

Antarctic Automatic Weather Station Data  
for the calendar year  
1986

by

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Cover: Locations of the Automatic Weather Stations operating in the Antarctic during 1986.

## 1. INTRODUCTION

The automatic weather station (AWS) networks provide surface weather observations for specific meteorological experiments on the Antarctic Continent. The AWS measures air temperature, wind speed, and wind direction, at nominal heights of three meters, and air pressure at the electronics enclosure, usually at a height of 1.5 meters above the surface. In addition, some of the AWS units measure the vertical air temperature difference between 3 and 0.5 meters above the surface and relative humidity at three meters above the surface. The heights above the surface are nominal since snow accumulates after installation.

The data transmitted by the AWS are received and stored by the ARGOS data collection system on the NOAA series of polar orbiting satellites. The ARGOS data are retransmitted by the satellite in the high resolution picture transmission and the beacon transmitter. The data are received and processed to scientific units by a local user terminal (LUT) at McMurdo, Antarctica, and are available immediately to local users; for example, the McMurdo Meteorology Office in support of air and field operations on the continent. The complete data set on magnetic tape is received biweekly at Madison, Wisconsin from Service Argos, Toulouse, France for distribution to the users.

## 2. AWS IDENTIFICATION AND LOCATION

Many areas where AWS units have been deployed, such as the Ross Ice Shelf, are nearly featureless. Site names were introduced to help indicate a geographical location. The site location is defined by the latitude and longitude of the site and may not be related to any physical features in the area. Table 1 lists the site name, latitude, longitude, elevation, and start date for the site. Figure 1 shows the locations of the AWS units in Antarctica.

Service Argos assigns each AWS platform a platform number (ID). The ID is used to identify the data on the magnetic tape, and the processed data distributed to the users. AWS units are sometimes moved from one location to another, as a result, the ID at a given site may change from year to year. Table 2 lists the site name and the Argos platform number with the start and stop date for the platform number.

Site locations are determined by sunshots, angles to various geographical features, aircraft data, ice breaker data, and by the platform location system of Service Argos. The AWS elevation is obtained by barometry and should be correct to within +/- 5 meters.

Table 1. AWS site name, geographic location, and site start date for 1986.

Site	Lat. (deg)	Long. (deg)	Elev. (m)	Site Start Date
<u>Purpose: Katabatic wind flow; G. Wendler, Univ. of Alaska.</u>				
D-10	66.70 S	139.80 E	240	08 Jan 80
D-47	67.38 S	138.72 E	1560	24 Jan 82
D-57	68.18 S	137.52 E	2105	16 Jan 81
D-80	70.02 S	134.72 E	2500	14 Jan 83
Dome C	74.50 S	123.00 E	3280	05 Feb 80
<u>Purpose: Climatic record; C. Stearns, Univ of Wisconsin.</u>				
Byrd Stat.	80.00 S	120.00 W	1530	05 Feb 80
Siple Stat.#	75.90 S	84.00 W	1054	01 Jan 82
<u>Purpose: NSFA Support network.</u>				
Marble Point	77.43 S	163.75 E	120	05 Feb 80
Ferrell	78.02 S	170.80 E	45	10 Dec 80
Whitlock	76.24 S	168.70 E	275	23 Jan 82
<u>Purpose: Ross Ice Shelf network; C Stearns, Univ of Wisconsin.</u>				
Marilyn#	79.98 S	165.03 E	75	16 Jan 84
Schwerdt.	79.94 S	169.83 E	60	24 Jan 85
Gill	80.00 S	179.00 W	55	24 Jan 85
Bowers*	85.20 S	163.40 E	2090	11 Jan 86
Elaine*	83.15 S	174.46 E	60	28 Jan 86
Lettau*	82.59 S	174.27 W	55	29 Jan 86
<u>Purpose: Oceanographic support; S. Jacobs, Lamont-Doherty.</u>				
Manuela	74.92 S	163.60 E	80	06 Feb 84
Martha	78.31 S	172.50 W	40	01 Feb 84
<u>Purpose: Barrier Wind, Antarctic Peninsula; C. Stearns, U of W.</u>				
Larsen Ice*	66.97 S	60.55 W	17	01 Jan 86
Dolleman Is.*	70.58 S	60.92 W	396	18 Feb 86
Butler Is.*	72.20 S	60.34 W	91	01 Mar 86
Uranus Gl. *	71.43 S	68.93 W	780	06 Mar 86
<u>Purpose: South Pole station influence, A. Hogan, SUNY.</u>				
Clean Air*	90.00 S		2835	29 Jan 86
Patrick*	89.88 S	45.00 E	2835	28 Jan 86
Allison*	89.88 S	60.00 W	2835	28 Jan 86

\* New sites started in AS 1985-1986 field season

# AWS installed but did not operate during 1986.

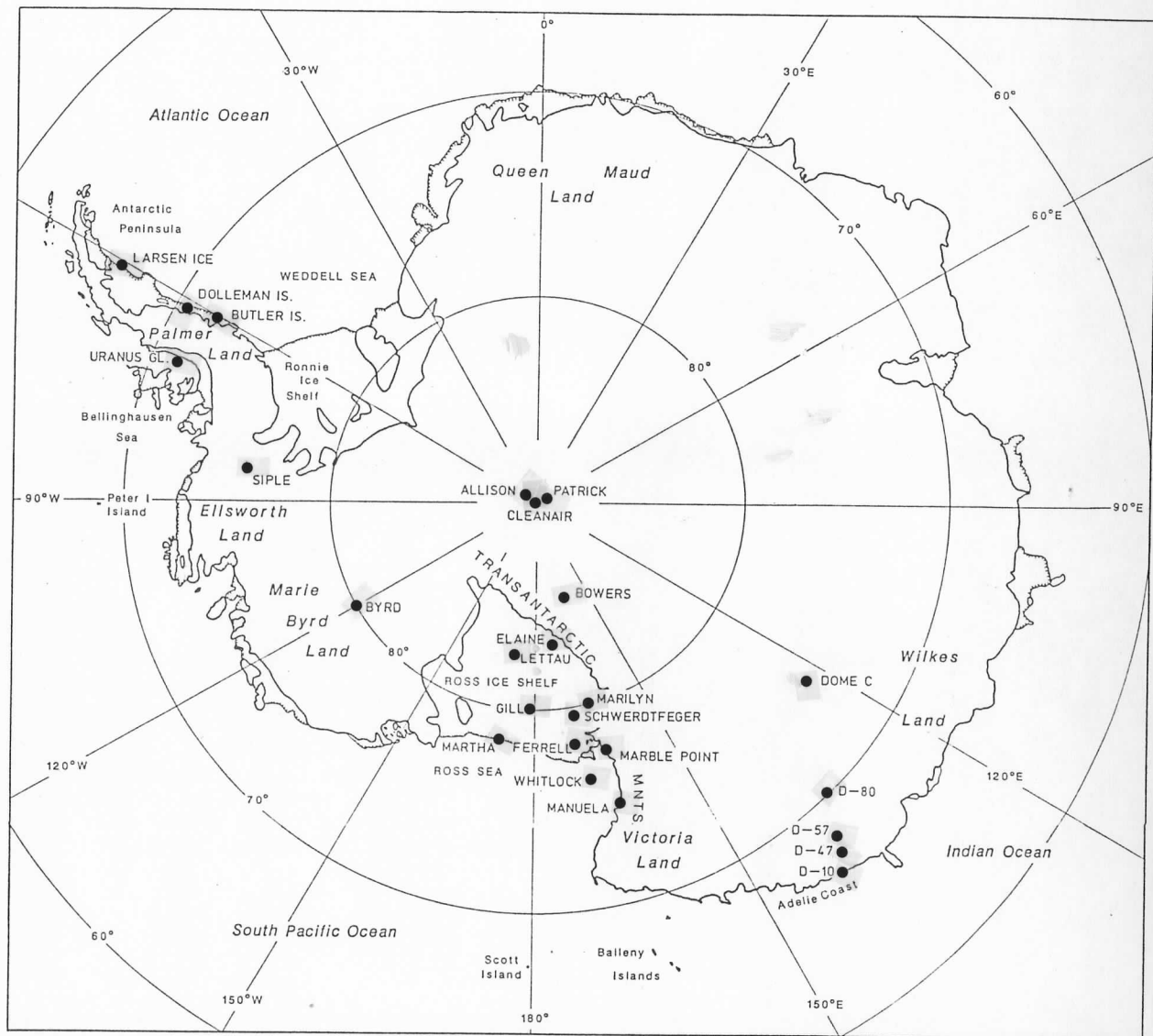


Figure 1. Locations of AWS units in Antarctica for 1986. The AWS is identified by the site name.

Table 2. AWS site name and Argos platform number (ID) for 1986.

Site	AWS ID	Start Date	Stop Date	Action
D-10	8901	12 Dec 85	25 Sep 86	Replaced Unit
	8912	04 Nov 86		
D-47	8914	27 Nov 85		
D-57	8916	29 Nov 85		
D-80	8919	12 Dec 85		
Dome C	8904	13 Jan 84		
Byrd Stat.	8903	05 Feb 80		
Siple Stat.	8910	Not operating		
Marble Point	8906	31 Jan 85		
Manning	8905	25 Nov 80	15 Jan 86	Site Terminated
Tiffany	8908	23 Jan 85	23 Jan 86	Site Terminated
Laurie	8911	26 Jan 85	12 Jan 86	Site Terminated
Meeley	8915	16 Jan 85	26 Jan 86	Site Terminated
Katie	8918	09 Feb 83	05 Jan 86	Site Terminated
Ferrell	8907	10 Dec 80		
Whitlock	8913	23 Jan 82		
Marilyn	8921	16 Jan 84		
Schwerdt.	8924	24 Jan 85		
Gill	8925	24 Jan 85		
Bowers	8909	11 Jan 86		
Elaine	8911	28 Jan 86		
Lettau	8908	29 Jan 86		
Manuela	8922	29 Jan 85		
Martha	8923	01 Feb 84		
Larsen Ice	8912	21 Oct 85	01 Jan 86	Replaced Unit
	8926	01 Jan 86		
Dolleman Is.	8917	18 Feb 86		
Butler Is.	8902	01 Mar 86		
Uranus Gl.	8920	06 Mar 86		
Clean Air	8918	29 Jan 86		
Patrick	8905	28 Jan 86		
Allison	8900	28 Jan 86		

AWS Sites terminated in 1986 are: Katie, Laurie, Manning, Tiffany, and Meeley.

### 3. AWS OPERATIONS SUMMARY FOR 1986

Problems with AWS units which resulted in lost data during 1986.

<u>Station ID</u>	<u>Site</u>	<u>Stop Date</u>	<u>Problem</u>
8900B	Allison	23 June 86	Unit stopped because of low battery voltage due to an incorrect connection in the battery charging circuit.
8901B	D-10	25 Sep 86	Corrosion on the interface board.
8907B	Ferrell		Bearings failed in the aero-vane wind speed tachometer. Remaining data received.
8909B	Bowers	29 Mar 86	Batteries didn't charge. Started 10 Aug 86, then stopped 25 Aug 86.
8913	Whitlock		From July to October the wind speed and direction were not functioning.
8914	D-47	27 Aug 86	Transmitter failed probably due to the electrostatic charge due to blowing snow. Started 21 Nov 86.
8916	D-57		Transmitter failed. No data June to October.
8917	Dolleman Is.		Wind speed and direction missing July to December.
8918	Clean Air		Low batteries during September.
8922	Manuela		Wind speed and direction missing January to December.
8923	Martha		Intermittent data.



#### 4. AWS DATA SUMMARIES

Service Argos provides the AWS data on magnetic tape at bimonthly intervals . The tapes contain all the data received by the Argos system including duplicate and erroneous transmissions. Duplicate and invalid data are eliminated, then the data are converted to scientific units for the monthly data set. Data are selected at three hourly intervals, plus or minus one hour, to produce a one page summary for each AWS unit month. If valid data are not available within the time range, then an X is entered to indicate missing data. If the wind speed is less than 0.2 m/s, the wind direction is zero. North is indicated by 360 deg.

##### 4.1. Annual Data Summaries

The annual summaries consist of the monthly means and extremes for the year 1986 for which more than 25% of the three hourly observations were available. The summaries are produced using the monthly means, maximums, and minimums from the monthly data summaries in 4.2. If 12 months of data are available, then the means and the resultant values for the year are presented. The data are presented in the same order as the sites listed in Table 1.

<u>Item</u>	<u>Data</u>
Mean air temperature, deg C.	Mean value for each month.
Maximum monthly air temperature, deg C.	Maximum value for each month.
Minimum monthly air temperature, deg C.	Minimum value for each month.
Mean wind speed, m/s.	Mean wind speed for the month.
Resultant wind speed.	Resultant speed and direction. for the month.
Constancy	Monthly ratio of the resultant to the mean wind speed.
Maximum wind speed.	Maximum wind speed for the month.
Air pressure, mb.	Mean value for the month.
Maximum air pressure, mb.	Maximum value for each month.
Minimum air pressure, mb.	Minimum value for each month.



1986 ANNUAL DATA SUMMARY

Mon	Mean Air Temp (C)	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	Resultant Wind (dir/vv)	Con	Max Wind Speed (dir/vv)	Mean Air Press (mb)	Max Air Press (mb)	Min Air Press (mb)
D-10	(8901 Jan. - Sept.) (8912 Nov. & Dec.)			66.7 S	139.8 E	240 M				
Jan	-3.4	11.0	-12.6	5.7	142/4.8	.84	127/19	956.0	968.2	942.9
Feb	-4.4	4.5	-11.7	9.6	142/9.2	.95	135/26	966.1	981.6	948.4
Mar	-8.9	-1.9	-17.9	11.4	152/10.4	.91	147/32	954.2	970.3	921.3
Apr	-15.8	-7.9	-24.5	13.8	158/13.2	.96	158/30	946.1	962.4	920.8
May	-19.0	-11.2	-27.4	9.9	157/9.3	.95	151/26	956.8	980.3	934.5
Jun	-18.6	-10.2	-28.5	11.1	158/10.5	.95	168/37	950.5	970.3	926.1
Jul	-19.2	-3.1	-30.9	10.2	154/9.2	.90	144/25	950.5	971.1	927.6
Aug	-15.8	-4.7	-26.9	8.9	149/7.8	.87	153/28	954.5	972.0	930.9
Sep	-17.6	-8.0	-30.6	7.6	151/7.0	.92	153/29	944.4	968.7	915.6
Oct										
Nov	-8.6	6.6	-21.2	6.8	145/4.5	.66	xxx/17	951.0	962.8	935.0
Dec	-4.1	10.2	-11.9	5.9	140/5.2	.89	181/24	952.5	968.7	941.7
D-47	(8914)			67.4 S	138.7 E	1560 M				
Jan	-14.0	5.7	-27.1	7.4	135/6.6	.88	118/21	812.1	824.1	799.2
Feb	-14.6	-7.7	-22.4	12.4	141/11.9	.96	112/25	821.8	835.0	809.6
Mar	-20.7	-10.2	-31.4	12.4	148/11.1	.90	139/26	809.6	823.4	783.4
Apr	-27.9	-14.4	-40.4	12.4	151/9.3	.75	126/29	802.3	815.7	783.9
May	-31.8	-22.6	-41.4	12.1	151/8.1	.81	153/22	806.6	827.6	789.4
Jun	-32.9	-22.1	-41.2	11.5	157/11.0	.96	184/25	796.2	819.6	776.3
Jul										
Aug										
Sep										
Oct										
Nov	-18.3	-10.4	-26.1	7.8			xxx/14	813.4	820.0	807.0
Dec	-14.9	-4.6	-23.5	8.6			xxx/19	813.0	825.9	803.6
D-57	(8916)			68.2 S	137.5 E	2105 M				
Jan	-18.1	-3.2	-32.1	6.8	125/5.9	.87	099/21	756.6	767.4	744.0
Feb	-18.4	-10.2	-27.6	10.5	131/10.0	.94	127/22	766.7	777.5	755.9
Mar	-26.1	-17.7	-39.4	10.1	136/9.8	.97	123/22	758.5	767.8	744.8
Apr	-34.2	-22.9	-49.7	10.6	146/9.7	.91	099/25	746.1	760.7	730.0
May	-39.0	-23.2	-49.9	11.0	151/10.4	.95	167/20	749.7	770.1	734.6
Jun										
Jul										
Aug										
Sep										
Oct										
Nov	-22.7	-14.9	-31.1	6.9	166/5.5	.80	136/13	754.7	760.1	748.6
Dec	-19.3	-8.1	-29.2	7.7	133/7.3	.95	118/17	754.6	766.2	746.5

