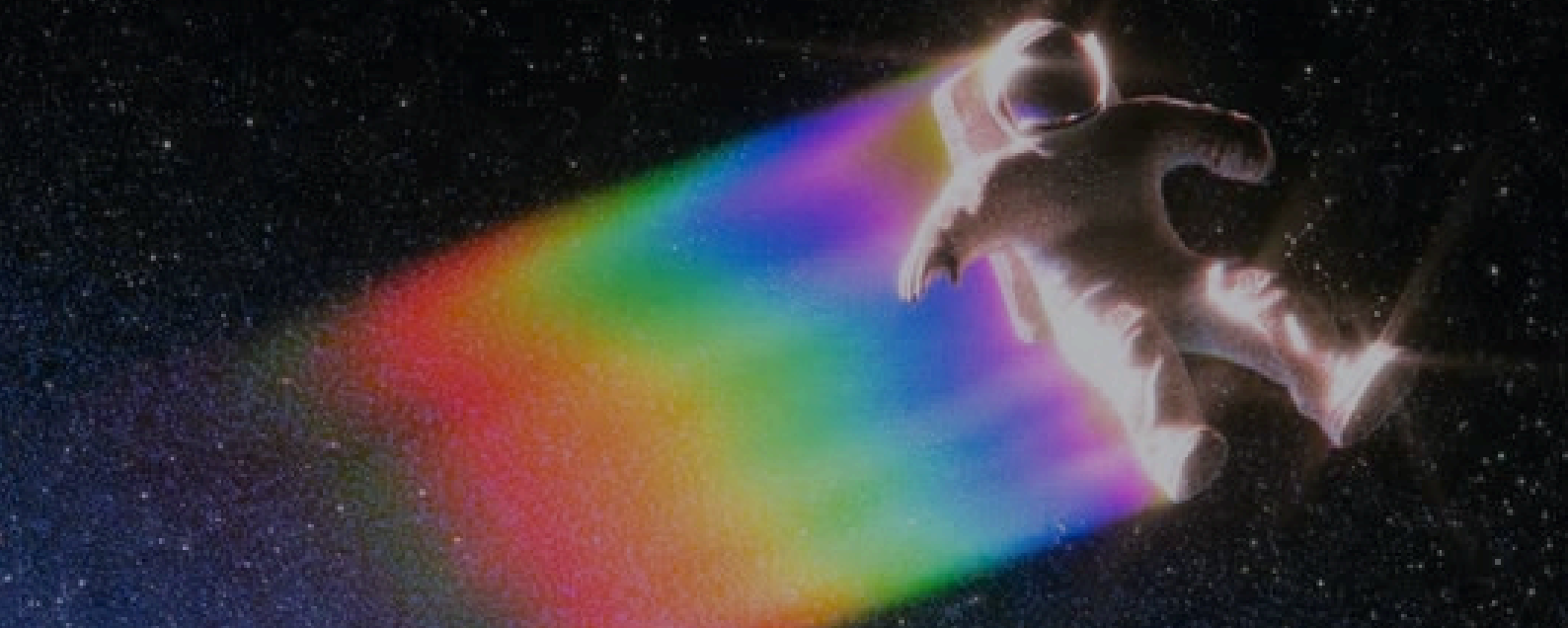
CENTRE FOR ALTERNATIVE DISPUTE RESOLUTION,
RAJIV GANDHI NATIONAL UNIVERSITY OF LAW, PUNJAB
&
DR PC MARKANDA CHAIR ON ALTERNATIVE DISPUTE RESOLUTION

6TH RGNUL NATIONAL NEGOTIATION COMPETITION, 2026



GENERAL INFORMATION

FINAL ROUND

6TH RGNUL NATIONAL NEGOTIATION COMPETITION, 2026

FINAL ROUND: GENERAL INFORMATION

'LOST IN ORBIT: THE MARUTO MISSION'

BRIEF OF THE PARTIES

ASTRA DYNAMICS LTD.

