### Automatic Weather Stations

Plans for 2006/2007

Web site at

http://amrc.ssec.wisc.edu/aws.html

http://amrc.ssec.wisc.edu/ ~georgew/aws info.html Charles Stearns, University of Wisconsin – Madison

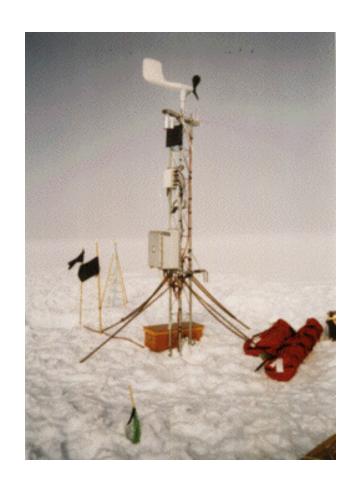
- Automatic Weather Station Pioneer

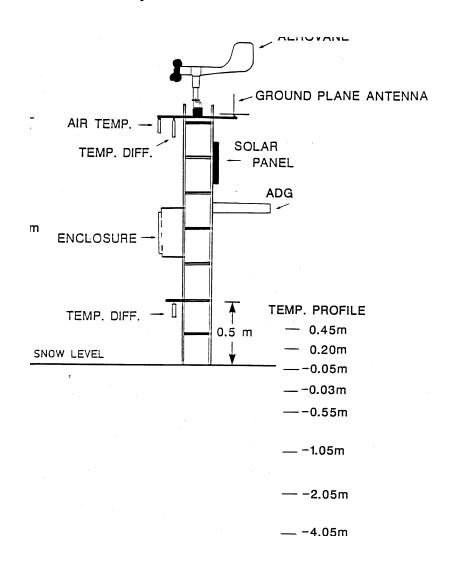
Automatic Weather Station Program now in its 26<sup>th</sup> Year!





