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DIVISION ON ENGINEERING AND PHYSICAL SCIENCES
AERONAUTICS AND SPACE ENGINEERING BOARD
SPACE STUDIES BOARD

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FALL 2019 MEETING OF THE COMMITTEE ON BIOLOGICAL AND PHYSICAL SCIENCES IN SPACE

October 29-31, 2019

Arnold & Mabel Beckman Center– 100 Academy Way – Irvine, CA

PUBLIC AGENDA

(Subject to change)

Tuesday, October 29, 2019

Newport Conference Room
100 Academy Drive

Arnold & Mabel Beckman Center
Irvine, CA 92617

OPEN SESSION

7:45 AM Gather in hotel lobby for carpool to Beckman

8:00 AM Meeting Room Opens (*Breakfast available in the Beckman Center Refectory*)

9:00 AM **Welcome and Introductions** **Rob Ferl and Dava Newman,
Co-Chairs**

9:15 AM **SLPSRA Program Overview and Status** **Craig Kundrot, NASA SLPSRA**

- Program Status
- Research Plans Overview
- ISSNL Review and Reorganization Planning
- ISS Issues and Status of Transition Planning
- Program Challenges and Opportunities
- How SLPSRA is Likely to Use the Decadal Survey
- Other Issues to Share with Committee

10:00 AM **ISS Current and Planned Transition Activities** **Robyn Gatens, NASA**
via Zoom

- Commercializing ISS
- LEO Commercialization and Science Resources
- Free-Flyer Strategy
- NASA as Customer

10:30 AM *Break Available outside of the Newport Room*

10:45 AM **ISS National Laboratory Strategy Update** **Cindy Martin-Brennan, ISSNL**

11:15 AM **Fundamental Physics Program** **Brad Carpenter, NASA SLPSRA**

- Status, Planning, Research Accomplishments
- Trends, Forecasting Science Directions in the Community
- Challenges of Interest for the Decadal Survey
- Discussion and Q&A (15 mins.)

11:45 AM Physical Sciences Program Fran Chiaramonte, NASA SLPSRA

- Status, Planning, Research Accomplishments
- Trends, Forecasting Science Directions in the Community
- Challenges of Interest for the Decadal Survey
- Discussion and Q&A (15 mins.)

12:45 PM *Working Lunch Available in the Beckman Center Refectory; Discussion Continues*

1:45 PM Space Biology Program David Tomko, NASA SLPSRA

- Status, Planning, Research Accomplishments
- Trends, Forecasting science directions in the community
- Challenges of interest for the Decadal Survey
- Discussion and Q&A (15 mins.)

2:45 PM Human Research Program Bill Paloski, NASA HRP

- Status, Planning, Research Findings, Challenges
- Trends, forecasting science needs in HRP
- Challenges of interest for the Decadal Survey
- Discussion and Q&A (15 mins.)

3:45 PM *Break Available outside of the Newport Room*

4:00 PM Issues for Decadal Survey Planning Committee and Guests

- Review of Draft Task Language
- Current Thoughts from SLPSRA
- Current Thoughts from HRP
- Discussion of Task Language
- Primary Tasks
- Scope Language

5:30 PM *Meeting Adjourns to Alternate Location*

6:00 PM *Working Dinner; Discussion Continues*

Juliet Kitchen & Bar
1000 Bristol Street North, Ste. 11,
Newport Beach, CA 92660

8:30 PM *Meeting Adjourns for the Day*

**Wednesday, October 30, 2019
Newport Conference Room**

OPEN SESSION

8:15 AM Gather in hotel lobby for carpool to Beckman

8:30 AM Meeting Room Opens (*Breakfast available in the Beckman Center Refectory*)

**9:00 AM Decadal Survey Perspectives from STMD and AES Jim Reuter, NASA (*via Zoom*)
Chris Moore, NASA**

9:20 AM Decadal Survey Planning Discussion (continued) Committee and Guests

- Feasibility of Tasks
- Approaches to Campaigns and Costing Missions
- State of Profession Review
- Role of NASA Technology Divisions
- Role of Internationals and Non-NASA Agencies
- Role of Commercial
- Missing Elements?
- Planetary Defense Perspectives (Lisa Pratt, NASA, *via Zoom*)

10:30 AM *Break Available outside of the Newport Room*

10:45 AM Priorities for Future Focus Topics and Advisory Activities Committee and Guests

- Near Term SLPSRA Program Challenges
- Far term SLPSRA Program Challenges
- ISS Transition Challenges
- Research Community Issues
- LEO Ecosystem Timeline
- Other

12:00 PM *Working Lunch Available in the Beckman Center Refectory; Discussion Continues*

1:00 PM *Open Sessions Ends*

CLOSED SESSION

1:00 – 5:30 PM Closed Session, Committee Members and Staff Only
5:30 PM *Meeting Adjourns for the Day*

**Thursday, October 31, 2019
Newport Conference Room
CLOSED SESSION**

9:00 AM – 1:00 PM Closed Session, Committee Members and Staff Only
1:00 PM *Meeting Adjourned*

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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.

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If your presentation contains unpublished data, ITAR controlled and/or other sensitive information, please be aware that the open sessions at the meeting may be recorded and/or webcast. Presentation materials given to the committee may be posted on a publicly accessible website. Please edit your presentations accordingly.

Mac users should assume that their presentation will be displayed via one of the NASEM’s PCs. If your presentation is graphics heavy and best displayed via your own laptop, you should also bring a plain-vanilla pdf version of your presentation with you. The audience in the meeting room will see your presentation via your laptop and we will webcast the pdf file.

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.