

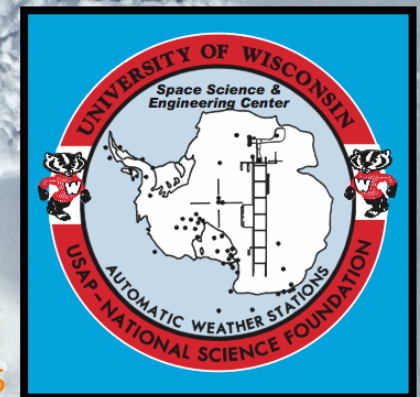
THE 2014-15 UW-MADISON AWS NETWORK FIELD SEASON: A CAMPAIGN TO DIVIDE AND CONQUER

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Jonathan Thom¹, George Weidner², Melissa Nigro³ & John Cassano³

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³*Cooperative Institute for Research in Environmental Sciences and Dept. of
Atmospheric and Oceanic Science, University of Colorado-Boulder*



24-26 Mar 2015

Outline

- Current AWS network
- 2014-15 Field Season Goals
 - Upgrade instrumentation on select AWS
 - Remove select AWS
 - Install AWS in West Antarctica
- Shortcomings this field season



The Team



Dr. Matthew Lazzara, PI



Dr. Melissa Nigro



Prof. John Cassano



Dr. Masha Tsukernik



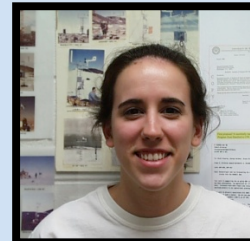
George Weidner



Linda Keller



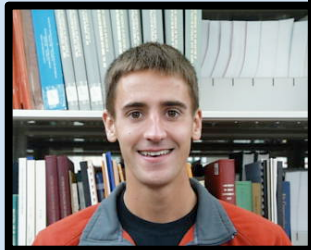
Prof. Matt Hitchman



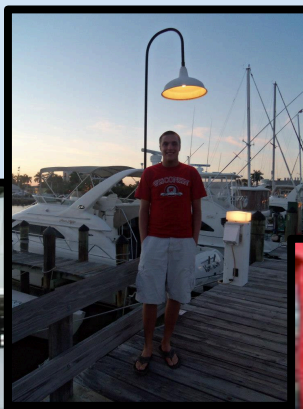
Carol Costanza



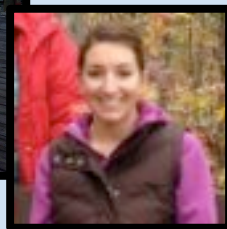
Dave
Mikolajczyk



Steven Fons



Joe
Nettesheim

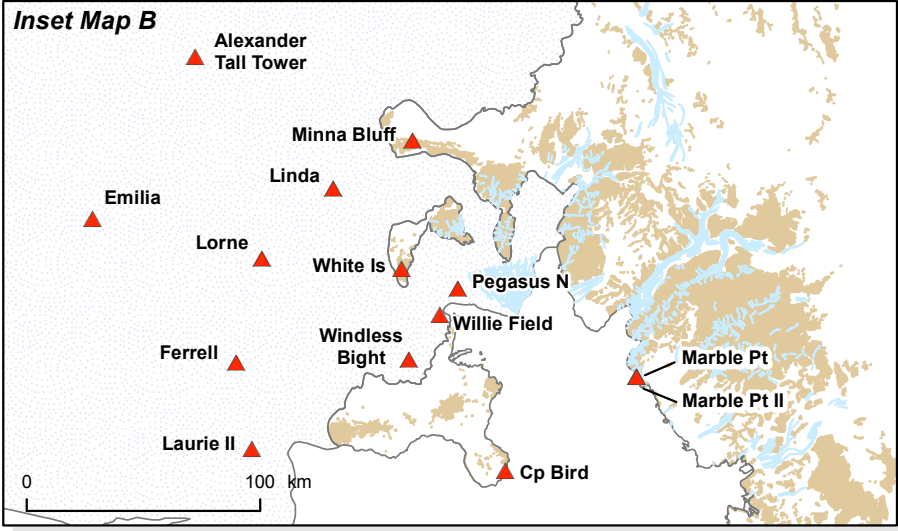
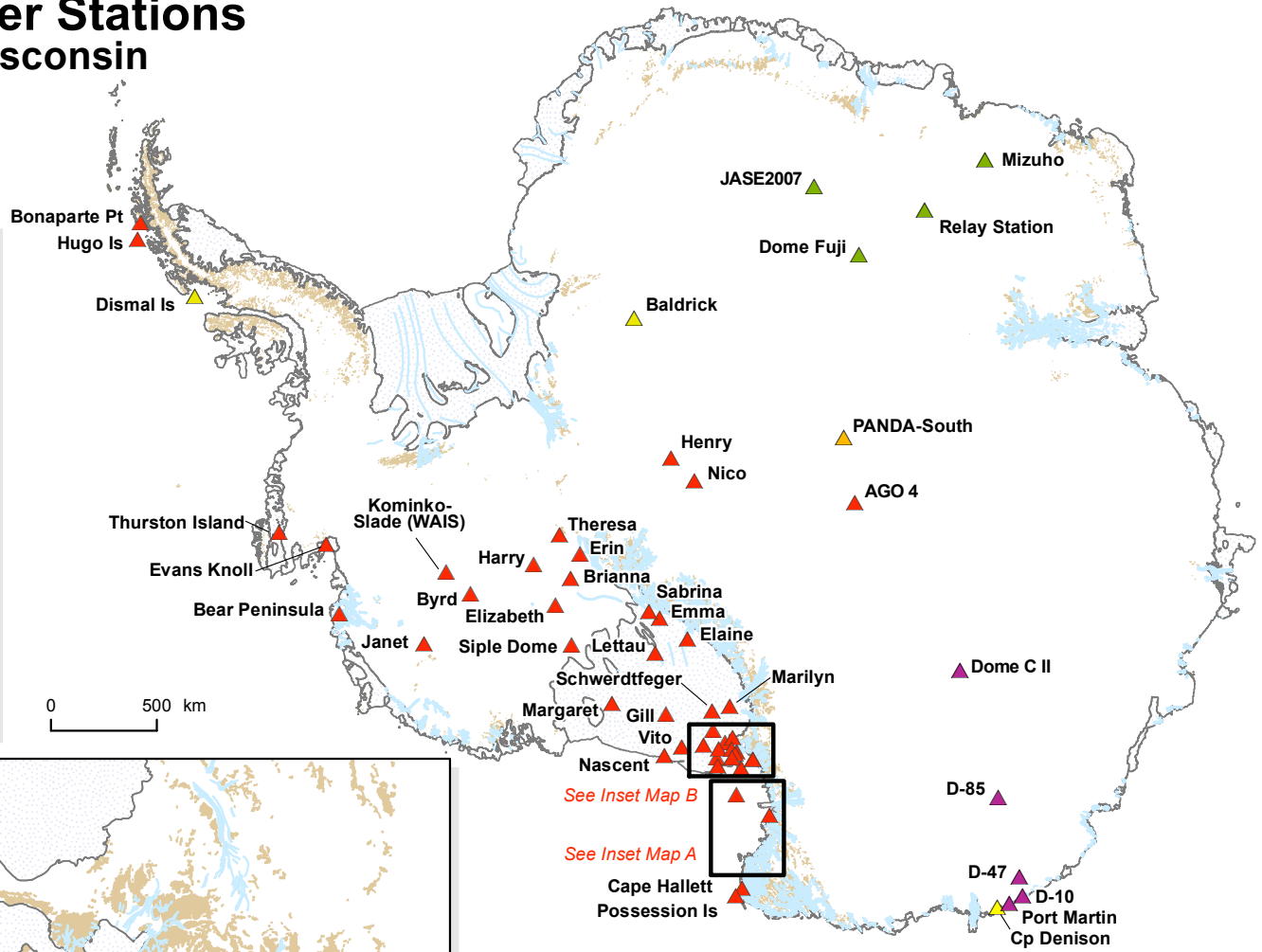
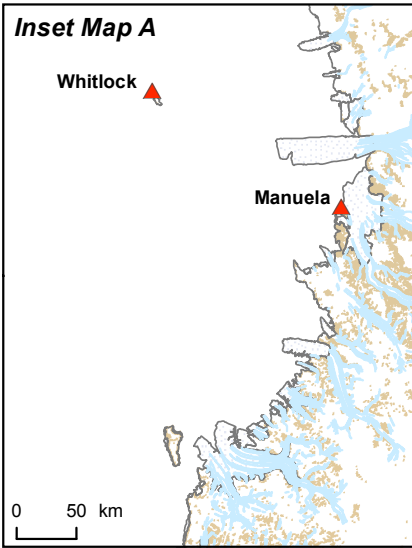


