

# AWS Field Report

AS 2005/2006

George Weidner

Shelley Knuth

Jonathan Thom

# Field season summary

## AWS Operations

### By area

Iceberg AWS

West Antarctica

Ross Island

Peter I AWS

### Topics

Cooperative programs

Logistical issues (protected areas, transportation limitations, icebreakers, etc)

# AWS Table for 2006

## Adelie Coast

• D-10	8986	66.71°s	139.83°e	243	Jan 80	89832
• D-47	8947	67.397°s	138.726°e	1560	Nov 82	89834
• D-57		68.199°s	137.538°e	2105	Jan 96	
• D-85		70.040°s	134.878°e	2500	Jan 83	
• Dome C II	8989	75.121°s	123.374°e	3250	Dec 95	89828
• Port Martin	8909	66.82°s	141.40°e	39	Jan 90	
• Cape Denison	8988	67.009°s	142.664°e	31	Jan 90	
• Penguin point	8910	67.617°s	146.180°e	30	Dec 93	89847
• Cape Webb		67.943°s	146.812°e	~60	Dec 94	

# West Antarctica

• Byrd Station	8903	80.007°S	119.404°W	1530	Feb 80	89324
• Brianna	8931	83.889°S	134.154°W	@525	Nov 94	
• Elizabeth	21361	82.607°S	137.078°W	@519	Nov 94	89332
• Erin	21363	84.904°S	128.828°W	@990	Nov 94	
• Harry	8900	83.003°S	121.393°W	945	Nov 94	
• Theresa	21358	84.599°S	115.811°W	1463	Nov 94	89314
• Doug	Not active					
• Mount Siple	8981	73.198°S	127.052°W	230	Feb 92	89327
• Siple Dome	8938	81.656°S	148.773°W	@668	Jan 97	89345
• Swithinbank		81.201°S	126.177°W	@959	Jan 97	
• WAIS Divide		79.468°S	112.086°W	@1833	Jan 06	

# Ross Island Region

• Marble Point	8906	77.439°S	163.754°E	@108	Feb 80	89866
• Ferrell	8929	77.884°S	170.818°E	@45	Dec 80	89872
• Pegasus North	21357	77.952°S	166.500°E	@8	Jan 90	89667
• Pegasus South	8937	77.990°S	166.568°E	@5	Jan 91	
• Minna Bluff	#8939	78.555°S	166.691°E	@47	Jan 91	89769
• Willie Field	21364	77.866°S	166.983°E	@14	Jan 92	
• Windless Bight	8927	77.728°S	167.703°E	61	Nov 98	
• Cape Bird	8901	77.224°S	166.440°E	@42	Jan 99	
• Laurie II	21360	77.529°S	170.807°E	@38	Jan 00	
• Linda	21362	78.451°S	168.395°E	@43	Jan 91	89769

# Ocean Islands

- Whitlock 8907 76.144°S 168.392°E 274 Jan 82 89865
- Scott Island 67.37°S 179.97°W 30 Dec 87 89371
- Young Island 66.229°S 162.275°E 30 Jan 91 89660
- Possession Is. 8984 71.891°S 171.210°E 30 Dec 92 89879
- Manuela 8905 74.946°S 163.687°E 80 Feb 84 89864
- Peter I 8933 68.769°S 90.670°E 90 Feb 06

# Ross Ice Shelf

• Marilyn	8934	79.954°S	165.130°E	75	Jan 84	89869
• Schwerdtfeger	8913	79.875°S	170.105°E	@54	Jan 85	89868
• Gill	8911	79.985°S	178.611°W	55	Jan 85	89376
• Elaine	8987	83.111°S	174.316°E	60	Jan 86	89873
• Lettau	8908	82.518°S	174.452°W	55	Jan 86	89377
• Vito	8695	78.509°S	177.746°E	@+52	Feb 04	
• Emilia	8919	78.509°S	173.114°E	@+50	Feb 04	
• Carolyn	8722	79.964°S	175.842°E	@+52	Jan 05	
• Mary	8983	79.303°S	162.968°E	@+58	Jan 05	
• Eric	8697	81.504°S	163.940°E	@+45	Jan 05	
• Nascent	28336	78.143°S	178.491°E	E50	Nov 04	

# Antarctic Peninsula

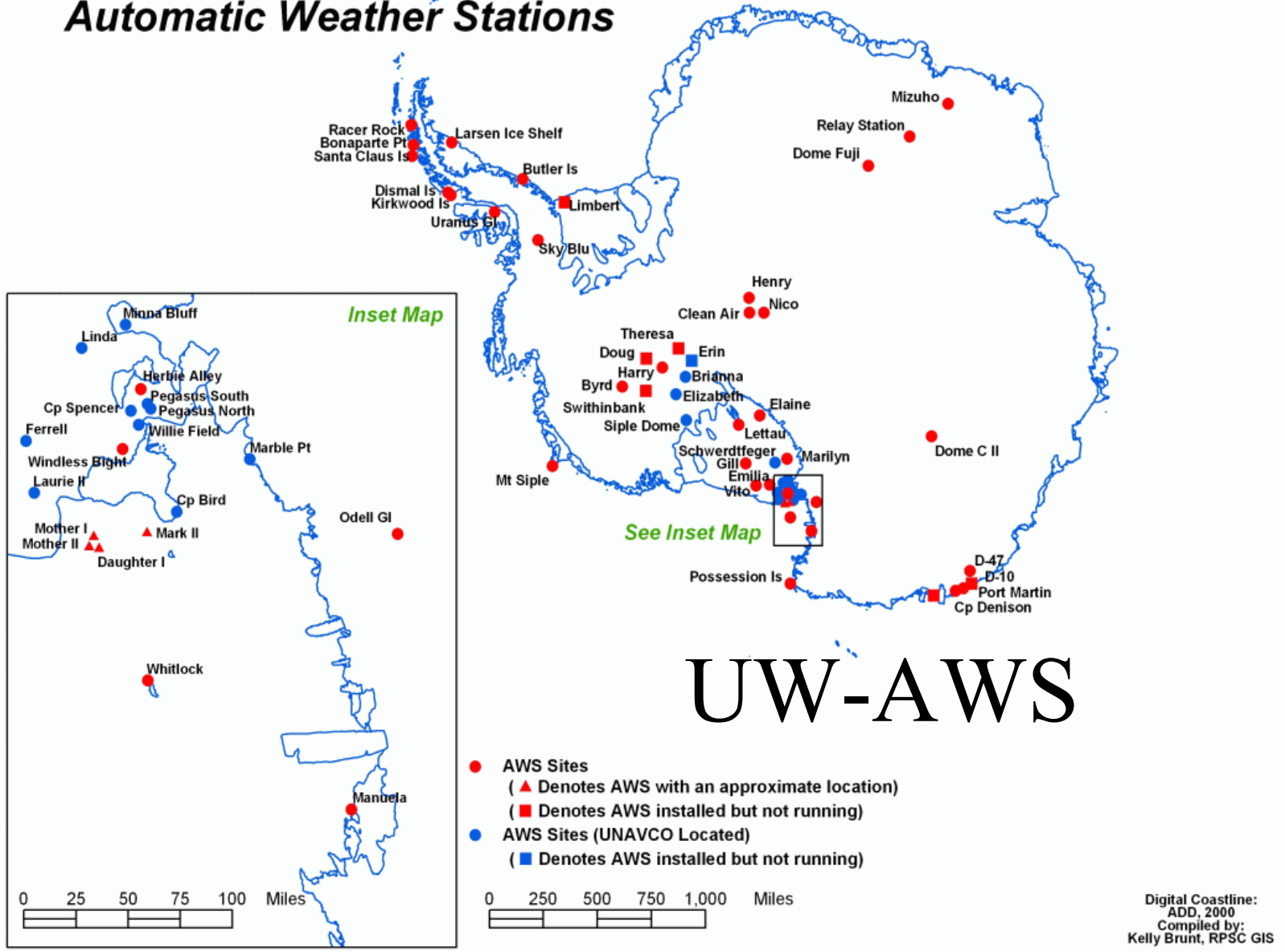
- Larsen Ice 8926 66.949°S 60.897°W 17 Oct 85 89262
- Butler Island 8902 72.207°S 60.160°W 91 Mar 86 89266
- Fossil Bluff 8920 71°20' S, 68°17' W, Jan 06 89065
- Limbert 8925 75.422°S 59.851°W 40 Dec 95 89257
- Racer Rock 64.067°S 61.613°W 17 Nov 89 89261
- Bonaparte Point 8923 64.778°S 64.067°W 8 Jan 92 89269
- Ski-Hi 8917 74.792°S 70.488°W 1395 Feb 94 89272
- Santa Claus I 64.964°S 65.670°W 25 Dec 94
- Kirkwood Isand 8930 68.340°S 69.007°W 30 May 01
- Dismal Island 8932 68.087°S 68.825°W 10 May 01



