Agenda Item 12: General exchange of views on the legal aspects of space traffic management

Mr. Chair and Distinguished Delegates,

The present era witnesses an unprecedented surge in space activities. The exponential growth of space debris, the proliferation of small satellites, and the emergence of large satellite constellations pose severe operational challenges to the safety and sustainability of spaceflight for launch vehicles and satellites.

As per Indian Space Policy 2023, Indian space actors are encouraged to adopt the best practises for safe and sustainable space operations. India is also developing Space situational awareness capabilities for enhancing observation, modelling and analysis of space traffic.

Mr. Chair,

Unlike the domains of air and sea, space is a domain without sovereignty claims, which poses unique challenges to the governance of space traffic. Another major difference stems from the fact that spacecraft trajectories are primarily governed by complex external forces. Further, the absence of a UN-anchored regulating body poses a significant challenge in developing and implementing policies and standards for Space Traffic Management (STM).

Ensuring adequate spatial and temporal separation between space assets is a complex task which cannot be accomplished without inter-operator collaboration and coordination. A robust Space Situational Awareness (SSA) capability forms the cornerstone of effective STM, which also involves the sharing of data and relevant information among states within a collaborative framework. While several satellite operators have voluntarily formed consortiums for data sharing to safeguard their space assets, a standardized, universally recognised mechanism for operational and timely exchanges of information is yet to be established. Besides, there is no obligation for an operator to exchange such data.

Mr. Chair,

With growing congestion in highly valued orbital regions, it is imperative to enhance the sharing of accurate and updated information among operators. With the rapid deployment of large constellations, the viable STM options are either to operate away from the crowded operational orbital regime of such constellations or cohabit by incurring significant overhead of extensive coordination. The first option mirrors the "first come, first served" principle, depriving late entrants of the potential benefits of operating at a particular orbital regime. The absence of consensus on upper limits for safe operation within orbital bands and the lack of legal provisions to address non-compliance also pose significant obstacles to realizing an effective STM framework.

At present, the rules of the road for space traffic remain non-existent, and collision avoidance relies solely on inter-operator exchanges conducted in the spirit of cooperation and goodwill. The absence of clear regulations poses a significant challenge, particularly for new entrants to the space

domain who may not have enough operational experience to handle spaceflight safety requirements efficiently.

Mr. Chair,

Public awareness-raising initiatives are instrumental in instilling a culture of self-regulation, transparency, and collaboration among space actors, paving the way for practical implementation of STM. In India, ISRO has organised two STM themed workshops in the year 2023 with overwhelming response from international experts, industry and India shall continue to engage in such activities. India is also hosting the Inter Agency Debris Coordination Committee (IADC) session in 2024.

Further, as part of STSC Working Group on LTS, India submitted a proposal to avoid deploying small satellites, without tracking and manoeuvring capabilities, in the vicinity of 400 km altitude, thus providing special consideration for crewed space stations - thus reducing collision risks.

The existing provisions of space laws were not formulated envisaging the drastically different current scenario in outer space. Therefore, amendment of current regulatory instruments is imperative to cope with the present and future challenges. India believes that greater collaboration amongst the member states can help develop the required framework that can serve as a stepping stone for effective STM.

Thank You, Mr Chair and Distinguished Delegates.