THE 2016 MANFRED LACHS SPACE LAW MOOT COURT COMPETITION

TEAM No. 4

IN THE INTERNATIONAL COURT OF JUSTICE

AT THE

PEACE PALACE, THE HAGUE

Case Concerning Space Debris, Commercial Spaceflight Services and Liability

THE REPUBLIC OF BANCHÉ

(*Applicant*)

v.

THE REPUBLIC OF RASTALIA

(*Respondent)*

ON SUBMISSION TO THE INTERNATIONAL COURT OF JUSTICE

MEMORIAL FOR APPLICANT

THE REPUBLIC OF BANCHÉ

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QUESTIONS PRESENTED

1. Did Rastalia violate international law by refusing to return Couleur and Commander Borsch to Banché and refusing the earlier return of Ms. Paula to Banché?
2. Is Rastalia liable under international law for the damage to Couleur?
3. Is Banché liable under international law for the costs of recovery of Couleur, the rescue and medical expenses for Commander Borsch, the costs of the evacuation of Lake Taipo, and the deaths of both Mr. Thomas and Mr. Barton?

STATEMENT OF FACTS

1. The Republic of Banché ("Banché" or "Applicant") is a highly developed country with great experience in space exploration and exploitation. It possesses a State-owned, manned space station, Mira, which has been operating for nearly ten years. Banché initiated a long-term national space program shortly thereafter, aimed at encouraging the development of domestic, private commercial spaceflight services to international clients.[1]

2. Banché shares a peaceful border with the Republic of Rastalia ("Rastalia" or "Respondent"). Rastalia is a developing country with a high annual GDP growth rate. While Banché considers Rastalia a competitor, and has implemented various measures to develop its own space program, both countries regularly work together as members of COPOUS, discussing legal and technical issues related to space.[2]

3. Jardon Tech. Co. Ltd. ("Jardon"), a satellite company, was founded and registered in Rastalia in 2023. Jardon received an authorization certificate to conduct commercial launching services from Rastalian government facilities, and, on 15 January 2028, Jardon launched the first scientific satellite ("Lavotto-1") from Rastalian territory, placing it in low Earth orbit.[3]

4. Rastalia's launch of Lavotto-1 marked the first operational use of a new structural material, which had not previously been launched into outer space. Rastalia registered Lavotto-1 in its national register one month after the launch and with the UN two months after the launch.[4]

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[1] Compromis, ¶1.
[2] *Id.*, ¶3 &4.
[3] *Id.*, ¶6 &7.
[4] *Id.*, ¶ 7.

5. On 18 May 2028, Lavotto-1 ceased functioning as a result of a solar windstorm. A Rastalian spokesman held a press conference to announce this incident to the international community and indicated that Jardon was attempting to resolve Lavotto-1's issues.

6. On 25 May 2028, the Rastalian government announced it was unable to rectify Lavotto-1's issues and that the uncontrollable satellite posed a collision hazard to Mira. Rastalia confirmed these findings and reported that the collision probability would be greater if there was an attempt to use another Rastalian spacecraft to de-orbit Lavotto-1.[5]

7. The country of Mosolia is highly advanced in space technologies. Its Moso Space Traffic Monitoring and Awareness Center ("Moso Center") kept close track of Lavotto-1 before and after the malfunction. Rastalia does not have diplomatic relations with Mosolia. On 28 May 2028, Moso Center confirmed Rastalia's report that Lavotto-1 posed collision risks to Mira.[6]

8. With the announcements from Rastalia and the Moso Center, Banché immediately set up its own panel to investigate the potential hazards and collision threats posed by Lavotto-1 to Mira; the panel reported its findings on 15 June 2028, which revealed that the conjunction of Lavotto-1's and Mira's orbits was within 2 kilometers in low Earth orbit ("LEO") and there was a significant probability that Mira would suffer a catastrophic collision with Lavotto-1. During the next several weeks, Banché and Rastalia conducted discussions through diplomatic channels.

9. On 30 July 2028, Rastalia issued a statement declaring its space object derelict. Shortly thereafter, Banché announced that it considered the Lavotto-1 satellite to be abandoned and that it would physically remove Lavotto-1 from its current orbit with its latest advanced robotic seizing and removing technologies.[7]

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[5] *Id.*, ¶ 8 & 9.
[6] *Id.*, ¶ 10 & 11.
[7] *Id.*, ¶ 11.

10. Solare Travel Services Ltd. ("Solare"), a private company with its principal place of business in Banché, successfully qualified the spacecraft Couleur for commercial spaceflight services in early February 2025 after several successful trial flights launched from the Banché spaceport.[8]

11. On 1 August 2028, the Banché government signed a contract with Solare, which stipulated that Solare's spacecraft Couleur remove Lavotto-1 from its current orbit using the latest robotic seizing and removing technologies, to be provided by the Banché Space Agency.[9] The personnel of the spacecraft Couleur consisted of a Mosolian scientist, Ms. Erin Paula, a Rastalian citizen, Mr. Andrew James and a Banché citizen, Commander Mario Borsch.[10]

12. On 1 January 2029, Couleur was launched from the Banché spaceport and successfully rendezvoused with Lavotto-1. On 3 January 2029, Commander Borsch utilized the grappling arm to remove the satellite, as expected. During the grappling process, the weak composite structure failed to remain intact and Lavotto-1 broke into two segments. Commander Borsch successfully de-orbited one of the segments. The second segment remained in orbit and continued to pose collision risks to Couleur, Mira and other space objects. Following consultations with the flight control center on the ground, Commander Borsch activated the Global-Orbiting Deflection Apparatus (GODA) 2 Laser Satellite Removal System.[11]

13. On 4 January 2029, Commander Borsch utilized the GODA satellite removal system on the remaining segment of Lavotto-1 in order to de-orbit it and avoid a catastrophic collision. Unbeknownst to Banché, the second segment of Lavotto-1 retained thruster propellant on-board,

[8] *Id.*, ¶ 12.
[9] *Id.*, ¶ 14.
[10] *Id.*, ¶ 12 & 13.
[11] *Id.*, ¶ 15.

which exploded and resulted in debris. Several minutes later, Couleur was struck by a debris fragment, seriously damaging its normal communication and flight control system functions, leaving limited and intermittent communications ability and reduced maneuverability.[12]

14. Unable to land in Banché, Couleur made an emergency landing in Rastalia, touching down near Lake Taipo. During the landing process, a piece of spacecraft shell, damaged by Lavotto-1's debris, detached and collided with a building near Lake Taipo, which collapsed upon, and killed, Mr. Dave Thomas, a Rastalian citizen.

15. On 6 January 2029, Banché issued a diplomatic note to Rastalia and formally demanded the immediate return of the Couleur spacecraft, Commander Borsch and Ms. Paula.[13]

16. A Rastalian Rescue and Recovery Team located and reached Couleur's landing site within 18 hours of its de-orbit. Rastalia proceeded to evacuate all persons within a 300 kilometer radius of Lake Taipo. Commander Borsch, Ms. Paula and Mr. James were successfully rescued and sent to a hospital for medical treatment. Couleur tested negative for a nuclear radiation leak. Rastalia maintained the evacuation order over Lake Taipo for an additional month.[14]

17. On 11 January 2029, despite's Banché's diplomatic note requesting the return of Commander Borsch and Ms. Paula, the Rastalian Foreign Ministry spokeswoman announced it would fully examine Couleur no matter how longer it would take to complete the process and, further, that Commander Borsch would be held pending criminal charges. The spokeswoman added that Ms. Paula would only be released once Banché reimbursed Rastalia for the costs and

[12] *Id*., ¶ 16.
[13] *Id*., ¶ 17.
[14] *Id*., ¶ 18.

damages associated with Couleur landing in Rastalia. Finally, she also announced that during the unscheduled landing, another Rastalian citizen, Mr. Barton suffered a fatal heart attack.[15]

18. On 12 January 2029, the Mosolian press published a declaration purportedly signed by Commander Borsch, which was leaked to the Mosolian press. In the declaration, Commander Borsch asked for political asylum in Rastalia and refused to be sent back to Banché, without giving any reasons. Banché insisted on the return of Commander Borsch, and claimed that he was being held illegally for his knowledge of sensitive technologies and information acquired during his service in the Banché Ministry of National Defense. On 20 January 2029, Banché's President made an announcement which condemned Rastalia's detention of Commander Borsch as a violation of international law, demanding his return without precondition.[16]

19. On 10 February 2029, Mosolia's domestic privately owned newspaper International Reference News Observation ("IRNO"), reported that a Banché investigation concluded that after Couleur's landing, Ms. Megan, a representative of the Rastalian National Defense Department, secretly negotiated with Commander Borsch, and promised to drop all criminal investigations and to provide him with a key position in the Rastalian Space Research Institute (RSRI) with lucrative rewards.[17]

20. After several months of diplomatic negotiations, Rastalia finally released Ms. Paula to Banché. Negotiations for the return of Commander Borsch and the Couleur spacecraft were unsuccessful, and both remain in Rastalia.[18]

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[15] *Id.*, ¶ 19.
[16] *Id.*, ¶ 20 & 21.
[17] *Id.*, ¶ 22.
[18] *Id.*, ¶ 23.

