmingly observed that:

One might well argue that the achievement of Lunik III, launched by the USSR on October 4, 1959, in circling the moon and returning to earth orbit should also be considered a “peak” in view of the fact that by means of the instrumentation in this vehicle the far side of the moon was photographed and the photographic data were successfully returned to earth.

This achievement, when considered in the light of the earlier success of Lunik II in planting a Russian flag on the moon gives rise to legal speculation as to the “ownership of the moon,” in terms of traditional concepts of international law.

Noting that these actions might well serve as the basis for Soviet claims to ownership of the moon, Haley promptly noted that leading Soviet authorities have stated that the USSR claimed no ownership of the moon. He then went on to recount the historical sequence of multinational claims arising over the nationality of territories in Antarctica. “None of these claims has ever been withdrawn by any of the nations”, he wrote. He had earlier noted that inaction of the international community now could result in the situation in Antarctica prevailing in outer space.

Haley then reported that: “[m]any American lawyers have strongly supported the viewpoint that through international agreement territorial jurisdiction should be clarified and that a rule of law should be established for outer space”. He then quoted at length an editorial from *Life* magazine, of 5 October 1959, which urged the US to take the initiative for the development of appropriate law for the regions of outer space, to “make space as free as the high seas”. He then recapped the early and expanding base of commentary on space law and repeated his earlier calls for action in this regard. He concluded the presentation with the observation that:

It appears now that this urgent and even critical task must be undertaken by nongovernmental international organizations such as the Space Law Institute of the International Astronautical

Federation. It is indeed a pity that purely national committees and official international bodies have so far been incapable of synoptic thinking.

Herein, Haley vented his long-held frustration with the governmental and international communities because they would not take on the issue of establishing general international law applicable to outer space. Now he suggested, because the United Nations had so far failed to accomplish this work, it will have to be done in a non-governmental institution, namely the International Institute of Space Law of the IAF. This was an emotional show of no practical significance. He knew that. But maybe he could excite someone to get something done.

On 19 November 1959, Haley spoke at the National Conference of Christians and Jews in New Orleans, Louisiana. In this presentation entitled ‘Outer Space and Humanity’,³⁶¹ Haley presented a modified introduction but it is a comprehensive repeat of the presentation given two days earlier at the ARS meeting in Washington, DC. There is a rewritten conclusion on this version of the paper, which reads:

It may be too much to hope that civilization will contain these matters, a view which is cynical in the ultimate sense, because lack of containment would project our destructive forces and philosophies throughout the universe. We cannot share this view as we believe space exploration and settlement will dignify and enrich mankind, erasing forever devastating economic problems and affording vistas of the mysteries of creation immeasurably more challenging and interesting than we now conceive of, and so engender a measure of tolerance and compassion that man will rise above his past.

The prayer of the Space Man was long ago uttered by Joshua – “Be strong and of good courage; be not afraid, neither be thou dismayed; for the Lord thy God is with thee whithersoever thou goest.” [Joshua 1:9, KJV]

Although unrelated to Haley or anything he had written, two weeks after his New Orleans paper was presented an international conference in Washington, DC. completed and opened for signature the *Antarctic Treaty*, and about 6 weeks later the UN General Assembly established a permanent Committee on the Peaceful Uses of Outer Space. Haley must have been grudgingly pleased with these tardy governmental actions clearly indicating that the issues he had long urged were finally being addressed formally by the international community.

³⁶¹ In AGH, *Papers & Articles*.

Chapter 30. Emergence of the International Institute of Space Law

For a project as challenging, politically sensitive, complex and as global in scope as the creation of a new international organization, it is clearly a stretch of the truth to say one man could do it, because a good many people have to agree to accomplish such an undertaking. What is not stretching the truth is the observation that unless there is leading force or a champion, a confluence of circumstances, and an international willingness to cooperate, such an undertaking could not be achieved. What we can say about Andrew G. Haley is that he was the leading force in the formation and establishment of the International Institute of Space Law (IISL). It was a multi-year effort pursued with tenacity and determination.

During the second half of the 1950s, there was a confluence of interests in different countries, in improving international communications in all aspects of astronautics including space law. Given a rallying point and a specific proposal to consider, there was an immediate international expression of interest in creating a forum for better international communications on space law. In the context of the IAF, and especially from his eventual position of President of the IAF, Andrew Haley was able to motivate and facilitate a substantial increase in the willingness and means to accomplish the needed international cooperation.

In his well researched and creditable study of the background of the IISL, Robert D. Crane wrote: “[t]he establishment of the International Institute of Space Law in 1959 represented the culmination of almost a decade of work by predecessor organizations within the International Astronautical Federation”.³⁶² Crane traced an unarguable history of activity in the IAF, but failed to identify the driving force of the activity. The role of Andrew G. Haley in this history was compelling and unrelenting. It was Haley, personally, who caused all that happened within the IAF during the 1950s concerning creation of the IISL.

Crane identified Haley early in his study. He reported that at the Second Astronautical Congress, in London, September 1951, delegates elected the IAF’s first President, Eugen Sänger, and the IAF’s first two Vice Presidents, Günter Löser and Andrew Haley. “The election of Mr. Haley was significant, because he was the chief delegate from the principal international astronautical society in the United States, co-founder and war-time president of the world’s largest rocket manufacturing company, the Aerojet Engineering Corporation, and an international lawyer.”³⁶³

Crane also noted the attention paid to the emergence of space law during the Third Astronautical Congress in Stuttgart, September 1952, pointing out that “[s]everal leading

³⁶² Crane. R. D., “Background of the International Institute of Space Law”, in A. G. Haley and M. D. Schwartz (eds.), *Proceedings of the Fourth Colloquium on the Law of Outer Space*, 153, University of Oklahoma Research Institute, Norman, 1963.

³⁶³ *Id.* at 155.

members of the present [1963] IISL participated in the activities of the Congress, including Hans Achtnich, Fritz Gerlach, and two of the great pioneers of space law, Dr. Welf Heinrich, Prince of Hanover and Dr. Alex Meyer.”³⁶⁴ Crane failed to mention that Haley was also there among the lawyers, apparently because Haley participated with the assembled engineers and scientists in the meetings of the Council of the Federation. During the 1950s, Haley served as an IAF Vice President (1951-54), as Chairman of the IAF International Affairs Committee (1953-57), as IAF President (1957-59), and continued as a member of the Federation’s governing Council as General Counsel (1959-66).

Prof. Dr. Alex Meyer was the dean of German air lawyers and Director of the Cologne University Air Law Institute. His paper at the Third Congress, entitled ‘*Weltraumrecht*’ [Space Law],³⁶⁵ was an early commentary on topics of the day including the upper limit on national sovereignty and urging opposition to the potential of military uses of outer space. Meyer’s address referenced sources in English, French and German literature, demonstrating that the views of commentators in different countries should be taken into account in developing legal concepts on the increasing activities leading to spaceflight. The absence of such multilingual dialogue became one of Haley’s pet peeves and his major motivation to establish the IISL.

Crane’s commentary identified another imperative motivating Haley:

One of the principal activities of the IAF in the pursuit of its basic aims was effective cooperation with other international organizations. The purpose of this cooperation was not only to advance the cause of international astronautics as such, but to secure international recognition of the IAF and, if possible, financial support, so that it could work more effectively.

In 1952 Haley and Günter Löser co-chaired an informal international activities committee working to establish relationships with organizations including UNESCO and the ITU, and later, ICSU and the UNCOPUOS. The IAF’s International Committee was formalized with Haley as chair in 1953. Eugène Pépin practically ignored Haley’s early influence when Pépin wrote in his account of the creation of the IISL:

It was actually in Barcelona, October 8, 1957, namely four days after the first artificial Earth satellite was placed in orbit that the Eighth International Congress on Astronautics established a special committee in charge of “defining the respective areas of jurisdiction for air and space law.” After an exchange of views among its members, this Committee proposed to the Federation the inclusion in its program for the Ninth Congress [planned to meet in Holland], an international meeting of jurists expert in space law. This was the origin of the International Colloquium on the Law of Outer Space.³⁶⁶

³⁶⁴ *Id.* at 156.

³⁶⁵ Subsequently published as “*Weltraumrecht*” [Space Law], *Zeitschrift für Luftrecht*, Vol. 1, 1952, pp. 234-236; subsequently republished in Britain and in the United States in U. S. Congress, *Legal Problems of Space Exploration, A Symposium* prepared for the use of the Senate Committee on Aeronautical and Space Sciences, 87th Cong., 1st Sess. Doc. No. 26, GPO, Wash., DC, March 1961 at pp.8-19.

³⁶⁶ E. Pépin, *History of the International Institute of Space Law of the International Astronautical Federation*, AIAA, New York, 1982, p. 1.

Although this meeting at The Hague in 1958 was the proposal of newly elected IAF President, Andrew Haley, and Haley wrote the resolution approving it, advertised it by correspondence, and coordinated participation in the meeting, Pépin does not mention his name.

Actually, shortly after Sputnik was launched by the USSR, on October 4, 1957, the President of the IAF, Andrew G. Haley, and a colleague in Germany, Dr. Welf Heinrich, Prince of Hanover, undertook a lecture tour on space law. The presentations they made, singly and jointly, were at universities, professional societies, and bar associations in the United States and across Eastern and Western Europe during the fourth quarter of 1957 and early 1958. Haley later wrote that:

The attendance at these lectures pointed up the profound interest of world-renowned teachers and practicing jurists, on the one hand; and thousands of students and members of the public, on the other hand, in the subject of the law of outer space. The intimate importance of space jurisprudence to thinking men, and especially experts in the social sciences, was demonstrated beyond question.³⁶⁷

From his position as President of the IAF (1957-59), Haley wanted to bring together the interested lawyers in many countries to meet and discuss the needs and substance of space law. He collaborated with many other lawyers cooperating in establishing the Permanent Committee on Space Law in the IAF. Crane reported that Haley proposed and organized the meeting of interested attorneys from different countries at The Hague in 1958, where a decision was taken by the 44 participants from at least twelve countries during the First Colloquium on the Law of Outer Space to create an IAF Permanent Legal Committee. The decision was subsequently ratified by the Council of the IAF.³⁶⁸ With the assistance of the member societies of the IAF, during the year 1958, Haley led a major effort to identify and enlist interested lawyers from countries around the world. At the end of the *Proceedings of the First Colloquium*, there is included a list of members of the IAF's Permanent Legal Committee.³⁶⁹ Membership as of 10 April 1959 included 153 attorneys from 37 countries. Haley personally provided the motivation, the correspondence and the means for the compilation of that list. He personally paid for the secretarial time, the stationery, the postage, and provided a clearing house to collect and integrate the replies and document the effort.

The Second Colloquium on the Law of Outer Space was convened at Lincoln's Inn in London, September 4, 1959. The lawyers in attendance were determined to accomplish more formal organization of themselves and their work. At the instigation of Andrew Haley,³⁷⁰ Messrs. J. J. Hanrahan (USA) and Kenneth Finch (USA) introduced a proposal to convert the recently formed IAF Permanent Legal Committee into an Institute of the IAF. The proposal,

³⁶⁷ A. G. Haley and W. Heinrich (eds.) *Proceedings of First Colloquium on the Law of Outer Space*, The Hague, August 1958, at III in the Foreword, Vienna, Springer-Verlag, 1959; reprinted by the International Institute of Space Law, Paris, 1997, with the permission of Springer-Verlag.

³⁶⁸ At the First Colloquium, convened at The Hague August 29, 1958, there were 27 papers presented by authors from twelve different countries. Pépin reported that there were 44 participants, so clearly not all in attendance presented papers. The Colloquium clearly demonstrated the interest in and need for an international forum in which those interested could meet and discuss space law.

³⁶⁹ At pages 122-126.

³⁷⁰ Several years later, Ken Finch told the author that Haley had paid his travel expenses from Washington, DC, to London in order that Finch could be there to introduce the proposal.

adopted as a resolution by the Colloquium, was presented to the Xth Congress of the IAF at a plenary session where it was unanimously approved. The final resolution read:

Resolved that the presently constituted Permanent Legal Committee of the International Astronautical Federation be replaced by an International Institute of Space Law and that an *ad hoc* organizing committee consisting of five persons and a secretary, be authorized to draft by-laws for the organization and government of the proposed institute, which will be in accordance with the constitution of the I.A.F., and subject to the approval of the Council of the I.A.F. at a future meeting.

That the General Counsel of the I. A. F. [Andrew G. Haley] is authorized to establish immediately such working groups as are necessary to consider the legal problems of space, which are today considered perhaps capable of resolution, for example, space radio allocation frequencies, now being considered by the International Telecommunication Union in Geneva, Switzerland.³⁷¹

During the 1950s, Haley became more and more involved in the affairs of the IAF. He aggressively represented and promoted the international interests of the Federation, particularly seeking status to participate in meetings of organizations including the International Council of Scientific Unions (ICSU), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the International Civil Aviation Organization (ICAO) and the International Telecommunication Union (ITU). In his work with the Federation, he came in contact with many of the pioneering jurists of the period and communicated with them frequently. Surviving correspondence indicates contact with John Cobb Cooper, first Director of the McGill Institute of Air Law in Montreal; Alex Meyer, Director of the Institute on Air Law at the University of Cologne; Leonid Sedov and Vladlin Vereshchetin of the USSR Academy of Sciences, Eugène Pépin in France, Cyril Horsford in England, Vladimir Kopal in Czechoslovakia, and many others.³⁷²

By April 1960, under Haley's leadership, eleven IAF Permanent Legal Committee working groups were constituted. Each group would have a Chairman, a Vice Chairman and six or more members from various countries to collaborate on development of reports to the IAF/IISL and/or the UN. The topics included: 1) the upper limit on national sovereignty and related issues; 2) the definition and nationality of vehicles used in space flight; 3) the existence of sovereignty over the moon and other celestial bodies and related issues; 4) the existing and needed domestic laws of nations involving space flight artifacts and their status in the airspace; 5) the international laws or regulations required to deal with issues such as registration, safety, rescue, and prevention of forward and backward contamination; 6) the appropriate existing and needed regulations, authority of existing and needed institutions to regulate, and the roles of arbitration and the International Court of Justice; 7) the existing and needed provisions of law relating to authorization and use of radio in space flight activities; 8) the national proprietary

³⁷¹ A. G. Haley and W. Heinrich (eds.) *Proceedings of Second Colloquium on the Law of Outer Space*, London, September 4, 1959, at III in the Foreword, Vienna, Springer-Verlag, 1960; reprinted by the International Institute of Space Law, Paris, 1997, with the permission of Springer-Verlag and Crane R. D., *op. cit. supra*, note 151 at 167.

³⁷² For correspondence, see on line the content of the Andrew G. Haley Collection, Law School Archives, University of Mississippi Grisham Law Library, <http://airandspacelaw.olemiss.edu/team/resources/andrew-haley/> last visited 15 June 2021.

and property rights of individuals and the needed provisions to deal with these issues in space; 9) laws and institutions to deal with damage caused by space flight artifacts or activities; 10) relevant international organizations that exist or are needed to deal with activities in outer space, and creation of a committee to draft needed international agreements; 11) arrangement needed to create the laws and regulations found necessary and wanting. A list of the working groups, their membership and the study questions for each group are presented in the Foreword of *Proceedings of the Second Colloquium on the Law of Outer Space*.

Working Group chairmen were selected from nine different countries. Three were from the United States. Reports from these study groups began being presented at the Third International Colloquium on the Law of Outer Space held in Stockholm, August 14 to 15, 1960 as part of the XIth International Astronautical Congress. Robert D. Crane effectively summarized the results of the Third Colloquium and the formal establishment of the IISL.

At the XIth Congress on August 15, 1960 in Stockholm, the Constitution of the International Institute of Space Law was approved at the plenary session of the I. A. F. and on August 17, 1960 the *ad hoc* Committee of the International Institute of Space Law, pursuant to Article V, Section 6 of the Constitution, elected an Executive Committee, which in turn, elected Michel Smirnov of Yugoslavia to be the Chairman of the International Institute of Space Law and Andrew G. Haley to be Secretary. The Executive Committee also created the office of Director of Research, and unanimously elected Professor John Cobb Cooper to function as Director of Research to coordinate the working groups at the annual Colloquium.

As a result of the elections of August 1960 and March 1961, the Executive Committee has eight members: Dr. Antonio Ambrosini of Italy, Dr. John Cobb Cooper and Andrew G. Haley of the United States, Dr. Fritz Gerlach of Germany, Professor Robert Homburg and Dr. Eugène Pépin of France, Dr. Vladimir Kopal of Czechoslovakia, and Dr. Michel Smirnov of Yugoslavia.³⁷³

Productivity of the working groups was limited because wide geographical distribution of the membership precluded regular meetings and discussion was limited because participants speak separate languages. Some working groups continued for two or three years, others never produced reports. Even so, the subsequent history of the IISL has been one of growth, success and production. The IISL stands today, more than half a century after its creation, as the outstanding and universally recognized, primary international forum for the annual gathering and interaction of students, lawyers and social scientists interested in space law. An International Colloquium on the Law of Outer Space is held as part of and integrated with the IAF's International Astronautical Congress held each year in a different host country.

³⁷³ Crane R. D., *op. cit. supra*, note 362 at 168.

Chapter 31. Creation of the International Academy of Astronautics

The Academy's history on its website³⁷⁴ notes that at the outset, in 1950, there was a clear difference between those who favored an international body that would be made up of individuals, and those who favored a federation of member societies. The concept of the federation of societies prevailed in the formation of the IAF, but after adoption of the IAF Constitution in 1952, Haley, von Kármán, and others repeatedly discussed and promoted the formation of an individual member international organization capable of conducting research on selected topics in astronautics.

At the VIIIth Congress, in Barcelona (1957), Haley distributed a proposal entitled 'Report on Organizational Matters Pertaining to the Academy of Astronautics of the International Astronautical Federation'. The proposal was a joint drafting effort by Haley, Theodore von Kármán, and Eugen Sänger. The idea of a new entity raised doubts about whether such an entity might undercut the reputation and authority of the IAF. Debate and discussion continued through the IXth Congress in Amsterdam and came to a conclusion at the Xth Congress in London in 1959.

Histories of the foundation of the IAA can be found online at the IAA website, and in two other sources,³⁷⁵ which have contributed substantially to the history online. These recorded histories clearly evidence that Andrew Haley was a significant contributor to the formulation and the foundation of the Academy. Extensive relevant correspondence is available in the collections of Haley papers at the Smithsonian and at the University of Mississippi. From the period of close collaboration among Haley, von Kármán and Frank Malina in the creation of Aerojet Engineering Corporation in 1942, and their collaboration at Aerojet during the latter war years (1942–1945) Haley remained in close contact by correspondence and visits with von Kármán and Malina throughout the remainders of their lives.

With support from Andrew G. Haley, Malina and von Kármán jointly led the activities within the IAF to formally establish the IAA. Haley was active in the background, mainly providing drafting assistance, advisory opinions and supporting promotional discussions during the spring and fall meetings of the IAF Council. Haley and von Kármán were substantially involved³⁷⁵ in negotiation with the Guggenheim Foundation for a major grant from Guggenheim to be an enabling contribution to the formal establishment of the IAA. As it turned out, when the IAA was formally agreed by the IAF Council in 1959, Theodore von Kármán was named the initial President of the Academy. Von Kármán chaired an Executive Committee,

³⁷⁴ <https://iaaspace.org>, last visited on 27 May 2021.

³⁷⁵ Vladimír Kopal (Czechoslovakia, 1928-2014), who was personally involved in the drafting of the IAA constitution and centrally involved in the support for creation of the Academy, produced a detailed recitation of relevant activities leading to the foundation. Leslie Shepherd (UK, 1918-2012) also wrote an excellent account based on his involvement and observation.

selected by von Kármán, to nominate and select the original membership of the Academy. Once that task was accomplished, and a body of membership was in place, von Kármán retired from a leadership role and Frank Malina was selected the second President of the Academy. The trio of von Kármán, Malina and Haley made major contributions to the Academy's formation, assisted by others in Eastern and Western Europe and the USSR.

Like the IISL, the Academy's history has been one of growth, success, and production. The Academy stands today, more than half a century after its creation, as an outstanding and universally recognized international forum for the annual gathering and interaction of leading governmental and non-governmental operational astronautical organizations from many countries around the world.

The International Council for Science (ICSU renamed) is a non-governmental organization with a global membership of national scientific bodies (122 Members, representing 142 countries) and International Scientific Unions (31 Members). ICSU's mission is to strengthen international science for the benefit of society. To do this, ICSU mobilizes the knowledge and resources of the international science community. Among its programs there is a biennial meeting of a permanent Committee on Space Research (COSPAR) which grew out of the IGY of the 1950s to serve as a global forum for exchanges of information about scientific advances and improvement in scientific knowledge from space activities.

The IAF, in contrast, is an astronautically focused entity which facilitates the exchange of information concerning engineering and development of launch vehicles, spacecraft, in-flight power generation and operational aspects of space flight. In the author's view, the IAF concentrates on the development and growth of the technology that enables scientific platforms to go into space and function there, while COSPAR is the forum for exchanging information on newly acquired scientific knowledge obtained by those platforms for the benefit of the world community.

Chapter 32. Condensing and Recording Space Law Commentary – 1960

During the early 1960s, Haley devoted gradually decreasing energy and attention to his apostolic pursuit of governmental action on space law. The ITU clearly was working on the needs for astronomical radio frequency band allocations, and the UNCOPUOS was finally addressing the fundamental needs of space law. Haley's presentations and articles produced in the 1960s were about evenly divided between those which looked back, including accounts of what he had done to facilitate progress and those which looked forward to the needs and growth of space law. He also took every available opportunity to promote the idea of international cooperation and continued urging national astronomical groups to form and join the IAF until his death in 1966.

Haley's grown children were pursuing lives detached from him, although he consciously sought more opportunities to visit with them and to establish long ignored interpersonal relations with them. He began sustained efforts to rebuild his relationships with his children to overcome the lower priority he had assigned to family affairs during the previous decade. In the late 1950s Aunt Dede's health continued failing. Acute alcoholism which led to serious dehydration required her to be hospitalized several times. As time went on hospital visits gradually became more frequent.

Daughter Delphine left her position with Renault in New York and moved to Seattle to begin studying for certification for a teaching position. Andrew, Jr. completed his undergraduate training at Gonzaga University and, upon his father's urging, entered law school at the University of Montana. But that was not to last. Before the end of his first year in Montana Andrew left school to follow his sister, who was now living in Anchorage, Alaska in an intern position in pursuit of a teaching certificate. Andrew, Jr. was able to secure a position teaching English at the Copper Valley School near Glennallen, Alaska; a small school with a student body of Eskimos and Indians. Consciously or not, brother and sister were about as far away from their home in Washington, DC, as they could be and still be resident on the North American continent.

In time, Delphine much preferred writing to teaching. Within a few years she was earning sufficient revenue from writing to support her life style, which was intricately interwoven with her writings on nature, wildlife and preservation of critical ecosystems for animal species in distress. During the 1960s, Delphine Haley would become a well known author and sometimes editor in environmental and naturalist magazines. She was the author or co-author of several books featuring wildlife, their conditions and habitats. She enjoyed and quickly mastered writing about wildlife and environmental sensitivity. This work brought her into contact with the Bullitt family in Seattle, because the Bullitts were interested in

maintaining natural preserves, and had the resources to purchase selected land areas for protection to enable preservation of endangered wildlife.

As if convincingly proving the aphorism ‘it’s a small world’, it is interesting to note that Dorothy Stimson Bullitt was the matriarch of the Bullitt family in Seattle during the final half of the 20th century. Dorothy Bullitt, the owner of KING AM and FM and KING-TV, was one of Andrew Haley’s largest and most supportive clients. The Bullitts sponsored the creation of a periodic nature publication in Seattle, and invited Delphine Haley to contribute, and later to become an editor of the magazine. Both father and daughter were close associates of and in frequent contact with the Bullitt family in Seattle on entirely different bases. The father’s association existed in the latter 1940s, 1950s and first half of the 1960s. The daughter’s association overlapped in the 1960s and continued until Dorothy’s death in the 1990s.

After 1960, having substantially reduced his operational roles in the ARS and the IAF, Haley found more time to pay attention to his wife and children. Although his travels would continue, they were most frequently two- to three-day absences from home, with the result that he expected contact to increase with all of his immediate family members. However, during the first half of the 1960s, the family became increasingly widespread and communication with them was generally accomplished by irregular letters or phone calls. Face to face visits became relatively rare. The law firm had grown modestly. There were more lawyers on the payroll and there were more clients. Haley was not completely withdrawn from IAF, IAA, and IISL affairs because he was the primary institutional memory in all three organizations, and subsequent leaders of the organizations relied on him for historical information, advice and counsel. As General Counsel of the IAF, Haley essentially served also in this role in the two subsidiary organizations, the IISL and IAA. Haley continued to deal with contract issues, particularly publication issues, and he regularly attended spring planning meetings in Paris and IAF Congresses in a different country each year. Although he clearly sought to spend more time at home, and visit with the children, Haley found that Aunt Dede sought the emotional and physical support provided at her mother’s home in Campbellsville, Kentucky.

During 1960, Haley presented more than 15 addresses dealing with space law, and published articles on international cooperation in astronautics. In addition to his lectures and addresses, he published more than six new articles on space law and another six on international cooperation in astronautics. Published articles on international cooperation appeared in a continuing series for the ARS Journal *Astronautics*, in a regular feature of the monthly magazine titled ‘The International Scene’.

On 10 January 1960, Haley wrote to Paul Wickham, Chief of Space Systems at North American Aviation’s Missile Division in Downey, California. Wickham had written to Haley requesting information concerning legal aspects of a US Air Force sponsored study titled ‘Strategic Lunar Study’. Wickham’s questions dealt with national and international law and policy related to warfare, space flight, and the legal status of objects in space. Haley wrote an extraordinary letter (63 pages) offering commentary on the subject matter and attempting to answer many of the questions asked.

Haley’s letter offered definitions of war and a description of the process of creation of *customary international law*, as distinguished from treaties, conventions and other written agreements. He included his classic tutorial on the history of international law and the relevance

of Natural Law to the needs of space law. He injected repeatedly his emotional opinion that control of the moon was a means of controlling Earth.³⁷⁶ Knowledgeable scientists and military strategists realized, what Haley did not, that the threat of use of force against an enemy is more readily available, more effectively and much less expensively obtainable with earth-based missiles. Haley's alarmist position on the criticality of the moon to national defense was a part of his strategy to convince those in authority that the development of space law was a pressing and critical issue. Although the United Nations had begun to consider the peaceful uses of outer space, there were still no credible efforts there to define or establish what space law ought to be. At this point the identification of topics for study was as far as the UN had progressed.

In his Wickham letter Haley recited the history of 20th century development of the law of sovereign control of air space, culminating in the Chicago Convention of 1944, recognizing that all states have exclusive control of their air space. He presented in detail his arguments concerning the IGY establishment of the right of innocent passage overhead. He surveyed the roles of the UN Specialized Agencies, with special emphases on UNESCO, ICAO and the ITU, including the IAF involvement in the work of these agencies, and he offered an assessment of the likelihood of uncontrolled use of outer space creating again the problems prevailing in Antarctica. (Apparently Haley was not yet aware of the Antarctic Treaty signed in Washington one month earlier.)

Following all these extensive explanations, offered as background, Haley then quoted in his letter a number of specific questions asked by Wickham, followed by brief answers and a concluding declaration.

Wickham: Should [a nation] have the right to overfly [in space] to seek out warning of an impending attack or of an attack underway?

Haley: In both cases emphatically, yes.

Wickham: How could weather reconnaissance be distinguished from surface reconnaissance?

Haley: Reconnaissance from outer space need not be limited to observation of weather as distinguished from surface observation.

Wickham: Should one nation have a legal right to intercept, jam, or destroy the communications between a satellite and its parent nation?

Haley: Pursuant to existing international agreements, any such act is unlawful.

Wickham: Should a nation have the right to inspect another's satellite? Since time is important, might inspection be made anywhere in the orbital path?

Haley: Any normal inspection should be at the point of the launching of the satellite. Inspection which is made in the orbital path should be permitted only within the well-known maritime limitations on search and seizure.

³⁷⁶ Haley's preoccupation with the threat to Earth of moon control was devoid of any understanding of the comparative costs, distance and complexity of a moon based capability versus the ease and comparatively low costs of establishing land and sea launched ballistic missiles, the technology of which was advancing rapidly. He believed what he wrote to Wickham, ascribing to others his views on the subject. He repeated several times in this letter and in other papers his claim that "scientists, military strategists and statesmen have agreed on this proposition – who controls the moon controls the Earth". This was a curious anomaly in his thinking.

Wickham: Should a nation be permitted to neutralize, destroy or capture another's satellite?

Haley: Only when such act is necessary within the purview of [self-defense] Article 51 of the UN Charter or pursuant to good cause as required by existing international law.

Wickham: Should nations be required to file flight plans before launch? Should satellites be subject to international inspection before launch? Should launch areas be pre-designated and subject to international inspection?

Haley: The answer is "yes" to all three questions. Most of this information is now available under United States practices, and it is not available under USSR practices – much to the psychological and practical detriment of the United States.

Wickham: What should be the legal requirements concerning booster fallout, or re-entry of space vehicles in the area of other nations? Can "registration" shots be outlawed without an inspection procedure to prevent occurrences?

Haley: In answer to the first question, I enclose an article, "Space Vehicle Torts", reprinted from the 1959 issue of the *Insurance Law Journal*. I cannot answer the last portion of the question.

Wickham: Should nations be permitted to conduct Argus-type tests; or communications blackout tests using nuclear weapons?

Haley: At the present time Argus-type tests are permissible because of their scientific nature. Communications blackout tests are also permissible as actually "nuclear weapons" are not used, and the nuclear explosions which are used are for scientific purposes. Every grain of dynamite might well be called weapon – but such is not the viewpoint of the law when a grain of dynamite is used to blast rock in order to build a tunnel.

Wickham: Should an international body be permitted to conduct tests in space, or sponsor satellite vehicles, to test out military objectives?

Haley: If such tests are made by an international body pursuant to common agreement among the nations of the earth, and are for the purpose of providing retaliatory weapons to be used against an aggressor, there can be no objection.

Wickham: Can a good dividing line be drawn between "military" and "peaceful" uses of outer space? Since the distinction is impossible to make in some cases, can a line be drawn on some other basis, such as intent, or whether the action is by an international body rather than a single nation?

Haley: This is a difficult question to answer and the decision rests on method, instrumentation and intent.

Wickham: Should nations be permitted to carry nuclear warheads in satellites?

Haley: Not for military purposes unless in furtherance of Article 51 of the UN Charter, or in the conduct of a "just" war.

Wickham: Should nations be permitted to select communications frequencies at their will and to design systems which will continue to transmit for indefinitely many years?

Haley: In answer to this question I enclose an article entitled "Space Age Presents Immediate Legal Problems," reprinted from the First Colloquium on the Law of Outer Space, The Hague 1958, . . .

I realize, Mr. Wickham, that the foregoing are very sketchy answers to your searching questions. In my own defense, however, I must say that a good volume would be required to effectively handle each of the major problems you have presented.

In conclusion, I must point out that although we have “touched base” ever so lightly, on many legal theories, and we have rationalized on ideal situations, only one certain, essential and positive issue actually is before us: “who controls the moon controls the earth,” and if any alien power seems on its way to control the moon, our national leadership has the clear duty to use every means, including the waging of war, to prevent such ethnocidal possibility; and, furthermore, our national leadership has the clear duty, in the absence of international agreement to the contrary, to be prepared to use the moon as a base for retaliatory warfare.

Once again, although he was no longer President of the IAF, Haley was doing what he believed was his job, *i.e.*, bringing to any available audience as much information about astronautics as circumstance would allow. This inevitably included his opinions.

On 16 February 1960, Haley addressed the National Missile Space Conference, Panel on ‘The Space Challenge – Philosophy’ in Washington, DC. In this brief paper entitled ‘The Moon – Its Stark Importance to Humanity’, Haley once again issued his clarion call for governments to do something about the need for space law. Concerned that the Soviets might take control of the moon, and seeking assurance that the United States would not let this happen, Haley concluded this presentation again stating:

At the present time, only one certain, essential and positive issue is before us: “who controls the moon controls the earth,” and if any alien power seems on its way to control the moon, our national leadership has the clear duty to use every means, including the waging of war, to prevent such “ethnocidal” possibility; and, furthermore, our national leadership has the clear duty, in the absence of international agreement to the contrary, to be prepared to use the moon as a base for retaliatory warfare.

On 1 March, Haley spoke to the United Fund of Terre Haut and Vigo Counties’ panel discussion on ‘Our Stake in the Space Age’. As indicated by the title, ‘The Moon – Its Stark Importance to Humanity’, this presentation was an exact duplicate of the February paper delivered to the National Missile Space Conference in Washington, DC, two weeks earlier. Another, slightly revised version of the paper was presented at the University of Southern California, Pacific Southwest Conference on International Law, on 5 March 1960, entitled ‘The Law of Space and Outer Space’.³⁷⁷

Throughout 1960, Haley increasingly reiterated forward looking issues of space law beyond those under active consideration in the United Nations and the ITU. He continued work on preparations for the ITU’s planned 1963 Extraordinary Administrative Radio Conference (EARC) to deal with allocations of frequency bands for astronautical radio services of all kinds. In due course Haley would use his General Counsel roles in the IAF and the ARS as launch pads for circulation of a comprehensive plan for allocating astronautical radio service bands, which he (the IAF) would provide in 1963 to all the identified individuals planning to participate in the ITU’s 1963 EARC.

He continued attending IAF/IISL/IAA conferences and delivering presentations in the United States and in Europe whenever the opportunity arose. There is a well-documented

³⁷⁷ This paper was subsequently published as A. G. Haley, “The Law of Space and Outer Space”, 33 *So. Cal. L. Rev.* 370, 1960; reprinted in part in 10 *Law Review Digest* 77, 1960.

record of the papers, lectures and articles he produced during the 1950s and early 1960s,³⁷⁸ but there is no discoverable physical record of numerous informal talks which he gave at luncheon meetings, dinner parties and other informal venues. We have included as an annex to this work a supplemental and necessarily selected bibliography of Haley's published papers and lectures from 1963 until his death.

During May 1960, Haley delivered an address to the *Deutsche Gesellschaft für Raketentechnik und Raumfahrt* (German Society for Rocket Technology and Spaceflight), 12th Annual Meeting, in Heidelberg, Germany, in which he described 'Preparation for the ITU 1963 Extraordinary Administrative Radio Conference'. This paper was repeated at the XIth International Astronautical Congress, in Stockholm, on 16 August 1960. In addition, while in Stockholm, he presented a forward looking paper titled 'Space Law and Astronautics – Preparing for the Next Thirty Years' to the Third International Colloquium on the Law of Outer Space.

No longer serving as President of the IAF, Haley watched closely a delicate political situation which arose at the XIth IAC in Stockholm in August 1960. An application for membership was received by the IAF from the Astronautical Society of the German Democratic Republic. The Chairman of the IAF Credentials Committee since it was founded in 1951, Dr. Fritz Gerlach, a high public official of the Federal Republic of Germany, raised concern about the political nature of the name of the East German Society. Dr. J. M. Kooy, President of the Netherlands Space Society, was the other member of this two-man Credentials Committee. Drs. Gerlach and Kooy arranged a conference with Academicians Leonid Sedov, A. A. Blagonravov and other members of the USSR delegation and the Observers present on behalf of the East German Society. That meeting produced an agreement that the applying Society would change its name to the German Astronautical Society, thereby eliminating the political aspect of the society's name.

Neither Haley nor any other participant from the US took part in this activity. The vote on the question of admission was 19 for, one against and one abstention. In a letter to the US Department of State, dated 22 May 1961, Haley reported his opinion that "[a]t no time did either of the United States Societies [ARS and AAS] lend any support whatever to the USSR position and I am certain that the United States Societies would have opposed 'to the bitter end' the admission of the East German Society if Dr. Gerlach, as Chairman of the Credentials Committee, had maintained an adverse position".

Haley repeated his space communications future requirements paper from the Third Colloquium to the NATO Advisory Group for Aeronautical Research and Development (AGARD), Combustion and Propulsion Panel, in Pasadena, California, 24 August 1960. Re-titled 'Legal Problems of Spaceflight – 1960 to 1970', the same paper was presented to the Conference on Space Technology, Los Angeles, 1 October 1960, and then at the University of Oklahoma in Norman, Oklahoma, 4 October 1960. Haley was clearly spending more time spreading the content of his past works than creating new material. The problems being

³⁷⁸ See the extensive bibliography included as an Annex to A. G. Haley, *Space Law and Government*, Appleton-Century-Crofts, New York, 1963, at 528-539. Other additional and later bibliographies appear in the *AGH, Letters & Materials*.

addressed were not likely to change in the next few years. He concentrated on spreading knowledge of his works urging that the problems be dealt with.

He continued to emphasize the economic impacts of the technology when he spoke to the American Management Association, Symposium on 'Finding a Place for Your Company in Space Age Technology', in New York City, 6 October 1960 describing 'Commercial Aspects of space law'. Having reduced the amount of his preoccupation with the affairs of the IAF, and finding it increasingly convenient to reuse papers by simply changing titles to appeal to specific audiences, he was finding the demands of his law firm increasing and wanted to find more time to be at home with his family.

As the end of 1960 approached, Haley decided to take advantage of an invitation he had received from Argentina, a rational decision in light of the approaching Northern Hemisphere's winter. He attended and spoke at the Symposium on Space Research in Buenos Aires, Argentina, 28 November to 3 December 1960. His paper for this occasion – 'Outline of Program for Astronautical Communications' had been written long since, but this information had never been broadly disseminated in South America. Upon return from that trip, he presented the same paper to the ARS Annual Meeting, Washington, DC, from 5 to 8 December 1960. Re-titled and shortened the paper was 'Progress Made in the Use of Radio for Protection of Life and Property in Outer Space'.

Chapter 33. Anticipating the 1963 EARC on Space Communications

During 1960, Haley worked diligently to complete a well-developed and scientifically valid package of proposed frequency band allocations for astronautics. He pre-packaged pieces of this evolving work as presentations and articles which were widely distributed. This study first appeared integrated as a paper presented at the XIth International Astronautical Congress in Stockholm in 1960. At that time, it was titled 'A Basic Program for the 1963 Administrative Radio Conference on Space Communications'. In its first form, it was primarily an historical account of radio frequency uses in space program operations, followed by a summary description of operational characteristics of astronautical radio uses. This paper described in detail an anticipated program of research and preparations for the conference, and discussed the agencies available to participate in the program. The then current uses of radio spectrum in space programs were outlined, and future needs of the major space faring nations were presented, including the announced needs of governmental and commercial bodies active in space. The point is repeatedly made that there are not adequate allocated frequency bands for known and planned operational systems, and operations to date have been largely in spite of the scarcity of bands that had been designated on a shared basis. Haley insisted exclusive allocations were required.

A variety of perceived inhibiting problems were presented and significant new and expanding uses were discussed. As stated at the end of the paper's opening abstract:

It is concluded that the International Astronautical Federation must serve as a central scientific and engineering fact-gathering body, and that a special committee within the IAF should prepare recommendations for study by the International Radio Consultative Committee of the International Telecommunication Union.

This was the inauguration of Haley's efforts to ensure that the IAF would be at the center of nongovernmental international cooperation in preparation for the 1963 EARC. With or without the IAF, he would pursue the issues of conference preparation and during the coming years would continue to collect and publish all available accumulating information and relevant experience for the conference. He made special efforts to collect and explicitly present opinions of knowledgeable experts in the USSR and Eastern European countries who had published information on any form of space communications. Through his regular communications with Sedov in the USSR Academy of Sciences, Haley was able to stay informed of relevant papers or reports being issued in the USSR. Whenever possible he would obtain translation of Soviet papers or articles from John C. Hogan at the RAND Corporation. The 1960 Stockholm paper concluded with multiple questions requiring study before the ITU conference convened.

Although all the involved member states of the ITU would be internally engaged in studies and research in the development of their national positions, Haley's efforts were on behalf of the ARS and the IAF. He engaged in regular communications with the Department of State and the FCC, and through his role as General Counsel of the ARS continued to collect and feed relevant information to those agencies.

He was by no means alone in this effort, because all the involved agencies of government were engaged in their own preparatory efforts, as were all the major US industrial entities involved in space communications, including AT&T Long Lines, ITT Worldcom, RCA GlobCom, WUI, the major US international carriers; Hughes Aircraft and TRW, leading manufacturers of satellites; and many others. After its creation in 1962, the Comsat Corporation also became a major industrial participant in conference preparations and participation. NASA was a major player from the outset, following its creation in 1958.

Haley's 1960 paper at Stockholm also included, as appendices, copies of FCC Notices of Inquiry and Orders in the dockets related to preparation for the 1963 EARC. These documents contained official presentation of questions needing study prior to the conference. He had put a great deal of effort and personal fortune into establishing his position as a contributor to the processes of radio frequency bands allocation, and he chose energetically to continue that presence to the extent he could.

Using much of the content from the Stockholm paper Haley reconfigured and added a new introduction to the text and offered the document's next evolution at the Symposium on Space Communications in Buenos Aires around 1 Dec 1960. The paper was titled 'Outline of Program for Astronautical Communications'. This paper included slides recapping the allocations made at Geneva in 1959, restating the proposals made by the IAF, a summary of frequencies used by the US and the USSR to date, and depicted graphic representations of some operational issues and problems of radio communications. The paper included quotations from other relevant papers on the topic. A substantial section identified planned and probable future requirements for operational systems and, once again, identified agencies available for preparatory work. The concluding ten pages of the text laid out a study program the IAF (Haley) proposed to prepare for the conference. Substantial appendices include recent FCC actions on space communications and a listing of the FCC's recommended study questions.

On 5 December 1960, the ARS (Haley) released a press notice that the ARS had appealed to the US Court of Appeals for the District of Columbia to vacate and set aside the FCC's 6 August 1959 Report and Order in Docket No. 11866, "in which the Commission had refused to allocate frequencies for outer space use". The Commission modified its August 1959 order with a subsequent order of 5 October 1960, but did not substantively change the outcome. The argument of the ARS appeal was based on a perceived requirement for exclusive allocations. A majority of the Commission had the view that it would be well to have initial systems prove the ability of satellite systems to share frequency uses with other radio services. Haley had long argued and repeatedly technically justified the need for exclusive frequency allocations for satellite communications. The FCC Report and Order contained a dissenting opinion by Commissioner T. A. M. Craven in which he gave clear and cogent arguments favoring exclusive allocations. The ARS appeal featured the arguments of Commissioner Craven explicitly. The appeal noted that Commissioner Craven had served as head of the US

Delegation to the ITU's Administrative Radio Conference in Geneva, from August to December 1959, and that he was "one of the world's best informed experts on the problems of space communications". The relief requested in the concluding paragraph of the ARS filing read:

Wherefore, Petitioner prays that upon final hearing and review this Court will vacate and set aside the Commission's Report and Order released August 6, 1959, as modified by its Memorandum, Opinion and Order released October 5, 1960, and remand the matter to the Commission for disposition in a manner consistent with the law.

Respectfully submitted,
AMERICAN ROCKET SOCIETY
By Andrew G. Haley (signature)
General Counsel

With this Appeal pending, in the first week of December 1960 Haley presented 'Progress Made in the Use of Radio for Protection of Life and Property in Outer Space' to the 15th Annual Meeting of the ARS in Washington, DC. The next effort in his personal program preparing for the 1963 EARC was publication of an article in the January 1961 edition of the ITU's *Telecommunications Journal*. With this publication, Haley was able to address the entire world community of informed and interested officials in all the member countries of the ITU. This time the modified paper was entitled 'Developments Leading to and the Need for the 1963 Extraordinary Administrative Radio Conference [EARC] on Space Communications'. In this iteration Haley had refined the content somewhat and converted FCC and other relevant questions for study into an integrated series of unattributed study questions ending the paper. The historical data at the front end was adjusted, but not changed, and the program by program frequency utilization record was included. As in the former version, this paper presented the operational characteristics of radio systems communicating to and from space. Haley was able to draw on well researched and valid materials presented to the FCC and collected by him from American industry and members of the ARS. Once again, he demonstrated his remarkable ability to integrate technical, scientific, operational, and practical considerations of a problem into a meaningful assessment including recommended paths for future study. Haley published another, more forward looking article in the February 1962 edition of the ITU's *Telecommunications Journal* entitled 'Space Communications of the Next Generation'.

For the next two years, Haley selected topics relevant to the issues to be addressed at the 1963 EARC. He would discuss and develop these topics in a way to help address one or more of the many proposed study questions, without going back though all the relevant history. During 1961, 1962 and part of 1963, Haley continued this process of discussing subsets of issues. He was working to help others understand the issues and produce proposals for the US and IAF positions in the 1963 EARC.

Chapter 34. Energetic and Broadening Commentary – 1961

Haley continued speaking and publishing on a wide range of topics throughout 1961. His published articles addressed many topics related to astronautics, but not entirely. As examples, he published articles in English on space medicine (1), international cooperation in various aspects of astronautics (4), space law (3), commercial aspects of space programs (3) and Metalaw (1). He considered his most important foreign publication, ever, a chapter in E. A. Korovin (ed.), *Problemy Kosmicheskogo Prava* (Problems of Space Law), wherein A. G. Haley presented “*Obzor Pravovoykh Kontsepts Otnositel'no Yurisdiksi za Predelami Zemli* (Overview of the Legal Concept of National Jurisdiction beyond Earth). This book was published in Moscow in Russian. During the year Haley delivered at least one dozen formal presentations on a comparable range of subjects, and, when requested, he continued producing specialized incidental entries about astronautics and rocketry for anthologies, historical studies and encyclopedias. He did not undertake the multi-week to multi-month tours he had been, but was still travelling a great deal within the United States and occasionally overseas.

During February 1961, Haley continued his diligent effort to focus national and international attention on the need for dedicated radio frequency bands for space communications. On behalf of the ARS, he submitted to the FCC a statement on ‘Frequency Allocations for Radio Astronomy’ for consideration in connection with ongoing FCC rule-makings in Dockets No. 13522 and 13928.

He continued daily oversight and management of the law firm. Even when travelling he would hold mini-conferences by phone when a complex issue involved more than one of his attorneys. In his role as General Counsel to the IAF, he was called upon often and consistently responded promptly to requests for legal and drafting assistance by officials of the IAA and the IISL. He began to limit personal expenditures on his travel whenever there were institutional sponsors who would pick-up the travel expenses. In any case, if not reimbursed, his travels were consistently recorded with receipts by his diligent secretary, Ethna White, and thus became deductible expenses to reduce his taxes.

In February 1961, Haley’s nephew and ward, Andrew Vogt, was approaching graduation from Phillips Exeter Academy and Haley was concerned that his entry into college was being taken too casually. Among other universities from which he had requested catalogues and entrance application forms, Haley had contacted Notre Dame in South Bend, Indiana. As an example of the kind of attention and direction he sought to provide for his wards, Andrew and Mary Vogt, a letter written to Andy Vogt on 11 February 1961 shows the scope and tenor of Haley’s supervision.

February 11, 1961

Mr. Andrew J. H. Vogt

The Phillips Exeter Academy
Exeter, New Hampshire

Dear Andrew,

I enclose a very intelligent letter I have just received from Father Moran of Notre Dame. I am glad that at this late date they have spelled out the advanced placement standards. These standards are quite sensible and I am sure that you will be interested in looking them over.

I insist that you write me – if ever so briefly – each week and keep me advised of essential matters, such as whether or not you finally filed the Harvard application [together with the teachers' certificates], whether you are taking all necessary examinations, and so on.

I note that your spring vacation [from Philips Exeter Academy] starts at 8:00 a.m. on March 22, and the Spring term begins at 9:00 a.m. on April 5. Stretch's [Mary's] vacation starts at 12:00 noon on March 29, and ends at 8:30 a.m. on April 10.

I will arrange for you to be in Washington during the week prior to the commencement of Stretch's vacation – so that you can rest up – do nothing – and visit with your friends. Promptly on March 28, we will drive to South Bend and I will arrange for Stretch to join us there. The three of us can look over Notre Dame and then we will drive on out and deliver the car to Andy Haley. You can fly directly back to Boston and report in on time at Exeter. Mary can come back to Washington and have a week's visit with her friends. I will take care of all the arrangements and bear all the expenses of this little vacation.

I spend altogether too much time taking care of you and Stretch and I must insist that you cooperate better. This is the same complaint expressed by Mr. Bedford, and indeed by everybody else who has to work with you. You simply must be more polite and personally alert to avoid being a burden to others.

Remember, keep me advised and write at least once a week.

In your next letter do not fail to return Father Moran's letter and the attachments.

If you have failed to take care of any filing or other administrative procedure in connection with any other university, please let me know right away.

Love,
[hand written] Daddy

Enclosure
cc: Mary Vogt

When he read this 58-year-old letter in 2019, Andy Vogt offered several mixed comments and recollections:

Despite the letter I have no memory of either AGH or Mary accompanying me to visit Notre Dame. I did visit the campus though and was escorted by the Dean on a tour of the campus. I got into a discussion with the Dean about whether a rose is what it appears to be versus an extremely complicated assemblage of molecules with a variety of electromagnetic properties. Of course I

took the second point of view. In my maturity I came to agree with the Dean. AGH talked for many years about the importance of a Catholic education, but he did send me to Phillips Exeter, where I had a partial scholarship. As a senior I was interested in Harvard, but not so interested that I went to interviews when the Harvard interviewer arrived at Exeter, NH. Eventually AGH allowed me or encouraged me to apply to Harvard, Princeton and Yale, and when I was admitted to each, he had the admission certificates framed. I did have to take a train down to Cambridge, Mass. for an interview. I received [offers of] scholarship assistance from Yale and Princeton while Harvard informed me that they knew I had been awarded a General Motors National Scholarship. At one point during the application process to one of the schools, when they asked about scholarship need, AGH encouraged me to write “Have received scholarships in the past and expect to receive them in the future.” I suggested changing the wording from ‘expect’ to ‘hope’. He agreed.

I am not sure I ever received this letter in any case. I certainly did not write to him on a weekly basis at any time in my recollection.³⁷⁹

Also, on 11 February 1961, Haley sent a letter to the Editor of the *New York Times*. There was a one page cover letter enclosed with a nine page, double-spaced draft of a letter dated 10 February proposed for publication. The cover letter explained Haley’s identifying biographical data, also enclosed, and requested that the draft letter be published, if possible, by February 18, when the subject of the letter would be dealt with at the ABA Mid-year meeting in Chicago. The subject of the letter was comments on a 16 January commentary previously published by the *NYT* submitted by Arthur H. Dean, a Senior Partner of the prominent law firm Sullivan & Cromwell. Haley wanted his disagreement with Dean’s views published.

Although delighted explicitly to welcome Dean to the ranks of serious attorneys addressing subjects of space law, Haley believed he should correct some misimpressions of Mr. Dean in the same forum in which Dean had offered his mistaken remarks. For example, Haley wrote: “it is quite disappointing to read Mr. Dean’s citation of the comparatively ancient and altogether discredited references of the Russians, Kislov and Krylov, to the Russian claim that sovereignty extends over national territory endlessly and reaches out into infinity like the spokes of a wheel”.

At the time, Dean was appointed by President Kennedy to serve as chief delegate to the negotiations on the Nuclear Test Ban Treaty with the United Kingdom and the USSR. The negotiations were in progress. Dean was a renowned lawyer and was an invited speaker to the ABA Space Law Committee meeting planned for 18 February in Chicago. At that time Haley was Chairman of the ABA’s Committee on the Law of Outer Space. His *NYT* letter, having been edited for compression by *NYT* editors, continued in a pedagogical tone:

More than seventy nations, speaking individually through their Constitutions or statutes, have asserted their sovereignty over the airspace above them. The International Civil Aviation Convention adopted in Chicago in 1944 is the most recent multilateral expression on the subject.

Jurisdiction Line

³⁷⁹ From a commentary on the draft of this biography sent to S. E. Doyle 12 Jan. 2020; in *A. G. Haley, Papers and Materials*.

Where exactly is that point which separates airspace from what is variously called outer space or cosmic space and more important, which separates the realm of national sovereignties from the domain of international space law in the making? In all pertinent fields of science one must deal with median curves based on an immense family of curves. As a practical guide for the space age, the weight of authority favors a measure of the sort I have termed the Karman primary jurisdiction line.

This line was suggested by Dr. Theodore von Karman and adopted by the writer on the basis of a diagram by Masson and Gazley of the Rand Corporation. An adaption of this diagram shows that the Karman jurisdictional boundary falls at approximately 275,000 feet (52 miles or 83 kilometers), where an object traveling at 25,000 feet (seven kilometers) a second loses its aerodynamic lift and centrifugal force takes over. The line may be changed somewhat as physicists and lawyers hammer out agreement as to where the aeronautical vehicle no longer may perform and where molecular oxygen dissociates and airspace no longer exists. But after all the data are reduced the boundary will not differ materially from the Karman line.

The principles we have stated receive most unexpected support. One example has been mentioned – namely, as a result of the far-sightedness of the editors at Harvard [Law Record] the “doctrine of consent” was published and received world-wide approval. And now the Karman jurisdictional line has received the highly unlikely support of the International sporting Committee of the Federation Aeronautique Internationale.

[Nongovernmental] Officials of the Soviet Union and the United States, during October, 1960, at Barcelona, agreed that a line not materially different from the Karman (100 kilometers) would be the dividing line between airspace and outer space for record-keeping purposes. Maybe the hope of civilization rests with students and sportsmen.³⁸⁰

This letter had been somewhat condensed by the *NYT* editors, but it was still a clear declaration by Haley of his place in, and at least one proposed contribution to the emerging body of space law. A long-time friend and associate, attorney William Hyman of New York City, wrote to congratulate Haley on his letter to the *NYT*. Hyman wrote:

Congratulations on your very brilliant, effective – and devastating – reply [to Dean’s 16 Jan. letter]. Not only was it distinguished for its scholastic content but also for the manner in which you extended most graciously the “bear hug” to Mr. Dean.

But I note, however, that though done so graciously – and probably with a twinkle in your eye – and a suppressed chuckle – the embrace was none-the-less completely annihilating. You should be given an award for diplomacy as well as for rare ability in the new world in which we all find ourselves so intensely engaged.³⁸¹

On 17 February, the United Press Wire Service included an item headlined ‘Space Law’, reporting that Haley had declared at the 23rd ABA Mid-year Meeting in Chicago that the Soviet Union was justified in condemning the American (Gary Powers’) U2 flight over the USSR as a violation of International Law. Haley was speaking as Chairman of the ABA Committee on

³⁸⁰ Letters to the Editor, *New York Times*, p. 18, 18 February 1961.

³⁸¹ Letter from W. A. Hyman to A. G. Haley, dated 8 March 1961, in the *AGH, Papers & Materials*.

the Law of Outer Space. He reportedly said, “[n]ational sovereignty should extend as far into space as air does, adding that “[m]ost scientists believe this amounts to about 62 miles” [100 kms].

February had been largely devoted to preparation of FCC filings and preparations for the ABA mid-year meeting in Chicago. The business of the law firm continued, and many clients required attention for information from and representation at the FCC. On 1 March 1961, as General Counsel for the ARS, Haley submitted to the FCC ‘Comments in the Matter of an Inquiry into the Allocation of Frequency Bands for Space Communications’ in Docket No. 13522. The ARS took notice of the fact that in this rule making the critical issue of frequency sharing was opened for further comment, so the ARS pleading indicated that:

Inasmuch as the Commission subsequently undertook in this proceeding a detailed investigation of the matters raised in the Petition for Review [5 December 1960], the Society is withdrawing its petition [*i.e.* the previously filed request to the DC Court of Appeals].

The Society intends to continue to provide the Commission with technical information and other assistance in the preparation of proposals for the 1963 Extraordinary Administrative Radio Conference [EARC] on Space Communications, as well as for the 1962 Plenary Assembly meeting of the International Radio Consultative Committee [CCIR].

In addition, this pleading made two major points on behalf of the ARS: (1) the Society is obliged to point out the needs for radio spectrum to test and demonstrate rockets and space vehicles, and for the operation of space systems; (2) the Society encourages the use of rockets and space vehicles in fulfilling various functions not now being performed, and in more efficient systems to meet functions now being performed in other ways. It was already clear to Haley that transcontinental and transoceanic telephone traffic as well as direct broadcasting by satellite (DBS) would soon emerge as the economically and operationally preferable means of public communications. The pleading also noted that ARS comments previously filed in Docket No. 11866 provide responses to many of the questions raised in this proceeding. The ARS also stated its intention to provide additional data and recommendations regarding policy and principles in the area of space communications in the future.

Haley’s vision is noteworthy because the only significant communication satellite that had been launched and widely reported in the press was the DOD ECHO satellite. Launched on 12 August 1960, ECHO was a large, inflated, metallic coated, Mylar balloon. It was a passive, inefficient reflector of radio signals. Early demonstration of active repeating satellites included AT&T’s Telstar satellites, first launched on 10 July 1962; RCA’s Relay satellites, first launched on 13 December 1962; and COMSAT’s Early Bird (Intelsat 1) geosynchronous satellite launched on 6 April 1965. Whether or not Haley had information that these repeating satellites were being developed, he had absolutely no doubt that they would work and that the methods of global communications would unalterably change and significantly improve.

In early March 1961, the Executive Committee of the IISL met in Paris for a spring meeting to plan for the Fourth International Colloquium on the Law of Outer Space, to be held in Washington, DC, in October. By a letter of 12 February, Haley had provided IISL Chairman, Michel Smirnoff in Belgrade, Yugoslavia, with a draft agenda for the Paris meeting and a

detailed explanation of his plans for the Colloquium meeting. The Paris meeting proceeded on Haley's draft agenda, and on his nomination, Vladimir Kopal (Czechoslovakia), Eugène Pépin (France), and Antonio Ambrosini (Italy) were elected members of the IISL Executive Committee. Following his return home from the IAF's Paris Spring Meeting, Haley uncharacteristically wrote complaining to Frank Malina "when leaving Paris I acquired a fever and was sick for ten days thereafter. I had a miserable trip back across the ocean". Physical discomfort was becoming increasingly notable in his daily life. His steady consumption of alcohol, an unregulated diet, excess weight, and a non-stop schedule were continually aggravating his as yet undefined physical problems.

On 29 March 1961, Haley testified before Congress on House Report No. 1, a bill to provide for establishment, under the National Science Foundation, of a National Science Academy. He agreed with the intent and purposes of the bill. His principal objection to language in the bill focused on explicit language excluding classes of foreign students. He argued this should not be a matter of legislation, but rather of Presidential policy. He argued in favor of tolerance of foreign student entry by noting "Hungary is officially one of the most unfriendly states and yet over a brief period of time and from an area of four square blocks in Budapest, America received into its scientific ranks von Karman, Kaplan, von Neumann Teller, Wagner, Szilard and many other of the brightest stars in all the diadems of science".

