



167th MEETING OF THE AERONAUTICS AND SPACE ENGINEERING BOARD

MONDAY, MAY 24, 2021 – VIRTUAL MEETING

AGENDA

OPEN SESSION

Open to Public Viewing

Livestream Link: <https://livestream.com/accounts/7036396/events/9667597>

- | | | |
|--------------|--|---|
| 11:30 AM EDT | Welcome | <i>Dr. Ilan Kroo, ASEB Acting Chair and Vice Chair</i> |
| 11:35 AM | Update and Discussion with NASA Aeronautics Research Mission Directorate (ARMD)
(40 minute presentation & 20 minute discussion period) | <i>Mr. Robert Pearce, Associate Administrator, ARMD, NASA</i> |
| 12:35 PM | Summary from <i>Flying in the CoViD-19 Era – A Workshop</i>
(20 minute presentation & 10 minute discussion period) | <i>Dr. John-Paul Clarke, Chair, Workshop Planning Committee</i> |
| 1:05 PM | <i>Break</i> | |
| 2:05 PM | Update on the <i>Space Nuclear Propulsion for Human Mars Exploration Report</i>
(20 minute presentation & 10 minute discussion period) | <i>Dr. Roger Myers, Study Committee Co-Chair</i> |
| 2:30 PM | Panel: Aviation Actions to Reduce Carbon Emissions and Achieve Sustainability *
(5 minute presentations & 45 minute discussion period)
Moderator:
Panelists: | <i>Dr. Valerie Manning, ASEB Member</i>
<i>Dr. James Kenyon, Director, Advanced Air Vehicles Program, ARMD, NASA</i>
<i>Dr. David Lee, Professor, Atmospheric Science, Manchester Metropolitan University</i>
<i>Ms. Sheila Remes, Vice President, Environmental Sustainability, Boeing</i>
<i>Mr. Akbar Sultan, Director, Airspace Operations and Safety Program, ARMD, NASA</i>
<i>Ms. Nancy Young, Vice President, Environmental Affairs, Airline for America Association</i> |
| 3:45 PM | <i>Meeting Adjourns to Executive Session/Break</i> | |

*** Panel 1: Aviation Actions to Reduce Carbon Emissions and Achieve Sustainability**

In signing Executive Order 13990 on his first day in office, President Joseph Biden called climate change an existential threat to the Nation and directed various parts of the federal government to increase its climate change mitigation efforts. The United States possesses the world's largest commercial air traffic system, contributing 12 percent of the U.S. transportation emissions and 3 percent of the national total greenhouse gas production. To address climate change, the aviation industry is considering its role in reducing carbon emissions. What major actions can the US aviation industry take to substantially reduce carbon emissions while continuing to provide aviation services?

This agenda is subject to change, and was last updated on 5/18/2021 2:40 PM
ALL TIMES IN US EASTERN DAYLIGHT TIME (UTC-4:00)



JOINT SPRING MEETING
AERONAUTICS AND SPACE ENGINEERING BOARD (167th Meeting)
and SPACE STUDIES BOARD (182nd Meeting)
TUESDAY, MAY 25, 2021 – VIRTUAL MEETING

AGENDA

OPEN SESSION

Open to Public Viewing

Livestream Link: <https://livestream.com/accounts/7036396/events/9667597>

- | | | |
|---------------------|---|---|
| 11:00 AM EDT | Welcome and Opening Remarks | <i>Dr. Ilan Kroo, ASEB Acting Chair and Vice Chair /
Dr. Margy Kivelson, SSB Chair</i> |
| 11:05 AM | Address by the NASA Administrator
(70 minute presentation and discussion period, at speaker discretion) | <i>NASA Administrator Senator Bill Nelson</i> |
| 12:15 PM | Discussion with House Staff Leadership
(10 minute each presentation and discussion period, at speaker discretion) | <i>Mr. Tom Hammond, Minority Staff Director,
House Subcommittee on Space and Aeronautics
Ms. Pam Whitney, Majority Staff Director,
House Subcommittee on Space and Aeronautics</i> |
| 12:35 PM | Update on the LISA Technology and Science
(25 minute presentation and discussion period) | <i>Dr. Stefano Vitale, LISA Technology Principal
Investigator, U. of Trento</i> |
| 1:00 PM | LISA/ESA Programmatic Plans
(15 minute presentation and discussion period) | <i>Dr. Fabio Favata, Head, Science Planning and
Community Coordination Office, ESA /
Dr. Paul McNamara, Astronomy and Astrophysics
Mission Coordinator, ESA</i> |
| 1:15 PM | <i>Break</i> | |
| 2:15 PM | Update from NASA Space Technology Mission Directorate (STMD)
(40 minute presentation & 20 minute discussion period) | <i>Mr. Jim Reuter, Associate Administrator,
STMD, NASA</i> |
| 3:15 PM | <i>Break</i> | |
| 4:00 PM | NASA HEOMD and Artemis Program Status
(30 minute presentation & 30 minute discussion period) | <i>Ms. Kathy Lueders, Associate Administrator,
HEOMD, NASA</i> |
| 5:00 PM | Closing Remarks | <i>Dr. Margy Kivelson, SSB Chair / Dr. Ilan Kroo, ASEB Acting Chair and Vice Chair
Dr. Colleen Hartman, ASEB and SSB Director</i> |
| 5:05 PM | <i>Meeting Adjourns to Executive Session/Break</i> | |