#### Automatic Weather Stations – Snow profile version



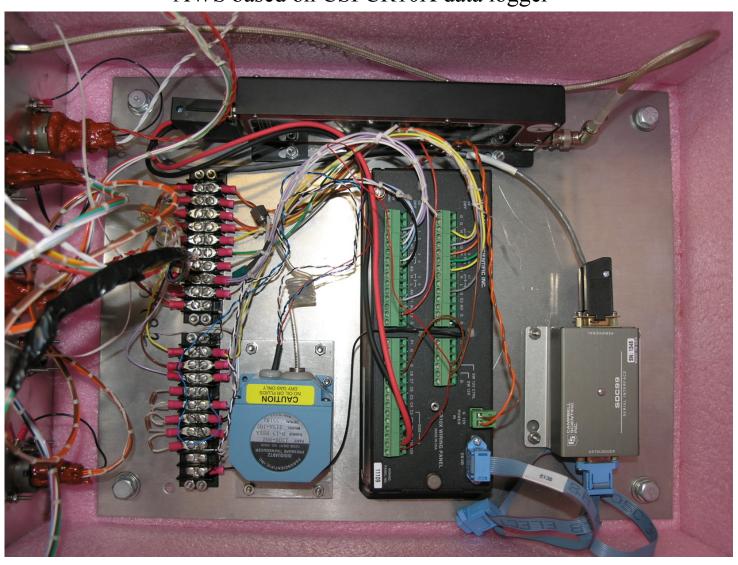


#### Standard version of AWS and High Wind Speed version of AWS

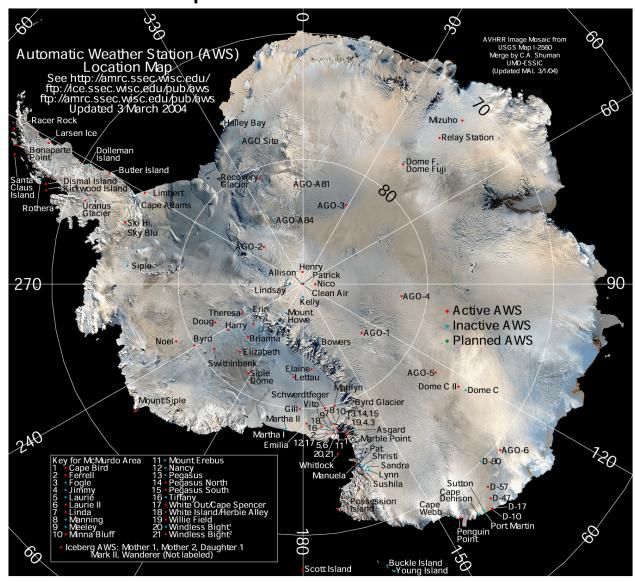




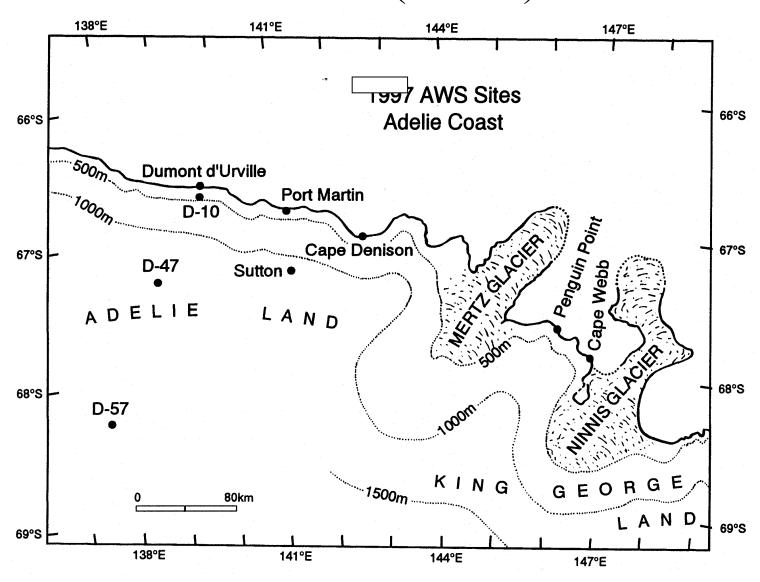
AWS based on CSI CR10X data logger



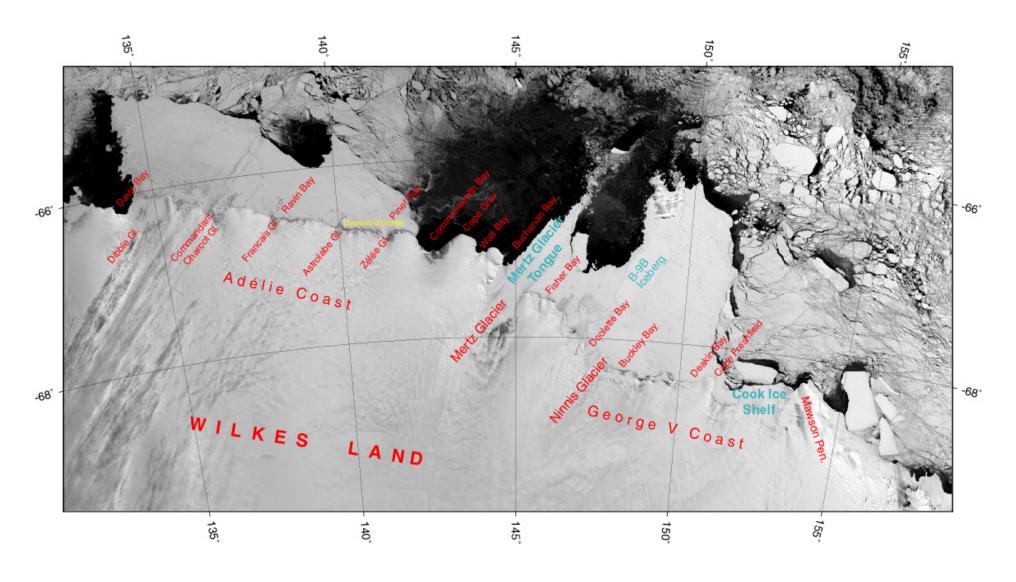
#### Map of AWS sites



### IPEV AWS (French)



# Adelie Coast



### AWS for IPEV

- New AWS for D10
- New AWS for D57 and D80
- Spare parts as necessary
- Tentative Argos ID's

8912

8914

8916

# **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#	8989	83.134°S	174.169°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	@+50	Feb 04	
•	Emilia#	8919	78.509°S	173.114°E	@+52	Feb 04	
•	Caroline#	8722	79.964°S	175.842°E	@+52	Feb 05	
•	Nascent#	28336	78.143°S	178.491°E	TBD	Nov 04	
•	Mary#	8983	79.303°S	162.968°E	@+58	Jan 05	
•	Eric#	8697	81.502°S	163.940°E	@+45	Jan 05	

