



Space Weather Prediction Center Hosts Artemis 1 Hot Wash

By: NWS Staff



Above: from left to right, beginning in the back row: **Owen Ahlers** (SWPC), **Dr. Steve Hill** (SWPC), **Dr. Nic Stoffle** (SRAG), **Dr. Steve Johnson** (SRAG), **Bill Murtagh** (SWPC), **Clinton Wallace** (SWPC), **Ricky Egeland** (SRAG), **Brent Gordon** (SWPC), **Dr. Yari Collado-Vega** (M2M), **Monty Spencer** (SWPC), **Michelangelo Romano** (M2M), **Austin Gibbons** (USAF), **Eddie Semones** (SRAG), **Jaelyn Stickrod** (SWPC/CIRES), **Dr. Hazel Bain** (SWPC/CIRES), **Dr. Janet Barzilla** (SRAG), **Rob Steenburgh** (SWPC), **Dr. Kerry Lee** (SRAG), **Phil Quinn** (SRAG), **Anna Chulaki** (M2M), **Mattie Anastopoulos** (M2M), **Mary Keenan** (M2M), **Carina Alden** (M2M), **Mary Aronne** (M2M), **Kim Moreland** (SWPC/CIRES), and **Hannah Hermann** (M2M). January 6, 2023.

The [Space Weather Prediction Center \(SWPC\)](#) convened an after-action review on January 5 and 6 for space weather forecast support following the [Artemis 1 mission](#). The participants identified more than 20 actions that will improve future mission support, including better information sharing, improvements to the model output display and user interfaces, early preparation for 2024 Artemis mission, and enhanced IDSS provided by SWPC.

Artemis 1 was the first in a series of missions that will enable human exploration to the Moon and Mars. A variety of data were collected during the 25-day unmanned excursion, including radiation dose rate of interest to NASA's [Space Radiation Analysis Group \(SRAG\)](#).

During the mission, the Space Weather Prediction Center's Forecast Office (SWFO) increased collaboration calls with SRAG from one to three per day. SWFO also added two new radiation alert notification thresholds to the suite of products provided to SRAG. Finally, SWPC forecasters began real-time collaboration with NASA's [Moon-to-Mars \(M2M\) Space Weather Analysis Office](#) analysts.

The hot wash focused on several aspects of the support to Artemis, including nominal and contingency communications, human factors, and the availability of data and model output. A standard format was proposed for providing information during contingencies. Additionally, an action was taken to settle on a single platform for sharing information among the agencies. Finally, the participants discussed responsibly messaging space weather impacts in the clickbait era.

The review team explored other human factors challenges beyond communication. NASA colleagues described the challenges of shift work for teams not normally used to working around the clock. They also noted episodes of task saturation that occurred during the relatively quiet space weather conditions observed during Artemis 1. Although the conditions were quiet, there were still opportunities to interpret model output, and improvements to the model output display and user interfaces were proposed by the group.

Model output can't be displayed if it isn't available. The same is true for data. During Artemis, there were gaps in data provided both by research and operational platforms. The group discussed ways of working around outages and improving reliability. Future NOAA missions, including the [Space Weather Follow On L1 spacecraft](#), will contribute significantly to improved data reliability.

Reshaping the Weather.gov Website: Survey for Weather, Water, and Climate Information Needs

By: NWS Staff

As we continue to face the increasing frequency and intensity of weather and climate-related events, it is critical to collaborate and work together to protect and improve the preparedness of our citizens, especially the most vulnerable groups. We remain committed to providing the most accurate, accessible and reliable weather, water, and climate information possible.

With this in mind, we invite you to participate in a 10-15 minute [survey](#) on your weather, water, and climate-related information needs and preferences as it relates to weather websites. The results of this survey will inform the features of weather.gov 2.0 as we begin to design and build it in the coming months. The weather.gov website has long served as a place where we provide relevant content to help you make critical decisions. Your input is invaluable in ensuring we continue to improve the user experience of the site.

All responses will remain anonymous and confidential. The survey will be available until Feb 13, 2023 and is open to all partners. Thank you for your feedback!

Calling Student Submissions for “Picture Climate Change” Contest

By: NWS Staff

NOAA's Regional Collaboration Network has launched the [“Picture Climate Change” student photo contest](#) and is looking for images showing climate change in the United States.

This photo contest is a chance for students in grades 5-12 to showcase their climate change experience through the lens of a camera and short written narrative. The narrative should describe the student's climate change photo, provide a short story about how climate variability, change, or resilience is captured in the image, or describe how climate change will impact their local community and future. The inspiration for this contest came out of a NOAA West Leadership Program Pilot capstone project, which is described in this [StoryMap](#).



Winning photos will be featured this spring on the NOAA Regional Collaboration Network website in conjunction with responses developed by NOAA's climate experts and will possibly be displayed in various NOAA facilities around the country. Photo contest categories include Nature, Water, Weather, Society, and Resilience. The competition runs through February 15, 2023.

