## Statement by Kevin Conole, United States Representative, on Agenda Item 18, "Dark and Quiet Skies," February 16, 2022

Thank you, Mr. Chair. The United States appreciates this important topic being included on the agenda for this year's STSC. We recognize the growing opportunities from satellites in low-Earth orbit, including providing connectivity and broadband internet services throughout the world and new capabilities for Earth imaging and environmental science. Recognizing the potential impact to the scientific productivity of key astronomical facilities coming online in the coming years, such as the National Science Foundation's Vera C. Rubin Observatory, the United States strongly supports the intentions and spirit of the Working Paper prepared by Chile, Slovakia, Spain, the International Astronomical Union, the European Southern Observatory and the Square Kilometre Array Observatory (A/AC.105/C.1/L.396) and the proposal for a temporary Agenda Item on this topic for the continued exchange of views.

The U.S. delegation encourages ongoing efforts of all interested nations, satellite operators, the scientific community, and others to evaluate both the extent of the challenge and means to address them with the new generation of large constellations of satellites. We endorse the set of best practice guidelines produced by the Industry Working Group and their voluntary inclusion into satellite design and development. We also endorse the recommendations on the many steps astronomers can take to mitigate the impact.

The United States is especially proud of the collaboration between the satellite industry and astronomers that has led to concrete recommendations. This collaboration includes Coordination Agreements where companies have committed to abide by International Telecommunication Union international standards, modifications of orbital altitudes, voluntary changes to satellite designs for testing including installation of visors, provision of telemetry information for observational follow-up, and modification of satellite orientation in orbit raising and lowering procedures to minimize reflected light. Additionally, members from the satellite industry have participated in many workshops and conferences organized by astronomers for knowledge sharing. Astronomers within the United States have organized a series of workshops (SATCON1 and SATCON2) and actively participated in the Dark and Quiet Skies Conferences. The U.S. National Science Foundation funded a new national center for wireless spectrum innovation, SpectrumX, which was launched in September 2021, and includes a focus on techniques in spectrum management research and development, including for the protection of radio astronomy. Finally, Mr. Chair, we are proud to announce that the National Science Foundation's National Optical-Infrared Astronomy Research

Laboratory (NOIRLab) is a founding member, along with the Square Kilometre Array Organization, of the IAU Centre, which will launch on April 1st, to continue the important collaborative work and coordinating efforts worldwide on this important topic. Thank you, Mr. Chair.