<sup>#</sup> New AWS ID for 2005

### **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
•	Uranus	8920	71.43°S	68.93°W 780	Mar 86	89264
•	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	

• Not Active for 2005, proposed replacements for 2005/2006

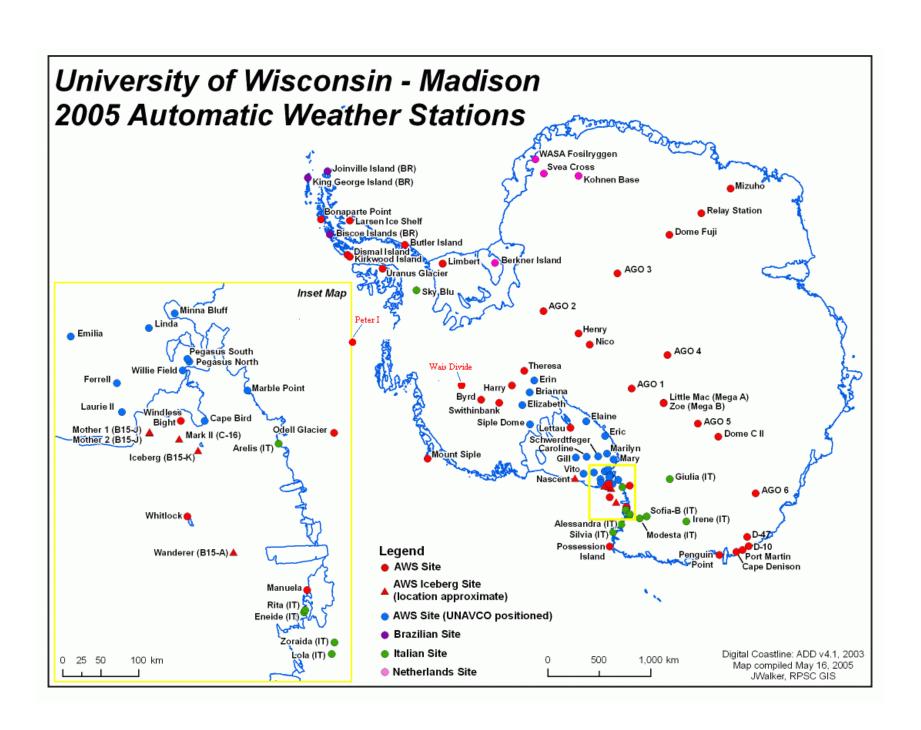
# High Polar Plateau

•	Clean Air*		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	$70.70^{\circ}\mathrm{S}$	44.29°E	2260	Oct 00	

<sup>\*</sup> AWS removed in January of 2005.