Marian Mateling



Lee Welhouse

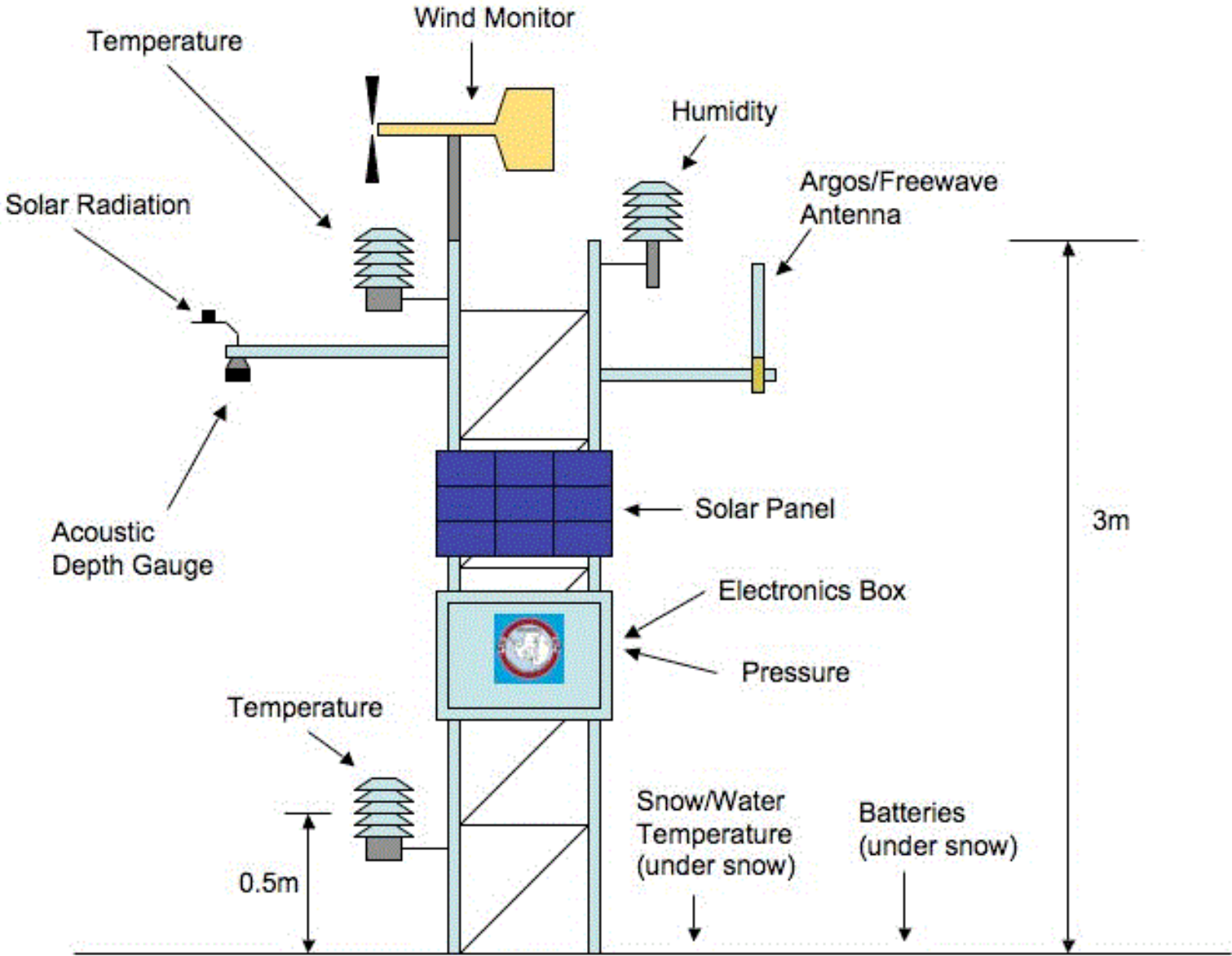
Automatic Weather Stations University of Wisconsin 2015



