

Agenda Item 9: Near Earth Objects

Republic of Korea

UN COPUOS Scientific and Technical Subcommittee, Sixty-second Session February 3, 2025

Thank you, Chair.

Since 2008, 11 Near-Earth Objects (NEOs) have been detected and tracked before their impacts on Earth. Fortunately, all were smaller than five meters and disintegrated in the atmosphere, posing no serious threat. Four of these impacts occurred last year—in Germany, the Philippines, the Eastern Pacific, and Siberia. While none caused harm, these events underscore the importance of continuous observation, risk assessment, and mitigation efforts. Recognizing the importance, the Republic of Korea actively collaborates with the International Asteroid Warning Network (IAWN) and the Space Mission Planning Advisory Group (SMPAG) to contribute to related global initiatives.

In this regard, we welcome the UN General Assembly's declaration of 2029 as the International Year of Asteroid Awareness and Planetary Defense (IYPD). This milestone coincides with the close approach of the asteroid Apophis, which will pass between the Earth and the geostationary orbit in April 2029. While Apophis poses no immediate threat, its passage presents an invaluable opportunity to enhance global awareness of space hazards and to advance planetary defense technologies.

Several space missions are being planned to study Apophis during this close encounter, including NASA's OSIRIS-APEX and ESA's RAMSES. Recently, Korean scientists discovered that Apophis' surface

material exhibits heterogeneity. Through visible and near infrared spectra observations conducted using a number of ground-based astronomical facilities including NASA's Infrared Telescope Facility (IRFT), they identified spectrum variations that suggest compositional differences between Apophis' hemispheres. The Korea Astronomy and Space Science Institute (KASI) anticipates that these findings will be further validated by upcoming space missions such as OSIRIS-APEX and RAMSES.

Chair,

The Republic of Korea remains committed to strengthening global efforts in NEO observation and planetary defense. By collaborating with IAWN, SMPAG, and other member states, we aim to contribute to advance collective capacity to safeguard our planet from potential hazards and threats.

Thank you.

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