

NASA's Planetary Defense Coordination Office at NASA HQ

Doris Daou, Lindley Johnson, Kelly Elizabeth Fast, Rob Landis, Victoria P Friedensen and Michael Kelley

NASA Headquarters, Washington, DC, United States

Abstract

NASA and its partners maintain a watch for near-Earth objects (NEOs), asteroids and comets that pass close to the Earth, as part of an ongoing effort to discover, catalog, and characterize these bodies.

The PDCO is responsible for:

- Ensuring the early detection of potentially hazardous objects (PHOs) – asteroids and comets whose orbit are predicted to bring them within 0.05 Astronomical Units of Earth; and of a size large enough to reach Earth's surface – that is, greater than perhaps 30 to 50 meters;
- Tracking and characterizing PHOs and issuing warnings about potential impacts;
- Providing timely and accurate communications about PHOs; and
- Performing as a lead coordination node in U.S. Government planning for response to an actual impact threat.

The PDCO collaborates with other U.S. Government agencies, other national and international agencies, and professional and amateur astronomers around the world.

The PDCO also is responsible for facilitating communications between the science community and the public should any potentially hazardous NEO be discovered. In addition, the PDCO works closely with the United Nations Office of Outer Space Affairs, its Committee on the Peaceful Uses of Outer Space, and its Action Team on Near Earth Objects (also known as Action Team 14). The PDCO is a leading member of the International Asteroid Warning Network (IAWN)

and the Space Missions Planning Advisory Group (SMPAG), multinational endeavors recommended by the United Nations for an international response to the NEO impact hazard and established and operated by the spacecapable nations. The PDCO also communicates with the scientific community through channels such as NASA's Small Bodies Assessment Group (SBAG).

In this talk, we will provide an update to the office's various efforts and new opportunities for partnerships in the continuous international effort for Planetary Defense.