21. Following such events, Banché initiated these proceedings by Application to the International Court of Justice. Rastalia accepted the jurisdiction of the Court, and the parties submitted an Agreed Statement of Facts.[19]

22. Banché and Rastalia are both parties to the Outer Space Treaty, the Rescue Agreement, the Liability Convention, the Registration Convention, the UN Charter, as well as members of the United Nations Committee on the Peaceful Uses of Outer Space ("UNCOPUOS").[20]

[19] *Id.,* ¶ 24.
[20] *Id*., ¶3, ¶26.

SUMMARY OF ARGUMENT

Respondent violated international law by refusing to return the spacecraft Couleur, Commander Borsch as well as the earlier return of Ms. Paula after Couleur landed in Rastalian territory. The emergency landing of Couleur was the result of accident and distress suffered after a piece of debris fragment struck Couleur and degraded its communications and maneuverability capabilities. Article 4 of the Rescue Agreement and Article VIII of the Outer Space Treaty require Respondent to safely and promptly return Commander Borsch and Ms. Paula to Applicant as the launching authority and State of Registry. Respondent's refusal to safely and promptly return Commander Borsch and Ms. Paula in compliance with the Rescue Agreement and Outer Space Treaty constitutes a violation of international law. Further, under Article 5 of the Rescue Agreement and Article V of the Outer Space Treaty, Respondent is required to return the Couleur to Applicant, because Applicant expressly demanded its return. Respondent's refusal to return Couleur is also a violation of the Rescue Agreement and Outer Space Treaty.

Respondent is liable for the damage caused to Couleur in space, as it was the State of Registry and launching State of Lavotto-1, the space object from which debris emanated and caused damage. As per Articles VI and VII of the Outer Space Treaty, Respondent was responsible for the activities of Lavotto-1 in space and liable for any damage caused by Lavotto-1 while in space. As per Article III of the Liability Convention, Respondent is at fault for the damage sustained by Couleur in space, as the damage was caused by its space object. Both the cause-in-fact and proximate cause of the damage to Couleur were a result of Respondent's activities. The damage caused by Lavotto-1 to Couleur was reasonably foreseeable, even if the specific damage was not contemplated, and Respondent is therefore liable. Further, Respondent breached its obligations under general international law by not paying due regard to the interests of other States

(a violation of Article IX of the Outer Space Treaty) and by failing to ensure its activities did not cause harm to other States.

Applicant is not liable for the recovery costs of Couleur or the rescue and medical expenses of Commander Borsch as Respondent has made no effort to return either to Applicant. Article 5 of the Rescue Agreement provides compensation only if a party recovers and returns the space object in its territory; failing to fulfill both elements of this obligation negates any recourse to compensation. Since neither the Outer Space Treaty nor the Rescue Agreement provide for the reimbursement of rescue or medical expenses, Respondent has no grounds upon which to justify such a demand. Article I of the Liability Convention precludes the recovery of indirect damages. The evacuation of Lake Taipo and the death of Mr. Barton are indirect damage and therefore not compensable under the Liability Convention. Although Applicant's space object caused the death of Mr. Thomas, Applicant is exonerated from absolute liability under Article VI of the Liability Convention as Respondent's gross negligence was the proximate cause of Mr. Thomas' death.

ARGUMENT

I THE REPUBLIC OF RASTALIA, RESPONDENT, DID VIOLATE INTERNATIONAL LAW BY REFUSING TO RETURN COULEUR, COMMANDER BORSCH, AND THE EARLIER RETURN OF MS. PAULA TO THE REPUBLIC OF BANCHÉ, APPLICANT.

Respondent's refusal to return the Couleur spacecraft, Borsch and Paula, despite Applicant's explicit demand, is a violation of (a) Articles 4 and 5 of the Rescue Agreement of 1968[21], and (b) Articles V and VIII of the Outer Space Treaty of 1967[22]. According to Article 38 of this Court's statute, treaty obligations are a primary source of international law[23] and are legally binding upon the parties to the treaty. [24] As a State Party to the Rescue Agreement and the OST,[25] Respondent is required to adhere to their provisions in good faith, as per the principle of *pacta sunt servanda*.[26]

A Respondent violated Articles 4 and 5 of the Rescue Agreement

1 Respondent violated Article 4 by not promptly returning Paula and not returning Borsch to Applicant

As described in its Preamble, the purpose of the Rescue Agreement is to further develop and solidify the legal obligations set forth in the OST regarding the launch of astronauts and space objects into outer space.[27] This development is "prompted by sentiments of humanity."[28]

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[21] Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched Into Outer Space, Apr. 22, 1968, 672 U.N.T.S. 119 [hereinafter Rescue Agreement].
[22] Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the moon and other Celestial Bodies, Jan. 27, 1967, 610 U.N.T.S. 205, arts. V, VIII [hereinafter Outer Space Treaty or OST].
[23] Statute of the International Court of Justice, Jun. 26, 1945, 33 U.N.T.S. 993 [hereinafter ICJ Statute] art. 38(1); *Continental Shelf* (Tunis v. Libya), I.C.J. 18, 38 (Feb. 24).
[24] Nuclear Tests (Aust. v. Fr.), 1974 I.C.J. 253, 268 (Dec. 20) [hereinafter Nuclear Tests]; Vladimir Kopal, *United Nations and the Progressive Development of International Space Law*, 7 FIN. Y.B. INT'L L 1, 3 (1996).
[25] Compromis, ¶26.
[26] Nuclear Tests, at 253, 268; Vienna Convention on the Law of Treaties, May 23, 1969, 1155 U.N.T.S. 311 [hereinafter VCLT], art 26.
[27] Rescue Agreement, preamble; VCLT, art. 31.2.
[28] *Ibid*.

Article 4 of the Rescue Agreement states "if owing to accident, distress, emergency or unintended landing, the personnel of a spacecraft land in territory under the jurisdiction of a Contracting Party…, they shall be safely and promptly returned to representatives of the launching authority."[29] Accordingly, the application of this article requires that: (i) the spacecraft must have landed in the territory of a Contracting Party due to accident, distress, emergency or unintended landing; (ii) the persons on board the spacecraft must be "personnel"; and (iii) the entity seeking return of the personnel is the launching authority. When these conditions are met, the recovering State has an unequivocal obligation to return the personnel to the launching authority.[30] Accordingly, Respondent violated Article 4 and acted in breach of its obligations under the treaty by failing to (iv) promptly return Paula and (v) by failing to return Borsch.

i Accident and distress caused Paula and Borsch to have an emergency landing in Rastalia

While Article 4 of the Rescue Agreement does not define accident, distress, emergency, or unintentional, Article 31 of the VCLT directs the Court to interpret those words "in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose."[31] Recognizing that the preamble establishes the humanitarian nature of the Rescue Agreement,[32] any landing that requires outside assistance is covered.[33] As such, the Couleur landing was a result of accident, distress or emergency as a debris fragment

[29] Rescue Agreement, art. 4.
[30] MANFRED LACHS, LAW OF OUTER SPACE: AN EXPERIENCE IN CONTEMPORARY LAW-MAKING 78 (Nijhoff Publishers, 2010) (1972) [hereinafter LACHS, LAW OF OUTER SPACE].
[31] VCLT, art. 31(1).
[32] Concerning the priority of the preamble as a guide of treaty interpretation *see* International Law Commission, *Draft Articles on the Law of Treaties with Commentaries*, A/CN.4/185 221 (1966) (stating that [t]he preamble forms part of a treaty for purposes of interpretation is too well settled to require comment.").
[33] Stephen Gorove, *Legal Problems of the Rescue and Return of Astronauts*, 3 INT'L L. 898, 899 (1968-1969).

