

United Kingdom, Item 6

UK Statement on space debris at the 61st session of the Scientific and Technical Subcommittee of COPUOS, 29th January – 9th February 2024

Chair, Distinguished Delegates.

The Delegation of the United Kingdom is pleased to have the opportunity to share with you the progress and developments on the topic of space debris that we have made since the last meeting of this sub-committee.

In 2021, the United Kingdom published its National Space Strategy, which noted the growing risk posed by accidental collisions with space debris and between space objects, and set out the UK's intent to lead the global effort to make space more sustainable. To address these risks and provide leadership, the UK Government has sought to develop our understanding of the space environment, establish modern space regulations and has continued to invest in approaches to prevent, mitigate and remediate space debris.

Since the last Session, over 100 orbital licences have been issued by the UK Civil Aviation Authority, who act as the independent regulator and licensor for spaceflight activities within the United Kingdom. As part of the licensing process, a debris mitigation plan is requested as part of the Orbital Technical Question Set which provides the core of the assessment for sustainability purposes, to ensure alignment to relevant international guidelines and Government expectations, as well as featuring in mission safety assessments.

A key tool in reducing the risk from debris during a satellite's operational mission is the ability to predict and warn satellite operators of potential collisions in real time through space surveillance and tracking. The UK

provides conjunction analysis and warning along with digitised re-entry and licence compliance which supports our monitoring and enforcement of debris guideline compliance. Future plans to develop this service will include supplying manoeuvre support for collision avoidance to registered operators helping to reduce collision risk. The UK has also begun the expansion of its sovereign sensor network to improve real-time satellite tracking. In April, the UK National Space Operations Centre will be launched, combining the Space Domain Awareness capabilities of the UK Government in one place.

Alongside mitigation and prevention, remediation of space debris represents an important tool to reduce the risk of collision on orbit. In recognition of this, the UK Space Agency is funding two Phase B mission studies with the intention to progress a concept through full design. Targeted to launch in 2026, this mission will demonstrate national capability to rendezvous, dock with and safely remove two unprepared, UK-licensed objects from orbit, before parking in a safe orbit in preparation for refuelling. To provide more insight on this work, the UK Space Agency will be giving a technical presentation during this Session titled "An Update on the UK Space Agency's Active Debris Removal Activities". Meanwhile, recognising the need to fully understand potential re-entry impacts on our environment, the UK Space Agency recently launched complementary research opportunities investigating atmospheric ablation.

The UK continues to be a strong advocate for the important work performed by the Inter-Agency Space Debris Coordination Committee (IADC). The widespread adoption of the IADC space debris mitigation guidelines and the IADC recommendations for large constellations of satellites continue to remain the most effective method to reduce the long-term environmental impacts of global space activity by slowing the rate of growth of the space debris population. The UK welcomes the

second annual IADC report on the "Status of the Space Debris Environment" as a critical insight into global compliance to the space debris mitigation guidelines. To raise awareness of the important work performed by the IADC, the UK supported an event with the European Space Policy Institute (ESPI) during this Session on 30th January titled " IADC at 30: The Work of the IADC in Tackling the Challenges of attaining Sustainability in the Space Environment."

The sustainability and safety of the space environment continues to be a key priority for the UK, and efforts to prevent, mitigate and remediate space debris will be critical to achieving this.

Thank you Chair and Distinguished delegates.