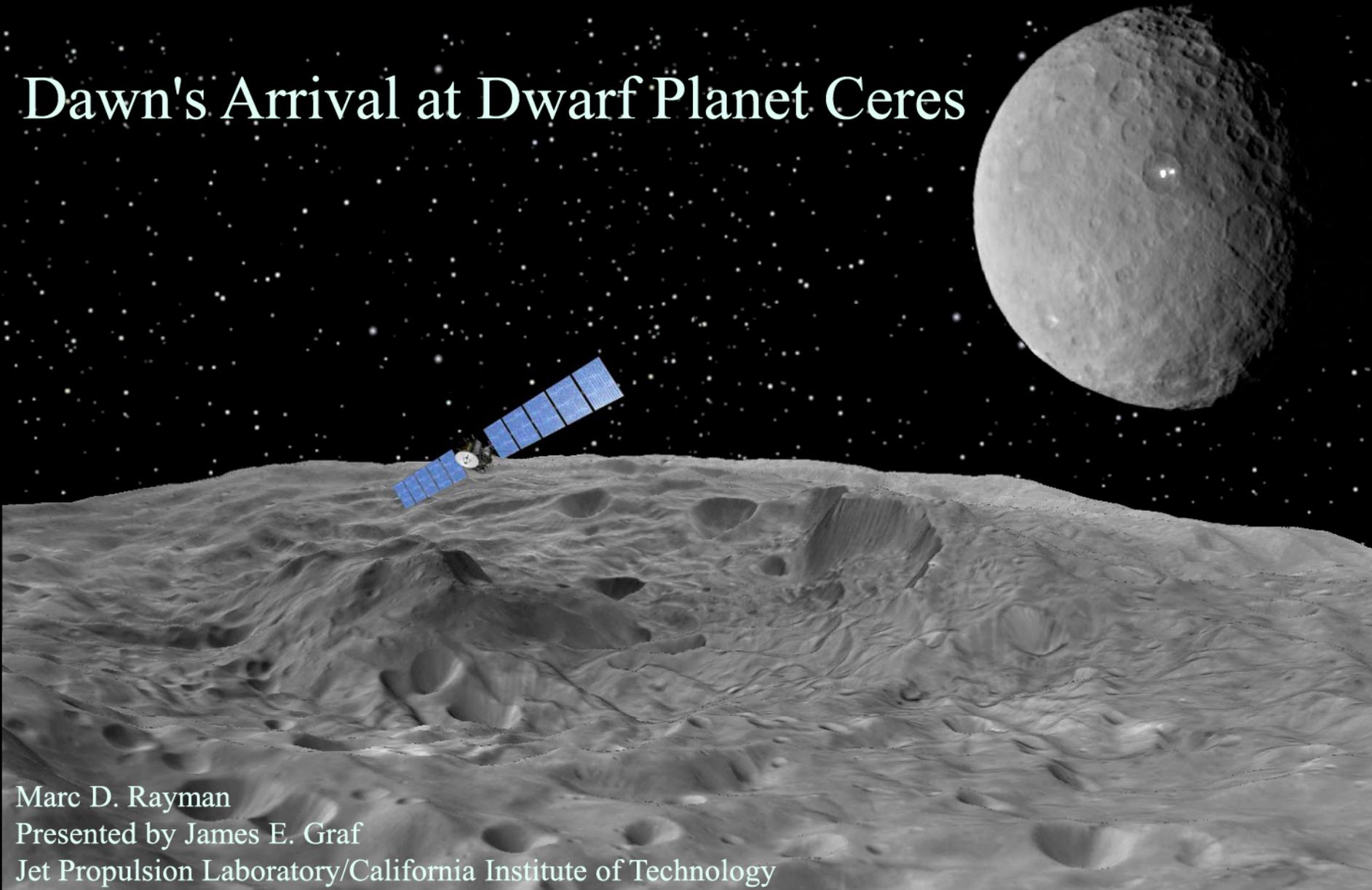


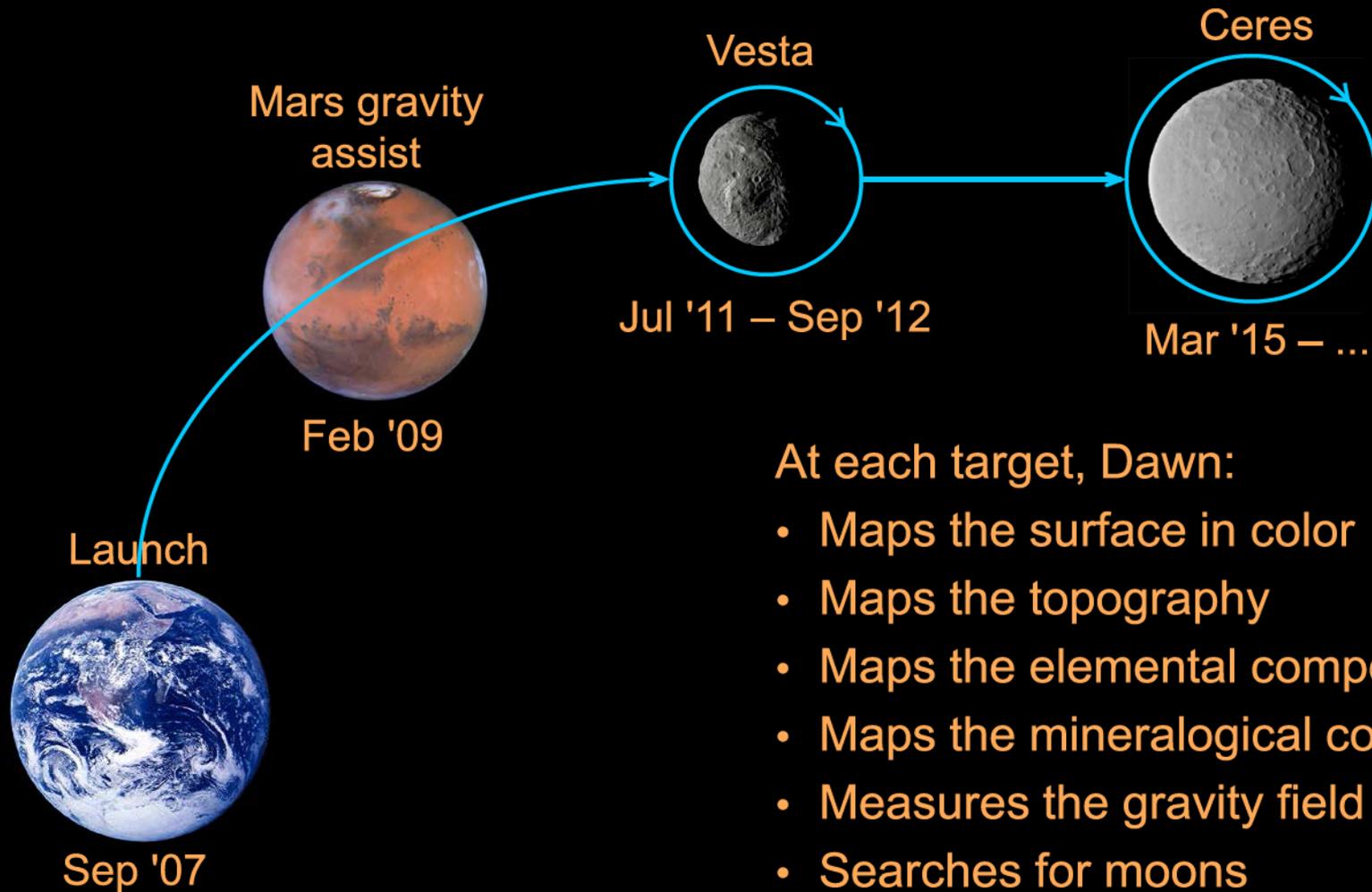
Dawn's Arrival at Dwarf Planet Ceres



Marc D. Rayman
Presented by James E. Graf
Jet Propulsion Laboratory/California Institute of Technology