- University of Wisconsin AWS**
- ▲ Univ. of Wisconsin (UW)
 - ▲ UW / Australia
 - ▲ UW / China
 - ▲ UW / France
 - ▲ UW / Japan
 - ▲ UW / United Kingdom

Coastline: ADD v4.1, 2003
2015_AWS_Sites_UW
March 2015 Sam Batzli SSEC
University of Wisconsin-Madison
National Science Foundation ANT-1245663

AWS Diagram



ANTARCTIC FIELD SEASON 2014-2015



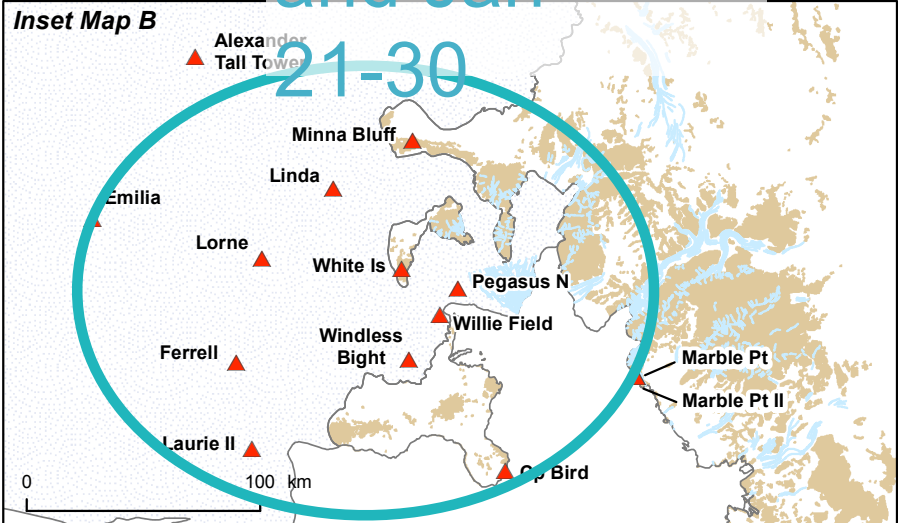
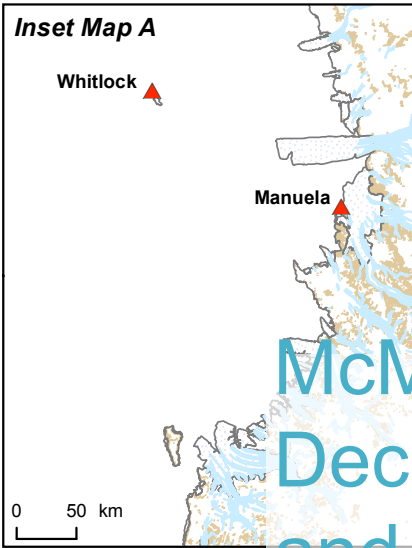
Drew Slater



