

July 14 2009 OPAG Meeting
FINAL AGENDA

8:00 am	Continental Breakfast	
8:30	Introduction & Goals	William McKinnon (Washington Univ.)
8:45	HQ Update	Jim Green (NASA HQ)
9:15	PSS Update	Fran Bagenal (Univ. Colorado), by phone
9:30	Outer Planets/Flagship Update	Curt Niebur (NASA HQ)
10:00	STD Report/Instrument Workshop	Ron Greeley (ASU)
10:20	Titan Working Group	Zibi Turtle (APL)
10:30	Break	
10:45	Decadal Survey	Amy Simon-Miller (GSFC) & John Spencer (SwRI)
11:15	OPAG White Paper	All
12:00	Lunch (Steering Group Meeting)	
1:00	Outer Planets White Paper Briefs (~10 min each)	
		Glenn Orton (JPL), Dave Williams (ASU), Cynthia Phillips (SETI), Ralph Lorenz (APL), Tom Spilker (JPL), E. Venkatapathy (ARC), Candice Hansen (JPL), Pat Beauchamp (JPL), John Cooper (GSFC), Mike Wong (UC Berkeley), others
2:00	OPAG White Paper Breakouts	All
3:30	Break	
3:45	OPAG White Paper	All
4:30	Galilean Satellites Map Book	Paul Schenk (LPI)
4:40	Open Mike	Nathan Strange, Karl Hibbits, others
5:00	Other Business	
	Dinner at <i>That's Amore</i>	

Study Overview

The National Research Council's Space Studies Board (SSB) has received a request from NASA and NSF to develop a comprehensive science and mission strategy for planetary science that updates and extends the SSB's 2003 solar system exploration decadal survey, *New Frontiers in the Solar System: An Integrated Exploration Strategy*. The key areas for consideration in the new decadal survey include, but are not limited to, the following

1. The planets, satellites and rings;
2. Small solar system bodies, including comets, asteroids and the trans-neptunian objects;
3. Comparative planetology; and
4. Astrobiology.

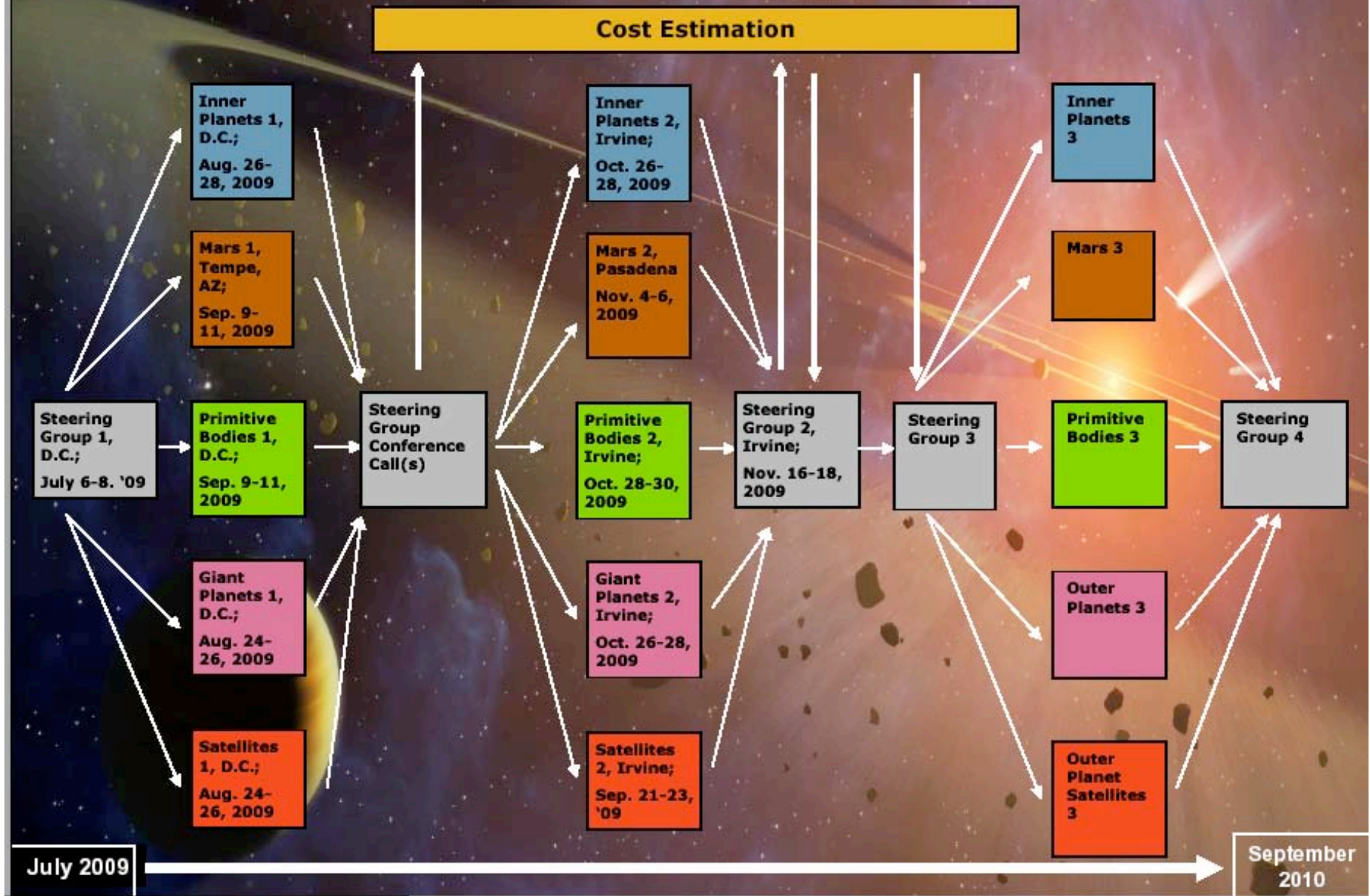
The new decadal survey, like its predecessor, will broadly canvas the community to determine the current state of knowledge and then identify the most important scientific questions to be addressed during the decade beginning in 2011. The decadal survey will be conducted by a steering committee supported by topical panels.