During 1961, Haley decided to put the family's Huntington St. home on the market. He began to consider purchase of an apartment in a condominium on 15th near K Street, in Washington, DC. It was a 3-block walking distance from his offices at 1735 DeSales St., across from the side door to the Mayflower Hotel. On 11 February 1961, Haley wrote a detailed letter to Stuart Bernstein in Washington, DC, describing his views on the financing arrangements and the required warranties he would expect as buyer of the apartment at 723 15th Street in the District. In this letter Haley requested that the Seller provide a second mortgage of 30 years duration at 4.5% interest. It also listed the warranties desired on the condition and legal status of the building, as well as the condition of the apartment, the plumbing, the air conditioning system and electrical systems supporting it. These negotiations were never completed. Haley's attention turned to an alternative location on 16th Street, N. W.

While contemplating rearranging his living accommodations in the Washington, DC area, Haley was also acting to establish living facilities in Florida. During 1960, he had bought a home at 4205 South Ocean, Delray Beach, just south of West Palm Beach on the Atlantic Coast. To provide the accommodations he was seeking, he had contractors add two more rooms and a bath, and thoroughly renovate the home. As a result, Andy Vogt later recalled that:

The home at Del Ray Beach was not small. It was a typical medium-sized beachfront property. Andy, Jr., Mary and I spent a summer there doing repair work under Andy's supervision – cleaning up the basement and tiling the basement ceiling. We were joined briefly at some point by Delphine, and Aunt Delphine was there part of the time – possibly in a second summer.³⁸²

³⁸² From a commentary on the draft of this biography sent to S. E. Doyle 12 Jan. 2020; in *AGH, Letters and Materials*.

Haley was additionally negotiating the purchase of a condominium apartment on the top floor of a new high rise building in Fort Lauderdale. In April 1961, Haley wrote to his daughter Delphine concerning the Del Ray Beach home that:

Mommie seems to be in good shape battling with all the carpenters, painters, gardeners, drapery experts and also with the two Joes. I think she is doing a splendid job, and Emma, the colored gal, is preparing all the meals faithfully. I believe she is a pretty good old servant.

I wrote 26 real estate agents to size up the property and I am sure Mommie is having a great time interviewing them all and it will certainly keep her busy. She has already met two or three whom she thinks are very nice people. I believe this is all for the best.³⁸³

On 5 April 1961 Andrew Vogt sent a telegram to the Educational Testing Service in Princeton, New Jersey, indicating he accepted the General Motors National Scholarship Award of \$1950 for the coming academic year at Harvard University. This settled the matter of where Andrew would enter college in the fall.

On 26 April, Haley spoke to the ARS Ft. Wayne Section in Indiana. He presented a new paper titled 'Space Communications and Cooperation with Iron Curtain Countries'. This was a clear example of how Haley's perception was shifting to a proactive future concern with how to proceed in developing space law in contrast to his earlier, oft-repeated frustrations that nothing was being done. In this paper, the opening section is focused on the nature and value of emerging forms of space communications. There follows a discussion of the numerous technical considerations requiring the near-term agreement on use of frequencies in space communications. This was incremental information added to the plan for the EARC.

During late April and early May 1961, Haley compiled and carefully checked a lengthy letter to Ralph A. Jones, Deputy Director, Soviet and Eastern European Exchanges Staff at the Department of State. This letter recited significant developments in CCIR work including IAF contributions, and included in some detail incidents involving representatives of the USSR in relations with Haley, the CCIR and the IAF. The letter includes specific accounts of visits to various officials of the State Department by Haley and others seeking guidance on US policy concerning issues expected to arise in forthcoming meetings with the Soviets. In several cases the Department provided the guidance requested and the US representatives to various meetings were able to carry out negotiations with conclusions consistent with US interests. The principal purpose of this 14 page letter, in addition to making a formal record of his related activities, was manifest in the concluding paragraph, which read:

I believe that the foregoing narrative conclusively points out the necessity for the establishment of an office within the Department to which United States participants in nongovernmental international agencies will be able to come for advice and direction. These participants look to reputable sources of information and endeavor to analyze statements of the President, the Secretary of State, and other appropriate officials – but it is sometimes difficult to ascertain by these means the forthright position and policy of our Government.³⁸⁴

³⁸³ *Ibid.*

³⁸⁴ In *AGH, Letters and Materials*.

To give the letter more weight and to use it as evidence, on the same day Haley sent a copy of the letter to Jones as an enclosure with a one-page letter to Dean Rusk, the US Secretary of State at the time. The one-page letter to Rusk begins by recalling an earlier ARS conference at which Rusk and Haley had met. Following that introduction the letter continued;

I inclose a copy of a letter I have just sent to Mr. Ralph A. Jones. [...]

I desire to make two main points: (1) an office should be set up within the Department to advise United States societies and agencies participating in the activities of nongovernmental international organizations; and (2) while the present staff of the State Department handling communication policy – and especially space communications policy – is highly competent, hard working and very successful, the direction of this work actually should fall under the immediate authority of an Assistant Secretary of State. I believe that upon investigation you will find that this recommendation is highly disciplined and worthy of considered action. [...]³⁸⁵

At that time, the Office of Telecommunication Policy was responsible to a Deputy Assistant Secretary of State, who was responsible to the Assistant Secretary of State for Economic Affairs, who was responsible to the Secretary. Haley was urging in 1961 that telecommunications be raised to a higher level of attention and authority within the Department. The situation for telecommunications management in the department in 2019 is quite different. The Office of International Communications and International Policy (CIP) is responsible to the Office of Economic and Business Affairs (BA), which is responsible to the Under Secretary for Economic Growth, Energy and Environment (E), who is responsible to the Secretary of State. Haley did his best to encourage change, but the bureaucracy expanded and swallowed telecommunications policy.

Andrew John Vogt recalled that sometime in late 1961 or early 1962 he was invited by Haley to attend a popular Broadway show:

TAM Craven was a close friend of AGH, and his female companion McGee was a close friend of Aunt Delphine. AGH said that TAM was the only engineer who had ever recommended AGH to clients though AGH had recommended numerous engineers to clients. AGH knew all the FCC Commissioners rather well – TAM, Chairman John Doerfer, [and] John S. Cross (from Arkansas). Early in college I went with AGH, perhaps my cousin Delphine, and Commissioner Cross and his wife Ruth to a performance of Camelot on Broadway, with Julie Andrews and Robert Goulet in lead roles. We had seats in the fourth row or so, and I was beside myself with enjoyment, but Commissioner Cross fell asleep during the performance.³⁸⁶

For the balance of 1961 and during 1962 Haley developed subsets of the problems of satellite communications as he collected more relevant information which would be folded into his final Extraordinary Administrative Radio Conference (EARC) program proposal. On 26 April, his 1961 presentation to the Fort Wayne Section of the ARS contained a clear example of Haley's attention shifting to a proactive concern with how to develop space law in the future. The paper was in substance a warning, although not declared to be, to the non-communist countries

³⁸⁵ *Ibid.*

³⁸⁶ From a commentary on the draft of this biography sent to S. E. Doyle 12 Jan 2020; in the *AGH, Letters & Materials*.

interested in and likely to use space radio, that the USSR had a very nationalistic oriented approach to space radio regulations, and that position was not likely to change any time soon. After a review of the motivations for the Soviet rigidity in dealing with regulation of space communication frequency bands, the paper addresses the history of Soviet participation in the major steps taken toward cooperation in space communications. The record of Soviet avoidance and non-participation in the international regulatory work of the ITU, and their late entry into the IAF is reviewed in some detail. Urging the necessity for improved international cooperation by the USSR the paper concludes with a brief and somewhat frightening paragraph:

Failure to agree on international regulation and registration of frequencies used in space communications may result in the accidental triggering of World War III. Progress in such agreement may contribute significantly to the growth of genuine cooperation and peace with justice among nations.

Earlier versions of his papers discussing the ITU's planned 1963 EARC contained the history of Soviet behavior and the record of Soviet launches and radio frequency uses, but this Fort Wayne paper is the first effort Haley made to comprehensively explain his view of the motivations underlying Soviet behavior. The presentation is more historically matter-of-fact than accusatory, but its implications for potential adverse impact on progress in 1963 are unambiguous. Having visited the USSR and having interacted on several occasions with Soviet delegations to ITU/CCIR meetings, Haley knew that he had a better than average understanding of and a special obligation to elaborate this background of Soviet motivations for consideration by the US Government and other cooperating nations planning for the EARC. He obviously hoped that all concerned would seek ways to address and satisfy Soviet positions without sacrificing other nations' rights and requirements. This paper was a segment of his developing handbook for guidance of delegates to the ITU's planned 1963 EARC. Another piece of this preparatory work is contained in the paper "Space Communications – Framing the Windows" presented at NATO's AGARD, Eleventh General Assembly, Oslo, Norway, 27 July 1961.

On 9 May 1961, Haley participated in a symposium and panel discussion on 'Spectrum of Space Medicine Anno IV of Space Exploration', during the 155th Annual Convention of the Medical Society of the State of New York in Rochester, New York. The paper is a major effort by Haley to enter discussion of the nature and extent of law he deemed required to deal with medical issues in outer space. Haley began with a recitation of early history of forensic medicine. Then, bringing the reader's attention to modern time Haley noted that:

Paraphrasing the famous words of the first beneficiary of the caesarian operation, it may be said that all space jurisprudence is divided into three parts, namely (Item 1) public regulation of matters pertaining to health, contamination, quarantine, and so on; (Item 2) the discovery of crimes and the adduction of proof establishing the facts; and (Item 3) establishment of facts concerning personal injuries caused by negligence and tortuous actions.

I will devote the greater part of this paper to strictly public regulatory problems classified under Item 1 above. Item 3 also covers matters which will become of increasing public importance as more human beings are involved in outer space adventures.

Under Item 2 in all probability new methods of detecting and proving criminal offenses involving human beings will have to emerge through further scientific investigation and refinement of methods.

This paper took Haley back into his original posture of urging law to regulate humans in space because there were no relevant laws applicable there. In this paper he raised many issues, but suggested that the solutions will require time, effort and serious international cooperation, because these problems will not solve themselves. This paper contained a wide-ranging discussion of many of his earlier arguments on the need to clarify jurisdictional limits, proposing again the von Kármán line, and then expanded the discussion to include references to others who have written on exobiology and the problems of contamination of celestial bodies by man and the potential of back-contamination of the Earth. He discussed the role of the UNCOPUOS, the importance of the Committee on Contamination by Extraterrestrial Exploration (CENTEX) and COSPAR. He elaborated aspects of space medicine, including consideration of the reaction of the human body to prolonged exposure to the space environment, and he explicated the consequences of radiation exposure. In a somewhat typical conclusion, capitalizing once again on the fear of the unknown, Haley wrote:

Success in meeting these problems will be possible only through the cooperative efforts of all the space sciences, including space medicine. It is the function of the lawyer to facilitate such cooperation on an international level. Failure to achieve this cooperation may render our entire program of space exploration futile. Progress in such agreement may contribute significantly to the growth of genuine cooperation and peace with justice among nations.³⁸⁷

The paper contains twelve pages of scholarly footnotes, evidencing substantial research that had been undertaken for preparation of the paper. Such research was generally done and or verified by attorneys or clerks in the law firm. The detailed research was also supplemented with appendices to define ‘air’ and ‘atmosphere’.

On 10 May 1961, Haley testified before the House Committee on Science and Astronautics on the topic of communications satellites. In both oral comments and written testimony, he urged early action on the establishment of communication satellites for the benefit of all mankind. He expressly favored this initial work being done by industry, with whatever research and development assistance NASA could provide. He urged immediate progress and initiation of the program, even if its ownership and management would have to be revised at a later date. Congressman Victor Anfuso engaged Haley in an exchange toward the end of Haley’s remarks.

Mr. Haley. The vital negotiations within the Departments and Agencies of the Government should be expedited.

³⁸⁷ At p. 48 of the MS in the AGH, *Papers & Articles*.

Just one last thought: we have seen all firsts thus far go to the USSR. This is one area in which we can have a first. It is one area when the practical applications of the entire space effort will be for the benefit of mankind as such.

I urge that you [the Congress] request the Government representatives to come before you as soon as possible to make final determinations.

The Chairman. In effect you are saying that this, the benefits brought to mankind from activation of this program are available now to us, practically available, will be so far-reaching as to transcend anything that has been done heretofore; isn't that right?

Mr. Haley, Absolutely correct.

Mr. Anfuso. Mr. Haley, you have traveled all over the world and attended more conventions than anyone I know, more scientific conventions. You have travelled throughout Russia. You have met almost every scientist in the world.

You actually believe, don't you, that this is one field where we can actually receive a "first"?

Mr. Haley. This is a pre-eminent field in which we flourish.

Mr. Anfuso. It will be for peaceful purposes and will go to the credit and well-being of the entire world?

Mr. Haley. Yes.

At these hearings Haley was urging the congressmen to facilitate the introduction of satellite communications at the earliest possible time. He believed the technology was in hand and the capability existed, but the institutional issues, particularly the ownership question remained open. The issue was to be discussed widely and extensively, but resolution of the question of who would own the new satellite system capabilities was presenting conflicting views and varying opinions.

Some urged that the government should own the systems, in a system modeled after the Tennessee Valley Authority. The major communications common carriers thought that the industry should own the system, as it did with the telephone and telegraph systems. Another contingent believed a new corporate entity should be created to allow the public to purchase stock and have public ownership of the system. There was no clear consensus or correct path to follow, because all the alternatives had predecessors, and all had merits. What was needed was a way to bring all the proponents to a commonly acceptable solution. Debate continued through the winter and spring months into 1962.

On 19 May 1961, Haley presented 'Space Communications and Exobiology Problems' before the Arizona Broadcasters' Association in Tucson. This was the paper he had presented on 9 May in Rochester, New York with a slightly modified introduction and shortened to eliminate extended discussions of some of the topics included. Six days later, on 25 May 1961 President John F. Kennedy delivered his first State of the Union Address to a Joint Session of the US Congress. Robert Rosholt's excellent administrative history of the early years of NASA captured the excitement and courage of this event as follows:

[The President] declared that the time had come to "take longer strides" in space, that it was time for a "great new American enterprise," time for the United States "to take a clear leading role in space achievement." He claimed that the United States had the "resources and talent," but had

never made the national decision to use these assets to achieve world leadership in space. The head start of the U.S.S.R. should not discourage the United States. “For while we cannot guarantee that we shall one day be first, we can guarantee that any failure to make this effort will make us last.”

The President called for the Nation to commit itself “to achieving the goal, before this decade is out, of landing a man on the moon and returning him safely to the earth.” He pointed out that this would be an expensive venture, one that would consume time, talent and resources that could be spent elsewhere. He believed it would be worth it, however, and he asked Congress and the American people to consider the matter so that the entire Nation could arrive at a truly national decision and make it a truly national venture.³⁸⁸

In June 1961, the Institute of Aeronautical Sciences (IAS) and the American Rocket Society (ARS) convened a National Joint Meeting in Los Angeles. At this meeting Haley presented ‘Current Congressional Legislation Affecting Aerospace Business’. An opening section dealt at length with the history and necessity of ‘sacrifice’ in America’s national development. Haley observed that the Kennedy proposals for space program development would have estimated costs of billions of dollars, so it was appropriate to consider the sacrifices the space programs would require. This led immediately into discussion of the costs with which Congress would have to deal. Because of the mounting demands for space spending, Haley observed that “our interest in other [non-space] pending Congressional measures is appreciably sharpened”. A review of recent space flight failures led to a discussion of liability issues and the need for legislation to deal with liability for damage to life and property. Haley briefly reviewed the recent history and status of legislation for absolute liability and the need for federal law guaranteeing settlement of claims arising in the amounts of millions of dollars. After dealing with the need for and progress of legislation on liability issues, he reported:

Elsewhere in the legislative mills of the current session of Congress are some 30 other measures (excluding duplicating bills) of varying importance. Besides these 30, which relate directly to the aerospace business, there are scores of other bills which pertain to all kinds of business engaged in government contractual activities, and which are of ancillary interest to space industry in particular.

Haley’s discussion then shifted to consideration of the future prospects of satellite communications. Here he repeated much of the testimony he gave to the House Committee on Science and Astronautics on 10 May, decrying the need for a government monopoly in this industrial sector, and urging private ownership of commercial communication satellite systems. He concluded the paper generalizing about sacrifice and offering a philosophical observation about human realization of dreams:

In summary then let us squarely face up to our obligations in the field of space communications. In keeping with the genius that has made us a great Nation, let us speed to the people of the world – and to our own people – the benefits already derived from our superior technology in this area.

³⁸⁸ R. Rosholt, *An Administrative History of NASA, 1958-1963*, 192, NASA SP-4101, GPO, Washington, DC, 1966.

As for the challenges facing us in other areas, I am hopeful that I offend no one within hearing today when I reaffirm my conviction that no amount of sacrifice will deter American industry from meeting – and surmounting – the obstacles of the space age.

For there has always been, I believe, an arch between men's dreams and men's accomplishments. And the capstone of that arch, I also believe, is the will of free men to make those dreams come true.

Consistent with his practice of many years, when Haley believed that a new organization would accomplish useful and productive functions, he was ready and willing to help organize any interested parties into a cooperative venture. On 13 July 1961, the original incorporators of the Astronautics Foundation, Inc., namely Theodore von Kármán, Andrew G. Haley, and Ethna White, met in New York City's Gotham Hotel in accordance with legal requirements to (1) unanimously amend the original Certificate of Incorporation to provide that there shall be not fewer than seven Trustees during the first year of the existence of the Foundation, (2) to adopt the Bylaws of the Foundation, and (3) to designate the Trustees then of record.

Subsequently, on 28 July 1961, a meeting of the Trustees was convened in Oslo, Norway attended by William Randolph Lovelace, II, von Kármán and Haley, being a quorum of the board. A total of twelve Trustees were nominated to serve until the next annual meeting of the Board of Trustees, scheduled for Washington, DC, on 5 October 1961. Through diligent canvassing and persuasion, Haley had convinced 11 prominent leaders to join him as Trustees of the Astronautics Foundation, Inc. In addition to Haley, the Board would include J. L. Atwood, President, North American Aviation, Inc.; J. C. Cooper, Legal Adviser to International Air Transport Association; J. W. Crosby, President, Thiokol Chemical Corporation; R. G. Folsom, President, Rensselaer Polytechnic Institute; T. von Kármán, Chairman of NATO's Advisory Group for Aeronautical Research and Development (AGARD); D. A. Kimball President of Aerojet-General Corporation; J. E. Knott, Director of Engineering, Allison Division of General Motors Corp.; W. R. Lovelace, Director of the Lovelace Foundation for Medical Education and Research; R. Stevens, President of Arthur D. Little, Inc.; H. G. Stever, Prof. of Aeronautics and Astronautics, MIT; and Edward Teller of the Radiation Laboratory at the University of California, Livermore. This slate of Trustees was unanimously elected at the Oslo meeting, and following officers were unanimously elected to serve until the first annual meeting:

- T. von Kármán, Chairman, Board of Trustees
- James E. Knott, President of the Foundation
- Andrew G. Haley, Executive Vice President and General Counsel
- Richard G. Folsom, Treasurer
- Secretary, Ethna White, [Miss White had been serving 15 years as office manager of the law firm Haley, Bader and Potts and its predecessors.]

It was unanimously agreed that the officers would open a bank account at the Union Trust Company, Washington, DC, for routine and normal financial transactions. These formalities were undertaken to give the Foundation a complete juridical existence, which was essential to commence the running of the time required before the IRS would consider an application for

exemption from taxation, and to enable the Foundation to receive donations from those who would make such donations before the exemption determination. Active legal operation could now be fully undertaken.

By this time the Haley family was wide spread from the family home on Huntington Street and Aunt Dede often was residing with her family in Campbellsville, Kentucky or in a house at Del Ray Beach, Florida. Haley was living essentially alone, although he was visited in Washington from time to time by his wife, sibling members of his family, his children and his wards. His relationship with Dorothy Bullitt had grown closer than that of a client and her attorney, and Dorothy Bullitt was helping fill a need for affectionate relations with someone which Haley needed, but had not well managed with his wife and children. Haley clearly cherished the interpersonal and intellectual camaraderie he had developed over time with Dorothy Bullitt.

On 18 September 1961, Haley wrote to Dorothy Bullitt to thank her for a vacation boat trip he had taken with his children on the MIKE, a small Bullitt yacht on Puget Sound.

I went to Europe for 2 ½ weeks with Fred Bohlen and I was supposed to stay there almost 6 weeks, but I cut the whole trip short because I had a strong feeling that I was neglecting the children. On my return you can imagine how delighted they were to be told that we were all going out to Seattle to take a [3 days] vacation on your boat. They had just returned from a visit with their mother in Florida.

Haley also mentioned that Mary Vogt would be entering Georgetown Visitation Academy. He closed “As always, Affectionately yours, [signed] Andy”. On 24 September Delphine sent a hand written note to Mrs. Bullitt reading:

Dear Mrs. Bullitt,

This is a little note to thank you for a most unforgettable boat trip. Upon looking at your log, I’m sure you’ve received many such letters, but we honestly had the time of our lives. Captain and Mrs. Jeeth were more than kind to us and we all ate like piggies! The country we saw was really breathtaking, and we even made a short tour of your island! Oh it was so good we still talk about it and our faces are still sunburnt and still ache from laughing and having fun.

We are very fortunate to have such a thoughtful daddy who has such a generous friend in yourself. Thank you again!

Affectionately,

Delphine, Andy and Jim [?] ³⁸⁹

Haley’s preoccupation during 1961 with the needs for internationally agreed and protected frequency bands for space communications was demonstrated again at a meeting of the Chicago Section of the ARS, Presidential Banquet on 25 September, where he presented again the re-titled paper ‘Space Radio – A World System of Communications’. This paper was a masterful consolidation of materials in numerous earlier papers. He identified earlier

³⁸⁹ AGH, *Letters & Materials*.

documents describing what was being done in space communications and told his audience how they could obtain relevant State Department and Congressional documents, many of which he had a hand in creating. This paper was less oriented to describing space radio system operations in place, which had been a mainstay of earlier papers on this topic. This paper was a prospective assessment of the complexity and variety of problems which would have to be dealt with soon, and it contained a well organized and broad range of study questions which would have to be addressed in the near future. Haley had in mind, of course, the work he was doing and promoting related to the ITU's planned 1963 EARC.

In the concluding paragraph, Haley was again looking well beyond the present. He wrote: “[t]hese are the immediate problems which face the scientific and legal communities of the world”. This was not a problem set for the United States to resolve; it would take world-wide cooperation. “In the not too distant future,” he wrote, “problems will arise involving intercommunications between space vehicles in cosmic space and other space vehicles; between the Moon and Mars, Mars and Venus, and so on”. It was a typical pep talk to the elite membership of the American Rocket Society to stimulate their attention to and their willingness to work on resolution of the problems presented.

From 2 to 7 October 1961, the XIIth International Astronautical Congress convened in Washington, DC, and the Fourth IISL Colloquium on the Law of Outer Space met there contemporaneously from 3 to 4 October. The most significant organizational accomplishment of the XIIth Congress was the final resolution of involved issues and the adoption of a comprehensively revised Constitution for the IAF. To briefly recap the history of this involved constitutional development:

At the IXth Congress, held in Amsterdam in 1958, Haley, who was then the sitting President, was asked to prepare what was expected to be a relatively innocuous update of the Constitution reflecting practices and policies which had evolved since it was adopted by the IIIrd Congress at Stuttgart in 1953. At the Xth Congress in London 1959, the draft was discussed inconclusively. Haley, who was then the General Counsel, was asked by the Presidium to have a final draft of the revised Constitution ready for adoption at the XIth Congress in Stockholm in 1960. The final draft was accomplished by a committee under Haley's chairmanship and was presented at the XIth Congress.

As Haley later reported: “[t]he so-called Haley draft of April 1960 was wholly unacceptable to the USSR member society”. In a special meeting of the IAF Presidium called by IAF President Sedov in Heidelberg in May 1960, members of the Presidium produced the ‘Revised Draft of Heidelberg Meeting, 20 May 1960’. Haley reported the main changes included: “(1) the creation of a Bureau; [to be the governing Board] (2) requirement that the Bureau should always include an officer from the USSR and the United States; (3) a requirement that no action might be taken [by the Bureau] without the affirmative consent of the voting societies from the USSR and the United States; and (4) rather extensive changes in nomenclature”.³⁹⁰ This draft of the Constitution was presented to the XIth Congress in Stockholm, where it generated heated discussion. As a result, President Sedov appointed a committee comprising V. Kopal (Czechoslovakia), L. Sedov (USSR), E. Brun (France), L. Shepherd (UK), W. H. Pickering and Haley (USA) to produce a final draft. That Committee

³⁹⁰ A. G. Haley, *Space Law and Government* 358, Appleton-Century-Crofts, New York, 1963.

met 21 March 1961 in Paris, where unanimous agreement was obtained on a final form of the Constitution. Copies of the agreed draft were sent to all IAF member societies. The Soviet veto language was eliminated in the process. No adverse comments were received by the IAF secretariat, and the XIIth Congress, at Washington in 1961, unanimously adopted the new Constitution.

Significant changes in IAF procedures were agreed in Washington. Instead of the member society of the country of the author pre-approving submitted papers to the annual Congresses, decisions on acceptability of papers for presentation were to be made by each Congress Program Committee. It was decided to give each Program Committee two years to prepare for its assigned Congress. It was also decided to establish a permanent IAF secretariat in Paris. An arrangement was agreed for the permanent secretariat of the IAA, already in Paris, to provide IAF secretariat services for two years. Other administrative procedures were adopted regularizing IAF management of Congresses. Haley had labored long to accomplish many of these revisions of procedure and he had a significant impact leading the debates on these matters. The revised constitution was adopted.

It was likely during the pendency of the XIIth International Astronautical Congress in Washington, DC, that Haley had occasion to attend a reception at the Soviet Embassy in Washington, DC. He took his niece/ward, Mary Vogt, with him to this event and Mary's brother, Andrew, later recalled that event.

Mary attended a function at the Russian embassy with AGH. She met with Alan Shepard, Yuri Gagarin (at 5' 8" she towered over Yuri), and John Glenn. What most impressed her was passing the columnist Drew Pearson who waved hello to AGH saying "Hi Andy." She had to sign the guestbook at the embassy at the same time as Leonid Sedov, and he very politely told her that she was "extremely mature for her age."³⁹¹

Whenever the opportunity arose to engage one or more of the maturing children in his ongoing activities, Haley would invite them to join him and always reveled in their mannerly good graces and charm.

The Fourth Colloquium on the Law of Outer Space was also held in Washington during the pendency of the XIIth Congress and Haley presented 'Metalaw – the Science of Universal Jurisprudence – the Third Essay'. This paper is a belabored justification of Metalaw, which summarized earlier relevant papers and retraced much of the thinking and publishing Haley had done on this subject since 1957. Robert Crane, who had compiled the *Papers and Articles by Andrew G. Haley*,³⁹² was now employed as an associate at Haley, Bader & Potts. Subsequently he assumed Directorship of the Space Research Institute at Duke University on 1 September 1961, gradually fading out of Haley's firm. Crane prepared seventeen and a half, single-spaced pages of footnotes to the Fourth Colloquium paper on Metalaw, presenting in excruciating detail the history of Haley's space law publications with commentary. The paper explicitly gives Crane the credit for authorship of the seventeen pages of footnotes. Annexed

³⁹¹ From a commentary on the draft of this biography sent to S. E. Doyle 12 Jan 2020; in the *AGH, Papers & Materials*.

³⁹² R. D. Crane (ed.), *Papers and Articles by Andrew G. Haley*, 7 Volume 1925-1962, self-Published in Washington, D. C .

to the paper are what Haley referred to as the ‘First’ and ‘Second’ essays on Metalaw, which had been published in the Harvard University *Law Record*, a newspaper published by students at Harvard Law School. Haley proudly and repeatedly referred to these publications by the *Law Record* as if they had been published in the *Harvard Law Review*. The Third Essay was also published by the *Harvard Law Record*, in Vol. 33:7, 9 November 1961, without the appendices and Crane’s extensive footnotes.

During the Fourth Colloquium, Haley also presented his Report as Chairman of Working Group Seven of the IISL, examining legal and policy issues related to and involved in space communications. This report is another in the series of Haley papers building on the IAF and ARS contributions to the FCC and the CCIR in the development of space communication regulation. This was another chance to elaborate many of the study questions he had collected for preparation for the 1963 EARC. Much of this paper and its conclusions had been previously published, some of it several times.

In the following week, 9 to 15 October 1961, the ARS held its 16th Annual Meeting in New York City. At that meeting Haley presented the ‘Space Communications of the Next Generation’, which elaborated potential future uses of space communications and many of the scientific issues such communication systems would engender in the context of the radiation backgrounds and sources in outer space. The paper relied heavily on publications by space radio scientists. It was another example of Haley’s capacity, with researcher assistance, to take complex technical matters, organize them effectively and present them in language comprehensible to laymen. On 26 October, Haley consolidated much of the Fourth Colloquium paper and the ARS paper into a merged form titled ‘Space Communications – A Current Report’, presented at a meeting of the Sacramento Section of the ARS.

Late in October, Aunt Dede was living back in Campbellsville, KY, with her mother, Maude. She wrote to her children, Delphine and Andrew, now both living in Seattle, as she did from time to time to maintain active contact.

Dear Chilluns [a carryover from her youth in Alabama and Mississippi],

It is hard to write both of you the same news – as if there is any – so I’ll write you together. So good to have both of your letters – however it was a long time ago but I was dilatory myself in answering.

Am wondering how you are getting along –Do you like your apartment, Andy? Have you gotten a job? I know D. likes hers and it sounds so cute but I worry about her being alone on that boat. [This is a reference to Delphine’s recent acquisition of a house boat which she docked in Seattle.] D. I am sending you your note paper – you might need it – and a lighter – Daddy brought it from Rome. Are you going to the shindig for Kennedy? Daddy leaves here for Seattle Tuesday. He was down last weekend and we had such a nice visit – he was in good humor. He and Doc Shepherd went to the races and cleaned up – or so they say.

There was one heck of a commotion around here when Daddy Henry [her step father] died. The Doyle family came down and we were sleeping all over the place – little baby in the room with me and the dog under my bed – I have never seen so many flowers in my life as at the funeral home. Did you write Grandmummy a note? I think she would so appreciate just a line – she looks horrible.

Don't forget to send Daddy a card on his birthday – Nov 19th while you are getting one Andy you might get one for your godchild, whose birthday is Nov. 23rd.

Has anyone heard a word from A. J. [Andrew J. Vogt] I haven't but I have heard from Mary – I guess she has been home [the Huntington St. house] every weekend but last, when Daddy was here. She was hostess for a big farewell party he gave for the foreign scientists at the D. C. Congress.

I am trying to get fat and fluffy for Xmas – have gained 8 lbs. but at that I am still pleasingly slender – about what I weighed when I married – I must have gotten married but it's been so long ago I've forgotten.

The pictures were fine. Andy – I will put them in the layers of D's writing paper when I send it. D. when you fill the lighter be sure to snap back the little thing on the top in the cap. I thought mine was broken.

Gram seems to be feeling better though I think she is a little thinner. One morning at four o'clock she said she had a heart attack and at nine she decided we should all drive up to Indianapolis for the weekend and we were off by ten – Beats me –

Here are the baby's pictures – Shannon talks like a chatter box + can say anything – picks [up] every shoe in the house and says "De De's choos". Elizabeth is walking everywhere.

Please write me just a line and let me know what you are up to. We'll have a good time Xmas. When do you expect to be home? Let me know.

Must stop now. Maudie's [her mother's] bridge game is breaking up and there's no more news.

Love you both so –
Mommie

The Doyle's left their dog here – he bought a fine one to breed but the children are scared to death of him. He's a monster – Mother threatened to Chloroform this one every day. He ate up a beautiful pair of slacks I bought from Jessie, also a shoe or two. Every morning Sally [a servant] would come in and say "I see you aint had his eyes closed yit". Now Maudie is crazy about him and he doesn't seem to be so destructive. The children ride him + roll him all over the floor + and he doesn't seem to mind. His name is "Mo" (short for Mohammed).

D., Mildred T. came by and brought some of the silliest things you and Alice did – drawings, announcement of the wedding of two fleas etc. – Alice will be married the week before Xmas – big wedding – Hank has another baby – a boy - + they have never seen the first one – Something is rotten in Denmark. Andy, be sure + write Gram a little note of thanks for check. She is funny about those things and has mentioned it several times.³⁹³

The unlabelled, somewhat frenetic post script to the letter suggests how the ravages of time were deteriorating Aunt Dede's capacity to organize thought in a disciplined way. She required care and assistance which was now provided by her mother, Maude, her sister, Bernice, and the servants at their Campbellsville home. When Aunt Dede would relocate to the Del Ray house in Florida, Maude and or Bernice would often accompany her, and during Aunt Dede's occupancy there was a resident servant to prepare meals and look after her. When he reviewed

³⁹³ AGH, *Letters & Papers*.

the draft of this manuscript, Andrew Vogt was apparently reminded of the Haley visits to his wife in Campbellsville, as described in the third paragraph of the forgoing letter, and he recalled:

AGH visited Campbellsville, Kentucky many times and had a close friend there who was a doctor of large proportions. They used to go to the racetrack together. The doctor, whose name I have forgotten [Dr. Shepherd], when asked about medical problems of older people, said “Generally speaking, if your body is working well at both ends, then you are all right.”³⁹⁴

On a Sunday morning, 5 November 1961, Haley paused from all his legal, organizational, and publication activities to turn his full attention to his two children in an increasingly characteristic extended letter dictated to his secretary, Ethna White, who was expected to be on duty 24 hours a day, seven days a week. The letter was a newsy, sometime very personal, sometime complaining, sometime instructional communication; a sort of catching-up with the children on matters accumulating in all their lives. At this time, Delphine and Andrew were living in separate apartments in Seattle. Delphine had entered school in Seattle in the fall of 1961 to gain a teaching qualification. The letter from Haley demonstrated clearly his dominant focus on himself in almost all he wrote about. He described a characteristic trip consolidation of meetings with clients, conferences, family gatherings, astronomical activities, and any other commitment that could be wedged into the schedule. Whether consciously or not he maintained a degree of separation from the children by referring to them in the third person, although the letter is addressed to them personally. Haley wrote:

Dear Delphine and Andrew,

A week ago last Monday I made a quick trip which took me that morning from Washington to New York, then to Tarrytown and on back the same day to New York, and then on out to San Francisco. I saw Uncle Tom [his brother] and Catherine and Aunt Nancy [his youngest sister] and Don [Brandes]. We had a nice evening together – although there was a little coolness on the Brandes’ part, which reverts back to the long period of time when the Tom-Cats [Tom’s family] were not very cooperative in “lending a hand” to take care of Grandma [his mother] – especially during the times when the Brandes would want to take a “night off”. All in all the evening was very pleasant, and I have arranged to take care of the expenses, in a very small way, of your good first cousin, John Buffelin Haley, who now resides with the Tom-Cats.

The next morning I had an engineering conference starting at eight o’clock with Hammet & Edison and Don Reynolds [clients]. After the conference we went to Lockheed Aircraft in Sunnyvale to interview a station applicant. I then proceeded to San Francisco where I spent the evening with Mickey McClung and Charles Kinsley, then off to Chico [CA] where I spent the day talking over problems and lecturing all the station personnel on “Payola”, “Plugola”, programs, program balance, etc. The next morning I went to Sacramento and saw the KROY people and that afternoon and evening I was the guest of honor at the Aerojet Sacramento Plant. We had a wonderful dinner at which I spoke on the early history of Aerojet.

³⁹⁴ From a commentary on the draft of this biography sent to S. E. Doyle 12 Jan 2020; in the *AGH, Letters and Materials*.

The next morning I flew to Los Angeles and was met by Bill Beaton. We interviewed one of his stockholders, Dr. George D. Landegger, and had lunch with him at a plush new Los Angeles restaurant. I was told that Dr. Landegger was one of the world's truly great ophthalmologists and that it is quite impossible for a new patient to obtain an appointment with him. Since going on the "MIKE" trip the vision of my left eye has practically disappeared. I casually mentioned this to Dr. Landegger and he told me to "duck in" with him to his laboratory and he would take a look. He told me I had a most serious hemorrhage on the vein in the Retina and that the damage might be permanent. He said it would take at least four more months for the clot to disperse and that this actually was a most serious injury. He said it may have been caused by high blood pressure, lack of vitamin C, or for any number of reasons. This was quite disconcerting, to say the least, as loss of sight is pretty bad for a lawyer. He referred me to Dr. John H. King in Washington who, he says, is the best qualified man in Washington in this field of medicine. That evening I spent at a party given by Dr. von Karman for Margie and Frank Malina and many other old friends. Uncle Frank and Aunt Gertrude [Bader] drove me to the airport to catch the 11:40 flight for Chicago – arriving at 6:30 a. m., which connected with a plane for Louisville [near Campbellsville].

I felt depressed indeed because Mommy was obviously at one of those turning points where she was going into a coma. She tried to behave herself, however, and seemed to gain a little strength. The best part of the [my] arrival was the fact that at the same time a very nice letter came from Sissy Britches [Delphine] which cheered everyone up because of the pleasantry and humor of the letter and of the good news – but mostly because she had taken the time and trouble to write. We had a go-around with what to do with Mommy and I finally succeeded, with the help of Dr. Shepherd, in persuading her to go to the local hospital for intravenous treatments and a little rest. For three days she couldn't eat a thing but we were able to telephone Delphine to express our appreciation. On Monday morning Mommy went to the hospital and she is still there. [29 Oct. – 5 Nov.]

I am now on my way to the airport to leave for Chicago. I hope to be in Indianapolis late Monday night to be able to visit with Mommy again on Tuesday or Wednesday before returning to Washington. In the meantime, Grandma and Aunt Bernice took the time off to make a long-delayed trip to Meridian, [Mississippi] where they had to have a stockholders' meeting of the Coca Cola Company. Everything worked out very nicely and I hope Mommy got back some of her strength and was "undehydrated" at the hospital.

I was glad to receive Andy's letter on my return to Washington and I believe I understand the reason why he did not write.

I am sorry that economic problems beset both of you. Just as I thought, Mommy keeps repeating that she has sent both of you "money". She is mysterious about the amount which is all the more annoying because I cannot tell whether you are in dire straits or not. I send her \$400 a month – and all other expenses are paid. She only has to "kick in" once in a while for groceries at Grandma's. She might be sending you a lot - and she may not be. She has no servants, clothes, drugs or other items to pay for. They are all paid for separately.

I certainly hope that neither of you is involving your credit. I am a little bit mystified at some of the things that have happened. I told Andy he could have the car to do anything with it he desired – and I would lend him the money to buy a set of tires. The bill for tires came to \$195 and it seems to me that his judgment might be questioned at spending so much for tires when perfectly serviceable tires cost much less. I do not care if he has gold-plated tires if he can afford to pay for them. That would be none of my business.

Well, no matter what the circumstances, I certainly want to take care of both of you if you need money or face any unusual hardships.

Andy should send me as soon as possible a list of the persons to whom he owes money and the amounts – everyone – and especially his roommates. I will most gladly send him the money to take up these debts and also provide him with an allowance which he can designate. This is only a reasonable and decent thing to do and there is no principle involved. It is simply a matter of decent father-son relationship – especially desirable and appropriate because of the good effort Andy is making.

It seems a shame that the proceeds from this great law practice should inure to the benefit of someone else. I hope Andy will make a real effort to get back into law school as, just as soon as he could become qualified at the Bar, he will be a free man indeed. In another few years his share of the law practice should be in the order of \$40,000 a year and, of course, he would own all the equipment and good will which certainly would be worth a half a million dollars. It would be a great disappointment to me if I had to turn this over to strangers or even to Mike Bader [his nephew] – which is the only answer if Andy does not become a lawyer.

Also, little Sissy Britches should let me know if she needs any money as I have always told her that all she has to do is to let me know. The only thing I resent is this disorderly arrangement where Mommy has to fork over her allowance – which I want her to keep for her own sense of security. There is no necessity for “tapping” her.

Love to both of you,
Daddy³⁹⁵

Haley was detached from his family perforce by his diverse professional pursuits, but he repeatedly sought to hold a check on the children by his measured grant of financial support. As the children grew older, and sought more financial independence, this method of control became less effective, even sometimes aggravating and bordering on insulting to the children.

In mid-November Haley presented “Remarks of Andrew G. Haley” to the Stetson Law Day 1961 Seminar at Stetson University College of Law in St. Petersburg, Florida. This paper listed numerous space law issues and noted that he had been the first to address some of the “hard core” problems involved in developing the body of needed space law. The issues listed are footnoted to the same seventeen and a half pages of notes that had been attached to “The Third Essay”, but without credit to Crane, their author. This is another of Haley’s “look at what I have done” accounts, which were appearing more frequently as time passed. On 1 December, this same paper was re-titled “The Law of the Age of Space” and presented to the Columbia Society of International Law, Columbia University School of Law in New York City.

³⁹⁵ AGH, *Letters & Materials*.

Chapter 35. Reorientation and Change – 1962

Haley reduced his foreign travel in 1962 and paid more attention to his law business and family matters. He engaged in frequent domestic travel to meet with clients, and delivered relatively few addresses during the year. He had three articles published.³⁹⁶ He also presented three papers. Two of his formal presentations dealt with the problems and potentials of communications by satellite and associated regulatory issues, his sustained preoccupations.³⁹⁷ A third presentation addressed opportunities for youth in the developing field of astronautics.³⁹⁸

Always able figuratively to manage several balls in the air, as a juggler might, in this eclectic year of management requirements, Haley faced challenges to both his mental and physical capacities. As a result, when on travel in the northwestern United States, he began to force himself to pause for rest and recuperation, because his children were in that area, and there was inviting and relaxing hospitality offered by his client, Dorothy Bullitt, whenever he was in Seattle.

The nearly abandoned family home on Huntington Street in Washington, DC, was listed for sale, and Aunt Dede's deteriorating health resulted in another period of institutional care for her.³⁹⁹ More detailed attention to the maturing children and wards resulted in numerous and sometimes lengthy letters from Haley to the children. The year became a period of reorientation from a concentration on international aerospace matters to more attention to and presence in family matters. At this point in his life, aged 57, Haley was feeling the effects of aging in his bodily strength and comfort, and he realized his stamina was occasionally lagging. He simply could not keep going for fifteen to sixteen hours a day, so he was scaling back some of his earlier activities.

One of his ambitious undertakings in 1962 required considerably more attention and effort than he originally expected. Haley had volunteered to help Baron Franco Fiorio, an Italian diplomat in Washington, DC, by serving as General Commissioner to manage the set-up and operation of a national exhibit for San Marino at the Century 21 Exhibition (World's Fair) to be held in Seattle from April to October 1962. To manage the challenge, Haley drafted his children to help carry the burdens. Some of the World's Fair activities which required a great deal of his personal attention in 1962 ran over into 1963 before they were concluded.

³⁹⁶ "Space Communications of the Next Generation", in the ITU *Telecommunications Journal*, Feb. 1962; "A Synoptic View of Space Communications" in the AFCEA journal *Signal*, March 1962; and "Communications in the Space Age" in the Brazilian journal *Astronautica*, May-June 1962.

³⁹⁷ "Space Communications – Some Legal and Sociological Challenges", presented at the Fifth Colloquium on the Law of Outer Space, Varna, Bulgaria, Sept. 1962; "Communication Satellites – Simple Relay Stations of Profound World Importance", presented to the 17th Annual Meeting, ARS, Los Angeles, Nov. 1962.

³⁹⁸ "Opportunities for Youth in the Space Age", a presentation at the Eighth Annual Scholastic Banquet of the American Legion, at the University of Washington, Seattle, 9 May 1961.

³⁹⁹ During October and part of November 1962 Aunt Dede was resident in the Melwood Farm Addiction Treatment Center in Olney, Maryland. When she left the Center she returned to the home of J. Y. Chambers, her step father, in Campbellsville, Kentucky.

To achieve some continuity in the rendition of the events of the year, progress in each topic area is dealt with hereinafter in continuity. Although the project pathways were contemporaneous and overlapping, they are herein segregated to facilitate both rendition and comprehension.

Consolidation of the American Rocket Society and the Institute of the Aerospace Sciences

In January 1962 Haley's law firm produced a substantial study package of information related to the consolidation of the two largest non-governmental professional societies in the world dealing with aeronautics and astronautics. Each society included more than 30,000 members. The American Rocket Society (ARS) was the renamed American Interplanetary Society formed in 1930; and the Institute of the Aerospace Sciences (IAS) was the renamed Institute of Aeronautical Sciences created in 1932. These two organizations had collaborated on a joint organizational annual meeting in San Francisco in June 1961 and discussion was intensified there of the potential consolidation of the organizations. Haley's legal team produced a study with required historical documents, relevant requirements for consolidation found in the laws of the State of New York (in which both organizations were incorporated), alternative approaches to consolidation to be discussed, and an indication of issues required to be addressed in the negotiating process.

In this work Haley, as General Counsel for the ARS, worked in close collaboration with Allan D. Emil a prominent New York attorney, who was General Counsel to the IAS. The discussion of problems and alternative solutions continued throughout 1962 nearing conclusion, but still requiring formal acceptance by the boards of Directors of the organizations. Haley and Emil were working under guidance of *ad hoc* committees of their organizations' respective boards of directors. The negotiations neared completion toward the end of 1962.

Production of a book on Space Law

The most significant aspect of 1962 for the present author was my introduction to Haley and beginning employment as a summer clerk in his law firm, Haley, Bader & Potts. It will not be possible to leave myself out of the story unfolding during the remaining years of Haley's life, and I am disinclined to keep referring to 'the author' when writing about myself. Consequently, hereinafter, following an example set by Haley in his 1958 book on *Rocketry and Space Exploration*, I will simply refer to myself as Doyle. This will be simple and clear, and in a format consistent with the balance of the story. Incidentally, I am not aware of any relationship of the Doyles identified in this book as Haley in-laws in Campbellsville KY. Like the name Smith in the US, Doyle is a widespread Irish family name in Northern and Southern Ireland, as well as in the United States.

Haley's undertaking to publish a significant book on space law took a gradually increasing amount of his personal time as it developed. He was motivated by two fundamental principles he recorded at the beginning of the first chapter of the eventually published book: "[t]he underlying principles of all man's activities in space should be (a) all benefits derived are in behalf of all mankind, and (b) the free use of outer space is assured to every nation for all peaceful and scientific purposes".⁴⁰⁰ The great bulk of his published work on space law since 1955 was devoted directly or indirectly to supporting these two ideas. One significant aspect of *Space Law & Government*, which is evident in even a casual scanning of the text, is that he saw himself as a significant participant in the evolving body of space law, and wanted his various roles recorded for posterity. In 1961 he engaged Robert Crane⁴⁰¹ to collect and consolidate his written works and any published information about him. Haley later recorded that:

This book [*Space Law & Government* probably would never have been written except for the remarkable analytical capacity of Mr. Crane and his unexcelled ability to quickly assemble source material. He gathered into six large volumes . . . all my papers, speeches, comments and so on. He also made a highly informed and precise study of all the literature on space law, and he recommended to me that I codify my original contributions and comments into a book. Unfortunately, Mr. Crane could not help me in this task because he was appointed Director of the Space Research Institute of Duke University.

Fortunately, Stephen E. Doyle, [a student] of Duke University Law School, with Crane's volumes of my collected prior writings covering a twelve-year period, compiled and annotated material which resulted in a manuscript comprising a good deal of the first draft of the present book.⁴⁰²

As recounted in the Prologue to this biography, in mid-February 1962, Doyle visited Haley in Washington at Haley's invitation and expense, for an interview, which resulted in Haley offering Doyle a summer clerkship in his firm with the principal focus of the summer work to be consolidation of Haley's earlier published works into the manuscript of a book on space law. A reporting date was agreed as 3 June 1962. Compensation would be \$90/week for a nominal 60-hour work week. On 24 February Haley wrote to Doyle in North Carolina informing him that: "[u]nder date of February 22, 1962 I sent to you via Railway Express six volumes of my writings [the Crane compilation] for your perusal. Please be sure to carefully preserve these volumes and return them to me when they have served your purpose. Please advise me when they are received by you so that I may be sure they reached you". In early

⁴⁰⁰ A. G. Haley, *Space Law and Government* 1, Appleton-Century-Crofts, New York, 1963.

⁴⁰¹ Crane was born in Cambridge, Massachusetts in 1929. In 1945 he entered Harvard University to study Russian, hoping to become an international journalist. In 1948, he became the first American permitted to study at a university in occupied Germany, having been accepted at the University of Munich. While in Germany, he studied the sociology of religion and prepared a book on totalitarian regimes and on the spiritual dynamics of resistance movements against such regimes. He returned to the United States and earned a B.A. from Northwestern University in 1955. He then earned a J.D. from Harvard Law School in 1959. At Harvard, he also founded the *Harvard International Law Journal* and acted as the first president of the Harvard International Law Society. Crane was admitted to the District of Columbia Bar in 1960.

⁴⁰² A. G. Haley, *Space Law and Government*, Preface, xv, Appleton-Century-Crofts, New York, 1963.

March Doyle wrote to Haley acknowledging receipt of the Crane compiled volumes of Haley's papers. Doyle also wrote:

When we talked in your office last month you spoke of an outline in which you intended to set out the final form you envision for this project. In the absence of this outline I am proceeding with a general reading and thorough familiarization with the papers. When I have nearly completed this phase of the work I shall notify you. In the absence of contrary instructions I shall submit to your office a monthly statement of the time spent on your materials. Respectfully yours,

Stephen E. Doyle⁴⁰³

On 23 May 1962, Haley informed Doyle that he had hired another summer clerk to work with him on the proposed book manuscript. Because reliance on a single law student to get a useful manuscript produced in 90 days would involve some substantial risk, Haley decided to add some help to the effort. Haley wrote:

Dear Mr. Doyle,

I must say that I have not read critically the section you have written on "Consent." My first reaction is that you have a nice talent for writing and that whatever you write is useful and may be edited into a finished product.

I have a tentative understanding with a good publisher that if I can supply a finished manuscript by August 31, 1962, arrangements can be made to launch the book in the autumn.

Because of this tight schedule I have engaged another highly recommended student, Mr. Michael J. Henry, of the University of Wisconsin, whose addresses are: [...] Mr. Henry will work with you in the compilation of the book.

The only immediate suggestions I have are:

- 1) Head notes should be profuse and follow strictly the West Publishing Company Style.
- 2) You two writers, Doyle and Henry, should not initially spend a great deal of time on editorial elegance in head notes.
- 3) I need by June 3 an exhaustive Outline of the book – chapter by chapter and subdivision by subdivision. By this I mean, of course, an Outline in terms of headings.
- 4) I will then revise this Outline and leave to the two of you the problem of allocating the subject matter of your particular writing tasks.
- 5) It should be understood that as Doyle has the most familiarity with the subject matter of the book, he should assign tasks to Henry. These tasks should be substantial and non-repetitive – in other words. Henry must constantly "carry the ball" completely on a given subject.
- 6) All footnoting, references, etc. must strictly follow *A Uniform System of Citation* [1958], published and distributed by the *Harvard Law Review* Association, Gannet House, Cambridge 38, Massachusetts. If you do not have a copy of this handbook I will furnish you with one.

⁴⁰³ AGH, *Papers & Materials*.

- 7) On your draft of “Consent” I believe you have included too many disparate subjects. For example, in the Outline I would desire my writings to have a full chapter on the basic philosophy of natural law as derived from Vitoria, Suarez and James Brown Scott, and a discussion of the positivistic approaches of modern writers and the resulting impairment of international legal theory.

There should be a separate chapter on “Consent” and in a straight-forward narrative fashion you must point out in the opening paragraphs the dates, circumstances and other facts which show that I was the first commentator to advance the basic proposition in the field of astronautics that the nations of the earth had consented to the overflying of sovereign territory in outer space by peaceful instrumentalities. This chapter could well include discussion of the custom, usage, and consent. But the clear limitation of the subject matter should characterize this and all other chapters.

I do not believe you have accomplished this objective in your chapter on “Consent.”

I realize that the subject matter is pretty vast and quite complicated. I will be gone for three weeks following June 6 and I would like to spend a day with both of you going over the Outline.

I also realize that I am asking Mr. Doyle for almost too much in suggesting that he send an Outline to reach me no later than June 3. However, you both will be immeasurably assisted – and so will I – if we have a chance to go over this Outline. Once I receive Doyle’s version I will recreate one of my own, and then the three of us can settle upon a tentative but pretty firm outline of the chapters. We can also discuss style. I hope that I will be able to see you here in Washington on June 5.

If necessary, I will arrange a third lawyer to help you in obtaining and checking citations and so on. I will make provision for all the stenographic help you will need.

With every good wish to both of you, I am

Sincerely yours,
(Signature)
Andrew G. Haley⁴⁰⁴

cc: Mr. Michael J. Henry

On 28 May, Doyle wrote to Haley replying to Haley’s letter of 23 May saying he believed the printer’s deadline of 31 August could be met. Doyle explained his remaining obligations at the Law School and promised to be in the law firm offices on the morning of 4 June [Monday], but offering to meet on 3 June [Sunday] if Haley so desired. After a meeting with Haley on 4 June, Doyle and Henry, with added support from additional law clerks Peter B. Maggs and Robert B. Flint, began the process of reading and writing, sometimes for 12 hours a day during the summer. Once he had established the format and topical outline he wanted followed, Haley took little note of the work for the next 80 days. Doyle discovered later in life that this was an extraordinary vote of confidence by Haley in the four students, with an informal audit by Eilene Galloway, because it was his long practiced habit to hover over and continually correct those

⁴⁰⁴ AGH, *Papers & Materials*.

who were producing products under his supervision, especially if the end product would be distributed under his name.

There was one surprising requirement that was quietly placed on Doyle after he had settled in to begin the drafting work. During Doyle's second or third week in Washington, Haley explained that he was going to establish a quality filter of Doyle's work. He said there was woman in Washington, DC, who worked in the Congressional Reference Service,⁴⁰⁵ whom he would introduce, and he wanted Doyle to be sure to allow her to review any material produced for Haley's draft manuscript relating to the National Aeronautics and Space Act or United Nations activities before submitting it to Haley. A few days later Haley arranged a luncheon at which he introduced Doyle to Mrs. Eilene Galloway. Haley said at that time that if she reviewed the work he would be assured that it was correct, historically accurate, and useable for his book. Doyle became gradually more acquainted with Mrs. Galloway in the course of the summer. A friendship was forged that summer which lasted until 2009, when Mrs. Galloway died two days before her 103rd birthday.

The summer was hot, but the offices were air conditioned, so the working environment was physically pleasant. As he had promised, Haley provided all the stenographic support needed. The writing was drafted by hand, not dictated. Typed versions of submitted work were often available within hours of delivery to a typist. Working conditions could not have been better, except for the pressure of time. At that time, IBM electric typewriters were the principal means of production of printed matter; word processors and computers were not available for use outside of a few government organizations and selected corporations.

Doyle inherited one ancillary duty for which he had had no previous experience. In his position as General Counsel of the International Astronautical Federation, Haley had published an offer to the entire US membership of the IAF, the IAA, and the IISL to provide assistance in obtaining visas to visit Varna, Bulgaria for the planned XIIIth International Astronautical Congress there in September. If anyone desired assistance in obtaining a visa from the Bulgarian Government, he or she could submit the required visa fee and a passport to Haley's office in Washington, DC, and he would obtain the visa and mail the passport back to the traveler.

Running errands is a favorite pastime for law clerks because it provides a brief respite in an otherwise tedious day. Doyle was selected by Haley from June until the end of the summer to be a runner to the Bulgarian Consulate in Washington, DC, to deliver passports for entry of an official visa. The trips were consolidated so that a packet of passports (usually 6 to 10) would be taken to the Consulate on Monday. A second packet would be delivered on Thursday, and the passports delivered on Monday would generally be available to return to the firm. Haley's secretary, Ethna White recorded, checked and mailed the passports to their owners.

About the middle of July, Doyle received a phone call from 'a government employee' who invited Doyle to lunch to talk about a job. Being a naive neophyte at the center of world politics, Doyle assumed this would be a potential job offer for future work, so he agreed to meet the caller for lunch. Upon arrival at the restaurant and after exchanging greetings and handshakes, the two men, dressed in dark suits and ties, displayed to Doyle their credentials as

⁴⁰⁵ The CRS was renamed the Congressional Research Service in 1970 when its mission was restated in the Legislative Reorganization Act of 1970.

employees of the Central Intelligence Agency, and the three sat down to lunch. Doyle could not imagine that the CIA was interested in hiring him, but he was willing to listen. When lunch had been ordered, one of the men said “[w]e have noticed that you are frequently visiting the Bulgarian Consulate and carrying a packet in and out with you each time you visit. Can you tell us what that is about?”.

After taking a deep breath to steady himself (he was now shaking and nervous), Doyle explained that he was employed by a law firm, the proprietor of which was an official of an international organization. That organization was planning to convene an International Astronautical Congress in Varna in September, and his employer had volunteered to obtain visas for any travelers wishing to have help. Doyle told the men he was the runner taking the visa applications and passports to the Consulate, and then picking up the passports with visas and returning them to the firm. “Is there anything wrong with that?”, Doyle asked innocently. The prompt answer “[n]o” was a significant source of relief. The luncheon was completed with small talk and Doyle asking how one gets to be a CIA employee. These two visitors with him were obviously not talent scouts, nor seeking employees for the Agency.

When he returned to the firm, Doyle asked Ethna for an opportunity to speak with Haley. When he was admitted to Haley’s office, Doyle told him about the luncheon. Haley’s reaction was mercurial. He picked up the phone, dialed a number, and offered about a minute long rant, essentially driving home the thought that “if anyone wants to know what this firm is doing, they damn well better talk to me and not to a temporary law clerk”. After listening briefly, Haley slammed the receiver on its base and told Doyle to “[g]o do something useful”. He had a direct way with words. When he spoke, one rarely failed to understand what he said. For Doyle, this was an early and mild display of Haley’s temper.

One other memorable event occurred in Doyle’s life that summer as a result of his runner duties. Late in August, Ethna White contacted Doyle to ask if he had seen a passport for Dr. Theodore von Kármán. The passport bearing a visa had been picked up that very morning, but Doyle had not yet delivered the day’s packet to Ms. White. She told Doyle to take the passport immediately to Mr. Haley, which Doyle did. Upon entering Haley’s office, Doyle saw two of the loveliest anonymous starlets he had ever seen sitting on the divan, and Dr. von Kármán sitting on a chair in front of Haley’s desk. Doyle approached the desk offering the requested passport to Haley, who said “[j]ust give that to Dr. von Kármán”, which Doyle did. Haley then introduced Doyle to Dr. von Kármán, explaining that he was the young man who did the running back and forth to the Consulate to get the visas entered into the passports. It was only years later that Doyle learned fully who Dr. von Kármán was, and that in his seventies, it was his reassuring practice to be accompanied by attractive young ‘companions’ when travelling.

