

AGU 100 | FALL MEETING

2019 Press Conference Schedule

All Fall Meeting press conferences take place in the press conference room, **Moscone South, room 310-312**. All press conferences will be streamed live on the [AGU press events webpage](#) and archived on [AGU's YouTube channel](#). Slides and other materials will be available in the [Online Newsroom](#) on the [Fall Meeting Media Center](#) website. Descriptions of each press conference are on the following pages.

	Monday, 9 December	Tuesday, 10 December	Wednesday, 11 December	Thursday, 12 December
8:00 a.m.		Press workshop: A year on the ice: MOSAiC at three months		
9:00 a.m.	The importance and vulnerability of the world's water towers	Press workshop: Climate change and El Niño: Does global warming matter for the climate of the tropics?	Geoscience Grab Bag 3: Rock arches, alien rain, and kidney stones	Geoscience Grab Bag 4: Lunar dust, Congo fish, illegal fishing, and collapsing tunnels
10:00 a.m.		Et tu Etna? New insights on classic eruptions of Etna, Vesuvius, and Santorini	New science from NASA's Parker Solar Probe mission	
11:00 a.m.	Explaining extreme events of 2018 from a climate perspective	Arctic Report Card 2019	Press workshop: Get ready to face the Sun with Solar Orbiter	X marks the spot: NASA's OSIRIS-REx sample collection site announcement
12:00 p.m.	LUNCH			
1:30 p.m.	Ice in motion: Decades of satellite images illuminate change	What controlled the rise of oxygen on Earth?	Another giant polar cyclone discovered: Juno science results since jumping Jupiter's shadow	
2:30 p.m.	Media Availability: Updates to AGU's climate change and data position statements	Postcards from the edge of space: New images, new phenomena, and new insights	Microplastics in unexpected places	Media availability: Recent fires in the Amazon, California and around the globe
3:30 p.m.	Geoscience Grab Bag 1: Sailing rocks, seafloor pockmarks, and atomic bombs	Geoscience Grab Bag 2: Mountain limits and earthquake teleconnections		

The importance and vulnerability of the world's water towers

Monday, 9 December, 9:00 a.m. | Presentations [GC52B-02](#), [GC53G-1244](#)

A quarter of the global population relies on water supplied by the world's water towers: mountain regions that store and supply water via glaciers, lakes, and streams. In this briefing, climate scientists will highlight new research on the importance and vulnerability of one of the planet's most vital life support systems.

Participants:

Tobias Bolch, University of St. Andrews, Fife, Scotland, United Kingdom;
Aurora Elmore, National Geographic Society, Washington, D.C., United States;
Walter Immerzeel, Utrecht University, Utrecht, Netherlands.

Explaining extreme events of 2018 from a climate perspective

Monday, 9 December, 11:00 a.m.

Explaining Extreme Events of 2018 from a Climate Perspective is the eighth annual special issue of the *Bulletin of American Meteorological Society* presenting new, peer-reviewed research analyzing the role of anthropogenic climate change and natural weather variability in the intensity and evolution of a set of extreme weather events from the previous calendar year. This edition includes research papers that examine the influence of climate change on more than 25 extreme weather events in 2018, including the speed of Atlantic hurricanes, wildfires in the western U.S., drought in the Four Corners of the U.S. Southwest, extreme rains in the Mid-Atlantic, and exceptional heat waves in Europe, Spain, and northeast Asia.

Participants:

Chris Funk, USGS and UC Santa Barbara, Santa Barbara, California, United States;
Stephanie Herring, NOAA, Boulder, Colorado, United States;
Walt Meier, National Snow and Ice Data Center, Boulder, Colorado, United States;
Jeff Rosenfeld, American Meteorological Society, Santa Rosa, California, United States.

Ice in motion: Decades of satellite images illuminate change

Monday, 9 December, 1:30 p.m. | Presentations [C13C-1312](#), [C21B-06](#), [C31A-1483](#), [U11C-13](#)

With a half-century's worth of images from Earth-observing satellites, scientists are investigating how ice is changing in a warming climate. In this briefing, researchers will illustrate the story of how glaciers got to the state they're in today and what changes are happening in the interior of Earth's ice sheets. They will present time-lapse movies of individual glaciers in Alaska and the Yukon over the last 47 years, new findings about how Greenland glaciers have behaved over the past three decades, a new look at where lakes on top of the Greenland Ice Sheet are popping up, and new discoveries about meltwater buried under Antarctica.