Dave Mikolajczyk, Lee Welhouse, Carol Costanza, Elin McIlhattan



Automatic Weather Stations University of Wisconsin 2015

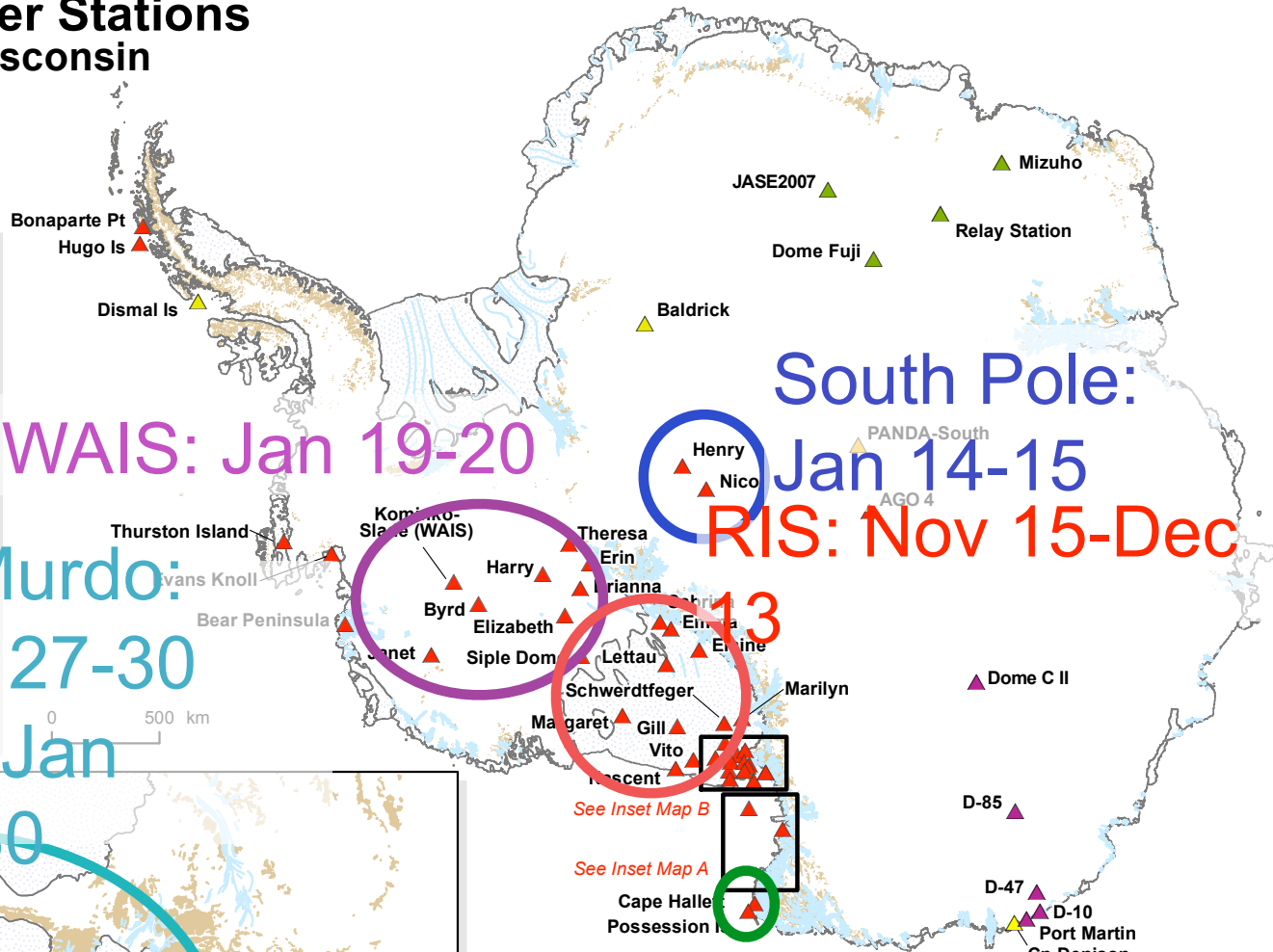


WAIS: Jan 19-20

McMurdo:
Dec 27-30
and Jan
21-30

South Pole:
Jan 14-15
RIS: Nov 15-Dec

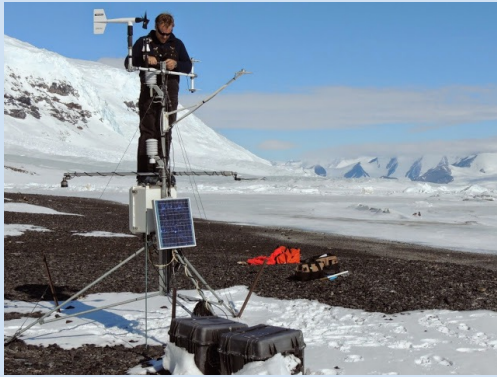
Cape Hallet: Nov 12



- University of Wisconsin AWS**
- ▲ Univ. of Wisconsin (UW)
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 - ▲ UW / China
 - ▲ UW / France
 - ▲ UW / Japan
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Coastline: ADD v4.1, 2003
2015_AWS_Sites_UW
March 2015 Sam Batzli SSEC
University of Wisconsin-Madison
National Science Foundation ANT-1245663

