



AGU 2017 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.

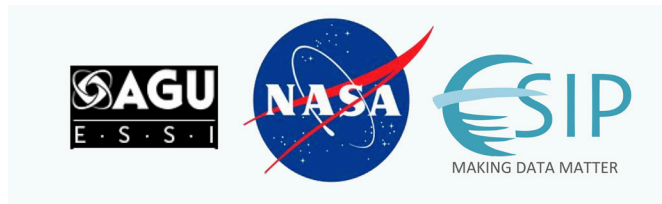
Events are arranged by day and time so you do not have to bring the entire list to the conference every day. The titles of all poster sessions, oral sessions, and town halls are all active hyperlinks that will pull up each session's AGU conference webpage in a web browser.

Two 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 Heliophysics will host an opening night reception with several talks. On Wednesday night, Ignite takes over the Audubon Aquarium's Entergy Giant Screen in New Orleans to host quick-hitting talks on a wide variety of subjects.

ENLIGHTEN US, BUT MAKE IT QUICK!

WEDNESDAY DECEMBER 13 | 6 – 8:30PM

AUDUBON AUDITORIUM'S ENTERGY GIANT SCREEN THEATER



For all the details Ignite@AGU 2017



SUNDAY, 10 DECEMBER 2017

8:00-16:00 SHERATON NEW ORLEANS HOTEL, 500 CANAL STREET, ARMSTRONG ROOM

Annual SMD Communications Meeting

16:15-18:00 SHERATON NEW ORLEANS HOTEL, 500 CANAL STREET, ARMSTRONG ROOM

Terra Mission Science Meeting



MONDAY, 11 DECEMBER 2017

8:00-10:00 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – 255-257

PA11C: Methods for Assessing the Impact and Value of Earth Observations and Geospatial Data for Decision Making

Conveners: Jason Gallo, Steven Lev, Lawrence Friedl

8:00-10:00 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – 228-230

IN11E: Recent Advances in Deep Learning and Data Analytics in Earth, Atmospheric, and Planetary Sciences II: Deep Learning to Solve Geoscience Challenges

Conveners: Jens Klump, Michael Little, Youzuo Lin, Udit Bhatia

8:00-12:20 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – POSTER HALL D-F

EP11C: Lake-Atmosphere Interactions and Land Surface Dynamics: Improving Our Understanding with New Analysis, Data, and Technology II Posters

Conveners: Nima Pahlevan, Jenna Jorns

8:00-12:20 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – POSTER HALL D-F

PA11A: Building Sustained Capacity to Use Earth Observations to Enhance Environmental Management Decisions, Actions, and Policy II Posters

Conveners: Lauren Childs-Gleason, Stephanie Granger, Nancy Searby, Sarah Hemmings

8:00-12:20 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – POSTER HALL D-F

GC11C: Development of Essential Biodiversity Variables: Progress and Challenges Posters

Conveners: Allison Leidner, Gary Geller, Marc Paganini, Woody Turner

8:00-12:20 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – POSTER HALL D-F

PA11B: Science to Action: Research to Applications (R2A) to Enhance Subseasonal to Seasonal Water Supply and Drought Outlooks II Posters

Conveners: Andrea Ray, Andrew Wood, Michelle Stokes, Brian Fuchs

8:00-12:20 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – POSTER HALL D-F

H11B: Applications of GRACE, Models, and Monitoring for Water Resources Assessment III Posters

Conveners: Meredith Reitz, Himanshu Save, Bridget Scanlon, Laura Condon

8:00-12:20 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – POSTER HALL D-F

H11H: Pursuing Water Security in Socio-Hydrological Systems II Posters

Conveners: Christopher Scott, Alice Frances Hill, Alana Wilson, Veena Srinivasan

8:00-12:20 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – POSTER HALL D-F

H11E: General Surface Hydrology III Posters

Conveners: Alicia Kinoshita, William Miller, Megan Burke, Sonya Lopez

8:00-10:00 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – 260-262

GC11F: Use of Earth Observations in Mitigating Major Environmental Challenges in Africa I

