



# 1 Emilia Rock

Date of Installation: September 12, 2005

Station Coordinates (NAD27): North 53° 46' 4.5"  
West 128° 57' 24.1"

Magnetic deviation: 21.53° or TN=338.5°

Tower Height: 10 m

Site elevation above chart datum: 5 m

North alignment pole set to 338.5°

## Station Description

The weather station consists of a standard 10-m meteorological tower with instrumentation to measure wind speed and direction, air temperature, relative humidity, barometric pressure, water temperature, water level and a pyranometer for incident solar radiation. The station is powered by a 12 Vdc 8 Ahr battery with a 20-watt solar panel for charging. Data is recorded to a Campbell Scientific CR10X data logger. The data collection cycle is 5 seconds and the data is averaged over the 15 minute archiving period and saved to the logger memory. Station memory capacity exceeds one year of data at the current sampling rate.

## Station Location

The station is located on a small rock island located between Emilia Island and Point Ashton in the area Gilttoeyes Inlet joins with Douglas Channel. The station has a very good wind exposure for all directions with no obstacles within 500 meters of the station.

## Installation Notes

The station is attached to the rock outcrop by means of manufacturer supplied concrete mounting legs which are inserted into 4.5 cm diameter holes drilled into the rock to a depth of 1.0 m. The drill holes are first filled with mortar and then the tower mounting legs are attached to the tower and the whole assembly inserted into the holes and allowed to harden.

## Recorded Data

The two tables below show examples of the data collected every 15 minutes as well as a 24 hour summary of the day's maximums and minimums.

### 15 Minute Record

Date/Time	Wind Speed (m/s)	Wind Direction (Deg)	St. Dev Wind Dir. (Deg)	Air Temp. (°C)	Relative Hum. (%)	Baromet. Pressure (hPa)	Pyrano- meter (W/m <sup>2</sup> )	Sea Water Temp. (°C)	Sea Level (m)
Sep 12/05 13 15	7.49	249.0	2.148	14.96	81.5	1018.3	315.6	3.3	12.92
Sep 12/05 13 30	7.01	243.8	4.506	14.98	81.9	1018.3	277.7	3.3	12.97
Sep 12/05 13 45	7.72	235.7	4.628	15.50	76.2	1018.6	359.5	3.2	13.05
Sep 12/05 14 00	7.74	241.4	5.770	15.57	77.3	1018.6	478.8	3.5	13.01



Technical Data Report

Appendix A: Meteorological Station Descriptions

**Daily Summary**

Date	Wind Speed	Daily Relative Humidity			Daily Air Temperature			Daily Barometric Pressure			Pyro Reading	Water Surface Level		
		Max (m/s)	Max (%)	Avg (%)	Min (%)	Max (°C)	Avg (°C)	Min (°C)	Max (hPa)	Avg (hPa)		Min (hPa)	Max (m)	Avg (m)
13-Sep-05	12.15	91.7	84.3	74.9	15.04	13.76	12.21	1019	1017	1015	597.1	5.372	3.725	1.901
14-Sep-05	10.58	93.3	83.3	63.4	14.82	12.15	10.15	1018	1017	1017	828.0	5.638	3.644	1.536
15-Sep-05	5.45	95.5	84.8	58.1	16.94	11.91	9.32	1019	1018	1017	6510	5.948	3.548	1.189
16-Sep-05	10.45	98.6	81.7	59.8	16.94	12.41	8.45	1019	1017	1015	6572	6.206	3.502	0.910

**Daily Summary (cont'd)**

Water Temperature			Internal Logger Temperature		Battery Voltage	Station ID	Lithium Battery Voltage	Low 12Vdc Counts	Program Signature	Watch Dog Errors
Max (°C)	Avg (°C)	Min (°C)	Max (°C)	Min (°C)	Min (Vdc)		Min (Vdc)			
13.26	12.15	10.79	15.71	12.48	12.65	1	3.079	0	4059	0
13.10	12.22	11.03	15.26	10.15	12.67	1	3.084	0	4059	0
13.85	12.43	9.90	16.54	10.15	12.66	1	3.086	0	4059	0
13.89	12.15	9.40	17.12	8.96	12.66	1	3.087	0	4059	0