1. **Astra Dynamics Ltd.** ("**Astra**") is a publicly listed aerospace company incorporated in the Republic of Akasharashtra ("**Akasharashtra**"). It holds a licence to conduct crewed deep-space missions and a significant proportion of its income comes from government contracts. The Government of Akasharashtra has supported Astra's crewed missions and has awarded it several public contracts. Astra's fortunes are therefore very much tied to the State. This relationship is further reinforced by its ownership structure. Mr. Orion Kakkar is a major investor in Astra. He owns a significant shareholding in the company, has the power to appoint several members of its board, and helps secure new business. The Government of Akasharashtra has a strong interest in Astra's continued stability and the credibility of its space programme. It is opposed to any step that might expose the State to liability arising from Astra's activities. Astra's share price and standing with investors depend heavily on perceptions of the safety and reliability of its crewed spacecraft.

MERIDIAN AUTHORITY FOR SPACE ACTIVITIES

2. **The Meridian Authority for Space Activities** ("**MASA**") is the national space agency of the Republic of Meridian ("**Meridian**"). It oversees Meridian's human spaceflight programmes, trains its astronauts and conducts scientific research. It is widely regarded as Meridian's premier space organisation and a source of national pride. As a public body funded through the Meridian state budget, it enjoys strong public support and receives substantial funding from Parliament. In turn, it is required to account to Parliament for its expenditure of public funds and to ensure the safety of astronauts participating in its missions. Its reputation depends on public trust and parliamentary support. The safe completion of its missions is therefore of paramount importance. The Government of Meridian oversees MASA and funds the cargo carried on its missions.

BACKGROUND OF FACTS

3. Astra and MASA have a substantial interest in each other's success. The Maruto Human Exploration Agreement marks the first occasion on which MASA has entrusted a crewed deep-space mission to a private operator. Astra's credibility with its investors and with the Government of Akasharashtra will depend heavily on the success of the mission.

4. On 31 October 2025, MASA and Astra entered into the Maruto Human Exploration Agreement ("**the Agreement**") **[Annexure I]** for a 12-month crewed expedition to the Blabla Research Station ("**Blabla**"). Blabla is a research station in orbit around the planet Redtapia, jointly funded by Meridian and Akasharashtra. The expedition was presented as a gesture of cooperation between the two States. Astra was responsible for providing the launch services, spacecraft, mission operations and return transport for the crew. MASA was responsible for providing the astronauts, scientific payloads and research infrastructure.
5. Return from Blabla had previously been a hazardous proposition. In March 2018, the Sentinel, an uncrewed cargo-return vehicle operated by Astra, disintegrated during re-entry from Blabla. The vehicle and its payload, which included biological samples belonging to MASA, were lost. Astra's internal review concluded that the loss had resulted from a localised failure of the vehicle's thermal protection system. MASA received only a summary of the review; the underlying data was withheld on grounds of commercial confidentiality. MASA's claim in respect of the lost samples was settled confidentially, without any admission of liability. In light of this incident, MASA's engineers sought independent verification of Astra's re-entry systems before entering into the Agreement. Astra responded with written assurances that the identified defect had been rectified and that the spacecraft to be used for the mission was of a different design. The parties proceeded to enter into the Agreement on that basis.
6. The crew consisted of Commander Alisa Kim and Flight Engineer Lt. Sam Parker, both of whom were MASA astronauts. The mission carried several experiments, including propulsion experiments, human adaptation studies and the Living Yield Research in Astro-environments ("**LYRA**") Biological Research Programme, conducted by the LYRA Consortium, a research group based at a university in Akasharashtra. As part of the programme, the spacecraft carried a sealed biological research module called LYRA, which was connected to the spacecraft's power and temperature-control systems. The module contained a dog named **Luna**, who was included in the research to help scientists study the effects of long-duration spaceflight on a living organism.
7. The spacecraft was launched on 15 January 2026 and operated without incident for approximately nine months. The Crew carried out their experiments; the research yielded very positive results, and the mission became a source of pride for both Meridian and Akasharashtra. Under the original operational schedule, the return journey was due to commence in October 2026, well before the expiry of the contractual 12-month mission period.
8. On 14 October 2026, during a routine orbital correction, the spacecraft suffered a sudden propulsion anomaly. A subsequent investigation revealed failures in the navigation and power-management systems. Commander Kim and Lieutenant Parker remained safe aboard Blabla, but their return to Earth could no longer proceed as originally planned.

