

UK Statement – UN COPUOS 2023 – Agenda Item 11 – Space and Climate Change

Contact: Niall Bradshaw – UK Space Agency (niall.bradshaw@ukspaceagency.gov.uk)

Chair, distinguished delegates

Tackling climate change is central to UK government policy, and earlier this year we set up a new government department dedicated to Energy Security and Net Zero. In our National Space Strategy, we set out our commitment to using space to tackle global challenges including climate change and biodiversity loss.

COP27 shone a spotlight on the importance of Earth Observation for climate action and recognised the vital importance of robust Earth Observation systems and related long-term data records. Multiple departments across the UK utilise Earth Observation to deliver and monitor climate adaptation actions as well as carbon sequestration through nature-based solutions.

The UK welcomed the adoption of the 2022 Global Climate Observing System (GCOS) implementation plan at COP27, which outlined gaps and the practical actions required to mitigate and adapt to climate change.

In December 2022 the UK published a joint report in collaboration with the UN Office for Outer Space Affairs (UNOOSA), mapping global efforts to use space technologies in support of climate action. The strategic view it provides will focus global efforts and increase coherence between relevant international organisations, such as the Committee on Earth Observation Satellites (CEOS), the Group on Earth Observation (GEO) and the World Meteorological Organisation (WMO).

Importantly, Earth Observations from space play a major role in improving climate models and projections to help understand and build resilience to future climate change. Here, the UK continues to be a leading contributor to IPCC Assessment Reports, and to the work of the UNFCCC.

Chair,

The UK is privileged to play a significant role in global Earth Observation efforts through our membership of the European Space Agency (ESA), EUMETSAT, bilateral and multilateral missions, and through our own national activities.

Last year, the UK demonstrated its ambition by committing our largest ever investment into Earth Observation programmes at the ESA Council of Ministers, as well as announcing a package of national activities across technology, climate services and data management. This includes the EO Climate Information Service (EO-CIS), which aims to transform EO measurements into usable information for world-class science, services, and decision-support for policymakers.

The UK is proud to lead ESA's TRUTHS mission, which will create a space-based climate observatory to supply a 10-fold improvement in the accuracy of climate data, and upgrade the performance and integration of the global EO system. Crucially, we are embedding sustainability in its development by asking all partners to responsibly limit their carbon footprint.

The UK hosts ESA's climate office, and is a lead funder of ESA's CLIMATE-SPACE programme, which spearheads R&D to support climate science and services, and drives international cooperation and knowledge exchange. Our EO sector plays a leading role in ESA's climate missions, including BIOMASS, the first satellite capable of studying the world's forests in three dimensions to provide valuable data on carbon storage, and FORUM, which will measure the energy reflected from Earth back into space, and further improve the accuracy of climate forecasting.

Chair,

The UK's Space sector thrives on building international relationships, which are key to maximising the vast potential of space to benefit people and businesses on Earth.

The UK is delighted to have partnered with the US, France and Canada on the Surface Water and Ocean Topography (SWOT) mission, which launched in December and complements UK support to sea level rise and altimetry through EUMETSAT missions. We are particularly proud to have played key roles in both developing the radar instrument and validating SWOT over the Bristol Channel.

Furthermore, the UK is part of the build, calibration and science of the MicroCarb mission with our French counterparts, which will measure greenhouse gas fluxes on the Earth's surface and assess carbon storage by the world's oceans and forests. The UK continues to champion this cross-border collaboration, and this year launched our International Bilateral Fund, which will foster new collaborative projects with other space nations.

As well as our international collaboration, the UK cultivates numerous national space-related climate activities, brought together under the coordination of our Space4Climate programme. As the UK signatory to the Space Climate Observatory (SCO) International Charter, the UK Space Agency – with coordination from the Space4Climate network - looks forward to accrediting our first SCO-compliant projects.

Finally Chair,

The UK was pleased to engage with the international community at the Global Space Conference on Climate (GLOC), hosted by the Norwegian Space Agency. The focus on *Space for Climate Action* provided a platform for sharing of policy, technical and scientific expertise, and we look forward to taking forward more multilateral discussions on the use of space for climate action ahead of COP28 under the presidency of the UAE.

Thank you for your kind attention.