

Planetary Science Decadal Survey 2009-2011

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Outline

- What is a decadal survey?
- Major topics to be addressed in the new decadal survey
- Organization and schedule of the decadal survey
- Community input

What is a Decadal Survey?

Origin Astronomy community in the 1960s.

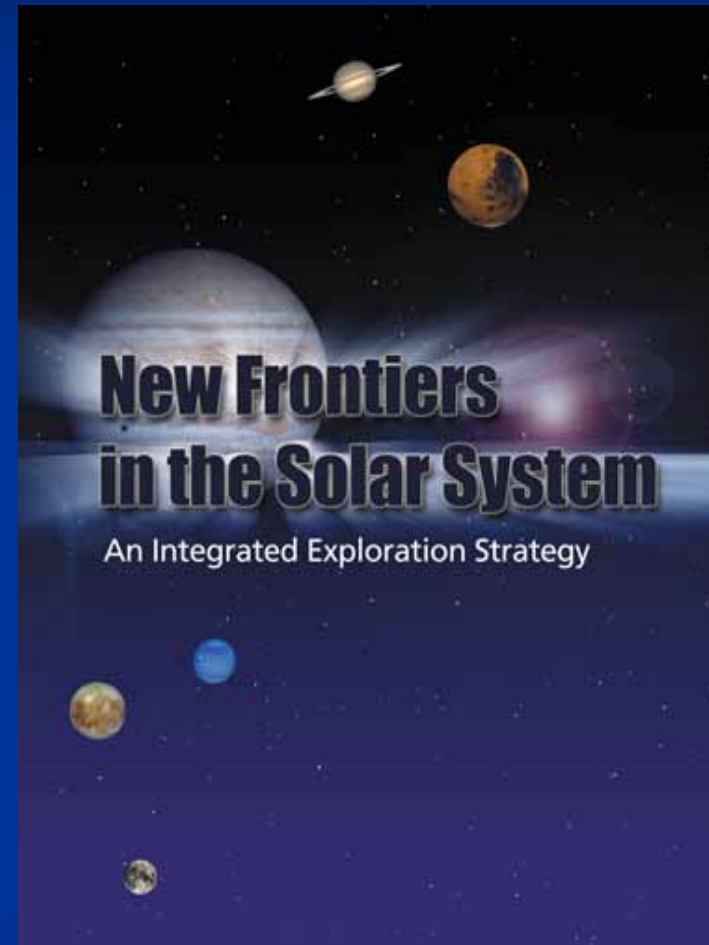
Purpose Identification of the most important scientific questions to be addressed in the next decade and to prioritize the missions and that can address these questions.

Organization Steering group, supported by topical panels, combined with extensive input from the scientific community

1st Planetary Survey Requested by NASA in 1/01 and completed in 7/02

Other Surveys

Physics (2002), Earth Observation from Space (2007), Life and Microgravity Sciences (in progress)



What will the Report Address?

Major Tasks

The decadal survey will address the following items:

- Overview of planetary science;
- Broad survey of the current state of knowledge of the solar system;
- Inventory of the key scientific questions to guide NASA flight missions and research programs undertaken by NASA and NSF;
- Assessment of NSF infrastructure supporting planetary research;
- Recommendations on the optimum balance across the solar system and among small, medium, and large missions and research activities;
- Prioritized recommendations for New Frontiers and flagship flight investigations for initiation in the period 2013-2022;
- Recommendations for NASA-funded research activities required to maximize the science return from the flight investigations; and
- Technology development needs and opportunities relevant to NASA.

Scope

Ground- and space-based planetary science, astrobiology and comparative planetology of extrasolar planets.

Notional Organization Decadal Survey Committee 2009-2011



How should the topical panels be organized?

Notional Schedule 2008-2011

2008

4th Quarter

Informal request received, NRC approves initiation,
Formal request received, Proposal to NASA.

2009

1st Quarter

Funding received, Chair identified,
Chair and members appointed

2nd Quarter

Meetings of the steering group and panels begin

3-4th Quarter

Panels' period of peak active

2010

1st Quarter

Panel reports finalized

2-3rd Quarter

Prioritization and drafting of survey report

4th Quarter

Draft survey report to reviewers, Report revised

2011

1st Quarter

Report approved, NASA briefed
and report released (prepublication-format)

3rd Quarter

Printed report released

Outreach Sessions

Science Presentations

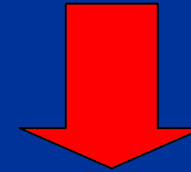
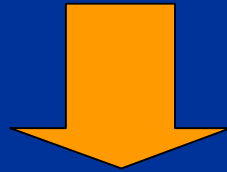
Agency Presentations

Individual Inputs

Community White Papers



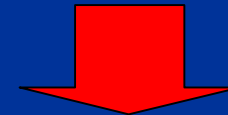
Community Involvement



SSE Survey Panels

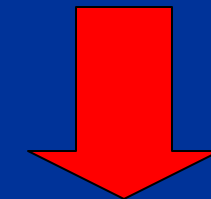


SSE Survey Steering Group



Part I

Part II



Decadal Survey Report

Community Interactions 2000-2003

- Through town hall meetings at multiple venues:

- Stimulation of written input from ad hoc community panels
 - PGD/GSA, PSS/AGU and Meteoritical Society
 - 24 panels formed (3 to 61 members each) involving >308 individuals
 - *The Future of Solar System Exploration, 2003-2013: Community Contributions to the NRC Solar System Exploration Decadal Survey* (Marc V. Sykes, Ed., Astronomical Society of the Pacific Conf. Series, Volume 272).
 - Community ad hoc reports used by panels and steering group

- Independent DPS and Planetary Society polls

- NRC Report review process
supplied more that 450 specific comments, response to which immeasurably improved the quality of the report.

Topics of Community Panels

Kuiper Belt Objects

NEOs: Sample Return

NEOs: Human Exploration and Utilization

NEOs: Discovery, Tracking and Characterization

Lunar Exploration: Robotic and Human

Should other, more macro-level topics also be addressed by the community?

Optimizing Community Interactions

Broad community input is a defining feature of a decadal survey

- Town hall and open meetings as early as possible (e.g., **DPS**, **AGU** and **VEXAG**, **MEPAG**, **OPAG**, RAS and LPSC). The schedule last time was suboptimal for engaging in outreach at major community meetings.
- Coordinate with other groups that have overlapping interests.
- Early stimulation of ad hoc community reports. (The DPS committee was very proactive and successful in generating inputs to the 2000-2003 decadal survey). Last time, the community reports could have had a greater impact on the formulation of panel positions if they had arrived earlier.

Issues to consider:

1. How should the decadal survey's topical panels be organized?
Who should chair the panels?
Who should serve on the steering group and panels?
2. How can community interactions and input be optimized given the decadal survey's likely schedule.
3. What can the survey committee do to facilitate input from the community and vice versa?

Written input is encouraged and preferred.

Decadal survey website on-line at www.nas.edu/ssb.