Statement by Kevin Conole, United States Representative,
on Agenda Item 10, "Space Weather," February 9, 2023

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. Space weather is a global concern, requiring understanding, preparation, and coordination to predict potentially severe events and to mitigate their impacts. Continuous space-based and ground-based measurements and focused research efforts are improving our modeling and forecasting capabilities. Our coordination and cooperation with partners around the globe help enhance our understanding of the breadth of impacts of space weather as well as partners' investments, thereby improving our capacity to predict and mitigate severe space weather events.

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. 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 2019 National Space Weather Strategy and Action Plan and the 2020 Promoting Research and Observations of Space Weather to Improve the Forecasting of Tomorrow Act 2020.

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. Three U.S. agencies: NASA, NOAA, and the National Science Foundation fund research efforts to enable improved space weather forecasting. A focus on transitioning advanced research models, techniques, and technology

to operational environments is reflected in the 11 funded efforts by NASA and NSF over the last year to academia and the commercial sector. The U.S. research community is a strong participant in the COSPAR International Space Weather Action Team effort to update its Space Weather Roadmap.

The United States strives to improve its space weather observing infrastructure and to maintain long-term continuity of essential observations. In 2022, NOAA established the Office of Space Weather Observations to ensure that critical observations will be sustained, improved, extended and potential gaps in observations mitigated to support NOAA space weather forecast operations. NOAA planning continues for the launch of its Space Weather Follow On-Lagrange 1 in 2025, which will continue operational space weather observations of solar coronal mass ejection and space weather conditions upstream from Earth at Sun-Earth Lagrange point 1, as well as for future operational space weather observations under NOAA's Space Weather Next program. Last year, NOAA and the European Space Agency signed a space weather cooperation agreement, which includes the exchange of instruments for hosting on each other's space-based space weather observing missions. In addition, NOAA is pursuing agreements for space weather ground support with partners in Europe, Asia and Oceania.

NASA continues its commitment to melding space research and space weather observations through its missions. The NASA Space Weather Program was established this year to coordinate and fulfill its role in the global space weather enterprise. Two new competed opportunities have been implemented this year: (1) Space Weather Centers of Excellence that provide long-term integrated multidisciplinary research teams and infrastructure development to address major challenges in space weather and (2) an EUV instrument on the ESA Vigil mission to Lagrange point L5. The instrument selection for the Geospace Dynamics Constellation mission is completed and discussions with NOAA regarding space weather sensors and data streams is ongoing. The Lunar Gateway Radiation and Space Weather International Science Working Group held its first meeting and is focused on the space weather research enabled by the cis-lunar orbiting Gateway space weather suites developed by NASA and its ESA, JAXA, and CSA partners. These are pathfinder payloads for future deep space human exploration.

In closing, Chair, the United States congratulates the Expert Group on Space Weather on completion of its survey and the development of recommendations to help ensure all Members are making progress toward implementation of the LTS Guidelines for Space Weather. We look forward to continuing discussion of progress towards the implementation of the LTS guidelines through this agenda item on Space Weather as well as through our cooperation with the other international bodies such as the 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. Thank you, Chair.