# High Polar Plateau

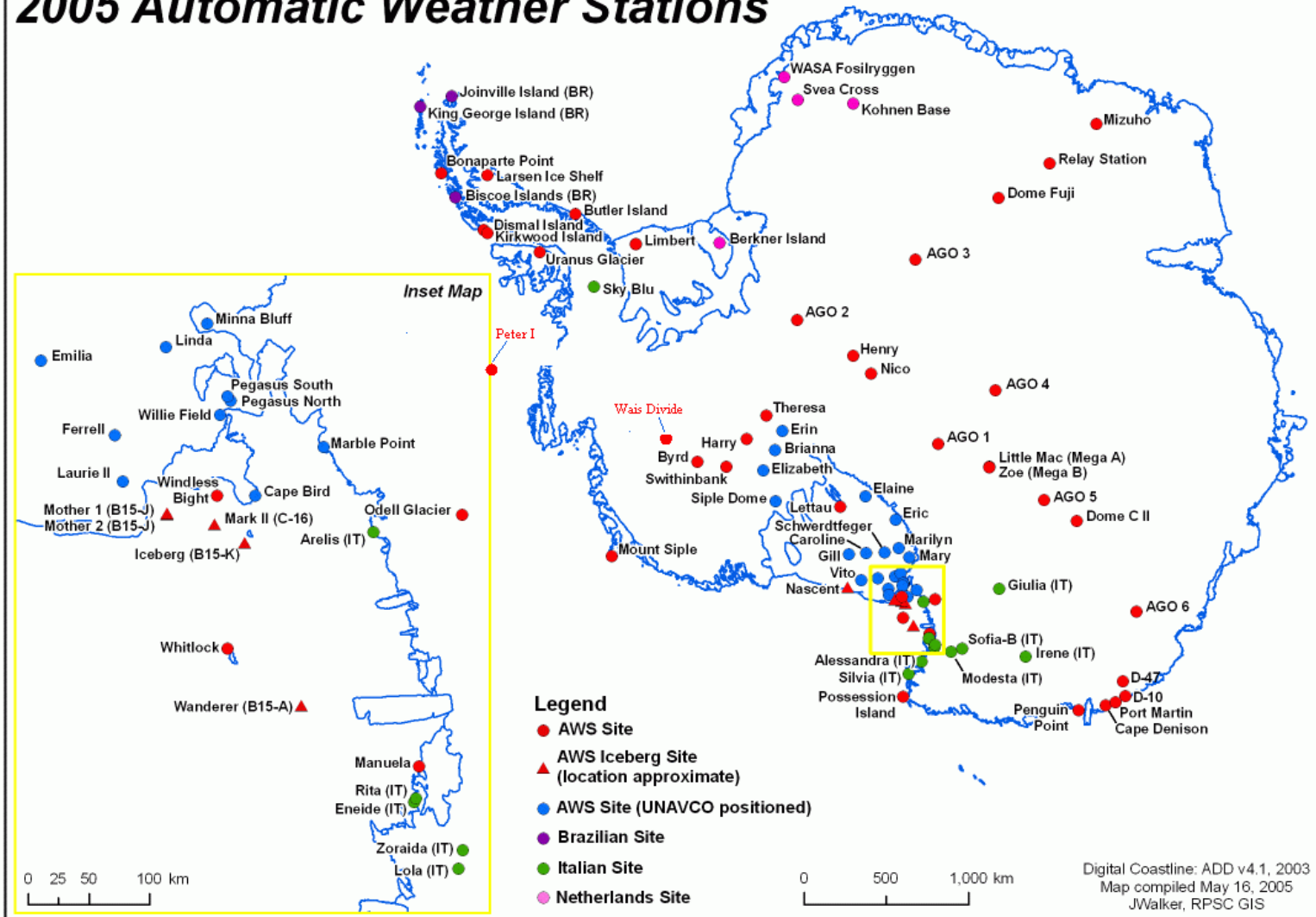
- Clean Air #21356 90.00°S 2835 Jan 86 89208
- Henry 8985 89.011°S 1.025°W 2755 Jan 93 89108
- Nico 8924 89.000°S 89.669°E 2935 Jan 93 89799
- Relay Station 8918 74.017°S 43.062°E 3353 Feb 95 89744
- Dome Fuji 8904 77.31°S 39.70°E 3810 Feb 95 89734
- Mizuho 21359 70.70°S 44.29°E 2260 Oct 00

