

The National Academies of
SCIENCES • ENGINEERING • MEDICINE

DIVISION ON ENGINEERING AND PHYSICAL SCIENCES
SPACE STUDIES BOARD

Committee on Astrobiology and Planetary Sciences

Autumn 2024 Meeting

October 21-22, 2024

NAS Beckman Center, Board Room, 100 Academy Way, Irvine, California 92617
ALL TIMES IN US PACIFIC DAYLIGHT TIME (UTC-7:00)

AGENDA

MONDAY, OCTOBER 21, 2024

OPEN SESSION

Livestream Link for Public Viewing: <https://vimeo.com/event/4658800>

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|-----------------|---|--|
| 9:30 AM | Welcome and Introductions | <i>Dr. Martha Gilmore, CAPS Co-Chair / Dr. Karyn Rogers, CAPS Co-Chair</i> |
| 9:35 AM | NASA Planetary Science Division (PSD) Program Update (30 minute presentation & 40 minute discussion period) | <i>Dr. Gina DiBraccio, Acting Director, Planetary Science Division, NASA</i> |
| <i>10:45 PM</i> | <i>Break</i> | |
| 10:55 AM | NASA Astrobiology Program Update (30 minute presentation & 40 minute discussion period) | <i>Dr. David Grinspoon, Senior Scientist for Astrobiology Strategy, NASA-PSD / Dr. Rebecca McCauley Rench, Deputy Program Scientist for the Astrobiology Program, NASA-PSD</i> |
| <i>12:05 PM</i> | <i>Break for Working Lunch</i> | |
| 1:05 PM | Status of the Europa Clipper Mission (30 minute presentation & 30 minute discussion period) | <i>Dr. Bob Pappalardo, Project Scientist, Europa Clipper, JPL/Caltech</i> |
| <i>2:05 PM</i> | <i>Break</i> | |
| 2:15 PM | NASA Lunar Discovery and Exploration Program (LDEP) Status (30 minute presentation & 30 minute discussion period) | <i>Dr. Joel Kearns, Deputy Assoc. Administrator for Exploration, NASA-SMD</i> |
| <i>3:15 PM</i> | <i>Break</i> | |

3:25 PM NASA Response to the Mars Sample Return Independent Review Board Report

(30 minute presentation & 30 minute discussion period)

***Dr. Lindsay Hays, Senior Scientist for
Mars Exploration, NASA /
Mr. Jeff Gramling, Mars Sample Return
Program Director, NASA***

4:25 PM Meeting Adjourns to Closed Session (or at a time at the discretion of the Chair)

TUESDAY, OCTOBER 22, 2024

OPEN SESSION

Livestream Link for Public Viewing: <https://vimeo.com/event/4658806>

- 10:45 AM** **Re-Opening Remarks for Day 2** *Dr. Martha Gilmore, CAPS Co-Chair /
Dr. Karyn Rogers, CAPS Co-Chair*
- 10:50 AM** **Status of the Dragonfly Mission** *Dr. Elizabeth Turtle, Principal Investigator,
Dragonfly, Johns-Hopkins U. Applied Physics
Laboratory*
(30 minute presentation & 30 minute discussion period)
- 11:50 AM* *Working Lunch*
- 1:00 PM** **Updates from the Jet Propulsion Laboratory (JPL) on Planetary Program** *Mr. Matthew Wallace, Director for
Planetary Science, JPL/Caltech*
(30 minute presentation & 30 minute discussion period)
- 2:00 PM* *Meeting Adjourns to Closed Session (or at a time at the discretion of the Chair)*

The following information is provided for any members of the general public who may be in attendance:

This meeting is being held to gather information to help the committee in its charge. This committee will examine the information and material obtained during this, and other public meetings, in an effort to inform its work. Although opinions may be stated and lively discussion may ensue, no conclusions are being drawn nor will recommendations be made. Observers who draw conclusions about the committee's work based on this meeting's discussions will be doing so prematurely.

Furthermore, individual committee members often engage in discussion and questioning for the specific purpose of probing an issue and sharpening an argument. The comments of any given committee member may not necessarily reflect the position he or she may actually hold on the subject under discussion, to say nothing of that person's future position as it may evolve in the course of the project. Any inference about an individual's position are therefore also premature.

NOTES FOR PRESENTERS

Your presentation may not include unpublished data, ITAR controlled and/or other sensitive information.

At some point a staff member will be asking you to sign a consent form allowing us to use your presentation, specifically to post it on our website.

STATEMENT OF TASK

Date Organized: 13 March 2017

The National Academies of Sciences, Engineering, and Medicine (NASEM) will appoint the Committee on Astrobiology and Planetary Sciences (CAPS) to support scientific progress in astrobiology and planetary science and assist the federal government in integrating and planning programs in these fields by providing advice on the implementation of decadal survey recommendations. The CAPS provides an independent, authoritative forum for identifying and discussing issues in astrobiology and planetary science between the research community, the federal government, and the interested public.

The CAPS scope spans space-based and supporting ground-based planetary research within our own planetary system, including, for example, geosciences, atmospheres, particles and fields of planets, moons, and small bodies, as well as astrobiology, planetary astronomy, and planetary protection. The CAPS's scope also includes appropriate cross-disciplinary areas and consideration of budget and programmatic aspects of the implementation of the decadal survey.

The committee shall monitor the progress of implementing the priorities in the most recent decadal survey for the most important scientific and technical activities in that report and recommendations in the subsequent mid-decadal review report.

When requested by a sponsor and as approved by NASEM in accordance with its procedures the Committee may write reports to assess progress on the implementation of the decadal survey's recommended scientific and technical activities. The reports shall be based on evidence gathered by the Committee. The reports may address key strategies being pursued by the agencies and the status of agency actions that relate to the state of implementation. The reports may also highlight scientific discoveries and engineering and technical advances relevant to progress on the science objectives identified in the most recent decadal survey and in addition will focus on one or more of the following types of issues:

- The scientific impact of a change in the technical and engineering design, cost estimate, schedule, or programmatic sequencing of one or more of the survey-recommended activities;
- The impact of a scientific advance on the technical and engineering design, schedule, or programmatic sequencing of one or more survey-recommended activities;
- The scientific impact of a course of action at a decision point described in the survey report and recommended therein as being suitable for consultation with an independent decadal survey implementation committee;
- The scientific impact of implementing recommendations from the mid-decadal review and other relevant NASEM reports.