

Alaska Region Satellite Products and Data Needs

–or–

“Where We Are Going”

Eric Stevens

UAF/GINA

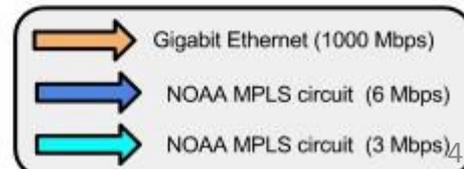
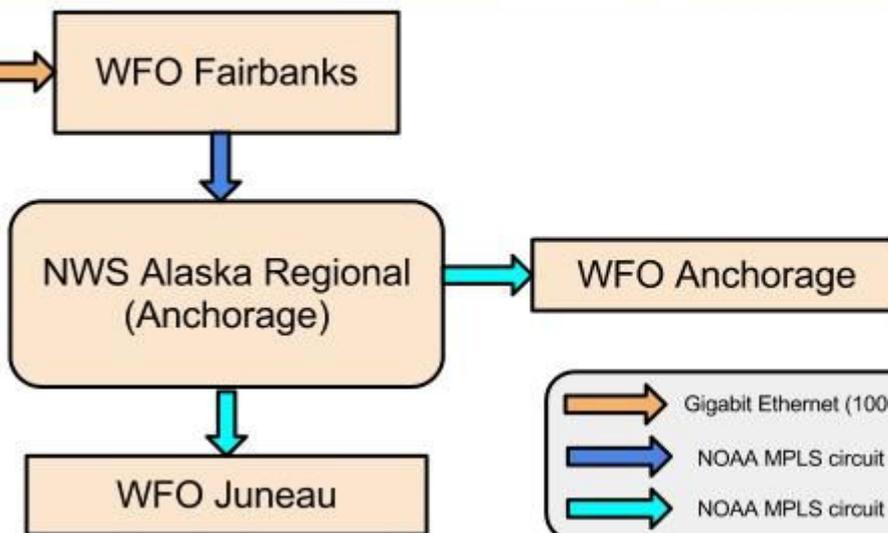
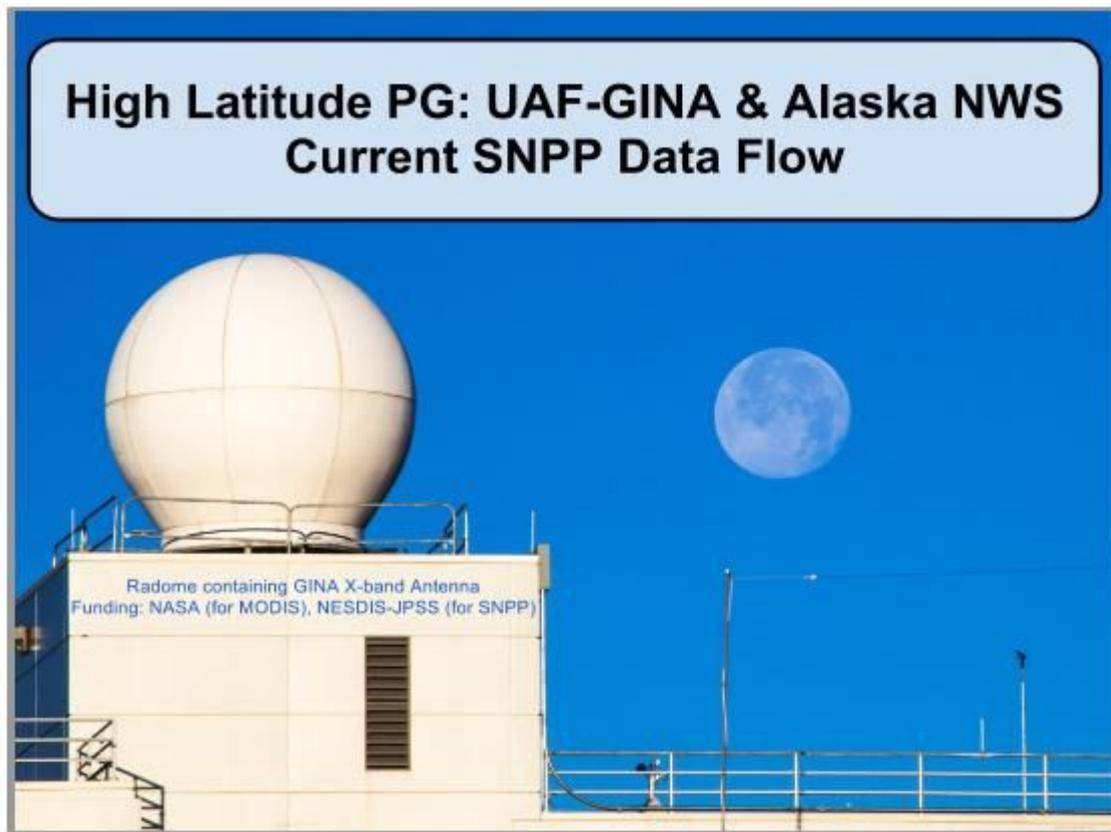
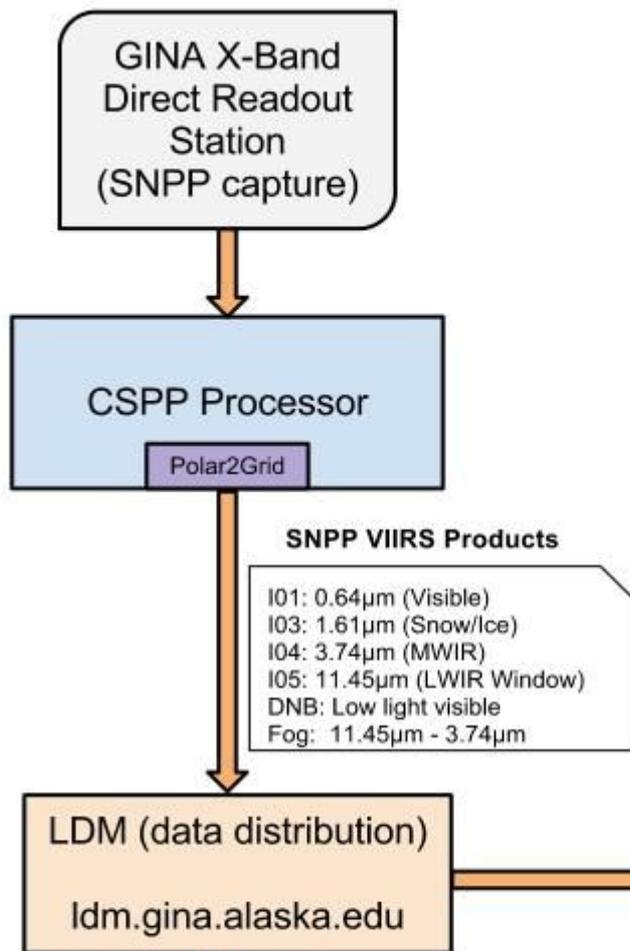
Outline

