

AGU 2018 FALL MEETING

NASA Earth Science Division, Applied Sciences Program Summary of Affiliated Sessions and Events

This summary includes the events and sessions led by people affiliated with the NASA Applied Sciences Program as well as several important Earth Science Division-related sessions. See the AGU website or app for specific presentations and posters.

Events are arranged by day and time so you do not have to bring the entire list to the conference every day. The titles of all poster sessions, oral sessions, and town halls are all active hyperlinks that will pull up each session's AGU conference webpage in a web browser.

Three special events will also be of interest to the Earth Science applications community. On Monday night in the Exhibition Hall, the division directors of NASA Earth Science, Planetary Science, and Astrophysics will host an opening night reception with several talks. On Wednesday night, Ignite takes over Busboys and Poets (450 K Street NW) in Washington, D.C. to host quick-hitting talks on a wide variety of subjects. On Thursday night, four Smithsonian museums are open to AGU attendees and registered guests for after-hours open houses and museum tours led by docents and science experts at the National Air and Space Museum, the National Museum of African American History and Culture, the National Museum of Natural History, and the National Museum of American History.

ENLIGHTEN US, BUT MAKE IT QUICK!

WEDNESDAY DECEMBER 12 | 18:30 - 20:30 BUSBOYS AND POETS, 450 K ST. NW





For all the details lgnite@AGU 2018



SUNDAY, 9 DECEMBER 2018

08:00 - 16:00 GAYLORD NATIONAL HARBOR HOTEL, 201 WATERFRONT ST., OXON HILL, MD

Annual SMD Communications Meeting

(contact Pamela Bond <u>pamela.bond@nasa.gov</u> to register)

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09:00 - 09:30				
09:30 - 10:30	Vision, Administration Priorities (Moon2Mars), State of SMD, Thomas Zurbuchen, Associate Administrator			
	of the Science Mission Directorate			
10:30 - 10:50	Mike Freilich, Director of the Earth Science Division			
10:50 - 11:10	Nicola Fox, Director of the Heliophysics Division			
11:10 - 11:30	Lori Glaze, Acting Director of the Planetary Science Division			
11:30 - 11:50	Paul Hertz, Director of the Astrophysics Division			
11:50 - 12:00	John Lee, Director of the Joint Agency Satellite Division			
12:00 - 13:00	Lunch break			
13:00 - 13:20	OComm Status, Dwayne Brown, Senior Communications Official, Science Mission Directorate			
13:20 - 13:50	Updated stratcomm approach for SMD, Kristen Erickson, Science Mission Directorate			
13:50 - 14:20	Social Media Stats and ExploreNASAScience, Emily Furfaro, Science Mission Directorate			
14:20 - 14:30	Break			
14:30 - 16:30	Divisions' Break-out Sessions: State of the Science by Division — Get to Know Your Communications			

Teams: Astrophysics, Earth Science, Heliophysics, and Planetary Science

08:00 - 12:00 GRAND HYATT - RENWICK ROOM

16:30 - 17:00 Wrap up and Next Steps

Communicating Science with any Audience (registration required)



MONDAY, 10 DECEMBER 2018

08:00 - 10:00 WALTER E WASHINGTON CONVENTION CENTER - SALON A

GC11A: Advancing Global Surface Biology and Geology Science with Visible to Short-Wavelength Infrared Imaging Spectroscopy and Thermal Infrared Measurements I

Conveners and Chairs: Robert O Green, Simon J Hook, Ian Mccubbin, David R Thompson, Elizabeth Middleton

08:00 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

GC11G: Advancing Global Biodiversity Modeling Through Lessons Learned from Other Modeling Communities, Remote Sensing Advancements, and Model Integration and Intercomparison Efforts Posters

Conveners and Chairs: Bonnie Myers, Sarah R Weiskopf, William W Turner, Stephen T Jackson

08:00 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

GC11H: Use of Earth Observations in Mitigating Major Environmental Challenges in the Americas Posters

Conveners and Chairs: Africa Ixmucane Flores Cordova, Betzy E. Hernández, Nancy D Searby, Alyssa K Whitcraft

10:20 - 12:20 MARRIOTT MARQUIS - MARQUIS 7-8

ED12A: Aiming for Truly Diverse Diversity to Strengthen the Geoscience Community II Conveners and Chairs: Sharon K Cooper, Wesley Henson, Benjamin Andrew Keisling

10:20 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - SALON A

GC12A: Advancing Global Surface Biology and Geology Science with Visible to Short-Wavelength Infrared Imaging Spectroscopy and Thermal Infrared Measurements II

Conveners and Chairs: David R Thompson, Robert O Green, Elizabeth Middleton

12:20 - 14:00 AMERICAS LUNCH

13:40 - 15:40 WALTER E WASHINGTON CONVENTION CENTER - 154AB

H13F: Water and Society: Water Resources Management and Policy in a Changing World I Conveners and Chairs: Joseph R Kasprzyk, Megan Konar, Gregory W Characklis

13:40 - 15:40 MARRIOTT MARQUIS - MARQUIS 9-10

NH13A: Landslide Remote Sensing, InSAR-Based Monitoring, Modeling, and Early Warning Conveners and Chairs: Dalia Kirschbaum, Zhong Lu, Thomas Oommen, Jean-Philippe Malet

13:40 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

A13F: A Spectral View of Aerosols, Clouds, and Earth Energy Budget: From Model Evaluation to Process Studies and Planning Climate Change Observations I Posters