struck Couleur damaging its communication apparatus[34], flight control systems[35] and maneuverability[36]. Considering the humanitarian sentiments of the Rescue Agreement, this honorable Court ought to find that Borsch and Paula had an emergency landing in Rastalia due to accident and distress.

ii Paula and Borsch are personnel of the spacecraft

Although "astronauts" and "personnel of a spacecraft" are both used in the Rescue Agreement, neither term is defined in the multilateral treaties on outer space.[37] Nevertheless, Article 38 of the ICJ Statute states the teachings of highly respected publicists can be consulted as subsidiary means for determining rules of law.[38] Professor Bin Cheng writes, "astronaut" is "descriptive rather than technical, and refers to any person who ventures into outer space or who travels on board a spacecraft."[39] He further states that although "personnel of a spacecraft" in its ordinary meaning likely excludes passengers, it was intended to include "all persons on board or attached to a space object, whether or not forming part of its personnel."[40] According to Article 32 of the VCLT, when the ordinary meaning of a term "leads to a result which is manifestly absurd or unreasonable" other methods of interpretation, including the preparatory work and the circumstances of the conclusion of the treaty, can be used to reach a more appropriate interpretation of the term.[41] Judge Manfred Lachs has stated, all members of the crew "aboard a space vehicle

[34] Compromis ¶16.
[35] *Id.*, ¶16, ¶17.
[36] *Id.*, ¶17.
[37] BIN CHENG, STUDIES IN INTERNATIONAL SPACE LAW 457 (Oxford Scholarship Online, 2012) (1997) [hereinafter CHENG, SPACE LAW].
[38] ICJ Statute, art. 38(1)(d).
[39] CHENG, SPACE LAW, at 457.
[40] *Id.*, at 507, 509.
[41] VLCT, art. 32.

should share a common legal status," and passengers should be accorded the same status.[42] Furthermore, the humanitarian nature of the Rescue Agreement "imposes an extensive interpretation, whereby all persons aboard a space vehicle should be" included.[43]

As Couleur's commander,[44] Borsch is a member of the crew and would be considered an astronaut or personnel within their ordinary meanings. While Paula was not a member of Couleur's crew, she was on board the spacecraft when it traveled into outer space. The humanitarian sentiments prompting the Agreement, coupled with the lack of explicit definitions, mandate that Paula be considered personnel of a space craft, thus afforded legal protection under the Rescue Agreement.

iii Banché is the launching authority of Couleur

Article 6 of the Rescue Agreement refers to the "launching authority" as the "State responsible for launching." Applicant contracted with a private company, Solare, to use its spacecraft, Couleur, to remove Lavotto-1 from orbit.[45] Solare is registered in the State of Mosolia, but its principal place of business is in Banché.[46] Prior to Couleur launching from the Banché spaceport for its contracted mission,[47] the Banché Space Agency provided the latest robotic seizing and removing technologies[48] and the Banché Ministry of National Defense equipped Couleur with the Global-Orbiting Deflection Apparatus (GODA) Laser Satellite Removal System.[49] Additionally, Couleur had performed several flights from Banché spaceport on earlier occasions

[42] LACHS, LAW OF OUTER SPACE, at 67.
[43] *Id.*, at 75.
[44] Compromis, ¶12.
[45] Compromis ¶14.
[46] *Id.*, ¶12.
[47] *Id.*, ¶15.
[48] *Id.*, ¶14.
[49] *Id.*, ¶15.

and Borsch was a Banché astronaut.[50] For these reasons, Applicant was responsible for the launching of Couleur and is the launching authority.

iv Therefore, Respondent is in violation of Article 4 by not promptly returning Paula

Even though the meaning of "prompt" is not provided in the Rescue Agreement, the context of the object and purpose of the agreement[51] make it clear that the term does not allow the Contracting Party to use the return of personnel as a bargaining chip for compensation. Five days after Applicant demanded the return of Paula,[52] Respondent publicly announced Paula would not be returned until Applicant compensated it for all costs and damage incurred from Couleur's illegal acts.[53]

Since the conditions in Article 4 of the Rescue Agreement have been met, the Respondent's obligation to promptly return Paula is clear.[54] The Rescue Agreement does not provide for the payment of expenses or damage be conditioned on the rescue and return of personnel.[55] Furthermore, the return of space objects and their component parts do not have the "prompt" requirement,[56] thus highlighting the intent of the Rescue Agreement to not delay the return of personnel. The eventual return of Paula[57] does not expunge Respondent of its violation.

v Therefore, Respondent is in violation of Article 4 by not returning Borsch

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[50] *Id.*, ¶12.
[51] VCLT, art. 31.
[52] *See* Compromis, ¶17, ¶19 (On 6 January 2029, Applicant demanded return of Couleur, Borsch, and Paula. On 11 January 2029, a Rastalian spokesperson stated that Paula would be returned after reimbursement was made).
[53] *Id.*, ¶19.
[54] FRANCIS LYALL & PAUL LARSEN, SPACE LAW: A TREATISE 140-141 (Surrey: Ashgate, 2009) [hereinafter LYALL & LARSEN].
[55] Rescue Agreement, art. 4; LYALL & LARSEN, at 141.
[56] Rescue Agreement, art. 5.
[57] Compromis, ¶23.

The Respondent's continued refusal to return Borsch is a violation of Article 4 of the Rescue Agreement as Respondent's duty to return Borsch is unequivocal. Shortly after Couleur landed in Rastalia, Respondent announced Borsch would be held pending criminal charges; however, the spokesperson did not specify the crimes for which he was suspected.[58] One day later a Mosolian newspaper published a declaration from Borsch requesting political asylum in Rastalia, without giving any reasons.[59]

a Respondent does not have jurisdiction over Borsch

Respondent does not have jurisdiction to criminally charge or ultimately prosecute any illegal acts committed by Borsch. Article VIII of the OST is clear that the State "on whose registry an object is launched into outer space is carried shall retain jurisdiction and control over such object, and over any personnel thereof…."[60] As the State of registry, Applicant has the responsibility to ensure any actions of its space object or the persons aboard do not violate international law.[61] Even if Borsch violated international law while in outer space or the domestic law of Rastalia upon landing, Respondent remains obligated to return Borsch to Applicant under Article 4 of the Rescue Agreement.[62]

b Granting asylum is not allowed under the Rescue Agreement

After Respondent publicly announced Borsch was being criminally charged, it was reported by an independent newspaper that he did not want to return to Banché and requested political asylum.[63] This was followed by a separate report that a Rastalian government official had

[58] *Id.*, ¶19.
[59] *Id.*, ¶20.
[60] Responses to Requests for Clarifications, ¶11 [hereinafter Clarification].
[61] LACHS, LAW OF OUTER SPACE, at 66.
[62] Paul Dembling & Daniel Arons, *Rescue and Return of Astronauts*, 9 WM. & MARY L. REV. 630, 653 (1968).
[63] Compromis, ¶20.

promised to drop all criminal investigations and give Borsch a key position in the Rastalian government.[64] This very scenario caused disagreement among major space-faring States while negotiating the Rescue Agreement,[65] as there was concern among States that astronauts may seek, or be coerced into seeking, asylum in other States.[66] During negotiations, the major space-faring nations voiced their opinion that asylum should not be available to astronauts and that they should be safely and promptly returned.[67] While the French and Austrian delegates repeatedly stated that Article 4 of the Rescue Agreement does not preclude their national laws regarding aliens, the final wording of Article 4 appears to place an "absolute and unconditional" obligation to return personnel to the launching authority.[68] Consequently, Respondent has a duty to safely and promptly return Borsch.

2 Respondent violated Article 5 of the Rescue Agreement by not returning Couleur to Applicant

Article 5 of the Rescue Agreement requires that when a launching authority requests another Contracting Party to recover and return a space object or its component parts found within its territory, the Contracting Party must "take such steps as it finds practicable to recover the object or component parts" and return them to the launching authority.[69] As the launching authority, Applicant demanded the return of Couleur and since Respondent has successfully recovered Couleur, it has an obligation to return Couleur to Applicant.

i Couleur is a space object that returned to Earth in Rastalia

[64] *Id.*, ¶20.
[65] CARL G. CHRISTOL, THE MODERN INTERNATIONAL LAW OF OUTER SPACE 175 (2nd ed., 1984).
[66] *Id.*
[67] *Id.*
[68] CHENG, SPACE LAW, at 283. For France, *United Nations, General Assembly, Travaux préparatoires* to the Return Agreement, Official Records of Meetings, U.N.GAOR, COPUOS, 86th mtg. at 14 (statement by French Amb. Deleau), A/AC.105/C.2/SR.86 (1968), (France re-affirmed its position in the plenary of the General Assembly).
[69] Rescue Agreement, art. 5.