**Station Instrumentation Specifications**

Instrument	Model	Measuring Range	Sensitivity/Accuracy
Wind Monitor	05103-10L R.M. Young	0 to 60 m/s 0 to 100 m/s gusts	Accuracy ±0.3 m/s Threshold wind = 1.0 m/s
		0 to 355 degrees	±1.4°
Relative Humidity / Air Temperature Probe	HMP45C212-L	Relative Humidity 0.8 to 100% non-condensing	Accuracy at 20 °C ±2% RH (0-90% RH) ±3% RH (90-100% RH)
		Air Temperature -50° to +50°C	Accuracy at 20 °C ± 0.2 °C
Barometric Pressure	61205V R.M. Young	600 – 1100 hPa (mb)	±0.1 hPa (mb)
Pyranometer	CM3-L Kipp & Zonen	Spectral Waveband. 305-2800 nm	2.5% Non linearity (at 1000 W/m <sup>2</sup> ) 1.0% Non stability (% change/year)
Water Temperature	107B-L	-35° to +50°C <	±0.1°C over -24° to 48°C range
Water Level	173T-L KPSI pressure transducer	15 PSI range 0 – 10 m seawater	Accuracy ±0.1 % FSO Accuracy ± 0.01 m Seawater

## Station Location



**Location of the Emilia Rock Meteorological Station**

## Station Photos



**Photo 1: Emilia Rock Meteorological Station from Water**



**Photo 2: Emilia Rock Station Instrumentation**



**Photo 3: Emilia Rock Station Water Level Sensor**



## 2 Kersey Point

Date of Installation: September 13, 2005

Station Coordinates (NAD27): North 53° 46' 34.9 "

West 128° 51' 34.2"

Magnetic deviation: 21.53° or TN=338.5°

Tower Height: 10 m

Site elevation above chart datum: 5 m

North alignment pole set to 338.5°

### Station Description

The weather station consists of a standard 10-m meteorological tower with instrumentation to measure wind speed and direction, air temperature, relative humidity, barometric pressure and a pyranometer for incident solar radiation. The station is powered by a 12 Vdc 8 Ahr battery with a 20-watt solar panel for charging. Data is recorded to a Campbell Scientific CR10X data logger. The data collection cycle is 5 seconds and the data is averaged over the 15 minute archiving period and saved to the logger memory. Station memory capacity exceeds one year of data at the current sampling rate.

### Station Location

The station is located at Kersey Point on the northeast end of Maitland Island. The tower is located just behind the navigation aid on the narrow rocky shore up against the trees. The station is exposed to winds from the north, east and south wind, however winds from the west will be blocked by trees and Maitland Island.

### Installation Notes

The station is attached to the rock outcrop by means of manufacturer supplied concrete mounting legs which are inserted into 4.5 cm diameter holes drilled into the rock to a depth of 1.0 m. The drill holes are first filled with mortar and then the tower mounting legs are attached to the tower and the whole assembly inserted into the holes and allowed to harden.

### Recorded Data

The two tables below show examples of the data collected every 15 minutes as well as a 24 hour summary of the day's maximums and minimums.

#### 15 Minute Record

Date/Time	Wind Speed (m/s)	Wind Direction (Deg)	St. Dev Wind Dir. (Deg)	Air Temp. (°C)	Relative Hum. (%)	Baromet. Pressure (hPa)	Pyranometer (W/m <sup>2</sup> )
Sep 13/05 11 45	0.74	294.4	25.02	14.17	86.5	1017.4	17.4 187.8
Sep 13/05 12 00	0.66	299.1	24.85	14.38	86.1	1017.4	190.0
Sep 13/05 12 15	0.78	291.3	26.15	14.57	84.7	1017.4	208.9
Sep 13/05 12 30	0.34	284.6	59.39	14.82	83.4	1017.4	135.9