Conveners and Chairs: Bruce A Wielicki, Seiji Kato, Steven E Platnick, Yi Ming

13:40 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

GC13F: Advancing Global Surface Biology and Geology Science with Visible to Short-Wavelength Infrared Imaging Spectroscopy and Thermal Infrared Measurements Posters

Conveners and Chairs: David R Thompson, Robert O Green, Elizabeth Middleton, Simon J Hook



13:40 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

PA13E: Bridging the Gaps Between Science and Science Policy Posters

Conveners and Chairs: Tai-Yin Huang, Susan C Bates, Rafael Loureiro, Kimberly Duong

14:00 - 14:45 MARRIOTT MARQUIS ROOM SHAW/LEDROIT PARK (LEVEL M3)

Press Conference: One Year Post Hurricane Maria

Participants: Miguel Roman, Doug Morton

14:40 - 14:55 WALTER E WASHINGTON CONVENTION CENTER - 202B

SA13A-05: Commercial Partnerships: Novel Approaches and their Value to NASA Science

Presenters: Thomas Zurbuchen and Steven W Clarke

16:00 - 16:45 MARRIOTT MARQUIS ROOM SHAW/LEDROIT PARK (LEVEL M3)

Press Conference: Refugee Camps as Climate Traps

Participants: Jamon van den Hoek

16:00 - 18:00 IRISH CHANNEL, FAIRFIELD INN & SUITES, 500 H ST, NW, WASHINGTON, D.C.

Capacity Building Program Gathering

16:00 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - 154AB

H14F: Water and Society: Water Resources Management and Policy in a Changing World II

Conveners and Chairs: Joseph R Kasprzyk, Megan Konar, Casey Brown, Gregory W Characklis

18:15 - 19:15 MARRIOTT MARQUIS - CAPITOL/CONGRESS

TH15F: Partnering with NASA Centers for Science

Conveners and Chairs: Louis Matthew Barbier, James L Green, James Brian Garvin, Gary Jedlovec, Mark Simons, Eileen K Stansbery, David F Young, Jacob Cohen

19:15 - 20:45 WALTER E WASHINGTON CONVENTION CENTER - SOUTH PRE-FUNCTION FOYER

Diversity and Inclusion Reception

Organized by: the American Geophysical Union, Geoscience Alliance, the International Association for Geoscience Diversity, MS PHD'S Professional Development and Mentoring Institute, the Cirrus Academy - A STEAM Charter School System, the National Science Foundation – Directorate for Geosciences, NOGLSTP, UCAR SOARS program, gAyGU, National Association for Black Geoscientists, ESWN, AWG, UNAVCO, and CIRES Diversity and Inclusion Program.

18:00-20:30 WALTER E. WASHINGTON CONVENTION CENTER, EXHIBIT HALL, BOOTH 1034

NASA Booth Exhibition and Hyperwall Presentations Opening Ice Breaker

18:05 - 18:10	Dennis Andrucyk	Opening Remarks from NASA's Science Mission Directorate
18:10 - 18:25	Michael Freilich	NASA's Earth Observation Capabilities: Meeting the Challenges of Climate and
		Environmental Change
18:25 - 18:40	Alex Young	Sailing Through Space: A Heliophysics Odyssey
18:40 - 18:55	Lori Glaze	The Role of Small Bodies in our Solar System
18:55 - 19:10	Paul Hertz	NASA's Astrophysics Journey
19:10 - 19:25	John Lee	NASA's Joint Agency Satellite Division
19:25 - 19:40	Steve Clarke	NASA's Exploration Campaign
19:40 - 19:55	James Green	Science



TUESDAY, 11 DECEMBER 2018

WALTER E WASHINGTON CONVENTION CENTER - EXHIBIT HALL

Hyperwall Talks

- 10:05 10:15 Richard Eckman, In Search of an Ozone Recovery
- 10:15 10:30 Joshua Fisher, ECOSTRESS Earth Science and Applications from the ISS
- 11:15 11:30 Cathleen Jones, NISAR: Science Benefiting Society
- 12:00 13:15 Grand Prize Winners of 2018 AGU Data Visualization and Storytelling Competition
- 13:15 15:00 Hyperwall Science Flash Talks
- 15:15 15:30 Riley Duren, Prototype Methane Monitoring System for California
- 16:00 16:15 Laura Judd/Jim Crawford/Jay Al-Saadi, the 2018 Long Island Sound Tropospheric Ozone Study

08:00 - 10:00 MARRIOTT MARQUIS - MARQUIS 7-8

ED21A: Diversity, Inclusion, and Equality in Geosciences I: Gender Issues and Solutions

Conveners and Chairs: Tim H M van Emmerik, Lesley A Wyborn, Jill L Karsten, Claudia Jesus-Rydin, Jordan Williams, Michael Guidry

08:00 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

H21Q: Water and Society: Water Resources Management and Policy in a Changing World III Posters

Conveners and Chairs: Joseph R Kasprzyk, Megan Konar, Casey Brown, Gregory W Characklis

08:00 - 10:00 WALTER E WASHINGTON CONVENTION CENTER - ELIGHTNING THEATER II

IN21B: Free and Open-Source Technologies for Advancing Earth and Space Sciences I eLightning

Conveners and Chairs: Jens F klump, Sarva Teja Pulla, Keith D Evans, Amanda Marie Weigel

08:00 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

NH21C: Landslide Remote Sensing, InSAR-Based Monitoring, Modeling, and Early Warning Posters

Conveners and Chairs: Dalia Kirschbaum, Thomas Oommen, Zhong Lu, Ning Lu

08:00 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

PA21B: Addressing Societal Challenges Through the Global Earth Observation System of Systems (GEOSS) Posters

