

From: Fran Bagenal <bagenal@lasp.colorado.edu>
Subject: OPAG update
Date: October 9, 2006 6:30:11 PM MDT
To: Curt Niebur <cniebur@hq.nasa.gov>
Cc: Fran Bagenal <bagenal@lasp.colorado.edu>

Outer Planets Assessment Group - Update - October, 2006

<http://www.lpi.usra.edu/opag/>
Next OPAG meeting - Tucson, AZ - November 7-8th - venue is the Sheraton Suites

1. Planetary Science Subcommittee and the NASA Advisory Committee
2. OPAG meeting Nov 7-8th - Sheraton Tucson Hotel & Suites
3. HQ Titan and Enceladus studies

This meeting comes to you direct from DPS in Pasadena. I started counting up the sessions related to outer planets and found that it was easier to count the sessions that are _not_ related to outer solar system or comets (which come from the outer solar system). It's about 1/3 inner solar system and 2/3 outer solar system by my count.

See in Tucson next month!

Fran Bagenal
Professor of Astrophysical and Planetary Sciences
Laboratory of Atmospheric and Space Physics
UCB 392 University of Colorado
Boulder CO 80309-0392
Tel. 303 492 2598 Fax. 303 492 6946
<http://lasp.colorado.edu/~bagenal>

*****1*****1*****1*****1*****1*****1*****1*****

Planetary Science Subcommittee and the NASA Advisory Committee

The report from the September 25-6th meeting is posted on the OPAG website at <http://www.lpi.usra.edu/opag/announcements.html>

There are findings/recommendations on outer planet flagship missions, New Frontiers mission candidates and provision of a foreign instrument to Juno. Here is the statement on Outer Planet Flagship Missions:

Outer Planet Flagship Missions

In its report from the July PSS meeting, the subcommittee stressed that flagship missions, in particular those to the outer solar system, cannot fit within the current budget cap for New Frontiers missions (\$750M in FY 2003 dollars at the time of the Juno selection). The PSS went on to recommend in July that

- Flagship missions will be required to address many of the most fundamental scientific objectives of solar system exploration and must be accommodated within any long-range strategy for the Planetary Science Division. The New Frontiers Program, too, is critical to the accomplishment of solar system exploration objectives. The New Frontiers Program should therefore not be expanded in an attempt to accommodate the goals and objectives of flagshipclass missions.

The flagship Cassini mission has been spectacularly successful to date. The PSS is strongly supportive of maintaining Cassini operations as long as technically feasible and scientifically warranted. A Cassini Data Analysis Program should be of sufficient duration to derive the maximum scientific understanding from the diverse data sets obtained by this mission.

NASA's Science Plan calls out Europa, Titan, and Enceladus as key targets for exploration of the outer solar system. To make progress on those elements of the Science Plan

- The PSS recommends that in-depth studies to evaluate mission concepts and technologies

for potential outer solar system missions should be completed as soon as feasible. The scientific goals for these missions have been defined in the NASA Science Plan and developed by the NRC, OPAG, and a variety of "focus groups." On the basis of current understanding of the highest-priority scientific goals, these missions would involve a Europa orbiter, a Titan aerial vehicle, and an Enceladus lander. The mission definition studies should involve broad scientific community involvement and multiple institutions. We envision mission concept studies for each of the three bodies to be funded at approximately \$1M per study to address specific science goals within the scope of the NASA Science Plan, namely a flagshipclass (~\$2-3B) mission to be accomplished within a ~15-year time frame. The study results should be reviewed independently for their potential scientific return, technical feasibility, and cost. Moreover, NASA should work with OPAG and the science focus groups to develop an ongoing program of advanced mission concepts and technologies that will permit the full implementation of Science Plan objectives.

This with naturally be a topic on the agenda at the November 7-8th meeting.

*****2*****2*****2*****2*****2*****2*****2*****

OPAG meeting Nov 7-8th - Sheraton Tucson Hotel & Suites

We have a hotel! Sorry about the inconvenient delay in setting this up. Ask for "NASA OPAG" when booking rooms.

The meeting will last two days. Here is a preliminary - DRAFT - agenda. Most of these people have agreed to talk - or help us find an alternative speaker.

- Welcome & PSS report - Fran Bagenal, OPAG Chair
- HQ update - Jim Green, Acting Director of the Planetary Science Division, NASA HQ
- Cassini - TBD
- New Horizons - Alan Stern
- Juno - Scott Bolton
- Enceladus Focus Group workshop report - Carolyn Porco and Chris McKay
- HQ Titan short study - Ralph Lorenz
- HQ Enceladus short study - Andy Ingersoll
- Student mission studies - TBD

- Probes Workshop - Sushil Atreya
- Radioisotope Power Systems - Ralph McNutt
- Working group breakout sessions
- Outer Planet R&A - Curt Niebur
- Pathways document - update?

Open mike time

*****3*****3*****3*****3*****3*****3*****3*****

NASA HQ Titan & Enceladus Mission Studies

NASA HQ has commissioned two small mission concept studies to examine the cost elements and capabilities of focussed missions to Enceladus and Titan. OPAG is providing a small science team to work with mission designers. These are NOT the pre-phase-A mission concept studies discussed in OPAG documents (e.g. Pathways) and in PSS reports (e.g. above).

Translation:
small mission concept study = 3 months, handful of people
cost elements and capabilities = first-order mission scope
focussed mission = New-Frontiers-like



