

**Statement by Kevin Conole, United States Representative,
on Agenda Item 9, “Space Weather,” February 1, 2024**

Thank you, Chair and distinguished delegates. The United States remains committed to advancing our space weather observation and prediction capabilities, and we look forward to enhancing international cooperation as countries around the globe continue to expand their related interests and capabilities. Addressing space weather as a global concern requires coordinated efforts to predict and manage severe events and their impact on Earth. Activity on the Sun is steadily increasing as we move deeper into Solar Cycle 25. In addition to more sunspots on the Sun, energetic events like solar flares and coronal mass ejections have become more frequent in the past year. Ongoing measurements and focused research efforts are improving modeling and forecasting capabilities and collaboration with our international partners has helped us leverage our collective investment to predict and mitigate severe space weather events effectively.

The United States leads and participates in numerous initiatives to improve space weather observations and services to advance the scientific understanding of the space environment and provide warning of critical space weather events. This past year the Space Weather Operations, Research and Mitigation Subcommittee (SWORM) Advisory Group released a report with findings and recommendations that will foster transformative change across the national space weather enterprise. In December, NASA, NOAA, the National Science Foundation and the Department of the Air Force signed an agreement that improves coordination and collaboration on space weather research-to-operations-to-research.

The 2021 U.S. Space Priorities Framework calls for the United States to protect space-related critical infrastructure, including enhancing the protection of critical infrastructure from space weather events. We continue to implement the U.S. 2019 National Space Weather Strategy and Action Plan, which highlights the importance of UNCOPUOS; and recently released the 2023 Implementation Plan, which serves as a roadmap for coordinated interagency and international efforts during the next five years.

Chair, the United States remains committed to supporting and implementing the Long-Term Sustainability of Outer Space Activities (LTS) Guideline B.6, to share operational space weather data and forecasts, and Guideline B.7, to develop space weather models and tools and collect established practices on the mitigation of space weather effects. The United States makes its space weather data and forecasts available on a full and open basis, and we continue our research efforts to advance our space weather models and to work with our international partners around the world to strengthen our operational space weather forecasts.

The United States strives to improve its space weather observing infrastructure and to maintain long-term continuity of essential observations. In 2025, NOAA will launch the Space Weather Follow On (SWFO-L1) mission at Lagrange Point 1. The SWFO-L1 objective is to orbit the Sun to collect data and measurements and will use a suite of instruments to make real time measurements of the solar wind, thermal plasma, and the magnetic field. The United States appreciates the support of our international partners, especially Korea and Japan, who are contributing to the operational space-based space weather observations to support this mission and future space weather missions with NOAA's Space Weather Next program.

NASA continues its commitment to advancing the scientific understanding of space weather through improved measurement and analysis techniques, and transitioning space weather research into operations and applications for improved nowcasting and forecasting. In 2023, NASA selected three Space Weather Centers of Excellence and partnered with the Department of Commerce on a joint selection for a fourth. These Centers provide long-term integrated multidisciplinary research teams and infrastructure development to address major challenges in space weather. NASA released a solicitation in 2023 for a scientific instrument to be hosted on the European Space Agency (ESA) space weather mission Vigil to the Sun-Earth Lagrange Point 5, and a selection is planned to be announced in the first half of 2024. Additionally, NASA recently released the Moon to Mars Strategy and Architecture documents that include objectives related to the advancement of space weather science and utilization for human exploration of the solar system. To fulfill these objectives, space weather observation and prediction capabilities will need to be extended beyond the near-Earth regime. The establishment of a long-term human presence on the

Moon will necessitate robust space weather observation and prediction in cis-Lunar space and over much of the lunar surface to protect crew and assets.

In closing, Chair, the United States congratulates the Expert Group on Space Weather on its recommendations to help ensure all Members are making progress toward implementation of the LTS Guidelines for Space Weather. We appreciate the ongoing work among World Meteorological Organization, the International Civil Aviation Organization, the Coordination Group for Meteorological Satellites, the Committee on Space Research, the International Space Weather Initiative, and others on mechanisms to enhance global coordination to support globally progress towards the implementation of the LTS guidelines. Thank you, Chair.