# China's traverse team at Dome A Bian Lingen





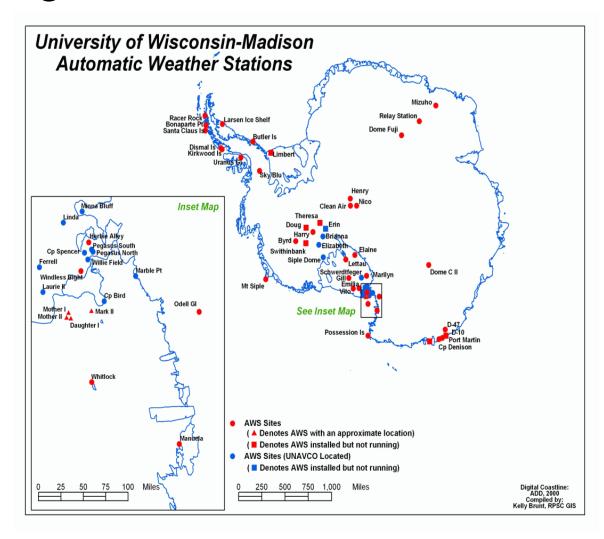
### Plans for 2006/2007

AWS Project O-283 Iceberg Project I-190

# Parish/Cassano

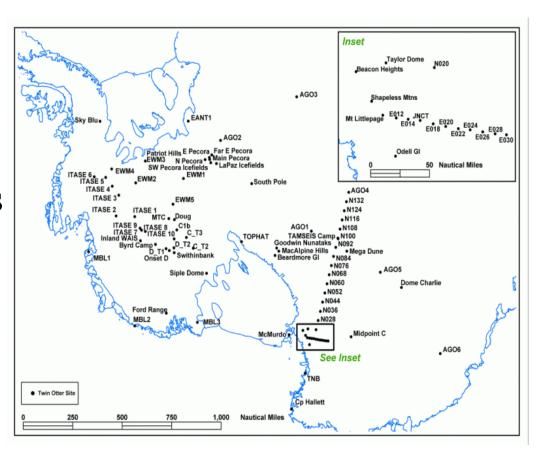
### AWS servicing via Twin Otter from Mcmurdo

Lettau



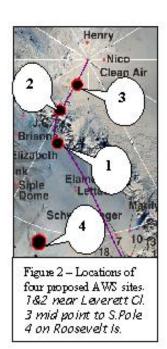
#### AWS servicing in West Antarctica via Twin Otter