Conveners and Chairs: Douglas Cripe, Stefano Nativi, Paola De Salvo, Argyro Kavvada

08:00 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

PA21C: Earth Observation Applications in Support of Global Policy Frameworks Posters

Conveners and Chairs: Argyro Kavvada, Douglas Cripe, Lawrence Friedl, Stephanie Schollaert Uz

08:00 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

PA21D: Implementing Science Tools for Cities and Climate Posters

Conveners and Chairs: Cynthia Rosenzweig, Jack A Kaye, William Duncan Solecki, Daniel Bader

08:00 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

PA21E: Progress Toward Enhancing National Preparedness for Space Weather Posters

Conveners and Chairs: Seth Jonas, William J Murtagh, Steven W Clarke



10:20 - 12:20 MARRIOTT MARQUIS - MARQUIS 7-8

ED22A: Diversity, Inclusion, and Equality in Geosciences II: Strategies for Engagement and Retention

Conveners and Chairs: Tim H M van Emmerik, Lesley A Wyborn, Jill L Karsten, Claudia Jesus-Rydin, Milena Marjanovic, Blair Schneider

10:20 - 12:20 MARRIOTT MARQUIS - MARQUIS 3-4

PA22A: Connecting Earth Sciences and Risk Financing and Transfer: Case Studies on Integration and Application of Earth Observations in the Insurance Sectors

Conveners and Chairs: Eric Ross Anderson, David S Green, Shanna N. McClain, Kevin Coffee

12:30 - 13:30 MARRIOTT MARQUIS - CAPITOL/CONGRESS

TH23E: NASA Earth Science Division Town Hall Session

Presenters: Jack A Kaye, Michael H Freilich, Sandra Cauffman, Eric lanson, Lawrence Friedl, Pamela Millar, Patricia A Jacobberger-Jellison

13:40 - 15:40 WALTER E WASHINGTON CONVENTION CENTER - SALON B

GC23C: Use of Earth Observations in Mitigating Major Environmental Challenges in South and Southeast Asia I

Conveners and Chairs: Walter Lee Ellenburg, Peeranan Towashiraporn, Birendra Bajracharya, Ashutosh S Limaye

13:40 - 15:40 MARRIOTT MARQUIS - MARQUIS 9-10

NH23B: Using Earth Observations and Imagery Analysis for Risk and Resilience Assessment, Risk Communication, and Monitor Response and Recovery Efforts I

Conveners and Chairs: Bandana Kar, John J Murray, Andrew Molthan, Jordan R Bell

13:40 - 15:40 MARRIOTT MARQUIS - MARQUIS 3-4

PA23A: Earth Observation Applications in Support of Global Policy Frameworks I

Conveners and Chairs: Argyro Kavvada, Douglas Cripe, Lawrence Friedl, Stephanie Schollaert Uz

13:40 - 15:40 WALTER E WASHINGTON CONVENTION CENTER - 202A

U23A: How to Support and Develop the Modern Digital Research Ecosystem to Maximize Benefits of Science for Society and the Research Community

Conveners and Chairs: Lesley A Wyborn, Erin Robinson, Helen Glaves, Shelley Stall

13:40 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

IN23A: Citizen Science: Engaging a Wider Community to Better Understand Our Planet Posters Conveners and Chairs: Amanda Whitehurst, Lin H Chambers, Michael Jabot, Peder Nelson

13:40 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

NH23E: Wildfires: Triggers, Predictability, and Impact Assessment Posters

Conveners and Chairs: Christian Klose, Son V Nghiem, Seung Hee Kim, Nataliya Le Vine, Amber Jeanine Soja, Jinwon Kim, Shenyue Jia

13:40 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

PA23G: Science to Action: Closing Gaps to Enable Science-Based, Data-Driven

Decision-Making Posters

Conveners and Chairs: Stephanie L Granger, Amber Jenkins, Savannah Cooley

14:00 - 14:45 MARRIOTT MARQUIS ROOM SHAW/LEDROIT PARK (LEVEL M3)

Press Conference: Penguins! From Space

Participants: Michael Polito, Heather Lynch, Casey Youngflesh



16:00 - 17:00 MARRIOTT MARQUIS - MARQUIS 6

G24A: The Bowie Lecture, Gravity as a Measure of Climate Change

Speaker: Byron D. Tapley

Conveners: Susan E Owen, M Meghan Miller

16:00 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - 150B

A24A: A Spectral View of Aerosols, Clouds, and Earth's Energy Budget: From Model Evaluation to Process Studies and Planning Climate Change Observations II

Conveners and Chairs: Bruce A Wielicki, Seiji Kato, Yi Ming, Steven E Platnick

16:00 - 18:00 MARRIOTT MARQUIS - MARQUIS 3-4

PA24A: Implementing Science Tools for Cities and Climate I

Conveners and Chairs: Cynthia Rosenzweig, Jack A Kaye, William Duncan Solecki, Daniel Bader