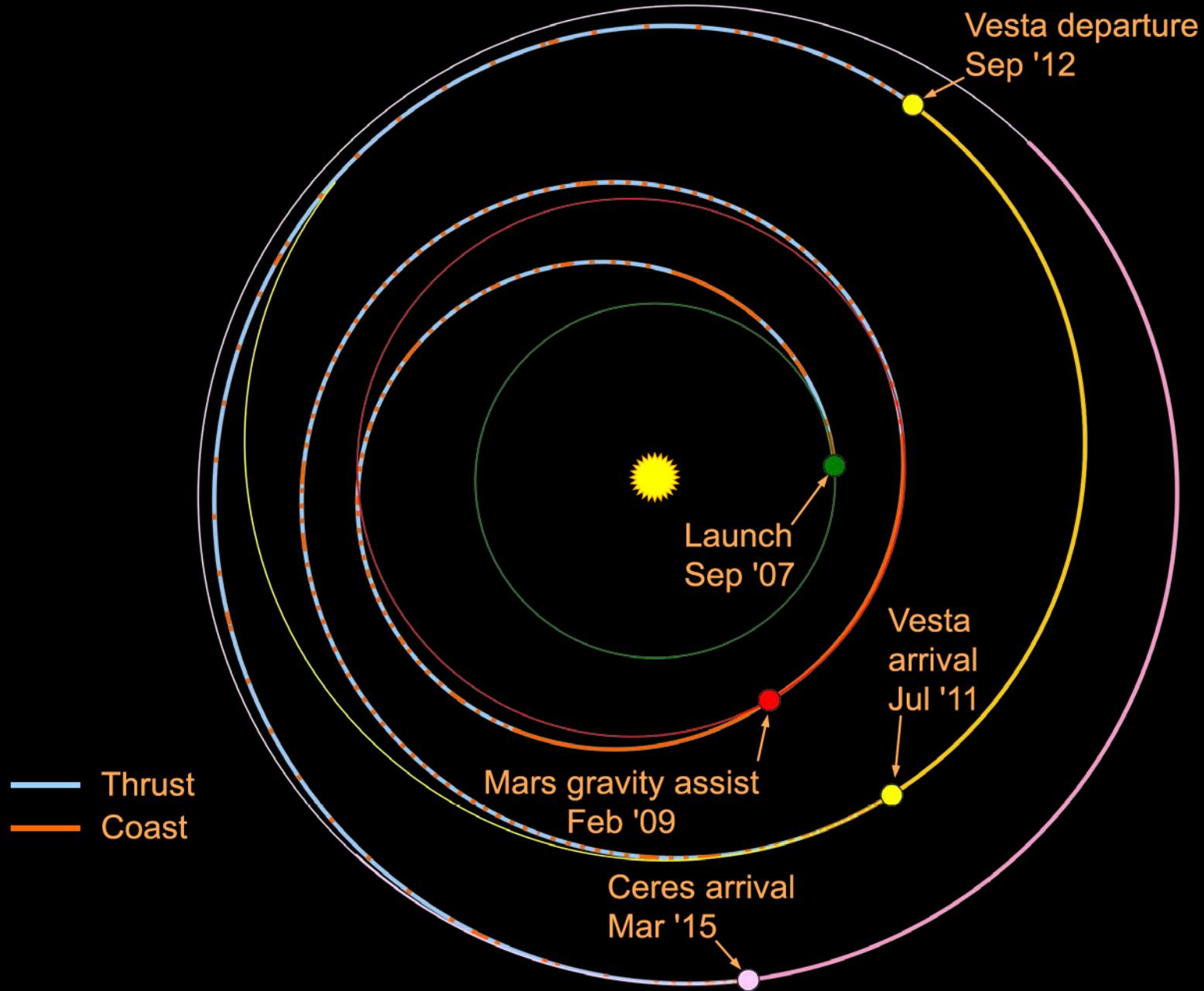
Mission Itinerary



At each target, Dawn:

