Statement by Mr. Kevin Conole, United States
Agenda Item 9, "Near-Earth Objects"
February 7, 2025

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 over 37,000 asteroids of all sizes whose orbits could allow them to come relatively close to Earth, including more than 11,150 objects larger than 140-meters in size, and over 850 that are 1-kilometer and larger.

Work diligently continues on the NEO Surveyor infrared space telescope – the next space mission 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. 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, complementing ground-based observatories that survey the night sky using visible light. 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 in September 2027.

In April of last year, NASA, in partnership with the Federal Emergency Management Agency and with the assistance of the U.S. Department of State Office of Space Affairs, convened the fifth U.S. interagency hypothetical asteroid impact tabletop exercise. This was the first U.S. exercise to include international participation, including the United Nations Office for Outer Space Affairs (UNOOSA), the International Asteroid Warning Network (IAWN), the Space Missions Planning and Advisory Group (SMPAG), and other national space agencies, underscoring the international nature of the NEO hazard. These

exercises inform and assess our ability as a nation to respond effectively to the threat of a potentially hazardous asteroid or comet. They also bring together key members in planetary science and government, representatives of 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.

In September 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. 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.

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. As a recent example of this, NASA analysis of an estimated 40-to 90-meter near-Earth asteroid, designated 2024 YR4, indicates it has a more than 1% chance of impacting Earth on December 22, 2032. In response, IAWN notified UNOOSA who in turn, disseminated a circular notifying UN member states on January 30, 2025.

We thank the UNOOSA for its work in support of these groups, and we appreciate the UN General Assembly's adoption of the resolution declaring 2029 as the International Year of Asteroid Awareness and Planetary Defense or IYAPD. The close approach to Earth of the asteroid Apophis in 2029 that inspired IYAPD will afford an historic opportunity both for science and for education about planetary defense efforts around the world. NASA's OSIRIS-APEX mission will explore Apophis after its close approach, and NASA continues to explore possible collaborations to study Apophis prior to its close approach.

Chair, the United States continues its efforts to detect and avoid the rare but potentially globally devastating effects of an asteroid impact. We look forward to international cooperation to address the impact hazard from space. Thank you, Chair.