Other than receiving occasional space related letters from Haley’s office bearing cryptic notes directing what a reply should say, and preparing those replies for Haley’s signature, the balance of Doyle’s summer of 1962 was dedicated to reading and writing in an effort to complete the desired manuscript by the end of August. Although a draft was completed and submitted in mid-August, Haley did some substantial editing and reorganization, then returned the draft to Doyle as he was leaving Washington to return to school at Duke. Doyle was to implement the indicated corrections and adjust the references, wherever required. A

final draft text was sent to Haley by Doyle in October, after his return to Duke University. The team of four law clerks/draftsmen was disbanded in the fall of 1962. Each went his personal way without any further collaboration.

The book manuscript was in Haley's hands and he worked on it through the winter of 1962/63. As he later recorded in the Preface:

I am particularly indebted to Messrs. Doyle, Maggs, Henry, and Flint for their meticulous editing of my writings which are embodied in Chapters 1, 2, 3, 5, [6], 10, and 11. I shall never forget the very proper concern Stephen Doyle felt about the constant use of my name in Chapter 11. We ardently desired to maintain the best traditions of "good taste" by eliminating my name, and this could easily have been achieved if Chapter 11 had been written as a simple autobiography – in which event I could simply narrate the facts in the first person. There seemed to be no precise cure because it happened that during the period commencing in 1950 (and indeed until the present time) I was very active throughout the world in carrying on missions in connection with and on behalf of astronautics non-governmental international organizations. There was no way to erase the personal allusions and still maintain a coherent commentary and I could not convert this chapter into an autobiography – so Doyle performed a stalwart job in minimizing my name. Later, Messrs. Sweezy, Habets, and Washburn [later law clerks] did their best to eliminate my name from textual footnotes and from the Index. ...

With respect to liability and personal property damages in space activities [Chapter 8], I had written an article, "Space Vehicle Torts" for the *University of Detroit Law Review*, which was reprinted in the *Insurance Law Journal* . . . which I determined must be brought up to date and more thoroughly annotated. In this task I was ably assisted by Ibrahim F. I. Shihata of Harvard University. [...] ⁴⁰⁶

Chapters 4, 7, 9, and 12 were substantially drafted by Haley during the winter and added to the text, which was sent to several publishers in March 1963. After a publisher was agreed, galley proofs were produced in early summer. Sets of galleys were sent to prospective authors of invited Forewords with requests for their contributions to the book. Extensive work continued on the book well into 1963. The published book's Preface was dated September 5, 1963. The book was published in early October 1963.

The 1962 World's Fair in Seattle and managing the family

In late February 1962, Haley wrote to his daughter, Delphine, and son, Andrew, on San Marino letterhead announcing: "[b]y virtue of the authority invested in me by His Excellency the Secretary of State for Foreign Affairs of the Republic of San Marino, through His Excellency the Consul General of the Republic of San Marino [Franco Fiorio, a friend of Haley's in Washington, DC] I hereby appoint you Deputy General Commissioner of the Century 21 Exposition in Seattle, Washington, for the Republic of San Marino". The letter was signed

⁴⁰⁶ A. G. Haley, *Space Law and Government*, Preface xv-xvi, Appleton-Century-Crofts, New York, 1963.

Andrew G. Haley, General Commissioner. This was the first of a series of letters, some directing, encouraging, petitioning, and some chastising.

Delphine and Andrew were resident in Seattle during the summer of 1962, and were joined there in late June by Andy Vogt. Delphine was enrolled in a program leading to a degree in education and had summer employment there. She would move to Alaska at the end of the summer to begin a year of teaching as an intern in Anchorage. Andy Jr. had dropped out of law school at the University of Montana in the winter of 1962 and was also living in Seattle. Haley had been a friend of Franco Fiorio for many years during which they had enjoyed one another's company at meals, receptions and organization meetings. Fiorio was a well established Italian diplomat who was involved in many activities and organizations of interest to Haley.⁴⁰⁷

On 21 March Washington State Governor, A. D. Rosellini, wrote to invite Haley and his wife to the opening Gala Events [21 April 1962] of the Century 21 Exposition. On 23 March Fiorio wrote to Haley transmitting a set of copies of the Bills of Lading for materials sent by the Government of San Marino care of Haley at the Century 21 Exhibition. Fiorio explained that the documents are necessary so that Haley could pick up the materials sent at Customs in Seattle. Enclosed also were the instructions for setting up the exhibit at the site. Up to this point Haley had only discussed this matter in general terms, but on 27 March he wrote the following letter to his son, Andrew, in Seattle.

Dear Andrew,

I inclose copy of telegram from Donald Foster, Director of Exhibits, in which he urgently requests the representatives of San Marino in Seattle to get in touch with him and to inspect the pavilion and discuss the details of participation.

The first big problem is taking care of the San Marino Exhibit. In connection with this matter I enclose the following:

- Photocopy of telegram from Donald Foster, Director of Exhibits.
- Copy of letter from Baron Franco Fiorio, Consul General, dated March 23, 1962
- Instructions for the assembling of the exhibit and translation thereof.
- Photocopy of "Forwarding Agent's Receipt".
- Letter of March 13, 1962 from "SAIMA" to me, with translation thereof.

If you are interested in this matter you should make an appointment with Mr. Foster and go over all these papers with him and arrange to set up the exhibit.

Actually, San Marino has one of the nicest locations in the entire exhibition – it is small but elegant.

⁴⁰⁷ Franco Fiorio served as Chairman, Working Group on Remote Sensing of the Earth by Satellites, in the United Nations Committee on Peaceful Uses of Outer Space while an Italian Delegate to that committee from 1958. He was a member of the Delegation of Italy to United Nations General Assembly continually from 1957; and he was Consul General, Republic of San Marino, Washington, DC, 1957-1968. In this last role he designated Haley as General Commissioner of San Marino to the Century 21 Exposition. Fiorio was also Representative of the Italian National Research Council-Space Commission, 1957-1968; a Member, Delegation of Italy to Geneva Disarmament Conference, 1960-1963; and Assistant Air Attaché, Italian Embassy in the United States, 1949-1956.)

The first problem is to set up the San Marino exhibit according to instructions. If you do not have the resources to do this, please let me know immediately – as there is a young fellow in Portland who is quite anxious to take over – and I should get in touch with him immediately. On the other hand, I would be glad to pay for the time involved in setting up the exhibit. Thereafter, something of a regular schedule should be improvised among you three Deputy Commissioners to “man” the exhibit during the course of the day. The duties would be confined actually to smiling at interested observers and to telling them something of San Marino - which can be acquired from any encyclopedia. If Delphine is interested I would be glad to pay her salary to be on hand for the peak hours of the day, say from 12:00 noon to 6:00 p. m. I would pay her the same salary she is now receiving – and I do not know how much she is actually receiving so this is something of a gamble – but I think that Delphine would perform well. Also, as long as she is at Seattle College, Gay [Miss Gallivan] might devote her time on Saturday and Sunday, if she sees fit.

Anyway, I wish you would have a Committee Meeting and let me know just as soon as possible exactly the nature and extent of the contributions you can make. I am particularly anxious to have a first class showing during the Science Sessions in May and, also, during the San Marino Jubilee, which will be May 8 through 11. This would be a time in which I would particularly need Delphine because of language problems involving the Secretary of State of San Marino and I would be delighted if she would accept full time employment.

I will arrive in Seattle around May 7 or 8 and will stay not more than 4 or 5 days.

So please hold a Committee Meeting and let me know precisely what you can do – and then let us adhere to our decisions.

All my love to all of you,
(signed) Daddy⁴⁰⁸

cc: Miss Delphine D. Haley
Miss Grace Mary Gallivan

It is clear from the text that this letter came to Andrew out of the blue, with either little or no advanced notice, demanding immediate actions and immediate notices back to Haley. Putting aside whatever other activities they were involved in at the time, the Haley children did some of what was requested by their father and another letter to them followed on 7 April.

Dear Delphine and Andy,

Thank you for your very good reports. I have had a Conference with the remaining Deputy Commissioners [presumably Michael Bader and Bill Potts] and we are quite enthusiastic over your very intelligent approach to the problems.

I have talked to Baron Fiorio and he is writing Secretary of State Bigi to see if native San Marino costumes may be obtained. He is not sure if this is possible.

There will be no trouble about the passes. As Deputy Commissioners, I will make sure that each of you has a pass. In fact I have already made the requisite applications.

⁴⁰⁸ AGH, *Letters & Materials*.

I talked to Otto Brandt⁴⁰⁹ at the NAB Convention in Chicago and he pointed out that he was aware of Delphine's desire to obtain a job at the Fair but that Delphine had never called him and he was simply at a loss as to what to do about her. This was said in a most friendly manner. Little Sissy Breeches, all you have to do is to telephone Otto Brandt, make an appointment to see him [his telephone number is ###-####] and he will talk things over with you any time you desire.

I have already offered Delphine a job taking care of the San Marino exhibit but I have not heard from her. I would be quite willing to pay her \$1.75 an hour for attending the exhibit from 12:00 noon until 6:00 p. m. – 7 days a week. This would be a 42-hour week. She could, of course, arrange for a "stand in" if she got tired.

This is all I can do. Baron Fiorio suggests that the exhibit be left unattended – as no money is available from San Marino – but I am most willing to proceed on the foregoing basis.

If Delphine does not want the job, I would appreciate knowing [at] the earliest possible moment so that I can make other arrangements. I would make the foregoing arrangement only with her so do not suggest this job for anyone else.

I wonder if you will assist in installing the exhibit? If you do not have time, please let me know so that I can suggest that Baron Fiorio get in touch with his friend in Portland to make the installation. If you can assist in making the installation I would be pleased indeed and, of course, I would be glad to pay an hourly rate for this work.

I have advised the Fair authorities to give you two tickets to which the Commissioners Plenipotentiary are entitled – they sell for \$50 apiece – but you can't buy them.

Let me hear from you just as soon as possible as to exactly what you decide to do.

[handwritten] As always in haste – and all my love
Daddy⁴¹⁰

The Century 21 Exhibit (World's Fair) opened in Seattle on 21 April and ran to 21 October 1962. The communications between Haley and his children could no longer afford the time delays introduced by mail, so considerable interaction between Haley and his children occurred in unrecorded telephone calls. Otto Brandt, a senior official at KING Broadcasting in Seattle, became a local overseer, to provide Haley with some comfort that things were happening as intended and required. His children rarely initiated contact with their father, unless they needed money to solve an immediate problem.

The next phase of this project is encapsulated in a letter Haley sent to all four children, with separate paragraphs labeled by name for the individual being addressed. This letter was sent 22 June 1962:

Dear Pitter-Patter: [a comprehensive nickname encompassing all four children]

As usual, I am in a great hurry so I will make this short:

⁴⁰⁹ Otto Brandt was an executive in the KING Broadcasting organization in Seattle.

⁴¹⁰ AGH, *Papers & Materials*.

Mary Vogt

I am requesting the Director of Metropolitan Business College to send me bi-weekly reports on Mary's progress. For every hour of class attendance she should study one and one-half hours out of class. In other words, if she goes to class three hours she should practice and study four and one-half hours a day in the Study Hall or at home. I sincerely hope that Delphine will give me a hand in making sure that Mary adheres to this schedule.

Mary must keep her personal effects in good order and do her share in taking care of the apartment. And I really only mean that Mary should be a little more thoughtful in this respect. When she is home with me she is quite good – but she does not, for example, wash the dishes adequately.

Andy Vogt

Andy can start working immediately at the San Marino booth – but in view of the fact that he will have no duties other than to sit there [and occasionally smile] he will be paid at the rate of \$1.25 an hour. He must have his hair cut, his shoes repaired and shined, and look neat at all times. One thing is absolutely certain – if he doesn't attend to himself and look neat, I will be the first to hear about it.

On the forgoing basis he may go to work immediately but I must be fully advised in order to place him on the payroll. He may work from one until 6, six days a week – if he so desires. Andy must provide for a desk and a chair of suitable dignity. I suppose that this furniture should be rented. He must also obtain a very elegant book and insist that all passers-by register in this book. If he is lackadaisical in this respect he will be defeating the very reason for his job. The registration book must contain room for full name, address and remarks.

Andy Haley

1. I have not heard from Andy about the troublesome business of the insurance. I have cancelled all insurance effective Tuesday, June 26, 1962 – and Andy must by that date have secured a binder on the insurance he himself desires for the car. Under no conditions should the car be moved unless it is fully covered by public liability and personal injury insurance.
2. The summer will be gone before we know it and Andy should certainly complete his arrangements for entering Gonzaga Law School this fall. I must know about any arrangements just as soon as possible in order to make many plans including the travel schedule home from Campbellsville and Washington and back again to Spokane. We have agreed that it is only fair that I take care of his expenses when he goes back to Law School. I am most happy to do this but – like the University itself – I want to know whether Andy's plans are optimum so far as success in the Law School is concerned. In other words, if he is going to succeed and work at all, his work should probably be confined to being a law clerk in a law office - and so on. Such a job would pay very little money but it might be extremely valuable to Andy. In any event, I should be advised on what transpires.
3. I would like Andy Haley to ascertain whether the Goodyear double-seal tires on the car (Oldsmobile) may be recapped and, if so, would the recapping be worthwhile. Certainly, there is enough rubber left to recap the tires – I am just wondering whether recapping is basically a good idea and whether it will increase the life of the tires. Remember, they are the most expensive tires made.

Delphine

I hope that Sissy Britches will do a little “bossing” of the group.

Please send me the statement for the automobile repairs just so I will know it was done and please remember I do not want the car used for taxi purposes – although Delphine may use her own discretion with respect to outings, etc. If the gasoline bill gets too heavy please let me know.

* * * *

Under separate cover I have sent some San Marino stamp advertisements as “hand outs” without charge. Enclosed is one of the handouts.

[hand written] Love to my big girl
Daddy⁴¹¹

One month later, on 21 July, Haley wrote again to the four children:

Dear Delphine, Andy H., Andy V., and Mary:

As I understand it, all schools terminate on Friday, August 10. I will be on hand for the weekend and I have invited all of the “clan” to get together for the weekend. I hope this will work out alright. Would you please do a little inviting yourselves.

For Andy V, I enclose some very good news. He is on the Dean’s list and I must say that he made a fine recovery in his marks. It is a source of real satisfaction and pride to find my Number 2 boy doing so well. [...]

I am wondering about my Number 1 man. Andy, did you ever go to Spokane to interview Dean Myers and Father Regimbal? [Haley was still hoping that young Andrew could be entered into the law school at Gonzaga in Spokane.]

We will start back [to Washington, DC] with the Oldsmobile probably on Monday morning, August 13, and I would like to go by way of British Columbia. Somehow we should get to Indianapolis and there I will take Andy V. and Mary by air to Washington and, if Delphine and Andy H. want to go to Louisville to see Mommy, they can have the car.

I have a serious job of composing a glossary for the book on Space law for Andy V and I am sure it will keep him busy until he returns to Harvard on September 21. If he has any other plans he is, of course, free to follow them. I have young fellows from Duke, Wisconsin, Harvard and Yale working for me currently on the book and the glossary has been “reserved” for Andy V. My office is like a miniature Advanced Study Institute – with a really distinguished bunch of young fellows converting themselves into pundits at my expense. I thoroughly enjoy the experience, however, and I am sure the product they turn out will not be worth a damn technically but of enormous value spiritually.

I have not received the bill for the repairs to the Oldsmobile. The check and the stated costs were different. I must have this statement right away.

I enclose two envelopes which I will describe as “stamp caches” and which I would like to have sold at the San Marino Exhibit. I wonder if Andy H and Delphine would see Mr. Stimson just as soon as possible to ascertain whether permission would be given for the sale of these caches at the San Marino Exhibit. We can make several combinations of the Aviation Series, the Mountain

⁴¹¹ AGH, *Letters & Materials*.

Series, and the Automobile Series, ranging from 50¢ for the different sets of 4 contained in an envelope to approximately \$1 for any complete series of one set. The latter would be a great bargain as the retail value of the Automobile set is \$1.65. The retail value of the complete Aviation Series set is 85¢ and the retail value of the Mountain set is 85¢. All these sets are still not available in the United States – and the value of the stamp in each case is higher than the price listed.

The Great Seal of the Republic of San Marino will be in gold on the cache. If you do not have time to look into this please immediately wire me “collect.”

[by hand)] Love to the Greatest
Daddy⁴¹²

In September 1962, Delphine and young Andrew left the Seattle area. Delphine relocated to Anchorage, Alaska to do an intern year of teaching there. Andrew, Jr. eventually relocated to the Copper Valley Mission School near Glennallen, Alaska in a teaching position. Andrew’s complete abandonment of any effort to continue in the study of law was a profound disappointment to his father, but life goes on and ever a realist, Haley adjusted to the facts of life. The Century 21 Exhibition in Seattle was completed, and only one major issue remained to be resolved concerning that event. A valuable cache of San Marino postage stamps belonging to Baron Fiorio was unaccounted for when the San Marino exhibit was closed and packed for return to San Marino. Haley would remain engaged in this issue for several months. In November Haley again visited Seattle, where he spoke with employees at the Century 21 Center. They were unable to account for the missing stamps but had not reported the loss to the local police. Haley told them that if they did not take it to the police, he would, and he would ask the FBI to look into the matter.

On 7 November, Haley wrote to his children who were relocated in Alaska, expecting that they would be delighted to have the opportunity to return to Washington or to Kentucky for Christmas holidays with the family. His letter manifested again his tendency to assume that his wishes were commands and his requests were to be followed.

Dear Andy and Delphine,

It was nice to receive a letter from you pals, especially the sensitive, thoughtful and mature letter which Andy painstakingly wrote from Copper Valley Mission. His descriptions were vivid and eloquent and I must say that I have read the letter with pleasure.

Andy’s letter was also consoling as I had just received a telephone call from Gram [Maude] saying that one of Daddy’s little helpers had written her that Andy had to stop off at Copper Valley Mission because he didn’t have a penny to his name and he had to work for nothing in order to eat – and, of course, there were other statements.

I am taking Mommy back to Campbellsville tomorrow where she will endeavor to gain some weight in preparation for Christmas. She has been very good since leaving Melwood Farms. [...]

She is quite pathetic in her desire to see both of you.

⁴¹² *Ibid.*

I enclose a one-way ticket for Delphine on Northwest Airlines, Anchorage to Washington, DC and a round-trip for the first distinguished teacher in our family, Anchorage – Washington, DC and return to Anchorage. The entire passage is by jet airplane. On December 18 you could leave Anchorage on Northwest Flight 12 at 11:59 p. m., arrive Seattle at 4:49 a. m., leave Seattle at 8:10 a. m. on NW Flight 71 and arrive in Washington at 5:56 p. m.

I obtained these tickets early in order to ensure reservations. They will be very difficult to get in a few days. You may, of course, change the reservations as you see fit – the only idea that I have is that I would appreciate the gentle sacrifice you might make in having a decent and thoughtful little visit with Mommy. I, personally, have no requirements whatsoever.

Please on any and all occasions let me know if you are in need of help of any kind - and, specifically, of financial help. All you have to do is let me know what you need. I have always told you this and I am sure you understand my plain language. In connection with this trip, if you decide to undertake it, just tell me how much cash assistance you will need.

If you do not use these tickets, please return them.

Love to both of you,
Daddy⁴¹³

On 7 December Aunt Dede wrote to her children from Campbellsville:

Dear Children,

This will have to be a hurried note because I want to get it off right away – I want you to answer me as soon as possible. I did so enjoy your letters. You know you have been pretty good little monsters about writing.

Now, I want to call Delphine on her birthday [15 December] and it will be the last time I will call you before I see you. Let me know where you both will be and at what times to call. Be sure and write me right away.

Thank you for your nice Anniversary card. How did you happen to remember? I guess Daddy forgot he ever marched me down the aisle. I have talked to him several times and he never mentioned it.

I couldn't get Delphine's bras here but did get them yesterday in L-ville. Now I'm afraid to send them for fear she won't get them in time before she leaves.

Nothing happening here – just people dying (cheery!) – Maudie is feeling so much better and I have decent glasses.

Bye now, my little sweets and write me.

Love you
Mommie

⁴¹³ *Ibid.*

Apparently, Haley wrote again to his children in Alaska on 10 December, but that letter is lost. Delphine apparently returned the proffered airline tickets and informed her father that she would be travelling to Seattle for Christmas and Andrew would remain in Glennallan for Christmas. At some point subsequent to the mailing of the 10 December letter, Ethna White forwarded to the children a replacement page with a note reading “[p]lease substitute this new page 3 for the page 3 of the letter sent under date of 10 December”. The substitute page 3 read:

I also quite agree that on occasion I am a “freewheeling son-of-a-bitch” when I drink on the wrong occasions. Sometimes I am all right and sometimes I am all wrong. There is no use denying the fact that if I had never taken a drink you and many other good friends would have escaped my drunken irascibility and violent fits of temper. Do not harbor the delusion that I harbor delusions about myself.

Andy, I wish you would write to Payson Hall [at Meredith Publishing] telling him about the books you need for the Mission. You really should do this for the sake of the Mission. Just a paragraph is ample. I also sent each of you a 50 dollar bill to Seattle and I wonder if our letters were lost in the mail during the long period of time when we did not know where you were.

Finally, you should tell someone where you are and where you can be reached by telephone as it is quite possible that Mommy may suddenly die and we all would feel quite bad for a long time if you had departed from this “Vaile of tears” that you could not be informed.

I am sending Andy a check for \$100 which he certainly can use at the Mission this Christmas, and Delphine a check of \$200 as she certainly will need some assistance in buying her ticket to Seattle. Parenthetically and completely aside from this letter, I have long desired to tell each of you that if you ever contemplate marriage you will each receive a check for \$5,000 “no questions asked”.

Now don’t feel too sorry for me or the Little Ones [Vogts]. As a matter of fact, I look forward with a feeling of relief and freedom to a nice Christmas visit with the kids at home. The three of us undoubtedly will drive down to spend Christmas day with Mommy but my commitments are actually such that I cannot stay there for more than a day. I think Mary will give a “brawl” on New Year’s Eve and I am sure that Andy will spend half his time playing bridge and working out mathematical problems with Peter. I will have both of them paste pictures in albums at the office to earn some spending money.

The only sour point is that when Mommy sees the Little Ones she will accuse me time and time again that I have kept them home and have driven you away. She simply fails to recognize that the four of you are like peas in a pod, and vis-à-vis the four of you I have no standing whatsoever. I realize that she does this constantly only to keep me in a constant state of upset.

For my dear little baby, Sissy Britches, I wish the most happy of birthdays, and I know you both will have wonderful Christmases because you hearts are in the right place.⁴¹⁴

Given the highly emotional and self-critical passages on this page, it is highly likely that Ethna White had a substantial influence on the rewriting of this page of the letter. There was no way

⁴¹⁴ *Ibid.*

anyone could have known that this would be Aunt Dede's last Christmas on earth, although Haley explicitly contemplated that possibility.

Interaction with Frank Malina on various topics

In January 1962, Haley wrote to Richard Porter at the General Electric Company encouraging collaboration between GE and a recently created company owned by Frank Malina in Paris.⁴¹⁵ The Malina company was formed to develop and market the emerging line of kinetic art which was invented by Malina. Haley wrote: "I would be pleased indeed to be of service in aiding you in pursuing the interest you have shown in the work of Dr. Malina". On 26 January, Porter replied to Haley's letter indicating he had forwarded the letter to Mr. Page. (Robert G. Page, of GE Radio and Television Division.) Later the same day, Page wrote to Malina thanking him for a letter dated 21 December and informing Malina that "[a]s you know, Mr. Andrew G. Haley has offered to be of assistance to us in pursuing our interest further in this matter. I have been in touch with Mr. Haley and have made arrangements to meet him on January 21 to see some of your work first hand". On 31 January, Haley wrote to Malina reporting positively on a three-hour visit and discussion with Mr. Page. Haley reported he had promoted the idea of a visit by Page to Malina in Paris, and expressed the opinion that Page might show up there soon.

On 16 May, Haley wrote to Malina sending a copy of a recently published article by Robert Crane, which appeared in the May edition of *Spaceflight*. The article addressed the foundation of the International Institute of Space Law (IISL), but also ranged across topics involving the International Academy of Astronautics (IAA) and the International Astronautical Federation (IAF). Haley commented to Malina critically about the article.

Also in that 16 May letter, Haley wrote:

I inclose a copy of the Program for the ARS Honors Night Banquet. [...] It is interesting to note that my nomination for you was responded to in a ratio of 2 to 1 ahead of any other person nominated but the Awards Committee actually gave precedence to newcomers such as Gene Root [Pres. IAS] and Jim Dempsey.⁴¹⁶

We have discovered in the foregoing two pearls of wisdom – (1) fame is fleeting, and (2) those who have power will exercise such power on behalf of their own friends. [...]

In old friendship,
(signed: Andy)
Andrew G. Haley

On 21 May Frank Malina sent a short note to Haley:

Dear Andy,

⁴¹⁵ The company *Electre Lumidyne International* was created by Frank Malina in late 1959 or early 1960 to commercially exploit his innovative kinetic art.

⁴¹⁶ J. Dempsey was a senior official of the Convair Division of General Dynamics and a Director, ARS in 1961.

I am replying quickly to your letter of 16 May in regard to the Crane article in *Spaceflight*. Please do not put a vignette on me in *Astronautics*. I am not dead yet.

Also, I do not believe you should do more than a letter to the editor of *Spaceflight* commenting in general on the Crane article. As you say, the article runs all over “Kelsey’s lot”, and I am sure I am not the only one that found the article lacking in academic scholarship. For example, there is not even a footnote on Sanger’s suggestions for an international academy to carry out research and development; or on Kármán’s and the Founding Committee’s parts in setting up the Academy as it now exists; or on Shawcross’ part in getting the Space Law Institute resolution going in London, etc, etc.

I am afraid that since Crane is or was in your office, it will be assumed that you read and approved the article before it was published,

I appreciate your kind heart in continuing to put forward my nomination for your ARS Astronautics Award.

As ever,
Frank

This note elicited a substantial reply from Haley:

Dear Frank,

This morning I received your silly letter of May 21, 1962 and, in anger, I wrote you a diatribe which Ethna refused to send.

Ethna points out that no one mentions me in connection with Aerojet, including such good old pals as Karman, Malina, Summerfield, etc. I said you mentioned me on the tape – and Ethna responded that this was eliminated from the final recording. I said, “fine and dandy – if I worried about such stupid things I would literally go nuts.”

You know I fired Crane a few months before you arrived last September and I told you all about how impossible I thought he was. Since he is no longer working for me I have grown to like him more and more and I really think his article – which even now I have not read completely – is filled with important facts. His article is defective in three respects: (1) he should never have departed from his straight forward theme [lawyers call such additional writing *obiter dictum*]; (2) having departed from his theme he should have given you full credit for what you have done as you have filled an essential role with UNESCO and the Academy; (3) he should have given Shawcross credit for being chairman of the London meeting. Shawcross, however, had not one damned thing to do with the resolution Crane quoted.

I wrote my letter to you because I felt you have a justifiable complaint under item (2), and an injustice to an old friend always awakens in me a constructive desire to seek rectification. It is not my duty to do anything – but I am motivated only by a sense of justice.

I must say that this sentence from your letter is entirely offensive – “I am afraid that since Crane is or was in your office, it will be assumed that you read and approved the article before it was published.” I have kept Crane’s name on the letterhead because I did not want to damage his

professional career when I let him go after such a short period of association. Crane knew of my own article, which appeared in *Spaceflight*, and he suggested that his article should also be published, to which I agreed without having seen it. Strangely enough, I have a vague recollection that you also objected to my article. Hereafter, I will send everything to you for editing.

The next thing I heard about Crane's article was in a note from [Ken] Gatland [editor of *Spaceflight*] and Ethna points out that I told him to reduce, edit or change the article anyway he saw fit and to omit the names of all participants and this notice was given to Gatland last February. He then came along and published the article as submitted. I do not have the real physical capacity to read everything that is booted around and I didn't even look at this manuscript.

I don't give a damn what the public thinks any more than I gave a damn during the decade of your "Babylon captivity" but I extolled your record and your individual achievements in speeches, articles and in public and private conversations. I cannot give similar credit to any other of your friends.

I have published time after time that you were the first to theoretically prove that stable burning of long duration solid rockets was possible and gave propellant and design criteria for stability. I stated that you laid the foundation for the rocket industry of today.

I stated that in 1936 you founded the rocket research group at Caltech and that in 1939 you received the last REP-Hirsch Astronautics Prize to be awarded for your work on the theory of operation of the rocket motor.

I stated that you established the now famous Jet Propulsion Laboratory, and many other items along this line.

I stated again, many many times, that you initiated the rocket research at Caltech in 1936.

That pursuant to a report prepared by you for the Air Corps Research Department, the National Academy of Sciences sponsored the formation of the Air Corps Propulsion Research Project.

I have pointed out that you prepared the memorandum to the Ordnance Department for research on long-range jet propelled missiles.

That the final design of the WAC Corporal was made by Malina – as well as many other similar projects.

I have always emphasized your leading role in the formation of Aerojet.

I have told the full story of your artistic work in designing and producing the [ARS] Astronautics Award.

I have nominated you for ARS honors when none of your direct technical colleagues supported you. [...] ⁴¹⁷

This recitation of support was probably more an affront than a mollification of Malina's distress with Crane. Malina's wife, Marjorie, responded to this letter thanking Haley for his letter and

⁴¹⁷ AGH, *Papers & Materials*.

noting “[i]t is very kind of you to suggest that you should take over this matter, and I know Dad [Frank] will appreciate it, and I am sure you will be hearing from him soon”. It appears that the dispassionate good sense of Ethna White and Marjorie Malina kept the two men from crashing head-to-head over Crane’s article in *Spaceflight*.

A continuing topic of concern and frequent exchanges between Malina and Haley involved the IAA, which had been established in 1960 when Dr. von Kármán was elected its Director. Malina was elected a Deputy to von Kármán. Because he was located in Paris and had the time to devote to many administrative and planning functions, Malina was the effective manager of IAA activities in 1962, but always with the knowledge and approval of any significant actions by von Kármán. Throughout the year Malina kept von Kármán and Haley informed on all organizational, personnel and event planning activities in which he was involved.

Malina wrote to Haley in April to invite Haley’s comment on a Malina/von Kármán selection of Professor von Euler (Sweden) to fill the position formerly occupied by Professor Perez as one of the two Deputy Directors of the Academy. In November Haley wrote to Malina endorsing the selection of Bill Hinton for the position of secretary of the IAA, provided Malina and von Kármán were in agreement on the selection. Haley was also monitoring a slowly escalating conflict emerging between Martin Summerfield, editor of the Academy journal *Astronautica Acta*, and its publisher Springer-Verlag.

The Communications Satellite Act of 1962

On 2 April 1962, Oren Harris (D-AR) introduce Bill 11040 in the House of Representatives to solve the dilemma that had had been forestalling the nation’s establishment of commercial communications by satellite. The bill passed the House on 3 May and passed the Senate on 17 August. It was signed into law by President Kennedy on 31 August 1962. The new law was a compromise approach with something for everyone and a win for the nation.

The law established the Communications Satellite Corporation (Comsat) with a 15 member Board of Directors, 3 to be appointed annually by the President of the United States, 6 to be elected annually by the industrial holders of 50% of the corporation’s stock, and 6 to be elected annually by the general public holders of 50% of the corporation’s stock. It was provided that industrial stockholders could sell their stock irreversibly to public shareholders, but could not purchase stock again. In this way it was expected that in due course the general public would own all the outstanding stock of the corporation. A set of public guidelines and regulations were put in place and the corporation was authorized to proceed with the establishment of a national communication satellite system; and to move forward with international collaboration on the establishment of a global satellite system. From this beginning the International Telecommunications Satellite Organization (INTELSAT)

emerged. The system operates globally today as the INTELSAT Corporation, providing communication services to every country in the world wishing to participate.⁴¹⁸

Repeated Visits to Seattle, Washington

In March 1962, Haley wrote to Mrs. Bullitt inviting her to join his sponsored table at the National Association of Broadcasters (NAB) Annual Dinner. He enclosed a list of 21 invitees to his two tables, so that she might have advanced notice of the company she could expect at the dinner. It was a regular practice for Haley to undertake sponsorship of a table or two at such functions to provide the opportunity to invite clients to the events as his guests. Such events were expensive ‘black-tie’ affairs and a well-established practice in industry. Haley visited Seattle in April for the opening of the Century 21 Exhibit and in May for presentation of a paper at a national organization’s dinner at the University of Washington.⁴¹⁹ For one or both of these visits, Mrs. Bullitt provided Haley the opportunity, and Haley accepted, to spend a relaxing weekend on the Bullitt family yacht, *Mike*, on Puget Sound. On 29 June, Haley wrote to Mrs. Bullitt in a more comprehensive and reportorial form than former letters of appreciation for trips on the Bullitt yacht. He wrote;

Dear Mrs. Bullitt,

As you so well know, I am always enchanted with a trip on the “MIKE” and the outing I shared with Bob Swezey, the four children and Ethna was truly a delightful experience. The “pitter-patter” join me in our sincere thanks for your generosity in affording us such a wonderful weekend.

We started out early Saturday morning and almost immediately we were being served a hearty breakfast. We continued along the way and in the early afternoon we stopped at your island and looked the place over. [As usual, a mosquito found me and took a bit of my flesh.] I am sure the skipper has given you a report of our stop on the island.

Pretty soon we were hungry and out came delicious southern fried chicken which we enjoyed down to the bones.

I might say that during the day some of us took turns “snoozing.” So, all in all, it was a most restful journey.

Finally, in the late afternoon, we arrived at the San Juan Marina Lodge, just across from Ladysmith, BC, and here we docked for the night. All nine of us went up to the Lodge for our dinner which we enjoyed very much. As a matter of fact, we shared the dining-room with a bridal

⁴¹⁸ The history of the Intelsat Organization, and the later Corporation is well summarized by Wikipedia. Other international satellite communications systems have been established, but INTELSAT is the largest and most versatile in the provision of global communication services. In 1970 the USSR led the establishment of a competing communication satellite system among dominantly communist countries. Intersputnik continues in service today, headquartered in Russia with 26 member countries.

⁴¹⁹ A. G. Haley, “Opportunities for Youth in the Space Age”, an address to the Eighth Annual Scholastic Banquet of the American Legion Seattle Post No. 1 in Seattle 9 May, 1962.

group. The bridal party was a more sedate affair and we learned that they were probably of the faith of Jehovah's Witnesses. Anyway, it was an interesting experience and the young people appeared bright and happy.

After dinner, Bob and I found rooms at the lodge and the rest of the group slept on the "MIKE." The above is a very brief report on our "voyage," but I thought I would tell you some of the highlights. Also, I must tell you that, as usual, the Skipper and his wife were perfect in every way. We all join in many, many thanks to you for making this wonderful weekend possible, and I remain

In old friendship,
Andy

On 30 August Haley wrote another thank you note to Mrs. Bullitt for a frequently provided courtesy. He wrote:

Dear Dorothy,

I wonder if you really know how nice it is to see you and to partake of your gentle and most gracious hospitality. It seems to me that every time I have dinner at your "town house" I wonder if Lucullus⁴²⁰ himself did not make the arrangements. Actually, I expect your table quite extends anything Lucullus imagined.

But the best part of all, of course, is the wonderful company and the constant assurance that one is at home.

Thank you again and again for your hospitality on my last visit and for your never-failing kindness.

Sincerely yours,
Andy⁴²¹

On 20 July, Haley had written to his family informing them of a bid on the house on Huntington Street and asking their opinions on the bid. He wrote:

Dear Mommy, Delphine, Andy H., Andy V., and Mary:

Here is an offer to buy the Washington, D. C. house for \$60,000. I have rejected the contingency clause regarding the obtaining of financing so that would be removed from a final agreement.

I have until July 25 to accept or reject this offer. Please write me airmail or wire me collect as to which way you vote, namely to accept the offer or to reject the offer. Please do not fail to write or wire immediately.

I will be indeed very much concerned if you express no opinion and you have a duty to give it to me.

⁴²⁰ A Roman general famous for giving lavish banquets.

⁴²¹ AGH, *Letters & Materials*.

[by hand] Love
Daddy
very important

As matters developed the sale of the family home was agreed late in 1962. Haley would relocate in March 1963 to his recently acquired condominium apartment on 16th Street in downtown Washington, DC. Following Aunt Dede's visit at Melwood Farm in October – November 1962, Haley had taken his wife to the Chambers' residence in Campbellsville, Kentucky. She would remain there until after Christmas and return in the spring of 1963 to the beach home in Del Ray Beach, Florida.

Maintaining a presence in the IAF activities

In March 1962, Haley visited Paris to participate in the Spring Meetings of the IAF, the IAA and the IISL. Although the IISL had been formally approved as an organization in 1960, and a President had been named, Haley maintained a strong position in the organization. As Secretary of the IISL he was formulating and circulating agendas for meetings of the management of the Institute, in the spring in Paris and in September in Bulgaria. Haley also prepared and published the minutes of the IISL business meetings. In addition to preparing and presenting formal papers, he was essentially running the IISL (1961-62) while Professor Smirnoff (Bulgaria) was serving as President. Haley was also unacknowledged *de facto* Treasurer and financier.

As a consequence of the IAF's decision to appoint a new, full-time Secretary to manage the affairs of the IAF and to relocate its office from Switzerland to Paris, where the Academy office was located, Haley wrote to Professor E. A. Brun, the then President of the IAF. Haley was concerned about the movement of the money in the bank account of the IAF in Switzerland to a bank in Paris. Apparently, the IAF Secretary, Stemmer, had not been totally frank about details of how he handled the IAF funds in the Federation's Swiss account. Haley urged the IAF leadership to continue requesting appropriate details in order to ensure that IAF funds in Switzerland had been responsibly managed and disbursed. Now that the IAF had convened numerous annual Congresses and *Astronautica Acta* was being published, there was a cash flow in the accounts of the IAF which facilitated payment for an employee in the Federation secretariat, and for services being provided to the Federation. Neither the International Academy of Astronautics nor the International Institute of Space Law had reached this level of financial development. The Academy had been essentially funded for its early period by a substantial grant (\$75,000) from the Guggenheim Foundation.

Chapter 36. Building and Balancing the International Institute of Space Law

During 1963 tragedies, triumphs, stresses, and accomplishments crowded into Haley's life. It was one of his most stressful years. In addition to requiring diligent effort to reach his goal of stabilizing the IISL, he was faced with the opportunity to commit a publisher to produce his long hoped for book on space law. Unanticipated disease and death occurred in his family. During the final six months of the year a rapid series of major international conferences demanded attention. As we review the year in this and the immediately following chapters, topics are dealt with in turn, although they were occurring in substantially overlapping, complex periods. We separate them to facilitate integrated rendition and permit comprehension of the subjects.

The creation of the IISL was a major satisfaction for Haley. As it developed, the early management of the Institute became a frustrating exercise in which Haley chose to play a central role. As recounted in Chapter 30, the Xth IAF Congress, held in London in 1959, decided that the Permanent Legal Committee of the IAF would be replaced by the International Institute of Space Law. An organizing committee was named comprising Christopher Shawcross, Q. C., as Chairman, Haley as Executive Secretary, and Professor John Cobb Cooper, Dr. Robert Homburg, Dr. Fritz Gerlach, and Dr. Michel Smirnoff as members.

Haley convened the Second Colloquium on the Law of Outer Space in London on 4 September 1959. Prominent lawyers and sociologists from more than a score of nations made presentations.⁴²² During the winter months of 1959-1960, Haley canvassed members of the IAF Permanent Legal Committee to determine the ten issue areas most suitable for study by working groups of the emerging Institute. In his role as General Counsel of the IAF and Executive Secretary of the Organizing Committee of the IISL, Haley also prepared draft Statutes for the proposed Institute. At the spring meetings of the IAF in Paris in March 1960, a proposed set of ten study projects,⁴²³ and the draft Statutes of the Institute were approved by the IISL Organizing Committee.

At the XIth IAF Congress, August 1960 in Stockholm, the Statutes of the IISL were approved by the IAF Plenary. Pursuant to Article V, Section 6 of the Statutes, the IISL organizing committee elected members of an Executive Committee. The Executive Committee elected Michel Smirnoff (Yugoslavia) as President of the IISL and Haley as Secretary. Haley learned long ago that the titular head of an institution who had other numerous and demanding responsibilities, rarely has the time to devote to detailed planning and management in a large

⁴²² A. G. Haley, *Space Law and Government* 367, Appleton-Century-Crofts, 1963.

⁴²³ Agreed projects were: 1) Jurisdiction Related to Terrestrial Activities, 2) Legal Status of Space Vehicles, 3) Sovereignty Over Celestial Bodies, 4) Municipal, Treaty and Private Law, 5) Specific Regulatory Problems, 6) International Regulation, 7) Space Communications, 8) Damages, 9) General Principles, 10) Regulations and Control Agreements.

international organization. As Secretary, Haley was able to form meeting agendas, draft and present organizational documentation for approval, and influence the rate and quality of growth of the international membership of the IISL.

At the XIIth IAF Congress in Washington, DC, in 1961, the IISL convened the Fourth International Colloquium on the Law of Outer Space, during which papers were presented in five working sessions, and reports were presented by chairmen of six of the ten study groups. Not surprisingly, Haley had nominated himself as Chairman of Study Group VII, dealing with space communications. Reports were presented to the Fourth Colloquium from Study Groups I, III, VI, VII, VIII, and IX. Haley presented to the Colloquium his first report as Chairman of Study Group VII, which was extrapolated from his continuing assemblage of information on communication satellites and the radio frequencies required for their use.

As a means of rewarding excellence and effort in the development of space law and as an incentive to excel, Haley established and endowed an IISL award known as the Haley Gold Medal, conferred annually along with a \$500 cash honorarium. The meeting in Washington of the Board of Directors of the IISL awarded the first Haley Gold Medal to John Cobb Cooper for contributions to formulation of the rule of law for outer space. Other awards, with monetary honoraria, were presented to M. Smirnoff and to V. Kopal, for excellence of their contributions to space law, not mentioning that they were on the eastern side of the Iron Curtain. Haley sought an East/West balance in the grant of his awards through the IISL. At the Fourth Colloquium in Washington, Professor John Cobb Cooper was elected President of the IISL. Haley was reelected Secretary.

Haley was continually disappointed by the failure of the USSR to send representatives to or to participate in the work of the IISL, despite his repeated invitations to do so. When the Fifth Colloquium convened in Varna, Bulgaria in 1962, it was too close to home for the Soviets to remain uninvolved. Haley later proudly reported that:

The Soviet Union sent its “first team” of jurists to the Fifth Colloquium. [...] Members of the team were: E. A. Korovin, Chairman of the Commission on the Legal Problems of Interplanetary Space, USSR Academy of Sciences; G. P. Zhukov, academic secretary; and G. A. Osnitskaya, legal counsel for the USSR Ministry of Foreign Affairs. These famous jurists participated actively in the Colloquium and made many contributions in the discussions.⁴²⁴

The IISL Gold Medal was presented to Prof. Alex Meyer at the annual meeting of the German Rocket Society in Coblenz, the week before the Fifth Colloquium in Varna. Awards and Honoraria were also presented in Varna to Antonio Ambrosini of Italy and to Professor Manfred Lachs of Poland. The Fifth Colloquium elected Ivan-Asen Georgiev of Bulgaria to succeed Professor Cooper as IISL President, and Haley was reelected Secretary.

The 1962 IISL Haley Gold Medal was awarded to Professors A. Meyer (Germany), and awards to M. Lachs (Poland), and A. Ambrosini (Italy) gratified Haley, because he succeeded in bringing together leading legal talent from different countries and legal systems to discuss the needs for and nature of space law. As Haley subsequently recorded:

⁴²⁴ *Id.* at 369.

The recent formation of the Commission on Legal Problems of Interplanetary Space of the Academy of Sciences of the USSR, under the Chairmanship of E.A. Korovin, has marked the start of a period of greatly increased activity in the Soviet Union with respect to space law. Two important books have recently been published [there] – *The Cosmos and International Law*, a collection of essays edited by Korovin, and *Toward Cosmic Law* by F. N. Kovalev and I. I. Cheprov. While the views expressed in these books are sharply at variance with those of the great majority of non-Communist scholars, the mere fact of their expression serves a vital purpose in a world where a misjudgment of the intentions of a great power could lead to catastrophe. There were also several outstanding articles by a number of Soviet authors, which explained and discussed the work of the various international organizations in the field of astronautics.⁴²⁵

Haley's report on the awakening of the USSR to the activities of the IISL did not mention that this USSR participation was part of a broader movement by the USSR to rejoin the international scientific communities in all the physical and social sciences. This movement began gradually after the death of Joseph Stalin in 1953. During the 1940s and early 1950s Stalin had maintained a rigid policy of non-participation in international scientific unions and other non-governmental international organizations, to discourage and prevent transfer of Soviet information or talent to the outside. Mindful of the many technological advances that emerged during WWII, Stalin was convinced that the USSR had a leadership role in many technological areas and he was bent on maintaining whatever leadership positions the USSR had gained.

The USSR first participated in the IAF in Copenhagen in 1955 and formally joined the IAF in 1956. The USSR also participated in the International Council of Scientific Unions' (ICSU's) International Geophysical Year (1957-1958) and joined in the successor ICSU Committee on Space Research (COSPAR) following the IGY. Although the Soviets became considerably more active in international non-governmental astronautical activities during the late 1950s, the USSR did not participate in the IISL until the Fifth International Colloquium on the Law of Outer Space in Varna, Bulgaria in September 1962. It was 1965 before the USSR initiated international cooperative astronautical programs with other Communist countries through an organization known as Interkosmos.⁴²⁶

By 1963, the IISL realized slowly accelerating annual growth and broadening participation. Haley took pleasure in witnessing these developments and started to cut back his management involvement. He had played as central and active a role in the foundation and early growth of the IISL as he had played in focusing international attention on the needs for international radio frequency allocations to support astronautics.

Early in 1963, Haley sent to IISL President Georgiev in Bulgaria a letter which summarized recent developments and set forth his plans for the coming year. The letter is a clear recitation of the work he had done and he was clearly nearing the limits of his patience with others in leadership positions in the Institute. At that point there were no accumulating dues for membership and there was no readily available external source of funds, beyond Haley's largesse to the Institute. Haley wrote:

Dear Professor Georgiev:

⁴²⁵ *Ibid.*

⁴²⁶ See S. Johnson, *Space Exploration and Humanity: A Historical Encyclopedia*, pp. 956-57, in 2 volumes, ABC-CLIO, Santa Barbara, CA, Oxford, England, 2010.

I acknowledge the receipt of your letter of January 12, 1963 and I regret that you apparently did not receive my memorandum to the entire membership dated November 17, 1962. In that memorandum I answered – as far as I could – the questions propounded in your letter of November 12, 1962. Especially, I submitted complete information concerning the compilation of the papers delivered at the Fifth Colloquium held in Varna.

I enclose a copy of the November 27 memorandum so you will be fully advised.

You will note that the memorandum contains information concerning (1) the new officers; (2) the new directors; (3) the full names of the persons who appeared and read papers at the Fifth Colloquium; (4) the full names of those who submitted papers; (5) the exact status [at that time] of the compilation of the Proceedings; (6) ten application forms for new members [sent to each person]; (7) a reprint of my article on the XIIIth Congress in Varna; (8) a copy of the Statutes of the Institute; (9) announcement that President Georgiev has authorized a semi-annual meeting of the officers and directors of the IISL to be held in Paris on March 24, 1963; (10) announcement that the minutes of all meetings will be available for inspection at all meetings of the Board of Directors.

I am terribly sorry that due to a clerical error the Statutes as mailed out were incorrect in that certain of the changes made at the XIIth IAF Congress in Washington were not incorporated – especially the proper names of the officers and the change of the term “Executive Committee” to “Board of Directors.” This was simply due to a most regrettable clerical error in my office. I did not examine the mimeographed copy and therefore the unfortunate document was mailed out.

With regard to items of information you request such as biographies of members, etc. I suggest that you have one of your assistants compile such biographies from ordinary and usual sources such as from “International Who’s Who” [European Publications Limited]. This is a task that is not within the scope of my office. You can do it just as well as I can – if you are curious on the point.

I am opposed to the suggestions of Dr. Fasan that we start a program of cooperation with International Law Association or any other association or organization other than the United Nations Legal Subcommittee on the Peaceful Uses of Outer Space through its Chairman, Dr. Manfred Lachs. If we start such relationships in our own organization we will set a precedent that will result in pandemonium. Furthermore, I really believe any such course of action should be referred to all the Member Societies of the IAF.

I am also opposed to Dr. Fasan’s suggestion that we support the University of Oklahoma project in any manner whatsoever. We do not know what the University of Oklahoma project will eventually embrace and the other member societies may have very legitimate complaints with respect to this project. Once we espouse a program with one University we will again be involved in a precedent which may well result in pandemonium. [In an arrangement with Haley, Professor Mortimer Schwarz at the University of Oklahoma had undertaken to edit and publish Proceedings of the IISL Colloquia, but there was no written agreement in place on the matter.]

I am also deeply opposed to the adoption of resolutions, formal approval of legal theories and other formalistic abracadabra as our whole effort would inevitably become involved with contradictory dogma – and might well give great offense to member societies such as the learned academies of the Eastern European countries and the intensely diverse theorists of all the world.

I believe that we should offer our services to the United Nations Legal Subcommittee on the Peaceful Uses of Outer Space to research tasks submitted to us by the unanimous action of the Subcommittee and in this manner we will be usefully implementing problems [instructions] which all nations agree upon.

Otherwise, I believe our Colloquiums should be run as in the past – giving each person an opportunity for free expression – but in no way making the expressions of any person the official viewpoint of the entire IISL. For example, I have advocated the “von Karman Line” as the outer limit of terrestrial jurisdiction. I think I would be completely out of order in asking the IISL to debate upon the question as to whether the von Karman Line should be adopted as an official proposal of the IISL. However, there is no reason in the world why the von Karman Line may not be debated fully and freely by the membership of the IISL.

Despite the negative aspects of the foregoing, I am most anxious that the IISL – during our current administration – perform work of vital importance to mankind. Our opportunity is now enlarged and enhanced by virtue of the fact that we have received official notification from our mutual friend, Dr. Eugene Korovin, that the Commission on the Legal Problems of Outer Space of the USSR Academy of Sciences will now participate in the work of the IISL. We must, therefore, take constructive action.

I believe it is important that you and I meet in Geneva in March before the Bureau meeting is convened in Paris on March 22, 1963. As you have directed and approved, on that occasion officers and directors of the IISL will also meet. To have at least one constructive area of work, you and I should go to Geneva a week before the Bureau meeting in Paris, namely on March 18, 1963, and attempt to work out a program of cooperation with Ambassador Manfred Lachs, Chairman of the Legal Subcommittee of the United Nations Committee on the Peaceful Uses of Outer Space, and also with the officials of the International Telecommunication Union [Mr. Gerald C. Gross, Secretary- General, Mr. N. I. Krasnoselski, and so on], to fully ascertain the scope of the 1963 Extraordinary Conference on Space Communications – and thus to determine the role of the IISL at that Conference. In this manner we would be in a position to report to the IISL Board of Directors when we meet in Paris the following Sunday.

I realize that this presents a most serious financial problem so far as you are concerned and I am willing personally to help you. Could I purchase from KLM here in Washington a blank ticket from Sofia to Geneva? Could I send you US currency directly to Sophia to assist you? How is a matter such as this handled? I have on occasion given financial aid to delegates from Eastern European countries such as many of those who attended the XIIth IAF Congress in Washington, DC. How did you propose to get to Paris in the first place? Will not the Bulgarian Government give you money? I am only suggesting helping you as far as Geneva, because this is my own idea and I would not like to impose too heavy a burden upon you – therefore I am willing to help personally. I am imbued with the thought that we must have some positive suggestions to make and I think that we could only accomplish such an objective through conferences with Ambassador Lachs and the Legal Subcommittee officials in Geneva, and also with the ITU officials. It seems to be impossible to accomplish anything by correspondence and we certainly can't work in a vacuum.

I am very much enthused with this proposal and I hope, Mr. President, you will find it possible to accommodate me. I am “sick and tired” of dealing with the trivia and the personal self-aggrandizing plans offered by so many members of the IISL.

I sympathize with your desire to raise funds for the orderly operation of the IISL, but I am afraid you do not understand the magnitude of the task. At the present time I am attempting to accomplish this very objective through a fund-raising program on behalf of the Astronautics Foundation Inc. Our problems are very critical – but we are meeting with a degree of success. It would be an excellent idea to be honored with a visit by you here in the United States some time during the course of the spring or summer – but once again, I still cannot see the sources of financial support. If we could do a good job in Geneva by way of enlisting the support of Ambassador Lachs, and if we do a good job in our meeting in Paris, we may be on our way to solving some of these problems.

Please let me know immediately whether you accept my invitation to meet with Ambassador Lachs and the officials of the Legal Subcommittee and the ITU, and also let me know your plans with respect to attending the Paris meetings. As president of the IISL certainly your Government will provide for your attendance at the Paris meeting, just as it has made a similar provision for Dr. Boneff. Please do not delay in answering me.

Sincerely yours,
Andrew G. Haley⁴²⁷

Georgiev's presidency was a mixed blessing to Haley. He could exercise the powers of Secretary, but Georgiev was fixed minded and out of tune with Haley's desires. One of the helpful individuals during several recent years in the organization and promotion of the IISL was Eugene Pépin, a retired senior French government official. Pépin had long been active in international aeronautical regulatory and coordinating activities on behalf of the French Government and, like Alex Meyer in Germany, an early bibliographer and commentator on issues of space law. Since 1959, Pépin contributed time and attention to advancement of the IISL. He was a member of the Institute's Executive Committee since 1960, and was a sitting member of the recently created Board of Directors of the IISL. In February 1963, Haley wrote to Pépin:

Dear Dr. Pépin:

It was very nice to hear from you and I regret that I have not answered sooner. I really have been extremely busy travelling from one part of the world to the other and endeavoring to do the immense amount of paperwork in connection with the activities of the American Institute of Aeronautics and Astronautics [formerly the American Rocket Society and the Institute of the Aerospace Sciences]; the International Astronautical Federation; and the International Institute of Space Law.

I will certainly need your help at the IISL Board of Directors' meeting in Paris on March 22-25, 1963.

The Eastern Europeans have adopted a belligerent attitude on the so-called "parity" idea and I am a little afraid that Dr. Georgiev [of Bulgaria] is altogether too aggressive on the point. I will certainly need your help at the Paris sessions.

⁴²⁷ AGH, *Letters & Materials*.

I also do not want to become involved in illegal arrangements with the IISL outside of the framework of the IAF. We are an activity of the IAF and we have no juridical existence beyond the IAF. Mr. Venturini of the AERA seems to have quite a different organization, and also his own special group on space law headed by Mr. Bohn. I enclose copies of an exchange of correspondence I have had with Mr. Bohn. As you will note, I have told him that his unsolicited activities are irregular and have not received the approval of anyone, and especially the Board of Directors of the IISL. I urgently ask your help in preventing the integrity of the IISL from being broken down by splinter groups in each individual country. In Washington, for example, many efforts were made to embroil the IISL with local legal “pressure groups.” As you may know, the USSR Academy of Sciences through its Committee on Legal Problems of Space has now officially joined the IISL. This means that the IISL is unquestionably the most dignified, well recognized and powerful private legal group in the world today and we must maintain our conduct in conformity therewith. Above all, we are a forum for free expression – but we are not a political forum which would indulge in taking votes on subjects on which the United Nations Legal Subcommittee on the Peaceful Uses of Outer Space cannot hope to achieve agreement at this time. My viewpoints on this score are outlined in a letter to Dr. Georgiev which I also inclose. As a matter of fact, if the “politicians” in the IISL assume control, I am going to do everything possible to abolish the IISL, as in that event our Institute would become a dangerous political instrumentality instead of a highly dignified forum for the free exchange of viewpoints.

I intend to fly directly to Geneva to confer with the appropriate UN and ITU officials before coming to the Paris meeting. By that time I will have a carefully prepared and extensive agenda for calm consideration and deliberation.

Thank you, again, for your notable book and for your many contributions to the rule of law in outer space.

Sincerely yours,
Andrew G. Haley⁴²⁸

These letters to Georgiev and Pépin were two of several that were sent in advance of the Paris spring meeting seeking to gain support and backing for maintaining a calm and rational environment during the planned Paris meeting in March. Haley was well aware of the old rubric in American industry that ‘if you do not know how your meeting is going to end, you are not ready for the meeting’. He would do all he could in coming weeks to ensure reaching the end results he wanted. To facilitate the achievement of a successful meeting he knew he would require a carefully structured agenda. After drafting it with Georgiev’s approval, Haley distributed the following agenda to the members of the IISL Board of Directors.

INTERNATIONAL INSTITUTE OF SPACE LAW
1735 DeSales Street, N.W., Washington 6, D. C.

NOTICE OF SEMIANNUAL MEETING OF THE BOARD OF DIRECTORS
OF THE INTERNATIONAL INSTITUTE OF SPACE LAW
International Astronautical Federation Headquarters
12 Rue de Gramont, Paris 2, France

⁴²⁸ *Ibid.*

March 24 1963

Notice is hereby given that the semiannual Meeting of the Board of Directors of the International Institute of Space Law of the International Astronautical Federation will convene at the Headquarters of the International Astronautical Federation at 10:00 a. m. Sunday, March 24, 1963.

AGENDA

- (1) Call to order.
- (2) Presentation of the Secretary's Certificate as to notice of the meeting.
- (3) Call of roll.
- (4) Approval of Minutes of the last Annual Meeting of the Board of Directors, Varna, Bulgaria, September 24, 1962.
- (5) Report of the President.
- (6) Report of the Secretary.
- (7) Election of New Directors to fill vacancies if any vacancies occur.
- (8) Approval of applications for membership.
- (9) Appointment of Awards Committee.
- (10) Discussion of the physical facilities of the VIth Colloquium.
- (11) Discussion of the program format for the VIth Colloquium.
- (12) Consideration of the duties of a program committee and the appointment of a program committee.
- (13) Discussion of Institute relationships for governmental and non-governmental organizations including other societies, Universities and other juridical organizations.
- (14) Discussion of the date and place of the next meeting of the Board of Directors and of the Annual Membership meeting.
- (15) New business.
- (16) The presiding officer at this meeting will be happy to obtain the views, in writing, on any item listed above, from those Directors who will not be physically present. It must be understood, of course, that while these views will be given due consideration, the final action will be based upon the vote of the directors actually present in person. Direct views and comments to:

Andrew G. Haley, Secretary

International Institute of Space Law, 1735 DeSales Street, N. W., Washington 6 D. C.

By direction of the President, Ivan Assen Georgiev⁴²⁹

Haley not only prepared and distributed the Agenda; he wrote to all the board members in advance of the meeting, and any written comments coming from any members who could not attend would come through him for distribution or presentation at the meeting. These arrangements were intended to prevent any significant surprises arising at the meeting. The next Board member he contacted was Austrian attorney Ernst Fasan. In February, Haley wrote:

Dear Dr. Fasan:

Thank you indeed for your good letter of December 30, 1962.

