

UK Statement – UN COPUOS 2022 – Agenda Item 16 - Space 2030

Chair, distinguished delegates,

The UK was very pleased to see the Space “2030” agenda agreed at the COPUOS plenary last year. The UK would like to highlight important aspects of Space 2030 and update the Committee on actions the UK has taken in these areas.

Space plays a significant role in the lives of everyone on Earth due to the benefits brought by space applications including; satellite communications, meteorology, remote sensing, navigation, environmental monitoring, and surveillance.

We are all aware of the tangible benefits space offers for the effective delivery of public services.

In this regard, the UK has invested in air quality monitoring programmes such as Hyperspectral Imaging for Air Quality and Compact Air Quality Spectrometer by the University of Leicester.

With better remote sensing and better air quality data, local authorities will be equipped to take decisions in the interest of citizen health. Effective interventions can reduce adverse health effects associated with poor air quality, and thus reduce emergency hospital admissions for air quality-related emergencies and the associated cost.

The UK would like to highlight its National Space Innovation Programme which supports the development of innovative products, services and technologies that have application in the space sector. This programme is in its second year and this year has focused on UK collaborative projects with international partners.

This includes research from the University of Cambridge into high resolution thermal infrared space telescopes for globally monitoring the energy efficiency of buildings and infrastructure which makes them a powerful tool for monitoring that governments, companies and even individuals are on track to meet internationally agreed carbon emission goals.

Chair,

Last year we released our National Space Strategy which emphasised our commitment to ensuring that the space environment remains safe and sustainable.

The 4th Summit for Space Sustainability will be hosted by the Secure World Foundation and the UK Space Agency on the 22nd and 23rd June, at the Science Museum in London. This will be a unique gathering of global stakeholders from government, industry, and civil society. It will focus on developing solutions for space safety and sustainability, bringing together key players who can together enact change and protect the future of space. At the Summit the UK will set out our commitment to space sustainability, how we will drive ambitious long-term change, and deliver the commitments within our National Space Strategy.

Chair,

Space debris is a significant global issue as a satellite collision could disrupt many of the critical services we rely on every day. The UK is investing in its national Space Surveillance and Tracking (SST) capabilities to help mitigate the risks posed by space debris. By tracking objects in space, we can warn of potential collisions and in some cases satellite operators can manoeuvre their spacecraft out of the way.

Government users already receive SST information from our expert UK Space Agency orbital analysts based at the Space Operations Centre. This year the UK

Space Agency is rolling out pilot collision avoidance services to commercial operators of UK licensed satellites as part of a project called 'Monitor your satellites'.

Furthermore, in 2021 we announced £1 million of grant funding for three space companies, Surrey Satellite Technology, Astroscale and Clearspace, to explore the feasibility of a UK-led mission to remove debris from space. We will be continuing to the next mission phase by down-selecting two projects in July 2022.

Chair,

In September 2021, the UK published our severe space weather preparedness strategy. This sets out a 5-year vision for boosting our resilience to the risk of severe space weather events. It includes how we plan to work with international partners on mitigating the potential impacts of extreme solar activity.

We are investing in programmes to improve our ability to forecast, mitigate and understand the impacts of extreme space weather events, to detect and track objects in orbit and to develop technologies and processes aimed towards reducing the risk of collisions in orbit.

Chair,

The UK recognises that technical standards play a key role in enabling technology innovation within industry and we play an active role in developing the international standards key to future technologies. We also understand that space is becoming increasingly congested, and this will only worsen. Uncontrolled growth will severely affect future space operations; hence, greater coordination becomes necessary to ensure that spacecraft are able to operate safely while avoiding physical collisions, radio-frequency interference, and other hazards. To address this, the UK is working with NASA and JAXA to develop a Space Traffic Coordination standard through the ISO.

The UK has supported the Faraday Digital Programme which will provide a global LEO ultra-wideband communications and processing infrastructure which can be used by third parties to develop, test and deploy a substantial range of applications and services. The Faraday Digital service will provide an in-orbit infrastructure which can underpin the new space revolution and provide the ability to upload and deliver new services from space on timescales of weeks instead of the traditional three to five years.

The UK is proud to continue its partnership with Australia with the UK-Australia AgroClimate Space Programme (EO4AgroClimate) which uses satellite remote sensing data, technology and modelling capabilities to enable farming in both countries to become climate resilient while supporting the commitments to cut emissions.

Finally, the UK looks forward to working in partnership to deliver the aims of Space 2030 and address international challenges through the Sustainable Development Goals.

Thank you for your kind attention.