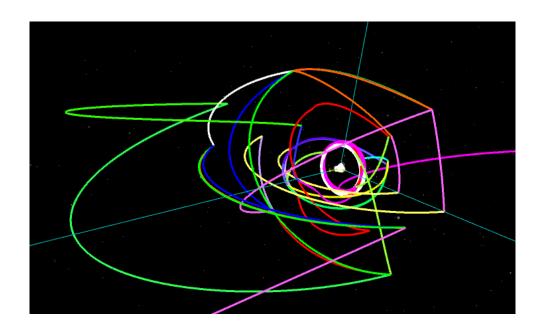
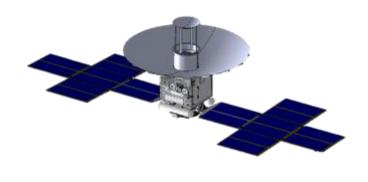
## Reconnaissance of Apophis (RA)

NASA/Goddard Space Flight Center (GSFC)

## RA is Carefully Designed to Provide Significant Science On a Smallsat Budget

RA is a capable smallsat rendezvous mission able to detect any disturbances to Apophis during the 2029 Earth approach, through both real-time observations and comparison of pre-/post-Earth close approach survey data. The shape models will have a resolution of ≤30 cm, with resolution as fine as 5 cm in select areas. Proximity operations have been designed based on OSIRIS-REx heritage, by personnel with OSIRIS-REx flight operations experience.





## Notional Schedule for RA

Earth Close Approach 13 Apr 2029 **PDR CDR** Phase A / B Phase C / D Cruise Launch **Proximity** (17-20 months) (1 year) (2 years) Season **Operations** 9 months Jan Jan Apr Jul Mar Apr 2027 2024 2025 2026 2027 2020 Note: notional schedule is an unapproved draft.

RA can follow Apophis through Earth close approach while both maintaining passive safety and remaining close enough to collect real-time observations.

