

Field Report
Antarctic Automatic Weather Stations
AS 1984/85

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Itinerary for Austral Summer (AS) 84/85

4 Jan 1985 Arrive McMurdo.

6 Jan Remove 8909B from Arrival Heights

7 Jan Calibration of 8907RB, 8919B and 8909B

8 Jan Retrieved 8908B from Laurie
Unable to reach Ferrell

9 Jan Rebuilt 8908B

10 Jan Rebuilt 8922B

11 Jan Calibrated 8908B and 8922B

12 Jan Deployed 8907RB and 8908B

13 Jan Checked 8907A
Built 8915B

14 Jan Rebuilt 8922B from Inexpressible Island

15 Jan Recalibrated humidity probe from Tiffany
Calibrations of 8911B, 8915B, 8919B, 8922B

16 Jan Installed 8915B at Meeley

17 Jan Performed all calibrations on 8909B, 8924B
and 8925B

19 Jan Converted 8906 to B-format

20 Jan Tested 8924, 8925 and 8906

21/22 Jan Tested 8922B, 8907A and 8906B

23 Jan Installed 8911B

24 Jan Deployed 8924B at 79.564S, 169.45E
Deployed 8925B at 80.005S, 179.00W

26 Jan Installed 8907B at Ferrell site
Installed 8911B at Laurie site

29 Jan Reinstalled 8922B at Inexpressible Island
site

when was 8906 installed

Mr. Didier Simon of the Expedition Polaires Francaises on a traverse from Dumont-D'Urville installed new batteries and performed necessary repair work on 8914 and 8916, and installed new ROMS at 8901 thus converting station to 8901B format. All stations fully operational from Dumont D'Urville to Dome-C.

Four new stations were shipped to the British Antarctic Survey during the Autumn of 1984 are are awaiting deployment on the Antarctic Peninsula as of the date of this report.

Table 1. Automatic Weather Station identification number, location, start date and status as of 7 February 1985 as a result of AS 84-85 field activities.

AWS ID	Geographic Location	Latitude deg	Longitude deg	Elevation meters	Start Date	Status
8900	D-80	70.02 S	134.72 E	2500 m	14/1/83	3 OK
8901	D-10	66.70 S	139.80 E	240 m	15/1/84	3 OK
8902	Rothera					1
8903	Byrd	80.00 S	120.00 W	1530 m	2/80	3 OK
8904	Dome C	74.50 S	123.00 E	3280 m	13/1/84	3 OK
8905	Minna Bl.	78.77 S	166.85 E	66 m	25/11/80	3 OK
8906	Marble Pt.	77.43 S	163.75 E	121 m	2/80	3 OK
8907	Ross Ice	78.02 S	170.80 E	44 m	10/12/80	3 OK
8908B	White Is.	77.95 S	166.17 E	25 m?	23/1/84	3, 4
8909B	Madison					5
8910B	Siple	75.90 S	84.30 W	900 m	26/11/83	6
8911B	Cape Croz.	77.55 S	170.09 E	27 m	14/1/84	3, 4
8912	Larsen Ice	67.00 S	60.47 W	50 m?	7/2/83	2
8913	Franklin Is.	76.24 S	168.66 E	274 m	23/1/82	3
8914B	D-47	67.38 S	138.72 E	1560 m	10/1/84	3
8915	Ross Ice	78.52 S	170.18 E	52 m	4/12/80	3
8916B	D-57	68.18 S	137.52 E	2103 m	6/1/84	3
8917B						1
8918	Windless B.	77.75 S	167.67 E	44 m	9/2/83	3
8919B						5
8920B	BAS					1
8921B	Byrd Glac.	79.98 S	165.03 E	75 m?	16/1/84	4, 6
8922B	Inex. Is.	74.92 S	163.60 E	80 m	6/2/84	3
8923B	Ross Ice	78.31 S	172.50 W	42 m	1/2/84	3
8924B		79.56 S	169.45 E	50 m?	1/24/84	3, 4
8925B		80.00 S	179.00 W	50 m?	1/24/84	3, 4
8926B						1

1. AWS 8902B, 8917B, 8920B, and 8926B are ready for deployment in AS 84/85 by the British Antarctic Survey (BAS).
2. AWS 8912 is transmitting incorrect data.
3. AWS units that are operating satisfactorily.
4. AWS units with relative humidity and deltaT.
5. Not deployed and currently stored at Madison, WI.
6. Not being received.

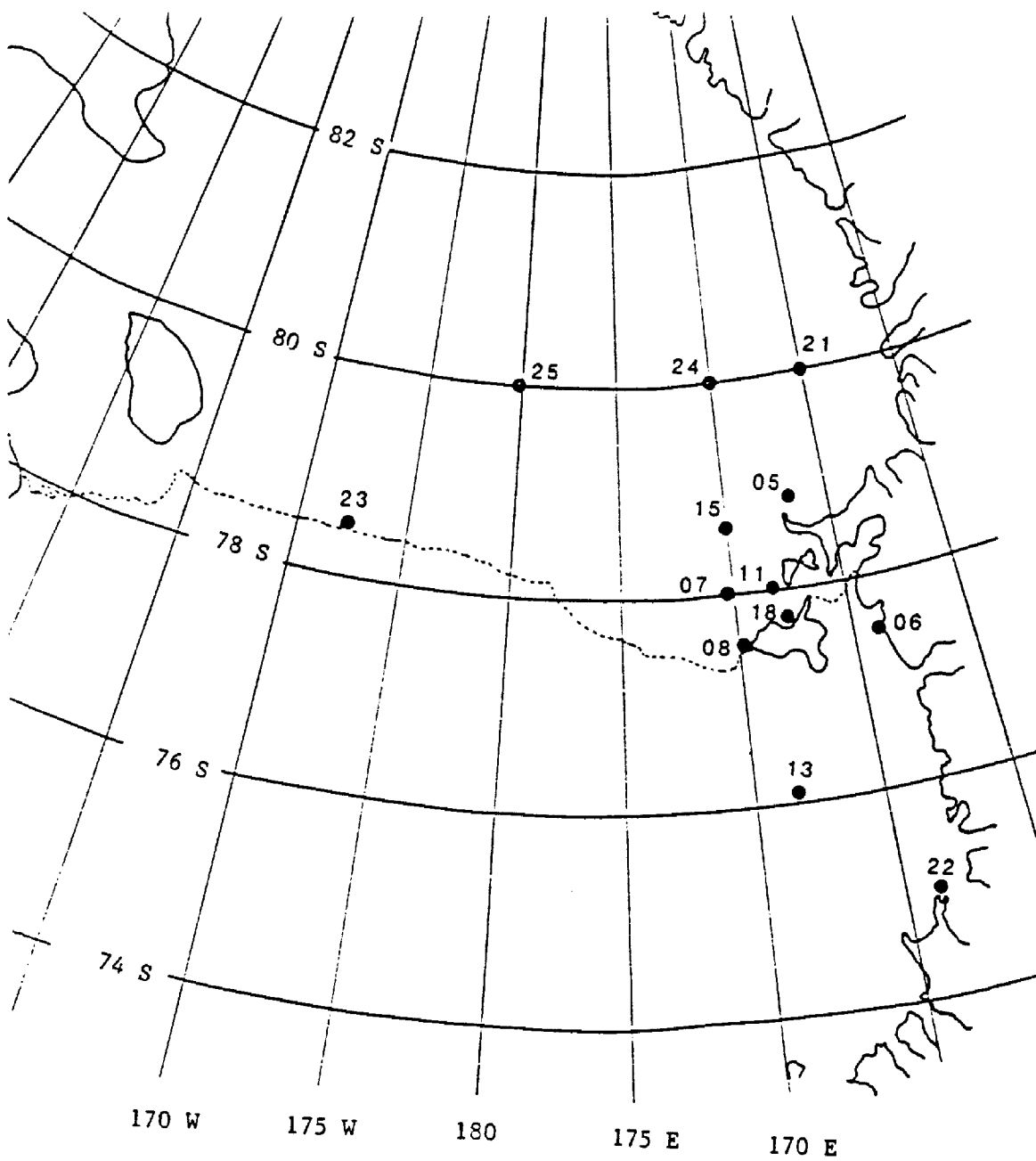


Figure 1. Locations of AWS near Ross Island and the Ross Ice Shelf as of February, 1985.

