

Overview of Recent CAPS Meetings

An assessment by
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CAPS Co-chairs

SSB Meeting April 27, 2016

CAPS Committee Status

New CAPS Co-Chair

- Christopher H. House
Geosciences, The Pennsylvania State University
Director of Penn State Astrobiology Research Center

New CAPS Members

- Bethany Ehlmann (Cal Tech)
- Kevin Hand (JPL)
- Sarah Horst (Johns Hopkins)
- William McKinnon (Washington University)
- David Stevenson (Cal Tech)
- Elizabeth Turtle (APL)
- Sarah Stewart (University of California, Davis)

Planetary Science Status:

1. Overall, the Planetary Science Division is in a good state
 - Mars 2020 sample caching mission remains on track
 - Europa mission is moving forward
 - Five Discovery mission concepts are in Phase A studies
 - Next New Frontiers mission AO is planned for next year
 - R & A funding remains stable
2. Continue to observe the impacts of changes to the Europa mission
 - The Multiple Europa flyby mission (“Clipper”) is highly responsive to the Decadal Survey in science and cost
 - NASA has been directed to add a lander and launch on an SLS vehicle
 - Decision has been made to separate the orbiter and lander spacecraft
 - Potential remains for significant cost, complexity, risk, and schedule growth

Planetary Science Status:

3. Discussed plans for next New Frontier mission AO with Jim Green
 - The draft solicitation for the New Frontiers 4 mission includes a strategic theme - Ocean Worlds - that was not included in the current planetary decadal survey
 - Proposed change does not alter the scientific priorities that are laid out in the current planetary decadal survey
 - Enceladus and Titan are significant elements of the decadal survey, and their inclusion consistent with the overall scientific priorities discussed in the survey report
 - A sound management approach would allow the program manager the flexibility to add elements as the situation changes throughout the decade
 - The peer review process is the appropriate means to rank all of the missions that are proposed for NF-4
 - It is essential that whatever mission is selected for NF-4 must be capable of accomplishing New-Frontier-class science

Astrobiology Status

- **New NAI (NASA Astrobiology Institute) Director**
 - Penelope (Penny) J. Boston
 - Earth and Environmental Science, New Mexico Tech
 - Expertise in Extremophiles and particularly cave microbiology
 - Associate director of the National Cave and Karst Research Institute
- **Astrobiological perspective on ocean worlds initiative**
 - Ocean worlds initiative provides a great opportunity for expanded involvement of astrobiology in NASA missions
 - Europa, Enceladus, and Titan are all excellent astrobiology targets
 - Agree that any NF-4 mission must be capable of accomplishing New-Frontier-class science

Ongoing and Proposed Studies Relevant to CAPS

Review of MEPAG's Report on Mars Special Regions (completed in 2015)

Review of SMD/PSD R&A Programs (Requested, funded, committee appointments pending. First meeting scheduled for 12-13 May in D.C.)

Review of Europa Clipper Mission (No action taken on part of NASA/SMD)

Review of Planetary Protection Policy Development Process (Requested and funding proposal being prepared)

Workshop on Life Detection (Requested, funded, now recruiting Organizing Committee for a December 2016/January 2017 workshop)

Planetary Science Decadal Midterm Review (Draft "SoT" received from NASA)

Horizon 2020 Planetary Protection for Outer Solar System (Initiated in March, SSB has observer status)