



SCIENCE

Outer Planets Program Status

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OPAG Meeting

October 19, 2011

Juno has
successfully
launched and
is on its way
to Jupiter!!

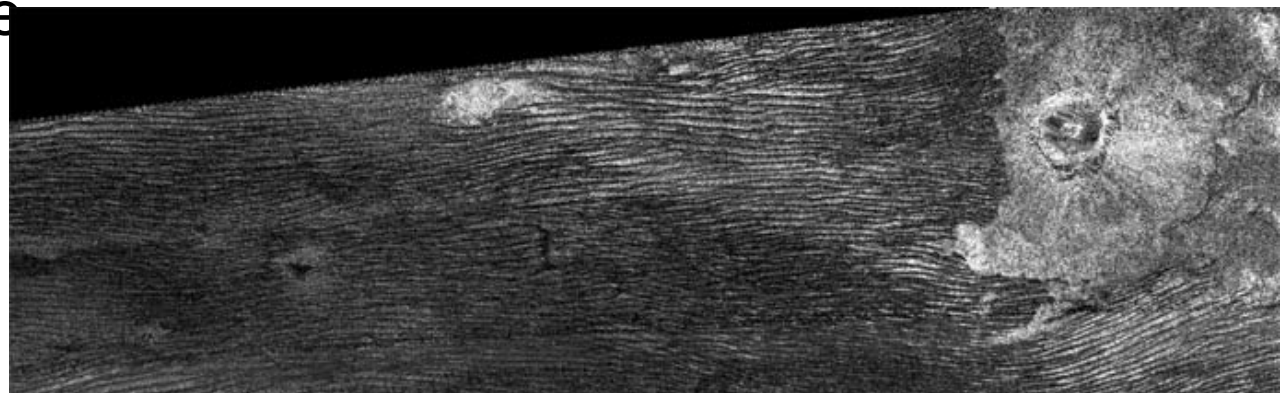
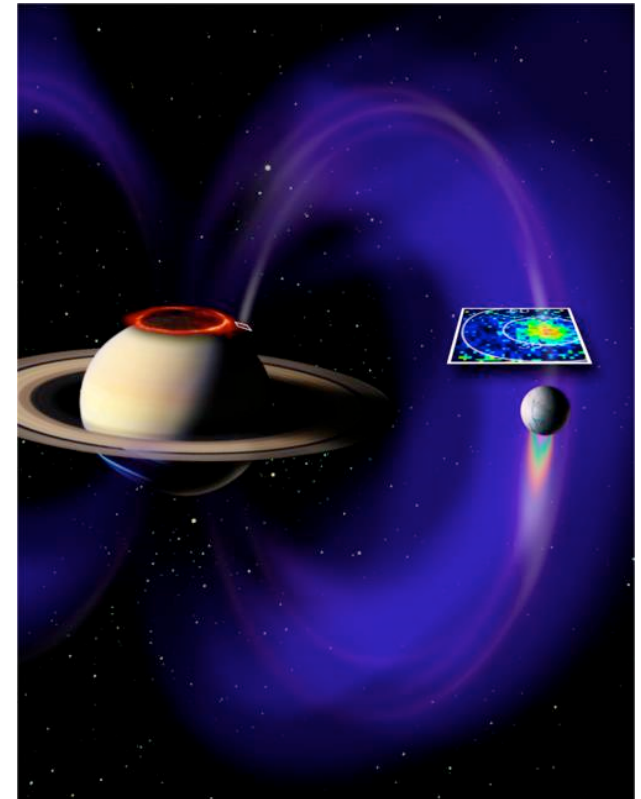




Cassini Solstice Mission



- Overall Cassini status is positive with a healthy spacecraft
 - As reported last time, careful preparation and diligence have allowed the team to smoothly transition to lower cost operations for XXM
 - Cassini Plasma Spectrometer (CAPS) is currently off while a power anomaly is investigated
 - We just flew by Enceladus!
- Data usability: user guides are either under review or delivered
- Planning for release of call for critical data products under ROSES 12