18:15 - 19:15 MARRIOTT MARQUIS - CAPITOL/CONGRESS

TH25H: Integrating Applications Users in NASA Earth Science Mission Development

Conveners and Chairs: Vanessa M Escobar, Lawrence Friedl, Christine K Bonniksen



WEDNESDAY, 12 DECEMBER 2018

WALTER E WASHINGTON CONVENTION CENTER - EXHIBIT HALL

Hyperwall Talks

- 10:30 10:45 Jeremy Werdell, The NASA PACE Mission: Status, Science, Advances
- 10:45 11:00 Paula Bontempi/Ivona Cetinic, Export Processes in the Ocean from Remote Sensing (EXPORTS)
- 11:00 11:15 Rich Moore, All in the NAAMES of Ocean Ecosystems and Climate
- 11:15 11:30 John Haynes, Earth Observations Applied to a Changing World: NASA Health and Air Quality Applications
- 11:30 11:45 Compton Tucker, Mapping the Semi-Arid Land Carbon Sink: A Tree Census from Polar-Orbit
- 12:00 13:15 Grand Prize Winners of 2018 AGU Data Visualization and Storytelling Competition
- 13:15 15:00 Hyperwall Science Flash Talks
- 15:15 15:30 Mikhail Zhizhin Global gas flaring monitoring with VIIRS in 2012-2018
- 15:30 15:45 Jean-Paul Vernier/John Murray, Kilauea Eruption and Disaster Response
- 15:45 16:00 Stephanie Schollaert Uz, From Space to Society: Applied Sciences at NASA Goddard
- 16:00 16:15 Emily Schaller, High-Flying Interns: 10 years of the NASA Student Airborne Research Program
- 16:45 17:00 Andrew Thorpe, Mapping methane plumes with AVIRIS-NG
- 17:15 17:30 Jacob Bleacher, Astronaut Geoscience Training

08:00 - 10:00 MARRIOTT MARQUIS - INDEPENDENCE F-H

GH31A: Earth System Interactions and Implications for Geohealth I

Conveners and Chairs: Daniel Tong, Robert S Van Pelt, Thomas E Gill, James Crooks

08:00 - 10:00 WALTER E WASHINGTON CONVENTION CENTER - 202A

U31A: How Science Influences Action: Responding to Climate Change in Developing Countries

Conveners and Chairs: Tegan Blaine, Rosalind West, Ana Bucher, John M. Balbus

08:00 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

GC31K: Use of Earth Observations in Mitigating Major Environmental Challenges in South and Southeast Asia Posters

Conveners and Chairs: Walter Lee Ellenburg, Peeranan Towashiraporn, Birendra Bajracharya, Ashutosh S Limaye

08:00 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

NH31E: Using Earth Observations and Imagery Analysis for Risk and Resilience Assessment, Risk Communication, and Monitor Response and Recovery Efforts Posters

Conveners and Chairs: Bandana Kar, John J Murray, Andrew Molthan, Jordan R Bell

08:00 - 12:20 GRAND HYATT - WILSON/ROOSEVELT

WS13: Communicating Disaster Risk: From Assessments to Informed Decision-Making

Submitter: Richard J Murnane

Presenters: Jocelyn West, Andrew Kruczkiewicz, Shanna N. McClain

08:00 - 12:20 GRAND HYATT - DECLARATION AB

WS21: Applications and User Development on Solar-Induced Chlorophyll Fluorescence (SIF) Data Products from Spaceborne Platforms

Submitter: Karen Yuen

Presenters: Christian Frankenberg, Xiangming Xiao, Compton J Tucker, Philipp Koehler

10:20 - 12:20 MARRIOTT MARQUIS - MARQUIS 1-2

PA32B: The Future of Science Policy: Funding, Freedom of Scientific Expression, and Federal Decision-Making I

Conveners and Chairs: Timia A Crisp, Jacob Carter, Katherine S White



10:20 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - ELIGHTNING THEATER II

PA32C: Data Policy: Much More Than Just the Data Set eLightning

Conveners and Chairs: Kathleen S Fontaine, Denise J Hills, Lindsay Barbieri, Erin Robinson

12:30 - 13:30 MARRIOTT MARQUIS - LIBERTY M

TH33E: ECOSTRESS: Advancing Earth Science and Applications Studies from the International **Space Station**

Contact and Presenters: Christine M Lee, Simon J Hook, Joshua Fisher, Glynn C Hulley, Jeffrey C Luvall, Kerry Cawse-Nicholson, William W Turner

12:30 - 13:30 MARRIOTT MARQUIS - LIBERTY L

TH33I: SERVIR's Approach to Sustainable Services in the Use of Earth Observations in Decision-Making

Contact Planners and Presenters: Ashutosh S Limaye, Kevin Coffee, Daniel Irwin, Katherine Casey

12:30 - 13:30 MARRIOTT MARQUIS - LIBERTY I-K

TH33K: U.S. Group on Earth Observations (USGEO) Town Hall

Contact and Presenters: Jason Gallo, Thomas Cuff, Erik U. Noble, Timothy R Newman, Lawrence Friedl

13:40 - 15:40 WALTER E WASHINGTON CONVENTION CENTER - 146C

H33A: Applications of Machine Learning and Data Cubes in Remote Sensing 1

Conveners and Chairs: Hamed Alemohammed, Steven Brumby, Brian Killough, Kaiyu Guan

13:40 - 15:40 MARRIOTT MARQUIS - MARQUIS 9-10

NH33A: Interdisciplinary Tsunami Science III

Conveners and Chairs: Finn Løvholt, Y Tony Song, Jessica Pilarczyk

13:40 - 15:40 WALTER E WASHINGTON CONVENTION CENTER - ELIGHTNING THEATER II

PA33B: Quantifying the Value of Earth Science Information by Identifying How It Changes Societal Outcomes eLightning

Conveners and Chairs: Bethany Mabee, Yusuke Kuwayama, Aleix Serrat-Capdevila, Winston Yu

13:40 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

B33L: Advancing Ecosystem Accounting and Ecosystem Service Monitoring Through Earth **Observations Posters**

Conveners and Chairs: Keith Gaddis, Daniel Juhn, Max Wright

13:40 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

GH33B: Earth System Interactions and Implications for Geohealth Posters

Conveners and Chairs: Daniel Tong, Robert S Van Pelt, Thomas E Gill, James Crooks

