



THE 2020 MANFRED LACHS SPACE LAW MOOT COURT COMPETITION

INTERNATIONAL COURT OF JUSTICE

**Case Concerning Jurisdiction and Control in Outer Space,  
Space Situational Awareness, and Orbital Debris**

**CONFEDERATION OF VALENKOVA**

(APPLICANT)

V.

**THE REPUBLIC OF SARIDIA**

(RESPONDENT)

**AGREED STATEMENT OF FACTS**



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### CASE CONCERNING JURISDICTION AND CONTROL IN OUTER SPACE, SPACE SITUATIONAL AWARENESS, AND ORBITAL DEBRIS

#### Agreed Statement of Facts:

1. The year is 2040. Earth missions to and through space are regular and represent a wide range of activities that benefit those still living on Earth as well as the humans that have chosen to explore and work on other celestial bodies and habitats in space. Space transportation has matured since the days of single use launch vehicles; reusability is routine and built into all mission models.
2. The multiple-decades long success of the first *International Space Station (ISS)* remains the precedent for international cooperation and the legal instruments that governed the *ISS* continue to provide the governing law for multi-lateral space habitats. One of these is the *Space Station Hypatia (SSH)*. The purpose of *SSH* is to be a permanently crewed civil space station for peaceful purposes in accordance with international law. The partners are the Republic of SaRidia, the Confederation of Valenkova, the Chimuk Nation and, the Haigneran Union. At the time of the events that led to this case, there were two governmental astronauts from each partner on board. There was also a private astronaut who was a Professor of Aerospace Engineering at the State University of Valenkova. She used a grant she received from the university and paid for her stay on board the *SSH* as well as for her transportation to and from the station. In addition to their mission assignments, all astronauts are trained to pilot the *SSH*'s transportation vehicles in an emergency.
3. Space actors rely upon the continuously improving monitoring of active orbital assets, human-made debris, and natural hazards. State and industry practices have developed over time through the use of outer space as a domain for space activities, as well as for transport between and among orbits and celestial bodies. These practices are codified in some States and not in others. A consortium of intergovernmental and non-governmental entities, called the Global Astronautical Consortium for Space Situational Awareness (GACSSA), shares space situational awareness (SSA) information in a data repository. It is not a negotiating forum.
4. GACSSA provides products that assist in decision-making resulting from the collection, curation, fusion, and exploitation of multi-source SSA data, specifically, information from both



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physics-based and human-based sources. The physics-based sources are constrained to electro-optical and radio frequency based sensors. The human-based sources result from Natural Language Processing applied to semantic data (both structured and unstructured). GACSSA makes no judgments or recommendations as to actions to be taken. Some national governments provide assessments based upon pre-determined risk thresholds to their nationals, allies, and partners.

5. Valenkova and SaRidia have been active in GACSSA for many years with some differences. Both nations ingest data into GACSSA. However, Valenkova does not rely on data sets flowing from the GACSSA. Instead, it only recognizes data and conjunction data messages (CDM) from governmental providers. SaRidia has a demonstrated record of empowering industry partners in the fulfillment of a large portion of its consortium obligations and has been a frontrunner in the commercial development of sophisticated sensors and advanced analytics. Valenkova challenges the legitimacy of private sector participation in SSA data provision. The Chimuk Nation and the Haigneran Union are members of the consortium but are not leaders.

6. In July 2040, *SSH* personnel received CDMs from two different SSA providers. One was from the GACSSA and one was from the Government of Valenkova. The CDMs were intended to aid in the guidance and control of the station. The two CDMs were in conflict as to the severity and imminence of the hazard posed to the station by a piece of orbital debris. The GACSSA CDM described a low-valued probability of a collision and assessed that the probability of harm to the station did not warrant any action. The Valenkovan CDM made it clear that a collision was almost certain in the absence of a change to the *SSH* orbit.

7. The Valenkovan crewmembers on board the station challenged the GACSSA CDM. The SaRidians believed Valenkova's position was not based upon any evidence of incompetence or error on the part of the CDM provider but instead upon Valenkova's ideological disagreement with accepting CDMs from non-governmental providers.

8. One of the SaRidian crewmembers, Astronaut Katie James, had experience in evaluating SSA data and challenged the Valenkovan CDM as a Type I Error, that is, a false positive. She explained probabilities and thresholds to the crew. The *SSH* commander, Astronaut Myrka S. Curieux, an Haigneran Union astronaut, found the more severe and imminent hazard that was identified by the Valenkovan CDM to be more credible. Further, the Commander had observed the onboard tension between the Valenkovan and SaRidian crewmembers and believed that the SaRidian challenge to the Valenkovan CDM was not based on empirical evidence but was, instead, based upon personal prejudice. Throughout the mission,



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there were multiple occasions where SaRidian and Valenkovan crewmembers disagreed on many things. They ranged from issues as mundane as scheduling use of the exercise treadmills to the latest SSA issue. Commander Curieux believed the GACSSA CDM was a Type II Error, that is, a false negative.

9. A heated debate over the legitimacy of the hazard ensued among the crewmembers. The SaRidians declared that the Commander's refusal to heed the GACSSA CDM was in contravention of United Nations Long Term Sustainability Guideline B-4.<sup>1</sup> The Commander and crew did not maneuver the *SSH* with the station's Valenkovan thrusters during their argument. Because of the delay, the time required to implement a maneuver was exceeded. Believing the Valenkovan CDM was accurate, the Commander chose evacuation as the next course of action. This effectively sacrificed the station in the process. She ordered the crew to transfer to the *Sharman*, one of the two transfer vehicles docked to the *SSH*. The other vehicle was the *Bondar*. The *Sharman* was registered to the Haigneran Union. The *Bondar* was registered to Valenkova. Both transit vehicles were routinely used for protected space operations including transporting payloads and personnel between Earth and space.