UNIVERSITY OF WISCONSIN AUTOMATIC WEATHER STATION VERSION B

The Department of Meteorology at the University of Wisconsin in 1983 produced a new version of the Stanford AWS station. The new version, to be referred to as UW version B, essentially followed the original design of the AWS station but was modified in a few important ways. First, using newer manufacturing processes that are now available, new electronics boards were constructed with a coating that is less susceptible to corrosion than the previous boards were. Second, the new stations were to be able to record humidity measurements and the temperature difference between two heights on the AWS tower. Also, the format of the transmitted data was changed to allow for more past values of wind data and to accommodate the humidity and temperature difference data to be recorded. Table 2. gives a comparison of the old and new data formats. The above changes meant the operating software for the 1802 microprocessor had to be rewritten and coded into the ROM's. A total of 8 complete new stations were constructed and an additional 8 stations were built which required the use of the hardware (e.g. transmitters, pressure gauges, etc.,) from the stations they were to replace. Basic station calibration was done in Madison for complete AWS.

AS 84/85 AWS CALIBRATIONS

1. Temperature

In order to calibrate each AWS for temperature (both internal and external) known resistances (to .05 %) are used in place of the platinum resistance probes which have a resistance of 1000 ohms at 0 C (Celsius) and change 4 ohms per degree Celsius. Because the other resistances in the temperature circuit are known only to 1%, the temperature computation done by the 1802 software will vary from station to station. Thus a correction factor has to be computed and programmed into the ROM's for each AWS. Since the precision of the AWS is 0.125 C, the correction factors were only determined to this degree of accuracy. Also, 0 C was used as the value at which the correction was determined since it is an important temperature in determining the nature of atmospheric processes involving H₂O.

After the correction factors have been programmed into the AWS ROM's, a calibration box with precision resistors was used in the field to check the temperature calibration again. The internal temperature is determined to the same degree of accuracy in programming in the correction term, but can only be checked in the field against a standard thermometer since the platinum resistance thermometer is wired in place. The internal temperature is used in computation of the pressure. A 1 C error in the internal temperature would result in 0.1 millibar error in the pressure.

2. Pressure

Atmospheric pressure is measured using a Paroscientific pressure transducer whose frequency changes from 40 KHz at 0 millibar to about 36 KHz at 1000 millibar. A counter circuit in the AWS determines the frequency output of the transducer. Variations in the clock frequency are determined by measuring the number of counts from a 1 MHz oscillator that is good to 5 parts in a million. This correction for clock frequency drift is then taken into account in determining the final count of the pressure transducer. This raw count is converted to pressure units when the data is processed in Madison. The precision of the pressure measurement is about .05 mb.

Calibration of the AWS pressure measurement is done with precision aneroid barometers which have themselves been calibrated against a mercury barometer. It was learned this year that the aneroid barometers are affected by changes in temperature. If they were calibrated at room temperature (20 C), then they would be in error if they were taken outside where the temperature was - 20 C. Each barometer had a different correction term for temperature variation. These were noted and were taken into account when field calibrations were done. However, there is no certainty that the corrections were linear with temperature change.

Comparison of pressure gauges showed that the reference vacuum degrades with time due to leakage. Subsequent drifting results in a 2 to 4 millibar lower reading of the pressure data

in five years. Cost prohibits replacement of vacuums therefore recalibration will be necessary each year.

3. Wind Direction

The wind direction is determined from the Bendix Aerovane output. A continuous rotation potentiometer is used and the fraction of full scale contacted by the wiper determines the wind direction. The wind direction is calibrated by positioning the Aerovane in what would be the North, East, South, and West directions and observing the output of the AWS. This procedure can easily be done in the field as well. North is determined by taking bearings on the sun, and aligning the boom along a North-South line.

4. Wind Speed

Wind speed is determined from the output of the Aerovane generator. Bendix gives a calibration value of 0.1056 volt output per mile per hour of wind speed. The Aerovanes are tested by spinning them at a known rate and checking the output voltage against the calibration value (9.22 volts at 1800 rpm). We assume the calibration value for wind speed is correct so that to calibrate the AWS we applied a series of known voltages and observed the output which was a number between 0 and 256. This represents the number of bits output in response to the input voltage. This results in a calibration constant given as meters per second (m/s) per bit (B).

5. Humidity

Humidity was measured using a Vaisala humidity probe which outputs a voltage that varies linearly with the humidity. This voltage was then amplified before being read by the AWS. The calibration was performed by placing the probe over salt solutions yielding known relative humidities. Sodium chloride (NaCl) with a relative humidity of 75% and Lithium chloride (LiCl) with a relative humidity of 12% were used. Final calibration relations were in the form of $\text{humidity} = (\text{constant} * \text{number of bits}) - \text{constant}$. Precision of the humidity reading is less than 1 percent well below the accuracy to which we know the humidity.

6. Temperature Difference (Delta-T)

A two junction thermocouple was used to measure the temperature difference between two heights on the AWS tower. The junctions give 80 microvolts output for every degree Celsius difference between the two probes. This output is also amplified before being read by the AWS. By feeding in known voltages, a calibration relation of the form $\text{constant1} * (\text{number of bits} - \text{constant2}) = \text{temperature difference}$. The precision of about .1 C is obtained .

The field calibration summaries for the stations are given in the following pages.

AWS ID: 8900

SITE NAME: D-80
LOCATION : LAT 70.02 S LONG 134.72
HEIGHT : 2500 M (ESTIMATED)

DATE ACTIVATED: 14 JAN 1983
LAST VISITED : 14 JAN 1983

SENSOR	SENSORS SERVICED PROBLEM	ACTION TAKEN
AEROVANE (XX-XX-XX)		INSTALLED
PRESSURE GAUGE (4730)		INSTALLED
TEMP PROBE EXT		INSTALLED
TEMP PROBE INT		INSTALLED
HUMIDITY PROBE		NONE
DELTA-T PROBE		NONE

FIELD CALIBRATION			DIFFERENCE		
VARIABLE	CALIBRATION		AS 83/84	AS 82/83	AS 81/82
	AWS	MEASURED			
PRESSURE	718.1	718.7 MB	.6 MB		
TEMP EXT	-29.0	-29.0 C	.0 C		
TEMP INT	-	-	-		
WIND SPD	-	-	-		
WIND DIR	160	163 DEG	OK		

LABORATORY CALIBRATION			DIFFERENCE		
VARIABLE	CALIBRATION		AS 83/84	AS 82/83	AS 81/82
	AWS	MEASURED			
PRESSURE	-	-	-		
TEMP EXT	-24.0	-24.25 C	-.25 C		
TEMP INT	12.0	11.5 C	-.50 C		
WIND SPD	.243	M/S/BIT	.0		
WIND DIR	271	270 DEG	OK		
HUMIDITY	NONE	NONE	NONE		
DELTA T	NONE	NONE	NONE		

COMMENTS: AWS 8900 TRANSMISSIONS WERE NO LONGER BEING RECEIVED
AS OF 20 OCT 1983. NO SITE VISIT WAS POSSIBLE FOR AS 83/84 OR
AS 84/85. 8900 BEGAN RETRANSMITTING GOOD DATA NOV 84 ON ITS OWN.

