

Symposium on Earth Science and Applications from Space

with Special Guest: Michael H. Freilich

Moderated by Colleen Hartman, NASEM

January 21, 2020

Kavli Auditorium, National Academy of Sciences Building

2101 Constitution Avenue NW, Washington, DC

8:00-9:00am	<i>Breakfast in the Great Hall*</i>	
9:00-9:20	1. Welcome	Marcia McNutt , <i>President, National Academy of Sciences</i> Thomas Zurbuchen , <i>Associate Administrator, SMD, NASA</i>
9:20-10:05	2. From Cello to Nonlinear Shoaling Waves to Air-Sea Interaction and Beyond: A Synopsis of Mike Freilich's Global Vision and Impact on NASA Earth Science from Space	Dudley Chelton <i>Oregon State University</i>
10:05-10:35	3. The Earth Science Decadal Surveys	William B. Gail <i>Global Weather Corp.</i>
10:35-11:05	<i>Coffee Break in the Great Hall*</i>	
11:05-11:10	4. Focus Area Presentations - Introduction	Colleen Hartman <i>Director, Space Studies Board, NASEM</i>
11:10-11:31	4.1 GRACE Observations of Earth System Mass Change	Byron Tapley <i>University of Texas</i>
11:31-11:42	4.2 Watching the Ocean Breathe: The Genesis of PACE	Paula Bontempi <i>NASA Headquarters, SMD, ESD</i>
11:42-11:53	4.3 Planet Ocean: Taking the Pulse of Our World	R. Steven Nerem <i>University of Colorado</i>
11:53-12:04pm	4.4 Ocean Imprints: Air-Sea Interaction from Space	Carol Anne Clayson <i>Woods Hole Oceanographic Institution</i>
12:05-1:20	<i>Lunch in the Great Hall*</i>	
1:20-1:31	4.5 The Howling Fifties: Wind Forcing of the Southern Ocean	Sarah Gille <i>Scripps Institution of Oceanography</i>
1:31-1:42	4.6 Advances in Measuring the Tiniest Amounts of Water in Air	Graeme Stephens <i>Jet Propulsion Laboratory</i>

** Overflow meal seating available in the West Court, East Court, and Lecture Room*

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1:42-1:52	4.7 Monitoring Polar Regions in 4D	Thorsten Markus <i>NASA Headquarters, SMD, ESD</i>
1:53-2:04	4.8 Getting Wet with Precipitation Science	Gail Skofronick-Jackson <i>NASA Headquarters, SMD, ESD</i>
2:05-2:35	4.9 Q&A	
2:35-3:05	5. Programmatic Panel: Strategies for Program Implementations	Moderator: Sandra Cauffman, NASA Headquarters, SMD, ESD Mark Abbott, Woods Hole Oceanographic Institution Jack Kaye, NASA Headquarters, SMD, ESD Ed Kearns, U.S. Department of Commerce Pamela Whitney, Subcommittee on Space and Aeronautics, U.S. House of Representatives
3:05-3:35	6. International Collaborations Panel	Moderator: Ernesto Rodriguez, Jet Propulsion Laboratory Maurice Borgeaud, European Space Agency (ESA) Selma Cherchali, Centre National D'Etudes Spatiales (CNES) Chu Ishida, Japan Aerospace Exploration Agency (JAXA)
3:35-4:05	<i>Coffee Break in the Great Hall</i>	
4:05-4:10	7. New Directions Panel - Introduction	Chelle Gentemann <i>Earth & Space Research and Farallon Institute</i>
4:10-4:20	7.1 Toxins from Space	Clarissa Anderson <i>Scripps Institution of Oceanography, SSCOOS</i>
4:20-4:30	7.2 Understanding the Effects of Climate on Ocean Carbon Pools	Cecile Rousseaux <i>NASA GSFC/GESTAR/USRA</i>
4:30-4:40	7.3 Quantifying Post-Disaster Recovery using NASA's Black Marble	Miguel Roman <i>Universities Space Research Association</i>
4:40-4:50	7.4 Earth Science Data in the 2020s: Rising Tide or Catastrophic Flood?	Ryan Abernathey <i>Columbia University, LDEO</i>
4:50-5:00	7.5 Bringing Deep Learning to Production Scale	Drew Bollinger <i>Development Seed</i>
5:00-5:20	8. Earth Science and Applications from Space: Summary	Chelle Gentemann <i>Earth & Space Research and Farallon Institute</i>
5:20-5:30	9. Comments from the Guest of Honor	Michael H. Freilich
5:30-7:30	<i>Reception in the Great Hall</i>	