Although the Rescue Agreement and OST do not provide a definition of "space object," Professor Cheng explains that the term encompasses spacecraft, satellites, and anything that human beings launch or attempt to launch into space.[70] As Couleur was launched into space from Banché spaceport on 1 January 2029,[71] it is a "space object." On its return to Earth, Couleur landed and was recovered by Respondent near Lake Taipo in Rastalia.[72] Couleur remains in Rastalia as of today.[73]

ii Applicant demanded the return of Couleur

Applicant demanded the return of Couleur soon after it landed in Rastalia.[74] The Respondent located and recovered Couleur hours after its de-orbit and maintains possession today.[75] Upon recovering Couleur, Respondent was obligated to return the spacecraft to Applicant.[76] The Rescue Agreement does not permit Respondent to "fully examine" Couleur based on a suspicion of illegal activity. At the moment Applicant demanded the return of Couleur, Respondent was required to satisfy its obligation to return. Hence, Respondent's failure to return Couleur to Applicant is a violation of Article 5 of the Rescue Agreement.

B Respondent violated Articles V and VIII of the Outer Space Treaty

Both Applicant and Respondent are State Parties to the OST, making its provisions applicable and binding in the resolution of this case.[77]

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[70] Cheng, *International Responsibility and Liability for Launching Activities*, XX ANNALS OF AIR AND SPACE LAW 297 (1995) [hereinafter *Responsibility/Liability*].
[71] Compromis, ¶15.
[72] *Id.*, ¶17.
[73] *Id.*, ¶23.
[74] *Id.*, ¶17.
[75] *Id.*, ¶18.
[76] Rescue Agreement, art. 5(3).
[77] Compromis, ¶26.

1 Respondent violated Article V of the Outer Space Treaty

Article V of the OST requires that when an astronaut from a State Party lands in the territory of another State Party due to "accident, distress, or emergency… they shall be safely and promptly returned to the State of registry of their space vehicle."[78] This provision served as the foundation for the Rescue Agreement and its requirements upon State Parties are almost identical.

i Paula and Borsch are astronauts

As demonstrated above, Borsch and Paula were astronauts launched into space by Applicant.

ii Paula and Borsch's emergency landing in Rastalia was caused by accident and distress

As demonstrated above, Couleur's emergency landing in Rastalia was caused by accident or distress.

iii Applicant is the State of registry for Couleur

Applicant registered Couleur with the United Nations in accordance with the Registration Convention,[79] and there are no other States claiming ownership or jurisdiction over Couleur. Additionally, Applicant procured the launch of Couleur and it launched from Banché.[80] For these reasons, Applicant is the State of registry for Couleur.

Pursuant to (i), (ii) and (iii) above, Respondent's failure to safely and promptly return Borsch and Paula are in violation of Article V of the OST.

2 Respondent violated Article VIII of the Outer Space Treaty

Article VIII of the OST states "ownership of objects launched into outer space …and their component parts, is not affected by their presence in outer space…or their return to the Earth."[81]

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[78] OST, art. V.
[79] Clarification, ¶11.
[80] Compromis, ¶14, ¶15
[81] OST, art. VIII.

In this case, the space object, Couleur, is owned by Solare, while some of its component parts, such as the robotic grappling arm and the GODA laser system, are owned by Applicant.[82] Irrespective of whether Solare or Applicant are determined to have directed the mission, Applicant bears international responsibility for all national activities in outer space, even if those activities were carried out by a non-governmental entity.[83] Furthermore, Article VIII of the OST requires that when space objects are found outside the territory of the State of registry, they "shall be returned to that State Party." Respondent's failure to return Couleur and its component parts to Applicant is a violation of Article VIII of the OST.

II RASTALIA IS LIABLE UNDER INTERNATIONAL LAW FOR THE DAMAGE TO COULEUR.

A Respondent is responsible and liable pursuant to Articles VI and VII of the Outer Space Treaty

Article VI of the OST states: "State Parties to the Treaty shall bear international responsibility for national activities in outer space… whether such activities are carried on by governmental agencies or by non-governmental entities and for assuring that national activities are carried out in conformity with the provisions set forth in the present Treaty."[84] Respondent's (i) launch and (ii) abandonment of Lavotto-1 were national activities and Respondent is therefore responsible for ensuring Lavotto-1's activities were in conformity with the remainder of the OST.

Article VII of the OST states: "Each State Party to the Treaty that launches...an object into outer space…is internationally liable for damage to another State Party to the Treaty or to its natural or juridical persons by such object or its component parts on the Earth, in air space or in

[82] Compromis, ¶12, ¶14, ¶15.
[83] OST, art. VI. (International space law deviates from the established principle of international law that States are not responsible for the activities of private entities.)
[84] OST, art. VI.

outer space, including the Moon and other celestial bodies."[85] Respondent's (iii) space object, Lavotto-1, collided with Applicant's (iv) space object, Couleur, causing (v) damage in (vi) outer space.[86] Respondent is therefore (vii) responsible and (viii) liable for the damage caused by its space object to Applicant's space object.

1 The launch of Lavotto-1 was a national activity of Respondent

The "national activities in outer space" referred to in Article VI of the OST include space activities carried on by governmental agencies and non-governmental entities.[87] The launch of Lavotto-1 was initiated and carried out by Jardon, a private Rastalian satellite company,[88] at the behest of Respondent, on 15 January 2028.[89] Therefore, Lavotto-1's operation in space was Respondent's national activity under the meaning of Article VI and Respondent bears international responsibility.

2 The abandonment of Lavotto-1 was a national activity of Respondent

Respondent made a conscious, unilateral decision to announce[90] that it considered Lavotto-1 a derelict[91] object and it had no prospect of resolving the malfunctions that placed it

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[85] *Id*., art. VII.
[86] Compromis, ¶16.
[87] OST, art. VI.
[88] Compromis, ¶5.
[89] *Id.*, ¶6, ¶7.
[90] Nuclear Tests, at 253, 267, ¶43 ("It is well recognized that declarations made by way of unilateral acts, concerning legal or factual situations, may have the effect of creating legal obligations. … When States make statements by which their freedom of action is to be limited, a restrictive interpretation is called for.").
[91] (The common and ordinary meaning of "derelict" is "in a very poor condition as a result of disuse and neglect" or "no longer cared for or used by anyone".) See *Derelict*, Oxford Dictionaries, http://www.oxforddictionaries.com/definition/english/derelict and also *Derelict*, Merriam-Webster, http://www.merriam-webster.com/dictionary/derelict. (Legal definitions include language such as "forsaken, deserted or cast away".) *See What is derelict*, Black's Law Dictionary (2nd ed. 1995), http://thelawdictionary.org/derelict/. (The use of the word "derelict" in Rastalia's public announcement regarding the status of Lavotto-1 should be interpreted in its ordinary and everyday sense.)

on a trajectory with significant probability of colliding with Mira.[92] Respondent's conscious decision as to how it would or would not manage its space object in outer space was a national activity.

Respondent's decision to declare Lavotto-1 a derelict object, as well as effectively abandoning the satellite, are national activities. Importantly, Respondent's decision to announce the status of Lavotto-1 as a derelict object does not absolve it of its responsibility or liability. Neither the OST nor any other space treaty expressly permit a State from renouncing ownership; in fact, Article VIII of the OST dictates that a State retains jurisdiction and control over its space object while in outer space and such responsibility is not reduced after claiming to have abandoned it.[93] Therefore, Respondent retained responsibility over its space object even after making its public announcement.

3 Lavotto-1 is a Space Object

Lavotto-1 was a satellite launched into space from Rastalian territory on 15 January 2028.[94] Lavotto-1 is therefore a "space object."[95]

4 Couleur is a Space Object

Couleur is a spacecraft that was launched into space from the territory of Banché on 1 January 2029.[96] Couleur is therefore a "space object."[97]

5 Couleur's loss in communication and control constitute "damage"

Although the OST does not explicitly define "damage," this notion was subsequently defined and adopted under Article I of the Liability Convention as a "loss of or damage to property

[92] Compromis, ¶10, ¶11.
[93] OST, Article VIII.
[94] Compromis, ¶7.
[95] Cheng, *Responsibility/Liability*, at 297.
[96] Compromis, ¶15.
[97] Cheng, *Responsibility/Liability*, at 297.

of States or of persons, natural or juridical…."[98] Lavotto-1's debris collided with Couleur on 4 January 2029.[99] Couleur's control and communication system were severely degraded by the collision with Lavotto-1's debris.[100] The severe degradation to the control and communication of Couleur qualify under the notion of damage outlined in the Liability Convention.

