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**UPDATE ON NASA'S PLANETARY DEFENSE PROGRAM.**

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**Extended Abstract—**

NASA and its partners maintain a watch for near-Earth objects (NEOs), asteroids and comets that pass within Earth's vicinity, as part of an ongoing effort to discover, catalog, and characterize these bodies and to determine if any pose an impact threat. NASA's Planetary Defense Coordination Office (PDCO) is responsible for:

- Ensuring the early detection of potentially hazardous objects (PHOs) – asteroids and comets whose orbits are predicted to bring them within 0.05 astronomical units of Earth's orbit; 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;
- Testing technologies and techniques for in-space asteroid impact threat mitigation; and
- Performing as a lead coordination node in U.S. Government planning for response to an actual impact threat.

NASA's current congressionally-mandated objective is to detect, track, and catalogue at least 90 percent of NEOs equal to or greater than 140 meters in size within 15 years (by 2020), and characterize the physical properties of a subset representative of the entire population. While this mandate was not met with the current resources dedicated to the

task, significant progress has been made with existing assets and work has begun on enhanced capabilities to accelerate its accomplishment. In this presentation, we will report on the status of our program and the numerous projects working within the program managed by the PDCO, highlighting the recent accomplishments. Our office continues to work diligently with our international partners to achieve our goals and continue to safeguard Earth with the latest capabilities available.