NOV 12 – 22



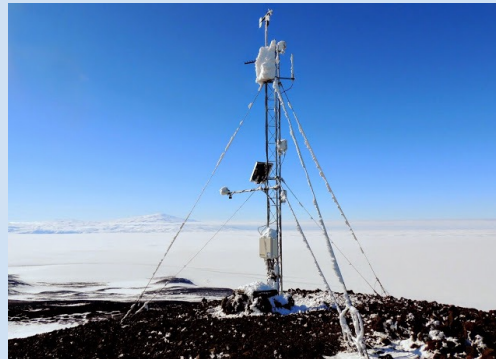
Cape Hallett AWS



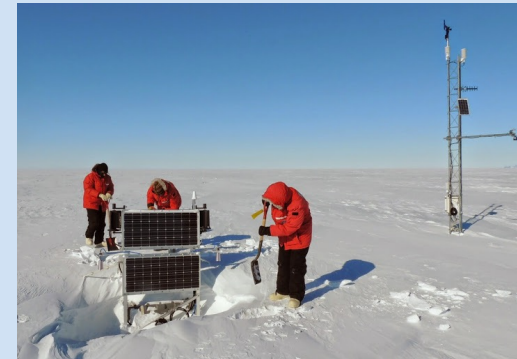
Marlene AWS



Eric AWS



White Island AWS



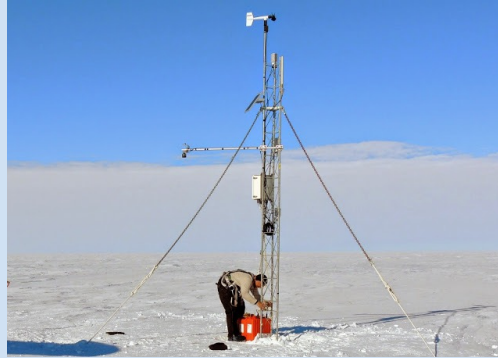
Lorne AWS

3 removals - Marlene, Eric, and Carolyn AWS

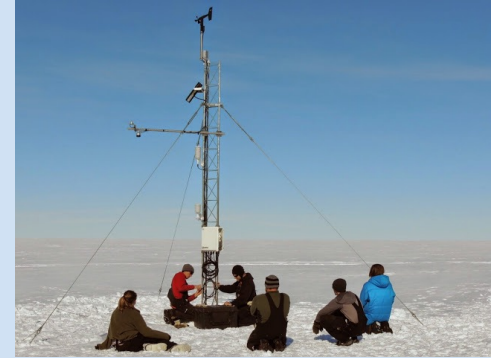
NOV 28 - DEC 13



Vito AWS



Emma AWS



Marilyn AWS

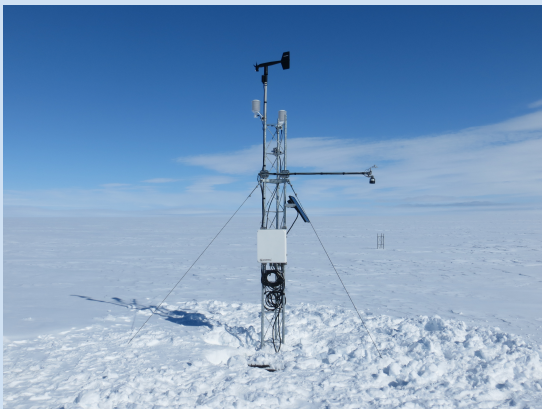


Emilia AWS

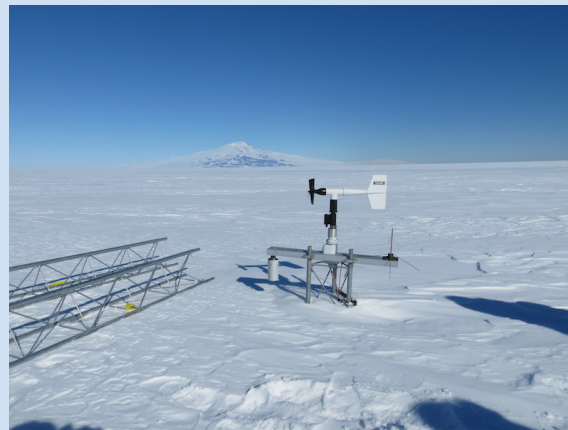


Alexander Tall Tower! AWS

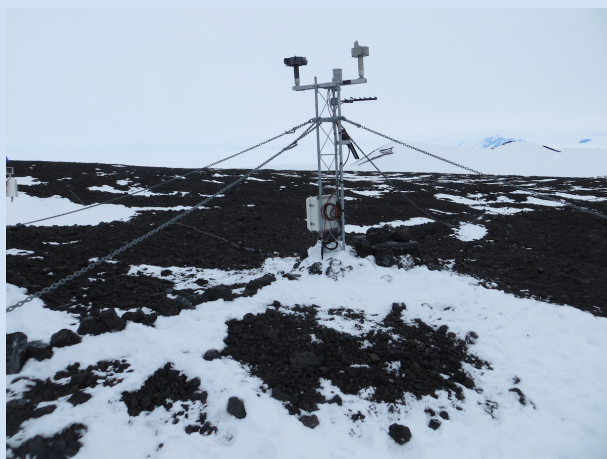
DECEMBER 27TH - 30TH



Ferrell AWS



Laurie II AWS



Minna Bluff AWS

JAN 14 - 15



Nico AWS



Henry AWS

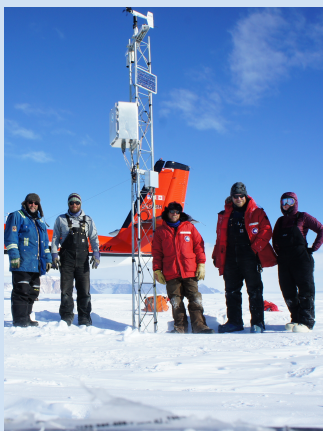
