National Aeronautics and Space Administration

Explore



### NASA's Science Support Office



### Our Mission Bringing NASA Science to the World

With more than 30 years of history and experience, NASA's Science Support Office has established a well-deserved reputation as the primary point of contact for the Science Mission Directorate and Earth Science Division for science exhibit outreach and product development. The office brings together a unique skill set in "one team" that enables the successful conception, planning, design, and delivery of small- and large-scale exhibit support services.

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### Our Goals

Provide an inspiring and interactive venue, using a unique storytelling approach, that allows a variety of audiences worldwide to connect with NASA Science, offering:

- Opportunities for individuals to engage face-to-face or virtually with NASA science experts;
- Access to free and accurate scientific information related to NASA missions, research topics, and scientific discoveries; and
- Unique visual scientific perspectives via stunning imagery and other creative multimedia content (e.g., Hyperwall, Dynamic Planet).

### Audiences

- Scientists and engineers (e.g., government, academia)
- Students, professors, and teachers
- Policy and decision makers
- Non-governmental organizations, Industry
- General public (e.g., learners of all ages, citizen scientists)

Steven Graham Manager 27 Years

# Meet the Team

### Science Support Office

Number of years indicates cumulative years on the team.



Mark Malanoski Senior Exhibit Multimedia Specialist 19 Years

Dalia Kirshenblat Outreach Coordinator and Writer 2 Years

Xavier Williamson Project Coordinator 2 Years



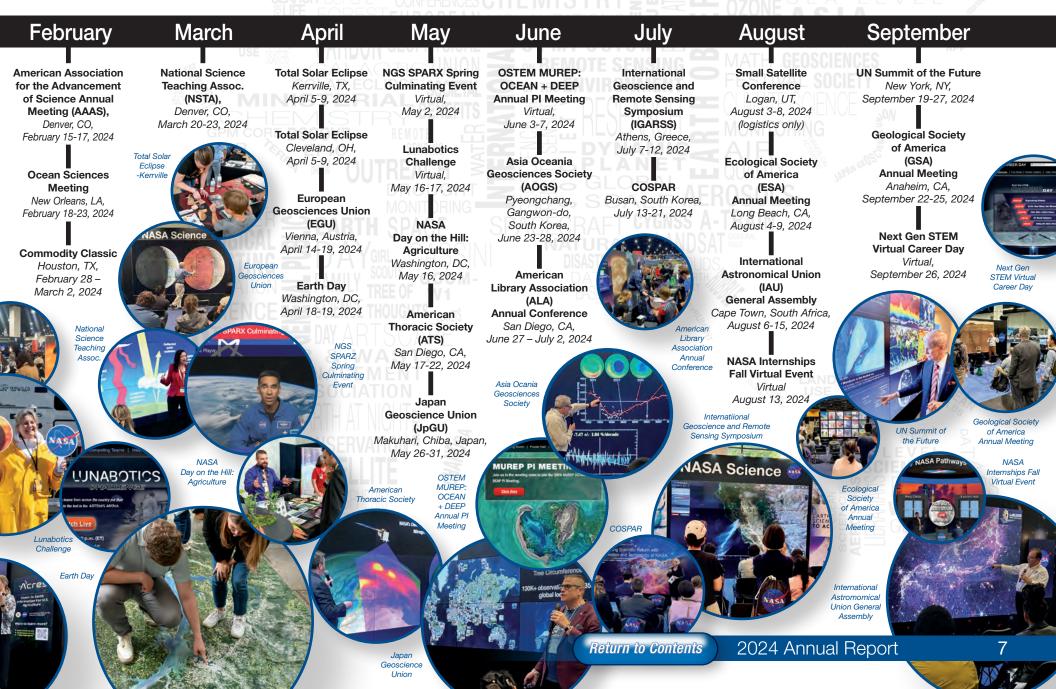
Michael Marosy Graphic Designer 2 Years Marit Jentoft-Nilsen Senior Data Visualizer/Programmer 19 Years



## 2023/2024 Conferences and Events



## October 1, 2023 - September 30, 2024 chang



### Partnerships

Our goal is to effectively strengthen existing partnerships (both internal and external) to achieve NASA's goals in the areas of science engagement and communication (i.e., encourage STEM and improve U.S. scientific literacy).

• Within NASA — Scientific Visualization Studio (SVS), NASA Centers, Missions, Programs, Office of International and Interagency Relations (OIIR), NASA Grantees

• Scientists - All Centers as well as external, e.g., academia

- Other Federal Agencies National Oceanic and Atmospheric Administration (NOAA), Department of State (DoS), United States Geological Survey (USGS)
- Science Professional Non-Profit Organizations American Geophysical Union (AGU), Michael Freilich Student Visualization Storytelling Competition
- International Partners Japan Aerospace Exploration Agency (JAXA), European Space Agency (ESA), European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT), and Scientific Professional Organizations, e.g., European Geosciences Union (EGU), Asia Oceania Geosciences Society (AOGS), Japan Geoscience Union (JpGU)

#### Hyperwall Working Group

In January 2023, the Science Support Office and Scientific Visualization Studio (SVS) established a NASA Hyperwall Working Group, which includes the following individuals: Steve Graham, Heather Hanson, Marit Jentoft-Nilsen, Dalia Kirshenblat, Mark Malanoski, Nathan Marder, Amy Moran, Eric Sokolowsky (SVS), and Mark Subbarao (Lead, SVS). The group meets once every other week to discuss Hyperwall software/hardware, Hyperwall content (i.e., scientific visualizations and images), SVS database and website updates, and Hyperwall event support (i.e., Hyperwall speakers and content) for upcoming scientific conferences and events.

### **Engagement Products and Platforms**



### Sharing NASA Science Around



World Climate Research Program (WCRP) Open Science Conference Kigali, Rwanda, October 23 - 27, 2023

The NASA Science exhibit (35' x 35') featured the Hyperwall storytelling platform, where

NASA speakers delivered 14 presentations covering several Earth science topics. U.S. Ambassador to Rwanda, Eric Kneedler, visited the conference and met with NASA representatives at the exhibit. Attendance: 1,400





104th American Meteorological Society (AMS) Annual Meeting Baltimore, MD, January 28 – February 1, 2024

The NASA Science exhibit (40' x 30') featured the Hyperwall storytelling platform, with 31

presentations. Karen St. Germain [Director of the Earth Science Division] and Jack Kaye [Associate Director of Research for ESD] gave Hyperwall talks opening night. The exhibit featured 13 Science Mission Directorate programs from NASA's Earth Science and Heliophysics divisions. Attendance: 7,200



**UN Climate Change**, Conference of the Parties (COP28) Dubai, United Arab Emirates, November 30 – December 12, 2023

SSO supported the NASA Hyperwall at the U.S. Center at the UN Climate Change

Conference, Conference of the Parties (COP28). Kate Calvin [Chief Scientist and Senior Climate Advisor] and Karen St. Germain [Director of the Earth Science Division] were among Hyperwall presenters. Attendance: 85,000





**Ocean Sciences Meeting** New Orleans, LA, February 18 - 23, 2024

The timing of the conference coincided closely with the launch of NASA's Plankton, Aerosol, Cloud, ocean Ecosystem (PACE) mission,

**Commodity Classic** 

which launched on February 8. The NASA Science exhibit (20' x 30') featured the Hyperwall storytelling platform, with 24 presentations, many of which focused on PACE themes. The exhibit also featured the NASA Postdoctoral Program and other Science Mission Directorate missions representing Earth Science, including ICESat-2 and SWOT. Attendance: 6.500



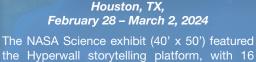
243<sup>rd</sup> American Astronomical Society (AAS) Annual Meeting New Orleans, LA, January 7 - 11, 2024

The NASA Science exhibit (40' x 50') featured the Hyperwall storytelling platform, with 45

scheduled presentations and 17 table stations representing many SMD disciplines and Astrophysics missions and programs. A Passport to Fun encouraged attendees to explore NASA Science. On January 10, roughly 50 students pre-arranged by STEM NOLA visited the NASA exhibit to participate in a hands-on activity with the Balloon Program. Actor John Rhys Davies paid a visit to the NASA exhibit. Attendance: 3,500

