



SCIENCE

Outer Planets Program Status

Curt Niebur

OPF Program Scientist, NASA Headquarters

OPAG Meeting

October 19, 2011

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

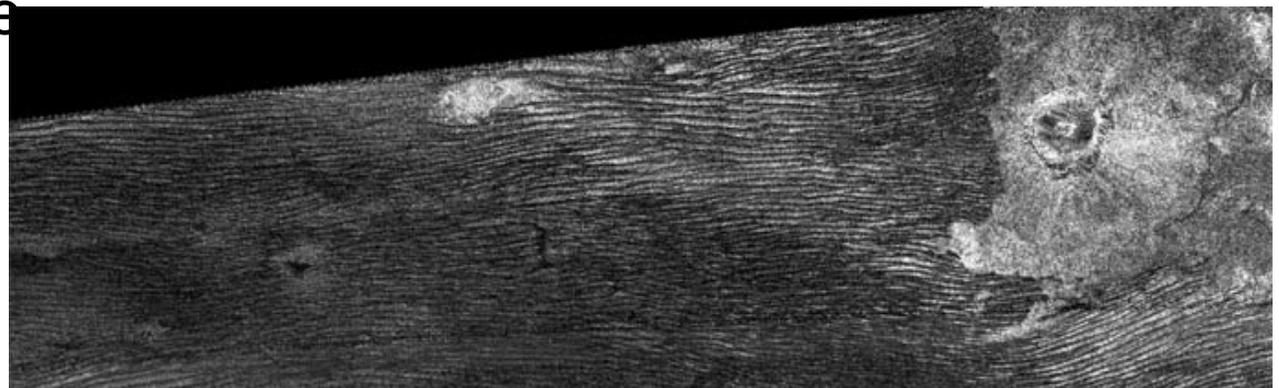
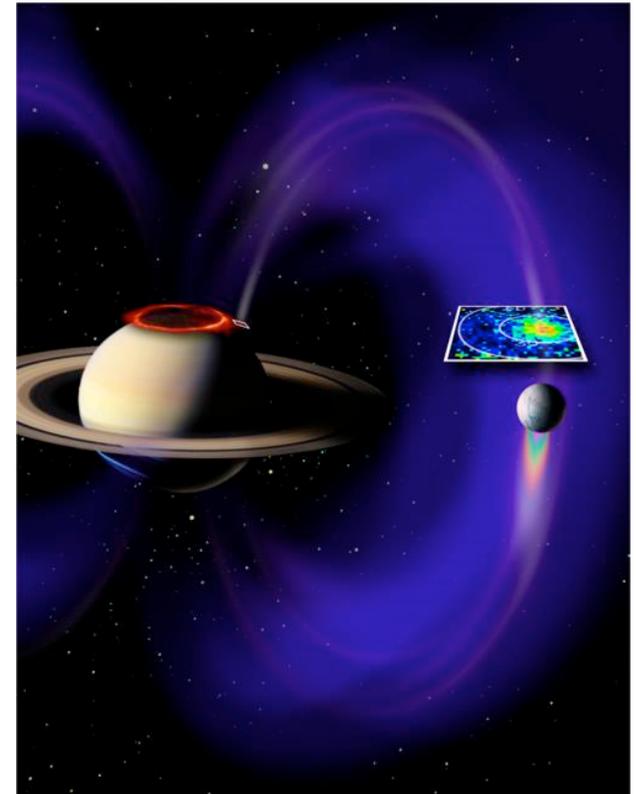




