

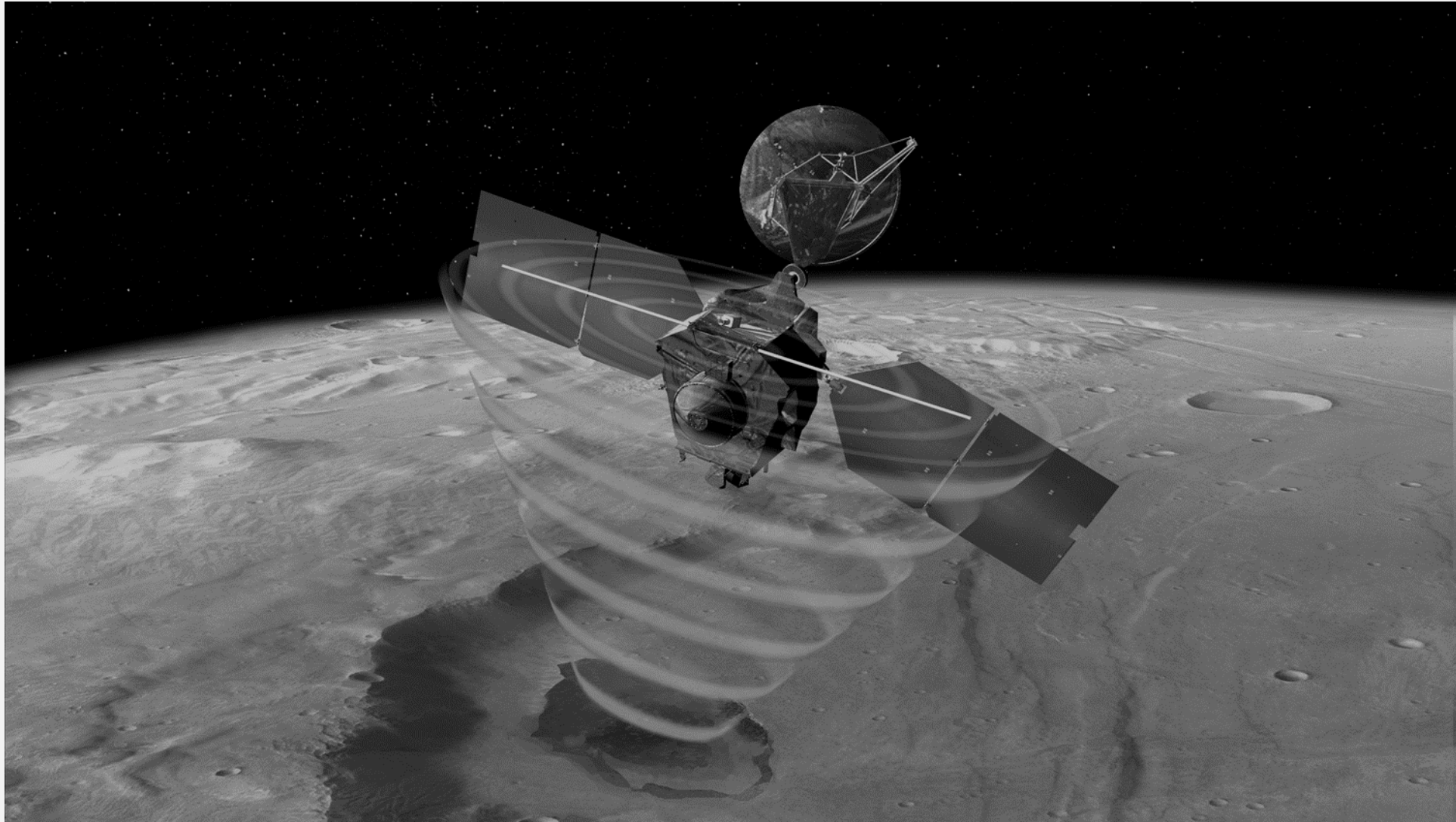
Lunar Resource Characterization mission(s?)