6 The damage took place in outer space

The damage to Couleur took place in outer space. Both Lavotto-1 and Couleur were in Low Earth Orbit (LEO) just prior to, during, and after the explosion of Lavotto-1 and the subsequent damage caused to Couleur.[101] LEO is somewhere other than the surface of the Earth.

7 Therefore, Respondent is responsible under Article VI of the Outer Space Treaty

Article VI of the OST imposes a two-fold obligation on States, making them responsible for: a) their objects and the entirety of that object's activities; and b) the activity and object's adherence to the provisions of the OST.

The English text of the OST uses the term "responsibility" in Article VI whereas Article VII of the OST and Article II of the Liability Convention use the term "liable." This is a distinction without a meaningful difference, especially true given the fact that the Chinese, French, Russian, and Spanish texts of the OST use the same term in Articles VI and VII.[102] In

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[98] Convention on International Liability for Damage Caused by Space Objects, Mar. 29, 1972, 24 U.S.T. 2389, 961 U.N.T.S. 187 [Liability Convention], art. I(a). VCLT, art. 31(3)(a). (A treaty shall be interpreted by taking into account "[a]ny subsequent agreement between the parties regarding the interpretation of the treaty or the application of its provisions." The Liability Convention was a subsequent treaty to the OST.)

[99] Compromis, ¶16.

[100] *Id*.

[101] *Id.*

[102] Cheng, *Article VI of the 1967 Space Treaty Revisited: "International Responsibility", "National Activities", and "The Appropriate State"*, 26 J. SPACE L. 7, 10 (1998) [hereinafter Cheng, *Article VI*]; Frans von der Dunk, *Liability Versus Responsibility in Space Law: Misconception or Misconstruction?*, PROCEEDINGS OF THE THIRTY-FOURTH COLLOQUIUM ON THE LAW OF OUTER SPACE 363 (1991).

international law, and in the context of a case where there is damage, the terms are fundamentally interchangeable.[103] The rationale pervading both Articles VI and VII is that "it is a principle of international law, and even a general conception of law, that any breach of an engagement involves an obligation to make reparation" as stated in the *Chorzów Factory* case[104] as well as other decisions of this Court.[105]

It was Respondent's responsibility to ensure the activities of its space object, Lavotto-1, complied with the remaining provisions of the OST, and therefore Respondent must compensate Applicant for the damage it caused. As discussed immediately below, Lavotto-1's activities violated Article VII of the OST, thereby also violating Article VI.

8 Therefore, Respondent is liable under Article VII of the Outer Space Treaty

Article VII of the OST addresses the international liability of damage, in conjunction with the Liability Convention, discussed below. It requires that the damage be "by" a space object, similar to the "caused by" language in the Liability Convention.[106]

As submitted above, Lavotto-1, caused damage to Couleur. Respondent's satellite was in an orbital position with significant probability of colliding with Applicant's manned space

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[103] Cheng, *Article VI*, at 32.

[104] Case Concerning the Factory at Chorzów (F.R.G. v. Pol.), 1928 P.C.I.J., Ser. A, No. 17, 23 and 47 (Sept. 13) [hereinafter Chorzów Factory]. *See also* Cheng, *Article VI*, at 10; BIN CHENG, GENERAL PRINCIPLES OF LAW AS APPLIED BY INTERNATIONAL COURTS AND TRIBUNALS, (1953) [hereinafter Cheng, General Principles] at 234*; see also* ILC Articles on Responsibility of States for Internationally Wrongful Acts with commentaries (2001), 53 UN GAOR Supp. (No. 10), U.N. Doc. A/56/10 (2001) [hereinafter Articles on State Responsibility], arts. 27, 31.

[105] *See, e.g.*, Armed Activities on the Territory of the Congo (Dem. Rep. Congo v. Uganda), Judgment, 2005 I.C.J. 168 (Dec. 19) [hereinafter Congo]; Military and Paramilitary Activities in and against Nicaragua (Nicar. v. U.S.), 1986 I.C.J. 14, at 14, 149 (Jun. 27); Gabčikovo-Nagymaros Project (Hung. v. Slovk.), 1997 I.C.J. 43, at 55 (Sep. 25); Reparation for Injuries Suffered in the Service of the United Nations, 1949 I.C.J. 174, at 184 (Apr. 11); Corfu Channel (U.K. v. Alb.), 1949 I.C.J. 4, at 23 (Apr. 9).

[106] Liability Convention, Art. II.

station, Mira.[107] Applicant was therefore necessitated[108] to attempt to de-orbit the defunct Lavotto-1 to protect its other space object. When Lavotto-1 broke apart, Applicant was further necessitated to attempt to de-orbit the piece of Lavotto-1 that still posed a danger to Mira. When Lavotto-1 exploded, it – or its component parts – caused damage to Couleur. Respondent is therefore liable pursuant to Article VII of the OST.

B Respondent is liable pursuant to Article III of the Liability Convention

Both parties are State Parties to the Liability Convention, making its provisions applicable and binding on the resolution of this case. Article III of the Convention provides: "In the event of [3] damage being caused elsewhere than on the surface of the earth to a [2] space object of one launching State… by [1] a space object of another launching State, the latter shall be liable only if the damage is due to its [4] fault or the fault of persons for whom it is responsible."[109] Respondent is at fault for its space object causing damage to Applicant's space object and is therefore liable.

1 Respondent is the Launching State of Lavotto-1

The term "launching State" includes: (i) a State which launches or procures the launching of a space object; and (ii) a State from whose territory or facility a space object is launched.[110] The Registration Convention requires a launching State to register its space object in a national register as well as in the United Nation's register.[111] Respondent launched Lavotto-1 from Rastalian territory on 15 January 2028 and registered it in its national register and with the United Nations shortly thereafter.[112] Respondent is therefore the undeniable launching State of

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[107] Compromis, ¶10.
[108] Articles on State Responsibility, art. 25.
[109] Liability Convention, art. III
[110] *Id.*, art. I(c).
[111] Convention on Registration of Objects Launched into Outer Space, Sept. 15, 1976, 28 U.S.T. 695, 1023 U.N.T.S. 15, arts. II and III.
[112] Compromis, ¶7.

Lavotto-1.

2 Applicant is the Launching State of Couleur

Applicant both procured the launch of Couleur and launched Couleur from its territory.[113] Applicant registered Couleur as per the Registration Convention.[114] Applicant is therefore the launching state of Couleur.

Although Solare, the owner of Couleur, is a company registered in Mosolia,[115] its principal place of business is in Banché and it may therefore be characterized as a Banché entity[116], thus making Banché the launching authority. Nevertheless, even if Mosolia is considered a launching state, it does not preclude Applicant from also being a launching state.[117]

3 Respondent caused the damage to Applicant

The damage to Couleur's communication and control systems are appropriate "damage" and such damage occurred somewhere other than the surface of the Earth.

When considering the notion of "caused by" under international space law[118], one must consider not only the direct impact or action of an activity but also "the context of causality, which means that there must be proximate causation between the damage and the activity from which the damage resulted."[119] According to Judge Lachs, "[t]o produce legal effect, the 'damage' thus defined must be caused by the space object or component parts of it, or by the

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[113] *Id.*, ¶ 14, 15.
[114] Clarification, ¶11.
[115] Compromis, ¶ 12.
[116] Elletronica Sicula S.p.A. (U.S. v Italy) 1989 I.C.J. 15 (Jul. 20). But *see* Barcelona Traction, Light and Power Company, Limited (Belgium v Spain), 1964 I.C.J. 6 (July 24).
[117] Liability Convention, art. 5.
[118] This includes the relevant provisions of both the Liability Convention and the OST.
[119] Carl Christol. *International Liability for Damage Caused by Space Objects*, 70 AM. J. INT'L L. 346, 362 (1980) (quoting Gorove, *Cosmos 954: Issues of Law and Policy*, 6 J. SPACE L. 141 (1978)) [hereinafter Christol, *International Liability*]. *See also* VALÉRIE KAYSER, LAUNCHING SPACE OBJECTS: ISSUES OF LIABILITY AND FUTURE PROSPECTS 48 (2001).

launch vehicle or parts thereof."[120] The causal link includes both cause-in-fact and proximate cause.

