THE 2016 MANFRED LACHS SPACE LAW MOOT COURT COMPETITION

## INTERNATIONAL COURT OF JUSTICE

Case Concerning Space Debris, Commercial Spaceflight Services and Liability

## THE REPUBLIC OF BANCHÉ

(APPLICANT)

## V

THE REPUBLIC OF RASTALIA
(RESPONDENT)

AGREED STATEMENT OF FACTS


THE 2016 MANFRED LACHS SPACE LAW MOOT COURT COMPETITION

## Case Concerning Space Debris, Commercial Spaceflight Services and Liability

## Agreed Statement of Facts:

1. The Republic of Banché is a highly developed country with a 2000-kilometer coastline. It has a long history and technical expertise in space exploration and exploitation. Its state-owned space station, Mira, placed in a north-south polar orbit, has been operating for nearly ten years since October $1^{\text {st }}, 2020$. On June $1^{\text {st }}, 2021$, Banché initiated a long-term national program "Open the Gateway for Mankind" to encourage its domestic private enterprises to provide private commercial spaceflight services in the international market.
2. The Republic of Rastalia is a landlocked state with rich natural resources. Its southern plain area is densely-populated. Its north is mountainous and sparselypopulated. A developing country with a high annual GDP growth rate, Rastalia set up a national plan for space entitled "Beyond the Earth's Surface" in early 2024. The plan's initial goals were to focus on making extensive use of satellite technologies for various purposes and expanding the satellite market.
3. Banché and Rastalia are neighboring countries with an 800 -kilometer contiguously shared border. Though historically, dating back centuries, there have been hostilities because of border issues, their relationship has improved by a series of cooperative projects in various fields during recent years. They are both Member States of the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS) and actively take part in the discussions of COPUOS working groups concerning the space legal and technical issues.
4. Banché considers Rastalia as a significant rival in the commercial space marketplace and maintains strict export controls over high technologies against Rastalia. It considers Rastalia as a potential national security threat. The Banché Congress enacted the Export Control Act on February 1 ${ }^{\text {st }}, 2026$, which stipulated strict national license controls over nuclear materials, nuclear reactors and laser technology. In addition, a special order was issued to prohibit governmental space cooperation between the two states, i.e. the


THE 2016 MANFRED LACHS SPACE LAW MOOT COURT COMPETITION
Banché government shall not cooperate in any way with Rastalia or Rastalia-owned companies in any space program.
5. Jardon Tech. Co. Ltd. ("Jardon"), a satellite company, was founded and registered in Rastalia in 2023. Soon after Rastalia initiated the Satellite Commercialization Development (SCD) project in 2026, Jardon received the authorization certificate to conduct commercial launching services from Rastalian government facilities pursuant to its National Space Commercial Launching Act (2016). Jardon became the major enterprise appointed by the Rastalian government to undertake the SCD project.
6. On January $20^{\text {th }}, 2027$, as part of the $\operatorname{SCD}$ project, Rastalia announced plans to launch three satellites (Lavotto-series) within three years. The main functions of the satellites developed as part of this project are commercial telecommunications, disaster monitoring, and medical data relaying services for rural and remote areas where conventional communications or other services are not available.
7. On January $15^{\text {th }}, 2028$, Jardon launched the first scientific satellite (Lavotto-1) from Rastalian territory. This satellite was placed in low Earth orbit (LEO), an elliptical orbit with a nominal average altitude of 600 kilometers. Lavotto- 1 had an in-orbit dimension of 3.25 meters ( 10.6 feet) $\times 0.6$ meter $(2$ feet $) \times 0.3$ meter $(1$ feet) and a mass of 950 kilograms. The major structural material of Lavotto-1 was the latest composite research achievement of Jardon. Lavotto-1 marked the first operational use of the material which had not previously been launched into outer space. For end-of-life mission planning purposes, the satellite was equipped with a capability either to de-orbit or to be maneuvered to a so-called "parking orbit" ${ }^{1}$. Rastalia registered the "Lavotto-1" satellite both in a national register within one month after the launch and with the UN two months after the launch.
8. On May $18^{\text {th }}, 2028$, four months after achieving full operational capability, Lavotto1 suddenly ceased most of its functions (including the de-orbit capability) because of a rare solar windstorm. Jardon immediately reported this failure to the Rastalian government and predicted that there was still the possibility to maneuver the barely functional satellite to a higher parking orbit. Rastalia's State Department spokesman held a press conference to announce this incident to the international community and indicated that Jardon was endeavoring to repair the propulsion system of the satellite to