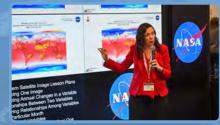


the Earth Science Division and the Applied Sciences program to feature six live demos. four Ask Me Anything (AMA) panel discussions, and four table-top stations representing Earth science. Landsat, education, and the NASA Acres program. Attendance: 11.400



NASA's Science Support Office

### the World ~ Conference Highlights





National Science Teaching Assoc. (NSTA) Denver, CO, March 20 – 23, 2024

The NASA Science exhibit (30' x 30') featured the Hyperwall storytelling platform, with 42

presentations. Exhibit staff included representatives from a variety of agency missions and programs, including Artemis, OSTEM's Next Gen STEM program, CubeSat Launch Initiative, Astromaterials, Landsat, Transform to Open Science, TechRise, SCaN, Infiniscope, Astronomy Activation Ambassadors, NASA Community College Network, My NASA Data, and the GLOBE Program. Live Kahoot! trivia games were hosted on the Hyperwall. *Attendance: 6,000* 





American Library Association (ALA) Annual Conference San Diego, CA, June 27 – July 2, 2024

The NASA Science exhibit (30' x 30') featured two book giveaways (*Hooray for SLS! and The* 

Story of our Search for Life in the Universe), interactive Kahoot! trivia games played on the Hyperwall, "Ask me Anything" exhibit hours with NASA experts, a variety of tabletop stations, and 26 engaging Hyperwall presentations. The tabletop stations included Artemis, JWST, Roman, Universe of Learning, Astrophysics Data Systems, Psyche, Astromaterials, Earth Science, and the GLOBE Program. *Attendance: 13,500* 



European Geosciences Union (EGU) Vienna, Austria, April 14 – 19, 2024

EGU is the largest and most prominent European geosciences event. The NASA

Science exhibit (8 x 8 m) featured the NASA Hyperwall storytelling platform, with 29 presentations representing Earth Science (e.g., PACE) and Planetary Science (e.g., Juno) topics. A handful of table-top stations were also featured at the exhibit, where attendees could explore NASA Science or interact with NASA mission scientists and representatives. New this year, the Hyperwall agenda offered daily "Ask Me Anything" sessions with NASA experts. *Attendance: 21,000* 





Asia Oceania Geosciences Society (AOGS) Pyeongchang, Gangwon-do, South Korea, June 23 – 28, 2024

The NASA Science exhibit (6 x 8 m) featured the NASA Hyperwall storytelling platform, with

22 engaging presentations, covering several Earth science and Planetary science topics, including SAGE III/aerosols, OCO-2/carbon dioxide, Greenland meltwater, global water budget, fire and air quality monitoring, ozone recovery, temperature trends, climate models, sea surface salinity, geospace, Transform to Open Science, Europa Clipper, Solar Systems Treks, and remote sensing synergies. *Attendance: 3,000* 





International Geoscience and Remote Sensing Symposium (IGARSS) *Athens, Greece, July 7 – 12, 2024* 

The NASA Science exhibit (~30 x 20') featured the Hyperwall storytelling platform, with 25

engaging presentations. Topics included NISAR, PACE, Earth data to action, AI, global water knowledge, environmental health, Earth's polar regions, CYGNSS, NASA's Disasters Program, OpenET, geospatial data visualization, and JWST observations of Titan. Karen St. Germain [Director of the Earth Science Division] was interviewed in front of the Hyperwall by two local Athens news outlets. *Attendance: 2,500* 



Geological Society of America (GSA) Annual Meeting Anaheim, CA, September 22 – 25, 2024

The NASA Science exhibit (30' x 30') featured the Hyperwall storytelling platform, with 22

presentations covering a broad range of topics, including the Mars 2020 Mission and Mars Sample Return, Europa Clipper, and the DAVINCI mission to Venus. An interactive demo of the "Exploring the Planets and Universe with OpenSpace" data visualization tool was also delivered. SMD was joined in the booth by partners from Astromaterials, Landsat, and the Science Activation (SciAct) SCoPE program. *Attendance: 4,000* 

2024 Annual Report

### Featured Conferences and Events

#### **Annular Eclipse Ev**

#### International Balloon Fiesta, Albuquerque, NM, October 11-15, 2023

SSO led a team of 50 NASA staff members in the production and management of the NASA Science tent at the International Balloon Fiesta event in Albuquerque, NM, October 12–15, 2023. The event was scheduled to coincide with the 2023 annular eclipse, which occurred on Saturday, October 14. Estimated attendance for the event was 80,000 each day, with 125,000 attendees reported on the day of the eclipse. The NASA tent (40' x 40') featured nine hands-on activities, including an eclipse photo station, 3D Hubble experiences, astrophysics demos, real-time ozone and atmospheric particulate data collection, GLOBE temperature data collection, and augmented reality with Earth data. Attendees



were encouraged to complete at least four out of nine activities featured in the activity



passport to receive a NASA drawstring bag and a variety of other promotional giveaways. A total of 6,000 activity passports were distributed to the public during the event. Student groups, families, and friends were encouraged to use a single passport during their visit; thus, the estimated number of total participants is much higher.

Photos from the event are available at www.flickr.com/ photos/eospso/albums/72177720312017156

### ents, October 2023

#### Annular Eclipse, Kerrville, TX, October 12-15, 2023



SSO staff supported annular eclipse outreach activities in Kerrville, TX, October 12–14, 2023. NASA educated the community on safe viewing practices by providing 12,000 eclipse glasses to schools, community centers, and a local library. Outreach activities were offered at the following locations: Doyle Community Center on October 12 (135 homeschoolers); Butt Holdsworth Memorial Library (100+ attendees) and Cailloux Theatre (100+ attendees) on October 13, and the Kerrville Riverfest (17,000 attendees, 3,000 personal interactions) on October 14.

Photos from Kerrville are available at www.flickr.com/photos/ eospso/albums/72177720312310565



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#### National Diversity in STEM Conference (SACNAS), Portland, OR, October 26-28, 2023

SSO supported the NASA Science exhibit at the 50<sup>th</sup> anniversary National Diversity in STEM Conference/SACNAS in Portland, OR, on October 26–28, 2023. The 30'x30' exhibit featured the NASA Hyperwall storytelling platform where NASA speakers delivered 35 presentations, featuring talks in English and Spanish. This was the first time the Hyperwall was part of the NASA exhibit at SACNAS. The exhibit also featured tabletop stations offering recruitment opportunities and information related to NASA





Science topics, including astrophysics, transform to open science, Earth science data systems, space grants, and the NASA Postdoctoral Program. About 45 NASA staff members supported the tabletop stations.

Photos of the event are available at www.flickr.com/photos/ eospso/albums/72177720312374056.

#### American Geophysical Union (AGU) Annual Meeting, San Francisco, CA, December 11-14, 2023



Mottar. The exhibit also featured the Hyperwall storytelling platform, two live demo kiosks, and a collection of table-top stations where attendees could engage with different NASA subject matter experts representing all five of NASA Science Mission Directorate divisions: Earth Science, Planetary Science, Heliophysics, Astrophysics, and Biological and Physical Sciences. Exhibit staff also shared information related to NASA's open-source data initiative and current career opportunities. Throughout the week, the Hyperwall featured 57 storytelling talks, including 8 presentations delivered by winners of the 2023 AGU Michael Freilich Student Visualization Competition (https://www.agu.org/honors/freilich). At the booth attendees could

As it has for many years, SSO coordinated the NASA Science exhibit at the 2023 American Geophysical Union (AGU) annual meeting, held in San Francisco, CA, December 11–14, 2023. The conference drew 24,843 in-person attendees. An additional 2,499 attendees join virtually, bringing total attendance to 27,342. The theme of the exhibit (60' x 60') was "Through the Eyes of NASA." The exhibit featured a 3D scenic photo wall displaying cover art

from the 2024 NASA Science Calendar. During the first two days of the exhibit, six poster-signing events were offered, allowing attendees to meet, take photos with, and collect signed artwork by SMD Art Director Jenny



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#### Continued ~ American Geophysical Union (AGU) Annual Meeting, San Francisco, CA, December 11-14, 2023

listen to Hyperwall stories, talk with NASA experts, and collect both physical and digital (via QR code) engagement products to take NASA Science home with them. In addition, 6,000 English and 500 Spanish copies of the 2024 NASA Science Calendar and 22,000 pairs of NASA eclipse glasses were distributed by AGU staff at the entrance to the exhibit hall. This was a new arrangement, implemented this year by NASA and AGU to help alleviate overcrowding at the NASA Science exhibit.

