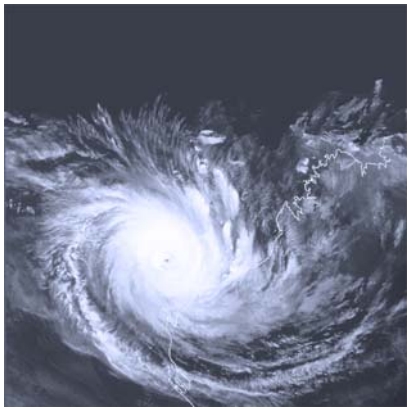
RPS

RPS MetOcean Pty Ltd

CURRENT, WAVE AND TIDE MEASUREMENTS, CAPE RICHE, WESTERN AUSTRALIA
FINAL DATA REPORT







CURRENT, WAVE AND TIDE MEASUREMENTS, CAPE RICHE, WESTERN AUSTRALIA
FINAL DATA REPORT

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Report No: R1517v0
Job No: J2836.001
Date: 30 May 2011

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30 May 2011

GHD Pty Ltd
239 Adelaide Terrace
PERTH WA 6004

Attention: Oliver Glade-Wright

Dear Sir

Current, Wave and Tide Measurements, Cape Riche, Western Australia November to December 2010 Final Data Report

Herewith our Final report R1517 Version 0, titled "Current, Wave and Tide Measurements, Cape Riche, Western Australia, November to December 2010 - Final Data Report".

Should you have any queries regarding this report, or require any further information, please advise.

Yours faithfully
RPS MetOcean

Jonathan Ferguson
Environmental Scientist
J2836.001

DOCUMENT STATUS

Version	Description of Issue	Date of Issue	Prepared by	Reviewed by	Approved by
0	Final	30/5/2011	J F Ferguson	G M Bush	G M Bush

Disclaimer

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1.0 INTRODUCTION

1.1 Background

GHD have requested RPS MetOcean Pty Ltd (RPS) to measure current, waves and tides at two locations at Cape Riche, Western Australia to assist in the development of a desalination plant.

Two AWAC (acoustic wave and current profiler) instruments were deployed for a month in the bay at 11.3 m MSL; and outside the peninsula in 31.4 m MSL of water.

This report presents current, wave and tide measurements that have been collected between 15 November and 15 December 2010.

1.2 Types of Measurements

Currents through the water column, waves and tides were measured at Cape Riche Diffuser location in 11.3 m MSL of water using a Nortek 1 MHz AWAC instrument.

Currents through the water column, waves and tides were measured at Cape Riche Offshore location in 31.4 m MSL of water using a Nortek 600 kHz AWAC instrument.

1.3 Programme Duration

This report documents 1 month of Cape Riche measurements from 15 November to 15 December 2010.

1.4 Units and Conventions

MSL - Mean Sea Level (metres)

AMSL - Above Mean Sea Level (metres)

ASB - Above Seabed (metres)

All current speed data are in metres per second (m s^{-1}), 1 m s^{-1} = 1.944 knots and 1 m s^{-1} = 100 cm s^{-1}.

Current direction data are shown in degrees (0-359°) and indicate the direction **towards** which the current is flowing. Magnetic declination of 1.3° was added to all direction data to correct to true north.

Seawater temperature data are in degrees Celsius (°C).

All wave height data are in metres (m) and wave periods in seconds (s).

Wave direction data are in degrees (0-359°) and indicate the direction **from** which the wave is originating.

All data and field log times are in Australian Western Standard Time (UTC + 8 hours).

2.0 MEASUREMENT LOCATIONS

2.1 Measurement Locations

The measurement program was conducted at Cape Riche approximately 525 km SE of Perth, Western Australia.

Figure 2.1 shows the location of the Cape Riche measurements.

Measurement locations, including latitude, longitude and water depth for Cape Riche measurements are presented below:

Location	Latitude	Longitude	Water depth (m MSL)
Cape Riche Diffuser	34° 36.130' S	118° 46.017' E	11.3
Cape Riche Offshore	34° 36.685' S	118° 47.545' E	31.4

2.2 Horizontal Positioning

The horizontal locations of the instrumentation were determined using the Global Positioning System (GPS), WGS84 Datum. The vessel GPS was used to position the vessel, and the positions recorded on the vessel GPS were verified by RPS MetOcean using a handheld GPS. The accuracy of the mooring positions is considered to be ±20 m, allowing for GPS accuracy and positioning of the vessel's GPS receiver with respect to the stern of the vessel.

2.3 Vertical Positioning

For the AWAC, both the velocity sensor and the pressure sensor were at 0.25 m ASB.

Moorings are discussed in Chapter 4.

3.0 FIELD OPERATIONS

3.1 Vessels

The vessel used for the deployment and recovery of the seabed frame and instrumentation was the "LFB P82". It is a 4.5 m vessel with a 100 kg davit mounted on the starboard gunnel.

3.2 Techniques

Field operations were simplified by undertaking as much preparatory work as possible prior to leaving port.

All necessary equipment, tools, instrumentation and hardware were loaded directly onto the back of the work vessel at the Cape Riche. Pre-deployment checks took place onshore.

Using these techniques, deployment and recovery operations can be conducted with safety in moderate sea states, with due care taken.

3.3 Field Visits

Appendix A contains the field logs.

4.0 MOORINGS

The measurement programme comprised two seabed frames at Cape Riche Diffuser and Cape Riche Offshore locations in approximately 11.3 m and 31.4 m MSL, respectively.

The seabed frames had two ranging transponders to assist with recovery if required. Each seabed frame was deployed by lowering it into place. No surface markers were used for this mooring. Recovery was undertaken by a diver.

Mooring diagrams are presented in Appendix B.

5.0 CURRENT MEASUREMENTS

5.1 Instrumentation

Current measurements were conducted at Cape Riche Diffuser using Nortek 1 MHz AWAC s/n 5605; and at Cape Riche Offshore using Nortek 600 kHz AWAC s/n 5791.

The AWAC measurement locations are detailed in Figure 2.1.

Through Water Column Current Profiler - AWAC

Each AWAC measured x, y, z orbital particle velocities, surface elevation, pressure and seawater temperature. The orbital velocities are sensed by measuring the radial Doppler shift of the water particles along each of the three angled acoustic beams. These are then internally rotated to a north-south, east-west, and vertical coordinate system, and converted to velocities using the instrument's internal processor, compass and tilt sensors. The resultant velocity components are then averaged over a specified period prior to recording onto a solid state memory card.

Specifications for the Nortek 600 kHz AWAC and the Nortek 1000 kHz AWAC are included in Appendix C.

5.2 Calibration

The AWAC underwent compass alignment on an in-house compass calibration jig against a calibrated compass. Pitch and roll were similarly confirmed on a purpose designed tilt jig. Spot checks were performed on the temperature sensor against a calibrated thermometer as part of the instrument's pre-deployment procedure.

The instruments were cleaned and coated with anti-foul paint prior to initial deployment.

AWAC Calibrations are presented in Appendix D.

5.3 Sampling Technique

The AWAC was set to continuously record a 2-minute vector-averaged velocity every 10 minutes, noting that the AWAC misses every sixth 10-minute value whilst sampling waves.

The current sampling regime of the AWAC can be summarised as follows:

	600 kHz	1 MHz
Samples per burst	120	120
Sample interval	1 second	1 second
Averaging period	120 seconds	120 seconds
Burst interval	600 seconds	600 seconds
Number of cells	18	15
Cell size	2.0 m	1.0 m
Blanking distance	0.5 m	0.4 m
Compass update interval	600 seconds	600 seconds
Assumed salinity	35 PSU	35 PSU
Assumed depth	35 m	35 m
Recorded coordinate system	ENU	ENU
Horizontal velocity precision	0.016 m s-1	0.014 m s-1
Vertical velocity precision	0.005 m s-1	0.004 m s-1

5.4 Data Processing Technique

The solid state memory card from AWAC were transcribed and converted to engineering units on the RPS computer system.

Data values were plotted and visually inspected for instrument faults, spurious data values, timing errors and overall data quality.

Suspect data were manually edited from the records to further analysis.

Current directions were corrected for Magnetic Declination of 1.3 °E.

5.5 Data Recovery, Quality and Reliability

Data Recovery

The data return for each AWAC were 100%.

Data Quality

The manufacturer's quoted accuracy and resolution for the AWAC is as follows;

	Range	Accuracy	Resolution
Velocity (horizontal)	± 10 m s-1	1% of measured value ± 0.5 cm s-1	N/A
Velocity (along beam)	± 5 m s-1	1% of measured value ± 0.5 cm s-1	N/A
Seawater Temperature	-4 to 40 °C	-0.1 °C	0.01 °C

The accuracy of the timing of the recorded data are checked by comparing the elapsed deployment time according to the instrument clock to that according to a digital watch synchronised with GPS time. All instruments were found to have performed within the manufacturers specification of ± 2 seconds per day and no timing corrections were performed.

Data Reliability

The AWAC instruments satisfactorily passed pre-deployment checks and calibrations. All spurious and erroneous data points have been removed. The data presented in this report may therefore be considered completely reliable.

5.6 Data Analysis and Presentation

Cape Riche Diffuser current speed and direction has been presented at 1.82 m ASB (near-seabed); 5.17 m ASB (middle of water column); and 9.63 m ASB (near-surface).

