

## Weekly Report

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

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Submitted by: Austin Boone  
Prepared by: RAMMB/CIRA contributors  
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### **Products and Applications**

**Critical Design Review for MTCSWA:** The Critical Design Review to discuss upgrades to the Multi-platform Tropical Cyclone Surface Wind Analysis (MTCSWA) was successfully completed. The upgrades include handling data from the imaging instruments aboard GOES-T(18), Himawari-9, and Meteosat Third Generation (MTG) geostationary satellite, as well as the transition to the NESDIS Common Cloud Framework (NCCF). J. Dostalek gave an overview of the MTCSWA, which combines output from several satellite-based wind retrieval methods to create a single surface wind analysis around tropical cyclones. The timeline is to have the GOES-T, Himawari-9, and NCCF upgrades operational by June of 2023, and the upgrade for MTG operational by September of 2024. CIMSS' Advanced Dvorak Technique algorithm was also considered during this CDR. (POC: J. Dostalek, CIRA, [jack.dostalek@colostate.edu](mailto:jack.dostalek@colostate.edu) and J. Knaff, STAR, [john.knaff@noaa.gov](mailto:john.knaff@noaa.gov))  
Funding: DACS

### **Awards and Recognition**

### **Publications**

### **Media and Outreach**

### **Workshops, Conferences, and Meetings**

**Presentation to the National Weather Service on tropical cyclone surface wind model upgrades:** A presentation on updates to the WTCM tropical surface wind model application being developed at CIRA was provided to NWS users on the weekly tropical operations call. Improvements include refinements to the log wind law used to account for variable land surface types that will be implemented for the 2022 hurricane season. (POCs: M. DeMaria, A. Schumacher, CIRA, [Mark.DeMaria@colostate.edu](mailto:Mark.DeMaria@colostate.edu), [Andrea.Schumacher@colostate.edu](mailto:Andrea.Schumacher@colostate.edu))  
Funding: JTTI.

### **Training and Education**

**FDTD Satellite Applications Webinar:** D. Bikos coordinated with S. Lindstrom (CIMSS) and B. Motta (NOAA/NWS/OCLO/FDTD) to deliver a Forecast Decision Training Division (FDTD) Satellite Applications webinar on 23 February 2022. The webinar was led by Mike Seaman, Alex DeSmet, and David Church (NWS WFO Salt Lake City, UT) and titled “A Review of the December 2021 Northern Utah Snow Squalls”. The webinar was attended by 6 NWS offices (mostly WFOs). All FDTD Satellite Applications webinars are recorded and made available for viewing at: [https://rammb.cira.colostate.edu/training/visit/satellite\\_chat/](https://rammb.cira.colostate.edu/training/visit/satellite_chat/) and also made available on the NOAA CLC. (POC: D. Bikos, CIRA, Dan.Bikos@colostate.edu) Funding: VISIT / SHyMet

**New Satellite Liaison Blog Post:** A blog post titled “VIIRS Snowmelt RGB Use in Operations” was recently published. The post discusses the role of VIIRS Snowmelt RGB imagery in assessing the “blowability” of a snowpack during a recent stretch of active winter weather across the northern plains. See Figure below. The link to the post can be found [here](#). (POC: B. Line, CoRP/RAMMB, [bill.line@noaa.gov](mailto:bill.line@noaa.gov)) Funding: PDRA

