Automatic Weather Stations
University of Wisconsin
2009

Inset Map B

Inset Map A

Bonaparte Pt
Hugo Is
Larsen Ice Shelf
Butler Island
Limbert
Dismal Is
Fossil Bluff
Sky-Blu
Manuela
Peter I
Baldrick
JASE 2007
Mizuho
PANDA-South
Henry
Nico
Theresa
Erin
Kominko-Slade
Harry
Brianna
Byrd
Sabrina
Swithinbank
Elizabeth
Elaine
Siple Dome
Lettau
Eric
Schwerdtfeger
Marilyn
Carolyn
Mary
Margaret
Gill
Mulock
Dome C II
Vito
Mt Siple
See Inset Map A
D-85
E-66
See Inset Map B
D-47
D-10
Possession Is
Port Martin
Cp Denison

Minna Bluff
Linda
Emilia
Lorne
Pegasus N/S
Mt Fleming
Ferrell
Willie Field
Windless Bight
Marble Pt
Laurie II
Cp Bird

0   50 km
0   500 km
0   100 km

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

Coastline: ADD v4.1, 2003
2009_AWS_Sites_UW_10_01_2010
October 2010 Sam Batzli SSEC
University of Wisconsin-Madison
National Science Foundation ANT-0636873

Antarctic Automatic Weather Station Data
for the calendar year 2009

by
Linda M. Keller
Matthew A. Lazzara
Jonathan E. Thom
George A. Weidner
Charles R. Stearns

Space Science and Engineering Center
University of Wisconsin
1225 W. Dayton St.
Madison, Wisconsin
October, 2010

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TABLE OF CONTENTS

1. INTRODUCTION

   Automatic weather station (AWS) units are deployed to collect Antarctic surface weather observations in support of specific meteorological research projects as well as operational activities in Antarctica. The 2009 network consisted of 55 installed AWS units providing observations on the Ross Ice Shelf, east of the Transantarctic Mountains and north of McMurdo to the Adelie Coast, along the Antarctic Peninsula, West Antarctica, East Antarctic, and climatological locations such as the South Pole. Each unit measures air temperature, wind speed, and wind direction at the top of the unit's tower at a nominal height of three meters and air pressure at the electronics enclosure (Figure 1). Some AWS units also measure the relative humidity at three meters, vertical air temperature difference between 0.5 and 3 meters, and snow accumulation. Measurement heights relative to the actual surface at the site are nominal due to snow accumulation around the AWS unit.

2. DATA TRANSMISSION

   The transmitted AWS data are received and stored by the Data Collection System (DCS) on the NOAA series and MetOp series of polar orbiting satellites. The data are retransmitted by the satellite for use in the High Resolution Picture Transmission (HRPT) broadcast at McMurdo and Palmer Station, Antarctica. The data are processed into scientific units and are available for local use. CLS America (Service ARGOS), Largo, Maryland, receives the complete DCS data set and sends it to the University of Wisconsin-Madison where it is processed and distributed to the users.

3. AWS IDENTIFICATION AND LOCATION

   Site location is defined by the latitude and longitude which is determined by various methods: sun shots, angles to geographical features, aircraft data, ice breaker data, the platform location system of CLS America (Service ARGOS), and the Global Positioning System. AWS elevation is obtained by barometry and Global Positioning System (GPS) and should be correct to within +/- 5 meters. Site names were introduced for convenience. Table 3.1 lists the site name, ARGOS identification number, latitude, longitude, elevation, start date for the site, and the World Meteorological Organization (WMO) number for the site. Figures 2, and 3 show the locations of the AWS units in the Antarctic for 2009.

   The ARGOS identification number (ID) is used to identify the data sets distributed to the users. AWS units are sometimes moved from one location to another, and as a result, the ID at a given site may change from year to year. The site name does not change. Table 3.2 lists the site name with the ARGOS ID, the site start date, and the ID start and stop dates.
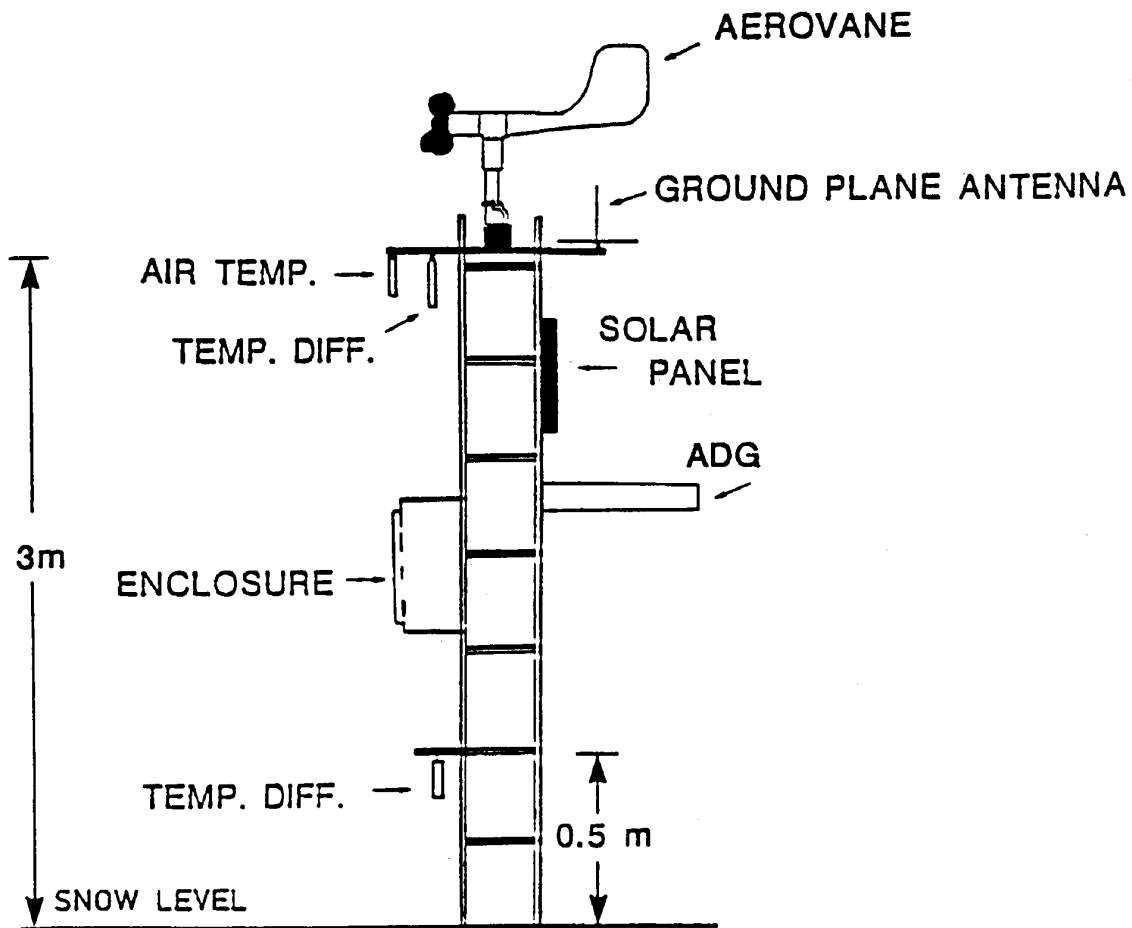
Figure 1. Layout of the AWS unit used in the Antarctic. The installed AWS unit has a 3-meter tower with a horizontal boom supporting the antenna, aerovane for measuring wind speed and direction, air temperature resistance thermometer, upper thermopile for measuring vertical air temperature difference, and the relative humidity sensor. The electronics enclosure is mounted at the midpoint of the tower. The gel cell batteries are placed at the tower base. The solar panel, located near the tower top, faces north. The Acoustic Depth Gauge (ADG) is installed on some of the AWS units to measure snow accumulation.

Table 3.1
AWS site name, geographic location and elevation, site start date, and WMO number for 2009.

Site Name	ARGOS ID	Lat. (deg)	Long. (deg)	Elev. (m)	Site Start Date	WMO No.
Adelie Land						
D-10	30374	66.71°S	139.83°E	243	08 Jan 80	89832
D-47	8947	67.397°S	138.726°E	1560	24 Jan 83	89834
D-85	8986	70.426°S	134.146°E	2682	10 Dec 07	
Dome C II	8989	75.121°S	123.374°E	3250	12 Dec 95	89828
Cape Denison	8988	67.009°S	142.664°E	31	20 Jan 90	
E-66	8912	68.912°S	134.655°E	2485	12 Dec 07	
West Antarctica						
Byrd Station	8903	80.007°S	119.404°W	1530	05 Feb 80	89324
Mount Siple	8981	73.198°S	127.052°W	230	20 Feb 92	89327
Theresa	21358	84.599°S	115.811°W	1463	29 Nov 94	89314
Elizabeth	21361	82.607°S	137.078°W	519	30 Nov 94	89332
Brianna	8931	83.889°S	134.154°W	525	30 Nov 94	
Harry	8900	83.003S	121.393W	945	29 Nov 94	
Erin	21363	84.904°S	128.828°W	990	29 Nov 94	
Siple Dome	8938	81.656°S	148.773°W	668	21 Jan 97	89345
Swithinbank	8927	81.201°S	126.177°W	959	18 Jan 97	
Kominko-Slade	#21364	79.466°S	112.106°W	1801	13 Jan 06	
Ross Island Region						
Marble Point	8906	77.439°S	163.754°E	108	05 Feb 80	89866
Ferrell	8929	77.846°S	170.819°E	45	10 Dec 80	89872
Pegasus North	21357 #8923 #8937	77.952°S	166.500°E	8	23 Jan 90	89667
Pegasus South	8937	77.99°S	166.560°E	5	14 Jan 91	
Minna Bluff	8939	78.555°S	166.691°E	895	22 Jan 91	89768
Linda	21362	78.426°S	168.318°E	42	21 Jan 91	89769
Willie Field	21364 #30477	77.867°S	166.957°E	13	25 Jan 92	
Windless Bight	8982	77.723°S	167.692°E	40	09 Dec 98	
Cape Bird	8901	77.217°S	166.439°E	38	28 Jan 99	
Laurie II	21360	77.517°S	170.801°E	37	01 Feb 00	
Lorne	21356	78.239°S	170.006°E	45	12 Jan 07	
Mulock	8907	78.917°S	159.000°E	1000	24 Oct 06	
Mt. Fleming	30393	77.533°S	160.271°E	1950	01 Nov 06	
Ocean Islands						
Possession Is.	8984	71.891°S	171.210°E	30	29 Dec 92	89879
Manuela	8905	74.946°S	163.687°E	78	06 Feb 84	89864
Ross Ice Shelf						
Marilyn	8934	79.926°S	165.494°E	63	16 Jan 84	89869
Schwerdtfeger	8913	79.867°S	170.142°E	54	24 Jan 85	89868
Gill	8911	79.922°S	178.586°W	54	24 Jan 85	89376
Lettau	8928	82.481°S	174.570°W	39	29 Jan 86	89377
Elaine	#21357	83.097°S	174.291°E	62	28 Jan 86	89873
Vito	8695	78.466°S	177.782°E	50	03 Feb 04	
Emilia	8980	78.473°S	173.146°E	51	31 Jan 04	
Carolyn	8722	79.939°S	175.884°E	52	02 Feb 05	
Mary	8983	79.304°S	162.985°E	58	31 Jan 05	
Eric	8697	81.504°S	163.939°E	45	29 Jan 05	
Margaret	8910	80.000°S	165.000°W	67	12 Nov 08	

Site Name	ARGOS ID	Lat. (deg)	Long. (deg)	Elev. (m)	Site Start Date	WMO No.
			Antarctic Peninsula			
Larsen Ice	8926	67.01^{o}S	61.31^{o}W	35	07 Feb 83	89262
Butler Island	8902	72.12^{o}S	60.10^{o}W	115	01 Mar 86	89266
Fossil Bluff	8920	71.19^{o}S	68.17^{o}W	66	10 Jan 05	
Limbert	8925	75.52^{o}S	59.09^{o}W	59	30 Nov 95	89257
Bonaparte Pt.	8921	64.778^{o}S	64.067^{o}W	8	05 Jan 92	89269
Sky-Blu	8917	74.792^{o}S	71.488^{o}W	1556	07 Feb 99	89272
Dismal Island	8932	68.087^{o}S	68.825^{o}W	10	27 May 01	
Hugo Island	8935	64.935^{o}S	65.303^{o}W	25	10 Dec 94	
			High Polar Plateau			
Henry	8985	89.011^{o}S	1.025^{o}W	2755	26 Jan 93	89108
Nico	8924	89.000^{o}S	89.669^{o}E	2935	26 Jan 93	89799
Mizuho	21359	70.70^{o}S	44.29^{o}E	2260	07 Oct 00	
Baldrick	9116	82.774^{o}S	13.054^{o}W	1968	01 Jan 08	
JASE2007	30305	75.888^{o}S	25.834^{o}E	3661	27 Sep 07	
PANDA-South	30416	82.325^{o}S	75.989^{o}E	4027	14 Jan 08	

* New sites started during 2009
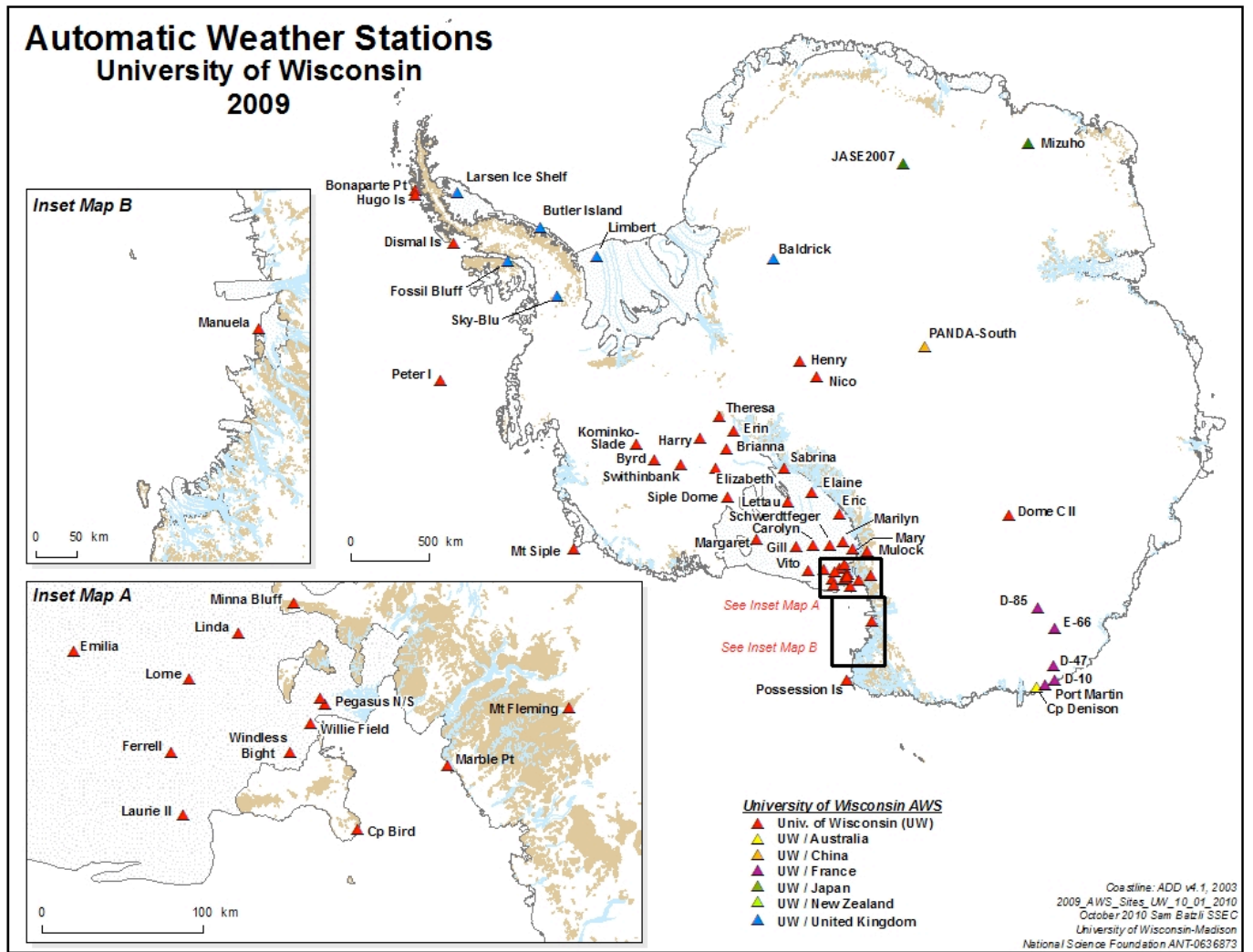# New ARGOS ID for 2009 at the site

