



Mercury

Earth

Venus

Mars

Jupiter

Uranus

Neptune

Eris

Pluto

Saturn

Planetary Science Division Update

Jim Green
Director, Planetary Science
December 21, 2011

Agenda

- PSD Update – Jim Green
 - Status of budget and programmatic impacts
 - Status of the Joint NASA-ESA Mars Program
 - Senior Review update
- Status of R&A Program – Michael New
- Status of PSS Assessment Report & Recommendations to PSD – Jon Rall
- Update on Europa Jupiter System Mission Descope Options – Curt
- Status of European Space Agency's Potential Jupiter Icy moon Explorer Mission - Joan
- Assessment Group Reports

Year of the Solar System

Planetary Science Mission Events



2010

- **September 16 – Lunar Reconnaissance Orbiter in PSD**
- **November 4 - EPOXI encounters Comet Hartley 2**
- **November 19 - Launch of O/OREOS**

• **Completed**

2011

- **February 14 - Stardust NExT encounters comet Tempel 1**
- **March 7 – Planetary Science Decadal Survey released**
- **March 17 - MESSENGER orbit insertion at Mercury**
- **May 5 - Selection of 3 Discovery-class missions for study**
- **May - Selection of the next New Frontier mission for flight, OSIRIS-Rex**
- **July 16 - Dawn orbit insertion at asteroid Vesta**
- **August 5 - Juno launched to Jupiter**
- **August 9 - Mars Opportunity Rover gets to Endeavour Crater**
- **September 10 - GRAIL launch to the Moon**
- **November 26 - Mars Science Laboratory launch to Mars**

December 31 - GRAIL-A orbit insertion at Moon

2012

January 1 - GRAIL-B orbit insertion at Moon

Mid-year - Dawn leaves Vesta starts on its journey to Ceres

August - MSL lands on Mars

FY12 PSD Budget

- Congressional Appropriations for FY12: \$1.5B
- General Language:
 - NASA should develop a budget plan for each division that incorporates any necessary reductions and submit these proposals as part of the spending plan required by section 538 of this Act. In proposing reductions, NASA should take care to protect, to the extent possible, high priority missions of the decadal surveys, as well as missions with near-term launch readiness dates. In addition, NASA should be careful to propose a funding portfolio that maintains an essential balance between actual spaceflight projects and the critical mission-enabling activities (research and data analysis, data application, etc.) that support and enhance the value of those projects.

FY12 PSD Budget

- Specific Language: Planetary Science.
 - The conference agreement includes no less than \$581.7M for Mars Exploration. Within the amount provided, NASA shall continue working to define, plan and execute future Mars missions and continue seeking and taking advantage of opportunities for international cooperation on such missions.
 - The conference agreement also includes \$43,000,000 for outer planets flagship missions. The conferees understand that required descoping studies for planetary flagship missions are at or near completion and direct that those studies be submitted to the Committees on Appropriations as soon as possible.
 - NASA is also directed to continue working on a detailed definition of an appropriately descoped flagship mission, consistent with the findings of the most recent planetary science decadal survey.

PU-238 Status

- DoE passed FY12 Omnibus Appropriations:
 - *Radiological Facilities Management.*-The conference agreement provides \$64,902,000 for space and defense infrastructure, to include \$15M for nuclear infrastructure at Oak Ridge National Laboratory. The conferees provide no funds for the Plutonium-238 Production Restart Project
- NASA/PSD has provided funding in FY11 to start the necessary study and assessments and will provide additional funds in FY12 to continue

Joint NASA-ESA Mars Program

- Representatives from NASA, ESA, and Roscosmos met in Paris on December 7, 2011 to explore partnership opportunities involving future Mars missions
- Further technical discussions will continue over the coming months to confirm the interest of all three partners
- Any NASA decisions on this matter will be based on the outcome of these technical discussions and following the release of the President's FY2013 budget, in February 2012
- NASA is committed to a robust robotic and human Mars exploration program

Senior Review Status

- Draft SR guidelines sent out Sept. 30 (without budget guidance) with a comment period
- Update emails with further guidance sent out Oct. 31, Nov. 4, and Dec. 20
 - Due to uncertainty in the budget for the years FY13-14 we will delay sending out the budget guideline information
 - Final guidance will be sent out on or before the President presents the FY13 budget to Congress
- GRAIL's Status:
 - Prime mission: March-June 2011
 - Potential extended mission, if approved, will be completed within FY13
- This situation puts GRAIL at a disadvantage
- Seeking PSS's recommendation to request GRAIL's proposal and conduct it's SR earlier, as we did with MESSENGER

Happy Holidays!

Questions?

