DAY 4

PRESS RELEASE

ASTEROID FRAGMENT REMAINS ON IMPACT TRAJECTORY FOLLOWING DEFLECTION CAMPAIGN: U.S. IMPACT STILL POSSIBLE

September 3, 2024, College Park, MD – Three kinetic impactor missions have successfully deflected asteroid 2019 PDC's main body and it no longer poses an impact threat to Earth, but a large fragment that broke off remains on a certain collision course with Earth on April 29, 2027, the International Asteroid Warning Network reports.

The asteroid fragment is estimated to be 50–80 meters (165–260 feet) in size, and impact with Earth is certain. The exact location for the impact is not yet precisely known, but the Eastern U.S. and the Atlantic Ocean are currently at risk. The International Asteroid Warning Network is organizing a ground-based observing campaign to track the asteroid fragment once it moves away from the Sun's glare into the nighttime sky and becomes visible to large telescopes 2 months from now.

NASA's rendezvous spacecraft, that has been operating in the proximity of asteroid 2019 PDC for the past 10 months, was positioned to observe the kinetic impact campaign. Images sent to Earth of the first deflection by NASA's kinetic impactor showed the large fragment breaking away. Additional images showed successful impacts of the main asteroid body by the JAXA and Russian kinetic impactor spacecraft. Contact was lost with the rendezvous spacecraft soon after the third impact, presumably due to debris from the impacts, according to NASA.

NASA's rendezvous spacecraft was an observer-only spacecraft that was repurposed from a science mission and did not include the nuclear deflection device capability considered soon after 2019 PDC's discovery. The international Space Mission Planning Advisory Group is now studying emergency plans for a space mission to disrupt the fragment still heading for the Earth using a nuclear device. The goal of disruption before impact would be to create smaller fragments that could burn up more completely as they impact the atmosphere and pose a lower risk of damage on the ground. The United Nations and leaders around the world are assessing the political and international treaty ramifications of launching a nuclear device.

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 observation and mitigation campaigns.

For more information, see https://cneos.jpl.nasa.gov/pd/cs/pdc19/day4.html and www.iawn.net.

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