The debris from Lavott-1 caused damage to Couleur and therefore, the incontrovertible cause-in-fact of Couleur's damage was Respondent's space object, Lavotto-1. The VCLT requires the interpretation of a treaty to be made in light of its overall purpose and context.[121] Given that the Liability Convention emerged as a means of compensating victims of harm, its provisions should be interpreted in such a light.[122] Applicant is the victim in this case as its space object, Couleur, sustained damage from Lavotto-1.

Under international law, determining proximate cause requires an inquiry into the foreseeability of the harm[123] and exists when the consequences of a breach of an obligation are natural and foreseeable.[124] The foreseeability of an act is based on the standard of the reasonable person and therefore only requires the foreseeability of general harm, not a specific harm.[125] Strict foreseeability is not the criterion for liability in space law, given the difficulty, if not impossibility, of foreseeing all forms of damage that may be caused by a space object[126]; as long as a form of damage is foreseeable, it matters not whether the specific form of damage was actually foreseen. Therefore, Respondent was the proximate cause of the damage to Applicant.

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[120] LACHS, LAW OF OUTER SPACE, at 115.
[121] VCLT, at art. 31.
[122] LACHS, LAW OF OUTER SPACE, at 115.
[123] Stephan Wittich, *Compensation*, MAX PLANCK ENCYCLOPEDIA OF PUBLIC INTERNATIONAL LAW ¶17, http://opil.ouplaw.com/home/EPIL [hereinafter *Wittich*]; Christol, *International Liability*, at 362; Canada, Department of External Affairs, Cosmos Case, Canada: claim against the Union of Soviet Socialist Republics for damage caused by Soviet Cosmos 954, 18 I.L.M. (1979) 899.
[124] CHENG, GENERAL PRINCIPLE, at 250-51.
[125] *Id*. *See* Corfu Channel.
[126] *See* Christol, *International Liability*, at 362.

4 Respondent is at fault for causing the damage to Applicant

i The fault standard is applicable

The fault-based liability standard applies to the damage to Couleur as it was not caused on the surface of the Earth or to an aircraft in flight.[127] Fault is not expressly defined in the Liability Convention, but the definition is found in general international law, as referenced by Article III of the OST.[128] The ordinary meaning of fault in general international law is characterized as negligence, which is understood to be the infringement of the duty of due diligence or due care; it is not required to explicitly identify negligence or malice, so long as there is an act or omission which violates an obligation.[129]

ii There is a causal link between Respondent's fault and Couleur's damage

Liability under Article III of the Liability Convention requires a causal link between Respondent's fault and the damage to Applicant's space object, Couleur. The causal link can be either the cause-in-fact or a proximate cause. As discussed above, proximate cause under international law addresses the foreseeability of the harm[130] and is demonstrated when the damage is the natural and foreseeable consequence of the breach of an obligation.[131] Given its knowledge of the safety risks associated with launching satellites, Respondent should have reasonably

[127] Liability Convention, art. III.
[128] Christol, *International Liability*, at 369.
[129] Fisheries Jurisdiction Case (U.K. v Iceland), 1974 I.C.J. 3 (July 25). CHENG, GENERAL PRINCIPLES, at 225; Giuseppe Palmisano, *Fault*, MAX PLANCK ENCYCLOPEDIA OF PUBLIC INTERNATIONAL LAW ¶16, http://opil.ouplaw.com/home/EPIL. VCLT, art. 31.
[130] *Wittich*, at ¶17; Christol, *International Liability*, at 362.
[131] CHENG, GENERAL PRINCIPLES, *supra*, at 250-51.

foreseen that the natural consequence of its actions (including its abandonment of Lavotto-1) could result in some form of harm.[132]

iii Respondent's activities proximately caused the damage to Couleur

If this honorable Court determines that the cause-in-fact (such that Lavotto-1's space debris damaged Couleur) is insufficient to apportion liability, Respondent's activities were the proximate cause of the damage caused to Couleur. Article IX of the OST directs States to conduct their activities with due regard to the corresponding interests of other States.[133] Respondent should have realized, even before it launched Lavotto-1, that the development and launch of a space object posed inherent risks. Considering this was the first scientific satellite launched from Rastalian territory[134], there was an increased likelihood of risk; one Respondent would have been aware of. But for Respondent's decision to launch Lavotto-1, Lavotto-1 would never have been in a position to collide with Mira. The claim that the solar windstorm was rare and therefore unexpected is of little relevance; Respondent should have known that solar windstorms occur and that satellites must be protected from them. At the very least, the de-orbiting and maneuvering to a parking orbit functions[135] of the satellite should have been designed to withstand natural and expected phenomena.

a It was reasonably foreseeable that abandoning Lavotto-1 would cause damage to other space objects

But for Respondent's decision to abandon Lavotto-1, Applicant would not have been forced to launch Couleur to prevent a collision between Lavotto-1 and Mira. Respondent had

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[132] Ram Jakhu, *Iridium-Cosmos Collision and Its Implications for Space Operations*, in YEARBOOK ON SPACE POLICY: 2008/2009 254 (Schrogl, Kai-Uwe et al. eds., 2010) [hereinafter Jakhu].
[133] OST, art. IX.
[134] Compromis, ¶7.
[135] *Id.*, at ¶7, ¶8.

already made it clear that it believed the derelict Lavotto-1 posed a collision risk to Mira.[136] It was reasonably foreseeable that abandoning Lavotto-1 could result in damage to Mira, for which it would be liable; that given Lavotto-1's impact trajectory with Mira, Applicant would attempt to intervene[137]; and that if Applicant intervened, Applicant's space object could be harmed in the process. Thus, it was reasonably foreseeable that abandoning Lavotto-1 could result in a collision that could create a cascade of debris causing untold future damage.[138]

It was also reasonably foreseeable that given the new composite materials used in Lavotto-1, along with Respondent's non-existent satellite launch record, something could go wrong and

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[136] Compromis, ¶9.

[137] When Cosmos 2251 collided with Iridium 33, many scholars held the US responsible for the collision, stating its failure to utilize Iridium 33's maneuvering capabilities were the true cause of the collision. Similar to this Court's rationale in the Corfu Channel Case, where Albania's failure to prevent the accident was seen as grave omission imputing liability, had Banché done nothing and simply left Lavotto-1 in orbit while posing a collision risk to Mira, it too could have been held liable. *See* Jakhu, at 255-259.

[138] Other than violating Article IX of the OST (to pay due regard to the interests of all other States in the operation of space activities), Respondent also violated its obligation to prevent transboundary harm, a rule of customary international law codified by the International Law Commission Draft Principles on the Allocation of Loss in the Case of Transboundary Harm Arising Out of Hazardous Activities with commentaries, 58th Sess., U.N. Doc. A/61/10, 110-182 (2006). *See* Corfu Channel; Gabčíkovo-Nagymaros, at 48; Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. 226 (Jul. 8); Pulp Mills on the River Uruguay (Argentina v Uruguay), 2010 I.C.J. 14 (Apr. 20). This Court stated in Threat or Use of Nuclear Weapons that the obligation to prevent transboundary harm is now a part of the "corpus of international law relating to the environment", at ¶23-34. *See also*, ALEXANDRE KISS & DINAH SHELTON, GUIDE TO INTERNATIONAL ENVIRONMENTAL LAW 120 (Nijhoff Publishers, 2007); DONALD ANTON & DINAH SHELTON, ENVIRONMENTAL PROTECTION AND HUMAN RIGHTS 80-81 (Cambridge University Press: Cambridge, 2011); 114957 Canada Ltée (Spraytech) v Hudson (Town), 2001 SCC 20, [2001] 2 SCR 241 at ¶32; Chinthaka Mendis, *Sovereignty vs. trans-boundary environmental harm: The evolving International law obligations and Sethusamuduram Ship Channel Project*, UNITED NATIONS *available at* http://www.un.org/depts/los/nippon/unnff_programme_home/fellows_pages/fellows_papers/mendis_0607_sri_lanka.pdf "Today, under general international law, a well-recognized restraint on the freedom of action which a State in general enjoys by virtue of its independence and territorial supremacy is to be found in the prohibition of abuse by State of the rights enjoyed by it by virtue of international law."

it would be required to de-orbit the satellite manually. Respondent ought to have utilized the new composite material for non-vital structural components in order to test it in outer space.[139] But for such a manufacturing decision, Lavotto-1 would not have broken into two pieces when Couleur attempted to grapple it.