9. On 15 October 2026, the MASA Flight Director formally informed Astra that MASA considered the spacecraft "unsafe" for the Crew's return. MASA demanded immediate access to all original data relating to the failure and stated that it would not permit the spacecraft to return until an independent investigation identified the cause. On 16th October 2026, Astra's CEO disagreed, stating that Astra's engineers believed the Crew could return safely following a software fix. Astra also refused to share the original data, claiming that it was confidential business information. Astra further reserved all its rights under the Agreement, including those relating to events beyond its reasonable control. The cause of the failure remains unknown.
10. The possible role of LYRA in the failure is also under investigation. The module depended entirely on the spacecraft for power and thermal control. Its power requirements had been approved before launch, but its actual power consumption during the mission has not been made public. Investigators are therefore unable either to confirm or to rule out any contribution by LYRA to the failure.
11. Following the malfunction, the Crew remained at Blabla beyond the originally scheduled return date. The mission consequently entered an unplanned extended operational phase, during which additional experiments were conducted, emergency procedures were tested and a significant body of unique data on long-term human adaptation was collected. Independent assessments suggested that the mission's scientific findings could have substantial commercial value in future applications, particularly in life-support systems, propulsion and navigation software, and medical technology.
12. On 20 October 2026, LYRA was shut down to conserve power and consumables. Before its shutdown, it had generated biological data concerning long-duration spaceflight and survival in extreme environments. Luna remained alive in the module's secondary life-support unit, but that unit could sustain her for only a limited period. Having cared for Luna throughout the nine-month mission, the Crew requested that arrangements be made for her safe return to Earth.
13. The extended mission also brought to light an important gap in the Agreement. Although the Agreement contains detailed provisions on transportation, safety and mission operations, it does not specifically allocate ownership of data, inventions or commercial rights arising from the mission. Clause 4(b) requires the parties to address these matters in good faith, taking their respective contributions into account. Disagreements have now arisen concerning ownership of spacecraft data, processed data, commercial products derived from the mission and publication rights. Astra claims ownership of the data because it was generated using its spacecraft, sensors and onboard systems. MASA, on the other hand, claims ownership on the basis that its algorithms, systems and researchers processed the raw data and converted it into useful scientific findings. MASA also maintains that the data was generated through the efforts of its Crew and at

public expense. Separately, the LYRA Consortium claims ownership of datasets relating to Luna on behalf of its university and funding sponsors.

14. Between 26 October and 6 November 2026, the Crew carried out a revised sampling programme with the written approval of the MASA Flight Director and Astra's Mission Operations Director. Using the Blabla robotic sampling probe, they retrieved sealed canisters of subsurface ice and dust from the northern polar basin of Redtapia (the "Samples"). The Samples were stored in Blabla's cryogenic vault alongside preserved biological samples taken from Luna.
15. On 9 November 2026, an initial examination of one canister, Canister 7, revealed two unexpected findings. First, the analysis detected an organic signature that could not be attributed to contamination from Earth or from the spacecraft. Second, it revealed a rare crystalline compound that independent experts considered potentially significant for energy storage. This compound was referred to as the "Discovery". Although the instruments aboard Blabla detected both findings, they could not establish their nature or authenticity conclusively. Further testing in a laboratory on Earth would be required for confirmation.
16. On 10 November 2026, the Director-General of MASA informed Astra, pursuant to Clause 6 of the Agreement, that MASA considered the Discovery to be a Joint Venture Discovery and that the Samples should therefore remain in joint custody. On 11 November 2026, Astra responded that the Samples had been recovered using its probe, were stored in its vault and had been analysed using its instruments. Astra maintained that the Discovery belonged exclusively to Astra and refused to agree to any arrangement that might compromise its asserted title. The LYRA Consortium also claimed rights over the biological specimens and any organic material derived from them, stating that such material could be examined only in accordance with its own protocols.
17. The incident attracted widespread public attention. In Akasharashtra, opposition parties accused the Government of protecting Astra because of its shareholding and investor interests. Investors, meanwhile, were concerned that any admission of fault by Astra could adversely affect its government contracts and market valuation.
18. Mr. Orion Kakkar publicly stated that the Discovery was the property of Astra's shareholders and of the nation. In Meridian, members of Parliament questioned whether publicly funded research was being transferred to a private foreign company. The astronauts' families called for an immediate rescue and criticised both MASA and Astra for the delay
19. MASA maintained that the safety of the two astronauts could not be made contingent on disputes concerning money, liability or future commercial interests. Both States are parties to the Outer Space Treaty 1967, the Agreement on the Rescue of Astronauts 1968 and the Convention on International Liability for Damage Caused by Space Objects 1972.