Mon	Mean Air Temp (C)	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	Resultant Wind (dir/vv)	Con	Max Wind Speed (dir/vv)	Mean Air Press (mb)	Max Air Press (mb)	Min Air Press (mb)
D-80 (8919)				70.0 S	134.7 E	2500 M				
Jan	-25.1	-11.7	-43.0	4.6	147/3.7	.80	112/15	718.0	727.1	706.0
Feb	-27.6	-15.9	-40.9	6.9	147/6.1	.89	120/16	729.6	738.2	721.0
Mar	-37.0	-20.6	-52.0	6.7	155/5.4	.81	307/21	716.5	729.3	695.9
Apr	-45.9	-26.1	-60.0	6.5	168/5.9	.90	133/17	708.8	719.8	695.3
May	-48.7	-35.6	-58.9	8.1	163/7.7	.95	126/18	712.7	730.0	698.2
Jun	-51.8	-36.4	-64.9	7.7	168/7.5	.97	161/22	708.2	726.7	687.2
Jul	-49.0	-17.7	-65.9	7.4	170/5.6	.76	149/21	706.1	724.8	686.0
Aug	-46.1	-27.9	-63.5	6.3	161/4.9	.79	142/21	710.2	727.3	693.5
Sep	-45.8	-29.1	-57.9	6.6	164/6.0	.91	129/16	701.2	720.7	685.1
Oct	-39.1	-18.0	-58.4	6.7	160/4.8	.72	111/18	707.3	728.5	689.9
Nov	-34.2	-17.4	-50.1	5.2	165/4.2	.79	070/13	709.7	719.2	688.4
Dec	-26.6	-13.6	-36.9	4.8	147/4.2	.87	120/12	716.8	726.9	709.4
Mean	-39.7			6.5	147/5.4	.85		712.1		
Dome C (8904)				74.5 S	123.0 E	3280 M				
Jan	-29.9	-16.0	-47.5	2.3	177/1.5	.65	159/11	651.6	662.3	639.3
Feb	-35.4	-15.9	-49.9	2.9	214/1.7	.59	201/08	662.5	673.2	648.6
Mar	-50.6	-30.1	-66.6	2.5	257/0.4	.15	319/10	647.2	662.8	629.8
Apr	-60.9	-42.9	-73.9	2.6	219/1.4	.54	198/10	640.5	649.5	626.9
May	-60.6	-39.4	-72.9	4.1	177/2.9	.70	143/13	647.5	659.1	629.2
Jun	-63.1	-38.5	-81.9	3.1	175/1.1	.36	201/13	640.8	658.9	623.5
Jul	-59.3	-31.9	-79.2	3.1	221/0.8	.25	203/14	638.0	656.3	619.2
Aug	-62.8	-39.7	-77.9	2.0	242/0.7	.36	263/11	640.6	657.3	622.2
Sep	-57.4	-40.1	-77.4	2.4	207/1.0	.39	180/13	634.3	650.8	621.8
Oct	-49.7	-29.1	-72.5	3.3	209/1.4	.42	087/16	640.3	658.8	628.0
Nov	-39.2	-17.5	-56.4	3.2	224/2.0	.62	191/10	642.4	649.0	623.7
Dec	-29.5	-18.2	-44.1	1.9	193/0.9	.50	250/08	650.9	660.7	645.5
Mean	-49.9			2.8	193/1.2	.46		644.7		
Byrd (8903)				80.0 S	120.0 W	1530 M				
Jan	-14.8	-6.5	-23.5	5.4	010/4.8	.90	020/13	816.7	826.3	808.6
Feb	-19.7	-9.1	-32.1	7.3	024/6.9	.95	028/15	819.7	828.2	812.1
Mar	-27.8	-12.2	-50.4	7.1	011/6.4	.90	042/21	814.3	833.6	778.0
Apr	-27.7	-15.4	-48.2	8.6	020/7.6	.89	023/21	806.7	823.1	783.3
May	-27.0	-12.9	-43.2	6.8	346/5.8	.86	018/24	819.6	837.2	788.9
Jun	-36.8	-14.6	-62.0	6.2	360/4.6	.74	269/18	812.7	827.9	792.9
Jul	-36.4	-11.2	-60.2	8.4	013/6.9	.81	014/23	801.2	825.4	775.1
Aug	-40.6	-17.0	-59.5	7.8	007/6.7	.86	031/24	799.7	823.2	778.0
Sep	-44.6	-26.7	-62.0	5.7	360/5.4	.95	004/20	793.9	813.2	779.4
Oct	-29.7	-11.7	-50.4	8.5	017/7.7	.90	028/27	798.3	811.7	776.4
Nov	-20.8	-5.1	-36.0	5.7	002/4.7	.82	027/15	805.9	819.8	786.4
Dec	-14.2	-3.2	-25.6	4.8	009/4.0	.84	359/17	812.2	825.3	803.7
Mean	-28.3			6.9	009/5.9	.87		808.4		

Mon	Mean Air Temp (C)	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	Resultant Wind (dir/vv)	Con	Max Wind Speed (dir/vv)	Mean Air Press (mb)	Max Air Press (mb)	Min Air Press (mb)
Marble Point (8906)				77.4 S	163.8 E	120 M				
Jan	-3.8	3.8	-9.7	2.9	081/0.7	.23	184/10	979.5	989.9	971.0
Feb	-6.3	-1.0	-14.1	3.4	170/2.1	.63	135/15	985.5	995.9	972.1
Mar	-15.5	-1.3	-28.5	4.9	182/3.7	.75	217/23	983.1	999.5	954.9
Apr	-19.8	-7.1	-33.4	3.7	200/2.3	.61	216/22	973.2	993.5	955.3
May	-18.2	-6.6	-28.5	7.4	168/5.9	.80	136/32	983.8	1003.3	956.9
Jun	-22.9	-5.7	-37.4	4.8	200/3.1	.64	237/37	982.9	1005.1	961.4
Jul	-25.0	-10.9	-34.1	3.7	199/2.2	.58	180/16	972.8	990.6	946.0
Aug	-30.1	-16.2	-39.9	2.8	206/1.4	.49	267/16	975.4	994.4	940.2
Sep	-32.0	-17.5	-40.9	2.9	183/2.1	.72	348/15	970.6	990.6	948.4
Oct	-18.5	-8.2	-36.7	3.5	186/2.1	.59	171/15	965.6	992.9	947.2
Nov	-10.5	-2.6	-20.9	3.7	163/1.7	.47	130/18	967.5	980.8	947.9
Dec	-3.5	3.0	-10.9	3.5	137/1.9	.55	116/14	973.7	988.4	956.0
Mean	-17.2			3.9	137/2.3	.59		976.1		
Ferrell (8907)				78.0 S	170.8 E	45 M				
Jan	-8.7	-1.5	-16.0	2.8	204/2.5	.91	203/13	984.0	987.8	978.7
Feb	-13.8	-3.8	-25.6	4.2	212/3.5	.84	212/15	993.5	1004.6	978.6
Mar	-23.0	-5.5	-44.0	5.2	204/4.8	.92	210/21	991.8	1008.5	961.0
Apr	-28.5	-11.2	-51.0	5.1	209/4.5	.88	216/19	981.5	1003.9	961.5
May	-24.1	-13.0	-38.2	9.1	206/8.9	.98	201/24	992.3	1011.2	967.1
Jun	-31.3	-12.7	-51.0	4.0	207/3.9	.98	213/27	991.9	1013.5	969.8
Jul	-35.1	-12.6	-51.1					981.3	999.7	949.1
Aug	-41.6	-23.9	-54.1					984.4	1002.9	949.7
Sep	-41.9	-21.9	-54.9					979.6	999.4	952.3
Oct	-26.0	-13.7	-47.6					974.1	1001.5	956.0
Nov	-15.1	0.1	-31.1					975.9	988.5	957.1
Dec	-8.0	6.6	-17.4					981.7	996.2	964.7
Mean	-24.8							984.3		
Whitlock (8913)				76.2 S	168.7 E	275 M				
Jan	-4.9	1.7	-8.1	3.4	277/0.2	.05	134/10	958.2	969.2	949.2
Feb	-7.2	3.1	-12.0	4.3	301/0.8	.19	134/15	963.5	974.5	950.3
Mar	-14.4	-5.5	-27.1	5.5	264/0.8	.15	286/18	959.7	976.4	932.5
Apr	-21.3	-10.0	-34.7	5.0	278/2.1	.42	299/19	949.7	971.0	930.4
May	-18.9	-9.2	-30.7	6.9	165/4.5	.65	160/33	958.1	978.2	932.7
Jun	-24.2	-9.5	-38.2	1.6	297/0.4	.23	170/29	958.3	978.7	935.6
Jul	-26.0	-16.1	-35.0					948.6	964.7	919.4
Aug	-29.4	-16.7	-37.0					951.2	970.9	912.9
Sep	-30.0	-17.1	-39.7					945.7	965.1	923.1
Oct	-19.3	-8.1	-35.6	5.5	328/0.4	.07	253/15	941.7	969.9	925.2
Nov	-11.7	-2.9	-21.5	3.9	230/0.3	.08	327/15	944.2	957.5	926.6
Dec	-5.6	2.4	-12.4	3.7	180/0.3	.09	178/15	952.0	966.9	936.4
Mean	-17.7							952.6		

Mon	Mean Air Temp (C)	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	Resultant Wind (dir/vv)	Con	Max Wind Speed (dir/vv)	Mean Air Press (mb)	Max Air Press (mb)	Min Air Press (mb)
Schwerdtfeger (8924)				79.6 S	169.5 E	60 M				
Jan	-7.8	-1.1	-16.7	2.4	205/1.3	.53	178/12	986.9	997.3	977.8
Feb	-15.7	-4.6	-29.7	3.8	220/3.0	.79	181/12	992.7	1003.5	978.5
Mar	-26.2	-8.5	-46.2	4.6	233/3.6	.77	150/16	990.8	1007.0	960.2
Apr	-30.2	-8.9	-54.2	6.1	228/4.2	.70	270/16	980.5	999.3	962.7
May	-27.4	-12.6	-42.4	6.5	205/5.2	.79	180/16	993.5	1015.5	965.4
Jun	-35.5	-13.1	-58.1	5.2	224/3.8	.74	264/23	990.9	1014.6	963.0
Jul	-37.2	-14.9	-52.2	5.2	229/4.0	.76	182/23	980.1	1001.2	951.8
Aug	-41.2	-23.9	-56.5	5.2	254/4.3	.82	262/16	982.6	1000.1	944.9
Sep	-44.5	-19.9	-59.9	4.7	252/3.6	.75	189/16	978.3	999.0	952.9
Oct	-28.2	-13.0	-54.6	5.5	229/4.4	.80	229/14	972.9	998.9	953.7
Nov	-16.6	-2.0	-34.1	4.1	214/2.8	.69	236/19	975.3	987.5	956.3
Dec	-7.6	0.6	-16.1	3.2	197/2.5	.77	170/12	981.4	995.7	963.9
Mean	-26.5			4.7	197/3.4	.74		983.8		
Gill (8925)				80.0 S	179.0 W	55 M				
Jan	-8.5	-2.5	-18.5	3.0	227/2.0	.65	144/11	985.8	997.3	973.8
Feb	-16.8	-7.1	-30.9	3.4	220/2.5	.73	217/12	990.7	1001.6	977.7
Mar	-27.7	-8.0	-53.7	3.7	225/1.9	.52	113/11	989.3	1003.9	957.5
Apr	-35.1	-13.7	-53.7	4.3	224/2.3	.53	167/13	978.5	996.2	959.5
May	-26.8	-9.0	-41.9	5.6	196/4.1	.72	174/17	989.8	1012.2	963.1
Jun	-35.0	-7.6	-56.4	5.2	219/2.1	.41	227/23	988.7	1010.1	961.6
Jul	-41.2	-16.7	-55.6	4.8	224/2.9	.60	212/15	977.6	997.9	944.0
Aug	-47.6	-21.4	-59.6	3.0	250/2.4	.78	272/15	980.6	1000.3	949.9
Sep	-47.4	-25.0	-64.0	1.7	227/1.4	.81	229/13	976.8	995.5	943.5
Oct	-32.5	-14.2	-52.4	4.1	216/1.0	.24	223/15	970.6	998.2	945.5
Nov	-16.7	-3.1	-33.7	4.4	226/2.5	.58	199/15	973.4	985.9	956.0
Dec	-8.5	4.1	-18.4	3.1	209/2.0	.63	143/11	979.8	990.5	964.2
Mean	-28.7			3.9	209/2.2	.60		981.8		
Bowers (8909)				85.2 S	163.4 E	2090 M				
Jan	-16.2	-6.3	-23.1	4.6	165/4.2	.92	153/17	753.4	765.9	747.6
Feb	-22.4	-15.1	-31.6	7.6	173/6.9	.91	150/18	758.3	767.2	748.2
Mar	-35.8	-18.5	-53.0	4.4	212/3.4	.76	163/17	752.0	763.9	736.0
Apr										
May										
Jun										
Jul										
Aug	-40.7	-24.0	-53.2	10.0	174/8.1	.81	119/25	740.1	758.0	728.1
Sep										
Oct										
Nov										
Dec										

Mon	Mean Air Temp (C)	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	Resultant Wind (dir/vv)	Con	Max Wind Speed (dir/vv)	Mean Air Press (mb)	Max Air Press (mb)	Min Air Press (mb)
Elaine (8911)				83.2 S	174.5 E	60 M				
Jan										
Feb	-13.4	-4.4	-26.2	3.9	175/3.0	.76	161/14	992.4	1003.3	978.1
Mar	-24.6	-2.9	-49.2	5.3	168/4.0	.75	119/22	989.9	1005.6	958.1
Apr	-25.2	-7.6	-51.1	6.4	161/4.9	.76	158/19	980.1	998.2	966.2
May	-27.9	-13.0	-42.9	5.8	173/4.4	.76	130/23	994.3	1018.5	958.9
Jun	-32.4	-10.6	-54.9	7.0	155/4.6	.66	129/31	991.4	1014.1	964.4
Jul	-34.2	-13.1	-58.4	5.4	166/3.8	.71	122/31	979.5	1001.2	949.7
Aug	-36.7	-16.0	-56.4	4.9	178/2.5	.52	135/25	980.3	999.6	940.4
Sep	-44.9	-18.8	-59.5	1.2	159/0.5	.45	132/25	976.4	997.6	950.1
Oct	-25.6	-10.7	-56.1	4.2	162/3.1	.73	149/18	972.7	994.2	951.3
Nov	-15.8	-5.9	-32.2	5.3	161/3.8	.71	142/22	975.1	986.7	949.6
Dec	-7.9	1.9	-15.4	4.2	170/2.2	.52	153/16	981.7	995.4	966.4
Lettau (8908)				82.6 S	174.3 W	55 M				
Jan										
Feb	-15.7	-7.2	-25.6	4.2	162/3.3	.80	174/16	991.8	1002.9	977.1
Mar	-27.6	-5.5	-48.0	3.4	162/1.9	.57	157/16	990.0	1004.4	957.1
Apr	-31.3	-12.7	-52.5	5.1	154/3.3	.64	164/18	979.4	997.9	960.6
May	-25.4	-12.0	-41.5	5.8	157/5.0	.86	149/21	992.7	1018.1	958.4
Jun	-34.3	-10.5	-57.1	5.7	147/3.9	.69	136/27	990.6	1012.3	967.3
Jul	-39.5	-15.4	-57.1	5.1	162/3.6	.71	147/30	978.6	1002.3	946.3
Aug	-42.9	-20.1	-57.1	4.4	180/2.9	.66	206/18	979.9	999.1	938.2
Sep	-46.8	-19.0	-62.4	3.9	181/2.5	.63	163/17	976.3	998.1	945.8
Oct	-30.2	-11.1	-55.7	4.9	162/3.7	.75	178/20	972.0	995.5	946.2
Nov	-15.6	-5.2	-30.2	2.2	150/1.9	.84	133/14	974.5	988.5	950.7
Dec	-7.5	3.4	-16.4	3.5	164/2.5	.70	154/11	981.8	993.1	963.7
Manuela (8922)				74.9 S	163.6 E	80 M				
Jan	-2.4	5.2	-10.1					984.1	994.7	975.3
Feb	-7.9	-0.5	-26.6					990.4	1002.4	975.5
Mar	-17.6	-7.2	-27.4					987.7	1004.4	956.9
Apr	-21.8	-12.4	-35.2					978.4	1001.3	960.6
May	-21.4	-8.1	-34.0					988.6	1007.0	956.7
Jun	-25.5	-10.0	-38.5					988.2	1009.8	966.2
Jul	-24.9	-4.6	-35.2					978.3	996.0	951.5
Aug	-27.1	-16.2	-37.5					980.0	1001.2	938.2
Sep	-28.0	-16.2	-38.1					975.1	995.7	954.5
Oct	-18.8	-5.2	-33.4					970.4	997.9	951.7
Nov	-10.7	-1.1	-22.7					972.1	986.5	952.2
Dec	-2.7	3.2	-9.0					978.1	993.7	959.8
Mean	-17.4							980.9		