Cape Riche Offshore current speed and direction has been presented at 3.05 m ASB (near-seabed); 16.48 m ASB (middle of water column); and 29.92 m ASB (near-surface).

Standard analysis of the processed data were undertaken to produce the following presentations:

- Deployment time history plots of current speed, direction and water temperature;
- Deployment current speed and seawater temperature statistics and exceedence percentiles;
- Deployment current speed and direction percentage occurrence matrices;
- Deployment current speed exceedence plots and tables;
- Deployment current roses; and

- Deployment continuous vector plots.

These plots and tabulations are presented in Appendix E.

5.7 Results

A summary of near-seabed, middle and near surface layer currents are detailed below:

Location	Meter Height m ASB	Current Speed (m s-1)		Main Directions (<15%)
		Maximum	Mean	
Cape Riche Diffuser	1.82	0.11	0.03	variable
	5.17	0.13	0.04	W
	9.63	0.16	0.05	NW
Cape Riche Offshore	3.05	0.37	0.10	NNE, NE
	16.48	0.46	0.13	NNE, NE, S
	29.92	0.51	0.15	NNE, NE

5.8 Data Cataloguing and Archiving

The quality controlled data presented in this report are stored in standard netCDF format files which are retained in the RPS Data Management System (DMS). The DMS is backed up daily using backup tapes which are stored in-house. A backup tape is despatched weekly to an approved off-site Data Archiving Centre.

The transcribed files (raw from logger) and processed data files (prior to quality control) are held by RPS on archive tape written to industry standards. The archive tape is stored in-house and a back-up copy is similarly stored off-site.

6.0 DIRECTIONAL AND NON-DIRECTIONAL WAVE MEASUREMENTS

6.1 Instrumentation

Wave measurements were conducted at Cape Riche Diffuser using Nortek 1 MHz AWAC s/n 5605; and at Cape Riche Offshore using Nortek 600 kHz AWAC s/n 5791.

The AWAC measurement locations are detailed in Figure 2.1.

AWAC

The AWAC measures the x, y, z orbital particle velocities, surface elevation, pressure; and seawater temperature. The instrument comprises four upward-looking acoustic transducers, one oriented vertically and three angled at 25˚ to the vertical, a piezo-resistive 100 m (0-142 psi) pressure sensor, an internal compass and 2 tilt sensors.

The orbital velocities are sensed by measuring the radial Doppler shift of the water particles along each of the three angled acoustic beams. These are then internally rotated to a north-south, east-west, and vertical coordinate system, and converted to velocities using the instrument's internal processor, compass and tilt sensors. The resultant velocity components are then averaged over a specified period prior to recording to a solid state memory card. The raw burst orbital velocity data are also recorded. This is then used to determine wave direction information.

An Acoustic Surface Tracking (AST) method from the vertical beam acts as an inverted echo sounder and is used to measure surface elevation, which is then recorded.

The pressure sensor allows the recording of raw burst pressure data onto solid state memory. The raw burst data can subsequently be used to derive wave heights, which are also recorded to solid state memory.

Refer to section 5.1 for further AWAC instrumentation details.

The instrument specifications for the AWAC are presented in Appendix C.

6.2 Calibration

Refer to section 4.2 for AWAC calibration details.

Pitch, roll and compass calibration coefficients used to process the data are presented in Appendix D.

6.3 Sampling Technique

Each AWAC was set to record a 1024 second wave burst every hour.

The wave sampling regime of each AWAC can be summarised as follows:

	PUV
Samples per burst	1024
Sample interval	1 second
Burst interval	3600 seconds (60 minutes)

6.4 Data Processing Technique

The recorded AWAC data were transcribed onto a computer system located in RPS's Perth office. Data were plotted and visually inspected for instrument faults, sensor drift, spurious data values, timing errors and overall data quality.

Directional wave data were processed in accordance with RPS MetOcean Technical Note TN446 'Wave Processing Procedures' (RPS MetOcean, 2008). Specifically, the spectral analyses were conducted as detailed below:

	PUV
Ensemble size	256
Number of overlapping ensembles	7
Number of smoothed ordinates	128
Frequency interval	0.0039062 Hz (1/256 Hz)
Nyquist frequency	0.5 Hz

On completion of the spectral analyses, standard spectral wave computations were conducted as detailed by the following:

The zeroth, first and second spectral moments, m_0, m_1 and m_2, were calculated from each wave profile, using:

$$m_0 = \sum_{i=0}^{n} E_i f_{bw}$$

$$m_1 = \sum_{i=0}^{n} E_i f_{bw} f_i$$

$$m_2 = \sum_{i=0}^{n} E_i f_{bw} f_i^2$$

where i is the index of each spectral ordinate, E_i is the energy density function of each wave profile, f_{bw} is the bandwidth of each spectral ordinate and f_i is the central frequency of each spectral ordinate.

The following wave parameters presented in this report were derived from the directional wave spectra and the above spectral moments:

Significant wave height, H_S (m), from the spectral moment, m_0, using:

$$H_S = \sqrt{4m_0}\ ;$$

Period of the peak spectral ordinate, T_P (seconds), using:

$$T_P = \frac{1}{f_{\max}}$$

where $f_{\max}$ is the central frequency of the spectral ordinate containing the largest amount of energy;

Spectral mean wave period, T_M (seconds), using:

$$T_M = \frac{m_0}{m_1};$$

Average zero crossing period, T_Z (seconds), from the spectral moments, m_0 and m_2, using:

$$T_Z = \sqrt{\frac{m_0}{m_2}}\ ;$$

Direction of the peak spectral ordinate, θ_P (degrees), using:

$$\theta_P = \arctan\frac{b_1}{a_1}$$

with a_1 and b_1 being the first pair of Fourier components computed, in the case of θ_P, for the frequency band containing maximum energy;

Energy weighted mean direction, θ_M (°), using:

$$\theta_M = \arctan\frac{\sum_i E_i \sin\theta}{\sum_i E_i \cos\theta}$$

Directional spread of the peak spectral ordinate, $\Delta\theta_P$ (°), using:

$$\Delta\theta_P = \frac{\sqrt{180(2-2r)}}{\pi}$$

with $r = \sqrt{(a_1^2 + b_1^2}$ and a_1 and b_1 as defined (above).

The above parameters were computed for the complete spectrum and the two portions of the split spectrum. The parameters were derived using a separation frequency of 0.111 Hz (9 seconds) to provide the corresponding sea and swell component parameters.

AWAC wave directions were corrected for Magnetic Declination of 1.3°E.

6.5 Data Recovery, Quality and Reliability

Data Recovery

The data recovery for each AWAC was 100%.

Data Quality

The manufacturer's quoted accuracy is presented in Section 5.5.

Data Reliability

The AWACs satisfactorily passed pre and post deployment checks and calibrations. All spurious and erroneous data points have been removed.

The data presented in this report can therefore be considered completely reliable.

6.6 Data Analysis and Presentation

The following plots and tables are presented in Appendix F.

- Deployment time history plots of H_s, T_p, T_z, T_m, θ_p and $\Delta\theta_p$ for swell, sea and total waves;
- Deployment roses of significant wave height for swell, sea and total waves;
- Deployment percentage joint occurrence matrices of H_s vs θ_p, H_s vs T_p, H_s vs T_m and H_s vs T_z for swell, sea and total waves;
- Deployment exceedence and non-exceedence persistence tables and plots for sea, swell and total waves;
- Deployment wave height exceedence tables and plots for sea, swell and total waves; and
- Deployment statistics tables of H_s, T_p, T_z and T_m for sea, swell and total waves.

6.7 Results

A summary of significant wave height statistics are detailed below:

Location	Significant Wave Height Total (m)		Significant Wave Height Sea (m)		Significant Wave Height Swell (m)		Main Directions (from)
	Max.	Mean	Max.	Mean	Max.	Mean	(>15 %)
Cape Riche Diffuser	1.80	0.71	1.67	0.56	0.99	0.40	ENE, E
Cape Riche Offshore	2.85	1.70	1.80	0.98	2.72	1.35	S, SSW

A summary of wave period statistics are detailed below:

Location	Peak Wave Period Total (s)		Mean Wave Period Total (s)		Average Zero-Crossing Wave Period Total (s)	
	Max.	Mean	Max.	Mean	Max.	Mean
Cape Riche Diffuser	18.29	9.98	11.64	7.69	9.96	7.12
Cape Riche Offshore	19.69	11.67	12.87	9.88	12.38	9.58

6.8 Data Cataloguing and Archiving

The quality controlled data presented in this report are stored in standard netCDF format files which are retained in the RPS Data Management System (DMS). The DMS is backed up daily using backup tapes which are stored in-house. A backup tape is despatched weekly to an approved off-site Data Archiving Centre.

The transcribed files (raw from logger) and processed data files (prior to quality control) are held by RPS on archive tape written to industry standards. The archive tape is stored in-house and a back-up copy is similarly stored off-site.

7.0 TIDE MEASUREMENTS

7.1 Instrumentation

Tide measurements were conducted at Cape Riche Diffuser using Nortek 1 MHz AWAC s/n 5605; and at Cape Riche Offshore using Nortek 600 kHz AWAC s/n 5791.

The AWAC measurement locations are detailed in Figure 2.1.