Photos of the event are available at www.flickr.com/ photos/eospso/albums/72177720313492330/ Winners of the 2023 AGU Michael Freilich Student Visualization Competition.



#### AGU Hyperwall Presentation Recordings

Hyperwall presentations delivered by NASA Science leadership (Nicola Fox, Karen St. Germain, Lisa Carnell, Pec Luce, Nicki Rayl, Gina DiBraccio, Mark Clampin, Lori Glaze, and Mark SubbaRao) at the NASA Exhibit during the opening night reception of the AGU annual meeting are available at: www.youtube.com/playlist?list=PL55HrL0eJVEa2D2LK\_ilqv2ujofcXH3L7.

Hyperwall presentations delivered at the NASA Exhibit by Grand Prize Winners of the 2023 AGU Michael H. Freilich Student Visualization Competition are available at: www.youtube.com/playlist?list=PL55HrL0eJVEZNKXPeyx2\_Eo-sbRUdnWxO.

#### 2023 Annual NASA Science Mission Directorate Strategic Content and Integration Meeting

SSO staff helped coordinate and facilitate the 2023 Annual NASA Science Mission Directorate (SMD) Strategic Content and Integration Meeting, held December 10, 2023, at the San Francisco Marriott Union Square Hotel in San Francisco, CA, ahead of the American Geophysical Union (AGU) annual meeting. The hybrid meeting format allowed approximately 130 in-person and ~55 online NASA employees and contractors, all of whom contribute to the agency's communication activities at many different NASA centers, to convene to strategize communication efforts and workflows for the coming year. The theme of the day was "I ♥ NASA Science." The daylong event featured presentations on intentional connections, communication, and engagement strategies for 2024;

an "Ask Us" panel with NASA SMD Division Directors; an update on the agency's SMD websites; discussions about improvements to the NASA Science exhibit presence; and a review of plans for solar eclipse engagement activities in 2024. In the afternoon, there were breakout sessions for Earth Science, Planetary Science, and Heliophysics activities, where participants discussed communication and engagement strategies.

Photos of the event are available at www.flickr.com/photos/eospso/ albums/72177720313492330/



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#### **Total Solar Ecli**

#### Total Solar Eclipse, Kerrville, TX, April 5-9, 2024

SSO staff supported NASA's presence at the total solar eclipse in Kerrville, TX, April 5–9, 2024, including several small engagements leading up to the eclipse (at Cailloux Theatre, Doyle Community Center, Trailhead Garden, and Kerrville-Schriener Park) and a culminating event on April 8 at Louise Hays Park. SSO provided astronaut handler support on April 8 for NASA Astronaut Reid Wiseman, commander of Artemis II, including the facilitation of a "photos with an astronaut" session and navigation to and from speaking engagements on the main stage and at the NASA broadcast booth.

Photos from the event are available at www.flickr.com/photos/eospso/ albums/72177720316129460 and via the NASA Headquarters flickr page at www.flickr.com/ photos/nasahqphoto/ albums/72177720316107090





### pse, April 2024

#### Total Solar Eclipse, Cleveland, OH, April 5-9, 2024

SSO staff supported total eclipse engagement in Cleveland, OH, April 5–9, 2024. Support was offered primarily to the solar science tent in the NASA Village, which was part of the Great Lakes Science Center's "Total Eclipse Fest 2024." SSO staff engaged visitors by providing materials on eclipse safety, sharing NASA Heliophysics science, and distributing NASA Science calendars and bags. SSO staff also supported a NASA photo booth with eclipse-themed props – and took hundreds of photos.



Photos are available at www.flickr.com/photos/nasaglennalbums/72177720316031575

**SSO distributed more than 1.2 million eclipse** *glasses* to inspire safe viewing of the October 2023 annular solar eclipse and April 2024 total solar eclipse. Working with Kelly Korreck [Program Manager for the 2023 and 2024 Solar Eclipses] and Alex Lockwood [Strategic Messaging and Engagement Lead], SSO created and maintained a Google from for verified partners to request eclipse glasses called "NASA Partner Request Form for Eclipse Glasses." SSO worked collaboratively to verify requests, fulfil shipments, and provide tracking information. This process facilitated the successful distribution of 500,000 glasses to 140 NASA partners.



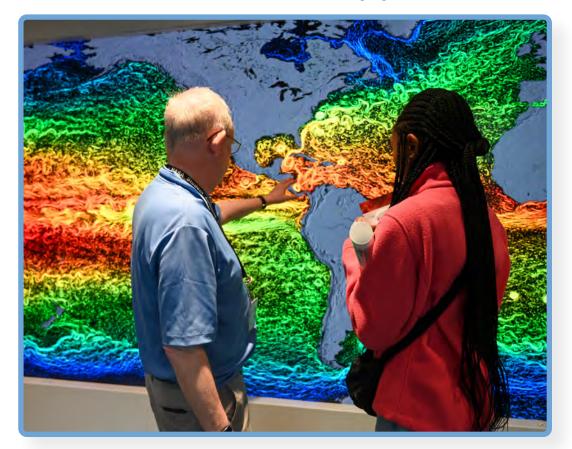
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#### Earth Day at NASA Headquarters, Washington, DC, April 18-19, 2024

SSO staff led planning, logistics, and event support for the 12th annual NASA Earth Day Celebration event, held April 18–19 in Washington, DC. For the first time ever, the two-day event was held at NASA Headquarters, featuring the newly installed Earth Information Center (EIC), located in the East Lobby. The event, free and open to the public, featured 17 hands-on activities in the East Lobby and two adjacent outdoor tents. A Passport to Fun was used to activate attendee interaction with NASA, encouraging visitation to at least 6

of the 17 stations to receive giveaway items. During both days of the event, NASA arranged 300 students from surrounding areas to join the public to attend the event. Student participants visited from DuVal High School, Morgan State University, Howard University, Prince George's County Environmental Academy, Prince George's County Virtual Academy, and the International Hispanic School. Local homeschoolers were also included. Roughly 500 activity passports were distributed to individuals and small groups. Families and friends were encouraged to share a single passport; thus, the estimated number of public participants is likely more than double (1000) or triple (1500) the number of passports distributed. On Friday, April 19, students gathered in the Webb Auditorium for a virtual presentation by former NASA Astronaut Paul Richards, who interacted with attendees and answered questions for roughly 20 minutes. This interaction was followed by a special, in-person presentation by Karen St. Germain [Director of the Earth Science Division], who provided inspiring remarks and answered questions for 15 minutes. NASA Administrator, Senator Bill Nelson, also visited



the event on April 19. Nelson was accompanied by Karen St. Germain and several NASA staff members, who guided him as he explored the variety of activities offered. He enthusiastically engaged with several activities and spent significant time at each activity he visited. NASA Headquarters photos are available at www.flickr.com/photos/nasahqphoto/albums/72177720316330001. More images from the event can be viewed at www.flickr.com/photos/eospso/albums/72177720316425663. This event would not have been possible if not for the incredible efforts and collaboration put forth by so many of NASA's engagement professionals.