⁴²⁹ *Ibid.*

As you know, the USSR Academy of Sciences, through its Committee on Legal Problems of Space, has now officially joined the International Institute of Space Law.

I am preparing a thorough agenda for the March meeting of the Board of Directors in Paris and all of the administrative matters mentioned in your letter will be carefully considered. I agree with you that Dr. Smirnoff should have been elected to the Board of Directors. I was restrained from nominating him because Dr. Georgiev in a most forcible manner presented the names of the Eastern Europeans whom he desired to have on the board. The action of Dr. Georgiev was completely contrary to our normal method of procedure – but he insisted on having his way. In all fairness, however, I must say that Dr. Georgiev has frankly admitted it was very unfortunate indeed that Dr. Smirnoff was not elected to the Board of Directors.

We cannot be capricious in such matters and at this time I will staunchly object to any “gerrymandering” of our statutes. Dr. Georgiev made his selection – the vote was firm – and so the matter stands until the next election.

I have sent Dr. Smirnoff an urgent invitation to attend the Paris meeting, a copy of which is enclosed. I also enclose a copy of my latest letter to Dr. Georgiev, for your complete information. As I never indulge in confidences you are free to treat this letter as you see fit.

I see no necessity whatsoever for any contact with the International Law Association; they have an excellent organization which is conducting its own work pursuant to its own ideals and constitution, and I personally can find no excuse to involve our organization with that organization. Furthermore, in order to do so I believe we would have to raise the matter before the General Assembly of the IAF. This line of thinking extends to any and all other organizations, of which there must be many score.

I believe we should adopt a resolution thanking the University of Oklahoma for editing and printing the *Proceedings of the Fourth Colloquium*, but beyond that we should not proceed one millimeter. We could easily involve our great Institute in a mish-mash of programs with all forms of splinter organizations, groups, and unrelated – if interesting – organizations.

You will note from my letter to Dr. Georgiev that I am endeavoring to work out a program with the UN Legal Subcommittee on the Peaceful Uses of Outer Space. Our relationships with Ambassador Lachs are excellent, and he, moreover, is a great friend. We must continue to be a forum of the highest dignity and integrity where any competent jurist may express himself exactly as he sees fit, but without requiring “votes” from persons who may not share his views.

I have spoken to you very frankly, Dr. Fasan, I nominated you because of my great confidence in you. This confidence was inspired by your dignified and helpful conduct in Washington which I observed with care.

I look forward with pleasure to seeing you in Paris and I am sure that we can do some highly constructive work in the administrative field.

Sincerely yours,
Andrew G. Haley⁴³⁰

Also in February, in a classic Haley manner, he prepared a letter for the signature of Dr. von Kármán to the Vice President of the United States, Lyndon Johnson, inviting the Vice President to speak at and to present several honorary scrolls before a dinner of the International Academy of Astronautics to honor the first three Honorary Members of the Academy, Miss Jacqueline Cochran, Mr. Harry F. Guggenheim, and Prince Louis de Broglie, at a banquet to be held 11 May 1963 at the Sheraton-Park Hotel in Washington, DC. The letter identified the Astronautics Foundation as the sponsor of the banquet, and listed the distinguished twenty members of the Board of Trustees of the Foundation, which reads like a who's who in astronautics at the time. When Haley believed the von Kármán name would add prestige and authority to an activity, he would bring Dr. von Kármán to the front and center of any promotional endeavor in which he engaged. Because of their long-standing friendship, von Kármán was always willing to assist Haley in this way, as long as the paperwork was provided by Haley and all von Kármán had to do was sign a letter(s). The pre-paid correspondence would be mailed by von Kármán's secretary.

On 24 February 1963, Haley wrote to Dr. Jerzy Sztucki, a newly elected member of the IISL Board of Directors. The subtle variations in several letters he wrote show the techniques of Haley's influence in managing groups, which was like that of a master orchestra director leading performance of a complex and demanding symphony. Haley wrote:

Dear Dr. Sztucki,

I received a telephone call from Dr. Georgiev suggesting that I send official invitations to the directors in the Eastern European countries to attend the directors' meeting in Paris, March 22-25, 1963. I immediately sent a cable to you, Istvan Herczeg, Vladimir Kopal, and Eugene Korovin. I am looking forward with great interest to the meeting, and I intend to rely most especially on you for help and advice. I am sure President Georgiev has the same intention.

I recall vividly the meetings with Professors Georgiev, Kopal, and yourself. You made suggestions concerning the conduct of the Colloquium and I tried to translate these suggestions into a new schedule – but just as I found during the course of these meetings it is very difficult – even if desirable – to group the sessions into distinct subject matters – or even to restrict the speakers to definite subjects. I have been able to do this only through the reports and comments of the “Working Groups.” In the case of the Working Groups, we have “built-in” parameters for reports and discussions.

At a general session, however, I find the speakers must have choice and freedom – they must appear at times convenient to themselves and no great regimentation is possible. All this may change when we have definite tasks to perform such as those assigned by the United Nations for study and comment. But even in this eventuality I do not expect to coerce you to my way of thinking or anybody else to your way of thinking. We must submit our views most honestly as jurists. We cannot expect our Institute to create a voting parliamentary organization.

As I have confidential relations with no one, I enclose copies of letters I have sent to President Georgiev and to Director Fasan. These letters explain my viewpoints in more detail.

Just so the foregoing will not be misunderstood, I must say that I thoroughly agree with the general thesis that the Colloquiums must become more highly structured, and this should be the main purpose of our March meeting in Paris. I think you should have all the time you need to express your views and that pious consideration must be given to your views. I do seriously object, however, to a “shotgun” meeting like we had in Varna. At that meeting no consideration was given to the background of the Colloquiums or to the basic philosophies of the Institute itself.

In the past we have been completely unpolitical. (sic) From the very beginning we have encouraged U. S. S. R. membership and we have even pleaded with their great jurists to join the IISL. We have been oblivious to the ideological considerations. In Varna altogether too much emphasis was placed on political concepts. I hope this does not occur again, especially as there is no necessity for such pedantry insofar as the Institute is concerned.

In any event, Dr. Sztucki, I think your service on the Board of Directors will be of immense value and I look forward to close cooperation with you.

Sincerely yours,
Andrew G. Haley

On the same day, Haley wrote exactly the same letter to Vladimir Kopal, adjusting only the address and the names in the second and final paragraphs; otherwise the letters were identical. Haley proceeded as promised to Geneva, Switzerland on 19 March and went on to Paris on 21 March. He remained in Paris for the IAF Bureau meetings, IAA meetings, and two sessions of the IISL Board of Directors, before returning to the United States, via Ireland, on 26 March.

In early March Haley had written to Frank Malina requesting that Malina have Helene van Gelder, Secretary to the IAF, arrange a room for the IISL Board meeting on Sunday, 24 March at noon. This was the time at which Haley expected a maximum number of IISL Board members to be available in Paris. A meeting room was arranged at the hotel where Haley was staying, but the allocated time, adjusted to commence at 10:00 a.m., was insufficient to complete the entire agenda for the meeting. The meeting adjourned for lunch and proceeded to a second session Sunday afternoon at the home of Frank Malina, where Haley achieved all his goals for the meeting.

There was further padding of attendance at the meeting in Paris. On 9 March, Haley wrote to Cyril Horsford, the British member of the IISL Board, with some direct requests for help.

Dear Mr. Horsford,

I have just received my copy of *Spaceflight*, and I read with interest “A British Code of Space Law.” I must say that this is a well disciplined statement

I sincerely need your presence at the Board of Directors meeting in Paris on March 24. I am quite willing personally to send you a fee of \$50 which should cover round trip air travel – I enclose my check. I need your advice and assistance – especially in view of the extremely aggressive attitude of certain Eastern European board members. I have no trouble with first-rate jurists such as

Professor Korovin, but I am quite annoyed with the activities of politicians such as Dr. Georgiev. I am not telling you this in confidence – I am quite frank and outspoken about the matter.

Please try to get to the meeting – as I am sure that your presence will be helpful and the meeting itself will be interesting.

Sincerely yours,
Andrew G. Haley

On the same day as he wrote to Horsford, Haley wrote to Ambassador Manfred Lachs:

Your Excellency:

I am arriving in Geneva on Swissair Flight 821 at 9:00 am on Tuesday, March 19. I will be met by the Honorable Gerald C. Gross, Secretary General of the International Telecommunications Union and by Ivan Georgiev, President of the International Institute of Space Law [You met Dr. Georgiev in Varna].

The purpose of our visit is to ascertain whether the IISL may be of assistance to the Legal Subcommittee in researching any questions you might desire to refer to us. We are not seeking Observer status or official recognition. We simply would like to make available to your Subcommittee the vast resources of skilled jurists who belong to our organization.

I saw Mr. Abdul-Ghani in New York a few days ago, and he told me that you were not feeling well. I hope that you have recovered. If for any reason you are not in Geneva on March 19 or 20, we would appreciate your kindness in designating a member of your staff to confer with us.

With expressions of highest esteem, I remain

In friendship,
Andrew G. Haley

cc: Ambassador Lachs (Warsaw)
The Honorable Gerald C. Gross

A meeting was successfully arranged with Gerald Gross at ITU headquarters in Geneva, but Ambassador Lachs was not in Geneva at the time of Haley's visit there in March.

Attendance at the IISL Board meeting in Paris resulted in a manageable, productive meeting that was more than satisfactory in Haley's view. The attendees included Georgiev, Haley, Fasan, Herczeg, Horsford, Kopal, Pépin, Sztucki, and the American, Professor Robert K. Woetzel, who was about to create a major brouhaha with Haley. Former IISL President and board member Michel Smirnoff attended as an invited guest. Alternative drafts of meeting minutes were prepared expressing the views of other attendees, but these drafts were reconciled and consolidated in the official meeting minutes produced by Haley. At Haley's request, Cyril Horsford provided a draft and Woetzel did a draft. It was Haley's task to resolve the inconsistencies in the drafts. In most regards the drafts were consistent where there were common topics covered, but for a few points one draft covered or added topics not covered in the other.

There was a substantial difference in the Woetzel and Haley interpretations of the method of designation of Woetzel's successor. Woetzel reported that the Board had unanimously given him authority to name his successor until the next board meeting, when elections would be held. Haley insisted that the Board's decision was that Woetzel could nominate a successor and that successor would be considered elected by the Board until the next meeting. Haley was insistent that the appointment to the Board would be made by a decision of the Board, not by a decision by Mr. Woetzel. The final minutes, prepared by Haley, reflected the Haley interpretation.

On 15 April 1963, Haley wrote a short letter to Åke Hjertstrand, in Stockholm, replying to an inquiry about access to the Proceedings of the IISL's Fifth Colloquium held in Varna. Haley had been displeased with the length of time, the editorial standards impositions, and the difficulty of dealing with editors in a commercial publishing house, such as had been involved in production of the first through the third Colloquium proceedings by Springer-Verlag in Vienna in 1959, 1960 and 1961. He arranged for an alternative for the Fourth Colloquium, but he was similarly disappointed in the time delay and problems encountered with the production of the Proceedings of the Fourth Colloquium by Mortimer Schwartz at the University of Oklahoma in 1962. Consequently, with all else that was going on in his firm at the time, Haley took it upon himself to compile and edit the Proceedings of the IISL's Fifth Colloquium. As he explained to Åke Hjertstrand:

The Board of Directors of the International Institute of Space Law decided to change the arrangements for the publication of the Proceedings this year. Rather than enlisting the assistance of a commercial printer, we decided to do the work ourselves. Each author was asked to provide us with 300 copies of his paper. I was given the task of compiling, editing, binding, and distributing the volume.

Since the Institute was without funds and because of the great expense involved in this project, we are forced to charge \$4.00 per volume. This sum does not approach the actual costs of producing this book, however. In order to limit expenditures as much as possible I have my office staff handling the distribution of the Proceedings. For this reason, we have not considered releasing the Proceedings to an independent distributor.

The letter made it sound like the Board of Directors made all these decisions. Haley was at the center of operations because he chose to be. As editor of the *Proceedings*, Haley side-stepped noting his personal leadership when he explained in the editor's prefatory remarks:

At the request of President Ivan Georgiev and the Board of Directors of the International Institute of Space Law, I have undertaken the compilation of papers presented at the Fifth Colloquium, as quickly and inexpensively as possible. As a result this is not a "finished" product in the physical sense, worthy of the authors' major contributions to the literature of space jurisprudence.

He did not explain that he proposed to Georgiev and the Board that they authorize him to do the editing and compilation to save time and money. Obviously, Haley's goals were to demonstrate that publication could be done more quickly and less expensively than the commercial houses insisted, and he wanted the membership of the Institute to step up to the

problem of helping to fund Institute programs and activities. The cost of reproducing 300 copies of each paper was redirected to the author(s) of each paper. Even with efficient staff and resources to support his editorial efforts, Haley discovered publishing a book of several hundred pages is not a simple task. His experience with the IISL Proceedings very likely moderated his impatience with Appleton-Century-Crofts working to publish his own book on Space Law. Haley saw himself as a lonely voice in the IISL crying in the wind with no significant help being offered by anyone. But despite the problems, he was determined to make the system work so that the Institute would be a success. He never abandoned that commitment.

On 30 April 1963, Haley sent brief telegrams to Manfred Lachs and to Gennady P. Zhukov, who were in New York for a meeting of the UN Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space. Haley wrote “would appreciate taking you, Zhukov, Abdel-Ghani, Driscoll and other friends of your selection to dinner Thursday evening. Please advise”. Once again, Haley was seeking a time and place to sit and informally discuss the potential role of the IISL as a research team to assist the Legal Subcommittee of the UN Committee on the Peaceful Uses of Outer Space. Lachs was the sitting Chairman of that Subcommittee and Abdel-Ghani was a key member of the UN Secretariat staff supporting the Outer Space Committee activities. Zhukov was a designated USSR representative to the Legal Subcommittee. Haley believed that if he could facilitate establishment of such a liaison, money could be obtained from the UN to support operations of the Institute. With less than one week’s notice and with numerous other commitments to accommodate, his invited guests were unable to assemble for his planned dinner. As matters developed, despite his persistent efforts, it was made clear to Haley eventually that there would be no money flowing to the IAF or the IISL from the United Nations Legal Subcommittee of the COPUOS.

On 7 May Haley replied to a letter received from Professor Cooper concerning the IISL Board Meeting during March in Paris. Haley’s reply contained a concise and comprehensive summary of the principal actions taken by the Board. Haley wrote:

Dear Professor Cooper:

This is with reference to your letter of April 22, 1963, concerning the Board of Directors’ meeting of the IISL in Paris on March 24, 1963.

The President of the Institute, Dr. Georgiev, suggested that we publish a newsletter to the membership. The Board agreed to this proposal and the President said that he would prepare and distribute a newsletter as soon as possible.

The Board has once again voted to amend the Statutes of the Institute (Articles V, VI, and VII). The changes are as follows:

Article V, Section 3, should read:

Seven or more elected members of the Board of Directors shall constitute a quorum.

Article VI should read:

Section 1. The Board of Directors of the Institute shall consist of the President, the Secretary, and ten other members of the Institute to be elected by a majority vote of members present at the annual meeting, or by the Directors to fill vacancies.

Section 2. The General Counsel of the Federation shall at all times be an *ex officio* voting member of the Board of Directors of the Institute.

Section 3. Members of the Board of Directors shall serve until the end of the annual meeting following their election, and may be re-elected subject to the provisions of Sections 1 and 2 of this Article.

Article VII shall read:

Section 1. These Statutes may be amended at any meeting by a two-thirds vote of all Directors. An amendment adopted at other than an annual meeting shall be of full force and effect until the next annual meeting, at which time such amendment shall be ratified, modified, or revoked by the Board of Directors.

It was agreed that these amendments must be ratified at the next annual meeting in September 1963.

The Sixth Colloquium has been scheduled for September 26 and 27, 1963 [in Paris]. There will be four sessions, two each day, on September 26 and 27. The following is the division of topics for the four sessions:

- 1) General Principles for the Utilization of Outer Space;
- 2) Rescue and Assistance to Cosmonauts in Distress;
- 3) Damages and Liability for Accidents Caused by Space Activities;
- 4) General Papers.

With respect to the reorganization of the Working Groups of the Institute, there was general discussion of your proposals and those of Dr. Pépin. No definite program or plan has been agreed upon. A committee consisting of Dr. Smirnoff, Chairman, Dr. Fasan, and Dr. Kopal was appointed to examine and report on suggestions for “reorganizing, reducing, or altering the programs and/or the members of the Working Groups” after consultation with you and the Chairmen of the respective Groups.

Basically, the Groups would be reduced in number and merged with others along the following lines: Group 1 and 2; Groups 4 and 8; Groups 5 and 11; and Groups 6 and 10. Working Groups 3, 7, and 9 would remain separate and distinct.

The second committee appointed at the Board meeting was constituted “to formulate the basic principles and problems of the exploration and utilization of outer space.” Dr. Korovin requested that the Institute consider this topic, and a committee under the Chairmanship of Dr. Pépin was empowered to draft a documentary list of problems according to subject matter, attributing authorship, but not taking any stand on principles. This committee is to present a list of such problems and principles for discussion at the Sixth Colloquium.

Your decision to retire as Chairman of Group 1 is most regrettable. Your yeoman work in establishing and supervising the Working Groups of the Institute has been admirable. We will with reluctance honor and abide by your decision.

Sincerely yours,
Andrew G. Haley⁴³¹

⁴³¹ AGH, *Letters & Materials*.

At the September 1963 IISL Board Meeting in Paris, in the absence of Georgiev, Haley chaired the meeting of the outgoing Board of Directors. Although he tolerated Ivan Georgiev's election as IISL President in Varna, Bulgaria in 1962, Haley was not fond of Georgiev, because he found Georgiev untrustworthy and he found himself fully burdened with the management of the IISL during Georgiev's presidency. The Board naturally looked to Haley for leadership. He was fully informed on every aspect of IISL business, and he was still serving as Secretary while he held the *ex officio* position of General Counsel by virtue of holding that position in the IAF. It was readily accepted that Haley would preside at the Board meeting of the out-going Board in Georgiev's absence.

In the September 1963 election of IISL officers for the coming year, on Haley's nomination Howard Taubenfeld, Professor of Law at Southern Methodist University, was elected Secretary of the Institute and Georgiev was reelected to the Presidency, despite his absence. Haley was always sensitive about the possibility of the IAF organizations becoming unbalanced by too many Western allied nations' representatives being elected to the management positions. This concern was his reason for supporting reelection of Georgiev.

The newly elected Board of Directors met the following day in a meeting chaired by Taubenfeld and attended by Fasan (Austria), Herczeg (Hungary), Horsford (UK), Kopal (Czechoslovakia), Maxwell (US), Pépin (France), Smirnoff (Yugoslavia), and Sztucki (Poland). Absent were Georgiev (Bulgaria), Cocca (Argentina), and Korovin (USSR). Haley was in-and-out, being occupied in meetings of the IAF and the IAA. A decision was taken to name an Awards Committee comprising Haley and previous award winners to select future awardees of the Institute. The committee included Professor Cooper (US) as Chairman, Haley (US), Korovin (USSR), Lachs (Poland), and Meyer (FRG).

The IISL Board reworked the titles and compositions of the Institute's Study Groups naming Chairmen and Vice Chairmen, with up to 10 group members to be named by the Chairman and Vice Chairman. The agreed working groups and their officers were:

Group	Chairman	Vice Chairman
Jurisdiction Related to Terrestrial Activities	Cooper	Vereshchetin
Legal Status of Space Vehicles	Verplaetes	Sztucki
Sovereignty Over Celestial Bodies	Smirnoff	Cocca
Municipal, Treaty and Private Law	Quadri	Strauss
Specific Regulatory Problems	Lachs	Maxwell
International Regulation	Pépin	Markoff
Space Communications	Haley	Zhukov
Damages	Beresford	Rode-Verschoor
General Principles	Korovine ⁴³²	Crane
Regulations and	Safavi	Herczeg

This action was totally at odds with the decision in the spring to reduce the number of working groups by consolidating several. There is no record of why this reversal in direction was agreed upon. It is certainly significant that Haley was at the retiring Board meeting, but not at the newly elected Board meeting the next day. With the major items resolved, the Board disposed of some administrative matters and adjourned. At this point, the absence of Georgiev was not considered a matter of great concern.

Georgiev visited Haley in Washington, DC, during July 1963, and after returning to Sofia in August, Georgiev circulated a report on his activities and his plans concerning the IISL. The report was distributed to all the executive leadership of the IISL, listed above; to the President of the IAF; the President of the International Academy of Astronautics (IAA); the Chairman of the Committee on the Reorganization of the IISL Working Groups; former Presidents of the Institute; and former directors of the Institute for 1962-63. The report was intended to cover all Georgiev's work since the 24 March 1963 Institute board meeting in Paris.

"This report is made with a view to the coming annual business meeting of the Institute in September." Georgiev reported on a meeting in Geneva with Prof. Korovin in early April during which Georgiev summarized the results of the March meeting, with which Korovin concurred. While in Geneva in April, Georgiev met with Gerald Gross, Secretary General of the ITU, to continue discussions Georgiev and Haley had begun there in early March on inter-organizational collaboration between the IISL and the ITU. Georgiev also met with other UN officials to explore collaboration with the World Health Organization (WHO) and with C. Wilfred Jenks at the International Labor Organization, to discuss Jenks work in the International Law Association and his contributions to the IISL Working Group on Regulation and Control Agreements.

After returning home to Bulgaria in March, Georgiev returned to Paris in mid-May where he met separately with IAF President Brun, IAA Deputy Director Malina, and Dr. Pépin to discuss plans for the IAF Congress and the IAA and IISL meetings planned for September in Paris. His meeting with Pépin covered a wide range of Institute issues including programming of Colloquia, obtaining funding and strengthening collaboration with other organizations.

As noted in letters from Haley to IISL Board members, quoted above, Haley was dedicated to the idea that the Institute was most effective when serving as a sounding board for the presentation of ideas and opinions about the needs, scope and development of space law. He was adamantly opposed to the Institute being used as a political tool to influence governmental policy decisions by debating and voting on specific topics. Haley wanted the Institute to be a discussion club, not a decision taking or recommending body. The contrary view was fully elaborated in Georgiev's report, where he wrote:

Our Institute should prove worthy of official recognition. There is no better argument than to show that the results of its scientific work [i.e., legal discussions] are useful to the UN and its members. But scientific results of this kind can only be achieved if, on the one hand, we depart from the present practice of kaleidoscopic and at times too widely rambling reports and discussions at the Colloquium ending without common stands or decisions and, on the other hand, if we bring more

action into the Working Groups and somewhat prune the superfluous growth of subject matter. The agenda of the Colloquiums should give prominence to more compact and practical problems, on which the greater part of the reports and discussions should be centered, to end with concrete unanimous decisions within the framework of realistic possibilities, without prejudice to the international spirit and cooperation reigning at the Institute. [emphasis in original]

Furthermore, the Working Groups should be given more strictly limited problems with a practical significance. They should draw members that are eager to work and chose as presidents [chairmen] men with drive and initiative. All Working Groups should make their reports to the Colloquiums and the results should be published in the Bulletin of our Institute, as proposed by Mr. John Cobb Cooper. The Board of Directors has concretely proceeded to such centralization of the work and selection of the problems of practical importance, by defining the problems of the Sixth Colloquium. Similar action was taken by the Committee for the Reorganization of the Working Groups, which met in Vienna last June. [...]

During my meetings some said that I over-estimated the political element in my conception regarding the organization and work of the Institute. Others, on the contrary, insisted that the main thing was political agreement between the USSR and the USA on the legal problems of outer space and that the elaboration of such problems itself was of far lesser significance, as they have been sufficiently developed anyway.

I consider that both views take undue extremes. In order that the Institute might exist and function properly, there has to be a certain minimum of political conditions and conceptions about its overall activities and organization, conceptions which can be reduced to: peaceful coexistence, representation of the main political and juridical trends in the world in the leadership and in the work of the Institute; equality and freedom of discussion within the Institute, unanimity when taking important decisions.

This line of argumentation continued for several pages of Georgiev's report, seeking to drive home the point that if the Institute is to be useful it must be a decision taking organization. Thus it would become a non-governmental organization seeking to accomplish the roles assigned to the United Nations. Haley considered such a course foolish and unproductively duplicative of efforts in process within organs of the United Nations.

Georgiev continued his report with a detailed account of several days work with Haley in Washington during which a 16-page Newsletter was drafted describing recent Institute events and future plans with a four-page attachment "giving a brief description of the organizational structure of the Institute and Federation, as they are related". At Haley's cost and direction, 500 copies of the newsletter were produced and sent to all members of the Institute, the permanent missions to the United Nations Organization, and the ministries of Foreign Affairs and National Scientific Institutes of different countries. Haley was not happy with all the contents of the newsletter, but he fully supported the broad distribution of the letter to as many officials as possible, within manageable costs, which he inevitably bore.

Several pages followed in the report, philosophizing on the nature of relationships desired with other organizations. A major institutional modification was proposed for a new working Secretariat structure.

There are three main elements: organizational structure, permanency, and dual-representation. The organizational form should be administrative and scientific. There is only one way to achieve it: by setting up a Scientific-Administrative Secretariat with two secretaries – a competent jurist from a capitalist country, and one from a socialist country. The seat of the Secretariat should be at the Federation headquarters, in Paris. The Secretariat should be able to use in its work the technical services of the Federation and should work in close contact with Secretariat of the Federation and with the Academy of Astronautics. The two secretaries should be paid officials, so they can dedicate time and effort to the required work. They should be appointed by the Board of Directors permanently, i.e. until they resign or are replaced by the Board. Their appointment should be confirmed by the General Assembly of the Institute, and they should have the same rights as the Directors of the Institute, for instance the right to participate in the Board and to vote. The secretaries should not be obliged to reside in Paris all the time. Each should be able to spend considerable time in his homeland keeping close correspondence with the other and with the Paris office. Both can meet periodically in Paris – say two, three or four times a year. Their pay should run only to the time of their sojourn in Paris or during missions to other countries. The Board of Directors could work out and approve an annual program for the work of the secretaries. Their duties would be to maintain constant scientific and organizational contact among members of the Board, Institute and Working Groups, and between the Groups themselves; to keep constant relations with the United Nations organization, the Specialized Agencies, scientific institutes and state organs in the different countries, and with the Federation and the Academy of Astronautics. All this [being] in line with the decisions of the Board of Directors and the instructions of the President of the Institute.

A section then follows dealing with the importance of the participation of Soviet jurists, without whom, Georgiev opined, the very existence of the Institute “would hardly make much sense”. Following a two page discussion of the need for and nature of Soviet participation, the report closes with some extraordinary disclaimers, not usually seen in reports of the kind.

To end, I would like to point out once again that these are my own personal views, which do not involve the Board of Directors nor its individual members, or any particular member of the Institute.

I would like also to point out that I have never discussed with anybody within or outside the Institute the problem of relations between politics and law as developed above, neither have I discussed the dual Secretariat question raised here.

It may seem that I lay excessive stress to some aspects and insufficient to others. I am doing this because of the circumstances of the moment. Under other circumstances I would do otherwise.

As President of the Institute I have no intention to maintain the views or proposals expressed or made here, if they are not agreeable to all members of the Board.

Ivan Georgiev [signature]
President of the IISL of the IAF⁴³³

⁴³³ AGH, *Letters & Materials*.

A one page attachment to the report begins, “[t]he enclosed letter was written towards the middle of August. I have since been officially informed that my demand for financial help to the Institute ... has been met by the competent Bulgarian authorities”. Georgiev describes the terms of the in-kind support to be provided and notes that this is the first instance of governmental support for the Institute and he hopes that “this example may be followed by others”. The attachment is dated 30 August 1963. The document was not well received by Haley, who began immediately working through personal contacts to explain why Georgiev’s idea could not be an acceptable approach to the management of the IISL.

When Georgiev failed to show up for the IISL Annual Meeting in Paris in September his report was neither seriously considered nor discussed by the membership. In a meeting summary prepared by newly elected Secretary Howard Taubenfeld, it was noted that “[t]he Report of the President was taken note of but, in his absence, his recommendations were not considered”. As a consequence of new elections in September 1963, the officers in place, President Georgiev, the Directors, and Secretary Taubenfeld continued in office.

Chapter 37. Coping with Death and Disease

The law firm, Haley Bader & Potts, continued to prosper and slowly grow. Haley's physical health and energy levels were slowly weakening; but he remained productive and active. His two children had taken up residence in Alaska, where they were teaching. Andy Vogt was continuing successfully his studies at Harvard University.

Before he left Washington to attend the IISL Board Meeting in Paris Haley wrote to two local moving and storage companies in Washington, DC, directing the delivery of the rugs from the Huntington Street home to his new apartment in Washington, and a week later the packing and moving of the remaining household belongings in the Huntington Street home to the Washington apartment. With his children in Alaska, Aunt Dede at the Del Ray beach home, and the Vogt children away at school, he would be in Europe from 19 to 26 March 1963, so that was an ideal window in which the household move could be accomplished without anyone being even temporarily displaced. Ethna White, Haley's secretary and executive assistant, would be present to oversee the performance of the work. The move was accomplished during Haley's absence from the country.

At the end of March, the Vogt children were released from school for Easter vacation. Andy Vogt later recalled:

At Easter vacation in Washington, DC, Mary and I learned that Aunt Delphine was gravely ill in Florida. I made the decision [despite an AGH view to the contrary] for Mary and me to go down to Florida, with Mary's support. This interrupted our short vacations and was not the first time she had been ill – so a judgment had to be made how serious the matter was. We arrived and saw her on her deathbed while she was still alive. AGH arrived separately as I recall. After Aunt Dede died [on 1 April], I drove him from Del Ray to the Miami Airport. He was silent through most of the trip. As we stopped at the airport, him in the back as I recall, I urged him to stay in the car. He thanked me and said he needed to be alone.⁴³⁴

The death of Aunt Dede was at a busy juncture in Haley's life. His attention to the ongoing business around him probably significantly softened the blow of the loss of his spouse. The Vogt children had both come to Florida to be with him. Delphine and Andrew, Jr. had considerably greater distances to travel. They came back promptly to Washington, DC, in time to attend their mother's memorial service and interment at Arlington Cemetery on 3 April 1963. Aunt Dede was buried at the Arlington National Cemetery. Haley had served as an officer in the US Army Air Corps in WWII (however briefly), so he and his wife were eligible for interment there. On 30 April, Haley wrote a letter to his deceased wife's mother, Martha (Maude), and sister, Bernice, in Campbellsville:

⁴³⁴ From a commentary on the draft of this biography sent to S. E. Doyle 12 Jan. 2020; in *AGH, Letters and Materials*.

Dear Maudie and Berny,

I enclose the first “batch” of the messages, etc., sent to us in sympathy over Aunt Dede’s passing.⁴³⁵ There will be two other batches sent you which will include all the messages. Some have still to be answered, and a great deal others require in addition a personal acknowledgement from me. Writing these acknowledgements is a real task, but I believe I owe it to Delphine.

I have ordered fifty “permanent mementos” which contain the “invocation” of the Sacred Heart and a newspaper biography of Delphine. I will send a dozen of these to you when they arrive.

I have gathered together Delphine’s personal jewelry all of which, of course, I will turn over to Sissy Britches. She in turn may give some little piece to Mary, but this is up to her.

Mary has been an angel about Aunt Dede. When I needed help the night Aunt Dede died, she immediately decided to go down [to Florida] and to make Andy John go with her.⁴³⁶ Berny can tell what a great help this was, but it was Mary’s decision made immediately and decisively. Many other fine little things have happened, for example – last Friday one of the attorneys of the FCC scheduled a Mass for Aunt Dede at 8:00 a.m. at Holy Trinity Church in Georgetown. I heard about this at the last minute but I got there on time, and who was kneeling in the front pew but Mary, calmly saying her rosary. She didn’t even know I was there until after the Mass. [...]

Love to both of you,
Andy⁴³⁷

Continuing demands for satisfying the requests of his publisher at Appleton-Century-Crofts for the balance of the manuscript, were further complicated by the discovery in June that his niece and ward, Mary, was diagnosed with active tuberculosis in one lung. After consultation with her doctor in Denver it was decided that Mary should be hospitalized there for care.

In August, Mary left the hospital in Denver to visit briefly with the Baders in Pasadena, and then she went to live with her uncle in Washington until she entered the second semester at Manhattanville College of the Sacred Heart located in Harrison, New York. This was an important milestone in Mary’s life, and an important consolation for Haley after all the effort he had put into her education. Haley continually and aggressively encouraged Mary’s work in schools, and fully financially supported her throughout her educational years. He not only discharged his voluntarily assumed obligations of support of the Vogt children, but also sought to manifest his affection for the children, whom he treated as his own.

Mary spent several months recuperating at Haley’s apartment in Washington before reporting to Manhattanville College for the second semester. Although the shadow of TB remained over the Vogt children for the balance of their lives, it never broke out again in a life threatening way. In a letter to his daughter, Delphine, dated 3 August 1963, among other matters, Haley wrote:

⁴³⁵ An excellent selection of the messages or condolences and remembrances appears in *Astronautics Loses an Original*: Andrew G. Haley, *Astronautics and Aeronautics*, Nov. 1966

⁴³⁶ When reviewing this text for publication, Andrew John recalled that Haley’s recollection on this point was in error; the decision to go to Florida was Andrew John’s.

⁴³⁷ *AGH, Letters & Materials*.

You were quite right in your sensitive and kindly reference to dear little Mary. She has done the best she can and she has been a real help – and she certainly demonstrated extraordinary devotion to Mommy. I think she will stay at St. Joseph’s [in Denver] for about eight weeks and then I guess it will be best for her to come back to Washington. I am not at all concerned about the infectious nature of the disease and it would be nice to take her around with me once in a while. I have talked to both doctors [Washington and Denver] and they think this is a good plan – in fact they suggested it. The ultimate decision rests on whether the lesion diminishes or increases. If the lesion diminishes in the next eight weeks she will be on her way to a cure.

Mary’s brother, Andy Vogt, provided his recollection of this summer 1963 period:

Mary was in a hospital/sanitarium in Denver for part of the summer and fall semester with tuberculosis. It was discovered when she went for a physical as part of her admission to Manhattanville. She was in isolation for the first month and thereafter with other patients. I flew to Denver at some point and visited with her for one day. Mary and I have both been carriers of tuberculosis since birth. . . . Mary had to take 38 pills per day. When she got out she stayed with Aunt Gertrude in Pasadena, then came to DC. Andy Jr. drove her up to Manhattanville in January 1964 where she began her freshman year. She was one of two girls from Visitation . . . who got into Manhattanville. She majored in American History and graduated in December 1968. When she got to Manhattanville, she was still taking 38 pills every morning and then promptly vomiting. Without consulting anybody she called up a doctor at the Georgetown University Hospital who specialized in TB and asked if she could stop taking the pills. She wanted to participate in sports at school. The doctor said yes and she quit the pills.⁴³⁸

This episode of Mary’s affliction was in addition to the loss of von Kármán. On 6 May 1963, Dr. Theodore von Kármán died in Aachen, West Germany. Haley had known and worked with von Kármán for more than 20 years and considered him one of his closest friends. They had worked together with Malina and others to create Aerojet in 1942, and they subsequently spent many days together in Washington, DC, and while visiting Europe to attend conferences and technical meetings during the 1950s and early 1960s. They corresponded continually, engaged in business and organizational activities together, and pursued improved international cooperation jointly in multiple ways during their lives. As much as a profound emotional loss for Haley, the death of von Kármán was also a loss of camaraderie and sustained scientific informational support and consultation. In the space of five weeks Haley had lost his spouse and his best friend, but there was little time to grieve.

On 9 May, A. L. Schaff at Aerojet-General in Azusa, California notified Haley that the corporation had decided that in lieu of flowers, they would collect voluntary contributions and submit them to the Astronautics Foundation, of which von Kármán had been Chairman of the Board. Schaff was calling Haley to obtain instructions on where to forward the contribution when it was assembled. Haley advised Schaff to send a check to the Foundation Treasurer, Dr. R. G. Folsom at Rensselaer Polytechnic Institute in Troy, New York. Haley also told Schaff that the Board members were planning to rename the Foundation at their next annual meeting

⁴³⁸ From a commentary on the draft of this biography sent to S. E. Doyle 12 Jan. 2020; in *AGH, Letters and Materials*.

to be the Theodore von Kármán Memorial Astronautics Foundation. Haley indicated he would contribute \$100 to the Aerojet-General contribution.

Immediately following the call from Schaff, Haley cabled Ed Beehan, Corporate Secretary at Aerojet-General, to confirm arrangements for attendance at the von Kármán funeral.

Have been officially notified by Edmund Brun, President of the International Astronautical Federation, that Martin J. Summerfield has been designated to represent the Federation as such at the funeral of Theodore von Kármán; Andrew G. Haley has been designated by President Brun to represent the International Academy of Astronautics and the International Institute of Space Law. The Executive Committee of the Astronautics Foundation, Inc. has officially designated James E. Knott, President, as representative of the Foundation.

This information is submitted to you for implementation in the event that at the funeral representatives will be given recognition – if no such arrangements are contemplated it is understood that no complications will be involved. In lieu of flowers it is suggested, as initiated by Aerojet-Sacramento, that donations be made to Astronautics Foundation, Inc. to carry on the work of von Kármán's Academy of Astronautics. This has been the project close to his heart during the past several months and I for one am contributing to the Sacramento Fund instead of sending flowers, but people will not generally know about this unless some announcement is made by you. Any contributions should be sent to Dr. Richard G. Folsom, President, Rensselaer Polytechnic Institute, Troy, New York. We propose to change name of Astronautics Foundation, Inc. to Theodore von Kármán Memorial Astronautics Foundation as soon as we can arrange a meeting of the Trustees.

Andrew G. Haley⁴³⁹

Once he was on the west coast to attend von Kármán's funeral on 15 May, Haley decided to visit Anchorage, Alaska, to see both his children there. His son was at the Copper Valley School near Glennallen at the time. Glennallen is about 180 miles to the east northeast of Anchorage, about three and a half or four hours distance by car. Haley notified them of his planned arrival in Anchorage by telegram on Friday, 17 May, the same day he was scheduled to arrive. The visit had likely been coordinated in advance by phone. His visits with the children were not dedicated trips; they were usually add-ons to trips to the Northwest otherwise required for business. Haley did proceed to Anchorage and there was a visit there with the children. There is no discovered record of either the length or the nature of the visit.

⁴³⁹ *Ibid.*

Chapter 38. A Book on Space Law Completed

Committing a book publisher

In February 1963, Haley had nearly completed his work on the manuscript of the book *Space Law and Government*. Among the many topics addressed, the book contained several loadstone chapters dealing with the upper limit on national sovereignty, space medical jurisprudence, satellite communications, space torts and liability, and Haley's recently proposed concept of Metalaw. Much of the material was presented against a rich background of relevant history. Haley also included as annexes all the key space-related UN documentation available at that time from the Committee on the Peaceful Uses of Outer Space and the resulting Resolutions of the General Assembly. It was still four years to the opening for signature of the UN's 1967 Treaty on the Law of Outer Space, most of the provisions of which were identified in 1955, were recommended, explained and justified in Haley's book.

By the end of February 1963, Haley had completed a substantial part of the manuscript of his book on space Law. On 2 March, he sent to the D. van Nostrand Co., to Appleton-Century-Crofts, and to Ian R. Maxwell, the head of Pergamon Press, copies of a substantial part of the original manuscript of the book *Space Law and Government*. The transmittal letters included justifications for publication and multiple conditions which Haley required the publishers to consider. He notified them that he would not permit any substantial change in the text or any general rewriting. He insisted that the book must be available for distribution by 1 September. Recognizing that that date could create unusual problems, he offered to make an initial contribution for production to help allay unusual costs. He also offered to pay for the cost of printing and circulation throughout the world of 20,000 4-page 'flyers' which should be mailed in May. The transmitted manuscript still lacked the final three chapters, but they were in typing and their delivery was promised in a matter of days. Haley did not make known to the addressees that other publishers were being contacted. He was very explicit about the nature of the offer of this manuscript for consideration. He wrote to each of the publishers:

It must be understood that this is not a positive offer to permit you to publish the book. This is rather in the nature of information that the manuscript is available – and if you will make me an offer embodying your terms and conditions in line with the foregoing suggestions, I will give you an answer within 72 hours of the receipt of your offer.

Please do not delay in responding to this letter and if you have no interest in the manuscript please return it to me with your letter of rejection.⁴⁴⁰

⁴⁴⁰ *Ibid.*

Before the end of March Haley had reached a preliminary agreement with Appleton-Century-Crofts for the publication of his book. On 7 April, Haley wrote to Charles Walther at Appleton-Century-Crofts:

Here is the manuscript of *Space Law and Government*. I am completely rewriting Chapter XII but I should have it ready for you within the next three days. I am also adding to three other chapters and this should be in your hands within a week.

The addition will comprise about 150 pages of typewritten material – double spaced, letter size paper.

I have gone to great trouble to make sure that full names of each of the hundreds of persons mentioned are set forth – and the citations are all correct. This will be a great help to the typesetter and to my own work in indexing both during the galley-proof and the page-proof phases.

Thanking you for your cooperation, I am

Sincerely yours,
Andrew G. Haley

Haley was writing and proof reading his promised submissions to Appleton-Century-Crofts, monitoring and managing his law firm, and attempting to resolve aggravating issues which arose in his planned transition out of his near full-time management of the IISL. To these matters there were suddenly added deaths and the significant health issue involving Mary Vogt described in the previous chapter. Clearly, now that a publisher was committed, Haley's primary focus for the balance of the year was to accomplish publication of his book. The work did not go as smoothly or as rapidly as he expected. He had included D. van Nostrand Co. among his initial contacts because van Nostrand had published his 1958 book *Rocketry and Space Exploration*. While doing what he could to keep things moving forward at Appleton-Century-Crofts, on 26 April Haley wrote to Ted Saros at van Nostrand:

Dear Ted,

Thank you for your good letter of March 7, 1963.

I find that I will not be able to proceed with publication of my book by your company because of the possibility of disastrous tax results to me. Thank you for returning the manuscript.

I am very much obliged to you and extremely regret this decision as I have long been a friend of your company. A large number of my associates indeed publish through you – with the most satisfactory results.

I have, of course, carefully reviewed our former correspondence and the transcripts of our telephone conversations of March 6, 1963, and earlier dates in which you pointed out that any former arrangements had expired and were null and void and could not possible (*sic*) perform under the publication schedule I suggested.

With every good wish, I remain,

In old friendship,
Andrew G. Haley

Haley's next communication to Appleton-Century-Crofts was on 4 May, when he wrote:

Here is the first portion of Chapter XII – Metalaw. This represents – as you will note – a great deal of up-to-the-minute work, including references as recent as this very week. The text of the chapter now runs to 29 pages with about 6 pages of footnotes.

I hope you get this part of the last chapter to the printer right away as it becomes more important each day to meet the publication date of August 26, 1963.

In this chapter I have about an equal amount of copy to send you and in other chapters I have about 75 pages to send you. A good deal of this will be concerned with the last – and very important – session of the United Nations Legal Subcommittee on the Peaceful Uses of Outer Space. I also must cover genocidal space torts and crimes. I am engaging a squadron of doctors of philosophy to work on the galley proofs you are going to send me on May 15. They are engaged for May 18, 19 and 20 and I certainly hope the galleys will be delivered.

I certainly hope your editor is watching my language with care.

Sincerely yours,
Andrew G. Haley

Then, on 13 May he wrote:

Here is most of the remaining text of Chapter XII. I have about three more pages to add but the material is so difficult that I cannot compose it until after I return from Dr. von Kármán's funeral in Los Angeles. The material, however, will not exceed 1,000 words. You might make a note at the end of this chapter that "there is more to come."

In another envelope in this same package I inclose the diagrams and figures for Chapters IV and VII.

On that same day, as some evidence of the multiplicity of issues with which he was dealing, he wrote to one of the associates in his firm, David Lloyd, that the probate of his wife's estate was a most urgent matter, directing him to prepare and dispatch papers related to the estate for signature of Senator Bone, who was a witness to Aunt Dede's will. Haley directed that "All papers necessary to the proof of signatures of the witnesses should be sent to Senator Bone as soon as possible." He would not be in the office for several days to follow up on this order, so he copied the note to his nephew, Michael Bader. Bader understood that he was Haley's first line a defense against confusion, tardiness, or lack of effort by the other members of the firm. Although Bader was not a partner in the firm, he was clearly the senior among the associates, and with the assistance of Ethna White he provided whatever routine administrative management was required when Haley was travelling.

In late June, having received a set of galley proofs from Appleton-Century-Crofts, Haley had multiple copies of the galleys made and wrote letters to selected prominent persons, enclosing a set of galleys with each letter, inviting the addressee's submission of a Foreword for the book. In some cases, he prepared relevant materials to be considered for inclusion in the requested Foreword. Submissions were requested from Lyndon B. Johnson, Vice President of the United States; Senator Clinton P. Anderson, Chairman of the Senate Committee on Aeronautical and Space Sciences; Congressman George P. Miller, Chairman of the House Committee on Science and Astronautics; Congressman Carl Albert, Majority Leader, US House of Representatives; and Commander Alan Shepard, USN, Mercury Astronaut. In reply to these requests, Forewords were submitted and published in the book from Vice President Johnson and Congressmen Carl Albert and George Miller.

During the summer months of 1963, after a trip to Europe in July, Haley was substantially preoccupied by legal issues at the law firm and in almost continual communications with Appleton-Century-Crofts urging the completion of his book before the end of August. He may have realized an earlier date of completion if he had simply backed off and let the publishing house do its job, but he was in almost daily contact about details of the text and the index as they were being completed. The end result of the effort was a disappointing completion of the book about 1 October with publication not accomplished until early in October.

Doyle had graduated from Duke Law School in June 1963 and relocated his family to Montreal, Canada, with a Canada Council Scholarship to attend the McGill University Institute of Air and Space Law. Doyle had continually corresponded with Haley during the year and wrote 13 September to inquire whether or not Haley could send him a copy of his book when it was available to assist in his studies at the Institute. Before he left to attend the IAF Congress in Paris Haley informed Doyle that “[w]e encountered several last minute difficulties with the manuscript and index of my book and for this reason publication has been somewhat delayed. I am still hopeful of having the book out sometime in October”.⁴⁴¹

A launch of Haley's book, of sorts, occurred at a cocktail party hosted by Appleton-Century-Crofts at the Broadcasters' Club in Washington, DC, on 3 December 1963, more than two months after the IAF Congress. Appleton-Century-Crofts noted that the party was “[o]n the occasion of the publication of Haley's book *Space Law and Government*”. It was a polite affair, but a disappointing far cry from the launch Haley had anticipated in a broad international milieu at the September IAF Congress in Paris.

⁴⁴¹ AGH, *Letters & Materials*, 17 September 1963.

Chapter 39. On an International Conferences Treadmill – 1963

There is a reality rarely recalled by persons not directly involved in the management of emerging international non-governmental organizations in the 1950s and early 1960s. In this period, start-up membership organizations initially eschewed the imposition of membership dues, because it was assumed requiring dues would discourage consideration of membership. As a result, organizations often started with no internal source of funds to defray costs of day-to-day operations, postage, stationery, secretarial office space, document production and member travels. If one wished to participate in a new nongovernmental international organization he would have pay all his own expenses, or be employed by a supporting institution willing to pay travel costs and per diem for attendance at meetings. Corporations or governmental agencies directly involved with a particular subject area would sometimes assist in or provide some of the needed funds for individual participants.

Until the organizations themselves were established, and able to organize annual or biennial meetings at which attendance fees would be paid to help cover organizational costs, officers or members of emerging organizations would have to have available personal wealth to meet the costs of performing their duties. Haley was one of the few unsponsored officers, leaders and promoters of organizations who had enough disposable income to pay early organizational costs, but even he would reach the limit of his patience as the organizations he supported grew. The IISL was a prime case in point. To some extent Frank Malina was another “unfunded” supporter of international organizations, but Malina’s contributions were more often personal time and effort, because he was not significantly wealthy with surplus funds he could expend at will until later in his life.

First World Conference on World Peace through Law

With all else that was going on in early 1963, Haley also was involved in organizing and coordinating a major international conference in Athens, Greece. On 6 May Haley had written to his friend Welf Heinrich, Prince of Hanover, indirectly but clearly inviting his assistance in organizing the conference in Athens. Haley wrote:

Dear Henry the Lion,

First, I must thank you for your ever-kindly and thoughtful message of condolence on the passing of Delphine. This was a terrible shock and one which I hope will never happen to you. One’s father

and mother may die – and this is always shocking – but the experience is never as difficult as when a spouse passes away. [...]

Prince Welf, as you know the First World Conference on World Peace through Law will convene in Athens, June 30 to July 7, 1963. I am enclosing the “Travel and Hotel Information” and also the information on the program entitled “First World Conference on World Peace through the Rule of Law.” You will note that on Wednesday, July 3, from 9:00 a. m. to noon, Working Session III under topic 7 Conference Group will consider “International Law of Outer Space.” I have been appointed Chairman of this group and I enclose a copy of my opening remarks.

Lawyers from 105 nations and from all 5 continents will attend this historic meeting.

Actually the meeting is being sponsored by the American Bar Association, but participation of the Greek Bar Association is of overwhelming importance. Our officials here in America would very much like to have the distinguished presence of His Majesty King Paul at the Inaugural Session on Monday, July 1, 1963. We understand that the Royal Family is scheduled to proceed to England two days later – but I will sincerely recommend that they give this matter, as always, their most sympathetic attention.

But also, it would be very interesting to the delegates if they had a chance to meet Her Majesty. Queen Frederika is somewhat of a wonderful person here in America, and the goodwill engendered by her presence would be priceless. I hope you will be able to be of help to us.

In the meantime give my best regards to your dear little Princess, and I remain as always,

In old friendship,
Andrew G. Haley⁴⁴²

Queen Frederika was Welf Heinrich’s sister and the King was his brother in law, so Haley was depending on the royal family ties when he wrote “I hope you will be able to be of help to us”.

In late June 1963, after crossing the Atlantic by boat accompanied by his son, Andrew Haley proceeded to Athens, Greece for attendance at the first World Peace through Law Conference ever held. The conference was scheduled to run from June 30 to July 7, 1963, More than 1,000 participants assembled in Athens, Greece, from 105 countries to discuss and consider ways to accomplished greater reliance by the world community on law as an ordering principle for peace. It was organized largely through efforts of the American Bar Association working in close collaboration with the Athens Bar Association. Haley and his son participated in this conference in early July and made a few other stops in Europe, including a visit to the Malina’s in Paris, before returning to the United States.

One consequence flowing from the conference was the subsequent establishment of the World Peace through Law Center in Washington, DC, under the leadership of Charles S. Rhyne, a former President of the American Bar Association and a prominent practitioner in Washington, DC. Haley actively collaborated in the planning effort leading up to the conference in Athens. This was primarily motivated by his chairmanship of the ABA Committee on the Law of Outer Space and his proposed role as chairman of the session on

⁴⁴² AGH, *Letters & Materials*.

Space Law at the conference. Subsequently he became a friend and supporter of Rhyne's efforts in the World Peace through Law Center later established in Washington, DC.

Following the Haley's return from Europe, on 29 July 1963, while Mr. and Mrs. Malina were visiting Washington, Haley sent an invitation to numerous associates and acquaintances in the Washington, DC area, to a luncheon he was hosting on 1 August at his apartment to discuss the affairs of the International Academy of Astronautics. Haley was hosting the luncheon to honor Dr. Malina, but also to make it clear to all invitees that he still had a presence in the management of Academy affairs. Invitees included Eugene Emme, NASA Historian; Dr. S. F. Singer, University of Maryland; Dr. William Pickering, Director of NASA's Jet Propulsion Laboratory at CalTech; General D. D. Flickinger, USAF; Dr. Frank Malina and Mr. Haley. Many others invited were either on travel or previously committed to other events. During the luncheon several program activities of the Academy were reviewed and the implications of von Kármán's death were discussed, particularly as his absence could influence any sustained funding of the Academy. Haley dreamed of a funding package of \$500,000 being attained through multiple contributions from industry, government and academia. Despite the fact that there was scant likelihood of such an achievement, he spoke with wealthy friends and foundation leaders continually about such a fund.

XIVth International Astronautical Congress

In September 1963, Haley went to the XIVth IAF Congress in Paris, keenly disappointed that he could not bring a bundle of his new books with him for distribution. While attending the IAF Congress in Paris, Haley presented his paper 'Medical Jurisprudence in Outer Space', as a technical paper at the Congress. This paper was written for another audience, but the opportunity to expose it to the international audience at the IAF Congress in Paris was too great a temptation for Haley to pass up. The paper was actually intended for presentation to a medical conference in Dublin, the week following the IAF Congress. Haley also presented 'Space Communications – Some Legal and Sociological Challenges' during the contemporaneous Sixth Colloquium on the Law of Outer Space. This was an updated revision of his recommended program for the ITU's 1963 EARC, planned to be held in October-November in Geneva.

While he was in Paris in September, still grieving for the loss of his wife in April, Haley sent a personal, handwritten note to his wife's mother and sister. Motivated by his loneliness, he wrote:

Dear Maudie and Berny,

Here I am in Paris with one hell of a toothache and anxious to get home. Europe is meaningless to me. I have seen too much of it – and the best memories are intertwined with Delphine and our long visit throughout Europe. When we were here in 1955 the French Government was beginning to reconstruct the atelier of Eugene Dela Croix – it is now completed and it really breaks my heart that she is not with me as we had planned. Life is meaningless without her. Her loss leaves me disconsolate - and I cannot forgive myself for not leaving on the Friday before she died – on the phone she was gay, generous and loving – but I detected that wave in her voice + I told Josephine

to get her to a hospital – that I was worried. They didn't do this until it was too late. Maybe I am terribly wrong about this – but I cannot help but remembering that the both of you + certainly I always got her help in time.

I am sorry we neglected your birthday – but I was out on some job - I just forgot. I also forgot Mary's. I guess I am old + decrepit.

Mary is getting along fine and she will be able to enter Manhattanville in June. Andrew J. is back at Harvard and Andy H. is studying law.⁴⁴³ I wish to h--- that Delphine would get off her mad Alaska yen.

Love to you both
Andy⁴⁴⁴

In late November Haley noted with distinct pleasure a short commentary in *Time* magazine⁴⁴⁵ under the heading 'International Law'. The comment refers to both Haley's recently published *Space Law and Government* and a recently published book by Yale academicians entitled *Law and Public Order in Space*.⁴⁴⁶ The *Time* article had a brief comparison of salient features of the two books and concluded with a paragraph bearing the heading 'First Enactment', reading:

Though they have yet to be put to use, in some respects the new law books have already been superseded. Last week the U. N. Committee on the Peaceful Uses of Outer Space approved a resolution that was agreed on beforehand by the U. S. and Russia [USSR]. The resolution states that no nation can claim sovereignty over the moon and planets; that states are liable for damages their space vehicles cause; that an astronaut who makes an emergency landing will be promptly repatriated along with whatever remains of his space ship.

Not only was the appearance of such a note in the general press satisfying to Haley, but the recognition entailed in explicit reference to his book in *Time* magazine would have pleased him profoundly. Then, too, he would have drawn consolation from the fact that the three referenced decisions in an eventual UNGA Resolution were proposing principles of Space Law that he had long promoted.

The ITU's Extraordinary Administrative Radio Conference on Space Communications

Following his participation in the XIVth IAF Congress in Paris in late September, Haley returned to Geneva for the ITU's Extraordinary Administrative Radio Conference on Space Communications. This conference was held to allocate officially frequency bands for space

⁴⁴³ By this time (September 1963) Andrew Jr. had dropped out of school and proceeded to Alaska, where his sister was teaching. Andrew Sr. Knew his son was in Alaska, because he visited his children there in May. Either he forgot his son was in Alaska, or he did not want to report that disappointment to his wife's mother.

⁴⁴⁴ AGH, *Letters & Materials*.

⁴⁴⁵ *Time*, Nov 29, 1963, p. 52.

⁴⁴⁶ M. McDougal, H. Lasswell and I. Vlasic, *Law and Public Order in Space*, Yale University Press, New Haven, 1963.

radio communications. The conference convened on 7 October and ran to 8 November 1963. In his roles as representative of the IAF and as a member of the US Delegation, Haley participated actively in the conference supporting the needs for substantial, committed, exclusive frequency band allocations for space radio communications.

Andrew Haley had initiated consideration of space radio needs within the ARS in 1953, and recommended a major international study of the need for space radio by the CCIR in the mid-1950s. He sustained that effort, through the national structure of the FCC and continually in the US study group activities of the CCIR, and ultimately the ITU through the 1950s and up to the ITU's 1963 EARC. Some IAF program proposals for the 1963 EARC submitted by Haley as General Counsel for the IAF were substantially incorporated in the Final Acts of the EARC. Haley's footprints on the international pathway to space radio regulations were early and significant. The accomplishment of the eventual allocation of frequency bands for the many emerging space services was obviously a globally coordinated and cooperative result of the agreement of many nations through the ITU. In the mid-1950s, few, if any, individuals brought as much original vision, energy, creativity and determination to satisfying the needs of astronautical radio as Andrew Haley.

The 1963 EARC made allocations for communications, meteorological and navigational satellites, for space research, radioastronomy, and the application of space techniques in the aviation radio and amateur radio services. In addition, provisions were made for support functions including space telemetering, tracking, and telecommand. The conference set procedures for the international notification by member administrations for registration of individual frequency assignments for these newly authorized services. The conference also established technical criteria for selected frequency sharing between terrestrial and space radio services on an equitable basis.⁴⁴⁷

The conference ended on 8 November 1963, establishing substantial revisions of the Radio Regulations (Geneva 1959), with annexes and an additional protocol, signed by participating delegations at Geneva. The Secretary of State, Dean Rusk, submitting the conference's *Final Acts* for Congressional approval, urged: "[i]n the interest of continued U. S. space leadership it is considered important that this country move forward quickly with ratification of the final acts of this Conference".⁴⁴⁸

When the ITU's EARC was concluded in Geneva, a substantial chapter in the life of Andrew Haley was brought to a close. For more than eight years he had been urging his national government and the international community to discharge their responsibilities to provide enabling allocations of frequency bands for space services. The 1963 EARC made the most significant steps to that time toward those ends, and Haley's effort was relegated to history, but it provided an extraordinary degree of self satisfaction to this 'Colonel of the Ether', the title conferred upon him by the Governor of Kentucky three decades earlier.

Haley would usually visit the northwestern region of the country, including Seattle, at least quarterly. In mid-November he wrote another letter of thanks to Dorothy Bullitt.

⁴⁴⁷ U. S. Congress, Senate Committee on Foreign Relations, *Partial Revision of the Radio Regulations (Geneva 1959) and Additional Protocols*, a message from the President of the U. S. transmitting the adopted revisions for advice and consent, 88th Cong., 1st Sess., Senate Executive Document, transmittal dated Dec. 16, 1963 at p. 2.

⁴⁴⁸ *Idem* at 3.