THE DISPUTE AND THE CALL FOR NEGOTIATION

20. The immediate dispute concerns the safe return of the Crew. MASA insists that an urgent rescue mission is necessary, maintaining that the safety of the astronauts cannot be guaranteed under Astra's proposed return plan. Astra, however, maintains that its proposed return plan is safe and viable and that a separate rescue mission is therefore unnecessary.
21. The second dispute concerns the cargo to be carried by the return vehicle and the priority to be accorded to its occupants and cargo. MASA insists that no item should be loaded if doing so would compromise the Crew's safety during re-entry, and that the Samples must not take priority over Luna, the mission's living payload. Astra maintains that the Samples should be returned in view of their substantial scientific and commercial value. The LYRA Consortium, meanwhile, insists that Luna must be returned to Earth.
22. Beyond the rescue itself, the parties disagree over responsibility for the costs of the rescue and the extended mission. MASA maintains that Astra should bear both sets of costs because the failure occurred in a spacecraft supplied by Astra. Astra argues that the root cause of the anomaly has not been established, that the failure may have resulted from an event beyond its reasonable control, and that the costs should therefore be shared.
23. The parties also disagree over the legal characterisation of the malfunction. MASA contends that the malfunction constitutes a breach of Astra's obligation under Clause 2(a) to keep the spacecraft fit for the return journey. It relies on the loss of the Sentinel to argue that the risk was foreseeable. Astra contends that the malfunction constitutes a force majeure event under Clause 9 and that the Sentinel was a different spacecraft.
24. The parties further dispute the classification and ownership of the Discovery. Astra asserts exclusive ownership, while MASA maintains that it is a Joint Venture Discovery under Clause 6. The Consortium has advanced separate claims. The parties must also consider whether, and to what extent, rights in material extracted from another celestial body may be asserted consistently with Article II of the 1967 Outer Space Treaty. The Agreement provides that rights in a Joint Venture Discovery vest only upon the safe return of the relevant Samples to Earth and their delivery into joint custody. The parties disagree about the consequences if the Samples are lost or left behind.
25. Ownership of mission data and inventions also remains disputed. The subject matter includes operational data, processed telemetry, inventions arising from the mission and the commercialisation of mission technologies. The parties also disagree over publication rights and confidentiality, including access to research results, protection of trade secrets and the handling of information that may be sensitive for security reasons.

26. MASA and Meridian contend that Astra's conduct, viewed in light of its shareholding, board representation and alleged political direction from Akasharashtra, is attributable to Akasharashtra under the rules of State responsibility. Akasharashtra denies this contention and maintains that Astra is an independent commercial company acting on its own behalf. Both sides have indicated that they may suspend cooperation with the other if the dispute is not resolved on terms they consider acceptable.
27. The dispute has attracted considerable public attention, and both parties face mounting political and institutional pressure. Although the original 12-month contractual mission period has not yet expired, the planned return schedule has been disrupted by the spacecraft malfunction. The next available launch window for a separate rescue mission opens on 2 December 2026, while the life-support systems at Blabla are expected to remain operational only until 31 December 2026. Each day of delay increases the risks to the Crew, the costs of rescue and the reputational damage faced by both parties.
28. On 18 November 2026, MASA invoked Clause 12 of the Agreement by formal notice, stating that it "considers the dispute to be one which touches the lives of the Crew", and invited Astra to negotiate without delay or preconditions. A Joint Negotiation Committee ("**JNC**"), comprising representatives of MASA and Astra, has been constituted to negotiate a settlement.
29. The negotiation is not limited to securing the astronauts' return. It must protect the Crew, preserve the value of the mission, appropriately address responsibility and enable the parties to cooperate in the future. It must also address the Discovery: who has rights in the Samples, who may analyse them, how rights arising from the analysis should be allocated, and what should happen to those rights if the Samples are lost. Given that the previous return from Blabla ended in the total destruction of the vehicle and its payload, any proposed return plan must be capable of independent verification. The parties should also consider a mechanism for reviewing their arrangements if new technical information emerges concerning the cause of the malfunction.
30. The present negotiation round is convened by MASA, as the Requesting Party, pursuant to Clause 13 of the Agreement, on 21 November 2026. Astra is the Responding Party. MASA is represented by its Director-General, Dr. Avani Sarthi, assisted by counsel Ms. Niyati Vidhan. Astra is represented by its Chief Executive Officer, Mr. Antriksh Sharmila, assisted by counsel Ms. Tara Vyom.