# University of Wisconsin-Madison Automatic Weather Stations

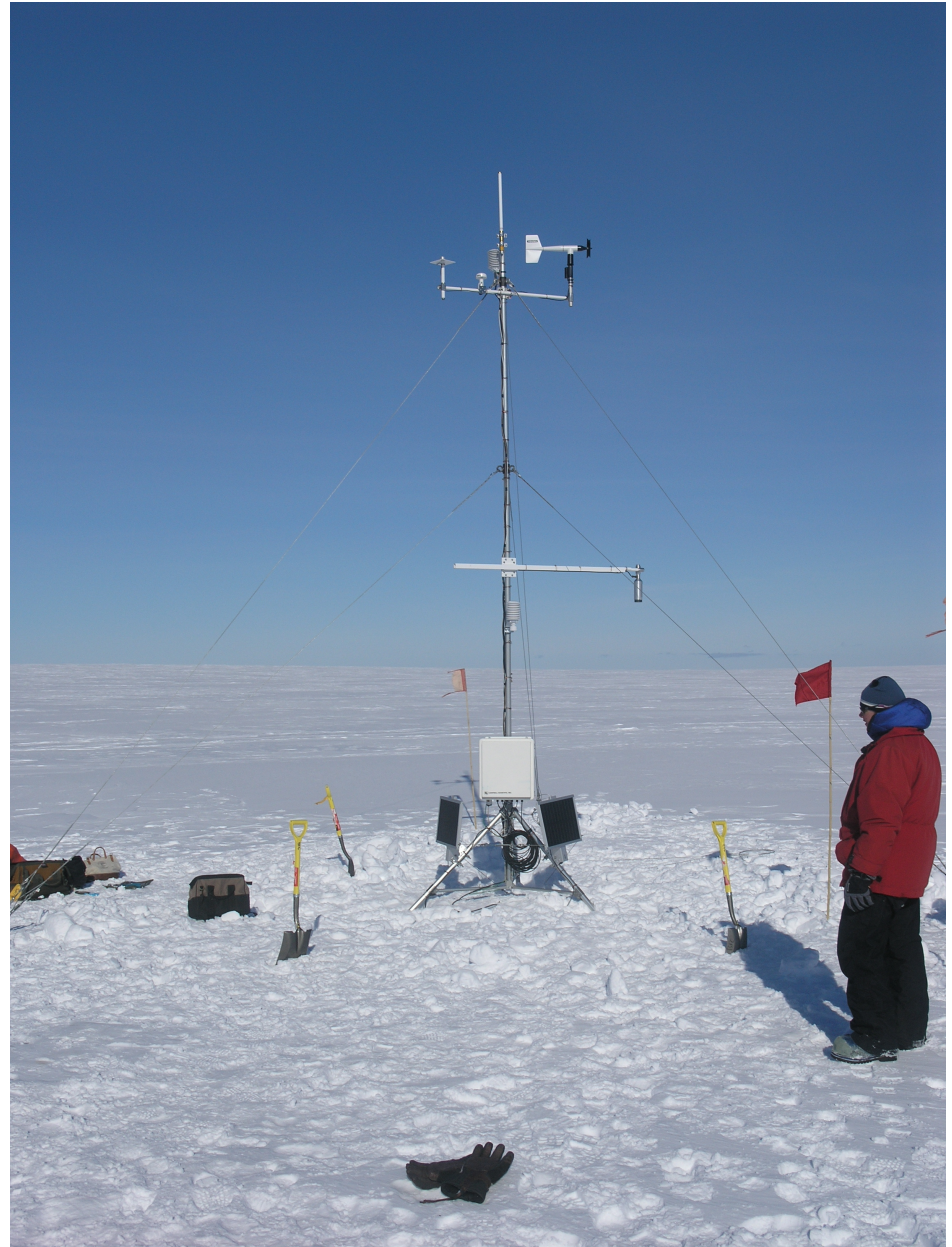


# UW AWS

## University of Wisconsin - Madison 2005 Automatic Weather Stations

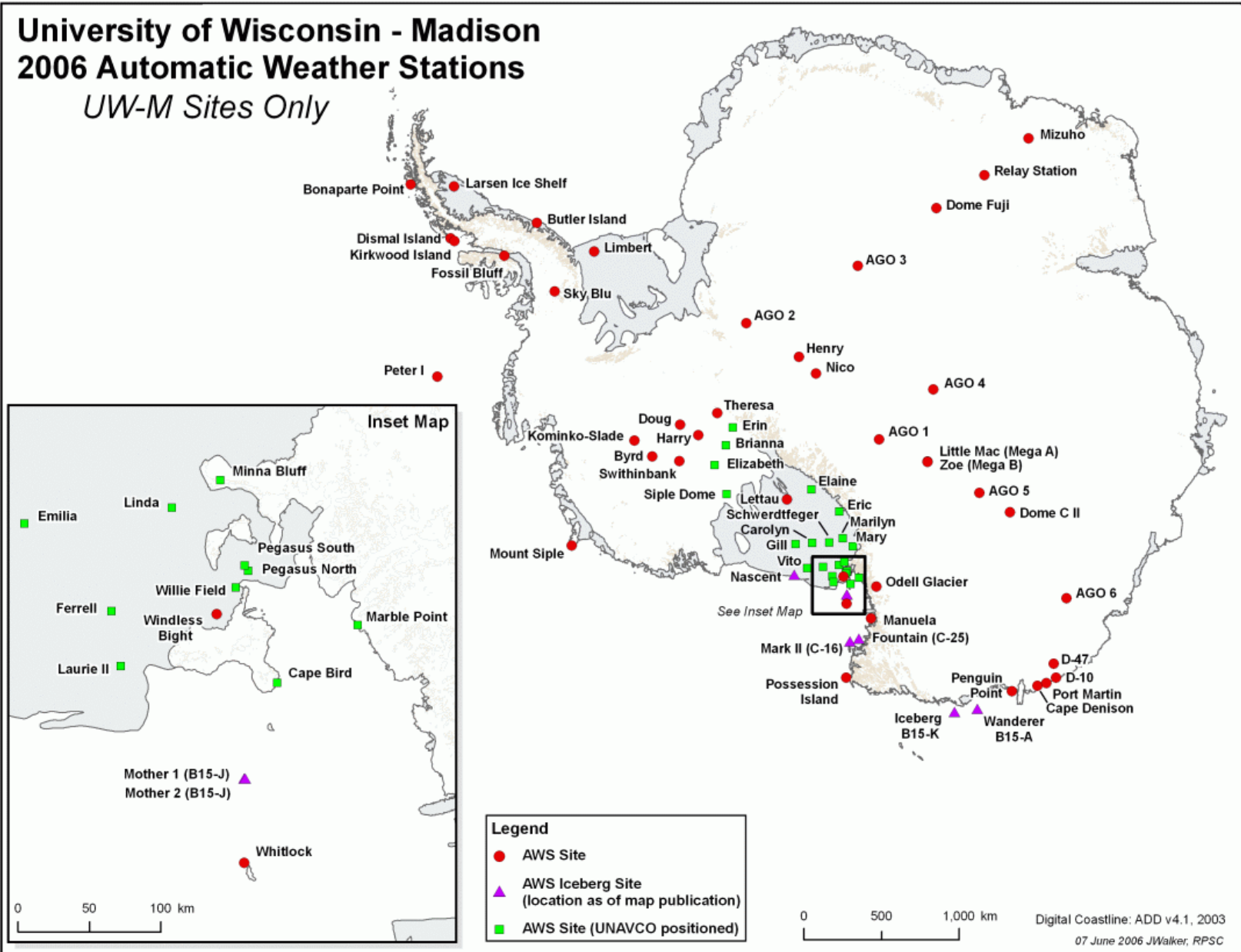


Automatic Weather  
Station - Fountain  
(Drygalski) Site

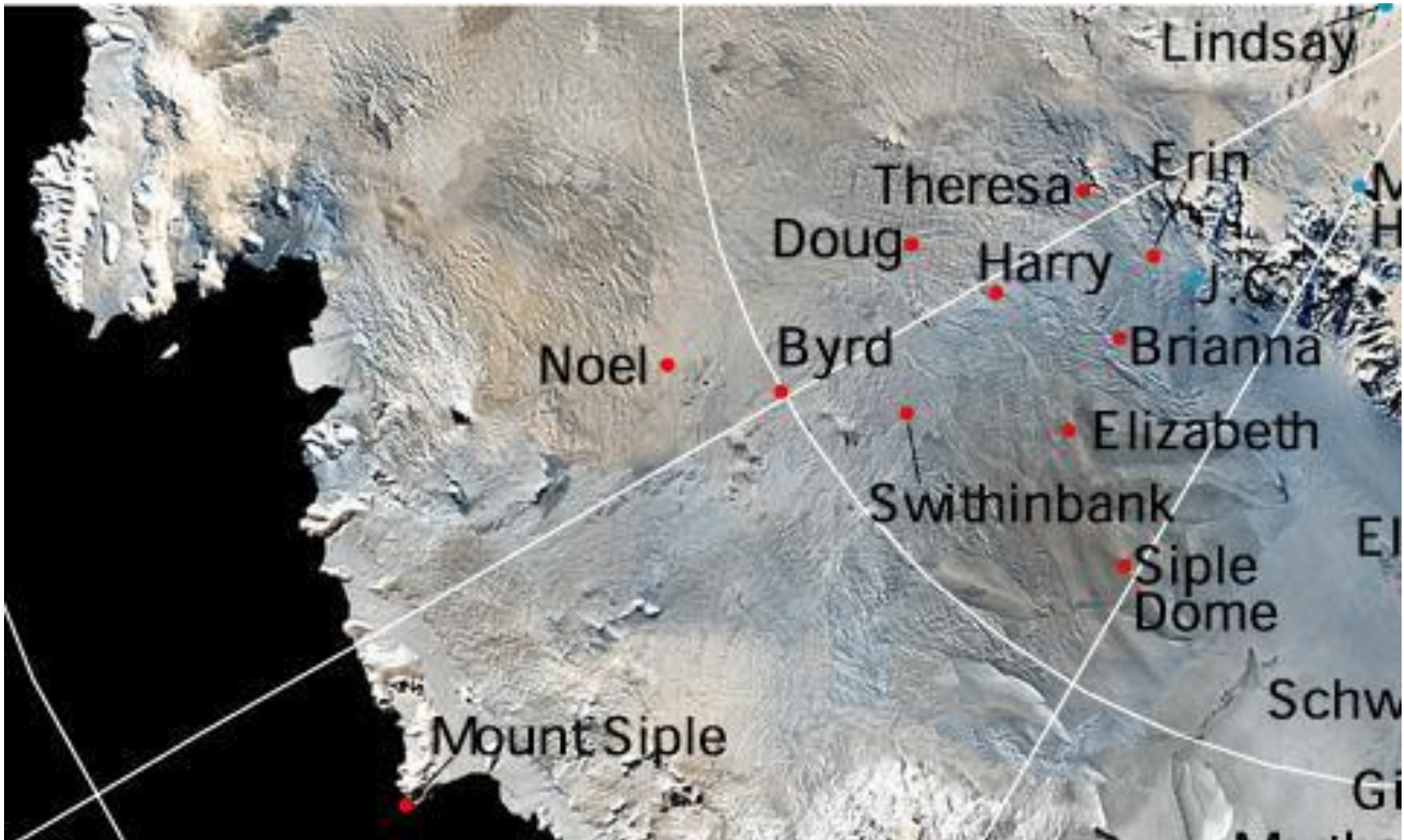


# University of Wisconsin - Madison 2006 Automatic Weather Stations

*UW-M Sites Only*



## West Antarctica Sites



# Byrd AWS

AWS rebooted

- Electronics had been rotated so that the restart button (on older versions of AWS) was facing down