- Siple Dome
- Noel (Install)
- Byrd
- As many other sites time permits

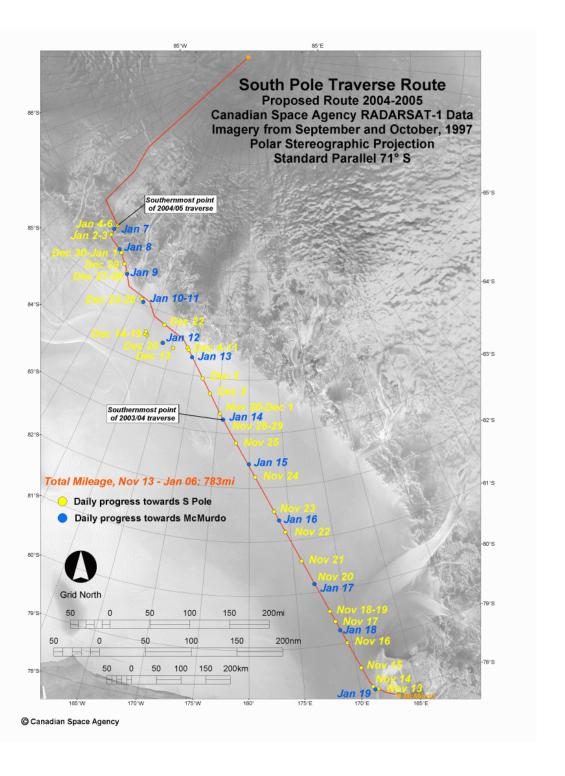


#### AWS in support of South Pole traverse

Four proposed locations

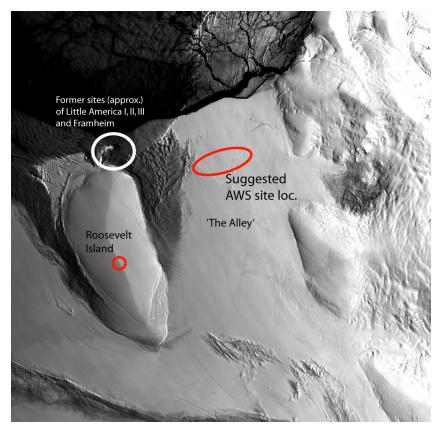


### Last route



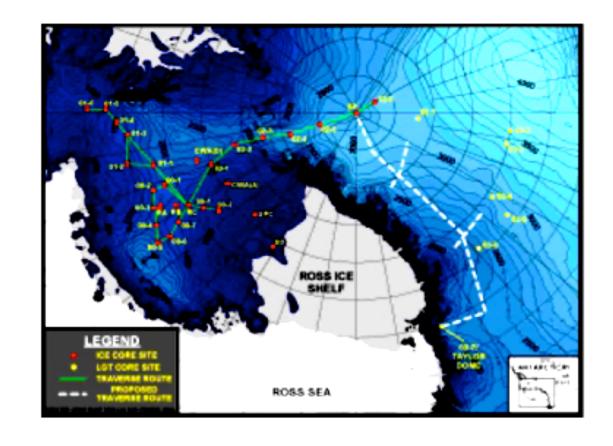
#### Proposed AWS near Roosevelt Island

 An AWS has been proposed to be placed between Roosevelt Island and Siple Coast



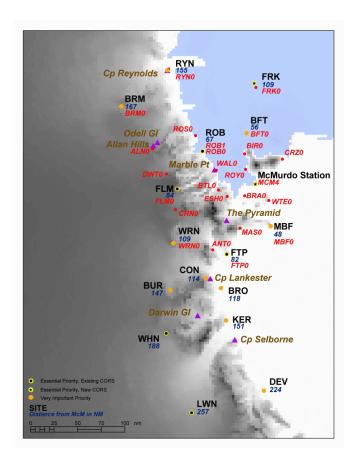
# AWS sites related to Ice cores

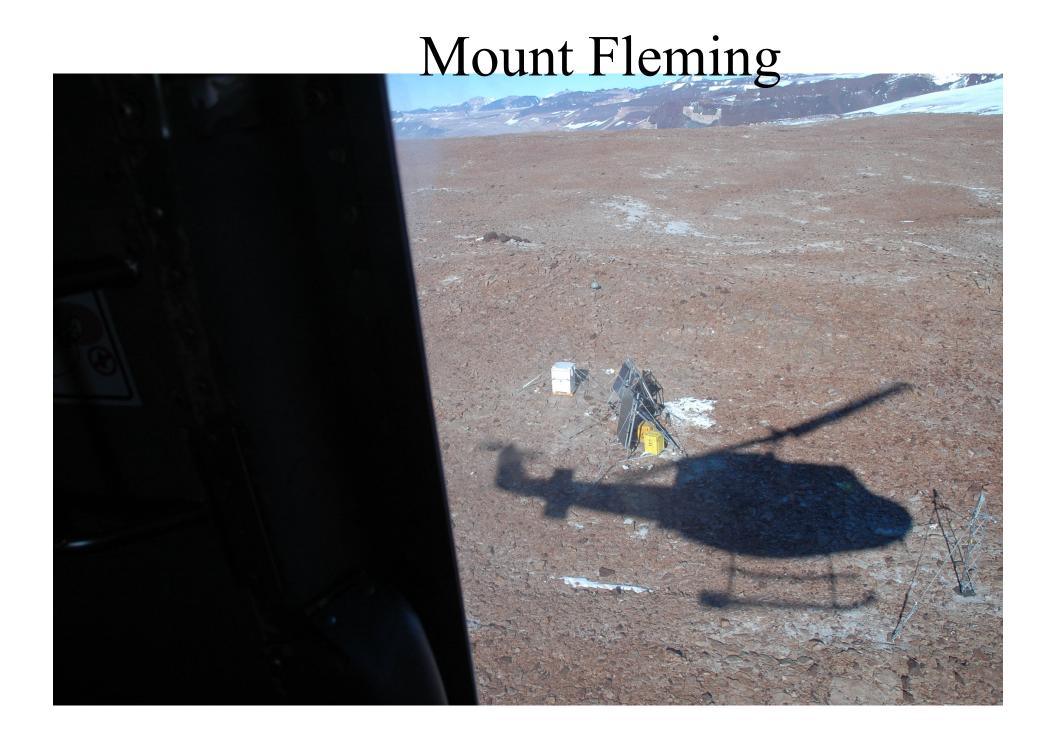
- West Divide
- Other possible sites?



# AWS and TAMDEF

- Lone Wolf Nunatak
- Mount Fleming





# Lone Wolf AWS

Lone Wolf Nunatak
Install new electronics
With Argos



# Megadune's AWS

As requested PTTs 2516 and 2769 have been returned to Service Argos. These IDs have been transferred from Pgm 2612 and you are no longer authorized to utilize these ID numbers.

Per our telephone conversation this morning your program will remain open. The System Use Agreement (SUA) for this program will expire on 31-Oct-2005.

- would require two to three AWS ID's that we currently have
- Delayed until 2007/2008

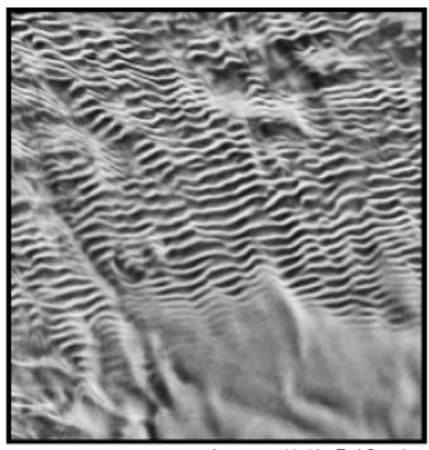


Image provided by Ted Scambos

Katabatic fingerprint: satellite image of the megadunes near Vostok (160 by 160 km).