Technical Data Report

Appendix A: Meteorological Station Descriptions

**Daily Summary**

Date	Wind Speed	Daily Relative Humidity			Daily Air Temperature			Daily Barometric Pressure			Pyro Reading	
		Max (m/s)	Max (%)	Avg (%)	Min (%)	Max (°C)	Avg (°C)	Min (°C)	Max (hPa)	Avg (hPa)		Min (hPa)
14-Sep-05	5.78	95.4	82.9	57.4	15.93	12.00	9.34	1018	1018	1017	6	807.0
15-Sep-05	5.53	95.5	84.6	64.2	14.64	11.83	9.63	1019	1019	1018	7	622.3
16-Sep-05	4.76	92.9	83.1	65.8	15.80	12.27	10.04	1019	1019	1017	5	607.4
17-Sep-05	5.82	95.3	81.5	57.4	15.59	12.31	9.81	1019	1019	1018	5	653.8

**Daily Summary (cont'd)**

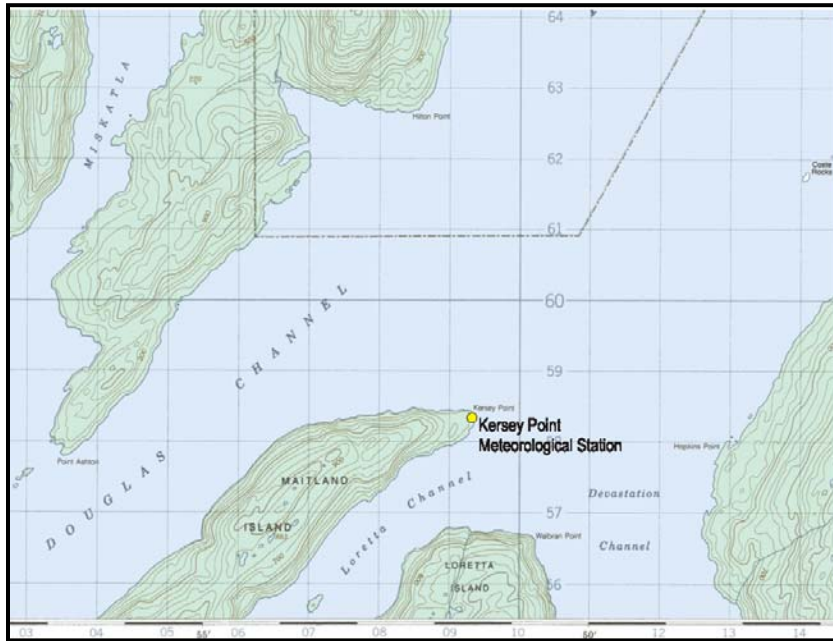
Internal Logger Temperature		Battery Voltage	Station ID	Lithium Battery Voltage	Low 12Vdc Counts	Program Signature	Watch Dog Errors
Max (°C)	Min (°C)	Min (Vdc)		Min (Vdc)			
15.69	8.58	12.65	2	2.521	0	2643	0
17.02	8.94	12.69	2	3.072	0	2643	0
16.72	9.79	12.70	2	3.075	0	2643	0
15.67	9.26	12.69	2	3.080	0	2643	0

**Station Instrumentation Specifications**

Instrument	Model	Measuring Range	Sensitivity/Accuracy
Wind Monitor	05103-10L R.M. Young	0 to 60 m/s 0 to 100 m/s gusts	Accuracy ±0.3 m/s Threshold wind = 1.0 m/s
		0 to 355 degrees	±1.4°
Relative Humidity / Air Temperature Probe	HMP45C212-L	Relative Humidity 0.8 to 100% non-condensing	Accuracy at 20 °C ±2% RH (0-90% RH) ±3% RH (90-100% RH)
		Air Temperature -50° to +50°C	Accuracy at 20 °C ± 0.2 °C
Barometric Pressure	61205V R.M. Young	600 – 1100 hPa (mb)	±0.1 hPa (mb)
Pyranometer	CM3-L Kipp & Zonen	Spectral Waveband. 305-2800 nm	2.5% Non linearity (at 1000 W/m <sup>2</sup> ) 1.0% Non stability (% change/year)



## Station Location



Location of the Kersey Point Meteorological Station

## Station Photos



Photo 1: Kersey Point Meteorological Station from Water



**Photo 2: Kersey Point Meteorological Station**



### 3 Dorothy Island

Date of Installation: January 24, 2006

Station Coordinates (NAD27): North 53° 39' 37.5 "  
West 128° 50' 31.6"

Magnetic deviation: 21.50° or TN=338.5°

Tower Height: 10 m

Site elevation above chart datum: 5 m

North alignment pole set to 338.5°

#### Station Description

The weather station consists of a standard 10-m meteorological tower with instrumentation to measure wind speed and direction, air temperature, relative humidity, barometric pressure and water temperature. The station is powered by a 12 Vdc 8 Ahr battery with a 20-watt solar panel for charging. Data is recorded to a Campbell Scientific CR10X data logger. The data collection cycle is 5 seconds and the data is averaged over the 15 minute archiving period and saved to the logger memory. Station memory capacity exceeds one year of data at the current sampling rate.