Conveners: Africa Flores, Emil Cherrington, Robinson Mugo, Alfari Issifou



8:30-10:00 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – 338-339

Undergraduate Student Networking Workshop

10:20-12:20 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – 275-277

C12C: Remote Sensing of the Cryosphere: ASO, Water Cycle Science, and High-Resolution Retrievals I

Conveners: Danny Marks, McKenzie Skiles, Thomas Painter, Hans-Peter Marshall

12:30-13:30 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – 252-254

TH13C: NASA Ice, Cloud and Land Elevation Satellite-2 Mission Applications – Preparing for Launch: 2018

Presenters: Sabrina Delgado Arias, Molly Brown, Vanessa Escobar, Michael Jasinski, Fritz Policelli, Tom Neumann, Thorsen Markus

13:40-15:40 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – 255-257

PA13E: Building Sustained Capacity to Use Earth Observations to Enhance Environmental Management Decisions, Actions, and Policy I

Conveners: Lauren Childs-Gleason, Stephanie Granger, Nancy Searby, Sarah Hemmings

13:40-18:00 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – POSTER HALL D-F

GC13I: Use of Earth Observations in Mitigating Major Environmental Challenges in Africa II Posters

Conveners: Africa Flores, Eli Cherrington, Robinson Mugo, Alfan Issifou

13:40-18:00 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – POSTER HALL D-F

C13B: Dust, Black Carbon, and Other Aerosols in the Cryosphere II Posters

Conveners: McKenzie Skiles, Thomas Painter, John Burkhart, Mark Flanner

13:40-18:00 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – POSTER HALL D-F

ED13B: Internships and Scholarships: Opportunities and Outcomes I Posters

Conveners: Marlene Kaplan, Pranoti Asher

13:40-18:00 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – POSTER HALL D-F

H13I: Remote Sensing Applications for Water Resources Management, Including Droughts, Floods, and Associated Water Cycle Extremes IV Posters

Conveners: Forrest Melton, John Bolten, Christine Lee, Sushel Unninar

13:40-15:40 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – LA NOUVELLE C

H13N: General Surface Hydrology I

Conveners: Alicia Kinoshita, William Miller, Megan Burke, Sonya Lopez

13:40-18:00 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – POSTER HALL D-F

GC13H: People and Pixels 20th Anniversary: Advances in the Use of Remote Sensing in Social Science, Public Health, and Air Quality Applications II Posters

Conveners: Alexander de Sherbinin, Sue Estes, John Haynes, Ali Omar

16:00-18:00 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – 344-345

EP14A: Lake-Atmosphere Interactions and Land Surface Dynamics: Improving Our Understanding with New Analysis, Data, and Technology I

Conveners: Nima Pahlevan, Jenna Jorns, Alan Hamlet, Christine Lee



18:00-20:30 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER, FIRST FLOOR, EXHIBIT HALL BC, BOOTH#1645
NASA Booth Exhibition and Hyperwall Presentations Opening Ice Breaker

- 18:00 - 18:10 *Thomas Zurbuchen, Opening of NASA's Science Exhibition*
- 18:10 - 18:25 *Mike Freilich, NASA's Earth Observation Capabilities: Meeting the Challenges of Climate and Environmental Change*
- 18:25 - 18:40 *Jim Green, Recent Discoveries in the Solar System*
- 18:40 - 18:55 *Alex Young, The Science of Space*
- 18:55 - 19:10 *Lawrence Friedl, Discovering Innovative and Practical uses of Earth observations*
- 19:10 - 19:25 *Steve Vance, NASA's Europa Clipper Mission: Exploring a Potentially Habitable World*
- 19:25 - 19:40 *Daniel Duffy, Supercomputing the Earth*
- 19:40 - 19:55 *Paul Morin/Mike Freilich, NASA-NSF Joint Story — Arctic Highs and Lows*