# Swithinbank

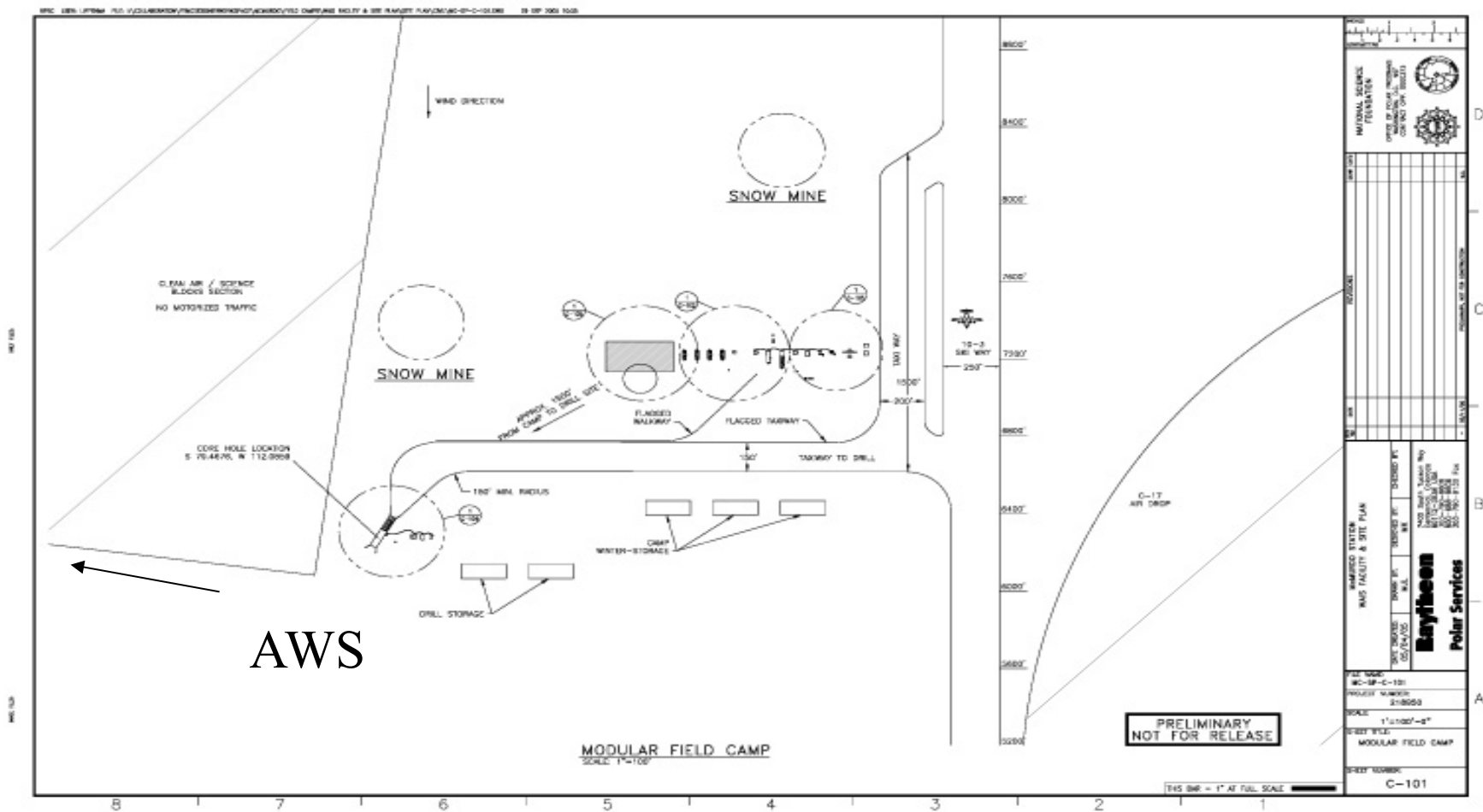




# Harry (before)



# WAIS AWS



# Harry (before)



# Harry AWS, 2006 - After digging out



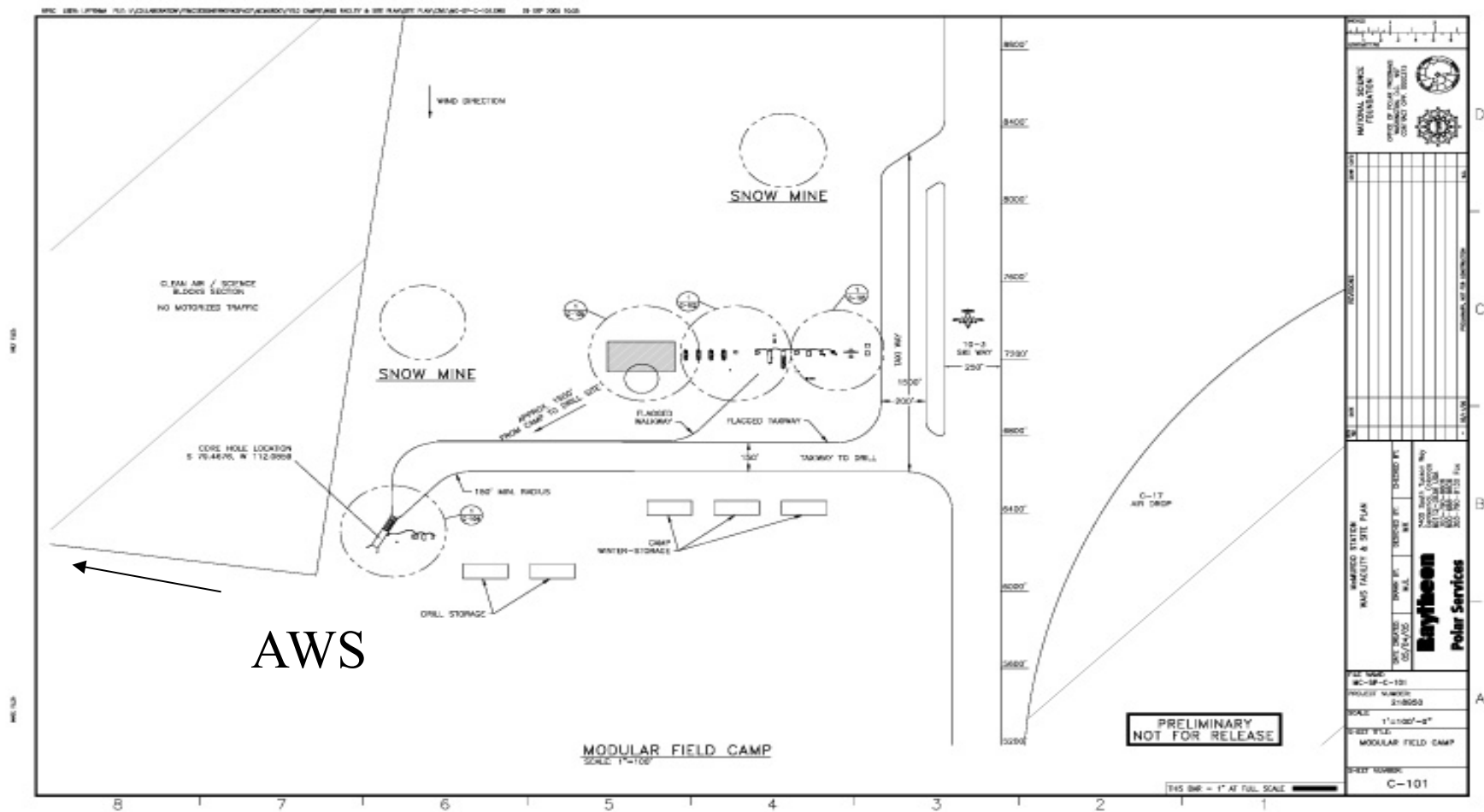
# Siple before raising



Keep digging



# WAIS AWS



Kominko – Slade  
AWS  
at WAIS Divide



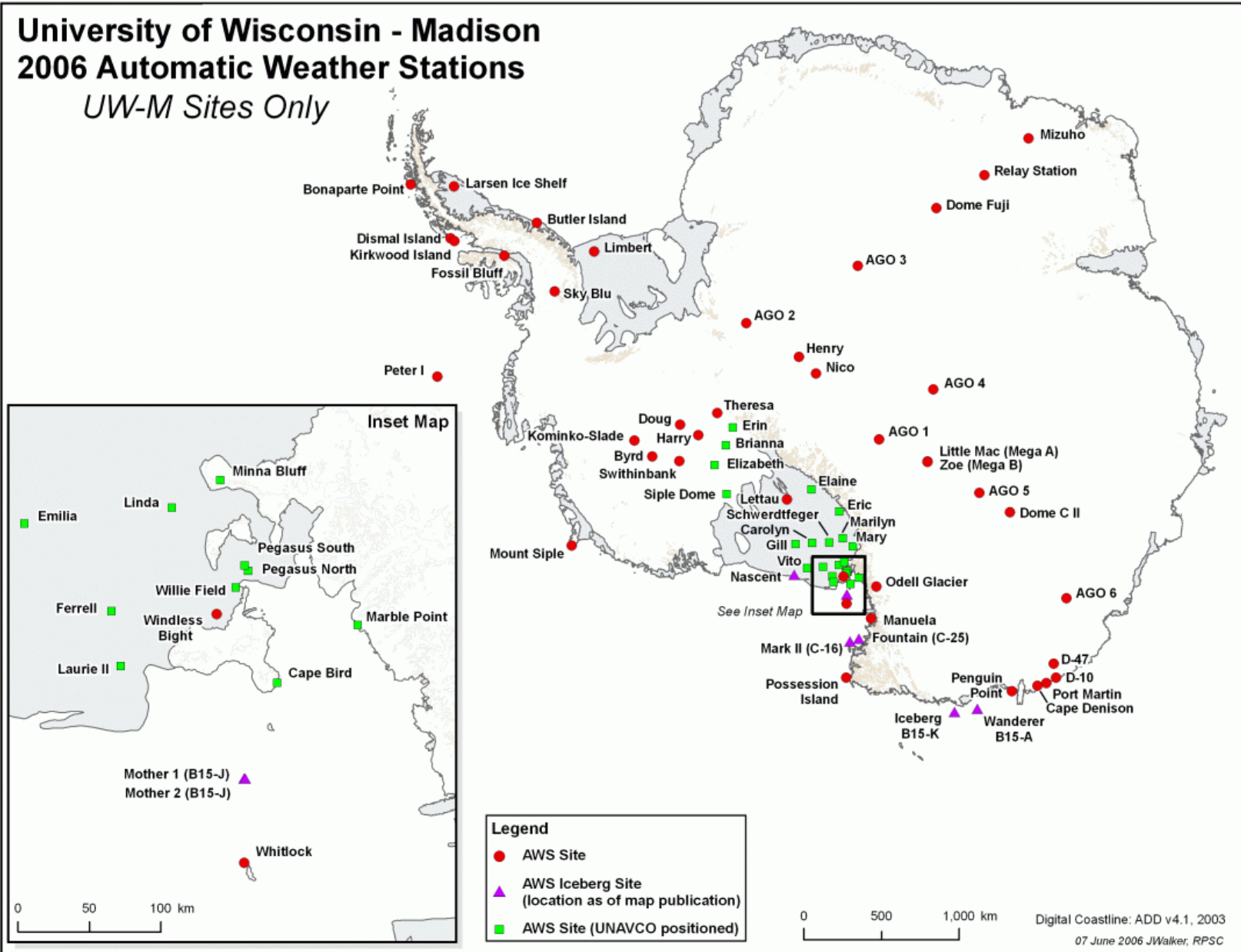


## Chuck Slade and John Kominko

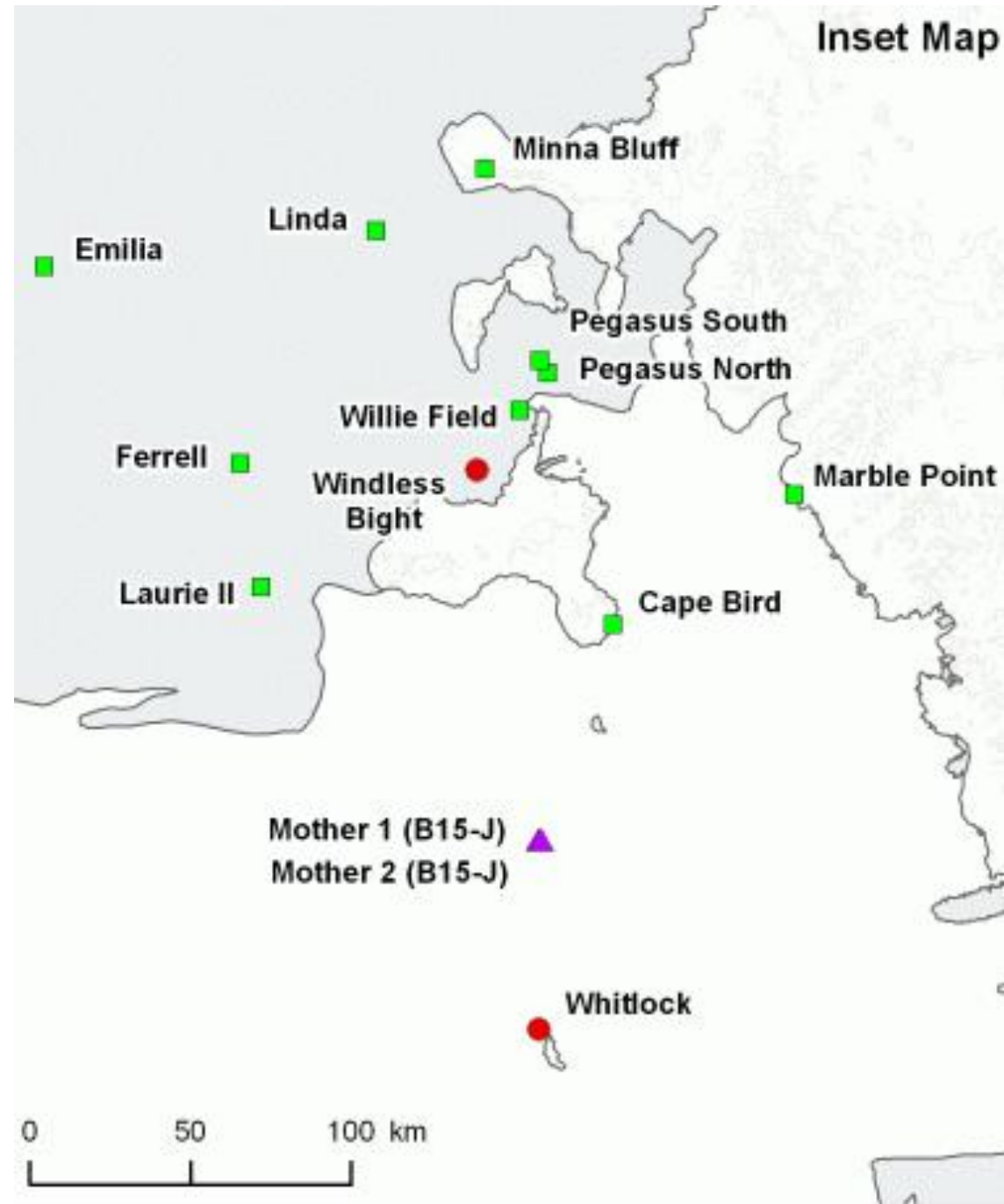