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THE 2016 MANFRED LACHS SPACE LAW MOOT COURT COMPETITION
boost it into an orbit which would not pose a threat to the other space traffic, and protect the space environment by reducing risks of on-orbit collision.
9. On May $25^{\text {th }}, 2028$, the Rastalian government announced that Jardon was unable to boost Lavotto- 1 towards the expected parking orbit because the satellite power and thermal systems damaged by the solar storm had failed during the orbit-altering maneuver. After the failure of Jardon's attempt to alter Lavotto-1's orbit, Jardon reported to Rastalia that the uncontrolled Lavotto-1 would pose a collision hazard to the Mira Space Station, which was at the same or slightly lower altitude to the Lavotto1. Rastalia confirmed these findings and held a press conference where it reported that the collision probability would be greater if there was an attempt to use another Rastalian spacecraft to capture the satellite and deorbit it because the Lavotto-1 was too fragile for such a mission.
10. The country of Mosolia describes itself as a permanently neutral state. It 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 May 28 ${ }^{\text {th }}, 2028$, the Moso Center reported that it was the rare solar windstorm that led to the malfunction of Lavotto-1 and confirmed Rastalia's own report of the spacecraft's collision risks to the Mira Space Station to the international community. With the several announcements from Rastalia and Moso, Banché immediately set up its own panel to investigate the potential hazards and collision threats to its space station; the panel reported its findings on June $15^{\text {th }}, 2028$, which revealed that the conjunction of Lavotto-1's and Mira's orbits was within 2 kilometers in LEO and there was a significant probability that Mira would suffer a catastrophic collision with Lavotto-1.
11. During the next several weeks, Banché and Rastalia conducted discussions through diplomatic channels. On July $30^{\text {th }}, 2028$, Rastalia announced that "Rastalia is unable to resolve the malfunction of Lavotto-1 and declares that the spacecraft is a derelict object." Later that day the Banché defense minister held a press conference and announced, "The Banché government considers the Lavotto-1 satellite to be abandoned and Banché will physically remove Lavotto-1 from its current orbit with the latest advanced robotic seizing and removing technologies, which will be implemented as part of its upcoming manned space flight."


THE 2016 MANFRED LACHS SPACE LAW MOOT COURT COMPETITION
12. Solare Travel Services Ltd. ("Solare"), a company registered in Mosolia, has its principal office in Banché. Solare successfully qualified the spacecraft Couleur for commercial spaceflight services in early February 2025 after several successful trial flights launched from the Banché spaceport. On July $1^{\text {st }}, 2028$, Solare shortlisted two persons through selection (a Mosolian citizen named Ms. Erin Paula and a Rastalian citizen named Mr. Andrew James) among a number of applicants for its debut launch, with a Banché astronaut named Mr. Mario Borsch as Couleur's commander.
13. Ms. Paula is a well-known Mosolian scientist, who won its National Science and Technology Award in 2026. The Mosolian government provided full funding for her to take Couleur's first space trip. Mr. James is the CEO of Rastalia's largest oil company "Oxpeck" and he paid for the space ride himself; Couleur's commander, Mr. Borsch, formerly worked in the Ministry of National Defense of Banché during 2016-2021, serving as chief program director and engineer in charge of Banché's Anti-satellite Weapons (ASAT) project.
14. On August $1^{\text {st }}, 2028$, the Banché government signed a contract with Solare, which stipulated that Solare's spacecraft Couleur take up the job to remove Lavotto-1 from its current orbit using the latest robotic seizing and removing technologies to be provided by the Banché Space Agency. Solare was also contracted to provide for the launching services of two Banché satellites in 2029.
15. On January $1^{\text {st }}, 2029$, Couleur was launched from the Banché spaceport and successfully rendezvoused with Lavotto-1. On January $3^{\text {rd }}, 2029$, Couleur's commander, Mr. Borsch, started to operate the satellite removing system which consisted of a grappling arm. However, during the grappling process, the Lavotto-1's composite structural material did not withstand the grappling and the satellite broke into two segments. Only one of the segments could be captured by Couleur's grappling arm and de-orbited. The other piece of Lavotto-1 remained in orbit, and posed collision risks to Mira and Couleur and to other space objects in or intersecting the same orbit. After the structural failure, on the same day, after consulting the flight control center on the ground, Commander Borsch decided to activate the Global-Orbiting Deflection Apparatus (GODA) ${ }^{2}$ Laser Satellite Removal System which was equipped by the Banché Ministry of National Defense in the Couleur before its launch.