Dear Mrs. Bullitt,

I will never forget seeing your lovely countenance at the airport when I arrived in Seattle. Here you are one of the busiest ladies in the United States taking time out to meet a fat old man who could just as well come in on a bus!

Our lunch was delightful, and the football game was a real pleasure. It was so nice indeed to have the company of Gloria [Chandler] and Henry [Owen] for dinner. As usual, Gloria ordered exactly right and chose the most delectable items.

Thank you again for the use of your most comfortable suite in our “town house” and the company of your household.

As always, I remain in old friendship and close with,

Affectionate regards,
Andy

There is no comparable evidence of such close relations with any of his many other clients. The relationship between Haley and Mrs. Bullitt seemed to grow stronger with time and it essentially helped to fill the vacancies created by the loss of his wife and the infrequency of direct contact with his children. For Haley, the Bullitt “town house” in Seattle became an occasional home away from home.

On 5 December Haley wrote to his nephew/ward Andrew Vogt at Harvard. His letter included the observation that “your two letters this semester were exceptionally informative and even though they were inspired by need for filthy lucre they nevertheless were worthy of Vogt and his great talents”. In a typical effort to introduce humor into his communications, the concluding paragraph of the letter read:

I am looking forward with pleasure to October 7, 1964 [Andy’s 21st birthday] when you will have to take care of these items all by your lonesome. I look forward with real pleasure to those halcyon days when I will have the mentality of a 5-year old and you will be supporting me in a style to which you are accustomed. Boy oh boy.

Haley also wrote on 5 December 1963 to his daughter in Anchorage, sending a ticket for her to fly home for the Christmas holidays and promising a return trip to suit her, if she came at all. The letter contained a personal account of his visit with his wife’s family in Campbellsville for Thanksgiving, and told of the satisfaction he drew from the family cohesion, which he noted Delphine did not seem to share or to seek. The letter clearly manifests Haley’s disappointment at the lack of affection shown to him by his children. His loneliness and feeling of isolation from his children are palpable between the lines of the letter. He was essentially assured of visits by the Vogt children, but he could not count on either Delphine or Andrew flying across the continent for a few days at Christmas time with their father. Surprisingly, Andy, Jr. decided to drive back to Washington, to join the family for Christmas in 1963, only to be greeted by the caustic remark from his father: “[w]hy did you bother?” Delphine did not visit that Christmas.

The year 1963 came to an ominous end when, on 26 December, a trial on espionage charges of Ivan-Assen Khristov Georgiev began in Sophia, Bulgaria. The trial opened with an admission by Georgiev that he had collaborated with the CIA and had been paid \$200,000 for espionage for the United States. On 27 December a mob of approximately 500 demonstrators, reacting to the trial, attacked the US Legation in Sophia, Bulgaria pummeling it with rocks and breaking every window on the first three floors.⁴⁴⁹ The allegations against Georgiev were uncontested; the IISL was about to lose its sitting President.

⁴⁴⁹ Vol. 37, No. 224, *Desert Sun*, 27 Dec 1963; *New York Times*, 28 Dec 1963.

Chapter 40. Attitudinal Adjustment and an Earthquake – 1964

During 1964, Haley regained his balance in managing the affairs of the law firm, his widespread family, the requests for delivery of papers, the production of articles, and the ability to travel frequently to satisfy clients' needs and to attend astronomical events. During the year he made a total of 15 formal presentations, and published at least three original articles. Among his paper presentations repetitious texts continued to appear with varied titles to different audiences. In a few cases an identical duplicate paper with the same title was repeated to different audiences.

On a personal level, a major adjustment in Haley's attitude emerged during the year. Haley began to concede that his children had attained maturity and had set themselves on life paths they chose in spite of his urgings. He gradually began to address them with a degree of civility and tolerance he had been slow to develop. It became clear he finally understood that they would live their lives as they chose rather than as he wished. His letters to the children gradually evolve to this position by year's end. His daughter, Delphine, showed no interest in being married, despite his urging and frequent offers of a substantial cash dowry. His son, Andrew was clearly not committed to obtain a law degree and Haley essentially gave up urging that course.

By this point in his life, Haley was impervious to criticism on how he conducted his business, whether legal, speaking, family, or investment; the subject area was irrelevant. Criticism was heard and generally ignored. His life style left him far too busy to spend time worrying about other peoples' opinions. One slowly intensifying concern began to appear in communications to his children and his wife's family – he sometimes referred to himself as an old man, or a 'decrepit old man'. His memory was slowly failing and his waning stamina was a sign to him of his aging. His wife was gone; his children and wards were living at distances from home, and he took little enjoyment from travelling, unless it was to Ireland or to some planned vacation with family members or friends. Uncharacteristic references to passing maladies or physical discomforts were becoming more frequently mentioned in his correspondence.

On 1 January 1964, the *New York Times* reported that Assen Georgiev was condemned to death for spying and was denied any appeal from the decision.⁴⁵⁰ Also, on 1 January Haley received word by telegram that John 'Dad' Duckworth, father of Frank Malina's wife, had died. Mr. Duckworth was a personal friend whom Haley had visited with the Malinas in England. Haley immediately dispatched his condolences and flowers to the Malinas.

On 5 January, the *New York Times* repeated a Reuters report that Ivan-Assen Khristov Georgiev was executed for treason and for spying for the United States. Haley apparently did

⁴⁵⁰ *New York Times*, 5 January 1964, p. 2, New York ed.

not note the death of Georgiev, because on 13 January, in a letter to Malina on other topics, Haley wrote:

Hasn't this matter of Georgiev been extremely interesting? He certainly was a consummate actor and liar as witness his report to the President of the IAF to which I objected violently and his concluding statement that the Government of Bulgaria had provided funds to support the communist Secretariat for the IISL. I ran across one or two strange incidents in connection with Georgiev which I desired to tell you about at the time – but I thought I was just being overly suspicious and my dislike for the man was making me unjust. For example, he was always asking for introductions which I uniformly tried to avoid – not always successfully. He would also telephone long-distance from Sofia – a strange use of money. And when he came to the United States, he spent money like a drunken sailor even making a trip to Salt Lake City to see another strange character who was in Varna, namely, Professor F. B. Schick of the University of Utah – whom I also cannot tolerate.⁴⁵¹

I wonder what happened to Georgiev – the papers have been pretty silent since the Sofia riots.

In a reply letter Malina advised Haley of Georgiev's execution. Georgiev was reelected President of the IISL in Paris in September 1963, and when he was executed in January 1964, the IISL was left with no President. The January execution meant that the next meeting of the IISL Board, in March 1964 in Paris, would have to deal with this vacancy. Haley was no longer the Institute Secretary. The new Secretary, Howard Taubenfeld, who had been elected in Paris, was not well versed or experienced in the processes of management of the Institute. Haley was faced with a decision whether or not to inject himself into the IISL management to aid Taubenfeld. As a gesture of support, Haley sent \$1,000 to Taubenfeld to help meet IISL expenses. There is no discovered record of a suggestion from Taubenfeld that he needed any assistance.

Having spent the Christmas holidays at home with his son and the Vogt children, Haley was pleased that he had been able to see most of the children during the holidays. On 14 January he wrote to Delphine:

Dear Sissy Britches,

I am sure you have heard or will hear from your sister and brothers, but I thought I better get a note off to you to say that your exciting package arrived in good time for Christmas and afforded all of us much pleasure and merriment.

I won't go into each item, but I will mention that we were amazed with the reindeer sausage and enjoyed it very much.

Needless to say, your own dear self was sorely missed, but we made the best of this situation. This is just a hurried note, and I will try to write to you later.

Love,
Daddy⁴⁵²

⁴⁵¹ AGH, *Letters & Materials*.

⁴⁵² *Ibid.*

Five days later, to follow-up on 19 January 1964, he wrote:

Dearest baby Delphine,

It was nice to hear from you this morning even by telegram. I hope that you will get your teaching certificate and that this certificate will allow you to teach anywhere in the United States.

It seems a shame that you are spending your time in Alaska when you could easily qualify as confidential secretary to a score of top officials in Paris, London, Rome, and so on.

It also seems sad that you should exile yourself so completely from your family as Maudie and Berny and Betty and Walter⁴⁵³ love you dearly and could do so much to make your life pleasant – not to mention the two Andy's and Mary.

My only solution is that you know yourself best and this undoubtedly makes you quite immune from advice – good, bad or indifferent. Then again, I have a little hunch that you probably see your own solutions more clearly than anyone else and that you will make us all a little “red faced” for foolishly advising you.

Love,
Daddy

He was gradually becoming resigned to the absence of his children. On 30 January he wrote once again to Delphine:

Dear little baby: [at this point Delphine was 28 years old]

Thank you for your good letter on the orange cardboard.

In case Andy hasn't written you, I hasten to tell you that he has been accepted in the Peace Corps and that he will have twelve weeks training here in Washington at George Washington University commencing around June 15, and then he will go for further training to the University of Hawaii. After that, he will be assigned to teach English in Nepal. This seems to be his heart's desire, and I am happy the little fellow [now 25 years old] has made this much progress.

I enclose the latest letter from Mary Michaela which gives some idea of her present situation and frame of mind.

I encouraged Andy [Vogt] to go on down and see poor old Gram and Aunt Bernie, and he has done so. I believe he stopped over to see Betty Ann and Walter and the babies. I will expect him back when he arrives.

Please excuse this short letter, but I must rush off to Miami [ABA midyear meeting] and in the meantime I have to get some of the correspondence out of the way.

⁴⁵³ Haley's sister-in-law Bernice Delacroix Parrot had a daughter Elizabeth (Betty) who married Walter Arnett Doyle.

I would love to have a nice vacation with you and Mary and Andy John, and maybe I could arrange to get a car up to Alaska and we could return to Seattle via ferries which I understand are very comfortable and the trip is extremely interesting without being too arduous. Don't misunderstand! I am still as tough as titanium. I am only afraid that the trip might be too tough on you young sissies.

Love,
Daddy

Haley likely never focused on the consequences of his demeaning the children's maturity and capabilities. He apparently thought he did it in loving jest, but it was too often and cutting to be ignored by the children. He totally lacked an active feed-back loop that could tell him how his methods of communications with his children were often at odds with the messages he tried to communicate. Whereas Delphine had a capability to absorb any implied criticism and yet maintain a pleasant and smiling relationship with her father, Andre had less patience with his father, wanting more to be left alone to wend his own way, and bristling at the constant effort by his father to put him on 'the pathway to success'. In due course, Andrew would find his father more withdrawn and watching, rather than seeking to set young Andrew's life course.

The January 1964 issue of *Signal* magazine published a review of Haley's *Space Law and Government*. The magazine editor, W. J. Baird comments on the review, noting its relative length and suggesting the importance of the book justified a more thorough review. Mr. Baird's introductory comment concludes: "Mr. Haley is a profound scholar and an authority in a field somewhat neglected to date on both the national and international levels but one requiring an immediate attention and vigilance". The book was reviewed favorably in many legal and technical journals in the United States and in some abroad. Favorable reviews were appearing throughout 1964.

On 4 February, Malina wrote to Haley suggesting that they plan a trip to Italy on his next trip to Europe for the IAF meetings in March. Malina wrote: "I suggest we fly to Rome, [and pick up a rental car] for the drive through the beautiful Italian countryside to Naples. If it should turn out to be inconvenient for the Russells to have us descend upon them in March, then what do you think of the idea of us going for a few days to Marrakesh in Morocco?". Haley had initiated this proposal in an earlier letter suggesting the visit to the Russells, who were living in a villa near Naples.⁴⁵⁴ Vacationing plans were showing up with increasing frequency in Haley's correspondence with family and close friends. He recognized that he was hard on himself and that his body needed more rest and relaxation. His major problem in this regard was that he could not shut down his constant drive to get things done and to straighten out problems other people kept creating.

On 11 February, Haley circulated a memorandum to the IISL Board Members, essentially agreeing with Dr. Sztucki's suggestion that the planned IISL meeting in Paris in early March 1964 would be soon enough to elect a President to serve until the forthcoming annual IISL meeting in September in Warsaw. In this circular memorandum, Haley proposed electing Dr. Yevgeny Korovin (USSR) in March to serve until the annual meeting in

⁴⁵⁴ In 1962 Haley's boyhood friend, James Russell, had been appointed Commander-in-Chief of NATO's Allied Forces Southern Europe, serving in that post from 1962 until he retired in 1965.

September. It was Haley's opinion that "[h]ere would be an election which truly is not based upon aggressive ideological considerations but solely and completely on the basis of merit. I am not in any way minimizing my truly great and good friend, Dr. Pépin. I am sure that he will be elected President of the IISL, again on the basis of true merit, at a very early date indeed". The matter was to be decided by the IISL Board in Paris in March. Actually, Pépin was elected President and remained in that position for ten years. Desiring to retire, Haley had nominated Howard Taubenfeld to serve as Secretary. Although Haley withdrew from his positions as Secretary and Director of the IISL, he remained on the IISL Board *ex officio* in his role as General Counsel of the IAF/IAA/IISL.

In late February, Haley visited the Institute of Air and Space Law at the Graduate Law Faculty of McGill University in Montreal. He was the guest lecturer for a full day devoted to space law. Stephen Doyle was one of the students among those in the international class of 19 students. During the morning Haley lectured on Satellite Communications in a seminar setting with ample opportunities for questions and discussion. The class adjourned for lunch, during which time Haley visited with Institute Director Maxwell Cohen, the recently appointed Dean of the Law Faculty at McGill. During the afternoon session Haley led a seminar on Space Torts and Liability for Damages. The papers he brought and circulated on these subject areas were updated materials drawn heavily from his 1963 book. This visit to McGill by Haley is the one referred to by N. Jasentuliyana in the Foreword to this work.

Following the afternoon session, Doyle drove Haley to the Montreal airport and was surprised that the discussion during that trip was substantially focused on the Warsaw Convention and the upper limit on liability it established for aircraft carriers. In addition, a detailed elaboration of the distinctions in roles between the International Air Transport Association (IATA) and the International Civil Aviation Organization (ICAO) was jointly developed. Despite the fact he was highly regarded as specialized in communications law, Haley gave evidence of a substantial awareness and understanding of prevailing national and international aviation laws.

Haley's next major trip from home was to the spring meetings of the IAF/IAA/IISL in Paris. After the spring meetings Haley returned to the United States. The visit to Italy with Malina, mentioned earlier, did not take place. The immediate concerns about the IISL were taken care of and it appeared life could return to a relatively set routine of work at the firm, speaking engagements, monitoring family activities and producing occasional articles.

In late March 1964, Martin Summerfield wrote a letter addressed to Dr. C. S. Draper, at MIT, Malina in Paris, Haley in Washington and Pickering at JPL in Pasadena. Summerfield was at the time the Editor-in-Chief of the IAA's *Astronautica Acta* and was the IAA Program Committee Chairman preparing for the IAF Congress in September in Warsaw. He wrote:

Gentlemen:

I am writing to inform you of a telephone conversation I had yesterday with Dr. W. H. Pickering. I reminded him that we feel that it is time for an American to be the President of the IAF. I suggested to him that there is a strong sentiment in the American group that he should be the next President, and we would like his permission to advocate his candidacy actively.

In reply he said that he is honored by this expression of confidence, he would like the job, he feels he could contribute, but that he is not ready at this time to involve himself in any such commitment, at least while the JPL program is in critical state. He wants to give his full attention to JPL, for a while.

He asked me to convey to his supporters a request that the question of a presidential candidate be held open until, say, June 1, when he believes he will be able to see the JPL situation more clearly. I agreed, speaking for myself, and I hope all of you agree, too.

I closed by saying that I, for one, feel it is important that the next president be an American and that he be an influential one. The IAF in 1964 will be entering a new phase in which the major technical societies of the Western countries will be brought into membership, the IAF will become a much more important organization, and it will become a very significant channel for East-West technical cooperation. An influential president with prestige in his own country is absolutely necessary in 1964-65. We cannot accept Shepherd, much as I like him, -- he has no influence even in England. And we cannot accept Lunc, who is an excellent man, but a person who would have no influence in bringing in the giant Western organizations.

Similarly, the Academy Trustees are re-studying the Academy membership formula and I believe that new high level contacts will be achieved there.

Bill agreed to all this, but his role will depend on the JPL situation in the next two months.

Sincerely yours,
Martin Summerfield
Professor of Jet Propulsion⁴⁵⁵

Like the aging Haley, Summerfield lurked in the shadow of influence, offering advice and assistance whenever he could, but he was less interested in taking prominent organizational leadership roles.

Good Friday in Anchorage, Alaska – 1964

On the Friday before Easter, 27 March 1964, a major earthquake struck in the region of Anchorage, Alaska. Delphine Haley was in an elevator several floors above street level when the shaking began. When Haley learned about the event he sought assistance from engineering staff at KING broadcasting facilities in Seattle to locate his daughter in Anchorage and they succeeded using a repeated “paging” over the United Press telephone wire.

On 29 March the *San Francisco Chronicle* ran a brief article headlined “[c]aught in a Dark Elevator”. An editor’s note at the top of the piece read: “Delphine Haley, 28, a legal secretary, was in an elevator 11 floors up when the Alaska earthquake hit”. The article had a byline: “By Delphine Haley”.

⁴⁵⁵ AGH, *Letters & Materials*.

Anchorage, Alaska

I'll never forget it. The lights went off in the elevator and the building was shaking. The door of the elevator finally opened halfway between floors and I climbed out and ran to the stairwell.

By that time the building was completely dark and I was thrown from one side to the other in the stairwell for about three minutes [...] I fell down the steps and ran down to the fourth floor.

The building was groaning from the stress of the earthquake. By the time I reached the fourth floor, people were standing in the stairwell in the darkness, pushing and climbing over each other and panicking.

Gas was escaping in the building now, but everybody made it out.

United Press

When he forwarded a copy of this clipping to Dorothy Bullitt, Haley noted that “the *San Francisco Chronicle* got this little story from the United Press. Understandably, there is one little omission. Delphine’s principal occupation is getting her teacher’s certificate from the University, and she currently is doing student teaching at the junior high school in Anchorage. She works occasionally as a legal stenographer to keep the financial wolf from the door”. This highly focused excerpt from an account given to the United Press by Delphine is a useful supplement to the letter she later wrote to her family in Washington:

Dear Daddy, Andy and Miss Mary –

I am so very glad to be alive that I must write and tell you. It was really good to hear your voices last night, as communication outside has been impossible. Old mother nature really put on quite a show for us those few minutes, I'll tell you, and evidence of it is everywhere. Of course the five or six minutes of the quake itself was nothing but pure terror. It is frightening to imagine that I had 5 minutes earlier left an office building (1st floor) which is now 5 stories underground, had headed for Penny's but, because of traffic at “rush hour”, had decided to visit Alice on the 13th floor of the S Street Apartments. That experience in the elevator during the quake and being stuck in the dark stairwell during the quake is something I don't care to remember. Nor can I ever figure how I got out of the elevator and had the sense to find the stairwell in the dark. And it is interesting that amidst all the screams and moaning of the building all I could think of was “O my God”.

Actually I saw nothing of the quake itself, being in the dark, but its effects are evident as you have heard by now. 2 friends are staying with me as my little house only suffered broken windows and a good shaking. Their house is now in the inlet, as is Bill Bailey's which you visited last summer. Atwood's home, as all others in Turnagain Arm is not even to be seen. Everyone is now getting shots for typhoid and digging thru the rubble for possessions. The dead can't even be found yet. That first night was terrifying as parents knocked on the door looking for their kids and as we

listened and waited for the tidal wave. The coastal towns got that much worse than we did because Anchorage is blocked with us and it was low tide, fortunately.

Now we are feeling much better tho' and are wondering where the jobs will be next. Nothing will be functioning downtown for a long while and only some schools in the suburbs will be open. The food situation is OK but the water is sort of cloudy; no electricity yet some places. Every time I feel the slightest tremor, my boots are on and the door is open!!

Well, anyway, the Lord was merciful to me at least. I came out with only a few bruises, fat nose and a couple of stitches. And I will go over now to watch them tear down the S Street building. Thanks for your message. Please send my love to Gram and all,

XXOO
Sis⁴⁵⁶

This letter was followed by another to her father on 8 April 1964, using a then popular ditto machine that printed with purple ink.

Well, Papa –

Greetings from Quakeville, USA – yes this will be a quake letter simply because there is, joyfully, no other word to send, except that things are safe and sound. I'm sending a copy to the other "chither"(sic), Cousin Michael, Aunt Mary, Aunt Kathleen and Uncle Lu, Guy, Patrick and all, as they were so nice to be concerned when it counted and to thank them each, specially Gram and Berenica [sic]. It snowed today and the bell tower downtown played "Silent Night" – the nights are now becoming days and the bears have left hibernation for a few weeks – this is the most screwed up country in the world and literally a big backwash at this time. I have been working some for the "Sally" (my version of the Salvation Army, of all things) making sandwiches – bread, bologna, bread, slap – 1-2-3-slap, and some evenings for the Civil Defense. This is done mostly because I still don't like to stay at home alone. However, tonight I am giving an intimate banquet of K rations and bologna sandwiches for 20 – so the "Sally" has done us some personal good, after all. All of our conveniences have now been restored. My office building was destroyed, so work is at a minimum (no comments on that one, now) – school is back in session.

We are still living in some anxiety and, aside from the physical, the emotional repercussions are enormous. Many have life (how about that slip, I meant "left") and lots are in shock. I'm not saying this to indicate in any way that I am brave (if it weren't for school, I'd be long gone), but rather the biggest weaknik of them all. At night I cry for this great big old country and mostly for those poor gosh darned people. I can interpret this as a feeling of "there but for the grace of God, go I" – but, be that as it may, their sorrow is mine, and it weighs upon and surrounds us. And midst all of this desolation, the memory of my own mommy and her wonderful spirit was present so acutely this one year later.

On the lighter side, the drink of the week is "Clorox on the rocks" (after our pure water shortage); "Turnagain by the Sea" is now "Turnagain in the Sea". There are two high schools "East" and "West" (how's that for originality!) – anyway, West is gone and both high schools are held in 2 shifts now – "East" kids don't like the "West" kids now because they're "from the other side of

⁴⁵⁶ AGH, *Letters & Materials*.

the cracks” (now really!!) Current musical favorites are “Pennies from Heaven”, “Standing on the Corner Watching all the Streets Go By”, and “Wrecked Homes in the Sunset” (ouch!) However, the good humor is scarcely complacent. I saw many a “people” running rather quickly this afternoon after a vigorous tremor. Myself, I now wear specially made “keds” for good traction, quick pick-up and speed (passed them all – no flies on this kid!)

Well, guess I’ll stop – everything is better I just wanted to say. If only we knew what a treasure is given us in life itself – it takes such a catastrophe to make it clear [...] how it should be constantly affirmed, and how it contains such infinite possibilities of wonder and hope! Thanks for doing your part, papa, and I thank my little mommy each night in prayer.

With lots of love,
Delphine⁴⁵⁷

On 28 April 1964 Haley wrote to Delphine in Anchorage:

Dear Sissy Britches:

I have played and re-played the tape sent us by Willis Harpel concerning your adventure and concerning the earthquake in general and we all got a kick out of it.

We were a little breathless, however, at your narrow escape. You had to face the extra hazard of the bumping elevator. I shudder to think of your experience.

Strangely enough, I have always felt that Anchorage was a beautiful and appealing place but a place which was unstable and actually inclined to be cruel and ruthless. There is a long story behind this impression – and my old feelings were certainly reawakened the night of the earthquake.

On April 1, Mary, Andy Haley, Andy Vogt and I were together and we all went to Mass and received communion in memory of Mommy. We wanted to go out to Arlington that afternoon but it was bitterly cold and raining and Mary had a little cold which I did not want to aggravate. We did, however, say a rosary together. I guess we missed you more on this occasion than even during the Christmas time. After all, you have a wonderful sense of humor and you contribute your charismatic [look this up in the dictionary] charm on all occasions. We simply missed you – period.

There is a great deal to do right now with Andy going off Thursday morning directly to Hawaii [one stop in Los Angeles for 45 minutes] and after a month in Hawaii on to his Peace Corps duties in Nepal.

I am sure it will hearten you to know that he did very well in his Peace Corps course – and he proudly told me this morning that he got the best mark in English of anyone in the class [which included Masters and Majors in English], and that he has been placed in the bracket of those most competent to introduce English to non-English-speaking students.

I inclose photocopy of a reprint from Dr. Moser concerning Mary. I am sure this also will please you. I also inclose photocopy of an Article in Science Newsletter on tuberculosis.

⁴⁵⁷ *Ibid.*

I have just obtained a ream of literature from the Canadian tourist people. In one of your letters you mentioned that we might have a little visit together. I have called the Canadian National Steamships and find that I could leave Vancouver on the SS Prince George on June 5, 1964, and arrive in Skagway at 9:30 a. m. on Tuesday, June 9. We could spend Tuesday taking a scenic side trip on the Narrow Gauge White Pass and Yukon R.R., following the gold rush "Trail of '98" – and the steamship returns to Vancouver at 7:00 that same evening. We would be back in Vancouver not later than June 13. They say this is the most attractive and restful trip of all. They also say that there is a lot of good entertainment on the Prince George.

I could move the trip back one week to May 28 if this would be more desirable for you.

On the other hand, you may have a thousand and one plans of your own – none of which I desire to interfere with. I only need an answer from you right away – one way or another – as the reservations are quite difficult to obtain.

As a footnote to the foregoing, I could get the kids out to Uncle Joe's [in Seattle] awaiting our return and we could drive down the Coastal Highway to Los Angeles – which is ... nice and short and comparatively scenic. At this point I would have to fly somewhere I am sure.

[by hand] Love, little sweetheart, and please let me know your money needs
Daddy⁴⁵⁸

On 5 May Haley wrote a letter to Doyle at McGill University in Montreal acknowledging receipt of a reprint of a review of the McDougal, Lasswell, Vlastic book, *Law and Public Order in Space*, written by Doyle in the *McGill Law Journal*. Haley was somewhat impressed by the review. He wrote:

Dear Steve,

I have read with real care your altogether splendid review of *Law and Public Order in Space*. This is the kind of review that used to characterize the community of critics at the turn of the 19th century in England and Scotland when "no holds were barred." This was the golden age of thoughtful analysis and your really first-class review is one of the very few contributions along these same lines that I have seen in recent years.

Your comment with respect to my own book, namely, that some of the scientific information was out of date, is certainly correct – but it was set forth actually in its historical context and you will note even in the text itself I have pointed out how wrong I was with respect to stationary satellites even with the scientific developments of a few weeks. As a matter of fact, you will find several similar references right in the text.

I am wondering whether you would desire to spend the summer working in the office – devoting your time mostly to radio and communication problems affecting clients. I would be glad to pay you for the summer months at the annual rate of \$7200. If you think well of this please let me know immediately.

⁴⁵⁸ *Ibid.*

I wish you would review my book just to have the sure integrity of your thinking in some journal. I understand that Dean Cohen was invited to review the book for *Science* magazine but he wants to mix it up with his own compendium and the McDougal book. I would much prefer to have my book reviewed by itself and let the “chips fall where they may.”

I inclose copies of some of the reviews that have already appeared.

I certainly hope that you and your little family are getting along alright. I also hope that you will accept my offer for employment for the summer months.

Sincerely yours,
Andy
Andrew G. Haley

Doyle replied to this letter on 13 May accepting the job offer for the summer employment and asking for a \$200 salary advance to help pay the travel costs for him to move his family from Montreal to Washington, DC. Within a week Ethna White sent Doyle a check for \$200 and confirmed the acceptability for a 1 June reporting date at the firm. Although Haley was out of Washington late in May and early in June, he left a one page memorandum of work assignments for Doyle to commence work upon his arrival at the firm on 1 June 1964. Haley wrote:

May 23, 1964

Memorandum to Stephen Doyle

Dear Steve:

I will be back on June 6, 1964 and then must go to Columbus to give a talk [8 June]. I would like you to do your best on the following three assignments:

The title of the talk before the Columbus AIAA Section is “Present Day Space Law Problems.” As to the outline of the problems you can just use the chapter headings in the book with a brief narrative discussion. Then it would be nice if you could ask some curious and paradoxical questions which will arise under this new regime of law – these would be in the field of liability, sovereignty and jurisdiction, space medicine, etc. the article should be about ten pages – and should be the first order of business. When you have it written just mimeograph it and Ethna will transmit it to the Columbus Section of the AIAA.

I am anxious to write for the signature of James E. Knott a narrative description of the present organization of the von Karman Memorial Foundation, coupled with a description of the activities of the International Academy of Astronautics. The most current lists of these activities are contained in the minutes of the IAA and are available in the files.

There should be one letter designed to be sent to persons who have already pledged money such as Aerojet, North American, etc. [Mr. Bader can give you the pledges], and the second letter designed to solicit new subscribers.

Do not mail these letters until I have had a chance to review them.

I wish you would write a couple of reviews of *Space Law and Government* for such publications as *Science and the Law Review* of Duke University. We have a number of published reviews in the office which may help you in this task.

Please rummage through our astronautics files to get acquainted with them and to pick up any unanswered or neglected items.

Andrew G. Haley⁴⁵⁹

Previously, during the summer of 1962, Doyle had been assigned preparation of the initial manuscript of *Space Law and Government*, with only minimal additional functions, including procuring the Bulgarian visas for IAF Congress attendees and occasional assignments to write letters involving astronautical activities or events. The summer of 1964 would be a different experience, entirely. Now he was a clerk on the staff and to be dealt with as other lawyers in the firm, *i.e.*, given assignments of work, to rely on Ethna to provide any required ancillary intelligence or administrative support, and expected to produce timely, accurate and acceptable work products. The foregoing memorandum by Haley is a classic example of his document production management method: outline the content subject matter, recommend useful information sources, and set deadlines for delivery. This was a uniform and continual process which applied to everyone in the firm and just about every significant document produced for clients or others.

There was one totally unexpected departure from the routine in this case. Haley did return on 6 June, a Saturday, and was shown a draft paper to be presented at an AIAA Section luncheon in Columbus, Ohio on Monday, 8 June. Haley was either ill, exhausted from his recent trip, or committed to some other conflicting activity, because he decided not to go to Columbus. Ethna was instructed to modify the flight tickets to put Doyle's name on them, and Doyle was directed to fly to Columbus Monday morning, present the paper on Haley's behalf at the AIAA luncheon, and fly back to Washington later in the day; which Doyle did. It was a surprising and somewhat demanding experience, but seasoned with the satisfaction for Doyle that not one word of the drafted paper was changed. This was a major lesson for Doyle about Haley's unpredictability.

Later in the month, on 29 June, Haley presented 'An International Television Service: Some Legal Problems' at the AIAA Space Law Session of the First Annual Meeting of the AIAA in Washington, DC. This is a statement Haley had been making for some time. He wrote:

As Comsat develops its projects many countries of the world will participate in the benefits of a space communications system. Nowhere in the American space program can one find a better example of the meaningfulness and constructiveness of the United States Government's pledge to employ the benefits derived from outer space activity on behalf of all mankind (citing the Act that created NASA, Sec 101(a), in 72 Stat. 426 (1958)). The rapidly expanding program of a global system of communication will benefit all countries and all men, and it has been initiated exclusively by Americans.

⁴⁵⁹ AGH, *Letters & Materials*.

He went on to describe individual NASA programs which advanced the relevant technologies, the need and provisions for dedicated frequency allocation bands, and focused on the roles and importance of the CCIR.

The work of the CCIR is going on today with regard to these matters and, as a participant in the work of the group I can testify that no simple solutions exist. Long and labored hours of negotiation and discussion by scientists, lawyers, and government officials are required. Through hard work and diligence, eventually, it is hoped, equitable and useful solutions will be reached.

He then took up the need for sanctions, a position apparently not clearly understood by Haley, because the greatest impetus for compliance with the international agreements on radio frequency usage would be the desire of the users of radio communication systems that they work. To work efficiently and effectively, all users have to discipline themselves to abide by the agreed rules and standards. Somehow, Haley missed the reality of this unavoidable, self-imposed restraint.

He then proceeded to extract from earlier papers a description of the regulatory roles of the FCC and regulations devised by Congress for the initial establishment of COMSAT (the Communications Satellite Corporation). He blended these regulatory responsibilities into a discussion of sanctions, to which they really had no immediate relevance. He continued in this vein and moved to a discussion of his view of the need for new and special provisions in the patent law. This was generally an excessive preoccupation at this point in the evolution of the technology, particularly because substantial and applied patent laws existed and were being enforced through the courts. Numerous patent suits appeared in the 1960s, and there was no cry of a lack of relevant law. On this point Haley seemed to be alone and without convincing argument. In the conclusion of this paper he restated views he had previously published in several forums, arguing the importance of the issues discussed, but failing to convince his audience that the problems were critical and requiring early action. The repetition of his arguments was convenient to him but not very interesting to his audiences.

On 1 July 1964 Haley prepared and circulated the following Press Release:

AIAA BOOK AWARD TO WASHINGTON ATTORNEY FOR SPACE PUBLICATION

The American Institute of Aeronautics and Astronautics has announced the presentation of the G. Edward Pendray Award to Andrew G. Haley, of Washington, DC, for his recent book *Space Law and Government*.

This award is made annually by the Institute for an outstanding contribution in the field of developmental literature in the flight sciences, including astronautics. Mr. Haley's work is a complete commentary on the complex legal and scientific problems facing man in his venture into space. The award to Mr. Haley is the first time this national organization of 40,000 eminent scientists has given its recognition to a legal study of the problems of air and space flight.

The presentation of the award was made this evening at the Honors Night Dinner of the First Annual Meeting of the American Institute of Aeronautics and Astronautics in Washington, DC. The American Institute of Aeronautics and Astronautics was formed in February 1963 by the merger of the American Rocket Society and the Institute of Aerospace Sciences.

Space Law and Government is published by Appleton-Century-Crofts and distributed to the book trade by Meredith Press.⁴⁶⁰

This award was in recognition of the value of the work Haley had published, and a declaration of appreciation for his longtime efforts and leadership on behalf of the membership of the AIAA predecessor, the American Rocket Society he had served for so many years.

During the summer of 1964, Haley sent a number of letters to his son Andrew and his daughter Delphine. These letters began indicating his acceptance of their individual maturity and his acknowledgement that henceforth his children were going to make the major decisions in their lives independently. They were no longer under his financial or emotional control. He was now dealing with his children as independent adults.

On 27 July, he wrote to Delphine, who was at the time visiting with her grandmother, Maude Chambers, at the family home in Campbellsville, Kentucky. He wrote:

Dear little baby-baby –

I feel wretched that you felt a little extra pressure on your plans when I called last night and I hasten to assure you that I think you are doing exactly the right thing.

..

I worry about your taking that Jaguar out to the west coast but I guess there is no way to stop you and I hope you will be very, very careful. I wish someone would ride out with you.

I am sure Aunt Mary [Ryan] would love to have you with her and I am also sure that you could have a wonderful time with Andy John and Mary [Vogt], and Aunt Gertrude and Uncle Frank [Bader].

I personally think your determination to stay on the west coast is best for the sole reason that it seems to suit you best. However, I must join in the general clamor that you get married as herein lays your only hope for happiness in life. [In the margin of this typed letter, Haley wrote by hand: Remember there is a \$10,000 dowry awaiting you when you tie the knot.] You probably are getting altogether too damned particular but anyone will assure you that the marriage association was structured by nature to be more permanent and desirable than temporary and mediocre.

I am rushing this off just as a word of assurance that I believe you have thought out your own plans with wisdom and with purpose and that I will help you and support you in every way possible. Just let me know.

[by hand] Love little dear with Gram's eyes,
Daddy⁴⁶¹

On 3 August he wrote to his son in Kathmandu, Nepal employing one of his ill chosen comedy routines:

Dear Andrew,

⁴⁶⁰ *Ibid.*

⁴⁶¹ *Ibid.* This and following letters are from the same source.

Your great masterpiece of July 20, 1964, Part III, of the anabasis of Andrew G. Haley, Jr., arrived in good shape and I read it with absorbing interest. People around me literally jumped from their seats when I shouted:

“Great Scot, Heavenly Days, Lord God
Almighty!!! Andy is a plain wizard!!!
He is a master of psychology!!! Andy
is a great genius in analyzing people!!!
Andy has made a perfect description of
my four children!!!!!!”

When all of a sudden I reached the top of Page V and realized that in my tremendous enthusiasm for Andy’s description I had lost track of the fact that he was describing Nepalese and not the four chillums. I realized that I was not Uncle Sam, the United States, or the Peace Corps – but just a desolate old man.

In any event, your letter was splendid and I am getting it around to the family.

Love,
Daddy

In early August, Delphine returned to Seattle where she was living on the waterfront. She had a house boat dock with an associated rental residence. On 17 August Haley wrote to his daughter:

Dear Delphine,

I talked with Gram this morning, and I was amazed to hear that the car was broken down and that you had to leave it in Tulsa and take the train on out to Pasadena. I immediately called Guy Smith and he confirmed this astounding fact through his secret grape vine operation. I asked Guy to get a certified substitute title from wherever the other title came. We may have to get it in Guy’s name. As you may know before you left, I sent Guy the \$100 Andy still owed on the car.

I also insured you for \$7500 on a Major Medical policy, and I will keep up the insurance for a few years in view of your precarious form of existence.

Please send me the name of the garage where you parked the car so that I can deliver the title when Guy gets it.

I am sending a copy of this letter to Andy with the hope that he can send us the original title. We have spent literally hours searching the apartment and office files, and there is no trace of the title here.

Love,
Daddy

[Handwritten note] “I am in the middle of four children
conspiracy to keep me on my toes
or drive me nuts – but I will hope

for the latter.
Love to Baby Baby⁷⁴⁶²

Perhaps the first letter Haley ever wrote to his son addressing him as an independent adult was his letter dated 24 August, sent through the American Embassy in Kathmandu.

Dear Andrew:

I was indeed happy to receive your letter of August 17, 1964, and I must add that your thoughtfulness in writing is deeply appreciated.

I am delighted to hear that Lorraine Schiff is in Kathmandu and that you have seen her. She was always one of my favorites. Tell her that I have not yet recovered from the sad death of Joe Macdonald. He was a great man and a great friend.

I suppose you have the address of Sissy Britches. Nevertheless, here it is for ready reference:

Miss Delphine D. Haley
3236A Portage Bay Place East
Seattle, Washington

Andy, I think that your letters not only are absorbingly interesting, but they are written in an unusual and lively style. I realize that one should seldom make suggestions to a creative writer, but I am violating this rule by suggesting that you include at some time along the line a dozen “character sketches” – vignettes of life which you can pick up in your classroom. You have a rare faculty for describing people, and I am sure that we would get a real understanding indeed of the Nepalese student from your sketches.

May I also suggest that you paint a few pictures and sketch in black and white some of your subjects – having in mind that your reference really could be incorporated into an altogether lively and interesting book.

Mary and Andy John are leaving Pasadena on September 12, 1964. Poor little Mary has to report to school on September 13, but Andy John can sleep for a week – until September 25.

I wish you would let me know what you would like me to send via AMF, Idlewild Airport, New York – would any kind of food be welcome? The books are on their way. I subscribed to the Washington Post for you, and I wonder if it has ever arrived.

Dr. and Mrs. Mayo wrote to the Embassy about you. Dr. Mayo was the American Ambassador at the coronation of the penultimate king.

I thoroughly enjoyed your story about endeavoring to obtain the “capital additions” to your classrooms in the form of fifty desks and your awakening knowledge that this was the very thing that the Peace Corps was trying to avoid. I expect to hear that you will have half the students

building desks of their own. Anyway, the very fact that you can gain and utilize wisdom is a fine thing in itself.

All my love to a fine young man,
Daddy

Haley had an increasing loneliness caused by the distances at which his children were settled, and he was no longer in a position to summon them home. The Vogt's were in school away from home, so unless he was being visited by a transient traveler(s), he was living alone. He had grown up with family around him and he had established a family around him; but he had failed to nourish and sustain his immediate family bonds. Now, he lived alone. Even before Aunt Dede died it was not unusual for Ethna to visit his apartment on weekends to continue taking dictation and work there to keep him company. With the friendliness of his hosts, visiting the Bullitt town house in Seattle was more emotionally rewarding to him than spending a weekend in his own apartment in downtown Washington, DC. His primary defense against the enclosing loneliness was to work more, travel more, and to keep himself too busy to be lonely, despite the fact that he knew his body needed more rest and relaxation.

Chapter 41. Narrowing Scope and Deepening Analysis – Warsaw 1964

During 1964, with experience, time and age Haley narrowed the range of topics he chose to address in his public appearances. In his relevant writings during the 1950s Haley had been a frequent and vocal proponent of international action to address and resolve a broad range of identifiable but unaddressed problems. As the 1960s unfolded, he became much more focused. The significant open issues generated by human exploration of the universe were of most interest to him. He enjoyed the mental gymnastics of separating new situations in a completely new environment, largely imaginary, from the well rehearsed, mundane issues of the past. He recognized readily that the environment of outer space and the status and management of affairs involving other celestial bodies were substantially unprecedented; although it was soon agreed that there were useful aspects of the 1959 *Treaty on Antarctica* that could offer some relevant models for dealing with some space law issues. It is interesting to note the acute differences between the source of Haley's livelihood, a routine, disciplined, rule shrouded practice of administrative law, and the wide open, unregulated challenges of human activity in the reaches of outer space.

On 9 September 1964, the Annual Meeting of the IISL was held in Warsaw, Poland and the results of the IISL General Assembly (business meeting) were recorded on a single page. The following business was accomplished by the unanimous consent of those present and voting:

1. The Polish Organizing Committee was thanked for making the meeting possible.
2. Dr Eugene Pépin was reelected President and Dr. H. J. Taubenfeld was reelected Secretary.
3. Messrs. Cocca, Fasan, Herczeg, Horsford, Kopal, Korovine, Maxwell, Pépin, Smirnoff, Sztucki, Taubenfeld, and Zhukov were elected Directors for a term of one year. A. G. Haley would serve *ex officio* as General Counsel.
4. The reports of the President and Secretary for the previous year were received, and presentation to Mr. Horsford of the Haley Award was noted.

There being no further business, the annual meeting closed and the Seventh Colloquium began.

Haley delivered three papers to the Seventh Colloquium in Warsaw, all examples of how he had focused his attention and deepened the levels of his evaluations of chosen problem areas. He had been serving for two years as chairman of the IISL Working Group VII, on Space Communications. He had been collecting information on satellite communications for several years, so it was not difficult for him to assemble an extensive survey report on space communications. When he presented the Report of Working Group VII to the Colloquium, he

was required to condense the information contained in his 52, single-spaced pages of text and 8 pages of reference notes. His allocated time on the program was 20 minutes, including time for questions. This is the single most comprehensive document Haley had produced to date summarizing all he knew and had published about space communications. He described the nature of the law establishing the Communications Satellite Corporation (COMSAT) in the United States, and the work of that company, in collaboration with the US Government, to establish an operational global telecommunications satellite system known as the Interim International Telecommunication Satellite Organization, the Interim (INTELSAT).⁴⁶³

The paper elaborated the roles of all the concerned federal agencies in the United States pursuant to the *Communications Satellite Act of 1962*. It recounted the history of the formation and described substantial detail of the development of INTELSAT, including a list of its original members and their respective shares of ownership of the space segment (satellites and space segment control stations) of the system. It also touched upon recent relevant developments in communications in Europe and Africa.

Haley's paper explained the absence of the USSR and all Socialist Republics from the INTELSAT roster, because of the minimal amount of international telecommunication traffic originated or terminated in their territories. Because the national share of traffic on the system was used as the basis to calculate the national ownership share in the space segment, it would result in the USSR and the Socialist States having only a minimal collective voice in the management of the INTELSAT system. Such an inferior role was totally anathema to the USSR and its political allies. Later (1970) the USSR led the establishment of the competing international satellite organization known as INTERSPUTNIK, headquartered in the USSR and participated in by the Eastern Bloc and other Communist countries.

Haley's paper described the perceivable future of television in satellite communications and developed discussion of three significant problem areas which he believed required early action and resolution:

- (1) Frequency allocation,
- (2) Sanctions, and
- (3) Patents.

The frequency allocation story and the critical role of the CCIR are well covered. The issue of sanctions is one on which Haley was not sufficiently self-critical. He believed that there should be some formal criteria for authorization of frequency uses, and abuses of an internationally established regime should result in sanctions applied to the abuser(s).

Use of the radio spectrum is universal and broadly enabling to many aspects of life in every country, including communications, safety, police, broadcasting, telecasting, mobile services such as communications with taxis, trains, aircraft and vessels at sea. There are in addition national security and military applications made by countries around the world. For each user to have the clarity of communications desired, each user must use the allocated band

⁴⁶³ The Interim International Telecommunication Satellite Consortium came into existence on 20 August 1964. The definitive agreements were subjects to international negotiations from 1969 to 1971, and the required signatures to bring the definitive arrangements into force were accomplished in 1973.

established for a particular service, and obtain an operational license from the appropriate national government with oversight of the user.

If users are to have clear channels for their own uses, they must avoid unauthorized uses of others' channels. The reciprocity of tolerance and orderly use is a self-sanctioning system, just as driving on a highway is also in substantial part a self-sanctioning system. One will stay on the proper side of the road, or one is likely to be seriously inconvenienced by on-coming traffic. We voluntarily agree to obey the rules of usage so that we can all use the resources productively without interference. Unfortunately, there are always the few deviants who must be dealt with according to the situation prevailing in the case, but in telecommunications they are rare. A written notification of unauthorized use from the national licensing agency or the ITU is normally sufficient to end an abuse of frequency use.

It is somewhat surprising that an attorney with the experience, technical knowledge, and vision of Andrew G. Haley missed this understanding of the practice and value of self-sanctioning systems. His report to the Colloquium concluded with a description of the accomplishments of ITU Conferences held to date dealing with the issues of frequency band allocations for satellite communications. Several pages of the paper are drawn from Chapter VII of his 1963 book, *Space Law and Government*, but this paper substantially updated almost every aspect of the coverage of communications found in his book, and more.

In another session of the Colloquium Haley presented a paper titled 'Medical Jurisprudence in Outer Space'. This text was 45 singled-spaced pages with more than eight pages of notes. This presentation also required an oral précis because of the limitations of time for individual presentations, but Haley was accustomed to such summaries. He always attended Colloquia with multiple copies of his papers for distribution, which was his way of ensuring his "total message" would be received.

The paper on medical jurisprudence was especially notable because Haley was not a 'medical expert' in any sense of the term, but he believed he had enough understanding to call out the need for more attention than the topic was receiving from the legal community interested in human activity in space. The opening substantive paragraph noted:

Forensic medicine in the environment of outer space is the most unique topic of jurisprudential discussion under consideration by medico-legal scholars today. The substantive nature of many space legal and medical problems may appear to remain unchanged, because whether we are on earth or in space, we are dealing with *homo sapiens*. But in the aspects of environment, international responsibility, the enormity and finality of the risks involved, and in many other respects, the medico-legal problems of outer space are truly *sui generis*.

Haley went on to note that "[w]hat we are learning today serves to open many new and unknown doors to tomorrow". Returning once again to his hortatory urging of attention to future problems to begin assessing possible resolutions or solutions of anticipatable problems before they descend upon humanity, he described the problems faced with a sense of urgency like that he used in the mid 1950s, urging attention to the needs for international cooperation and collaboration on determination of designated radio frequency band allocations for space radio services.

A major portion of the paper was a survey of relevant research on human factors in the United States, noting that there was at the time substantial research in progress at NASA and at the DOD, and that all NASA programs were coordinated through regular interdepartmental and interdivisional meetings, to exchange information and avoid duplication. In addition to identifying multiple experiments in the Gemini Program, Haley noted also substantial research on progress in radiation studies. He included discussions of cybernetics and bionics, including the process of perception, and the interdisciplinary cooperation required.

The paper contained a substantial discussion of developments in the Soviet Union, including a comprehensive examination of cybernetics and descriptions of current Soviet research. In a lengthy concluding section the paper examined the problems of contamination, including forward contamination outward from the earth, and back contamination of risk elements from space or other celestial bodies to the earth. He included a substantial examination of the roles and activities of the Committee on Contamination by Extraterrestrial Exploration (CETEX) and the Committee on Space Research (COSPAR) of the International Council of Scientific Unions (ICSU).

Haley's concluding paragraph observes that the only proposals relating to decontamination as of that time were involved and expensive. He claimed that the risks involved in failure to take proper preventive measures, although difficult to determine, are no less real. Once again, the passionate proponent of action urged "[t]he required processes of decontamination demand concerted expert attention. Available evidence does not indicate that sufficient attention is being given to this problem". More than ten pages of notes and references are attached to the paper. This paper was actually prepared primarily for presentation the following week in Dublin, Ireland, at the Thirteenth International Congress of Aeronautical and Space Medicine, 14 to 18 September 1964. Haley had maintained contacts with selected, well known medical experts over the years and had maintained a watchful eye on their interests in medical issues developing with regard to astronautics. This was another audience of specialized talent he wanted to stimulate to look forward more aggressively in the interest of humanity.

A third paper was presented during the Seventh Colloquium titled 'Legal Problems of a Manned Lunar Laboratory'. This was Haley's first paper addressing this subject area and contained a great deal of reworked, rethought and revised information drawn from several earlier sources; but rather than dealing with the legal problems in a generic manner, Haley focused the issues discussed on the legal implications for a manned lunar laboratory. Now the generalist had to deal with particular application of the kinds of laws and rules he had been promoting for almost a decade. Haley recounted the history of the Committee.

The International Academy of Astronautics formed a Lunar International Laboratory Committee at its first Special Meeting in Stockholm on 16 August 1960. Frank Malina was appointed Chairman of the Committee. "The Committee was authorized to study during succeeding years technical problems related to the construction of a research laboratory on the moon, the feasibility of carrying out its construction; and to consider the fields of research to be carried out by the laboratory."⁴⁶⁴ Some individual preliminary studies were done and the committee assembled to

⁴⁶⁴ AG Haley, "Legal Problems of a Manned Lunar Laboratory", a presentation at the Seventh Colloquium on the Law of Outer Space, Warsaw, Poland, September 1964.

discuss them. In September 1963 in Paris, the Committee set firm plans for a Discussion Panel in Warsaw in September 1964. The broad scope of topics to be discussed by experts under the Chairmanship of Malina included:

- Bioastronautics
- Data acquisition
- Engineering psychological problems
- Lunar Geology
- Optical Astronomy and Astrophysics
- Physiological problems
- Psycho-sociological problems
- Radiation
- Radio-Astronomy
- Scientific instruments for lunar stations
- Selenology
- Space Exploration
- Space Law
- Theoretical mechanics

Haley's paper then addressed sovereignty claims by describing terrestrial precedents, including concepts of *res nullius* and *res communis* and the value of the *Antarctica Treaty* precedent. He discussed the role of custom in formation of law, and recapped several recent United Nations Resolutions. Against this background he described regulation of lunar activities through legal jurisdiction, international conflict resolution, matters of liability and the multiplicity of national forums to which resort may be taken. He then addressed registration laws, international and national, and described the items and activities possibly requiring registration, licensing, inspections, and dangerous instrumentalities.

He showed a range of administrative problems, including the nature and composition of international administrative authorities, national authorities, roles of specialized agencies and methods of determination of liabilities. He discussed potential military uses of a lunar laboratory and the ignored history of mankind's failures to resolve differences through armed conflict. He then described basic systems of communications and controls and touched on international and national liabilities for personal and property damages. After briefly describing the contrast in the earth-moon environments, and assessing the limited utility of terrestrial precedents, Haley opened the broad topic of space medical jurisprudence, offering brief comments and reference to other recent papers he had written on this topic. He wrapped up this brief dissertation with a profound observation:

While this survey is not intended as an exhaustive coverage of all the problems involved, it is hoped that it does demonstrate that the legal problems alone are many, complex, and demanding immediate attention. Governmental agencies and international organizations all over the world are daily becoming more and more involved in space activities. The progress of technology and the continual expansion of the roster of participants indicate that the entire space program of the world will continue to grow steadily.

Ignoring the problems created by increased activity in outer space is no solution, for the longer they are ignored the more difficult they become to solve. Immediate and positive action is demanded at every level.⁴⁶⁵

Although he was continually at the forefront of the profession, calling attention to the need for more effort to develop space law, Haley, like many dedicated and fervent apostles, was heard with interest, but his complex topics were soon forgotten by most of his audiences. He knew his challenge was great, so he responded with a sustained and persistent effort to focus attention on the needs for space law. He was more than a commentator on the development of the law, he was an energetic advocate and promoter of numerous elements of what he perceived as the needs for space law and international cooperation.

The XVth Congress of the IAF was held in Warsaw 7 to 12 September 1964. Haley reviewed the major accomplishments of the Congress in an article titled ‘Pickering Heads IAF’, in the November edition of *Astronautics and Aeronautics*. He was pleased to report that William Pickering, Director of JPL in Pasadena, was elected President of the IAF; and four friends and associates were elected Vice Presidents – Leonid Sedov (USSR), Marcel Nicolet (Belgium), Michel Lunc (Poland) and Rudolph Pesek (Czechoslovakia). Haley boasted that 400 attendees participated in the Congress, the second held in Eastern Europe, following the 1962 Varna Congress in Bulgaria. Haley quoted a portion of Pickering’s acceptance speech:

Still greater opportunities lie ahead for the Federation as space technology becomes more and more international in scope. In order to grasp these opportunities, however, we will require the wholehearted and firm support of every IAF member society.

We should note at this time that the Federation is not a political body, but rather a federation of technical societies, and this it shall remain.

In Haley’s view, Pickering had said all the right things to his disparate international audience. Haley returned home well satisfied with the size and productivity of the Congress and the IISL meetings in Warsaw.

Back in the United States on 11 September 1964, someone on Haley’s behalf presented a discourse on ‘Television Broadcasting by Satellite – A Problem for the Future’ to a Space Law Symposium held during the 1964 Annual Convention of the Federal Bar Association at the Statler Hilton Hotel in Washington, DC. With a two-page modified introduction, this is the same paper which Haley had presented one or two days earlier to the Seventh International Colloquium on the Law of Outer Space in Warsaw. Only the title and the introductory passages were changed. This paper was also presented, essentially unchanged, to the American Astronautical Society meeting in Dallas, Texas, on 30 September; to the World Peace through Law Conference, Wing-Spread, the Johnson Foundation, Racine, Wisconsin, on 3 October; at the Meeting of the Arrowhead Section of the AIAA in Redlands, California, on 15 October; to the International Congress of International and Space Law, University of Moron, Moron, Argentina on 9 November; to the Cape Canaveral Section of the AIAA in Cocoa Beach,

⁴⁶⁵ A.G. Haley, “Legal Problems of a Manned Lunar Laboratory”, 45, a presentation at the Seventh Colloquium on the Law of Outer Space, Warsaw, Poland, September 1964.

Florida, on 23 November; and to a meeting of the Greater New Orleans Section of the AIAA on 1 December 1964. A condensed version of the paper was also published in the AIAA magazine *Astronautics and Aeronautics* in September 1964 at pp. 82 to 85. It would appear that he was travelling widely in relatively rapid succession to give these papers, but in the United States the travels for his speaking engagements were also, invariably, associated with visits with clients for business purposes and sometimes short visits with family members. In early November he wrote another note of appreciation to Dorothy Bullitt in Seattle.

Dear Mrs. Bullitt,

In the rush and crush of trying to make a living and impressing the world with one's importance, I only too often do not express my truly heartfelt gratitude for your very nice hospitality. The townhouse is just as wonderful as ever, and so are all the lovely people who are fiefs of the good and kindly chatelaine.

I am sorry that I was a little boorish just before I left in our rapid discussion of mythology. As always, you were more right than was I concerning the antics of Zeus. You always permit me, however, the privilege of at least one *gaucherie*!!

With love to all the ladies of your household, and with high respect for all the gentlemen, I remain, as ever,

In old friendship,
Andy

During the final third of 1964 Haley travelled a great deal, nationally and internationally. He visited many of his clients, delivered his papers, essentially removed the issues of his family life from his agenda, and put a substantial effort into the organization and hosting of a cocktail and dinner party at his apartment honoring Dr. and Mrs. Frank Malina during another month long Malina visit to the United States. Haley's party at his home on 10 November involved about 30 guests. Ethna White sent the invitations and arranged catering details. Malina and his wife Marjorie visited the Drapers in Boston, friends in New Jersey, Haley in Washington, Malina's family and a conference in Texas, and many old friends at CalTech in Pasadena, California. In a very typical manifestation of his personal publicity diligence, Haley wrote a note to Malina on 16 November:

Dear Frank:

Yesterday's Washington Post carried your story and I inclose three copies.

I hope you are enjoying the sessions at San Antonio.

I'm glad I was able to get you to Dulles in time for your plane and I hope you had a relaxing flight. I certainly miss you and Marjorie and really enjoyed your stay with me. I wish it could happen more frequently.

With love to all the family,
Andy

Regardless of the time, place, or circumstances Haley was never ‘off duty’ with regard to securing for himself and those around him all the publicity and acknowledgements possible.

During 1964, the International Academy of Astronautics (IAA) decided to initiate the production of a multilingual dictionary of astronomical terms. In collaboration with Vladimir Kopal in Prague, Haley was developing a list of legal terms to be included in the dictionary. Clearly, some research assistance would be required for that effort. It did not take Haley very long to recruit Doyle for the task.

After writing the District of Columbia Bar Association Membership Examination, Doyle left the firm in September 1964 to return to his studies at the McGill Institute in Montreal. Doyle had repeatedly contributed to Haley’s astronomical correspondence and award citations just before he left the firm in the fall. His departure soon became an inconvenience for Haley because he had no resident clerk who could follow up on work in which Doyle had been involved. On 6 December 1964, Haley wrote to Doyle in Montreal:

Dear Steve:

You can imagine my joy when I saw you listed among those who passed the Bar Examination in the *Washington Star* last week.

I have the inquiry concerning you from the Committee on Admissions and Grievances of the United States District Court for the District of Columbia. Inclosed is a copy of my answer. I could not give you a higher recommendation. Under the United States Military and Civil Service Regulations, the term “outstanding” is the highest rating.

I inclose a very rough draft of some space legal terms together with extremely unsatisfactory definitions. Some definitions I have crossed out as being completely unsatisfactory. I desire these definitions to reflect without commentary or philosophical digression my own viewpoints – purely and simply. Would you be interested in re-writing the definitions in accordance with my own viewpoints as expressed in *Space Law and Government* and in special papers? For example, the definition of “metalaw” should be that contained in the first article published in the *Harvard Law Record*. I would be glad to invest as much as \$100 in this effort and this might be helpful to you during the Christmas holidays. Just let me know.

As ever, Stephen, I remain,

In old friendship,
Andy
Andrew G. Haley

P. S. Whatever happened to the review in the *Duke Law Journal*?⁴⁶⁶

On 10 December Doyle replied:

Dear Mr. Haley:

⁴⁶⁶ AGH, *Letters & Materials*.

Your letter of December 6, 1964 arrived today. I am delighted that the generosity of the bar association brought some joy into your life, just as it did into mine. The longer I waited for notice from the examiners the surer I grew that I could not possibly have passed.

