

**Statement by Caitlin Poling, United States Representative, on Agenda Item 7:
“Space-system-based Disaster Management Support,” January 31, 2024**

Thank you, Chair. The United States is pleased to provide our annual statement on the use of space-system-based support for disaster risk management. Just last month, NOAA announced 2023 was a record year with a high diversity of destructive disasters with damages totaling \$92.9 billion. During that year, the United States experienced twenty-eight separate billion-dollar weather and climate disasters, which killed at least 492 people. This set a record for the most billion-dollar disasters in the United States in a calendar year. Over the last seven years, 137 separate billion-dollar disasters have killed at least 5,500 people and cost greater than \$1 trillion in damage in the United States. These tragic statistics reinforce the importance of the United Nation’s “Early Warnings for All” Initiative vision that every person on Earth is protected by early warnings by the end of 2027. The United States is committed to the goal of reducing the loss of life from disasters through the “Early Warnings for All” Initiative and recognizes the important contribution of space-based Earth observations to the hydrometeorological forecasts that underpin early warning systems around the world.

The United States makes significant contributions to disaster management through international and intergovernmental bodies, including the UN, the Group on Earth Observations (GEO), the Committee on Earth Observation Satellites (CEOS), the Coordination Group for Meteorological Satellites, and implementing mechanisms, including the Paris Agreement and the Sendai Framework for Disaster Risk Reduction. This includes advancing the systems approach to Earth science and technology, contributing effective practices and protocols in Global Risk Assessment, and growing capacity for use of space-based data to meet local, regional and national needs related to disasters.

The United States, represented by the USGS and NOAA and leveraging government and commercial satellite imagery, is pleased to continue our participation in the International Charter on Space and Major Disasters. In 2023, under the auspices of the Charter, the U.S. Government and commercial providers responded to more than 60 activations in 45 countries and has proved

once again how such a data-sharing mechanism is a unique and invaluable approach to global cooperation in response to devastating events.

Regarding earthquakes, landslides, and volcanic unrest, the USGS increasingly relies on satellite radar and optical data obtained by other UN Member States for disaster response. In 2023, the USGS heavily leveraged satellite data in response to earthquakes around the globe, especially the disastrous earthquakes in Turkey and Morocco. Fault models derived from satellite imagery continue to be incorporated into the USGS ShakeMaps and landslide probability maps to improve operational awareness following earthquake disasters. The USGS-USAID Volcano Disaster Assistance Program (VDAP) supports counterparts in Latin America and the Caribbean, Africa, East Asia and the Pacific to support monitoring and forecasting efforts of active volcanoes. In 2023, satellite data interpretation was shared during unrest and eruptions of 18 volcanoes in 10 countries across these regions.

Chair, in the era of increased climate-related disasters, the value of Earth observations and global cooperation has never been more apparent. NASA advances disaster risk management through a robust Applied Sciences Disasters Program, which harnesses Earth system data, applied science and collaborative partnerships to enhance the understanding of risk, hasten response, improve recovery, and promote resilience from disasters on local and global scales. In the coming months, the Program will launch a new Disaster Response Coordination System that provides a One-NASA approach to leveraging the best science, technology, and flight capabilities available to support active disaster response. The Program is also expanding its efforts in using geospatial mapping for risk assessment, disaster response, and early recovery by transitioning into an open-access cloud environment that will enable the co-production of science-based decision support tools between NASA and its disaster management partners.

Chair, the United States recognizes that the impacts of the climate crisis are being felt today in the disasters we are experiencing. In response, the President's Emergency Plan for Adaptation and Resilience (PREPARE) calls for NOAA and other U.S. agencies to support developing countries and communities in vulnerable situations around the world in their efforts to adapt to and manage

the impacts of climate change. NOAA, a recognized leader in climate information and services, continues to work to build capacity by sharing its global data, resources, and tools, as well as provide direct technical assistance and capacity building to developing countries. NOAA is committed to continuing its leadership role as part of the Global Water Sustainability Initiative (GEOGloWS) Streamflow Forecast Service, which provides reliable 15-day forecasts and 50 years of historical streamflow data for every river in the world through a free and open web service. NOAA, with funding from the PREPARE Initiative, awarded \$2 million to GEOGloWS to help provide support and early warning services for critical water resources in Africa. Partnering with the Nile Basin Initiative, NOAA will work with national meteorological and hydrological agencies to integrate the GEOGloWS Streamflow tool into their activities, which will help countries make better-informed decisions for water resource management and prepare for weather extremes. The USGS, NASA, and NOAA continue to develop and deploy new satellite-based monitoring systems to support the USAID's Famine Early Warning Systems (FEWS) Network and the Group on Earth Observations Global Agricultural Monitoring (GEOGLAM) Crop Monitor for Early Warning. The USGS, in collaboration with university partners, is researching and implementing processes to 1) improve earlier yield forecasts based on Earth observations, subseasonal climate forecasts, and Machine Learning techniques, including countries that do not have sufficient historical agricultural statistics, 2) establish a rapid response center for providing actionable agricultural assessments, and 3) evaluate the impacts of health and climate conditions on food security vulnerability. Ever-improving integrated monitoring and forecasting systems to assess impacts of drought, floods, and conflict on agricultural production help identify the most vulnerable at-risk populations, guiding timely and effective humanitarian assistance.

Chair, the United States is committed to assisting in the effective management of disasters worldwide and the reduction of disaster risk to promote community resilience. In closing, I would like to express our appreciation for our many international partnerships that promote free and open sharing of critical data that will lead to greater utilization of space-based information for societal benefit. Thank you, Chair.