Figure 2. Antarctic automatic weather station locations during 2009 identified by the site name. Area around Ross Island is shown in Figure 3.
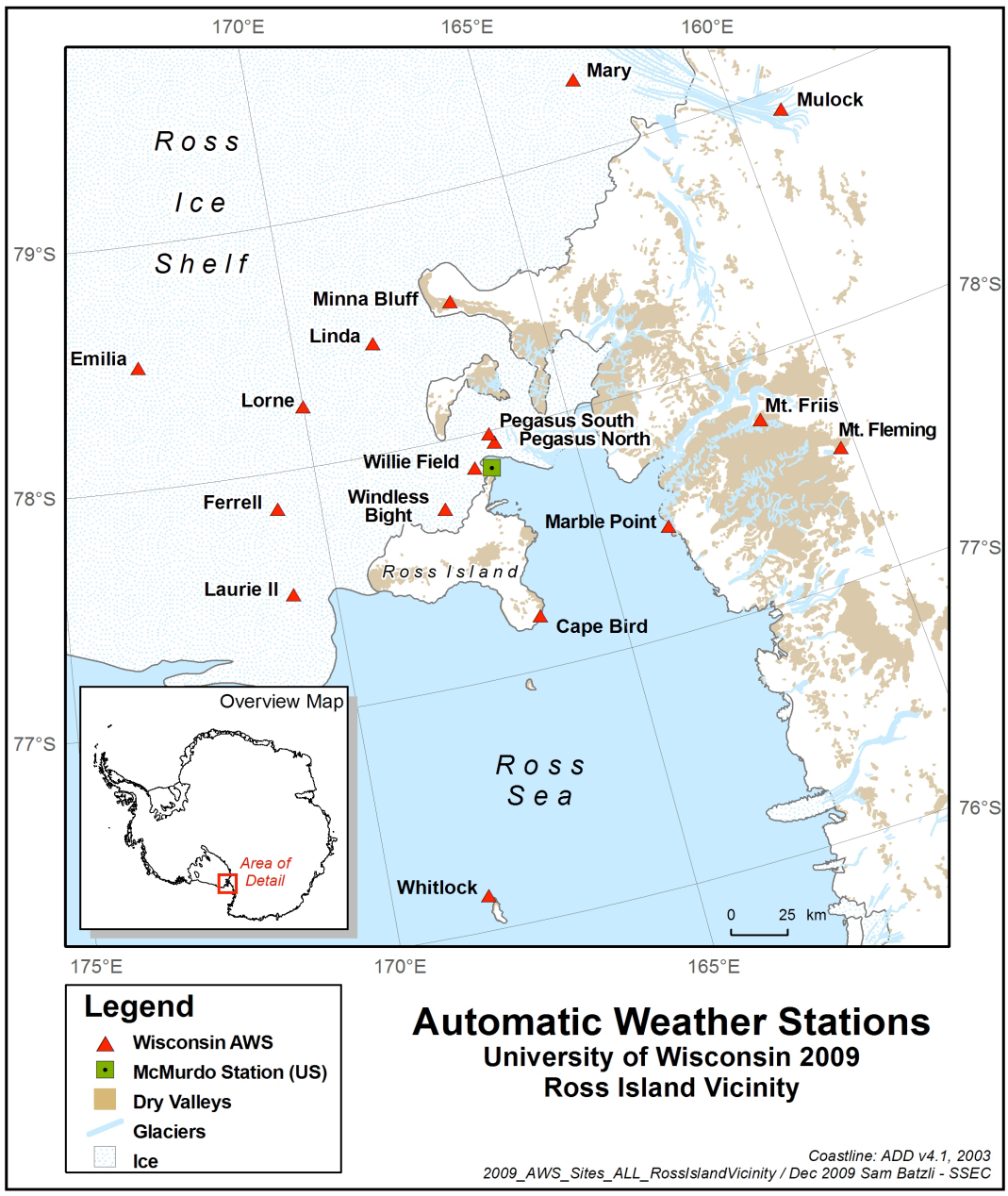
Figure 3. Location of Antarctic automatic weather stations in the vicinity of Ross Island, Antarctica during 2009.

Table 3.2
2009 Antarctic AWS site name, ARGOS identification number (ID), site start date, ID start date, and ID stop date if occurring in 2009.

Site	ARGOS ID	Site Start Date	ID Start Date	ID Stop Date
D-10	30374	08 Jan 80	01 Feb 08	
D-47	8947	24 Nov 83	28 Jan 05	
D-85	8986	10 Dec 07	29 Dec 08	
Dome C II	8989	12 Dec 95	12 Dec 95	
Cape Denison	8988	20 Jan 90	17 Dec 99	
E-66	8912	12 Dec 07	12 Dec 07	
Byrd Station	8903	05 Feb 80	05 Feb 80	
Mount Siple	8981	20 Feb 92	20 Feb 92	
Theresa	21358	29 Nov 94	29 Nov 94	
Brianna	8931	30 Nov 94	15 Jan 02	
Harry	8900	29 Nov 94	26 Jan 99	
Elizabeth	21361	30 Nov 94	17 Jan 96	
Erin	21363	29 Nov 94	18 Jan 96	
Siple Dome	8938	21 Jan 97	24 Jan 99	
Swithinbank	8927	18 Jan 97	01 Jan 08	
Kominko-Slade	21364	13 Jan 06	26 Jan 09	
Marble Point	8906	05 Feb 80	05 Feb 80	
Ferrell	8929	10 Dec 80	09 Jan 01	
Pegasus North	21357	23 Jan 90	03 Feb 00	11 Jan 09
	21355		25 Jan 09	05 Feb 09
	8923		05 Feb 09	06 Sep 09
	8937		06 Sep 09	
Pegasus South	8937	14 Jan 91	14 Jan 91	07 Jan 09
Minna Bluff	8939	22 Jan 91	22 Jan 04	
Linda	8919	21 Jan 91	15 Jan 98	
Willie Field	21364	25 Jan 92	29 Jan 01	11 Jan 09
	30477		05 Feb 09	
Windless Bight	8982	09 Dec 98	05 Feb 05	
Cape Bird	8901	28 Jan 99	28 Jan 99	
Laurie II	21360	01 Feb 00	16 Jan 01	
Lorne	21356	12 Jan 07	12 Jan 07	
Mulock	8907	24 Oct 06	24 Oct 06	
Mt. Fleming	30393	01 Nov 06	01 Nov 06	
Possession Island	8984	29 Dec 92	29 Dec 92	
Manuela	8905	06 Feb 84	15 Feb 87	
Marilyn	8934	16 Jan 84	30 Jan 01	
Schwerdtfeger	8913	24 Jan 85	22 Jan 93	
Gill	8911	24 Jan 85	25 Jan 91	
Elaine	21357	28 Jan 86	28 Jan 09	
Lettau	8928	29 Jan 86	24 Jan 07	
Vito	8695	03 Feb 04	22 Jan 05	
Emilia	8980	31 Jan 04	29 Jan 07	
Carolyn	8722	02 Feb 05	02 Feb 05	
Mary	8983	31 Jan 05	31 Jan 05	
Eric	8697	29 Jan 05	29 Jan 05	
Margaret	8910	12 Nov 08	12 Nov 08	
Larsen Ice Shelf	8926	07 Feb 83	01 Jan 86	
Butler Island	8902	01 Mar 86	01 Mar 86	
Fossil Bluff	8920	10 Jan 05	10 Jan 05	
Limbert	8925	30 Nov 95	30 Nov 95	
Bonaparte Point	8921	05 Jan 92	14 Mar 08	
Sky-Blu	8917	07 Feb 99	07 Feb 99	
Dismal Is.	8932	27 May 01	27 May 01	
Hugo Island	8935	10 Dec 94	02 Apr 09	
Henry	8985	26 Jan 93	26 Jan 93	
Nico	8924	26 Jan 93	26 Jan 93	
Mizuho	21359	07 Oct 00	07 Oct 00	
Baldrick	9116	01 Jan 08	01 Jan 08	
JASE2007	30305	27 Sep 07	27 Sep 07	
PANDA-South	30416	14 Jan 08	14 Jan 08	

4. AWS DATA SUMMARIES

The data received by the University of Wisconsin, Space Science and Engineering Center, contain all the information received by the ARGOS system including duplicate and erroneous transmissions. Invalid data are eliminated during a quality check, and the valid data are converted to scientific units producing the complete data set. Data selected at three hourly intervals, plus or minus forty minutes, produce a three hourly data set for each AWS unit month. Section 6.1, AWS Performance, provides some explanations for missing and invalid data.

Use of the 2009 Antarctic AWS data for publication should acknowledge the support of NSF-OPP Grant 0636873 and 0944018 or reference this publication.

4.1. Monthly Data Summaries

The monthly summaries consist of the monthly means, from the three hourly data set, and the extremes, from the complete data set. For monthly values to be included, 25% of the three hourly observations must be available. Months with 50-75% of data missing occur most often when a station is started or stopped in the middle of the month. This can cause a bias in the monthly mean, especially during seasons when parameters such as temperature change rapidly. Annual means are calculated only when twelve months of data are available. The data are presented in the same order as the sites listed in Table 3.1. Definitions of the monthly data summary headings are listed below.

Heading	Definition
Mean air temperature, $^{\circ}$C.	Mean value for the month.
Percent of monthly data missing.	Ratio of the number of missing observations to the number of possible observations X 100.
Maximum air temperature, $^{\circ}$C.	Maximum value for the month.
Minimum air temperature, $^{\circ}$C.	Minimum value for the month.
Mean wind speed, m/s.	Mean value for the month.
Percent of monthly data missing.	Ratio of the number of missing observations to the number of possible observations X 100.
Resultant wind speed, dir/vv.	Resultant speed and direction for the month.
Constancy.	Ratio of the monthly resultant to the monthly mean wind speed.
Maximum wind speed, dir/vv.	Maximum wind speed and direction for the month.
Mean air pressure, mb.	Mean value for the month.
Percent of monthly data missing	Ratio of the number of missing observations to the number of possible observations X 100.
Maximum air pressure, mb.	Maximum value for the month.
Minimum air pressure, mb.	Minimum value for the month.
Potential temperature, K	Mean value for the month.

Mon	Mean Air Temp (C)	% of Mon Data Abs	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	% of Mon Data Abs	Result Wind (dir	vv)	Con	Max Wind (dir	vv)	Mean Air Press (mb)	% of Mon Data Abs	Max Air Press (mb)	Min Air Press (mb)	Potential Temp (K)
D-10 (30374)			66.710S				139.830E			243 M						
Jan	-2.9	00	8.3	-12.7	7.2	00	146	6.1	0.84	162	22	949.9	00	962.9	930.5	274.3
Feb	-6.8	00	3.0	-15.7	7.3	00	168	6.0	0.81	192	18	956.9	00	978.6	937.4	269.7
Mar	-13.4	00	-1.7	-23.1	9.6	00	179	8.6	0.90	176	27	953.0	00	967.2	934.4	263.4
Apr	-18.1	00	-7.4	-27.3	9.1	00	167	8.2	0.90	168	20	956.6	00	974.1	937.5	258.4
May	-17.2	00	-9.2	-26.8	9.5	00	172	8.5	0.90	157	24	959.7	00	980.8	939.9	259.0
Jun	-17.9	00	-7.6	-26.6	10.1	00	170	8.9	0.88	156	29	960.8	00	977.8	938.6	258.3
Jul	-14.2	00	-1.9	-25.7	9.1	00	112	7.9	0.87	104	26	960.7	00	990.8	931.7	261.9
Aug	-17.4	00	-4.3	-27.7	12.2	00	110	10.9	0.90	095	26	951.9	00	975.6	920.1	259.5
Sep	-16.2	00	-6.5	-27.0	8.6	00	112	7.6	0.88	112	22	960.2	00	992.5	941.6	260.0
Oct	-16.0	00	-4.6	-27.4	7.6	00	119	6.6	0.87	106	25	950.6	00	968.8	930.9	260.9
Nov	-8.7	00	4.6	-21.3	7.4	00	106	6.3	0.85	172	18	954.8	00	977.6	935.6	268.0
Dec	-3.4	00	6.9	-10.5	7.1	00	095	6.1	0.86	084	17	952.9	00	965.9	941.7	273.5
MEAN	-12.7				8.7		139	6.6	0.87			955.7				
D-47 (8947)			67.397S				138.726E			1560 M						
Jan	-13.3	42	-6.1	-21.2	10.2	42	152	9.8	0.96	153	28	809.4	42	817.9	797.3	276.1
Feb	-18.7	32	-11.0	-28.8	11.3	32	171	10.7	0.95	142	24	812.5	32	831.4	797.8	270.1
Mar	-24.6	00	-14.2	-34.1	12.0	00	175	11.5	0.96	174	27	806.6	00	819.5	792.9	264.3
Apr	-30.0	00	-17.1	-40.5	13.5	00	174	13.1	0.97	159	23	807.2	00	823.8	790.1	258.6
May	-29.0	00	-19.8	-40.8	12.5	00	174	11.9	0.95	149	26	810.7	00	828.4	792.7	259.3
Jun	-29.1	00	-19.5	-39.9	14.0	00	172	13.3	0.95	149	29	811.3	00	828.0	792.5	259.1
Jul	-25.1	00	-8.5	-37.4	13.6	00	172	12.1	0.89	162	32	813.3	00	837.7	793.0	263.1
Aug	-28.9	00	-18.0	-40.9	16.1	00	168	15.3	0.95	165	32	804.8	00	821.7	786.4	259.9
Sep	-27.3	00	-17.1	-37.6	13.1	00	171	12.4	0.95	150	30	811.5	00	841.0	797.0	261.0
Oct	-28.0	00	-19.1	-39.5	12.4	00	179	12.0	0.97	155	29	802.3	00	819.0	790.5	261.2
Nov	-20.2	00	-9.1	-33.2	11.9	00	166	11.6	0.97	149	23	808.7	00	827.7	790.0	268.8
Dec	-14.5	00	-5.0	-21.9	10.2	00	157	9.9	0.97	162	23	809.5	00	820.6	798.5	274.8
MEAN	-24.1				12.6		170	11.9	0.95			809.0				
D-85 (8986)			70.426S				134.146E			2651M						
Jan	-23.5	34	-17.1	-35.0	6.4	34	136	5.9	0.92	125	17	702.1	34	712.1	696.9	276.3
Feb	-31.0	03	-20.2	-44.6	4.8	03	169	3.8	0.79	158	14	703.1	03	720.3	694.7	267.8
Mar	-40.6	00	-25.2	-50.1	5.2	00	169	4.4	0.85	150	13	697.2	00	710.4	686.7	257.8
Apr	-47.9	00	-35.1	-57.6	5.9	00	169	5.4	0.92	156	16	697.3	00	713.5	682.4	249.7
May	-48.2	01	-37.1	-59.9	5.5	03	171	5.0	0.90	135	15	700.2	00	713.5	683.2	249.1
Jun	-45.6	00	-25.9	-56.1	6.1	00	170	5.4	0.88	131	14	701.7	00	717.0	687.2	251.8
Jul	-39.1	06	-15.5	-56.9	7.0	09	184	4.2	0.60	332	21	704.8	06	723.7	689.0	258.7
Aug	-45.4	14	-30.5	-55.4	7.4	30	165	6.1	0.83	141	16	696.8	14	714.6	683.2	252.6
Sep	-43.3	00	-24.4	-57.0	5.7	03	165	4.0	0.71	316	17	701.2	00	723.3	687.9	254.4
Oct	-44.2	00	-31.4	-57.5	4.9	00	180	4.4	0.90	173	13	692.1	00	705.3	681.5	254.3
Nov	-32.6	00	-19.5	-50.6	7.0	00	159	6.6	0.94	150	15	700.8	00	720.3	685.1	266.3
Dec	-26.3	00	-19.5	-35.0	4.6	00	149	4.1	0.87	146	16	701.6	00	709.2	690.8	273.2
MEAN	-39.0				5.9		165	4.8	0.84			699.9				

Mon	Mean Air Temp (C)	% of Mon Data Abs	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	% of Mon Data Abs	Result Wind (dir	vv)	Con	Max Wind (dir	vv)	Mean Air Press (mb)	% of Mon Data Abs	Max Air Press (mb)	Min Air Press (mb)	Potential Temp (K)
Dome C II (8989)			75.121S				123.374E				3250M					
Jan	-26.4	00	-13.5	-40.8	2.9	00	184	1.6	0.55	174	15	648.8	00	659.0	641.0	279.2
Feb	-38.1	00	-16.0	-55.4	2.9	00	255	1.6	0.54	264	15	646.8	00	660.7	637.0	266.2
Mar	-53.9	00	-34.6	-67.0	2.5	00	232	1.3	0.52	193	8	640.6	00	652.4	632.9	249.1
Apr	-63.1	00	-41.5	-72.4	2.8	00	196	2.0	0.70	176	9	641.9	00	654.4	627.1	238.4
May	-62.9	00	-51.1	-73.2	3.1	00	193	2.1	0.68	194	13	643.7	00	656.7	629.8	238.5
Jun	-60.5	00	-41.2	-72.6	2.8	00	177	1.5	0.53	193	12	646.1	00	659.7	632.1	240.9
Jul	-54.5	06	-26.8	-69.4	3.5	06	265	1.2	0.36	350	15	648.2	06	665.3	636.4	247.5
Aug	-60.5	00	-41.1	-73.5	2.5	00	202	0.7	0.27	091	11	643.0	00	665.2	624.2	241.3
Sep	-56.8	00	-31.8	-70.2	2.9	00	278	0.9	0.32	328	17	643.8	00	656.9	628.2	245.4
Oct	-54.5	00	-29.2	-71.9	2.3	00	226	1.6	0.72	245	9	635.4	00	645.6	628.2	249.0
Nov	-38.9	00	-21.9	-59.5	3.4	00	193	2.6	0.78	214	11	648.1	00	666.7	628.5	265.1
Dec	-27.0	00	-15.0	-38.9	2.1	00	216	1.5	0.69	284	9	646.9	00	658.8	638.9	278.8
MEAN	-49.8				2.8		212	1.4	0.56			644.4				
Cape Denison (8988)			67.009S				142.664E				31M					
Jan	-0.3	00	6.0	-8.6	9.4	00	148	8.8	0.94	149	35	979.9	00	993.2	960.2	274.4
Feb	-5.5	00	4.0	-14.4	18.5	00	164	17.6	0.95	181	44	987.6	00	1010.0	972.5	268.6
Mar	-11.1	24	-3.6	-18.5	21.2	23	165	20.6	0.97	172	48	984.8	24	1000.1	967.6	263.2
Apr	-17.2	01	-6.6	-25.0	26.0	01	166	25.2	0.97	169	48	988.8	01	1006.4	967.5	256.8
May	-14.4	69	-5.9	-22.5								990.2	69	1004.6	973.0	259.5
Jun	-15.8	41	-6.1	-23.8								994.6	41	1009.8	973.3	257.7
Jul	-11.8	19	2.8	-24.9								994.2	20	1024.9	972.7	261.8
Aug																
Sep																
Oct																
Nov																
Dec	-1.0	55	4.5	-6.0								981.3	55	993.3	971.6	273.7
E-66 (8912)			68.912S				134.655E				2485M					
Jan																
Feb	-26.9	00	-16.0	-41.1	7.4	00	145	6.8	0.92	077	20	719.7	00	737.1	707.0	270.6
Mar																
Apr	-42.4	51	-25.5	-51.6	9.4	51	150	9.1	0.97	159	17	711.8	51	729.9	697.9	254.3
May	-46.4	57	-27.4	-54.5	9.6	57	152	9.3	0.97	166	19	716.6	57	730.9	700.3	249.4
Jun	-41.0	35	-23.1	-51.8	9.3	36	149	8.1	0.86	172	20	716.7	36	734.6	701.5	255.4
Jul	-32.1	34	-13.2	-54.5	9.5	37	138	5.6	0.60	087	21	723.5	34	742.0	703.6	264.4
Aug	-40.1	42	-27.6	-53.4	10.7	42	142	7.8	0.73	148	21	713.7	44	730.4	696.4	256.7
Sep																
Oct																
Nov	-29.7	00	-16.2	-45.6	9.3	00	149	9.1	0.98	148	18	716.5	00	735.7	699.6	267.9
Dec	-22.4	00	-12.1	-32.2	7.1	00	137	6.7	0.95	152	19	717.8	00	726.3	706.6	275.7