# Worksheet

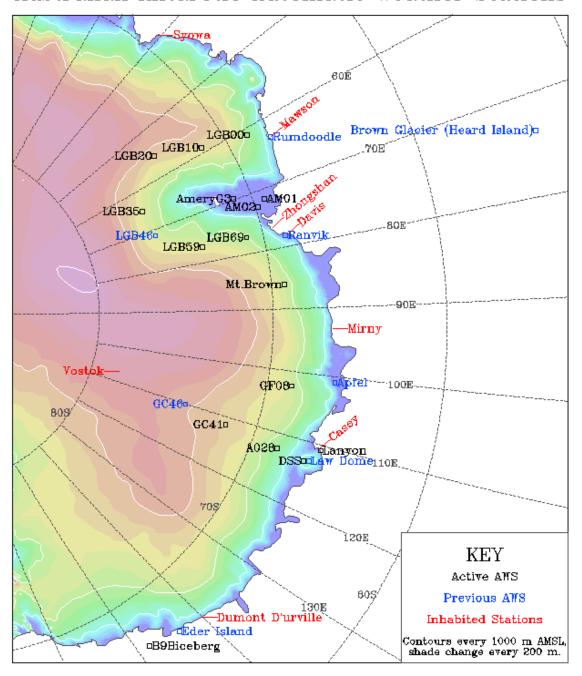
		Adelie Coas	t	, ,,, ,,,	0200				017111125	
	D-10	8914		Feb 01,05	RMY	66.71oS	139.83 <sub>0</sub> E	243	Jan-80	89832
	D-47	8986		Jan 28,05			6 138.726 <sub>0</sub> E	1560	Nov-82	89834
	D-57	N/A					6 137.538 <sub>0</sub> E	2105	Jan-96	
	D-80	N/A					6 134.878 <sub>0</sub> E	2500	Jan-83	89836
	Dome C II	8989					6 123.374 <sub>0</sub> E	3250	Dec-95	89828
	Port Martin	8909				66.82oS	141.40oE	39	Jan-90	
	Cape Denison	8988				67.0090	6 142.664 <sub>0</sub> E	31	Jan-90	
	Penguin Point	8910				67.6170	3 146.180₀E	30	Dec-93	89847
	Cape Webb					67.9430	S 146.812₀E	~60	Dec-94	
		West Antaro	ctica							
4	Byrd Station	8903				80.007 o	3 119.404 <sub>0</sub> W	1530	Feb-80	89324
	Brianna	8931				83.8890	3 134.154 <sub>0</sub> W	@525	Nov-94	
	Elizabeth	21361				82.607os	6 137.078 <sub>0</sub> W	@519	Nov-94	89332
	J.C.					85.070 os	35.516 <sub>0</sub> W	549	Nov-94	
	Erin*to	21363				84.9040	6 128.828 <sub>0</sub> W	@990	Nov-94	
	Harry	8900					6 121.393 <sub>0</sub> W	945	Nov-94	
	Theresa	21358					6 115.811oW	1463	Nov-94	89314
	Doug	N/A					6 113.240 <sub>o</sub> W	1433	Nov-94	
	Mount Siple	8981					6 127.052 <sub>o</sub> W	230	Feb-92	89327
	Siple Dome	8938					6 148.773 <sub>o</sub> W	@668	Jan-97	89345
	Swithinbank	21355					6 126.177 <sub>o</sub> W	@959	Jan-97	
	Noel/ITASE						6 111.077oW	@1833	Jan-00	
		Ross Island	Region							
	Marble Point	8906				77.4390	6 163.754 <sub>0</sub> E	@108	Feb-80	89866
	Ferrell	8929					5 170.818₀E	@45	Dec-80	89872
	Pegasus North	21357				77.95209	6 166.500 <sub>o</sub> E	@8	Jan-90	89667
	Pegasus South	8937					6 166.568 <sub>0</sub> E	@5	Jan-91	
	Minna Bluff	8939					6 166.691 <sub>o</sub> E	@47	Jan-91	89769
	Willie Field	21364					6 166.983 <sub>0</sub> E	@14	Jan-92	
	Windless Bight	8927	8982	Feb 04,05	RMY'VM'		6 167.703 <sub>0</sub> E	61	Nov-98	
	Cape Spencer	N/A	removed				6 167.531 <sub>o</sub> E	@23	Jan-99	
	Herbie Alley	N/A	removed			78.10 <sub>o</sub> S		~30	Jan-99	
	Cape Bird	8901				77.22409	6 166.440oE	@42	Jan-99	
	Laurie II	21360					6 170.807₀E	@38	Jan-00	
	Linda	21362					6 168.395 <sub>0</sub> E	@43	Jan-91	89769
		Ocean Islan	ds							
	Whitlock	8907		Feb 04,05	HWS	76,1440	6 168.392 <sub>0</sub> E	274	Jan-82	89865
	Scott Island	N/A				67.37oS	179.97oW	30	Dec-87	89371
	Young Island	N/A					6 162.275 <sub>0</sub> E	30	Jan-91	89660
	Possession Is.	8984					6 171.210 <sub>0</sub> E	30	Dec-92	89879
	Manuela	8905					6 163.687 <sub>0</sub> E	80	Feb-84	89864
		Ross Ice Sh	elf				1			
	Marilyn	8934				79.9540	6 165.130 <sub>0</sub> E	75	Jan-84	89869
	Schwerdtfeger	8913					6 170.105 <sub>0</sub> E	@54	Jan-85	89868
	Gill	8911					6 178.611 <sub>o</sub> W	55	Jan-85	89376
	Elaine	8915	8987	Jan 28,05	Bendix		6 174.169 <sub>0</sub> E	60	Jan-86	89873
	Lettau	8908					3 174.452oW	55	Jan-86	89377
	Vito	8722	8695	Jan 21,05	RMY'VM'		6 177.746oE	@+52	4-Feb	
	Emilia	8928		Jan 30,05	Bendix		6 173.114 <sub>0</sub> E	@+50	4-Feb	
	Carolyn	#8722			RMY'VM'		<u> </u>			
	Mary	#8983			RMY'VM'					
	Nascent	#28336		Nov 2,04						
	Eric	#8697			RMY'VM'		1			
		1		<u> </u>						
		Antarctic Pe	ninsula							
							-			