AWS ID: 8901

SITE NAME: D-10
LOCATION :LAT 66.70 S LONG 139.80 E
HEIGHT : 240 M (ESTIMATED)

DATE ACTIVATED: 7 JANUARY 1984
LAST VISITED : JAN 1985

SENSOR	SENSORS SERVICED PROBLEM	ACTION TAKEN
AEROVANE (XX-XX-XX)		CHECKED
PRESSURE GAUGE (2928)		CHECKED
TEMP PROBE EXT		CHECKED
TEMP PROBE INT		CHECKED
HUMIDITY PROBE		NONE
DELTA-T PROBE		NONE

FIELD CALIBRATION					
VARIABLE	CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 83/84	AS 82/83	AS 81/82
PRESSURE	NA	NA	NA		
TEMP EXT	NA	NA	NA		
TEMP INT	NA	NA	NA		
WIND SPD	NA	NA	NA		
WIND DIR	NA	NA	NA		

LABORATORY CALIBRATION					
VARIABLE	CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 84/85	AS 83/84	AS 82/83
PRESSURE	NA	NA	NA	1.1 MB	
TEMP EXT	NA	NA	NA	0.0 C	
TEMP INT	NA	NA	NA	0.0 C	
WIND SPD	NA	NA	NA	.227 M/S/BIT	
WIND DIR	NA	NA	NA	OK	
HUMIDITY	NONE	NONE	NONE		
DELTA T	NONE	NONE	NONE		

COMMENTS: DIDIER SIMON INSTALLED NEW ROMS TO CONVERT STATION
TO NEW FORMAT DURING AS 84/85.

AWS ID: 8902

SITE NAME: NOT DEPLOYED
LOCATION : ROTHERA
HEIGHT :

DATE ACTIVATED:
LAST VISITED :

SENSOR	SENSORS SERVICED PROBLEM	ACTION TAKEN TO BE INSTALLED
AEROVANE		4728
PRESSURE GAUGE		WEED 101
TEMP PROBE EXT		WEED 101
TEMP PROBE INT		NONE
HUMIDITY PROBE		NONE
DELTA-T PROBE		NONE

VARIABLE	FIELD CALIBRATION CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 84/85	AS 83/84	AS 82/83
PRESSURE	-	-	-		
TEMP EXT	-	-	-		
TEMP INT	-	-	-		
WIND SPD	-	-	-		
WIND DIR	-	-	-		

VARIABLE	LABORATORY CALIBRATION CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 83/84	AS 82/83	AS 81/82
PRESSURE	985.1	983.0	-	2.1 MB	
TEMP EXT	-	-	-	0.0 C	
TEMP INT	-	-	-	0.0 C	
WIND SPD	-	-	-	.249 M/S/BIT	
WIND DIR	-	-	-	OK	
HUMIDITY	-	-	-	NA	
DELTA T	-	-	-	NA	

AWS ID: 8903

SITE NAME: BYRD
LOCATION : LAT 80.00 S LONG 120.00 W
HEIGHT : 1530 M

DATE ACTIVATED: FEBRUARY 1980
LAST VISITED : 3 DEC 1984

SENSOR	SENSORS SERVICED PROBLEM	ACTION TAKEN
AEROVANE(00-00-01)		CHECKED
PRESSURE GAUGE(4735)		CHECKED
TEMP PROBE EXT		CHECKED
TEMP PROBE INT		CHECKED
HUMIDITY PROBE		NONE
DELTA-T PROBE		NONE

FIELD CALIBRATION					
VARIABLE	CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 84/85	AS 83/84	AS 82/83
PRESSURE	-	-	-	4.1 MB	
TEMP EXT	-	-	-	.0 C	
TEMP INT	-	-	-	-	-
WIND SPD	-	-	-	.229 M/S/BIT	
WIND DIR	-	-	-	OK	

LABORATORY CALIBRATION					
VARIABLE	CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 84/85	AS 83/84	AS 82/83
PRESSURE	-	-	-		
TEMP EXT	-	-	-		
TEMP INT	-	-	-		
WIND SPD	-	-	-		
WIND DIR	-	-	-		
HUMIDITY	-	-	-		
DELTA T	-	-	-		

COMMENTS: AWS 8903 HAS BEEN AT BYRD STATION FOR 5 YEARS.
THE WIND SPEED CALIBRATION .229 (M/S)/BITS FOLLOWS FROM
THE CALIBRATION PROCEDURE DISCUSSED EARLIER. THE TOWER
REMAINS AT ABOUT 3.5 METERS ABOVE THE SNOW SURFACE.

AWS ID: 8904

SITE NAME: DOME - C
LOCATION : LAT 74.50 S LONG 123.00 E
HEIGHT : 3280 M

DATE ACTIVATED: 12 FEB 1984
LAST VISITED : 12 FEB 1984

SENSORS SERVICED

SENSOR	PROBLEM	ACTION TAKEN
AEROVANE (11-80-07)		INSTALLED
PRESSURE GAUGE (3178)		INSTALLED
TEMP PROBE EXT		REPLACED
TEMP PROBE INT		REPLACED
HUMIDITY PROBE		NONE
DELTA-T PROBE		NONE

FIELD CALIBRATION

VARIABLE	CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 83/84	AS 82/83	AS 81/82
PRESSURE	658.7	655.5 MB	-3.2 MB	-	-
TEMP EXT	-25.0	-25.75 C	-	-	-
TEMP INT	-	-	-	-	-
WIND SPD	4.0	3.0 M/S	-	-	-
WIND DIR	220 DEG	SOUTH	-	-	-

LABORATORY CALIBRATION

VARIABLE	CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 83/84	AS 82/83	AS 81/82
PRESSURE	994.5	994.8 MB	.3 MB		
TEMP EXT	-20.12	-20.25 C	-.12 C		
TEMP INT	19.50	20.00 C	.5 C		
WIND SPD	.234	M/S/BIT	.0		
WIND DIR	OK	OK	OK		
HUMIDITY	-	-	-		
DELTA T	-	-	-		

COMMENTS: AWS 8904 HAD CEASED OPERATING IN JANUARY OF 1983. THE STATION FORMERLY AT SIPLE (AWS 8909) WAS PLACED AT DOME C WITH A NEW SET OF ROM'S TO MAINTAIN THE SAME ID, NAMELY, 8904. A NEW BOOM WITH NEW SENSORS AND ANTENNA WAS ALSO INSTALLED. THE OLD STATION HAD FAILED DUE TO A FAILURE IN ONE OF THE ROM CHIPS WHICH PREVENTED THE INTERNAL PROGRAM FROM CYCLING.

AWS ID: 8905

SITE NAME: MANNING
LOCATION : LAT 78.77 S LONG 166.85 E (MINNA BLUFF)
HEIGHT : 75 M

DATE ACTIVATED: 25 NOV 1980
LAST VISITED : 18 JAN 1984

SENSOR	SENSORS SERVICED PROBLEM	ACTION TAKEN
AEROVANE (12-78-09)		CHECKED
PRESSURE GAUGE (4865)		
TEMP PROBE EXT		CHECKED
TEMP PROBE INT		
HUMIDITY PROBE		NONE
DELTA-T PROBE		NONE

FIELD CALIBRATION						
VARIABLE	CALIBRATION		DIFFERENCE			
	AWS	MEASURED	AS 83/84	AS 82/83	AS 81/82	
PRESSURE	-	-	-	0.0 MB	-0.5 MB	
TEMP EXT	-	-	-	0.7 C	-0.6 C	
TEMP INT	-	-	-	-	-	
WIND SPD	-	-	-	.240 M/S/B	-	
WIND DIR	-	-	-	OK	OK	

LABORATORY CALIBRATION						
VARIABLE	CALIBRATION		DIFFERENCE			
	AWS	MEASURED	AS 83/84	AS 82/83	AS 81/82	
PRESSURE	-	-	-	-	-	
TEMP EXT	-	-	-	-	-	
TEMP INT	-	-	-	-	-	
WIND SPD	-	-	-	-	-	
WIND DIR	-	-	-	-	-	
HUMIDITY	NONE	NONE	-	-	-	
DELTA T	NONE	NONE	-	-	-	

COMMENTS: AWS 8905 HAS OPERATED WELL FOR OVER 4 YEARS.

