

Current and Future Studies Relevant to MEPAG

David H. Smith

Mars Program Analysis Group

Silver Spring, Maryland

3 March 2016

Achieving Science Goals with CubeSats

- Proposed by: John Grunsfeld
- Topic: The role of CubeSats in achieving priority goals in space science and recommended areas for near-term investments.
- Actions taken: Formal request received from NASA in 7/ 2015
- Status: Project underway. Meetings completed and draft report in review
- Chairs: Thomas Zurbuchen
- Schedule: Scheduled to deliver report to NASA by end of April 2016

NASA Science Mission Extensions: Scientific Value, Policies, and Review Process

- Proposed by: John Grunsfeld
- Topic: Rational for and value of extended missions
- Actions taken: White paper delivered to NASA following informal request from AA SMD. Formal request received from NASA in 7/ 2015
- Status: Project underway. Second of three planned meetings held this week
- Co-chairs: Victoria Hamilton and Harvey Tananbaum
- Schedule: Deliver report to NASA this summer

Review of NASA/PSD's Restructured R&A Program

Proposed by: James Green (Mary Voytek and Jonathan Rall)

Topic: Review of SMD/ PSD reorganization of R&A programs for consistency with SMD science goals and past advice from the Academies

Actions Taken: Request letter received from NASA in 8/ 2015

Status: Funding received late last year and committee recruitment is underway. Plan to hold three committee meetings this Summer and early-Autumn

Schedule: Deliver report to NASA by end of November, 2016

Large Strategic Missions: Science Value and Role in a Balanced Portfolio

Proposed by: John Grunsfeld

Topic: Value of, rationale, and prioritization principles for flagship missions

Actions Taken: SSB white paper delivered to NASA/ SMD and formal request for study issued by NASA in January 2016

Status: Awaiting funding from NASA/ SMD

Schedule: Deliver report to NASA in March 2017

Workshop on Searching for Life Across Space and Time

Proposed by: John Grunsfeld

Topic: How to detect life in the solar system and extrasolar planetary systems

Actions Taken: SSB white paper delivered to NASA/ SMD and formal request received from NASA/ SMD in January 2016

Status: Awaiting receipt of funding to initiate project

Schedule: Workshop in late 2016 and report to NASA in Spring of 2017

Review of Planetary Protection Policy Development Processes

- Proposed by: Ellen Stofan (and others) via SMD
- Topic: How and by whom are planetary protection policies determined
- Actions Taken: SSB white paper delivered to NASA in January 2015.
Multiple (conflicting) statements of task iterated back and forth between NASA and Academies throughout 2015.
Formal request for study received on 1 March 2016
- Status: Awaiting approval from Academies and funding from NASA
- Schedule: Deliver report to NASA by December 2017

Planetary Decadal Mid-term Assessment

PUBLIC LAW 109–155—DEC. 30, 2005: “The performance of each division in the Science directorate of NASA shall be reviewed and assessed by the National Academy of Sciences at 5-year intervals.”

Vision and Voyages decadal survey released in March, 2011.

The Committee on Astrobiology and Planetary Science discussed items it would like to see in the statement of task for mid-term review and forwarded them to SMD/ PSD late last year.

So far have not seen any indication that NASA/ PSD will request mid-term review in the near future.

Midterm and Next Decadal I

- 1-2001 Organizing meeting for 1st planetary decadal survey
- 7-2001 First meeting of survey committee
- 7-2002 *New Frontiers in the Solar System* delivered to NASA
- 10-2006 NASA requests midterm assessment be initiated
- 3-2007 First meeting of mid-term assessment committee
- 11-2007 *Grading NASA 's Solar System Exploration Program* delivered
- 8-2008 Organizing meeting for 2nd planetary decadal survey
- 7-2009 First meeting of survey committee
- 3-2011 *Vision and Voyages in the Solar System* delivered

Midterm and Next Decadal II

- 8-2008 Organizing meeting for 2nd planetary decadal survey
- 7-2009 First meeting of survey committee
- 3-2011 *Vision and Voyages in the Solar System* delivered
- X-2016 NASA requests 2nd midterm assessment be initiated?
- Y-2016 First meeting of 2nd midterm assessment committee (Y=X+6)?
- 1-2017 *Release of A O for New Frontiers 4*
- Z-2017/ 18 Second Midterm assessment report delivered (Z=X+15)?
- 11/2017 *New Frontiers 4 Downselect*
- 10/2018 *New Frontiers 4 Phase A study report due*
- 5/2019 *New Frontiers 4 Selected*
- 9/ 2019 Organizing meeting for 3rd planetary decadal survey????

Midterm and Next Decadal III

- 9/ 2019 Organizing meeting for 3rd planetary decadal survey?
- 1/ 2020 Statement of task finalized and survey formally initiated?
- 3/ 2020 Chair selected and announced?
- 7/ 2020 Survey committee and panel meetings begin?
- 9/ 2021 First complete draft of survey report assembled?
- 3/ 2022 Survey report released