13:40 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

PA33E: Science to Action: Addressing Gaps in Access to Climate Science for

Decision-Making Posters

Conveners and Chairs: Rachel Jacobson, Natalie Bennett, Melissa Goodwin, Sarah Zerbonne

13:40 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

PA33G: The Future of Science Policy: Funding, Freedom of Scientific Expression, and Federal

Decision-Making Posters

Conveners and Chairs: Timia A Crisp, Katherine S White, Jacob Carter



16:00 - 18:00 MARRIOTT MARQUIS - INDEPENDENCE F-H

GH34B: Using NASA's Satellite and Suborbital Measurements and Modeling for Health and Air Quality Applications I

Conveners and Chairs: Sue M Estes, Ali H Omar, John Haynes

16:00 - 18:00 MARRIOTT MARQUIS - INDEPENDENCE A-C

G34A: The Future of Space-Based Observing Systems for Solid-Earth Dynamics Panel

Conveners and Chairs: Susan E Owen, David T Sandwell, Benjamin R Phillips, Jeanne M Sauber

16:00 - 18:00 MARRIOTT MARQUIS - MARQUIS 9-10

NH34B: Tsunami Research and Early Warning

Conveners and Chairs: Y Tony Song, Sergio Eduardo Barrientos, Kenji Satake, John Max Wilson

16:00 - 18:00 MARRIOTT MARQUIS - INDEPENDENCE E

NH34C: Wildfires: Triggers, Predictability, and Impact Assessment

Conveners and Chairs: Christian Klose, Son V Nghiem, Seung Hee Kim, Nataliya Le Vine, Amber Jeanine Soja, Jinwon Kim, Shenyue Jia

18:30 - 21:00 GRAND CENTRAL, RENAISSANCE WASHINGTON, D.C. DOWNTOWN HOTEL

Celebrating Community Science with Thriving Earth Exchange (Reception and Story Slam)

18:30 - 20:30 BUSBOYS AND POETS, 450 K ST NW, WASHINGTON, D.C.

Ignite AGU 2018

Sponsors: NASA's Applied Sciences Program and ESIP Federation





THURSDAY, 13 DECEMBER 2018

WALTER E WASHINGTON CONVENTION CENTER - EXHIBIT HALL

Hyperwall Talks

Jack Kaye, Viewing the Earth from Space
Kevin Murphy, Earth Science Data System Program - Preparing for the data deluge
Nathan Kurtz, ICESat-2: First Looks at on-orbit data
David Green, NASA Disasters Program: From Response to Resilience in Areas of Risk
Rita Colwell, A Multi-Sensor Remote Sensing Approach to Predict Cholera
Christopher Barnes, Exploring Landsat Analysis Ready Data
Hyperwall Science Flash Talks
Inbal Becker-Reshef, Harvest Data for Informed Agricultural Decisions
Michael Briggs, Terrestrial Gamma-ray Flashes: Gamma-rays from Thunderstorms
Gail Skofronick-Jackson, Global Precipitation Measurements for Science and Society
David Lagomasino, Natural and Human Impacts on Coastal Ecosystems
Russanne Low, GLOBE Mission Mosquito Citizen Science Campaign
Carter Emmart, American Museum of Natural History's OpenSpace project
Steven Pawson, High-Resolution GEOS Simulations
Amber Soja, Dynamic Global Fire Connections

08:00 - 10:00 MARRIOTT MARQUIS - MARQUIS 7-8

ED41B: Reframing the Conversation: Why Diversity in the Geosciences Workforce Matters I

Conveners and Chairs: Jill L Karsten, Erika Marin-Spiotta, Gregory Jenkins

08:00 - 10:00 WALTER E WASHINGTON CONVENTION CENTER - SALON C

GC41B: Earth Observations for Food Security and Agriculture: Synthesizing Public and Private Sector Knowledge I

Conveners and Chairs: Alyssa K Whitcraft, Anuradha Swatantran, Keely Roth, Sean McCartney

08:00 - 10:00 WALTER E WASHINGTON CONVENTION CENTER - 146C

H41F: Science and Applications Results Based on NASA Soil Moisture Active Passive (SMAP) Satellite Mission Products and Validation Experiments I

Conveners and Chairs: Simon H Yueh, Andreas Colliander, Peggy E O'Neill,

08:00 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

A41K: Small Satellites Have Scientific Value, but Where Do They Fit In? I Posters

Conveners and Chairs: William H Swartz, David M Klumpar, Pamela Millar, Charles D Norton

08:00 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

B41L: The Group on Earth Observations Biodiversity Observation Network (GEO BON): Integrating in Situ and Remotely Sensed Observations to Advance Biodiversity Monitoring, Research, and Applications Posters

Conveners and Chairs: Allison K Leidner, Gary N Geller, Nestor Fernandez, William W Turner

08:00 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

ED41E: Call to Action: NASA Science and Learning Collaborations I Posters

Conveners and Chairs: Richard Gregory Vaughan, Joelle Clark, Moses P Milazzo, Kristen J Erickson



08:00 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

GH41C: Using NASA's Satellite and Suborbital Measurements and Modeling for Health and Air Quality Applications II Posters

Conveners and Chairs: Sue M Estes, Ali H Omar, John Haynes

08:00 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

PA41C: Science to Action: Building Novel and Transformative Partnerships Toward Decision-Relevant Science Posters

Conveners and Chairs: Julian J Reyes, Melissa Varga, Meredith K Jennings, Rachel Licker