Participants:

Devon Dunmire, University of Colorado Boulder, Boulder, Colorado, United States;
Mark Fahnestock, University of Alaska, Fairbanks, Alaska, United States;
Michalea King, Ohio State University, Columbus, Ohio, United States;
James Lea, University of Liverpool, Liverpool, United Kingdom.

Media Availability: Updates to AGU's climate change and data position statements

Monday, 9 December, 2:30 p.m.

AGU recently updated its position statements on data and climate change. The new AGU position on data accessibility reinforces the vital need to create a culture that supports, enables and nurtures responsible research. AGU updated its climate change position because the science demonstrates clearly that immediate and coordinated mitigation actions are urgently needed to address the growing crisis. In this panel, AGU's executive director/CEO Chris McEntee and members of the committee that updated the climate change position statement will walk reporters through the updates and answer questions about the changes.

Participants:

Don Boesch, University of Maryland Center for Environmental Science, Cambridge, Maryland, United States;

Robert E. Kopp, Rutgers University, Rutgers, New Jersey, United States;

Chris McEntee, Executive Director/CEO, AGU, Washington, DC, United States.

Geoscience Grab Bag 1: Sailing rocks, seafloor trash craters, and atomic bombs

Monday, 9 December, 3:30 p.m. | Presentations [EP11B-02](#), [EP23C-2277](#), [OS13C-1559](#)

Unlike traditional press conferences that focus on one topic or mission, this Geoscience Grab Bag will highlight three unrelated research presentations across Earth and space science being presented at Fall Meeting 2019. This Grab Bag briefing will include:

- New clues on the origin of roughly 5,000 pockmarks on the seafloor near the California coast
- New insights into the connection between "sailing rocks" and dinosaur footprints
- New seafloor maps detailing the craters left by atomic bomb tests in the Pacific Ocean

Participants:

Paul Olsen, Columbia University, Palisades, New York, United States;

Charles Paull, Monterey Bay Aquarium Research Institute, Moss Landing, California, United States;

Arthur Trembanis, University of Delaware, Newark, Delaware, United States.

Press workshop: A year on the ice: MOSAiC at three months

Tuesday, 10 December, 8:00 a.m. | Presentations [A44C-01](#), [A52A-01](#), [C23D-1594](#), [C32B-03](#), [C32B-08](#), [GC12A-03](#)

A German icebreaker has been frozen in Arctic sea ice near the North Pole for weeks, after departing Norway in September. Hear some of the science, stories, and challenges from participants in one of the most ambitious research missions in the central Arctic: The Multidisciplinary Drifting Observatory for the Study of Arctic Climate (MOSAiC). The panel, including two scientists who will phone in from the frozen icebreaker, will discuss why we need to better understand Arctic changes and the challenges of collecting data at the remote and beautiful top of the world.

Participants:

Stephanie Arndt, Alfred Wegener Institute, Bremerhaven, Germany;

Sally McFarlane, U.S. Department of Energy, Germantown, Maryland, United States;

Markus Rex, Alfred Wegener Institute, Bremerhaven, Germany (aboard RV *Polarstern*);

Matthew Shupe, University of Colorado/NOAA, Boulder, Colorado, United States (aboard RV *Polarstern*);

Melinda Webster, University of Alaska Fairbanks, Fairbanks, Alaska, United States.

Press workshop: Climate change and El Niño: Does global warming matter for the climate of the tropics?

Tuesday, 9 December, 9:00 a.m. | Presentations [GC24A-01](#), [GC24A-08](#), [PP24C-08](#), [PP31A-03](#), [PP53A-01](#)

In 1969, Jacob Bjerknes first proposed that the El Niño phenomenon in the east Pacific was part of a larger tropical climatic pattern influencing the globe. Today, scientists are focusing on the effects of global warming on El Niño and the tropical oceans, where they believe the effects of global warming will be most strongly felt. In this workshop, climate experts will explain how they use modern and ancient climate evidence to predict the future effects of El Niño and La Niña on vulnerable communities and ecosystems as we enter a new era of climate uncertainty.