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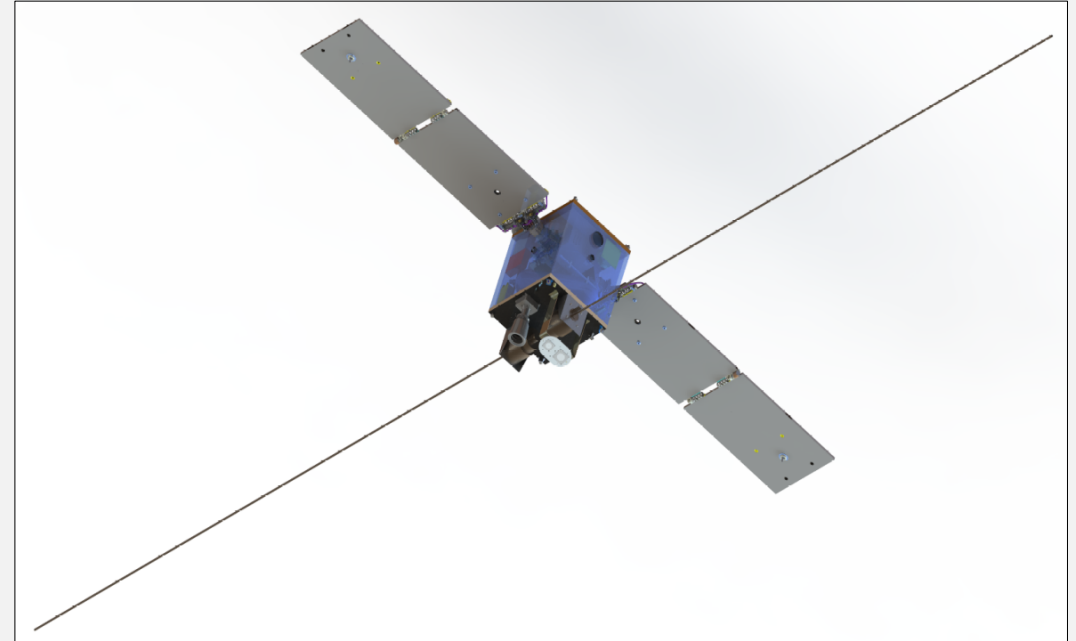
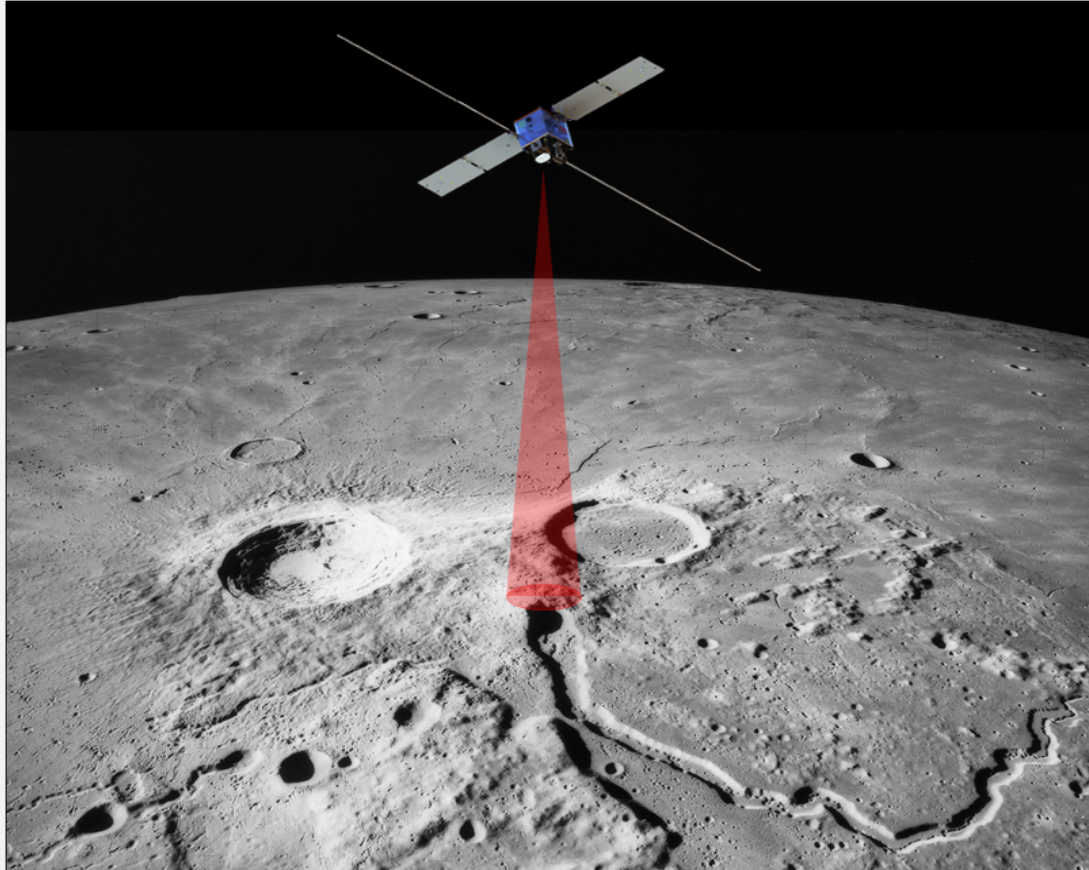
Theme D--Partnerships