ANNEXURE I

MARUTO HUMAN EXPLORATION AGREEMENT

THIS AGREEMENT is made on this 31st day of October, 2025

BETWEEN

Meridian Authority for Space Activities ("**MASA**"), the space agency of the Republic of Meridian, with its principal office at Kalyssia.

AND

Astra Dynamics Ltd. (a company incorporated under the laws of the Republic of Akasharashtra and having its registered office at Sampad).

MASA and Astra are herein individually referred to as a "**Party**" and collectively as the "**Parties**".

RECITALS

A. MASA is the space agency of the Republic of Meridian and is responsible for human spaceflight, astronaut training and research.

B. Astra is a company approved to carry out crewed deep space missions.

C. The Parties desire to conduct a joint expedition to the Blabla Research Station, a research station funded by the Republic of Meridian and the Republic of Akasharashtra and orbiting Redtapia, as a gesture of co-operation between the two States.

D. The Parties have agreed as to the allocation of their respective responsibilities in relation to that expedition on the terms set out in this Agreement.

NOW, THEREFORE, the Parties agree as follows:

PRELIMINARY

DEFINITIONS

In this Agreement, unless the context otherwise requires:

i. "Background IP" means intellectual property owned or developed by a Party before the date of this Agreement.
ii. "Crew" means the astronauts provided by MASA for the Mission.
iii. "Discovery" means the Discovery defined under Clause 6(a).
iv. "Joint Venture Discovery" means a Discovery as defined under Clause 6(b).

v. "Mission IP" means intellectual property arising from the Mission under Clause 4(b).

vi. "Mission Samples" means materials collected during the Mission as defined under Clause 5(a).

vii. "Mission Records" means records maintained by each Party under Clause 3(a).

viii. "Spacecraft" means the spacecraft supplied by Astra for the Mission.

CLAUSE 1 - SCOPE OF THE MISSION

(a) Astra shall provide the launch services, Spacecraft, mission operations and return transport, while MASA shall provide the Crew, scientific Payloads and research infrastructure.

(b) The Mission shall have a total operational duration of 12 months from the Launch Date, including the outbound journey, the period of operations at Blabla and the return journey. The Parties shall mutually determine the operational schedule, including the planned date of return, which may fall before the expiry of the 12-month period.

CLAUSE 2 - CREW SAFETY AND RETURN

(a) Astra shall ensure that the Spacecraft remains fit to transport the Crew to and from Blabla throughout the Mission. Crew safety shall be paramount, and neither Party shall undertake any action it reasonably believes would endanger the Crew.

(b) Where the Parties disagree on the Spacecraft's fitness for return, re-entry shall proceed only with their mutual agreement.

CLAUSE 3 - MISSION RECORDS

(a) Each Party shall maintain accurate records of its Mission-related activities and permit the other Party to inspect such records to the extent necessary for Crew safety, investigations or the implementation of this Agreement.

CLAUSE 4 - INTELLECTUAL PROPERTY

(a) Each Party shall retain ownership of its pre-existing intellectual property ("**Background IP**") and grant the other a non-exclusive licence to use it solely for performing this Agreement.

(b) Intellectual property arising from the Mission ("**Mission IP**") shall be addressed by the Parties in good faith, having regard to their respective contributions.

CLAUSE 5 - MISSION SAMPLES

(a) "Mission Samples" means materials of natural origin, including minerals, ice, dust, gas and biological materials, collected during the Mission together with their containers. Such Samples shall remain in the joint custody of the Parties, which shall not confer ownership or exploitation rights.

(b) Neither Party shall destructively analyse, transfer or dispose of any Mission Sample without the other's prior written consent. In all cargo-return decisions, crew safety shall take precedence over the return of any Sample or other payload. The Agreement does not allocate responsibility for lost Samples or determine cargo priorities where capacity is limited.

