Weekly Report – October 16, 2026

Cooperative Institute for Satellite Earth System Studies (CISESS)

NOAA/NESDIS/STAR

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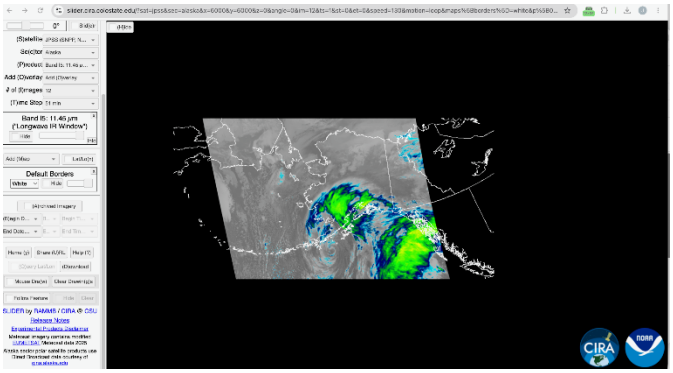
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HIGHLIGHTS FOR NESDIS LEADERSHIP

Data and Information

GINA-Generated JPSS Products Are Now Available in CIRA SLIDER

Colorado State University's Cooperative Institute for Research in the Atmosphere (CIRA) Satellite Loop Interactive Data Explorer in Real-Time (SLIDER) online visualization tool provides users access to near-real-time satellite imagery and products across the globe. SLIDER currently includes data provided by geostationary and polar-orbiting satellite platforms. The University of Alaska Fairbanks Geographic Information Network of Alaska's (GINA's) Alaska direct-broadcast data are now available in SLIDER as a sector for easy display. A myriad of Joint Polar Satellite System (JPSS) products are available in the drop-down menus. This project is an excellent example of the collaborative nature of NOAA's Cooperative Institutes.



(Jennifer Delamere, CISESS, jsdelamere@alaska.edu; Funding: IIJA & LEO)

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TRAVEL AND MEETING REPORTS

Site Visit to UROC

On 14 October 2026, CISESS Scientist Guangyang Fang and University of Alabama in Huntsville (UAH) research scientist Matt Wingo visited the Wallops Lightning Mapping Array (Wallops LMA) station at the University of Maryland UAS Research and Operations Center (UROC) in California, MD to assess relocating this station because of the shading from overgrown trees. The site's point of contact had recently cleared trees in front of the sensor as requested, but Wingo expressed concern that surrounding trees would continue to grow and cause further shading. The site manager agreed to clear additional trees, allowing the station to remain at this current location. During the visit, the team also investigated a persistent wireless

connectivity issue. Despite extensive troubleshooting and the replacement of several components, the issue remained unresolved. Wingo took the LMA sensor back to Huntsville for further diagnosis and repair. Once repaired, the sensor will be shipped to Fang for reinstallation at the site.



Figure: UAH research scientist Matt Wingo troubleshoots the LMA sensor at UROC. Photo credit: Guangyang Fang

(Guangyang Fang, CISESS, gfang@umd.edu; Funding: GEO-XO & Seed Grant)

TRAINING AND EDUCATION

Delamere Presents at the NOAA LEO Science Seminar Series

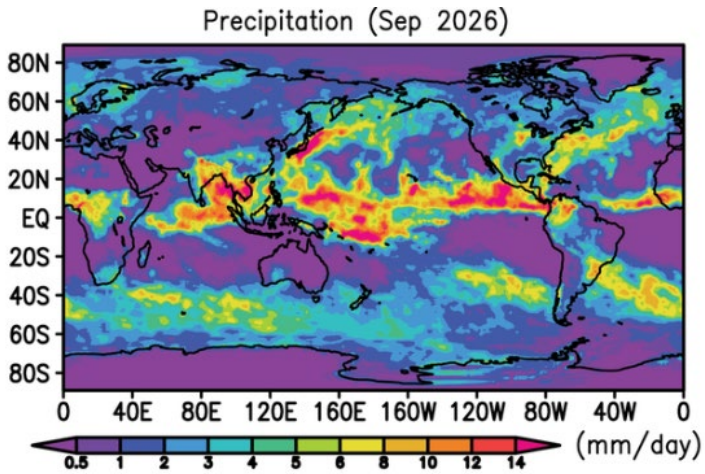


CISESS Scientist and Director of the Geographic Information Network of Alaska at the University of Alaska Fairbanks (UAF) Jennifer Delamere, along with Jonathan Chriest (Predictive Services Meteorologist, Alaska Interagency Coordination Center), gave a virtual talk titled “Alaska Wildfires: Satellite Detection to Response” on 13 October 2026. Chriest provided an overview of the 2026 Alaska wildfire season and outlined the Joint Polar Satellite System (JPSS) products used in operational decision-making. Delamere spoke on how low-latency JPSS products are delivered to the operational fire community, including via a new cloud-based implementation for National Weather Service Incident Meteorologists. Finally, both presenters previewed forward-looking capabilities, including next-generation sensors and NOAA's Next Generation Fire System. They also introduced AK FirE-SAFE, a data-aggregation and machine-learning framework developed by UAF and NASA to estimate wildland fire extents in near real-time.

(Jennifer Delamere, CISESS, jsdelamere@alaska.edu; Funding: IIJA & LEO)

Global Precipitation Summary: September 2026

The El Niño rainfall anomaly pattern remains dominant in the tropics; Pacific tropical cyclone activity remains very active with remnants providing moisture to the southwest U.S. with some flooding; the Atlantic intertropical convergence zone remains weak and still no Atlantic hurricanes through September; and serious flooding in Thailand and Myanmar. These are the headlines in the latest monthly global precipitation summary produced by CISESS Scientist Guojun Gu and ESSIC Research Scientist Robert Adler, published on the ESSIC website. The in-depth analysis for September 2026 provides more details and points out interesting features in precipitation patterns from around the world.