08:00 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

PA41D: Science to Action: Frontiers in Effective Decision Maker–Scientist Partnerships Posters
Conveners and Chairs: Daniel B Ferguson, Julie A Vano, David H Behar

08:00 - 12:20 GRAND HYATT - CABIN JOHN/ARLINGTON ROOM

WS19: Advancing Diversity, Equity, and Inclusion to Strengthen the Geoscience Community Submitter and Presenter: Kuheli Dutt, Sharon K Cooper

09:00 - 13:00 GRAND HYATT - TIBER CREEK AB MEETING ROOM

GEO Health Community of Practice Meeting

Conveners and Chairs: John Haynes, Juli Trtanj, Helena Chapman

10:20 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - SALON C

GC42A: Earth Observations for Food Security and Agriculture: Synthesizing Public and Private Sector Knowledge II

Conveners and Chairs: Alyssa K Whitcraft, Anuradha Swatantran, Keely Roth, Sean McCartney

10:20 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - 146C

H42G: Science and Applications Results Based on NASA Soil Moisture Active Passive (SMAP)
Satellite Mission Products and Validation Experiments II

Conveners and Chairs: Dara Entekhabi, Andreas Colliander, Peggy E O'Neill, Simon H Yueh

10:20 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - 206

IN42B: Near-Real-Time/Low-Latency Data for Earth Science and Space Weather Applications I Conveners and Chairs: H Michael Goodman, Gerald W Bawden, Bradley Zavodsky, Diane Davies

10:20 - 12:20 MARRIOTT MARQUIS - MARQUIS 1-2

PA42B: Science to Inform Climate Resilience and Adaptation Decision-Making and Policy I Conveners and Chairs: Rebecca French, Louise Wells Bedsworth, Jessica Grannis, Ian Wesley Bolliger

10:20 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - ELIGHTNING THEATER I

PA42D: The Science and Practice of Communicating Science for Policy Makers eLightning Conveners and Chairs: Kei Koizumi, Karen Akerlof, Erica Goldman

13:40 - 14:40 MARRIOTT MARQUIS - MARQUIS 6

GC43C: Schneider Lecture, Deep Insights from Simple Models

Speaker: Stephen E Schwartz

Conveners and Chairs: David M. Cairns, Ellen Mosley-Thompson, Ali H Omar



13:40 - 15:40 WALTER E WASHINGTON CONVENTION CENTER - 149AB

B43E: The Group on Earth Observations Biodiversity Observation Network (GEO BON): Integrating in Situ and Remotely Sensed Observations to Advance Biodiversity Monitoring, Research, and Applications I

Conveners and Chairs: Allison K Leidner, Gary N Geller, Nestor Fernandez, William W Turner

13:40 - 15:40 MARRIOTT MARQUIS - MARQUIS 1-2

ED43B: Call to Action: NASA Science and Learning Collaborations II

Conveners and Chairs: Richard Gregory Vaughan, Joelle Clark, Moses P Milazzo, Kristen J Erickson

13:40 - 15:40 WALTER E WASHINGTON CONVENTION CENTER - SALON A

GC43A: Applications of Earth Observations for Addressing Environmental and Development Challenges in Africa I

Conveners and Chairs: Emil A. Cherrington, Emily Caitlin Adams, Robinson M Mugo, Alfari Issifou

13:40 - 15:40 MARRIOTT MARQUIS - MARQUIS 3-4

PA43A: Science to Action: Building Novel and Transformative Partnerships Toward Decision-Relevant Science I

Conveners and Chairs: Julian J Reyes, Melissa Varga, Meredith K Jennings, Rachel Licker

13:40 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

A43E: New Directions for Open-Source Air Quality Data: Applications in Health, Air Quality, Environmental Management, and Public Outreach I

Mike Newchurch, Yang Liu, Yeonjoo Heidi Yoon

13:40 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

A43R: Understanding and Attributing Greenhouse Gas Fluxes from Urban Systems and Major Hot Spots I Posters

Conveners and Chairs: Riley M Duren, Jacob Englander, James H Butler, Anna Karion, Arvind P Ravikumar, Adam R Brandt

13:40 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

GC43I Earth Observations for Food Security and Agriculture: Synthesizing Public and Private Sector Knowledge Posters

Conveners and Chairs: Alyssa K Whitcraft, Anuradha Swatantran, Keely Roth, Sean McCartney

13:40 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

H43F: Global Precipitation Measurement, Validation, and Applications V Posters

Conveners and Chairs: Dalia Kirschbaum, Gail Skofronick Jackson, Pierre-Emmanuel Kirstetter, Walter Arthur Petersen

13:40 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

H43G: Remote Sensing Applications for Water Resources Management, Including Droughts, Floods, and Associated Water Cycle Extremes III Posters

Conveners and Chairs: John D Bolten, Forrest S Melton, Christine M Lee, Sushel Unninayar

13:40 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

IN43D: Near-Real-Time/Low-Latency Data for Earth Science and Space Weather Applications II Posters

Conveners and Chairs: H Michael Goodman, Gerald W Bawden, Bradley Zavodsky, Diane Davies



13:40 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

NH43E: Tsunami Research and Early Warning Posters

Conveners and Chairs: Y Tony Song, Sergio Eduardo Barrientos, Kenji Satake, John Max Wilson

13:40 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

PA43D: Science to Action: Metrics for Societal Impact of Research—What Do We Value, and How Do We Capture It? Posters

Conveners and Chairs: Kevin J Noone, Julia Kumari Drapkin, Sybil Seitzinger, Crystal Raymond

13:40 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

PA43F: Science to Inform Climate Resilience and Adaptation Decision-Making and Policy Posters

