

EXERCISE

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NOT A REAL-WORLD EVENT *This is part of a hypothetical asteroid threat exercise conducted at the 2017 IAA Planetary Defense Conference*

DAY 4

PRESS RELEASE: JUNE 15, 2023

RENDEZVOUS SPACECRAFT REACHES ASTEROID 2017 PDC; DECISION MAKERS DELIBERATE ON USE OF NUCLEAR DEVICE; KINETIC IMPACTORS STILL ENROUTE

One of two rendezvous observer spacecraft has reached asteroid 2017 PDC and has been surveying and characterizing the binary asteroid for the past month. A second rendezvous observer spacecraft was launched on a similar mission, but it experienced an unrecoverable reaction-wheel malfunction a year after launch, and its mission was abandoned. Before the two spacecraft were launched, there was much debate about whether or not the spacecraft should carry nuclear explosive devices (NEDs) to be used to deflect the asteroid away from Earth impact. Just a month before launch, the collaborating nations reached an agreement to install one such device on each spacecraft.

The rendezvous observer now has approximately eight months to survey and characterize the asteroid before the arrival of the five kinetic impactors, which are still enroute to the asteroid and cruising normally, on target to deflect the asteroid starting on February 24, 2024.

Decision makers must now decide whether to utilize the nuclear device onboard the rendezvous observer to deflect the asteroid away from Earth impact, or to wait for the series of kinetic impactors to strike the asteroid in early 2024. They must also decide whether or not to deliberately detonate the nuclear device onboard the other spacecraft to safely dispose of the device. That spacecraft can still be commanded, but it cannot rendezvous with the asteroid.

For more information, visit: <https://cneos.jpl.nasa.gov/pd/cs/pdc17/day4.html>.

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