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#### NASA Day on the Hill: Agriculture, Washington, DC, May 16, 2024

Together with the Earth Science Division (ESD) and Office of Legislative and Intergovernmental Affairs (OLIA), SSO supported the Satellites to Seeds: NASA Agriculture Day on the Hill event on May 16, 2024, at the Rayburn House Office Building in Washington, DC. The exhibit featured the NASA Hyperwall and six NASA tabletop stations representing Earth Science, Landsat, Earth observations of weather and water, and two NASA Agricultural programs, Acres and Harvest. The U.S. Department of Agriculture (USDA) was also represented at the event, featuring a few tabletop stations. SSO arranged logistics, created and maintained a floorplan, designed and produced event signage, built and operated the Hyperwall, oversaw setup and tear down, and helped staff the Earth science tabletop station during the event. NASA notables included Karen St. Germain [Director of Earth Science Division], Kate Calvin [Chief Scientist], and Brad Doorn [Agriculture Applied Research Program Manager]. The following Members attended the event, representing different areas of the country: Rep. Glenn Ivey (D-MD), Rep. Andy Kim (D-NJ), Rep. Darrell Issa (R-CA), Rep. Steve Cohen (D-TN), Rep. John Rose (R-TN), Rep. Mariannette Miller-Meeks (R-IA), and Rep. Joe Wilson (R-SC). Several key Committee staff also attended. More than 140 attendees recorded their names at the welcome table during the first two hours of the event. OLIA reported that at least another 100 attendees visited during the reception, when attendance was not recorded. OLIA reported that attendance exceeded expectations.

Photos of the event are available at www.flickr.com/photos/eospso/albums/72177720317094514







#### Japan Geoscience Union (JpGU), Makuhari, Chiba, Japan, May 26-31, 2024

The NASA Science exhibit (30' x 30') featured the Hyperwall storytelling platform where speakers from both NASA and JAXA delivered 16 engaging presentations, covering several Earth, heliophysics, and planetary science topics. On May 26, a special session for junior high school students was held, including Hyperwall presentations and hands-on activity demonstrations. Brian Campbell facilitated the NASA hands-on activities, using the Science and Technology Education for Land/ Life Assessment (STELLA) handheld spectrometer to demonstrate remote sensing concepts and techniques. JAXA scientists also engaged students with hands-on activities related to planetary defense and spectroscopy. Hyperwall presentations were given by Miguel Roman [NASA/MODIS-VIIRS Science Team Lead] and Hitoshi Kuninaka [JAXA]. There were 50 junior high school students in attendance. Three more Hyperwall sessions for conference attendees and high school students were held May 27–29, including a special "Trees Around the GLOBE Student Research Campaign" webinar, hosted live by Brian Campbell on May 28. The webinar featured Masato Ohki and Kosuke Yamamoto, both from the JAXA Earth Observation Research Center, who discussed their research on Earth observations, including land cover and precipitation satellite remote sensing. Following the JAXA presentations, Peder Nelson [Oregon State University] discussed scientific data and the patterns of Global Learning and Observation to Benefit the Environment (GLOBE) data, highlighting the trends of land cover and trees data from 2018–2024. Approximately 200 local students participated live in front of the Hyperwall, while educators and researchers from Argentina, Croatia, Japan, the Philippines, Switzerland, and the United States participated virtually. A total of 320 high school students attended the late afternoon Hyperwall presentations on May 27–29.

#### Photos of the event are available at https://www.flickr.com/photos/eospso/albums/72177720317403519



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#### COSPAR, Busan, South Korea, July 13-21, 2024

SSO supported the NASA Science exhibit (6 x 9 m) at the Committee on Space Research (COSPAR) Scientific Assembly, July 13-21, 2024, in Busan, South Korea. Attendance was roughly 3,000. The exhibit featured the NASA Hyperwall storytelling platform where speakers from NASA and the John's Hopkins Applied Physics Lab (APL) delivered 22 engaging presentations, covering several Earth science, heliophysics, planetary science, and astrophysics topics. NASA Deputy Administrator (DA) Pam Melroy gave a Hyperwall presentation at the NASA exhibit titled "Enhancing Scientific Return with Exploration and Technology at NASA." The DA's presentation was widely attended. The following day, Nicky Fox [NASA Associate Administrator for Science], presented on the Hyperwall, sharing recent NASA science results and future research plans. Fox's presentation was also widely attended.

Photos of the event are available at www.flickr. com/photos/eospso/albums/72177720318759542



#### International Astronomical Union (IAU) General Assembly, Cape Town, South Africa, August 6-15, 2024

SSO supported the NASA Science exhibit (6 x 6m) at the XXXII International Astronomical Union (IAU) General Assembly held, August 6-15, 2024, in Cape Town, South Africa. There were 2,648 participants (2,045 in person and 603 virtual) from 107 countries, including 647 students (500 in person and 147 virtual). The exhibit featured the NASA Hyperwall storytelling platform where 18 speakers from NASA (Headquarters, Goddard Space Flight Center (GSFC), Jet Propulsion Laboratory), the Space Telescope Science Institute, and the John's Hopkins Applied Physics Lab (APL) delivered 38 engaging presentations over the course of the two-week event. Presentations

covered astrophysics, planetary, and heliophysics science topics, including talks on astrophysics at NASA GSFC, cloud platforms, flows in the interior and exterior of the Sun, exoplanets, the Habitable Worlds Observatory, James Webb Space Telescope updates, space weather on Mars, the CUTE mission, NASA Eyes on Exoplanets, NASA Science Mission Directorate opportunities for the international community, the Parker Solar Probe, the Nancy Grace Roman Space Telescope, and space geodesy. Students from local schools visited the NASA exhibit on several days during both weeks and subject matter experts answered their questions about astrophysics. The exhibit was also open to the public on National Women's Day, and women and their families visited in the afternoon.

Photos of the event are available at https://www.flickr.com/photos/eospso/ albums/72177720319357883



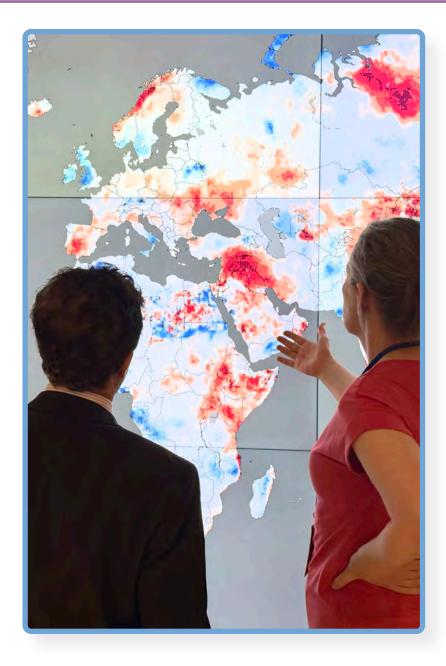
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#### United Nations Summit of the Future, New York, NY, September 19-27, 2024

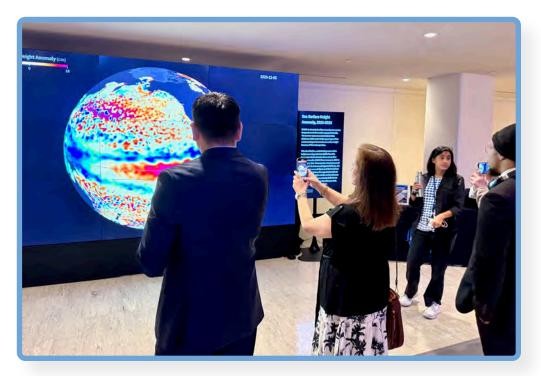
SSO supported the Hyperwall at the United Nations (UN) Summit of the Future event and 79th General Assembly High Level week, which occurred September 19–27, 2024, at UN Headquarters in New York, NY. SSO supported the NASA Sea Level Change Team (N-SLCT) by having Hyperwall content available for the release of the new Pacific Flooding Analysis Tool. NASA Administrator Bill Nelson visited the

Hyperwall on September 23 with Ms. Aarti Holla-Maini [UN Office for Outer Space Affairs (UNOOSA)-Director]. Karen St. Germain [NASA HQ-Director of the Earth Science Division], Julie Robinson [NASA HQ-Deputy Director of the Earth Science Division], Kate Calvin [NASA HQ-NASA Chief Scientist], Lesley Ott [NASA climate scientist], and Anjali Tripathi [NASA astrophysicist] talked with delegates and members about NASA Science and accessing NASA global datasets. Nadya Vinogradova Shiffer [NASA climate scientist, ocean physicist] used the Hyperwall as a backdrop for an interview recorded by the UN documentarian, and Ben Hamlington [NASA sea level scientist] provided content on the NE Pacific Island Sea Level Rise tool, which was released on September 2 before the UN session on sea level rise. Photos from the event are available at www.flickr.com/ photos/eospsoalbums/72177720320562539/. SSO worked closely with Kevin Conole [NASA Office of International and Interagency Relations-Lead for United Nations (UN) Activities], Ellen Gray [NASA HQ-ESD Engagement Manager], and Scientific Visualization Studio (SVS) staff to prepare data visualizations and animations that were shown ontheHyperwall.SSOcreatedabookletthathighlightsvarious Hyperwall science stories that were featured at the event.