The pressure sensor allows the recording of raw burst pressure data onto solid state memory. These are then averaged to produce tide heights, which are also recorded to solid state memory.

Refer to Section 6.1 for AWAC instrumentation details.

The specifications for the AWAC are included in Appendix C.

7.2 Calibration

The pressure sensor was calibrated by the manufacturer.

7.3 Sampling Technique

The water levels are sampled for a 2 minute burst every 10 minutes at a sample rate of 1 second.

7.4 Data Processing Technique

The solid state memory modules from the AWAC was transcribed and converted to engineering units on the RPS in-house computer system.

The pressure readings were converted to water height, H, in metres above the sensor using the equation:

$$H = \frac{c}{pg}(PSIA - AP)$$

where c=6894.757 is a conversion factor from psi to kg m^{-1} s^{-2}, ρ=1023 kg m^{-3} an assumed water density, g=9.80665 m s^{-2}, PSIA is the pressure recorded by the instrument and AP is the atmospheric pressure in psi (AP is taken as one standard atmosphere = 14.696 psi).

Time history check plots were then produced and quality controlled by a staff oceanographer prior to and after the removal of spurious and corrupted data in accordance with set procedures.

7.5 Data Recovery, Quality and Reliability

Data recovery was 100%.

Harmonic analysis confirms the data to be of high quality and reliability.

7.6 Data Analysis and Presentation

Harmonic analysis (based on the discussions in Godin, 1972 and Foreman, 1977), was conducted to provide confirmation of instrument timing, assessment of sensor drift and constituents for subsequent tidal predictions.

The Z0, derived by harmonic analysis, was subtracted from recorded water depths to obtain tide height oscillating about a mean sea-level.

Analysis of the processed data was undertaken to produce the following presentations:

- Deployment time history plots of measured, predicted and residual tide height;
- Statistics of measured, predicted and residual tide height; and
- Table of constituents derived by harmonic analysis of the tide height.

Tide data presentations are presented in Appendix G.

7.7 Data Analysis and Presentation

The tidal constituents derived from the harmonic analysis were then used to produce 18.6 years of predicted tide heights. The predictions were then statistically analysed to produce the following tide height table:

Cape Riche Diffuser

		Level (m)
Highest Astronomical Tide	HAT	0.6504
Mean High Water Springs	MHWS	0.4887
Mean High Water Neaps	MHWN	-0.0099
Mean Sea Level	MSL	0.0000
Mean Low Water Neaps	MLWN	-0.0818
Mean Low Water Springs	MLWS	-0.3645
Lowest Astronomical Tide	LAT	-0.5451

Cape Riche Offshore

		Level (m)
Highest Astronomical Tide	HAT	0.6563
Mean High Water Springs	MHWS	0.4908
Mean High Water Neaps	MHWN	-0.0134
Mean Sea Level	MSL	0.0000
Mean Low Water Neaps	MLWN	-0.0899
Mean Low Water Springs	MLWS	-0.3610
Lowest Astronomical Tide	LAT	-0.5442

7.8 Data Cataloguing and Archiving

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FIGURES

Figure 2.1 Cape Riche Measurements map

APPENDIX A

Field Logs

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DAILY FIELD LOG

CLIENT:	GHD Services Pty Ltd.	**DATE OF VISIT:**	14-16/11/2010
LOCATION:	Cape Riche	**JOB NO:**	J2836
OPERATION:	AWAC deployment	**VESSEL NAME:**	LFB P82
PERSONNEL:	G. Bush.	**No. of VESSEL CREW:**	1

Time	**Details of Work Undertaken**
	All times are WST (UTC +8 hours) unless stated.
14 Nov	
0900	Meet at the vessel owners home in North Beach. Pack equipment and proceed to RPS MetOcean office.
1000	Arrive at office and pack equipment. Test the AWACs and raise some concern about the 1MHz unit as it can't be heard on the radio. Might be radio interference.
1130	Depart for Cape Riche towing boat.
1800	Arrive Cape Riche and camp for the night. 600kHz and 1MHz AWAC loud and clear on the radio.
15 Nov	
0700	Preparing boat. Test AWACs again to find the 1MHz silent when it should be wave sampling. Decide to deploy the spare. Proceed to deploy the AWAC offshore location first as the weather may deteriorate.
0800	Launch vessel with AWAC Offshore only on board. Proceed to offshore waypoint to find the depth is 40m. Steam back towards the point and anchor in 32m of water.
0905	AWAC deployed in the water and lowered to the seabed. AWAC sn 5791, 600kHz. Ranging transponders 33 and 38. Test ranging transponders OK.
1030	Recover vessel and return to camp to set up the spare AWAC 1MHz.
1300	Switch on AWAC. Assemble seabed frame.
1400	Launch vessel and proceed to AWAC Diffuser location. Estimate location using location chart provided.
1501	AWAC on the seabed. Finish for the day.
16 Nov	
0800	Packing up.
0930	Client Dr Ray Steedman arrives with crew and glider. Morning spent assisting with deployment of the glider.
1300	Depart for the drive back to Perth.
2000	Arrive back in Perth.

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Deployment Details:

Mooring	Instrument	Latitude Longitude	Height ASB	Water depth	Deployed (WST)
AWAC Diffuser	1000kHz AWAC 5605 Range 69 & 72	34°36.130'S 118°46.017'E	+0.25m	*9m LAT	1501 15/11/10
AWAC Offshore	600 kHz AWAC 5791 Range 33 & 38	34°36.685'S 118°47.545'E	+0.25m	*31m LAT	0905 15/11/10

* Nominal water depth. Water depth to be confirmed once data has been recovered from instruments.

Instrument Set Up:
600 kHz AWAC – *Current:* averaged for 2 mins every 10 minutes, 2m bins.
Waves 1024 samples at 1 Hz starting every hour
1000 kHz AWAC – *Current:* averaged for 2 mins every 10 minutes, 1m bins.
Waves 1024 samples at 1 Hz starting every hour

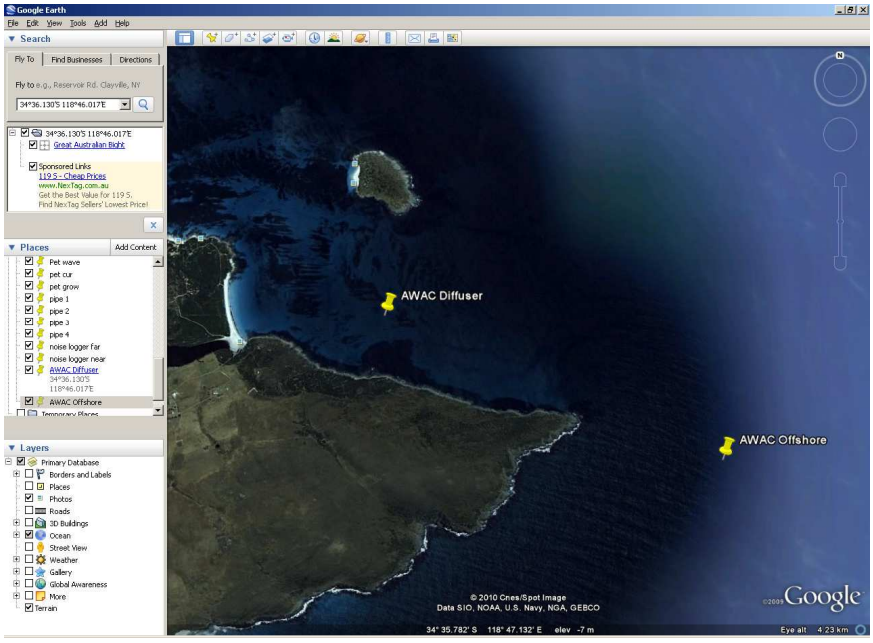
Comments:

All tasks were completed safely without any incidents or near misses.

The beach was in good condition for launching the boat, but the track is steep and the channel has some submerged rocks that are a risk to propellers. Vessel owner very proficient at launching the boat, and the boat's davit and side gate were useful for assisting in the deployments.

Weather was good, 1m swell with moderate SE winds at times.

MetOcean Party Chief: Greg Bush



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DAILY FIELD LOG

CLIENT:	GHD Services Pty Ltd	**DATE OF VISIT:**	15/12/2010
LOCATION:	Cape Riche	**JOB NO:**	J2836
OPERATION:	AWAC Recovery	**VESSEL NAME:**	LFB P82
PERSONNEL:	Vessel Crew	**No. of VESSEL CREW:**	2

Time **Details of Work Undertaken**
All times are WST (UTC +8 hours) unless stated.