Statement of Task

The Space Studies Board will establish a Survey Committee to develop a comprehensive science and mission strategy for planetary science that updates and extends the Board's 2003 solar system exploration decadal survey, "New Frontiers in the Solar System: An Integrated Exploration Strategy." The new decadal survey will broadly canvas the planetary science community to determine the current state of knowledge and then identify the most important scientific questions expected to face the community during the interval 2011-2020. The scope of the survey and report shall encompass the inner planets (Mercury, Venus, and Mars), the Earth's Moon, giant planets (Jupiter, Saturn, Uranus, and Neptune), the moons of the major planets, dwarf planets and small bodies, primitive bodies including comets and Kuiper Belt objects, and astrobiology. The principal components of the report shall include:

1. An overview of planetary science--what it is, its relationship to other scientific endeavors, and why it is a compelling undertaking;
2. A broad survey of the current state of knowledge of the solar system;
3. An inventory of the top-level scientific questions that should guide flight programs and supporting research programs;
4. Recommendations on the optimum balance among small, medium, and large missions and supporting activities, informed by the Board's study on this topic ("mission-enabling activities") currently in progress;
5. A discussion of strategic technology development needs and opportunities;
6. A prioritized list of major flight investigations in the New Frontiers and larger classes recommended for initiation over the decade 2011-2020;
7. Recommendations for supporting research required to maximize the science return from the flight investigations; and,
8. A list of important science goals which could be achieved by small spacecraft (Discovery and Scout class) missions.

PLANETARY DECADAL SURVEY MEETING SCHEDULE



Priorities for 2011-2020

[HOME](#)

[REGISTER](#)

White Paper
Template
[doc] [pdf]

Links:

[SSB Planetary
Decadal Site](#)

[Planetary
Exploration
Newsletter](#)

[SBAG](#)
[OPAG](#)
[MEPAG](#)
[VEXAG](#)
[LEAG](#)

[New Frontiers in
the Solar System](#)

[Community
Input, 2003-2013](#)

Administrator:
Mark Sykes
sykes@psi.edu

Please register to indicate the subdiscipline white papers on which you want to participate (one or all are fine).

PRIMITIVE BODIES

Near-Earth Objects	Authors	Draft [pdf]
Asteroids (Main Belt, Jupiter Trojans)	Authors	Draft [pdf]
Comets (Short-period, Long-period, Main Belt)	Authors	Draft [pdf]
Dwarf Planets (Ceres, Pluto-Charon, Eris, others)	Authors	Draft [pdf]
Centaur and Irregular TNOs	Authors	Draft [pdf]
Interplanetary Dust	Authors	Draft [pdf]
Irregular Satellites (Phobos, Deimos, outer planet)	Authors	Draft [pdf]

FORUM (open 9/5)

POLL (open 10/17)