Mon	Mean Air Temp (C)	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	Resultant Wind (dir/vv)	Con	Max Wind Speed (dir/vv)	Mean Air Press (mb)	Max Air Press (mb)	Min Air Press (mb)
Martha (8923)				78.3 S	172.5 W	42 M				
Jan	-8.0	-0.1	-16.4	3.9			xxx/09	984.7	997.8	975.3
Feb	-10.1	-1.3	-17.9	3.3			xxx/11	984.8	996.5	975.4
Mar										
Apr										
May	-13.7	-3.9	-28.9	7.5			xxx/17	986.0	1008.7	960.7
Jun										
Jul										
Aug										
Sep										
Oct										
Nov	-9.6	3.0	-20.6	4.5			xxx/13	970.1	981.9	957.5
Dec	-6.2	5.0	-15.9	3.3			xxx/11	981.8	999.0	964.6
Larsen Ice (8926)				67.0 S	60.6 W	17 M				
Jan	-4.2	8.2	-12.4	3.6	142/1.5	.41	199/12	984.9	998.3	968.0
Feb	-4.2	2.2	-16.1	3.8	161/2.4	.63	181/12	988.7	1012.5	972.2
Mar	-6.6	4.5	-23.1	3.5	202/1.7	.50	209/17	986.5	1013.2	955.4
Apr	-18.6	-7.1	-37.6	4.0	199/2.1	.52	177/14	987.4	1003.5	965.4
May	-29.6	-10.6	-47.2	2.6	227/1.3	.52	223/18	998.3	1014.6	977.9
Jun	-25.4	-3.8	-42.1	1.9	200/1.4	.76	196/11	984.0	996.9	961.5
Jul	-23.2	-4.6	-43.0	3.3	224/1.3	.38	232/21	980.7	1003.4	959.2
Aug	-27.9	-10.6	-43.1	3.0	221/2.8	.40	195/14	980.7	1000.9	956.9
Sep	-17.2	3.8	-38.5	5.4	246/2.0	.36	289/19	977.1	1001.1	952.2
Oct	-12.7	6.1	-36.5	3.9	249/1.0	.26	320/18	982.7	1002.0	959.6
Nov	-5.7	7.0	-20.0	3.9	186/1.4	.35	212/18	978.1	998.5	951.8
Dec	2.1	10.0	-7.6	3.7	191/1.1	.30	205/14	977.9	993.6	959.2
Mean	-14.4			3.6	191/1.4	.45		983.9		
Dolleman Is. (8917)				70.6 S	61.0 W	396 M				
Jan										
Feb	-9.2	-3.2	-19.2	7.7	158/7.4	.97	156/19	951.6	965.8	935.8
Mar	-14.3	6.3	-27.0	7.0	154/5.4	.78	160/21	944.2	966.7	920.0
Apr	-20.0	-5.5	-32.9	6.2	145/3.5	.57	150/26	944.4	956.4	929.7
May	-27.6	-6.9	-38.5	5.9	151/4.2	.72	163/24	952.9	968.3	932.5
Jun	-28.2	-13.1	-38.7	8.1	152/6.6	.82	167/24	942.3	954.5	922.9
Jul	-25.0	-7.4	-37.5	4.3			xxx/20	936.2	957.1	913.0
Aug	-29.2	-15.1	-38.2	5.2			xxx/20	935.8	955.2	916.2
Sep	-23.4	3.0	-35.7	7.4			xxx/31	931.7	952.5	910.9
Oct	-16.0	6.3	-33.4	6.1			xxx/20	937.7	954.3	911.6
Nov	-10.1	4.0	-18.5	5.4			xxx/20	935.4	954.2	913.0
Dec	-5.7	6.4	-11.7	5.8			xxx/23	935.5	948.1	918.1
Butler Is. (8902)				72.2 S	60.3 W	91 M				
Jan										
Feb										
Mar	-14.0	8.8	-27.9	7.1	198/5.9	.83	192/22	976.3	998.0	954.3
Apr	-21.1	-1.3	-34.4	5.3	211/2.6	.50	194/24	977.2	990.2	958.5
May	-27.7	-4.1	-36.5	5.4	211/3.9	.72	191/17	987.1	1002.8	964.2
Jun	-27.7	-11.1	-38.2	6.5	199/6.0	.92	194/20	977.6	991.4	957.7
Jul	-25.6	-9.5	-39.4	4.8	219/2.4	.50	198/21	969.0	991.8	945.7
Aug	-29.1	-16.5	-40.1	5.6	215/3.3	.59	194/22	969.4	988.6	953.3
Sep	-25.9	3.8	-36.1	7.2	210/4.0	.55	201/29	964.7	986.2	938.8
Oct	-16.8	7.9	-33.0	6.7	227/2.7	.41	317/22	969.4	984.4	940.5
Nov	-8.7	7.5	-17.1	4.9	204/2.4	.50	203/17	967.2	986.3	946.0
Dec	-3.9	11.0	-9.2	6.2	202/4.5	.72	205/23	966.9	979.0	948.5

Mon	Mean Air Temp (C)	Max Air Temp (C)	Min Air Temp (C)	Mean Wind Speed (m/s)	Resultant Wind (dir/vv)	Con	Max Wind Speed (dir/vv)	Mean Air Press (mb)	Max Air Press (mb)	Min Air Press (mb)
Uranus Gl. (8920)				71.4 S	68.9 W	780 M				
Jan										
Feb										
Mar	-10.8	-1.7	-25.9	4.5	019/1.7	.38	052/16	894.9	924.9	868.2
Apr	-12.0	-1.6	-30.4	3.5	010/1.1	.32	225/18	897.0	912.3	884.4
May	-22.0	-8.6	-39.1	4.4	320/2.2	.50	331/16	903.8	921.1	884.2
Jun	-18.0	-6.1	-31.1	5.4	057/2.6	.49	098/21	889.1	902.8	872.0
Jul	-20.0	-6.5	-35.4	6.1	343/3.7	.61	330/29	889.3	912.1	857.8
Aug	-21.6	-7.4	-38.7	5.3	343/3.1	.58	039/21	886.6	909.0	865.0
Sep	-20.2	-3.0	-37.7	6.7	331/5.5	.82	326/32	887.0	906.5	868.0
Oct	-12.7	0.6	-34.7	7.0	334/5.6	.81	330/27	894.3	919.2	873.7
Nov	-10.0	2.4	-23.9	3.6	341/1.7	.48	315/23	892.1	909.9	867.2
Dec	-6.9	4.0	-16.7	4.0	350/1.7	.42	331/18	893.1	905.2	878.6

Clean Air (8918)				90.0 S		2835 M				
Jan										
Feb	-35.6	-24.1	-44.6	4.5	034/3.7	.82	027/12	694.3	705.9	682.9
Mar	-53.4	-35.5	-70.1	4.1	037/2.9	.71	195/14	684.8	702.5	667.3
Apr	-55.3	-41.5	-66.6	4.1	022/3.0	.74	007/12	681.6	693.6	669.2
May	-62.4	-43.5	-74.2	4.5	077/3.7	.82	094/11	685.3	697.0	665.6
Jun	-63.7	-35.4	-78.6	3.3	073/2.5	.76	006/13	681.0	706.1	657.3
Jul	-60.7	-34.5	-74.7	4.5	047/3.1	.71	020/13	675.0	692.9	653.4
Aug	-59.5	-42.4	-75.7	5.4	033/4.6	.86	018/14	673.2	693.9	658.5
Sep										
Oct	-52.7	-39.9	-67.9	4.7	047/3.7	.80	315/13	674.2	691.6	662.7
Nov	-39.1	-29.4	-49.4	4.0	029/3.2	.80	007/11	677.8	692.2	656.8
Dec	-29.1	-18.4	-36.2	3.6	042/3.0	.83	059/10	686.1	699.4	678.0

Patrick (8905)				89.8 S	45.0 E	2835 M				
Jan										
Feb	-34.8	-24.6	-44.9	3.9	018/3.3	.84	015/09	695.2	706.8	683.8
Mar	-52.3	-34.7	-68.9	3.0	016/2.3	.78	360/15	685.1	702.8	667.9
Apr	-54.4	-40.2	-66.6	3.0	003/2.3	.77	302/12	681.6	693.6	669.5
May	-60.9	-46.9	-73.1	3.2	062/2.5	.78	090/10	685.2	696.8	665.4
Jun	-63.0	-34.0	-77.5	2.0	044/1.3	.64	358/12	680.6	706.2	657.2
Jul	-59.7	-34.0	-73.7	3.4	020/2.4	.72	005/13	674.7	692.9	653.1
Aug	-58.5	-41.6	-74.7	4.3	014/3.8	.90	009/13	672.8	693.6	<del>657.6</del> 657.6
Sep	-64.7	-49.0	-78.9	3.0	031/2.8	.92	015/13	665.6	679.1	647.1
Oct	-51.4	-33.0	-69.7	3.6	029/2.8	.78	313/14	673.5	691.2	662.7
Nov	-36.8	-28.0	-47.2	3.4	005/2.9	.86	357/12	677.9	692.4	656.6
Dec	-26.8	-15.5	-34.5	3.1	019/2.7	.86	029/10	686.7	699.8	678.5

Allison (8900)				89.8 S	60.0 W	2835 M				
Jan										
Feb	-33.4	-22.7	-43.4	4.1	031/3.5	.86	025/11	694.5	706.0	683.2
Mar	-51.2	-34.1	-68.4	2.9	024/2.4	.83	001/15	685.0	702.6	667.5
Apr	-53.2	-38.5	-64.6	3.1	012/2.5	.82	326/13	681.7	693.7	669.4
May	-59.9	-46.2	-77.1	3.1	062/2.7	.87	002/11	685.6	697.2	665.7
Jun	-59.2	-32.0	-73.0	2.4	040/1.9	.80	011/11	685.0	706.3	663.9
Jul										
Aug										
Sep										
Oct										
Nov										
Dec										



#### 4.2. AWS Monthly Three Hourly Data Summaries

The data set for each AWS unit for the month are scanned to pick out the observation closest the hours of 00, 03, 06, 09, 12, 15, 18, and 21 GMT. If an observation is within one hour of these times, the observation is used for the monthly summary. A summary for the month is at the bottom of each page. 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. The maximum and minimum values are from the complete data set. The appropriate data are used for the annual summaries presented in 4.1. The objective of the summaries are to provide, on a single sheet of paper, the monthly data at three hour intervals for survey purposes only.

The January summaries for those sites which were terminated in January 1986 (see Table 2), and transmitted data, are located at the end of this section.



























































STATION : 8916 D-57

LAT : 68.2 S LONG : 137.5E ELEVATION : 2105 M

MAR HR	86	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD
00	X	X	X	X	X	755	-25	14	135	750	-25	14	135	750	-25	14	135	755	-21	7	113	762	-22	4	151	757	-23	9	122
03	763	-18	14	120	754	-23	15	127	749	-22	15	126	749	-22	15	126	755	-19	4	125	761	-20	6	142	755	-21	11	122	
06	763	-18	14	122	753	-23	13	137	750	-22	13	129	750	-22	13	129	756	-19	4	111	762	-21	7	126	754	-20	9	126	
09	764	-19	13	120	761	-21	9	137	752	-26	13	139	750	-22	10	123	757	-20	2	127	762	-23	7	123	754	-20	11	118	
12	764	-20	12	120	760	-24	11	136	752	-26	15	130	751	-23	12	125	758	-21	1	136	762	-23	8	122	754	-22	10	127	
15	764	-20	13	120	759	-26	10	139	751	-26	15	135	752	-23	10	120	759	-21	1	153	761	-24	8	122	754	-22	11	133	
18	764	-22	11	125	757	-26	13	137	750	-26	14	132	753	-24	8	125	760	-23	4	175	759	-24	8	118	753	-23	10	137	
21	764	-21	10	129	756	-26	13	137	750	-26	14	132	754	-24	6	118	761	-23	2	156	758	-25	9	126	754	-23	9	129	
00	756	-23	10	132	760	-27	7	140	759	-28	7	154	759	-33	8	151	758	-31	8	137	758	-31	8	137	758	-31	8	137	
03	756	-21	9	126	761	-25	6	153	758	-28	8	153	755	-34	10	123	758	-30	8	168	758	-27	9	142	758	-27	9	142	
06	756	-21	11	139	761	-25	6	150	756	-29	9	157	756	-32	12	170	758	-30	8	163	758	-26	7	139	758	-26	7	139	
09	757	-24	11	144	761	-29	7	146	756	-31	9	170	756	-34	12	168	759	-33	8	143	760	-28	7	149	760	-28	7	149	
12	758	-26	9	137	761	-33	7	150	756	-34	8	160	757	-36	7	154	759	-35	8	156	760	-28	7	130	760	-28	7	130	
15	758	-30	10	139	761	-34	7	157	755	-35	10	170	758	-36	10	157	758	-33	5	147	760	-32	6	139	760	-32	6	139	
18	759	-32	10	146	760	-34	7	153	754	-38	10	164	757	-37	7	161	758	-33	7	143	760	-32	6	140	760	-32	6	140	
21	759	-31	8	147	759	-34	8	160	754	-39	13	172	758	-37	8	167	758	-33	8	142	761	-32	7	139	761	-32	7	139	
00	X	X	X	X	X	759	-29	13	143	768	-24	10	129	761	-24	14	126	764	-24	12	125	763	-26	9	137	748	-25	14	144
03	X	X	X	X	X	760	-27	14	140	767	-23	10	130	760	-23	18	130	765	-23	12	132	763	-25	8	153	745	-24	21	126
06	X	X	X	X	X	761	-26	13	135	766	-23	8	127	760	-23	15	122	765	-23	13	129	762	-26	8	139	X	X	X	X
09	X	X	X	X	X	763	-26	11	126	765	-26	10	140	761	-24	16	136	766	-24	10	123	760	-28	11	146	X	X	X	X
12	X	X	X	X	X	764	-25	11	123	764	-26	14	135	761	-25	15	123	766	-25	9	125	759	-29	14	132	X	X	X	X
15	X	X	X	X	X	766	-25	9	126	762	-25	13	127	762	-25	12	125	765	-25	11	122	756	-29	14	139	X	X	X	X
18	X	X	X	X	X	766	-24	9	135	761	-26	14	123	763	-25	15	126	764	-26	8	125	752	-27	14	132	X	X	X	X
21	X	X	X	X	X	767	-24	11	126	761	-26	15	129	764	-25	13	133	764	-26	8	130	750	-26	19	130	X	X	X	X
00	X	X	X	X	X	759	-29	13	143	759	-33	8	151	758	-30	8	168	758	-30	8	168	758	-27	9	142	X	X	X	X
03	X	X	X	X	X	760	-27	14	140	767	-23	10	130	760	-23	18	130	765	-23	12	132	763	-25	8	153	X	X	X	X
06	X	X	X	X	X	761	-26	13	135	766	-23	8	127	760	-23	15	122	765	-23	13	129	762	-26	8	139	X	X	X	X
09	X	X	X	X	X	763	-26	11	126	765	-26	10	140	761	-24	16	136	766	-24	10	123	760	-28	11	146	X	X	X	X
12	X	X	X	X	X	764	-25	11	123	764	-26	14	135	761	-25	15	123	766	-25	9	125	759	-29	14	132	X	X	X	X
15	X	X	X	X	X	766	-25	9	126	762	-25	13	127	762	-25	12	125	765	-25	11	122	756	-29	14	139	X	X	X	X
18	X	X	X	X	X	766	-24	9	135	761	-26	14	123	763	-25	15	126	764	-26	8	125	752	-27	14	132	X	X	X	X
21	X	X	X	X	X	767	-24	11	126	761	-26	15	129	764	-25	13	133	764	-26	8	130	750	-26	19	130	X	X	X	X
00	X	X	X	X	X	759	-29	13	143	759	-33	8	151	758	-30	8	168	758	-30	8	168	758	-27	9	142	X	X	X	X
03	X	X	X	X	X	760	-27	14	140	767	-23	10	130	760	-23	18	130	765	-23	12	132	763	-25	8	153	X	X	X	X
06	X	X	X	X	X	761	-26	13	135	766	-23	8	127	760	-23	15	122	765	-23	13	129	762	-26	8	139	X	X	X	X
09	X	X	X	X	X	763	-26	11	126	765	-26	10	140	761	-24	16	136	766	-24	10	123	760	-28	11	146	X	X	X	X
12	X	X	X	X	X	764	-25	11	123	764	-26	14	135	761	-25	15	123	766	-25	9	125	759	-29	14	132	X	X	X	X
15	X	X	X	X	X	766	-25	9	126	762	-25	13	127	762	-25	12	125	765	-25	11	122	756	-29	14	139	X	X	X	X
18	X	X	X	X	X	766	-24	9	135	761	-26	14	123	763	-25	15	126	764	-26	8	125	752	-27	14	132	X	X	X	X
21	X	X	X	X	X	767	-24	11	126	761	-26	15	129	764	-25	13	133	764	-26	8	130	750	-26	19	130	X	X	X	X
00	X	X	X	X	X	759	-29	13	143	759	-33	8	151	758	-30	8	168	758	-30	8	168	758	-27	9	142	X	X	X	X
03	X	X	X	X	X	760	-27	14	140	767	-23	10	130	760	-23	18	130	765	-23	12	132	763	-25	8	153	X	X	X	X
06	X	X	X	X	X	761	-26	13	135	766	-23	8	127	760	-23	15	122	765	-23	13	129	762	-26	8	139	X	X	X	X
09	X	X	X	X	X	763	-26	11	126	765	-26	10	140	761	-24	16	136	766	-24	10	123	760	-28	11	146	X	X	X	X
12	X	X	X	X	X	764	-25	11	123	764	-26	14	135	761	-25	15	123	766	-25	9	125	759	-29	14	132	X	X	X	X
15	X	X	X	X	X	766	-25	9	126	762	-25	13	127	762	-25	12	125	765	-25	11	122	756	-29	14	139	X	X	X	X
18	X	X	X	X	X	766	-24	9	135	761	-26	14	123	763	-25	15	126	764	-26	8	125	752	-27	14	132	X	X	X	X
21	X	X	X	X	X	767	-24	11	126	761	-26	15	129	764	-25	13	133	764	-26	8	130	750	-26	19	130	X	X	X	X
00	X	X	X	X	X	759	-29	13	143	759	-33	8	151	758	-30	8	168	758	-30	8	168	758	-27	9	142	X	X	X	X
03	X	X	X	X	X	760	-27	14	140	767	-23	10	130	760	-23	18	130	765	-23	12	132	763	-25	8	153	X	X	X	X
06	X	X	X	X	X	761	-26	13	135	766	-23	8	127	760	-23	15	122	765	-23	13	129	762	-26	8	139	X	X	X	X
09	X	X	X	X	X	763	-26	11	126	765	-26	10	140	761	-24	16	136	766	-24	10	123	760	-28	11	146	X	X	X	X
12	X	X	X	X	X	764	-25	11	123	764	-26	14	135	761	-25	15	123	766	-25	9	125	759	-29	14	132	X	X	X	X
15	X	X	X	X	X	766	-25	9	126	762	-25	13	127	762	-25	12	125	765	-25	11	122	756	-29	14	139	X	X	X	X
18	X	X	X	X	X	766	-24	9	135	761	-26	14	123	763	-25	15	126	764	-26	8	125	752	-27	14	132	X	X	X	X
21	X	X	X	X	X	767	-24	11	126	761	-26	15	129	764	-25	13	133	764	-26	8	130	750	-26	19	130	X	X	X	X
00	X	X	X	X	X	759	-29	13	143	759	-33	8	151	758	-30	8	168	758	-30	8	168	758	-27	9	142	X	X	X	X
03	X	X	X	X	X	760	-27	14	140	767	-23																		





































