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Mon	Mean Air Temp (C)	% of Mon Data Abs	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	% of Mon Data Abs	Result Wind (dir	vv)	Con	Max Wind (dir	vv)	Mean Air Press (mb)	% of Mon Data Abs	Max Air Press (mb)	Min Air Press (mb)	Potential Temp (K)
Byrd (8903)			80.007S				119.404W				1530M					
Jan	-13.3	00	-2.0	-24.0	4.8	00	001	4.1	0.84	010	15	812.9	00	826.1	802.0	275.7
Feb	-20.0	00	-3.9	-37.9	5.0	00	347	4.4	0.89	005	17	813.5	00	828.9	797.4	268.6
Mar	-23.9	00	-5.9	-48.6	6.9	24	005	5.8	0.84	360	21	808.4	00	820.5	792.5	264.9
Apr	-27.5	00	-10.2	-43.2								814.8	00	828.0	799.7	260.5
May	-32.5	00	-15.4	-50.6								809.6	00	824.8	790.1	255.6
Jun	-33.6	00	-17.1	-56.6								811.2	00	840.8	785.6	254.4
Jul	-26.1	00	-11.2	-45.6	7.4	46	344	5.7	0.78	342	17	815.2	00	838.8	782.0	261.9
Aug	-33.1	00	-14.9	-55.0	8.8	58	351	7.2	0.81	348	22	807.7	00	827.7	782.6	255.2
Sep	-35.6	00	-16.0	-55.1								801.4	00	817.2	777.6	253.1
Oct	-30.2	00	-17.1	-47.8								801.2	00	817.8	784.4	258.8
Nov	-15.8	00	-3.2	-38.9								816.4	00	835.5	793.3	272.7
Dec	-11.0	00	-1.0	-21.9								814.3	00	829.6	804.0	278.1
MEAN	-25.2											810.6				
Mount Siple (8981)			73.198S				127.052W				230M					
Jan	-1.8	00	5.1	-4.2								956.1	19	975.5	942.5	274.8
Feb	-3.5	00	3.1	-9.0								956.5	12	969.7	940.0	272.9
Mar	-6.2	09	1.5	-12.5								949.9	11	964.7	933.8	270.9
Apr	-12.5	49	-4.0	-18.5								963.9	49	975.6	941.6	263.4
May																
Jun																
Jul																
Aug																
Sep																
Oct	-13.2	42	-4.6	-21.0								951.8	43	970.0	923.1	263.6
Nov	-4.5	05	2.5	-16.5								962.2	08	984.8	931.3	271.6
Dec	-2.1	00	4.9	-5.2								956.6	25	978.1	925.0	274.5
Theresa (21358)			84.599S				115.811W				1463M					
Jan	-12.3	00	-2.9	-19.9	6.8	00	083	5.7	0.84	087	21	818.9	00	830.5	808.0	276.2
Feb	-20.0	00	-7.0	-30.5	8.3	00	090	8.1	0.97	093	21	818.0	00	831.9	802.7	268.2
Mar	-22.3	00	-8.4	-36.5	9.4	00	088	8.9	0.94	110	24	814.6	00	829.4	793.3	266.0
Apr	-24.6	00	-9.6	-41.9	7.7	00	090	7.0	0.91	108	20	820.0	00	833.6	807.6	263.1
May	-26.2	00	-15.0	-43.1	11.5	00	092	11.2	0.97	096	27	818.3	00	832.8	800.3	261.5
Jun	-27.4	00	-13.4	-41.2	11.6	00	095	11.4	0.99	086	25	819.1	00	845.0	799.2	260.2
Jul	-31.0	43	-16.5	-49.2	7.6	43	090	7.3	0.96	101	24	821.0	43	842.2	793.5	256.3
Aug	-31.1	34	-19.8	-47.1	12.6	34	092	12.3	0.98	089	24	813.7	34	829.7	797.8	256.8
Sep	-28.0	00	-14.9	-49.2	13.2	00	095	12.9	0.98	111	34	810.3	00	828.6	790.0	260.4
Oct	-25.6	00	-16.5	-33.4	11.7	00	092	11.4	0.97	111	29	808.7	00	822.9	795.0	263.1
Nov	-16.2	00	-5.5	-25.2	9.9	00	090	9.6	0.96	086	22	822.0	00	840.0	800.7	271.8
Dec	-11.1	00	-2.5	-18.6	6.6	00	081	6.1	0.93	091	15	820.0	00	830.6	812.9	277.4
MEAN	-23.0				9.7		091	9.3	0.95			817.1				

Mon	Mean Air Temp (C)	% of Mon Data Abs	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	% of Mon Data Abs	Result Wind (dir	vv)	Con	Max Wind (dir	vv)	Mean Air Press (mb)	% of Mon Data Abs	Max Air Press (mb)	Min Air Press (mb)	Potential Temp (K)
Elizabeth (21361)			82.607S				137.078W				519M					
Jan	-8.8	00	3.9	-18.9	3.2	00	039	1.8	0.57	086	11	920.9	00	935.7	902.7	270.7
Feb	-19.8	00	-0.5	-38.9	3.1	00	035	2.2	0.70	336	11	923.4	00	934.5	905.2	259.2
Mar	-27.2	00	-10.5	-42.9	4.6	00	048	3.6	0.79	339	11	917.2	00	931.5	895.3	252.1
Apr	-24.6	00	-11.4	-36.0	4.2	00	050	3.7	0.89	087	16	923.3	00	938.1	900.5	254.3
May	-33.4	00	-16.9	-49.5	7.8	61	065	7.5	0.96	070	14	921.7	00	938.0	899.9	245.4
Jun	-37.7	00	-9.6	-56.4								923.7	00	949.3	896.7	240.9
Jul	-28.4	00	-10.6	-47.2								924.2	00	948.4	885.9	250.3
Aug	-36.9	00	-15.4	-60.9								919.8	00	945.1	883.3	241.9
Sep	-38.2	00	-18.1	-61.9								913.2	00	938.0	889.1	241.1
Oct	-26.9	00	-13.6	-43.5								911.2	00	932.1	886.8	253.0
Nov	-11.2	00	-0.5	-27.9	3.8	30	053	3.0	0.80	343	10	922.7	00	944.2	901.4	268.1
Dec	-8.0	00	-0.1	-14.8	2.8	00	035	1.9	0.67	353	10	921.6	00	938.7	908.2	271.4
MEAN	-25.1											920.2				
Brianna (8931)			83.889S				134.154W				525M					
Jan	-8.6	00	-1.4	-17.2	4.5	00	060	3.8	0.84	058	15	921.6	00	934.9	903.5	270.8
Feb	-19.9	00	-3.9	-36.8	4.3	00	056	4.0	0.91	075	15	924.0	00	934.6	907.5	259.0
Mar	-24.1	00	-8.5	-38.2	7.3	00	062	6.8	0.94	112	17	918.2	00	934.5	895.5	255.2
Apr	-24.0	00	-9.0	-34.4	9.2	00	068	8.9	0.96	077	25	924.9	00	944.3	902.5	254.8
May	-29.2	00	-14.2	-45.5	8.9	02	067	8.5	0.96	086	25	923.7	00	938.6	900.1	249.5
Jun	-30.4	00	-11.2	-49.9								925.3	00	950.1	900.2	248.2
Jul	-27.2	00	-12.5	-46.1	8.4	54	061	8.1	0.97	072	19	927.2	04	948.9	893.1	251.4
Aug	-33.9	00	-12.8	-56.1								922.8	05	945.8	885.9	244.3
Sep	-30.7	00	-14.9	-57.2								917.9	07	938.2	893.6	247.8
Oct	-25.5	00	-15.1	-39.1								917.0	55	934.4	901.9	249.0
Nov	-11.7	00	-1.0	-23.1	7.4	43	068	7.1	0.96	083	19	920.8	57	939.9	904.6	271.1
Dec	-8.0	00	-1.8	-14.4	4.1	00	056	3.7	0.90	065	14	922.5	04	938.5	910.2	271.4
MEAN	-22.8											922.2				
Harry (8900)			83.003S				121.393W				945M					
Jan	-11.5	00	-3.6	-18.9	5.3	00	029	4.6	0.86	032	16	872.0	00	884.9	856.3	272.1
Feb	-20.2	00	-4.6	-34.4	4.5	00	028	3.8	0.85	049	12	872.7	00	885.7	857.1	263.0
Mar	-23.7	00	-8.5	-42.1	7.7	00	033	7.2	0.93	022	19	868.0	00	883.9	845.0	259.7
Apr	-25.8	00	-9.8	-38.6	8.5	01	038	8.1	0.95	065	20	874.5	00	888.5	859.4	257.0
May	-29.2	00	-15.0	-45.8	8.7	04	040	8.4	0.97	051	23	872.2	00	886.9	852.3	253.7
Jun	-30.8	00	-12.8	-50.8	8.9	36	037	8.8	0.98	034	17	873.4	00	899.7	850.5	251.9
Jul	-27.0	00	-12.4	-46.2	8.1	54	036	7.7	0.95	048	18	874.0	00	897.4	840.6	255.9
Aug	-31.9	00	-13.2	-51.8	8.4	12	035	8.0	0.96	066	18	868.8	00	890.3	840.2	251.2
Sep	-32.4	00	-15.9	-54.9	10.2	20	043	9.8	0.97	046	22	863.8	00	879.9	939.8	251.1
Oct	-27.1	00	-15.0	-39.4								862.1	00	879.7	843.1	256.7
Nov	-14.3	00	-3.2	-27.9	6.9	41	033	6.5	0.95	044	16	874.8	00	893.6	854.0	269.0
Dec	-10.4	00	-3.4	-17.1	4.6	00	028	4.0	0.87	038	11	873.0	00	888.6	863.1	273.1
MEAN	-23.7											870.8				

Mon	Mean Air Temp (C)	% of Mon Data Abs	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	% of Mon Data Abs	Result Wind (dir	vv)	Con	Max Wind (dir	vv)	Mean Air Press (mb)	% of Mon Data Abs	Max Air Press (mb)	Min Air Press (mb)	Potential Temp (K)
Erin (21363)			84.904S				128.828W				990M					
Jan	-10.6	00	-3.2	-20.6	8.4	00	081	7.7	0.92	079	28	876.0	00	886.9	862.0	272.7
Feb	-19.1	00	-7.0	-30.1	8.7	00	084	8.2	0.94	091	21	876.5	00	888.7	861.4	263.8
Mar	-22.5	00	-9.5	-39.0	11.9	00	084	11.3	0.95	118	28	872.4	00	888.1	853.1	260.6
Apr	-24.6	00	-10.1	-36.1	12.3	00	087	11.6	0.94	090	26	879.0	00	895.1	862.1	257.9
May	-26.2	00	-16.6	-42.9	13.5	00	088	13.1	0.97	083	34	877.5	00	892.0	856.4	256.4
Jun	-27.5	00	-13.0	-42.8	14.7	04	092	14.3	0.97	093	32	878.8	00	903.4	858.4	254.9
Jul	-28.5	00	-13.4	-46.8	13.0	20	091	12.6	0.96	084	28	877.6	00	901.4	847.1	254.0
Aug	-29.2	63	-15.4	-44.9	14.0	67	089	13.7	0.97	087	29	873.6	63	892.1	844.7	253.6
Sep																
Oct	-25.1	01	-16.6	-34.8	14.1	01	087	13.8	0.97	089	35	867.3	01	883.0	853.0	258.3
Nov	-14.4	00	-5.0	-22.9	12.4	02	085	12.1	0.98	089	28	879.3	00	898.1	859.0	268.4
Dec	-9.8	00	-2.8	-15.5	8.0	00	077	7.6	0.96	077	19	876.8	00	889.8	868.7	273.5
Siple Dome (8938)			81.656S				148.773W				668M					
Jan	-10.7	04	-1.2	-21.1	2.6	00	059	0.7	0.27	360	9	886.8	00	900.5	869.8	271.7
Feb	-18.7	05	1.0	-37.5	2.5	00	065	0.4	0.16	076	11	888.8	00	900.3	869.2	263.2
Mar	-25.6	06	-15.1	-39.8	2.4	04	092	0.7	0.29	165	11	882.1	00	896.7	863.3	256.6
Apr	-21.6	06	-8.4	-34.9	0.1	00	023	0.1	0.88	017	4	887.5	00	902.4	864.7	260.3
May	-32.6	07	-16.9	-45.0								885.0	00	901.3	864.8	249.1
Jun	-35.3	05	-10.4	-57.6								887.2	00	915.0	860.9	246.2
Jul	-27.5	09	-9.6	-42.1								888.7	00	914.6	851.9	254.1
Aug	-35.7	11	-16.5	-56.9								883.7	00	909.8	852.5	246.0
Sep	-36.6	14	-23.4	-51.0								876.8	00	901.4	854.2	245.7
Oct	-24.6	08	-10.9	-39.9								875.1	00	896.8	850.1	258.2
Nov	-11.7	08	3.9	-28.1	4.5	00	053	2.3	0.50	010	15	887.4	00	909.1	865.1	270.5
Dec	-9.2	05	1.9	-18.2	3.1	00	030	1.4	0.44	338	13	887.2	00	904.2	874.3	273.2
MEAN	-24.2											884.7				
Swithinbank (8927)			81.201S				126.177W				959M					
Jan	-10.4	00	2.6	-20.5	5.1	00	354	4.2	0.81	006	17					
Feb	-18.6	00	-1.4	-35.0	5.5	00	346	4.7	0.86	003	17					
Mar	-22.5	00	-7.9	-40.1	8.7	00	358	8.0	0.92	006	21					
Apr	-22.7	00	-8.4	-39.8	7.6	00	360	7.2	0.94	347	22					
May	-30.0	00	-13.5	-46.6	9.3	00	009	8.6	0.92	032	19					
Jun	-30.8	07	-13.2	-49.6	10.2	08	005	10.0	0.97	006	25					
Jul	-23.7	00	-10.5	-36.5	7.9	00	345	6.7	0.85	003	22					
Aug	-31.8	00	-14.9	-49.8	9.1	00	355	8.3	0.91	003	25					
Sep	-32.4	00	-15.6	-49.6	10.8	00	008	10.4	0.97	343	46					
Oct	-26.5	00	-14.2	-40.5	9.1	00	005	8.5	0.93	038	24					
Nov	-12.3	00	-0.8	-29.9	7.3	00	351	6.0	0.83	010	18					
Dec	-9.1	00	-0.6	-18.6	4.8	00	353	4.0	0.84	008	14					
MEAN	-22.6				8.0		359	7.2	0.90							

Mon	Mean Air Temp (C)	% of Mon Data Abs	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	% of Mon Data Abs	Result Wind (dir	vv)	Con	Max Wind (dir	vv)	Mean Air Press (mb)	% of Mon Data Abs	Max Air Press (mb)	Min Air Press (mb)	Potential Temp (K)

Kominko-Slade (21364) 79.466S 112.106W 1801M

Mon	Mean Air Temp (C)	% of Mon Data Abs	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	% of Mon Data Abs	Result Wind (dir	vv)	Con	Max Wind (dir	vv)	Mean Air Press (mb)	% of Mon Data Abs	Max Air Press (mb)	Min Air Press (mb)	Potential Temp (K)
Jan																
Feb	-23.0	00	-7.9	-40.9	3.8	00	004	2.9	0.76	357	14	783.1	00	799.1	766.5	268.3
Mar	-26.8	00	-11.4	-52.6	6.4	00	032	4.8	0.75	042	17	778.3	00	790.3	759.2	264.7
Apr	-32.5	00	-12.4	-52.8	3.5	05	027	2.8	0.81	019	22	784.1	00	797.0	769.8	258.0
May	-34.0	00	-20.1	-49.2	6.4	19	040	5.4	0.85	030	24	778.9	00	794.1	759.9	256.9
Jun	-35.9	00	-20.1	-59.4	8.6	44	036	8.2	0.95	038	21	780.8	00	810.5	757.8	254.6
Jul	-31.0	00	-14.9	-49.2								784.5	00	807.5	753.6	259.6
Aug	-35.0	00	-17.4	-59.1								777.3	00	796.0	753.9	256.0
Sep	-37.8	00	-21.2	-57.9	1.9	52	049	1.8	0.98	046	21	770.9	00	786.5	745.9	253.5
Oct	-32.5	00	-17.1	-50.5	5.8	28	039	5.3	0.91	076	22	770.7	00	785.3	757.2	259.3
Nov	-20.3	00	-7.0	-40.9	5.6	16	005	3.8	0.68	313	15	786.3	00	804.9	760.7	270.8
Dec	-15.3	00	-5.5	-25.1	4.2	00	016	3.0	0.70	045	12	784.1	00	797.0	773.1	276.4

