

Weekly Report – August 07, 2026
Cooperative Institute for Satellite Earth System Studies (CISESS)
NOAA/NESDIS/STAR

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HIGHLIGHTS FOR NESDIS LEADERSHIP

Partnerships

United Nations Ocean Decade Endorsement



The [Bio-GO-SHIP](#) international collaboration, with CISESS Scientist and University of California, Irvine Professor Adam Martiny as the Bio-GO-SHIP Lead Principle Investigator, has been [endorsed by the United Nations Ocean Decade](#) (coordinated by UNESCO's Intergovernmental Oceanographic Commission), an official recognition given to global marine science projects, programs, or activities that directly contribute to global ocean science, sustainability, and the goals of the UN Decade of Ocean Science for Sustainable Development (2021–2030).

(Adam Martiny, CISESS, amartiny@uci.edu, Funding: GOMO)

People

Petković and Liang to Receive AMS Awards

Kudos to CISESS Scientist Veljko Petković and Earth System Science Interdisciplinary Center's Prof. Xin-Zhong Liang! Both will be formally recognized at the next American Meteorological Society meeting that will take place in Denver, CO in January 2027. Veljko Petković will receive the Editor's Award in recognition of outstanding contributions with on-time reviews of articles submitted to the *Journal of Hydrometeorology* that demonstrate deep subject-matter expertise and give authors a genuine path to improving their work. Liang will receive the Jagadish Shukla Earth System Predictability Prize for enabling actionable decision support by pioneering advances in regional Earth system modeling, hydroclimate predictability, and integrated human–Earth system prediction. He will soon start work on a CISESS project titled "VIIRS Leaf Area Index Data Assimilation and Modeling Applications within the Unified Forecast System".



(Veljko Petković, CISESS, veljko@umd.edu, Funding: JSTAR, JSTAR GCOM & LEO; Xin-Zhong Liang, CISESS (starting in September), xliang@umd.edu, Funding: LEO Innovations)

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TRAVEL AND MEETING REPORTS

CISESS Scientists at the 16th International Coral Reef Symposium

CISESS Scientists Rebecca Wenker and Rasheeda Alexander attended the [16th International Coral Reef Symposium](#) in Auckland, New Zealand, from 19–24 July 2026, representing the NOAA NCEI Digital Corals team. The symposium hosted more than 2,100 delegates from 90 countries, providing a platform to share the latest research and strengthen partnerships dedicated to protecting global coral reef ecosystems. Wenker co-chaired a session entitled, "The new era of data management: Emerging challenges and solutions needed to share data in a world of expanding data volume growth and resource constraints". She also presented a poster entitled, "Integrating U.S. Coral Reef Data: Building a Comprehensive Visualization Tool from Multiple National Data Streams" about the development of the [National Coral Reef Monitoring Program Data Visualization Tool](#). Alexander presented a poster entitled, "Beyond Biological Monitoring: Developing a Real-Time Dashboard for Public Sentiment on Coral Reef Disturbances", assessing public awareness of the connection between coral reefs and high-impact disturbance events. Both also staffed the NOAA Coral Reef Conservation Program (CRCP) booth in the exhibition center, which served as a primary hub for conference networking and provided attendees with CRCP data, publications, funding opportunities, and fellowship information.



Figure: (center) CRCP group photo; (left) Rasheeda Alexander and (right) Rebecca Wenker by their respective posters. Photo credits: Rebecca Wenker and Rasheeda Alexander

(Rebecca Wenker, CISESS, rwenker1@umd.edu, Funding: NCEI; Rasheeda Alexander, CISESS, ralexa@umd.edu, Funding: NCEI)

SOCIAL MEDIA AND BLOG POSTS

A Busy Late July, Weatherwise

In his most recent blog posts, CISESS Scientist Christopher Smith, the GOES-R Satellite Liaison to the National Weather Service's Weather Prediction Center (WPC) and Ocean Prediction Center,

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reports on a couple of notable late-July weather events: heavy rain in the Northeast and an Atlantic gale-force low.

A Sopping Wet Northeast: As July eased its way into August, it dumped heavy rain on the Northeast. There were signs days before the heaviest rain fell that the atmosphere was ramping up its convective activity. At the end of it all, New York's Capital District received the most rainfall of over 6 inches, with Albany itself hit with just over 9 inches of rain over a three-day period ending on 31 July 2026.

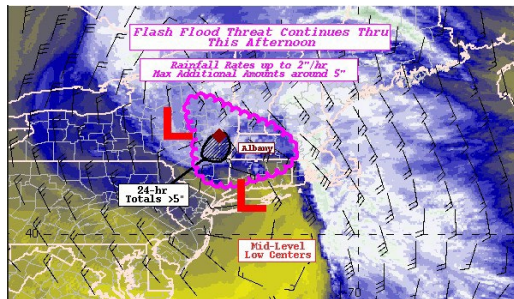


Figure: WPC's mesoscale precipitation discussion at 1420 UTC 29 July 2026, zeroing in on Albany, NY, and its environs.