STATION : 8904 DOME C LAT : 74.5 S LONG : 123.0E ELEVATION : 3280 M

SEP	HR	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD				
00	03	636	-65	0	0	634	-68	0	0	631	-75	0	0	634	-58	6	149	638	-63	5	0	634	-64	0	0				
03	06	636	-62	0	0	633	-57	0	0	632	-65	0	0	635	-54	5	170	638	-59	1	270	634	-60	0	0				
06	09	636	-62	0	0	633	-58	0	0	632	-64	0	0	635	-53	5	161	637	-58	2	236	635	-57	1	283				
09	12	636	-69	0	0	632	-71	0	0	633	-68	0	0	637	-58	4	163	X	-66	1	258	636	-69	1	225				
12	15	636	-70	0	0	632	-70	0	0	634	-65	3	161	637	-60	3	180	636	-65	2	257	636	-69	0	0				
15	18	635	-72	0	0	631	-76	0	0	634	-64	3	156	638	-62	2	180	635	-66	2	260	637	-69	0	0				
18	21	635	-71	0	0	631	-76	0	0	634	-61	4	161	638	-65	1	195	634	-64	3	231	636	-69	0	0				
21	00	635	-70	0	0	X	X	0	0	634	-60	5	149	638	-66	0	0	634	-65	2	270	636	-67	0	0				
00	03	626	-66	3	225	DAY 8	DAY 9	DAY 10	DAY 11	DAY 12	DAY 13	DAY 14	DAY 15	DAY 16	DAY 17	DAY 18	DAY 19	DAY 20	DAY 21	DAY 22	DAY 23	DAY 24	DAY 25	DAY 26	DAY 27	DAY 28	DAY 29	DAY 30	
03	06	625	-62	5	180	629	-58	11	172	637	-57	11	187	641	-55	5	225	645	-61	3	225	648	-57	3	235	650	-58	1	239
06	09	624	-60	4	201	630	-57	10	180	638	-55	7	193	641	-51	4	231	645	-56	2	225	649	-53	3	228	649	-52	1	235
09	12	624	-63	8	198	631	-56	10	180	639	-54	7	180	641	-51	4	245	646	X	3	225	649	-53	4	225	649	-51	1	270
12	15	623	-60	9	180	632	-56	11	191	640	-54	7	206	641	-57	4	225	647	-60	2	184	650	-57	3	225	648	-58	1	260
15	18	624	-59	10	180	632	-56	11	191	640	-54	6	203	X	X	3	225	647	-63	3	189	651	-58	3	210	648	-56	1	225
18	21	625	-57	12	180	633	-54	10	180	641	-58	4	225	642	-62	3	215	648	-64	2	194	651	-60	1	251	646	-57	1	207
21	00	626	-58	11	173	635	-54	10	180	641	-60	4	215	643	-63	2	218	648	-64	2	225	651	-59	2	231	646	-58	1	229
00	03	645	-50	1	225	636	-57	10	180	641	-57	6	225	644	-61	4	212	648	-62	2	225	650	-60	2	225	645	-51	1	225
03	06	645	-52	1	149	X	X	1	349	643	-48	1	31	DAY 15	DAY 16	DAY 17	DAY 18	DAY 19	DAY 20	DAY 21	DAY 22	DAY 23	DAY 24	DAY 25	DAY 26	DAY 27	DAY 28	DAY 29	
06	09	645	-47	2	326	648	-44	1	360	643	-45	1	45	636	-46	1	360	635	-60	1	256	633	-52	1	291	628	-54	0	0
09	12	646	-54	2	339	647	-42	0	0	642	-42	0	0	636	-45	1	309	635	-51	1	270	633	-51	0	0	628	-48	1	89
12	15	647	-57	2	309	646	-51	1	68	641	-45	2	86	635	-48	1	280	X	X	0	0	632	-51	1	120	X	X	2	135
15	18	647	-55	1	309	645	-46	3	45	640	-41	1	72	635	-57	1	295	635	-58	1	270	631	-52	2	118	628	-55	2	90
18	21	647	-58	1	311	644	-42	3	45	640	-41	1	90	635	-61	1	260	X	X	1	315	630	-49	3	90	628	-59	2	97
21	00	647	-53	1	325	643	-45	2	37	638	-44	1	90	635	-62	0	0	634	-63	1	270	629	-49	2	66	628	-59	1	103
00	03	628	-55	2	44	643	-45	2	8	637	-50	0	0	635	-62	0	0	634	-62	2	301	628	-52	1	90	628	-60	1	90
03	06	628	-49	3	27	DAY 22	DAY 23	DAY 24	DAY 25	DAY 26	DAY 27	DAY 28	DAY 29	DAY 30	DAY 31	DAY 32	DAY 33	DAY 34	DAY 35	DAY 36	DAY 37	DAY 38	DAY 39	DAY 40	DAY 41	DAY 42	DAY 43	DAY 44	DAY 45
06	09	628	-49	3	27	626	-56	2	309	630	-55	1	231	632	-54	1	305	626	-59	4	161	625	-53	3	45	X	X	3	360
09	12	628	-52	3	360	627	-50	2	316	630	-51	2	225	632	-51	1	309	624	-49	4	142	626	-48	3	45	625	-46	3	360
12	15	628	-56	3	27	627	-56	2	270	631	-51	1	264	632	-51	1	321	623	-47	4	141	626	-45	4	17	625	-42	3	360
15	18	628	-60	2	32	627	-56	2	270	631	-58	1	225	632	-51	1	315	623	-49	6	136	627	-47	3	27	624	-49	4	356
18	21	627	-59	2	31	628	-61	1	270	632	-61	1	243	631	-61	0	0	622	-50	3	135	627	-49	3	27	624	-49	4	356
21	00	626	-62	2	360	629	-64	1	270	632	-61	1	243	631	-61	0	0	622	-50	3	135	627	-49	3	27	624	-49	4	356
00	03	623	-55	4	329	629	-64	2	270	632	-62	1	251	630	-62	0	0	623	-55	2	127	627	-48	4	360	623	-53	4	330
03	06	622	-49	5	330	630	-64	1	259	632	-62	2	300	628	-66	0	0	623	-54	4	89	627	-48	4	360	623	-58	3	309
06	09	622	-49	5	309	631	-64	0	0	632	-64	1	280	627	-64	3	173	624	-54	5	45	627	-53	2	360	623	-60	3	309
09	12	622	-54	5	322	631	-57	2	269	630	-55	1	231	632	-54	1	305	626	-59	4	161	625	-53	3	45	X	X	3	360
12	15	622	-61	6	293	631	X	1	282	630	-51	2	225	632	-51	1	309	624	-49	4	142	626	-48	3	45	625	-46	3	360
15	18	627	-71	3	243	631	X	1	282	630	-51	2	225	632	-51	1	309	624	-49	4	142	626	-48	3	45	625	-46	3	360
21	00	630	-72	0	0	631	-59	2	274	631	-58	1	225	632	-51	1	321	623	-47	4	141	626	-45	4	17	625	-42	3	360
00	03	623	-55	4	329	631	-60	2	291	632	-61	1	243	631	-61	0	0	622	-50	3	135	627	-47	3	27	624	-49	4	356
03	06	622	-49	5	330	631	-60	2	291	632	-61	1	243	631	-61	0	0	622	-50	3	135	627	-47	3	27	624	-49	4	356
06	09	622	-49	5	309	631	-60	2	291	632	-61	1	243	631	-61	0	0	622	-50	3	135	627	-47	3	27	624	-49	4	356
09	12	622	-54	5	322	631	-60	2	291	632	-61	1	243	631	-61	0	0	622	-50	3	135	627	-47	3	27	624	-49	4	356
12	15	622	-61	6	293	631	-60	2	291	632	-61	1	243	631	-61	0	0	622	-50	3	135	627	-47	3	27	624	-49	4	356
15	18	627	-71	3	243	631	-60	2	291	632	-61	1	243	631	-61	0	0	622	-50	3	135	627	-47	3	27	624	-49	4	356
21	00	630	-72	0	0	630	-61	2	243	632	-62	2	300	628	-66	0	0	623	-54	4	89	627	-48	4	360	623	-58	3	309
00	03	623	-55	4	329	630	-64	1	259	632	-64	1	280	627	-64	3	173	624	-54	5	45	627	-53	2	360	623	-60	3	309
03	06	622	-49	5	330	631	-64	0	0	632	-64	1	280	627	-64	3	173	624	-54	5	45	627	-53	2	360	623	-60	3	309
06	09	622	-49	5	309	631	-57	2	269	630	-55	1	231	632	-54	1	305	626	-59	4	161	625	-53	3	45	X	X	3	360
09	12	622	-54	5	322	631	X	0	0	630	-51	2	225	632	-51	1	309	624	-49	4	142	626	-48	3	45	625	-46	3	360
12	15	622	-61	6	293	631	X	1	282	630	-51	2	225	632	-51	1	309	624	-49	4	142	626	-48	3	45	625	-46	3	360
15	18	627	-71	3	243	631	X	1	282	630	-51	2	225	632	-51	1	309	624	-49	4	142	626	-48	3	45	625	-46	3	360
18	21	627	-71	3	243	631	-60	2	291	632	-61	1	243	631	-61	0	0	622	-50	3	135	627	-47	3	27	624	-49	4	356
21	00	630	-72	0	0	630	-61	2	243	632	-62	2	300	628	-66	0	0	623	-54	4	89	627	-48	4	360	623	-58	3	309
00	03	623	-55	4	329	630	-64	1	259	632	-64	1	280	627	-64	3	173	624	-54	5	45	627	-53	2	360	623	-60	3	309
03	06	622	-49	5	330	631	-64	0	0	632	-64	1	280	627	-64	3	173	624	-54	5	45	627	-53	2	360	623	-60	3	309































































































































































