New Frontiers Program Status

Presentation at the
Outer Planet Assessment Group

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Director, Planetary Science Division

May 1, 2007

Status Juno/ASI proposal

- Using guidance from the Planetary Science Subcommittee a process for review and approval was developed
  - Assessments included: PI, Project, Program Office, Procurement, Legal, International Affairs, Export Control, and an Independent Science Panel
- Based on these assessments PSD position recommended approval for ASI to deliver KaT & JIRAM instrument on Juno
- Presented results to: AST, Dep.AST, Dep.AST for Programs
- AA approval obtained February 12, 2007

Congratulations to the New Horizons Team!

Jupiter Encounter Observations Press Conference
Tuesday, May 1, 2PM & streamed at www.nasa.gov

PSS/NAC Recommendations
NASA Response to NAC Recommendation S-06-09

- NASA should conduct planetary mission concept and technology costing studies to determine whether future Europa Orbiter, Enceladus Explorer, and Titan Explorer missions can fit into the New Frontier class or if they instead require flagship-class missions.

Response:
- On October 1, 2006 the Science Mission Directorate's Planetary Science Division initiated mission studies for Enceladus and Titan. These studies were designed to determine the technical feasibility of conducting separate missions to these moons and to characterize the potential science return within a New Frontiers cost cap. The results from these studies will be completed by March 15, 2007 and released to the community. An Europa mission has been studied many times and will clearly require a flagship-class mission.

Flagship Studies Status

- PSD detailed studies for flagship-class missions and assignments:
  - Europa - Jet Propulsion Laboratory
  - Titan - Applied Physics Laboratory
  - Enceladus - Goddard Space Flight Center
  - Ganymede (with additional focus on Jovian system science) - Jet Propulsion Laboratory
- Science community participation via Science Definition Teams (SDT)
  - Call for participation ended December 22, 2006
  - Teams selected in January 2007 and announced
- Kickoff meeting at NASA Headquarters on February 9, 2007
- Studies will be completed fall 2007
  - Results will undergo independent external review
  - Presented to OPAG and at a variety of science meetings
- Study results will be used as input to near term NASA strategic planning for a Flagship mission

Update on DSN to SOMD

- Deep Space communications budget traditionally contained two portions:
  - DSN - Network services - data and commands
  - AMMOS - advanced multi-mission operating system
- DSN/AMMOS was transferred from Planetary to Heliophysics beginning FY06
- DSN transferred from Heliophysics to Space Operations Mission Directorate beginning FY07 but still keeping AMMOS
- AMMOS was transferred from Heliophysics to Planetary in December 2007
- Will be working closely with SOMD for continued DSN support and evolution
### AMMOS Mission Tools & Services

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- **Mission Data Node**
- **Experiment Data Products**
- **Flight Engineering**
- **Ground Communications**
- **Instruments Data Tools**
- **Instrument Tactical Tools**
- **Core Data**
- **Cryotronics and Gravitational**
- **Multi-Mission Control Team**
- **Multi-Project Scheduling**

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**Planetary Science**

Advance scientific knowledge of the origin and history of the solar system, the potential for life elsewhere, and the hazards and resources present as humans explore space.