- Improvements to infrastructure
- Increase interaction with NWS
- Improvements to existing products
- New products
- The High Latitude Proving Ground...and beyond!



Improvements to Infrastructure

- Implementing multi-core capabilities of CSPP
- N-WAVE upgrade to bandwidth



Improvements to Infrastructure

- Implementing multi-core capabilities of CSPP
- N-WAVE upgrade to bandwidth
- “Operationalizing” direct readout at GINA
 - Partnering with NOAA/NESDIS to augment reliability via backup systems
- Work with NOAA/NESDIS to mitigate problem of data dropouts when schedule of satellites conflicts

Improvements to Infrastructure

- Implementing multi-core capabilities of CSPP
- N-WAVE upgrade to bandwidth
- “Operationalizing” direct readout at GINA and preparing for potential SNPP -> JPSS-1 data gap mitigation – Sandy supplement (in implementation planning)
 - Partnering with NOAA/NESDIS to augment reliability via backup systems
 - A second, redundant antenna
 - Creating an overall increase in robustness
- Enhance capabilities of Puffin Feeder website
 - Need for this demonstrated during 2013 breakup flooding
 - Puffin Feeder is the “go to” website for GIS users of real-time weather polar orbiting satellite data such as RFC and NWS Sea Ice Program: serves needs beyond AWIPS, e.g. geotiffs

Increase Interaction with NWS

- Product evaluation
 - Fog & Low Stratus
- Satellite blog with NWS forecasters as intended audience
 - Vision: “Scott Bachmeier of the North”
- Training sessions: live as well as asynchronous
 - Vision: contribute to satellite component of “Alaskan AWOC”
- Want NWS forecasters to think of GINA (as well as others) when it comes to questions about satellites
 - Example: Dan Hancock and the DNB this spring

Improvements to Existing Products

- GOES-derived Fog and Low Stratus product has a noise issue over land.
 - Mike Pavolonis and colleagues are working on improvements.
 - Melissa Kreller has made color enhancements that blank the noise to some degree as a temporary fix.
- Stray-light issues with DNB: fixes from NOAA and UK Met Office on the way to mitigate “stripiness.” Solutions will be incorporated by CIMSS into their CSPP code

New Products

- Polar Mosaics (per Matthew Lazzara) into AWIPS
- Reflectance product from Terra and Aqua birds at $2.1\mu\text{m}$. Can tell difference between snow and clouds during daytime.
 - *“I would die for this,”* –Don Moore, Meteorologist in Charge, Alaska Aviation Weather Unit, April 26, 2013
 - CIMSS IMAPP can produce this
- CrIS-derived products
 - particularly helpful for aviation forecasts?
 - Use in data assimilation for local/regional modeling?
- And more...

High Latitude Proving Ground...and Beyond!

- Ira Flato's checkbook question
 - If money were practically unlimited, what would you fund to advance your area of science?
- River Forecast Center: SAR
- My fave: Environment Canada's PCW
- Replace QuikSCAT with QuikSCAT
 - "QuikSCAT is the best thing for our marine program since the invention of the boat," Rick Thoman, WFO Fairbanks, circa 2008



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Thank You!



- Questions?
- <http://feeder.gina.alaska.edu/>
- eric@gina.alaska.edu
- 907-474-7022