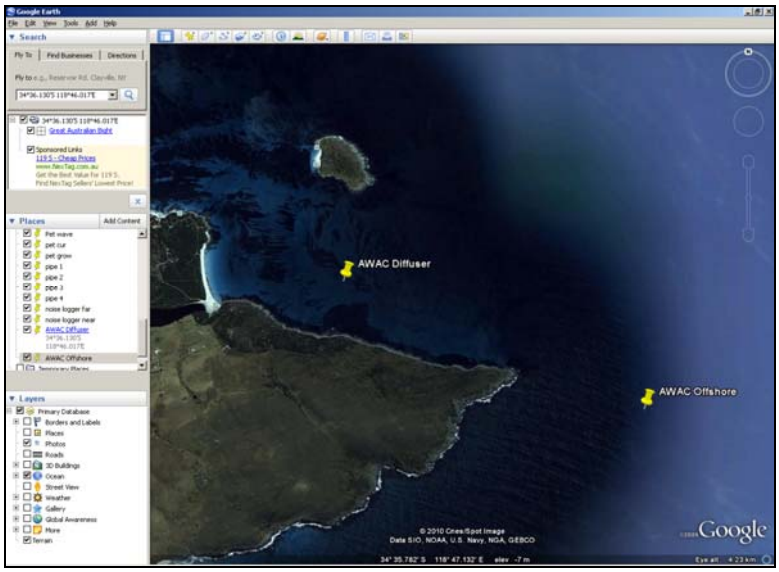
15 Dec
1037 Cape Riche Offshore mooring recovered.
1335 Cape Riche Diffuser mooring recovered.

Recovery Details:

Mooring	Instrument	Latitude Longitude	Height ASB	Water depth	Recovered (WST)
Cape Riche Diffuser	1000kHz AWAC 5605 Range 69 & 72	34°36.130'S 118°46.017'E	+0.25m	10.6m LAT 11.3m MSL	1335 15/12/10
Cape Riche Offshore	600 kHz AWAC 5791 Range 33 & 38	34°36.685'S 118°47.545'E	+0.25m	30.7m LAT 31.4m MSL	1037 15/12/10

Instrument Set Up:
600 kHz AWAC – *Current:* averaged for 2 mins every 10 minutes, 2m bins.
Waves 1024 samples at 1 Hz starting every hour
1000 kHz AWAC – *Current:* averaged for 2 mins every 10 minutes, 1m bins.
Waves 1024 samples at 1 Hz starting every hour

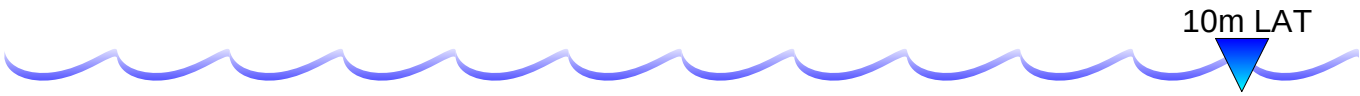
Comments:
All tasks were completed safely without any incidents or near misses.



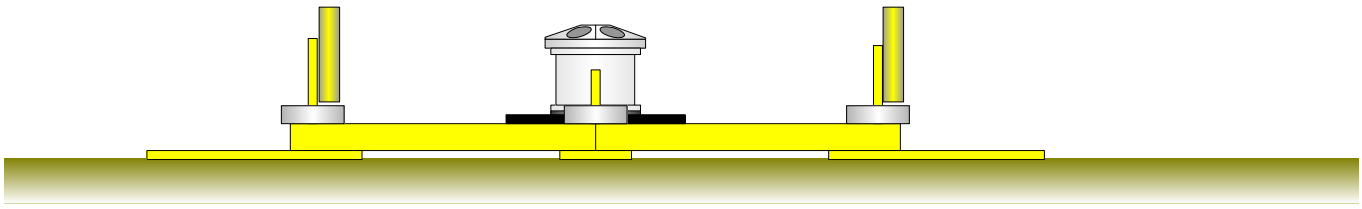
APPENDIX B

Mooring Diagrams

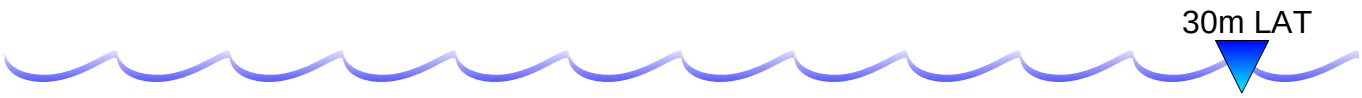
Cape Riche
10m AWAC



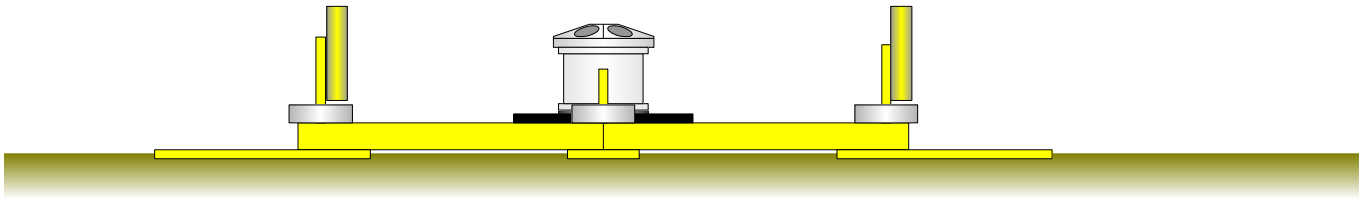
1000kHz AWAC with single battery
in battery cannister.
10kg lead disk per corner.
Two Ranging transponders.



Cape Riche
30m AWAC



600kHz AWAC with single battery in
battery cannister.
10kg lead disk per corner.
Two Ranging transponders.

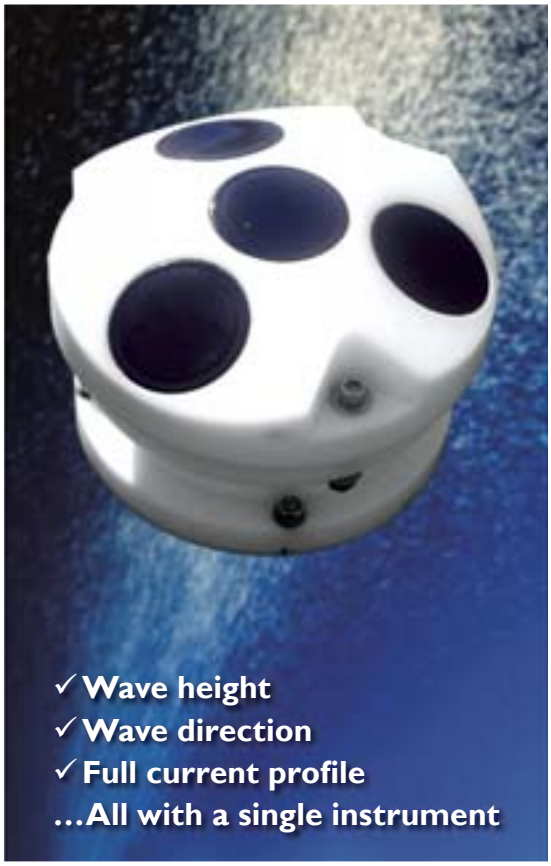


APPENDIX C

Instrument Specifications

AWAC™

Acoustic Wave and Current Profiler



The Nortek AWAC is a revolutionary instrument that gives you both a current profiler and a wave directional system in one unit. You can measure the current speed and direction in 1-m thick layers from the bottom to the surface and you can measure long waves, storm waves, short wind waves, or transient waves generated by local ship traffic.

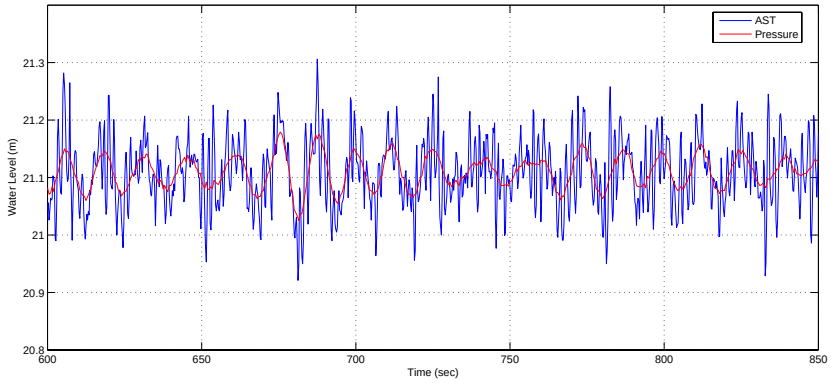
The AWAC is designed as a coastal monitoring system. It is small, rugged, and suitable for multi-year operation in tough environments. It can be operated online or in stand-alone mode with an internal recorder and batteries.

The sensor is usually mounted in a frame on the bottom, protected from the harsh weather and passing ship traffic.

The mechanical design is all plastic and titanium to avoid corrosion. Online systems can be delivered with protected cables, interface units on shore, and backup batteries and recorder. In stand-alone use, the raw data are stored to the internal data logger and power comes from an external battery pack. A variety of options are available with maximum deployment lengths of 4 months with hourly wave data (8 months with Lithium batteries).

The AWAC software is used to configure the instrument for deployment, retrieve the data and convert all data files to ASCII, and view all the measured current profiles and wave data. In order to calculate the wave parameters, the non-graphical "WaveExtract" software will generate ASCII files with all the interesting wave parameters, whereas "ExploreWave" gives you several graphical views.

As the plotted time series indicates, both the AWAC's pressure and AST time capture the long waves. The notable difference is that the AST is capable of measuring the shorter waves superimposed on the longer waves. The AST advantage become more relevant and clear as the deployment depths become greater.