REPORT

CALENDAR

04 SEP	Subdiscipline white papers due (please follow White Paper Template)
05 SEP	White papers submitted to Primitive Bodies Panel
05 SEP	Online forum opens regarding prioritization across subdisciplines (based on white paper inputs)
09-11 SEP	Primitive Bodies Panel Meeting 1, Washington DC. Agenda TBD.
TBD	SBAG meeting on primitive bodies priorities (online discussion continues)
16 OCT	Online forum closes (content preserved)
17 OCT	Community poll on primitive bodies priorities (all entries public)
21 OCT	Poll closes
24 OCT	Report on community priorities posted for endorsements
27 OCT	Report, Forum record, Poll data submitted to Primitive Bodies Panel
28-30 OCT	Primitive Bodies Panel Meeting 2, Irvine CA. Agenda TBD.

GIANT PLANETS

Jupiter

Saturn

Uranus/Neptune

(LARGE) SATELLITES

Io

Europa

Ganymede/Callisto

Titan

Enceladus

Midsize Icy Satellites

I am sending out a PEN shortly inviting people to do the Primitive Body white papers on the site. If the Satellites and Giant Planet chairs want the same schedule as Veverka, then the Calendars would look something like

(LARGE) SATELLITES

Aug 21 - Subdiscipline white papers due
Aug 22 - Subdiscipline white papers submitted to Satellites Panel
Aug 22 - Online forum opens
Aug 24-26 - Satellites Panel meeting #1, Washington DC
Sep 9 - Forum closes
Sep 10 - Community poll opens
Sep 14 - Community poll closes
Sep 17 - Report on community priorities posted for endorsement
Sep 20 - Report, forum record, poll data submitted to Satellites Panel
Sep 21-23 - Satellites Panel meeting #2, Washington DC

GIANT PLANETS

Aug 21 - Subdiscipline white papers due
Aug 22 - Subdiscipline white papers submitted to Giant Planets Panel
Aug 22 - Online forum opens
Aug 24-26 - Giant Planets Panel meeting #1, Washington DC
Sep 9 - Forum closes
Sep 10 - Community poll opens
Sep 14 - Community poll closes
Sep 17 - Report on community priorities posted for endorsement
Sep 20 - Report, forum record, poll data submitted to Giant Planets Panel
Sep 21-23 - Giant Planets Panel meeting #2, Washington DC

OPAG DS white paper outline

strong draft by OPAG meeting – no harm in circulating draft paragraphs earlier

Target – the DC survey panel – top level – SELL THE SCIENCE

Reiterate importance of Europa as next flagship – then move on to what we need to do in the next decade, after Europa

I. Executive Summary (McKinnon, Bagenal)

This paper was affirmed at the OPAG meeting July

II. Science Themes & Goals - Needs thorough rewrite & elevation

*Statement of top-level science of outer system (McKinnon...)

Argument for Program (Bagenal, Cutts, ...)

Balance Among Mission Size/Architecture (Johnson)

III. Exploration Strategy & Priorities – _ page each

*Technology (Beauchamp et al.)

Aerocapture/argument for development (Lorenz)

Orbital vs. In situ/need to explore extreme environments (Atreya)

70m/DSN issues (Fran)

Laboratory work (Spilker)

Ground-based & suborbital astronomy (Clarke)

*Int'l cooperation/leverage & synergy (Baines)

*Astrobiology (Hand)

IV. Destinations & Mission Architectures – _ page each

*ESJM (Pappalardo, Greeley)

*Titan Flagship (Turtle, Coustenis, TWG)

*Neptune Flagship (Hansen, Hammel, Hofstadter) shorten

*Giant Planet Probes (Atreya, Baines)

*Large satellites (Io: Williams, Radebaugh; Ganymede: Collins, Schenk; Triton: Hansen)

~~Dwarf Planets (nod towards links) (McKinnon)~~

~~Europa future mission (beyond currently prioritized mission) (Cynthia Phillips)~~

V. Summary

Others white papers: Technology (Pat), Neptune (Candy), planetary monitoring telescope (mike Wong), Io (Dave Williams),

Titan geophysical network (Ralph Lorenz), Titan (working group), outer planets probes (Dave Atkinson), Europa (Cynthia Phillips)

Findings

- Continue to support EJSM as part of a comprehensive, sustainable OPP
- Continue to support Cassini XXM
- Set up website for white papers – work toward all-OPAG 7 pp summary
- Several NF or small Flagship mission concepts described
- Astrodynamics research funding
- DPS Workshop-no
- Next meeting Feb 18-19, 2010 (now 2/16-17)