Cassini Participating Scientists



- The Cassini AO in 1989 promised future opportunities for Participating Scientists
- The PS opportunity was folded into CDAP under ROSES 2011 to simplify the overall process
 - A subset of CDAPS selectees will also serve as PS, which will further broaden participation in the mission by augmenting the existing science team
 - Participating Scientists will become independent members of the Cassini science team for the duration of their CDAPS grant and be encouraged to work in a collaborative manner with other Cassini science team members after selection. Participating Scientists may be attached to existing groups or teams, if appropriate.
- Proposers requesting consideration as a PS were required to:
 - submit a standard R&A proposal describing a unique science investigation
 - provide a 5 page appendix responding to requirements in the announcement

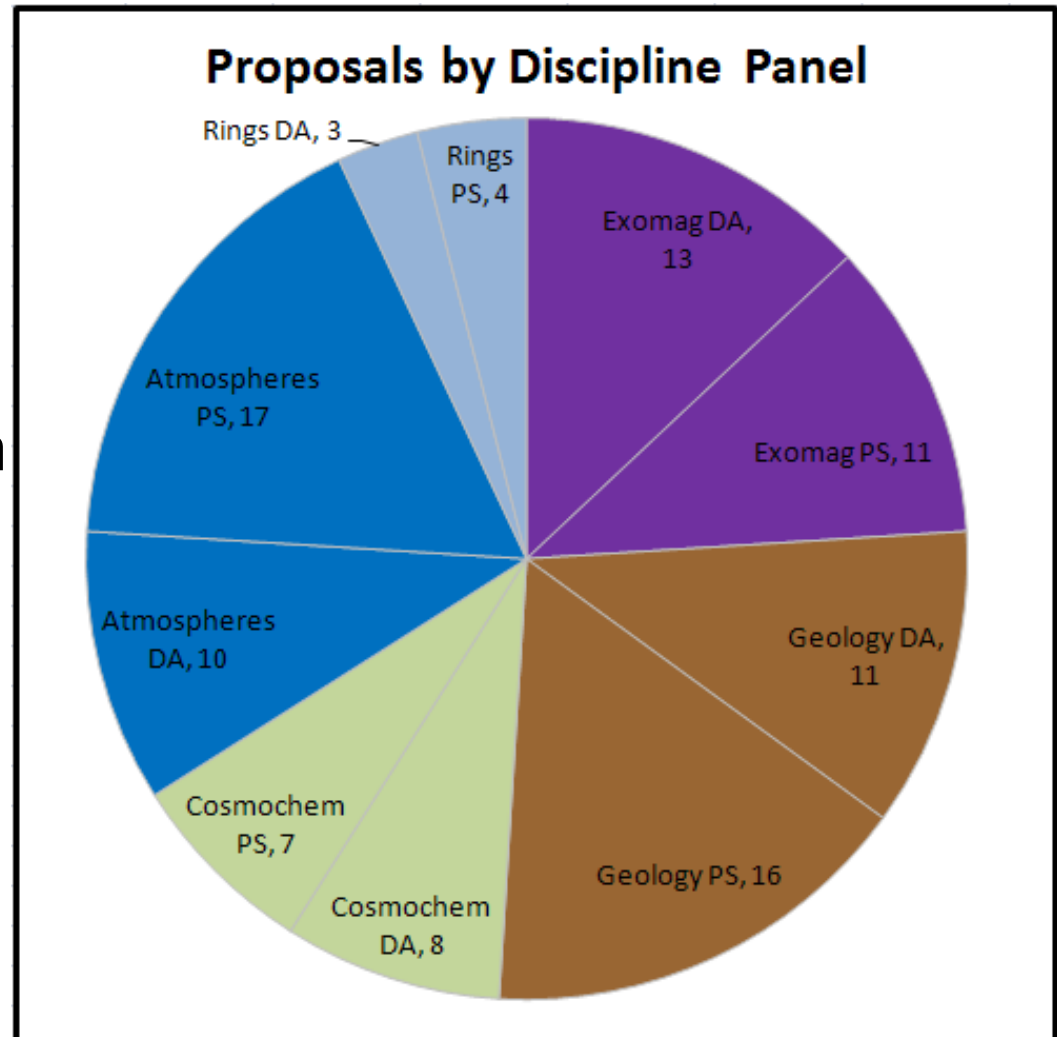


CDAPS Proposal Response by Panel



- 100 proposals were submitted (~50% more than last year)
- 55 of those proposals requested consideration as a PS, including 8 from European scientists

Panel	# Proposals	PS Props		
		Non US	US	Total
ExoMag	24	0	11	11
Geology	27	3	13	16
Cosmochemist	15	1	6	7
Atmospheres	27	4	13	17
Rings	7	0	4	4
Total	100	8	47	55