Conveners and Chairs: Rebecca French, Ian Wesley Bolliger, Leslie Abrahams, David Curtis

14:40 - 15:40 MARRIOTT MARQUIS - MARQUIS 6

GC43L: Tyndall Lecture, (historical perspective on global environmental change)

Speaker: Inez Fung

Conveners and Chairs: David M. Cairns, Ellen Mosley-Thompson, Ali H Omar

16:00 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - 152A

A44G: Small Satellites Have Scientific Value, but Where Do They Fit In? II

Conveners and Chairs: William H Swartz, David M Klumpar, Pamela Millar, Charles D Norton

16:00 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - SALON A

GC44A: Application of Forest Change Mapping and Error Estimation to Forest Carbon Financing Mechanisms and Rural Development I

Conveners and Chairs: Africa Ixmucane Flores Cordova, Juliann Aukema, Evan Notman, Sylvia Wilson

16:00 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - 146C

H44A: Applications of GRACE/GRACE-FO Missions in Terrestrial Hydrology I

Conveners and Chairs: Barton A Forman, John T Reager, Bridget R Scanlon, Himanshu Save

16:00 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - 146B

H44G: Remote Sensing and Modeling of the Terrestrial Water Cycle

Conveners and Chairs: Illiana Mladenova, Venkat Lakshmi, Sayed Bateni

16:00 - 18:00 MARRIOTT MARQUIS - MARQUIS 3-4

PA44A: Science to Action: Frontiers in Effective Decision Maker–Scientist Partnerships I

Conveners and Chairs: Daniel B Ferguson, Julie A Vano, David H Behar

16:00 - 18:00 MARRIOTT MARQUIS - MARQUIS 1-2

PA44B: Using Earth Observations for Resource Management in the Western United States: The Nexus of Water and Food Security

Conveners and Chairs: Stephanie Schollaert Uz, Christine M Lee, Andrew N French, Ursula K Rick

18:15 - 19:15 MARRIOTT MARQUIS - INDEPENDENCE A-C

TH45A: Data Science and a New Scientific Frontier in Space Science

Conveners and Chairs: Ryan Michael McGranaghan, Barbara J Thompson, Madhulika Guhathakurta, Thomas H Zurbuchen, Ellen Gertsen, Daniel J Crichton, Chelle L Gentemann, Amy L Walton, Michael M Little, Richard J Doyle, Thomas Huang



19:00 - 22:00 SMITHSONIAN MUSEUMS ON THE NATIONAL MALL: NATIONAL AIR AND SPACE MUSEUM, NATIONAL MUSEUM OF AFRICAN AMERICAN HISTORY AND CULTURE, NATIONAL MUSEUM OF NATURAL HISTORY, AND NATIONAL MUSEUM OF AMERICAN HISTORY

Night at the Museums

Washington, D.C. is home to a rich history and world-class museums, and is an international center for science and policy. AGU is pleased to host a Night at the Museums for attendees and their families to enjoy after-hours open houses and museum tours led by docents and science experts at four world-class Smithsonian Museums.

Night at the Museums is free for Fall Meeting 2018 attendees and their registered guests (first come-first served); visit the registration counter at the Convention Center to receive your wristband for admission for your desired location(s).

Wristbands will be distributed at these times:

• Tuesday, 11 December: 14:00 – 17:00

• Wednesday, 12 December: 07:30 – 17:00

• Thursday, 13 December: 07:30 – 14:00



FRIDAY, 14 DECEMBER 2018

WALTER E WASHINGTON CONVENTION CENTER - EXHIBIT HALL

Hyperwall Talks

- 09:45 10:00 Christine Lee, NASA Water Resources Program
- 10:00 10:15 Christopher Shuman, Peru's Shrinking Tropical Ice Caps
- 10:45 11:00 Lawrence Friedl, Discovering Innovative and Practical Uses of Earth Observations

08:00 - 10:00 WALTER E WASHINGTON CONVENTION CENTER - 146B

H51C: Global Precipitation Measurement, Validation, and Applications I

Conveners and Chairs: Dalia Kirschbaum, Gail Skofronick Jackson, Pierre-Emmanuel Kirstetter, Walter Arthur Petersen

08:00 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

GC51D: Global Observations of Land, Forests, and Fires: Priorities for a Sustainable Research and Capacity Building Strategy in Developing Countries Posters

Conveners and Chairs: Cheikh Mbow, Garik Gutman, Christopher Owen Justice

08:00 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

GC51F: Application of Forest Change Mapping and Error Estimation to Forest Carbon Financing Mechanisms and Rural Development Posters

Conveners and Chairs: Africa Ixmucane Flores Cordova, Juliann Aukema, Evan Notman, Sylvia Wilson

08:00 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

GC51L: Applications of Earth Observations for Addressing Environmental and Development Challenges in Africa Posters

Conveners and Chairs: Emil A. Cherrington, Emily Caitlin Adams, Robinson M Mugo, Alfari Issifou

08:00 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

GC51M: The Global Water Cycle: Linkages of Ocean Salinity with the Atmosphere and Terrestrial Hydrology Posters

Conveners and Chairs: Paul James Durack, Nadya T Vinogradova, John T Reager, Remy Roca

08:00 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

G51D: General Contributions to Geodesy Posters

Conveners and Chairs: Eric W Leuliette, Susan E Owen

08:00 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

H51M: Applications of GRACE/GRACE-FO Missions in Terrestrial Hydrology Posters

Conveners and Chairs: Barton A Forman, John T Reager, Bridget R Scanlon, Himanshu Save