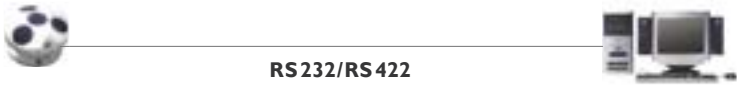
NORTEK AS

www.nortek-as.com

Online Solutions

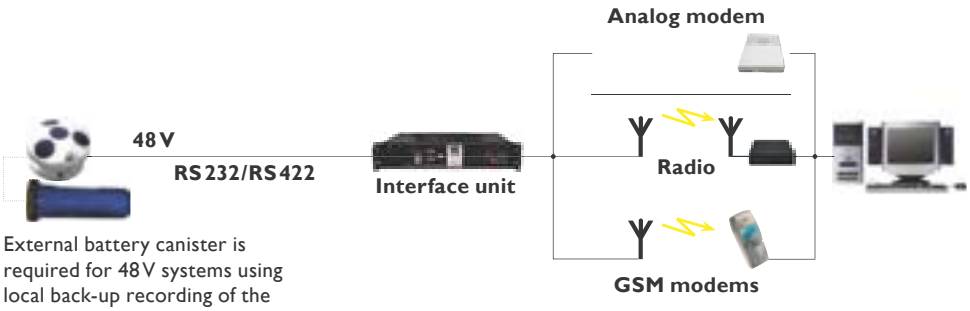
AWACs can be deployed for long term monitoring of the local wave and current conditions.

Depending on the specific circumstances, Nortek can provide long cables, radio/ telephone communication equipment, acoustic modems, etc., that can meet the requirements of your specific project.

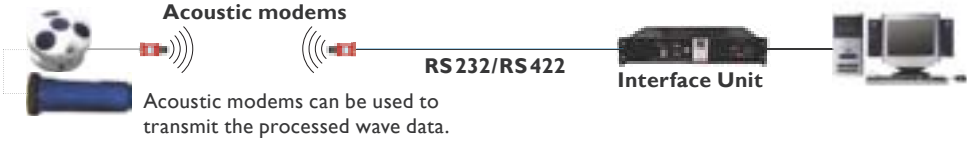


For cable lengths < 100 m, standard cable can be used
For lengths > 100 m and/or tough environments, offshore cable should be used

External battery canister is required for 48 V systems using local back-up recording of the acquired data.



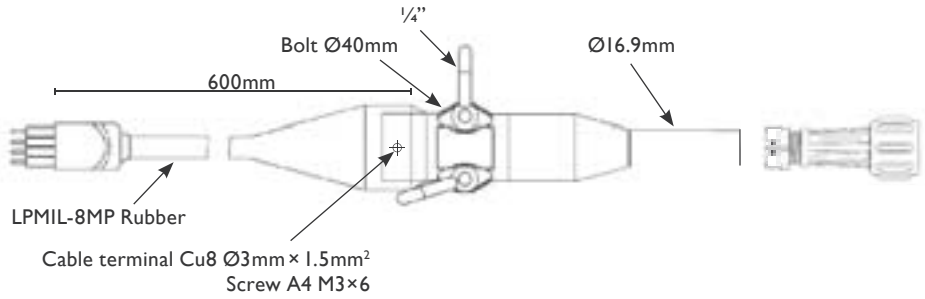
External battery canister is required for 48 V systems using local back-up recording of the acquired data.

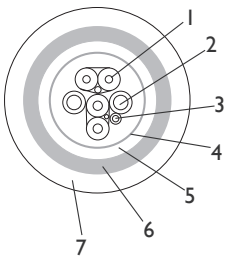


Acoustic modems can be used to transmit the processed wave data.

Offshore Cable

The Nortek offshore cable can, when properly deployed, withstand tough conditions in the coastal zone. In RS422 configuration, cable communication can be achieved for distances up to 5 km.





1. 4 conductors 0.34 mm² in flexible tinned copper insulated in MULENE (Ø 2.7 mm) twisted in pairs with a 0.34 mm² tinned copper drain wire under an aluminium/polyester tape
2. 2 Conductors 2 mm² in flexible tinned copper insulated in MULPLAST (Ø 2.8 mm)
3. 1 Conductor 0.34 mm² in flexible tinned copper insulated in MULPLAST (Ø 1.3 mm)
4. Assembling tape
5. Polyurethane jacket
6. Galvanized stel wired braid
7. Polyurethane jacket

Items in illustration are not drawn to scale

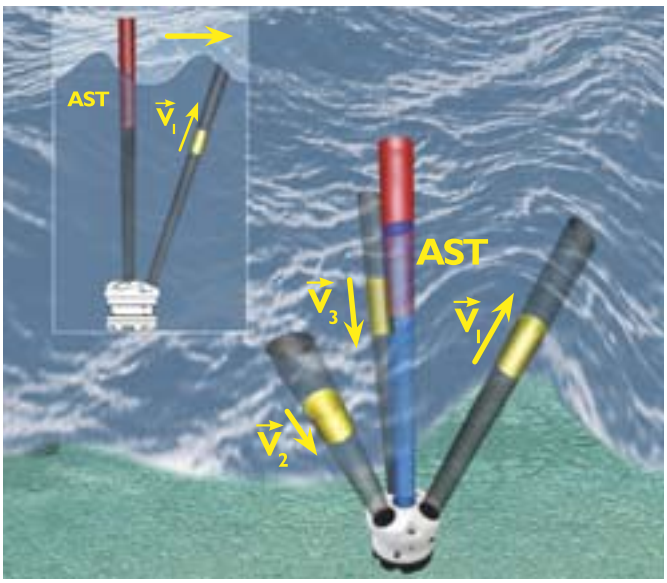
Nortek continues to develop new online solutions. Inquire for the latest information on available software and hardware solutions, web publishing of data etc.

AWAC Wave Measurements

Optimized wave data collection measurements begins with a well designed instrument. The AWAC measures three different wave quantities that allow us to arrive the estimates of wave height and wave period. These quantities are pressure, wave orbital velocity, and surface position. The pressure is measured with a high resolution piezo-resistive element. The orbital velocity is measured by the Doppler shift along each beam. The surface position is measured with Acoustic Surface Tracking (AST), a special mode where the instrument acts as an inverted echo sounder.

The fact that waves are a random event requires that measurements are made over defined periods of time, or bursts. Typically these bursts are 512, 1024, or 2048 seconds in length and sampled at 1–4Hz.

The measurement cells and the AST window are adaptively configured during the current profile which immediately precedes the wave burst. The position and size of the velocity cell as well as the AST window are determined based on the minimum pressure. By adaptively configuring the burst measurements, the AWAC not only ensure a maximized signal level and data quality for widely varying wave conditions, but it also permits the AWAC to automatically account for extreme tidal variations.



The AWAC measures three different wave quantities that allow us to arrive the estimates of wave height and wave period. These quantities are pressure, wave orbital velocity, and surface position. The pressure is measured with a high resolution piezo-resistive element. The orbital velocity is measured by the Doppler shift along each beam. The surface position is measured with Acoustic Surface Tracking (AST), a special mode where the instrument acts as an inverted echo sounder.

Wave Processing

The non directional wave estimates are available from the three independent spectra: pressure, velocity, and AST. The frequency range of these estimates increases respectively: pressure, velocity, AST.

The determination of wave directional estimates is a little more complicated and requires a special method of processing known as the Maximum Likelihood Method (MLM). This approach uses the three spatially separated velocity measurements as well as the AST measurement to determine a wave direction for each wave frequency. The solution attempts to determine the direction that provides the best agreement between all four of these measurements. This calculation is performed at discrete frequencies. The end result is a description of the energy distribution in both direction and frequency.

One distinct advantage of using array measurements, is that the method is capable of resolving waves at the same frequency coming from two different directions. One scenario would be identifying incident and reflected waves from a coastal structure.

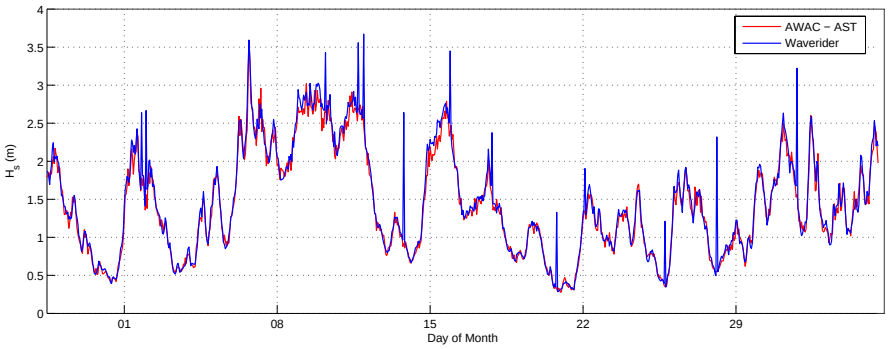
Time Series Analysis

For AST a short acoustic pulse is transmitted by the center beam and the return is finely resolved such that a sub centimeter resolution is achieved.

The AST is not subjected to attenuation as the velocity and pressure signals, so it provides a direct measurement of the free surface. This means that the AWAC is not limited to measuring just the long waves, but all ocean waves. Resolvable wave periods can be as low as 0.5 seconds.

Apart from circumventing the limitations associated with measuring an attenuated quantity, the AST provides a time series of the free surface which allows for enriched data analysis. This includes identifying nonlinear waves, evaluating transient waves (ship wake), and important time series estimates such as H_{max}, H_{10}, T_{mean}, T_{max}, etc. These estimates are unique to AST and cannot be properly determined with just the velocity or pressure measurements. Furthermore, when the AST is included in the MLM solution, the directional estimates becomes much more accurate than without the AST.

