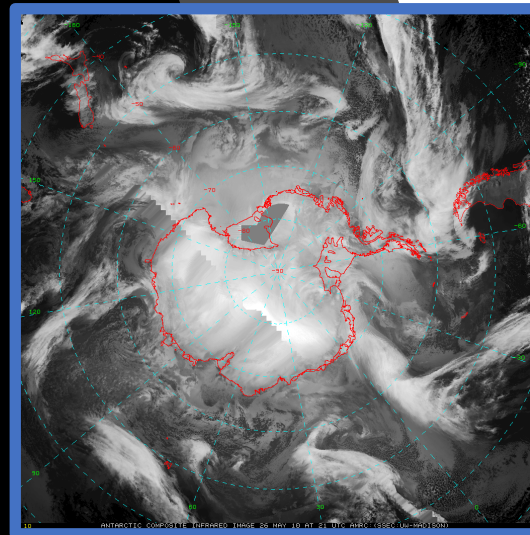


Matthew A. Lazzara, Ph.D.

¹Chair, Department of Physical Sciences,
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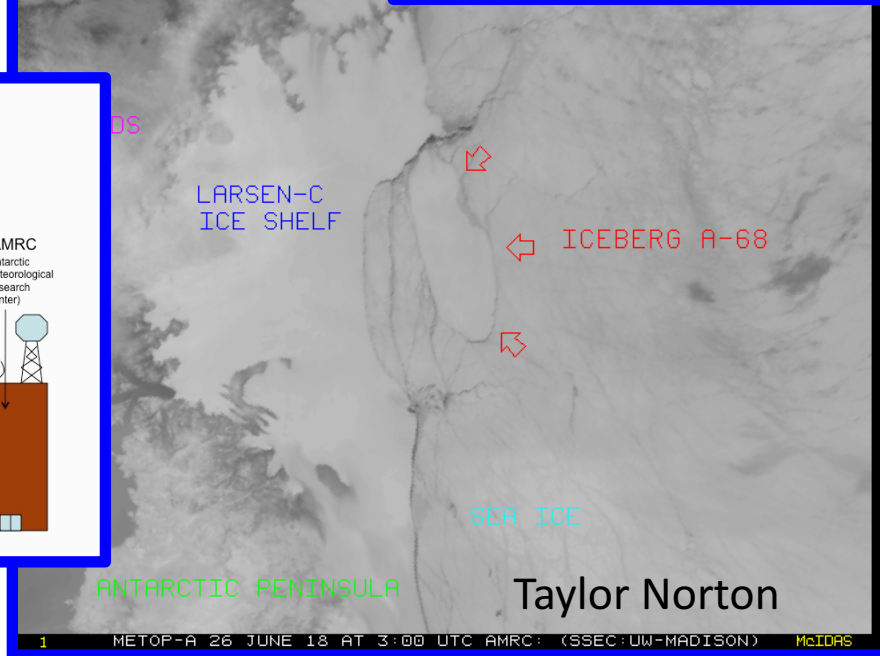
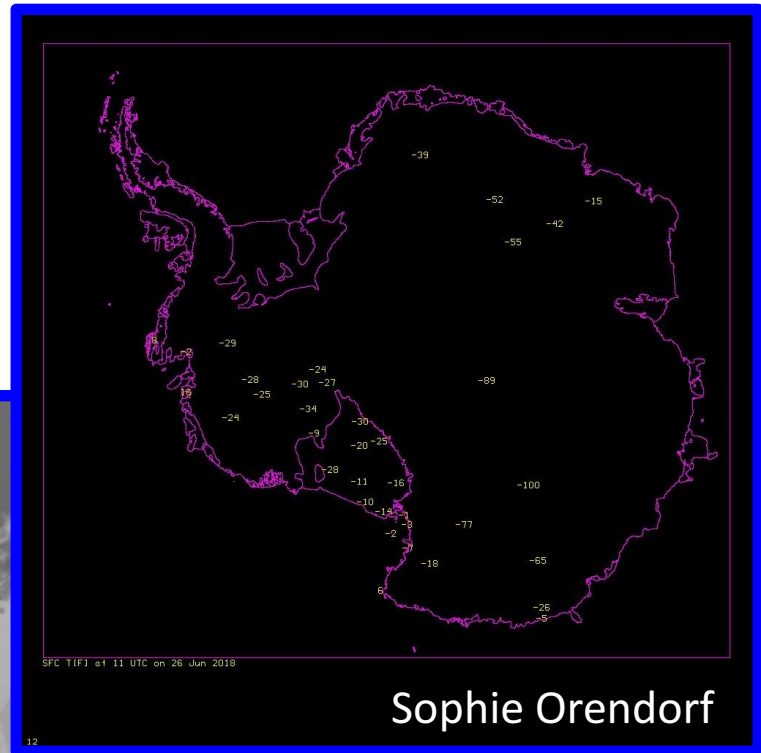
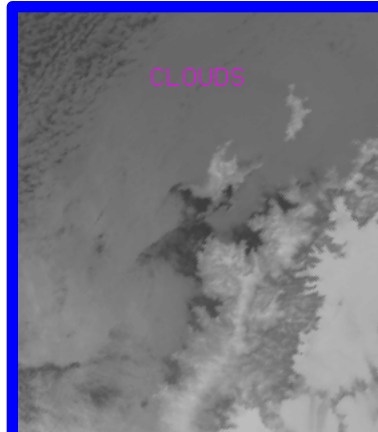
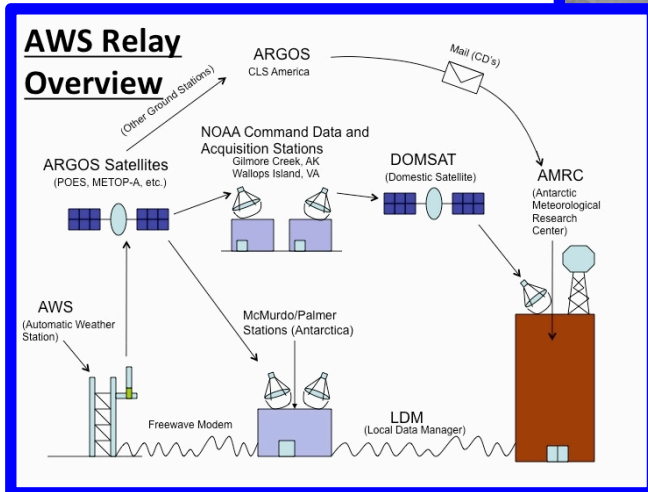
²Antarctic Meteorological Research Center,
Space Science and Engineering Center,
University of Wisconsin-Madison,
Madison, WI

