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WE'RE HERE TO HELP: WHAT IS THE ROLE OF THE ITU IN SPACE SUSTAINABILITY?

Abstract

While the generally held belief is that the United Nations (UN) has failed to generate any new space law since the Moon Agreement in 1979, there is one UN agency that has continued to adopt new space law on a regular basis to address emerging challenges and opportunities posed by new space technologies, services and missions. The International Telecommunication Union (ITU), a specialized agency of the UN, convenes intergovernmental conferences on a quadrennial bases to adopt updates to its Radio Regulations, a treaty instrument on the use of radiofrequency spectrum on Earth and in space. Its recent World Radiocommunication Conference (WRC-23), held in late 2023, adopted new provisions of the Radio Regulations on management of large non-geostationary satellite constellations (including orbital tolerances); a new work item on spectrum and regulatory changes needed for planned lunar surface and lunar orbit operations; and studies to protect radioastronomy observations on the moon and on Earth. One hotly debated topic was the role of the ITU on space sustainability.

Many of the ITU's 193 Member States and 1,000 Sector Members (and other non-State participants), rely on the ITU as a forum for consideration and cooperative action on technology issues relating to telecommunications – which includes radio communications. Assured access to radio spectrum is mission critical for space systems. With the growing population of non-geostationary satellites and systems, which on the ITU's Radio Regulations and registrations of frequency assignments (including orbital positions) in the ITU's Master International Frequency Register, many are looking to the ITU to formulate solutions to ensure sustainability of the orbit, including mitigation of space debris, and protection of other space systems, including satellites in geostationary orbit.

This paper will describe the recent debate on the appropriate role of the ITU in resolving space sustainability issues – including its current mandate; the main views expressed; and new resolutions adopted on space sustainability. The paper will also discuss new work activities the ITU has recently launched on space sustainability, including development of a new standard for deorbiting non-geostationary satellites at the end of life and some activities which may extend beyond the resolutions adopted. Finally, the paper will consider the question of what should the role of the ITU be?