Mr. Chair, Distinguished Delegates,

On behalf of the Japanese delegation, I am pleased to present Japan's recent activities regarding space weather.

Taking into account an increasing number of space operations, it is important to monitor solar activities and the space environment as a whole for the safety and sustainability of our outer space activities.

The National Institute of Information and Communications Technology (NICT) of Japan has a long history of measuring solar radio waves since 1952. NICT currently conducts solar observations with its own solar radio telescope, and provides a ground station for receiving data on solar winds and images from United States satellites. Additionally, NICT has constructed a ground-based observation network of the ionosphere and the geomagnetic field to monitor and forecast ionospheric disturbances. These instruments provide useful data for space weather monitoring, forecast and research.

Since the identification of big solar flares in 2017, NICT has strengthened its ability to observe space weather with a dual observation system, and has set up a second NICT branch in Kobe, Japan, acting as a secondary space weather information center. Additionally, NICT began 24/7 space weather forecast operations on December 1, 2019.

NICT has made several contributions to the formulation of the space weather international framework. For example, NICT contributes to activities of the expert team of the Scientific and Technical Subcommittee (STSC) of COPUOS including the survey of space weather research and operation among Member States and international organizations in accordance with LTS Guidelines B.6 and 7. These survey results were included in the final report of the expert group on space weather for improved international coordination for space weather services at this year's STSC. NICT also contributes to the activities of the International Civil Aviation Organization (ICAO), the World Meteorological Organization (WMO), the International Telecommunication Union (ITU) and International Space Environment Services (ISES). NICT was assigned as one of the ICAO Space Weather Global centers in collaboration with Australia, Canada and France, and began operations on November 7, 2019. NICT also acts as the secretary of the

Asia-Oceania Space Weather Alliance (AOSWA) collaborating on operations and research of space weather in the Asia-Oceania region since 2011. At present, twenty-nine institutes in fourteen countries are members of the alliance. A virtual meeting of AOSWA was held on November 24, 2020 to discuss the activities of space weather research and operation considering the COVID-19 circumstances in each country.

Additionally, NICT has started developing space weather monitoring sensors on geostationary orbit satellites in cooperation with MIC and JMA, since 2021. These instruments are expected to be installed in the next generation meteorology satellite, "HIMAWARI", to be launched in 2028. Observations using these instruments are important not only to monitor regional space weather, but also to help establish a global infrastructure to support the safety and security of ICT society.

Mr. Chair,

From 2015 to 2019, Japan conducted a nation-wide collaborative research initiative called "Project for Solar-Terrestrial Environment Prediction" (PSTEP) with the support of Grants-in-Aid for Scientific Research on innovative Areas, provided by Japan's Ministry of Education, Culture, Sports, Science and Technology. More than 100 researchers in Japan and around the world have been involved in this project. PSTEP aims to develop a synergistic interaction between predictive and scientific studies of the solar-terrestrial environment and to establish the basis for the next-generation space weather forecasting using state-of-the-art observation systems and advanced physics-based models. As a result, the relationship between the scale of space weather events and their rate of occurrence in Japan was surveyed, and the social impact of these phenomena was discussed. Based on these results, MIC launched a new project to discuss the nation's level of preparedness against severe space weather events in 2022.

Thank you for your attention.