STATION : 8924 SCHWERTFEGER LAT : 79.6 S LONG : 169.5E ELEVATION : 60 M

DEC HR	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD				
00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
03	973	-13	10	161	980	-9	5	203	976	-8	3	246	975	-8	6	241	970	-4	11	215	976	-9	4	167	978	-7	1	170	989	-9	8	187
06	975	-13	10	158	980	-9	5	203	976	-8	3	246	975	-8	6	241	970	-4	11	215	976	-9	4	167	978	-7	1	170	989	-9	8	187
09	977	-13	10	167	979	-9	5	208	975	-11	5	225	969	-6	7	180	976	-9	1	203	978	-9	1	203	991	-9	6	205	990	-9	7	196
12	978	-15	10	185	979	-10	3	215	973	-11	6	223	970	-7	9	171	975	-11	0	0	979	-12	2	212	992	-11	5	203	992	-11	5	203
15	980	-16	8	184	978	-12	6	271	973	-10	5	219	971	-7	6	180	975	-12	0	0	980	-14	2	191	993	-12	5	209	993	-12	5	209
18	981	-15	6	178	977	-12	5	258	972	-8	6	171	972	-8	6	171	976	-9	0	0	983	-13	5	185	994	-10	7	233	994	-10	7	233
21	982	-13	6	202	978	-9	4	262	972	-8	6	217	974	-10	6	167	977	-9	1	182	985	-11	4	175	993	-7	6	222	993	-7	6	222
00	994	-5	9	194	993	-4	6	198	985	-9	8	175	986	-7	2	177	987	-7	6	222	986	-4	3	185	983	-5	4	206	983	-5	4	206
03	994	-4	7	210	991	-3	5	191	985	-9	7	158	985	-7	0	0	986	-6	4	206	986	-4	3	196	982	-4	5	202	982	-4	5	202
06	995	-4	6	201	989	-3	5	227	986	-10	6	160	985	-7	2	170	986	-5	3	192	985	-4	3	196	982	-4	4	201	982	-4	4	201
09	995	-5	6	202	988	-5	3	192	986	-9	4	160	985	-7	0	0	986	-8	3	184	984	-6	1	201	981	-6	5	198	981	-6	5	198
12	995	-7	4	230	987	-8	5	196	986	-9	4	182	986	-6	0	0	X	X	X	X	983	-8	3	203	981	-8	4	203	981	-8	4	203
15	995	-7	5	220	986	-8	3	217	986	-10	3	172	986	-6	1	165	986	-10	3	205	983	-10	3	181	981	-10	3	180	981	-10	3	180
18	994	-8	5	208	985	-6	5	178	986	-9	3	182	987	-10	2	196	986	-8	4	199	983	-8	3	191	982	-8	5	157	982	-8	5	157
21	993	-6	4	209	985	-6	4	209	986	-8	3	171	987	-9	3	206	986	-6	4	172	983	-6	4	188	983	-10	4	149	983	-10	4	149
00	984	-8	6	165	988	-6	6	210	988	-6	1	219	986	-7	2	50	986	-7	1	82	983	-5	0	0	981	-5	0	0	981	-5	0	0
03	984	-9	6	175	988	-6	6	180	987	-5	2	257	986	-4	2	63	986	-6	2	75	982	-3	3	355	981	-3	0	0	981	-3	0	0
06	985	-10	6	189	988	-6	6	189	987	-4	1	274	986	-5	1	40	986	-6	1	37	982	-3	0	0	980	-8	2	209	980	-8	2	209
09	986	-10	4	180	988	-7	4	220	986	-7	1	289	985	-6	1	64	985	-6	0	0	981	-5	1	23	980	-8	0	0	980	-8	0	0
12	986	-10	7	160	988	-8	3	223	986	-11	1	326	985	-11	0	0	985	-6	1	336	981	-8	0	0	980	-8	3	191	980	-8	3	191
15	987	-10	6	174	987	-8	3	209	986	-12	1	341	986	-12	0	0	984	-6	1	2	981	-10	0	0	980	-9	4	217	980	-9	4	217
18	987	-9	4	195	988	-8	2	227	986	-9	0	0	986	-11	1	108	984	-10	2	307	981	-6	0	0	980	-9	3	246	980	-9	3	246
21	988	-7	5	180	988	-7	1	206	986	-8	2	50	986	-9	2	63	984	-10	2	307	981	-6	0	0	980	-9	4	261	980	-9	4	261
00	979	-8	4	240	978	-7	5	347	985	-6	1	219	X	X	X	X	981	-6	1	129	980	-10	2	223	975	-11	5	250	975	-11	5	250
03	978	-7	0	0	979	-6	3	358	985	-8	2	136	X	X	X	X	981	-9	3	161	980	-10	1	255	972	-9	7	261	972	-9	7	261
06	978	-8	2	250	980	-4	0	0	986	-9	3	185	X	X	X	X	981	-10	3	205	980	-11	2	227	969	-5	8	236	969	-5	8	236
09	978	-8	0	0	980	-4	0	0	X	X	X	X	X	X	X	X	980	-11	3	232	979	-12	0	0	967	-5	5	226	967	-5	5	226
12	977	-9	0	0	981	-9	0	0	X	X	X	X	X	X	X	X	980	-11	0	0	979	-15	0	0	966	-6	2	219	966	-6	2	219
15	977	-8	0	0	982	-12	1	42	985	-14	1	215	X	X	X	X	980	-11	0	0	979	-15	0	0	966	-6	2	219	966	-6	2	219
18	977	-9	2	322	983	-7	0	0	X	X	X	X	X	X	X	X	980	-11	1	172	978	-16	2	223	965	-7	3	177	965	-7	3	177
21	978	-8	4	360	985	-5	0	0	X	X	X	X	X	X	X	X	980	-11	1	172	978	-13	2	209	964	-5	1	244	964	-5	1	244
00	964	-5	4	338	973	-3	5	181	982	-2	2	157	982	-5	0	0	980	-11	2	170	977	-12	4	262	964	-4	1	324	964	-4	1	324
03	966	-5	3	7	974	-1	5	153	982	-2	3	209	982	-2	2	157	982	-2	2	157	982	-2	2	157	982	-2	2	157	982	-2	2	157
06	968	-2	0	0	976	-1	6	160	981	0	0	0	981	0	0	0	981	0	0	0	981	0	0	0	981	0	0	0	981	0	0	981
09	968	-6	0	0	977	-1	4	181	980	-3	0	0	980	-3	0	0	980	-3	0	0	980	-3	0	0	980	-3	0	0	980	-3	0	0
12	970	-6	0	0	978	-3	6	151	980	-3	0	0	980	-3	0	0	980	-3	0	0	980	-3	0	0	980	-3	0	0	980	-3	0	0
15	970	-7	2	246	980	-6	4	164	980	-5	2	323	980	-5	2	323	980	-5	2	323	980	-5	2	323	980	-5	2	323	980	-5	2	323
18	971	-6	1	253	981	-5	4	180	979	-4	0	0	979	-4	0	0	979	-4	0	0	979	-4	0	0	979	-4	0	0	979	-4	0	0
21	971	-3	1	227	982	-4	4	172	979	-6	2	340	979	-6	2	340	979	-6	2	340	979	-6	2	340	979	-6	2	340	979	-6	2	340

MONTHLY SUMMARY

\* TEMPERATURE (C) \* MEAN = -7.6 STD DEV = 3.0 MAX = .6 AT 611 GMT ON DAY 31 MIN = -16.1 AT 1533 GMT ON DAY 1

\* PRESSURE (MB) \* MEAN = 981.4 STD DEV = 6.4 MAX = 995.7 AT 1319 GMT ON DAY 8 MIN = 963.9 AT 2103 GMT ON DAY 28

\* WINDS (M/S) \* MEAN = 3.2 STD DEV = 2.6 RESULTANT = 2.5 FROM 197. CONSTANCY = .77 MAX = 12.4 FROM 170. AT 732 GMT DAY 1

\* MISSING 3-HOURLY OBSERVATIONS \* TEMPERATURE: 5.6 % PRESSURE: 5.6 % WINDS: 5.6 %

WIND SPEED (M/S): 0-2 2-4 4-6 6-8 8-10 10-12 12-14 14-16 16-18 18-20 20-25 25-30 30-35 35-40 40-45 45-50 50-55 55-60 60+

PERCENT: 37 27 21 11 3 1 10 24 24 16 6 4 1 1 3 3

WIND DIRECTION: N NNE NE E ESE SE SSE S SSW SW W WNW NNW NW NNW

















































STATION : 8911 ELAINE  
 LAT : 83.2 S  
 LONG : 174.5E  
 ELEVATION : 60 M

APR 86	HR	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD
00	968	-21	10	158	1	971	-18	6	194	974	-17	6	153	975	-22	4	217	970	-15	11	217	970	-14	11	160	982	-17	12	140
03	969	-21	13	143	6	970	-15	6	172	974	-17	6	127	974	-20	6	174	970	-15	8	209	972	-18	9	137	983	-20	14	147
06	970	-20	12	147	7	970	-17	7	180	974	-15	8	115	973	-20	4	194	969	-15	6	195	974	-17	8	149	986	-24	12	113
09	971	-18	15	165	11	970	-16	11	140	975	-18	5	223	973	-21	2	233	969	-13	1	111	975	-16	9	165	987	-24	11	146
12	971	-17	12	157	9	971	-17	9	163	976	-19	5	175	973	-23	4	268	968	-12	6	170	976	-15	13	144	989	-26	10	151
15	971	-18	10	149	9	971	-14	14	132	976	-17	10	170	973	-20	3	251	968	-11	9	177	977	-15	11	163	992	-28	9	164
18	972	-18	9	157	7	972	-17	7	219	975	-17	9	130	972	-24	2	243	967	-11	16	137	978	-15	11	150	992	-27	8	157
21	971	-18	14	143	6	973	-17	6	187	975	-18	5	164	972	-24	6	239	968	-12	10	212	980	-16	10	149	992	-23	9	157
00	992	-23	10	156	9	985	-23	9	144	996	-29	10	139	993	-43	2	187	986	-43	2	187	982	-43	0	0	992	-45	7	137
03	990	-24	9	164	8	986	-25	8	125	996	-27	11	147	991	-36	3	309	986	-42	1	198	981	-49	1	358	993	-45	5	142
06	989	-25	9	163	6	988	-25	6	135	996	-27	14	140	990	-36	2	298	986	-44	1	279	980	-48	0	0	996	-47	4	125
09	988	-25	8	142	2	989	-25	2	127	997	-27	9	150	989	-41	2	185	986	-44	2	271	979	-49	3	331	998	-46	6	139
12	987	-23	8	151	2	991	-29	2	57	997	-26	6	156	988	-39	3	133	986	-46	2	320	980	-51	3	118	998	-47	5	149
15	986	-21	14	150	5	993	-30	5	125	996	-27	8	137	988	-41	2	146	985	-46	0	0	982	-50	4	126	997	-48	3	164
18	985	-22	11	144	6	995	-32	6	125	996	-28	5	126	987	-40	3	156	983	-48	1	227	985	-50	4	160	994	-49	4	188
21	985	-22	11	147	6	996	-29	12	135	995	-29	1	146	987	-39	2	178	983	-47	2	251	988	-48	7	140	992	-49	3	189
00	989	-49	2	227	16	967	-30	2	156	978	-33	8	338	991	-30	3	163	973	-13	9	140	991	-22	7	122	985	-30	4	284
03	985	-49	2	275	2	967	-33	2	53	983	-36	7	347	989	-26	5	184	972	-13	12	157	994	-22	6	147	981	-27	4	268
06	981	-46	6	282	4	967	-33	4	174	988	-42	6	355	986	-23	4	216	971	-13	11	163	995	-22	6	135	979	-26	6	264
09	977	-45	5	270	3	969	-32	3	111	992	-44	3	355	983	-18	8	201	974	-15	11	137	996	-27	4	172	977	-30	5	196
12	974	-38	6	243	4	970	-31	4	127	995	-44	2	338	981	-19	5	219	977	-17	8	137	995	-29	3	142	977	-33	0	0
15	971	-33	6	203	3	970	-31	2	268	995	-42	3	319	977	-15	12	258	980	-15	8	151	993	-26	3	220	976	-32	0	0
18	969	-30	8	205	4	971	-29	4	306	994	-42	2	309	974	-17	6	202	982	-16	10	126	991	-29	3	248	976	-32	3	196
21	968	-31	8	206	3	972	-32	7	333	993	-38	0	0	973	-15	5	185	987	-20	10	119	989	-26	2	234	975	-26	7	199
00	975	-28	1	182	23	978	-26	2	206	987	-27	1	240	979	-17	6	203	980	-13	9	208	980	-15	7	144	970	-12	11	160
03	975	-28	0	0	2	980	-26	7	127	986	-20	6	180	980	-15	7	168	980	-11	10	185	982	-19	10	129	968	-13	9	146
06	974	-33	0	0	7	982	-27	9	127	985	-24	3	208	981	-15	6	157	980	-13	6	153	984	-27	5	88	968	-14	11	154
09	973	-30	0	0	8	984	-28	8	132	983	-20	8	237	983	-18	7	136	980	-12	8	154	982	-26	0	0	970	-23	6	105
12	974	-29	2	188	8	985	-28	8	135	981	-20	6	219	987	-24	8	123	979	-10	14	151	979	-22	4	250	972	-24	6	132
15	975	-38	0	0	5	987	-28	5	120	979	-19	12	215	985	-24	0	0	979	-10	12	133	976	-13	5	198	973	-25	7	149
18	976	-34	1	279	2	988	-28	2	140	977	-18	13	215	983	-17	6	215	979	-13	10	147	974	-12	9	156	972	-22	5	163
21	977	-28	1	360	3	988	-31	3	199	978	-20	3	206	981	-15	7	203	979	-14	10	142	972	-12	6	174	970	-15	8	171
00	970	-14	6	158	29	969	-10	5	167	969	-10	5	167	969	-10	5	167	969	-10	5	167	969	-10	5	167	969	-10	5	167
03	971	-13	12	151	10	968	-9	11	137	968	-9	11	137	968	-9	11	137	968	-9	11	137	968	-9	11	137	968	-9	11	137
06	971	-14	12	150	11	967	-13	6	217	967	-13	6	217	967	-13	6	217	967	-13	6	217	967	-13	6	217	967	-13	6	217
09	972	-12	15	143	12	966	-11	8	195	966	-11	8	195	966	-11	8	195	966	-11	8	195	966	-11	8	195	966	-11	8	195
12	972	-13	11	130	13	967	-11	7	189	967	-11	7	189	967	-11	7	189	967	-11	7	189	967	-11	7	189	967	-11	7	189
15	972	-12	10	163	14	968	-9	10	126	968	-9	10	126	968	-9	10	126	968	-9	10	126	968	-9	10	126	968	-9	10	126
18	971	-13	7	177	15	969	-14	7	167	969	-14	7	167	969	-14	7	167	969	-14	7	167	969	-14	7	167	969	-14	7	167
21	970	-14	8	217	16	972	-19	11	142	972	-19	11	142	972	-19	11	142	972	-19	11	142	972	-19	11	142	972	-19	11	142

MONTHLY SUMMARY  
 \* TEMPERATURE (C) \* MEAN = -25.2 STD DEV = 11.0 MAX = -7.6 AT 353 GMT ON DAY 30 MIN = -51.1 AT 1305 GMT ON DAY 13  
 \* PRESSURE (MB) \* MEAN = 980.1 STD DEV = 8.8 MAX = 998.2 AT 1118 GMT ON DAY 14 MIN = 966.2 AT 804 GMT ON DAY 30  
 \* WINDS (M/S) \* MEAN = 6.4 STD DEV = 3.8 RESULTANT = 4.9 FROM 161. CONSTANCY = .76 MAX = 18.8 FROM 158. AT 1958 GMT DAY 5  
 \* MISSING 3-HOURLY OBSERVATIONS \* TEMPERATURE: .0 % WINDS: .0 %  
 WIND SPEED (M/S): 0-2 2-4 4-6 6-8 8-10 10-12 12-14 14-16 16-18 18-20 20-25 25-30 30-35 35-40 40-45 45-50 50-55 55-60 60+  
 PERCENT: 14 15 17 19 16 13 4 1 1  
 WIND DIRECTION: N NNE NE ENE E SE SSE S SSW SW W WNW NW NNW  
 PERCENT 2 0 0 0 0 0 4 4 25 25 11 10 7 4 4 4 1 1 2 3

































































