

## Weekly Report

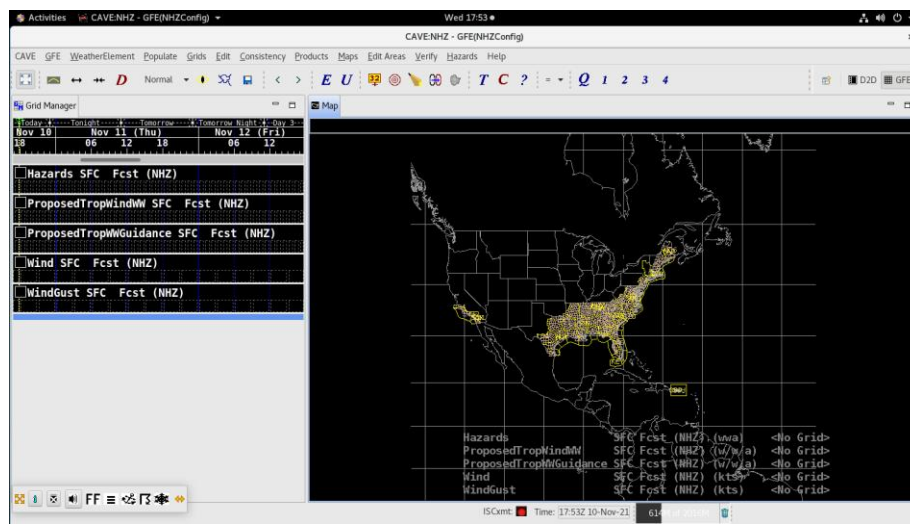
RAMMB / CIRA  
Cooperative Research Program Division (CoRP)  
STAR/NESDIS  
National Oceanic and Atmospheric Administration (NOAA)

Submitted by: Austin Boone  
Prepared by: RAMMB/CIRA contributors  
Date of Submission: 12 November 2021

### Products and Applications

**Graphical Forecast Editor (GFE) added to CIRA AWIPS:** CIRA has an in-house AWIPS system to develop products in the form that they will be used by the National Weather Service. Satellite and model fields are displayed in the D2D perspective, and the Graphical Forecast Editor (GFE) is used to create and edit grids for product generation. The GFE was implemented on CIRA's AWIPS system and was configured with the National Hurricane Center (NHC) NHZ domain so that several experimental applications can be tested. This new capability will allow CIRA to work with NHC to prepare for a testbed experiment planned for March of 2022.

POCs: Debra Molenaar, Mark DeMaria (CIRA). [Debra.Molenaar@colostate.edu](mailto:Debra.Molenaar@colostate.edu), [Mark.DeMaria@colostate.edu](mailto:Mark.DeMaria@colostate.edu). Funding: GOES.



*Figure: An example of the GFE display from CIRA's AWIPS on the NHC's domain used to create several operational products.*

### Awards and Recognition

### Publications

## Media and Outreach

### Workshops, Conferences, and Meetings

International symposium on data assimilation: Two talks were delivered remotely as part of the International symposium on data assimilation, which was hosted in Japan. A representative slide from the ‘16-17 February 2020 dust event’ is shown in Fig. 1 while a representative image for the ‘visualization within a numerical model domain’ is shown in Fig. 2. Titles for each talk are as follows:

Lewis Grasso, Daniel Bikos, Jorel Torres, John F. Dostalek, Ting-Chi Wu, John Forsythe, Heather Q. Cronk, Curtis J. Seaman, Steven D. Miller, Emily Berndt, Harry G. Weinman, and Kennard B. Kasper, 2021: **Satellite Imagery and Products of the 16-17 February 2020 Saharan Air Layer Dust Event over the Eastern Atlantic: Impacts of Water Vapor on Dust Detection and Morphology**, ISDA Chemistry and Aerosols: Modelling, Observations, and DA, 05 Nov 2021, 0750-0810 UTC, 1:50-2:10 am local time in Colorado. Presentation type: Oral

Lewis Grasso, Steven Albers, and Steven Miller, 2021: **A fast visible-wavelength 3D radiative transfer model for numerical weather prediction visualization and forward modeling**, ISDA Chemistry and Aerosols: Modelling, Observations, and DA, 05 Nov 2021, 0750-0810 UTC, 1:30-1:50 am local time in Colorado. Presentation type: Oral

(POC: Louie Grasso, CIRA: [Lewis.Grasso@colostate.edu](mailto:Lewis.Grasso@colostate.edu); Funding: GOES-R)