Marble Point (8906) 77.439S 163.754E 108M

Mon	Mean Air Temp (C)	% of Mon Data Abs	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	% of Mon Data Abs	Result Wind (dir	vv)	Con	Max Wind (dir	vv)	Mean Air Press (mb)	% of Mon Data Abs	Max Air Press (mb)	Min Air Press (mb)	Potential Temp (K)
Jan	-2.5	00	4.6	-8.9	3.2	00	111	1.4	0.42	139	13	972.7	00	984.1	958.9	272.8
Feb	-10.6	00	0.6	-22.1	5.4	00	139	4.9	0.90	111	14	978.2	00	991.0	962.8	264.2
Mar	-18.0	00	-4.0	-27.9	3.7	00	143	3.1	0.84	136	15	975.1	00	995.0	959.0	257.0
Apr	-17.3	00	-5.2	-30.8	5.5	00	157	4.7	0.86	184	24	976.5	00	991.4	955.0	257.7
May	-23.5	00	-9.2	-36.6	2.5	00	168	1.7	0.67	139	13	983.3	00	999.8	962.1	250.9
Jun	-22.4	00	-5.9	-38.5	4.2	00	157	3.4	0.82	141	18	983.6	00	1004.3	960.4	251.9
Jul	-24.3	00	-8.1	-38.2	3.8	00	153	3.1	0.80	159	17	983.5	00	1007.1	955.5	250.0
Aug	-26.1	00	-9.4	-38.0	4.1	00	151	3.3	0.81	115	19	981.2	00	998.7	953.2	248.4
Sep	-24.6	00	-4.6	-44.5	3.8	00	163	2.7	0.70	170	18	976.4	00	995.8	946.0	250.3
Oct	-19.0	00	-6.6	-30.2	4.0	00	146	3.1	0.79	145	21	969.8	00	984.2	956.4	256.4
Nov	-5.8	00	4.9	-17.1	4.0	00	150	2.9	0.72	135	21	975.5	00	992.2	956.8	269.2
Dec	-2.0	00	5.5	-7.9	2.9	00	116	1.1	0.36	141	11	973.9	00	989.1	961.8	273.2
MEAN	-16.3				3.9		149	2.9	0.72			977.5				

Ferrell (8929) 77.846S 170.819E 46M

Mon	Mean Air Temp (C)	% of Mon Data Abs	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	% of Mon Data Abs	Result Wind (dir	vv)	Con	Max Wind (dir	vv)	Mean Air Press (mb)	% of Mon Data Abs	Max Air Press (mb)	Min Air Press (mb)	Potential Temp (K)
Jan	-5.1	00	2.5	-17.4	3.9	00	198	2.6	0.66	203	19	980.5	00	990.9	967.1	269.5
Feb	-15.7	00	2.1	-35.5	4.8	00	186	3.8	0.80	199	18	985.5	00	998.1	971.0	258.5
Mar	-25.0	00	-10.2	-39.4	4.1	00	187	3.0	0.73	170	18	982.3	00	1002.5	966.3	249.4
Apr	-22.8	00	-7.8	-37.5	9.0	00	201	8.5	0.94	203	30	982.8	00	998.4	956.9	251.6
May	-32.5	00	-14.8	-48.0	4.1	00	210	3.1	0.75	209	18	990.2	00	1007.0	968.7	241.3
Jun	-30.5	00	-10.6	-52.8	6.6	00	206	5.8	0.88	203	18	990.1	00	1011.4	969.7	243.4
Jul	-30.9	00	-11.2	-47.1	5.8	00	203	4.7	0.81	216	23	990.3	00	1015.4	961.9	243.0
Aug	-34.1	00	-16.2	-49.9	4.7	00	202	3.6	0.77	208	19	988.3	00	1006.5	958.9	239.8
Sep	-32.6	00	-16.1	-50.8	5.5	05	204	4.4	0.80	202	23	983.1	00	1002.5	952.2	241.7
Oct	-25.5	00	-12.9	-42.6	6.4	02	201	5.9	0.92	196	25	976.5	00	991.0	960.7	249.3
Nov	-9.9	00	1.0	-23.8	7.4	00	204	6.7	0.91	203	23	982.1	00	997.7	963.8	264.7
Dec	-4.5	00	5.0	-14.1	3.5	00	195	1.9	0.53	212	14	981.9	00	998.2	967.6	270.1
MEAN	-22.4				5.5		201	4.5	0.79			984.5				

Mon	Mean Air Temp (C)	% of Mon Data Abs	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	% of Mon Data Abs	Result Wind (dir	vv)	Con	Max Wind (dir	vv)	Mean Air Press (mb)	% of Mon Data Abs	Max Air Press (mb)	Min Air Press (mb)	Potential Temp (K)
Pegasus North (8937)		77.952S			166.500E					8M						
Jan																
Feb	-15.6	14	-2.9	-34.6												
Mar	-23.2	00	-5.6	-36.2												
Apr	-21.3	00	-10.0	-36.1												
May	-30.4	00	-6.6	-45.9												
Jun	-28.2	00	-8.4	-50.0												
Jul	-29.4	00	-7.1	-45.9												
Aug	-31.9	00	-14.8	-48.6												
Sep	-33.0	06	-13.6	-52.4								988.8	20	1005.4	958.7	242.9
Oct	-24.3	00	-8.4	-41.0								983.1	00	999.3	969.8	250.1
Nov	-7.9	00	2.8	-22.3								988.8	00	1005.1	969.3	266.2
Dec	-4.5	00	4.2	-14.4								987.7	00	1003.8	974.2	269.6
Minna Bluff (8939)		78.555S			166.691E					895M						
Jan	-9.9	00	-1.9	-18.6	3.6	08	197	2.9	0.82	191	22	879.3	00	889.0	867.2	273.1
Feb	-17.6	00	-6.5	-27.4	4.5	00	189	2.5	0.56	184	30	881.6	00	894.4	865.1	265.0
Mar	-23.9	00	-15.4	-38.8	3.5	02	201	2.0	0.57	193	23	876.1	00	892.9	862.6	258.9
Apr	-25.4	00	-17.6	-34.0	11.5	57	188	11.0	0.96	176	37	877.6	00	891.3	858.9	257.2
May	-27.3	00	-16.2	-39.5	5.9	00	197	3.9	0.66	215	47	881.7	00	895.1	858.1	254.9
Jun	-27.8	00	-12.6	-39.5	10.1	05	189	9.2	0.91	204	37	881.6	00	904.7	862.9	254.4
Jul	-28.3	00	-13.0	-41.9	6.8	00	194	4.9	0.72	201	35	881.7	00	906.5	854.5	253.8
Aug	-29.9	00	-15.6	-40.9	6.7	00	195	4.4	0.66	190	45	878.7	00	896.7	842.5	252.5
Sep	-28.3	00	-12.0	-44.0	8.5	00	194	6.7	0.79	174	39	874.6	00	890.5	842.2	254.4
Oct	-25.3	00	-15.5	-38.0	7.7	00	195	6.2	0.81	183	44	870.5	00	885.5	853.3	257.9
Nov	-14.8	00	-4.6	-25.6	6.0	13	190	4.8	0.80	195	28	880.0	00	895.7	861.2	268.0
Dec	-9.2	00	-0.8	-16.8	3.4	06	200	2.7	0.80	202	30	880.4	00	895.7	864.3	273.8
MEAN	-22.3				6.5		193	5.1	0.76			878.7				
Linda (21362)		78.426S			168.419E					42M						
Jan	-7.1	68	1.2	-17.6	4.9	68	207	3.7	0.74	214	16	977.9	68	988.9	966.5	267.8
Feb	-15.8	00	0.1	-35.8	5.1	00	191	3.7	0.73	222	21	986.3	00	998.8	971.9	258.4
Mar	-25.7	00	-10.4	-40.2	4.6	00	195	3.0	0.66	212	20	982.9	00	1003.0	966.9	248.7
Apr	-22.6	00	-10.0	-37.1	10.1	00	208	9.5	0.93	210	31	983.8	00	999.2	961.1	251.8
May	-30.7	00	-13.0	-47.0	5.2	02	208	4.1	0.78	208	25	990.5	00	1007.3	970.0	243.1
Jun	-28.7	00	-9.5	-50.1	8.3	00	207	7.5	0.91	215	22	990.7	00	1010.9	970.0	245.1
Jul	-30.9	00	-11.5	-47.8	7.2	00	207	5.8	0.82	212	28	990.9	00	1015.2	961.4	242.9
Aug	-33.2	00	-15.2	-49.9	5.6	00	206	4.2	0.76	210	25	989.0	00	1006.9	959.7	240.7
Sep	-31.1	00	-14.8	-52.0	6.6	00	207	5.5	0.84	207	25	983.5	00	1003.4	951.7	243.2
Oct	-24.4	00	-13.1	-41.0	6.9	00	205	6.1	0.88	217	26	977.2	00	993.2	961.7	250.4
Nov	-9.6	00	-0.1	-20.9	8.8	00	209	8.0	0.90	217	24	982.9	00	999.0	964.1	264.9
Dec	-4.7	00	5.2	-12.8	3.7	00	195	1.8	0.48	225	16	982.3	00	998.3	967.9	269.8
MEAN	-22.0				6.4		205	5.2	0.79			984.8				

Mon	Mean Air Temp (C)	% of Mon Data Abs	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	% of Mon Data Abs	Result Wind (dir	vv)	Con	Max Wind (dir	vv)	Mean Air Press (mb)	% of Mon Data Abs	Max Air Press (mb)	Min Air Press (mb)	Potential Temp (K)
Willie Field (30477)			77.867S				166.957E				13 M					
Jan	-2.5	64	5.4	-10.8	2.8	64	068	1.3	0.46	174	11	987.5	64	995.4	978.1	271.6
Feb	-16.7	15	-3.8	-35.1	4.4	15	082	3.6	0.82	213	14					
Mar	-24.0	00	-7.3	-37.8	3.7	00	073	3.1	0.82	158	13					
Apr	-22.1	00	-12.1	-38.6	6.8	01	148	3.3	0.48	221	30					
May	-30.9	00	-10.0	-47.5	3.4	00	081	1.5	0.45	207	19					
Jun	-28.4	00	-7.2	-50.2												
Jul	-29.8	00	-7.9	-47.8												
Aug	-32.4	00	-16.0	-49.9												
Sep	-32.4	00	-12.8	-52.6												
Oct	-24.2	00	-9.1	-41.2												
Nov	-8.1	00	3.1	-23.9												
Dec	-4.2	00	4.2	-12.4												
Windless Bight (8982)			77.866S				166.983E				14M					
Jan	-4.9	00	6.0	-16.6	2.3	00	090	1.2	0.51	161	8	981.8	00	994.0	967.4	269.7
Feb	-15.3	00	-0.8	-36.3	2.7	00	090	1.8	0.67	211	11	987.2	00	999.8	972.1	258.8
Mar	-24.7	00	-5.8	-41.8	2.5	00	079	1.4	0.55	108	11	983.7	00	1003.3	967.3	249.6
Apr	-21.7	00	-10.5	-38.2	3.8	00	116	0.5	0.13	223	26	986.0	00	1000.0	964.7	252.4
May	-27.6	27	-8.8	-45.1	2.9	27	044	1.2	0.42	106	10	991.8	27	1003.3	973.6	246.2
Jun	-24.9	18	-5.5	-48.8	3.7	18	073	1.5	0.39	204	14	993.1	18	1011.9	970.1	248.8
Jul	-28.8	20	-8.0	-50.4	3.3	20	071	1.8	0.54	075	12	992.1	20	1015.7	963.9	245.1
Aug	-30.0	21	-8.5	-49.2	3.1	22	071	1.6	0.51	097	11	991.3	21	1008.0	964.4	243.8
Sep	-29.6	19	-10.5	-51.8	3.2	20	062	1.2	0.38	227	18	984.7	20	1005.5	954.3	244.8
Oct	-24.6	00	-9.4	-39.8	2.7	00	064	1.1	0.43	010	11	978.8	00	996.2	964.9	250.1
Nov	-7.9	00	2.7	-26.3	2.7	00	034	1.0	0.38	216	14	985.0	00	1001.5	964.6	266.5
Dec	-4.1	00	5.8	-13.4	2.3	00	064	0.8	0.36	004	9	983.2	00	999.2	971.5	270.4
MEAN	-20.3				2.9		071	1.2	0.44			986.6				
Cape Bird (8901)			77.217S				166.439E				38M					
Jan	-1.4	00	4.0	-6.8	3.1	00	351	0.9	0.30	047	12	976.8	00	988.0	962.6	273.6
Feb	-6.2	00	1.9	-14.1	4.2	00	111	1.0	0.24	195	22	980.5	00	992.7	964.8	268.4
Mar	-13.9	00	-2.9	-23.0	3.9	00	049	1.8	0.45	212	19	978.0	00	998.6	960.9	261.0
Apr	-14.7	00	-5.8	-22.1	4.6	00	094	1.7	0.38	168	33	978.3	00	995.3	952.0	260.1
May	-21.7	00	-9.5	-31.0	4.3	00	093	1.8	0.42	165	36	986.6	00	1004.2	965.4	252.4
Jun	-19.4	00	-5.1	-31.0	5.5	00	136	1.8	0.33	182	32	985.6	00	1007.0	963.5	254.8
Jul	-21.0	00	-5.8	-30.5	3.9	00	059	2.2	0.57	195	23	986.6	00	1011.0	957.1	253.1
Aug	-23.4	00	-11.4	-32.9	5.3	00	088	1.7	0.32	161	37	984.2	00	1002.7	948.6	251.0
Sep	-23.7	00	-8.0	-36.1	3.7	00	105	1.2	0.31	186	34	979.8	00	999.8	949.2	251.0
Oct	-18.2	00	-9.5	-27.5	3.5	00	055	1.7	0.49	164	28	972.2	00	986.5	953.4	257.0
Nov	-9.8	00	-2.1	-15.0	4.4	00	039	2.2	0.49	195	29	977.3	00	994.8	959.5	265.1
Dec	-8.3	00	-4.2	-11.0	3.7	00	357	0.9	0.25	179	25	977.2	00	993.5	960.0	266.6
MEAN	-15.1				4.2		072	1.3	0.4			980.3				

Mon	Mean Air Temp (C)	% of Mon Data Abs	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	% of Mon Data Abs	Result Wind (dir	vv)	Con	Max Wind (dir	vv)	Mean Air Press (mb)	% of Mon Data Abs	Max Air Press (mb)	Min Air Press (mb)	Potential Temp (K)
Laurie II (21360)			77.517S				170.801E				37M					
Jan	-6.5	00	4.1	-17.2	4.5	00	201	2.9	0.66	225	23	981.6	00	992.1	968.6	268.1
Feb	-16.6	00	-0.6	-37.6	6.3	00	198	5.1	0.81	221	21	986.4	00	999.3	971.7	257.5
Mar	-24.8	00	-10.0	-40.0	5.1	00	195	4.0	0.78	226	18	983.3	00	1003.6	967.6	249.6
Apr	-23.4	00	-10.1	-36.8	10.1	03	212	9.3	0.93	219	32	983.8	00	1000.3	959.2	251.0
May	-32.0	00	-17.5	-47.4	5.0	02	208	3.8	0.77	224	20	991.4	00	1008.2	969.0	241.8
Jun	-30.2	00	-10.6	-51.4	8.1	00	213	7.0	0.87	215	23	991.1	00	1012.9	970.3	243.6
Jul	-30.6	00	-10.1	-45.9	6.8	01	212	5.5	0.82	225	29	991.5	00	1016.4	962.5	243.1
Aug	-33.7	00	-13.4	-51.6	5.7	00	208	4.8	0.84	226	24	989.4	00	1008.0	959.3	240.2
Sep	-32.7	00	-16.1	-51.1	5.9	04	209	5.0	0.84	218	23	984.3	00	1003.4	953.6	241.6
Oct	-26.0	00	-13.8	-43.2	8.2	14	207	7.5	0.92	215	28	977.4	00	991.7	961.0	248.8
Nov	-10.7	00	0.8	-22.8	8.8	00	216	8.0	0.90	215	22	983.1	00	998.9	965.3	263.8
Dec	-5.8	00	2.1	-13.5	4.3	00	202	2.5	0.59	222	18	983.1	00	999.6	968.2	268.6
MEAN	-22.8				6.6		208	5.4	0.81			985.5				
Lorne (21356)			78.239S				170.001E				45M					
Jan	-5.6	00	4.6	-16.8	4.4	00	213	2.7	0.62	218	18	980.5	00	991.6	966.5	269.1
Feb	-15.9	00	-1.2	-35.1	5.2	00	198	4.0	0.78	222	20	985.9	00	998.4	971.1	258.3
Mar	-25.4	00	-10.6	-40.6	4.7	00	202	3.1	0.65	222	16	982.5	00	1002.4	966.1	249.0
Apr	-22.6	00	-7.0	-39.1	9.6	26	213	8.2	0.85	232	28	983.3	00	998.4	959.7	251.8
May	-31.7	00	-14.9	-46.2	4.5	18	216	3.6	0.81	210	17	990.2	00	1006.8	969.4	242.1
Jun	-29.9	00	-10.2	-49.9	6.9	02	217	5.9	0.86	204	19	990.4	00	1010.9	969.4	243.9
Jul	-30.9	00	-11.2	-45.9	6.9	10	219	5.1	0.74	221	26	990.5	00	1015.0	961.5	242.9
Aug	-33.5	00	-18.4	-49.6	5.5	08	211	4.5	0.83	218	19	988.5	00	1006.4	959.7	240.5
Sep	-32.3	00	-15.6	-51.1	6.2	13	221	4.1	0.66	233	22	983.2	00	1002.8	952.2	242.1
Oct	-25.3	00	-12.4	-41.9	7.0	16	216	5.9	0.84	155	23	976.8	00	992.8	961.4	249.5
Nov	-9.9	00	-0.8	-22.5	8.1	07	218	7.0	0.87	224	22	982.4	00	998.1	963.6	264.7
Dec	-5.0	00	4.0	-12.0	3.8	04	203	1.9	0.49	224	14	981.9	00	998.2	967.5	269.6
MEAN	-22.3				6.1		214	4.6	0.75			984.7				
Mulock (8907)			78.917S				159.000E				434M					
Jan	-6.6	00	2.5	-18.5	5.0	00	324	4.1	0.83	354	20	935.0	00	946.6	920.4	271.7
Feb	-16.1	00	-4.1	-26.0	10.8	00	330	10.5	0.97	333	28	938.7	00	950.5	922.8	261.7
Mar	-24.6	00	-12.1	-33.2	18.1	00	332	17.6	0.98	333	38	934.2	00	951.5	917.5	253.5
Apr	-24.7	00	-12.9	-35.5	18.6	14	333	16.1	0.87	328	38	939.3	00	951.7	915.9	253.0
May	-29.1	00	-12.6	-40.9	23.6	07	331	23.2	0.98	333	41	941.7	00	955.6	918.4	248.3
Jun	-27.0	00	-13.1	-41.0	20.4	00	332	20.2	0.99	347	44	943.2	00	964.4	918.8	250.3
Jul																
Aug																
Sep																
Oct																
Nov																
Dec																