#### Station Location

The station is located in Devastation Channel at the northeast tip of Dorothy Island. The tower is located on the narrow band of rock separating the trees from the ocean. The station is exposed to winds from the north, east and west, but winds from the south will be blocked by trees and Dorothy Island.

#### Installation Notes

The station is attached to the rock outcrop by means of manufacturer supplied concrete mounting legs which are inserted into 4.5 cm diameter holes drilled into the rock to a depth of 1.0 m. The drill holes are first filled with mortar and then the tower mounting legs are attached to the tower and the whole assembly inserted into the holes and allowed to harden.

#### Recorded Data

The two tables below show examples of the data collected every 15 minutes as well as a 24 hour summary of the day's maximums and minimums.

##### 15 Minute Record

Date/Time	Wind Speed (m/s)	Wind Direction (Deg)	St. Dev Wind Dir. (Deg)	Air Temp. (°C)	Relative Hum. (%)	Baromet. Pressure (hPa)	Water Temp. (°C)
Jan 24/06 16 00	0.21	110.7	17.61	7.00	95.5	1007.7	6.49
Jan 24/06 16 15	0.06	89.3	2.549	6.91	97.2	1007.3	6.45
Jan 24/06 16 30	0.31	113.2	26.74	6.85	97.3	1006.9	6.35
Jan 24/06 16 45	0.63	99.6	17.52	6.72	95.7	1006.7	6.32



Technical Data Report

Appendix A: Meteorological Station Descriptions

**Daily Summary**

Date	Wind Speed (m/s)	Daily Relative Humidity			Daily Air Temperature			Daily Barometric Pressure			Water Temperature		
		Max (%)	Avg (%)	Min (%)	Max (°C)	Max (°C)	Max (°C)	Max (hPa)	Avg (hPa)	Min (hPa)	Max (°C)	Avg (°C)	Min (°C)
24-Jan-06	3.78	99.5	98.3	92.7	7.33	5.80	5.15	1008	998	992	6.51	6.23	5.97
25-Jan-06	4.72	99.7	98.4	92.6	5.67	5.04	4.04	999	996	994	6.49	6.09	4.72
26-Jan-06	7.25	100.5	94.7	76.6	4.19	2.71	0.28	1002	1000	998	6.43	5.53	2.31
27-Jan-06	7.59	100.7	96.3	78.4	4.10	2.91	0.52	1005	1001	990	6.31	5.37	2.90

