

UNCOPUOS Scientific and Technical Subcommittee

60th Session, Vienna/Online, 6-17 February 2023

Statement by Germany on

Agenda item 7: Space debris

Mr. Chair, distinguished delegates,

in the past year we have seen an unprecedented number of launches of satellites, mainly into the Low Earth Orbit region. The significant increase over the last few years in number of satellites operating in the LEO region makes it even more evident that it is of utmost importance to limit the growth of space debris.

Germany continues to actively address space debris issues by means of continued scientific research, the development of relevant technologies and implementation of space debris mitigation measures in our national space activities consistent with the Space Debris Mitigation Guidelines of COPUOS and of the Inter-Agency Space Debris Coordination Committee, IADC.

Research activities conducted in Germany include – inter alia – space debris environment modelling and studies of the effects of hypervelocity impact of small sized debris on spacecraft. With this research, German scientists also contribute to the work of the IADC which met again in October last year. At that meeting, the IADC worked to further advance its Space Debris Mitigation Guidelines and prepared the grounds for the first issue of its “IADC Report on the Status of the Space Debris Environment” which has been brought to the attention of this Subcommittee as Conference Room Paper A/AC.105/C.1/2023/CRP.23.

An example of technology development to actively reduce the impact of satellites after their end-of-life on the environment is the successful demonstration of a passive deorbiting device by means of a drag augmentation sail, which is of particular interest to deorbit small sized spacecraft.

Also, in the field of observing and tracking space debris, Germany continues to develop technologies for passive optical observations, laser-based tracking as well as continued advancement of radar-based surveillance and tracking technologies. In this respect, we would also invite you to attend the technical presentation on laser tracking technologies which will be held tomorrow morning.

The German Experimental Surveillance and Tracking Radar – GESTRA – is currently being operated for test and verification activities. In its final operation mode, it will be fully remotely controlled by the German Space Situational Awareness Centre – GSSAC – and its data will also contribute to the activities of the European Space Surveillance and Tracking (EU SST) Programme. GSSAC also operates a database to exchange such measurement data within the network of sensors contributing to EUSST for the provisioning of SST services including a collision avoidance warning service. The evolving EUSST governance, enlarging the number of European Countries contributing, continues to allow the participating states to own, control and operate their national sensors contributing to this joined effort. Germany continues to advance its national capabilities in this area by means of further developing observation and data processing capabilities, contributing to allow for safe operation of spacecraft in an increasingly congested environment.

Mr. Chair, distinguished delegates,

Germany stays committed to a responsible and sustainable use of the Earth's orbit by minimizing the impact of its space missions on the future orbital environment in order to support a sustainable use of outer space.

Thank you for your kind attention.