Thank you for the generosity of your own remarks with regard to my work and character. I deeply and sincerely appreciate such kind words.

When I examined the list of selected space legal terms you have sent I found it contained many challenging terms capable of confounding the finest of lexicographers. I wonder how Samuel Johnson would have reacted to this list! At any rate, I love a good fight, and this list has all the makings of a first class struggle. I will give it my full attention for several days and see what I can do. Your request that revisions be in accord with your own viewpoints may present some difficulty – I hope you have not overestimated my powers of perception. I will return the list you have sent with a revised set of definitions as soon as possible, aiming for Wednesday or Thursday of next week.

\$100 would be helpful to me during advent! I shall keep track of the time spent on this project and will notify you accordingly when it is completed.

The review in the *Duke Law Journal* is scheduled for publication in January 1965.

Please accept my personal wishes for a very blessed and happy Christmas, and the enjoyment of a prosperous New Year in good health. My warm regards to the entire staff, especially Ethner

Very sincerely yours,
Steve
Stephen E. Doyle⁴⁶⁷

On 7 December, Haley wrote to John Newbauer, Editor-in-Chief of *Aeronautics and Aeronautics* in New York. Newbauer had earlier circulated a letter to all the members of the American Institute of Aeronautics and Astronautics remanding all of the interest of the magazine in keeping the membership fully informed about recent relevant developments in aeronautics and astronautics and especially informing the chairmen of the Institute's Technical Committees that any articles they would like to publish would be welcomed. In response Haley wrote:

Dear John,

I must say that your letter of November 18, 1964, addressed to AIAA Technical Committee Chairmen and Members is one of the nicest and most refreshing bits of constructive public relations I have observed in a long while. The very receipt of such a friendly and constructive message makes one want to do something extraordinary for the good old AIAA.

I have received some sort of mysterious groundswell in recent weeks of interest from many of our Sections and, as a result, I have been invited to and have given speeches, among others, at the Arrowhead Section of the AIAA at Redlands, California; The Johnson Foundation's "World Peace

⁴⁶⁷ *Ibid.*

Through Law Conference,” at Racine, Wisconsin; meeting of the American Astronautical Society in Dallas, Texas; The Greater New Orleans Section of the AIAA at New Orleans; [and] the Cape Canaveral Section of the AIAA.

Here in Washington and in all the areas I have visited, there have been many spontaneous requests for a regular schedule of “International Scene” articles, such as I used to write. Right now there are a number of matters of most intense interest, including the reorganization of the International Academy of Astronautics, the future of the IISL, the preparatory arrangements for the IAF Congress in Athens and, above all, interest centers on what happened at the Plenary Sessions of the United Nations Committee on the Peaceful Uses of Outer Space which was concluded in October, but which is still newsworthy because no definitive article has been written on the subject and, also, because the technical as well as the legal decisions must be coordinated into one solid one-thousand word statement.

I would be happy to embark upon a regular schedule of The International Scene commencing with the foregoing topics on a quarterly basis, if you so desire, getting the final copy in five to six weeks ahead of publication and limiting the copy to the number of words you suggest. Actually, no one is in a better position to do this than I am as every item of information seems to flow over my desk and I seem to see every person involved on a pretty current basis.

May I thank you again, John, for your nice memorandum and may I express the belief that your editorship of A/A is indeed excellent.

As always, I remain
In old friendship,
Andrew G. Haley⁴⁶⁸

On 9 December John Newbauer replied to Haley:

Dear Mr. Haley:

Beginning probably in April, Astronautics and Aeronautics will carry columns by contributors. We’re in the process of inviting contributions now, and would be very pleased to include you among them along the lines you suggest in your letter of December 7th. Personally, I think this is a good idea. Things develop too fast in international affairs for us to handle particularly well in article form. A column serves this purpose much better, and I think you write a good column. We should be ready to make formal invitations to our proposed contributors in about two weeks, and I would expect to write you then if you would be willing to write along the lines you mentioned.

Sincerely,
John Newbauer
Editor, A/A⁴⁶⁹

As 1964 drew to a close, there was less confusion and anxiety than in previous years about the assembly of the family for the Christmas holidays. Haley was resigned to accept the circumstances prevailing and to enjoy whatever company the family offered, which was most

⁴⁶⁸ *Ibid.*

⁴⁶⁹ *Ibid.*

likely a visit of the Vogt children at his apartment without Delphine. Young Andrew was in Nepal, so he would not be home. Some time would be allotted to a visit to Campbellsville but this would be arranged in conjunction with some other visits in the Midwest with clients.

Chapter 42. Old and New Challenges and Resolutions – 1965

The year 1965 continued to present organizational issues, contracting problems and international travel requirements to meet IAF/IAA/IISL needs, as in the past. Haley was named chairman of two potentially time-consuming organizational committees and he continued to ensure satisfaction of the needs of the gradually expanding base of clients in his law firm. Two new attorneys joined the firm in 1965. Substantial progress was attained in the growth and functioning of the Theodore von Kármán Memorial Foundation. The Foundation made substantial contributions supporting several organizations Haley favored. A complimentary biography of Haley was published in Volume 7 of Shirley Thomas' *Men of Space*. Ms. Thomas also was instrumental in enabling arrangement of a special slide show on Space Law by Haley in a symposium in Los Angeles.

Doyle completed his second year of study at the McGill University Institute of Air and Space Law and Haley offered him a position as an associate at Haley, Bader & Potts. Doyle accepted the position, reporting for work on 1 May. A major conference on World Peace through Law was convened in September in Washington, DC. An historic ITU Plenipotentiary Conference, which Haley served as General Counsel, met in Montreux, Switzerland, 14 September to 12 November 1965. The names of locations changed from year to year but many of the activities requiring Haley's time, attention and travel were essentially rerouted continuums. Subjects were the same but the locales of their discussion continually changed.

During the year Haley had an article published in the ITU *Telecommunication Journal*,⁴⁷⁰ and he presented papers at more than six formal occasions before professional audiences.⁴⁷¹

⁴⁷⁰ A. G. Haley, "Competition in Satellite Communications?" *Telecommunication Journal*, Aug. 1965.

⁴⁷¹ Haley's 1965 papers included: A. G. Haley, "Space Age and the Farmer", presented to the Southern Idaho Livestock Hall of Fame Banquet, Twin Falls, Idaho, 13 March, 1965; A. G. Haley, "Survey of Space Law," presented to the Theodore von Kármán Seminar of the Space Age Advisory Committee to the Mayor of Los Angeles, 12 May 1965; A. G. Haley, "Space Law: State of the Art Report", presented to the Committee on Space Law and Sociology, AIAA, Second Annual Meeting, AIAA, San Francisco, 27 July, 1965; A. G. Haley, "Law as an Ordering Principle", a paper presented to the Conference on Basic Approaches to Conflict Control, held at the Space Law Sessions of the 2nd Annual Meeting of the AIAA, San Francisco 26-29 July 1965; A. G. Haley, "Space Salvage – Artifacts and Personnel in Space and on Terrestrial Jurisdictions", presented to the Eighth IISL Colloquium on the Law of Outer Space, Athens, Greece, 14 September 1965; A. G. Haley, "Communications in Space: Existing Structures and Foreseeable Problems," presented to the Eighth IISL Colloquium on the Law of Outer Space, Athens, Greece, 15 September 1965; A. G. Haley, "Synoptic Answers to Six Questions Posed by Aldo Armando Cocca to the Eighth IISL Colloquium"; A. G. Haley, "Parameters of Space Law: Present and Future," presented to the Eighth IISL Colloquium on the Law of Outer Space, Athens, Greece, 14 September 1965; A. G. Haley, "Committee Report of the Chairman dated 25 June 1965", to ABA Committee on Space Law, at the ABA Meeting, Hotel Carlton, Miami, Florida, 7 August 1965; A. G. Haley, "Remarks to the International Lawyers Club", Geneva, Switzerland 22 October 1965.

In January 1965, Dean Maxwell Cohen, Director of the Institute of Air and Space Law [IASL] at McGill University in Montreal wrote to Haley soliciting his opinions concerning a proposed publication to be based at McGill. Cohen wrote:

Dear Andy:

The Institute of Air and Space Law proposes to publish annually a yearbook devoted to summarizing the developments in air and space law during each year. It is hoped to publish the first volume sometime in 1965. Our present plan of contents includes survey articles on international public and private air law and on space law, selected documents, a selected bibliography, important dates and abstracts of theses accepted during the year on air and space law subjects.

I would be happy to have your reactions to this proposal and any suggestions you may have as to contents. What would you like to read about in the Yearbook?

Yours sincerely,
Maxwell Cohen, Director [IASL]
Dean, Faculty of Law⁴⁷²

It has been long and well known that one should not ask a question the answer to which one may not want to hear. Dean Cohen asked a self-confident man with a host of opinions to indicate his opinion concerning a publication which Haley himself would be willing to edit and manage, but that was not the offer; Cohen was just asking for opinions. In reply, Haley wrote:

Dear Maxwell:

Thank you very much for your letter of January 4, 1965. I am most enthusiastic about your idea of publishing a yearbook annually on air and space law. This book should indeed fill a great gap in the development of air and space law, and I am looking forward with great interest to reading the first edition. Your present plan of contents seems to include almost everything and there seems little to be added. Nevertheless, I will express my views as to the scope of the yearbook in general and also some specific points.

This yearbook should not merely consist of a certain number of articles, etc., adding up to a certain number of pages, and dealing with some developments in the past year; but it should contain an almost complete survey of everything that has happened in air and space law or what might be relevant to it. Of course, this will be a very difficult and painstaking task involving the necessity of drafting the articles in the shortest possible form and often using condensed and abbreviated language. This may appear laborious, but it seems to be the only possible means of keeping a student or lawyer informed on everything in these fields. With regard to such complete information, the following points seem to me to be of great importance:

The yearbook should contain a historical survey on all technical events that have taken place in the past year and which might be of importance or influence in the development of air and space law. Such a survey might help to avoid a mistake that has occurred too often in the past – many

⁴⁷² This letter and those following in this chapter are in *AGH, Letters & Materials*.

articles which were at one time excellent have finally become useless because they were based on facts which have been outdated for several years. In other words, such a survey would help lawyers to keep up with the fast technical developments in these fields.

Another survey should deal with all statutes and conventions, etc., of all nations or international organizations with respect to air and space law. This year, for example, it should, among others, deal with the work of the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space of the United Nations on rescue and return of astronauts and spacecraft and on liability for damage by objects launched into outer space.

Still another survey should deal with all important decisions of national and international courts with regard to air and space law. Of course, this can be done only by indicating in a few words the subject, country, organization, court, outcome, and where the decision is published.

Besides abstracts of these, the yearbook should contain a bibliography of all books, papers, and speeches on air and space law. Since the title of a book, paper, or speech is often too vague to indicate the contents, it is very important to describe the contents through a few catch-words. This would be of immense help to all lawyers who have to deal with a specific subject.

Great emphasis should be laid on books, theses, papers, and speeches in foreign languages. In this field, the book could undertake a task which cannot be esteemed highly enough – to inform a lawyer on the legal writings in languages unknown to him by way of describing the contents of these works through catch-words.

With respect to all documents, codes, agreements, books, papers and copies of speeches, the yearbook should indicate whether and where they are obtainable.

Finally, the yearbook should have a very detailed index. This would make it the best source of information on the newest developments for any student or lawyer. If, for example, someone wants to deal with or write a paper on communication satellites, the index should enable him to find references as to the newest statutes, decisions of courts and governmental agencies, technical events, books, theses, papers and speeches dealing with the subject.

My suggestions are probably unreal and too extreme. They can be achieved only to a certain extent due to the fact that the space in such a yearbook and the staff to work on it will be limited. Therefore, take my suggestions as an idealistic view and see what can be obtained in reality.

With best wishes, good Maxwell, for great success on your yearbook, I remain,

Sincerely yours,
Andrew G. Haley

The inquiry to Haley had been repeated by Dean Cohen to other experts and commentators, so Haley's reply was but one of many received, but the replies were unanimous in the opinion that a yearbook would be a useful and significant contribution to the developments in air and space law. The publication was established in 1965 as the Institute's *Yearbook of Air and Space Law*, under the editorship of Rene Mankiewicz from ICAO's Legal Bureau. The publication continued for 1966 and 1967, but was terminated because of expense. A follow-on annual publication, titled the *Annals of Air and Space Law*, was initiated at McGill in 1976 and continues in publication at this writing in 2021, 45 years later.

In late January 1965, the most prominent of the existing Soviet lawyers, publicists and pedagogues died. Haley had spent a lot of time and effort communicating with Yevgeny (Eugene) A. Korovin during recent years and he was emotionally moved by the loss of this link into the opposition in the Cold War. Writing on IAF/IISL letterhead, Haley communicated his personal sense of loss in a letter to the President of the USSR Academy of Sciences:

Academician M. V. Keldysh
President
USSR Academy of Sciences
Lenin Prospekt
Moscow, USSR

Dear Mr. President:

I have heard with profound regret of the passing of Professor Yevgeny A. Korovin. I have deep pride in my professional and personal association with Professor Korovin and his passing is truly a personal loss to me.

As you know, at the meeting of the International Astronautical Federation in Paris in 1963, Professor Korovin received the Andrew G. Haley Gold Medal of the International Institute of Space Law for making the greatest contributions to the legal and sociological activities of the human community in cosmic space. This award was made in 1963 in his absence, because even at that time we were worried about his health.

The previous year I had the great pleasure of many conferences and meetings with Professor and Mrs. Korovin at the Varna Congress of the International Astronautical Federation. Our pleasant association remains to me one of the outstanding events of my career.

Professor Korovin was endowed by nature with a charismatic benevolence and facility which, in turn, he channeled into immortal concepts of cosmic law – for the enduring benefit of all peoples. As founder of the International Institute of space law, I attach our seal to these observations and I remain, as always,

In friendship,
Andrew G. Haley
General Counsel and Director

Copies to:

Officers and Directors of the International

Institute of Space law and the International Astronautical Federation

Officers and Trustees of the International Academy of Astronautics of the IAF

Academician I. I. Artobolevsky, Professor Alla Masevitch, Professor K. F. Ogorodnikov,

Academician Leonid I. Sedov, Dr. Vladlen S. Vereshchetin, Dr. G. P. Zhukov

It was certainly a tribute to the memory of Professor Korovin, but it was a tailor made opportunity to remind the president of the USSR Academy of Sciences, and the others copied, who Andrew G. Haley was.

With a letter dated 29 January 1965, Haley submitted a \$5,000 check from the Theodore von Kármán Memorial Foundation to IAA President C. Stark Draper to continue the Foundation's support of the Academy. This was a Haley managed and directed event, because the highly diverse Foundation Board of Trustees relied heavily upon the advice and counsel of Haley in the distribution of their largesse.

On 2 February 1965, Haley wrote to the Faculty of Law, Australian National University in Canberra noting an article in the *New York Times* announcing a special course of Space Law would be introduced into the school's curriculum. He wrote:

You have undertaken a task which cannot be esteemed highly enough since it is becoming more and more urgent to solve the problems which are connected with the exploration and use of outer space.

Under separate cover I am sending you a copy of my "Space Law Commentaries" which I hope will be of some help to you in your course.

With every good wish, I remain,

Sincerely yours,
Andrew G. Haley

The gradually expanding awareness in law schools of the relevance of the study of space law was excruciatingly slow in Haley's mind, and anything he could do to promote or assist the creation of new courses on the topic was not so much an opportunity as an obligation for him. He organized a hard plastic-covered collection of copies of manuscripts and reprints of many of his articles and speeches, book reviews, and biographical information entitled *Space Law Commentaries*, and voluntarily distributed the collection to more than 50 libraries at major universities in the United States and Europe. He paid scant attention to the same needs in Africa and the Far East. He visited Australia once, in 1966, but traveled only rarely to Africa or in the Pacific Basin. He perceived clearly that the primary movers in astronautics during the third quarter of the 20th century were in the United States, Europe and the USSR. Later in the century, after Haley's demise, Japan, China, and India would emerge as developing powers in astronautics.

There was an ABA Meeting convened in New Orleans 4-9 February 1965 at which the ABA Committee on the Law of Outer Space met and considered a draft report prepared by General Martin Menter, USAF, and supplemented by a report by Haley, who had been appointed a reporter for a committee project examining "Registration and Traffic Control of Space Vehicles". Following this meeting, the Committee Chairman, David Maxwell and his wife enjoyed a stay for several days in the Haley apartment at the Breakwater Towers in Fort Lauderdale, Florida. Haley attended this meeting and had several private sessions with David Maxwell discussing the future work and composition of the Committee. Lack of funding to support committee members' travel to the meetings was a continual problem. It was particularly disappointing and distressing to Maxwell, because he had to apply personal resources to meet promises he had made in expectation of ABA support. During the following months Haley was involved in numerous telephone conferences with Prof. Cooper and General Menter, committee report co-authors, and with David Maxwell to arrange to complete and

duplicate the draft report so that it could be considered for adoption at the summer Annual Meeting of the ABA.

During the first week in March Haley visited Paris, France to attend the spring meetings of the IAF, the IAA and the IISL. Despite his sustained efforts and clear intentions to withdraw from the management of the IISL, he was finding it difficult to convince Pépin Taubenfeld and others to take the responsibility and to relieve him of that worry. The management of the IAF was proceeding relatively smoothly, and Malina and van Gelder had the Academy under reasonable control, but the IISL was still appearing rudderless and unsupported.

On 5 March, a Special Committee of the IISL convened in Paris to review the organization's program structure, with meeting minutes prepared by Ernst Fasan. The attendees included E. Pépin, A. G. Haley, A. Cocca, M. Smirnoff, G. Zhukov V. Kopal, I. Herzceg and E. Fasan. The topics discussed included all the major undertakings of the Institute at the time. The terms of the Special Committee were explained by the President to be a survey of the Institute activities to determine their relevance, support and utility.

Preparation of a comprehensive bibliography on space law in 1964 was discussed and commitments of contributions of works and financial support were made. Pépin personally had been compiling an expanding bibliography of writings on Space Law since 1957, with very little voluntary support by others. In 1963, because of the increasing numbers of published works, Pépin began to issue annual supplements to his bibliography. It was agreed the 1964 bibliography should be sold by the IISL to assist in raising revenue for the Institute. Haley committed to provide whatever financial support would be required for compilation and publication of the 1964 bibliography and all present were urged to contribute to Pépin information on relevant publications.

The IAA sponsored and proposed multilingual dictionary was discussed. A working list of relevant terms had been prepared by Haley and Kopal. Editors to work on the multilingual lists, without term definitions, included: Pépin (French), Horsford (English), Cocca (Spanish), Gambardella (Italian), Zhukov (Russian), Fasan (German), Kopal (Czech), and Kopal would compile all the contributions. The Editors-in-Chief of the effort were V. Kopal and R. Pesek of Czechoslovakia. Before the end of the year a couple of changes in these language assignments took place for various reasons. Dr. V. Vereshchetin joined G. Zhukov to work on the Russian terms; Vereshchetin's written English language capabilities substantially exceeded Zhukov's, which were marginal. Prof. P. Magno took over the Italian language work. Effort was to be made to complete the lists in two months. Discussion of a dictionary of terms with definitions added was tabled until later. First order of business was to get an agreed list of words and terms without definitions.

A special committee was appointed for preparation of collected papers on the teaching of space law. Dr. Pépin was appointed Chairman and Horsford and Zhukov were named committee members. There was general discussion about the desirability of concluding and disbanding the Working Groups of the Institute and a procedure for wrapping up their work was agreed. The Chairman of the Athens Colloquium was agreed along with the opening procedures, including homage to Dr. Korovin. This concluded the work of the Special Committee.

The following day, 6 March, the Board of Directors of the IISL also met in Paris. Attending were: Dr. Pépin, President and Chairman, Mr. Haley, General Counsel, Cocca, Fasan, Herczeg, Horsford, Kopal, Smirnoff, Stutzki, and Zhukov. In a relatively brief meeting, the Board approved much of the Special Committee meeting minutes, adding some editorial assistance in selected areas to help with the compilations of terms in the several languages. It was agreed what topics the Eighth International Colloquium in Athens would address in the planned sessions; (1) Liability, (2) Communications, and (3) General Papers on Space Law. The dates of the Colloquium were expected to be 15 and 16 September.

Earlier in the year, Haley had agreed to make a presentation at an agricultural forum in Idaho. Shortly after his return from Paris to Washington, DC, he left on a trip to Idaho. Haley was ideologically driven to seek and support international cooperation in astronautics by any means, and his works generally reflect his concerns about global peace and security. His papers were generally topically directed and rarely presented any extended philosophical discourses. On 13 March 1965, Haley produced an exceptional paper with moderate philosophical content under the simple title ‘The Space Age and the Farmer’. This paper was presented to the Southern Idaho Livestock Hall of Fame Banquet in Twin Falls, Idaho. He opened the paper quoting Daniel Webster:

One hundred and twenty-five years ago Daniel Webster remarked in the United States Senate that “when tillage begins other arts follow. The farmers therefore are the founders of human civilization.”

The farm community is most alert in realizing that humanity is beset by a world of change. Man seeks change – he thrives on it – he invents it. The status quo is to be enjoyed only by those who are insensible to what is going on around them. We find old institutions questioned and modernized almost overnight. Seldom are we afforded the luxury of gradual adjustment. Knowledge is exploding at such a rapid rate that we are permitted only a flirtation with new ideas before they are chased from our grasp by new ones. But why shouldn’t there be change? This country was founded on it – and one of its glories is that there can be change – change made by man who wills it – change because men dare to meet the challenge.

Ever since Adam and Eve, the farmer has aspired for a better world. As we pass through our life in pursuit of this dream, we can work – and hope – that we leave some imprint for those who follow. We can be like the young men of Athens who took their oath of allegiance when inducted into the Ephebian.⁴⁷³ The oath concluded: “We will strive unceasingly to quicken the public sense of civic duty. Thus, in all ways, we will transmit our country, not only not less, but far greater, and more beautiful, than it was transmitted to us.”

The space age will tend to stress the fundamentally unifying characteristics of man over local customs, history, and the place in which he is born. When regional differences have lost their devastating capability to arouse misunderstanding and hatred among peoples, without losing their ability to contribute to the local color and individuality of human culture, then freedom and richness of life will have been increased immeasurably.

⁴⁷³ In ancient Greece, post-pubescent young men who were selected for training in the responsibilities of citizenship.

Needless to say, this condition will not come about overnight, however much it may be accelerated, as great scientists predict, by the conquest of space. Hence, in the meantime, the leading powers can ill afford to neglect the military potential of space operations. Even without indulging in futuristic speculation about the military value of lunar or Martian bases, it is easy to distinguish such concrete military applications of space technology as hypersonic gliders for bombing and reconnaissance; the capability of operating satelloids⁴⁷⁴ and satellites for reconnaissance purposes; and, in fact, free space operations up to altitudes of several thousand miles by which terrestrial areas can be kept under constant surveillance. [...] Advanced military and space technology overlap at so many points that they are to be distinguished mainly in terms of their objectives, not their scientific basis or engineering characteristics. The same electronic brain could guide a missile or a satellite – or for that matter run an automated factory, to cite an example of the broader economic impact of these activities. [...]

For the individual who does not personally travel to the moon or work in a space industry, one of the largest benefits of the space age will be a sense of vicarious participation in a great human endeavor, and a new breadth of understanding of the universe around him. Arthur C. Clarke has given apt expression to this aspect of space exploration, too. As he puts it:

[...] our civilization is no more than the sum of all the dreams that earlier ages have brought to fulfillment. And so it must always be, for if men cease to dream, if they turn their backs upon the wonder of the universe, the story of our race will be coming to an end.

In sum, the space age is likely to contribute more material and spiritual improvements to life on this planet than any other single economic or social measure. It is capable of bringing this about not only by virtue of the specific benefits already indicated but also by gradually creating a more intense feeling of belonging to the same planetary community.

Haley continued in this philosophical vein praising the contribution of astronautics to the mentality of the singleness of humanity and the commonality of our dreams and goals as humans. He continued with citations of the globally significant statements of Presidents John Kennedy and Lyndon Johnson assessing the long range humanitarian values of the applications of astronautics. He continued, discussing specific projects and programs seeking to advance weather prediction, weather modification and communications. Continuing his presentation he sought to tie all that he had said back into the community of interest of his audience:

Agriculture is offered enormous new benefits from the results of space flight, space exploration and the technological research conducted by government and industry. Space vehicles have proved from a very practical standpoint to be ideal for the observation of the weather. Space vehicles also offer the necessary environment for intense scientific study of plant physiology and pathology, entomology, yield, quality growth, agricultural production practices, metabolic response to varying meteorological factors, heat tolerance and conversion of solar energy to plant energy; application of plant energy in the form of livestock feed; photosynthesis; extreme cold temperature and winter killed cereals, and the like.

Many natural factors affect the success or failure of agriculture, but none plays a more decisive role than weather. In 1961, according to the United States Weather Bureau, approximately 40

⁴⁷⁴ Orbiting vehicles requiring continual thrust to maintain orbit.

billion dollars worth of farm products were sold, but weather was estimated to be responsible directly or indirectly for agricultural losses of more than nine billion dollars.⁴⁷⁵

The balance of the paper addressed existing and planned programs employing or to employ various space components and described programs planned by the Department of Agriculture to improve agricultural productivity. The paper was unusual in that it contained a commendable and relatively rare degree of philosophical appreciation of the subjects being addressed.

Following the March IAF spring meetings in Paris, IAF President William Pickering wrote to Frank Malina in Paris to inform Malina that there would be an assessment of the IAF/IAA Paris office operations carried out in the near future. Pickering reported that he had asked Sandy Harris, a secretary to the International Council of Aeronautical Sciences (ICAS),

[...] to take a close look at the operations of the IAF office. It seems to me that we have to be sure that this office is operating as efficiently as possible before we can look for new sources of income. I am sure that Sandy's experience with ICAS should be very helpful. I have asked Helene to cooperate with him and I hope that he will be able to make his report to me without completely upsetting everyone in Paris.⁴⁷⁶

Almost a decade earlier, in 1956, Harry Guggenheim had donated the proceeds of the sale of the Guggenheim Estate at Sands Point, Long Island to the US Institute of Aeronautical Sciences (IAS), and suggested to its Honorary President, Theodore von Kármán and Paul Johnston, Director of the IAS, that these funds be used to support a program of international cooperation in aeronautical sciences. Guggenheim shared von Kármán's strong commitment to fostering better understanding among all nations of the world and the idea emerged that these funds might be used to develop a program of international cooperation in the aeronautical sciences. Guggenheim was mindful of the IAF Congresses. Consequently ICAS was established in 1956, and thereafter held biennial international meetings.

In 1965, William Pickering, as President of the IAF, was interested in the possibility of consolidating the ICAS and the IAF, just as the Institute for Aerospace Sciences (IAS) and the ARS had been consolidated to create the AIAA in the United States in 1963. Although von Kármán had a position in both the ICAS and the IAA/IAF, neither Haley nor Malina was interested in the possible consolidation of the ICAS and the IAF. One of Pickering's suggestions was to change the frequency of annual IAF Congresses to biennial congresses in alternating years with the biennial meetings of ICAS. On 1 August 1965 Haley wrote a lengthy and detailed letter to Pickering explaining why Haley did not believe a change by the IAF to biennial meetings should be considered. Haley wrote:

Dear Bill:

I have received a copy of Helene van Gelder's letter to you, dated July 15, 1965, with reference to the question of proposed biennial rather than annual Congresses of the Federation.

⁴⁷⁵ AGH, *Letters & Materials*.

⁴⁷⁶ *Ibid.*

Miss van Gelder points out that in several of the provisions of the Constitution certain requirements and procedures are set forth which assume the continuance of annual meetings. I believe these points deserve further amplification and analysis.

Among the powers and functions of the General Assembly which are set forth in Article 19 of the Constitution, are the following:

- (a) The election of new members to the Federation;
- (b) The suspension and expulsion of members;
- (c) The approval of annual and special reports, including statements, accounts, estimates of the budget, and the disbursement of funds by the Bureau;
- (d) The appointments of necessary committees;
- (e) The election of officers; and
- (f) The exercise of powers and functions necessary to carry out the purposes of the Federation.

As you will see by examining Article 19 (a copy of the Constitution is attached), this is not a complete list of the powers and duties of the Assembly. This list does demonstrate, however, that a revision of the regular annual time-table for the Congresses of the Federation would severely impair the effective control of the program of the federation by the Assembly.

Particularly, I wish to call to your attention the following:

- (a) Applications for membership are received quite regularly and new member applications are considered at almost every annual Congress;
- (b) From time to time, for various reasons, it is necessary to consider the suspension or expulsion of members, but a two year interval between Congresses could distinctly lessen the effectiveness of any such proposed action;
- (c) The fiscal planning and operation of the business affairs of the Federation require and deserve more frequent attention than would be available if we adopt a policy of biennial Congresses;
- (d) The organization of committees and the work program of the Federation should be given attention by the Assembly more frequently than once every two years;
- (e) All offices are elected for a one year term of office; and
- (f) The non-scheduling of annual meetings could result in the necessity to call a Special General Assembly meeting to handle specific projects or affairs needing Assembly endorsement or authorization, and such a requirement could distinctly impair the effective operation of the Federation's continuing and potential programs.

For these reasons I strongly believe that the annual meetings of the Congresses are not only desirable, but also necessary.

A revision of the meeting schedule of the Congresses of the Federation, to provide for biennial congresses, would require a major overhaul of the Federation's Constitution in order to bring the provisions which assume the holding of an annual Congress into line with the policy of biennial Congresses. This would be a major overhaul, and deserves careful consideration.

As you are well aware, Bill, the Bureau transacts a considerable amount of business at its semiannual meetings. To remove the availability of the General Assembly for the resolution of policy and financial questions on an annual basis, would result in a greatly increased burden on the Bureau members, as well as on the Federation's Secretariat.

For these reasons, I want to point out now that I am opposed to the acceptance of the proposal for biennial Congresses of the Federation. In view of the current structure of the Constitution, the objectives and traditions of the Federation – which emphasize frequent and useful international intercourse – and the administrative problems that can be foreseen if the biennial proposal is adopted, I am compelled to oppose this proposal vigorously.

You must understand, Bill, that the IAF and the Academy and the Institute have been a large part of my life and therefore I look with dismay on any efforts which I believe would impair the growing importance and future of the Federation. I believe it is altogether too early to curtail the Congresses of the Federation. Too much is happening from month to month to take a two year holiday. We have current and even urgent invitations from too many societies to use financial instability as an excuse for curtailing the activities of the Federation. We have invitations from Spain, Yugoslavia, and Czechoslovakia, and I know personally that other national societies are very interested indeed.

I know that the biennial proposal will meet with a degree of approval by a few good souls who have “given up” because of setbacks from their own countries to astronautics programs – and then there are those who desire to emasculate the Federation under any circumstances – and by deactivating the Federation, their purposes would be achieved.

I also know that just a reasonable job of organization will bring into the Federation the *Federation Astronautique Internationale* [I could work out the details with Admiral Pirie, and several outstanding national astronautical societies such as those in the United Kingdom, France, Italy, and in many other countries.

I certainly would like to talk to you about all these matters so that we may deploy our activities completely “on the record” with each other.

Sincerely yours,
Andrew G. Haley
General Counsel, IAF⁴⁷⁷

Haley had put many years and substantial resources into the development of the IAF and its offsprings, the IAA and the IISL. His attitude at this point was one of preservation of what was accomplished in preference to a major reconstruction of the institutional policies and practices. All three organizations were growing within the established policies and practices of the Federation. Haley was strongly opposed to name changing and consolidating with other professional communities in which he had no standing or historical position of authority. The Pickering proposal was looked on favorably by the British but opposed by most other European countries. Haley undertook a major subliminal effort to influence the opinions of most of the members of the IAF Presidium. He found many of them to be in agreement with his opposition to the idea of biennial meetings. As matters evolved, the idea was briefly discussed but never accepted by the IAF Bureau. Pickering wisely chose to avoid a head-to-head confrontation with Haley and allowed the matter to be dropped.

⁴⁷⁷ *Ibid.*

In April 1965, as a consequence of his many articles and papers addressing satellite communications in recent years, Haley was sent a letter by Dr. Aldo Armando Cocca of Buenos Aires. Dr. Cocca served as the Argentine representative to the UNCOPUS Legal Subcommittee. He had prepared a paper to be presented to the forthcoming IISL Colloquium and sent a copy of the draft to Haley for comment. In a multipage response, Haley noted problems in the paper and recommended clarifications. Dr. Cocca had failed to recognize fully the difference between the INTELSAT Intergovernmental Agreement and the supplemental Operating Agreement between the operating telecommunication entities in the member countries. He was also apparently uninformed about the applicable regulatory structure established for the US designated participating entity (Comsat), and he was not clear on the allocation of voting power of members based upon their percentage of traffic put on the INTELSAT system as a share of the total traffic. A polite, constructively critical letter was sent to Dr. Cocca in May and appropriate adjustments were made to his paper prior to its submission to the Colloquium in September. It was characteristic of Haley to be available to assist any interested author in accurately dealing with any topic in space law on which Haley believed he could offer constructive criticism. Very few authors used his cooperative willingness to their advantage.

In May 1965, Haley reached an understanding with Martha Draper, daughter of MIT's C. Stark Draper, that she would be employed as a secretary by the Haley law firm for the summer of 1965. This was convenient, because Doyle was arriving as an Associate in the firm in May and Miss Draper was assigned the position of Doyle's secretary for the summer, in which role she worked after her arrival in late June.

On 8 May, Robert Crane left a phone message with Ethna White, to notify Haley that Crane would be in Europe for a couple of weeks in mid-May and asking: 1) if Haley would write to Gerald Gross at the ITU [in Geneva] requesting that Crane be shown around and given cooperation; 2) if Doyle could chair a session on inter-regulatory aspects of telecommunications during a planned AIAA Conference on Satellite Communications in Washington, DC; and 3) if Doyle could represent him at a planning meeting for that conference, planned to be held while Crane was in Europe. A message encouraging accommodation of Crane's visit was sent to Gross at the ITU in Geneva, and Doyle was asked to sit in the conference planning meeting. Following Crane's return from Europe in early June, Haley, Crane and Doyle had a luncheon together at which the plans for the AIAA Satellite Communications Conference were reviewed and Doyle's role in the forthcoming conference was defined and agreed. At this time, Crane was serving as the Chairman of the AIAA Committee on Space Law and Sociology, having succeeded Haley in that position in 1964. Doyle was a member of that Committee.

Haley visited the Seattle/Tacoma area May 8, 9, and 10. He spent one full day and part of another in legal and management briefings with the management team of KING Broadcasting in Seattle. He also contacted relatives in the Seattle area, and retired Admiral Jim Russell in Tacoma, to arrange evening dinners, which he would host. Living accommodations were provided by Mrs. Bullitt. One evening dinner was spent with Haley's brother Tom and members and friends of his family (the "Tomcat"), and a second dinner meeting included

Haley's daughter, Delphine, Dorothy Bullitt, Harriet Brewster, a daughter of Mrs. Bullitt, and Henry Owen, of the KING management team.

Following his weekend in the Seattle/Tacoma area, on 12 May 1965, Haley went to Los Angeles and presented 'A Survey of Space Law' during the Theodore von Kármán Seminar of the Space Advisory Committee to the Mayor of Los Angeles. He provided twelve slides with oral commentary corresponding to the twelve chapter topics of his 1963 book. The twelfth of the slides, 'METALAW' was accompanied by a one paragraph commentary which is the chapter heading to Chapter 12 of his book. The slide was exhibited with this commentary which read:

12 METALAW

The possibility of Other Worlds with Intelligent Life

1. Some general considerations
2. The precept simply stated [Do unto others as they would be done unto.]
3. The jurisdiction of metalaw
4. Concluding observations

These four topics are headings in the 27 page Chapter 12 of Haley's *Space Law and Government*. He had put a great deal of personal time and energy into the final production of his book, and was willing to draw on that work to meet needs for selected audiences when convenient.

Back in Washington at the end of May, Haley received a call from Henry Owen in Seattle. Owen wanted Haley to know he was planning a vacation trip to Europe in September and was tentatively planning to attend the IAF Congress to be held in Athens. Haley suggested that Owen contact the President of the local Section of the American Institute of Aeronautics and Astronautics in Seattle. Haley would suggest that the local section designate Owen as a representative to the Congress and Owen would be able to include the costs of the travel to Athens as a business expense for tax purposes. If there was a way to assist any friend or associate to encourage their attendance at an IAF meeting, Haley invariably found that way.

In early June 1965, apparently concerned that Andrew Vogt was not showing the kind of commitment about furthering his education that Haley wanted to see, Haley wrote a letter of inquiry to several major universities asking them to provide for him any information available on Master's and Ph. D. programs offered by the universities in advanced programs of physics or mathematics. Even if Andy Vogt would not pursue these opportunities himself, Haley would see to it that they would be considered. Andy Vogt graduated from Harvard with a BS in June 1965. Following the attendance at Andrew's graduation at Harvard, Haley had arranged that he, Andrew Vogt, Delphine, Mary Vogt and Ethna White would visit the World's Fair in New York on 18 June. This was a rare opportunity to spend some relaxed time travelling by car and visiting with the children. Haley later described this trip in a letter to a friend, reporting that "I brought work along with me and dictated to Ethna as we drove along in the car."⁴⁷⁸

⁴⁷⁸ Letter from A. G. Haley to Miss Alma Hall, dated 23 June 1965, in *AGH, Letters & Materials*.

Following graduation, Andrew Vogt remained on the east coast for a year. He looked into continuing his studies at Brandies University, in Waltham, Mass., or MIT in Cambridge, but in the spring of 1966, he decided to move back to Seattle, Washington, where he had spent some summers between his school years at Harvard. He entered the University of Washington in the fall of 1966 to continue his studies. He was awarded a Ph.D. in Mathematics by that University in 1970.

Haley had been serving as Vice Chairman of the ABA Committee on the Law of Outer Space, chaired by David Maxwell since December 1957. At the August 1965 Annual Meeting of the ABA in Miami, Maxwell retired from the committee chairmanship and Haley was named chairman. This was a major national recognition among the legal profession of Haley's long-time and prominent standing among international lawyers concerned with and involved in the laws of outer space. In addition to this national recognition, C. Stark Draper, President of the International Academy of Astronautics named Haley Chairman of the IAA/IISL Liaison Committee, which was established to strengthen the liaison between the legal community and the scientific/engineering communities involved in astronautics. It soon became an annual tradition for this committee to organize a Scientific/Legal Roundtable focused on a significant current issue as a regular feature at annual congresses of the IAF.

On 29 June 1965, Haley wrote to C. Stark Draper in reply to Draper's proposal to appoint Haley the Chairman of the IAA/IISL Liaison Committee, following receipt of a resignation of the chairmanship by Prof. Cooper, for health reasons.

Dear Stark:

I accept with pleasure your offer to make me Chairman of the Committee on Liaison between the Academy of Astronautics and the International Institute of Space Law.

I certainly do approve of the appointment of Dr. Kopal as Vice Chairman, and I also believe that Dr. G. P. Zhukov of the Academy of Sciences of the U.S.S.R. should be appointed as a Vice Chairman. I would designate them each under the general title of Vice Chairmen so that the list will read as follows:

Chairman:	Andrew G. Haley
Vice Chairmen:	Dr. V. Kopal Dr. Michel Smirnoff Dr. G. P. Zhukov
Members:	Prof. L. Biermann Prof. R. Y. Jennings Dr. J. Kaplan Prof. A. Meyer

Sincerely yours.
Andrew G. Haley

Haley appreciated and reveled in this chairmanship because it allowed him a good operating base for maintaining contacts with selected attorneys, scientists, and academicians around the world; and it provided him the opportunity to bring highly talented specialists together for

interactive meetings on significant issues of moment during IAF Congresses. The first meeting of the committee organized by Haley was held on September 16 in Athens, Greece during the IAF's XVIth Congress.

During the spring and summer months of 1965, a running argument intensified between Springer-Verlag, publisher of the IAA Journal, *Acta Astronautica*, and its Editor-in-Chief, Martin Summerfield. Summerfield had been editing technical journals for more than two decades and developed a disciplined process of doing, or obtaining critical reading of professional, technical articles and ensuring appropriate corrections would be made prior to publication. From time to time these procedures would lengthen the normal time spans from submission of an article until its release to the publisher for printing. Springer-Verlag believed Summerfield was too demanding and Summerfield believed Springer-Verlag was too ready to publish sub-standard work. The argument gradually involved C. Stark Draper, President of the IAA, and Draper solicited assistance from his General Counsel, Andrew Haley, to help resolve the problem.

In early July, Dr. Draper called Haley to inform him that a senior official at Springer-Verlag had called Draper to advise that he had fired Summerfield. Haley said he did not believe Springer-Verlag had the authority to fire Summerfield. Draper reported that Summerfield had wanted pay provided for a secretary but he received no relief and was left to do the work himself and now Springer-Verlag complained about Summerfield failing to meet his work schedule. Draper opined that "to hold Martin responsible for what you might call scheduled performance of clerical acts has gone too far unless they provide him with means to do it". Draper was planning to visit the Washington area to attend a funeral. Haley offered the Draper's the opportunity to stay at his apartment. They would have a chance to discuss this matter while Draper was at Haley's.

Later in July Haley was once again on the West Coast. On 27 July 1965 he presented 'Space Law: State of the Art Report' which was his current annual report, a status report he had been delivering at the ARS and the AIAA Annual Meetings for several years. He began this series of reports while he was serving as Chairman of the ARS Committee on Space Law and Sociology in the early 1960s. Although he relinquished that committee chairmanship to Robert Crane in 1964 he endeavored to continue the annual reports to the Committee summarizing recent changes or developments in space law. This particular report was a re-titled repeat of the slide presentation he had delivered at the symposium in Los Angeles on 12 May 1965.

During 1965, Haley continued to explore with Robert Maxwell on several occasions during personal meetings and by correspondence the possibility of Pergamon Press undertaking the publication of a new journal titled *Jurisprudentia Astronautica*. It was Haley's hope to have this publication appear as a sister publication to *Astronautica Acta*, the technical journal of the International Astronautical Federation (IAF) and the Academy (IAA). The new journal would become a legal periodical published under the auspices of the International Institute of Space Law (IISL). On 20 July 1965, Haley wrote to IISL President Eugene Pépin a letter on several topics, including the following paragraph:

I have made some progress in establishing a quarterly periodical which might be called *Jurisprudentia Astronautica*. If my negotiations succeed, I am going to insist that you be made

unequivocally “Editor-in-Chief.” I will be secondarily “Executive Editor-in-Chief.” I will need this latter title to assist you to work out the arrangements with the publishers. I will speak with you about this matter in Athens and I will write again to you prior to our meeting in Athens. I conceive of you being Editor-in-Chief (the highest title) as long as you care to serve which, I fondly hope, will be throughout the remainder of your life. I would be glad to back you up with my own efforts.

This was a somewhat usual practice by Haley. Although he had been in discussion with Maxwell for several months, Haley had never mentioned this venture to Pépin until he was ready to present Pépin’s name to Maxwell. This letter was the first that Pépin heard of this activity and it is likely that he was uninterested because of the other duties he had accepted (as President of the IISL) and his personal affairs in France. Obviously, Haley was looking for a figurehead for the publication, with the expectation that he would himself do or arrange to be done all that needed to be done physically to bring the publications into existence.

At this stage Pépin was 78 years old and, although he was remarkably active for his advanced age, it was at least questionable whether or not he would accept such a position. Pépin disliked being a figurehead as much as Haley had when he was at Aerojet. In another letter dealing primarily with the organization of the forthcoming IISL Colloquium, dated 31 July, Haley informed Pépin that “I am going to New York on August 3 to have a discussion concerning *Jurisprudentia Astronautica*. You may rest assured that I will clear all the details with you once they have any cohesion – and well before the meeting in Athens”.

The topic disappeared from Haley correspondence and notations thereafter, suggesting that Pépin declined the offer and/or Haley failed to get Maxwell’s commitment to produce the publication. Maxwell’s primary concern was the adequacy of the revenue stream to support such a specialized publication. Apparently, no agreement was ever reached on the matter. Haley had suggested that the IISL invite thousands of lawyers, worldwide, to join the IISL, but was unable to convince the IISLBoard to undertake the invitations. Had there been a substantial membership expansion, Maxwell’s concerns about a revenue stream might have been satisfied.

In August 1965, Haley was faced with another profound reminder of the fleeting nature and relative brevity of human life when his wife’s sister, Bernice, died. Haley’s family members assembled at the Chambers’ home in Campbellsville, Kentucky and attended the funeral together. Bernice had not been a central part of any of their lives, but she had been a loving, considerate, supportive ally of her sister, Aunt Dede, and a companion and aid to her mother for many years. Her death was a loss in different degrees to all the family members, but it was another unavoidable and sobering reminder to Haley that he was visibly aging and possibly approaching his own demise.

The fall of 1965 was a hectic time with substantial travel. In September Haley flew to Geneva where he remained for several days, holding a session there with ITU Secretary General Gerald Gross. This meeting was at Haley’s request, to allow Gross to describe in some detail what would be expected of Haley at the forthcoming ITU Plenipotentiary Conference for which Haley would be designated Legal Counsel. Haley then proceeded to Athens to attend the XVIth IAF Congress convening there from 13-18 September, where he remained several days.

During the concurrent Eighth Colloquium in Athens Haley presented three papers: (1) ‘Parameters of Space Law: Present and Future’, which was the May 1965 paper given at Los Angeles, unmodified; (2) ‘Communications in Space: Existing Structures and Foreseeable Problems’, which was a moderately reworked and updated version of the Report of the Chairman of Working Group VII (Communications) presented in Warsaw, Poland in September 1964; and (3) ‘Space Salvage –Artifacts and Personnel in Space and on Terrestrial Jurisdictions’, which was an extrapolation of materials accumulated by the Legal Subcommittee of COPUOS, with summary surveys of salvage provisions in laws of various countries and discussion of cases arising under some of those laws. This was a comparatively brief (8 page) original paper being presented publically for the first time.

Haley then proceeded to the ITU Plenipotentiary Conference which ran from 14 September to 22 November in Montreux, Switzerland. Dealing with legal questions related to the status of members and states applying for membership, Haley participated in Montreux from late September until early October, when he returned to the United States for a few weeks. He returned to Montreux in late October. On his return visit to Switzerland Haley presented one of his earlier papers⁴⁷⁹ to the International Lawyers’ Club in Geneva on 29 October. Haley then served in Montreux until the end of the ITU Plenipotentiary Conference.

This ITU conference marked the Centenary of the Union, which was formed originally as the International Telegraph Union in Paris, France, in 1865. The Conference introduced significant changes in the structure of the Union: the governing Administrative Council was enlarged from 25 to 29 members, and the membership of the International Frequency Registration Board (IFRB) was reduced from eleven members to five.

The advent of satellite communications as well as creation of regional telecommunication unions to solve problems of a regional nature caused the ITU to reorganize its Administrative Conferences to be able to deal separately with global and regional questions. The Montreux Conference defined two types of Administrative Conferences: 1) World Administrative Conferences to deal with telecommunication questions of a worldwide character concerning all types of telecommunication services, and 2) Regional Administrative Conferences to deal with regional problems; the subject of which may concern either a given geographical region or a specific telecommunication service of a regional nature.

Before he attended the XVIth International Astronautical Congress in Athens, Haley had sent to the officers of the IISL a Space Resolution adopted by the International Civil Aviation Organization (ICAO). The resolution was sent in the form of a letter to the President of the Institute.

Mr. President, I have the honor to present for the record of the Eighth Colloquium a resolution adopted by International Civil Aviation Organization. I am advised by the Honorable R. H. Mankiewicz, ICAO Legal Officer, that this resolution was proposed by the delegate of Colombia and the resolution was adopted unanimously.

Andrew G. Haley

August 9, 1965

⁴⁷⁹ “Communications in Space: Existing Structures and Foreseeable Problems” was re-titled “Space Telecommunications: Legal and Regulatory Problems and Solutions”, but the text was not significantly different.

RESOLUTION ADOPTED BY THE 15TH SESSION OF THE ASSEMBLY
INTERNATIONAL CIVIL AVIATION ORGANIZATION

Resolution A15-1:

Participation by ICAO in the Program for the Exploration and Use of Outer Space

WHEREAS events in the past few years relating to the exploration and use of outer space are of great interest to ICAO, since many of these activities affect matters falling within the Convention does not specifically define how the term “outer space” should be interpreted, the space used by or usable for international civil aviation is also used by space vehicles;

WHEREAS the use of the same medium by different fields of activity necessarily requires adequate co-ordination to achieve the normal and efficient functioning of both these fields;

WHEREAS ICAO in its particular field of competence and in the aspects relating thereto cannot and should not ignore the aforementioned events concerning the exploration and use of outer space;

WHEREAS while the organization has closely followed and informed the Assembly of these events, it would be desirable to take an active part in them; and

WHEREAS furthermore, the Special Committee on Peaceful Uses of Outer Space, established by the United Nations, expressed the view, in its Report to the General Assembly, that the existing specialized agencies “can perform various useful functions with regard to space activities” and “their functional interest should, of course, be welcomed and encouraged”;

THE ASSEMBLY

1. URGES the Governments of Contracting States to keep the Organization informed regarding programs and progress achieved in the exploration and use of outer space of particular interest to ICAO;
2. DIRECTS the Council to carry out a study of those technical aspects of space activities that affect international air navigation and that, in its view, call for special measures, and report the results to the next session of the Assembly;
3. REQUESTS the Council to formulate, on the basis of its conclusions, recommendations for steps to be taken to achieve the necessary co-ordination with other international organizations having a basic interest, particularly in the United Nations; and
4. REQUESTS the Secretary General to continue to arrange for the Organization to be represented at all conferences and meetings connected with or affecting the interests of ICAO in this field.⁴⁸⁰

This ICAO resolution signaled a significant accomplishment for Haley who had sought and promoted an IAF relationship with ICAO for several years. The ICAO Assembly had explicitly authorized “steps to be taken to achieve the necessary co-ordination with other international organizations having a basic interest”, although the more significant co-ordination might be between ICAO and the IISL, rather than between ICAO and the IAF. Haley did not take this document to the IAF; he presented it to the President and officers of the IISL, believing that the IISL would have the more relevant common interests. In addition, thereafter, ICAO became a regularly participating observer organization along with the IAF at the annual meetings of the UN Committee on the Peaceful Uses of Outer Space.

⁴⁸⁰ AGH, *Letters & Materials*.

During the summer of 1965 the ITU's *Telecommunication Journal* published a brief article by Haley which grew out of his constant search for reportable developments about the emergence of satellite communications. It was entitled 'Competition in Satellite Communications?'. This article bore the subtitle 'A question posed by Andrew G. Haley'. The article described a recent Soviet launch of a national telecommunication satellite (*Molniya 1*) and noted that activities were underway in nations like France, Italy, Japan, the United Kingdom and others developing programs which would lead soon to their launching independent satellites. Haley pointed out that the European Launcher Development Organization (ELDO) and the European Space Research Organization (ESRO) [precursors of the European Space Agency (ESA)] were hard at work on the first European satellite (*ESRO 1*), which was being integrated with the first ELDO launcher. He wrote:

Typical of the attitudes being expressed is the following comment taken from the United Kingdom journal *Spaceflight*, published in July 1965 (page 116):

"Various economic studies and the successes of the *Relay*, *Telstar* and *Syncom* satellites have established beyond reasonable doubt that communication satellites will carry an increasing proportion of the world's civil communication traffic. The United Kingdom's share in the US Communications Satellite Corporation [Comsat] and the design and construction of ground stations is to be welcomed and encouraged, but this kind of participation does not directly involve launching vehicle or satellite technology, and leaves Europe, the United Kingdom, and the Commonwealth wholly dependent on the USA in this field. This state of affairs is undesirable and points to the need for an independent European capability to launch and operate communication satellites."

The world will undoubtedly hear more about such independent communication satellites in the very near future.

The success of the early demonstration satellites launched by the US was clearly visible to the world, and substantial catch-up efforts of leading developed countries were accelerating. It was characteristic of Haley to get out front, see what was coming, and herald the progress as a justification for the need for law and order in the systems that would produce, deploy and operate 'The Competition in Communication Satellites'.

On the Search for Extraterrestrial Intelligence (SETI)

Following up on a letter to C. Stark Draper in July from Professor Rudolph Pesek copied to him, Haley wrote a letter dated 10 September to Professor Pesek concerning Pesek's proposal to convene a special symposium on contact with extra-terrestrial intelligence (CETI). The letter contained a somewhat fulsome presentation of Haley's views on the search for extra-terrestrial intelligence (SETI). Haley wrote:

Dear Professor Pesek:

This is a reply to your letter of July 20, 1965 to which I have given a great deal of thought.

I am extremely interested in the problems of possible contact and communication with sapient creatures different in kind from human beings. I believe I have written more on the jurisprudential and sociological aspects of such a possibility than any other man.

My initial discussion of the concept of Metalaw, published in 1956, has inspired consideration by scholars all over the world of the potential impact of contact with other forms of sentient life. It has been argued by some that this question is neither immediate nor critical, and therefore should be relegated to a position of low priority on the scale of issues to be considered by the students of jurisprudence. It must be noted, however, that unless the tendency to put off discussing this question is overcome now, we may not achieve serious consideration of this very fundamental issue for years, or perhaps even decades. It is my belief that serious consideration of the problems of potential impacts of contacts with other sapient beings is both an immediate and a critical question.

The complex of problems involved in discovery of extraterrestrial life, and the profundity of the evaluation which is required for resolution of these basic problems, indicate that many years will be required for the community of thoughtful men to reconstruct the jurisprudential framework within which we live, so as to incorporate provisions necessary for the assurance of equitable treatment to be accorded to all forms of life wherever they may exist.

The proposal to make the topic of contact with extraterrestrial life the subject of a major symposium deserves the full support of the entire community of mankind. Allowing the possibility that we may find undreamed of scientific phenomena and completely unanticipated answers to questions on the structure of the universe through our exploration of outer space, none of these possible discoveries compares in importance with the possible discovery of other forms of life. I believe completely that the potential contact with extraterrestrial life forms is the most exciting single aspect of the exploration of outer space. It is not possible to accord this topic more attention or study than it requires or deserves. Mankind has only begun to think the most elementary thoughts recognizing its position as one entity in the cosmos, slowly and painfully putting aside the traditional and unrealistic concept of man as the focal point of all existence.

If anything can be done to accelerate the rate at which man will accept the necessity for revising traditional beliefs in the light of technological achievement, it should be done now, and it should be done with the conviction that this is among the most necessary aspects of man's activities relating to the exploration of outer space.

I support your proposal, dear Professor Pesek, not because I believe it to be a popular or readily acceptable topic for discussion, but, more fundamentally, because I believe it is a topic which must be discussed regardless of the anticipated conclusions to which the discussion might lead. We must never allow fear of the answer to prevent us from asking fundamental questions. I believe the most fundamental question facing mankind today is "How will contact with other forms of sentient life affect mankind, and how can mankind prepare itself and its social and jurisprudential structures to accommodate such a discovery?"

Sincerely yours,
Andrew G. Haley⁴⁸¹

⁴⁸¹ AGH, *Papers & Materials*.

While Haley was on travel in Europe, a Conference on World Peace through Law was convened in Washington, DC, under the direction of Haley's friend Charles Rhyne, who was head of the World Peace through Law Center in Washington, DC. In support of Mr. Rhyne's efforts to promote greater reliance on the rule of law in international relations and in dispute settlements, Haley sponsored a ten-person table at the concluding banquet of the World Peace through the Rule of Law Conference. Because Haley was in Europe, Doyle was asked to serve as host of the Haley funded table at which foreign guests and participants were seated ostensibly as guests of the Center. Such institutional conferences often included formal dinners with expensive tickets. The sponsorship of such banquet tables was routinely undertaken by Haley for events of broadcasting organizations, bar associations, IAF, IAA and IISL affairs, as well as other organizations in which Haley participated and had an interest.

During November, John Stapp had written to Wernher von Braun proposing to organize discussions of establishment of an Orbital International Laboratory and asking if von Braun might participate. Von Braun, who was now Director of the George C. Marshall Space Flight Center of NASA, in Huntsville, Alabama, wrote to Arnold Frutkin, NASA's Assistant Administrator for International Affairs, to solicit his views on the request. Frutkin responded to von Braun in a letter dated 26 November, which was copied to Haley, Frank Malina, and James Harford, among others. Frutkin wrote:

Dear Wernher,

Thank you for your November 9 report of John Stapp's proposal to organize discussions of an Orbital International Laboratory under the auspices of the International Academy of Astronautics. The question presented by this proposal is closely related to the question presented earlier by the IAA Symposium on a Lunar International Laboratory.

The present proposal asks that Professor Sedov and you serve on a committee "representing [your] respective national orbital projects, enabling more direct submission of proposals selected by the committee."

The proposal appears to suggest that the United States and the Soviet Union submit and negotiate international space projects through the IAA and through representatives selected by the IAA. Since the IAA is a private organization, it does not seem appropriate that it conduct apparently official activities. The President of the United States and the Chairman of the Council of Ministers of the USSR have designated official representatives to negotiate programs of space research and exploration in a continuing and substantive fashion. As you know, Dr. Dryden is the US representative. It is especially important, in the difficult and highly sensitive task of negotiating with the Soviet Union, that we do not create any basis for cross-purposes and confusion – in the minds of Soviet personnel or in the press.

The participation of NASA personnel in the LIL discussions was as individuals only, not as representatives of national programs, and such personnel were instructed to confine themselves to technical discussions, excluding any discussion of the arrangements of joint projects since this would obviously be a task falling to NASA and the Department of State. Unfortunately the press consistently misinterprets the character and import of these symposia. One of the undesirable results is that the world public is given the impression that the Soviet Union is more forthcoming

and cooperative in attitude and purpose than is the fact. Since it is in some part world opinion that may impel the Soviet Union to actual cooperation, this impression is regrettable.

In view of the above considerations, we must conclude that well-known NASA personnel should not participate in the LIL or OIL committees or symposia until the titles and descriptions of these activities are clarified so that they are essentially technical and do not imply that they serve to shape international projects.

I have had occasion to discuss these points with Dr. Malina, Mr. Haley, and Mr. Harford in connection with the IAA's Lunar International Laboratory. It was my impression that all agreed with them.

I am sending copies of this letter to others concerned in the hope that the prospects of participation by NASA personnel in the IAA activities can be facilitated.

Sincerely yours,
Arnold W. Frutkin
Assistant Administrator for International
Affairs.⁴⁸²

This letter had a very sobering effect on the IAA and its management, because the IAA personnel, including Draper, Malina and Haley believed they were facilitating international discussion and cooperation, not proposing or organizing international programs. Apparently John Stapp's language in his invitation to von Braun inappropriately mentioned approval of programs, or projects, when what was desired was international discussion and exchange of information and ideas. Not surprisingly, Arnold Frutkin was as interested in preserving the appropriate prerogatives of NASA as Draper, Malina and Haley were in preserving the prerogatives of the Academy. When one considers the cost of the organization and management of a space project, it seems exaggerated to express concerns about the Academy or the IAF establishing programs. Both of these organizations have barely enough resources to survive administratively, whereas NASA and the Soviet programs were endowed with billions of dollars to support programs. There was no contest with 'private organizations' for supremacy or program control.