This event had numerous logistical challenges that were all addressed by SSO, including: the UN required country clearances and background checks – which involved a detailed process that included security procedures and protocols with the U.S. Mission to the UN; detailed badging requirements with the UN Security Office; and extensive move in and move out procedures and protocols.



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### NASA's Virtual Event Platform

Now in its fourth year, the Science Support Office continues using the 6CONNEX/Communique virtual event platform for agency use. The platform was used to support six NASA virtual events from October 1, 2023–September 30, 2024, reaching an additional audience of approximately 21,500 students, educators, and members of the general public with NASA science.



Office of Small Business Programs Virtual Networking Event, January 25, 2024

www.flickr.com/photos/eospso/albums/72177720310003009/

2

NGS SPARX Spring Culminating Event, May 2, 2024

www.flickr.com/photos/eospso/albums/72177720316948429



Lunabotics Challenge, May 16-17, 2024 www.flickr.com/photos/eospso/albums/72177720317131250/with/53734326061



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OSTEM MUREP: OCEAN + DEEP Annual PI Meeting, June 3-7, 2024

www.flickr.com/photos/eospso/albums/72177720317837012/with/53786707998/

#### NASA Internships Fall Virtual Event,

August 13, 2024 www.flickr.com/photos/eospso/albums/72177720319579313/with/53927039494/

#### Next Gen STEM Virtual Career Day,

September 26, 2024 www.flickr.com/photos/eospso albums/72177720321047469with/54055348575



NASA Virtual Event Platform Proposal Form -If you're interested in hosting an event via the NASA Virtual Event Platorm, please complete the required fields below to initiate the event approval and planning process.





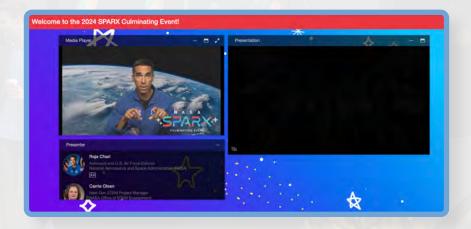
### Virtual Conference Highlights

#### Office of Small Business Programs Virtual Networking Event, Virtual, January 25, 2024

SSO supported the setup, design, and live/on-demand management of the NASA Office of Small Business Programs (OSBP) "Small Business, Big Opportunities: Pathways to Procurement at NASA" virtual event on January 25, 2024. The one-day event offered a live webinar and a collection of on-demand content that provided small business owners with resources and information needed to successfully navigate the procurement process at NASA. The event served as an opportunity for small business owners to network with peers and connect directly with representatives from NASA's Office of Procurement. The event was supported by the SSO-managed, virtual conferencing software Communiqué. The event had 2,650 registrants and 1,004 live webinar attendees. Total poll responses during live webinars were 1,863, with 119 questions asked.



#### NGS SPARX Spring Culminating Event, Virtual, May 2, 2024



On behalf of NASA's Office of STEM Engagement, the Science Support Office led the production and management of the NGS SPARX 2023-2024 School Year Culminating Event. The single-day, virtual event was live on May 2, 2024. 11:00 AM– 3:00 PM ET, and featured six webcasts, including a keynote presentation delivered by NASA Astronaut Raja Chari. Over 1,800 NGS SPARX participants — a cohort of teachers, administrators, students, and their parents — registered for the virtual event, which drew 539 live attendees. The event was developed using the Communiqué Virtual Conference Builder software and remained available on-demand through May 31. Lunabotics Challenge, Virtual, August 13, 2024



On behalf of NASA's Kennedy Space Center Lunabotics program, SSO staff designed and managed the virtual broadcast of the Finals of the 2024 NASA Lunabotics Challenge event, May 16-17, 2024. This event brought ten of the country's top collegiate Astrobotics programs to Kennedy Space Center (KSC) in Merritt Island, FL, for a two-day, head-to-head robotics competition. Lunar rovers designed and built by each team entered KSC's Artemis Arena, where they were tasked with the navigation and excavation of the arena's simulated lunar regolith. Each team was given a score based on the volume of material collected during two 30-minute runs. The virtual broadcast of the event featured a livestream of the Artemis Arena, the robotics staging area, and the mission control center (where teams could monitor and make live adjustments to their robots during runs). The virtual component of the event, developed using the Communiqué Virtual Conferencing software, attracted 816 registrants and 794 live attendees over the two-day period-and remained available on-demand through June 16.

#### OSTEM MUREP: OCEAN + DEEP Annual PI Meeting, Virtual, June 3-7, 2024

SSO supported the construction and live management of NASA OSTEM's Minority University Research and Education Project (MUREP) 2024 ocean biology and biogeochemistry (OCEAN) and Data science Equity, Access, and Priority (DEAP) Annual PI Meeting, June 3–6, 2024, held virtually using the agency-approved Communiqué virtual conferencing software. The program included four days of virtual presentations from MUREP project scientists and two adjacent student poster sessions. The event was attended by 98 mission scientists and students. The virtual poster hall allowed students and PIs to view student posters and interact using live, text-based chats. In total, the event featured 19 live webcasts and 14 student poster sessions.



#### NASA Internships Fall Virtual Event, August 13, 2024



supported the NASA Pathways Program in the SSO production and live management of the 2024 Pathways Fall Internships Virtual Event, held on August 13, 2024, using the NASA-approved Communiqué Virtual Conferencing platform. The event was open to current undergraduate and graduate studentsand attracted 1,247 registrants and 757 live attendees. The exhibit featured a live keynote presentation, during which four NASA Internship Experts shared valuable information about upcoming internship opportunities within the NASA Pathways Program and across the agency. Resume-building tips, application guidelines, and live Q&A sessions were held as part of the panel. An additional 13 center- and program-specific breakout rooms were held after the conclusion of the keynote presentation, where students could chat live with former interns and representatives from all ten NASA centers, NASA OSTEM, NASA DEVELOP, and NASA Pathways. NASA's key goals for this event included engaging prospective NASA interns and employees with an interactive virtual event that allowed students from all over the world to learn more about exciting opportunities to launch their careers at NASA.

#### Next Gen STEM Virtual Career Day, September 26, 2024

On behalf of NASA's Office of STEM Engagement (OSTEM), SSO supported the production and live management of the 2024 Virtual Career Day. The event was open to the public



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for pre-registration on August 31, with OSTEM's community of educators and students as the primary target. The live portion of the event attracted 2,139 registrants and 1,246 attendees. Since most educators registered an entire classroom as a group, and joined the live events from one shared device, registrants were asked to indicate how many students are in their individual classroom. Based off data collected during registration, the estimated total student reach for this event is approximately 17,000 students. The platform opened on September 23, and the event's live component was held on September 26. The Career Day event featured five live panel discussions led by NASA Employees in a variety of fields-from aerospace engineering to communications and science storytelling. Each panel also included a live Q&A, providing students and educators with an opportunity to interact directly with NASA subject matter experts. SSO employed the agency-approved Communiqué virtual conferencing software to host the virtual exhibit and used webinar.net to support the live broadcast of the live panels. Further assistance was offered by SSO in the development of graphics, project management, and live technical support.