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THE 2016 MANFRED LACHS SPACE LAW MOOT COURT COMPETITION
16. On January $4^{\text {th }}, 2029$, GODA fired a continuous beam on the remaining piece of Lavotto-1. Station keeping thruster propellant still on-board Lavotto-1 exploded which resulted in a cascade of debris fragments. Several minutes later, Couleur was struck by a debris fragment, which seriously damaged the normal functioning of Couleur's communications and flight control systems, leaving only limited and intermittent communications ability and reduced maneuverability of the spacecraft. Commander Borsch decided to make an urgent landing at the Banché spaceport with the permission from Solare.
17. The Couleur, due to the damage to its key communications apparatus, was unable to achieve the correct orientation and failed to land at the Banché spaceport. Without sufficient ability to communicate with the ground control center, Commander Borsch decided to land in the territory of Rastalia and was able to successfully touch down beside Lake Taipo, a major Rastalian tourist destination in the south. During the landing process, a piece of spacecraft shell, damaged by the debris collision, detached and hit a campsite near Lake Taipo, completely destroying the buildings near the lake and causing the death of a Rastalian, Mr. Dave Thomas, who was on holiday with his daughter Wendy. On January $6^{\text {th }}, 2029$, Banché issued a diplomatic note to Rastalia and formally demanded the immediate return of the Couleur spacecraft, Commander Borsch, and Ms. Paula.
18. A Rastalian Rescue and Recovery Team located and reached the landing site of Couleur within 18 hours after its de-orbit. In the interim, the Rastalian Foreign Minister issued a formal statement that the Rastalian Government strongly condemned the GODA Laser as a weapon of mass destruction, and its belief that such device must have been powered by nuclear materials. Therefore, the Rastalian Government ordered the evacuation of all persons within a 300 kilometer radius of Lake Taipo. The rescue and recovery team found that Couleur's passenger cabin was relatively intact although the remainder of the craft was severely damaged. The three persons in the cabin were successfully rescued and sent to the hospital for medical treatment. The Couleur spacecraft was tested and no nuclear radiation leak was detected. One month later, the evacuation order for Lake Taipo was lifted.
19. On January $11^{\text {th }}, 2029$, in response to Banché's diplomatic note, the Rastalian Foreign Ministry spokesman announced that Mr. James would be sent to the Rastalian National Hospital for further health recovery. She also announced that the unscheduled


THE 2016 MANFRED LACHS SPACE LAW MOOT COURT COMPETITION
landing also caused the death of another Rastalian citizen, Mr. Barton, who was under the flight path and suffered a fatal heart attack while witnessing the Couleur pass overhead. In addition, she stated that the Couleur GODA Laser system was an illegal weapon, and that Rastalia had the right to fully examine the spacecraft no matter how long it took to complete that process. Further, Commander Borsch would be held pending criminal charges, and Ms. Paula would be returned to Banché after Banché reimbursed Rastalia for the costs and damages incurred as a result of Couleur's illegal acts, including costs of recovery of the spacecraft, rescue costs and medical expenses for the personnel of the spacecraft, the costs of the evacuation of Lake Taipo, and the deaths of Rastalians, including both Mr. Thomas and Mr. Barton.
20. On January $12^{\text {th }}, 2029$, the Mosolian press published a declaration 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, but did not give 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.
21. On January $20^{\text {th }}, 2029$, the Banché President made an announcement which condemned Rastalia's detention of Couleur's commander as a violation of international law, and she demanded his return without any precondition.
22. On February $10^{\text {th }}, 2029$, 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. IRNO further reported that Commander Borsch accepted the offer and signed an internal confidential agreement with RSRI, which listed the core space-related technologies he was to develop for Rastalia's National Defense Department, including nuclear power systems, spacecraft navigation systems and laser ASAT systems.
23. After several months, following diplomatic negotiations, Rastalia released Ms. Paula to Banché. Negotiations for the return of Commander Borsch and the Couleur spacecraft were unsuccessful, and both remain in Rastalia.