AIAA Changes its IAF reportorial guard

In the November 1965 edition of *Astronautics & Aeronautics*, a new collection of writers began to appear summarizing and reporting on the activities of the IAF and its subsidiaries. Previously these activities had been covered in Haley submissions to an 'International Scene', or a 'Sounding Board' column in the magazine. A completely new approach appeared in the November 1965 edition. An AIAA editor, Irwin Hersey, wrote a piece titled 'IAF in Athens – Astronauts, Cosmonauts and Royalty'. In a side box, the opening address at the Congress by

⁴⁸² *Ibid.*

Greek King Constantine was presented verbatim. The IAF report was followed by ‘International Academy of Astronautics Adds Two New Vice Presidents’, also by Irwin Hersey. ‘First LIL Symposium Features Geosciences and Astronomy’ by Frank Malina, was followed by ‘Scientists and Lawyers Meet at VIIIth IISL Colloquium’, by Andrew Haley. Of the seven and one-half pages devoted to the IAF meetings coverage, Haley authored less than one full page. This was a notable reduction in *Astronautics & Aeronautics*’ dependence upon Haley for information about the IAF and its activities.

From 28 November to 1 December 1965, ‘The White House Conference on International Cooperation’ was held at the Sheraton-Park Hotel in Washington, DC. On 24 November, Martin Summerfield called Haley to complain that in the program for the session on International Cooperation in Space there was no mention of the IAF or the AIAA. Summerfield said “Charyk [COMSAT] and Porter [GE & COSPAR] are on the Panel. Pickering was not asked to represent the IAF nor Draper the Academy. Nothing is said about AGARD”. Haley suggested Summerfield call both Charyk and Frutkin to point out the oversights. Then, on second thought, Haley said he was worried about Frutkin’s determined attitude against the LIL, observing that “Frutkin is not cooperative”. Later in the week, although he was not directly involved as a participant in the conference program, Haley was invited by the Social Secretary at the White House to attend a conference-related reception at the White House on the evening of 1 December.

On 16 December, Haley wrote a letter on Kármán Memorial Foundation letterhead to Helene van Gelder, Secretary of the IAF, with an agreement explaining in detail how money granted to the Academy by the Foundation could and could not be used, according to the intention of the Foundation Trustees. Haley wrote:

Dear Helene:

Transmitted herewith on behalf of the Theodore von Kármán Memorial Foundation, Inc., is its check in the sum of \$7,500, representing a grant for the period November 1, 1965 to October 31, 1966, to assist in the conduct of symposiums, colloquiums, scientific meetings and other official activities of the International Academy of Astronautics, and for partial reimbursement of the compensation, travel and subsistence of the Secretariat.

The Board of Trustees authorized this grant at the Fifth Annual Meeting of November 23, 1965.

An Agency Agreement containing provisions for the use of these funds is enclosed for your signature and for Execution by the IAA Secretary. Please return a fully signed copy.

The Board of Trustees has asked me to advise you that in the future the level of support from the Foundation to the IAA will be maintained at the annual rate of \$5,000.

Sincerely yours,
Andrew G. Haley
Executive Vice President⁴⁸³

⁴⁸³ *Ibid.* All the following communications are in the same source.

The same day Haley wrote to Mortimer Schwarz at the University of California in Davis, California, transmitting a \$500 grant from the Foundation “to help defray the expense of producing the Proceedings of the VIIIth Colloquium on the Law of Outer Space, Athens, 1965. [...] [T]his sum is for the current year, and no inference is to be drawn that this grant is continuous or will be made in succeeding years”. Haley was not pleased with the publication efforts of Schwarz because of lengthy delays. This grant was actually enabled by a \$500 gift to the Foundation by Haley. Another such letter the same day forwarded a \$500 grant from the Foundation to the President of the American Astronautical Society “to assist in maintaining the Journal of the AAS on a bi-monthly basis”, with the same proviso that no inference should be drawn about future grants.

Arranging Andrew, Jr.’s homecoming

During November and December 1965, Haley had been developing a plan to visit Australia and while there to meet his son Andrew on his way home from his Peace Corps assignment in Nepal. On 21 December, Haley sent a telegram to his son in Kathmandu, Nepal reading:

Excellent train ride with Delphine to Campbellsville. Must have your exact itinerary to cable or write you care of American Express as no reservations [for us] are firm. Have requested steamship reservations Suva [Fiji] to San Francisco leaving 12 March, but no confirmation. We all send love and wishes for blessed Christmas.

Daddy

This message was followed by another telegram on 23 December, reading:

Obtained two first class adjoining cabins steamship *Oriana* leaving Suva 12 March arriving San Francisco 23 March. Will pick these up immediately but you should cable me approval.

Daddy

Haley, his daughter Delphine and the Vogt children spent the Christmas holidays together at the family home in Campbellsville.

Among incidental legal matters which required attention before the end of the year, Haley transmitted a written notice of termination of the publication contract between the Academy (IAA) and Springer-Verlag for the publication of *Acta Astronautica*. The contract required a one-year written notification of an intention to terminate. The Academy notified Springer-Verlag of its intent to terminate the contract as of 31 December 1966. The publisher and the Academy had agreed to cancel the existing contract and to consider the development of a new contract during 1966 to be implemented before the end of the year. Haley, Editor-in-Chief Summerfield, and Academy President Draper agreed among themselves to solicit and consider competitive bids from other publishers as well for continuing the work.

Social Sciences and the International Academy of Astronautics

Shortly after his return to Washington from the ITU Plenipotentiary Conference (12 November), Haley wrote a dozen personal letters to prominent personalities in astronautics to inform them that their names had been placed on the list of candidates for election to Section 3 (Life Sciences) of the International Academy of Astronautics. The election would take place in December 1965. Haley's notice to the candidates was intended to give them the opportunity to contact existing Academy Section 3 members to solicit support (a vote) for membership, should they so desire. The nominees included; Robert Crane (USA), Col. Wm. Douglas (USA), Allen Emil (USA), Eugene Emme (USA), Arnold Frutkin (USA), Wm. Hyman (USA), Eugene Pépin (France), G. Quadri (Italy), P. K. Roy (India/Canada), Oscar Schachter (USA), Edward Welsh (USA), and Gennady P. Zhukov (USSR). Despite his intended gradual withdrawal from active participation in the affairs of the IAF, the IAA and the IISL, Haley diligently continued personal efforts at every opportunity to encourage and support the growth of all three organizations. He firmly believed that the cooperation engendered by such organizations invariably strengthened the chances for sustainable peace among the nations of earth.

In support of his efforts to build the social sciences participation in the IAA 1965, Haley had submitted in late 1965 his list of nominees for election to Section 3 of the Academy (Life Sciences). They were prominent attorneys, organizational officials or other social science individuals, like NASA Historian Eugene Emme. When the annual election of members to the International Academy of Astronautics was completed, the results of the election were published, eliciting a strong reaction from Haley in a letter of 22 February 1966 to Frank Malina in Paris:

Dear Frank:

On receiving the list of those who were elected corresponding members of the Academy I am perplexed that no lawyer or historian was elected. I should not refer by name to any of the nominees but I note that Eugene Emme, our good friend and Chief historian for the National Aeronautics and Space Administration, and Allan Emil, Counsel for the American Institute of Aeronautics and Astronautics, and William A Hyman, authority on space law and author of the Magna Carta of space, all failed of election. I know there are half a dozen more whom we sponsored who also failed of election even though they were on the Preferred List.

The trend seems to be that experts in biological sciences and medical sciences are automatically elected and lawyers and sociologists are automatically defeated.

I wonder if we should not consider the organization of a Section [of the Academy] exclusively devoted to the social sciences as such.

As always, I remain

In old friendship,
Andrew G. Haley

A few years later a fourth section in the Academy was established for candidates involved in the Social Sciences and Eilene Galloway, of the US Congressional Research Service, was appointed the first Chairperson of the Academy's Section IV, Social Sciences.

Chapter 43. Reminiscences and Assessments – 1966

The year 1966 had begun in a manner similar to recent years. There was a steady and demanding mail stream from the firm's clients, which amounted to 30 to 50 items a day in routine mail, with which the firm had to handle 20 to 30 phone calls a day, occasional telegrams, daily releases of Press Notices by the FCC (which were faithfully picked up at the FCC by a runner from the firm) and the sporadic communications to and from the children in Seattle, New York and Katmandu. To this base load of business and family life Haley had the additional concern with matters relating to the IAF, the IAA, and the IISL. The obligations of daily business communications were unrelenting, but the team of attorneys to review and handle it was experienced, competent, and generally confident in their individual capacities, so that Haley's direct involvement could be managed in a daily staff meeting of about one hour's duration. When he was travelling, daily mail and phone communication logs were forwarded to him by telex and, when required, consultation would take place on the phone, with occasional, time-sensitive, explicit directions on selected issues sent by cable.

There were two relatively unprecedented activities which arose in January 1966. During the Christmas holidays of 1965 Haley apparently made a serious resolution to address a problem he had ignored for years with no regard for its resolution. He decided the time had come to put himself at the disposal of a serious doctor to see if something could be done about the nearly continuous and painful disruption of his gastrointestinal tract. For several years Haley had corresponded with and occasionally met with Dr. and Mrs. Charles Mayo, of the renowned Mayo Clinic. His contacts over the years dealt with business matters, institutional participation, and casual social visits, but Haley had not previously initiated a discussion of his physical well being. His physical problems and pain were increasing and he decided to do something about them. Haley believed that if there was a doctor in the United States whom he could trust and rely upon, it was Dr. Mayo. Steeling himself to the commitment to do something definitive about his health, on 3 January 1966 Haley wrote:

Miss Vita Glennon
Secretary to Dr. Charles W. Mayo
Mayo Clinic
Rochester, Minnesota

Dear Miss Glennon,

I talked to Chuck and Alice last night and, among the many things we covered, was a physical examination for me which I have delayed ten years in taking at the Mayo Clinic. Mrs. Mayo suggested that I write you and she said that you would be most kind in helping to set up the arrangements.

As you know, Dr. and Mrs. Mayo are currently leaving for Mexico and they will return sometime before February 11, 1966 and thereafter they have a very complicated schedule. I have a speaking engagement at Princeton University on Friday, February 18, 1966, and I am Chairman of an American Bar Association Committee which is holding an important meeting in Chicago on Saturday, February 19. I wonder if the Mayos will be at Mayowood on February 19 or 20? In any event, I would like to enter the clinic on February 21, 1966 and I will entertain the hope that the Mayos will be available sometime during that week.

Dr. Mayo has mentioned that he would like me to go to a very good internist friend but I forgot his name.

I know that arranging these matters is most difficult and I also know that you will understand I will be deeply grateful to you for any help you may give me in making arrangements with the Clinic and obtaining a room at the Kahler Hotel.

Sincerely yours,
Andrew G. Haley

Having put Miss Glennon on notice of his close relationship with the Mayo family and his personal importance, Haley was content that his letter would have the effect of causing all his expectations to be realized.

During January Haley intended to concentrate on business of the law firm, routine friend and family correspondence, and on the necessity to begin consideration of the future publication of the Academy's *Astronautica Acta*. He also anticipated having some free time to address some writing he wished to accomplish. He arranged a meeting with Martin Summerfield to discuss publication alternatives available to the Academy. They met in New York City for half a day on 24 January 1966.

On 6 February Haley wrote again to Miss Glennon at the Mayo Clinic. There had been interim phone conversations and Haley was seeking to tie down his arrangements with the Clinic. His schedule had been adjusted so that his clinic visit would be a week later than originally planned. He wrote:

My dear Miss Glennon:

I feel that I have unnecessarily worried a nice little lady like yourself and I am getting this letter off with the hope that your problems in connection with me will be eliminated.

I would be indeed delighted to have Dr. Donald A. Sones as my internist and chief examiner of this fat and decrepit old man. I also believe that Dr. Sones married my fine friend – that great little person, Maria, the daughter of Alice and Chuck.

I am wondering as to the schedule. I now propose to arrive in Rochester on February 28, 1966, which will give me a chance to visit with the Mayos [if they are at home] and to take the physical on March 1 and 2, leaving the night of March 2 or early on the morning of March 3. In any event I would have two evenings, February 28 and March 1, to visit with my friends. I would like to be in Seattle on March 3 and Honolulu on March 5. From there I go to Saigon [later dropped] and points in Melanesia.

The “unknowns” as far as I am concerned are, (1) Will the Mayos be around at that time? (2) Will Dr. Sones be available? And (3) Is two days enough for the physical examination?

If your information on the foregoing is affirmative, then go ahead and book me accordingly. Again, I regret that I have not handled this matter more expeditiously.

Sincerely yours,
Andrew G. Haley

An unexpected solicitation - preparing a guide to the law relating to space

The day before Haley was scheduled to fly up to New York to meet with Summerfield, an unexpected note arrived with an enclosure from Robert Crane. This was a second relatively unprecedented event early in the year. The following notice had appeared in the *Commerce Business Daily* of 12 January 1966, and was forwarded to Haley on 21 January with the note: “[t]hought you might be interested in seeing this. Bob Crane”.

**RESEARCH AND DEVELOPMENT
SOURCES SOUGHT**

**Aerospace Medical Division (AFSC)
ATTN: AMSKR-1 P. O. Box 35448,
Brooks Air Force Base, Texas 78235.**

Firms having capabilities for Preparing a Guide to the Law Relating to Space which will Serve as a Basic Reference for Agencies Engaged in Space Activities are invited to submit their qualifications to above office. This lead research effort will establish a method for the continuing search, selection, abstracting and indexing of space law to continually provide inclusion after critical review of future significant contributions in this field. The subject of space law was chosen as this research subject because of (1) the interface with medical problems, (2) the fact that the entire body of space law is incorporated in a relatively few documents, e. g., not more than 400 separate items. Known information submitted in response to this notice should include those items set forth under the heading “Research and Development Sought” and cut No. 69 on the last page of this issue. This is not a request for proposals, however replies to this

synopsis should reference RFQ 41-609-66-128. Closing date for indications of interest is ten days from the date of this publication and expressions of interest must be submitted in writing.

This note stimulated Haley to consider a major effort to submit a proposal. Within a day of Bob Crane's note to him Haley prepared and submitted to the Air Force a letter indicating that he desired to participate in supplying the service solicited. He received a response from the Department of the Air Force dated 3 March 1966 indicating that the Air Force was soliciting a 'quotation' not a 'proposal', and it was not obliged to award a contract on the basis of this request for quotation, nor to pay for any cost incurred in responding to the RFQ. If a quotation was intended to be submitted, it should be submitted in five copies and reach the Air Force receiving office on or before 4 April 1966.

Preparation of the quotation became a center of activity for Haley and one of the firm's attorneys, David Lloyd, for several weeks. They obtained and edited resumés. Haley carefully evaluated and constructed a detailed budget for anticipated hours of work to be done. They developed a detailed Statement of Work, including methodology and incorporating references to the expertise of the extraordinary team of talents Haley would assemble for the job. This project seemed like an end result if not the real purpose of all that he had been through in the last ten years preparing him to respond meaningfully to this important Government request. His team would include about ten Americans and half-a-dozen foreign experts in space law. A comprehensive quotation package was assembled during February and March. Although travel prevented him from working on the materials personally, Haley defined the content, identified sources of information, and directed the work from abroad during the first three weeks of March.

On 31 March 1966 the firm (D. Lloyd) submitted a quotation in Haley's name supported by the requisite details. The quotation was for a study for fifteen months, involving support by members of the law firm (Bader and Potts) with Arthur Wineberg, a law clerk, and several outside experienced attorneys. Abstracting and indexing would be done mainly by Wineberg and outside supporting experts, as required. Final abstract editing would be done by Bader or Potts. These two men had been principal drafters of Haley's space law papers for years. Haley would be Program Manager. The entire project cost for the fifteen months effort would be \$120,389.62. Among the outside experts Haley listed Fred Durant, Bob Crane, Jan Marwede, Fred Goldie, Alan Washburn, and Steve Doyle, among others, who were mostly European experts known to Haley. In a later communication from the Air Force, dated 28 April 1966, Haley was informed that the RFQ to which he had responded with a quotation "has been cancelled by the requirements agency". This decision was a keen disappointment in return for a considerable personal effort by Haley and his staff.

While this proposal to the Air Force was being compiled, Haley received another unexpected communication. This one was a cable from IAA Secretary, Helene van Gelder, in Paris who wrote to inform him that the meeting date of the Federation Bureau was being brought forward a week to 24 March 1966. This note elicited a blistering response from Haley:

Dear Helene:

Your cable, which came “out of the blue” announcing the change of date for all the spring meetings, is a personal disaster to me.

In order to accommodate our first meeting arrangements I made very difficult readjustments on my schedule – but I cannot readjust again to a different date, namely March 24, 1966.

On March 3, 1966 my schedule takes me to Chicago [annual meeting of Meredith Publishing Company], to San Francisco [meeting concerning the ownership of several radio and television stations], to Honolulu [critical meeting with three different clients], to Saigon, Sydney, Auckland, Papeete [Tahiti] and Suva [Fiji] and return to San Francisco on March 23.

The University of Kentucky invited me [almost a year ago] to be the principal speaker at their Eighth Annual Research Conference in Lexington, Kentucky on March 23, 1966. So I cannot get to Paris in any event before March 27.

The disaster is not only personal – it also involves many important aspects of the very fabric of the operation of the IAF. I have been attending the United Nations sessions on the proposed 1967 conference and on the possibility of IAF participation therein. This involves questions of the site of the conference and just what the IAF and its agencies might do in furtherance of the conference. We have strong support from several nations and indifferent or hostile attitudes from others. I am not even commenting on the situation but I will have all the facts to present to the IAF Bureau and each of our organizations. I am also well on the way to arranging for the publication of a space law review and have many suggestions relating to strengthening the financial position of the IAF which require the action of the various Boards of Directors and Trustees. This change of time is arbitrary and disheartening and I just don't know how I can make new arrangements. In fact this is quite impossible and I deeply believe that my absence – after all the work I have done – will not be in the best interest of the Federation. As far as the IAA is concerned, I have already contributed \$1,500 for its welfare and I have pending a further offer of contribution of \$5,000 a year for the next five years if someone else will match this sum – and I think this will be done. I must report on this matter at our spring meeting.

I most urgently suggest that the time of the meeting be changed to realistically agree with the requirements of those who are expected to attend and you may well postpone the meeting until May when the Program Committee will be in a position to report.

In any event, please never again change the date of a meeting by a casual cable.

Sincerely yours,
Andrew G. Haley

Cc: Dr. Frank J. Malina
Dr. William M. Pickering
Dr. C. Stark Draper

After telephonic consultation by Helene van Gelder with Malina, Pickering and Draper, it was agreed to have the Bureau and related meetings in Paris at the end of March; the Academy Board on 30 March and the IAF Bureau on 31 March and 1 April. The IISL Board would meet on 2 April.

ABA Committee on the Law of Outer Space, Chicago, February 1966

There had been a few weeks in January and early February with no significant travel planned and Haley had time to work on an article and an extended letter he sent to two major newspapers. On 9 February Haley sent a letter to the *New York Times* and a nearly identical letter to the *Chicago Tribune*. Haley was serving as Chairman of the American Bar Association's Committee on the Law of Outer Space and wanted to call public attention to a significant discussion he was arranging to deal with the question of the law and jurisdiction applicable on extraterrestrial celestial bodies. Here was another example of the irrepressible publicist trying to bring focus on a matter he had been calling attention to for ten years. The letters read:

To the Editor:

On January 16, 1961, the *New York Times* published a "landmark" statement of Ambassador Arthur H. Dean which was entitled "defining Airspace – Necessity to Work Out Principles and Procedures Stressed". The scholarly article by Ambassador Dean concluded with the statement:

"The space law controversy is not only a legal and scientific question. It threatens to develop into a major cold war dispute in which our space exploration program may possibly be enmeshed and our foreign policy may suffer unless we actively work for reasonable and fair principles and procedures.

We must not let the future of space law be determined by *ex parte* statements which are not carefully examined by an impartial body of scholars."

It is unfortunate indeed that the legal and scientific space disciplines did not immediately embark upon the study of the problems outlined by Ambassador Dean. A few learned writers and societies have discussed the problem of where airspace ends and outer space begins, but on the whole there has been a deplorable lack of interest in this matter shown by many persons professing interest in space law and especially by those in official public or private positions. Now the problem of jurisdiction and sovereignty has again become a vital issue and the admonitions of Ambassador Dean again must be given most careful thought. It is comforting to realize, however, that our present Ambassador to the United Nations has thoughtfully considered the matter of jurisprudence in outer space, and specifically on the Moon. For example, as recently as September 3, 1965, and in light of the success of the Gemini program and the continuing progress of the Apollo Program, Ambassador Arthur Goldberg, before the Assembly of the United Nations observed that instruments from earth had already reached the Moon and Mars, that men could be expected to follow soon and that accordingly the United Nations should begin to work on a comprehensive treaty covering the exploration of celestial bodies.

With characteristic timeliness, the *New York Times*, in an editorial of November 3, 1965 – "A Law for the Moon" – pointed out that men who eventually go to the Moon will find danger and difficulty enough from the hostile natural environment of this airless globe exposed constantly to bombardment by radiation and meteors from outer space, much less hostile explorers there. Nothing is to be gained and much can be lost by extending to the Moon the national rivalries that

exact so high a cost here on Earth. This excellent editorial, however, contains an unfortunate reference to the *Antarctic Treaty* of December 1, 1959: “That pact, to which the United States and the Soviet Union adhere, provides that Antarctica shall be used only for peaceful purposes and shall contain no military bases. It suspends all territorial claims to the Antarctic and establishes the principle that all settlements and activities in the area are open to inspection by observers designated by the nations ratifying the treaty.” The *Antarctic Treaty* includes some rather large reservations: No claims of territorial rights or sovereignty are renounced by any of the contracting States, nor are any “acts or activities taking place while the present Treaty is in force” to be construed as “a basis for asserting, supporting or denying” such claims in the future.

The *Times* does make an excellent suggestion to cure the Antarctic fallacy: “It would be even a greater advance if agreement could be secured that the Moon was international property, a solar body to be ruled by the United Nations, to be explored – assuming, as is likely, that it will eventually provide economic opportunities – for the benefit of all nations.”

The foregoing indeed raises questions of maximum importance by the great achievement of the USSR on February 3, 1966, in soft landing a picture-sending spacecraft named “Luna 9” on the Moon in the Ocean of Storms west of the craters Rainer and Maria. The pictures transmitted by Luna 9 are universally recognized as having the finest resolution in all aspects of space technology. One can readily agree with the outstanding woman scientist of the USSR, Professor Alla Masevich, that this achievement is a tremendous victory for Soviet science. Also there is a tremendous challenge to the logic of jurisprudence in view of the fact that the USSR has now been the first sovereign power to land a national vehicle on the Moon, to photograph the far side of the Moon, to implant the first national pennant on the Moon, and to achieve the first soft landing on the Moon resulting in photographs on the Moon of impressive scientific value. The United States is not far behind because of its equally important achievements in photographing the face of the Moon and in landing our own pennant on the Moon. The whole situation demands legal scrutiny and decision such as has been suggested by Ambassador Dean a quinquennium ago.

As Chairman of the American Bar Association Committee on the Law of Outer Space, the undersigned was moved by the *New York Times* editorial, the statement by Ambassador Goldberg and by subsequent developments, to organize a colloquium composed of a panel of outstanding international lawyers which will convene at the Spring Meeting of the American Bar Association in Chicago, at the Palmer House Hotel, February 19, 1966, at 10:00 o’clock in the morning. The subject is “Lunar legal problems”. The panel consists of:

Dr. Brunson MacChesney, Professor of International Law, Northwestern University; President of the American Institute of International Law; author of numerous books on International Law.

Dr. Edward D. Re, Chairman, Foreign Claims Settlement Commission of the United States; Chairman, International and Comparative Law Section of the American Bar Association; author of numerous books on International Law.

Dr. William W. Bishop, Jr., Professor, University of Michigan Law School; Editor-in-Chief of the *American Journal of international Law*; author of numerous books on International Law.

Dr. Thomas E. Davitt, S. J., Professor of Jurisprudence; Marquette University; Visiting Research Professor, University of Chicago Law School, 1960, Harvard Law School, 1961.

Dr. Peter E. Maggs, Assistant Professor of Law, University of Illinois.

Robert D. Crane, Director, Space Research Institute, Duke University; research principal, the Center for Strategic Studies, Georgetown University; author of numerous articles on International Law and Communist space legal policy.

Those who have a serious interest in the subject of the colloquium are invited to attend.

This letter hasn't been submitted to the American Bar Association, the Committee on the Law of Outer Space or the Panel and the views expressed in this letter are those of the undersigned only.

Sincerely yours,
Andrew G. Haley

The ABA meeting was held on 19 February as planned. Haley was somewhat disappointed in the lackluster discussion; he subsequently praised only the scholarly content of remarks by Professor Bishop. Interestingly, on 23 February a letter arrived from Prof. Bishop inviting Haley to prepare a note for the prestigious *American Journal of International Law*. Prof. Bishop had been impressed by the Haley exposition of the von Kármán jurisdictional line, and he invited Haley to submit a note to the *Journal* explaining it.

The Mayo Clinic, Rochester MN, February to March 1966

On 10 February, Haley returned his attention to his arrangements with the Mayo Clinic for a physical examination. However, what he wanted and what had been arranged were not consistent, so he wrote once again to Miss Glennon at the Clinic:

Dear Miss Glennon,

Somehow here in the office we made a blunder on our days and dates. I will actually arrive in Rochester on Sunday, February 27, 1966, and would like to see Dr. Soner (sic) or the doctor to whom I am assigned on Monday Morning, February 28, and also on Tuesday, March 1, and, if necessary, on the morning of Wednesday, March 2. I now should be in Los Angeles sometime on the evening of March 2 although I could stay throughout the day if the intern thinks it is necessary. This means that I will need a reservation at the Kahler Hotel on February 27 and I will be on hand on Monday morning to complete the admission process.

Following is my travel schedule:

February 27

Leave Washington, United Flight 271	8:15 a. m.
Leave Chicago, Northwest Flight 433	10:10 a. m.
Arrive Rochester	12:32 p. m.

March 2

Leave Rochester, Northwest Flight 444	4:55 p. m.
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Arrive Chicago	6:36 p. m.
Leave Chicago, United Flight 105	7:05 p. m.
Arrive Los Angeles	9:00 p. m.

As far as the physical examination is concerned, I would like a thorough one with adequate time for the internist to advise me on my future physiological procedures [if any]. I would also like to be given all types of tests from gall bladder to cholesterol.

Sincerely yours,
Andrew G. Haley

The visit to the Mayo Clinic took place but the results are not a matter of public record. With what is known about Haley, his work ethic, his lack of attention to nutrition and his chronic over indulgent drinking, it is reasonable to assume that complaints about intensifying gastrointestinal distress over time would have resulted in at least the following medical advice: reduce the intensity of your schedule to allow your body more time for rest; try to ensure you are eating a balanced diet; minimize or eliminate drinking alcohol; and try to lose some excess weight. Although Haley wanted all available tests performed, he nowhere evidenced any commitment to do anything about any compelling results. One can imagine Haley receiving the doctor's advice and quietly noting to himself "OK, I can do that as soon as I complete this forthcoming trip." Such advice would not have been anything he wanted to hear. Had Ethna White been present when the advice was given, there might have been a chance for at least partial compliance; but Haley was not inclined to "baby" his body, although he was seeking increasingly to find opportunities to rest and pause in his self imposed busy schedules.

During January and February there were free times which allowed Haley to do some writing. He produced the article 'On the Track of Worldwide Satellite Communications', which was published in the February 1966 *Astronautics and Aeronautics* 86-88. This paper is a discussion of the rapidly emerging technologies of satellite communications, direct broadcast satellites (DBS), Community Antenna Television (CATV) systems, the expansion of radio and television services, and the emerging economic, social and cultural impacts of the advancing technology. Haley's review highlighted the UNESCO meeting of experts on 'Uses of Space Communications by the Mass Media' held in December 1965. In retrospect, his concluding paragraphs were realistic and visionary, reassuring and exciting. In January 1966 he wrote:

It was indeed agreed at the UNESCO Meeting of Experts on mass-media communications that from every standpoint – political, legal, economic and sociological – the Space Age portends no immediate threat to the stability of national and international program usages and present technology and regulation upon which private investments are based. The solution of synoptic problems on the political, legal and sociological fronts will require much more time than the solution of economic problems.

As reassuring as this conclusion may sound, there is one great caveat. Technology is advancing on an exponential curve. The economist and investor must keep ahead of the "wave of the future," as there is indeed no limit to the overwhelming capacity of space communication in every form and detail of service to the mass media. All our present forms of communication – record and sight

and sound – are doomed to be replaced and suffer the same oblivion as the horse and buggy and the steam locomotive.

Haley did not describe the new ‘forms of communication’ but his opinion was validated by the emergence of the personal computer, the laptop, the smart phone, the tablet, the internet, global direct satellite communications, and satellite broadcasting of television. Haley had a very clear awareness that all such advances were possible and likely to be achieved in a short time. When he wrote and spoke of such advances, people tended to ignore him, but his visions of future technological developments and impacts in astronautics were consistently proven accurate during his lifetime and thereafter. The winter of 1965-66 provided Haley with a respite and an opportunity to catch his breath, consider his health, and establish a manageable routine of life. He might even have done that if he had not stacked so many events in so many different places into his personal schedule.

Before leaving Washington, DC, for five weeks of consecutive travels, Haley wrote, on 26 February, to R. Sim of the Washington Woodworking Company to order work done on his Washington, DC, apartment while he was travelling. Haley wrote:

Dear Mr. Sim;

I will be absent from the apartment for the month of March, 1966, but immediately thereafter the apartment will be occupied by relatives coming to town for the Easter season.

I have given you broad authorizations with respect to the matter and I am not expecting advance estimates or bids. This is to authorize you to redo the two rooms to the entire satisfaction of your technicians. This means that you can change the woodwork as required, and accomplish the best job possible. I desire a first rate job of enduring quality. As you know the matter has been pending for a long, long time and I hope you can have it finished by March 20, 1966.

Sincerely yours,
Andrew G. Haley

Chapter 44. A Pacific Tour

The arrangements to meet his son in Australia and to return to the United States with him by steamship continued to be adjusted by changes in shipping schedules, but Haley tried to stay on top of the changes and to keep his son informed of changes whenever he had new information. Andrew Jr. had completed his tour with the Peace Corps in Nepal and had travelled through several countries to Sydney, Australia, where he expected to meet his father in due course. On 15 February Haley sent a letter to his son care of the American Express office in Sydney, Australia.

Dear Andy:

Your cable from Sydney arrived today and I sent you a reply by cable as follows:

“Rearranged schedule arriving Sydney March four leaving Sydney *Oriana* four Sunday afternoon for Auckland. Arriving Suva twelfth and Vancouver March twenty. Have first class stateroom for you on this itinerary but don’t change anything you personally desire. Tickets available in two days. Love. Daddy”.

Following is the schedule as it now stands:

March 3	Leave Los Angeles, PAA Fl. 817	9:00 a. m.
	Arrive Honolulu	12:20 p. m.
	Leave Honolulu, Qantas Fl. 531	11:59 p. m.
March 4	Arrive Sydney	7:00 a. m.

If there are any changes in this schedule, I will give you plenty of advance notice by wire to American Express at Sydney. This would give me March 4, 5 and 6 in Australia which is certainly enough for my purpose. It may well be that I will spend an extra day in Honolulu and thereby change my schedule to arrive [in Sydney] on March 5 instead of March 4 – same time.

As you will notice from the inclosed copy of my letter to the P&O Orient, I believe I have secured a stateroom for you on the *Oriana* from Sydney to Auckland and from Auckland to Suva – which was not previously agreed upon – but I certainly don’t want to make such arrangements unless they are agreeable to you. In other words, if you have scheduled your time to visit other localities just forget about these arrangements as they are purely for your convenience and I will have them immediately cancelled.

Please understand that I do not want to interfere in the slightest in any miniscule manner with any of your plans so you can accept this arrangement or reject it with more than complete equanimity so far as I am concerned. I must say that if I spent 17 hours in Auckland I will be quite fed up with the joint thereafter.

I certainly hope you will appreciate seeing Delphine in Vancouver. We can all drive down from Vancouver to Seattle and have a glorious time. The leg of the trip from Suva to North America you have already approved so I am not fearful of your sensibilities in the change whereby we land in Vancouver.

I hope you are having an interesting time in Australia. I will send you your ticket as soon as it is issued by the P&O Orient Lines – but you must immediately cable me if you desire to adhere to your own previously accepted transportation from Suva to North America.

Love,
Daddy

This letter was followed by a cable sent via the American Express office on 19 February which was essentially a confirmation of plans: “[a]rriving Sydney March four Canadian Pacific 7:35 a. m. *Oriana* confirmed for both of us Sydney Auckland Suva Vancouver tickets not issued but will bring with me. Cable me if you prefer other arrangements. Daddy”. To assist his son’s meeting expenses while visiting in Australia, Haley sent \$1,000 in Travelers’ Checks to his son. As a matter of principle in his mind, Andrew, Jr. returned those checks, when they met.

Haley left home on 27 February to visit the Mayo Clinic in Rochester, Minnesota. That brief visit was the start of an exhausting sequence of travels. His schedule was:

Sun. 27 Feb.	Washington, DC to Rochester, Minnesota, to visit the Mayo Clinic.
Wed. 2 Mar.	Rochester thru Chicago to San Francisco and Los Angeles for client meetings.
Wed. 3 Mar.	Los Angeles to Honolulu, Hawaii for client meetings.
Wed. 4 Mar.	Hawaii to Sydney, Australia for business meetings and touring.
Tues. 8 Mar.	Depart Sydney by boat to Auckland, New Zealand, partial day layover.
Wed. 9 Mar.	Depart Auckland for Suva, Fiji, (2 days in transit).
Fri. 11 Mar.	Arrive Suva for overnight maritime unloading and loading.
Sat. 12 Mar.	Depart Suva for Vancouver, British Columbia (8 days in transit).
Sun. 20 Mar.	Arrive Vancouver, remain aboard overnight awaiting customs’ clearance of luggage.
Mon. 21 Mar.	Proceed by car to Seattle for visits and client meetings.
Wed. 23 Mar.	Visit with Delphine and the Bullitt’s; catch up on accumulated communication logs.
Thurs. 24 Mar.	Arrive Lexington, KY for U of Kentucky Research Conference on 25 March
Sat. 26 Mar.	Depart Kentucky for Chicago to meet G. Gross at Nat’l Assoc. of Broadcasters’ Convention.
Tues. 29 Mar.	Depart Chicago for Paris, arriving early on Wednesday morning.
Wed. 30 Mar.	In Paris for Board Meeting of the International Academy of Astronautics.
Thurs. 31 Mar.	First session of IAF Bureau in Paris. (Side meetings with IISL officers and Directors)
Fri. 1 Apr.	Second session of IAF Bureau in Paris. (Side meetings with IISL officers and Directors)
Sat. 2 Apr.	Morning departure for New York and Washington, DC.

One might consider this to be cumulatively a pretty relaxed schedule of travel, but in Haley's case it is important to remember that at each stop, where communication links were readily available, namely, all but when at sea on a merchant vessel or in transoceanic flight, Haley was receiving, reviewing and acting upon the daily communication logs and memoranda of telephone conversations between clients and the attorneys at home, or messages of officials of various astronomical organizations who recorded their concerns or messages with Ethna White, who faithfully recorded and transmitted their communications. Haley was never "off duty", because there was always work to be done when he had the time to address it. His work accumulated daily whether he addressed it or not. Failure to deal with the work one day simply doubled the task for the following day. He had no one but himself to thank for the constant level of work. Unfortunately, human endurance is finite.

There was an apparent continuity of Haley's legal practice which is found in letters sent in his name and over a substitute signature dealing with business of the firm, or of Haley's practice as General Counsel of the IAF/IAA/IISL. Haley was the proprietor of the firm and he neither desired nor intended to relinquish his control of all significant decision-making in the firm. He allowed his name to be used in correspondence, but he took constant care to ensure he knew what was going on and what was being communicated. Ethna and his attorneys had long since learned the difference between routine matters in their hands, and issues or topics requiring Haley's knowledge and/or approval. Any departure from this regimen brought immediate and sharp criticism from Haley. It was a standing joke with Michael Bader that he could not remember how many times he had been fired, but he was always expected by Haley to appear for work the following day.

Once the Pacific portion of his travel was completed Haley paused briefly in Seattle for two days of meetings with clients and family. From Seattle, on 24 March he proceeded to Lexington, Kentucky to participate in the University of Kentucky Eighth Annual Research Conference on 25 March. The Conference was to address 'Space Research, Its Impact and Implications'. Among the other speakers at this conference Dr. Frank Drake of Cornell University presented a paper entitled 'The Existence of Intelligent Life in Outer Space', a topic of high interest to Haley. Drake was an American astronomer and astrophysicist who developed an equation which offers a probabilistic argument employed to estimate the number of active, communicative extraterrestrial civilizations in our Milky Way galaxy. Following the conference, Haley wrote to Drake asking if he might obtain copies of Drake's presentation at Kentucky.

Haley's presentation was titled 'Development of Space Law and Its Effect on National Aims and Arms Control'. The presentation did not address his assigned topic. Haley briefly addressed the promise and challenge of the space endeavor, but immediately brought up the traditional bases of international law. He quickly segued into discussion of the national consent to over flight and the limits of national sovereignty, including a brief description of the von Kármán Line. He then spoke briefly on sovereignty over celestial bodies and the need for space vehicle regulations. He described emerging space communications and pointed out the need for provisions for liability for personal and property damages by space flight activities and the need to address space medical jurisprudence. He wrapped up his comments by describing briefly the intergovernmental and nongovernmental organizations in space activities and

briefly introduced his concept of Metalaw. He likely left conference organizers and his audience totally perplexed, having totally deviated from his assigned and advertised topic. Haley obviously believed the novelty and currency of his topics excused his deviance.

From Lexington, Kentucky, Haley proceeded to the NAB Convention in Chicago and then on to Paris. Once he arrived in Paris his daytime hours were devoted to IAF/IAA/IISL meetings and evening meals would have been spent with colleagues from the management teams of the organizations. His private time in the hotel at night would be his working time on correspondence logs and telephone memoranda. From 10:00 p.m. to 2:00 a.m. in Paris would be 4:00 p.m. to 8:00 p.m. in Washington, DC, where Ethna White would be on the phone with Haley for a good part of that time.

When Haley had returned to Washington, DC, in early April, his personal activity was very limited, only accepting “important” telephone calls for a week. On 11 April Haley wrote a letter to Mr. and Mrs. James Jackson who were clients and friends in Pebble Beach, California. He wrote, in part:

Dear Mickey and Jim,

You must think I am the world’s most ungrateful and rude person. As a matter of fact, I got back a few days ago from Paris – having been to all of the Southeast [Southwest] Pacific and down into Australia and New Zealand, and on my return I was extremely tired and sick and I “hibernated” for four days. This is the first letter I actually am writing since my return. [...]

Love to all of you
Andy

Available records do not indicate what malady Haley referred to when he wrote that he was “extremely tired and sick”, but he was clearly experiencing a degree of physical exhaustion, which in his mind required a few days of rest, and then he would be ‘up and at ‘em’ again. After his visit to the Mayo Clinic there was no externally discernible change in his pattern of activity or in the conduct of his life, other than an increasing attention to rest and recuperation after a lengthy period of strenuous activity.

It was a welcomed convenience to Haley that the next major meeting he was committed to attend was the AIAA Communication Satellite Systems Conference the first week in May in Washington, DC. He was able to function actively at this meeting while enjoying the comfort of home and the immediate support and assistance of Ethna White.

Chapter 45. The Academy and the Institute, Gradually Maturing

Ordering the Affairs of the International Academy of Astronautics

Haley had contributed substantially to the formation of the International Academy of Astronautics for several years during the 1950s. He worked side by side with Malina and von Kármán to draft the necessary organizational documentation and he actively supported the consideration and adoption of those documents by the IAF. Once the Academy was formed and von Kármán had completed initial membership appointments, the daily oversight and support of Frank Malina in Paris made it possible for von Kármán to serve as Academy President because he and Malina were long time close friends and co-workers.

One major problem arose in the Academy in 1965 involving the management of the publication of the *Astronautica Acta*. Following von Kármán's death in 1963, Malina served a year as President of the Academy, and then C. Stark Draper became President. Draper, living in Boston, relied substantially on Malina for onsite managerial assistance in Paris, as von Kármán had, and on Haley for legal and administrative matters. The problem that arose between Martin Summerfield and Springer-Verlag had resulted in the Academy serving notice to Springer-Verlag that their contract for publication would end 31 December 1966. Springer-Verlag had in mind a goal to negotiate a new contract to take effect on 1 January 1967. Draper, Malina and Summerfield were also conducting a survey to discover if there might be an acceptable alternative to Springer-Verlag.

On 16 March 1966, while Haley was transiting the Pacific Ocean on a merchant steam ship, the following memorandum was dispatched to more than a dozen addressees. The text was drafted by attorney David Lloyd and approved by Haley before the package was assembled and mailed to recipients.

To: Trustees of the International Academy of Astronautics

Because of past difficulties with the current publisher of *Astronautica Acta*, Springer-Verlag, we are currently in the process of soliciting bids from other publishers looking toward a possible change in this regard at the conclusion of the current calendar year. At the same time, however, we are making efforts to negotiate a mutually satisfactory agreement with Springer-Verlag which will contain sufficiently detailed provisions to enable us to avoid disputes of the nature which have arisen in the past.

I am enclosing for your information in this respect:

- (a) A sample letter which is being sent to publishers in soliciting the bid;
- (b) A copy of a proposed publication agreement; and

- (c) A copy of a letter to Springer-Verlag in connection with the negotiation of an agreement to take effect at the conclusion of this calendar year.

Publication bids have been solicited from the following concerns as recommended by Dr. Martin Summerfield, Editor-in-chief of *Astronautica Acta*:

McGraw-Hill Publishers, Prentice Hall Publishing Company, North Holland Publishing Company, Gauthier-Villars, Academic Press Inc., Berkhauser Verlag, Butterworths, Interscience Publishers, Gordon & Breach Science Publishers, Ltd., Pergamon Press, Limited, Masson et Cie, Editeurs, and Heywood-Temple Industrial Publications, Limited.

Andrew G. Haley

cc: Dr. William Pickering
Dr. C. S. Draper
Dr. F. J. Malina
Professor E. A. Brun
Professor E. S. von Euler
Professor B. Faeijs de Veubeke
Professor A. Eula

The solicitations sent to different publishing houses generated mixed responses, some were not interested, some were not in the scientific field, but a few were interested and willing to discuss the matter. Dialogue was opened by Haley with the interested publishers, but Haley was clearly not at the top of his game. He was travelling considerably, he was tired, he was becoming noticeably short tempered dealing with people and Draper saw that it was not serving the Academy's best interest to have Haley continue in charge of the negotiations. Draper discussed this matter very frankly with Haley and suggested that it might be useful for all concerned to have an alternative qualified spokesman available to help with the negotiations in progress.

On 22 June 1966, at the suggestion of C. Stark Draper, Haley undertook to inform the AIAA Executive Secretary, Jim Harford in New York, about the full record of the difficulty between Martin Summerfield as Editor-in-Chief of the *Astronautica Acta* and its publisher Springer-Verlag. The letter suggests that Dr. Draper was seeking an alternative to Haley's continuing as the negotiator of the problem with Springer-Verlag. Haley wrote to Harford:

Dear Jim:

I enclose a portion of my personal file which contains all the essential facts relating to the cancellation of the Springer-Verlag contract for the publication of *Astronautica Acta* and the negotiations which have since taken place.

In view of the lack of time in sending this matter to you for review with Dr. Bisplinghoff and Dr. Pickering, I am enclosing documentation which covers all of the developments, facts, negotiations, and the present status of the future publication of *Astronautica Acta*. From this compilation you will be able to observe the immense amount of work involved and the enormity of the burden which has been placed upon Dr. Draper, Dr. Summerfield and myself.

On my own behalf I must point out that I made two trips to Europe which have been detrimental to my law practice because of my absence; seven trips to New York from Washington; and in

addition I have expended hundreds of dollars in cables, telegrams and telephone calls, and thousands of dollars of time earned by the lawyers and secretarial force in this office (and I have made no allowance whatsoever for my own time which has constituted in excess of 90% of the effort) – all of which comes directly out of my pocket without one cent of reimbursement from anyone.

As I am urgently pressed for time I will enumerate only a few of the matters involved:

1. Dr. Schwabl suggested to me at Athens that the existing contract of 1964 be denounced and cancelled by both parties.
2. The cancellation and denunciation was independently communicated in December 1965.
3. It was decided that a group of qualified publishers be asked to bid for the *Astronautica Acta* publication contract to succeed Springer-Verlag on 4 April 1966.
4. On April 18, 1966 Springer-Verlag reaffirmed its desire to wind up the association.
5. Only Pergamon Press and Academic Press expressed interest in becoming publishers of *Astronautica Acta*.
6. All stages of the negotiations are documented herein, including the several drafts of the contracts and some of the multitude of letters written by Professor Summerfield and other parties to the negotiations. Many of these are not included verbatim because the basic points made have been incorporated in the contract drafts.

I have just advised Dr. Draper that I am sending this material to you and he has agreed that this should be done. I am seeing Professor Summerfield tonight with the hope that we can make more progress in putting this project to rest.

Please return the attached book of documents to me.

Believe me, Jim, I would be most willing and pleased indeed for any competent person to take over the handling of this matter. And, I must note that I have pursued this almost impossible task because I am impelled by a sense of duty as the General Counsel of the Federation to accomplish the best result for the astronautics community.

As always, I remain, Jim

In old friendship,
Andrew G. Haley

Enclosures

cc: Dr. Raymond L. Bisplinghoff
Dr. William H. Pickering

Two months later, on 10 August 1966 Haley wrote to Helene van Gelder, Secretary of the Academy, enclosing the agreement negotiated between the International Academy of Astronautics and Pergamon Press, Inc. for the publication of *Astronautica Acta*. Haley asked Helene to sign the agreement, as Secretary, and to forward a copy to each of the Trustees and Officers of the Academy, with a courtesy copy to the Bureau of the IAF. This was a completion of what Haley had undertaken to do when he decided to remove Springer-Verlag. The occurrence of later events proved this to be a particularly timely completion.

At the end of May 1966 Dr. Rudolph Pešek, the Chairman of the IAA Study Group CETI, wrote to Haley about the status of work of the Study Group and pleaded for more active Haley involvement. Pešek wrote:

Dear Mr. Haley:

I thank you for your letter dated May 16, with the enclosed article about the extraterrestrial life, which appeared in the *New York Times*, May 10, 1966.

I use this opportunity to draw your attention to my report distributed before the Paris meeting to members of the Study Group CETI and at the Ninth Session of the Board of Trustees in Paris to the Members of the Board of Trustees.

This report includes (among others) the proposal of the Soviet Academy of Sciences for an international effort to search for signals from other worlds.

This is the same proposal that was submitted by the Soviet Academy of Sciences to the International Astronomical Union and about which writes W. Sullivan in the *New York Times*. Since I am not quite sure whether you received my letter dated March 2, 1966 (including the Report), I attach once again a copy of this Report.

I beg to inform you that until this date I did not receive any reply from the U. S. members of the Study Group CETI (*i.e.*, Dr. Konecni, Prof. Whipple and yourself), but I received a reply from Dr. Clemedson and from Prof. Sklovskij. A copy of Dr. Clemedson's letter you find as Enclosure.

Dear Mr. Haley, I shall be very much obliged to you if you will let me know your point of view about my Memorandum.

Do you think that a session of the Study Group CETI in Madrid would be valuable?

Sincerely yours,
Dr. Rudolph Pešek

There is no doubt that Haley was interested in and committed to participation in the IAF Study Group on CETI, but his attention to that topic was secondary to some of the other pressing issues with which he had to deal.

One of the major worries Haley had wrestled with during 1965 and 1966 was the question of Summerfield's position as Editor-in-Chief of *Astronautica Acta*. When he had concluded that the matter was being fully resolved, Martin Summerfield came to him with the concern that he was now under an agreement about to end and an agreement just beginning and he was not sure what his legal status was and what his obligations were during a period of pendency of two agreements. To satisfy Summerfield's concerns, Haley provided him with a detailed legal analysis of the situation he was in.

Dr. Martin Summerfield
Department of Aerospace and Mechanical Sciences
School of Engineering and Applied Science
Princeton University

Princeton, New Jersey 08540

Dear Martin:

You have inquired whether you would be in violation of any provision of the Agreement dated August 12, 1954, between the International Academy of Astronautics and Springer-Verlag, or of the letter agreement dated September 16, 1964, among you, Springer-Verlag and the International Academy of Astronautics, if you were to perform the duties of the Editor-in-Chief of *Astronautica Acta* pursuant to an agreement with Pergamon Press, Inc., during the interim period up to and including December 31, 1966, on which date the aforesaid agreements with Springer-Verlag will be null and void.

Analysis of the Legal Instruments

The agreement of August 12, 1954 between the International Astronautical Academy and Springer-Verlag provides for the publication and distribution of *Astronautica Acta* by Springer-Verlag. It also provides that “the IAF itself, agrees that it will not publish, during the period of the agreement, a journal similar in character to the *Astronautica Acta*”. The agreement also provides for cancellation on one year’s notice to be given on or before the last day of a year and to be effective on the last day of the following year.

The September 1964 agreement among you, Springer-Verlag and the International Academy of Astronautics, recites that you have been appointed Editor-in-Chief of *Astronautica Acta*. The agreement “is to extend to January 1, 1967”. Provisions are made for payments of honoraria and certain expenses to you. For the most part, the agreement relates to the technical details of your editorship and the contents of *Astronautica Acta*, circulation arrangements, provisions for promotion, and similar details as to the actual publication of *Astronautica Acta*.

Termination of Agreements

On December 23, 1965, pursuant to a request made by Dr. Schwabl in Athens during the XVIIth Congress of the International Astronautical Federation, the International Academy of Astronautics gave notice to Springer-Verlag of the termination of the agreements of August 12, 1954, and September 16, 1964, as at December 31, 1966. Springer-Verlag gave independent notice of termination on December 28, 1965, as at December 31, 1966.

Subsequent Correspondence

On March 11, 1966, Dr. W. Schwabl of Springer-Verlag in a letter to Dr. Pickering of the International Astronautical Federation, pointed out that its notice of cancellation, dated December 28, 1965, related to the August 12, 1964 (sic) instrument. This letter also recited that the agreement of September 16, 1964, “expires on December 31, 1966”.

On April 8, 1966, Springer-Verlag stated in a letter to me, copies of which were sent to Dr. Draper, Dr. Pickering, Dr. Malina and you, that “we see the only solution in the definite termination of the existing agreements on *Astronautica Acta* by December 31, 1966”. In that letter, Springer-Verlag stated “we trust you will agree that our collaboration with the IAA and the IAF, as to Astronautical Acta, shall terminate in an orderly and friendly way, so that the interests of both parties are taken care of mutually”.

Springer-Verlag's April 8, 1966, letter also referred to the continuation by the IAA and the IAF of "their official journal, beginning with 1967".

On April 18, 1966, Dr. W. Schwabl of Springer-Verlag sent me a letter, with copies to Dr. Draper, Dr. Malina and you, in which Springer-Verlag "came to the conclusion that further negotiations [for publication of *Astronautica Acta* after December 31, 1966, by Springer-Verlag could not have a positive result. Springer-Verlag concluded the April 18, 1966 letter with the statement that "you and we have the possibility of using the rest of 1966 to prepare the change carefully and in a way that neither the interests of the IAF and the IAA nor our interests will be impaired.

Conclusion

The agreements of August 8, 1954, and September 12, 1964 do not contain any express or implied restriction on your services between June 19, 1966, as Editor-in-Chief of *Astronautica Acta* pursuant to the provisions of the agreement between the International Academy of Astronautics and Pergamon Press, Inc. Finally, it is the express intention of all parties that orderly arrangements will be made for the continuation of the journal of the IAA, or to use the words of Dr. Schwabl of Springer-Verlag "to prepare the change carefully and in a way that neither the interests of the IAF and the IAA nor our interests will be impaired".

It is my opinion that your service as Editor-in-Chief of *Astronautica Acta* during the interim period up to and including December 31, 1966, will not violate the agreements of August 12, 1954, September 16, 1964, with Springer-Verlag, and such service will in no way subject you to liability for breach of contractual relationship with Springer-Verlag.

Sincerely yours,
Andrew G. Haley

This was a tediously repetitive recitation of the facts, but Haley wanted to put Martin Summerfield's concerns at rest with an assurance that he was in no jeopardy of being held liable. As matters transpired, the transition from Springer-Verlag to Pergamon Press as publisher was orderly and mutually acceptable to the parties. Thus, this tedious, annoying and distressing difficulty was finally put to rest.

Ordering the Affairs of the International Institute of Space Law

Haley had left Paris on the morning of 2 April 1966, the day the Board of Directors of the IISL would meet. He was keenly interested in the impressive minutes that resulted from that meeting.

**The International Institute of Space Law
of the
International Astronautical Federation
Meeting of the Board of Directors
Paris, 2 April 1966**

Present: E. Pépin, President; Dr. Fasan, Secretary; Dr. Cocca, Dr. Herczeg, Dr. Kopal, Dr. Smirnoff, Dr. Sztucki, Dr. Zhukov. Messrs. Haley, Horsford, [David] Maxwell and Taubenfeld were not in attendance.

The President excused the General Counsel, Mr. Haley, who had taken part, during the preceding days, in preliminary, unofficial discussions of the agenda with several Directors, but who unfortunately had to leave Paris that morning.

The President also reported that he had received from Mr. Maxwell a letter stating that, because of various other pressing duties, he felt unable to continue serving as a member of the Board. The President suggested, with a concurring view of Mr. Haley, that Mr. Maxwell, whose great interest in space law is well-known, be invited to reconsider his decision. The Board unanimously agreed, and requested the President to send a letter to Mr. Maxwell inviting him to reconsider his decision and remain as a Director of the Institute.

1. The Agenda was adopted as proposed by the President. Minutes of the Board Meeting in Athens, 13 September 1965, were adopted.
2. Current Activities of the Institute.
 - (a) 1964 Bibliography. The President reported that more than 200 complimentary copies have been distributed to libraries, universities and lawyers with a questionnaire on the interest of recipients in subsequent issues; 45 positive replies have been received to date. Additional copies have also been sold. The President reported that, of the \$650 received from the Theodore von Kármán Memorial Foundation \$610 has been spent and the additional money will be used for additional distribution.
 - (b) 1965 Bibliography. The President has received considerable assistance in collecting information for the new issue from all directors. The text should be ready for printing in May 1966. Mr. Haley has committed to cover any deficit arising from the production of this issue. The Board decided to maintain the divisions and format of the 1964 Bibliography for subsequent editions.
 - (c) Survey of teaching and study of Space Law. Questionnaires have been sent to universities all over the world and answers are being received. It is expected that a report on results will be ready for the Madrid Congress. Thereafter, a draft of a Basic Teaching Program will be prepared by the standing committee, comprising Drs. Pépin and Zhukov, and Mr. Horsford.
 - (d) List of Legal Terms. Dr. Kopal reported that he had a list of 1500 terms developed with Mr. Haley and Dr. Smirnoff, and the list was reduced to 1200 after consultation with Dr. Pépin, Dr. Cooper, Mr. Horsford, Dr. Zhukov and the Czechoslovak editors. The lists prepared by the national editors have been received and will be considered in the afternoon and then coordinated. The third stage will be the preparation of the alphabetical lists in each language.
3. Preparation of the Madrid Colloquium.
 - (a) Chairman. The Board unanimously agreed that Dr. Tapia, the distinguished Professor from Spain, be asked to preside over the Colloquium, and also over the various sessions, with the respective *Rapporteurs*.
 - (b) Practical Arrangements. At a meeting of the Program Committee it was agreed to hold five sessions for the Colloquium. Among the excellent arrangements provided by Dr. Tapia, it should be noted that there will be translation into English, French, Russian and Spanish.

- (c) Agenda. Four items appeared in the provisional agenda of the Congress and in the Call for Papers already distributed among the various societies' members of the Federation and to the Press. The final program will also mention a fifth item: celestial bodies.
 - (d) Preparation of the discussions. It was decided to proceed in the same manner as at the Athens Colloquium, i.e., a rapporteur will prepare a Report to be circulated to the participants beforehand and initiate and summarize the discussions.
 - (i) Liability. Rapporteur: Prof. Berezowski, with the assistance of Mr. Herczeg and another member to be appointed by the President.
 - (ii) Telecommunications. Rapporteur: Dr. Cocca. The President was requested to write a letter to Mr. Haley and Mr. Cheprov, members of the working group, who will thereafter be contacted by Dr. Cocca. will review with his group the existing problems for discussion.
 - (iii) Space vehicles. A new working group is to be established; the President was asked to propose the report to Dr. Verplaetse with, as members, Dr Sztucki (who accepted) and Dr. Pompeo Magno of Italy.
 - (iv) Terminology. Dr. Kopal shall prepare a Report on the work done and on the questions still open.
 - (v) Celestial bodies. Dr. Smirnoff shall prepare a Report. Papers on this topic will be accepted, but not invited beforehand.
 - (vi) Other subjects. Papers on other subjects may be read and included into the Proceedings. The deadline for abstracts of papers is still, as mentioned in the Call for Papers, May 15.
4. Athens Proceedings.
The President reported that, although he had not received a final answer, from the editor, Dr. Schwartz, the Athens proceedings would be distributed in the very near future.
5. Relations with UNESCO.
- (a) Expert Meeting on telecommunications by satellites. At that meeting the President represented the Federation and the IISL instead of Mr. Haley, who was unable to come to Paris. Dr. Cocca was also one of the Expert Rapporteurs.
 - (b) Meteorites. The Board agreed to answer favorably the request of UNESCO on that matter. The President shall prepare a questionnaire to be circulated among the Directors and other lawyers of his choice in order to receive reports on national legislation regarding meteorites, and then communicate with UNESCO in this respect.
 - (c) Cooperation. The Board decided to continue and intensify cooperation with UNESCO.
6. New Members.
- (a) Applications. The minutes listed nine newly elected members of the Institute.
 - (b) Proposal by Mr. Haley. The president reported the views expressed by Mr. Haley in the preliminary meeting the previous day that the membership of the Institute should be greatly expanded to provide Haley with a basis for negotiation with Pergamon press regarding a quarterly Review of the IISL. The issue was carefully considered by the Board, the importance of a periodical was naturally stressed; but, for certain members, the expansion of membership was found difficult to conciliate with the opinion expressed at Athens to reduce the membership only to persons actively cooperating with the IISL.
 - (c) Then Dr. Kopal made the following suggestion, that the Statutes of the IISL be revised at the next Annual Meeting in order to have two categories of members:
 - (i) Members, who are actually qualified and working;

- (ii) Associate Members, who are interested in the work of the IISL but are not actually working with it. Naturally an associate member presenting a paper or attending a Colloquium would qualify as a member.