STATION : 8922 MANUELA (INEXPR. IS.) LAT : 74.9 S LONG : 163.6E ELEVATION : 80 M

JUL HR	86	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD
00	988	-34	X	X	X	974	-25	X	X	968	-10	X	X	970	-14	X	X	983	-20	X	X	984	-17	X	X
03	985	-35	X	X	X	974	-20	X	X	977	-11	X	X	972	-20	X	X	981	-21	X	X	985	-18	X	X
06	982	-33	X	X	X	975	-20	X	X	978	-10	X	X	973	-23	X	X	980	-20	X	X	985	-19	X	X
09	981	-31	X	X	X	970	-17	X	X	978	-8	X	X	975	-25	X	X	982	-19	X	X	985	-19	X	X
12	980	-31	X	X	X	970	-15	X	X	975	-6	X	X	977	-26	X	X	982	-18	X	X	984	-18	X	X
15	978	-31	X	X	X	970	-14	X	X	974	-10	X	X	979	-19	X	X	983	-18	X	X	983	-18	X	X
18	978	-32	X	X	X	967	-12	X	X	973	-9	X	X	978	-19	X	X	982	-18	X	X	980	-19	X	X
21	977	-32	X	X	X	970	-10	X	X	971	-8	X	X	982	-19	X	X	981	-17	X	X	981	-19	X	X
00	979	-20	X	X	X	980	-31	X	X	987	-28	X	X	981	-31	X	X	963	-24	X	X	960	-25	X	X
03	976	-20	X	X	X	980	-30	X	X	987	-28	X	X	979	-30	X	X	962	-21	X	X	962	-25	X	X
06	974	-22	X	X	X	X	X	X	X	987	-29	X	X	977	-29	X	X	960	-21	X	X	961	-25	X	X
09	975	-23	X	X	X	982	-29	X	X	987	-30	X	X	974	-29	X	X	958	-23	X	X	960	-25	X	X
12	977	-22	X	X	X	983	-28	X	X	987	-30	X	X	972	-29	X	X	955	-24	X	X	960	-24	X	X
15	981	-26	X	X	X	983	-26	X	X	986	-29	X	X	969	-28	X	X	953	-24	X	X	960	-24	X	X
18	979	-24	X	X	X	983	-26	X	X	982	-27	X	X	968	-27	X	X	952	-26	X	X	964	-25	X	X
21	979	-24	X	X	X	985	-27	X	X	983	-28	X	X	966	-26	X	X	958	-25	X	X	967	-24	X	X
00	970	-24	X	X	X	986	-26	X	X	986	-21	X	X	993	-21	X	X	989	-24	X	X	989	-25	X	X
03	974	-23	X	X	X	986	-26	X	X	986	-20	X	X	992	-22	X	X	989	-24	X	X	991	-26	X	X
06	975	-22	X	X	X	986	-24	X	X	988	-22	X	X	991	-23	X	X	989	-25	X	X	992	-27	X	X
09	979	-21	X	X	X	986	-23	X	X	989	-23	X	X	990	-22	X	X	988	-26	X	X	993	-28	X	X
12	981	-24	X	X	X	984	-27	X	X	991	-22	X	X	990	-22	X	X	988	-26	X	X	993	-28	X	X
15	981	-25	X	X	X	986	-23	X	X	991	-22	X	X	989	-22	X	X	988	-26	X	X	994	-28	X	X
18	981	-26	X	X	X	986	-24	X	X	993	-21	X	X	989	-22	X	X	989	-26	X	X	994	-29	X	X
21	981	-27	X	X	X	986	-22	X	X	993	-21	X	X	988	-23	X	X	987	-26	X	X	995	-31	X	X
00	996	-31	X	X	X	986	-22	X	X	994	-22	X	X	988	-23	X	X	988	-26	X	X	995	-30	X	X
03	994	-30	X	X	X	974	-25	X	X	964	-30	X	X	977	-31	X	X	987	-29	X	X	981	-27	X	X
06	994	-30	X	X	X	X	X	X	X	965	-31	X	X	979	-32	X	X	988	-29	X	X	980	-26	X	X
09	993	-30	X	X	X	971	-26	X	X	966	-31	X	X	984	-33	X	X	988	-31	X	X	976	-25	X	X
12	992	-28	X	X	X	968	-27	X	X	968	-31	X	X	984	-32	X	X	988	-31	X	X	975	-25	X	X
15	991	-27	X	X	X	967	-28	X	X	970	-31	X	X	986	-31	X	X	986	-30	X	X	973	-26	X	X
18	991	-27	X	X	X	965	-30	X	X	971	-32	X	X	987	-30	X	X	984	-29	X	X	972	-28	X	X
21	991	-28	X	X	X	963	-30	X	X	974	-32	X	X	988	-30	X	X	983	-28	X	X	972	-29	X	X
00	970	-30	X	X	X	965	-31	X	X	975	-32	X	X	988	-29	X	X	983	-27	X	X	971	-30	X	X
03	970	-31	X	X	X	963	-22	X	X	964	-30	X	X	977	-31	X	X	987	-29	X	X	981	-27	X	X
06	969	-31	X	X	X	964	-20	X	X	965	-31	X	X	979	-32	X	X	988	-29	X	X	980	-26	X	X
09	968	-31	X	X	X	967	-20	X	X	966	-31	X	X	981	-33	X	X	988	-31	X	X	976	-25	X	X
12	967	-31	X	X	X	967	-21	X	X	968	-31	X	X	984	-32	X	X	988	-31	X	X	975	-25	X	X
15	967	-31	X	X	X	967	-21	X	X	970	-31	X	X	986	-31	X	X	986	-30	X	X	973	-26	X	X
18	966	-31	X	X	X	970	-21	X	X	971	-32	X	X	987	-30	X	X	984	-29	X	X	972	-28	X	X
21	965	-30	X	X	X	977	-23	X	X	974	-32	X	X	988	-30	X	X	983	-28	X	X	972	-29	X	X
00	970	-30	X	X	X	981	-26	X	X	981	-26	X	X	988	-29	X	X	983	-27	X	X	971	-30	X	X
03	970	-31	X	X	X	963	-22	X	X	975	-32	X	X	988	-29	X	X	983	-27	X	X	971	-30	X	X
06	969	-31	X	X	X	963	-22	X	X	975	-32	X	X	988	-29	X	X	983	-27	X	X	971	-30	X	X
09	968	-31	X	X	X	963	-22	X	X	975	-32	X	X	988	-29	X	X	983	-27	X	X	971	-30	X	X
12	967	-31	X	X	X	963	-22	X	X	975	-32	X	X	988	-29	X	X	983	-27	X	X	971	-30	X	X
15	967	-31	X	X	X	963	-22	X	X	975	-32	X	X	988	-29	X	X	983	-27	X	X	971	-30	X	X
18	966	-31	X	X	X	963	-22	X	X	975	-32	X	X	988	-29	X	X	983	-27	X	X	971	-30	X	X
21	965	-30	X	X	X	963	-22	X	X	975	-32	X	X	988	-29	X	X	983	-27	X	X	971	-30	X	X

MONTHLY SUMMARY  
 \* TEMPERATURE (C) \* MEAN = -24.9 STD DEV = 5.2 MAX = -4.6 AT 1223 GMT ON DAY 4 MIN = -35.2 AT 317 GMT ON DAY 1  
 \* PRESSURE (MB) \* MEAN = 978.3 STD DEV = 9.7 MAX = 996.0 AT 2258 GMT ON DAY 21 MIN = 951.5 AT 1815 GMT ON DAY 13  
 \* WINDS (M/S) \* MEAN = STD DEV = RESULTANT = FROM PRESSURE: .8% WINDS: 100.0%  
 \* MISSING 3-HOURLY OBSERVATIONS \* TEMPERATURE: .8% PRESSURE: 20-25 25-30 30-35 35-40 40-45 45-50 50-55 55-60 60+  
 WIND SPEED (M/S): 0-2 2-4 4-6 6-8 8-10 10-12 12-14 14-16 16-18 18-20 20-25 25-30 30-35 35-40 40-45 45-50 50-55 55-60 60+  
 PERCENT: N 0 E 0 NE 0 ESE 0 SE 0 SSE 0 S 0 SSW 0 W 0 WNW 0 NNW 0  
 WIND DIRECTION: N 0 NE 0 E 0 ESE 0 SE 0 SSE 0 S 0 SSW 0 W 0 WNW 0 NNW 0









STATION : 8922 MANUELA (INEXPR. ISL.) LAT : 74.9 S LONG : 163.6E ELEVATION : 80 M

NOV 86

HR	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD
00	971	-19	X	X	964	-17	X	X	986	-16	X	X	980	-17	X	X	971	-11	X	X	971	-11	X	X	971	-11	X	X
03	971	-18	X	X	962	-18	X	X	954	-15	X	X	979	-14	X	X	969	-10	X	X	969	-10	X	X	969	-10	X	X
06	971	-18	X	X	960	-18	X	X	955	-15	X	X	977	-14	X	X	977	-14	X	X	977	-14	X	X	977	-14	X	X
09	970	-20	X	X	958	-19	X	X	957	-18	X	X	985	-14	X	X	976	-15	X	X	976	-15	X	X	976	-15	X	X
12	969	-21	X	X	957	-21	X	X	958	-21	X	X	984	-18	X	X	976	-16	X	X	976	-16	X	X	976	-16	X	X
15	968	-23	X	X	956	-23	X	X	959	-23	X	X	983	-19	X	X	977	-16	X	X	977	-16	X	X	977	-16	X	X
18	967	-21	X	X	954	-21	X	X	959	-22	X	X	984	-18	X	X	982	-20	X	X	982	-20	X	X	982	-20	X	X
21	965	-20	X	X	953	-20	X	X	962	-19	X	X	985	-17	X	X	973	-14	X	X	973	-14	X	X	973	-14	X	X
		DAY 8																										
		DAY 9																										
00	966	-11	X	X	969	-9	X	X	977	-9	X	X	972	-10	X	X	966	-7	X	X	966	-7	X	X	966	-7	X	X
03	966	-9	X	X	971	-8	X	X	978	-6	X	X	970	-8	X	X	965	-5	X	X	965	-5	X	X	965	-5	X	X
06	965	-9	X	X	972	-7	X	X	978	-7	X	X	969	-8	X	X	965	-10	X	X	965	-10	X	X	965	-10	X	X
09	964	-10	X	X	974	-8	X	X	978	-8	X	X	967	-9	X	X	964	-6	X	X	964	-6	X	X	964	-6	X	X
12	965	-10	X	X	974	-8	X	X	977	-11	X	X	967	-9	X	X	963	-7	X	X	963	-7	X	X	963	-7	X	X
15	965	-10	X	X	974	-8	X	X	976	-11	X	X	966	-10	X	X	962	-12	X	X	962	-12	X	X	962	-12	X	X
18	967	-10	X	X	976	-8	X	X	973	-12	X	X	966	-10	X	X	960	-14	X	X	960	-14	X	X	960	-14	X	X
21	968	-10	X	X	976	-9	X	X	973	-12	X	X	966	-10	X	X	958	-14	X	X	958	-14	X	X	958	-14	X	X
		DAY 15																										
		DAY 16																										
00	974	-10	X	X	971	-10	X	X	975	-13	X	X	981	-5	X	X	976	-5	X	X	976	-5	X	X	976	-5	X	X
03	974	-8	X	X	971	-10	X	X	975	-12	X	X	979	-5	X	X	975	-4	X	X	975	-4	X	X	975	-4	X	X
06	974	-8	X	X	971	-10	X	X	980	-9	X	X	977	-3	X	X	975	-4	X	X	975	-4	X	X	975	-4	X	X
09	973	-9	X	X	971	-11	X	X	982	-10	X	X	976	-4	X	X	975	-5	X	X	975	-5	X	X	975	-5	X	X
12	973	-9	X	X	973	-13	X	X	981	-10	X	X	974	-7	X	X	974	-8	X	X	974	-8	X	X	974	-8	X	X
15	973	-10	X	X	974	-15	X	X	980	-10	X	X	971	-8	X	X	974	-9	X	X	974	-9	X	X	974	-9	X	X
18	973	-12	X	X	975	-16	X	X	980	-10	X	X	972	-9	X	X	973	-9	X	X	973	-9	X	X	973	-9	X	X
21	972	-11	X	X	975	-15	X	X	979	-8	X	X	975	-8	X	X	974	-8	X	X	974	-8	X	X	974	-8	X	X
		DAY 22																										
		DAY 23																										
00	973	-7	X	X	978	-8	X	X	979	-8	X	X	975	-9	X	X	982	-8	X	X	982	-8	X	X	982	-8	X	X
03	973	-6	X	X	979	-6	X	X	979	-7	X	X	974	-7	X	X	983	-7	X	X	983	-7	X	X	983	-7	X	X
06	973	-6	X	X	980	-5	X	X	979	-6	X	X	974	-6	X	X	984	-6	X	X	984	-6	X	X	984	-6	X	X
09	973	-8	X	X	980	-6	X	X	978	-6	X	X	975	-6	X	X	984	-7	X	X	984	-7	X	X	984	-7	X	X
12	974	-10	X	X	980	-8	X	X	977	-9	X	X	976	-9	X	X	985	-10	X	X	985	-10	X	X	985	-10	X	X
15	975	-10	X	X	980	-9	X	X	977	-9	X	X	976	-9	X	X	985	-10	X	X	985	-10	X	X	985	-10	X	X
18	976	-11	X	X	980	-10	X	X	976	-11	X	X	977	-11	X	X	985	-11	X	X	985	-11	X	X	985	-11	X	X
21	977	-10	X	X	979	-11	X	X	975	-12	X	X	979	-11	X	X	984	-11	X	X	984	-11	X	X	984	-11	X	X
		DAY 29																										
		DAY 30																										
00	973	-7	X	X	969	-8	X	X	979	-8	X	X	975	-9	X	X	982	-8	X	X	982	-8	X	X	982	-8	X	X
03	973	-5	X	X	968	-6	X	X	979	-7	X	X	974	-7	X	X	983	-7	X	X	983	-7	X	X	983	-7	X	X
06	972	-7	X	X	968	-7	X	X	979	-6	X	X	974	-6	X	X	984	-6	X	X	984	-6	X	X	984	-6	X	X
09	972	-8	X	X	967	-7	X	X	978	-6	X	X	975	-6	X	X	984	-7	X	X	984	-7	X	X	984	-7	X	X
12	972	-9	X	X	968	-11	X	X	977	-9	X	X	975	-6	X	X	984	-7	X	X	984	-7	X	X	984	-7	X	X
15	971	-9	X	X	969	-11	X	X	977	-9	X	X	976	-9	X	X	985	-10	X	X	985	-10	X	X	985	-10	X	X
18	970	-11	X	X	971	-10	X	X	976	-11	X	X	977	-11	X	X	985	-11	X	X	985	-11	X	X	985	-11	X	X
21	969	-10	X	X	971	-9	X	X	975	-12	X	X	979	-11	X	X	984	-11	X	X	984	-11	X	X	984	-11	X	X
		DAY 28																										
		DAY 27																										
		DAY 26																										
		DAY 25																										
		DAY 24																										
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		DAY 9																										
		DAY 8																										
		DAY 7																										
		DAY 6																										
		DAY 5																										
		DAY 4																										
		DAY 3																										
		DAY 2																										
		DAY 1																										

MONTHLY SUMMARY

\* TEMPERATURE (C) \* MEAN = -10.7 STD DEV = 4.4 MAX = -1.1 AT 326 GMT ON DAY 7 MIN = -22.7 AT 1429 GMT ON DAY 1





























STATION : 8926 Larsen Ice Shelf

LAT : 67.0 S LONG : 60.6W ELEVATION : 17 M

APR HR	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD
00	988	-8	4	225	982	X	8	18	979	X	5	209	996	-13	2	74	984	-4	6	223	974	X	7	303				
03	989	-11	3	243	980	X	7	15	979	X	5	198	995	-10	3	90	983	-5	2	253	972	X	3	244				
06	989	-14	0	0	977	X	8	22	980	X	5	345	993	-9	4	105	981	-1	2	236	971	X	3	185				
09	989	-14	4	4	975	X	5	355	981	X	3	267	991	-7	2	111	980	-1	2	330	970	X	2	127				
12	989	-17	6	1	977	X	2	261	981	X	5	189	989	-6	1	75	979	-2	2	265	969	X	5	199				
15	988	-7	6	4	977	X	3	285	982	X	2	194	994	X	2	285	977	-4	2	268	968	X	3	210				
18	986	X	7	21	978	X	3	351	982	X	7	192	996	-12	1	261	986	X	2	272	966	X	4	209				
21	984	X	7	9	978	X	4	358	982	X	3	167	996	-11	2	97	985	X	5	225	966	X	6	182				
00	966	X	6	209	974	X	8	172	982	-16	11	192	995	-33	3	198	1003	-30	1	286	1001	-26	5	11				
03	966	X	6	209	974	-14	10	175	982	-19	8	209	996	-32	3	210	1003	-29	0	0	1000	-28	4	360				
06	966	X	6	209	974	X	11	194	983	-20	7	189	998	-33	2	225	1004	-30	0	0	998	-24	6	358				
09	967	-3	7	194	974	-16	11	177	984	-20	7	212	999	-34	2	250	1003	-29	1	360	997	-25	5	9				
12	968	-4	8	195	976	X	13	178	985	-24	6	202	1000	-36	2	239	1003	-28	1	92	995	-23	4	360				
15	969	-5	9	178	978	X	12	171	987	-22	6	205	1001	-33	1	241	1003	-27	2	40	994	-21	5	360				
18	970	-5	5	165	980	X	6	205	987	X	4	212	1002	-31	2	264	1002	-23	1	1	993	-18	3	25				
21	972	-6	9	168	981	X	9	202	988	X	5	220	1003	-35	2	279	1002	-26	1	54	991	-19	2	46				
00	989	-19	3	45	986	-16	2	185	983	-15	5	182	993	-24	3	217	1003	-35	2	279	991	-19	2	46				
03	989	-19	0	0	986	-16	1	158	983	-17	6	189	983	-21	6	216	983	-22	3	192	996	-19	1	125				
06	989	-16	0	0	985	-16	2	161	984	-17	4	191	982	-20	5	212	982	-22	2	215	987	-18	1	150				
09	988	-18	1	163	984	-16	5	147	984	-18	5	185	982	-22	7	205	982	-21	2	177	989	-19	3	133				
12	988	-20	0	0	983	-16	4	130	984	-18	5	189	982	-24	7	205	982	-20	2	192	990	-20	5	132				
15	988	-21	2	210	983	-15	5	156	984	-18	5	198	982	-21	7	209	982	-20	1	165	992	-21	4	178				
18	987	-18	3	187	982	-15	6	146	984	-18	5	198	982	-19	7	202	983	-18	1	163	994	-21	4	191				
21	987	-17	2	177	982	-15	6	146	983	-18	6	202	982	-20	5	201	983	-18	2	165	994	-20	2	174				
00	990	-25	1	257	988	-13	4	56	991	-9	2	120	984	-23	5	201	984	-19	2	191	996	-22	2	212				
03	989	-25	0	0	990	-14	1	66	991	-10	3	33	997	-16	4	196	984	-16	6	230	994	-24	2	305				
06	989	-22	3	323	990	-17	3	22	991	-10	1	285	996	-15	3	202	985	-17	7	219	994	-21	1	129				
09	989	-21	0	0	991	-18	5	354	992	-11	0	0	994	-16	1	209	986	-17	7	222	993	-18	2	95				
12	989	-20	1	43	991	-16	4	358	992	-12	3	215	993	-15	6	220	988	-20	4	220	991	-17	4	105				
15	989	-17	3	11	991	-13	4	348	992	-12	3	158	990	-15	7	215	990	-22	3	239	990	-17	2	132				
18	988	-16	3	14	990	-11	3	25	992	-13	3	195	988	-15	5	229	992	-25	3	272	990	-15	2	143				
21	987	-14	3	74	990	-10	3	109	992	-13	3	181	986	-15	6	232	993	-25	4	217	990	-16	5	208				
00	990	-18	7	189	995	-20	9	178	992	-14	3	181	984	-16	8	232	993	-26	1	243	990	-17	6	191				
03	990	-19	7	196	996	-20	8	181	991	-10	3	33	997	-16	4	196	984	-16	6	230	994	-24	2	305				
06	991	-19	6	198	997	-20	7	181	991	-10	1	285	996	-15	3	202	985	-17	7	219	994	-21	1	129				
09	990	-19	8	199	997	-21	8	175	991	-10	1	285	994	-16	1	209	986	-17	7	222	993	-18	2	95				
12	991	-19	9	205	997	-21	8	175	992	-11	0	0	995	-16	4	209	988	-20	4	220	991	-17	4	105				
15	992	-18	7	202	998	-20	6	175	992	-12	3	215	996	-16	2	177	990	-15	7	215	990	-22	3	239				
18	993	-19	9	192	998	-20	6	180	992	-12	3	158	998	-17	4	198	988	-15	5	229	992	-25	3	272				
21	994	-19	8	182	997	-21	5	177	992	-13	3	195	998	-16	4	182	986	-15	6	232	993	-25	4	217				
00	990	-18	7	189	995	-20	9	178	992	-14	3	181	984	-16	8	232	993	-26	1	243	990	-17	6	191				