Cassini Solstice Mission



- 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

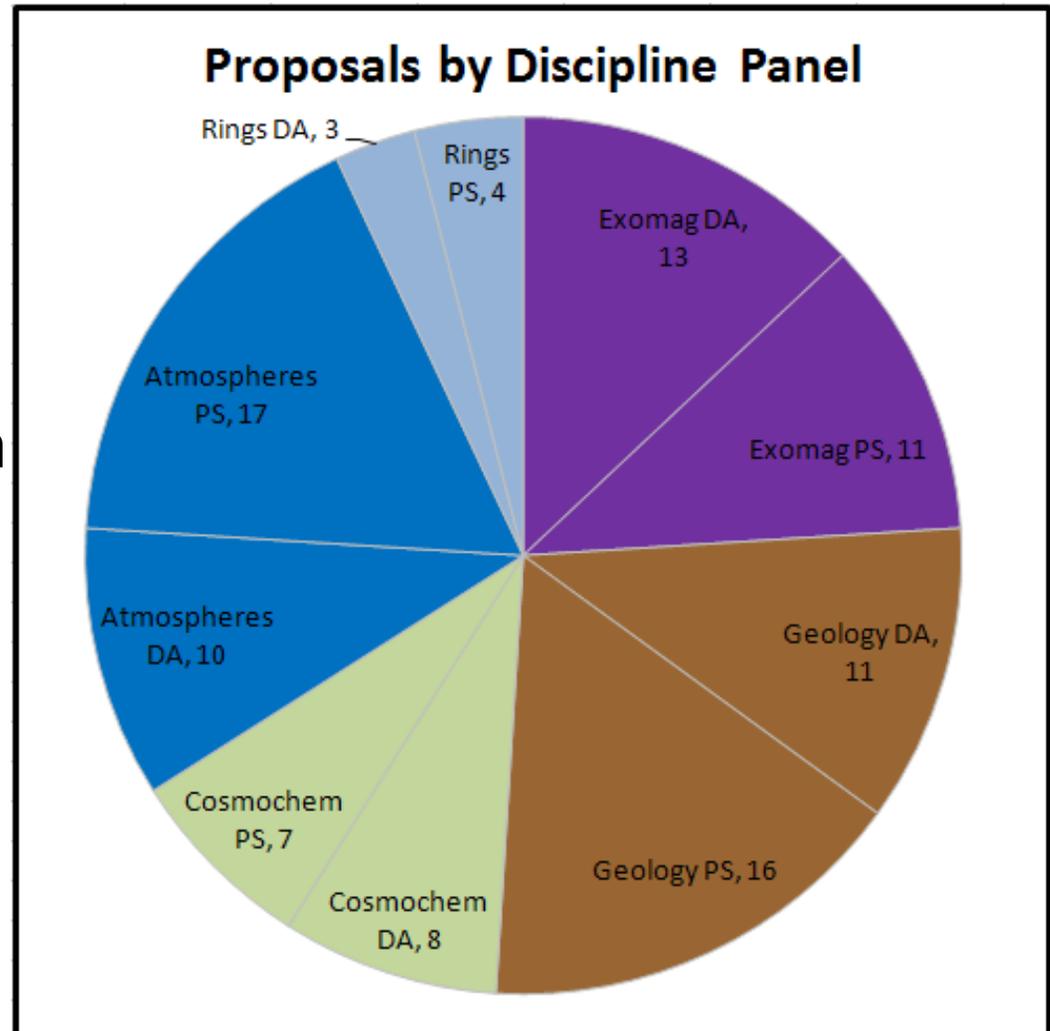


CDAPS Proposal Response by Panel



- 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

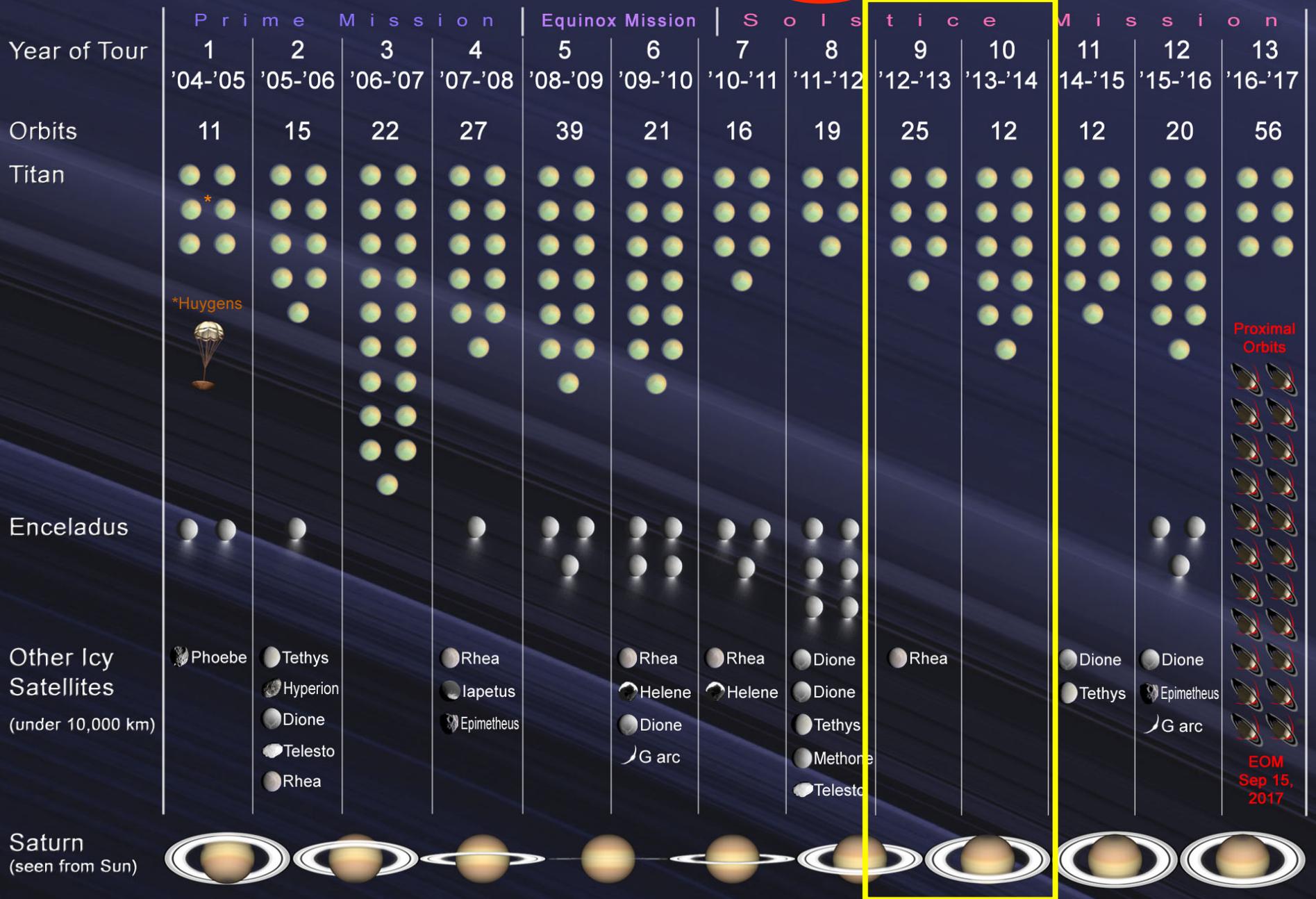


Afternoon snack break for obstetricians meeting next door to NASA

- 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



