



# Space, Climate Change, and International Cooperation

August 31, 2021

## **Ian Annett, UKSA**

Ian joined the UK Space Agency in January 2020 as Deputy CEO for Project Delivery, responsible for overseeing major National space programmes including Spaceflight, Regulatory Control and UK GNSS.

In 2021, Ian became the Deputy CEO for Programme Delivery.

Prior to this he was Assistant Chief of Staff for Information Warfare and Chief Information Officer for the Royal Navy, where he was responsible for development, delivery and deployment of Royal Navy information, intelligence and communication capabilities, including satellite communications, networks, electronic warfare and cyber. He was SRO for 3 major programmes and commissioned the Royal Navy's first digital and data lab, delivering an Artificial Intelligence, machine learning and big data capability into the Service using Agile methodology.

His previous appointments include Joint Forces Command, where he was the Programme Director for Skynet 6, the Ministry of Defence Central Staff and the British Defence Staff in Washington, DC. He has served in six warships as a Weapon Engineer, including the previous strike carrier and Fleet Flagship, HMS Illustrious.

Ian has BEng in Electrical and Electronic Engineering and a MSc in Guided Weapon Systems. He is a Fellow of the Institution of Engineering and Technology and the British Computing Society, an MPLA Alumnus of the Said Business School, Oxford and a member of the Royal College of Defence Studies. He is also a keen aerobatic flyer and a Fellow of the Royal Geographical Society.

## **John Remedios, University of Leicester**

Professor John Remedios is Executive Director of the National Centre for Earth Observation (NCEO), a multi-location NERC research centre hosted by the Earth Observation Science group at the University of Leicester and with key long-term staff at UK universities and research labs. He is a Physicist but has collaborated across the fields of Chemistry, Geography and Biology. His experience is in satellite data for observing the Earth: climate, land and ocean temperatures, air pollution, land-atmosphere coupling and EO data algorithms. He has also worked on instrument concepts for new satellite missions including

accurate thermal infra-red and optical instruments; he has a developing interest in land observations for long-term change and resilience.

Professor Remedios works closely with space agencies, particularly with the UK Space Agency and the European Space Agency. He is Principal Investigator for the Along Track Scanning Radiometers (ATSRs), plays major roles in a number of other satellite missions and is Chair of the Mission Advisory Group for TRUTHS. He has also chaired the UK Space Agency Earth Observation Advisory Committee and is a standing member. He has been an expert adviser to ESA through ESA's Earth Sciences Advisory Committee and Future Technology Panel, and continues to serve on advisory groups. Internationally, he supports UK delegations to the inter-agency Committee on Earth Observation Satellites (CEOS) and inter-governmental Group on Earth Observation (GEO) groupings through the UK GEO/CEOS Office.

Professor Remedios is working with a range of industrialists throughout the space and EO supply chain, supporting EO researchers to build effective collaborations with companies. He has worked with the Centre for Earth Observation Instrumentation (CEOI) on technology. He has been a Director of G-STEP at Leicester working with businesses in the downstream environmental science data market. More recently, he has been active in the UK Space Sector Council and Space Growth Partnership, developing its inputs to government, and in University-based academic-industry collaborative ventures such as Space Park Leicester where NCEO has its headquarters.

### **Gavin Schmidt, NASA**

As the Director of GISS and Principal Investigator for the GISS ModelE Earth System Model, I am interested in understanding past, present and future climate and the impacts of multiple drivers of climate change, including solar irradiance, atmospheric chemistry, aerosols, and greenhouse gases. My specific research interests are outlined in more detail here.

Note that since Feb 2021, I have been the acting Senior Advisor on Climate to the NASA Administrator. Dr. Ron Miller is now the acting Director of GISS.

### **Briony Turner, Space4Climate**

Chaired by the UK Space Agency, Space4Climate spans government, industry, the third sector and academia, uniting those in the UK with expertise in space-enabled climate data and services. Briony Turner manages the group and has co-founded the MESH networking facility for the UK Climate Services community. Briony has previously worked in the Capital Investment team of the Department for International Trade and at the UK Climate Impacts Programme (UKCIP) based in the Environmental Change Institute, University of Oxford. Prior to that, she worked for over a decade in the UK's built environment sector.

She is a member of the UK Earth Observations for COP26 High Level Working Group, the Vice Chair of the Chartered Institution of Building Services Engineers' (CIBSE) Knowledge Generation Panel and the CIBSE Resilient Cities Group and Steering Group member of the London Climate Change Partnership.