

Press Conference: February 28, 2024
Four Kinetic Impactor Spacecraft Strike Asteroid,
2017 PDC Successfully Deflected Away from Earth

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EXERCISE ONLY!!



After Four KIs Strike, Asteroid 2017 PDC Is Successfully Deflected Away from Earth

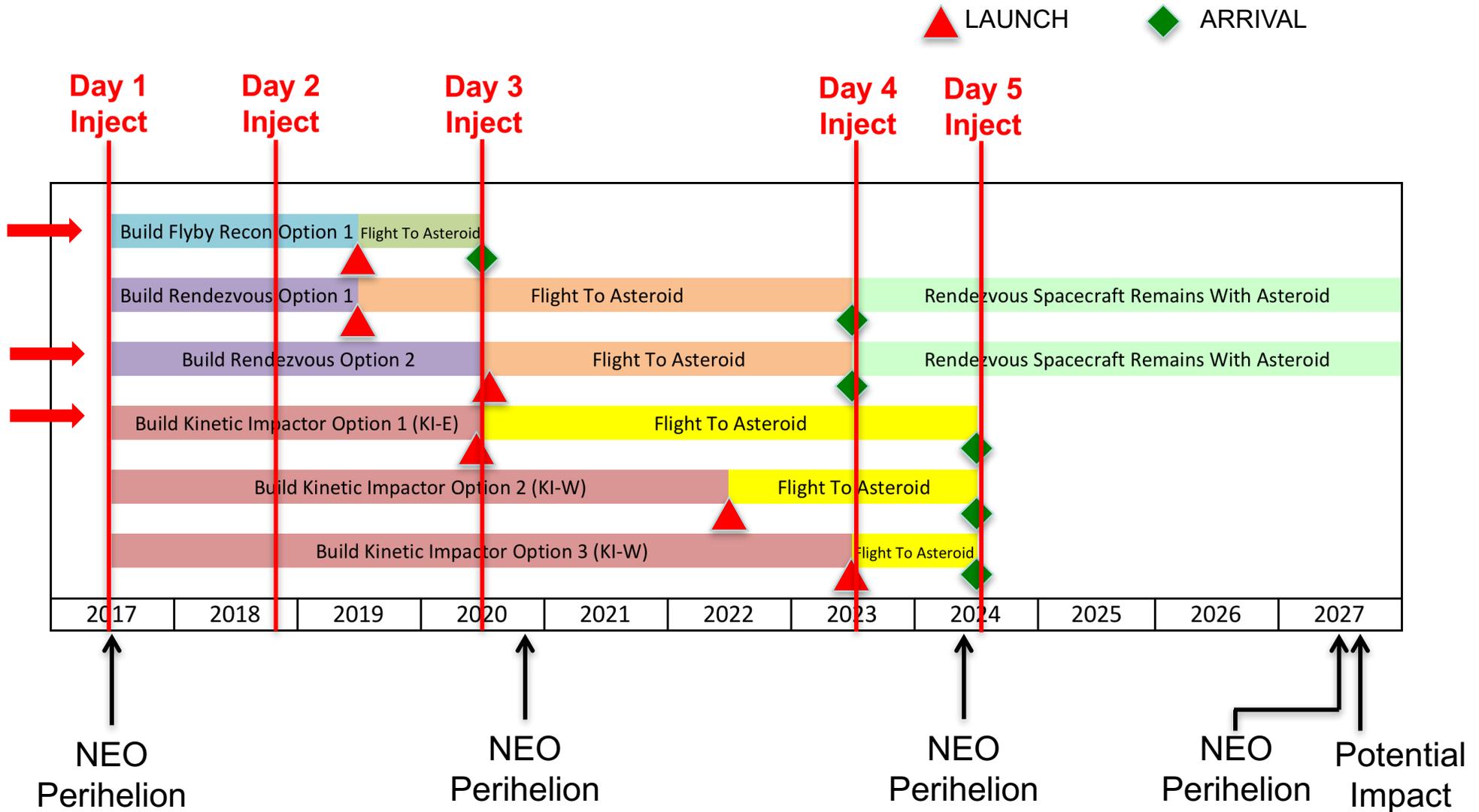


- Decision makers decided to forgo use of the nuclear explosive device and rely on the series of kinetic impactors to deflect the asteroid
- The Kinetic Impactor deflections were spaced about 5 days apart; each KI deflection added about 0.08 cm/s to the velocity of the asteroid about the Sun
- After the fourth KI deflection, both components of the asteroid had received enough delta-v to move it away from its Earth-impacting trajectory; the effective beta factor was 1.5
- The asteroid will now safely miss the Earth by about 1000 km on July 21, 2027; the possibility that the asteroid passed through a keyhole during this close approach is being assessed using the tracking data from the rendezvous/observer as well as Earth-based radar
- For more info: <https://cneos.jpl.nasa.gov/pd/cs/pdc17/day5.html>

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Summary of Key Dates



Courtesy of Brent Barbee (NASA/GSFC)