MONTHLY SUMMARY

TEMPERATURE (C)	MEAN	-18.6	STD DEV	7.3	MAX	-7.1	AT 1954	GMT ON DAY 4	MIN	-37.6	AT 737 GMT ON DAY 21								
PRESSURE (MB)	MEAN	987.4	STD DEV	8.3	MAX	1003.5	AT 627 GMT ON DAY 13	MIN	965.4	AT 144 GMT ON DAY 8									
WINDS (M/S)	MEAN	4.0	STD DEV	2.5	RESULTANT	2.1	FROM 199	CONSTANCY	= .52	MAX = 13.7	FROM 177	AT 852 GMT DAY 9							
MISSING 3-HOURLY OBSERVATIONS	TEMPERATURE	20.0	%	PRESSURE	0.0	%	WINDS	0.0	%										
WIND SPEED (M/S)	0-2	2-4	4-6	6-8	8-10	10-12	12-14	14-16	16-18	18-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60+
PERCENT:	23	34	22	13	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0
WIND DIRECTION:	N	NNW	NE	E	ESE	SE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	NNW	NNW	NNW
PERCENT	10	4	3	2	2	4	2	7	17	23	12	5	4	2	1	3	1	3	3







































































































































STATION : 8905 PATRICK (POLE - NE) LAT : 89.8 S LONG : 45.0E ELEVATION : 2835 M

JUN 86	HR	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD
00	669	-57	2	358	1	665	-66	1	118	659	-72	1	144	663	-62	3	39	657	-68	2	39	664	-72	4	85	680	-72	0	0
03	668	-55	2	4	0	663	-68	0	0	663	-62	4	32	666	-72	4	36	657	-67	4	36	666	-72	4	84	679	-66	2	73
06	668	-55	4	12	0	662	-69	2	144	660	-72	1	127	661	-62	4	32	658	-69	2	90	669	-60	2	99	679	-60	2	99
09	668	-54	2	9	0	661	-70	0	0	661	-68	0	0	660	-62	4	42	658	-70	1	94	672	-71	5	112	678	-59	0	0
12	668	-56	3	23	0	660	-70	0	0	659	-64	3	30	659	-72	1	111	659	-72	1	111	675	-72	3	106	677	-58	0	0
15	667	-57	3	21	0	662	-65	3	54	662	-65	3	54	660	-73	3	122	660	-73	3	122	677	-71	3	113	677	-62	0	0
18	667	-59	1	52	0	659	-71	0	0	663	-64	2	38	658	-66	2	33	661	-73	0	0	679	-72	3	118	677	-60	0	0
21	666	-64	0	0	0	659	-72	0	0	663	-63	3	37	657	-67	3	33	662	-73	1	104	679	-73	2	122	677	-64	0	0
00	677	-64	0	0	0	678	-62	1	92	665	-63	6	33	689	-45	6	360	702	-38	7	2	699	-45	3	53	698	-58	1	104
03	677	-62	0	0	0	677	-65	4	99	664	-61	8	30	691	-44	6	360	703	-38	7	360	698	-48	2	50	699	-59	1	94
06	677	-58	0	0	0	675	-66	4	97	664	-61	7	28	693	-44	4	360	704	-35	8	358	696	-50	3	74	700	-61	1	163
09	676	-57	0	0	0	673	-69	4	82	666	-59	8	4	695	-39	7	360	705	-35	10	360	695	-52	2	67	700	-56	3	105
12	677	-56	1	80	0	671	-70	6	78	668	-49	9	8	697	-39	5	360	706	-37	9	354	695	-53	4	46	701	-53	2	88
15	677	-56	0	0	0	670	-69	5	80	672	-43	8	358	699	-37	8	360	706	-40	6	7	695	-57	1	57	701	-54	0	0
18	677	-56	1	94	0	667	-68	4	70	678	-43	7	351	700	-39	8	2	704	-41	7	21	696	-57	1	68	701	-57	0	0
21	678	-58	2	75	0	666	-65	5	54	684	-47	5	360	701	-37	8	360	702	-43	2	37	697	-58	1	61	701	-56	1	7
00	701	-55	0	0	0	697	-56	2	91	698	-62	0	0	695	-59	0	0	690	-63	2	151	677	-62	1	177	674	-71	0	0
03	700	-55	0	0	0	697	-58	2	168	697	-64	0	0	695	-60	2	130	689	-62	1	136	676	-67	1	151	674	-72	0	0
06	700	-55	0	0	0	697	-59	2	81	697	-61	1	157	694	-60	0	0	687	-62	2	127	675	-68	0	0	674	-72	0	0
09	700	-57	0	0	0	697	-61	2	144	697	-62	0	0	694	-62	1	144	686	-62	0	0	675	-68	0	0	675	-72	0	0
12	699	-58	1	132	0	697	-63	2	115	697	-62	2	172	693	-61	2	132	685	-60	2	143	675	-67	0	0	675	-72	0	0
15	699	-53	3	53	0	697	-62	2	108	696	-61	2	120	692	-61	2	137	682	-62	1	157	674	-63	0	0	675	-69	0	0
18	698	-55	2	137	0	697	-61	1	132	696	-60	3	122	691	-62	2	120	681	-64	1	147	674	-66	0	0	676	-67	0	0
21	697	-54	3	157	0	697	-61	1	71	695	-60	3	123	691	-62	3	167	679	-61	0	0	674	-66	0	0	676	-63	3	36
00	677	-61	3	21	0	681	-66	1	45	683	-71	0	0	681	-70	1	127	679	-73	0	0	677	-72	3	136	677	-77	0	0
03	677	-60	3	19	0	682	-68	0	0	683	-71	0	0	680	-70	2	133	679	-74	0	0	676	-73	0	0	677	-77	0	0
06	678	-59	4	29	0	682	-66	0	0	683	-69	1	136	680	-69	1	126	679	-74	2	104	676	-73	1	143	677	-77	0	0
09	678	-59	5	19	0	682	-66	0	0	683	-71	2	154	679	-68	2	150	679	-74	2	123	X	X	X	X	678	-77	0	0
12	679	-59	5	21	0	683	-69	0	0	683	-71	2	139	679	-68	3	135	679	-72	3	127	676	-74	0	0	678	-76	0	0
15	679	-62	3	32	0	683	-69	0	0	683	-72	1	160	679	-69	2	125	678	-73	1	143	X	X	X	X	678	-76	0	0
18	680	-64	3	33	0	683	-69	0	0	682	-71	1	130	679	-72	1	146	678	-73	1	167	676	-76	1	109	678	-75	0	0
21	681	-65	0	0	0	683	-69	0	0	682	-72	0	0	677	-72	2	142	677	-72	2	142	676	-76	0	0	679	-73	2	50
00	680	-68	2	16	0	687	-70	1	52	683	-71	0	0	681	-70	1	127	679	-73	0	0	677	-72	3	136	677	-77	0	0
03	680	-66	4	4	0	686	-71	1	43	683	-71	0	0	680	-70	2	133	679	-74	0	0	676	-73	0	0	677	-77	0	0
06	681	-65	3	360	0	686	-71	0	0	683	-69	1	136	680	-69	1	126	679	-74	2	104	676	-73	1	143	677	-77	0	0
09	683	-66	3	4	0	685	-70	0	0	683	-71	2	154	679	-68	2	150	679	-74	2	123	X	X	X	X	678	-77	0	0
12	684	-66	4	2	0	685	-70	0	0	683	-71	2	139	679	-68	3	135	679	-72	3	127	676	-74	0	0	678	-76	0	0
15	685	-66	4	9	0	681	-70	0	0	683	-72	1	160	679	-69	2	125	678	-73	1	143	X	X	X	X	678	-76	0	0
18	686	-69	1	39	0	680	-70	0	0	682	-71	1	130	679	-72	1	146	678	-73	1	167	676	-76	1	109	678	-75	0	0
21	686	-70	2	16	0	678	-69	1	142	682	-72	0	0	677	-72	2	142	677	-72	2	142	676	-76	0	0	679	-73	2	50
00	680	-68	2	16	0	687	-70	1	52	683	-71	0	0	681	-70	1	127	679	-73	0	0	677	-72	3	136	677	-77	0	0
03	680	-66	4	4	0	686	-71	1	43	683	-71	0	0	680	-70	2	133	679	-74	0	0	676	-73	0	0	677	-77	0	0
06	681	-65	3	360	0	686	-71	0	0	683	-69	1	136	680	-69	1	126	679	-74	2	104	676	-73	1	143	677	-77	0	0
09	683	-66	3	4	0	685	-70	0	0	683	-71	2	154	679	-68	2	150	679	-74	2	123	X	X	X	X	678	-77	0	0
12	684	-66	4	2	0	685	-70	0	0	683	-71	2	139	679	-68	3	135	679	-72	3	127	676	-74	0	0	678	-76	0	0
15	685	-66	4	9	0	681	-70	0	0	683	-72	1	160	679	-69	2	125	678	-73	1	143	X	X	X	X	678	-76	0	0
18	686	-69	1	39	0	680	-70	0	0	682	-71	1	130	679	-72	1	146	678	-73	1	167	676	-76	1	109	678	-75	0	0
21	686	-70	2	16	0	678	-69	1	142	682	-72	0	0	677	-72	2	142	677	-72	2	142	676	-76	0	0	679	-73	2	50
00	680	-68	2	16	0	687	-70	1	52	683	-71	0	0	681	-70	1	127	679	-73	0	0	677	-72	3	136	677	-77	0	0
03	680	-66	4	4	0	686	-71	1	43	683	-71	0	0	680	-70	2	133	679	-74	0	0	676	-73	0	0	677	-77	0	0
06	681	-65	3	360	0	686	-71	0	0	683	-69	1	136	680	-69	1	126	679	-74	2	104	676	-73	1	143	677	-77	0	0
09	683	-66	3	4	0	685	-70	0	0	683	-71	2	154	679	-68	2	150	679	-74	2	123	X	X	X	X	678	-77	0	0
12	684	-66	4	2	0	685	-70	0	0	683	-71	2	139	679	-68	3	135	679	-72	3	127	676	-74	0	0	678	-76	0	0
15	685	-66	4	9	0	681	-70	0	0	683	-72	1	160	679	-69	2	125	678	-73	1	143	X	X	X	X	678	-76	0	0
18	686	-69	1	39	0	680	-70	0	0	682	-71	1	130	679	-72	1	146	678	-73	1	167	676	-76	1	109	678	-75	0	0
21	686	-70	2	16	0	678	-69	1	142	682	-72	0	0	677	-72	2	142	677	-72	2	142	676	-76	0	0	679	-73	2	50

MONTHLY SUMMARY

\* TEMPERATURE (C) \* MEAN = -63.0 STD DEV = 9.3 MAX = -34.0 AT



























STATION : 8900 ALLISON (POLE - NW) LAT : 89.8 S LONG : ELEVATION : 2835 M

HR	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	
00	677	-60	3	120	667	-60	3	88	674	-60	4	40	682	-64	4	40	683	-60	4	49	681	-51	5	22	682
03	676	-63	4	108	666	-59	2	88	675	-62	4	49	682	-64	3	71	682	-60	4	39	681	-51	3	21	683
06	674	-63	4	101	666	-60	1	73	676	-61	4	56	682	-61	4	56	682	-60	4	35	681	-51	6	8	683
09	672	-60	5	104	667	-59	2	74	677	-62	4	43	682	-61	3	36	682	-61	3	36	681	-51	6	14	684
12	671	-58	6	92	668	-60	1	53	679	-63	3	66	683	-60	4	46	682	-59	6	26	681	-52	7	18	684
15	669	-57	6	97	669	-55	5	54	679	-63	3	57	682	-59	4	53	681	-56	8	7	681	-53	5	18	684
18	668	-58	4	94	670	-58	5	43	680	-62	4	59	683	-60	5	52	681	-54	8	4	681	-54	6	18	684
21	667	-58	5	95	672	-59	3	43	681	-61	5	53	683	-60	4	43	681	-51	7	2	682	-55	8	28	684
00	684	-60	4	66	684	-62	4	50	692	-60	6	37	694	-61	3	42	694	-60	12	47	694	-59	1	78	691
03	684	-61	4	67	685	-61	5	52	692	-60	6	28	694	-58	3	37	694	-61	1	46	694	-62	0	0	690
06	684	-62	2	80	686	-60	4	50	693	-59	5	32	694	-60	4	23	694	-60	0	0	693	-59	0	0	690
09	684	-61	3	66	687	-62	4	52	693	-58	5	36	694	-59	5	30	694	-60	0	0	693	-58	0	0	690
12	684	-62	2	67	688	-61	4	40	693	-57	5	32	694	-59	3	49	694	-60	0	0	693	-60	0	0	690
15	684	-63	2	70	689	-60	5	40	694	-58	4	32	694	-59	4	33	694	-62	0	0	693	-59	0	0	690
18	684	-62	2	64	690	-61	5	46	694	-58	3	36	694	-61	2	47	694	-60	0	0	692	-58	1	105	690
21	685	-64	1	53	691	-61	5	45	694	-59	5	29	694	-59	4	40	694	-60	0	0	692	-58	1	73	690
00	690	-69	1	47	689	-62	3	43	683	-69	2	47	686	-70	0	0	689	-63	0	0	689	-63	0	0	694
03	690	-69	1	66	689	-65	0	0	683	-71	0	0	687	-70	0	0	690	-63	5	112	690	-62	3	106	694
06	690	-68	0	0	688	-64	0	0	687	-70	0	0	687	-70	0	0	690	-63	0	0	690	-61	3	115	694
09	690	-66	2	57	687	-66	2	49	683	-72	0	0	688	-69	0	0	691	-59	3	106	690	-61	2	91	694
12	690	-65	1	52	686	-68	0	0	684	-72	0	0	688	-67	0	0	691	-57	2	94	691	-61	1	116	694
15	690	-63	4	40	685	-68	0	0	684	-73	0	0	689	-68	0	0	691	-57	2	105	692	-61	3	61	695
18	690	-64	0	0	684	-69	0	0	684	-71	0	0	689	-65	3	139	691	-57	2	160	693	-59	3	63	696
21	690	-64	2	49	683	-68	2	49	686	-72	0	0	689	-65	3	126	691	-58	1	116	693	-60	4	77	696
00	697	-57	4	84	693	-59	5	92	693	-54	1	61	688	-63	0	0	690	-57	3	81	692	-56	5	78	690
03	697	-58	3	95	693	-58	7	99	693	-55	6	85	687	-63	2	68	690	-58	4	82	692	-56	2	77	689
06	697	-57	0	0	693	-58	6	97	692	-57	0	0	687	-63	1	59	690	-57	4	88	693	-57	0	0	686
09	696	-55	1	88	692	-58	7	98	691	-59	3	97	687	-60	4	67	690	-58	4	80	693	-57	4	97	685
12	696	-54	0	0	692	-57	7	91	690	-61	4	97	688	-59	3	74	691	-56	5	70	693	-57	3	88	684
15	694	-54	6	102	693	-58	4	94	690	-61	3	87	688	-60	2	70	691	-55	6	82	692	-58	1	91	684
18	693	-57	7	108	692	-56	7	88	689	-61	2	82	688	-60	5	64	691	-57	6	95	692	-57	1	78	683
21	693	-58	7	94	693	-53	8	82	688	-61	4	77	690	-57	4	67	692	-56	8	88	692	-58	0	0	683
00	683	-56	5	82	673	-60	5	77	666	-55	4	29	666	-54	4	29	666	-54	3	35	667	-55	3	35	668
03	682	-57	6	80	671	-60	6	63	666	-54	2	39	666	-54	2	39	666	-54	3	35	667	-55	3	35	668
06	682	-56	6	77	669	-60	6	70	667	-55	3	35	667	-55	3	35	667	-55	3	35	667	-55	3	35	668
09	681	-57	6	74	668	-50	5	56	668	-56	3	5	668	-56	3	5	668	-56	3	5	668	-56	3	5	668
12	679	-58	5	82	667	-47	7	37	669	-61	4	14	669	-61	4	14	669	-61	4	14	669	-61	4	14	669
15	678	-58	5	80	666	-47	4	53	669	-58	2	26	669	-58	2	26	669	-58	2	26	669	-58	2	26	669
18	676	-60	5	91	666	-51	5	39	669	-57	3	18	669	-57	3	18	669	-57	3	18	669	-57	3	18	669
21	674	-60	6	78	666	-54	4	36	669	-56	3	18	669	-56	3	18	669	-56	3	18	669	-56	3	18	669