AWS ID: 8906RB

SITE NAME: MARBLE POINT
LOCATION : LAT 77.43 S LONG 163.75 E
HEIGHT : 120 M

DATE ACTIVATED: 16 FEB 1980
LAST VISITED : 30 JAN 1985

SENSOR	SENSORS SERVICED PROBLEM	ACTION TAKEN
AEROVANE (03-78-14)		CHECKED
PRESSURE GAUGE (4736)		CHECKED
TEMP PROBE EXT		CHECKED
TEMP PROBE INT		CHECKED
HUMIDITY PROBE		NONE
DELTA-T PROBE		NONE

FIELD CALIBRATION					
VARIABLE	CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 84/85	AS 83/84	AS 82/83
PRESSURE	977.4	978.3 MB	-	-	0.8 MB
TEMP EXT	-1.0	0.8 C	-	-	1.8 C
TEMP INT	-	-	-	-	-
WIND SPD	-	-	-	-	.23 M/S/BIT
WIND DIR	-	-	-	-	OK

LABORATORY CALIBRATION					
VARIABLE	CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 84/85	AS 83/84	AS 82/83
PRESSURE	991.7	989.7	+2.6 MB	-	-
TEMP EXT	0.0	0.125	.125 C	-	-
TEMP INT	OK	OK	+/- .125 C	-	-
WIND SPD	.245 M/S/B		.245 M/S/B	-	-
WIND DIR	OK	N-E-S-W-N	-	-	-
HUMIDITY	NONE	NONE			
DELTA T	NONE	NONE			

COMMENTS: AWS 8906 CEASED TRANSMISSION IN NOV 1985 DUE TO CORRODED CPU BOARD CAUSED BY WATER INTRUSION INTO THE STATION. A NEW CPU BOARD WAS INSTALLED WITH NEW CALIBRATION VALUES DETERMINED.

AWS ID: 8907

SITE NAME: FERRELL SITE
LOCATION : LAT 78.02 S LONG 170.80 E
HEIGHT : 44 M

DATE ACTIVATED: 10 DEC 1980
LAST VISITED : 26 JAN 1985

SENSOR	SENSORS SERVICED PROBLEM	ACTION TAKEN
AEROVANE (84-538)		INSTALLED
PRESSURE GAUGE (3175)		INSTALLED
TEMP PROBE EXT		CHECKED
TEMP PROBE INT		CHECKED
HUMIDITY PROBE		NONE
DELTA-T PROBE		NONE

FIELD CALIBRATION

VARIABLE	CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 84/85	AS 83/84	AS 82/83
PRESSURE	985.5	984.8 MB	-	-0.7 MB	-
TEMP EXT	-	-	-	-	-
TEMP INT	-	-	-	-	-
WIND SPD	-	-	-	-	-
WIND DIR	215	SSW EST	-	OK	-

LABORATORY CALIBRATION

VARIABLE	CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 84/85	AS 83/84	AS 82/83
PRESSURE	991.2	993.9 MB	2.7 MB	-0.9	-
TEMP EXT	0.0C	0.0 C	0.00 C	0.75	-
TEMP INT	0.0C	0.0 C	0.00 C	0.75	-
WIND SPD	.245 M/S/B	.245 M/S/B		0.00 M/S	-
WIND DIR	177	SOUTH		0 DEG	-
HUMIDITY	NONE	NONE			
DELTA T	NONE	NONE			

COMMENTS: AWS 8907 HAD CEASED OPERATING IN OCTOBER, 1984.
THE PROBLEM WAS TRACED TO A DEFECTIVE COMPONENT IN THE 10V
POWER SUPPLY TO THE TX OSCILLATOR.

AWS ID: 8908

SITE NAME: TIFFANY
LOCATION : LAT 77.55 S LONG 170.09 E (NEAR WHITE ISLAND)
HEIGHT : 25 M (ESTIMATED)

DATE ACTIVATED: 23 JANUARY 1984
LAST VISITED : 23 JANUARY 1985

SENSOR	SENSORS SERVICED PROBLEM	ACTION TAKEN
AEROVANE (03-78-08)		INSTALLED
PRESSURE GAUGE (3161)		INSTALLED
TEMP PROBE EXT		INSTALLED
TEMP PROBE INT		INSTALLED
HUMIDITY PROBE		INSTALLED
DELTA-T PROBE		INSTALLED

FIELD CALIBRATION

VARIABLE	CALIBRATION		AS 84/85	DIFFERENCE	
	AWS	MEASURED		AS 83/84	AS 82/83
PRESSURE	-	-	-	-.1 MB	-
TEMP EXT	-	-	-	1.0 C	-
TEMP INT	-	-	-	-	-
WIND SPD	-	-	-	.2 M/S	-
WIND DIR	-	-	-	10 DEG	-

LABORATORY CALIBRATION

VARIABLE	CALIBRATION		AS 84/85	DIFFERENCE	
	AWS	MEASURED		AS 83/84	AS 82/83
PRESSURE	1002.3	1002.3 MB	-	.0 MB	-
TEMP EXT	0.12	0.0 C	-	-.12 C	-
TEMP INT	0.0	0.0 C	-	.0 C	-
WIND SPD	.248	M/S/BIT	-	CAL	-
WIND DIR	OK	N-E-S-W-N	-	CAL	-
HUMIDITY	.53*BITS-18	%	-	CAL	-
DELTA T	.065*(BITS-195)	C	-	-	-

COMMENTS: AWS 8908 WAS INSTALLED AT TIFFANY SITE REPLACING AWS 8911. THE TEMPERATURE DIFFERENCE PROBES WERE DISCONNECTED. THE HUMIDITY PROBE IS AT BOOM HEIGHT (9 FT.)

AWS ID: 8909

SITE NAME: NOT DEPLOYED
LOCATION :
HEIGHT :

DATE ACTIVATED:
LAST VISITED :

SENSOR	SENSORS SERVICED PROBLEM	ACTION TAKEN
AEROVANE		
PRESSURE GAUGE (4855)		
TEMP PROBE EXT		
TEMP PROBE INT		
HUMIDITY PROBE		
DELTA-T PROBE		

FIELD CALIBRATION

VARIABLE	CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 84/85	AS 83/84	AS 82/83
PRESSURE	-	-	-	.3 MB	-
TEMP EXT	-	-	-	-	-
TEMP INT	-	-	-	-	-
WIND SPD	-	-	-	-	-
WIND DIR	-	-	-	-	-

LABORATORY CALIBRATION

VARIABLE	CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 84/85	AS 83/84	AS 82/83
PRESSURE	1003.5	1002.9 MB	-	-.6 MB	-
TEMP EXT	.25	.0 C	-	-.25 C	-
TEMP INT	-	-	-	-	-
WIND SPD	.249	M/S/BIT	-	CAL	-
WIND DIR	OK	N-E-S-W-N	-	OK	-
HUMIDITY	.50*BITS-14	%	-	CAL	-
DELTA T	.135*(BITS-199)	C	-	CAL	-

COMMENTS: NOT DEPLOYED AS UNABLE TO LAND AT BYRD GLACIER.