The Antarctic Meteorological Research & Data Center: *A Community Resource to Advance USAP Meteorology Efforts*



Outline

- Background and the reports
- The short term
- AMRC → AMRDC
- The long term goals
- Questions?



Background: USAP Meteorology Enterprise

- A “Soup to Nuts” Community (look around this room today!)
 - Forecasters
 - Observers
 - Numerical Modelers
 - Researchers
 - Archivists
 - etc.
- We are successful in what we do...
- However....
 - Old infrastructure, Dated capabilities, At risk enterprise, Reactive rather than proactive, etc.
- AMRDC
 - A community forum to address issues and concerns such as the above.



Reports to NSF on US Antarctic Meteorological Enterprise

- 2017 Cyberinfrastructure Meteorological Task Force Report, published
 - Compiled by Lubin et al., 2017
- Joint Task Force (JTF) Support Forces Antarctica (SFA) Meteorological Support for Operation DEEP FREEZE 2017-2018, unpublished to date/in revision
 - Compiled by Capt. Lauren Hogg, JTF-SFA, 2018
 - Capt. Lauren Hogg's talk in this session
- NSF internal
 - Fresh eyes on the Met Enterprise, 2017

Sample Recommendations

- Satellite composites
- Real-time automatic weather station data
- Detailed surface & upper air observations
 - From US Antarctic research stations
- Database of observations
- Archiving broadcast satellite data streams
- Centrally archiving campaign data sets
- Issuance of digital object identifiers (DOIs)
- Authoritative evaluation of Antarctic...
 - ...atmospheric phenomena
 - ...climate variations
- Antarctic Internet Data Distribution System (Antarctic-IDD)

**United States Antarctic Program
Meteorological Cyberinfrastructure
Task Force Report**

Dan Lubin, (co-chair), SIO
Kevin Manning, (co-chair) NCAR
David Bromwich, Ohio State University
Mike Carmody, Antarctic Support Contract
Art Cayette, SPAWAR
Jonathan Pundsack, University of Minnesota

With support from:
Andy Archer, Antarctic Support Contract
Jim Frodge, SPAWAR

National Science Foundation Grant # PLR-1535632

Matthew Lazzara (Principal Investigator), Madison College/UW-Madison
Carol Costanza (Meteorologist), UW-Madison