18:15-19:15 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER

TH15D: Space Physics and Aeronomy Agency Night

First Presenter: Thomas Zurbuchen



TUESDAY, 12 DECEMBER 2017

EXHIBIT HALL BC

Hyperwall Talks

- 10:15 - 10:30 *John Bolten - Earth Observations for Global Water Knowledge*
- 11:45 - 12:00 *Mike Freilich - NASA's Earth Observation Capabilities: Meeting the Challenges of Climate and Environmental Change*
- 12:00 - 13:00 *Special Presentations: Grand Prize Winners of the 2017 AGU Data Visualization and Storytelling Competition*
- 12:10 - 12:25 *Rebecca Lehman - Bringing Big Data to Remote Places*
- 12:25 - 12:40 *Yu Mo - Climate feedbacks from coastal marshes*
- 12:40 - 12:55 *Jason West - Intraseasonal variability in Earth's atmosphere and oceans: the MISO and MJO*
- 13:00 - 15:00 *Flash talks!*
- 15:00 - 15:15 *David Green - NASA Responses to Disasters*
- 15:30 - 15:45 *Amber Soja - NASA is hot on Wildland Fire*
- 16:00 - 16:15 *Richard Eckman - The Hole Ozone Story*
- 16:15 - 16:30 *Jack Kaye - NASA Global Climate Observations: Discover How Satellites See Climate Change*

8:00-10:00 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – 267-268

GC21K: People and Pixels 20th Anniversary: Advances in the Use of Remote Sensing in Social Science, Public Health, and Air Quality Applications I

Conveners: Alexander de Sherbinin, Sue Estes, John Haynes, Ali Omar

8:00-10:00 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – 291-291

H21Q: Remote Sensing Applications for Water Resources Management, Including Droughts, Floods, and Associated Water Cycle Extremes I

Conveners: Forrest Melton, Bradley Doorn, Christine Lee, Sushel Unninar

8:00-10:00 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – 228-230

IN21F: Enabling Cloud Applications for Earth Science Data Applications II

Conveners: Jeff de la Beaujardiere, Emily Law, Michael Little, Steve Aulenbach

8:00-12:00 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – POSTER HALL D-F

PA21D: Earth Observations in Support of the Sustainable Development Goals (SDGs), the Paris Agreement, and the Sendai Framework for Disaster Risk Reduction II Posters

Conveners: Douglas Cripe, Lawrence Friedl, Argyro Kavvada

8:00-12:20 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – POSTER HALL D-F

H21E: Global Precipitation Measurement, Validation, and Applications V Posters

Conveners: Yang Hong, Gail Skofronick Jackson, Walter Petersen, Lynn McMurdie

10:00-11:00 HILTON RIVERSIDE, 3RD FLOOR, FULTON ROOM

Science to Action Workshop: Practical Tips and Real-World Strategies for Engaging with Communications

10:20-12:20 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – 213-232

IN22B: Near Real Time/Low Latency Data for Earth Science and Space Weather Applications II

Conveners: Michael Goodman, Gerald Bawden, Kevin Murphy, James Spann



10:20-12:20 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – 255-257

PA22A: Earth Observations in Support of the Sustainable Development Goals (SDGs), the Paris Agreement, and the Sendai Framework for Disaster Risk Reduction I

Conveners: Douglas Cripe, Lawrence Friedl, Argyro Kavvada

10:20-12:20 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – 291-292

H22F: Remote Sensing Applications for Water Resources Management, Including Droughts, Floods, and Associated Water Cycle Extremes II

Convener: Forrest Melton, John Bolten, Christine Lee, Sushel Unninayar

12:30-13:30 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – 203-205

TH23F: NASA Earth Science Division Town Hall

Contact: Jack Kaye; Presenters: Michael H Freilich, Sandra Cauffman, Eric Ianson, Lawrence Friedl, Patricia Jacobberger-Jellison, Robert Bauer

13:40-15:40 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – 291-292

H23P: Remote Sensing Applications for Water Resources Management, Including Droughts, Floods, and Associated Water Cycle Extremes III

Conveners: Forrest Melton, John Bolten, Christine Lee, Sushel Unninayar

13:40-18:00 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – POSTER HALL D-F

PA23B: Success Stories of How Remote Sensing Is Serving Water Resources Planning and Management Posters

Conveners: Aleix Serrat-Capdevila, Martha Anderson, Bradley Doorn, Stefanie Hermann

18:15-19:15 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – 203-205

TH25D: How are NASA and NOAA progressing in opening up options for obtaining Earth Science and Operational Earth Observation Measurements from Non-Governmental Small Satellite.