Significant wave height estimates compared for the AWAC-AST (red) and the Waverider buoy (blue). Data shows both small and large wave measurement capabilities. Data was collected on the east coast of the UK in 32 meters depth.



Specifications

System

Acoustic frequency	1MHz or 600kHz
Acoustic beams	4 beams, one vertical, three slanted at 25°
Operational modes	Stand-alone or long term monitoring

Current Profile

Maximum range	30m (1MHz), 50m (600kHz) (depends on local conditions)
Depth cell size	0.4 – 4.0m (1MHz) 0.5 – 8.0m (600kHz)
Number of cells	Typical 20–40, max. 128
Maximum output rate	1s

Wave Data

Maximum depth	40m (1MHz), 60m (600kHz)
Data types	Pressure, one velocity cell along each slanted beam, distance to surface
Cell size	0.4 – 4.0m (1MHz) 0.5 – 8.0m (600kHz)
Sampling rate (output)	1Hz/2Hz, 2Hz (4Hz AST)
No. of samples per burst	512, 1024, or 2048

Velocity measurements

Velocity range	±10m/s horizontal, ±5m/s along beam (inquire for higher ranges)
Accuracy	1% of measured value ±0.5cm/s

Doppler uncertainty

Waves	3.5cm/s at 1Hz for 2m cells
Current profile	1cm/s (typical)

Sensors

Temperature	Thermistor embedded in head
Range	–4°C to 40°C
Accuracy/ Resolution	0.1°C/0.01°C
Time constant	<10 min
Compass	Flux-gate with liquid tilt
Maximum tilt	30°
Accuracy/Resolution	2°/0.1° for tilt <20°
Tilt	Liquid level
Accuracy/Resolution	0.2°/0.1°
Up or down	Automatic detect
Pressure	Piezoresistive
Range	0–50m (standard)
Accuracy/Resolution	0.5% of full scale/ Better than 0.005% of full scale per sample

Data Recording

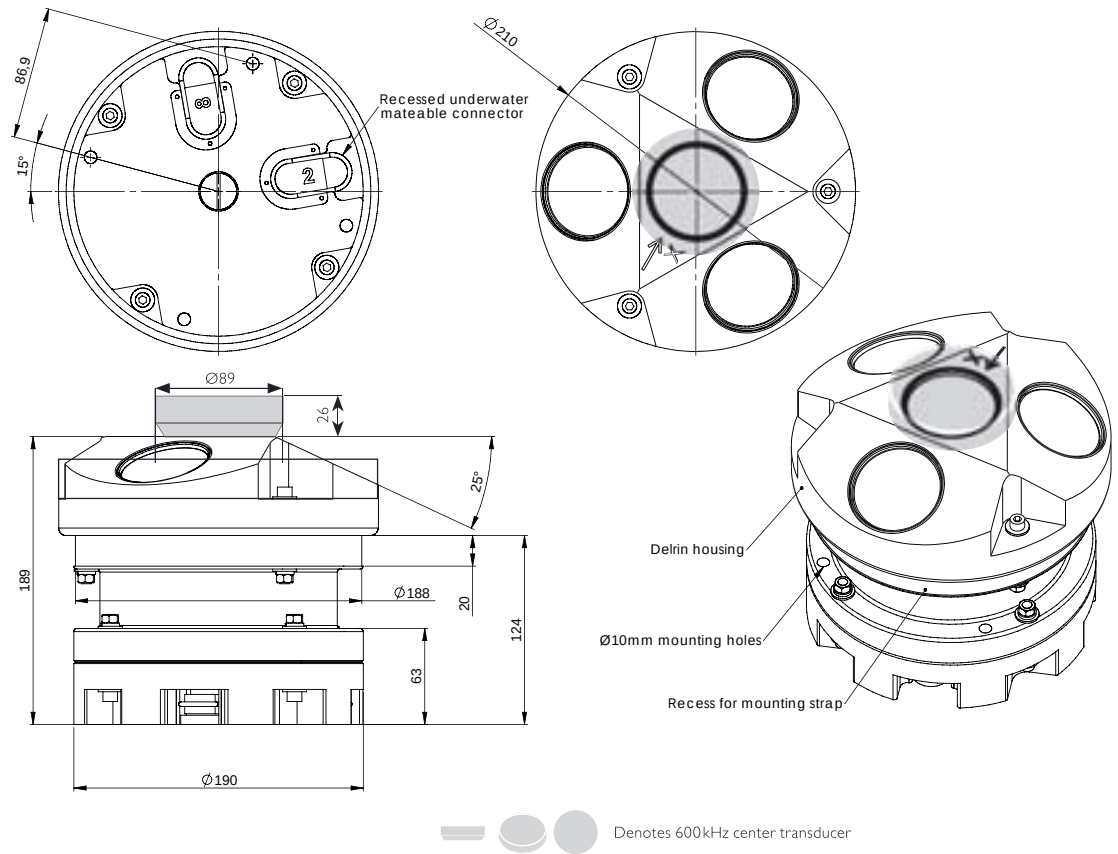
Capacity (standard)	2 MB, expandable to 26/82/154MB
Profile record	Ncells×9 + 120
Wave record	Nsamples×24 + 46

Data Communication

I/O	RS232 or RS422
Baud rate	300–115200
User control	Handled via "AWAC" software or ActiveX® controls

Power

DC input	9–16VDC
Peak current	2A
Operating power consumption	1W (typical)