Participants:

Mark Cane, The Earth Institute, Columbia University, New York City, New York, United States;

Pedro DiNezio, University of Texas, Austin, Texas, United States;

Christina Karamperidou, University of Hawaii at Mānoa, Honolulu, Hawaii, United States;

Jessica Tierney, University of Arizona, Tucson, Arizona, United States.

Et tu Etna? New insights on classical eruptions of Etna, Vesuvius, and Santorini

Tuesday, 9 December, 10:00 a.m. | Presentations [V23I-0297](#), [V23I-0298](#)

In 44 BCE, the year Julius Caesar made himself dictator for life of the Roman Republic and was murdered, a volcano erupted somewhere on Earth. Traces of the eruption can be found in ice cores from Greenland and Antarctica and records of agricultural disaster from Egypt to China. Researchers will present new evidence that a previously underestimated eruption at Mt. Etna, Sicily, could account for the observed global effects and may have influenced events in Rome. In a separate study, researchers will discuss findings about the mysterious fate of residents following a catastrophic eruption that destroyed much of the Greek island of Santorini 3,500 years ago, burying city buildings and artifacts, but leaving behind no bodies.

Participants:

Rafael Castro, University of California at Berkeley, Berkeley, California, United States;

Krista Evans, University of Hawaii at Manoa, Manoa, Hawaii, United States;

Morgan King, College of St. Benedict and St. John's University, Collegeville, Minnesota, United States.

Arctic Report Card 2019

Tuesday, 9 December, 11:00 a.m. | Presentations [B44E-08](#), [C13D-1337](#), [C21C-06](#), [C23D-1579](#), [C23D-1580](#), [C23D-1581](#), [C33A-01](#), [C51D-1328](#)

The NOAA-led Arctic Report Card has become the authoritative, annual volume of peer-reviewed environmental observations and analysis on the Arctic. This year's report card will feature chapters chronicling the extraordinary and disruptive changes roiling the Bering Sea, and the dislocation of important fisheries in the Bering and Barents Seas, as well as an essay from indigenous peoples whose livelihoods are presently and directly threatened by climate change.

Participants:

Matthew Druckenmiller, National Snow and Ice Data Center, Boulder, Colorado, United States;

Retired Navy Rear Adm. Tim Gallaudet, Assistant Secretary of Commerce for Oceans and Atmosphere, Washington, District of Columbia, United States;

Mellisa Johnson, Bering Sea Elders group, Anchorage, Alaska, United States;
Donald Perovich, Dartmouth College, Hanover, New Hampshire, United States.

What controlled the rise of oxygen on Earth?

Tuesday, 10 December, 1:30 p.m. | Presentations [B22B-05](#), [PP53B-04](#)

Research is breathing new life into the contentious debate about what led to the oxygenation of Earth's atmosphere and oceans. In this briefing, researchers will discuss new findings that challenge leading ideas on the source of Earth's well-documented 'oxygenation events' which began two billion years ago. Researchers will also discuss what these findings mean for our understanding of the history of oxygen on Earth – and the implication for planets other than our own.

Participants:

Joshua Krissansen-Totton, University of Washington, Seattle, Washington, United States;
Benjamin Mills, University of Leeds, Leeds, United Kingdom;
Noah Planavsky, Yale University, New Haven, Connecticut, United States.

Postcards from the edge of space: New images, new phenomena, and new insights

Tuesday, 10 December, 2:30 p.m. | Presentations [SA11A-01](#), [SM51G-3219](#)

In this briefing, scientists will present new images from Earth's ionosphere, bringing color to processes that have widespread implications for the part of space closest to home. This collection of photos will span the first images ever captured by NASA's ICON spacecraft — just launched in October 2019 — and the first science discoveries from NASA's GOLD mission, along with observations of a never-before-studied type of aurora.

