

# The National Academies of SCIENCES • ENGINEERING • MEDICINE

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

This agenda was last updated on 10/26/2020 10:25 PM

## COMMITTEE ON BIOLOGICAL AND PHYSICAL SCIENCES IN SPACE (CBPSS)

October 27-29, 2020  
Virtual Fall Meeting Public Agenda

**TUESDAY, OCTOBER 27, 2020**

**Pacific/Eastern** Time Zones

OPEN SESSION		
<b>8:00 AM/11:00 AM</b>	<b>Welcome and Introductions</b>	Rob Ferl & Dava Newman, CBPSS Co-Chairs
<b>8:15 AM/11:15 AM</b>	<b>Biological and Physical Sciences Overview and Status</b> <ul style="list-style-type: none"> <li>- Integration into SMD and Program Status</li> <li>- Research Plans Overview in Current Context</li> <li>- Coordination with SMD Divisions</li> <li>- Future Coordination with HEOMD Divisions</li> <li>- Program Challenges and Opportunities</li> <li>- Other Issues to Share with Committee</li> <li>- Discussion and Q&amp;A (15 mins.)</li> </ul>	Craig Kundrot NASA SMD BPS
<b>9:15 AM/12:15 PM</b>	<b>Space Biology Program</b> <ul style="list-style-type: none"> <li>- Changes and Evolution in the Context of SMD</li> <li>- Status, Planning, Research Accomplishments</li> <li>- Program Trends and Potential Science Directions as Part of SMD</li> <li>- Trends, Forecasting Science Directions in the Community</li> <li>- Challenges of Interest for the Decadal Survey</li> <li>- Discussion and Q&amp;A (15 mins.)</li> </ul>	Sharmila Bhattacharya, NASA SMD BPS
<b>10:15 AM/1:15 PM</b>	<i>Break (45 mins.)</i>	
<b>11:00 AM/2:00 PM</b>	<b>Human Research Program</b> <ul style="list-style-type: none"> <li>- Status, Planning, Research Accomplishments</li> <li>- Insight on Coordination with BPS</li> <li>- Trends, Forecasting Science Directions in the Community</li> <li>- Challenges of Interest for the Decadal Survey</li> <li>- Discussion and Q&amp;A (15 mins.)</li> </ul>	Bill Paloski and Steven Platts, NASA HEOMD HRP
<b>12:00 PM/3:00 PM</b>	<b>Discussion of AIAA Roles in Microgravity Community</b> <ul style="list-style-type: none"> <li>- Microgravity Research and Engineering Interfaces</li> <li>- Commercial LEO Research Ecosystem</li> <li>- Support of BPS Decadal Discussions and Input</li> </ul>	Dan Dumbacher, AIAA
<b>12:30 PM/3:30 PM</b>	<i>Break (45 mins.)</i>	
<b>1:15 PM/4:15 PM</b>	<b>ASGSR Plans for Supporting Community Development of White Paper Teams</b> <ul style="list-style-type: none"> <li>- Upcoming Town Halls, Surveys, and Workshops</li> <li>- Discussion and Q&amp;A (10 mins.)</li> </ul>	Jamie Foster, University of Florida Gale Allen, ASGSR
<b>2:00 PM/5:00 PM</b>	<b>Perspective on ISSNL Review, Roles, and NASA Coordination</b>	Betsy Cantwell, The University of Arizona
<b>2:45 PM/5:45 PM</b>	<i>Meeting Adjourns for the Day</i>	