JAN 19 - 20



Kominko-Slade (WAIS) AWS

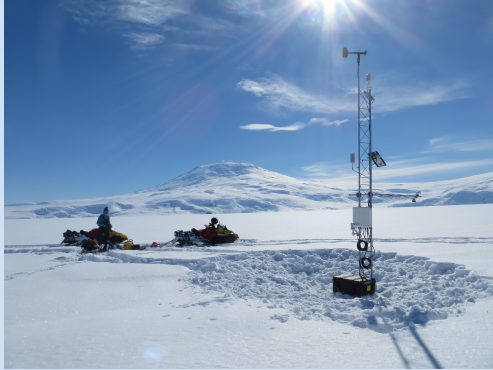


Elizabeth AWS



Theresa AWS

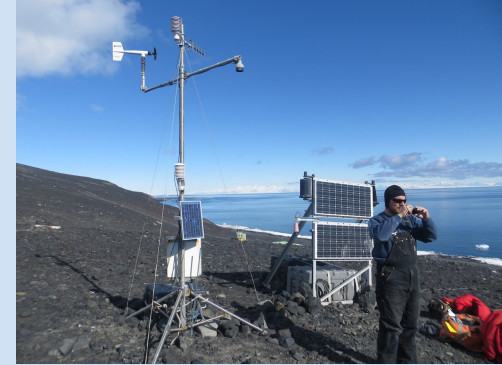
JAN 21 - 30



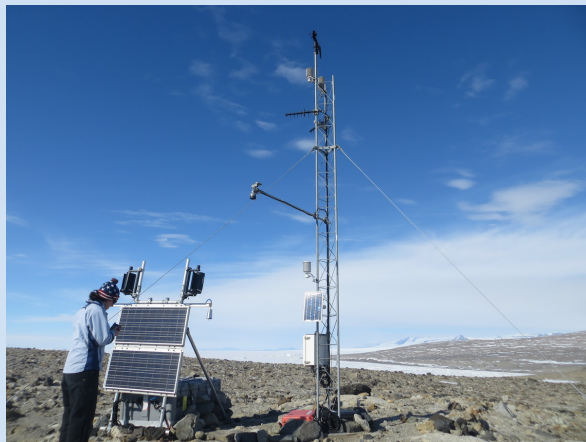
Windless Bight AWS



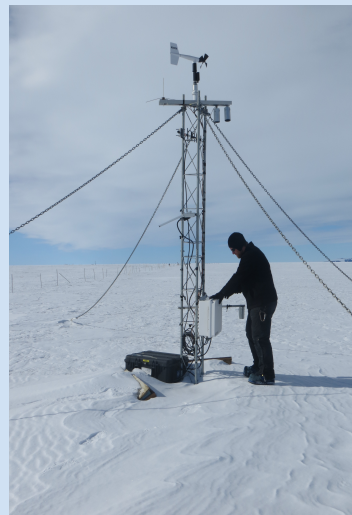
Siple Dome AWS



Cape Bird



Marble Point II AWS



Pegasus North AWS

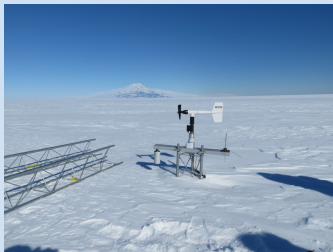


Wille Field AWS

Review of 2014-15 Field Season

What Worked

- 2 crews
 - Early season/Late Season
- Twin Otter work completed on Ross Ice Shelf
- 25 of 31 AWS visited: 81% !!
- 3 station removals means the possibility to install 3 more
- 2 AWS “rescued” from a snow burial



Laurie II AWS



Elizabeth AWS

Complications

- Timing of cargo arrival
- Work at WAIS
 - Poor weather
 - Two new stations unable to be installed
- Work at Pole
 - 8 days of waiting due to scheduling conflicts/poor weather



Thank You!

Acknowledgments

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The authors appreciate the support of the University of Wisconsin-Madison Automatic Weather Station Program for the data set, data display, and information, NSF grant numbers ANT-0944018 and ANT-1245663.

- Thanks to NSF, ASC, 109th NY Air National Guard, Ken Borek Air, PHI Helicopters, Antarctic community, data users.