

171st MEETING OF THE

AERONAUTICS AND SPACE ENGINEERING BOARD

June 6, 2023

Hybrid Meeting

In Person at the NASEM Keck Center, 500 5th Street NW, Washington, DC 20001, Room 100

Online via Zoom and Livestream

All times Eastern Time Zone

TUESDAY, JUNE 6, 2023

OPEN SESSION

Livestream Link: <https://vimeo.com/event/3391279>

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9:35 AM	WELCOME	DR. ILAN KROO, ASEB CHAIR
9:35 AM	NASA Aeronautics Research Mission Directorate FY24 Budget Overview Introduced by Dr. Ilan Kroo ARMD Roundtable <i>(65 minutes for all presentations and 20 minutes for Q&A)</i> Moderator: Ms. Barbara Esker , Assistant Deputy Associate Administrator for Missions Panelists: Ms. Maureen Kudlac , Acting Deputy Director, Advanced Air Vehicles Program Mr. Lee Noble , Director, Integrated Aviation Systems Program Dr. John Cavolowsky , Director, Transformative Aeronautics Concepts Program Mr. Akbar Sultan , Director, Airspace Operations and Safety Program Dr. Ron Colantonio , Director, Aerosciences Evaluation & Test Capabilities Portfolio	Dr. Ed Waggoner Deputy Associate Administrator for Programs, ARMD, NASA
11:00 AM	NASA Wildland Fire Initiative <i>(35 minute presentation and 25 minute discussion)</i>	Dr. Marcus Johnson ARMD, NASA
12:00 PM	Break for Lunch (60 minutes)	

**171st Meeting of the Aeronautics and Space Engineering Board
June 6, 2023**

1:00 PM **NASA STMD Budget Status and Updates**
(50 minutes for all presentations and 25 minutes for Q&A)

<i>Overview</i>	Dr. Prasun Desai , Deputy Associate Administrator, STMD
<i>Lunar Infrastructure</i>	Dr. Niki Werkheiser , Director, Technology Maturation
<i>Nuclear Power and Propulsion</i>	Dr. Anthony Calomino , Space Nuclear Technologies Lead
<i>LOFTID Results and Follow-on Entry, Descent & Landing Activities</i>	Mr. Joe Del Corso , LOFTID Project Manager, LaRC
<i>Wrap Up:</i>	Dr. Prasun Desai

2:15 PM **Closing remarks** **Dr. Ilan Kroo**

OPEN MEETING ADJOURNS

JOINT SPRING MEETING

**AERONAUTICS AND SPACE ENGINEERING BOARD (171st Meeting)
and SPACE STUDIES BOARD (186th Meeting)**

June 7, 2023

Hybrid Meeting

In Person at the NASEM Keck Center, 500 5th Street NW, Washington, DC 20001, Room 100

Online via Zoom and Livestream

All times Eastern Time Zone

WEDNESDAY, JUNE 7, 2023

OPEN SESSION

Livestream Link: <https://vimeo.com/event/3391291>

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9:30 AM	WELCOME AND OPENING REMARKS	DR. MARGY KIVELSON, SSB CHAIR DR. ILAN KROO, ASEB CHAIR
9:35 AM	NASA Exploration Systems Development Mission Directorate (ESDMD) and Artemis Program Update Introduced by Dr. Margy Kivelson, SSB Chair <i>(40 minute presentation and 30 minute discussion)</i>	Mr. Jim Free Associate Administrator ESDMD, NASA
10:45 AM	Break (20 minutes)	
11:05 AM	Mars Sample Return (MSR) Status and Update Introduced by Dr. Margy Kivelson, SSB Chair <i>(45 minute presentation and 20 minute discussion)</i>	Mr. Jeff Gramling, MSR Program Director Dr. Michael Meyer, MSR Lead Scientist Mr. Richard Cook, Director of MSR Program Office
12:10 PM	Break for Lunch (65 minutes)	
1:15 PM	Update from Congressional Staff Introduced by Dr. Ilan Kroo, ASEB Chair <i>(25 minutes for all presentations and 25 minutes for Q&A)</i>	
	Panelists:	Mr. Brent Blevins , Majority Staff Director, House Subcommittee on Space and Aeronautics Ms. Pamela Whitney , Minority Staff Director, House Subcommittee on Space and Aeronautics Mr. Richard-Duane Chambers , Staff member, Senate Space and Science Subcommittee <i>(invited)</i>

Aeronautics and Space Engineering Board (171st meeting)
Space Studies Board (186th meeting)
Joint Spring Meeting, June 7, 2023

2:05 PM

Panel on Space Weather

Panel Introduced by Ilan Kroo
(30 minutes for all presentations and 25 minutes for Q&A)

Panelists: **Dr. Sarah Gibson**, National Center for Atmospheric Research
Dr. Thomas Paul O'Brien, III, The Aerospace Corporation
Dr. Hazel Bain, NOAA Space Weather Prediction Center
Dr. Mike Wiltberger, National Center for Atmospheric Research High Altitude Observatory

2:50 PM

Break (20 minutes)