Please help us spread the word about this contest through social media and with education partners so we can see and hear the voices of our nation's students and increase NOAA engagement! If you have any questions about the contest, please contact pictureclimatechange@noaa.gov.

NWS El Paso Welcomes Partners from Lincoln National Forest Service

By: NWS Staff



Employees from NWS El Paso and Lincoln National Forest Service pose for a photo outside of the WFO.

On January 5, 2023, WFO El Paso welcomed partners from the Lincoln National Forest Service on a visit to the weather forecast office to further build partnerships between the two agencies. Fire Management officials, Hotshot Superintendents, Fire Burn Bosses, and Alamogordo Dispatch employees were in attendance to share experiences from the 2022 fire season and how NWS products are used within operations. NWS El Paso Incident Meteorologist (IMET) and local Fire Weather Program Leader **Tom Bird** gave an overview of NWS operations and provided detailed explanations on how NWS fire weather products can be utilized in decision making.

Discussion topics included the importance of NWS fire weather text products/forecasts to their day-to-day operations and how WFO El Paso can improve and be more efficient with messaging that guides Forest Service operations. Useful tools, such as the Red Flag Threat Index (RFTI), were shared and their benefit to decision-making on elevated/critical fire weather days was explained. Lastly, the potential for future visits and opportunities was discussed, including visits to the Alamogordo Dispatch and the possibility of forecasters assisting onsite at scheduled prescribed burns to provide DSS.

The goal of the meetup was to strengthen partnerships with federal and state wildland managers to protect lives and property in the wild lands and forests of south-central and southwestern New Mexico. The visit with Lincoln National Forest employees served as an opportunity to discuss and answer questions, share strategies for day-to-day operations, and streamline inter-office coordination. Effective communication and planning between NWS forecasters and fire weather partners is vital for successful preparedness and response to high-impact events.

This important visit, filled with excellent discussion and collaboration, came at a perfect time, as New Mexico continues to recover from an active 2022 fire weather season. Two of the largest wildfires in state history, the Calf Canyon/Hermits Peak Fire and Black Fire, as well as the McBride Fire, burned through parts of Ruidoso, New Mexico, within the Lincoln National Forest, and led to two fatalities and over 200 homes destroyed.



*NWS El Paso forecaster **Anthony Brown** answers questions on AWIPS, NWS forecasting, and remote sensing techniques such as upper air observations.*

WFO New York, NY and CWSU ZNY Provide IDSS for Core Partners Supporting the Times Square New Year's Eve Celebration

By: NWS Staff



NWS New York, NY meteorologists **Brian Ciemnecki** (center right) and **Dominic Ramunni** (center left) with NYCEM personnel at the mobile command bus at 42nd and 7th Ave.

Each December 31 at 11:59 pm, the world counts down the last few seconds of the outgoing year as a 12 ft-diameter, 11,875 lb crystal-laden ball descends in Times Square as the world's universal symbol of the New Year. The Times Square New Year's Eve celebration in New York City started in 1904, with the ball added in 1907, and has dropped every year since then (except 1942 and 1943, during World War II). The ball currently descends from the top of the One Times Square Building. With an annual crowd of 1-2 million attendees and billions of spectators around the globe, it is one of New York City's largest annual outdoor events. This year, the New Year's Eve Time Square Ball Drop was designated as a SEAR Level 2 event from the Department of Homeland Security, a significant event with national and/or international importance requiring some level of federal interagency support.

The National Weather Service New York City Weather Forecast Office (NWS New York, NY) has provided remote IDSS for this event for decades and onsite IDSS annually since 2012. With the threat of rain forecast up to and through the midnight hour for this years' event, routine email briefings, including HYSPLIT output, and daily over-the-phone weather consults with New York City Emergency Management (NYCEM) began on Thursday, December 29, and continued through New Year's Eve, alerting to the potential for unseasonably mild and wet conditions.

On New Year's Eve and into early New Year's Day, WFO New York forecast operations at the office was fully staffed in support of onsite meteorologists **Brian Ciemnecki** and **Dominic Ramunni** (training), who provided IDSS to NYCEM. In addition to informal weather briefs to NYCEM personnel throughout the night, a more formal standup briefing was provided at the NYC interagency meeting, which included NYPD, FDNY, NYC Department of Sanitation, FBI, NYS Department of Homeland Security and Emergency Services, and many other local, regional, and national partners. The NYPD Chief of Department called upon Brian during the meeting, who briefed the agencies on the expected timing and intensity of the rainfall, noting that the showers would likely taper in time for cleanup operations. With the forecast and IDSS efforts of WFO New York, the city was well prepared weather-wise for the event.

In addition, staff from CWSU Ronkonkoma (ZNY) provided remote aviation weather support to the FAA for those who attended the NYE event via air travel. A collaborative team effort between the WFO, the CWSU, and on-site meteorologists ensured that the mission to protect life and property was successfully executed.



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