AWS ID: 8910B

SITE NAME: SIPLE
LOCATION : LAT 75.90 S LONG 84.30 W SIPLE STATION
HEIGHT : 900 M (ESTIMATED)

DATE ACTIVATED: 26 NOVEMBER 1983
LAST VISITED : 26 NOVEMBER 1983

SENSOR	SENSORS SERVICED PROBLEM	ACTION TAKEN
AEROVANE (03-78-10)		INSTALLED
PRESSURE GAUGE (17490)		INSTALLED
TEMP PROBE EXT		INSTALLED
TEMP PROBE INT		INSTALLED
HUMIDITY PROBE		NONE
DELTA-T PROBE		NONE

FIELD CALIBRATION						
VARIABLE	CALIBRATION		DIFFERENCE			
	AWS	MEASURED	AS 83/84	AS 82/83	AS 81/82	
PRESSURE	859.5	859.7 MB	.2 MB	-	-	
TEMP EXT	15.0	13.0 C	-2.0 C	-	-	
TEMP INT	-	-	-	-	-	
WIND SPD	4.0	3.5 M/S	.5 M/S	-	-	
WIND DIR	285	280 DEG	-5 DEG	-	-	

LABORATORY CALIBRATION						
VARIABLE	CALIBRATION		DIFFERENCE			
	AWS	MEASURED	AS 83/84	AS 82/83	AS 81/82	
PRESSURE	994.7	994.3 MB	.4 MB	-	-	
TEMP EXT	0.12	0.0 C	-.12 C	-	-	
TEMP INT	15.5	16.0 C	.5 C	-	-	
WIND SPD	.249	M/S/BIT	CAL	-	-	
WIND DIR	180	SOUTH	OK	-	-	
HUMIDITY	-	-	-	-	-	
DELTA T	-	-	-	-	-	

COMMENTS: CEASED TRANSMISSION ON 22 DECEMBER, 1984. NO VISIT
THIS SEASON AS SIPLE STATION CLOSED UNTIL OCT 1985.

AWS ID: 8911

SITE NAME: LAURIE SITE
LOCATION : LAT 77.95 S LONG 166.17 E CAPE CROZIER
HEIGHT : 40 M (ESTIMATED)

DATE ACTIVATED: 14 JAN 1984
LAST VISITED : 16 JAN 1985

SENSOR	SENSORS SERVICED PROBLEM	ACTION TAKEN
AEROVANE (84-537)		INSTALLED
PRESSURE GAUGE (17485)		INSTALLED
TEMP PROBE EXT		INSTALLED
TEMP PROBE INT		INSTALLED
HUMIDITY PROBE		INSTALLED
DELTA-T PROBE		INSTALLED

FIELD CALIBRATION

VARIABLE	CALIBRATION		AS 84/85	DIFFERENCE	
	AWS	MEASURED		AS 83/84	AS 82/83
PRESSURE	-	-	-	1.7 MB	1.3 MB
TEMP EXT	-	-	-	-.4 C	-.6 C
TEMP INT	-	-	-	-	-
WIND SPD	-	-	-	-	-
WIND DIR	OK	N-E-S-W-N	-	OK	OK

LABORATORY CALIBRATION

VARIABLE	CALIBRATION		AS 84/85	DIFFERENCE	
	AWS	MEASURED		AS 83/84	AS 82/83
PRESSURE	993.8	994.2 MB	0.4 MB	1.5 MB	1.3 MB
TEMP EXT	.12	.00 C	-0.12 C	-0.25 C	-1.0 MB
TEMP INT	18.12	18.0 C	.12	0.6	-
WIND SPD	.244	M/S/BIT	.0	.0	.23 M/S/B
WIND DIR	OK	N-E-S-W-N	OK	OK	-
HUMIDITY	.44*BITS-1	%	CAL	-	-
DELTA T	-	-	CAL	-	-

COMMENTS: AWS 8911B WAS INSTALLED AT LAURIE SITE REPLACING AWS 8908. THE HUMIDITY AND TEMPERATURE DIFFERENCE PROBES (18 INCHES TO 72 INCHES) WERE INCLUDED WITH THIS UNIT.

AWS ID: 8912

SITE NAME: LARSEN ICE RISE
LOCATION : LAT 67.00S LONG 60.47 W
HEIGHT : 50 M (ESTIMATED)

DATE ACTIVATED: 7 FEBRUARY 1983
LAST VISITED : 7 FEBRUARY 1983

SENSOR	SENSORS SERVICED PROBLEM	ACTION TAKEN
AEROVANE		INSTALLED
PRESSURE GAUGE (3137)		INSTALLED
TEMP PROBE EXT		INSTALLED
TEMP PROBE INT		INSTALLED
HUMIDITY PROBE		
DELTA-T PROBE		

VARIABLE	FIELD CALIBRATION			DIFFERENCE	
	CALIBRATION AWS	MEASURED	AS 83/84	AS 82/83	AS 81/82
PRESSURE	-	-	-	-	-
TEMP EXT	-	-	-	-	-
TEMP INT	-	-	-	-	-
WIND SPD	-	-	-	-	-
WIND DIR	-	-	-	-	-

VARIABLE	LABORATORY CALIBRATION			DIFFERENCE	
	CALIBRATION AWS	MEASURED	AS 83/84	AS 82/83	AS 81/82
PRESSURE	995.8	995.4 MB	-.4 MB	-	-
TEMP EXT	0.0	0.0 C	.0 C	-	-
TEMP INT	19.0	19.3 C	.3 C	-	-
WIND SPE	.267	M/S/BITS	CAL	-	-
WIND DIR	OK	N-E-S-W-N	CAL	-	-
HUMIDITY	-	-	-	-	-
DELTA T	-	-	-	-	-

COMMENTS: AWS 8912 WAS PLACED IN OPERATION BY THE BRITISH ANTARCTIC SERVICE. IT REMAINED IN OPERATION UNTIL THE JULY 18, 1983 WHEN THE DATA THAT WAS TRANSMITTED WAS NO GOOD. THIS UNIT WILL HOPEFULLY BE RETRIEVED IN AS 84/85.

AWS ID: 8913

SITE NAME: FRANKLIN ISLAND
LOCATION : LAT 76.24 S LONG 168.66 E (FRANKLIN ISLAND)
HEIGHT : 274 M

DATE ACTIVATED: 23 JANUARY 1982
LAST VISITED : 19 JANUARY 1984

SENSOR	SENSORS SERVICED	ACTION TAKEN
	PROBLEM	
AEROVANE (XX-XX-XX)		
PRESSURE GAUGE (2931)		
TEMP PROBE EXT		
TEMP PROBE INT		
HUMIDITY PROBE		
DELTA-T PROBE		

FIELD CALIBRATION					
VARIABLE	CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 84/85	AS 83/84	AS 82/83
PRESSURE	970.3	971.8 MB	-	1.5 MB	-.6 MB
TEMP EXT	-	-	-	-	.3 C
TEMP INT	-	-	-	-	-
WIND SPD	-	-	-	-	-
WIND DIR	-	-	-16 DEG	-	-

LABORATORY CALIBRATION					
VARIABLE	CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 84/85	AS 83/84	AS 82/83
PRESSURE	-	-	-	-	-
TEMP EXT	-	-	-	-	-
TEMP INT	-	-	-	-	-
WIND SPD	-	-	-	-	-
WIND DIR	-	-	-	-	-
HUMIDITY	-	-	-	-	-
DELTA T	-	-	-	-	-

COMMENTS: IT HAS BEEN DISCOVERED THAT THE BOOM WHEN ORIGINALLY INSTALLED ON FRANKLIN ISLAND WAS POINTED TOWARDS 344 DEG TRUE. THEREFORE A CORRECTION OF 16 DEG IS NECESSARY FOR ALL DATA PRIOR TO 1 JAN, 1985. THE CORRECTION WILL BE MADE FOR ALL MONTHLY SUMMARIES STARTING 1 JAN, 1985. NO VISIT WAS MADE THIS SEASON.