b Applicant was necessitated to protect its space object Mira

These reasons forced Applicant to launch Couleur in an attempt to avert damage to Mira. Therefore, even if Couleur "caused" the explosion, it was forced into action by Respondent's prior actions which are necessarily the proximate cause of the damage to Couleur, which were reasonably foreseeable. Even if Applicant violated an obligation not to interfere with another State's space object, it is exonerated on the basis of necessity; the Mira space station was an essential interest in grave and imminent peril, Lavotto-1 had been characterized as derelict and was no longer an essential interest of Respondent, and utilizing Couleur to deorbit Lavotto-1 was the only option remaining to Applicant.[140]

C If Respondent is not found liable under the Outer Space Treaty or Liability Convention, Respondent remains liable under general international law

Under the ILC's Articles on State Responsibility, a State is internationally responsible for its wrongful acts.[141] Should a State commit a wrongful act, it "is under obligation to make full reparation for the injury caused by the internationally wrongful act."[142] In order for an act to constitute an "internationally wrongful act" that triggers reparation, two elements must be satisfied[143]: first, the act must be attributable to the State[144], and second, the act must "constitute

[139] Compromis, at ¶7.
[140] Articles on State Responsibility, art. 25.
[141] *Id*., art. 1.
[142] *Id*., art. 31; Chorzów Factory, 1928 P.C.I.J., at 47; s*ee also* Congo, at ¶259.
[143] Articles on State Responsibility, art. 2.
[144] *Id.,* art. 2(a).

a breach of an international obligation of the State."[145]

1 Damage to Couleur is attributable to Respondent

The actions and activities of a space object are attributable to its State.[146] As discussed above, the damage to Couleur was attributable to Lavotto-1, a space object under the control of Respondent, thus making Respondent responsible.[147]

2 Lavotto-1's damage to Couleur was a breach of Respondent's obligation not to harm others

Under international law, "when an act of that State is not in conformity with what is required of it by that obligation, regardless of its origin or character"[148] there is a "breach". This breach of an international obligation entails the responsibility to make reparation.[149]

One such international obligation is "not to cause damage [to another State]" and is unconditional.[150] Further, there is an obligation to "use your property in such a way as not to harm others."[151] The *Trail Smelter* arbitration between the US and Canada first espoused this principle and has since been reiterated in the jurisprudence and international instruments that have followed.[152] Although the *Trail Smelter* arbitration dealt with environmental issues, and is seen as the precursor to the requirement to prevent transboundary harm, it is not limited to the

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[145] *Id*., art. 2(b).
[146] OST, art. VI.
[147] Articles on State Responsibility, art. 4.
[148] *Id*., art. 12.
[149] The duty can be derived from customary or conventional obligations. *See Id.* at 32-33, section (2); Rainbow Warrior (N.Z. v. France), 1990 UNRIAA, vol. XX 215,at 251, ¶75 (Apr. 30).
[150] XUE HANQIN, TRANSBOUNDARY DAMAGE IN INTERNATIONAL LAW 14 (2003).
[151] This is derived from the Latin phrase "*sic utere tuo ut alienum non laedas*". Sompong Sucharitkul, *State Responsibility and International Liability under International Law*, 18 LOY. L.A. INT'L & COMP. L.J. 821, 828 (1996).
[152] Trail Smelter Arbitration (U.S. v. Can.), 3 R. Int'l Arb. Awards 1905 (1949) at 1965 and 1963; Corfu Channel, at 23; United Nations Conference on the Human Environment, June 5-16, 1972, *Stockholm Declaration*, U.N. Doc. A/CONF.48/14/Rev.1 (July 16, 1972) Principle 21.

environmental law scheme and can apply to space law as well.[153] The ILC *Draft Articles on the Prevention of Transboundary Harm* place an obligation on States to ensure their otherwise acceptable activities do not harm other States; doing so is a violation that requires reparation.[154]

Respondent failed to fulfill its duties and breached its international obligation not to commit a wrongful act.[155] The Respondent's abandonment of its satellite, Lavotto-1, breached its duty not to cause harm and ignored the reasonably foreseeable fact that it would collide with Mira. In concert with the principles of co-operation and mutual assistance, as outlined in Article IX of the OST, Respondent could have invited other States to assist in the de-orbiting procedure rather than merely announcing it was a derelict object and thereby implying it no longer considered Lavotto-1 its responsibility; by not doing so, it ended up causing actual damage to Couleur.[156] The damage was significant, including the loss of the spacecraft and subsequent surface damage on Earth. Therefore, Respondent violated its obligations under general international law, making its actions with regard to Lavotto-1 an internationally wrongful act.[157] As such, it is liable to Applicant for reparations.[158]

3 Respondent's abandonment of Lavotto-1 violated its obligation to conduct its space activity with due regard for the interests of other States

Respondent had an obligation under the OST to conduct its activities with due regard for Applicant's interests. Article IX of the OST states: "States Parties… shall conduct all their activities in outer space… with due regard to the corresponding interests of all other States Parties

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[153] CHENG, GENERAL PRINCIPLES, at 83; *see also Legality of the Threat or Use of Nuclear Weapons,* at 241-42.
[154] *See* ILC Draft Articles on Prevention of Transboundary Harm from Hazardous Activities, art. 3.
[155] *See* Articles on State Responsibility, arts. 2(b), 12.
[156] OST, art. IX; Compromis, ¶20-21.
[157] Articles on State Responsibility, art. 2.
[158] *Id.,* art. 31.

to the Treaty."[159] By simply abandoning its satellite even though it posed a clear risk to Mira (one that could have easily resulted in a debris domino-effect), Respondent violated this obligation and is therefore liable to Applicant for its sustained damage.

III BANCHÉ IS NOT LIABLE UNDER INTERNATIONAL LAW FOR THE COSTS OF RECOVERY OF COULEUR, THE RESCUE AND MEDICAL EXPENSES FOR COMMANDER BORSCH, THE COSTS OF THE EVACUATION OF LAKE TAIPO AND THE DEATHS OF BOTH MR. THOMAS AND MR. BARTON.

A Applicant is not liable for recovery costs of Couleur

According to Article 5 of the Rescue Agreement, a launching authority is responsible for the "[e]xpenses incurred in fulfilling obligations to recover *and return* a space object or its component parts…"[160] There are circumstances that would arguably require a launching authority to pay recovery expenses when the space object or its component parts have not been returned, including when the launching authority requests but never claims the recovery and return of a space object or renounces ownership. Additionally, the costs of a lawfully conducted yet unsuccessful recovery operation may also fall to the launching authority.[161] The Rescue Agreement makes no provision in this case for Respondent to be compensated when it has not returned Couleur to Applicant.

Since the adoption of the Rescue Agreement, space objects and their component parts have been recovered outside the territory of the launching authority and returned on at least four occasions.[162] These cases show that when a space object or its component parts are found outside the territory of the launching authority, Contracting Parties do adhere to the enumerated

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[159] OST, art. IX.
[160] Rescue Agreement, art. 5.5 [emphasis added].
[161] LACHS, LAW OF OUTER SPACE, at 80.
[162] Frans G. von der Dunk, *A Sleeping Beauty Awakens: The 1968 Rescue Agreement after Forty Years*, 34 J. SPACE L. 411, 427-31 (2008). France and the United States have both honored their duties to cover recovery and return expenses for their space objects.

requirements in Article 5 and, when requested, cover expenses. In these cases the Contracting Party returned the space object or held it for the launching authority's disposal before receiving payment for expenses incurred.[163]

In this case, Applicant has demanded the return of Couleur, but Respondent has publicly stated it has a right to "fully examine the spacecraft no matter how long it [takes]."[164] The Rescue Agreement makes no provision for such examination and Respondent's continued retention of Couleur is in violation of the Rescue Agreement. Until Respondent returns Couleur, Applicant has no obligation to cover expenses.

B Applicant is not liable under the Rescue Agreement or Outer Space Treaty for the rescue and medical expenses of Borsch

Neither the Rescue Agreement nor the OST provide for the recovery of expenses incurred in rescuing an astronaut or personnel of a spacecraft. Regarding this omission, Judge Lachs stated the "silence of the law warrants the conclusion that no compensation can be demanded."[165] This understanding is consistent with the humanitarian nature of the Rescue Agreement and applicable provisions of the OST. Consequently, the Rescue Agreement and OST provide no basis for the Respondent to recover the rescue and medical expenses for Borsch.