# Other AWS arrays

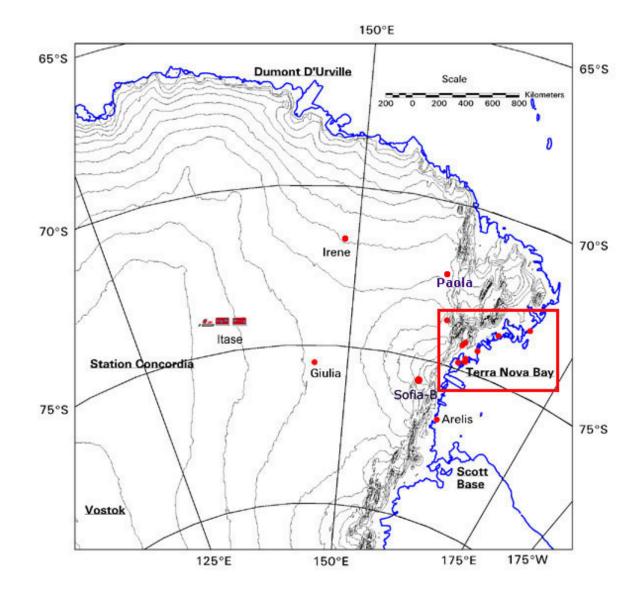
- Australian
- Italian
- EPICA
- German

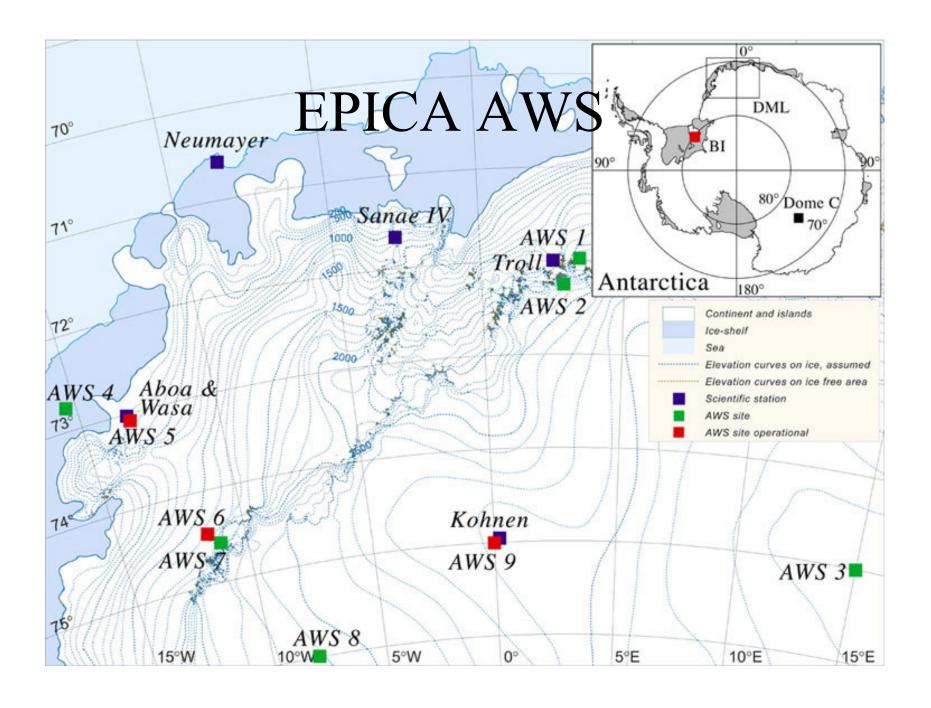
#### Australian Antarctic Automatic Weather Stations

### Australian



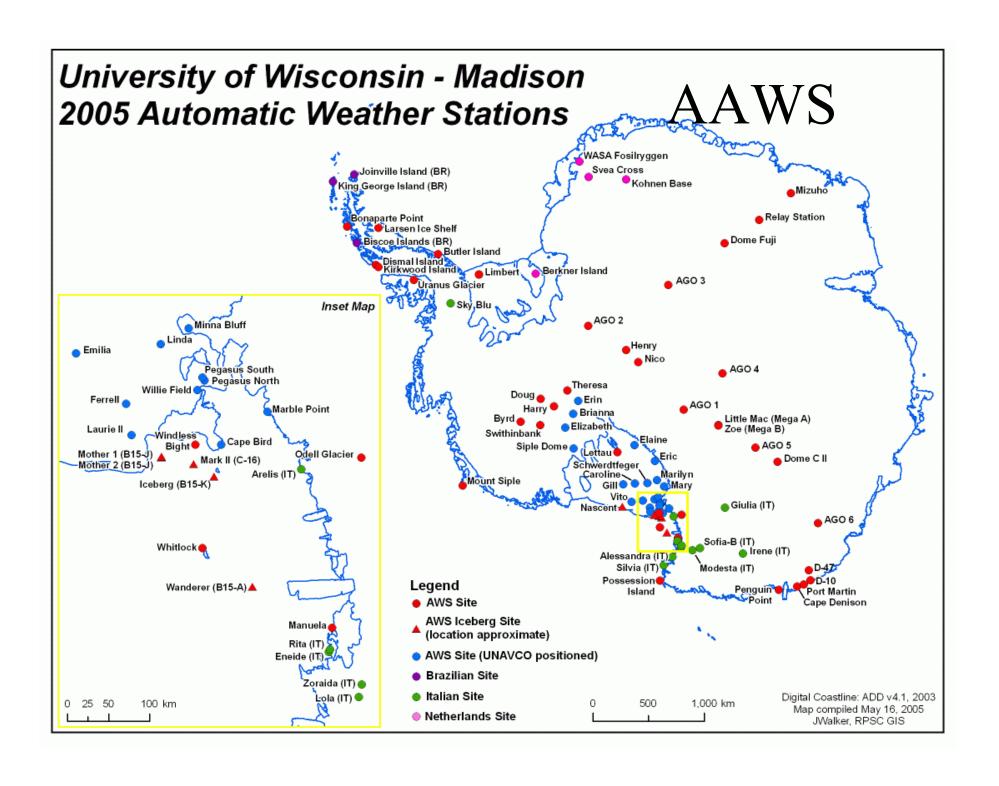
# Italian





### BAS

- AWS field work to be done by the British Antarctic Survey at Rothera.
- Items provided via BAS Antarctic supply ship. Items to be shipped directly to BAS.
- Service AWS as necessary



#### Parish and Bromwich (1987)