Blowin' a Gale: An analysis provided by the National Weather Service Ocean Tsunami Center revealed that anomalously warm sea surface temperatures at high latitudes were likely behind the development of a gale-force low off the east coast of Newfoundland on 29–20 July 2026. As quickly as the gales came, they died down six hours later.

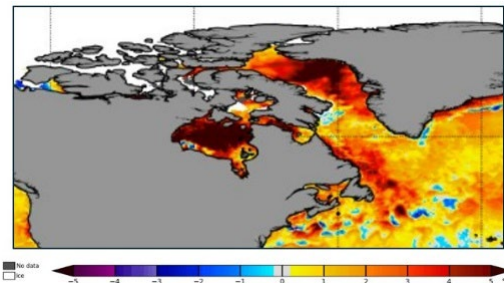


Figure: NOAA Coral Reef Watch Daily 5-km sea surface temperature anomalies for 29 July 2026 over the North Atlantic.

(Also published on the [Satellite Liaison Blog](#), along with other blog posts of interest by other contributors.)

(Christopher Smith, CISESS, csmith70@umd.edu, Funding: GOES-R PGRR)

PUBLICATIONS

Calibrating CrIS

Citation: Beierle, Peter J., Flavio Iturbide-Sanchez, Denis Tremblay, Joseph P. Predina, Kun Zhang, and Yong Chen, 2026: Evaluation of redundancy methods and strategies for the on-board spectral reference of the NOAA CrIS instruments. *IEEE Trans. Geosci. Remote Sens.*, **64**, 5502111, <https://doi.org/10.1109/TGRS.2026.3654416>.

Summary: The Cross-track Infrared Sounder (CrIS) is a spectrometer onboard the Joint Polar Satellite System, which is a series of polar-orbiting satellites used by NOAA to provide observations critical for numerical weather forecasting. To collect the best measurements possible, it is necessary to periodically match raw satellite data against known standards, which in the case of CrIS is the in-orbit neon lamp spectral calibration reference. It is also necessary to

have other ways of doing spectral calibration in case the neon-lamp procedure fails for some reason. Two such redundancy methods are examined in an article published in the journal *IEEE Transactions on Geoscience and Remote Sensing*, authored by Peter Beierle (no longer with CISESS) and colleagues. The first redundancy method uses a real-time regression algorithm involving the known correlation between the laser diode's output wavelength and temperature. The second proposed redundancy method uses the spectral shift between calibrated CrIS radiance observations compared with Community Radiative Transfer Model simulated radiances. The advantage of these two redundancy methods is that they do not involve neon-lamp references so they could be useful for on-orbit moderate-resolution infrared sounders that do not have neon-lamp references. The authors suggest that these two methods could be combined to increase the computational efficiency of an operational calibration algorithm.

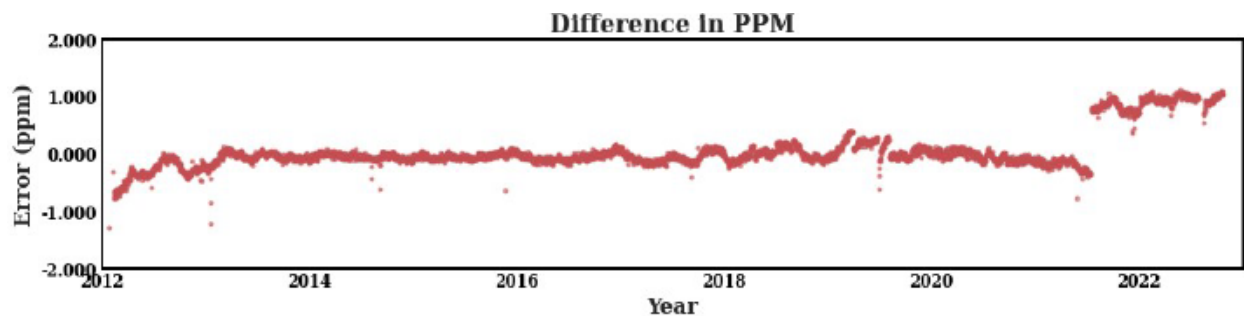


Figure: Difference between the predicted laser wavelength using the first redundancy method compared with the operational neon-calibrated laser wavelength in ppm. The difference in wavelength remains within ± 0.5 ppm throughout the seven years of the mission, demonstrating the long-term reliability and accuracy of this method.

(Maureen Cribb, CISESS, mcribb@umd.edu, Funding: CISESS Task I)