C Applicant is not liable for the costs of the evacuation of Lake Taipo as it does not constitute compensable damage

1 Applicant is not liable under Article II of the Liability Convention

Article I of the Liability Convention defines "damage" as "loss of life, personal injury, or other impairment of health; or loss of or damage to property of States or of persons, natural or juridical, or property of intergovernmental organizations." Under Article II a launching State is

[163] *Id*.
[164] Compromis, ¶19.
[165] LACHS, LAW OF OUTER SPACE, at 80.

absolutely liable for damage caused on the surface of the earth or to an aircraft in flight by its space object; however, a launching State can be exonerated from liability to the degree that the claimant State's gross negligence wholly or partially contributed to the damage.[166] If damage is proven, compensation should be paid in compliance with "international law and principles of justice and equity," in order to restore the other party to the position it would have held if the damage had not occurred.[167]

The definition of damage under Article I of the Liability Convention does not include indirect or consequential damage, especially evacuation costs that were not the result of any actual or potential harm, but incurred solely based on Respondent's unfounded suspicions. During the drafting of the Liability Convention, the delegates discussed the inclusion of indirect damages, but no agreement could be reached and, as a result, indirect damage was not included in the definition.[168] Article XII makes express reference to the general legal principle of *restitution in integrum*. This principle includes direct loss and lost profits,[169] and when applied to this case shows that damage must flow directly and consequently from the event causing the harm.[170] This restrictive definition is supported by the analysis in *Factory at Chorzów* determining that "contingent and indeterminate damage" is excluded. [171] The evacuation costs of Lake Taipo were

[166] Liability Convention, art. VI.
[167] Chorzów Factory, at 21.
[168] *Travaux préparatoires* to the Liability Convention, Legal Sub Comm. On the Peaceful Uses of Outer Space, 6th Sess., U.N. Doc. A/6804 Annex III (Sept. 27, 1967), *compiled in* N. JASENTULIYANA AND R. LEE, MANUAL ON SPACE LAW (Oceana: Oceana Publishers, 1979); CHENG, SPACE LAW, at 323.
[169] Armel Kerrest & Lesley Jane Smith, *Article VII of the Outer Space Treaty*, in COLOGNE COMMENTARY ON SPACE LAW, Vol. 1, 126, 141 (Stephen Hobe *et al* eds., 2009).
[170] Elenaj Carpanelli & Brendan Cohen, *Interpreting 'Damage Caused by Space Objects' under the 1972 Liability Convention*, 56 PROC. INT'L INST. SPACE L. 29 (2013).
[171] Chorzów Factory, at 57.

not proximately caused by the landing of Couleur in Rastalia and as a result, Applicant should not be liable.

2 Applicant is not liable under general international law

There must be a direct causal link between a State's actions and the damage caused for a State to be held liable.[172] Applicant has breached no international obligation and there is no direct causal link between Applicant's conduct and the evacuation of Lake Taipo, thus Applicant is not liable. For liability to attach, Applicant's breach must be the proximate cause of the damage. Professor Cheng stated, "the relation of cause and effect operative in the field of reparation is that of *proximate causality* in legal contemplation. In order that a loss may be regarded as the consequence of an act for purposes of reparation, either the loss has to be the proximate consequence of the act complained of, or the act has to be the proximate cause of the loss."[173]

In this case, Applicant did not cause Lake Taipo to be evacuated. Rather, Respondent ordered an evacuation of Lake Taipo based on an inaccurate suspicion.[174] Although Article II of the Liability Convention provides for absolute liability, Couleur was not the proximate cause of the damage, so Article II does not control this issue.

D Applicant is not liable under the Liability Convention for the deaths of Mr. Thomas and Mr. Barton

Just as with the evacuation of Lake Taipo, Applicant is neither liable for the death of Thomas nor Barton, because it is exonerated due to Respondent's gross negligence in launching and abandoning Lavotto-1; the deaths do not constitute damage proximately caused by Applicant's actions.

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[172] Chorzów Factory, at 47.
[173] CHENG, GENERAL PRINCIPLES, at 244. (emphasis added).
[174] Compromis, ¶18.

Thomas' death was indirectly caused by a piece of Couleur's detached outer shell striking a building,[175] while Barton suffered a heart attack and died when Couleur unexpectedly flew above him.[176] Barton suffered no direct harm when Couleur landed in Rastalia or when a fragment broke apart and struck the campgrounds. There is no evidence Couleur or its component parts had direct contact with Thomas or Barton.

Barton's death is too remote to be claimed. Remote and indirect damage is not recoverable under the Liability Convention or general international law.[177] A heart attack suffered as a result of a spacecraft simply flying overhead does not fall within the definition of compensable damage under the Liability Convention and cannot be recovered.

E Applicant is exonerated from absolute liability due to Respondent's gross negligence under Article VI of the Liability Convention

Even if Applicant were to be found liable under Article II of the Liability Convention, Article VI provides that the launching authority may be exonerated from absolute liability if "the damage has resulted either wholly or partially from gross negligence or from an act or omission done with intent to cause damage…." The space law treaties do not define gross negligence, but in the *travaux préparatoires* to the Liability Convention, delegates confirmed that gross negligence was similar to a "willful or reckless act or omission" and meant something more than mere negligence.[178] This view was consistent with the understanding of gross negligence in

[175] *Id.*, ¶18.
[176] *Id.*, ¶19.
[177] *See* The Naulilaa Claims, (Port v. Germany), 2 R.I.A.A. 1013 (1928), where the arbitral tribunal found that the damage caused to Portuguese colonial territory were too remote to be attributable to Germany's activities. *See* also Stephen Gorove, *Some Comments on the Convention on International Liability for Damage Caused by Space Objects*, PROCEEDINGS OF THE SIXTEENTH COLLOQUIUM ON THE LAW OF OUTER SPACE 253 (1973).
[178] *United Nations, General Assembly, Travaux préparatoires* to the Liability Convention, Official Records of Meetings, U.N.GAOR, COPUOS, 50th mtg. at 3 (statement by U.S. Amb. Sohier), U.N. Doc. A/AC/105/C.2/SR.50 (1965). *United Nations, General Assembly, Travaux*

domestic jurisdictions.[179]

Respondent's launch of Lavotto-1 into outer space with no ability to recover it from orbit in the event of malfunction and ultimately abandoning it while on a collision course with Mira Space Station amounts to gross negligence. At the time Respondent abandoned Lavotto-1, it was significantly probable that it would collide with Mira and the consequences were certain to be deadly. Respondent's gross negligence prompted Applicant to mitigate the pending doom by removing Lavotto--1 from orbit. Had Applicant not been necessitated to remove Lavotto-1 from its collision course with Mira, it would not have been in position to cause damage to Rastalia. When Levotto-1 experienced structural failure and subsequent explosion, it was its debris fragment that seriously damaged the normal functioning of Couleur's communications and flight control systems causing it to land in Rastalia.[180] As such, Applicant is wholly exonerated from liability damage caused on the surface of the Earth in Rastalia.

F Applicant has not committed any other internationally wrongful act

Respondent has failed to show that Applicant committed any internationally wrongful act. An internationally wrongful act is fundamental for liability under general international law as the predecessor to this honorable Court stated in the *Chorzów Factory*[181] case and under Article VI of the OST. Simply put, there is no liability under general international law absent a wrongful act. Since Applicant committed no internationally wrongful act, it is not liable under general international law.

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préparatoires to the Liability Convention, Official Records of Meetings, U.N. GAOR, COPUOS, 77th mtg. at 9 (statement by Indian Amb. Haraszi), U.N. Doc. A/AC/105/C.2/SR.77 (1966).

[179] Jean Limpens et al, *Liability for One's Own Act*, *in* VOL XI (TORTS) INTERNATIONAL ENCYCLOPEDIA OF COMPARATIVE LAW 65, 70 (Andres Tunc *et al* eds., 1983) (Although no distinct definition can be deduced from civil and common law jurisdictions, both systems afford a degree of severity of the conduct necessary to meet the gross negligence standard.)

[180] Compromis, ¶16.

[181] Chorzów Factory, at 21.

For these reasons, Applicant submits that it is not liable to Respondent for any costs or damage, and as such, should not pay compensation.

SUBMISSIONS TO THE COURT

For the foregoing reasons, the Republic of Banché respectfully requests the Court to adjudge and declare that:

a. Rastalia violated international law by refusing to return Couleur and Commander Borsch to Banché and refusing to earlier return of Ms. Paula to Banché.

b. Rastalia is liable under international law for the damage to Couleur.

c. Banché is not liable under international law for the costs of recovery of Couleur, the rescue and medical expenses for Commander Borsch, the costs of the evacuation of Lake Taipo, and the deaths of both Mr. Thomas and Mr. Barton.