

# SPACE SCIENCE WEEK

The National  
Academies of

SCIENCES  
ENGINEERING  
MEDICINE



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## SPRING 2021 MEETING OF THE COMMITTEE ON EARTH SCIENCES AND APPLICATIONS FROM SPACE (CESAS)

March 23-24, 2021

Committee Agenda

**TUESDAY, MARCH 23, 2021**

Space Science Week Plenary Session

**OPEN SESSION**

Meeting Open to the Public

Livestreaming Link: <https://livestream.com/accounts/7036396/events/9569460>

**Opening Session: Introductions and NASA Science Program Update**

11:00 AM	Welcome	Dr. Margy Kivelson, SSB Chair
11:05 AM	NASA Science Mission Directorate Introduction (40 minute presentation)	Dr. Thomas Zurbuchen, Assoc. Administrator, SMD, NASA
11:45 AM	Panel 1: NASA Science Mission Directorate Division Directors (5 minute presentation each and 25 minute discussion) <b>Moderator:</b> <b>Panelists:</b>	Dr. Margy Kivelson, SSB Chair Dr. Karen St. Germain, Director, Earth Science Division, SMD, NASA Dr. Nicola Fox, Director, Heliophysics Division, SMD, NASA Dr. Lori Glaze, Director, Planetary Science Division, SMD, NASA Dr. Paul Hertz, Director, Astrophysics Division, SMD, NASA Dr. Craig Kundrot, Director, Biological and Physical Sciences Division, SMD, NASA
12:35 PM	Break (40 minute break)	
1:15 PM	Address from NASA Acting Administrator	Dr. Steve Jurczyk, Acting Administrator, NASA
1:45 PM	The Perils of Complacency: America at a Tipping Point in Science and Engineering (40 minute presentation followed by a 20 minute discussion)	Mr. Norm Augustine, Chairman and CEO (ret.), Lockheed Martin Corporation / Dr. Neal Lane, Professor Emeritus, Baker Institute for Public Policy, Rice University
2:45 PM	Break (20 minute break)	

## Space Science from an International Perspective: Achievements during the Year of Pandemic

3:05 PM	<b>ESA Science Highlights</b> (10 minute presentation)	<i>Dr. Günther Hasinger, Director of Science, ESA</i>
3:15 PM	<b>ESA Science Program Strategy</b> (10 minute presentation)	<i>Dr. Fabio Favata, Head, Strategy, Planning, and Coordination Office; Directorate of Science ESA</i>
3:25 PM	<b>ESA Earth Observation Perspective</b> (10 minute presentation)	<i>Dr. Maurice Borgeaud, Head, Earth Observation Department, ESA</i>
3:35 PM	<b>ESA Exploration Science</b> (10 minute presentation)	<i>Dr. David Parker, Director, Human and Robotic Exploration, ESA</i>
3:45 PM	<i>Break (10 minute break)</i>	
3:55 PM	<b>Russian Space Research Institute Perspective</b> (10 minute presentation)	<i>Dr. Lev Zelenyi, Scientific Advisor, Russian Space Research Institute (IKI)</i>
4:05 PM	<b>Chinese National Space Science Center (NSSC) Perspective</b> (10 minute presentation)	<i>Dr. Chi Wang, Director-General, NSSC, Chinese Academy of Sciences</i>
4:15 PM	<b>Japanese Aerospace Exploration Agency (JAXA) Perspective</b> (10 minute presentation)	<i>Dr. Masaki Fujimoto, Deputy Director General, JAXA</i>
4:25 PM	<b>Round-Table Discussion with International Space Science and Exploration Leaders</b> (35-minute discussion)	
5:00 PM	<i>Plenary Session Adjourns</i>	

## Public Session

Meeting Open to the Public

Livestreaming Link: <https://livestream.com/accounts/7036396/events/9569460>

5:30 PM	<b>Keynote Space Science Week Public Lecture</b> <b>"Climate Change as seen from Space"</b> <b>Dr. Gavin Schmidt</b> <b>Acting Senior Climate Advisor, NASA-HQ/ Director, Goddard Institute of Space Studies, NASA</b>
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### Public Lecture Abstract

We have been observing the climate system from space since the 1960s, and more comprehensively since 1979. Over that time trends in many variables such as temperature, sea ice, gravity, ozone, clouds, and sea level, have been detected and through the use of sophisticated climate models, attributed fully or partially to anthropogenic influences on the climate system. More recently, we have successfully started to attribute the frequency and intensity of some classes of extreme events (such as heat waves, drought, coastal flooding and intense precipitation) to those same anthropogenic drivers. I will discuss the unique perspective on climate through all manner of space-borne observations and the emerging science of extreme event attribution, and what the next decade might hold.

### Speaker Bio

Gavin Schmidt is the acting Senior Advisor on Climate at NASA and Director of the Goddard Institute for Space Studies. His research covers climate changes in past, present and future climate mostly using the GISS Earth System Model. He was the author with Josh Wolfe of "Climate Change: Picturing the Science" in 2009 and, in 2011, was the inaugural recipient of the AGU Climate Communication Prize. His 2014 TED talk has been seen more than a million times. He is a fellow of the AGU and AAAS.

**Wednesday, March 24, 2021**

**COMMITTEE ON EARTH SCIENCES AND APPLICATIONS FROM SPACE (CESAS) – Zoom Teleconference**

**OPEN SESSION**

**Public Livestream Link:** <https://livestream.com/accounts/7036396/events/9562653>

<b>10:50 AM</b>	<b>Welcome</b>	<b>Everette Joseph / Steve Running, CESAS Co-Chairs</b>
<b>11:00 AM</b>	<b>Update from NOAA NESDIS</b>	<b>Steve Volz, NOAA Assistant Administrator for Satellite &amp; Information Services</b>
<b>12:00 PM</b>	<b>Update from NASA Earth Science Division</b>	<b>Karen St. German, ESD Director Sandra Cauffman, ESD Deputy Director Jack Kaye, ESD Associate Director, R&amp;A Lead</b>
<b>01:15 PM</b>	<b>Break</b>	
<b>02:00 PM</b>	<b>Future Directions for CESAS</b>	<b>Committee &amp; NASA's Earth Science Division</b>
<b>03:00 PM</b>	<b>Update from USGS</b>	<b>Tim Newman, Program Coordinator, National Land Imaging Program Jesslyn Brown, Research Geographer, EROS Center Christopher Crawford, Landsat Project Scientist, EROS Center</b>
<b>03:45 PM</b>	<b>Break (Committee reconvenes in closed session)</b>	

**CLOSED SESSION**

<b>4:00 PM</b>	<b>Committee Discussions</b>
<b>6:00 PM</b>	<b>Closed Session Adjourns</b>

**GENERAL NOTES**

**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.