# University of Wisconsin - Madison 2006 Automatic Weather Stations

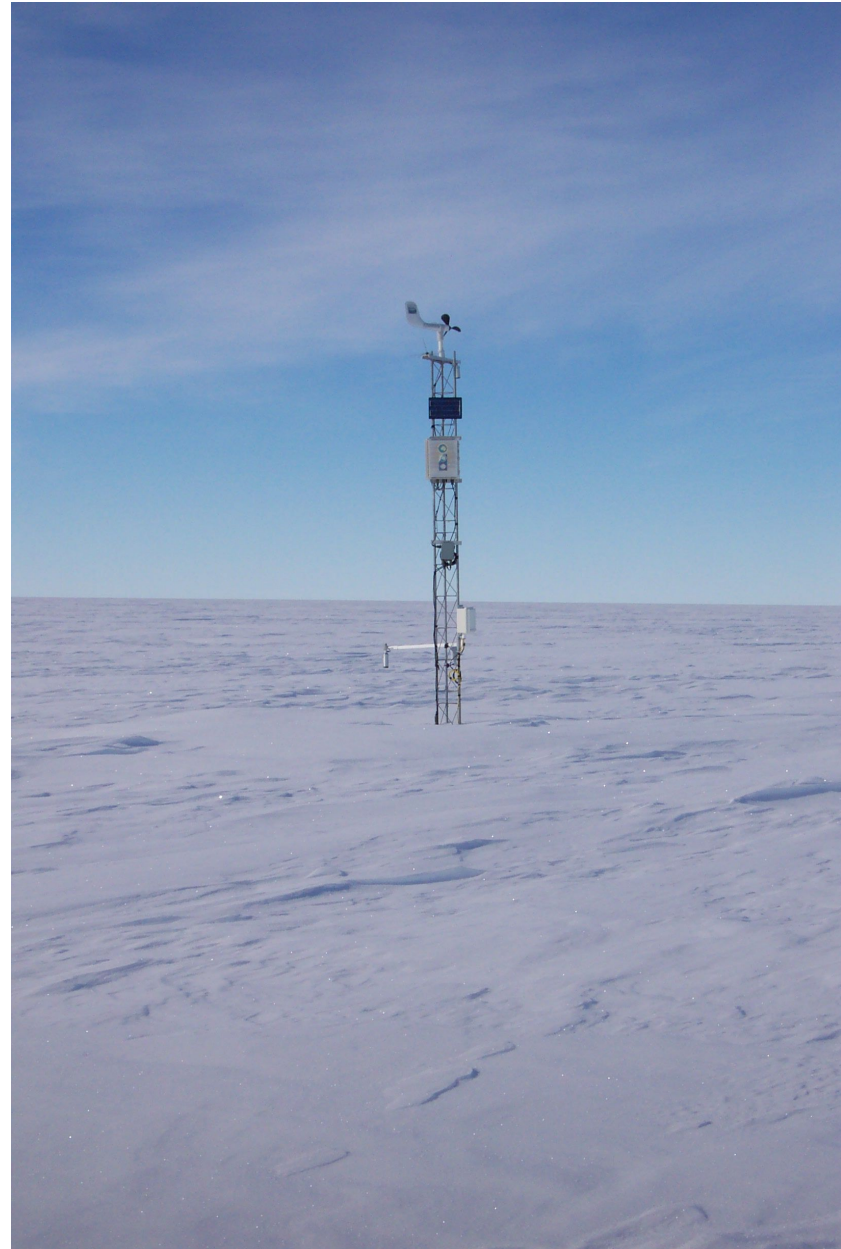
*UW-M Sites Only*



# Helo operations



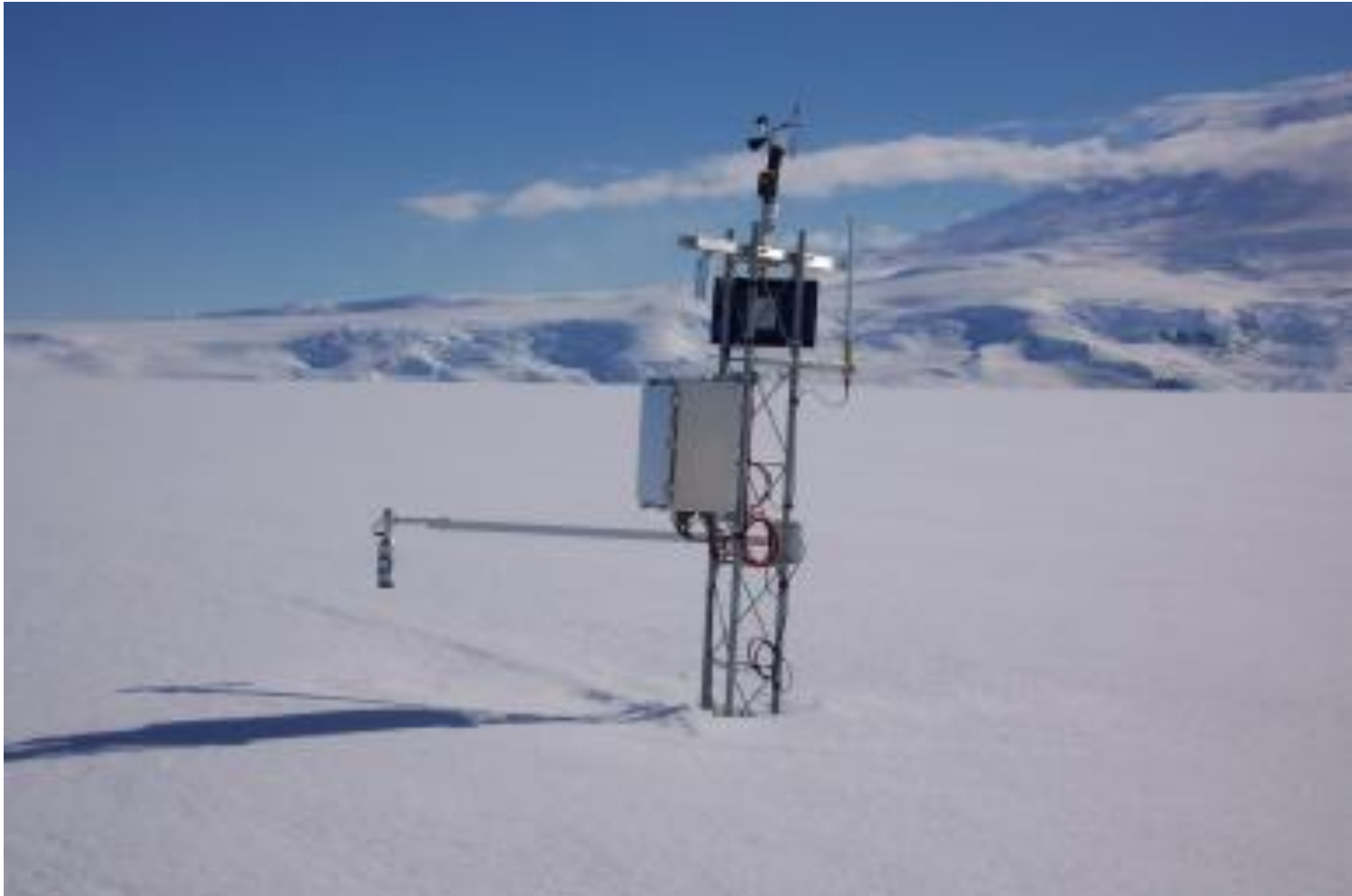
# Ferrell Site 2006



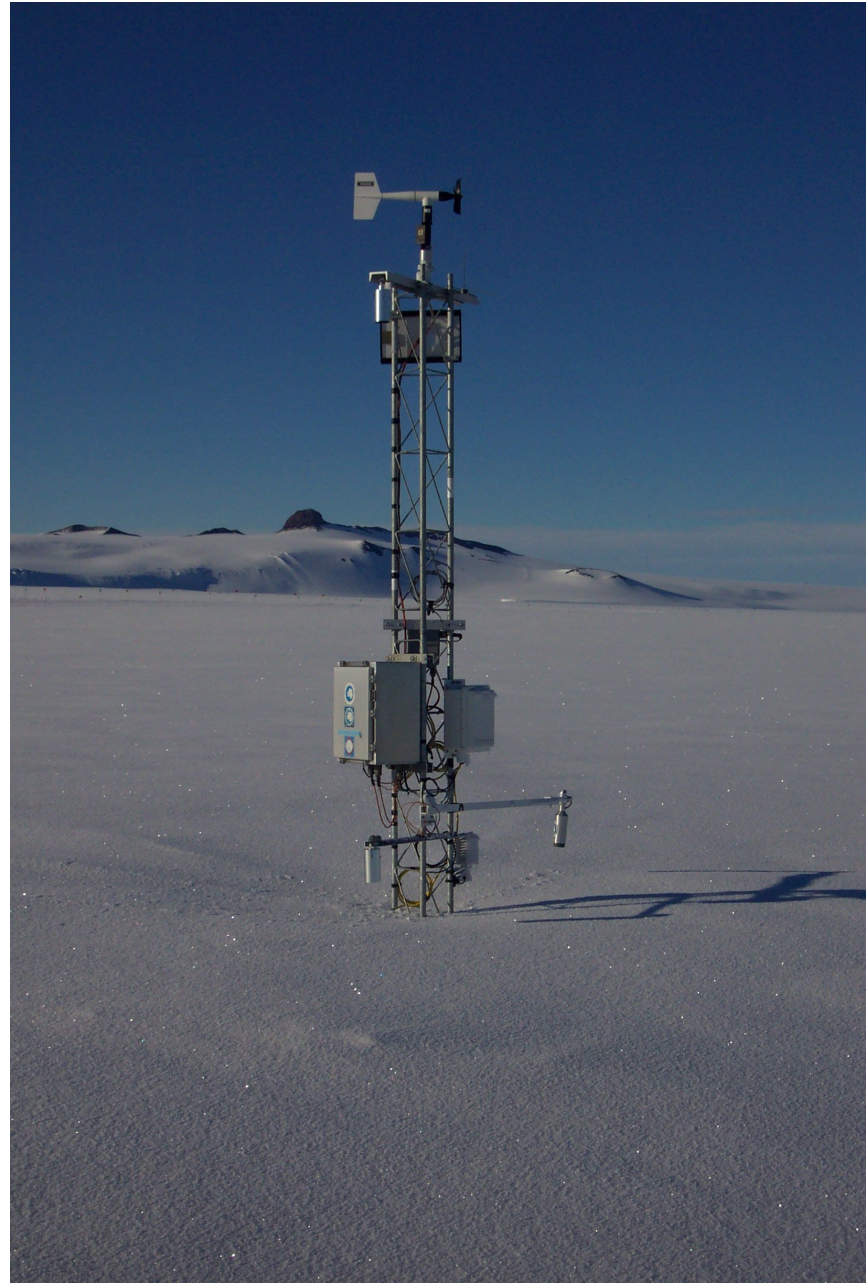
## Laurie II



# Windless Bight

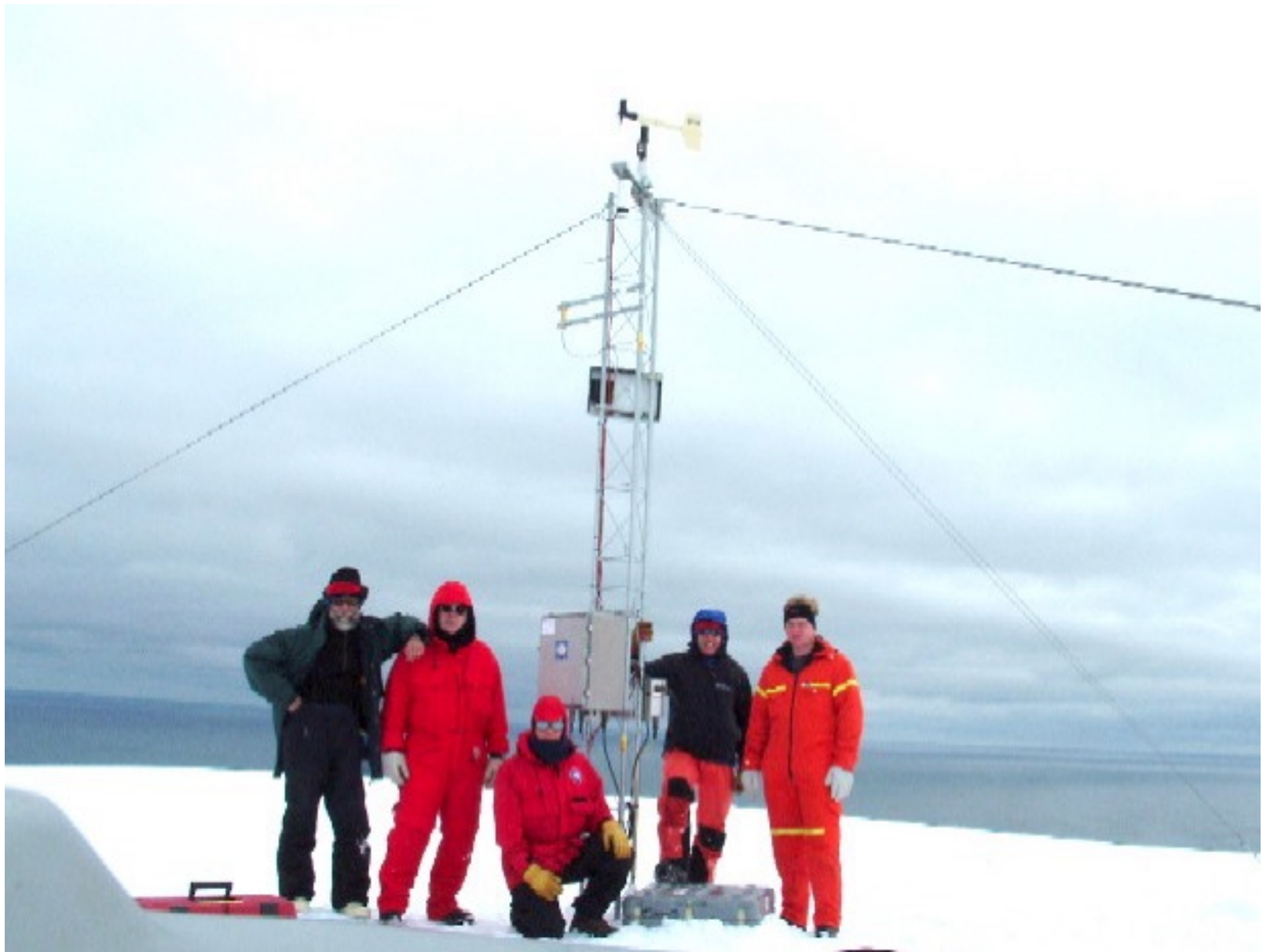