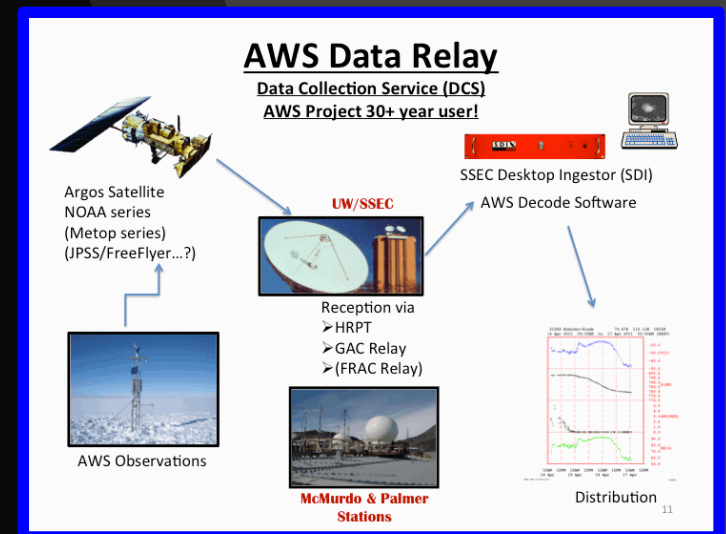
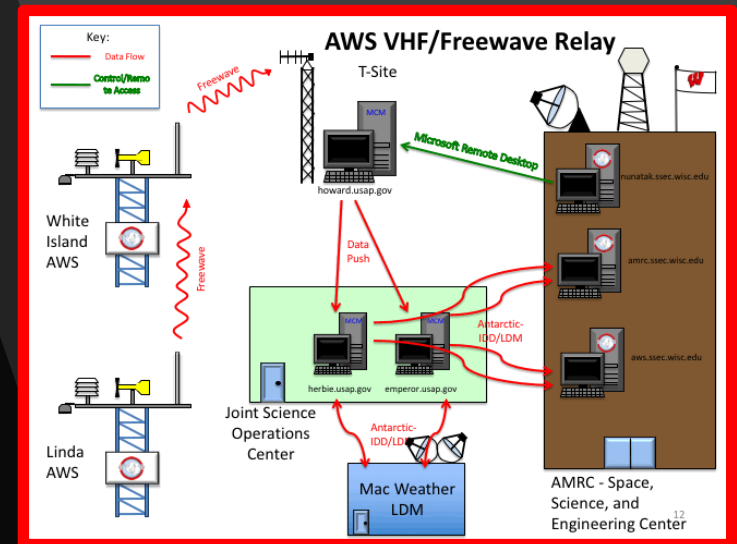
Sample Recommendations (cont.)

- NSF Governance
 - Antarctic Meteorology “Champion”
- Enterprise Mission
- Advisory Group
- Capital Plan & Budget
- Remove Barriers
 - Between operations and science



The Short Term

- AWS BUFR work
 - AWS Supplemental request to NSF
- AWS real-time datasets at very, very high risk.
 - A significant challenge...
- Satellite composites...options:
 - SPAWAR support
 - NOAA proposal fall??
 - NSF/USAP continues to support/own this...
- Funding runs out on all other AMRC-like operations end of August
 - Leverage SPAWAR funding?



AMRC → AMRDC

- AMRC (always the name for the Lazzara research group) becomes:

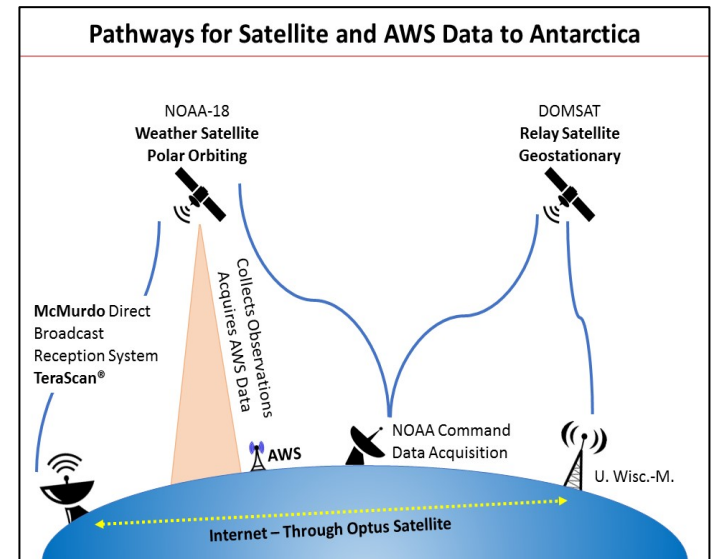
Antarctic Meteorological Research and Data Center

- An official NSF recognized data center
- A place for routine and official archival of data
- Associated with the SSEC Data Center
 - Also known as SSEC Satellite Data Services (SDS)
- Associated with the Schwerdtfeger Library
 - One of AMRC's "Roots"