Participants:

Jennifer Briggs, Pepperdine University, Malibu, California, United States;
Richard Eastes, University of Colorado Boulder, Boulder, Colorado, United States;
Thomas Immel, University of California Berkeley, Berkeley, California, United States.

Geoscience Grab Bag 2: Mountain limits and earthquake teleconnections

Tuesday, 10 December, 3:30 p.m. | Presentations [EP51F-2175](#), [G43B-0751](#), [OS54A-03](#)

Unlike traditional press conferences that focus on one topic or mission, this Geoscience Grab Bag will highlight three unrelated research presentations in the field of geology being presented at Fall Meeting 2019. This Grab Bag briefing will include:

- Surprising discoveries about what limits the height of mountains on Earth
- New insights into the connection between earthquakes in Cascadia and Southern California
- New results about how faraway earthquakes impact the Australian continent

Participants:

Chris Goldfinger, Oregon State University, Corvallis, Oregon, United States;
Anna Riddell, University of Tasmania, Hobart, Tasmania, Australia;
Anne Voigtländer, Helmholtz Centre Potsdam GFZ German Research Centre for Geosciences, Potsdam, Germany.

Geoscience Grab Bag 3: Rock arches, alien rain, and kidney stones

Wednesday, 11 December, 9:00 a.m. | Presentations [GH43C-1225](#), [P14A-05](#), [S23D-0679](#)

Unlike traditional press conferences that focus on one topic or mission, this Geoscience Grab Bag will highlight three unrelated research projects across Earth and space science being presented at Fall Meeting 2019. This Grab Bag briefing will include:

- Surprising discoveries about how infrasound can damage geologic features
- New insights into raindrop size, shape, and falling speed on different planets
- New results on the structure of human kidney stones

Participants:

Riley Finnegan, University of Utah, Salt Lake City, Utah, United States;

Kaitlyn Loftus, Harvard University, Cambridge, Massachusetts, United States;

Matthew Wielicki, University of Alabama, Tuscaloosa, Alabama, United States.

New science from NASA's Parker Solar Probe mission

Wednesday, 11 December, 10:00 a.m. | Presentations [SH12A-01](#), [SH13C-3432](#), [SH13C-3434](#), [SH13C-3443](#), [SH51A-01](#)

As Parker Solar Probe zipped closer to the Sun than any spacecraft has gone before, it made groundbreaking observations of various Sun-driven events that can affect humans and technology in space. In this panel, speakers will present new findings from the mission based on data gathered from within the Sun's atmosphere. This includes closer-than-ever measurements of coronal mass ejections and particle events that cannot be observed with near-Earth spacecraft.

Participants:

Karl Battams, United States Naval Research Laboratory, Washington, D.C., United States;

Tim Horbury, Imperial College London, London, United Kingdom;

Kelly Korreck, Smithsonian Astrophysical Observatory, Cambridge, Massachusetts, United States;

Nathan Schwadron, Princeton University/University of New Hampshire, Princeton, New Jersey, United States;

Nicholeen Viall, NASA Goddard Space Flight Center, Greenbelt, Maryland, United States.

Press workshop: Get ready to face the Sun with Solar Orbiter

Wednesday, 11 December, 11:00 a.m. | Presentations [SH21D-3292](#), [SH24A-01](#), [SH53B-3376](#)

The countdown to the launch of the European Space Agency's Solar Orbiter mission from NASA's Kennedy Space Center on 5 February 2020 has begun. In this briefing, panelists will present the key goals of the mission, which include capturing the first-ever images of the Sun's poles and studying how activity observed at the Sun connects with conditions closer to Earth. They will also explain how the Solar Orbiter and NASA's Parker Solar Probe will collect complementary data sets to maximize the science return of the two missions.

Participants:

Holly Gilbert, NASA Goddard Space Flight Center, Greenbelt, Maryland, United States;

Daniel Mueller, European Space Agency, Villanueva De La Cañada, Spain;

Marco Velli, University of California Los Angeles, Los Angeles, California, United States.

Another giant polar cyclone: Juno science results since jumping Jupiter's shadow

Wednesday, 11 December, 1:30 p.m. | Presentations [P21G-3454](#), [P44A-03](#), [P42A-06](#), [ED14A-01](#)

This briefing will include information about a brand new (and massive) polar cyclone on Jupiter as well as the latest findings on the gas giant's magnetic field, infrared auroral mapping, lightning, and latest science results and new breathtaking Jovian imagery from JunoCam.