MONTHLY SUMMARY  
 \* TEMPERATURE (C) \* MEAN = -59.9 STD DEV = 4.5 MAX = -46.2 AT 1601 GMT ON DAY 30 MIN = -77.1 AT 546 GMT ON DAY 9  
 \* PRESSURE (MB) \* MEAN = 685.6 STD DEV = 8.1 MAX = 697.2 AT 351 GMT ON DAY 22 MIN = 665.7 AT 456 GMT ON DAY 2  
 \* WINDS (M/S) \* MEAN = 3.1 STD DEV = 2.1 RESULTANT = 2.7 FROM 62. CONSTANCY = .87 MAX = 10.7 FROM 360. AT 529 GMT DAY 6  
 \* MISSING 3-HOURLY OBSERVATIONS \* TEMPERATURE: .0 % PRESSURE: .0 % WINDS: .0 %  
 WIND SPEED (M/S): 0-2 2-4 4-6 6-8 8-10 10-12 12-14 14-16 16-18 18-20 20-25 25-30 30-35 35-40 40-45 45-50 50-55 55-60 60+  
 PERCENT: 31 31 27 10  
 WIND DIRECTION: N NNE NE E ESE SE SSE S SSW SW W WNW NNW  
 PERCENT: 2 10 29 26 23 7 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0







STATION : 8908 TIFFANY (ICE SHELF - SE) LAT : 77.9 S LONG : 166.2E ELEVATION : 25 M

HR	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD	PP	TT	VV	DD
00	996	-4	1	299	1001	-8	4	4	1000	-3	0	0	995	-4	4	26	996	-3	3	292	997	-3	2	205
03	997	-5	4	188	1001	-4	2	315	999	-3	1	345	994	-3	3	32	997	-1	0	0	996	-2	3	277
06	998	-5	2	140	1001	-5	2	323	998	-4	2	18	994	-3	3	35	997	-4	2	156	995	-2	2	306
09	999	-7	4	16	1001	-4	0	0	998	-6	1	35	994	-4	1	36	997	-5	1	5	995	-5	2	320
12	1000	-9	2	9	1001	-12	1	12	997	-9	2	8	995	-4	2	14	998	-8	4	18	994	-6	2	116
15	1000	-10	0	0	1001	-13	0	0	996	-9	1	54	995	-5	1	2	997	-7	5	29	993	-11	0	0
18	1000	-10	0	0	X	X	X	X	996	-10	1	33	996	-6	2	21	997	-6	4	267	993	-9	2	28
21	1001	-10	2	2	X	X	X	X	996	-6	1	22	996	-5	2	330	997	-4	5	258	993	-4	4	261
00	996	-4	2	344	997	-4	4	282	996	-5	7	282	993	-7	4	14	991	-8	1	19	X	X	X	X
03	995	-4	3	9	997	-4	4	285	994	-5	7	278	993	-8	6	15	991	-7	1	25	986	-3	4	244
06	995	-4	2	7	997	-4	3	63	993	-5	5	265	993	-9	7	74	X	X	X	X	986	-3	4	149
09	995	-6	2	352	997	-5	4	285	992	-6	6	270	992	-8	5	9	X	X	X	X	986	-7	0	0
12	995	-5	2	319	997	-7	5	281	992	-10	1	205	992	-8	2	11	X	X	X	X	987	-6	4	22
15	995	-8	3	21	997	-6	6	278	991	-6	4	272	991	-9	3	115	X	X	X	X	988	-7	4	4
18	995	-5	3	37	997	-6	6	272	991	-9	3	223	992	-9	5	8	X	X	X	X	989	-7	4	4
21	996	-4	6	60	996	-5	7	279	992	-8	3	18	991	-9	4	14	X	X	X	X	990	-2	4	317
00	995	-2	1	330	985	-5	0	0	991	-1	6	225	988	-3	2	118	988	-5	5	146	991	-5	4	286
03	994	0	1	113	985	-2	0	0	991	-1	4	268	987	-2	2	130	988	-5	9	15	990	-4	3	291
06	993	-1	1	23	985	-3	3	153	990	-2	10	226	986	-2	0	0	988	-4	5	29	990	-3	2	312
09	991	-4	2	73	986	-4	1	113	991	-2	8	223	986	-4	1	151	989	-5	4	21	990	-4	4	215
12	990	-8	1	355	988	-5	6	11	991	-2	2	172	986	-6	1	172	989	-6	4	146	991	-6	3	53
15	988	-7	0	0	989	-6	6	12	991	-8	2	2	986	-8	2	163	990	-7	0	0	991	-7	2	358
18	986	-8	1	50	990	-5	1	316	989	-7	3	19	986	-8	2	170	990	-5	0	0	991	-6	3	296
21	986	-7	2	23	991	-4	4	296	989	-4	2	102	987	-8	2	163	991	-6	4	315	991	-3	2	206
00	991	-6	3	18	990	-8	2	33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
03	990	-5	3	4	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
06	989	-5	2	312	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
09	990	-8	3	184	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12	991	-11	3	14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15	991	-12	0	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
18	991	-13	1	125	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
21	991	-8	0	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

MONTHLY SUMMARY  
 \* TEMPERATURE (C) \* MEAN = -5.7 STD DEV = 2.7 MAX = 2.5 AT 227 GMT ON DAY 15 MIN = -14.7 AT 1513 GMT ON DAY 7  
 \* PRESSURE (MB) \* MEAN = 992.7 STD DEV = 4.0 MAX = 1001.1 AT 1220 GMT ON DAY 2 MIN = 984.4 AT 423 GMT ON DAY 16  
 \* WINDS (M/S) \* MEAN = 2.8 STD DEV = 2.1 RESULTANT = .8 FROM 321. CONSTANCY = .27 MAX = 15.4 FROM 234. AT 619 GMT DAY 17  
 \* MISSING 3-HOURLY OBSERVATIONS \* TEMPERATURE: 32.3 % PRESSURE: 32.3 % WINDS: 32.3 %  
 WIND SPEED (M/S): 0-2 2-4 4-6 6-8 8-10 10-12 12-14 14-16 16-18 18-20 20-25 25-30 30-35 35-40 40-45 45-50 50-55 55-60 60+  
 PERCENT: 39 36 17 5 2 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
 WIND DIRECTION: N NNE NE E ESE SE S SSW SW W WSW WNW NNW  
 PERCENT 14 22 5 3 0 5 5 3 5 2 9 7 8 3



## 5. AWS CALIBRATION

The Department of Meteorology and the Space Science and Engineering Center at the University of Wisconsin produced, in 1984, a new version of the AWS unit referred to as UW version B. Three modifications were made to the original AWS design. First, new electronics boards were constructed with a coating that is less susceptible to corrosion. Second, relative humidity and temperature difference measurements were added. Third, the data format was changed so that five values of wind speed and direction, and three values of relative humidity and temperature difference data were transmitted. As of this season, only 8903, 8904, and 8913 have the old data format.

### 5.1. Temperature

The external and internal temperature are calibrated using a 1000 ohm .05% resistor in place of the platinum resistance thermometers. Because the other resistances in the temperature circuit are known only to 1%, the temperature calibration will vary from unit to unit. A correction factor is computed and programmed into the read-only-memories for each unit. After the correction factors have been programmed into the AWS, a calibration box with precision resistors was used in the field to check the temperature calibration.

### 5.2. Pressure

The atmospheric pressure transducer is a Parascientific model 215 digiquartz pressure gauge. The transducer frequency changes from 40 KHz at zero millibars to about 36 KHz at 1000 millibars. The resolution of the pressure measurement is about 0.05 millibar.

The pressure calibration is done with Paulin aneroid barometers which have been calibrated against a mercury barometer of 10 mm bore. The calibration is within 0.2 millibars. Checks are made against the aneroid barometer at McMurdo and the mercury barometers at Scott Base, Antarctica.

Comparison of pressure gauges show that the reference vacuum in the pressure transducer degrades with time. The calibrations show an average 2 to 4 millibar shift to lower pressure after five years. Thus, recalibration will be necessary every two or three years.

### 5.3. Wind direction

The Belfort model 123 aerovane rotates a potentiometer and the AWS unit measures the fraction of full scale of the potentiometer. The wind direction is calibrated by positioning the aerovane to the north, east, south, and west directions relative to the boom. North or zero on the potentiometer is towards the antenna on the boom. In the field the boom is aligned along the north-south line as determined from the sun's azimuth, location, and GMT.



#### **5.4. Wind Speed**

Wind speed is determined from the aerovane tachometer voltage as 0.1056 volt per mile per hour. The aerovane tachometers are spun to confirm that the output is 9.20 +/- .05 volts at 1800 rpm. The manufacturer's wind speed calibration is assumed correct.

#### **5.5. Relative Humidity**

Humidity is measured using a Vaisala HMP-31UT humidity sensor. The output voltage varies linearly with relative humidity (RH). The sensor is calibrated by placing the sensor over salt solutions with known relative humidities; sodium chloride (RH=75%), and lithium chloride (RH=12%) are used. In addition, an inert gas, forced past the sensor, gives a 0% relative humidity, 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 precision of the humidity reading is about 1%.

#### **5.6. Vertical Air Temperature Difference**

Two junction thermocouples are used to measure the temperature difference between two heights on the tower. The output is about 78 microvolts for each deg C difference between the junctions at zero deg C, dropping to 60 microvolts at -80 deg C. The thermocouple output is amplified by a differential amplifier with a gain of 850. Zero output is adjusted to 0.4 volts, so that 0 to 1 volt corresponds to -6 deg C to +9 deg C temperature difference. The resolution is 0.05 deg C temperature difference. Calibration of the individual systems is done by applying known voltages to the inputs of the amplifier.

## 6. AWS FIELD REPORTS FOR 1986 FIELD SEASON

In previous years the complete field reports were included in the data books. Beginning this year we are presenting only a short summary of the activities at each site. If requested, we will provide the complete field reports. The information is presented by area of activity and by order of the activity at each site.

### 6.1. McMurdo Area

<u>Site</u>	<u>Operation</u>
Katie	ID 8918 removed and the site terminated on 05 January 1986.
Bowers	ID 8908 installed 09 Jan 1986.
Laurie	ID 8911 removed and the site terminated on 13 January 1986.
Manning	ID 8905 removed and the site terminated on 15 January 1986. The RTG was removed.
Ferrell	The AWS unit was replaced with the same ID and the B format ROM on 16 January 1986.
Tiffany	ID 8908 removed and the site terminated on 23 Jan 1986.
Meeley	ID 8915 removed and the site terminated on 26 January 1986.
Allison	Established with ID 8900 on 28 January 1986.
Patrick	Established with ID 8905 on 28 January 1986.
Clean Air	Established with ID 8918 on 29 January 1986. The unit is located at the tower in the clean air sector at the South Pole.
Elaine	Established with ID 8911 on 28 January 1986 using the twin otter aircraft.
Lettau	Established with ID 8908 on 29 January 1986 using the twin otter aircraft.

## 6.2. Antarctic Peninsula

Report of the deployment of AWS units by the British Antarctic Survey (BAS).

The four AWS units arrived at Rothera in November 1984. Unfortunately, the intended deployment of these stations was not possible during Austral summer 84/85 as a result of damage sustained to two of the three aircraft. Upon return to Rothera, at the end of November 1985, the stations were readied for testing and subsequent deployment. The Argos test set was found to be functioning well.

<u>Site</u>	<u>Operation</u>
Larsen Ice Shelf	AWS 8926 was tested and found to be functioning well. It was deployed 1 January 1986. The unit was positioned next to the previously installed AWS unit. The top two tower sections, sensors, and the electronics box of 8912 were returned to Rothera.
Uranus Glacier	AWS 8920 was tested and found to be functioning well. It was deployed 18 February 1986. This site is approximately 15 miles from Fossil Bluff. The site is an open area and will give more representative wind data.
Dolleman Island	AWS 8917 was tested and the Argos test set displayed garbled data. The malfunction was found to be the transmitter/oscillator. The transmitter frequency was measured and found to vary between 403.650 to 403.897 MHz instead of the 401.650 MHz quoted. The transmitter and oscillator were exchanged with those from AWS 8912. Subsequent testing showed the station to be functioning well. It was deployed 19 February 1986.
Butler Island	AWS 8902 was tested and found to be functioning well. This unit was deployed 1 March 1986. The old station was located and found to be almost totally buried. The solar panel, aerovanes, and top tower section were returned to Rothera.

### 6.3. Dumont d'Urville Area

<u>Site</u>	<u>Operation</u>
D-10	This station was operating upon arrival. The tower was raised five feet, the solar panel was raised to the surface, three batteries were added, and the aerovane serviced.
D-47	The station was not operating upon arrival. The battery voltage was normal. The old type antenna was replaced, and connections tightened. No operation. The electronics were brought into a heated van to investigate and the station started. It was not established why it did not work. One tower section was added, the aerovane serviced, and one box of three batteries added.
D-57	The station was not operating upon arrival. It was found that the interface board did not turn off the transmitter after transmission; the station was apparently turned off by the safety switch. Also found that the transmitter could not be tuned to proper frequency and that the temperature sensor had failed. Replaced interface board, transmitter, and temperature sensor. Installed new type antenna, added three batteries, and raised solar panel. Tower not raised.
D-80	Station was not operating upon arrival. No signal detected. Battery voltage okay. Replaced electronics 8900 with 8919. Added: two five foot tower sections, and three batteries. The aerovane was serviced and a ground-plane antenna installed.



#### 6.4. Acknowledgments

This work is supported by National Science Foundation, Division of Polar Programs, grant 86-06385, under the management of Dr. John Lynch. Mr. Mark Lewis of the British Antarctic Survey installed the AWS units around the Antarctic Peninsula. Mr. Rob Flint serviced the AWS units between Dumont d'Urville and Dome C.

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