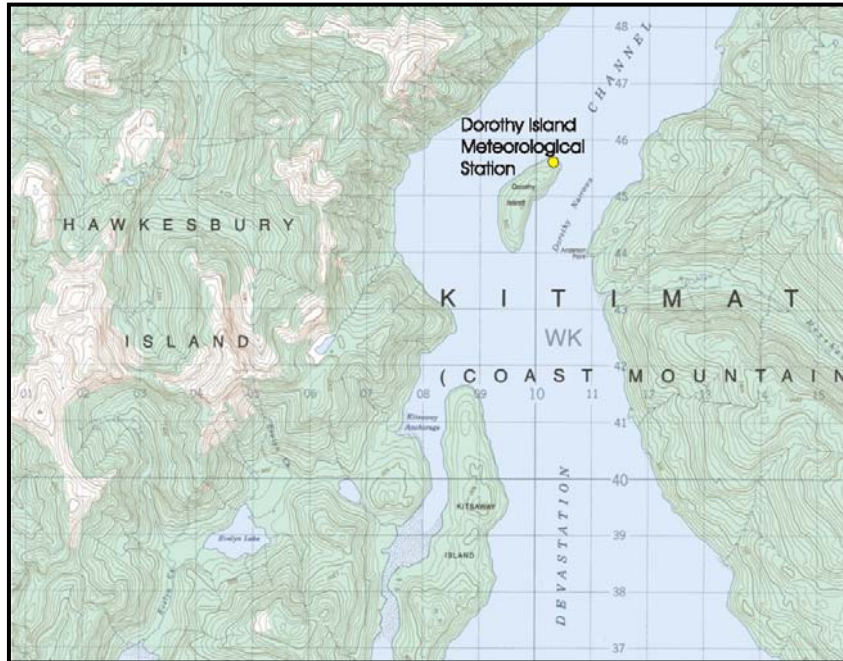
**Daily Summary (cont'd)**

Internal Logger Temperature		Battery Voltage	Station ID	Lithium Battery Voltage	Low 12Vdc Counts	Program Signature	Watch Dog Errors
Max (°C)	Min (°C)	Min (Vdc)		Min (Vdc)			
9.50	5.48	12.00	3	3.030	1	2180	0
5.56	4.20	11.98	3	3.032	1	2180	0
4.20	0.75	12.10	3	3.037	1	2180	0
3.73	0.75	12.24	3	3.043	1	2180	0

**Station Instrumentation Specifications**

Instrument	Model	Measuring Range	Sensitivity/Accuracy
Wind Monitor	05103-10L R.M. Young	0 to 60 m/s 0 to 100 m/s gusts	Accuracy ±0.3 m/s Threshold wind = 1.0 m/s
		0 to 355 degrees	±1.4°
Relative Humidity / Air Temperature Probe	HMP45C212-L	Relative Humidity 0.8 to 100% non-condensing	Accuracy at 20 °C ±2% RH (0-90% RH) ±3% RH (90-100% RH)
		Air Temperature -50° to +50°C	Accuracy at 20 °C ± 0.2 °C
Barometric Pressure	61205V R.M. Young	600 – 1100 hPa (mb)	±0.1 hPa (mb)
Water Temperature	107B-L Campbell Sci.	-35°C to +50°C	<±0.1°C over -24° to 48°C range

### Station Location



Location of the Dorothy Island Meteorological Station

### Station Photos



Dorothy Island Meteorological Station



## 4 Fawcett Point

Date of Installation: January 30, 2006

Station Coordinates (NAD27): North 53° 04' 43.5 "  
 West 129° 16' 30.0"

Magnetic deviation: 21.25° or TN=338.8°

Tower Height: 10 m

Site elevation above chart datum: 5 m

North alignment pole set to 338.8°

### Station Description

The weather station consists of a standard 10-m meteorological tower with instrumentation to measure wind speed and direction, air temperature, relative humidity, barometric pressure, water temperature, a pyranometer for solar incident radiation and a visibility sensor. The station is powered by a 12 Vdc 26 Ahr battery with a 20-watt solar panel for charging. Data is recorded to a Campbell Scientific CR10X data logger. The data collection cycle is 5 seconds and the data is averaged over the 15 minute archiving period and saved to the logger memory. Station memory capacity exceeds one year of data at the current sampling rate.

### Station Location

The station is located at the junction of Squally Channel and Campania Sound at the South end of Gil Island just to the west of Fish Bay. The tower is located on a bare rock island just south of Gil Island. The station is exposed to winds from the south, east and west, but winds from the north will be somewhat blocked Gil Island.

### Installation Notes

The station is attached to the rock outcrop by means of manufacturer supplied concrete mounting legs which are inserted into 4.5 cm diameter holes drilled into the rock to a depth of 1.0 m. The drill holes are first filled with mortar and then the tower mounting legs are attached to the tower and the whole assembly inserted into the holes and allowed to harden.

### Recorded Data

The two tables below show examples of the data collected every 15 minutes as well as a 24 hour summary of the day's maximums and minimums.