CLAUSE 6 - DISCOVERIES AND JOINT VENTURE DISCOVERIES

(a) "Discovery" means any previously unknown substance, organism, phenomenon, material, process or technology first identified during the Mission or through analysis of Mission Samples. A Party discovering or becoming aware of a Discovery shall notify the other within 72 hours.

(b) A Discovery resulting from the combined use of both Parties' personnel, systems, facilities or funding shall constitute a "Joint Venture Discovery". Rights in such Discovery shall be jointly held in proportions agreed in good faith, having regard to the Parties' respective contributions.

(c) Until such agreement, neither Party may publish, patent, licence, commercially exploit or publicly disclose the commercial value of a Joint Venture Discovery without the other Party's prior written consent. Such rights shall vest only upon the safe return of the relevant Mission Samples to Earth and their delivery into joint custody. A non-joint Discovery shall belong to the Party making it, subject to the other's right to notification and a non-exclusive research licence. The Agreement does not define contributions, prescribe how they are to be assessed, address third-party rights or determine ownership where Mission Samples are lost or abandoned.

CLAUSE 7 - PUBLICATION AND CONFIDENTIALITY

(a) Each Party shall maintain the confidentiality of the other's non-public technical and commercial information disclosed during the Mission.

(b) Neither Party shall publish Mission-related results without giving the other 60 days' prior written notice, except where disclosure is required by law, a regulator or a parliamentary body.

CLAUSE 8 - LIABILITY AND INSURANCE

(a) Astra shall maintain launch, in-orbit and return insurance of at least 2 billion Meridian Currency throughout the Mission.

(b) Each Party shall be liable for losses arising from its breach of this Agreement, subject to Clause 9.

Note: The insurance covers the Spacecraft and third-party liability but does not expressly cover third-party rescue costs or extended stays at Blabla.

CLAUSE 9 - FORCE MAJEURE

(a) Neither Party shall be liable for failure or delay caused by events beyond its reasonable control, including natural disasters, solar events or government action, provided the affected Party promptly notifies the other and takes reasonable steps to minimise the impact.

(b) Equipment failure shall not constitute force majeure for the supplying Party unless it could not have been prevented through due diligence.

CLAUSE 10 - SUSPENSION

(a) Either Party may suspend performance where the other commits a material breach and fails to remedy it within 30 days of written notice, provided that such suspension shall not affect obligations concerning Crew safety.

CLAUSE 11 - GOVERNING LAW

This Agreement shall be governed by applicable international law relating to space activities and, insofar as consistent with it, the general principles of commercial law common to Meridian and Akasharashtra.

CLAUSE 12 - DISPUTE RESOLUTION

(a) Any dispute, controversy or claim arising out of or relating to this Agreement, including its interpretation, performance, breach or termination, shall first be addressed through good-faith negotiations between the Parties.

(b) Either Party may initiate negotiations by giving written notice to the other Party specifying the nature of the dispute and the matters requiring resolution.

(c) Where a dispute concerns the safety, health or continued well-being of the Crew, the Parties shall commence negotiations immediately and without preconditions. Neither Party shall delay or obstruct measures reasonably necessary to safeguard the Crew pending resolution of the dispute.

(d) The Parties shall endeavour to resolve the dispute through negotiations in a manner that preserves their mutual interests and continued cooperation under this Agreement.

CLAUSE 13 - NEGOTIATION PROCEDURE

(a) Upon receipt of a notice under Clause 12, the Parties shall constitute a Joint Negotiation Committee ("**JNC**"), comprising authorised representatives of each Party, for the purpose of resolving the dispute.

(b) Each Party shall nominate its representatives and ensure that they possess sufficient authority to negotiate and propose a settlement on its behalf.

(c) The JNC shall convene its first meeting within four days of the receipt of the notice invoking negotiations, or earlier where the circumstances require urgent consideration.

(d) The Parties shall participate in the negotiations in good faith, exchange relevant information reasonably necessary for resolving the dispute and consider proposals for a mutually acceptable settlement.

(e) Any settlement reached through the JNC shall be recorded in writing and shall become binding upon the Parties upon execution by their duly authorised representatives.

(f) The commencement or continuation of negotiations shall not prejudice either Party's rights or obligations under this Agreement or applicable international law.