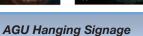
### Products



AGU 3D Selfie Station with Props









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 NASA Science • Earth Science



















































































**AGU Digital Signs** 

NASA's Science Support Office

AGU Safety Zone Floor Decal



MASA SCIENCE

AGU Scanvenger Hunt

8, 2024 Solar Eclip

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2025 NASA

SCIENCE

Earth Day Event

NASA'S EARTH DAY EVEN.



EGU Hyperwall Enclosure

Maps for GLOBE Partners

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NASA Earth Day



NASA EARTH DAY CELEBRATION

FREE and Open to the Public

2025 NASA Science

(English and Spanish)

Science

Planning Guide and Calendar

NASA Science Ruler/Bookmark

0

There's Space For Everybody

**AAS** Passport

JEBB

HUBBLE

Hubble 35th

**Anniversary Sticker** 

Webb Sticker

WHyMSIE

Sticker

International

**Balloon Fiesta** 

SCIENCE

"I Love NASA Science" **Graphic Identifier** 

Sci

.

NASA HYPERWALL

**UN Hyperwall Stories Booklet** 

JWST White

House Day Banner

ALA Hyperwall Book Promo Graphics

Hooray for SLS





### The Earth Observer

The Earth Observer newsletter, published by NASA's Science Support Office (Code 610) at the Goddard Space Flight Center, has been an authoritative source for consolidating NASA Earth Science news for over three decades. Past issues are available for download via the **Archives Page**.

## THE EARTH OBSERVER LAUNCHES NEW ONLINE WEBSITE

*The Earth Observer*, (historically a bi-monthly Earth science newsletter) launched a new online website in July 2024 (*https://science.nasa.gov/earth-science/the-earth-observer*) to host the newsletter using the new *science.nasa.gov* CMS system. SSO worked with NASA Earth Science Division Digital Strategy Lead Kevin Ward and Christina Campen to build and launch the site. The newsletter, has been migrated from *eospso.nasa.gov* to *science. nasa.gov/earth* as a digital newsletter, with individual articles published online. PDFs of all past issues (from 1989–2024) are available via the archives page (*https://science.nasa.gov/earth-science/the-earth-observer/archives*). Readers can expect to continue receiving the same quality reporting on NASA Earth Science activities that they have come to depend on from *The Earth Observer* for over 35 years.



NASA's Science Support Office





NASA's Earth Observing System Project Science Office eospso.gsfc.nasa.gov



Flickr www.flickr.com/photos/eospso/sets

Science Presentations Hyperwall

> Hyperwall Catalog svs.gsfc.nasa.gov/hw

NASA Science NOW

> NASA Science Now go.nasa.gov/NASAScienceNow



The Earth Observer Newsletter https://science.nasa.gov/earthscience/the-earth-observer

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EARTH DAY

SLED BY SCIENCE

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2024 Annual Report

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### Hyperwall Content

One of the most popular means of communication through NASA exhibits in recent years is a testament to the innovation of the Science Support Office and its commitment to remain on the cutting edge of communications technologies. The Hyperwall is a video wall capable of displaying multiple high-definition data visualizations and/or images simultaneously across an arrangement of screens. When this technology was emerging, the office staff saw potential for a new approach to storytelling at exhibits. The Hyperwall made its debut in 2011 and immediately added a whole new dimension to NASA exhibits and is now immensely popular.

For many of the meetings where the Hyperwall is used, the Science Support Office recruits a line-up of speakers to help explain phenomena, ideas, or examples of world change. SSO staff provide technical support, helping presenters prepare the material they wish to share in formats appropriate for the Hyperwall. Many of the existing Hyperwall stories reveal change across space and time, while others display large-scale still images; all visuals are accompanied by descriptive, story-telling captions.

Visit svs.gsfc.nasa.gov to explore more.

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# **NEW!**

# Pilot Hyperwall Storytelling Training Course at NASA's Goddard Space Flight Center

In collaboration with Janice Harmon [NASA GSFC—*Communications Strategist*], Alex Young [NASA GSFC—*Associate Director for Science Communication in the Heliophysics Science Division*], and the Scientific Visualization Studio (SVS), the Science Support Office (SSO) developed and piloted a *Hyperwall Storytelling Training Course*. The Hyperwall training course provides scientists and communications professionals with the information they need to outline, build, and deliver an effective, visual-forward presentation in front of the NASA Hyperwall at scientific conferences and events. SSO plans to continue piloting the course into 2025.

#### **Session One Participants**

(June 12, 2024)

- Alexey Shiklonanov (GMAO)
- Corina Poulin (PACE)
- Allie Collow (GMAO)
- Margaret "Maggie" Wooten (Landsat)



Photos: www.flickr.com/photos/eospso/ albums/72177720317864065

#### Session Two and Three Participants

(June 31, 2024)

- Cecile Rousseaux (GSFC, PACE)
- Alexa Halford (GSFC, Heliophysics)
- Riley Blocker (GSFC, Ocean Ecology)
- Amir Ibrahim (GSFC, Ocean Ecology)
- Matt Rodell (GSFC, Hydrosphere, Biosphere, Geophysics)
- Andrew Sayer (GSFC, Aerosols)

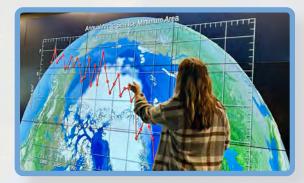


Photos: www.flickr.com/photos/eospso/ albums/72177720319242097

#### **Session Four Participants**

(October 9, 2024)

- Gary Partyka (GMAO)
- Albert Wu (Geodesy and Geophysics)
- Sara Ringerud (Mesoscale Atmosphere)
- Christine Bloecker (GMAO)
- Linette Boisvert (Cryosphere)



Photos: www.flickr.com/photos/eospso/ albums/72177720321032275

### Hyperwall "Power Playlists"

SSO supported the continued development and curation of NASA Hyperwall "Power Playlists," which are collections of ready-to-show Hyperwall content for each of the following Science Mission Directorate divisions:

Astrophysics

ID VA

Section Science Division	ID: 30280 Battos	ID: 31093
D: 40512 Gallery Daily Visualizations	ID: 30496 ID: 30466 ID: 30466 ID: 30466 ID: 30466 ID: 30466 ID: 30466 ID: 30466 ID: 304666 ID: 304666 ID: 3046666 ID: 3046666666 ID: 304666666666666666666666666666666666666	ID: 5120 Visualization NOAA GOES-East and NOAA
D: 4600 Visualization	ID: 30892	ID: 30763 Hyperwall Visual Blue Marble 2015
D: 31223	ID: 30878	ID: 30877





D: 30834 ID: 30710 **##** Hyperwall Visual **##** Hyperwall Visual # Hyperwall Visual **Operating and Future Scienc...** NASA's Astrophysics Fleet **Our Solar System** ID: 40455 ID: 4469 ID: 31047 Gallery Visualization **##** Hyperwall Visual Dynamic Earth-A New NASA's SmallSat & Cubesat. **Satellite Animations** ID: 40508 ID: 5090 Gallery Section Visualization Launches and Landings on t. Full Screen NASA Logo Map Projections Morph ID: 12956 ID: 14374 ID: 14515

### Adapted Hyperwall Stories



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SSO regularly adapts content originally developed for other NASA websites for display on the Hyperwall. This year, they created. 34 new Hyperwall stories from imagery originally published on partner sites such as Earth Observatory (*earthobservatory.nasa.gov*), Gateway to Astronaut Photography of Earth (*eol.jsc.nasa.gov*), Planetary Photojournal (*photojournal.jpl.nasa.gov*), PACE (*pace.gsfc.nasa.gov*), NASA Science (*science.nasa.gov*), Space Telescope Science Institute (*webbtelescope.org* and *hubblesite.org*), and other NASA and Jet Propulsion Laboratory websites.

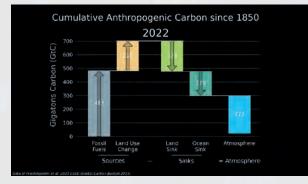
Visit svs.gsfc.nasa.gov to explore more.