This proposal was accepted.

According to the views of Mr. Haley, at least 3000 new members would be necessary; therefore the Board decided that before sending invitations to 3000 persons or more, provisions should have to be made to cover all the expenses.

7. Other Subjects.

On the question of Dr. Herczeg, the Board discussed urging the UNO Peaceful Uses Committee to prepare an agreement on search and rescue, on the occasion of the premature landing of Gemini 8.

The president reported that lawyers of several Arab nations intend to send one common participant to the Madrid meeting.

The Meeting was adjourned at 2:00 p.m.

* * * * *

The orderliness and thoroughness of these minutes went a long way to satisfying Haley that, even in his absence, management of the affairs of the Institute was now in capable hands and its future appeared more viable to him. Having spent some time examining these minutes of the Paris meeting, on 19 April 1966 Haley wrote the following letter to the Institute's President:

Dear Dr. Pépin:

Thank you for your letter of April 15, 1966 by which you so promptly distributed the Minutes of the Board of Directors Meeting of the IISL of April 2, 1966. My congratulations also extend to our good friend Dr. Fasan who records Minutes very promptly and with a high degree of accuracy. It is a pleasure to read such a well written and an acceptable document.

I have two observations to make:

- (1) While in Paris I advised you that in Madrid the Academy's Scientific-Legal Liaison Committee will require one full session of the five sessions allocated to the IISL. This session should be on the second morning when the IISL sessions begin, - in other words, it should be the third session if it is in the morning and provided two sessions have already taken place the preceding day. In any event it should be on the morning of the second day. We will have present the world's most competent scientists and lawyers as participants. I note with regret that this matter was not even discussed, but I am sure it is only an oversight which will be corrected.
- (2) I have carefully noted the very explicit and clear statements concerning your rejection of my proposal that ten thousand of the world's greatest lawyers be invited by the President to join the IISL, with the hope that the invitation will yield acceptance by 30% of those invited. I explained that a member of the IISL would receive the most favored subscription rate, but that the publisher must have a circulation figure in order to obtain subscriptions on the open market at a higher price, which would help to offset the losses.

I have made it quite clear that I would bear all costs of the distribution of the invitation of president Pépin, but this offer cannot be ascertained from the minutes, therefore I believe the offer was forgotten. I do not intend, however, to pursue the matter further as I believe the Institute is not

prepared to go forward. I am sure that the organization which avails itself of my efforts will be more than willing to give the Institute every consideration in the editorial space of the periodical.

Finally, I agreed that further subsidy would be made available from me for the publication of the Bibliography. I will make available this year \$300 by way of subsidy.

With regard to the Bibliography I believe it is a most worthwhile work, but I also believe that any reliability [reliance] upon substantial financial return is wholly unrealistic as the Bibliography never will become self-supporting, not alone profitable.

Sincerely yours,
Andrew G. Haley

The problem that Haley highlighted in this letter concerning inclusion of the Liaison Committee meeting as an IISL session arose repeatedly at IAF Congresses for several years. Eventually it was decided that this joint effort of the Academy and the Institute should stand on its own in the Congress Program, and it was eventually decided to convene the committee meeting as an Annual Scientific-Legal Roundtable, in the nature of a panel symposium, and it was regarded as a part of the Congress Program, not an IISL session. Although Haley's recommended "Grand Invitation" to 10,000 lawyers was not agreed, and although his kind offer to pay the invitation costs was ignored, Haley was pleased with the order and thoroughness of the Board meeting. He realized he bore some of the blame for the confusion by refusing to stay in Paris one more day, but he was undoubtedly "tired and sick" and it was probably in his best interest that he left Paris, rather than push his body further to perform despite its internal conditions.

On 13 April 1966, Haley wrote to Professors William Bishop, John Cobb Cooper, and Manfred Lachs, Robert D. Crane and Doyle concerning the IAA proposed multilingual dictionary.

Gentlemen:

As you may know, the International Academy of Astronautics has authorized a committee to draft an astronautics multilingual dictionary. The committee is composed of the following persons:

G. Vannucci (Italy) Editorial Coordinator
W. A. Heflin (USA)
W. A. Allen (USA)
Dr. Lise Blosset (France)
Ing. Gen. G. Lehr (France)
R. Pešek (Czechoslovakia)
Irene Sängler-Bredt (German Federal Republic)
T. M. Tabanera (Argentina)
Prof. J. G. Kroshkin (U. S. S. R.)

The basic dictionary is technical and will include about five thousand terms. There is however a supplemental portion devoted to legal terms. In both instances, no term should be included which

is adequately defined in ordinary dictionaries. As it now stands, no definitions are being made of any word or phrase [just translations].

D. Vladimir Kopal, of the Institute of State and Law, Czechoslovak Academy of Sciences, is in charge of drafting the legal list. I showed his first draft to a very competent student [Doyle] and his report is attached as Exhibit 1. The latest draft of terms is inclosed (Exhibit 2).

There is no American on Dr. Kopal's Committee and I have been attending to the matter in another capacity, namely of General Counsel of the IAF. I have pointed out that legal terms in Great Britain frequently are not given the same interpretation in the United States, but this point seems to be unnecessary because there are no definitions involved.

I personally believe there is no room for much criticism or change in the Kopal draft but you may have other opinions. In any event, I am most anxious to see the multilingual dictionary a great success and I would be sad indeed if any political problems arose. I certainly would appreciate your kindness in commenting on these terms and phrases. I am particularly interested in your comments on the phrases.

Sincerely yours,
Andrew G. Haley

The geographical separations between the addressees of this letter was considerable and it described a process well advanced toward conclusion, but Haley wanted some assurance that his effort with Kopal on the legal list was generally acceptable to informed attorneys with no vested interest in the work. The responses received by Haley were neutral, and the legal portion of the project continued under Prof. Kopal's leadership.

Haley considered much of April 1966 a well earned period of rest and recuperation. He spent some time preparing to present a paper at the Communications Satellite Systems Conference held in Washington, DC, 2-4 May 1966. The paper was titled 'The Role of Nongovernmental Organizations in the Development of Satellite Communications'. It was, in fact, another opportunity for Haley to lay out the history of the IAF, his favorite theme. This 15-page paper was a reminiscing historical précis of the development of astronautics during the 20th century. It discussed the rise of rocketry, the emergence of the IAF and its achievements to date. Inexplicably and unnecessarily the roles of relevant specialized agencies of the UN system and discussion of ECOSOC⁴⁸⁴ and UNESCO are included with their IAF interfaces. The paper described and discussed the International Council of Scientific Unions (ICSU), COSPAR, ICAO and the emergence of UNCOPUOS. Then the paper described the needs for radio frequency allocations and the role of the ITU and the CCIR in that regulatory connection. Eventually the paper discusses the COMSAT Corporation (a non-governmental organization) and its national and international roles. In the end, the paper declared a continuing need for more frequency band allocations for space services. It was an almost encyclopedic survey of astronautical organizations, when the title topic of the paper might well have been summarized in a two- or three-page text. As time went on Haley was paying less attention to his papers and their relevance.

⁴⁸⁴ Economic and Social Council of the United Nations.

In the April/May 1966 edition of the *American TRIAL Lawyer* magazine an article attributed to Haley appeared. Haley had not submitted the article. He later learned that the article was a reproduction of a paper he had presented at the McGill Institute of Air and Space Law in 1964. The article was titled ‘Liability Laws Imperative for Space Age’ and was listed “by Andrew G. Haley”, so there was full disclosure, but Haley never did learn how that article came to be published.

Among recollections contributed to this biography by Professor Andrew Vogt is a pair of interesting vignettes involving Haley, one with the family, the other with the management of Guggenheim Aeronautical Fellowships.

In the spring or summer of 1966 when I had started graduate school at the University of Washington, AGH visited [Seattle]. For some weeks I had stayed at Delphine’s houseboat and he was suspicious of this. I moved out pretty quickly but kept in close touch with Delphine. We all went out on Mrs. Bullitt’s boat, which I believe was called the “Mike”. I smoked in front of AGH and he said nothing. Delphine was shocked – she said that she was eight years older than I and had never dared to smoke in front of him!

For many years I have been a member of a group called the Washington Evolutionary Systems Society – a group of natural and social scientists interested in evolving and at one time primarily interested in the ideas of the Nobel Prize winner and physical chemist Ilya Prigogine. A fellow member at one time was Ali Çambel, a professor of engineering at George Washington University. When he learned that I was a relative of AGH, he told me about a meeting he had attended in NYC with a group that included Peggy Guggenheim and AGH. AGH kept breaking pencils during the meeting. Then, when he had Peggy’s attention, he took a bundle of pencils and showed that they could not be broken when bundled. Then he argued on behalf of a large donation by Peggy that became the Guggenheim Aeronautical Fellowships.⁴⁸⁵

These vignettes are legion and could be collected from any of the family members, each one recalling events or incidents that were etched in his or her memory. As he coursed through his life Haley impressed young and old, friend or enemy, student or professor with his energy, his knowledge, his scope of interests and breadth of impacts, his considerable wisdom all the while leaving the indelible and sometimes distressing traces of his personality.

After he had presented the AIAA paper in early May, Haley continued to concentrate on his law practice and briefly visit major clients with whom he had not had recent contact. On 15 May, he wrote a letter to Professor Cooper addressing primarily the 1966 Haley Gold Medal Award to Ambassador Manfred Lachs.

Dear Professor:

I am sorry that I have been so beset with the law practice that I have not immediately responded to one or two of your inquiries.

⁴⁸⁵ From a commentary on this biography sent to S. E. Doyle 12 Jan 2020; contained in the *AGH, Letters and Materials*.

I am happy that you agree with the nomination of Ambassador Lachs to be the recipient of the gold medal in 1966. He should also receive the honorarium of \$500. I believe you would be perfectly safe in writing Ambassador Lachs because I am sure that Dr. Zhukov and Dr. Meyer [Award Committee members] will go along with the nomination. This is important to me because I must get the medal engraved. As the medal is in 18 karat gold it takes one duce of a long time to have it cast and made available.

As you know I will be gone from October 9, 1966 to October 18, 1966 [to Spain for the IAC 9-15 October] and I must start making immediate plans for the conferring of the medal by you on Ambassador Lachs on an occasion of the highest honor and when we are sure that the entire Legal Subcommittee of the United Nations will be on hand for the event and will honor you equally with Ambassador Lachs.

I have every assurance that we can make this a very nice occasion indeed – and I will not spare any of my personal funds or time on this accomplishment.

I will make a real effort to see you in Princeton and to talk over the affairs of the IISL and the Academy. A visit with you is always an inspiration and a great pleasure.

Sincerely yours,
Andrew G. Haley

By mid-May Haley was feeling recovered to the condition of his ‘old self’ and was beginning to return to his previous practice of combining a number of activities into a short trip which would very likely soon exhaust him again; but he seemed neither to mind nor to care. He certainly knew he had to reduce his stress and activity but he was reluctant to admit it. On 21 May, he wrote to Dorothy Bullitt in Seattle:

Dear Mrs. Bullitt,

I always seem to get in the darndest “binds” when I travel – instead of enjoying myself. After thinking over the arrangements in Seattle I have arrived at the following thoughts:

May 25, 1966

1. I leave New York on United Flight 47 at 6:00 p. m. on Wednesday, May 25 and arrive in Seattle at 8:25 p. m.
2. It would be delightful indeed to spend the balance of the evening with you and to occupy my room in the Bullitt Town House.

May 26, 1966

1. The next morning I should arrive at KING shortly after 9:00 o’clock and have some serious conversations with Stim, Otto, Payson, Jay, [the KING team] and whoever else is available.
2. At noontime I would very much like to have lunch with Harriet [Mrs. Bullitt’s daughter] and talk over the latest advance in laser transmission techniques and review the general problems of cybernetics.
3. After lunch maybe Harriet would drop me off at the Hertz Rent-a-Car office and I could then proceed to Alderbrook Manor on Hood Canal [about 81 miles] and visit with numerous clients who will be there from Oregon and Washington.

May 27, 1966

1. On Friday I am scheduled to talk from 10:00 a. m. until noon to the Washington State Broadcasters' Association [at Alderbrook] and after the meeting is over I could reasonably expect to drive back to Seattle, but my schedule would be necessarily uncertain because of the pressure of clients who desire advice. This means that I would, most certainly have the evening of Friday, May 27, open and all day Saturday and most of Sunday.
2. I would like to spend Saturday night with Delphine on her houseboat.
3. We would certainly like to take a trip on the MIKE – but I realize that it may already be engaged. If we went on a trip it would have to be on Saturday and/or Sunday as both Delphine and Andy are busy with School until Friday afternoon.

I have just given the general parameters and I will welcome any change you might suggest. I do have to get to Alderbrook by the early afternoon on May 26 and I have to stay there until the early afternoon of May 27. I also am anxious to see Harriet, Delphine and Andy – and these are really the only pivotal matters – aside, of course, from a nice visit with you.

I am taking a rather extraordinary method of reporting my schedule in writing because it is so darned complicated. Anyway, I will talk to you again before I leave New York.

Please do not meet me at the airport on Wednesday as this trip is quite onerous and I can easily make my way to your house by rented car or taxicab.

As always, I remain
Affectionately,
Andy

Haley made the trip described in the letter to Mrs. Bullitt. At the Spring Conference of the Washington State Association of Broadcasters at Alderbrook, Manor, on 27 May 1966 he presented a paper titled 'A Stitch in Time', referring to the old aphorism, 'A stitch in time saves nine'.

The paper was a tutorial on the FCC's jurisdiction over radio programming. He explained the required AM-FM Program Form. He then compared the newly issued radio form to the proposed Television program form. In addition to the form reviews, he explained the new FCC Field Engineering Bureau Inspection Checklists. He listed records which must be kept in order to facilitate preparation of applications for license renewals, required every three years. To conclude he explained new FCC rules regulating emerging Community Antenna Television (CATV) systems, and he explained the CATV Copyright Decision issued on 23 May 1966.

Such focused lectures and symposia were held frequently with his clients, client groups, and associations involving broadcasting personnel. This type of activity gained Haley recognition among broadcasters as one of the best informed attorneys on the FCC and all its rules. Early the following week, Haley returned to Washington, DC.

Following up on the 15 May letter he sent to Prof. Cooper about the award of the Gold Medal to Prof. Lachs, on 22 June 1966, Haley wrote directly to Prof. Lachs, because time was flying and there was still no agreed time or place for the award of the IISL medal. Haley wrote:

Honorable Manfred Lachs
Chairman, [Legal] Subcommittee on the Peaceful Uses of Outer Space
United Nations
Geneva, Switzerland

Dear Ambassador Lachs:

For some time I have been endeavoring to locate you and I finally called Mr. Abdul-Ghani at the United Nations in New York. He told me that you would preside at the July 12, 1966 meeting of the Subcommittee in Geneva.

As you know, the Committee on Awards of the International Institute of Space Law has named you to receive the Gold Medal and \$500 honorarium for your distinguished service as Chairman of the Subcommittee and also for your premier contributions to Space Law.

Our old friend, Professor John Cobb Cooper, would like to present the medal to you. I believe we could do this when you arrive to attend the sessions of the General Assembly of the United Nations, which I believe commences on September 20, 1966.

We would like to arrange for the conferring of the medal on you as a most honorable and distinguished occasion and circumstance.

If, by any chance, you will not be in New York on the occasion of the General Assembly, the next most appropriate occasion would be at the meeting of the XVIIth Congress which is in Madrid, Spain on October 9, 1966 and continues throughout that week.

I would deeply appreciate hearing from you at your earliest convenience.
As always, I remain, good Ambassador Lachs

In old friendship,
Andrew G. Haley

This was an unresolved matter left in the hands Professor Cooper for resolution with Manfred Lachs.

Recapping Frequency Allocation History

There was another reminiscing and historical work which Haley wanted to ensure would be noticed before it became 'old news'. Since February, before he left for the trip to Australia, Haley had been compiling data for a paper which he hoped to publish in the spring in *Astronautics & Aeronautics*. During April, he completed and submitted a manuscript on which he had done considerable work in recent years and published it under the title 'Space Age Radio-Frequency Allocations' in the May 1966 edition of *Astronautics & Aeronautics*. The material following is drawn from that article; however, herein material has been condensed to reduce the volume. Incidental matters beyond the scope of the title have been omitted. The

historical recapitulation is recorded here because it is Haley's finest statement of his efforts and the efforts of the IAF in moving the world toward sufficient international frequency allocations for the broad scope of emerging space radio services.

In 1955, when he began publishing papers about aspects of the need for space law, Haley was convinced that if there were to be rocket launches, earth satellite vehicles and other space vehicles, the use of radio for command/control, tracking and telecommunication of information would be essential. Without radio, space operations would be untraceable, blind and deaf. He was fully convinced that radio was essential to spaceflight and given the speeds of satellites, the global scope, and the importance of the communications, the allocated bands for space uses should be exclusive bands, not shared with other potentially interfering services.

In this 1966 article Haley contended that the history of the establishment of appropriate dedicated radio frequency bands for space services occurred in three stages:

- (1) At the ITU's CCIR - from the CCIR Plenary Meeting in Warsaw in 1956, through Moscow, Geneva, and Los Angeles CCIR meetings and the ITU Administrative Radio Conference in Geneva in 1959;
- (2) In the United States – from the late 1950s involving the American Rocket Society, US Industry and the Federal Communications Commission (FCC), including a court suit by the American Rocket Society to compel the FCC to produce a reasonable, greater allocation of the spectrum for space uses; and
- (3) World actions through the ITU – during the first half of the 1960s including several germane conferences.

Haley's article touched briefly on many of the uses of radio for dramatic coverage of historic spaceflight activities during the 1960s, identifying the early demonstration satellite communication projects in the US – Score, Echo, Telstar, Relay, Early Bird and the following Syncom series of INTELSAT satellites for global communications, as well as the USSR's Molniya program, which employed an extended elliptical orbit.⁴⁸⁶ In Haley's article there is a directed concentration on the actions and positions of the IAF and the USA. One must remember that the meetings of the ITU were broad international meetings involving nations from all over the world, but because of Haley's concentration of attention he did not refer to or explain the broad participation. The reader should be mindful that domestic industry-wide cooperation and multinational and multidisciplinary cooperation was essential from the outset.

Stage 1 – On 16 April 1956, on behalf of the IAF's International Affairs Committee, its chairman, Haley, wrote to Hon. Aurelio Marco Andrada, ITU Secretary General recommending a five point program to the ITU:

- (1) The CCIR should study the requirements for radio in space.
- (2) The International Frequency Registration Board (IFRB) should study the frequencies available to meet the needs identified by the CCIR.

⁴⁸⁶ The Molniya type satellites were employed in the 1970s and thereafter by the Soviet led INTERSPUTNIK organization.

- (3) The IAF should send representatives to the sessions of the CCIR and the IFRB.
- (4) The ITU should send representatives to IAF meetings, including the [IAF] Rome Congress on Earth satellites and space flight, scheduled for September 1956.
- (5) After completion of these four steps, the ITU should initiate formal steps to effect radio allocations for use in space.

The ITU responded to this letter on 11 June 1956, informing the IAF that the ITU considered the matters raised by the IAF as appropriate for the administration of individual member nations. The IAF (Haley) believed the issue could not be settled by individual national actions, therefore it renewed its proposal to the ITU and the CCIR.

Whereas the appropriate pathway to recommend and obtain international frequency allocations by the ITU would be to make proposals to the US national CCIR organization and or make proposals to the FCC for frequency allocations, and, when approved, have these requests pass through the State Department to the CCIR for consideration and decisions there; the IAF was bypassing completely the normal channels of communication by going directly to the ITU. Haley initially believed the ITU Convention authorized it to work with other international organizations. Unfortunately, he had no clear understanding of the fact that the Union had no independent authority to make decisions on frequency allocations. Such decisions are a product of national proposals considered by member nations in conferences for multilateral approval.

In September 1956, the CCIR held its VIIIth Plenary Assembly in Warsaw, Poland. Haley visited Warsaw, and through the good offices of the US Representative to that meeting was able to visit with the Director of the CCIR, Prof. Balth van der Pol. Haley urged that the CCIR was the only international body with authority to act concerning space communications and urged that it be done as the IAF had proposed. The IAF also proposed that there be a new study group established to deal with extraterrestrial communications. As a consequence of that meeting Haley reported that the CCIR Plenary authorized its Director to invite the IAF to apply for membership in the CCIR and recommended the IAF choose which of the CCIR Study Groups available it would desire to participate in.

Haley then recounted that “[i]nspired by the attitude of the newly elected Secretary General of the ITU, Gerald C. Gross”, the IAF sought association with the ITU in May 1957, and the ITU Administrative Council voted in May 1957 to include the IAF among international organizations to be notified of a planned 1959 Administrative Radio Conference in Geneva and that the IAF would be authorized to participate therein.

On 12 April 1958 the IAF informed the ITU of its interest in participating in two of the existing study groups most closely connected with the subject of radio communications in space. The IAF was admitted to participation in CCIR Study Group VI (Ionospheric Propagation) and XI (Television). In May and June 1958 Haley participated in the Study Group XI (Television) meeting in Moscow. At that meeting the IAF submitted multiple draft questions related to trans-atmospheric transmissions of television and a proposed table of frequency allocations for space communications. The IAF proposals were considered and discussed, but no definitive actions were taken.

CCIR Study Group VI (Ionospheric Propagation) met in Geneva in July and August 1958. The IAF attended this meeting and submitted a two-fold proposal for consideration. First was recommended a study of multiple technical requirements for space radio; and secondly the IAF presented a thorough review of the then known frequency allocation needs of astronomical radio services. Each of the portions of the radio spectrum was analyzed, both as to its essentiality to astronomical radio service and as to the effects such use would have on existing users. The materials were distributed for study by member nations. Again, no definitive actions were taken.

Thereafter, the IAF commenced preparation for two major conferences scheduled for 1959 – the IXth Plenary Assembly of the CCIR at Los Angeles in April 1959, and the Administrative Radio Conference (ARC) to be held in Geneva from 17 August to 21 December 1959. Haley reported that as background for the CCIR Plenary Assembly in Los Angeles, the IAF supplied to more than 950 delegates copies of American Rocket Society comments prepared in anticipation of the Geneva Conference, and copies of the direct testimony of a score of technical experts given under ARS auspices to the FCC in connection with the Commission's over-all frequency allocation hearings. Haley had witnessed all the FCC rule makings proceedings in the United States and was convinced that there was a great deal of relevant information to be drawn from the parallel FCC proceedings.

The Los Angeles CCIR Plenary Assembly in April 1959 reorganized the CCIR study groups by merging Study Group IV (Ground-wave Propagation) into Study Group V (Tropospheric Propagation), so that the new Study Group V dealt with the Propagation, Including the Effects of the Earth and Troposphere. A wholly new Study Group IV (Space Systems) was formed "to study systems of communications with and between locations in space." On 14 July 1959, in response to its request, the IAF was included in the new Study Group IV.

In August to December 1959, Haley participated in the ARC in Geneva as a member of the U S Delegation and as representative of the IAF. Early in the ARC an Ad Hoc Group was set up to consider and make recommendations on the radio-frequency requirements of space research activity. Representatives from Canada, as Chairman, Czechoslovakia, France, the UK, the USA and the USSR were included in the group. On 8 October, this group reached unanimous agreement on the importance of providing frequencies for space research. The group also agreed that allocations could only be made at that time for space research; allocations for full scale communication services could not be made then because of lack of factual knowledge. The group considered it might be necessary to convene an Extraordinary Radio Conference within five years to provide for new services as well as the methods for communication using space vehicles. The French, UK and USA delegations favored immediate action to provide allocations throughout the spectrum for space research. Czechoslovakian and Soviet delegations believed it was not possible at present to recommend that specific frequency bands be set aside for space research. A table of possible allocations was prepared and attached to the Ad Hoc Group's first report containing frequencies recommended by the French, UK and USA delegations and those recommended by the Czech and Soviet delegations.

In the Group's second report, issued on 14 October 1959, the French, UK and USA delegations reached agreement on a series of specific recommended allocations, but the Czech

and Soviet delegations reiterated their opposition to any allocation being made above 200 Mc/s. On 23 October, the Group issued its third report which elaborated again the recommendations of the three Western delegations, but the Czech and Soviet delegations restated their opposition. The Ad Hoc Group recommended that a contemplated Extraordinary Administrative Radio Conference (EARC) consider questions of the allocations of additional frequencies for space projects at a meeting recommended to be held in late 1963.

Upon the release of the Ad Hoc Group reports, the ARS (Haley) in the United States organized a further panel of experts in the technical aspects of space communications. The Ad Hoc Group's reports were distributed by Haley to more than 50 persons in the United States, and nearly a score of these persons attended a Haley organized panel meeting in Washington, DC, on 28 October 1959. The panel participants worked for three days on a report containing a technical analysis of the feasibility and desirability of making the allocations proposed in the Ad Hoc Group reports. In the end the panel strongly supported the French, UK, USA proposals for frequencies above 200 Mc/s. Finally, the ARS provided a tabulation of select frequencies proposed by the Western delegations which had also been supported by ICSU's Committee on Space Research (COSPAR).

The Geneva Administrative Radio Conference concluded 21 December 1959 producing a Table of Allocations for very limited space communications. The requests of the IAF were not fully met in the published results. Although the IAF well documented the need for them, no allocations were made in the ranges 320-328 Mc/s, 890-942 Mc/s, 4380 to 4400 Mc/s and 10,000 to 10,100 Mc/s, or in the spectrum reasonably near those bands. The 1959 ARC was assessed by the State Department as one which "recognized that the research and development in this service were moving rapidly and the full needs of the service were not yet known". The participating nations recommended that a further, more definitive ITU world conference should be considered to be held later. To prepare for that later conference the US Federal Communications Commission conducted a series of proceedings, which comprised what Haley considered the next stage of work.

Stage 2 – In the United States, information to support appropriate allocations for space communications and other services was collected and evaluated in public proceedings conducted by the Federal Communications Commission (FCC). Once again, it is important to realize that Haley's descriptions of events concentrate on the American Rocket Society (ARS) but the FCC proceedings involved many more participants including major communications companies such as AT&T, Western Union International, RCA Globcom, IT&T, broadcasting networks including ABC, CBS, NBC, and small regional networks and broadcasting stations, as well as interested manufacturers like Hughes, TRW, RCA, and other interested parties. The ARS was but one of many contributors to the proceedings, and Haley was the ARS General Counsel and motivator.

On 25 November 1957 the ARS filed its statement of interest and formal comments in the Commission's Inquiry into the Allocation of Frequencies in the Radio Spectrum between 25 and 890 Mc/s (Docket No. 11997). The ARS submitted subsequent filings in that proceeding on 31 October 1958 and 3 April 1959. The ARS proposed for the first time in the USA that radio frequencies be allocated for use in connection with the flight of vehicles in space and for

communications between Earth and positions or objects in space. The ARS noted that frequency requirements existed in the frequency band below 200 Mc/s, in the 400-600 Mc/s. range, and in other portions of the spectrum.

The ARS also filed comments on 23 January 1958 on the first Notice of Inquiry in FCC Docket 12263. This notice was intended to assist the FCC in preparation for the 1959 Administrative Radio Conference in Geneva. The ARS proposed creation of an astronomical mobile radio service, an astronomical radiolocation service, an astronomical radio navigation service, and stations to operate in each of those services. The specific table of recommended frequencies submitted in these comments was the same series of recommendations submitted by the IAF to the CCIR meeting in Moscow.

The most substantial effort of the ARS to obtain the needed allocations was extended comments filed in FCC Docket No. 11866. This Docket addressed the question of determining frequency allocations above 890 Mc/s. In oral argument before the FCC on 18 July 1960 Haley tried to impress upon the Commission the demands of the space age. Haley presented the consensus of scientists and engineers who had worked in the field of astronautics that inadequate spectrum space had been provided for space services. The FCC was advised that within a few years enormous amounts of spectrum space would be required in connection with all astronomical projects, with some of the frequencies required to be on an exclusive basis. The ARS urged that the FCC consider carefully the needs of the Space and Earth/Space services and allow enough time for these needs to be ascertained.

The FCC concluded this proceeding in the fall of 1960, but it failed to recognize the urgency of the space radio demands, and it did not allocate exclusively for space communications any portions of the spectrum above 890Mc/s. The Commission stated that should any future conditions warrant a reallocation of frequencies to provide for space communication needs, it would take whatever action would then be necessary. The Commission pointed out its view that the most promising approach to realizing a worldwide satellite system in the near future probably lay in proving that such a system could share frequency bands with other services. Thus, the Commission rejected the position supporting exclusive worldwide frequency allocations for space services.

The ARS (Haley as General Counsel) filed an appeal in the U. S. Circuit Court of Appeals on 5 December 1960 claiming that the majority of the Commissioners had erroneously held that existing requirements for space communications did not warrant action at that time, and that the most promising approach to a worldwide system would be by sharing frequencies with other services. The ARS challenged the Commission's reasoning based on the nature of worldwide television and radio requirements. The ARS claimed it was possible to make the necessary channels available and if that was not done in the relatively near future the entire spectrum would be turned over for use by commercial concerns which could just as readily use landline [hardwire] facilities. The appeal charged that the majority failed to give any weight to the substantial testimony presented by qualified experts. The ARS relied heavily on the dissenting opinion to the FCC decision by Commissioner T. A. M. Craven, described as a highly skilled and experienced radio engineer who had participated for more than a quarter century in international frequency allocation matters. Commissioner Craven's dissent was fully presented in the ARS appeal.

Haley subsequently decided that it was not necessary to pursue the appeal to a decision by the Court of Appeals because the FCC took several steps which were in accord with ARS objectives. The Inquiry in question was reopened by the FCC on 28 December 1960 and the scope of consideration was substantially broadened. Filing parties were allowed to develop complete data as to the problems of frequency sharing and spectrum need. This proceeding had been initiated to assist in US preparations for the ITU's announced 1963 Extraordinary Administrative Radio Conference (EARC) on Space Communications.

On 18 January 1961, the FCC granted AT&T an experimental authorization to operate radio stations for basic Earth-satellite communication research studies. The AT&T authorization specified use of frequencies in the 4100-4200 Mc/s and 6325-6425 Mc/s ranges, and the FCC announced conditions to the AT&T authorization require special tests to determine the feasibility of frequency sharing by space services and common carriers in the 4000-6000 Mc/s region. Haley believed that the ARS appeal had called attention to the inadequate consideration given to astronomical radio in earlier proceedings, and that the ARS objective had been achieved because thereafter the concept of frequency sharing was modified to permit exclusive allocations where it was deemed essential for space radio use.

Stage 3 – After the 1959 Administrative Radio Conference in Geneva the next major ITU action related to astronautics was the Extraordinary Administrative Radio Conference [EARC] on Space Telecommunications in Geneva 7 October - 8 November 1963. During the period of preparation for this conference Haley prepared a proposal titled “A Basic Program for the 1963 EARC on Space Telecommunications” [acronym inserted]. The proposal was delivered to representatives at the EARC shortly after it convened on 7 October. Four hundred delegates were representing 70 member countries.

Haley's May 1966 article recites the summary of results of the 1963 EARC originally published in *The Spectrum Window* by the National Academy of Science Committee on Radio Frequency Requirements for Scientific Research (Vol. II, No. 10). It was reported that although there were many arguments along cold war lines, in the end the USA and the USSR could be content that despite failing to achieve all that they wanted, they reached some significant agreements. The USA and the USSR agreed to allocate special radio frequencies for communications between earth satellites and spaceships. The *Final Acts* provided designated frequency bands for all types of space communications to ensure clear reception. One US delegate was quoted saying “[w]e did not get all we asked for, but neither did anyone else and this is normally expected in such technical meetings. There was give and take on all sides and the result was generally satisfactory”.

The 1963 EARC was a major step forward in the necessary allocations of bands for space services, but there was still much to be learned about emerging demands and the management of the spectrum. Work continued after the EARC nationally and internationally on relevant technical and operational questions. FCC staff members participated in some of this work as US delegates at the Interim Meeting of CCIR Study Group IV at Monaco in February 1965. Results of that meeting were expected to contribute to the XIth CCIR Plenary Assembly to convene in Oslo, Norway in June 1966.

Haley's conclusions to his article look to the future and reflect some strong personal opinions:

Concluding Remarks. In the immediate future, imaginative and wise decisions must be made on technical questions (how much of the spectrum to reserve, the conditions of sharing, power, antenna and transmitter design, and the like) as well as on fundamental diplomatic and social questions (*e.g.*, should satellites be employed for obvious propaganda purposes).

In the meantime, the United States must give up its spendthrift frequency allocation to UHF television broadcasting and to many, many other services which can better be operated by land lines. The VHF allocation of twelve channels will prove more than adequate for domestic television. Satellite relays will permit nationwide and worldwide TV broadcasting directly to the home.

But really the overwhelming problem resides, not in these illustrations, but in the immense need for additional spectrum space to accommodate the burgeoning requirements of radio dissemination in "undreamed of worlds" of human activity.

The increase in available spectrum through research at higher frequencies during the past 50 years has gone a long way to provide the requirements to which Haley referred in the 1960s. The spectrum is a generally available public resource, like air and water, but use of the spectrum requires sophisticated technology, discipline, and cooperation to facilitate its availability to all people. In his leadership roles in the International Astronautical Federation and in the American Rocket Society, Andrew G. Haley made significant and sustained contributions to worldwide enjoyment of space services through the responsible use of radio spectrum by and for all.

While Haley worked on the development of the text for his article in *Aeronautics & Astronautics*, he had compiled a collection of his many earlier articles and speeches on communications, and particularly on satellite communications. He directed law clerks at his firm to assemble as many copies of the articles and papers as could be found, and they were bound together in individual volumes with a hard plastic board covering and labeled *Satellite Communications* by Andrew G. Haley. He made distribution of copies of this self-bound work to selected libraries and organizations during the spring and summer of 1966. This was his last publication effort, and it was intended to firmly establish his historical role in the legal aspects of the development of satellite communications.

Chapter 46. The United States Promotes Work on a Moon Treaty

On 24 December 1965, Frank Malina wrote to Haley noting that he had seen a press report that U. S. Ambassador Arthur Goldberg had submitted a proposal to the United Nations concerning the legal status of the Moon. Malina asked Haley to send him a copy of the Goldberg proposal to the UN. Haley responded on 7 January sending Malina a copy of a UN Press Release dated 18 December, noting that the release contained excerpts from a speech Ambassador Goldberg had made at the UN. Haley assured Malina “I am continuing to seek the data you want, and shall forward a copy of the proposal as soon as I am able to obtain a copy of it.” As chairman of the ABA Committee on the Law of Outer Space, Haley obviously believed he should be studying this submission himself, independent of Malina’s interest in his role as Chairman of the Academy Working Group considering the nature and structure of a Lunar International Laboratory. Although consultations were taking place among the United States, the UN, and the USSR during the first half of the year, that information was not available to Haley until June 1966.

On 16 June 1966, Ambassador Goldberg wrote a letter to Dr. Kurt Waldheim, Permanent Representative of Austria to the United Nations and Chairman of the UN COPUOS, forwarding a draft treaty dealing with the exploration of the Moon and other celestial bodies. The letter was issued as a Press Release by the US Mission to the United Nations in New York. Haley secured a copy and sent it to Frank Malina. Studying it himself, Haley must have taken substantial comfort in the fact that much of the content of the US proposal to the United Nations was fully consistent with positions Haley had been espousing for years. Ambassador Goldberg’s letter read:

Excellency:

On 9 May I informed you of the Statement by President Johnson of 7 May in which he proposed early discussion of a treaty governing the exploration of the Moon and other celestial bodies.

The purpose of my letter was to request an early convening of the Outer Space Legal Subcommittee to prepare a draft treaty for submission to the General Assembly at the next session.

Shortly after that request, we consulted with members of the Outer Space Committee to give them our views in some detail on the twelve points which we believed should be included in a celestial bodies treaty.

One of the first to be consulted was the Soviet Mission, on whose personal Representative I called on 11 May. At that time I gave him a written outline as follows:

1. The Moon and other celestial bodies should be free for exploration by all in accordance with international law.
2. Celestial bodies should not be subject to any claim of sovereignty.
3. There should be freedom of scientific investigation, and all countries should cooperate in scientific activities relating to celestial bodies.
4. A state conducting explorations on a celestial body should report on the results of a mission.
5. Open access to all areas of celestial bodies should be assured.
6. Celestial bodies should be used for peaceful purposes only. No country should be permitted to station weapons of mass destruction on a celestial body. Military fortifications, weapon tests, and military maneuvers should be forbidden.
7. A launching state should be entitled to exercise authority over its facilities on a celestial body and persons participating in its activities there.
8. Ownership of objects landed, constructed or used on a celestial body should be retained by the launching state.
9. Astronauts of one country should render assistance to other astronauts as may be required by circumstances.
10. States should pursue studies and take appropriate steps to avoid harmful contamination.
11. Consideration should be given to a provision for the settlement of any disputes that might arise.
12. Final clauses – there should be appropriate provisions on signature, ratification, depositary, entry into force, amendment, duration, and registration with the United Nations.

In the course of our consultations with the Committee's membership we made clear our desire to make early progress on this subject as well as on the other international agreements which the General Assembly asked the committee to prepare in Resolution 2130 (XV).

In response to the U. S. request, you were good enough, on 18 May, to consult the committee's membership with regard to an early meeting. I understood that thus far none of those who have replied have opposed the early session; in fact there is, I believe, considerable support for the idea of using the time between now and the General Assembly to prepare a draft treaty which could be presented to the Assembly this fall.

We have been encouraged by the substantial area of apparent agreement between the points we had proposed for inclusion in a treaty, and the letter of the Minister for Foreign Affairs of the U.S.S.R. which was circulated as a UN document on 30 May. My Government then made known its welcome of what appeared to be an affirmative interest in President Johnson's proposal and again expressed the wish that maximum progress be made without further delay in the hope that the Assembly could give its approval to a completed text at its 21st session.

In order to take advantage of the favorable response to President Johnson's proposal, I have the honor herewith to present the attached draft "Treaty Governing the Exploration of the Moon and Other Celestial Bodies" and request that it be circulated as a UN document.

Further, I have the honor to propose that the Outer Space Legal Subcommittee be convened on 12 July so that work on this important subject [should] be gotten underway at the earliest time.

The speed with which man's actual progress in outer space is being recorded requires that we allow no delay in assuring the prompt extension of international law and the United Nations Charter.

Arthur J. Goldberg

This letter and the attached draft treaty were issued as a UN Document No. A/AC.105/32, dated 17 June 1966. Haley obtained a copy of the letter and its attachment and forwarded it to Malina in Paris. Work was begun on consideration of a treaty on the Moon by the UN in 1966, but negotiation was not completed until 1979.⁴⁸⁷ A significant provision, found in Article 11 of the final treaty, provides "States Parties to this Agreement hereby undertake to establish an international régime, including appropriate procedures, to govern the exploitation of the natural resources of the moon as such exploitation is about to become feasible". The nature of the régime is undefined. This provision has rendered the treaty unacceptable to the Senate of the United States.

On 13 August 1966, Haley apparently could not resist figuratively pulling once on the leg of a longtime associate, Prof. Myres McDougal at Yale Law School. He wrote:

Dear Professor McDougal:

Great Scot, noble Professor, I just picked up my current copy of the Proceedings of the Committee Reports of the American Branch of the International Law Association and I find listed a magnificent and entirely essential Committee – the only one which I have ever found among the thousand and one organizations – namely, the Committee on Rejuvenation, and I find that my good friend, Myres S. McDougal, is a member of the Committee. Please give me your most earnest attention, great Professor, as your expertise on rejuvenation makes you, for this reason alone, outstanding in the new world Order of Charismatic Law.

I rely upon your advice and instruction!
As always, I remain

In friendship,
Andy
Andrew G. Haley

Professor McDougal replied promptly to this letter:

Dear Andy:

It is all a false dream. I joined the Committee on "Rejuvenation" in the highest hopes, but the Committee hasn't done a thing for me. Of course, I'm much older than you are,⁴⁸⁸ and it might be that the Committee could do more for you. John Hazard, the Chairman of the Committee, is an

⁴⁸⁷ *The Agreement Governing the Activities of States on the Moon and Other Celestial Bodies* was opened for signature at the UN on 18 December 1979. It entered into force five years later on 11 July 1984. It remains at present time the most contentious and the least subscribed to of five space treaties negotiated through the United Nations Committee on the Peaceful Uses of Outer Space.

⁴⁸⁸ Haley was actually two years older than Prof. McDougal.

expert on the charismatic law which is known as Russian Law. There are all kinds of mysteries here that I don't purport to understand. They exceed even those with which you and I are familiar in space law. Maybe you ought to write John.

With warm greetings,

Cordially,
Myres

Haley had a quiet and usually suppressed sense of humor, but the concept of a Committee on Rejuvenation obviously tickled his funny bone enough to prompt the letter to Professor McDougal.

Chapter 47. A Sudden End

In early September 1966, Haley had a luncheon meeting scheduled with US Senators Warren Magnuson and Henry Jackson, of Washington State. He would convene and host such sessions quarterly or so to maintain contact and share information. The luncheon was cancelled one day in advance because Haley unexpectedly entered the Georgetown University Hospital for treatment of a bleeding ulcer. Ethna White was instructed to say nothing to anyone about his being in the hospital.⁴⁸⁹ He died in the hospital on September 10, 1966.⁴⁹⁰

The end of Andrew G. Haley's life was relatively sudden, not caused by a tragic accident or an unexpected fall, but caused in some part by his own diligence, sustained work effort and refusal to take the time to stop and rest unless or until the pain and discomfort became so intolerable that he had to stop. He had been heavily engaged in preparatory work for the XVIIth IAF Congress in Madrid and the contemporaneous Ninth Colloquium of the IISL to be held there in October 1966. He had committed to making speeches later in the year and in the first part of 1967. Haley undoubtedly knew that his body was failing and could not continue as he had been doing, but he clearly had a mindset that it would be better to come to a sudden end than slowly dwindle away. There is no doubt that it was his purpose to work actively until he dropped. He was a central figure in the history and operations of the ARS/AIAA, IAF, IAA and the IISL and each of those organizations suffered an irredeemable loss of institutional memory, talent, and support when Andrew Haley left this life.

Haley's life defies a brief summary because it was so varied, unpredictable and productive. He was an avid author of fiction and non-fiction from early childhood. A bound collection of his papers and articles includes seven large volumes. When he was still a student at Georgetown School of Law he took and passed the qualifying Bar Examination in the District of Columbia. Also, while a student at Georgetown, Haley served summers in the Merchant Marine on trans-Atlantic cruise ships as a tele-operator. In college he satisfied his writing urges partly as a Law Department reporter for Georgetown's student newspaper *The Hoya*.

Haley became involved in Congressional politics within a year or two after graduating from law school and served on Congressional staffs in the early 1930s, until he was appointed an attorney in the Federal Radio Commission in 1933.

In 1934 the Radio Commission was replaced by the Federal Communications Commission (FCC), to which Haley transferred in 1934. For the next five years he served at the FCC as an attorney and a manager. Also in 1934 he joined the US Army Officers' Reserve Corps, where he served until activated eight years later for WWII in March 1942. He married in 1934 and his wife had two children: Delphine Delacroix in 1935 and Andrew G. Jr. in 1938. Haley Sr. left the FCC in 1939 to enter private law practice in Washington, DC. During the

⁴⁸⁹ Letter by email from A. G. Haley, Jr. dated 18 August 2019, in *AGH, Letters & Materials*.

⁴⁹⁰ Letter by email from A. J. Vogt to S. E. Doyle, dated 27 March 2019, in *AGH, Letters & Materials*.

1930s he continued his prolific writing, concentrating on legal issues involving broadcasting, national immigration policy, and other national legislative and policy issues.

In 1941, on the recommendation of a schoolboy friend from Tacoma, Washington, Haley was asked by a renowned aerodynamicist at California Institute of Technology (CalTech) in Pasadena, California, to assist his sister, Josephine de Kármán, who was being threatened with deportation. Haley successfully had her expired student visa converted to a permanent visa. When an innovative group of rocketeers at CalTech successfully developed and demonstrated the utility of jet assisted take-off (JATO) rocketry, Theodore von Kármán invited Haley to offer advice to the group about how to arrange for production of the rockets. Haley recommended and personally funded the creation of Aerojet Engineering Corporation in March 1942. Ten days later, Haley was activated in the Judge Advocate General Corps of the US Army Air Corps. When the newly formed Aerojet Engineering Corporation faltered for lack of adequate business leadership in May 1942, Air Corps Commander, Brig. Gen. Hap Arnold released Haley from active duty, sending him to Pasadena to assume the Presidency and general management of Aerojet, where he served until the end of WWII in August 1945.

In September 1945, Haley was appointed to a Senate Committee's staff studying the reconversion of US industry to post-war status. He played an active role in formulating questions for and participating in industrial hearings, and in drafting reports dealing with the aviation and light metals industries. By 1947 Haley was back in full-time private law practice in Washington, DC, where he continued in a financially successful law practice until his death in 1966.

During the early 1950s he became active managing the American Rocket Society (ARS) and in the development of a constitution for the emerging International Astronautical Federation (IAF). Gradually ascending in organizational responsibilities, Haley served as Vice President (1953) and President (1954) of the ARS, and as Vice President (1951-1956) and as President (1957-59) of the IAF. From 1960 until his death he continued serving both organizations as General Counsel.

In 1955, at the age of 51, Haley began to publish papers and presentations addressing international cooperation in astronautics and the need for what he termed 'Space Law'. In a Charlotte, North Carolina, luncheon address in June 1955, he presented a survey of the needs for law in outer space. In that presentation he dealt with almost every topic enshrined twelve years later in the UN's *1967 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies*. Haley published more than 200 papers and articles in the decade from 1956 to 1965, and two significant books, one on the history of rocketry (1958) and one on space law (1963). He also assembled and self published a bound collection of reprints and manuscripts of his articles on Satellite Communications (1966).

He promoted early and persistently the need for international allocations of enabling radio frequency bands devoted to space communication services. He testified before congressional committees on proposed new legislation, and he served legally numerous regional and global radio conferences dealing with broadcasting and satellite communication issues. He was tireless in his efforts leading up to the ITU's 1963 Extraordinary Administrative

Radio Conference (EARC) on Space Services, held in Geneva. Haley earned an undoubted place in the annals of space radio, space law, and international astronomical cooperation.

He was a philanthropist and a funding sponsor of national and international awards for excellence in astronautics. He supported needy students and academic travelers to national and international conferences in astronautics. He gave continually to support organizational development and took repayment in the form of satisfaction with the constructive results of his generosity. Personally, he was unapologetically Irish and reveled in the celebration of St. Patrick's Day.

Throughout the final decade of his life Andrew Haley was prolific in his writings on international cooperation in astronautics and on space law. He urged establishment and necessary contents of space law and inaugurated consideration of the concept of Metalaw, summarily defined in the rule: 'do unto others as they would be done unto'. Metalaw is based on the belief that treating other sentient life forms as you would be treated (the golden rule) could result in deleterious or fatal effects for them. During the last half of the twentieth century thousands of pages of commentary on Metalaw were published by various pundits.

One of Andrew's older sisters, Gertrude Haley Bader, was a poet. She was a deeply religious individual and she wrote about her beliefs, her experiences and her hopes. Gertrude's early education included attendance at Providence Academy in Olympia, Washington (1908-1911); then attendance at Old St. Ann's Academy in Vancouver, British Columbia (1911-1915). Gertrude earned honors in Latin and in Mathematics, another of the well educated Haley family. On one occasion she chose to write about her brother, producing an admiring and commemorative poem. That brief poetic tribute, presented on the following page, seems particularly appropriate in summing up his life.

ANDREW G. HALEY⁴⁹¹

by Gertrude Haley Bader

He is the EAGLE.
Soaring with spread wings into space,
He breasts the crags,
Always with a foothold in the skies.
He brooks no lowly perch,
Where gregarious ones find safety
And small pleasures;
His love is loneliness,
Among his loved.

He is the Eagle,
Ranging to heights triumphant for his rest,
If eagles rest!
He knows there is no limit,
To the things that God
Reveals to those who fly,
Upward, with gaze and soul inspired,
To probe His wonders,
With their wondering.

He is the Eagle,
Who would fill the vacant places,
In Jupiter-like disguise,
He wears his lesser panoply.
His eyes sweep the horizon;
Few can follow his flight;
But they pursue him,
And in their pursuit,
Reach greater height.

Andrew G. Haley was buried in Arlington Cemetery following a Requiem Mass at the Fort Meyer Chapel on 13 September 1966.

⁴⁹¹ From *The Poetry of Gertrude Haley Bader*, 9, Pageant Press, New York 1961.

Appendix 1

Haley Law Firms 1939 to 2000

The legal work that Haley did throughout his adult life was done in firms bearing many names over the 60 years of their existence. With two early exceptions, throughout all the years, Haley's name appeared first whenever there was more than one name appearing in the firm name. The multiple names did not always signify a partnership, because Haley was adamant during the 1960s in pointing out that his firm was a proprietorship, and that he was the proprietor. The best tracking source for law firm history is the legal reference publication known as the *Martindale Hubbell Law Directory*, published annually.

1939

In 1939, Andrew G. Haley and W. Theodore Pierson, who had been attorneys on the staff of the Federal Communications Commission, left the Commission and established private law offices in Washington, DC. Their offices were located in the Earle Building. They apparently started operating independently as attorneys in their individual names.

1940

In 1940 Pierson had his name listed in the *Martindale Hubbell Law Directory*. Although Haley was in practice, he had not taken the time to submit a listing to the directory, resulting in an uncharacteristic loss of significant advertising.

1941

In 1941 Pierson moved his office to the Munsey Building, and Haley was still not independently listed in *Martindale Hubbell*, although he was in active private practice. Haley wrote to Theodore von Kármán on 16 April 1941 on letterhead of the law offices of Porter and Haley in the Earle Building. Firm members listed on the letterhead were George B. Porter and Andrew G. Haley. Details of that association are not known.

1942 – 1945

Activated from the US Army Officers Reserve in March 1942, Haley would have been obliged to furlough his association with the law firm Porter and Haley. He was on active duty in the US Army Air Force from 29 March to 31 August 1942, when he was released from active duty to assume the presidency of Aerojet Engineering Corporation. From September 1942 through August 1945, Haley served as the President of Aerojet Engineering Corporation in California. His name remained on the firm Porter and Haley because he never relinquished his position with the law firm, but there is no evidence of conduct of any engagement in law practice while at Aerojet. Haley was officially released from active duty to carry out his Aerojet responsibilities on 31 August 1942.

By March 1942, Ted Pierson had joined a larger law firm. Haley, who had entered on active duty in the US Air Force, and had become a senior manager of Aerojet in California during 1942, appears in the 1942 *Martindale Hubbell* affiliated in the firm named Porter and Haley in the Earle Building, in Washington, DC.

The 1944 *Martindale Hubbell Law Directory* listed Porter and Haley as a firm operating in the Earle Building in Washington, DC. On 7 February 1945, Haley sent a brief memorandum to J. G. McKean, a new member of the firm Porter and Haley, announcing that “[i]n view of the fact that the General Tire and Rubber Company [GT&R] maintains an extensive office and expediting service in Washington, DC, it was concluded by the Board of Directors on February 5, 1945 that it would no longer be necessary for me to make available my office facilities in Washington. Accordingly, it was agreed that the charge of \$250 a month, which had heretofore been approved by the [GT&R] Board of Directors, should be cancelled effective December 31, 1944”. Although the firm Porter and Haley handled some of the legal representation of Aerojet interests, there is no evidence that Haley was ever engaged in any legal services to Aerojet.

A survey of the correspondence between Aerojet and Porter and Haley shows that the work for Aerojet always was done by members of the firm other than Haley. Charles E. Thompson was one member of the firm Porter and Haley, and in October 1942 Thompson was providing guidance on how Aerojet Engineering Corporation should proceed to register a trademark of the Corporation. Records of correspondence show that Thomson was apparently assigned in the firm to cover Aerojet support. Porter and Haley law offices were listed in *Martindale Hubbell* continuing in the Earle Building in 1943 through 1946.

1945

On December 1, 1945, the day after Major General Myron C. Cramer retired from the position of commanding officer of the US Army JAG Corps, a new firm of Cramer and Haley was announced,

located in the Earle Building, with Philip M. Baker as an associate in the firm. However, eight months later, Cramer was reactivated (July 1946) to serve on the International Military Tribunal for the Far East dealing with Japanese War Crimes. The firm was left in Haley's hands. Porter and Haley still appeared in the 1946 *Martindale Hubbell Directory*. Apparently, Cramer & Haley had come into being and dissolved in less than a year.

1946 – 1947

On 1 October 1946, Andrew G. Haley and James A. McKenna, Jr. announced that Charles E. Thompson had become associated with the law offices of Andrew G. Haley. Thompson had formerly been associated with the firm of Porter and Haley. The firm was located at 1703 K Street, N.W. Washington, DC. The firm relocated on 5 December 1947 to the Duryea Building, 1101 Connecticut Ave., N.W. Washington, DC.

1948

On 1 March 1948, Haley and McKenna announced creation of the partnership Haley and McKenna at 1101 Connecticut Ave., N.W. although a 1948 *Martindale Hubbell* listing continues to show Haley practicing alone at 1703 K. St., N.W., Washington, DC.

1949 – 1952

During 1949, Haley is listed as a member of the new firm Haley, McKenna and Wilkinson, having joined with James A. McKenna and Vernon Lee Wilkinson to form a new firm. This firm had offices at 1101 Connecticut Avenue, Duryea Building, N.W., in Washington, DC. The firm continued in practice at that location through 1952. In January 1951, Haley's nephew, Michael Bader, was drafted into the Army, where he served until 1952.

About 1951, Haley, McKenna and Wilkinson announced the association with the firm of Dwight D. Doty, and on 15 April 1952, the firm named Haley and Doty announced the association of Howard J. Shellenberg, Jr. still located at 1101 Connecticut Ave., N.W., Washington, DC. Wilkinson left the firm in January 1953.

1953

On 15 April 1953, Andrew G. Haley, Dwight D. Doty, and Howard J. Schellenberg, Jr. announced that hereafter the firm would be named Haley, Doty and Schellenberg, continuing at 1101 Connecticut Ave., N.W.

1954 – 1955

Haley, Doty and Shellenberg were listed at 1101 Connecticut Avenue, N.W. during the years 1954 and 1955. On 15 October 1954, Michael Bader became an associate in the firm. Earlier during 1954, Roger Wollenberg joined the firm and Shellenberg left. From October 1954 until May 1957, the firm was operating as Haley, Doty and Wollenberg. A young attorney named Lenore G. Ehrig was also associated with the firm during that time.

1956

In 1956, the firm moved to 1735 DeSales Street, N.W., just across the street from the side entrance to the Mayflower Hotel on Connecticut Avenue. Michael Bader was the son of Haley's older sister Gertrude and Frank Bader, who lived in Spokane. Bader had served as a law clerk in the firm following his high school graduation in 1945. He again served as a law clerk in the summer of 1949, and following his release from duty in the US Army, Bader became an associate member of the firm in 1954.

1957

The firm continued at DeSales Street in 1957. In May 1957, Edward F. Kenehan joined the firm and it was known briefly as Haley, Doty, Wollenberg and Kenehan.⁴⁹² Shortly after, in 1957, Dwight Doty died, and the firm then became known as Haley, Wollenberg and Kenehan at the DeSales Street address.

1958 – 1959

On 1 October 1958, William J. Potts joined the firm as an associate member. The firm continued at 1735 DeSales Street, N.W., as Haley, Wollenberg and Kenehan.

⁴⁹² *Broadcasting*, 27 May 1957, p. 97.

1960 – 1966

Kenehan left the firm in 1960 and the firm name became Haley, Wollenberg and Bader. During 1961, Stanley Sporkin and Robert D. Crane became associates in the firm, bringing total lawyers to six, for the first time. However, Crane left the firm early in 1962 to take a position at Duke University. Stephen Doyle was employed as a law clerk during the summer of 1962. Roger Wollenberg also left in 1962, and the firm became Haley, Bader and Potts. During the summer of 1964, Stephen Doyle served as a law clerk again, and in May 1965 Doyle became an associate of the firm, departing in December 1965. During 1966, William A. Kehoe, Jr., Miss Lois Siegel, and Henry A. Solomon became associates of the firm.

1966 - 2000

Although Andrew Haley died in September 1966, the firm name was unchanged thereafter until 2000, when Haley, Bader & Potts, P.L.C., one of the nation's oldest telecommunications law firms, joined Garvey Schubert Barer (GSB) in Washington, DC, offices, and lawyers from the Haley firm formed the core of GSB's Communications Law Group. 'Haley's firm' ceased to exist independently in 2000.

Appendix 2

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Appendix 3

Select Bibliography of Works by Andrew G. Haley

This bibliography was compiled to supplement the more comprehensive bibliography of significant works published by Andrew G. Haley at Appendix V. of *Space Law and Government* (1963). That book has an extensive bibliography including Haley's works on Space Law and policy, and international astronomical cooperation and developments from 1955 to 1963. We have included herein references to works prior to 1955, which do not address the legal and international aspects of astronautics. Many of these works were written for broad public audiences on topics including immigration, legislative policies and practices, and broadcasting issues not included in the earlier published bibliography. We note that not all Haley's works are included, indeed, there are probably many not suitably recorded to facilitate their location in a standard search. With assistance from family and residual files, we have sought to bring forth all relevant published works that are known. Publications herein dated in 1963 and later were published after the 1963 bibliography was compiled.

While a student at Georgetown University Haley continued publishing freelance articles but also served as a reporter and an editor on two publications at the University; the first being the student newspaper, the *Hoya*, for which he submitted information from the Law Department from 1925 to 1928. In 1927-28 he served as an editor of *Ye Domesday Booke*, 1928 edition, being the university's annual yearbook for his senior year.

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2024



PIONEERS OF SPACE LAW

ANDREW G. HALEY

(1904 - 1966)

Andrew G. Haley (1904-1966) was primarily a communications attorney active in the Washington, D. C. area from the late 1920s until his death in 1966. In addition to his sustained practice of law he was involved in other professional pursuits including brief military service, professional organizational development and management, mutual fund management, and the international promotion of the law of outer space.

For the last eleven years of his life, he supported and participated in the development and management of newly emerged international organizations involved in aerospace law, international cooperation, and scientific advancements in astronautics. He was among the world's first attorneys engaged in the practice of space law. His unheralded, wayward careers generated significant achievements.



STEPHEN E. DOYLE

In the late 1950's and early 1960's Steve studied at Boston College, the University of Massachusetts, Duke Law School, and McGill University's Institute for Air and Space Law. For more than four decades he worked closely with government officials, aerospace industry experts, and with national and international space policy makers from every part of the world to help formulate many existing space laws and policies. His exceptional experience and vision enable him to contribute significantly to continuing development of space law and policy.