# Willy Field

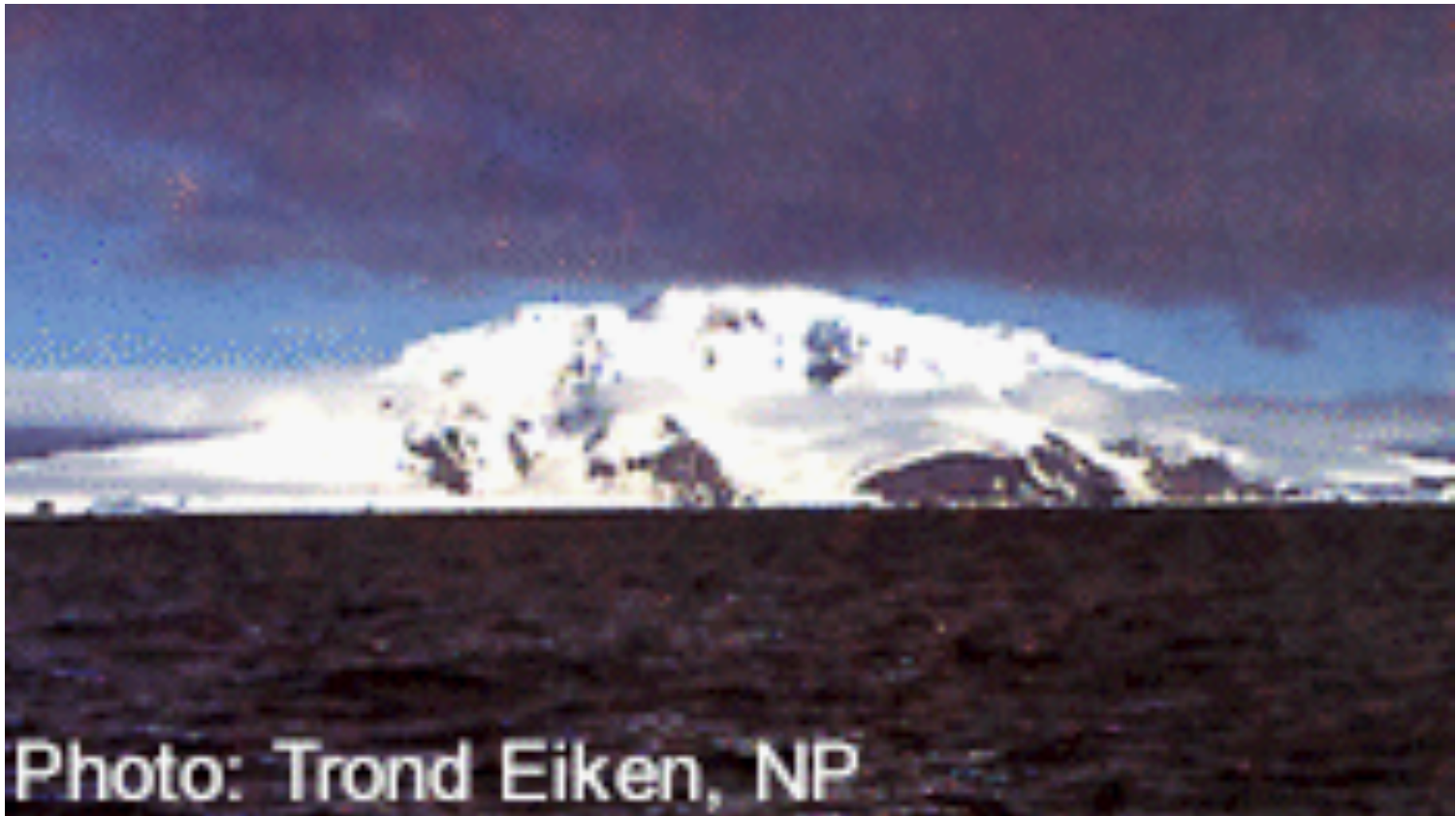


As many of you know by now, an Automatic Weather Station was installed on Peter I Island from the Polarstern on 19 Feb 2006. This was a last minute effort that required the assistance of many people, chief among them Joanthan Thom and Matt Lazzara at Wisconsin, who cobbled together the equipment and shipped it to Punta Arenas. Also thanks to Karsten Gohl, Chief Scientist of the Polarstern, and to the international crew who assembled the unit on site. From left to right in the attached picture, they are Raul Guerrero (Argentina), Klaus Buldt (Germany), Frank Nitsche (USA), Terry O'Donovan (UK) and Felix Riess (Germany). NSF's Bernie Lettau helped with the permitting, and RPSC's Karl Newyear et al with shipping arrangements.