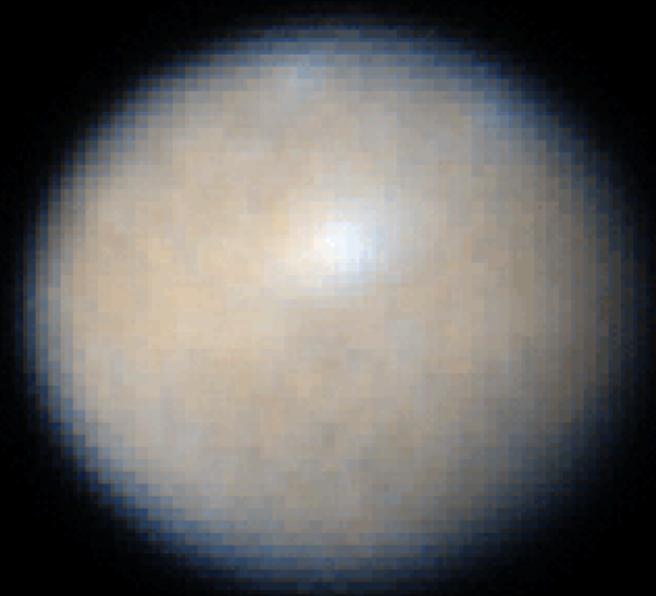
- Maps the surface in color
- Maps the topography
- Maps the elemental composition
- Maps the mineralogical composition
- Measures the gravity field
- Searches for moons

Note: Text not to scale.



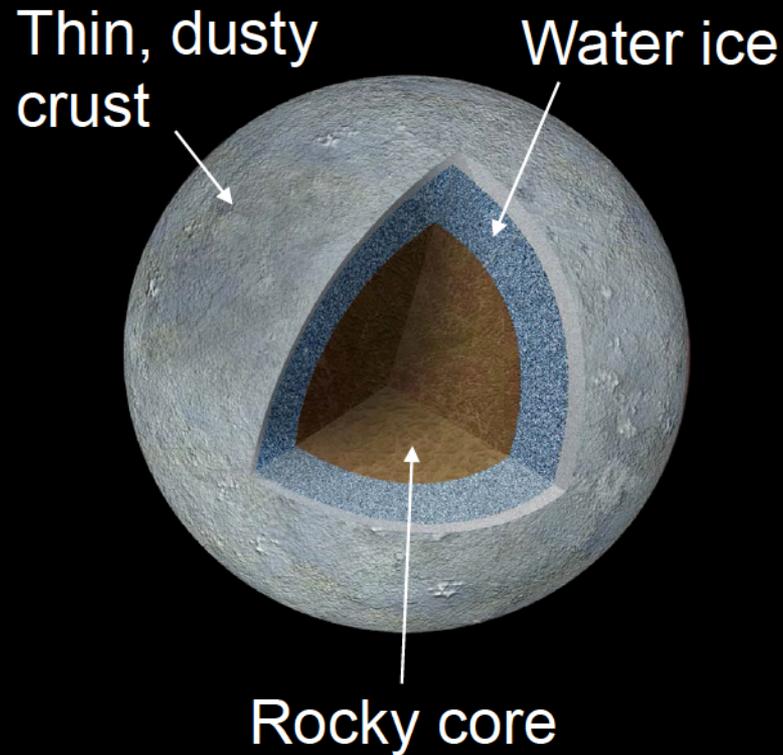
Ceres before Dawn

- The only dwarf planet in the inner solar system
- The largest, most massive body in the main asteroid belt
 - ~ 30% of the mass of the asteroid belt
 - 950 km mean diameter
 - Largest body between the Sun and Pluto not yet visited by a spacecraft
- Tenuous water vapor detected by Herschel Space Observatory