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APPENDIX D

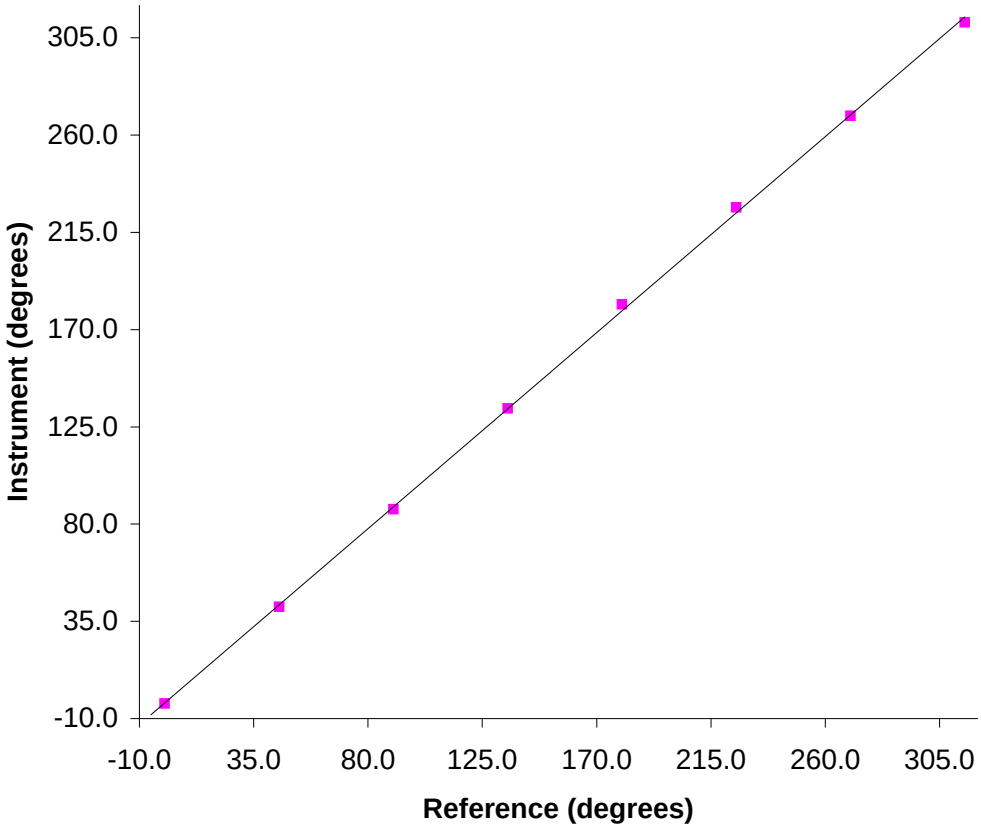
Calibration Results

Instrument: AWAC

Serial Number: 5605

Date: 23/06/2010

Compass Calibration



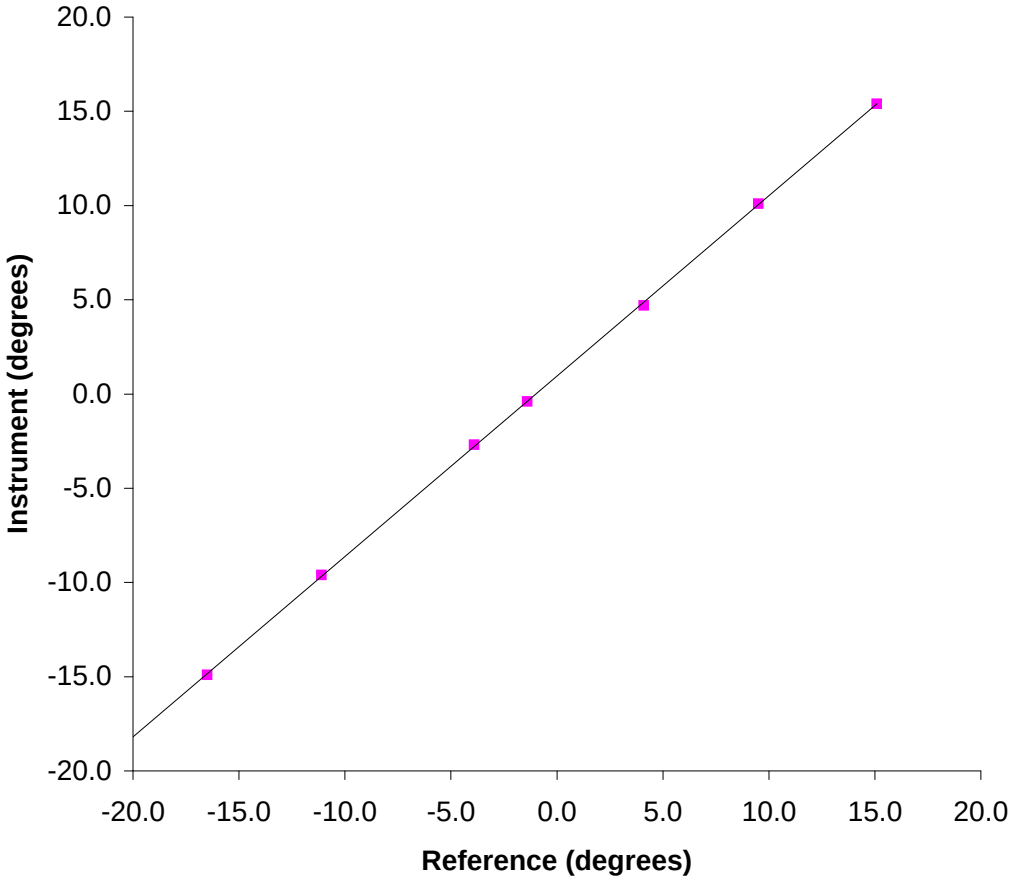
ORDINATE INTERCEPT :	-2.666667
SLOPE:	1.007646
STD DEV about LINE:	2.016898

Instrument: AWAC

Serial Number: 5605

Date: 23/06/2010

Pitch Calibration



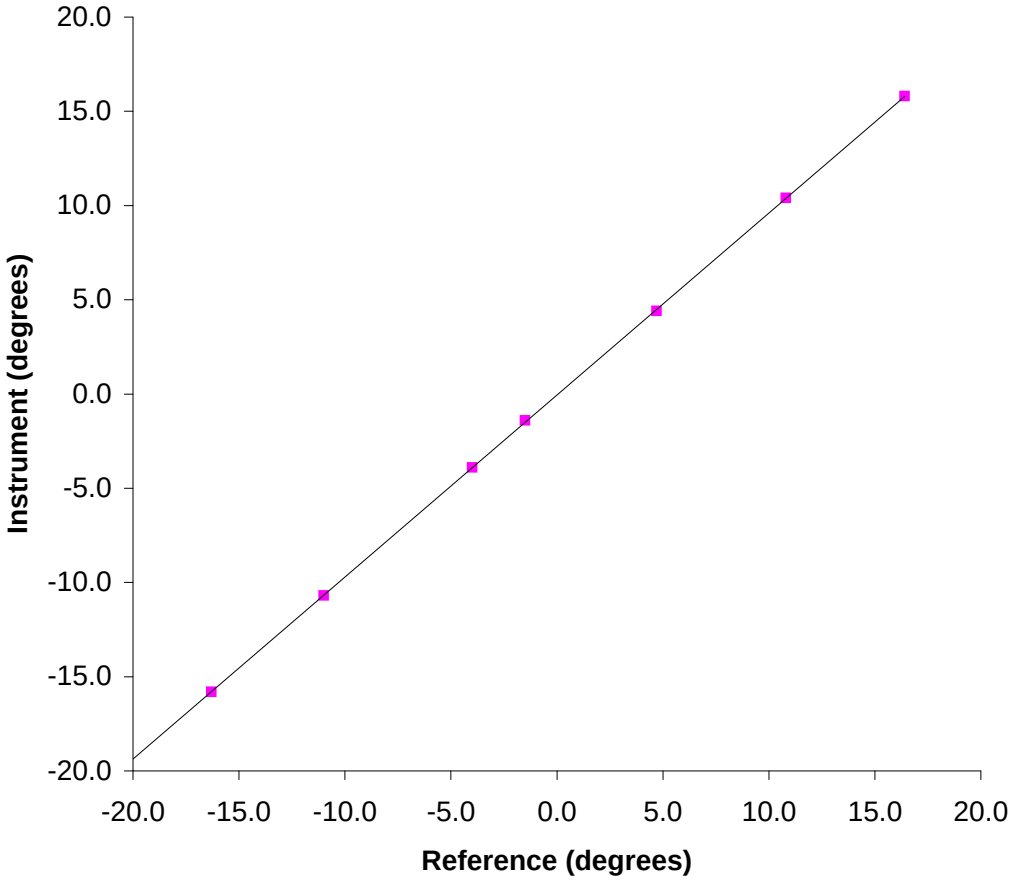
ORDINATE INTERCEPT :	0.945373
SLOPE:	0.956574
STD DEV about LINE:	0.099024

Instrument: AWAC

Serial Number: 5605

Date: 23/06/2010

Roll Calibration



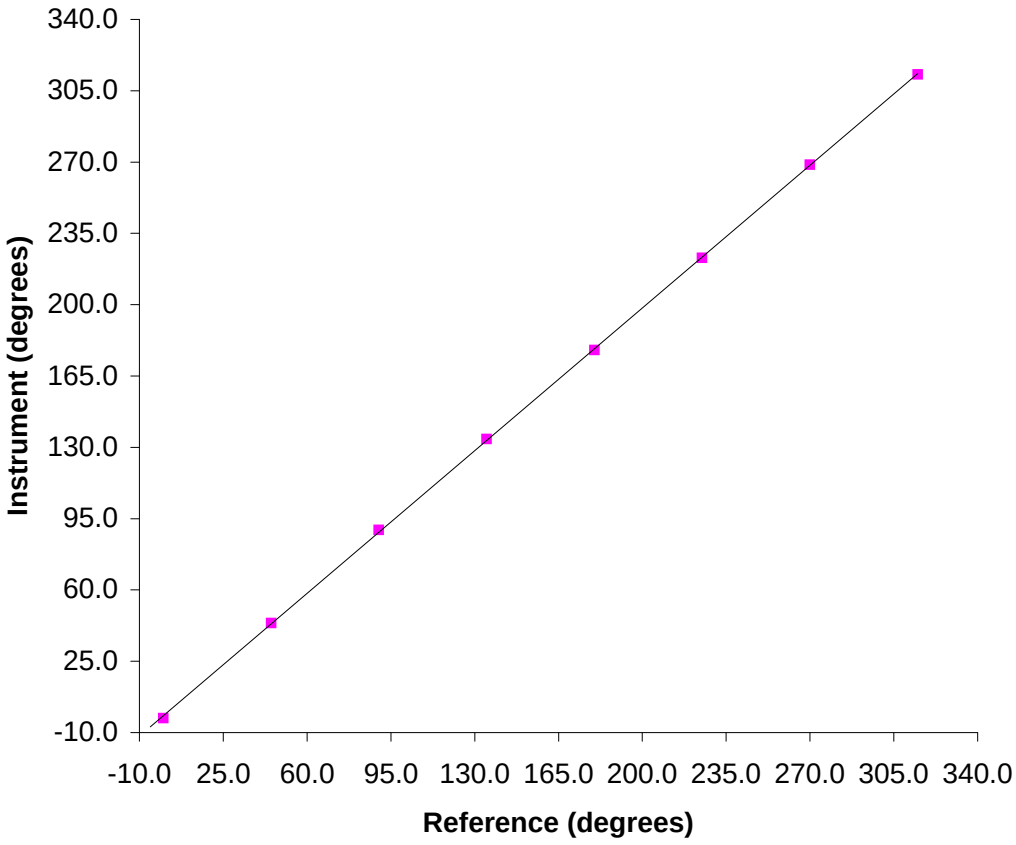
ORDINATE INTERCEPT :	-0.047226
SLOPE:	0.966021
STD DEV about LINE:	0.061687

