

**Statement by Kevin Conole, United States Representative,
on Agenda Item 10, “Space Weather,” April 19, 2021**

Thank you, Madame Chair and distinguished delegates. The United States is committed to advancing our space weather capabilities, and we look forward to further cooperation as related interests and capabilities continue to expand around the globe. Space weather is an international 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. Broad participation from countries around the globe helps us understand both the drivers and the impacts of space weather, 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 services and to advance the scientific understanding of the space environment. We are working across all U.S. departments and agencies to implement the 2019 National Space Weather Strategy and Action Plan. Moreover, we are pleased to report that the United States recently enacted legislation on space weather that strengthens U.S. commitment to space weather operations, research, and mitigation measures, and to providing renewed encouragement for robust international cooperation. The PROSWIFT Act – that stands for Promoting Research and Observation of Space Weather to Improve Forecasting of Tomorrow – was passed by the U.S. Congress, and then signed into law in October 2020. It provides strong legislative backing for the National Oceanic and Atmospheric Administration (NOAA) and other U.S. Government department and agency activities in space weather.

These are great examples of U.S. efforts to support and implement the recently adopted Long-Term Sustainability of Outer Space activities (LTS) guidelines, particularly 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 strives to make 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. In 2020, three U.S. agencies: NASA, NOAA, and the National Science Foundation, continued to fund research efforts to enable improved space weather forecasting. Twenty-three independent investigations were awarded.

The United States strives to improve its space weather observing infrastructure and to maintain long-term continuity of essential observations. In this regard, since the launch of the COSMIC-2 mission in 2019, the program has commissioned the satellites and finished transitioning them incrementally to their final operational orbits. NOAA continues to use space weather data from GOES-16 and plans to use GOES-17.

In 2020, the NASA Heliophysics Division supported the initiation and planning of 11 missions in formulation and another 7 under study, representing the largest increase in space weather-related missions in the history of the Division. Furthermore, a space weather payload was selected on March 11, 2020 to fly on the first element of the Lunar Gateway, an early key component of the Artemis Program. HERMES, the Heliophysics Environmental and Radiation Measurement Experiment Suite, is the NASA investigation chosen as one of two external scientific payloads to fly on Gateway in support of Artemis. HERMES will measure low energy radiation and improve our ability to forecast space weather. The European Space Agency (ESA) European Radiation Sensors Array is the other external Gateway space weather-relevant payload and will observe higher energy radiation, including galactic cosmic rays. The ESA/Japan Aerospace Exploration Agency (JAXA) Internal Dosimeter Array will measure the radiation levels internally on the Gateway.

These three complementary payloads will provide a pathway for future onboard and Earth-independent space environment forecasting for deep space human exploration.

In closing, Madame Chair, the United States thanks the Space Weather Expert Group for its efforts over the years. We support the proposed one-year extension of its mandate so the group can develop a useful final report and set of recommendations to help ensure all Members are making progress toward implementation of the LTS Guidelines for Space Weather. Thank you, Madame Chair.