EOM
Sep 15,
2017



ESA L-class Mission Competition



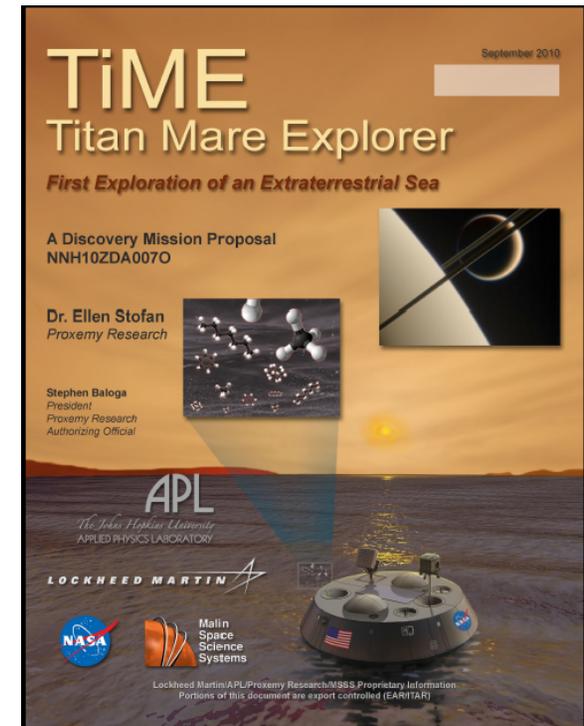
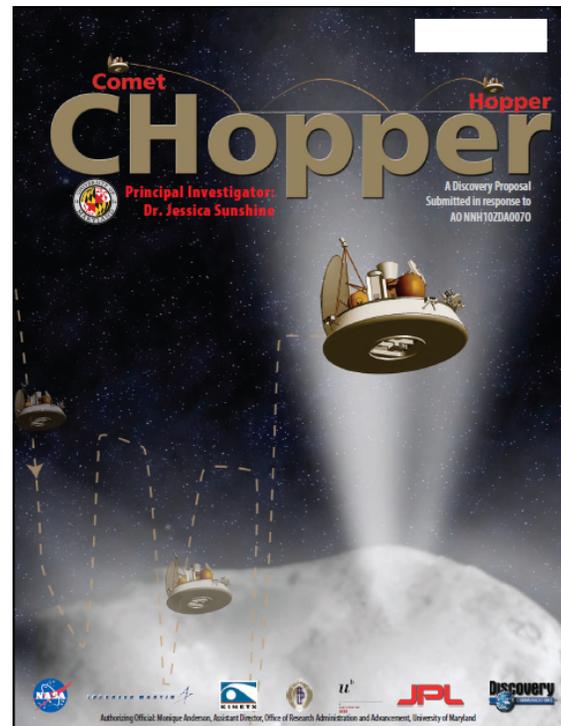
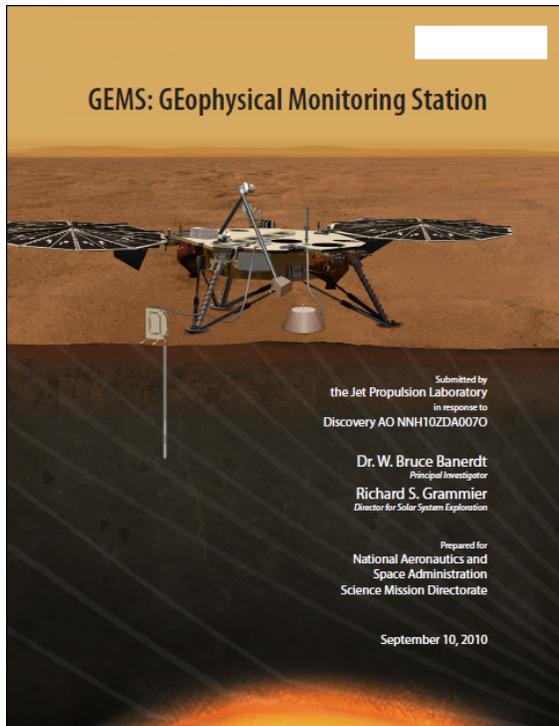
- ESA L-class mission competition is moving towards major milestones
- Yellow Book is due in November followed by their assessment
