

**EXERCISE**

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**NOT A REAL-WORLD EVENT** *This is part of a hypothetical asteroid threat exercise conducted at the 2019 IAA Planetary Defense Conference*

## **DAY 3**

### **PRESS RELEASE**

#### **ASTEROID PREDICTED TO IMPACT NEAR DENVER, COLORADO ON APRIL 29, 2027: RECONNAISSANCE AND DEFLECTION SPACE MISSION CAMPAIGN UNDER WAY**

*December 30, 2021 - College Park, MD* – A reconnaissance spacecraft that flew by asteroid 2019 PDC yesterday has determined with certainty that the asteroid is on a course to impact near Denver, Colorado on April 29, 2027, the International Asteroid Warning Network reports.

NASA and other space agencies around the world are ramping up work already begun on a fleet of spacecraft that will be launched to the asteroid to deflect it off its impact course with Earth.

Ground-based observations of 2019 PDC conducted from March 2019 through January 2021 enabled experts to determine that impact with Earth is certain on April 29, 2027, unless the asteroid is deflected. The reconnaissance spacecraft that flew by the asteroid yesterday – Recon 1, launched by NASA in 2021 – enabled experts to calculate a more exact impact location, the Denver, Colorado area, and also determine that 2019 PDC is 140 to 220 meters (460 - 720 feet) in size. The asteroid is large enough to cause major damage over a large region around the Denver area.

NASA plans to launch two rendezvous spacecraft, one being repurposed from its originally intended science mission, toward 2019 PDC next spring that will arrive at 2019 PDC in November 2023. They will gather data that will enable experts to more precisely determine the asteroid's mass, density, porosity and structure. These data are vital to the success of any deflection efforts.

Before the two spacecraft are able to arrive at 2019 PDC, 23 months from now, a fleet of six kinetic impactor spacecraft will need to be built and launched by NASA, ESA, JAXA, and the Russian and Chinese space agencies, who all participate with the international Space Mission Planning Advisory Group (SMPAG) that was established for the purpose of collaborative efforts to mitigate an asteroid impact threat. The kinetic impact technique involves hitting the asteroid with a spacecraft to incrementally slow the speed of the asteroid to deflect it off its impact course with Earth.

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Execution of all kinetic impactor deflections are scheduled to take place in the last two weeks of August 2024. The previously positioned rendezvous spacecraft will remain stationed near 2019 PDC so that they can observe the deflections and confirm they are successful.

As an additional precaution, the rendezvous spacecraft being specifically built by the United States for monitoring this deflection campaign is being designed so that it might also carry a nuclear explosive device, which if flown could be detonated near the asteroid to complete deflection of it in the event of failure by some of the kinetic impactors to complete their missions. The United States, in negotiations with the United Nations and leaders around the world, is assessing the political and international treaty ramifications of launching a nuclear device before making such a decision.

The International Asteroid Warning Network (IAWN) is disseminating this information in collaboration with the Space Mission Planning Advisory Group, pursuant to United Nations General Assembly resolution 71/90, paragraph 9. IAWN is an international network of organizations that detect, track and characterize potentially hazardous asteroids. IAWN will publish weekly updates on the status of the reconnaissance and deflection campaign.

For more information, see <https://cneos.jpl.nasa.gov/pd/cs/pdc19/day3.html> and [www.iawn.net](http://www.iawn.net).

Contact: <http://iawn.net/misc/contacts.shtml>

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