3:10 PM

Panel on Quantum Computation and AI: Advances and Applications

Introduced by Dr. Ilan Kroo, ASEB Chair
(60 minutes for all presentations and 20 minutes for Q&A)

Panelists: **Dr. John Preskill**, Richard P. Feynman Professor of Theoretical Physics, California Institute of Technology
Dr. Aleksandra Faust, Senior Staff Research Scientist, Google Brain Research
Dr. John Tylko, Chief Innovation Officer, Aurora Flight Sciences (Boeing)
Dr. David Mindell, Professor of Aeronautics and Astronautics, Massachusetts Institute of Technology

4:30 PM

NASA Deputy Administrator Update

Introduced by Dr. Margy Kivelson, SSB Chair
(15 minute presentation and 15 minute discussion)

Col. Pam Melroy, NASA Deputy Administrator

5:00 PM

Closing Remarks

Dr. Margy Kivelson, SSB Chair
Dr. Ilan Kroo, ASEB Chair
Dr. Colleen Hartman, ASEB and SSB Director

OPEN MEETING ADJOURNS

186th MEETING OF THE SPACE STUDIES BOARD

June 8-9, 2023

Hybrid Meeting

In Person at the NASEM Keck Center, 500 5th Street NW, Washington, DC 20001, Room 100

Online via Zoom and Livestream

All times Eastern Time Zone

THURSDAY, JUNE 8, 2023

OPEN SESSION

Livestream Link: <https://vimeo.com/event/3391298>

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|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| 9:30 AM | Welcome and Opening Remarks | Dr. Margy Kivelson, SSB Chair |
| 9:40 AM | Jupiter Icy Moons Explorer (JUICE)
Mission Update
<i>(35 minute presentation and 15 minute discussion)</i> | Dr. Olivier Witasse
Project Scientist, JUICE Mission, ESA |
| 10:30 AM | Break (30 minutes) | |
| 11:00 AM | Update and Discussion with NASA Science
Mission Directorate (SMD)
Introduced by Dr. Margy Kivelson, SSB Chair
<i>(30 minute presentation and 30 minute discussion)</i> | Dr. Nicola Fox
Associate Administrator, SMD, NASA |

Open Meeting Adjourns for Lunch (70 minutes)
SSB meets in Executive Session during Lunch

OPEN SESSION

Livestream Link: <https://vimeo.com/event/3391298>

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|---------|-------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| 1:10 PM | Introduction | Dr. Margy Kivelson, SSB Chair |
| 1:15 PM | Update from the Committee on Astronomy
and Astrophysics
<i>(10 minute presentation and 5 minute discussion)</i> | Dr. Alycia Weinberger / Dr. Chris McKee
CAA Co-Chairs |

**186th meeting of the Space Studies Board
June 8, 2023**

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|----------------|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| 1:30 PM | Update from the Committee on Solar and Space Physics
<i>(10 minute presentation and 5 minute discussion)</i> | Dr. James Clemmons
CSSP Co-Chair |
| 1:45 PM | Update from the Committee on Earth Science and Applications from Space
<i>(10 minute presentation and 5 minute discussion)</i> | Dr. Everette Joseph
CESAS Co-Chair |
| 2:00 PM | Update from the Committee on Astrobiology and Planetary Science
<i>(10 minute presentation and 5 minute discussion)</i> | Dr. Martha Gilmore / Dr. Karyn Rogers
CAPS Co-Chairs |
| 2:15 PM | Update from the Committee on Biological and Physical Sciences in Space
<i>(10 minute presentation and 5 minute discussion)</i> | Dr. Jessica Scott / Dr. Douglas Matson
CBPSS Co-Chairs |
| 2:30 PM | Update from the Committee on Planetary Protection
<i>(10 minute presentation and 5 minute discussion)</i> | Dr. Len Fisk
CoPP Co-Chair |
| 2:45 PM | Closing remarks | Dr. Margy Kivelson, SSB Chair |

OPEN MEETING ADJOURNS

186th meeting of the Space Studies Board June 9, 2023

FRIDAY, JUNE 9, 2023

OPEN SESSION

Livestream Link: <https://vimeo.com/event/3391305>

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| 10:45 AM | Welcome and Opening Remarks | Dr. Margy Kivelson, SSB Chair |
| 10:50 AM | Parker Solar Probe: Ushering in a New Frontier
<i>(35 minute presentation and 25 minute discussion)</i> | Dr. Nour Raouafi
PSP Project Scientist
Johns Hopkins Applied Physics Laboratory |
| 12:00 PM | Working Lunch (60 minutes)
<i>Board Members and Speakers lunch provided outside Room 100</i> | |
| 1:00 PM | Dark Skies Initiative
<i>(30 minute presentation and 15 minute discussion)</i> | Dr. Teznie Pugh and Dr. Aparna Venkatesan
Co-chairs of AAS Committee to Protect
Astronomy and Space Environments
(COMPASSE) |
| 1:45 PM | Closing remarks | Dr. Margy Kivelson, SSB Chair |

MEETING ADJOURNS