- Three candidates (JUICE, IXO, LISA) will brief stakeholders in February with downselection to follow
- AO will follow soon thereafter for downselected mission(s)
 - ESA 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





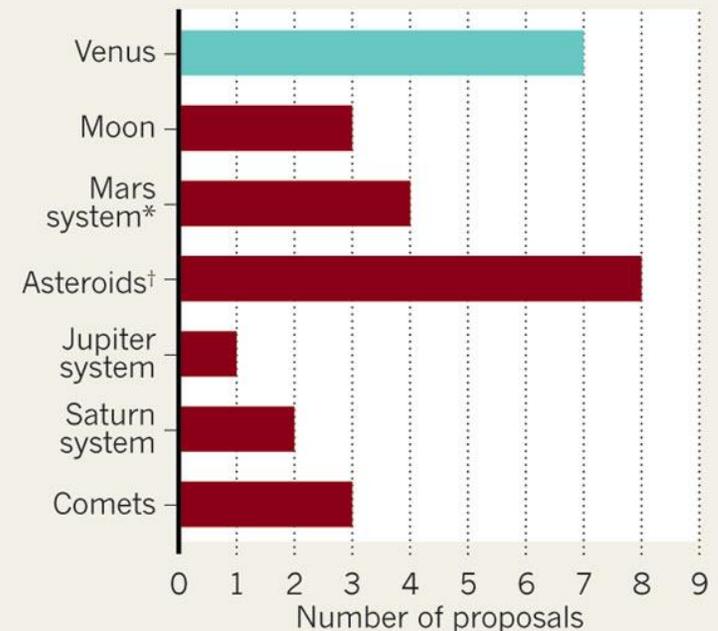
Discovery and the Outer Planets



- 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
- 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