Mon	Mean Air Temp (C)	% of Mon Data Abs	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	% of Mon Data Abs	Result Wind (dir	vv)	Con	Max Wind (dir	vv)	Mean Air Press (mb)	% of Mon Data Abs	Max Air Press (mb)	Min Air Press (mb)	Potential Temp (K)
Mt. Fleming (30393)			77.533S				160.271E				1922M					
Jan	-14.6	00	-7.8	-20.1	8.0	00	202	7.3	0.91	208	28	769.3	00	779.2	757.2	278.7
Feb	-20.4	00	-8.5	-29.3	7.0	00	210	6.0	0.87	203	28	768.1	00	782.1	751.8	272.5
Mar	-25.1	00	-16.2	-32.7	8.7	00	205	8.3	0.96	212	26	761.5	00	776.1	748.7	268.2
Apr	-27.7	00	-19.9	-36.8	9.7	00	199	9.4	0.96	185	27	763.6	00	776.4	748.2	265.1
May	-27.0	00	-18.3	-38.4	9.0	00	205	8.6	0.95	188	23	765.9	00	779.7	741.2	265.7
Jun	-27.9	00	-14.2	-40.1	10.6	00	204	10.3	0.97	225	28	766.8	00	789.5	748.2	264.6
Jul	-27.6	00	-11.4	-42.8	12.0	00	207	11.6	0.97	203	30	765.9	00	791.5	742.6	265.0
Aug	-29.2	00	-18.7	-46.2	11.0	00	208	10.5	0.96	210	33	762.7	00	779.0	733.7	263.6
Sep	-29.1	00	-16.0	-42.7	13.0	00	203	12.7	0.98	207	34	759.9	00	773.6	740.5	264.0
Oct	-27.2	00	-19.1	-35.0	7.8	00	203	7.4	0.95	186	28	756.5	00	769.1	747.0	266.4
Nov	-18.4	00	-9.9	-27.9	9.4	00	199	9.2	0.97	198	26	769.6	00	786.3	750.2	274.5
Dec	-14.8	00	-9.9	-23.9	5.7	00	203	4.9	0.86	205	19	770.4	00	783.4	762.4	278.4
MEAN	-24.1				9.3		204	8.8	0.94			765.0				
Possession Is (8984)			71.891S				171.210E				30M					
Jan	1.2	00	10.8	-2.5								974.2	00	987.2	966.2	276.4
Feb	-2.8	00	7.6	-8.9								975.5	00	988.6	961.1	272.3
Mar	-10.0	00	-0.6	-17.2								974.6	00	996.4	958.3	265.1
Apr	-14.9	00	-4.8	-22.5								976.1	00	995.0	959.3	260.1
May	-18.4	00	-9.6	-29.0								984.1	00	999.4	962.8	256.0
Jun	-18.9	00	-7.2	-28.1								982.9	00	1007.9	963.8	255.5
Jul	-17.0	17	-2.9	-27.9								981.8	18	1012.8	956.6	257.5
Aug	-19.3	02	-10.6	-29.8								981.2	02	1002.1	953.1	255.3
Sep	-19.5	08	-5.4	-29.0								977.6	08	993.8	949.6	255.4
Oct	-14.9	00	-3.8	-23.2								968.8	00	979.5	954.1	260.6
Nov	-4.0	00	4.5	-16.2								974.7	00	992.7	960.9	271.2
Dec	0.9	00	9.2	-3.6								975.7	00	985.2	963.7	276.0
MEAN	-11.5											977.3				
Manuela (8905)			74.946S				163.687E				78M					
Jan	-2.9	00	4.9	-10.9	6.7	00	281	6.0	0.89	301	30	977.0	00	989.0	964.0	272.1
Feb	-11.5	00	2.9	-20.9	10.1	00	282	9.6	0.95	273	30	981.7	00	995.1	966.5	263.0
Mar	-20.1	00	-10.1	-31.1	14.8	00	284	14.6	0.98	279	35	978.3	00	999.8	960.5	254.6
Apr	-23.0	00	-8.9	-31.6	10.2	59	290	10.0	0.99	284	31	980.2	00	996.2	961.2	251.6
May	-24.9	01	-13.8	-35.1								986.3	00	1003.3	959.0	249.2
Jun	-24.6	01	-10.6	-36.5								987.1	00	1008.0	963.1	249.5
Jul	-23.1	01	1.4	-35.2								986.7	00	1012.5	961.2	251.0
Aug	-25.2	01	-16.8	-37.2								984.3	00	1003.2	953.2	249.1
Sep	-25.3	03	-11.0	-36.5								979.6	00	1001.9	947.0	249.3
Oct	-21.6	00	-11.8	-35.9								973.5	00	987.5	959.4	253.5
Nov	-9.3	00	0.8	-20.9								980.2	00	997.4	960.4	265.4
Dec	-3.3	00	4.1	-10.0								978.5	00	995.0	968.2	271.5
MEAN	-17.9											981.1				

Mon	Mean Air Temp (C)	% of Mon Data Abs	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	% of Mon Data Abs	Result Wind (dir	vv)	Con	Max Wind (dir	vv)	Mean Air Press (mb)	% of Mon Data Abs	Max Air Press (mb)	Min Air Press (mb)	Potential Temp (K)
Marilyn (8934)			79.926S				165.494W			63M						
Jan	-6.9	00	2.5	-20.0	2.0	28	234	0.9	0.43	209	10	978.8	00	991.8	962.9	267.9
Feb	-18.8	00	-5.2	-39.8	3.7	72	269	1.6	0.42	276	14	984.1	00	996.8	968.6	255.5
Mar	-26.9	00	-10.9	-43.0								979.8	00	998.5	963.7	247.8
Apr	-24.3	00	-13.2	-38.5								983.4	00	996.2	958.6	250.0
May	-31.7	00	-14.2	-51.1								987.8	00	1001.7	966.0	242.3
Jun	-29.9	00	-11.5	-54.2								988.9	00	1008.3	966.4	244.0
Jul	-30.5	00	-13.8	-44.6								988.1	00	1010.6	957.3	243.5
Aug	-32.4	00	-17.4	-46.2								986.0	00	1003.8	959.8	241.8
Sep	-32.0	00	-15.9	-58.5								981.0	00	1004.3	950.5	242.5
Oct	-26.0	00	-10.4	-43.2								975.5	00	995.6	960.7	248.9
Nov	-10.9	00	-0.1	-27.4								981.7	00	998.1	959.5	263.7
Dec	-4.8	00	5.9	-12.1								979.9	00	995.8	968.4	270.0
MEAN	-22.9											982.9				
Schwerdtfeger (8913)			79.867S				170.142E			54M						
Jan	-7.7	00	3.6	-19.5	3.7	00	220	1.9	0.51	224	12	979.0	00	991.0	963.3	267.1
Feb	-19.9	00	-7.0	-40.2	3.5	00	235	1.7	0.49	186	13	984.7	00	996.7	967.8	254.4
Mar	-29.8	00	-11.9	-46.0	3.4	00	253	2.2	0.64	192	15	980.4	00	999.3	965.8	244.7
Apr	-25.3	00	-10.4	-41.4	7.0	00	209	5.6	0.80	192	20	982.2	00	995.9	959.3	249.2
May	-37.2	00	-13.1	-54.0	5.0	00	247	3.9	0.78	261	16	987.9	00	1002.3	968.5	236.8
Jun	-35.4	00	-9.6	-58.5	5.7	00	225	4.5	0.79	249	20	988.9	10	1007.9	965.9	240.1
Jul	-34.8	00	-12.1	-51.6	6.7	00	247	5.6	0.84	252	20	987.9	02	1011.3	958.4	239.4
Aug	-37.2	00	-21.1	-56.4	5.6	00	246	4.0	0.72	272	18	986.6	01	1004.3	956.8	237.0
Sep	-37.3	00	-16.5	-60.6	5.8	00	237	4.8	0.83	258	24	980.3	05	1002.9	949.9	238.0
Oct	-28.9	00	-13.8	-48.0	3.7	00	226	3.2	0.87	185	22	975.2	00	993.9	961.4	246.0
Nov	-12.2	00	0.0	-29.1	6.0	00	204	4.5	0.75	196	16	981.1	00	997.3	958.3	262.4
Dec	-6.4	00	2.2	-14.5	3.2	00	205	1.6	0.52	186	11	980.6	00	996.3	966.6	268.2
MEAN	-26.0				4.9		230	3.5	0.71			982.9				
Gill (8911)			79.922S				178.586E			54M						
Jan	-8.1	00	3.4	-22.4	4.4	00	226	1.9	0.43	207	12	979.2	00	990.0	968.6	266.6
Feb	-20.3	00	-4.9	-37.1	3.1	00	212	2.2	0.71	195	12	985.3	00	996.5	963.4	254.0
Mar	-31.1	00	-11.6	-46.6	4.0	00	250	2.5	0.62	199	10	980.1	02	996.6	964.8	243.4
Apr	-25.2	00	-8.0	-44.1	5.7	16	179	3.6	0.63	168	18	980.7	02	996.9	959.0	249.5
May	-40.6	00	-15.0	-54.9	3.6	15	238	2.6	0.72	242	15	987.0	00	1002.9	964.7	233.4
Jun	-40.5	00	-11.6	-58.9	4.6	00	211	3.5	0.76	231	14	987.2	00	1010.8	963.0	233.5
Jul	-37.8	00	-14.1	-54.8	4.8	12	245	3.2	0.67	197	19	987.0	02	1011.9	955.5	236.5
Aug	-41.1	00	-21.4	-58.4	4.0	06	227	2.8	0.71	192	14	985.8	00	1006.8	954.7	233.1
Sep	-41.5	00	-19.9	-57.9	4.4	00	235	3.6	0.83	211	16	979.5	00	1001.3	949.8	233.1
Oct	-29.6	00	-15.0	-47.1	7.0	44	219	6.1	0.87	227	19	972.9	00	990.8	953.7	245.5
Nov	-13.1	00	0.5	-29.9	5.0	07	202	3.8	0.76	197	17	980.0	00	998.1	955.6	261.6
Dec	-7.3	00	1.5	-15.5	3.3	00	207	1.6	0.49	182	8	980.9	00	998.3	965.5	267.3
MEAN	-28.0				4.5		220	2.9	0.68			982.1				

Mon	Mean Air Temp (C)	% of Mon Data Abs	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	% of Mon Data Abs	Result Wind (dir	vv)	Con	Max Wind (dir	vv)	Mean Air Press (mb)	% of Mon Data Abs	Max Air Press (mb)	Min Air Press (mb)	Potential Temp (K)
Lettau (8928)			82.481S			174.570W				38M						
Jan																
Feb	-21.9	05	-4.9	-42.4	2.5	05	161	1.4	0.56	127	14	990.3	05	1003.2	968.8	252.0
Mar	-30.6	00	-17.1	-46.6	3.6	00	188	1.5	0.41	236	12	985.6	00	1001.0	967.4	243.6
Apr	-27.9	00	-12.6	-47.5	5.0	00	139	4.4	0.87	128	21	989.6	00	1004.9	961.6	246.1
May	-39.2	00	-13.2	-57.2	3.8	00	168	2.5	0.66	132	19	993.7	00	1008.7	970.8	234.4
Jun	-42.2	00	-13.2	-60.2	3.4	00	155	2.4	0.70	134	18	996.1	00	1016.8	968.6	231.2
Jul	-38.0	00	-13.4	-56.1	4.1	00	164	2.7	0.66	174	17	993.5	00	1020.8	957.2	235.6
Aug	-41.2	00	-17.4	-59.0	2.7	00	171	1.9	0.71	160	18	992.8	00	1013.4	961.7	232.5
Sep	-41.6	00	-17.2	-61.8	1.9	00	170	1.5	0.77	110	17	986.9	00	1016.4	955.7	232.5
Oct	-29.1	02	-13.8	-51.1	5.3	04	159	4.7	0.89	139	27	979.6	04	1004.1	957.9	245.8
Nov	-12.8	00	-3.1	-29.1	5.5	00	146	4.3	0.78	145	16	985.7	00	1004.6	960.7	261.5
Dec	-7.0	00	0.8	-14.2	3.3	00	173	2.2	0.66	162	11	984.4	00	1001.1	970.7	267.3
Vito (8695)			78.466S			177.782E				50M						
Jan	-7.0	00	2.6	-20.2	4.8	00	225	2.1	0.43	177	15	980.9	00	991.2	971.1	267.7
Feb	-18.5	00	-1.8	-37.5	5.0	00	164	3.7	0.74	156	16	986.4	00	997.5	969.2	255.7
Mar	-28.6	00	-8.9	-43.4	4.8	00	202	2.9	0.61	173	16	983.2	00	1003.3	968.4	245.8
Apr	-24.3	00	-5.9	-43.9	6.0	01	179	3.9	0.65	197	23	981.9	00	998.6	956.1	250.2
May	-38.1	00	-18.2	-53.5	4.4	00	212	3.7	0.84	236	20	990.1	00	1007.7	970.9	235.8
Jun	-38.5	00	-13.0	-58.4	6.9	29	197	6.1	0.88	160	18	989.5	00	1011.7	968.7	235.3
Jul	-34.9	00	-13.2	-53.4	5.4	16	208	4.1	0.77	179	24	990.3	00	1016.1	959.3	238.9
Aug	-38.2	00	-17.1	-55.4	4.9	00	201	3.5	0.71	195	18	988.3	00	1007.5	958.2	235.8
Sep	-39.2	00	-21.1	-55.5	2.7	03	206	2.3	0.86	173	19	982.6	00	1001.1	952.5	235.2
Oct	-29.8	00	-16.6	-46.5	4.0	07	198	3.5	0.87	180	21	975.7	00	992.1	955.7	245.1
Nov	-12.1	00	0.0	-28.8	6.7	00	178	5.2	0.78	176	22	981.2	00	997.1	962.2	262.4
Dec	-6.3	00	1.5	-14.5	4.6	00	176	2.5	0.55	354	11	982.2	00	999.5	966.1	268.3
MEAN	-26.3				5.0		194	3.5	0.72			984.4				
Emilia (8980)			78.474S			173.146W				51M						
Jan	-11.0	50	-2.0	-22.4	4.2	00	214	2.6	0.62	148	15	984.1	00	994.8	971.4	263.4
Feb	-18.5	00	-1.8	-37.2	4.9	00	195	3.5	0.73	228	19	989.1	00	1000.5	973.4	255.5
Mar	-29.4	00	-13.4	-44.7	4.6	00	214	3.3	0.71	239	14	985.6	00	1006.0	970.1	244.8
Apr	-25.7	00	-8.5	-41.2	7.8	01	215	7.1	0.90	203	20	985.3	00	1001.4	959.9	248.6
May	-35.9	07	-19.3	-49.5	5.1	13	225	4.5	0.87	221	16	992.5	07	1009.7	972.9	237.8
Jun	-34.3	09	-14.5	-49.4	6.9	19	216	6.4	0.93	215	17	993.0	09	1013.9	971.8	239.4
Jul	-34.4	06	-13.1	-48.3	6.2	15	221	5.4	0.87	217	21	992.7	06	1018.7	963.0	239.3
Aug	-36.8	02	-21.0	-51.3	5.8	10	213	4.9	0.84	220	19	991.1	02	1009.5	960.1	237.0
Sep	-37.3	06	-20.0	-50.2	5.2	14	221	4.6	0.89	239	19	984.6	06	1004.8	954.2	236.9
Oct	-29.1	00	-16.4	-48.7	6.9	04	217	6.4	0.92	205	19	979.0	00	994.7	961.0	245.6
Nov	-12.3	00	3.6	-27.2	6.8	00	209	5.8	0.85	203	19	984.9	00	1001.0	965.6	262.0
Dec	-7.1	00	1.0	-14.8	4.1	00	209	2.4	0.59	199	10	985.3	00	1002.5	969.8	267.2
MEAN	-26.0				5.7		215	4.7	0.81			987.3				

