

### **Agenda Item – 3: General Exchange of Views**

**Mr. Chair and distinguished Delegates,**

At the outset, we express our deep distress for the loss of lives and damage in the Monday's earthquake in Türkiye and Syria. India stands in solidarity with those most affected by this tragedy. Indian rescue and relief teams, and relief material have already reached Türkiye and Syria. India is also supporting the International Charter for space and major disaster with its satellite data covering the earthquake affected areas.

The Indian delegation takes this opportunity to congratulate you Mr. Chair on effectively leading the 59<sup>th</sup> STSC session in 2022 and assures its wholehearted cooperation and support in conducting the current session. We place on record our sincere appreciations to the UNOOSA team led by Mr. Niklas Hedman for efficient organization of COPUOS and its sub-committee sessions and excellent preparations made for the current session. We welcome the new members to the Committee, Guatemala and Uzbekistan.

**Mr. Chair,**

I take this opportunity to provide information on the major scientific and technical developments in the Indian space sector subsequent to the previous session to this august forum and highlight our upcoming major programmes and plans.

Indian space sector is undergoing major transition as part of the recently announced space reforms, the major highlight being opening of the space sector for private sector participation. The necessary organizational, procedural and policy arrangements for facilitating this transition are underway.

There were five space launch missions from the Indian spaceport in 2022, including three successful launches of the PSLV launch vehicle, one successful launch of vehicle launcher LVM3 and first developmental launch of a new small satellite launcher SSLV, which did not succeed. First private suborbital launch by an Indian start-up was also undertaken.

The Indian fleet of Earth Observation and Communication satellites were further enhanced with the launch of new satellites. Radar imaging satellite EOS-04 realized by ISRO joined the fleet of EO satellites which will provide high quality images under all weather conditions for applications such as Agriculture, Forestry & Plantations, Soil Moisture & Hydrology and Flood mapping. The EOS-06, new addition to the Indian oceanographic satellite fleet will observe ocean color data, sea surface temperature and wind vector data to use in Oceanography, climatic and meteorological applications. EOS-06 also hosted Argos payload for global data collection from France. GSAT-24 launched on board Arine5 launch vehicle from French Guiana has enhanced the satellite communication capacity of the country. India helped Bhutan build and launch its first satellite INDIA-BHUTAN Sat, which has started to provide valuable information to Bhutan. The Indian-US joint mission which will host NASA-ISRO Synthetic Aperture Radar NISAR made steady progress, with payload development activities nearing completion.

Commercial launches were also undertaken during the period, notably for OneWeb UK and Government of Singapore. Number of student satellites and small satellites from start-ups from Indian and abroad were also launched as co-passengers.

**Mr. Chair,**

The operating Indian scientific missions, namely, Chandrayaan-2 lunar orbiter and dedicated space observatory Astrosat, continue to provide valuable scientific data. AstroSat, India's first dedicated multi-wavelength observatory mission completed seven years in orbit and has served science data to more than 2000 users from 54 countries and leading to many valuable outcomes, notable among others being discovery of Lyman alpha photons from a distant galaxy. The X-ray spectrometer CLASS on the Chandrayaan-2 Orbiter has mapped the abundance of Sodium on the Moon for the first time. The preparations for the third Indian lunar mission Chandrayaan-3 and the first Indian space based solar mission Aditya-L1, are progressing well.

Indian maiden human spaceflight project Gaganyaan made good progress. Tests on major propulsion systems and parachute systems were conducted successfully. Training of Indian flight surgeons and astronaut ground support staff at European Astronaut

Facility and at CNES facilities was completed as part of ISRO-CNES cooperation on Human Spaceflight.

More than 100 Indian space start-ups have emerged since opening up of space sector in India, producing major achievements like sub-orbital launch of a newly developed small satellite launch vehicle, establishing launch pad for small launchers, building and launching imaging satellites, demonstration of space based systems for space traffic management and innovative satellite based applications.

**Mr. Chair,**

India continues to engage actively with developing nations for sharing its experience in using outer space for peaceful uses. The third batch of UNISpace Nanosatellite Assembly and Training by ISRO (UNNATI) was conducted from 15 October to 15 December 2022, providing classroom based and hands-on training to 31 participants from 19 countries. Indian Institute of Remote Sensing (IIRS) continued to provide specialized post-graduate and short-term courses, benefitting a total of 1492 participants till date. Similarly, UN Center for Space Science and Technology Education in Asia and the Pacific (UN-CSSTEAP) located in India provided post-graduate and short term courses benefitting 1848 participants till date. Most of the beneficiaries of IIRS and UN-CSSTEAP have been participants from developing and space aspiring countries.

On the international cooperation front, new cooperation instruments were signed with France, Germany, Luxembourg, Mexico, Singapore and USA since the previous session of STSC.

**Mr. Chair,**

Long-term sustainability of outer space remains an area of concern and utmost priority for India, and we are committed to play a meaningful and constructive role nationally and internationally towards preserving the benefits of our outer space for current and future generations. We would also like to bring to the attention of the delegates that, continuing our capacity building efforts in LTS, ISRO would be organizing an international conference on spacecraft mission operations on 8 and 9 June 2023 at Bangalore,

focusing on emerging technologies and automation in space mission operations. We cordially welcome all interested to participate in the conference.

**Thank you, Mr. Chair and all the distinguished delegates.**