# Peter I Isand





## China's traverse team at Dome A



DOME A PLATEAU (DOME A)

89577

80 22S

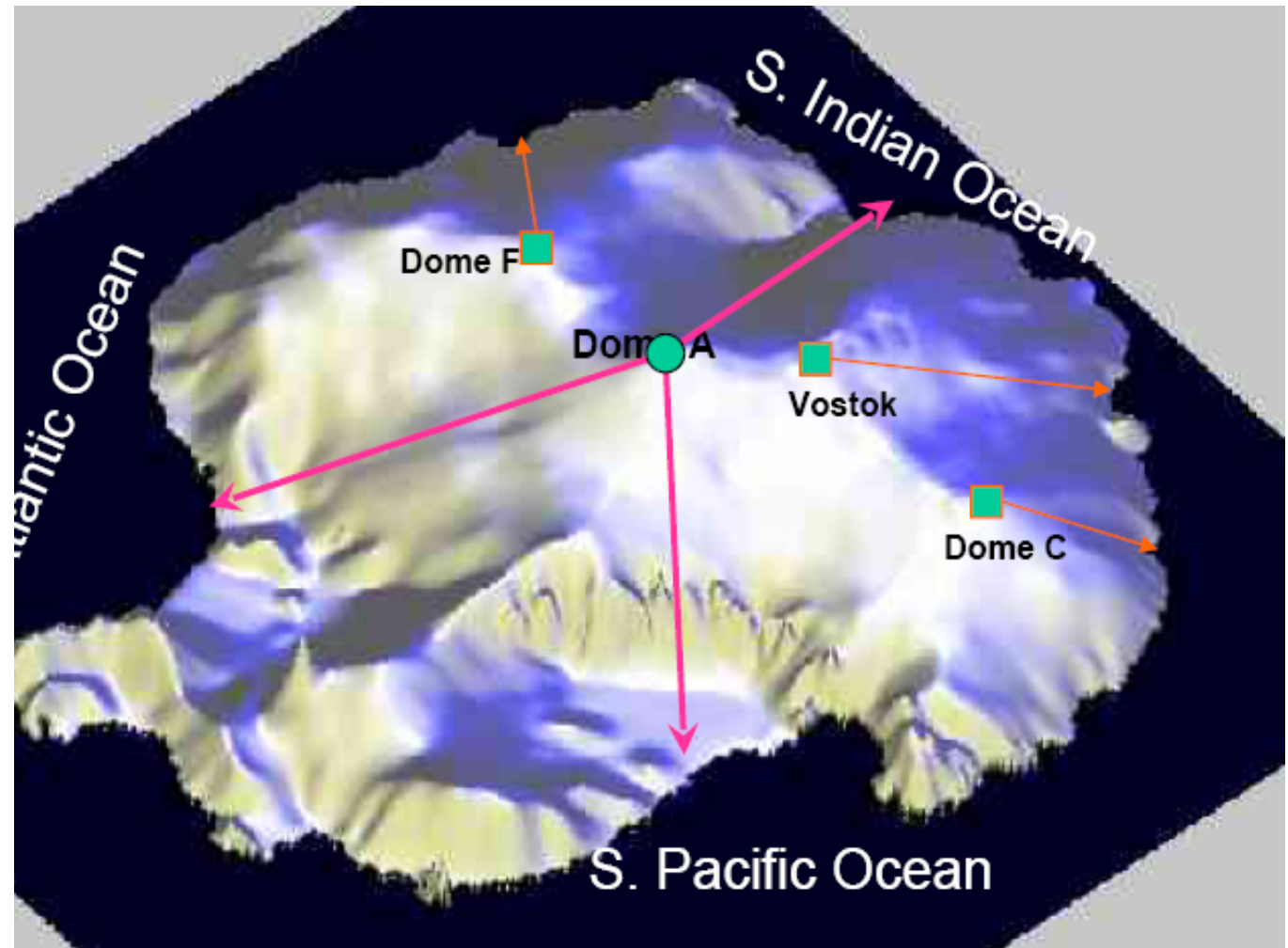
77 22E

DOME A PLATEAU (EAGLE)

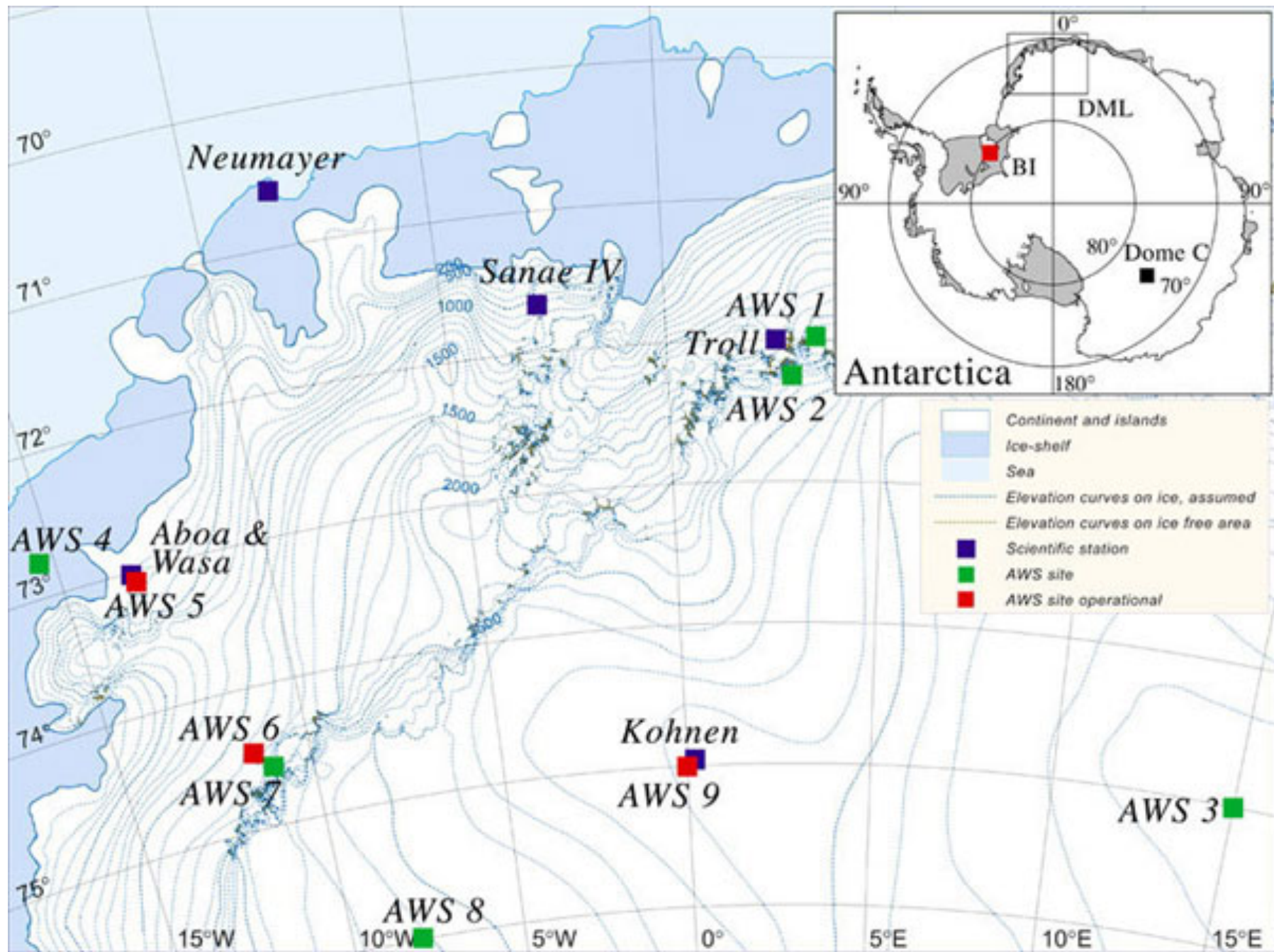
89578

76 25S

77 01E



- **Dronning Maud Land**
- **Institute for Marine and Atmospheric Research, Utrecht University (IMAU)**
- Map of Dronning Maud Land, Antarctica. The inset map of Antarctica shows the location of Dronning Maud Land and Berkner Island. Red dots indicate stations that are still operational. Links on the map refer to information and pictures of the individual sites.
- [http://www.phys.uu.nl/~wwwimau/research/ice\\_climate/aws/home.html](http://www.phys.uu.nl/~wwwimau/research/ice_climate/aws/home.html)



## Brazilian AWS

program

<http://www.cptec.inpe.br/antartica/>

- Joinville Island AWS: operational, with WMO ID 89253 and ARGOS transmitter #9018.
- <http://www.antarctica.ac.uk/met/metlog/latest-met/89253.latest-met.html>
- Biscoe Islands AWS: WMO ID 89263, removed on January/2005 for maintenance; will be reinstalled when (and if) funds become available.
- Flagstaff Mt., Kin George Island AWS: WMO ID 89250, removed on January/2005 for maintenance; will be reinstalled when (and if) funds become available.



# More Brazilian information

- Ferraz, Brazilian Antarctic Station at King George Island. Not an AWS and not registered at WMO. Operational and maintained in very good conditions since 1986. Current data at [http://www.cptec.inpe.br/prod\\_antartica/telalogger/telalogger.html](http://www.cptec.inpe.br/prod_antartica/telalogger/telalogger.html) and past data found at [http://www.cptec.inpe.br/prod\\_antartica/weatherdata.shtml](http://www.cptec.inpe.br/prod_antartica/weatherdata.shtml)

