

Slovakia, Item 4

59th Session of the Scientific and Technical Subcommittee

(February 7 – 18, 2022)

Agenda Item 4: General Exchange of Views and introduction of reports submitted on national activities

Mr. Chair, Distinguished Delegates,

Since my delegation takes the floor for the first time at this session, allow me to thank you, Mr. Chair, and thank UNOOSA Director Ms. Simonetta di Pippo and her staff for the work they have done and their excellent preparations for this session under these difficult circumstances.

Slovakia would like to support the proposal of the Austrian delegation in mentioning space and the reference to the valuable contribution of UNOOSA to the UN system, by including it into this year's ministerial declaration of the High-Level Political Forum.

Slovakia fully aligns itself with the statement delivered by the European Union and its Member States. Slovak delegation would like to add in its national capacity that it supports the Working Paper on the Protection of Dark and Quiet Skies (A/AC.105/C.1/L.396) submitted by Chile, Slovakia, Spain, and the International Astronomical Union, the European Southern Observatory, and the Square Kilometre Array Observatory.

Slovakia is co-sponsoring the presented Paper which contains compiled mitigation measures of the effects caused by satellite constellations. We support the idea of introducing new specific Agenda Item in future STSC meetings which will allow the sub-committee further to investigate the impacts of new technologies on night sky quality and on the ground-based astronomy.

Additionally, allow me to present you recent accomplishment of Slovakia concerning the work related to Agenda Item 8: Space debris. The main focus of space debris research in Slovakia is dedicated to measurements acquisition with optical telescopes to support the space debris cataloguing and its physical characterization.

The Faculty of Mathematics, Physics and Informatics, Comenius University in Bratislava, Slovakia (FMPI CU) finalized its development of an optical passive telescope equipped with the 70cm parabolic mirror. This telescope is used for observations of space debris objects situated in low-earth orbit regime, as well on higher orbital regimes to improve the information about objects' dynamical and physical properties for space safety applications. The sensor was developed under the framework of space cooperation activities of Slovakia with the European Space Agency (ESA) within the program PECS (Plan for European Cooperating States). Development was performed in collaboration with Slovak private sector, as well with international partners such as the Astronomical Institute of the University of Bern in Switzerland and the Space Research Institute of the Austrian Academy of Sciences in Austria.

Additionally, in October 2020 the global all-sky meteor network AMOS operated by Comenius University in Bratislava observed a Long March 3 rocket upper stage which disintegrated over the

Hawaii islands. This re-entry event was detected from two different locations simultaneously. Comenius University is now adapting its internal tools dedicated to the data reduction of meteor events to process the acquired video recordings and to create a high quality and unique data set for 3D modeling of the whole fragmentation process. The to-be-developed procedure will be used for future re-entry events prediction and on-ground risk assessment. Thanks to its more than 20 stations deployed around the world, it expected that AMOS network will be detecting re-entry events on monthly basis in the close future.

Mr. Chair, distinguished delegates,

Thank you for your attention.