**WEDNESDAY, OCTOBER 28, 2020****Pacific/Eastern** Time Zones

OPEN SESSION		
<b>8:00 AM/11:00 AM</b>	<b>Welcome</b>	Rob Ferl & Dava Newman, CBPSS Co-Chairs
<b>8:05 AM/11:05 AM</b>	<b>Physical Sciences Program</b> <ul style="list-style-type: none"> <li>- Changes and Evolution in the Context of SMD</li> <li>- Status, Planning, Research Accomplishments</li> <li>- Program Trends and Potential Science Directions as Part of SMD</li> <li>- Trends, Forecasting Science Directions in the Community</li> <li>- Challenges of Interest for the Decadal Survey</li> <li>- Discussion and Q&amp;A (15 mins.)</li> </ul>	Fran Chiaramonte, NASA SMD BPS
<b>9:05 AM/12:05 PM</b>	<b>Fundamental Physics Program</b> <ul style="list-style-type: none"> <li>- Changes and Evolution in the Context of SMD</li> <li>- Status, Planning, Research Accomplishments</li> <li>- Program Trends and Potential Science Directions as Part of SMD</li> <li>- Trends, Forecasting Science Directions in the Community</li> <li>- Challenges of Interest for the Decadal Survey</li> <li>- Discussion and Q&amp;A (15 mins.)</li> </ul>	Brad Carpenter, NASA SMD BPS
<b>9:35 AM/12:35 PM</b>	<i>Break (60 mins.)</i>	
<b>10:35 AM/1:35 PM</b>	<b>ISS National Laboratory Strategy and Programs Update</b> <ul style="list-style-type: none"> <li>- Current and Projected Research Activities and Programs</li> <li>- Science Selection and Funding Approaches</li> <li>- Future Roles, Strategies, and Prospects</li> <li>- Discussion and Q&amp;A (15 mins.)</li> </ul>	Michael Roberts, ISSNL
<b>11:45 AM/2:45 PM</b>	<i>Break (45 mins.)</i>	
<b>12:30 PM/3:30 PM</b>	<b>General Discussion</b> <ul style="list-style-type: none"> <li>- Key Issues Outside the Decadal Survey Process</li> <li>- Near Term BPS Program Challenges</li> <li>- Far term BPS Program Challenges</li> <li>- Spring Meeting Topics</li> <li>- CBPSS Short Study Topics?</li> </ul>	Committee and Guests
<b>2:00 PM/5:00 PM</b>	<i>Meeting Adjourns for the Day</i>	

**THURSDAY, OCTOBER 29, 2020****Pacific/Eastern** Time Zones

CLOSED SESSION		
<b>8:00 AM/11:00 AM</b>	<b>Committee and Staff Only</b>	
<b>10:30 AM/1:30 PM</b>	<i>Meeting Adjourns</i>	

**REMOTE CONNECTION DETAILS**

**Zoom Etiquette for Public Attendees:** Please remain muted along with your webcam off during the meeting. Should you have a question, please submit it to the staff in the chat box and if time allows, the question will be raised.

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1. Click on the URL (below). A popup will appear that says "Open [URL:Zoom](#) Launcher;" Click the "Open" button and let Zoom load (this may take a minute).

- Once loaded, Zoom will automatically display another pop-up for the audio connection. Please click the “call me” tab and enter the phone number you would like to be called at (i.e. home, office, mobile). Click “Call me” and follow the prompts.

NOTE: If you experience technical difficulty and need to call in, please provide me with the last four of your phone number and I will let you in from the waiting room. If possible, send me a chat to Dionna’s iPad and/or email me at [dwise@nas.edu](mailto:dwise@nas.edu).  
–Thank you.

#### Zoom links:

Topic	Time	Meeting ID	Join URL
<b>Pacific Time/Eastern Time</b> <b>Passcodes are required for all Zoom sessions and are provided via email.</b>			
<b>TUESDAY, OCTOBER 27</b>			
CBPSS Fall Meeting Day 1 Open	<b>8:00 AM/11:00 AM</b>	938 0238 4101	<a href="https://nasem.zoom.us/j/93802384101">https://nasem.zoom.us/j/93802384101</a>
<b>WEDNESDAY, OCTOBER 28</b>			
CBPSS Fall Meeting Day 2 Open	<b>8:00 AM/11:00 AM</b>	977 0048 3228	<a href="https://nasem.zoom.us/j/97700483228">https://nasem.zoom.us/j/97700483228</a>

**Meeting Passcodes:** Please email Dionna Wise at [dwise@nas.edu](mailto:dwise@nas.edu) for the password. (Email subject line to and from Dionna is: **CBPSS Fall Meeting passcodes**)

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#### GENERAL NOTES

**COMMITTEE ON BIOLOGICAL AND PHYSICAL SCIENCES IN SPACE WEBSITE:** <https://www.nationalacademies.org/our-work/committee-on-biological-and-physical-sciences-in-space>

#### 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.

#### RECORDING OF THE MEETING

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#### NOTES FOR PRESENTERS

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.

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.