

**Statement by Lindley Johnson, United States Representative,
on Agenda Item 10, “Near-Earth Objects,”
February 1, 2024**

Thank you, Chair. The United States appreciates the opportunity to share its most recent activities for discovery and research on Near-Earth Objects, or NEOs. The NASA Planetary Defense Coordination Office leads U.S. efforts to detect, track and study hazardous NEOs. This office would also lead coordination of efforts by the U.S. Government for a response to any potential impact hazard, working closely with our international partners.

As of January of this year, international efforts led by NASA-sponsored NEO search teams have obtained a significant milestone in the search for near-Earth asteroids (or NEAs), having discovered nearly 33,000 asteroids of all sizes whose orbits could allow them to come relatively close to Earth. Last year, lava from a volcanic eruption on Hawaii’s Mauna Loa destroyed power lines and blocked the access road to the NASA-sponsored Asteroid Terrestrial-impact Last Alert System, or ATLAS. However, the ATLAS team worked to design and install a solar power configuration that would meet the operational needs of the robotic telescope, and thanks to their efforts, the observatory is now fully back online, and more sustainable, under solar power.

In September of 2022, NASA’s Double Asteroid Redirection Test, or DART mission, successfully demonstrated one method of asteroid deflection technology using a kinetic impactor spacecraft, marking the world’s first test for planetary defense. We appreciate Italy’s important contribution of LICIAcube. Telescopes across all seven continents were trained on DART during its impact and gathered essential data that confirmed the milestone success of the mission and served as another powerful example of the necessity of international cooperation. While NASA’s DART mission formally concluded at the end of last year, the agency is continuing to collaborate with ESA on their Hera mission, which is scheduled to launch in October of this year and expected to arrive at DART’s target asteroid system of Didymos and Dimorphos in late 2026. Once achieving orbit with the asteroids, Hera will perform detailed post-impact characterization and analysis to help better understand the composition of these asteroids and the effects from DART’s hypervelocity impact. Additionally, NASA is providing a Hera Participating Scientist Program, which will support scientists at U.S. institutions to participate on ESA’s Hera mission, maximizing the potential science return from DART and Hera.

Work diligently continues on the NEO Surveyor infrared space telescope - the next flight project conducted by NASA's Planetary Defense Coordination Office. Once launched, NEO Surveyor will accelerate the rate at which we are able to discover and characterize potentially hazardous NEOs by continually searching for them in the infrared, complementing ground-based observatories that survey the night sky using optical light. This next-generation asteroid hunting telescope will be capable of detecting both bright and dark asteroids, which are the most difficult to find, by measuring the infrared emissions from them after heating by the Sun. NEO Surveyor is being designed to ensure NASA meets its congressional tasking of discovering 90 percent of NEOs 140 meters in size and larger within a decade of its launch, which is expected to occur no later than June 2028.

Chair, the United States actively contributes to the International Asteroid Warning Network, or IAWN, and the Space Mission Planning Advisory Group, or SMPAG. These groups provide a strong foundation for international cooperation among space agencies and scientific and technical institutes to detect and deal with the natural impact hazard. We thank the UN Office for Outer Space Affairs for its work in support of these groups, and we appreciate all the work being done to support the initiative for an International Year of Planetary

In April of this year, NASA will host its fifth U.S. interagency hypothetical asteroid impact tabletop exercise. These exercises are extremely important to our preparedness as they bring together key members in planetary science and government, the international planetary defense community, and other areas of expertise such as emergency response to explore how a global response to a future asteroid impact threat might be conducted.

Optical observations of near-Earth asteroid observations are important and may be impacted from optical reflections off satellites in low-Earth orbit. In the United States, several satellite authorizations have included requirements designed to facilitate coordination between astronomers and satellite operators. We invite you to a technical presentation on the afternoon of February 2 to learn more details. The United States also supports establishing an agenda item and expert group to continue discussing the effects of satellites and satellite constellations on astronomical observations.

Chair, the United States continues work called for in its National Preparedness Strategy and Action Plan for NEO Hazards and Planetary Defense, and last April both NASA and the White House Office of Science and Technology Policy released updates to this plan to restate the nation's NEO planetary defense

objectives over the next decade. Like other space-related U.S. national policies, these NEO Strategies specifically mention the importance of the work of UNCOPUOS and its subcommittees. The United States continues its efforts to detect and avoid the rare but potentially globally devastating effects of an asteroid impact – especially now that one technology demonstration has proven capable of asteroid deflection with NASA’s DART mission. We look forward to increased international cooperation to address the impact hazard from space through participation in IAWN and SMPAG. These collaborative groups are thriving with a growing number of members as our scientific, NEO-related coordination continues to improve. Thank you, Chair.