Lunar Advanced Radar Orbiter for Subsurface Sounding (LAROSS): Lava Tube Exploration Mission



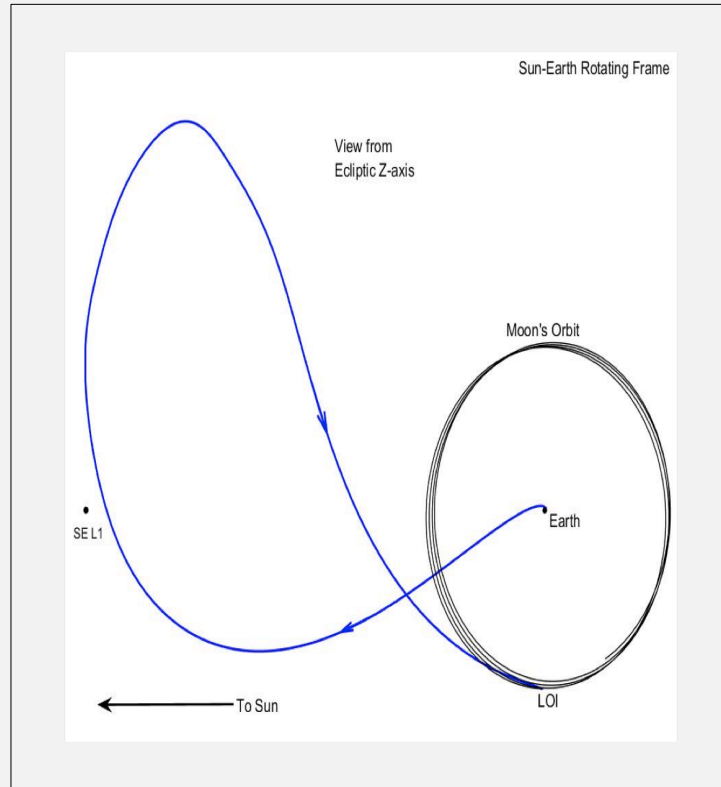
Courtesy: NASA/JPL

increase in radar sensitivity compared with prior missions.