ALL TIMES IN US EASTERN DAYLIGHT TIME (UTC-4:00)



**182nd MEETING OF THE
SPACE STUDIES BOARD
WEDNESDAY, MAY 26 AND THURSDAY, MAY 27, 2021
VIRTUAL MEETING**

AGENDA

**WEDNESDAY, MAY 26, 2021
OPEN SESSION**

Open to Public Viewing

Livestream Link: <https://livestream.com/accounts/7036396/events/9667597>

- | | | |
|---------------------|---|---|
| 11:00 AM EDT | Welcome | <i>Dr. Margy Kivelson, SSB Chair</i> |
| 11:05 AM | Update and Discussion with NASA Science Mission Directorate (SMD)
<i>(40 minute presentation & 30 minute discussion period)</i> | <i>Dr. Thomas Zurbuchen, Associate Administrator, SMD, NASA</i> |
| 12:15 PM | Keynote Science Talk
<i>(35 minute presentation & 20 minute discussion period)</i> | <i>Dr. Jocelyn Bell Burnell, Dept. of Physics Oxford U.</i> |
| <i>1:10 PM</i> | <i>Break</i> | |
| 2:15 PM | Update from the Committee on Astronomy & Astrophysics
<i>(10 minute presentation & 5 minute discussion)</i> | <i>Dr. Thomas Greene / Dr. Vicky Kalogera, CAA Co-Chairs</i> |
| 2:30 PM | Update from the Committee on Solar and Space Physics
<i>(10 minute presentation & 5 minute discussion)</i> | <i>Dr. Maura Hagan, CSSP Co-Chair</i> |
| 2:45 PM | Update from the Committee on Earth Science and Applications from Space
<i>(10 minute presentation & 5 minute discussion)</i> | <i>Dr. Everette Joseph CESAS Co-Chair</i> |
| 3:00 PM | Update from the Committee on Astrobiology and Planetary Science
<i>(10 minute presentation & 5 minute discussion)</i> | <i>Dr. Christopher House, CAPS Co-Chair</i> |
| 3:15 PM | Update from the Committee on Biological and Physical Sciences in Space
<i>(10 minute presentation & 5 minute discussion)</i> | <i>Dr. Dava Newman, CBPSS Co-Chair</i> |

ALL TIMES IN US EASTERN DAYLIGHT TIME (UTC-4:00)



3:30 PM Update from the Committee on Planetary Protection

(10 minute presentation & 5 minute discussion)

Mr. Joseph Alexander / Dr. Amanda Hendrix,

CoPP Co-Chair

3:45 PM Meeting Adjourns to Executive Session/Break

THURSDAY, MAY 27, 2021

OPEN SESSION

Open to Public Viewing

Livestream Link: <https://livestream.com/accounts/7036396/events/9667597>

12:30 PM EDT Welcome

Dr. Margy Kivelson, SSB Chair

12:35 PM NASA Strategy for Commercial Expansion in LEO

(30 minute presentations & 10 minute discussion period)

**Mr. Phil McAlister, Director, Commercial
Spaceflight Division, NASA-HQ**

1:15 PM Panel: NASA Parker Solar Probe and ESA Solar Orbiter Synergies

(10 minute presentations & 15 minute discussion period)

ISSUE: Discuss synergies for solar probe and solar orbiter.

Moderator:

Dr. Marco Velli, Professor, Department of Earth, Planetary and Space Sciences, UCLA

Panelists:

Dr. Shadia Habbal, Faculty Chair, Institute for Astronomy, U. of Hawaii

Dr. Daniel Mueller, Project Scientist, Solar Orbiter, ESA / ESTEC

Dr. Adam Szabo, Chief, Heliospheric Physics Laboratory, NASA-GSFC

2:00 PM Break

3:00 PM Update from NESDIS

(30 minute presentation & 15 minute discussion)

**Dr. Steve Volz, Acting Asst. Secretary, Environmental
Observation and Prediction, NOAA**

3:45 PM Update from National Science Foundation

(35 minute presentation & 20 minute discussion period)

**Dr. Sean Jones, Assistant Director, Mathematical
and Physical Sciences Directorate, NSF**

4:40 PM Open Meeting Adjourns

ALL TIMES IN US EASTERN DAYLIGHT TIME (UTC-4:00)