Mon	Mean Air Temp (C)	% of Mon Data Abs	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	% of Mon Data Abs	Result Wind (dir	vv)	Con	Max Wind (dir	vv)	Mean Air Press (mb)	% of Mon Data Abs	Max Air Press (mb)	Min Air Press (mb)	Potential Temp (K)
Carolyn (8722)			79.939S				175.884E			52M						
Jan	-8.2	00	-0.5	-20.2	4.5	01	232	2.1	0.48	215	13	976.5	00	987.5	962.7	266.8
Feb	-20.1	00	-7.8	-38.2	3.5	02	236	1.8	0.52	233	15	982.4	00	993.5	962.4	254.3
Mar	-31.2	00	-16.5	-47.9	4.0	04	267	2.4	0.60	285	12	978.0	00	996.2	963.3	243.6
Apr	-24.4	01	-9.0	-43.6	5.1	03	200	3.4	0.67	205	18	978.5	01	993.3	956.2	250.3
May	-41.4	26	-13.4	-55.5	3.4	42	264	2.6	0.76	266	18	985.9	27	1000.2	965.1	232.5
Jun	-40.4	67	-12.0	-59.9	4.3	71	232	2.6	0.60	228	14	984.9	67	1006.8	962.0	233.6
Jul	-37.3	02	-12.8	-54.9	5.4	06	265	3.5	0.65	210	19	985.0	02	1009.2	954.7	236.9
Aug	-38.6	31	-21.9	-56.5	5.1	30	252	3.2	0.62	338	15	983.8	31	1003.0	952.5	235.7
Sep	-40.2	03	-20.1	-58.8	5.0	16	249	4.0	0.80	211	17	977.3	03	1000.1	947.7	234.5
Oct	-29.9	02	-16.6	-47.5	6.3	04	231	5.3	0.85	193	19	971.4	02	989.1	954.7	245.3
Nov	-12.8	00	-1.9	-29.4	6.0	00	211	4.2	0.70	205	20	977.8	00	994.8	953.2	262.0
Dec	-6.9	00	-0.8	-16.1	3.9	01	216	2.0	0.51	285	11	978.0	00	994.3	962.8	268.0
MEAN	-27.6				4.7		237	2.9	0.65			980.0				
Mary (8983)			79.305S				162.985E			58M						
Jan	-7.1	00	2.5	-21.0	2.5	00	256	1.2	0.50	322	10	980.2	00	993.3	964.7	267.6
Feb	-18.8	00	-4.9	-40.7	2.8	00	266	1.4	0.51	286	15	986.0	00	998.8	970.8	255.4
Mar	-26.3	01	-11.9	-43.0	4.8	01	282	3.4	0.71	289	17	982.2	01	1001.2	965.3	248.1
Apr	-23.1	00	-12.1	-39.3	8.0	00	250	6.1	0.75	235	25	986.3	00	998.7	961.0	251.0
May	-27.8	17	-10.5	-50.3	6.6	17	285	5.5	0.84	291	19	990.9	18	1004.5	967.4	246.2
Jun	-27.8	05	-11.3	-53.8	5.5	05	269	4.3	0.79	290	21	992.0	05	1011.3	968.7	246.0
Jul	-28.2	16	-12.5	-50.5	6.3	16	276	4.7	0.75	284	20	990.6	16	1013.0	960.1	245.7
Aug	-30.4	14	-13.3	-43.5	6.0	14	277	4.0	0.67	344	26	988.9	14	1005.8	962.5	243.6
Sep	-30.7	06	-13.5	-58.6	5.8	06	282	4.1	0.70	288	21	983.6	07	1006.3	954.2	243.7
Oct	-24.9	00	-13.6	-40.9	4.8	00	271	3.5	0.72	298	20	977.9	00	998.7	962.3	249.8
Nov	-10.5	00	-0.2	-28.3	4.8	00	241	3.5	0.74	181	16	984.3	00	1000.6	962.7	263.9
Dec	-5.3	00	3.7	-15.1	2.5	00	259	0.8	0.33	189	9	981.5	00	997.6	971.0	269.3
MEAN	-21.7				5.0		270	3.4	0.67			985.4				
Eric (8697)			81.504S				163.939E			45M						
Jan	-7.2	00	2.2	-20.4	3.1	00	183	1.2	0.39	155	15	981.0	00	993.7	965.9	267.4
Feb	-20.8	00	-6.5	-41.1	2.5	00	194	0.5	0.20	177	11	986.4	00	999.1	969.6	253.4
Mar	-29.8	00	-8.8	-47.6	2.9	00	217	0.5	0.17	160	14	981.9	00	1000.5	964.4	244.6
Apr	-25.9	00	-10.9	-44.1	4.9	00	164	3.5	0.71	150	25	987.1	00	1000.5	958.4	248.1
May	-35.8	00	-10.0	-55.8	2.7	00	196	0.7	0.24	173	17	989.2	07	1002.1	967.1	239.2
Jun	-35.6	00	-7.9	-59.5	3.0	00	181	1.2	0.40	153	17	992.7	15	1011.7	967.9	241.2
Jul	-38.2	00	-14.1	-55.5	3.0	00	184	0.7	0.22	162	19	989.9	10	1012.4	957.6	237.0
Aug	-41.6	00	-15.6	-58.1	2.6	00	181	0.6	0.22	174	18	989.6	22	1005.9	960.2	234.9
Sep	-40.1	00	-12.9	-62.4	2.8	00	209	0.6	0.20	159	20	982.5	21	1005.7	953.9	238.3
Oct	-30.3	00	-10.6	-46.6	2.7	00	206	0.7	0.26	163	15	978.0	00	1000.2	961.3	244.4
Nov	-11.3	00	1.1	-31.4	4.2	00	175	2.5	0.61	145	27	984.9	00	1002.6	961.6	263.0
Dec	-5.6	00	4.6	-12.5	2.6	01	225	0.3	0.10	158	9	982.4	00	998.3	971.8	269.0
MEAN	-26.9				3.1		182	1.0	0.31			985.5				

Mon	Mean Air Temp (C)	% of Mon Data Abs	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	% of Mon Data Abs	Result Wind (dir	vv)	Con	Max Wind (dir	vv)	Mean Air Press (mb)	% of Mon Data Abs	Max Air Press (mb)	Min Air Press (mb)	Potential Temp (K)

Margaret (8910) 80.000S 165.000W 67M

Mon	Mean Air Temp (C)	% of Mon Data Abs	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	% of Mon Data Abs	Result Wind (dir	vv)	Con	Max Wind (dir	vv)	Mean Air Press (mb)	% of Mon Data Abs	Max Air Press (mb)	Min Air Press (mb)	Potential Temp (K)
Jan	-8.8	00	-1.1	-18.0	3.9	00	156	0.6	0.16	172	11	975.4	00	985.3	961.2	266.3
Feb	-22.3	00	-3.9	-41.5	3.6	00	147	1.9	0.54	178	11	980.2	00	992.2	955.8	252.3
Mar	-31.2	00	-12.2	-49.6	3.7	00	170	1.3	0.34	119	9	974.6	00	992.1	960.1	243.7
Apr	-23.0	00	-5.6	-41.8	4.2	19	097	2.7	0.64	044	17	976.4	00	993.3	957.3	251.8
May	-42.9	00	-29.2	-57.7	3.3	57	182	2.0	0.61	187	13	980.3	00	997.8	960.2	231.5
Jun	-40.4	05	-9.6	-60.0	0.8	22	100	0.3	0.40	359	6	981.6	00	1005.9	955.5	234.0
Jul	-34.7	00	-8.9	-51.3	3.7	10	017	0.1	0.02	336	15	981.7	00	1006.5	949.0	239.8
Aug	-43.9	00	-20.0	-63.6	3.4	59	173	1.5	0.45	162	14	979.9	00	1003.6	949.8	230.6
Sep	-44.5	00	-22.1	-59.8								972.6	00	997.8	944.5	230.5
Oct	-28.9	00	-10.1	-47.7	3.8	09	145	1.7	0.45	157	12	966.6	00	987.0	942.3	246.7
Nov	-11.2	00	0.6	-27.5	4.8	00	134	2.5	0.52	129	13	975.0	00	995.0	947.2	263.9
Dec	-8.3	00	-0.9	-15.9	3.2	00	192	1.2	0.36	286	9	976.8	00	995.3	963.2	266.6
MEAN	-28.3											976.8				

Larsen Ice (8926) 67.012S 61.550W 17M

Mon	Mean Air Temp (C)	% of Mon Data Abs	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	% of Mon Data Abs	Result Wind (dir	vv)	Con	Max Wind (dir	vv)	Mean Air Press (mb)	% of Mon Data Abs	Max Air Press (mb)	Min Air Press (mb)	Potential Temp (K)
Jan	-1.4	01	5.0	-11.3	3.7	00	090	1.3	0.36	180	11	980.4	00	993.1	968.1	273.3
Feb	-6.2	00	5.3	-22.0	4.4	00	197	2.1	0.49	192	12	984.0	00	995.9	963.8	268.2
Mar	-10.5	00	2.4	-28.3	3.4	00	264	1.2	0.36	268	14	983.5	00	1002.5	957.0	264.0
Apr	-22.5	00	-1.6	-41.0	3.0	00	230	1.5	0.49	171	10	988.5	00	1010.1	961.1	251.5
May	-23.0	00	-8.5	-41.9	2.7	00	218	2.1	0.77	248	12	988.6	00	1006.4	963.5	251.0
Jun	-26.8	00	-8.9	-50.0	2.1	00	216	1.5	0.72	253	15	991.7	00	1023.0	960.3	246.9
Jul	-29.3	00	1.4	-52.9	4.5	02	212	2.7	0.61	203	22	989.8	00	1009.2	964.0	244.6
Aug	-25.9	00	-1.1	-48.2	2.6	00	250	0.6	0.25	320	13	999.1	00	1022.8	977.5	247.3
Sep	-23.6	00	1.1	-39.3	4.3	00	231	2.2	0.52	310	17	984.0	00	1006.2	955.6	250.7
Oct	-14.5	00	2.8	-34.0	5.1	00	234	1.7	0.34	213	22	973.3	00	992.2	951.9	260.7
Nov	-8.5	01	1.1	-25.2	5.4	01	187	2.6	0.48	190	18	982.3	01	1003.6	959.0	266.0
Dec	-3.5	01	4.9	-17.6	3.6	00	119	0.7	0.19	256	10	983.6	00	993.2	964.5	270.9
MEAN	-16.3				3.7		212	1.4	0.47			985.7				

Butler Island (8902) 72.206S 60.170W 91M

Mon	Mean Air Temp (C)	% of Mon Data Abs	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	% of Mon Data Abs	Result Wind (dir	vv)	Con	Max Wind (dir	vv)	Mean Air Press (mb)	% of Mon Data Abs	Max Air Press (mb)	Min Air Press (mb)	Potential Temp (K)
Jan	-4.1	00	3.9	-10.9	3.1	00	283	0.1	0.04	014	9	972.1	00	983.3	966.2	271.3
Feb	-11.1	00	5.9	-19.9	4.3	00	189	3.0	0.70	176	12	976.5	00	989.8	959.2	263.8
Mar	-17.4	00	-5.0	-26.8	4.1	00	176	2.0	0.50	170	15	974.6	00	996.1	948.5	257.7
Apr	-22.6	00	-0.6	-34.7	3.6	00	189	1.7	0.48	195	13	977.1	00	996.7	942.4	253.3
May	-23.9	00	-10.6	-35.0	2.7	00	184	2.5	0.94	204	15	981.4	00	997.0	965.0	250.6
Jun	-28.1	00	-9.4	-39.9	3.0	00	179	2.7	0.88	158	11	983.0	00	1011.3	958.7	246.3
Jul	-26.5	00	0.0	-40.5	4.7	00	201	2.5	0.52	174	18	978.5	00	999.1	958.9	248.2
Aug	-26.4	00	2.8	-41.3	2.2	00	203	0.4	0.20	216	14	987.4	00	1012.0	961.1	247.6
Sep	-25.3	00	-13.5	-34.1	2.9	00	153	1.1	0.38	192	11	975.1	00	998.5	947.0	249.7
Oct	-19.2	00	-10.7	-30.0	4.7	00	161	3.3	0.71	147	17	965.2	00	981.4	949.0	256.5
Nov	-9.6	02	0.7	-25.3	6.5	01	172	5.0	0.76	175	19	975.0	00	992.1	954.1	265.5
Dec	-5.3	00	1.3	-12.3	4.0	00	165	0.7	0.19	175	12	975.5	00	983.8	965.7	269.8
MEAN	-18.3				3.8		179	2.0	0.53			976.8				

Mon	Mean Air Temp (C)	% of Mon Data Abs	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	% of Mon Data Abs	Result Wind (dir	vv)	Con	Max Wind (dir	vv)	Mean Air Press (mb)	% of Mon Data Abs	Max Air Press (mb)	Min Air Press (mb)	Potential Temp (K)
Fossil Bluff (8920)			71.333S				68.280W			63M						
Jan	-0.2	00	6.0	-7.4	2.9	01	360	1.7	0.60	323	20	973.6	00	985.8	960.4	275.1
Feb	-3.9	04	6.0	-12.8	2.3	05	346	1.1	0.50	001	9	978.1	03	992.0	955.6	271.0
Mar	-3.1	02	6.8	-13.7	4.1	02	328	2.8	0.68	340	19	973.6	01	997.1	946.9	272.1
Apr	-15.3	01	1.7	-30.0	2.3	01	307	1.4	0.59	326	16	982.3	00	1006.2	957.8	259.1
May	-9.5	00	1.4	-25.4	3.7	01	319	2.7	0.74	346	21	976.9	00	998.0	953.3	265.4
Jun	-16.8	03	0.0	-34.9	2.1	03	316	1.4	0.64	315	19	979.8	02	1010.0	954.3	257.9
Jul	-21.9	13	1.4	-42.4	2.9	14	293	1.1	0.38	314	17	985.8	13	1010.0	960.4	252.3
Aug	-14.4	02	-0.2	-38.5	3.7	01	317	2.5	0.69	323	26	989.6	01	1011.4	965.5	259.5
Sep	-13.5	01	1.0	-29.9	3.9	03	315	2.2	0.56	340	21	975.8	01	1003.7	945.4	261.5
Oct	-11.3	02	3.0	-26.4	3.7	02	318	1.8	0.49	338	24	966.0	02	986.6	940.1	264.5
Nov	-6.0	05	3.5	-18.6	3.6	05	324	1.7	0.46	335	22	978.5	05	992.7	945.1	268.8
Dec	-1.1	03	4.4	-11.8	3.9	02	347	2.6	0.66	354	15	976.7	02	988.8	960.4	273.9
MEAN	-9.8				3.3		325	1.8	0.58			978.1				
Limbert (8925)			75.914S				59.264E			40M						
Jan	-6.8	01	4.6	-17.8	3.7	01	082	0.9	0.23	046	10	979.4	00	988.2	974.1	267.9
Feb	-14.1	00	-2.9	-31.1	4.1	00	212	1.8	0.45	218	9	983.9	00	997.4	967.4	260.3
Mar	-22.4	00	-11.2	-41.6	4.6	00	226	3.0	0.64	233	12	981.8	00	1001.1	950.9	252.1
Apr	-29.6	00	-11.0	-45.2	5.7	00	228	4.1	0.73	236	18	983.2	00	1002.2	939.2	244.8
May	-28.2	00	-10.5	-43.7	0.2	00	239	0.2	0.66	231	11	990.2	00	1007.2	974.8	245.6
Jun	-34.8	00	-15.0	-51.2								989.8	00	1017.9	969.0	239.1
Jul	-37.3	00	-21.9	-51.6								985.5	00	1006.8	966.1	236.8
Aug	-35.2	00	-15.3	-50.0								994.5	00	1019.5	960.8	238.4
Sep	-29.2	00	-15.5	-47.6	3.1	66	236	2.3	0.74	229	13	982.4	00	1007.8	957.6	245.2
Oct	-21.7	00	-6.1	-36.2	4.2	00	225	2.9	0.69	236	11	973.1	00	989.3	955.1	253.4
Nov	-12.2	00	-2.6	-30.2	6.1	00	208	1.7	0.28	221	15	983.4	00	1000.9	962.3	262.3
Dec	-7.6	01	-1.3	-19.5	4.2	00	086	1.9	0.46	054	10	983.3	00	991.6	975.0	266.8
MEAN	-23.3											984.2				
Bonaparte Pt (8921)			64.778S				64.067W			8M						
Jan	2.3	00	6.5	-0.5	3.9	00	283	2.0	0.52	298	16	982.9	07	1000.8	964.4	276.8
Feb	1.8	00	6.4	-2.3	3.7	00	330	0.9	0.25	331	19	984.8	01	1003.8	956.7	276.2
Mar	1.6	00	6.5	-2.1	4.5	00	300	1.7	0.39	333	20	984.3	01	1007.6	963.4	276.0
Apr	-1.7	00	3.0	-8.1	5.5	00	129	0.2	0.04	029	19	987.7	01	1016.2	950.7	272.4
May	-1.1	00	5.2	-6.1	5.6	00	359	3.7	0.67	320	25	982.3	01	1005.7	956.6	273.5
Jun	-4.1	00	1.4	-9.6	5.1	00	354	2.9	0.58	334	24	987.0	00	1022.7	956.3	270.2
Jul	-6.2	00	-0.5	-13.4	4.7	00	168	1.2	0.25	176	15	992.5	02	1017.8	962.3	267.5
Aug	-4.0	00	2.3	-10.9	4.2	00	336	2.1	0.50	334	18	1000.5	04	1020.3	974.5	269.1
Sep	-4.8	01	2.0	-14.3	6.3	01	299	2.3	0.36	333	25	987.1	01	1018.0	952.5	269.4
Oct	-3.4	03	3.7	-11.5	7.2	04	314	2.5	0.35	003	23	974.6	09	1012.1	948.4	271.6
Nov	-2.0	01	3.1	-9.4	4.5	00	026	1.5	0.33	299	22	985.1	05	1007.1	961.8	272.4
Dec	1.0	00	6.3	-2.9	5.1	00	013	1.5	0.29	024	16	986.5	00	1005.1	966.3	275.2
MEAN	-1.7				5.0		333	1.4	0.38			986.3				