(Guojun Gu, CISESS, ggu@umd.edu; Funding: COSMIC2)

PUBLICATIONS

Communicating Weather Risks More Effectively To All

Citation: Vahedifard, Farshid, Mohammed Azhar, Julian Kelly, Saeed Rokooei, **Reza Khanbilvardi**, and Kaveh Madani, 2026: Service equity matrix for inclusive risk communication of extreme weather events. *npj Nat. Hazards*, **3**, 64, https://doi.org/10.1038/s44304-026-00222-7.

Summary: When an extreme weather event is on the horizon, it is critical to provide a realistic picture of the risks to communities potentially affected by the upcoming danger. However, how these risks are interpreted by members of the communities involved varies, mainly based on the level of trust with official sources of information. Some communities are less resilient than others for many reasons, with less trust in weather warnings and associated risks. How to communicate risk more effectively to these vulnerable communities is the subject of a paper by CISESS Scientist Reza Khanbilvardi (and NOAA Chair Professor of Civil Engineering, City College of New York at City University of New York) and colleagues. They introduce an innovative conceptual framework called the Service Equity Matrix (SEM), useful for agencies to diagnose where there are problems in getting the message across about risks and how to improve this so that all communities can be more prepared in advance of extreme weather events. The central component of the SEM is the Quality of Service Index, a function of three so-called pillars of service: quality of technology, quality of communication, and quality of

engagement. The SEM framework is designed to be used along with current operational tools at the National Weather Service like the Brief Vulnerability Overview Tool.

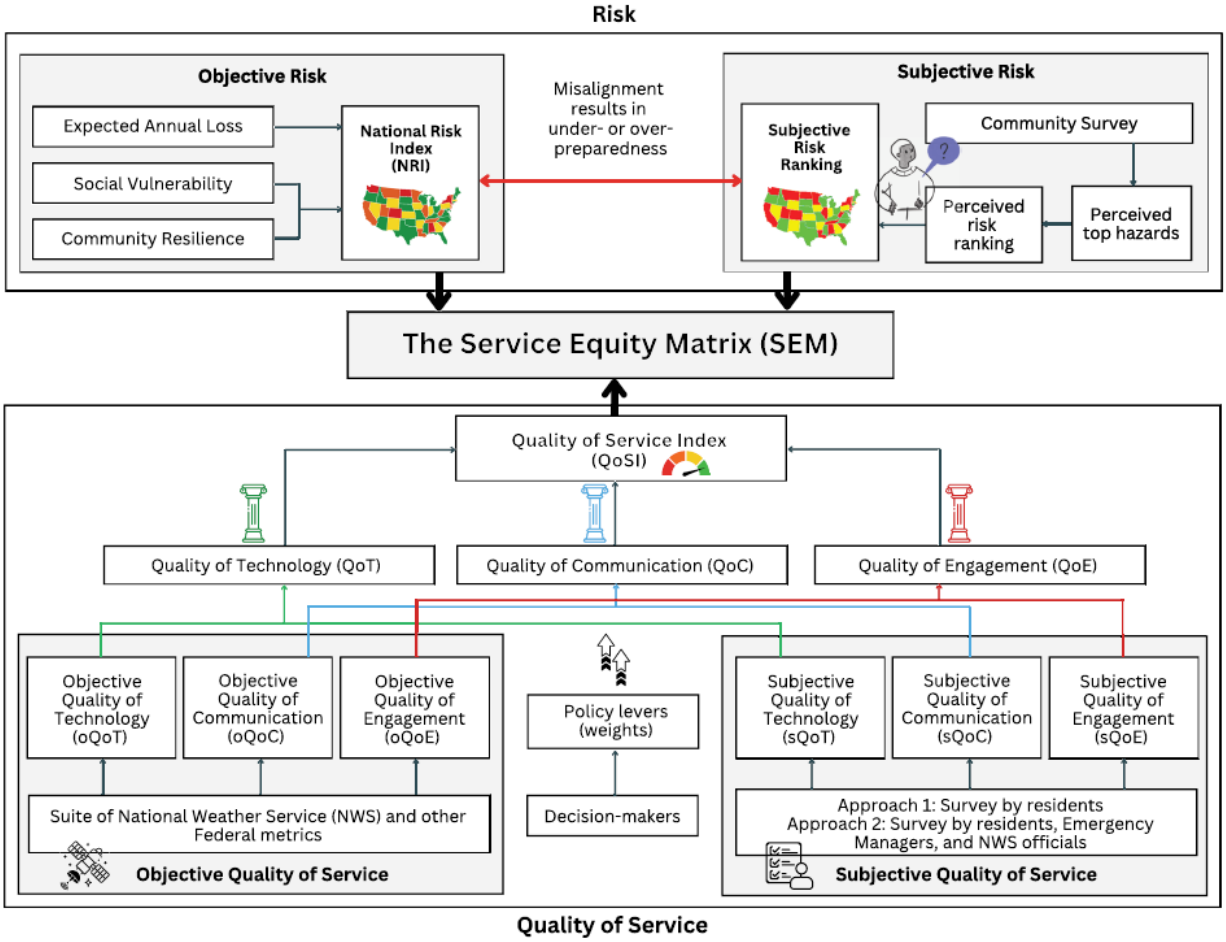


Figure: Framework for constructing the Service Equity Matrix, showing the stepwise integration of four dimensions: (1) objectively measured hazard risk, (2) subjective risk, (3) objectively evaluated quality of service in risk communication, and (4) subjectively perceived quality of service.

(Reza Khanbilvardi, CISESS, khanbilvardi@ccny.cuny.edu; Funding: IRA & JPSS PGRR)

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