Contact: Christine Bonniksen, Christina Moats-Xavier, Michael Freilich, Kate Becker

18:30-20:30 HILTON RIVERSIDE, RIVERSIDE COMPLEX, QUARTERPATH

Celebrating Science to Action: Thriving Earth Exchange (TEX) Networking Reception



WEDNESDAY, 13 DECEMBER 2017

EXHIBIT HALL BC

Hyperwall Talks

- 11:30 - 11:45 *Ali Omar - NASA's Satellite Observations for Air Quality Applications*
- 12:00 - 13:00 *Special Presentations: Grand Prize Winners of the 2017 AGU Data Visualization and Storytelling Competition*
- 12:10 - 12:25 *Mahkameh Zarekarizi - An Online Tool for Probabilistic Drought Monitoring and Forecasting Across the Contiguous United States Based on Satellite Data Assimilation*
- 12:25 - 12:40 *Parker Hinton - Visualizing the Io Plasma Torus*
- 12:40 - 12:55 *Andrea Albright - SEA 3D: Visualizing Waves Using LiDAR*
- 13:00 - 15:00 *Flash talks!*

8:00-12:20 NEW ORLEANS ERNEST N. MORAL CONVENTION CENTER – POSTER HALL D-F

IN31C: Near Real Time/Low-Latency Data for Earth Science and Space Weather

Applications I Posters

Conveners: Michael Goodman, Gerald Bawden, Kevin Murphy, James Spann

8:00-10:00 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – 271-273

C31D: Sea Ice-Ocean-Atmosphere Interactions in the New Arctic and Southern Oceans I

Conveners: Amy Solomon, Michael Steele, Marilyn Raphael

8:00-10:00 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – 280-282

C31C: Diagnosis of Hydrological Change in Cold Regions II

Conveners: Howard Wheeler, John Pomeroy, Dennis Lettenmaier, Chris DeBeer

10:00-15:00 HILTON RIVERSIDE, 2ND FLOOR, CHURCHILL C1

Science to Action in Louisiana: Thriving Earth Exchange (TEX) Project Launch Workshop

12:30-13:30 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – 228-230

TH33J: United States Group on Earth Observations (USGEO) Town Hall

Contact: Jason Gallo; Presenters: Lawrence Friedl & Timothy R. Newman

13:40-18:00 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – POSTER HALL D-F

C33A: Estimating the Impacts of Terrestrial Cryospheric Change on Physical, Social, and Economic Systems I Posters

Conveners: Shad O'Neel, Anthony Arendt, McKenzie Skiles, Ian Wesley Bolliger

13:40-18:00 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – 267-268

C33G: Dust, Black Carbon, and Other Aerosols in the Cryosphere I

Conveners: McKenzie Skiles, Thomas Painter, John Burkhart, Mark Flanner

16:00-18:00 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – 228-230

IN54A: Applications of Geospatial Data and Remote Sensing for Food Security II

Conveners: Margaret Hurwitz, Danielle Wood, Christa Peters-Lidard, Bradley Doorn

16:00-18:00 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – E2

U34A: Sixty Years of Studying the Earth Observations

Presenter: Jack Kaye, Cikanek Harry, Elsayed Talaat

18:30-20:30 AUDUBON AQUARIUM'S ENTERGY GIANT SCREEN THEATER

Ignite AGU 2017

Sponsors: NASA's Applied Sciences Program, ESIP Federation and AGU's Earth and Space Science Informatics Group





THURSDAY, 14 DECEMBER 2017

EXHIBIT HALL BC

Hyperwall Talks

12:00 - 12:15 *John Haynes - One Earth: One Health – NASA Observations Applied to a Changing World*