	Mean Air Temp (C)	% of Mon Data Abs	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	% of Mon Data Abs	Result Wind (dir	vv)	Con	Max Wind (dir	vv)	Mean Air Press (mb)	% of Mon Data Abs	Max Air Press (mb)	Min Air Press (mb)	Potential Temp (K)
Mon																

Sky-Blu (8917) 74.792S 71.488W 1510M

	Mean Air Temp (C)	% of Mon Data Abs	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	% of Mon Data Abs	Result Wind (dir	vv)	Con	Max Wind (dir	vv)	Mean Air Press (mb)	% of Mon Data Abs	Max Air Press (mb)	Min Air Press (mb)	Potential Temp (K)
Jan	-10.9	01	1.3	-23.8	4.5	01	016	3.6	0.79	019	18	803.1	17	814.3	797.3	279.1
Feb	-15.2	01	-5.0	-29.5	4.8	00	012	3.7	0.77	004	17	805.2	00	817.4	786.7	274.5
Mar	-16.8	00	-2.8	-33.9	7.5	00	023	6.3	0.84	008	21	801.3	00	817.3	776.9	273.1
Apr	-24.6	00	-7.7	-44.6	5.8	00	358	3.2	0.55	012	20	803.9	00	827.7	775.9	264.6
May	-20.3	00	-10.2	-31.8	8.2	00	033	7.7	0.94	026	24	803.3	00	819.4	786.9	269.2
Jun	-29.8	00	-13.4	-48.7	3.5	00	042	3.0	0.84	035	17	804.0	00	828.0	785.1	259.0
Jul	-31.4	00	-10.6	-53.3	5.6	00	357	3.5	0.62	003	20	804.0	00	822.9	783.3	257.3
Aug	-22.4	00	-11.1	-49.5	8.0	00	003	7.1	0.88	347	22	808.7	00	827.5	787.0	266.4
Sep	-22.7	00	-12.3	-36.8	8.5	00	018	7.7	0.91	010	25	797.5	00	818.1	778.6	267.2
Oct	-22.4	00	-7.8	-35.9	6.9	00	028	5.7	0.83	006	24	791.5	00	805.6	774.5	268.2
Nov	-17.7	00	-8.2	-33.1	6.6	02	036	3.7	0.56	003	22	805.6	00	823.1	777.2	271.7
Dec	-11.7	00	-1.5	-22.9	5.1	00	024	4.4	0.86	002	13	805.5	00	814.1	797.5	278.1
MEAN	-20.5				6.3		020	4.8	0.78			802.8				

Dismal Is (8932) 68.087S 68.825W 10M

	Mean Air Temp (C)	% of Mon Data Abs	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	% of Mon Data Abs	Result Wind (dir	vv)	Con	Max Wind (dir	vv)	Mean Air Press (mb)	% of Mon Data Abs	Max Air Press (mb)	Min Air Press (mb)	Potential Temp (K)
Jan	1.9	06	6.6	-1.0								979.6	06	994.2	964.6	276.7
Feb	1.3	03	7.0	-3.2								983.4	04	997.7	959.1	275.8
Mar	0.7	08	5.7	-2.5								981.5	09	1001.8	959.1	275.4
Apr	-4.2	10	2.5	-11.5								989.5	12	1012.8	961.1	269.8
May	-2.1	37	1.5	-6.4								979.5	44	998.4	956.3	272.7
Jun	-6.7	37	-0.5	-13.9								984.7	41	1017.0	957.7	267.5
Jul	-14.9	36	-5.1	-24.1								989.3	35	1012.8	963.2	259.0
Aug	-8.2	05	1.0	-20.0								997.1	08	1017.0	976.3	265.1
Sep	-8.7	05	1.1	-20.2								983.2	05	1009.4	950.8	265.7
Oct	-6.5	03	2.9	-16.1								972.3	02	992.8	950.8	268.8
Nov	-3.1	02	6.5	-13.4								984.2	02	1001.8	954.9	271.3
Dec	0.5	05	7.3	-4.2								983.0	07	996.3	963.2	275.0
MEAN	-4.2											983.9				

Hugo Island (8935) 64.964S 64.670W 5M

	Mean Air Temp (C)	% of Mon Data Abs	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	% of Mon Data Abs	Result Wind (dir	vv)	Con	Max Wind (dir	vv)	Mean Air Press (mb)	% of Mon Data Abs	Max Air Press (mb)	Min Air Press (mb)	Potential Temp (K)
Jan																
Feb																
Mar																
Apr	-1.7	06	2.6	-6.7	8.7	06	091	0.7	0.08	056	27	986.1	06	1012.0	950.8	272.6
May	-0.9	00	1.9	-4.2	9.6	00	042	6.6	0.69	055	25	981.8	00	1004.5	951.8	273.7
Jun	-3.5	00	0.1	-8.8	9.3	00	035	5.1	0.55	064	29	984.2	00	1018.7	952.3	270.9
Jul	-6.1	00	-0.1	-15.1	7.9	00	235	4.0	0.51	086	23	990.4	03	1014.5	961.7	268.0
Aug	-4.6	00	-1.0	-10.5	9.4	00	037	6.0	0.64	041	25					
Sep	-5.8	00	0.8	-16.3	8.6	00	318	2.2	0.25	063	23	979.0	55	1007.0	950.6	271.8
Oct	-4.4	00	1.0	-10.8	8.3	00	329	0.9	0.11	044	25					
Nov	-2.7	00	2.0	-7.6	7.1	00	111	0.7	0.10	032	23					
Dec	-0.3	00	1.8	-3.6	8.2	00	015	3.3	0.40	060	22					

Mon	Mean Air Temp (C)	% of Mon Data Abs	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	% of Mon Data Abs	Result Wind (dir	vv)	Con	Max Wind (dir	vv)	Mean Air Press (mb)	% of Mon Data Abs	Max Air Press (mb)	Min Air Press (mb)	Potential Temp (K)
Henry (8985)			89.011S				1.025W				2755M					
Jan	-23.9	00	-14.2	-31.0	4.6	00	024	3.8	0.82	356	12	693.2	00	703.3	681.8	276.8
Feb	-38.9	00	-24.5	-47.9	5.0	00	037	4.5	0.90	347	12	690.5	00	704.2	677.3	260.5
Mar	-50.7	00	-38.9	-66.2	5.2	00	040	4.6	0.89	011	12	688.3	00	701.2	672.9	247.6
Apr	-57.5	00	-33.6	-67.8	6.9	00	056	5.8	0.85	110	13	691.0	00	704.8	681.8	239.7
May	-49.4	00	-29.4	-64.0	5.3	05	025	4.9	0.92	034	11	693.7	00	707.6	676.4	248.4
Jun	-53.1	00	-36.8	-68.8	6.4	00	034	5.7	0.89	360	12	693.7	00	715.5	677.9	244.3
Jul	-55.8	00	-38.6	-68.2	6.2	02	046	5.5	0.89	018	11	687.8	00	706.1	676.4	242.0
Aug	-59.4	00	-48.2	-68.8	6.4	05	043	5.6	0.87	011	11	686.6	00	701.1	668.2	238.0
Sep	-55.7	00	-37.9	-67.4	7.4	02	028	6.6	0.89	031	18	687.5	00	700.5	669.0	242.1
Oct	-49.3	00	-34.5	-65.5	6.7	00	028	6.2	0.93	021	13	684.7	00	695.3	673.0	249.5
Nov	-33.2	00	-22.0	-42.5	4.8	00	035	4.2	0.88	072	15	696.8	00	712.7	679.9	266.1
Dec	-22.9	00	-13.5	-27.9	3.7	00	025	3.1	0.83	010	9	693.3	00	700.5	685.7	277.9
MEAN	-45.8						036	5.0	0.88			690.6				
Nico (8924)			89.000S				89.669E				2935M					
Jan	-25.1	00	-14.1	-32.8	4.8	00	289	3.8	0.79	266	15	674.4	00	684.7	663.3	277.6
Feb	-40.4	00	-23.5	-49.9	4.9	00	312	4.2	0.86	271	10	671.1	00	683.6	659.2	260.9
Mar	-51.7	00	-38.6	-67.0	4.1	00	309	3.6	0.87	291	12	668.2	00	680.6	655.0	248.5
Apr	-60.0	00	-39.9	-72.4	5.0	00	338	3.9	0.79	013	16	670.7	00	684.4	659.9	239.0
May	-51.1	00	-31.1	-67.6	4.8	04	289	4.2	0.88	256	14	673.4	00	687.7	658.2	248.6
Jun	-54.6	00	-39.1	-71.4	5.4	05	300	4.7	0.86	273	17	673.8	00	694.7	657.8	244.6
Jul	-58.0	00	-40.9	-72.1	5.0	00	317	4.2	0.85	333	14	668.0	00	685.7	657.3	241.5
Aug	-60.5	00	-47.8	-72.2	4.9	00	308	4.2	0.85	276	13	666.1	00	679.9	649.0	238.9
Sep	-57.2	00	-38.9	-71.1	5.4	08	296	4.6	0.85	260	17	666.8	00	679.8	649.7	242.5
Oct	-49.3	00	-34.4	-67.8	4.4	06	298	4.0	0.92	345	11	664.4	00	673.7	653.4	251.7
Nov	-34.7	00	-24.4	-44.5	4.0	00	306	3.3	0.82	336	13	677.1	00	693.8	659.4	266.6
Dec	-24.6	01	-15.9	-30.9	3.4	00	292	2.7	0.82	274	9	674.1	00	681.6	666.1	278.3
MEAN	-47.3				4.7		305	3.8	0.85			670.7				
Mizuho (21359)			70.700S				44.290E				2260M					
Jan	-11.8	00	-3.6	-20.6	8.7	00	084	8.1	0.93	077	21	743.2	00	753.0	735.7	284.6
Feb	-16.1	00	-2.4	-39.8	8.9	00	086	8.5	0.96	056	30	739.4	00	752.9	723.7	280.3
Mar	-23.2	00	-4.8	-40.5	10.2	00	092	10.0	0.98	070	21	738.0	00	746.1	726.3	272.7
Apr	-32.4	00	-14.8	-43.2	10.7	00	096	10.4	0.97	107	21	738.1	00	750.9	725.9	262.6
May	-30.8	00	-2.5	-41.1	13.4	01	104	12.7	0.95	046	27	743.7	00	775.7	729.9	263.8
Jun	-25.0	00	-2.4	-41.1	12.8	06	091	12.2	0.95	069	26	743.1	00	765.8	727.3	270.1
Jul	-29.1	00	-7.4	-40.9	12.4	01	090	12.0	0.97	077	22	737.1	00	758.1	714.2	266.3
Aug	-29.8	04	-12.4	-44.5	10.9	10	092	10.7	0.97	101	20	734.4	04	751.1	719.9	265.9
Sep	-30.3	00	-9.8	-44.1	11.5	00	093	11.2	0.98	080	23	733.8	00	745.0	719.9	265.4
Oct	-25.3	00	-4.6	-40.9	10.0	00	094	9.8	0.98	083	21	735.2	00	747.3	722.6	270.6
Nov	-15.4	00	-1.0	-37.6	9.5	00	094	9.2	0.97	087	19	742.5	00	752.0	732.5	280.7
Dec	-7.9	00	-0.8	-21.0	7.2	00	083	6.9	0.96	066	16	743.9	00	757.3	734.7	288.7
MEAN	-23.1				10.5		092	10.1	0.96			739.4				

Mon	Mean Air Temp (C)	% of Mon Data Abs	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	% of Mon Data Abs	Result Wind (dir	vv)	Con	Max Wind (dir	vv)	Mean Air Press (mb)	% of Mon Data Abs	Max Air Press (mb)	Min Air Press (mb)	Potential Temp (K)
Baldrick (9116)			82.774S			13.054W				1968M						
Jan	-19.5	00	-10.6	-28.0	5.6	00	058	5.1	0.92	070	10	763.8	13	771.7	755.9	274.4
Feb	-31.4	00	-19.3	-43.7	6.4	00	067	5.9	0.93	080	12	762.5	00	777.3	744.5	261.2
Mar	-39.5	00	-22.8	-54.4	8.4	00	075	7.9	0.94	064	16	758.9	00	775.7	737.9	252.9
Apr	-43.9	00	-16.8	-55.5	9.6	00	073	9.4	0.98	093	16	760.7	00	782.4	748.6	247.9
May	-40.3	00	-19.5	-54.0	9.1	02	073	8.8	0.97	086	16	766.2	00	784.0	743.2	251.3
Jun	-44.5	00	-28.7	-55.5	9.4	00	076	9.2	0.98	069	19	763.6	00	782.6	749.3	247.0
Jul	-45.2	00	-29.8	-56.6	10.4	09	074	10.1	0.97	075	20	757.0	00	771.6	737.6	246.9
Aug	-49.9	00	-28.2	-59.0	9.7	21	077	9.2	0.95	101	16	758.4	00	773.7	740.7	241.6
Sep	-50.4	00	-25.9	-61.3	11.3	45	085	11.1	0.99	095	18	759.2	00	777.9	731.0	241.0
Oct	-37.9	00	-25.3	-53.6	9.4	46	071	9.2	0.98	072	18	756.4	00	766.2	737.9	254.8
Nov	-27.6	00	-18.9	-36.7	7.2	00	072	6.9	0.97	098	13	767.1	00	787.2	750.9	264.9
Dec	-18.8	00	-12.9	-26.4	4.2	00	051	3.3	0.80	067	10	764.9	00	771.7	756.7	274.6
MEAN	-37.4				8.4		073	7.9	0.95			761.6				
JASE2007 (30305)			75.888S			25.834E				3661M						
Jan	-29.9	00	-18.6	-43.6	4.9	00	071	4.3	0.86	090	17	615.6	00	623.9	607.2	279.5
Feb	-40.5	00	-23.9	-54.0	4.7	00	079	3.5	0.76	055	16	610.3	00	624.4	600.8	268.0
Mar	-51.1	00	-32.6	-69.0	4.1	00	075	3.1	0.76	051	17	607.8	00	618.7	601.0	256.1
Apr	-61.0	00	-46.9	-73.6	4.2	02	119	2.4	0.56	101	14	608.3	00	632.9	593.6	244.5
May	-49.4	00	-30.0	-66.8	4.6	09	062	3.2	0.71	053	18	615.7	00	636.6	600.3	257.1
Jun	-52.9	00	-32.8	-71.1	7.7	38	073	7.0	0.92	053	24	611.5	00	629.3	599.9	253.5
Jul	-57.5	00	-34.5	-74.8	7.6	47	080	7.0	0.92	055	19	606.4	00	620.8	589.7	248.8
Aug	-61.8	00	-42.6	-73.1	7.1	55	079	6.3	0.90	024	14	602.4	00	615.6	591.5	244.4
Sep	-59.9	00	-40.9	-75.5	8.1	64	088	7.7	0.95	082	20	602.2	00	613.4	587.2	246.6
Oct	-50.8	00	-29.4	-71.1	5.8	57	077	5.3	0.91	053	16	605.1	00	614.0	594.7	256.7
Nov	-39.5	00	-24.8	-58.2	4.5	10	103	3.6	0.79	080	12	615.0	00	629.4	603.7	268.6
Dec	-31.1	00	-18.6	-43.4	3.8	00	071	2.6	0.68	360	11	615.1	00	624.7	607.2	278.2
MEAN	-48.8				5.6		080	4.6	0.81			609.6				
Panda-South (30416)			82.325S			75.898E				4027M						
Jan	-31.2	00	-14.8	-42.9	4.5	00	262	3.2	0.72	308	21	590.5	00	598.3	582.8	281.3
Feb	-41.7	00	-20.9	-53.8	4.9	00	289	3.7	0.75	266	19	585.3	00	595.6	579.9	269.8
Mar	-51.3	51	-42.6	-60.2	4.4	50	253	2.6	0.59	281	12	581.1	50	590.8	572.9	259.2
Apr																
May																
Jun																
Jul																
Aug																
Sep																
Oct																
Nov	-39.4	08	-25.8	-54.0	1.2	07	280	0.9	0.77	250	6	589.6	07	599.9	575.3	271.9
Dec	-32.6	00	-24.2	-38.9	3.4	00	259	2.0	0.57	273	10	587.7	00	595.8	580.2	280.0

4.2. Three Hourly Data Summaries

   After the data are received from Service ARGOS, ten minute interval data are made available for each AWS unit. The data are calibrated for the individual station instruments with only gross error checking performed. This data set is created for those users who need fairly current information. These data are available by anonymous FTP (see Section 8). The ten minute data set for each AWS unit for the month is scanned to pick out the nearest observation within forty minutes of the UTC hours 00, 03, 06, 09, 12, 15, 18, and 21 to produce the three hourly data set. If valid data are not available within forty minutes of the three hourly time interval, then the entry is left blank to indicate missing data. The means, standard deviations, resultant wind speed and direction, the distribution of temperature, and wind speed with wind direction are determined from the three hourly observations and are presented as a monthly summary at the bottom of each page. A wind direction value of zero indicates a wind speed less than 0.50 m s^{-1}. North is indicated by a value of 360 degrees. The maximum and minimum values are taken from the complete ten minute data set, not the three hourly data set. The appropriate monthly data from the three hourly data set are used for the monthly summaries presented in Section 4.1. In the presence of sunlight the air temperatures are questionable if the wind speed is less than 1 m s^{-1}. These summaries are available by anonymous FTP (see Section 8).