Participants:

Scott Bolton, Southwest Research Institute, San Antonio, Texas, United States;

Candice Hansen, Planetary Science Institute, Tucson, Arizona, United States;

Steve Levin, NASA Jet Propulsion Laboratory, Pasadena, California, United States;

Cheng Li, California Institute of Technology, Pasadena, California, United States;

Alessandro Mura, National Institute for Astrophysics, Rome, Italy.

Microplastics in unexpected places

Wednesday, 11 December, 2:30 p.m. | Presentations [H42D-04](#), [H43O-2277](#), [H43O-2284](#)

Plastic debris has accumulated in ecosystems around the world and is an increasing environmental concern. Many studies have focused on microplastic pollution in the ocean, but little is known about how microplastics are transported through the environment and where they end up. In this briefing, researchers will present new findings related to microplastic pollution, including new information about microplastics in remote environments, how clothing sheds microfibers during the washing process, and movement of microplastics through agricultural land.

Participants:

Julia Davidson, Desert Research Institute Reno, Reno, Nevada, United States;

Emmerline Ragoonath-De Mattos, Columbia University, Palisades, New York, United States;

Meredith Sutton, University of Virginia, Charlottesville, Virginia, United States.

Geoscience Grab Bag 4: Lunar dust, Congo fish, illegal fishing, and collapsing tunnels

Thursday, 12 December, 9:00 a.m. | Presentations [EP53A-04](#), [IN51C-05](#), [NS43B-0833](#), [P33C-10](#)

Unlike traditional press conferences that focus on one topic or mission, this Geoscience Grab Bag will highlight four unrelated research projects across Earth and space science being presented at Fall Meeting 2019. This Grab Bag briefing will include:

- Surprising discoveries about the relationship between rover wheels and lunar dust
- New insights into evolution in one of Earth's most extreme freshwater habitats
- New methods for detecting illegal maritime activities
- First results from an unusual method to find hidden cavities behind railway tunnels that may be at risk of collapse

Participants:

Melanie Stiassny, American Museum of Natural History, New York, New York, United States;

Patrick Stowell, University of Sheffield, Sheffield, United Kingdom;

James Watson, Oregon State University, Corvallis, Oregon, United States;

Li Hsia Yeo, University of Colorado Boulder, Boulder, Colorado, United States.

X marks the spot: NASA's OSIRIS-REx sample collection site announcement

Thursday, 12 December, 11:00 a.m. | Presentations [P51A-02](#), [U54A-02](#)

OSIRIS-Rex, NASA's first asteroid sample return mission, has spent the last year studying asteroid Bennu. The mission team visually, spectrally and topographically mapped Bennu in order to better understand the asteroid and to choose the optimal site for sample collection. The team is now ready to reveal its final primary and back-up sample collection sites. They will also discuss the mission's plans for the next year leading up to the sampling event, which is scheduled for summer 2020.

Participants:

Daniella DellaGiustina, University of Arizona, Tucson, Arizona, United States;

Lori Glaze, NASA Headquarters, Washington, D.C., United States;

Dante Lauretta, University of Arizona, Tucson, Arizona, United States;

Michael Moreau, NASA Goddard Space Flight Center, Greenbelt, Maryland, United States.

Media availability: Recent fires in the Amazon, California and around the globe

Thursday, 12 December, 2:30 p.m.

Experts will give brief remarks about their research on fires in the Amazon and California and answer questions about fire activity in these regions and around the world.

Participants:

Paulo Artaxo, University of São Paulo, São Paulo, Brazil;

Mercedes Bustamante, University of Brasília, Brasília, Brazil;

Mark Cochrane, University of Maryland Center for Environmental Science, Cambridge, Maryland, United States;

Jim Randerson, University of California-Irvine, Irvine, California, United States;

Divino Silvério, Amazon Environmental Research Institute, Belém, Brazil;

Danielle Touma, University of California Santa Barbara, California, United States.