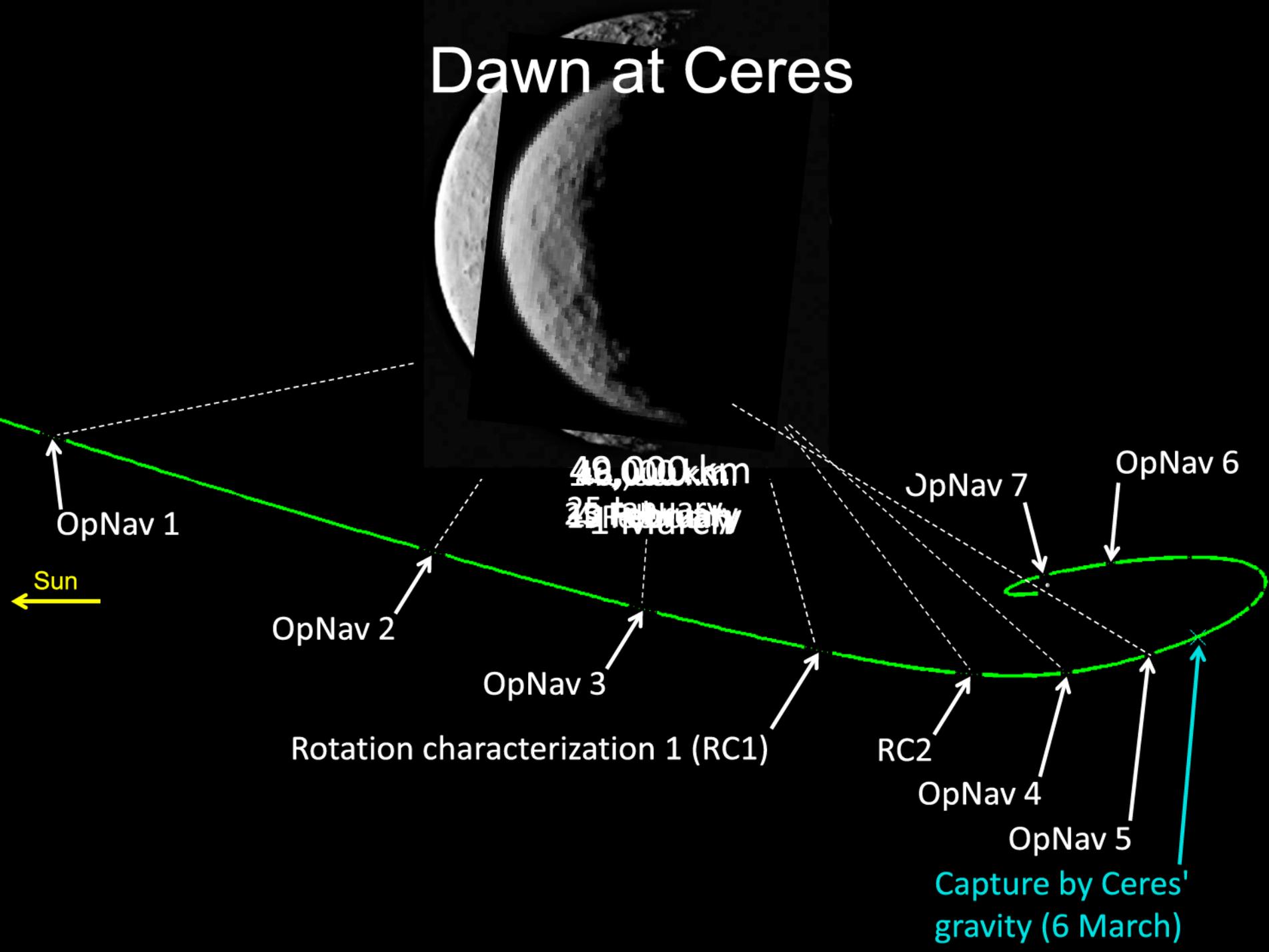
Hubble Space Telescope

Ceres before Dawn



Dawn will map the surface properties, probe the interior structure, and characterize the interaction between them