AWS ID: 89148

SITE NAME: D-47
LOCATION :LAT 67.38 S LONG 138.72 W
HEIGHT : 1569 M

DATE ACTIVATED: 10 JANUARY 1984
LAST VISITED : JANUARY 1985

SENSOR	SENSORS SERVICED PROBLEM	ACTION TAKEN
AEROVANE		CHECKED
PRESSURE GAUGE (17648)		INSTALLED
TEMP PROBE EXT		INSTALLED
TEMP PROBE INT		INSTALLED
HUMIDITY PROBE		NONE
DELTA-T PROBE		NONE

FIELD CALIBRATION						
VARIABLE	CALIBRATION		DIFFERENCE			
	AWS	MEASURED	AS 83/84	AS 82/83	AS 81/82	
PRESSURE	-	-	-	-	-	
TEMP EXT	-	-	-	-	-	
TEMP INT	-	-	-	-	-	
WIND SPD	-	-	-	-	-	
WIND DIR	-	-	-	-	-	

LABORATORY CALIBRATION						
VARIABLE	CALIBRATION		DIFFERENCE			
	AWS	MEASURED	AS 83/84	AS 82/83	AS 81/82	
PRESSURE	-	-	-	-	-	
TEMP EXT	0.0	0.0 C	0.0 C	-	-	
TEMP INT	0.12	0.0 C	0.0 C	-	-	
WIND SPD	.249	M/S/BIT	CAL	-	-	
WIND DIR	OK	N-E-S-W-N	CAL	-	-	
HUMIDITY	-	-	-	-	-	
DELTA T	-	-	-	-	-	

COMMENTS:

AWS ID: 89158

SITE NAME: MEELEY
LOCATION : LAT 78.52 S LONG 170.18 E ROSS ICE SHELF
HEIGHT : 50 M (ESTIMATED)

DATE ACTIVATED: 4 DECEMBER 1980
LAST VISITED : 16 JANUARY 1985

SENSOR	SENSORS SERVICED PROBLEM	ACTION TAKEN
AEROVANE (12-78-16)		INSTALLED
PRESSURE GAUGE (4735)		INSTALLED
TEMP PROBE EXT		CHECKED
TEMP PROBE INT		CHECKED
HUMIDITY PROBE		NONE
DELTA-T PROBE		NONE

FIELD CALIBRATION

VARIABLE	CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 84/85	AS 83/84	AS 82/83
PRESSURE	987.9	987.5 MB	-	-	-.5 MB
TEMP EXT	-3.1	-2.5 C	-	-	.6 C
TEMP INT	-	-	-	-	-
WIND SPD	.230	M/S/BITS	-	-	-
WIND DIR	354	N	-	-	+6 DEG

LABORATORY CALIBRATION

VARIABLE	CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 84/85	AS 83/84	AS 82/83
PRESSURE	990.8	993.0	2.2 MB	-	-
TEMP EXT	0.12	0.00	.12 C	-	-
TEMP INT	0.00	0.00	0.00 C	-	-
WIND SPD	.245	M/S/BIT	0	-	-
WIND DIR	OK	N-E-S-W-N	-	-	-
HUMIDITY	NONE	NONE	-	-	-
DELTA T	NONE	NONE	-	-	-

COMMENTS: REBUILT AND MODIFIED TO B-FORMAT THIS SEASON.

AWS ID: 8916B

SITE NAME: D-57
LOCATION : LAT 68.18 S LONG 137.52 W
HEIGHT : 2100 M

DATE ACTIVATED: 6 JANUARY 1984
LAST VISITED : JANUARY 1985

SENSOR	SENSORS SERVICED PROBLEM	ACTION TAKEN
AEROVANE		CHECKED
PRESSURE GAUGE(17587)		INSTALLED
TEMP PROBE EXT		INSTALLED
TEMP PROBE INT		INSTALLED
HUMIDITY PROBE		NONE
DELTA-T PROBE		NONE

VARIABLE	FIELD CALIBRATION			DIFFERENCE	
	CALIBRATION AWS	MEASURED	AS 83/84	AS 82/83	AS 81/82
PRESSURE	-	-	-	-	-
TEMP EXT	-	-	-	-	-
TEMP INT	-	-	-	-	-
WIND SPD	-	-	-	-	-
WIND DIR	-	-	-	-	-

VARIABLE	LABORATORY CALIBRATION			DIFFERENCE	
	CALIBRATION AWS	MEASURED	AS 83/84	AS 82/83	AS 81/82
PRESSURE	-	-	-	-	-
TEMP EXT	0.12	0.00 C	-.12 C	-	-
TEMP INT	0.12	0.00 C	-.12 C	-	-
WIND SPD	.249	M/S/BIT	CAL	-	-
WIND DIR	OK	N-E-S-W-N	CAL	-	-
HUMIDITY	-	-	-	-	-
DELTA T	-	-	-	-	-

AWS ID: 8917B

SITE NAME: NOT DEPLOYED
LOCATION : ROTHERA
HEIGHT :

DATE ACTIVATED:
LAST VISITED :

SENSOR	SENSORS SERVICED	ACTION TAKEN
AEROVANE		
PRESSURE GAUGE		
TEMP PROBE EXT		
TEMP PROBE INT		
HUMIDITY PROBE		
DELTA-T PROBE		

FIELD CALIBRATION					
VARIABLE	CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 84/85	AS 83/84	AS 82/83
PRESSURE	-	-	-	-	-
TEMP EXT	-	-	-	-	-
TEMP INT	-	-	-	-	-
WIND SPD	-	-	-	-	-
WIND DIR	-	-	-	-	-

LABORATORY CALIBRATION					
VARIABLE	CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 84/85	AS 83/84	AS 82/83
PRESSURE	983.2	985.6 MB	+2.4 MB	-	-
TEMP EXT	0.12	0.00 C	-.12 C	-	-
TEMP INT	0.25	0.00	-.25 C	-	-
WIND SPD	.248	M/S/BIT	0.0	-	-
WIND DIR	OK	N-E-S-W-N	OK	-	-
HUMIDITY	-	-	-	-	-
DELTA T	-	-	-	-	-

COMMENTS: AWS 8917 IS TO BE DEPLOYED BY THE BRITISH ANTARCTIC SURVEY IN AS 85/86.

AWS ID: 8918

SITE NAME: WINDLESS BIGHT
LOCATION : LAT 77.75 S LONG 167.67 E ROSS ICE SHELF
HEIGHT : 44 M (ESTIMATED)

DATE ACTIVATED: 9 FEBRUARY 1983
LAST VISITED : 13 DECEMBER 1983

SENSOR	SENSORS SERVICED PROBLEM	ACTION TAKEN
AEROVANE (11-80-09)		CHECKED
PRESSURE GAUGE (7876)		CHECKED
TEMP PROBE EXT		CHECKED
TEMP PROBE INT		CHECKED
HUMIDITY PROBE		NONE
DELTA-T PROBE		NONE

FIELD CALIBRATION					
VARIABLE	CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 83/84	AS 82/83	AS 81/82
PRESSURE	-	-	-	-	-
TEMP EXT	-	-	-	-	-
TEMP INT	-	-	-	-	-
WIND SPD	-	-	-	-	-
WIND DIR	-	-	-	-	-

LABORATORY CALIBRATION					
VARIABLE	CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 83/84	AS 82/83	AS 81/82
PRESSURE	978.4	978.6 MB	.2 MB	-	-
TEMP EXT	.12	.0 C	-.12 C	-	-
TEMP INT	11.25	12.00 C	.75 C	-	-
WIND SPD	.240	M/S/BITS	CAL	-	-
WIND DIR	OK	N-E-S-W-N	CAL	-	-
HUMIDITY	-	-	-	-	-
DELTA T	-	-	-	-	-

AWS ID: 8919

SITE NAME: SPINE
LOCATION : LAT 67.65 S LONG 66.07 W ANTARCTIC PENINSULA
HEIGHT : 1540 M (ESTIMATED)