THE 2016 MANFRED LACHS SPACE LAW MOOT COURT COMPETITION
24. Banché initiated these proceedings by Application to the International Court of Justice. Rastalia accepted the jurisdiction of the Court, and the parties submitted this Agreed Statement of Facts. There is no issue of jurisdiction before the Court.
25. (1) Banché 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 the 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.
(2) Rastalia requests the Court to adjudge and declare that:
a. Rastalia acted in conformity with international law by refusing to return Couleur and Commander Borsch to Banché and refusing the earlier return of Ms. Paula to Banché.
b. Rastalia is not liable under international law for the damage to Couleur.
c. Banché is 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.
26. Both Banché and Rastalia are Member States of the United Nations, States Parties to the 1967 Outer Space Treaty, the 1968 Return and Rescue Agreement, the 1969 Vienna Convention on the Law of Treaties, the 1972 Liability Convention, and the 1975 Registration Convention.

THE 2016 MANFRED LACHS SPACE LAW MOOT COURT COMPETITION

## Timeline of major events for easy reference

October ${ }^{\text {st }}, 2020$ - Banché launched the Mira space station;

June 1", 2021 - Banché initiated the "Open the Gateway for Mankind" Program
Early 2024 - Rastalia set up the "Beyond the Earth's Surface" Plan

February ${ }^{\text {st }}$, 2026 - Banché Congress enacted the Export Control Act and a special prohibition order;

January $15^{\text {th }}, 2028$ - Jardon launched the first scientific satellite (Lavotto-1);

May $18^{\text {th }}, 2028$ - Lavotto- 1 suddenly ceased most of its functions;

May $25^{\text {th }}, 2028$ - Rastalia announced that Jardon was unable to boost Lavotto-1;
May $28^{\text {th }}, 2028$ - Moso Center confirmed the possible collision information;

June $15^{\text {th }}, 2028$ - A panel reported its findings on a high probability of collision;

July $30^{\text {th }}, 2028$ - Banché government decided to physically remove Lavotto-1;

August $1^{\text {st }}, 2028$ - Banché government signed a contract with Solare;
January $1^{\text {st }}, 2029$ - Couleur was launched from the Banché spaceport;

January $3^{\text {rd }}, 2029$ - Lavotto- 1 collapsed into two pieces during the grappling process;

January $4^{\text {th }}, 2029$ - GODA Laser fired a continuous beam on the remaining piece of Lavotto-1; Couleur was struck by a debris fragment; the Couleur failed to land in the Banché territory and Commander Borsch decided to land in the territory of Rastalia;


THE 2016 MANFRED LACHS SPACE LAW MOOT COURT COMPETITION

January $6^{\text {th }}, 2029$-Banché issued a diplomatic note to Rastalia;
January $11^{\text {th }}, 2029$ - Rastalian Foreign Ministry spokesman made an announcement;

January $12^{\text {th }}, 2029$ - Mosolian press published Commander Borsch's declaration;

January $20^{\text {th }}, 2029$ - Banché demanded the return of Commander Borsch without precondition;

February $10^{\text {th }}, 2029$ - IRNO released a report.


[^0]:    ${ }^{1}$ A parking orbit is a temporary orbit used during the launch of a satellite or other space probe.

[^1]:    ${ }^{2}$ GODA is a directed energy continuous wave (CW) laser. As designed for use by Couleur, the laser was intended to cause a slight adjustment in the orbit of a target satellite, which would increase drag and ultimately result in the spacecraft re-entering the atmosphere and burning up.