#### 15 Minute Record

Date/Time	Wind Speed (m/s)	Wind Direction (Deg)	St. Dev Wind Dir. (Deg)	Air Temp. (°C)	Relative Hum. (%)	Baromet. Pressure (hPa)	Water Temp. (°C)	Pyrano- meter (W/m <sup>2</sup> )	Visibility (m)
Jan 30/ 06 18 45	3.24	187.1	10.08	6.93	71.7	1001.3	6.09	0	3000
Jan 30/ 06 19 00	3.75	182.0	10.57	6.77	74.0	1001.3	6.13	0	2968
Jan 30/ 06 19 15	3.78	178.8	7.31	6.70	75.5	1001.3	6.11	0	2909
Jan 30/ 06 19 30	3.86	196.1	7.81	6.77	72.7	1001.3	6.15	0	3000



Technical Data Report

Appendix A: Meteorological Station Descriptions

**Daily Summary**

Date	Wind Speed (m/s)	Daily Relative Humidity			Daily Air Temperature			Daily Barometric Pressure			Water Temperature		
		Max (%)	Avg (%)	Min (%)	Max (°C)	Max (°C)	Max (°C)	Max (hPa)	Avg (hPa)	Min (hPa)	Max (°C)	Avg (°C)	Min (°C)
30-Jan-06	11.41	80.7	72.2	57.5	7.02	6.34	5.88	1003	998	995	6.75	5.98	5.14
31-Jan-06	18.25	89.2	77.9	59.6	7.14	7.64	3.73	1003	987	971	7.89	6.73	5.13
1-Feb-06	17.37	92.0	82.6	66.3	27.07	7.48	4.26	995	989	974	7.85	7.01	6.16
2-Feb-06	17.11	89.8	83.0	72.2	80.70	10.07	7.04	1003	1000	995	8.29	7.06	5.856

**Daily Summary (cont'd)**

Pyranometer	Visibility			Internal Logger Battery Temperature			Station ID	Lithium Battery Voltage (Vdc)	Low 12Vdc Counts	Program Signature	Watch Dog Errors
	Max (W/m <sup>2</sup> )	Max (m)	Avg (m)	Min (m)	Max (°C)	Min (°C)					
0 300	0	2856	2600	7.52	5.68	12.32	4	3.030	0	57.1	0
90.6 300	0	2593	621	6.43	4.03	12.31	4	3.007	0	57.1	0
121.6 300	0	2447	709	6.66	4.09	12.34	4	3.007	0	57.1	0
169.3 300	0	2575	894	7.21	4.80	12.34	4	3.037	0	57.1	0

**Station Instrumentation Specifications**

Instrument	Model	Measuring Range	Sensitivity/Accuracy
Wind Monitor	05103-10L R.M. Young	0 to 60 m/s 0 to 100 m/s gusts	Accuracy ±0.3 m/s Threshold wind = 1.0 m/s
		0 to 355 degrees	±1.4°
Relative Humidity / Air Temperature Probe	HMP45C212-L	Relative Humidity 0.8 to 100% non-condensing	Accuracy at 20 °C ±2% RH (0-90% RH) ±3% RH (90-100% RH)
		Air Temperature -50° to +50°C	Accuracy at 20 °C ± 0.2 °C
Barometric Pressure	61205V R.M. Young	600 – 1100 hPa (mb)	±0.1 hPa (mb)
Water Temperature	107B-L Campbell Sci.	-35°C to +50°C	<±0.1°C over –24° to 48°C range
Pyranometer	CM#-L R.M. Young	Spectral Waveband 305-2800 nm	2.5% Non linearity (at 1000 W/m <sup>2</sup> ) 1.0% Non stability (% change/year)



Technical Data Report

Appendix A: Meteorological Station Descriptions

Mira Visibility Sensor	Model 3544 Aanderaa Inst.	20 to 3000 m 880 nm wavelength	$\pm 0.5\%$ full scale or $\pm 15$ m
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Station Location



Location of the Fawcett Point Meteorological Station



## 5 Wright Sound

Date of Installation: January 29, 2006

Station Coordinates (NAD27): North 53° 21' 22.9 "  
 West 129° 13' 42.4"

Magnetic deviation: 21.37° or TN=338.6°

Tower Height: 10 m

Site elevation above chart datum: 5 m

North alignment pole set to 158.6°

### Station Description

The weather station consists of a standard 10-m meteorological tower with instrumentation to measure wind speed and direction, air temperature, relative humidity, barometric pressure and water temperature. The station is powered by a 12 Vdc 8 Ahr battery with a 20-watt solar panel for charging. Data is recorded to a Campbell Scientific CR10X data logger. The data collection cycle is 5 seconds and the data is averaged over the 15 minute archiving period and saved to the logger memory. Station memory capacity exceeds one year of data at the current sampling rate.