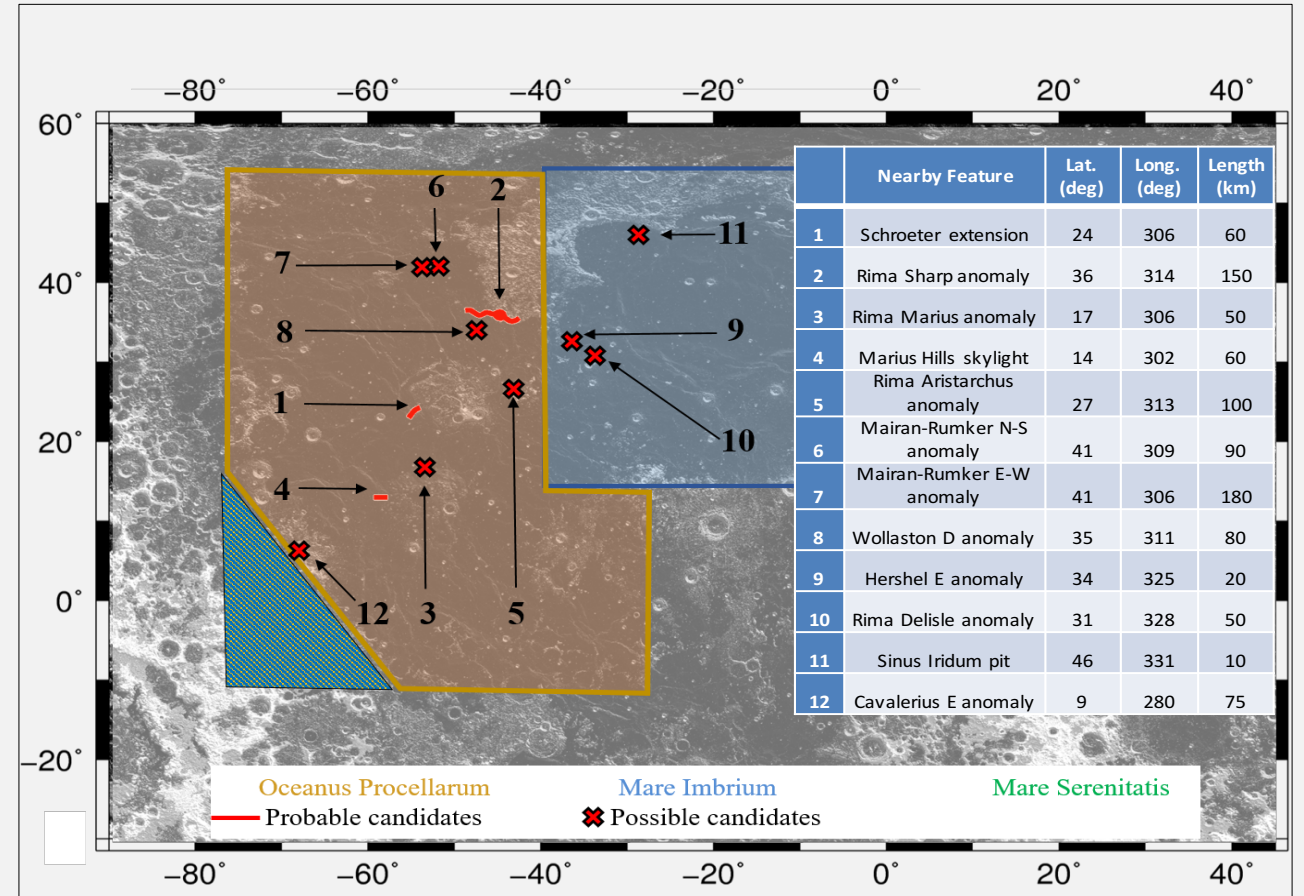


The LAROSS flight system is based on the Ball BCP-100 spacecraft with flight heritage

LAROSS will explore our candidate lava tubes, as well as the rest of the lunar mare for open caves



LAROSS leverages the GRAIL low-energy lunar transfer trajectory design to minimize mission DV.



The 90-day science mission in a polar orbit allows detailed observations of candidate lava tubes.

Startup companies are already planning to mine the Moon and asteroids and may offer partnerships

- ✧ Planetary Resources: The asteroid mining company
- ✧ Deep Space Industries: Space resources for an unlimited future
- ✧ Kepler Energy and Space Engineering
- ✧ Infinite Space Dynamics
- ✧ Blue Origin
- ✧ Space X
- ✧ Bigelow Aerospace
- ✧ Etc, etc.



New industries and other nations' space programs offer new opportunities—and partnerships

