India

Agenda Item 14: General Exchange of views on the application of International Law to small satellite activities

Madam Chair Person and Distinguished Delegates,

In light of the indispensable role that outer space plays in national development and societal benefit, ensuring its safe, undeterred and sustained utilisation for the benefit of all humankind is a necessity as well as our priority.

With the phenomenal advancement in space technology over the recent years, small satellites have gained significant impetus over the conventional, heavy satellites as they offer several undeniably attractive advantages for applications like communications and Earth observation. These small satellites, usually built using commercial off-the-shelf parts and systems, are cost effective and can be manufactured *en masse* in a short period of time. As a result, a number of space entities, government and non-government, have launched or are planning to launch a large number of these satellites to leverage these benefits.

Madam Chair Person,

Majority of these small satellites are, however, deployed or planned to be deployed in LEO and most of them lack propulsion systems for executing evasive manoeuvres in case of a close approach. Consequently, the onus of collision avoidance singlehandedly falls upon the conventional operators along with the associated operational overhead and the fuel penalty. Additionally, given their small size, these satellites are difficult to track with the conventional sensors. The lack of accurate orbital information of these small satellites is expected to significantly compound the decision-making process for collision avoidance, and increase the collision risk to other satellites operational in an already overcrowded orbital regime.

Madam Chair Person,

Another frequently encountered difficulty faced while dealing with on-orbit conjunctions involving small satellites is the lack of information to contact their operators for coordination, particularly since some of these satellites tend to be

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operational only for a short period of time. In some cases, the satellites may not even be registered in their respective national registries. This is especially the case in States that lack adequate regulatory and administrative provisions for this purpose. Such situations pose major challenges to collision avoidance. In addition to this, small satellites often lack the specific capability for post-mission disposal further exacerbating the risk of on-orbit collision.

Madam Chair Person,

On this background, we would like to emphasise the importance of implementation of best practices in outer space operations. We recognise that these voluntary best practices need to be supplemented with formal international mechanisms that would ensure safety of operations. Furthermore, we urge and encourage all the Member States to develop and adopt the necessary mechanisms to regulate satellite launches, their operations and ensure compliance with the existing international debris mitigation guidelines at a domestic level.

Madam Chair Person,

We urge the subcommittee to take the required steps to develop the basic guidelines that will allow small satellites to conduct their operations in a safe and responsible manner. In the case of small satellites, India believes that a more systematic and standardised approach should be developed. India urges that a wide stakeholder consultation be held in this regard, and that a framework be developed to address the aforementioned challenges. India also looks forward to playing a positive and proactive role in this direction.

Thank You, Madam Chair Person.