### New Hyperwall Stories

SSO developed 12 new content stories using original data or extensively modifying from previously published images in some way (often by animating still images).



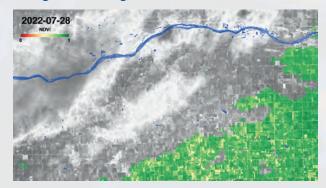
Korean Peninsula Imagery svs.gsfc.nasa.gov/31297



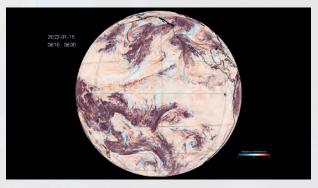
Global Carbon Budget, 2023 *svs.gsfc.nasa.gov/31270* 



Korean Night Lights svs.gsfc.nasa.gov/31298



Landsat and Sentinel NDVI, 2022 *svs.gsfc.nasa.gov/31267* 



Gravity Waves from Hunga Tonga Volcanic Eruption *svs.gsfc.nasa.gov/31277* 



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Landsat 8 and 9 Composite of Rwanda *svs.gsfc.nasa.gov/31242* 

### Continued ~ New Hyperwall Stories



A Greenhouse Boom in China *svs.gsfc.nasa.gov/31300* 



Webb Space Telescope Studies the Pillars of Creation *svs.gsfc.nasa.gov/31286* 



The Penguin and the Egg (Interacting Galaxies Arp 142) *svs.gsfc.nasa.gov/31299* 



Curiosity's Hazcams Capture a Day on Mars *svs.gsfc.nasa.gov/31276* 



Webb and Hubble's Views of Spiral Galaxy NGC 628 *svs.gsfc.nasa.gov/31290* 



NASA Telescopes Chase Down "Green Monster" in Star's Debris *svs.gsfc.nasa.gov/31273* 

Visit svs.gsfc.nasa.gov to explore more.

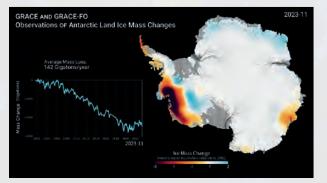
NASA's Science Support Office

## **Updated Hyperwall Stories**

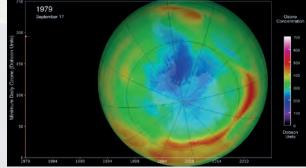
SSO updated 6 existing Hyperwall stories with the latest data.



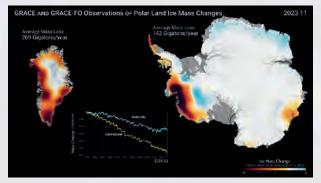
50+ years of Landsat: Las Vegas *svs.gsfc.nasa.gov/31195* 



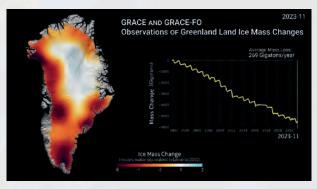
Antarctic Ice Mass Loss 2002-2023 svs.gsfc.nasa.gov/31158



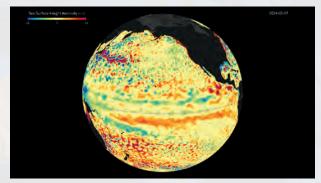
Ozone Minimum Concentrations, 1979-2023 svs.gsfc.nasa.gov/31253



GRACE and GRACE-FO Polar Ice Mass Loss *svs.gsfc.nasa.gov/31166* 



Greenland Ice Mass Loss 2002-2023 *svs.gsfc.nasa.gov/31156* 



Sea Surface Height Anomaly, 2022-2024 svs.gsfc.nasa.gov/31232

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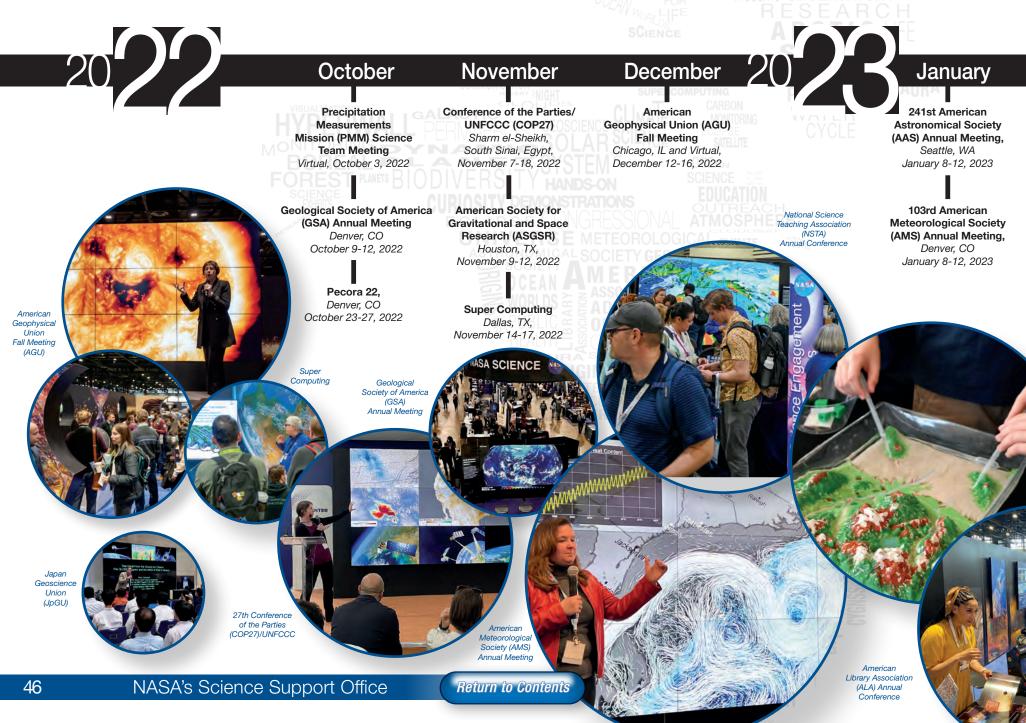
# Looking Ahead

2025 Conferences and Events

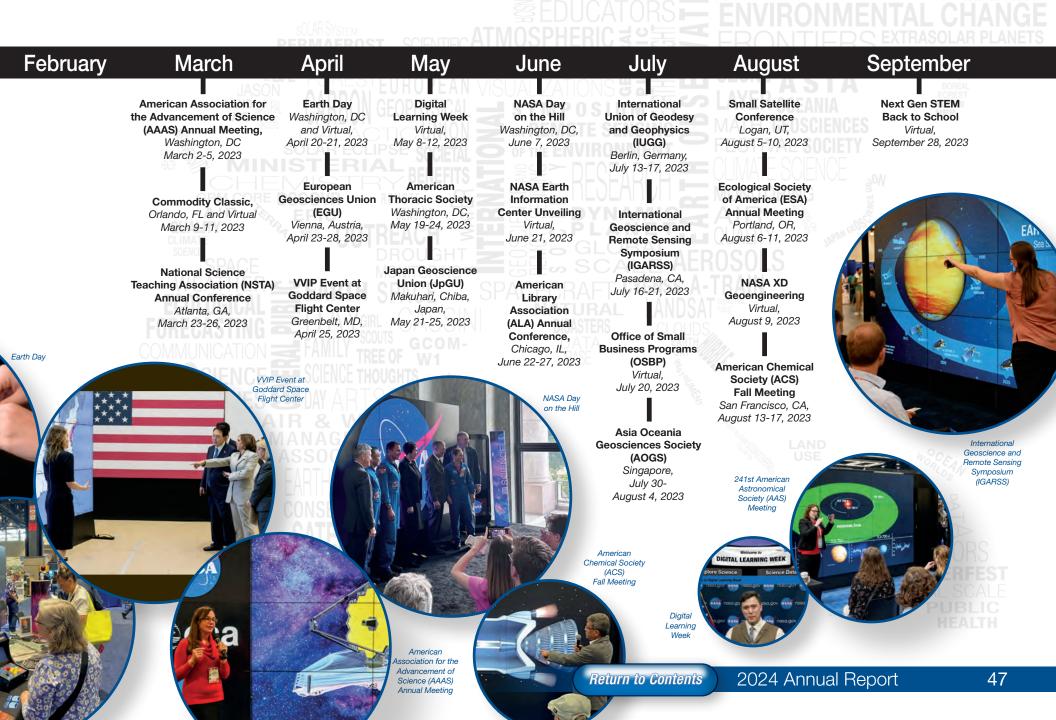
		Jan.	Feb.	Mar.	Α
	SMD			Commodity Classic March 2 - 4 Denver, CO	
	Science Support Office Earth Science Division	245 <sup>th</sup> American Astronomical Society (AAS) <i>January 12 - 16</i> <i>National Harbor, MD</i>		NASA House at SXSW March 7 - 9 Austin, TX	
>	Science Mission Directorate SMD Supports Agency Presence International HW Hyperwall	<b>105<sup>th</sup> American</b> <b>Meteorological</b> <b>Society (AMS)</b> January 12 - 16 New Orleans, LA <b>HW</b>			Ear Aprii Washii
	Under Construction CONFERENCE AND EVENT PLAN			National Science Teaching Assoc. (NSTA) March 26 - 29 Philadelphia, PA	Eur Geoscie (t April 2 Viennu HW
	2025				