08:00 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

H51W: Science and Applications Results Based on NASA Soil Moisture Active Passive (SMAP)
Satellite Mission Products and Validation Experiments III Posters

Conveners and Chairs: Dara Entekhabi, Andreas Colliander, Peggy E O'Neill, Simon H Yueh

08:00 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

IN51B: Enabling Cloud Applications for Earth Science Data Posters

Conveners and Chairs: Jeff de la Beaujardiere, Kenneth S Casey, Michael M Little



08:00 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

PA51B: Enhancing Environmental Management Decisions, Actions, and Policy by Building the Capacity to Use Earth Observations Posters

Conveners and Chairs: Lauren M Childs-Gleason, Kenton W Ross, Nancy D Searby, Christine J Mataya

08:00 - 12:20 GRAND HYATT - INDEPENDENCE DE

WS5: Measuring the Societal Value of My Research: A Value of Information Approach to Quantifying the Socioeconomic Benefits of Earth Science

Submitter and Presenters: Bethany Mabee, Yusuke Kuwayama, Richard Bernknopf, Daniel M Sullivan, Alan Krupnick, Jim Boyd

10:20 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - 151B

A52G: Understanding and Attributing Greenhouse Gas Fluxes from Urban Systems and Major Hot Spots II

Conveners and Chairs: Riley M Duren, Anna Karion, James H Butler

10:20 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - 146B

H52C: Global Precipitation Measurement, Validation, and Applications II

Conveners and Chairs: Dalia Kirschbaum, Gail Skofronick Jackson, Pierre-Emmanuel Kirstetter, Walter Arthur Petersen, Christopher Kidd

10:20 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - 209A-C

IN52A: Spatial Data Infrastructure and GIS for Earth and Space Sciences: Analyzing, Visualizing, and Sharing Spatiotemporal, Cloud-Optimized Earth Science Data I

Conveners and Chairs: Sudhir R Shrestha, Dawn Wright, Kenneth S Casey, Daniel Duffy

10:20 - 12:20 WALTER E WASHINGTON CONVENTION CENTER - 201

SM52B: The Application Usability Level (AUL) Framework: A Standard Measure of Progress to Benefit Heliophysics Research and the Needs of Our Society

Conveners and Chairs: Adam C Kellerman, Jeffrey Klenzing, Alexa Jean Halford

12:30 - 13:30 MARRIOTT MARQUIS - MARQUIS 9-10

TH53L: The New, the Underutilized, and the Upcoming: Applications of Remote Sensing Data to Decision-Making

Planners: Lauren M Childs-Gleason, Nancy D Searby

13:40 - 15:40 WALTER E WASHINGTON CONVENTION CENTER - 151B

A53F: Understanding and Attributing Greenhouse Gas Fluxes from Urban Systems and Major Hot Spots III

Conveners and Chairs: Riley M Duren, Anna Karion, James H Butler, Jacob Englander

13:40 - 15:40 WALTER E WASHINGTON CONVENTION CENTER - 146B

H53C: Global Precipitation Measurement, Validation, and Applications III

Conveners and Chairs: Dalia Kirschbaum, Gail Skofronick Jackson, Pierre-Emmanuel Kirstetter, Walter Arthur Petersen



13:40 - 15:40 WALTER E WASHINGTON CONVENTION CENTER - 145A

H53E: Remote Sensing Applications for Water Resources Management, Including Droughts, Floods, and Associated Water Cycle Extremes I

Conveners and Chairs: John D Bolten, Forrest S Melton, Christine M Lee, Sushel Unninayar, Sabrina Delgado Arias, Michael F Jasinski

13:40 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - HALL A-C (POSTER HALL)

IN53D: Spatial Data Infrastructure and GIS for Earth and Space Sciences: Analyzing, Visualizing, and Sharing Spatiotemporal, Cloud-Optimized Earth Science Data Posters

Conveners and Chairs: Sudhir R Shrestha, Dawn Wright, Kenneth S Casey, Daniel Duffy

16:00 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - 151B

A54G: Understanding and Attributing Greenhouse Gas Fluxes from Urban Systems and Major Hot Spots IV

Conveners and Chairs: Riley M Duren, Arvind P Ravikumar, Jacob Englander, Adam R Brandt

16:00 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - SALON A

GC54B: The Global Water Cycle: Linkages of Ocean Salinity with the Atmosphere and Terrestrial Hydrology I

Conveners and Chairs: Paul James Durack, Nadya T Vinogradova, John T Reager, Remy Roca

16:00 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - 146B

H54B: Global Precipitation Measurement, Validation, and Applications IV

Conveners and Chairs: Dalia Kirschbaum, Gail Skofronick Jackson, Pierre-Emmanuel Kirstetter, Walter Arthur Petersen

16:00 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - 145A

H54E: Remote Sensing Applications for Water Resources Management, Including Droughts, Floods, and Associated Water Cycle Extremes II

Conveners and Chairs: John D Bolten, Forrest S Melton, Christine M Lee, Sushel Unninayar, Sarah Brennan

16:00 - 18:00 WALTER E WASHINGTON CONVENTION CENTER - 209A-C

IN54A: Enabling Cloud Applications for Earth Science Data I

Conveners and Chairs: Jeff de la Beaujardiere, Kenneth S Casey, Michael M Little

16:00 - 18:00 MARRIOTT MARQUIS - MARQUIS 3-4

PA54A: Enhancing Environmental Management Decisions, Actions, and Policy by Building the Capacity to Use Earth Observations I

Conveners and Chairs: Lauren M Childs-Gleason, Nancy D Searby, Kenton W Ross, Christine J Mataya