12:15 - 12:30 *Kevin Murphy - NASA's World View*

13:00 - 15:00 *Flash talks!*

8:00-10:00 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – 243-244

NH41D: Landslide Dynamics: Hazard and Risk Assessment, Triggering, Modeling, in Situ Observations, and Remote Sensing I

Conveners: Dalia Kirschbaum, Hiroshi Fukuoka, Ning Lu

8:00-12:20 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – POSTER HALL D-F

PA41A: Science to Action: Toward More Effective Decision Maker-Scientist Partnerships III Posters

Conveners: Julie Vano, David Behar, Daniel Ferguson

10:20-12:20 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – 243-244

NH42A: Landslide Dynamics: Hazard and Risk Assessment, Triggering, Modeling, in Situ Observations, and Remote Sensing II

Conveners: Dalia Kirschbaum, Hiroshi Fukuoka, Ning Lu

10:20-12:20 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – 278-279

C42B: Estimating the Impacts of Terrestrial Cryospheric Change on Physical, Social, and Economic Systems II

Conveners: Ian Wesley Bolliger, Shad O'Neel, Anthony Arendt, McKenzie Skiles

10:20-12:20 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – 231-232

IN42A: Can Public Participation Be the Key to Better Understanding Our Planet? Earth Scientists Say, Yes II

Conveners: Amanda Whitehurst, Kevin Murphy, Maury Estes

12:30-13:30 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – 203-205

TH43G: NASA Planetary Science Town Hall

Presenter: James Green, Thomas Zurbuchen

13:40-18:00 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – POSTER HALL D-F

IN43B: Can Public Participation Be the Key to Better Understanding Our Planet? Earth Scientists Say, I Posters

Conveners: Amanda Whitehurst, Kevin Murphy, Maury Estes

13:40-18:00 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – POSTER HALL D-F

NH43C: Landslide Dynamics: Hazard and Risk Assessment, Triggering, Modeling, in Situ Observations, and Remote Sensing III

Conveners: Dalia Kirschbaum, Hiroshi Fukuoka, Ning Lu

13:40-18:00 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – POSTER HALL D-F

NH43A: Landslide Dynamics: Hazard and Risk Assessment, Triggering, Modeling, in Situ Observations, and Remote Sensing IV Posters

Conveners: Dalia Kirschbaum, Hiroshi Fukuoka, Ning Lu



18:15-19:15 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – 225-227

TH45E: NASA Science Mission Directorate (SMD) Tailoring Guidance for implementation of “Class D” missions. NASA “Class D” missions are nominally projects with a higher informed risk posture and lower management oversight.

Presenters: Gregory Robinson, Christine Bonnicksen, Michael Freilich, Jesse Leitner

18:15-19:15 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – 280-282

TH45J: AGU College of Fellows Town Hall Session

Presenters: Billy Williams, Thomas Zurbuchen



FRIDAY, 15 DECEMBER 2017

8:00-12:20 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – POSTER HALL D-F

IN51F: Applications of Geospatial Data and Remote Sensing for Food Security I Posters

Conveners: Margaret Hurwitz, Danielle Wood, Christa Peters-Lidard, Bradley Doorn

8:00-12:20 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – POSTER HALL D-F

IN51B: Challenges and Benefits of Open-Source Software and Open Data I Posters

Conveners: Jens Klump, Anthony Castronova, Daniel Garijo, Bert Jagers

8:00-12:20 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – POSTER HALL D-F

GC51B: The Role of Fire in the Earth System: Understanding Drivers, Feedbacks, and Interactions with the Land, Atmosphere, and Society III Posters

Conveners: Brendan Rogers, Paulo Brando, Mick Tosca, Xanthe Walker

8:00-12:20 NEW ORLEANS ERNEST N. MORIAL CONVENTION CENTER – POSTER HALL D-F

GC51D: Use of Earth Observations in Mitigating Major Environmental Challenges in South and Southeast Asia II Posters

Conveners: Walter Ellenburg, Krushna Vadrevu, Birendra Bajracharya, Peeranan Towashiraporn