.pr.	Мау	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	NASA Day on the Hill May TBD Washington, DC	Air and Waste Management (AWMA) June 9 - 12 Raleigh, NC		Small Satellite Conference August 2 - 7 Logan, UT				
		UN Ocean Conference June 9 - 13 Nice, France		Intl. Geoscience and Remote Sensing Symp. (IGARSS) August 3 - 8 Brisbane, Australia	Division for Planetary Sciences (DPS) of the AAS September 7 - 13 Helsinki, Finland			Annual SMD Comms Meeting December 14 New Orleans, LA
<b>th Day</b> 122 - 23 ngton, DC	American Thoracic Society May 16 - 21 San Francisco, CA HW					Geological Society of America (GSA) October 19 - 22 San Antonio, TX	Supercomputing November 16 - 21 St. Louise, MO	American Geophysical Union (AGU) December 15 - 19 New Orleans, LA
opean nces Union EGU) 17 - May 2 a, Austria		ESA Living Planet Symposium June 23 - 27 Vienna, Austria	ISSRDC July 28 - 31 Seattle, WA				ASGSR November TBD Location TBD	
		American Library Association (ALA) June 26 - July1 Philadelphia, PA	Asia Oceania Geosciences Society (AOGS) July 27 - August 1 Marina Bay Sands, Singapore					

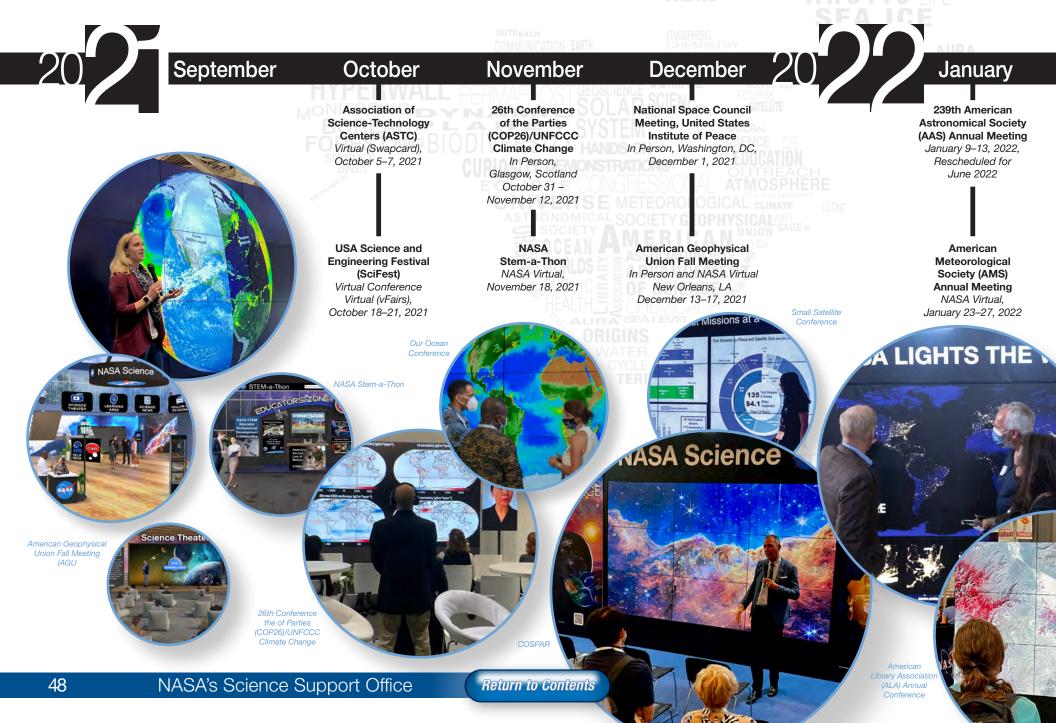
# Looking Back ~ 2022/2023 Conferences and Events



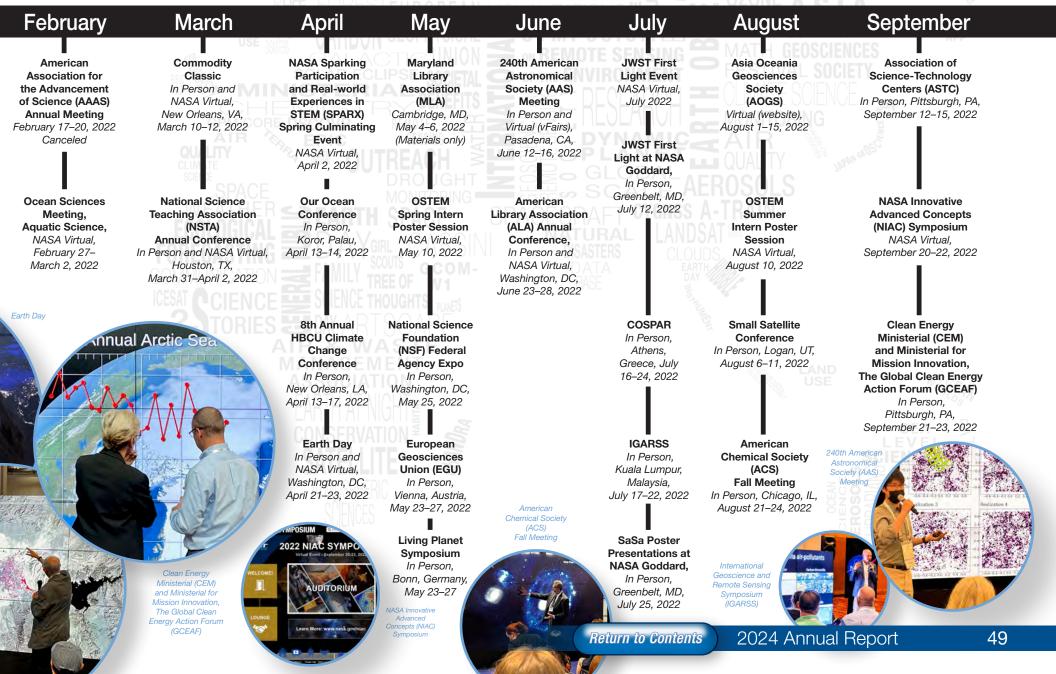
# October 1, 2023 - September 30, 2024



# Looking Back ~ 2021/2022 Conference and Events



### October 1, 2021 - September 30, 2022 PRVALL SOLENCE & SOLET SUAR SYSTEM PERMAFROST SCIENTIFIC ATMOSPHERIC SEARCH BOREAL CONFERENCES CHEMISTRY





# **SMD** Science Support Office

# Core Values









BROADENING PARTICIPATION



HEALTH & SAFETY

INNOVATION







# NASA's Science Support Office

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# Annual Report

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