Cassini Participating Scientists



Afternoon snack break for NASA

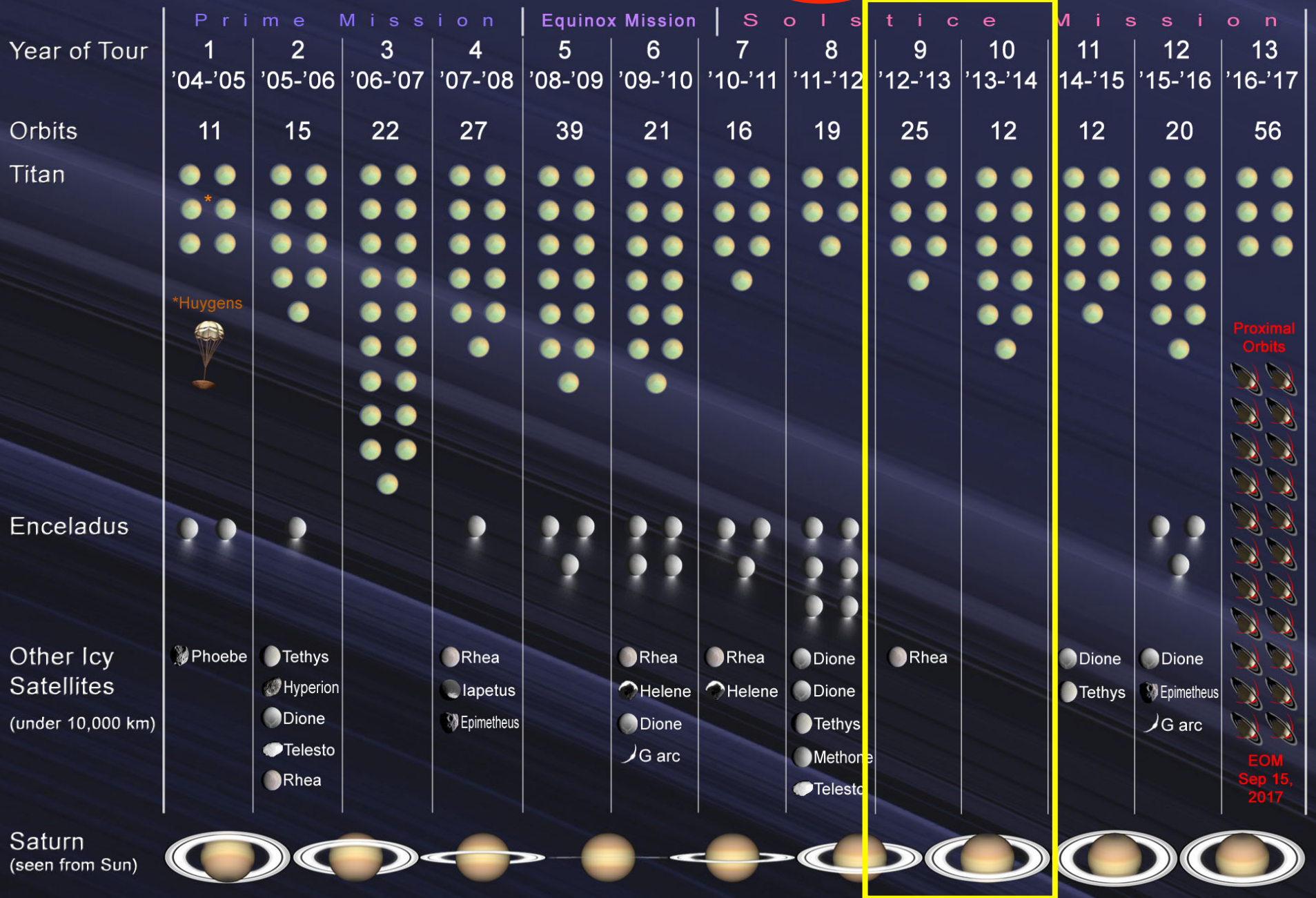


Afternoon snack break for obstetricians meeting next door to NASA

- We are currently finalizing arrangements with ESA and ASI on selections; announcement should be imminent

Cassini Mission Overview

Four-Year Prime Tour, Equinox Mission, and Solstice Mission (Proposed), July 2004 - July 2017



Proximal Orbits

EOM Sep 15, 2017



ESA L-class Mission Competition



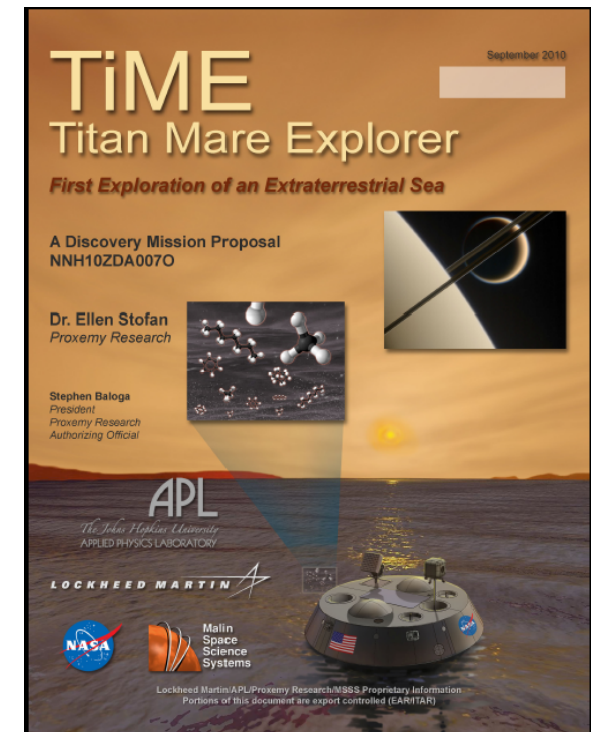
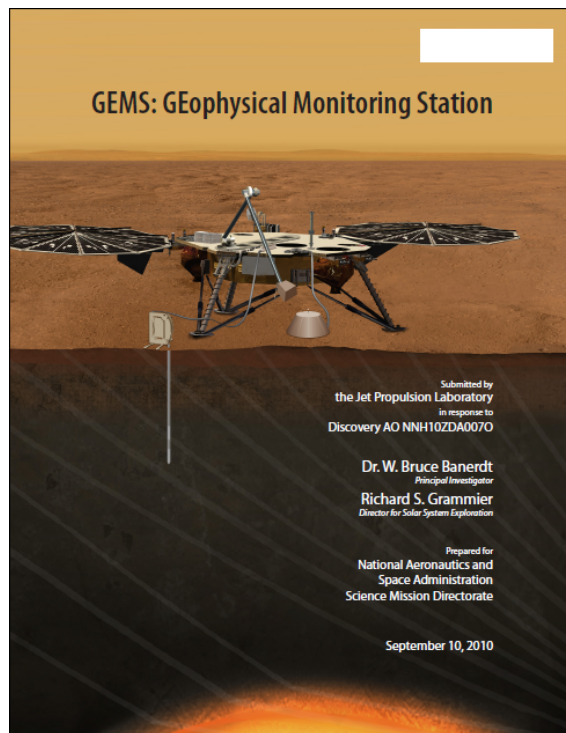
- ESA L-class mission competition is moving towards major milestones
- Yellow Book is due in November followed by their assessment
- Three candidates (JUICE, IXO, LISA) will brief stakeholders in February with downselection to follow
- AO will follow soon thereafter for downselected mission(s)
 - ESA has said it welcomes contributed instruments from the US
 - NASA has said it plans to support contributed instruments
- NASA and ESA still need a formal agreement to work out the details on the mechanism and schedule for these contributions