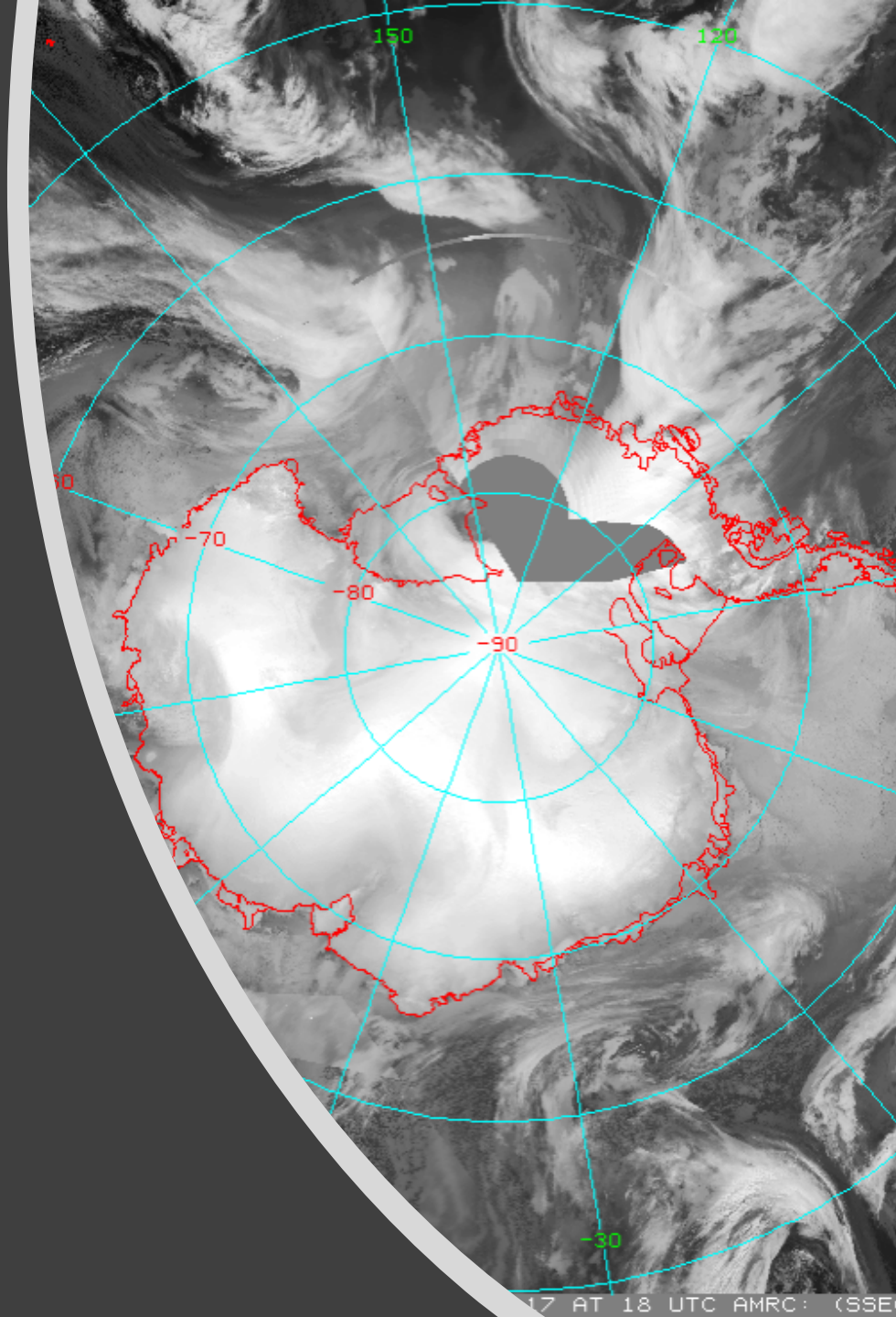
The Long Term Goals

- 5 year sustainable funding
 - And really beyond...
- Forward looking
 - New activities (AMRDC as a resource)
 - Pick up loose ends (e.g. Fog research)
- Steering Committee
 - An **active** group – providing direction
- New web site
 - Dramatic improvement in data delivery
 - Data analysis tools



Questions for the community

- What do you want to see?
 - As a USAP participant?
 - As a non-USAP Antarctic participant?
- What are the focus areas?
- What have we forgotten to include here?
- Have we included anything we should not?
- Discussion session later today!



**Let's have a conversation...
...today's breakout session?**

**Thank you!
Questions?**

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