### Station Location

The station is located in Wright Sound at the south tip of Promise Island near the navigation aid. The tower is located on the narrow rock shore between the trees and the Ocean. The station is exposed to winds from the south, east and west, but winds from the north will be blocked by trees and Promise Island.

### Installation Notes

The station is attached to the rock outcrop by means of manufacturer supplied concrete mounting legs which are inserted into 4.5 cm diameter holes drilled into the rock to a depth of 1.0 m. The drill holes are first filled with mortar and then the tower mounting legs are attached to the tower and the whole assembly inserted into the holes and allowed to harden.

### Recorded Data

The two tables below show examples of the data collected every 15 minutes as well as a 24 hour summary of the day's maximums and minimums.

#### 15 Minute Record

Date/Time	Wind Speed (m/s)	Wind Direction (Deg)	St. Dev Wind Dir. (Deg)	Air Temp. (°C)	Relative Hum. (%)	Baromet. Pressure (hPa)	Sea Water Temp. (°C)
Feb 18/06 5 00	0.55	59.01	57.26	1.50	60.5	1031.3	6.76
Feb 18/06 5 15	0.64	101.6	46.40	1.19	60.5	1031.3	6.73
Feb 18/06 5 30	0.76	81.2	46.24	1.01	61.1	1031.2	6.70
Feb 18/06 5 45	1.08	81.2	52.96	1.10	59.3	1031.1	6.68



Technical Data Report

Appendix A: Meteorological Station Descriptions

**Daily Summary**

Date	Wind Speed (m/s)	Daily Relative Humidity			Daily Air Temperature			Daily Barometric Pressure			Water Temperature		
		Max (%)	Avg (%)	Min (%)	Max (°C)	Max (°C)	Max (°C)	Max (hPa)	Avg (hPa)	Min (hPa)	Max (°C)	Avg (°C)	Min (°C)
30-Jan-06	12.00	97.0	86.6	74.7	6.98	4.13	1.00	1003	995	989	6.53	5.99	4.43
31-Jan-06	9.88	91.9	83.4	64.0	6.47	4.75	3.04	1003	988	973	7.24	6.44	4.82
1-Jan-06	7.39	97.0	88.1	70.3	6.94	4.44	1.36	996	989	974	6.57	5.96	2.61
2-Feb-06	14.78	98.2	87.6	68.2	7.60	4.93	2.46	1004	1000	996	6.78	6.28	5.70

**Daily Summary (cont'd)**

Internal Logger Temperature		Battery Voltage	Station ID	Lithium Battery Voltage	Low 12Vdc Counts	Program Signature	Watch Dog Errors
Max (°C)	Min (°C)	Min (Vdc)		Min (Vdc)			
7.04	0.36	12.52	5	3.019	1	6267	0
5.31	3.05	12.61	5	3.023	1	6267	0
6.41	2.12	12.62	5	3.028	1	6267	0
6.69	2.62	12.64	5	3.032	1	6267	0

**Station Instrumentation Specifications**

Instrument	Model	Measuring Range	Sensitivity/Accuracy
Wind Monitor	05103-10L R.M. Young	0 to 60 m/s 0 to 100 m/s gusts	Accuracy ±0.3 m/s Threshold wind = 1.0 m/s
		0 to 355 degrees	±1.4°
Relative Humidity / Air Temperature Probe	HMP45C212-L	Relative Humidity 0.8 to 100% non-condensing	Accuracy at 20 °C ±2% RH (0-90% RH) ±3% RH (90-100% RH)
		Air Temperature -50° to +50°C	Accuracy at 20 °C ± 0.2 °C
Barometric Pressure	61205V R.M. Young	600 – 1100 hPa (mb)	±0.1 hPa (mb)
Water Temperature	107B-L Campbell Sci.	-35°C to +50°C	<±0.1°C over -24° to 48°C range

### Station Location



Location of the Wright Sound Meteorological Station

### Station Photos



Wright Sound Meteorological Station



## 6 Wall Island

Date of Installation: January 27, 2006

Station Coordinates (NAD27): North 52° 51' 37.7 "

West 129° 20' 44.8"

Magnetic deviation: 21.17° or TN=338.8°

Tower Height: 10 m

Site elevation above chart datum: 10 m

North alignment pole set to 229°

### Station Description

The weather station consists of a standard 10-m meteorological tower with instrumentation to measure wind speed and direction, air temperature, relative humidity, barometric pressure and water temperature. The station is powered by a 12 Vdc 8 Ahr battery with a 20-watt solar panel for charging. Data is recorded to a Campbell Scientific CR10X data logger. The data collection cycle is 5 seconds and the data is averaged over the 15 minute archiving period and saved to the logger memory. Station memory capacity exceeds one year of data at the current sampling rate.

