Weekly Report

CIRA
STAR/NESDIS
National Oceanic and Atmospheric Administration (NOAA)

Submitted by: Maranda Hutson
Date of Submission: 14 November 2025
Prepared by: CIRA and STAR contributors

Products and Applications

New SLIDER Servers Launch with Massive Archive and Meteosat-12 Imagery: SLIDER has multiple new servers and a giant storage array that have officially launched! The new servers include multiple web servers that load balance to handle higher amounts of traffic, as well as newer, faster processing servers to bring down the latency of getting imagery from the satellites to the web. All of the new servers are hooked up to a massive Ceph Storage Cluster with over 1 petabyte (1,024 terabytes) of storage for SLIDER. This allows the new servers to host a massive 6-month long archive of all the imagery from all the satellites that CIRA processes for SLIDER. In addition, the new servers are also hosting Meteosat-12 imagery, meaning SLIDER now has up to 0.5 km resolution imagery covering the vast majority of the planet. (POC: K. Micke, CIRA, kevin.micke@colostate.edu, Z. Amundson, CIRA, zayd.amundson@colostate.edu, A. Tomar, CIRA, aniket.tomar@colostate.edu, C. Seaman, curtis.seaman@colostate.edu) Funding: GEO/GOES-R.
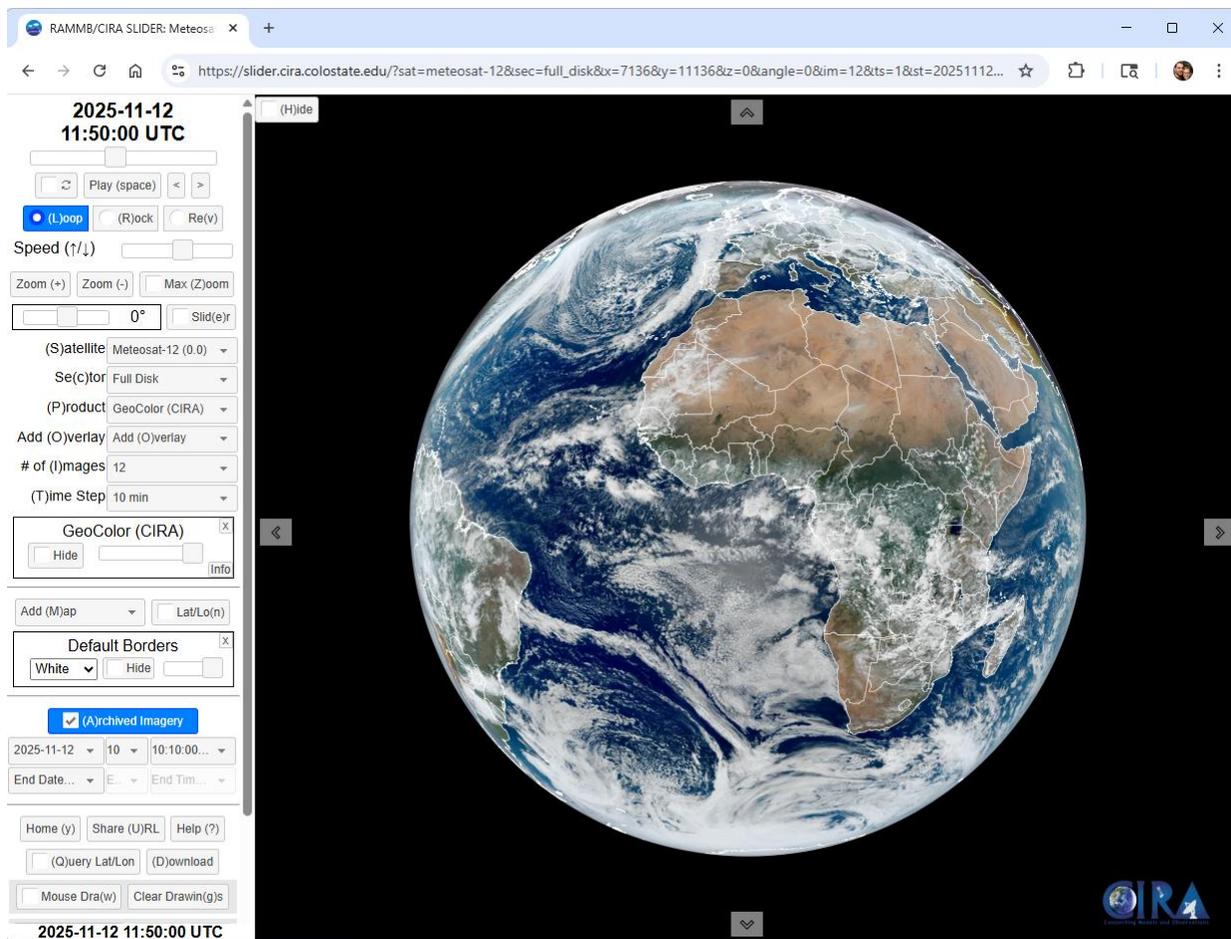
Figure Caption: An example of Meteosat-12 GeoColor imagery as displayed in SLIDER (1150 UTC, 11 November 2025).

