Weekly Report – February 13, 2026

Cooperative Institute for Satellite Earth System Studies (CISESS)

NOAA/NESDIS/STAR

Submitted by: Maureen Cribb
Email: mcribb@umd.edu
Phone: 301-405-9344

Date of Submission: 13 February 2026

HIGHLIGHTS FOR NESDIS LEADERSHIP

Data and Information

Progress in Developing IOOS Data

As of December 2025, CISESS Scientists Ana Krelling and Kristen Sauby have initiated communication with data managers for all Integrated Ocean Observing System (IOOS) regional associations (RAs). Archive pipelines are operational and successfully archiving data for three of the eleven RAs and all three data assembly centers [Gulf of America Coastal Ocean Observing System, Great Lakes Observing System, Pacific Islands Ocean Observing System, Animal Telemetry Network, High Frequency Radar Data Assembly Center, and National Glider Data Assembly Center (NGDAC)]. They have reviewed and updated standard operating procedures for three of the 11 RAs and one of the data assembly centers data archiving automations. They have also prepared submission agreement change requests for three of the 11 RAs.

They have also worked to enhance metadata quality of archived data and metadata guidance. They provided updates to the NGDAC metadata guidance and created an example Python script for data providers to use to build data files with compliant metadata. They have also suggested enhancements to the IOOS Metadata Profile. Finally, they have identified bugs and suggested improvements to the IOOS Compliance Checker.

(Anna Krelling, CISESS, ana.krelling@noaa.gov, Funding: IRA; Kristen Sauby, CISESS, kristen.sauby@noaa.gov, Funding: IRA)

People

CISESS Scientist To Be Honored at the Maryland Research Excellence Celebration

CISESS Scientist Liqing Jiang, a chemical oceanographer specializing in the study of inorganic carbon cycling and ocean acidification in the global oceans, is one of select faculty to be honored at the Maryland Research Excellence Celebration, an effort that recognizes faculty whose work has demonstrably elevated the visibility, impact, and reputation of the University of Maryland's research enterprise. The official ceremony will be held at The Hotel at the University of Maryland on 12 March 2026.

(Liqing Jiang, CISESS, liqing.jiang@noaa.gov, Funding: NCEI)

TRAVEL AND MEETING REPORTS

Advancing ACDD at ESIP 2026

CISESS Scientists Ana Krelling and Kristen Sauby both participated in the Earth Science Information Partners (ESIP) virtual conference (20–23 January 2026). ESIP is a nonprofit organization that brings together colleagues across disciplines to promote collaborations, share technical knowledge, and engage with users of data.

Ana and Kristen helped to organize "The Future of ACDD: Charting the Course Ahead" session by drafting the initial session description, identifying, and inviting session speakers, and creating the draft agenda. (ACDD is the Attribute Convention for Data Discovery.) In their presentation in this session and motivated by their work facilitating the archiving of Integrated Ocean Observing System data, they proposed new metadata attributes be added to ACDD to capture persistent identifiers for institutions and individuals (creators, collaborators, etc.). They also presented a second time about their work at NCEI during the "Developments in Data Management at NOAA, NESDIS, and NCEI" session.

(Anna Krelling, CISESS, ana.krelling@noaa.gov, Funding: IRA; Kristen Sauby, CISESS, kristen.sauby@noaa.gov, Funding: IRA)

SOCIAL MEDIA AND BLOG POSTS

Eastern U.S. Greeted by a Double Whammy of Inclement Weather

Arctic air swooped over the southern Mid-Atlantic and parts of the Southeast at the start of February, bringing in unusually heavy snowfall and stoking the development of a rapidly intensifying hurricane-force low off the Mid-Atlantic coast, reports CISESS Scientist Christopher Smith, GOES-R Satellite Liaison for the National Weather Service Weather Prediction Center and

Ocean Prediction Center (OPC). This low-pressure system experienced a drop in minimum central pressure of 34 hPa in 24 hours, well over the threshold defining a "rapid intensification" (24 hPa in 24 hours). The OPC stayed in close touch with local mariners and the U.S. Coast Guard, helping them navigate the hazardous wind and wave conditions.