Discovery and the Outer Planets



- The outer planets have broken into the Discovery program!!
- On May 5 the Discovery candidates for Phase A were announced
- CSRs are due ~April with selection next summer





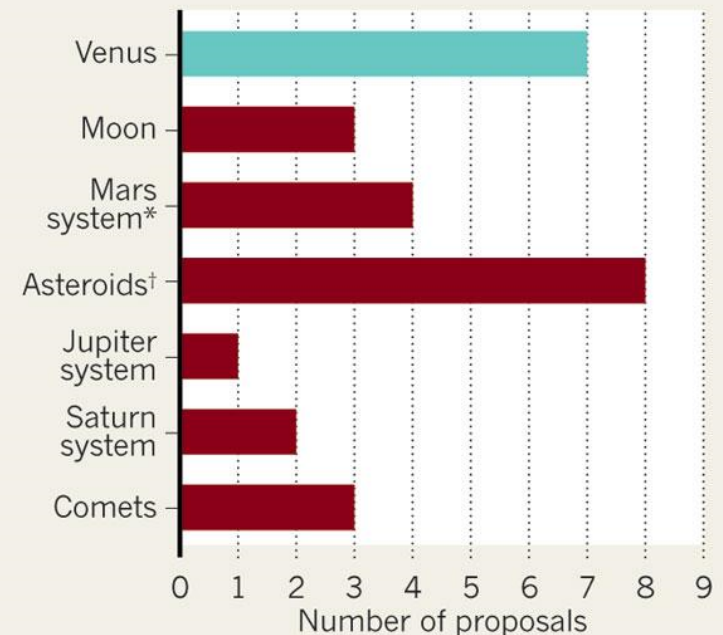
Discovery and the Outer Planets



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- CSRs are due ~April with selection next summer
- According to Nature News¹, TIME was not the only proposed mission to the outer planets

FORGOTTEN PLANET

Venus was targeted by one-quarter of the 28 proposals in NASA's latest Discovery competition. But no Venus missions were among the finalists.



*Includes mission to visit the Mars moon Phobos.

†Includes mission to one of Jupiter's Trojan asteroids.

¹From "Venus scientists fear neglect: Researchers say that infrequent visits are hindering studies of the nearest planet." by Eric Hand in Nature News 9/2/11



Repositioning the Outer Planets



- With the release of the Decadal Survey and the developing budget environment, the issues have become
 - How do we create mission opportunities for destinations in the outer solar system?
 - How do we best position the outer planet community to respond to those opportunities?
- This requires key elements including
 - Science definition and prioritization
 - Mission concept development
 - Technology identification and investment
 - Decadal Survey interpretation and implementation
 - Policy development
- What is OPAG doing in these areas? What is NASA? What should they be doing?
 - The Decadal Survey has a lot to say about these elements, but it is a static, strategic document
 - Living, dynamic organization is required to create and keep current the tactical implementation of this strategy