VIIRS *GeoColor* now in AWIPS: The VIIRS version of *GeoColor* is now running in near-realtime at the Geographic Information Network of Alaska (GINA), University of Alaska-Fairbanks. *GeoColor* seamlessly blends True Color imagery during the day with a low cloud mask, high cloud mask and background land surface information for intuitive scene interpretation around-the-clock. Unlike the ABI version most people are familiar with, the VIIRS version of *GeoColor* utilizes the Day/Night Band to provide realtime information on city lights, the aurora and other emission sources at night. CIRA runs the algorithm on GINA servers using GINA's Direct Broadcast data feed to generate imagery in geoTIFF format. Then, GINA converts these geoTIFFs into AWIPS-ready files and delivers them to NWS offices throughout the Alaska Region. GINA also makes the geoTIFFs available for download on a web portal for CIRA's developmental products here: https://cira-dev-2.gina.alaska.edu/vscd/ These geoTIFFs are used by a variety of groups outside of AWIPS. (POCs: C. Seaman, CIRA and C. Dierking, GINA; curtis.seaman@colostate.edu; cfdierking@alaska.edu) Funding: JPSS
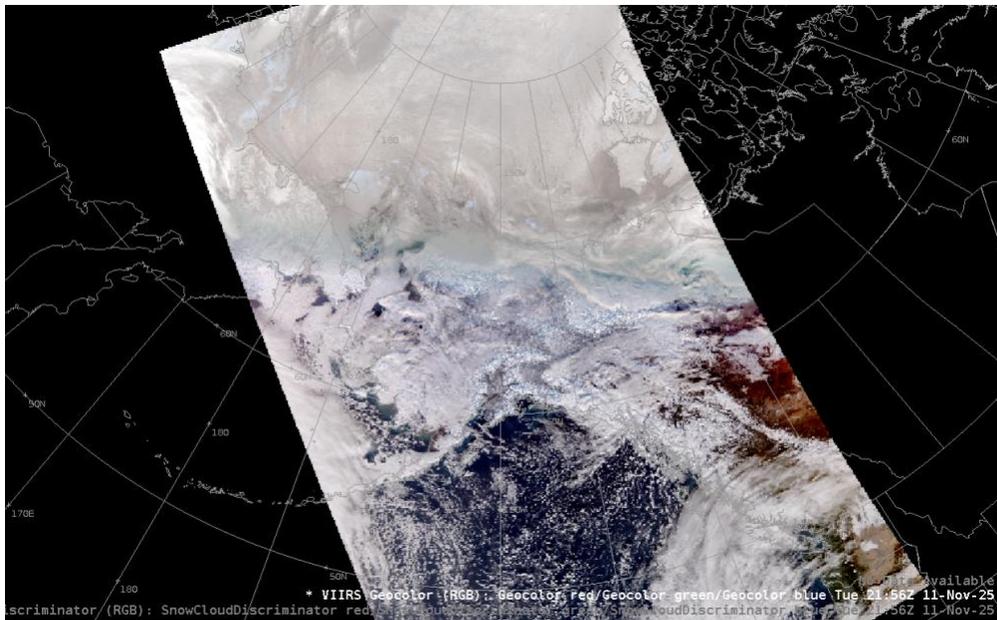
Figure Caption: An example of VIIRS GeoColor as displayed in AWIPS (2156 UTC, 11 November 2025). Credit: Carl Dierking (UAF/GINA).

Publications (Citation: followed by a short Summary: (Why & so what), & detailed summary):

Blowing Dust Climatology Paper Published: Bill Line and coauthors published a study that presents a 20-year (2001–2020) climatology of blowing dust events across southwestern North America, developed using GOES infrared and VIIRS/MODIS True Color satellite imagery. The work identifies key seasonal patterns, geographic hotspots, and links to drought periods. This satellite-based dataset provides valuable spatial and temporal context to complement existing dust records and supports improvements in air quality forecasting and hazard mitigation.