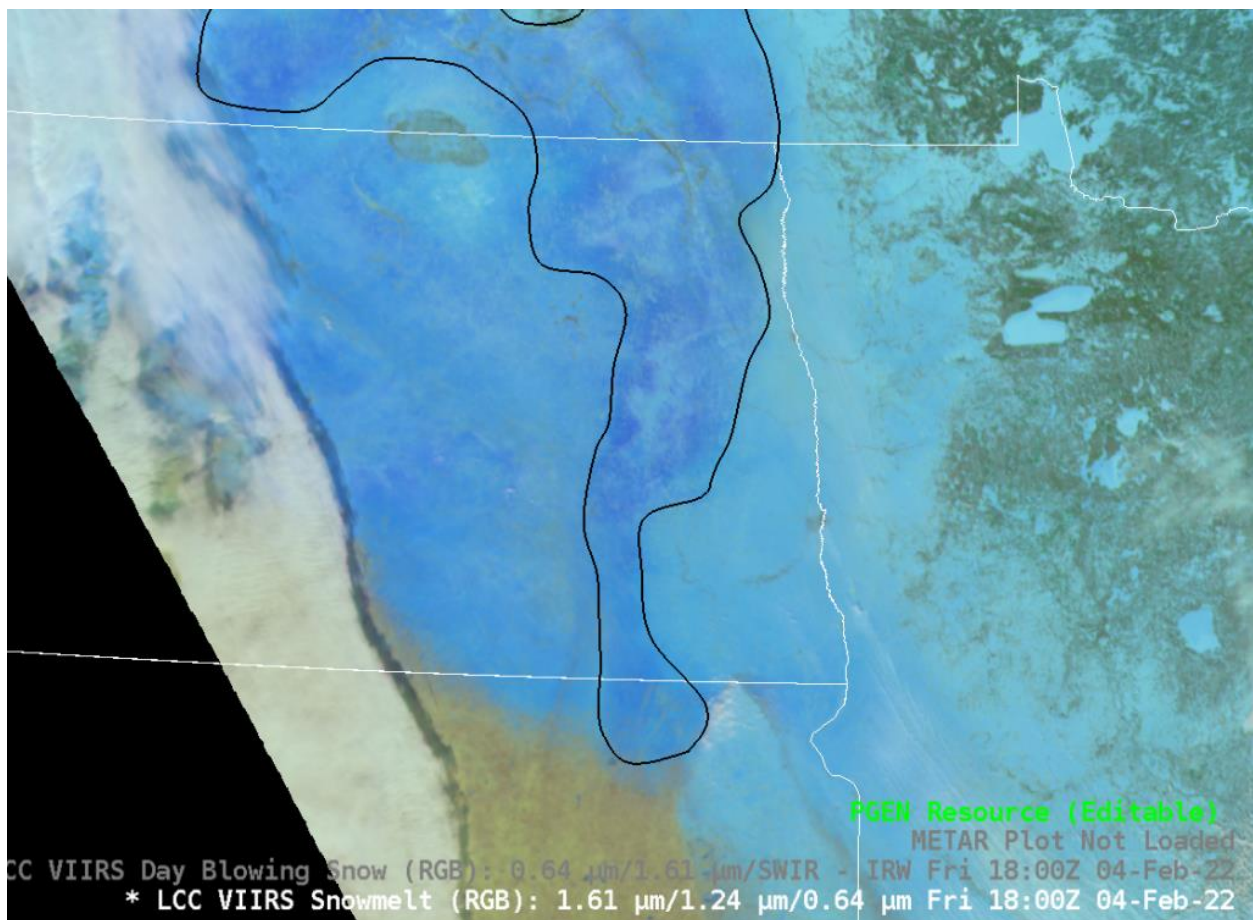


Figure: 04 Feb 2022 VIIRS Snowmelt RGB, with area of “crusted” snowpack outlined.

Other

**Manuscript Reviewed:** B. Trabing completed manuscript review for the Journal of Advances in Modeling Earth Systems. (POC: Ben Trabing, CIRA/RAMMB, [btrabing@colostate.edu](mailto:btrabing@colostate.edu)) Funding: HFIP

**Manuscripts reviewed:** J. Knaff reviewed two manuscripts submitted for publication, one for Journal of Climate and another for Weather and Forecasting. (POC: John Knaff, STAR, [John.Knaff@noaa.gov](mailto:John.Knaff@noaa.gov)) Funding: PDRA