10. The second SaRidian crewmember, Astronaut Christine McKenzie, agreed with her SaRidian colleague, and also believed that the Valenkovan CDM was a Type I Error, that is a false positive. Like her colleague, she also disagreed with the Commander's decision. McKenzie told the crew that, if necessary, there was adequate time to maneuver the *SSH* and lower the probability of a collision; careful maneuvering would further lower the probability of collision and thereby save the *SSH* and all personnel with a minimum of potential harm. She proposed that the Commander follow an alternative course of action, specifically, to take additional time to evaluate the disparities in the data rather than taking immediate action. One of the Chimukian crewmembers, Astronaut Chiyoko Kanay, agreed with the SaRidians and supported the proposal to take more time to evaluate.

11. Commander Curieux refused to consider McKenzie's proposal in, what the Commander stated, was the interest of maximizing space safety. McKenzie challenged the chain of command and secured herself in the *Bondar*. On the previous day, the *Bondar* was reported to have transmission problems with its communications system both with the ground and with the *SSH* itself. There was also a reported communication failure between the station and ground control. When she learned of the malfunctioning communications system, the Commander ordered the Valenkovan Partner to immediately form a task team to investigate the dysfunctional communications system. The task team had not been convened before the CDM was received. The Commander used the *SSH*-to-transport-vehicle communications system, and



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gave McKenzie a direct order to exit the *Bondar* and evacuate with the rest of the crew. McKenzie was silent.

12. Because they took time to attempt to change Astronaut McKenzie's mind, the delay impacted the escape of the Commander and the rest of the crew. Sensing that McKenzie would not change her mind, the Commander again ordered her out of the *Bondar* and onto the *Sharman*. The Commander also informed McKenzie that not doing so was tantamount to a criminal act. Astronaut McKenzie did not exit the *Bondar*.

13. Commander Curieux and the other crewmembers, including Astronaut Tatyana K. Mikaela the Valenkovan university professor and private astronaut, charted their course on the *Sharman* to avoid the area implicated by the Valenkovan message. The *Sharman* transfer vehicle was maneuvered into an actual region of increased collision probability. The *Sharman* collided with the debris. The collision caused Commander Curieux to lose control of the *Sharman*. It began an uncontrolled reentry and plummeted to Earth, landing in international waters. The *Sharman* transfer vehicle was severely damaged. Astronaut-Prof. Mikaela lost her life as a result of the impact. The Commander and the rest of the crew survived. In time, evidence and analytics show that the Valenkovan CDM did suffer from a Type I Error.

14. No harm was caused to the *SSH*, the *Bondar*, or Astronaut McKenzie. McKenzie piloted the *Bondar* back to SaRidia where she began training for her next *SSH* mission. The *Bondar* was placed in a hangar leased to Valenkova.

15. The Confederation of Valenkova initiated diplomatic negotiations and consultations to resolve issues surrounding the SaRidian challenge to the Valenkovan CDM, the ensuing delay, and subsequent loss of life and misuse of property. When these negotiations stalled, Valenkova commenced proceedings by Application to the International Court of Justice. SaRidia accepted the Court's jurisdiction and the parties submitted the foregoing Agreed Statement of Facts. There are no issues of jurisdiction before the Court.

16. Before the Court:

Valenkova requests the Court to adjudge and declare that:

- a. SaRidia violated international law when its crewmembers challenged the legitimacy of the Valenkovan CDM.
- b. SaRidia is liable under international law for unauthorized use of, and failure to return, the *Bondar* and for the loss of the Valenkovan life on the *Sharman*.



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c. The SaRidian crewmember should be extradited to Valenkova for prosecution for the death of the Valenkovan astronaut and for endangering the safety of the *SSH* crew and the Valenkovan transport vehicle.

SaRidia requests the Court to adjudge and declare that:

d. SaRidia acted in conformity with international law by sharing knowledge and experience related to interpreting conjunction assessment information and for providing expert information regarding the CDMs.

e. SaRidia is not liable under international law for unauthorized use of, and failure to return, the *Bondar* and for the loss of the Valenkovan life on the *Sharman*.

f. Valenkova has no legal right to extradition of the SaRidian crewmember.

17. All of the *SSH* Partners and cooperating nations are Parties to the UN Charter, the Outer Space Treaty, the Return and Rescue Agreement, the Liability Convention, and the Registration Convention. Only the Haignerian Union is Party to the Moon Agreement. All of the *SSH* Partners, cooperating nations, and their Cooperating Agencies are Parties to the *Space Station Hypatia Intergovernmental Agreement (SSH IGA)*; the *Code of Conduct for International Space Stations Crews (CoC)*; and, the concomitant MOUs and Letters of Agreement.<sup>2</sup> The *SSH IGA* contains the same terms of the *1998 International Space Station Intergovernmental Agreement (ISS IGA)*<sup>3</sup> and is the *SSH governing agreement*. The *CoC* was enacted within each Partner State and thereby made part of each Partner's national law. SaRidia and Valenkova do not have a bilateral extradition treaty. SaRidia and Valenkova have a bilateral agreement that allows use and leasing of SaRidian launch and landing facilities for Valenkovan vehicles.

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<sup>1</sup> <https://undocs.org/A/AC.105/C.1/L.366>

<sup>2</sup> It will not be necessary to consult MOUs and Letters of Agreement for purposes of this problem. It is necessary to know only that they are part of the agreements among the Partners.

<sup>3</sup> <https://www.state.gov/wp-content/uploads/2019/02/12927-Multilateral-Space-Space-Station-1.29.1998.pdf>