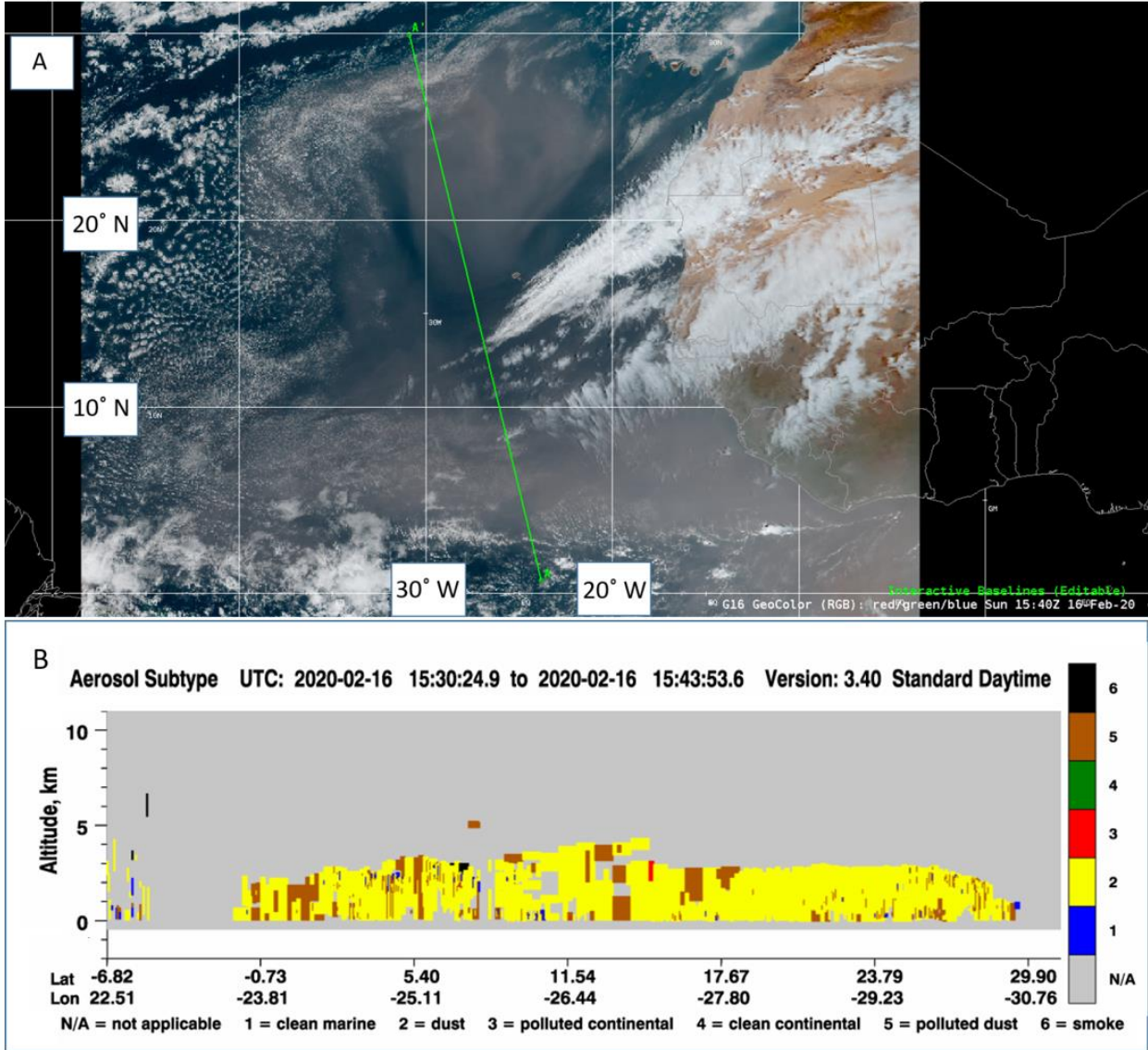


Figure 1: (A) GeoColor imagery derived from ABI on GOES-16 valid at 1540 UTC 16 February 2020 along with a portion of the ground track (green line segment) of CALIPSO from 1530 UTC to 1543 UTC 16 February 2020. (B) Retrieved aerosol subtype is displayed in the vertical feature mask from CALIOP.



*Figure 2: View looking south from a simulated flight in SWIm at an altitude of 600 m from the Idealized Dust simulation valid 03 August 2016 at 0830 UTC.*

### **Training and Education**

**JPSS Teletraining this week:** J. Torres led Near-Constant Contrast (NCC) Teletraining on 8 November 2021; NWS WFO Wilmington, OH attended the teletraining session. (POC: Jorel Torres, CIRA: [Jorel.Torres@colostate.edu](mailto:Jorel.Torres@colostate.edu); Funding: JPSS)

**NOAA DataFest:** J. Torres presented a NOAA Environmental Data Talk (NEDTalk) on ‘The Joint Polar Satellite System (JPSS): Low Earth Orbit NOAA Satellite Data’ at the annual NOAA DataFest on 5 November 2021. The presentation was tailored towards the general public, and provided users insight on the numerous ways that LEO datasets can be employed and how the upcoming JPSS-2 satellite will play a role, once it’s in-orbit and becomes operational. The presentation also touched upon JPSS near-real-time imagery weblinks and satellite training resources that users can access. The JPSS NEDTalk was recorded and can be accessed via NOAA and YouTube weblinks, <https://www.nesdis.noaa.gov/nedtalk-low-earth-orbit-noaa-satellite-data> and <https://youtu.be/qGrj-2DRNhs?t=60>. (POC: Jorel Torres, CIRA: [Jorel.Torres@colostate.edu](mailto:Jorel.Torres@colostate.edu); Funding: JPSS)

### **Other**