



# Upcoming Asteroid Deflection Technology Workshop

Paul Chodas (JPL Center for NEO Studies)

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# Design Your Own Deflection Mission



<http://neo.jpl.nasa.gov/nda>

**Delta-V Mode** | **Intercept Mode**

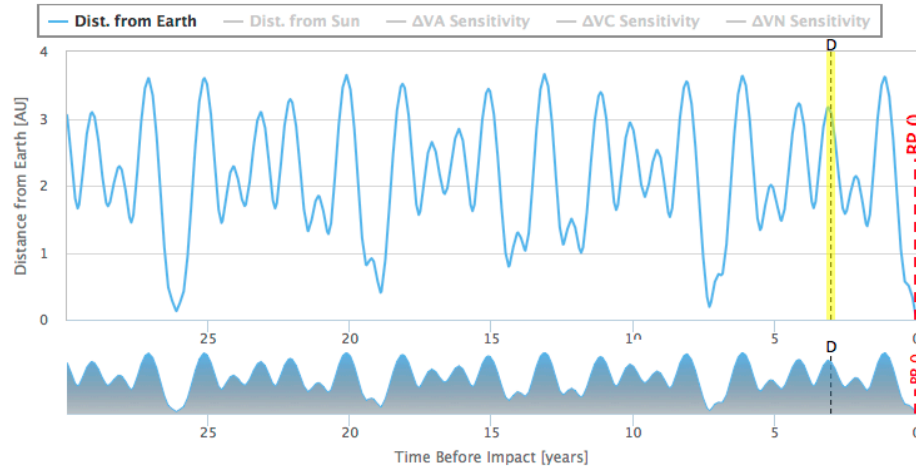
Time of Deflection (D): 1096 days

$\Delta VA$ : 0.000 mm/s  
 $\Delta VC$ : 0.000 mm/s  
 $\Delta VN$ : 0.000 mm/s

**Simulated Near Earth Object (NEO)**  
 PDC15 a=1.78 i=5 e=0.49

Object parameters are only applicable in Intercept Mode

Reset | Slider  $\Delta$ 's | Advanced Mode | Tips

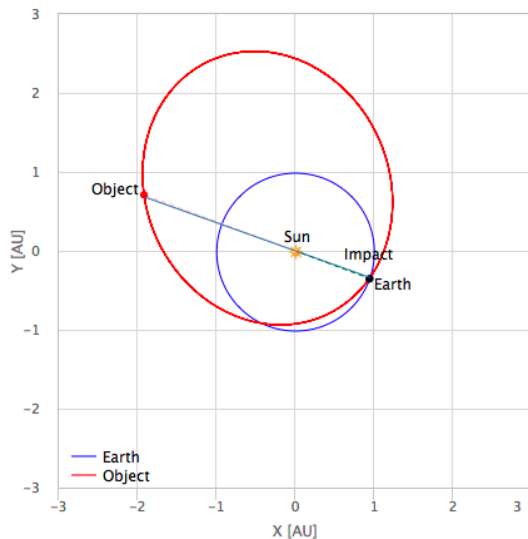


Read overview

Start the app

Take a tour of the app using the 2015 PDC scenario

Orbit and Positions at Deflection



**Orbit Changes**

$\Delta VA$ : 0.000 mm/s  
 $\Delta VC$ : 0.000 mm/s  
 $\Delta VN$ : 0.000 mm/s  
 Total  $\Delta V$ : 0.000 mm/s  
 Period at D: 864.071 d  
 $\Delta$  Period: 0.0000 s

**B-Plane Values**

$\zeta$  (zeta): 0.621  $R_e$   
 $\xi$  (xi): -0.436  $R_e$   
 B magnitude: 0.759  $R_e$   
 Capture Rad.: 1.420  $R_e$   
 Perigee Dist.: 0.405  $R_e$

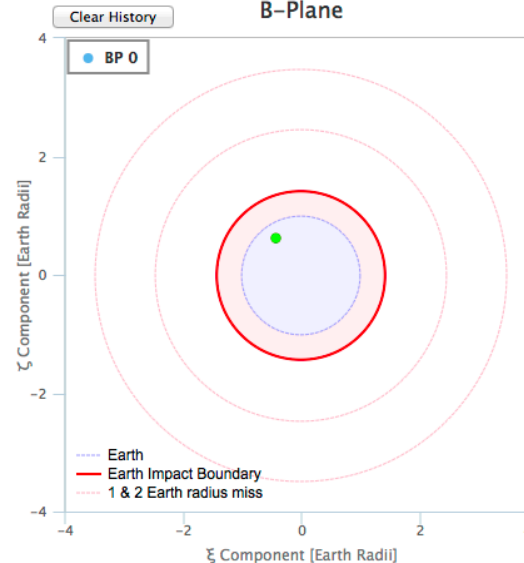
**IMPACT**

$V_{\infty}$ : 11.087 km/s

\*  $R_e$  = Earth Radii

- Save Current Session
- Restore Session
- Deflection Map

B-Plane





# Asteroid Deflection Technology Workshop

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- ▶ An international workshop for astrodynamics and space mission specialists to discuss key technical issues associated with asteroid deflection, such as:
  - ▶ Technical analyses of current and past PDC impact scenarios
  - ▶ Development of end-to-end deflection campaigns
  - ▶ Studies of the rate and direction of shift in impact footprints
  - ▶ Dealing with both *a priori* and *a posteriori* uncertainties
  - ▶ Mission concepts for rapid-response impactor characterization
  - ▶ Mission design strategies, small-sat concepts, ...
- ▶ Include participation from AIDA & ARM teams, NASA centers, industry and academia
- ▶ Hosted by CNEOS/JPL and held at Caltech, February 28 – March 2, 2017