Line, W. E., J. D. Turner, M. P. Bleiweiss, and D. Hillger, 2025: GOES-Based Trends in Blowing Dust Initiation across Southwestern North America, 2001–20. J. Appl. Meteor. Climatol., 64, 1833–1850, https://doi.org/10.1175/JAMC-D-25-0035.1.

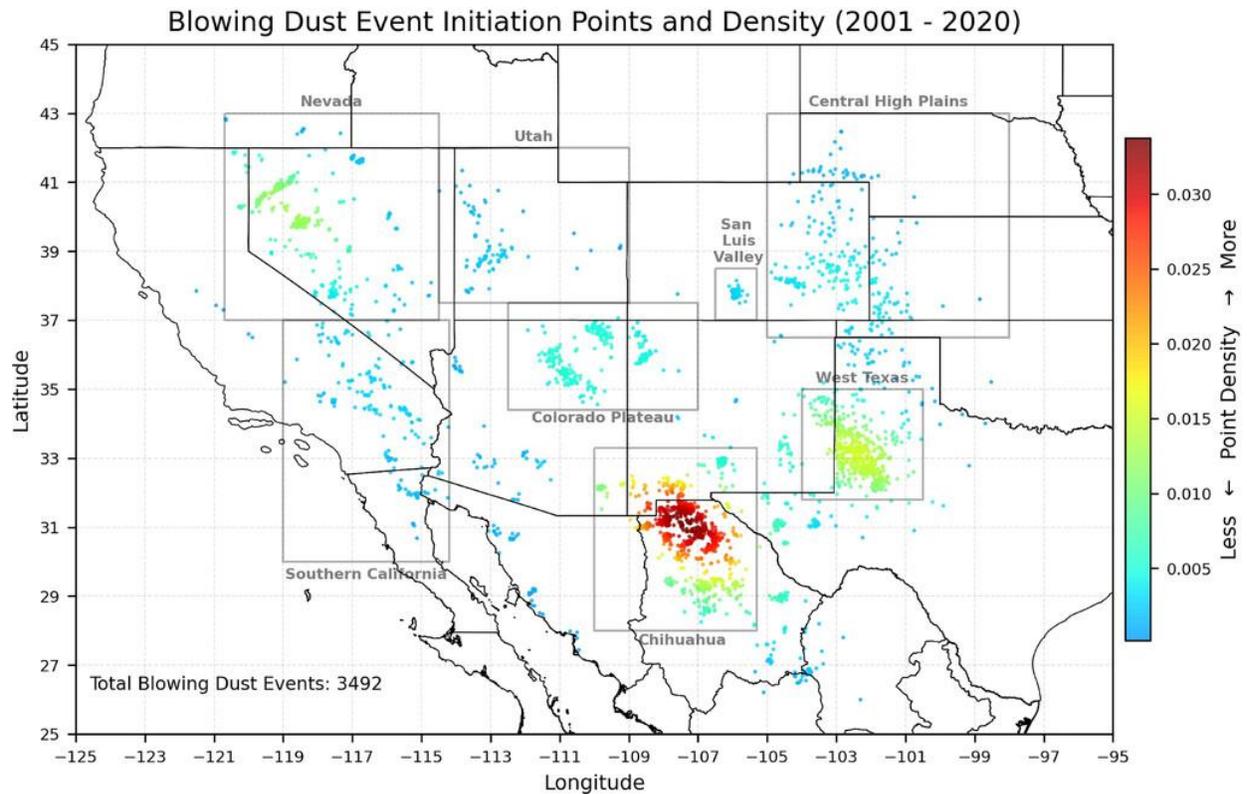(POC: Bill Line, bill.line@noaa.gov, 970-279-1832)

Fig. 1. *Spatial distribution of blowing dust initiation points (events) and their density across southwestern North America for the 2001–20 period. Density was calculated using Gaussian kernel density estimation (KDE) applied to manually identified plume initiation points from GOES imagery, with a bandwidth of 0.255 to emphasize broad regional patterns. Warm colors indicate higher concentrations of events. Boxes denote the eight regional domains used in the spatial analysis (section 3b) and correspond to areas of enhanced dust activity (see Table S1 for box definitions and summary statistics).*

Awards and Recognition

Media Interactions and Request

Blog Posts and Social Media

Travel, Workshops, Conferences, and Meeting Reports

Training and Education Activities

Future Meetings and Events (dates, meeting/event, location, staff involved)

Other

Don Hillger reviewed a manuscript about VIIRS nighttime Imagery utilization for *Remote Sensing*. (POC: D. Hillger, don.hillger@colostate.edu)