Dawn at Ceres



Dawn at Ceres



Maneuverability with ion propulsion

Mapping Orbits

April - May
13,500 km

June
4400 km

Aug - Oct
1470 km

Dec...
375 km

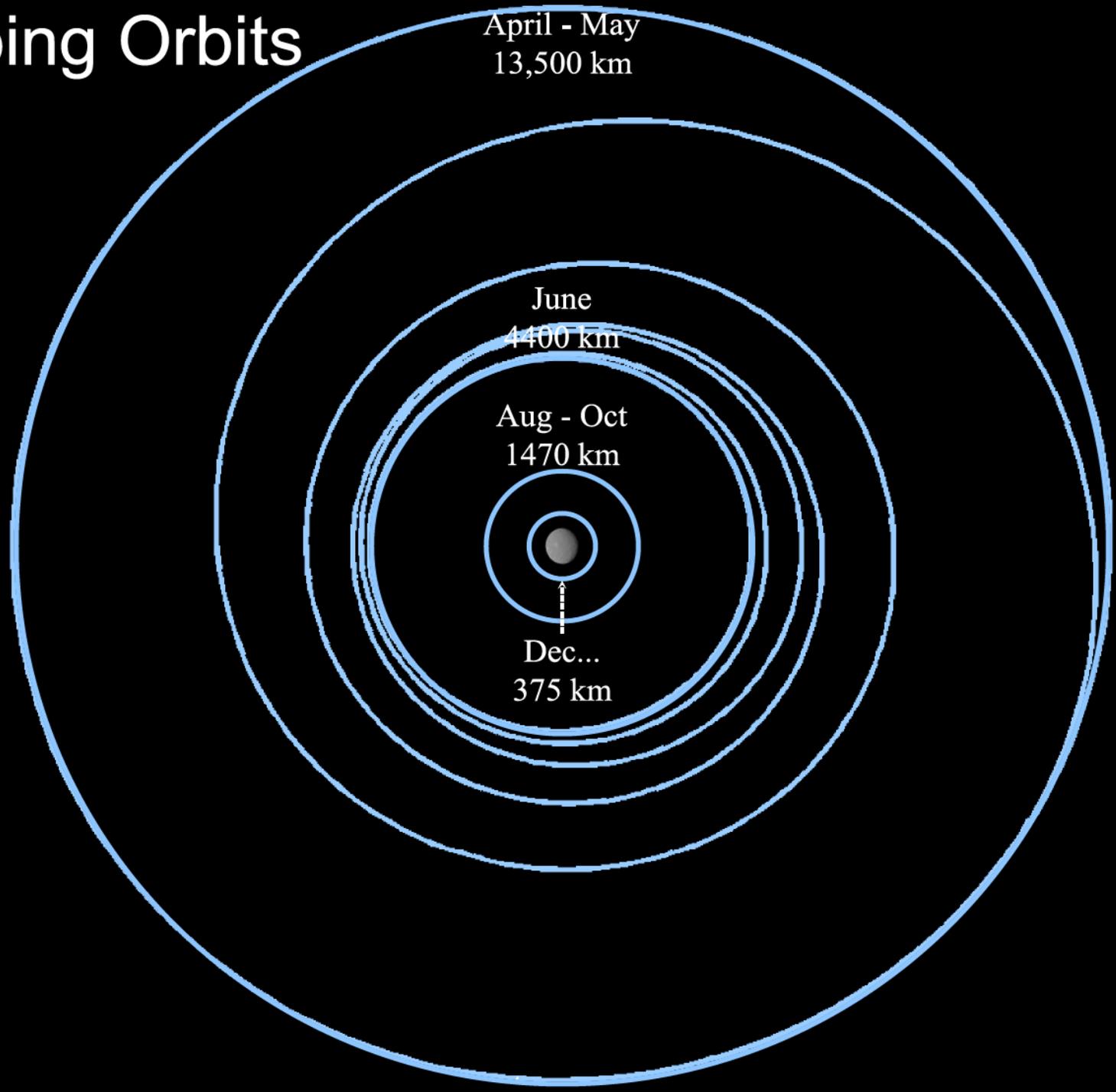


Image resolution
by ~ 120 x by