DATE ACTIVATED: 9 MARCH 1983
LAST VISITED : 9 MARCH 1983

SENSOR	SENSORS SERVICED PROBLEM	ACTION TAKEN
AEROVANE		INSTALLED
PRESSURE GAUGE (8716)		INSTALLED
TEMP PROBE EXT		INSTALLED
TEMP PROBE INT		INSTALLED
HUMIDITY PROBE		NONE
DELTA-T PROBE		NONE

FIELD CALIBRATION						
VARIABLE	CALIBRATION		AS 83/84	DIFFERENCE		
	AWS	MEASURED		AS 82/83	AS 81/82	
PRESSURE	812.8	811.4 MB	-	-1.4 MB	-	
TEMP EXT	-14.5	-13.5 C	-	1.0 C	-	
TEMP INT	-	-	-	-	-	
WIND SPD	4.5	4.0 M/S	-	.5 M/S	-	
WIND DIR	285	292 DEG	-	7 DEG	-	

LABORATORY CALIBRATION						
VARIABLE	CALIBRATION		AS 83/84	DIFFERENCE		
	AWS	MEASURED		AS 82/83	AS 81/82	
PRESSURE	963.7	966.4 MB	-	2.7 MB	-	
TEMP EXT	0.0	0.0 C	-	.0 C	-	
TEMP INT	20.0	20.5 C	-	.5 C	-	
WIND SPD	.264	M/S/BIT	-	-	-	
WIND DIR	OK	N-E-S-W-N	-	OK	-	
HUMIDITY	-	-	-	-	-	
DELTA T	-	-	-	-	-	

COMMENTS: AWS 8919 WAS PLACED AT THE SPINE SITE ON THE
ANTARCTIC PENINSULA JUST EAST OF ROTHERA. TRANSMISSION
CEASED IN AUGUST, 1984. A REPLACEMENT AWS HAS BEEN BUILT
BUT IT WILL NOT BE INSTALLED DURING AS 84/85.

AWS ID: 8920B

SITE NAME: NOT DEPLOYED
LOCATION : ROTHERA
HEIGHT :

DATE ACTIVATED:
LAST VISITED :

SENSOR	SENSORS SERVICED	ACTION TAKEN
	PROBLEM	
AEROVANE		
PRESSURE GAUGE(18061)		
TEMP PROBE EXT		
TEMP PROBE INT		
HUMIDITY PROBE		
DELTA-T PROBE		

FIELD CALIBRATION					
VARIABLE	CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 83/84	AS 82/83	AS 81/82
PRESSURE	-	-	-	-	-
TEMP EXT	-	-	-	-	-
TEMP INT	-	-	-	-	-
WIND SPD	-	-	-	-	-
WIND DIR	-	-	-	-	-

LABORATORY CALIBRATION					
VARIABLE	CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 84/85	AS 83/84	AS 82/83
PRESSURE	983.9	984.2 MB	+ .3 MB	-	-
TEMP EXT	-0.12	0.00 C	+ .12 C	-	-
TEMP INT	.25	0.00	- .25 C	-	-
WIND SPD	.249 M/S/BIT		0.0	-	-
WIND DIR	OK	N-E-S-W-N	-	-	-
HUMIDITY	NONE	NONE	-	-	-
DELTA T	NONE	NONE	-	-	-

COMMENTS: AWS 8920B IS TO BE DEPLOYED BY THE BRITISH ANTARCTIC SURVEY IN AS 85/86.

AWS ID: 8921B

SITE NAME: MARILYN
LOCATION : LAT 79.98 S LONG 165.03 E ON RIS FROM BYRD GLACIER
HEIGHT : 75 M (ESTIMATED)

DATE ACTIVATED: 16 JANUARY 1984
LAST VISITED : 16 JANUARY 1984

SENSORS SERVICED		ACTION TAKEN
SENSOR	PROBLEM	
AEROVANE (11-78-06)		INSTALLED
PRESSURE GAUGE (17489)		INSTALLED
TEMP PROBE EXT		INSTALLED
TEMP PROBE INT		INSTALLED
HUMIDITY PROBE		INSTALLED
DELTA-T PROBE		INSTALLED

FIELD CALIBRATION					
VARIABLE	CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 83/84	AS 82/83	AS 81/82
PRESSURE	987.8	987.2 MB	-.6 MB	-	-
TEMP EXT	-	-	-	-	-
TEMP INT	-	-	-	-	-
WIND SPD	-	-	-	-	-
WIND DIR	-	-	-	-	-

LABORATORY CALIBRATION					
VARIABLE	CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 83/84	AS 82/83	AS 81/82
PRESSURE	-	-	-	-	-
TEMP EXT	.12	0.0 C	.0 C	-	-
TEMP INT	19.25	19.5 C	.25 C	-	-
WIND SPD	.254 M/S/BIT		CAL	-	-
WIND DIR	OK	N-E-S-W-N	CAL	-	-
HUMIDITY	.55*BITS-22	%	CAL	-	-
DELTA T	.12*(BITS-201)	C	CAL	-	-

COMMENTS: TRANSMISSION CEASED AUG, 1984. UNABLE TO REACH AWS DURING AS 84/85.

AWS ID: 8922B

SITE NAME: INEXPRESSIBLE ISLAND
LOCATION : LAT 74.92 S LONG 163.60 E (SOUTH TIP OF ISLAND)
HEIGHT : 78 M

DATE ACTIVATED: 6 FEBRUARY 1984
LAST VISITED : 29 JANUARY 1985

SENSOR	SENSORS SERVICED PROBLEM	ACTION TAKEN
AEROVANE (X03-78-09)		INSTALLED
PRESSURE GAUGE (3132)		INSTALLED
TEMP PROBE EXT		INSTALLED
TEMP PROBE INT		INSTALLED
HUMIDITY PROBE		NONE
DELTA-T PROBE		NONE

FIELD CALIBRATION					
VARIABLE	CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 84/85	AS 83/84	AS 82/83
PRESSURE	985.0	984.8 MB	-	-.2 MB	-
TEMP EXT	-	-	-	-	-
TEMP INT	-	-	-	-	-
WIND SPD	-	-	-	-	-
WIND DIR	65	65	-	0 DEG	-

LABORATORY CALIBRATION					
VARIABLE	CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 84/85	AS 83/84	AS 82/83
PRESSURE	989.9	993.7 MB	+3.8 MB	-.6 MB	-
TEMP EXT	.12	0.0 C	-	-.12 C	-
TEMP INT	.12	0.0 C	-	-.12 C	-
WIND SPD	.252	M/S/BITS	-	CAL	-
WIND DIR	OK	N-E-S-W-N	-	CAL	-
HUMIDITY	-	-	-	-	-
DELTA T	-	-	-	-	-

COMMENTS: STATION CEASED TRANSMISSION IN APRIL, 1984 DUE TO
FAULTY INTERFACE BOARD. REPAIRS COMPLETED AT MCMURDO AND
REDEPLOYED.

