STATEMENT BY MR. BEDI ANMOL SHER, SENIOR ADVISER, ON NORMS, RULES AND PRINCIPLES RELATING TO INFORMATION EXCHANGE AND RISK REDUCTION NOTIFICATIONS RELATED TO OUTER SPACE ACTIVITIES AS WELL AS TO CONSULTATIVE MECHANISMS AT THE OPEN-ENDED WORKING GROUP ON SPACE THREATS, GENEVA, FEBRUARY 3, 2023

Thank you, Mr. Chair,

Thank you, for giving my delegation the floor once again under this agenda item.

We have carefully listened to the statements made by other delegations on the topic. In that background, I would like to briefly present our priorities, which are focused on the challenges to the safety and sustainability that arise in the context of spaceflight, especially while operating in the presence of increasing number of outer space objects.

In recent times, CubeSats and nanosats have emerged as preferred options for affordable access to space and their deployment typically takes place through ride share and in batches. Due to their small size, they are often difficult to track as well as to be identified immediately after injection. Such satellites usually lack maneuverability and hence, the onus of collision avoidance falls single-handedly on the owner/operators of manoeuvrable satellites.

In most cases of on-orbit conjunctions with small satellites, the lack of information to contact spacecraft operators proves to be a major challenge to initiate the requisite coordination and data exchange for collision risk mitigation.

Also, unlike space debris, which are non-manoeuvrable objects, the trajectory of manoeuvrable spacecraft, especially those equipped with ion thrusters, cannot be predicted by the straightforward application of conventional flight dynamics.

The present mode of inter-operator coordination is primarily through exchange of e-mails, which leads to considerable latency due to time zone differences. Given the phenomenal growth in the number of operational satellites, contacting the operators individually to resolve close approach situations on a case-by-case basis will prove to be challenging in the long run.

Also, the anticipated increase in collision avoidance manoeuvres will incur significant penalties in terms of service disruption, fuel consumption, additional operational overhead and associated cost, etc. This added complexity would be difficult to be borne by emergent space actors.

Further, the operators often utilize higher-accuracy orbital data of their own space assets and relatively less accurate, externally accessible orbital data of the foreign objects to assess the collision risks.

Furthermore, different operators adopt different methodologies for risk estimation and also, apply different criteria for identifying critical conjunctions.

In the absence of a standardized method of risk assessment and a common protocol for collision avoidance, any decision to conduct an evasive manoeuvre to mitigate a close approach risk essentially hinges on the discretion of the operator.

We believe that any discussion on reducing space threats should also incorporate elements described above, the risks and threats they pose and way and means to address those challenges.

We have brought out these concerns in our submission to the UNCOPUOS working group on Long-Term Sustainability of Outer Space Affairs (LTS). Considering the holistic nature of threats that we face relating to outer space safety and security, there also needs to be a greater coordination between the work done here and working group on LTS in STSC in UN COPUOS, and in particular coordination between the UN Office of Outer Space Affairs and UN Office of Disarmament Affairs.

Thank you, Mr. Chair.