### Station Location

The station is located in Caamaño Sound on the west side of the most northern of the Wall Islands situated at the north end of Rennison Island. The tower is located next to a Canadian Hydrographic Services monument BM# 30164 77 on a rock outcrop protruding out from Wall Island. The station is exposed to winds from the north, east and south, but winds from the west will be somewhat blocked by the trees on Wall Island.

### Installation Notes

The station is attached to the rock outcrop by means of manufacturer supplied concrete mounting legs which are inserted into 4.5 cm diameter holes drilled into the rock to a depth of 1.0 m. The drill holes are first filled with mortar and then the tower mounting legs are attached to the tower and the whole assembly inserted into the holes and allowed to harden.

### Recorded Data

The two tables below show examples of the data collected every 15 minutes as well as a 24 hour summary of the day's maximums and minimums.

#### 15 Minute Record

Date/Time	Wind Speed (m/s)	Wind Direction (Deg)	St. Dev Wind Dir. (Deg)	Air Temp. (°C)	Relative Hum. (%)	Baromet. Pressure (hPa)
Jan 27/06 16 45	1.09	123.4 66	39	4.45 89.6		999.1
Jan 27/06 17 00	0.86	121.2 62	74	4.62 87.1		998.5
Jan 27/06 17 15	0.91	123.3 65	07	4.71 85.6		997.9
Jan 27/06 17 30	1.00	126.2 60	91	4.83 83.3		997.5



Technical Data Report  
 Appendix A: Meteorological Station Descriptions

**Daily Summary**

Date	Wind Speed (m/s)	Daily Relative Humidity			Daily Air Temperature			Daily Barometric Pressure		
		Max (%)	Avg (%)	Min (%)	Max (°C)	Max (°C)	Max (°C)	Max (hPa)	Avg (hPa)	Min (hPa)
27-Jan-06	10.13	95.1	87.2	78.1	15.01	4.35	3.6	999	995	986
28-Jan-06	16.13	97.8	82.8	53.	47.11	4.30	2.24	1009	995	986
29-Jan-06	13.82	94.8	82.4	65.	04.58	3.22	2.35	1009	999	987
30-Jan-06	12.33	94.9	79.1	57.	48.08	6.10	4.10	1003	995	987

**Daily Summary (cont'd)**

Internal Logger Temperature		Battery Voltage	Station ID	Lithium Battery Voltage	Low 12Vdc Counts	Program Signature	Watch Dog Errors
Max (°C)	Min (°C)	Min (Vdc)		Min (Vdc)			
6.66	3.59	12.52	6	3.028	1	4624	0
5.81	2.33	12.5	6	3.028	1	4624	0
4.03	0.84	12.76	6	3.036	1	4624	0
7.69	3.59	12.78	6	3.044	1	4624	0

**Station Instrumentation Specifications**

Instrument	Model	Measuring Range	Sensitivity/Accuracy
Wind Monitor	05103-10L R.M. Young	0 to 60 m/s 0 to 100 m/s gusts	Accuracy ±0.3 m/s Threshold wind = 1.0 m/s
		0 to 355 degrees	±1.4°
Relative Humidity / Air Temperature Probe	HMP45C212-L	Relative Humidity 0.8 to 100% non-condensing	Accuracy at 20 °C ±2% RH (0-90% RH) ±3% RH (90-100% RH)
		Air Temperature -50° to +50°C	Accuracy at 20 °C ± 0.2 °C
Barometric Pressure	61205V R.M. Young	600 – 1100 hPa (mb)	±0.1 hPa (mb)



### Station Location



Location of the Wall Island Meteorological Station

### Station Photos



Wall Island Meteorological Station