AWS ID: 8923B

SITE NAME: MARTHA
LOCATION : LAT 78.31 S LONG 172.50 W ROSS ICE SHELF
HEIGHT : 42 M

DATE ACTIVATED: 1 FEBRUARY 1984
LAST VISITED : 1 FEBRUARY 1984

SENSOR	SENSORS SERVICED PROBLEM	ACTION TAKEN
AEROVANE (XX-XX-XX)		INSTALLED
PRESSURE GAUGE (18058)		INSTALLED
TEMP PROBE EXT		INSTALLED
TEMP PROBE INT		INSTALLED
HUMIDITY PROBE		NONE
DELTA-T PROBE		NONE

FIELD CALIBRATION						
VARIABLE	CALIBRATION		AS 83/84	DIFFERENCE		
	AWS	MEASURED		AS 82/83	AS 81/82	
PRESSURE	993.8	993.7 MB	-.1 MB	-	-	
TEMP EXT	-	-	-	-	-	
TEMP INT	-	-	-	-	-	
WIND SPD	-	-	-	-	-	
WIND DIR	64	60 DEG	-4 DEG	-	-	

LABORATORY CALIBRATION						
VARIABLE	CALIBRATION		AS 83/84	DIFFERENCE		
	AWS	MEASURED		AS 82/83	AS 81/82	
PRESSURE	995.2	994.6 MB	-.6 MB	-	-	
TEMP EXT	.12	0.0 C	-.12 C	-	-	
TEMP INT	.12	0.0 C	-.12 C	-	-	
WIND SPD	.248	M/S/BIT	CAL	-	-	
WIND DIR	OK	N-E-S-W-N	CAL	-	-	
HUMIDITY	-	-	-	-	-	
DELTA T	-	-	-	-	-	

COMMENTS: AWS 8923B WAS PLACED IN OPERATION BY JAY ARDAI. IT
WILL SUPPORT OCEAN CURRENT STUDIES IN THAT REGION. WIND
DIRECTION FAULTY AT SITE SINCE JULY, 1984.

AWS ID: 8924B

SITE NAME: SCHWERDTFEGER
LOCATION : LAT 79.56S LONG 169.45E (ROSS ICE SHELF)
HEIGHT : 50 M (ESTIMATED)

DATE ACTIVATED: 24 JAN 1985
LAST VISITED : 24 JAN 1985

SENSOR	SENSORS SERVICED	ACTION TAKEN
	PROBLEM	
AEROVANE		
PRESSURE GAUGE		
TEMP PROBE EXT		
TEMP PROBE INT		
HUMIDITY PROBE		
DELTA-T PROBE		

VARIABLE	CALIBRATION		FIELD CALIBRATION		
	AWS	MEASURED	AS 84/85	AS 83/84	AS 82/83
PRESSURE	-	-	-	-	-
TEMP EXT	-	-	-	-	-
TEMP INT	-	-	-	-	-
WIND SPD	-	-	-	-	-
WIND DIR	-	-	-	-	-

VARIABLE	CALIBRATION		LABORATORY CALIBRATION		
	AWS	MEASURED	AS 84/85	AS 83/84	AS 81/82
PRESSURE	989.3	992.4 MB	+3.1	-	-
TEMP EXT	-.12	0.0 C	.12	-	-
TEMP INT	21.0	20.5 C	.5	-	-
WIND SPD	.248	M/S/BIT	-	-	-
WIND DIR	OK	NESWN	-	-	-
HUMIDITY	(.49*BITS4)	%	-	-	-
DELTA T	.06*(BITS70)	C	-	-	-

AWS ID: 8925B

SITE NAME: GILL
LOCATION : LAT 80.00S LONG 179.00W
HEIGHT : 50 M (ESTIMATED)

DATE ACTIVATED: 24 JAN 1985
LAST VISITED : 24 JAN 1985

SENSOR	SENSORS SERVICED	ACTION TAKEN
	PROBLEM	
AEROVANE		
PRESSURE GAUGE		
TEMP PROBE EXT		
TEMP PROBE INT		
HUMIDITY PROBE		
DELTA-T PROBE		

FIELD CALIBRATION

VARIABLE	CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 84/85	AS 83/84	AS 82/83
PRESSURE	-	-	-	-	-
TEMP EXT	-	-	-	-	-
TEMP INT	-	-	-	-	-
WIND SPD	-	-	-	-	-
WIND DIR	-	-	-	-	-

LABORATORY CALIBRATION

VARIABLE	CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 84/85	AS 83/84	AS 82/83
PRESSURE	988.4	992.4 MB	+4.0 MB	-	-
TEMP EXT	.12	0.0 C	.12 C	-	-
TEMP INT	20.0	20.5 C	+5 C	-	-
WIND SPD	.249	M/S/BIT	-	-	-
WIND DIR	OK	NESWN	-	-	-
HUMIDITY	(.53*BITS10)	%	-	-	-
DELTA T	.06*(BITS82)	C	-	-	-

AWS ID: 8926B

SITE NAME: NOT DEPLOYED
LOCATION : ROTHERA
HEIGHT :

DATE ACTIVATED:
LAST VISITED :

SENSOR	SENSORS SERVICED	ACTION TAKEN
	PROBLEM	
AEROVANE		
PRESSURE GAUGE (17486)		
TEMP PROBE EXT		
TEMP PROBE INT		
HUMIDITY PROBE		
DELTA-T PROBE		

FIELD CALIBRATION					
VARIABLE	CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 83/84	AS 82/83	AS 81/82
PRESSURE	-	-	-	-	-
TEMP EXT	-	-	-	-	-
TEMP INT	-	-	-	-	-
WIND SPD	-	-	-	-	-
WIND DIR	-	-	-	-	-

LABORATORY CALIBRATION					
VARIABLE	CALIBRATION		DIFFERENCE		
	AWS	MEASURED	AS 84/85	AS 83/83	AS 82/83
PRESSURE	982.1	982.4 MB	+ .3 MB	-	-
TEMP EXT	0.12	0.00 C	- .12 C	-	-
TEMP INT	20.25	21.25 C	- .50 C	-	-
WIND SPD	.248 M/S/BIT		0	-	-
WIND DIR	OK	N-E-S-W-N	-	-	-
HUMIDITY	-	-	-	-	-
DELTA T	-	-	-	-	-

COMMENTS: STATION TO BE DEPLOYED BY THE BRITISH ANTARCTIC SURVEY IN AS 85/86.

AWS STATION PROBLEMS SUMMARY FOR AS 84/85

STATION ID	DATE	PROBLEM SUMMARY
8900	11/21/84	Station began transmitting again in Nov 84. Suspect frequency drift in transmitter.
8901		No problems. Station converted to B-format Jan 85.
8902		New station in AS 84/85 To be deployed by BAS
8903 (Byrd)		No problems
8904 (Dome C)		No problems
8905 (Manning)		No problems
8906 (Marble Point)	11/27/84	Corroded CPU board. Repaired Jan 85.
8907 (Ferrell)	10/6/84	10-volt DC power supply failed. New station deployed Jan 85.
8908 (Tiffany)	7/16/84	Platinum resistance thermometer failed. Multiplexer chip failed.
8909 (Arrival Heights)		Station removed 10 Jan 85
8910 (Siple)		Station stopped transmitting 22 Dec 85.
8911 (Laurie)		No problems
8912 (BAS)		Now transmits bad data.
8913 (Franklin Island)		No problems
8914 (D47)		No problems
8915 (Meeley)		New station Jan 85
8916 (D57)		Low battery voltage prevents transmission/reception.
8917 (BAS)		New station
8918 (Windless Bight)		No problems

8919 (BAS)		No transmissions until 6/3/83 and then no wind data. Suspect tower down.
8920		New station to be deployed 84/85 by BAS
8921	8/7/84	No longer received
8922	4/22/84	Failed interface board.
8923	6/25/84	Wind direction potentiometer malfunction
8924	1/24/85	Deployed on Ross Ice Shelf
8925	1/24/85	Deployed on RIS
8926		New station to be deployed on Antarctic Peninsula by BAS.

Acknowledgements

The success of the AS 84/85 field season was due to the help of many people. Again, as last year, Mr. Didier Simon of The Expeditions Francaises for maintenance visits via traverse to AWS 8901, 8914 and 8916. All stations from Dome-C to Dumont D'Urville are now operational in support of the katabatic wind study. Mr. J. Ardai is to be thanked for checking out the status of 8923B. LT Arland Buchanan of NSFA in McMurdo gave valuable assistance. As usual the support we received from ITT Antarctic Services, the NSF staff, the VXE-6 pilots and crew, and the Naval Support Force Antarctica was outstanding.