

THE NATIONAL ACADEMIES

Advisers to the Nation on Science, Engineering, and Medicine

AERONAUTICS AND SPACE ENGINEERING BOARD

Fall 2013 Meeting

NRC Keck Center, Room 101, 500 Fifth Street NW, Washington DC 20001

October 10-11, 2013

AGENDA

THURSDAY, OCTOBER 10TH, 2013

EXECUTIVE SESSION (ASEB MEMBERS ONLY)

8:30am *Board Discussions (followed by short break at 10:00am before open session)*

OPEN SESSION ON AERONAUTICS AGENDA

Access to WebEx and telecon:

<https://nationalacademies.webex.com/nationalacademies/j.php?ED=223636452&UID=0&RT=MIMxMQ%3D%3D>

10:15am	Introductions and Opening Remarks	<i>Les Lyles, ASEB Chair</i>
10:20am	Overview of Recent and Possible Future Activities of the ASEB's Aeronautics Research and Technology Roundtable	<i>Steve Pennington, ARTR Member</i>

Focus Session on Research and Technology to Promote American Competitiveness in Rotorcraft

10:45am	<u>Panel Session 1: Industry Perspective</u> <ul style="list-style-type: none">• Daniel Newman, Boeing• Steve Weiner, Sikorsky	<i>Each speaker has 30 minutes to speak, followed by 30 minutes of discussion</i>
12:15pm	<i>Lunch</i>	
1:15pm	<u>Panel Session 2: Academia Perspective</u> <ul style="list-style-type: none">• Inder Chopra, University of Maryland• Peretz Friedmann, University of Michigan	<i>Each speaker has 30 minutes to speak, followed by 30 minutes of discussion</i>
2:45pm	<u>Wrap up discussion on focus session</u> <ul style="list-style-type: none">• Summary of what we have heard today.• Future ASEB activities?	<i>Les Lyles and discussion by all.</i>
3:10pm	<i>Break</i>	

Focus Session on Benchmarking U.S. Research On Hypersonics

3:30pm	Overview of current state of research on hypersonics in the US and elsewhere.	<i>Mark Lewis, Institute for Defense Analysis</i>
4:15pm	Q&A and Discussion <ul style="list-style-type: none">• What have we heard• Future ASEB activities?	<i>Les Lyles and discussion by all.</i>

Ongoing and Future ASEB Activities in Aeronautics

5:00pm	Update on ASEB study on Autonomy Research for Civil Aviation	<i>John Paul Clarke, Co-Chair (by webex)</i>
5:35pm	Final remarks of the day & <i>Open Session Adjourns</i>	<i>Les Lyles, ASEB Chair</i>

FRIDAY, OCTOBER 11TH, 2013

EXECUTIVE SESSION (ASEB MEMBERS ONLY)

9:00am *Board Discussions (followed by short break at 10:00 am before open session)*

OPEN SESSION

Access to WebEx and telecon:

<https://nationalacademies.webex.com/nationalacademies/j.php?ED=223637807&UID=0&RT=MIMxMQ%3D%3D>

10:15am	Introductions and Opening Remarks	Les Lyles, ASEB Chair
10:20am	Update on Study on Space-Based Additive Manufacturing of Space Hardware	Bhavya Lal, Committee Member

OPEN SESSION ON SPACE TECHNOLOGY AGENDA

Focus Session on Solar Electric Propulsion (SEP)

10:55am	Introduction	Alan Angleman, NRC Staff
11:00am	<i>SEP Challenges and Opportunities</i> <ul style="list-style-type: none"> Alec Gallimore, University of Michigan Roger Myers, Aerojet Rocketdyne 	<i>Each speaker has 30 minutes to speak, followed by 30 minutes of discussion.</i>
12:30pm	Lunch	

Focus Session on Entry Descent and Landing (EDL)

1:30pm	Introduction—NASA Goals for EDL Research	Tibor Balint, NASA STMD
1:35pm	<i>EDL Challenges and Opportunities</i> <ul style="list-style-type: none"> Jim Masciarelli, Ball Aerospace and Technologies Corporation Suraj Rawal, Lockheed Martin Space Systems Company 	<i>Each speaker has 30 minutes to speak, followed by 30 minutes of discussion.</i>
3:05pm	Break	

The Future of Launch Systems

3:20pm	Liquid Rocket Engine Development Options and Priorities. (30 minute presentation followed by 30 minutes of discussion by all present)	Jim Maser, Gen Corp
4:20pm	<i>Short Break</i>	

EXECUTIVE SESSION (ASEB MEMBERS ONLY)

4:30 pm *Final Board Discussions and Adjourn at 5:00pm*