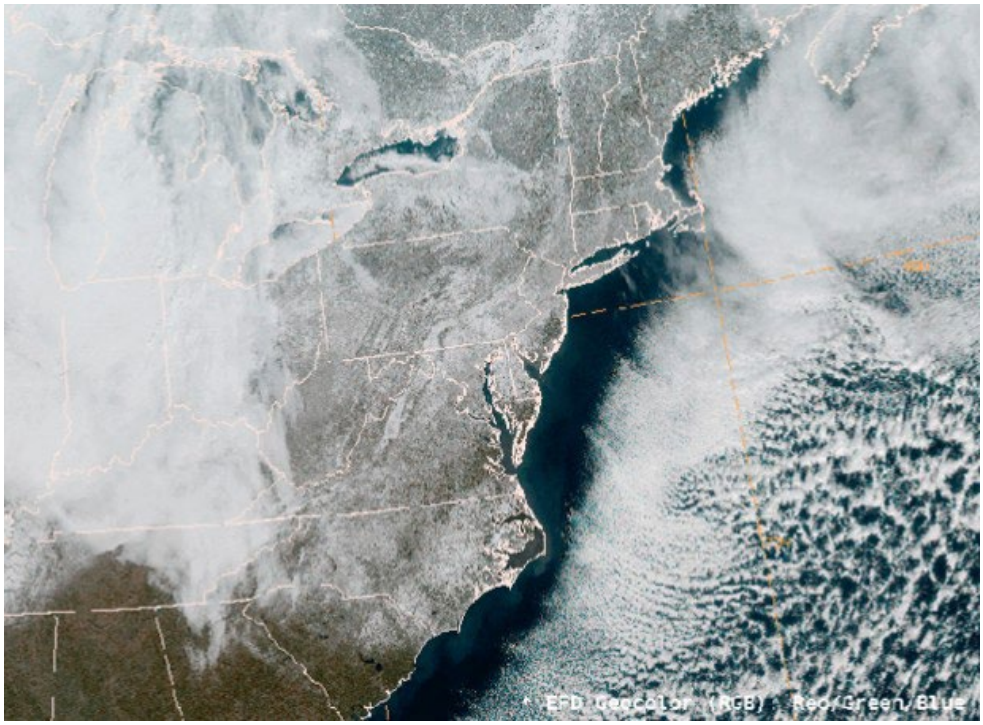

Figure: GOES-East Full Disk Geocolor snapshot of the snow cover on the East Coast from South Carolina to Maine on 02 February 2026 at 1540 UTC.

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

PUBLICATIONS

An Improvement on the Satellite Ocean Heat Content Suite
Citation: Lavin, Paige D., Deirdre A. Byrne, Lewis J. Gramer, and David S. Trossman, 2025: Evaluating tropical cyclone intensity forecasts from HAFS using satellite-derived ocean profiles. *Wea. Forecasting*, **40**, 2521–2538, https://doi.org/10.1175/WAF-D-24-0172.1.
Summary: CISESS Scientist Paige Lavin and colleagues introduce the NOAA Next-Generation Enterprise Ocean Heat Content (NGE OHC) algorithm, demonstrating that the testbed version of the algorithm better matches observed OHC values in the Gulf of America and Northern Caribbean Sea than the current, operational NOAA NESDIS Satellite Ocean Heat Content Suite (SOHCS). Ocean temperature and salinity profiles, near-surface stratification, and OHC values from the NGE OHC algorithm are also compared with those from in-situ observations and the

ocean model initialization for the newly operational NOAA Hurricane Analysis and Forecast System (HAFS) during tropical cyclones (TCs) of interest from the 2020–2022 Atlantic hurricane seasons. These comparisons showed that many HAFS forecasts with underpredictions of storm intensity miss near-surface heat and barrier layers (which inhibit ocean mixing and can enhance TC intensity) found in both in-situ observations and in the NGE OHC synthetic profiles.

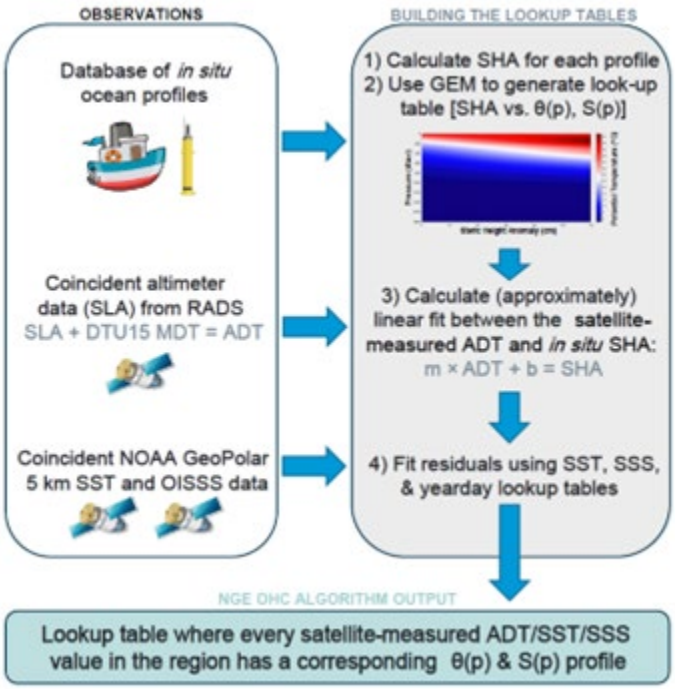

Figure: *Summary of the NOAA NGE OHC algorithm. SLA = sea level anomaly; RADS = Radar Altimeter Database System; DTU15 MDT = Technical University of Denmark version 15 mean dynamic topography; ADT = absolute dynamic topography; SST = sea surface temperature; OISSS = Multi-Mission Optimally Interpolated Sea Surface Salinity; SHA = steric height anomaly; GEM = Geostrophic Empirical Mode; SSS = sea surface salinity; ϑ(p) = ocean temperature as a function of pressure; S(p) = ocean salinity as a function of pressure.*

The original, unedited version of this item was submitted in the SOCD Weekly Report.

(Paige Lavin, CISESS, paige.lavin@noaa.gov; Funding: Jason & ORS)

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