5. AWS CALIBRATION

 5.1. Temperature

   The external and internal temperatures are calibrated using a 1000 ohm 0.05% resistor in place of the platinum resistance thermometers (PRT) with 1000 ohms resistance at 0°C. Because the other resistances in the temperature circuit are known only to 1%, the temperature calibration will vary from one electronic unit to another. The correction factor determined from the calibration resistor is programmed into the read-only-memories for each unit. After the correction factors have been programmed into the AWS, a calibration box with 0.1% resistors is used to check the temperature calibration. Resolution for AWS2B versions of AWS is 0.125 deg C with an accuracy of 0.25 deg C from -75.0 C to 0.0 C. For AWS using CR10X or CR1000, the PRTs used are within the same +/- 0.25C.

 5.2. Pressure

   The atmospheric pressure transducer is a Parascientific model 215A Digiquartz® pressure gauge. The transducer frequency changes from a nominal 40 kHz at zero pressure to a nominal 36 kHz at 1000 hPa. The pressure resolution is about 0.05 hPa.
   Paulin aneroid barometers calibrated against a mercury barometer of 10 mm bore are used to check the pressure gauge calibration. Comparisons are made between AWS units, a Parascientific Model 760-16B accurate to +/- 0.1 hPa, and with the mercury barometers at McMurdo Station, Antarctica. The calibrations should be within +/- 0.2 hPa.
   The reference vacuum on the older pressure transducers can degrade with time with a maximum observed 4 hPa shift to lower pressure after fifteen years. Recalibration of each pressure transducer would be desirable when each unit is serviced.

 5.3. Wind direction and Speed

   The Belfort model 123 aerovane (which is being phased out as a standard wind sensor) measures wind direction and speed. The aerovane rotates a potentiometer wiper, and the fraction of full scale of the potentiometer is measured. The wind direction is checked by positioning the aerovane to the cardinal directions relative to the boom supporting the aerovane. North or the potentiometer zero is towards the antenna on the boom and has a maximum dead zone of 3°. During the field installation, the boom is usually aligned along the north-south line as determined from the sun's azimuth, longitude, and Greenwich Mean Time. In some cases the 180° end of the boom may point in a direction other than south. At Manuela AWS site, the 180° end of the boom points up the glacier and a correction is added to the data during processing. At Byrd AWS site the wind is usually out of the north so the boom was rotated 120° and the correction added during the data processing. The wind speed is determined from the aerovane tachometer voltage output as 0.0472 volt per meter per second. The aerovane tachometers are spun at 1800 rpm with a load of 1071.5 ohms, and the output should

be 9.20 +/-0.05 vdc.

Additional wind sensors were used with AWS units for 2009. These were the R.M. Young wind monitor model 05103 and the Hydro-Tech WS-3 anemometer with the WP-3 aerovane. The Hydro-Tech system was used for measuring wind speed in the Adelie Coast area as well as Minna Bluff and Mulock AWS sites. The Hydro-Tech WS-3 is a disk rotor, 3 in. high and 12 in. overall diameter, with radial cups, and the threshold sensitivity is 3 mph. The anemometer utilizes a commercial dc tachometer generator. Output is 0 to +5 vdc (and 0 to 1 ma) over the desired full scale wind speed of 85 m/s. Accuracy is +/- 2%.

The R.M. Young monitor 05103 also used a 10,000 ohm potentiometer with a 3° dead zone so that the wind direction was recorded identically with the Belfort/Bendix aerovanes. The wind speed was from the range of 0 to 1.0 volt full scale corresponding to 50 m/s. Thus the calibration for wind speed was a nominal .195 m/s/bit for the R.M. Young with +/- 1% up to 50 m/s.

5.4. Relative Humidity

The Vaisala HMP-35A/45D humidity sensor output voltage varies linearly with relative humidity (U). The sensor is calibrated by placing it over saturated salt solutions with known relative humidities at room temperature: sodium chloride (U=75%), and lithium chloride (U=12%) are used. In addition, a dry inert gas, forced past the sensor, gives a 0% U, and the sensor output can be zeroed. Then, the gain setting can be set directly using a salt solution with a high relative humidity, such as sodium chloride. The resolution of the humidity sensor is about 1% and the drift is 2 to 3% per year in the field. The relative humidity data are not included on the summary pages but are included in the 3 hourly data sets.

5.5. Vertical Air Temperature Difference

Two junction thermocouples are used to measure the air temperature difference between 3 m and 0.5 m on the tower. The output is about 78 microvolts for 1^oC temperature difference between the junctions at 0.0^oC, dropping to 60 microvolts at -80^oC. Zero output is adjusted to 0.4 volts, so that 0 to 1 volt corresponds to a -6^oC to $+9^o$C range of air temperature differences between 3 m and 0.5 m. The resolution is 0.05^oC. Calibration of the individual systems is done by applying known voltages to the amplifier input. The vertical temperature difference data are not included on the summary pages but are included in the 3 hourly data sets.

In addition some stations will have an additional platinum resistance thermometer (PRT) at a nominal 50 cm height above the snow surface.   The temperature difference with the standard Air Temperature PRT is output on the AWS2B versions of AWS while that actual ""lower temperature" is output on AWS using CR10X or CR1000 dataloggers. For AWS2B the matched PRT's will yield a +/- 0.25 degree C accuracy for the temperature difference.

5.6 Acoustic Depth Gauge

Acoustic depth gauges (ADG) were added to several stations as part of a study on precipitation. The gauges measure the distance to the surface with sonar pulses, with any change in distance indicating accumulation or depletion at the snow surface. The ADG used on the stations is a Campbell Scientific #SR50 and its successor the SR50A, with a resolution of 0.0001 m and an accuracy of +/- 0.01 m. The data was either transmitted real time or stored on a data logger onboard the station.

6. AWS OPERATIONS SUMMARY FOR 2009

6.1. AWS Performance

Fifty-five AWS units were operational for the 2009 year. Based on the installation months, the AWS units delivered 94% of the temperature dat a, 91% of the pressure data and 80% of the wind data during 2009. Complete data sets of temperature, pressure, and wind data were received from 21 AWS units and 45 AWS units operated for the installed period. Ten AWS units were not received for one month or more during the year or stopped during the year. Some of the stations were not received during the winter months due to low battery voltage.

The wind system has the poorest performance. If the wind speed is zero or the wind direction is constant for

extended periods (days to months) then the data is considered invalid. The reason for this behavior is not known but is believed to be due to the buildup of rime or ice on the wind system. This usually occurs in the winter season and at several AWS sites. The wind speed is usually quite low or zero when the wind direction is constant.

Site	Performance
D-10	OK.
D-47	Station stopped transmitting 18 January and began again 10 February. No relative humidity or delta-T sensors.
D-85	Station stopped transmitting 21 January and began again 01 February. Some missing transmissions in July and August.
Dome C II	OK. Some missing transmissions in July.
Cape Denison	Station transmitted erratically in March, May, June, and July. Aerovane failed 13 May so pressure not corrected for high wind speed conditions after that time. Station stopped transmitting 25 July and began again 18 December.
E-66	Station transmitted erratically until November.
Byrd	Aerovane "frozen" most of March through December.
Mount Siple	Site has a "dog house" AWS without wind speed and direction. Station transmitted erratically in April and stopped 26 April. Station started transmitting erratically again in September. Batteries are old and don't hold a charge through the winter.
Theresa	Station stopped transmitting 18 July and resumed 11 August.
Elizabeth	Aerovane "frozen" from May through the first part of November.
Brianna	Aerovane "frozen" from June through the first part of November. Pressure not functioning properly from October through the first part of November.
Harry	The aerovane was "frozen" occasionally from June through November.
Erin	The station stopped transmitting 12 August and resumed erratically transmitting in September.
Siple Dome	Aerovane "frozen" occasionally from May through October. Delta-T sensor not installed. Problems with temperature sensor.
Swithinbank	Pressure removed due to calibration problems.
Kominko-Slade	New station installed 27 January. Aerovane occasionally frozen May, June, September, and October and all of July and August.
Marble Point	OK.
Ferrell	OK.
Pegasus North	Station was removed 7 January. Replacement station put in on 25 January and worked only one day. Station replace again on 5 February, but problems appeared with pressure readings and wind measurements. Station replaced again on 7 September. Pressure problems were corrected, but the aerovane clamp was loose so the wind direction is questionable.
Pegasus South	Station was removed 7 January.
Minna Bluff	Aerovane "frozen" last half of April.
Linda	Station repaired 22 January.
Willie Field	Station removed 12 January. New station installed 5 February. Pressure calibration is incorrect because a different sensor was installed. The calibrations will have to be redone and the data rerun to restore the pressure measurements. The aerovane clamp was loose so the wind direction was deemed incorrect and removed from June through December.
Windless Bight	Occasional missing transmissions from May through September.
Cape Bird	OK.
Laurie II	Aerovane occasionally "frozen" in October.
Lorne	Aerovane occasionally "frozen" from April through October.
Mulock	Aerovane occasionally "frozen" in April. Station stopped 4 July.
Mt. Fleming	OK.
Possession Island	Site has a "dog house" AWS without wind speed and direction. Occasional missing transmission in July through September due to low battery voltage.
Manuela	Aerovane broken last half of April through December.

Marilyn	Aerovane occasionally "frozen" January and February and not functioning March through December.
Schwerdtfeger	Pressure jumps in June.
Gill	Relative humidity sensor not functioning. Aerovane "frozen" occasionally in April and May, July and August, and October.
Lettau	Station replaced 2 February.
Elaine	Station replaced 28 January. Station stopped transmitting 3 February.
Vito	Aerovane occasionally "frozen" June and July.
Emilia	Aerovane occasionally "frozen" May through September. Problems with the temperature sensor in January.
Carolyn	Transmissions erratic in May, June, August, and September.
Mary	Transmissions erratic in May through September.
Eric	Pressure data missing occasionally May through September.
Margaret	Aerovane occasionally "frozen" April through September.
Larsen Ice Shelf	OK.
Butler Island	OK.
Fossil Bluff	Some gaps in transmission in July and November.
Limbert	Aerovane not functioning June through most of September.
Bonaparte Point	Water temperature sensor not functioning after July. Pressure erratic in January.
Sky Blu	OK.
Dismal Island	Aerovane not functioning properly. Erratic transmissions from March through July.
Hugo Island	New station installed 2 February. Pressure sensor not functioning properly from August through December.
Henry	OK.
Nico	Aerovane occasionally "frozen" in September and October.
Mizuho	No relative humidity or delta-T sensors. A few gaps in transmission during August. Aerovane occasionally "frozen" in June and August.
Baldrick	Some pressure errors in January. Aerovane occasionally "frozen" in July through October.
JASE2007	Aerovane occasionally "frozen" in May through November.
PANDA-South	Transmitted erratically March through May. Station stopped transmitting 1 May and resumed 29 October.

6.2. AWS Antarctic Field Activities

The field team for the second half of the 2008-2009 field season was composed of Matthew Lazzara and Shelley Knuth from the University of Wisconsin-Madison and John Cassano and Melissa Richards from the University of Colorado-Boulder along with personnel from McMurdo Station, Ken Borek Twin Otter Pilots, and personnel from the WAIS Divide field camp. Assistance is also provided by personnel from the French Antarctic Program (Institut Polaire Francais – Paul Emile Victor, IPEV), the British Antarctic Survey (BAS), the Japanese Antarctic Research Expedition (JARE) and the Chinese National Antarctic Research Expedition (CHINARE).

McMurdo area

On 7 January Pegasus South (8937) was removed. The next day 8 January the Iridium AWS at Willie Field was removed. Pegasus North was visited on 11 January and AWS unit 21357 was replaced with 21355. This unit only worked for three days. Willie Field was visited on the same day, and AWS unit 21364 was removed. On 16 January members of the field team visited Linda site (21362). One of the prongs of the antenna was broken, so a return trip had to be made on 21 January to replace the antenna. Ferrell site (8929) was also visited on 16 January to download the ADG data stored on the datalogger.

Pegasus North was revisited on 5 February, and AWS ID 8923 was installed. The pressure and wind speed did not work on this unit. Willie Field was also visited on 5 February, and ID 30477 was installed. The pressure will have to be recalibrated because a different pressure sensor was installed than the one the unit was calibrated for. Pegasus North was again visited on 7 September at the beginning of the 2009-2010 field season, and AWS

ID 8937 was installed.

Ross Ice Shelf

Marilyn site (8934) was visited on 23 January. The site was buried so a new tower section was added. Carolyn site (8722) was also visited on this trip, and the electronics box was moved higher on the tower. On 24 January Vito site (8695) was visited. Another tower section was added, and the shaft holding the RM Young windbird was found to be loose. The clamp was tightened. Emilia (8980) was also visited and a tower section added. Elaine was visited on 28 January, and AWS ID 21357 was installed. A new tower section was also added. Lettau (8928) was visited on 2 February, and the electronics box was moved higher on the tower.

West Antarctica

Shelley Knuth and Melissa Richards went to the WAIS Divide camp in West Antarctica. They replaced the Kominko-Slade AWS unit with ID 21364.

7. GLOBAL TELECOMMUNICATIONS SYSTEM

   The data from 28 Antarctic AWS units were entered into the Global Telecommunications System (GTS) during 2009. The data are collected by Service ARGOS. As soon as the data are received, Service ARGOS processes them and sends them on to the National Weather Service which distributes the data to the GTS.The data headers are:

   SMAA14 KARS YYGGgg
   SIAA14 KARS YYGGgg
   SNAA14 KARS YYGGgg

where S indicates surface, M is main observations (at 00, 06, 12, and 18 UT), I is intermediate observations (at 03, 09, 15, and 21 UT), and N is any other time. AA14 is for Antarctica, and KARS stands for the Largo receiving center (backup is LFPW for the center in Toulouse, France). YY indicates the day in the month, GG is the hour, and gg is the minutes. Table 3.1 contains the WMO identification number used by the GTS grouped according to their purpose and proximity where possible. The data for the stations that do not have a WMO number are sent out on the GTS as Synoptic Mobil messages, which are created by the British Antarctic Survey.

   The University of Wisconsin-Madison is responsible for obtaining WMO numbers for AWS sites and for providing Service ARGOS with calibration information for processing the data. The main reason for getting the AWS data into the GTS is to make sure that the data are available in near real time for all organizations operating in Antarctica and for numerical weather prediction efforts.

8. DATA AVAILABILITY

a) On-Line. The data from our Automatic Weather Stations are available by anonymous FTP and Web site:

ftp://amrc.ssec.wisc.edu
http://amrc.ssec.wisc.edu

The login is "anonymous" (do not use the quotation marks), and the password is your email address. Once you have logged in, change to the pub/aws subdirectory. A listing of our station locations, names, and ARGOS ID numbers is located in the file "biglist" in this subdirectory. It is meant to serve as a guide to our stations as their ID numbers sometimes change. A complete guide for navigating the site may be found in the file "readme.faq".

b) 3 hourly Observations. Our three-hourly interval data for Antarctica in ASCII text format are contained in the year subdirectories of pub/aws/antrdr. The data have been corrected, i.e. an effort has been made to remove the bad data points. These data take longer to process, so the data for the most recent month are not available in this format. Within each of the year subdirectories of pub/aws/antrdr, there are text files named

"3hrlist??" (where ?? indicates the last two digits of the year). These files list what station's data are contained in which files. The files "readme.updates?" in pub/aws/antrdr contain information on updates and/or corrections to the data, and the file "readme.3format" contains file name construction information and format of the three-hourly data.

c) **Monthly Summary.** The directory pub/aws/summary/monthly contains ASCII printable text files of the paper data summary sheets. The format of the files can be found in the file "readme.sum" while updates and corrections to the data are located in "readme.sumupdates". The data are located in year subdirectories of pub/aws/summary/monthly.

d) **Ten Minute Observations.** For those users who need more current information, we have made available 10 minute interval data in ASCII text format for each station. These data are located in year subdirectories of pub/aws/10min/rdr. The data have been calibrated for the individual station instruments, but no other corrections have been made. The year subdirectories also contain a text file named "namelist??" (where ?? indicates the last two digits of the year in question). These files list what station's data are contained in which files.

    Several important readme files are located in pub/aws/10min/rdr. The file "readme.format" contains information on filename construction of the data, as well as well as file content and is a must for those unfamiliar with the data. The files "readme.updates?" contain important information on changes/additions to the data.

e) **New Formats.** In addition, we have begun to make available data for each station that has been quality controlled. The datasets are in 10 minute, 1 hour and 3 hour intervals. They can be found at pub/aws/q10, pub/aws/q1h, and pub/aws/q3h. Readme files in each directory will give the file formats. At this point, data are available for September, 2001 through February, 2003 and January, 2009 through June, 2010 for all stations. Selected stations are available for some of the other years.

f) **Questions.** Our site is available 24 hours a day, 7 days a week. If you have questions or problems, send email to amrc@ssec.wisc.edu. We can also be reached by phone at (608) 265-2209 or (608) 262-0436 or fax at (608) 262-5947.

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