Instrument: AWAC

Serial Number: 5791

Date: 24/06/2010

Compass Calibration



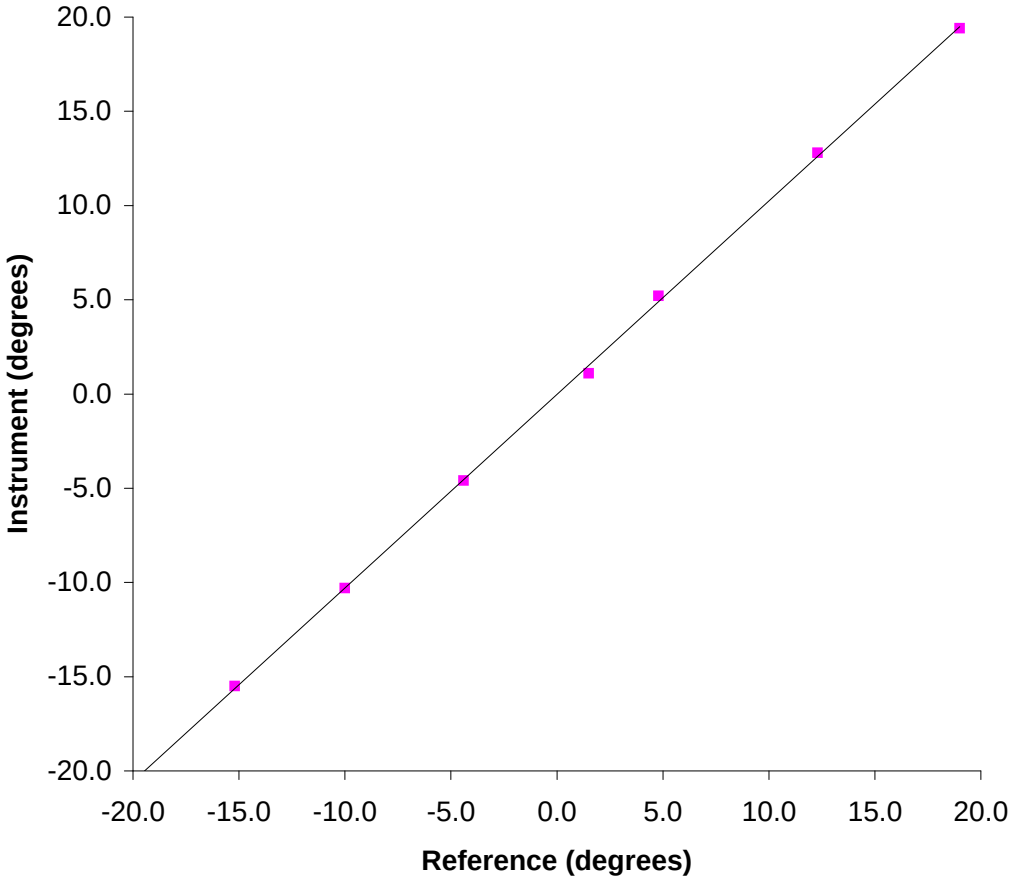
ORDINATE INTERCEPT :	-1.716667
SLOPE:	1.000344
STD DEV about LINE:	0.851341

Instrument: AWAC

Serial Number: 5791

Date: 24/06/2010

Pitch Calibration



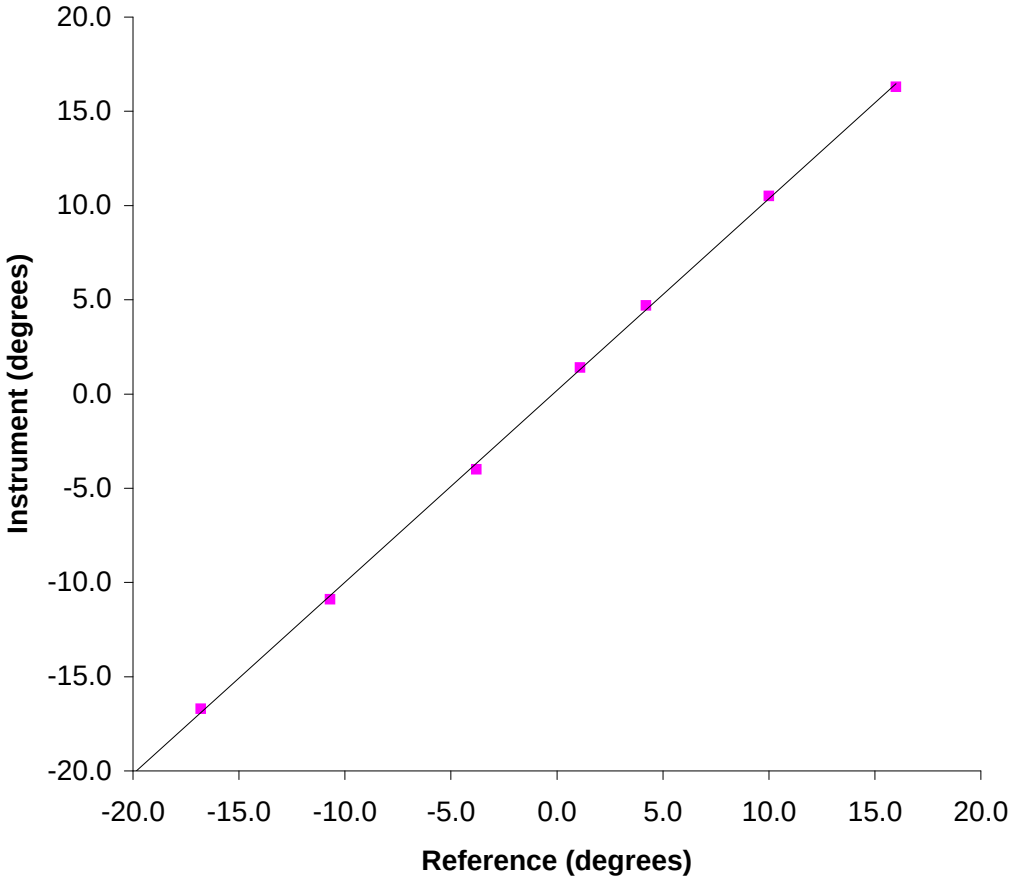
ORDINATE INTERCEPT :	-0.016139
SLOPE:	1.026621
STD DEV about LINE:	0.255245

Instrument: AWAC

Serial Number: 5791

Date: 24/06/2010

Roll Calibration



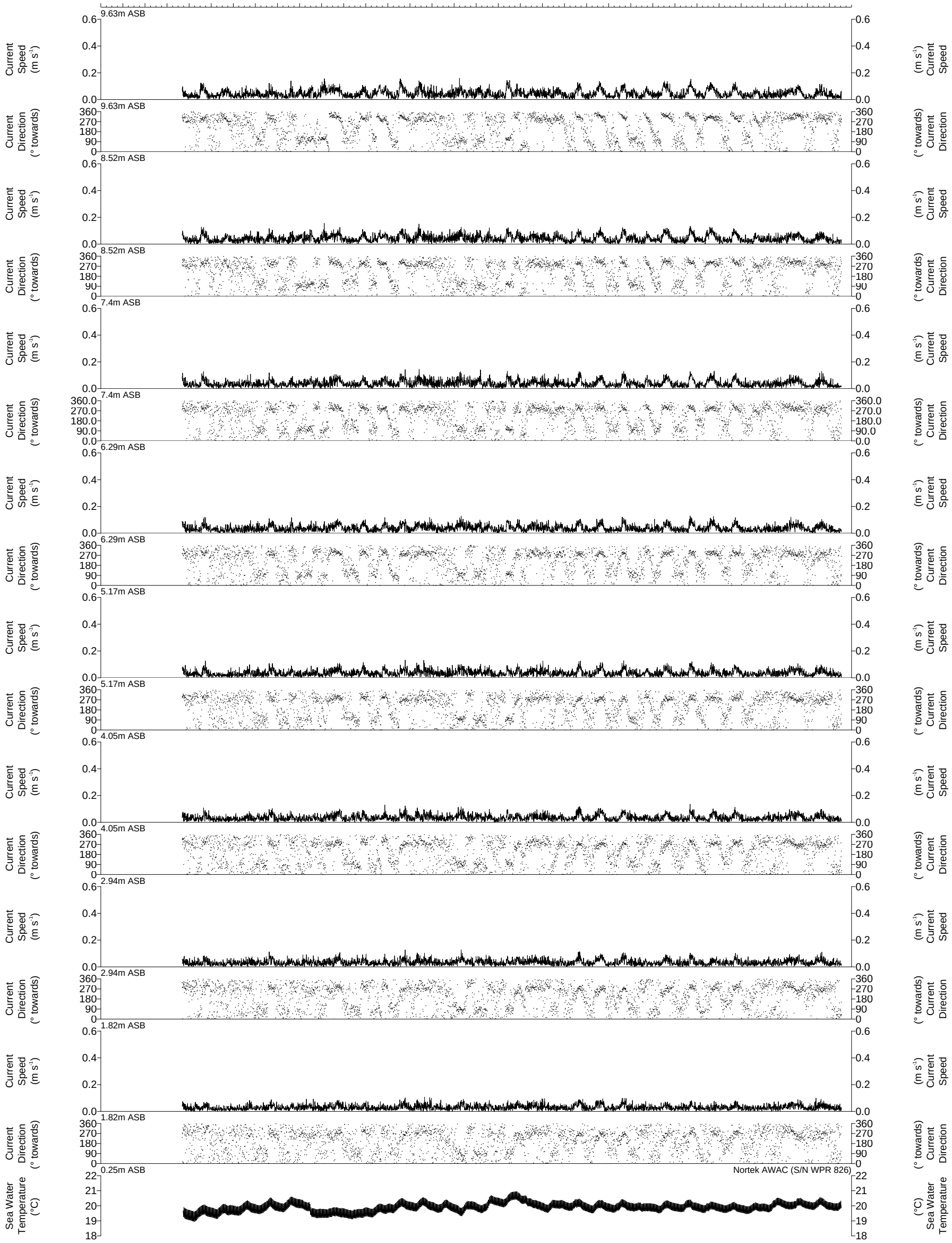
ORDINATE INTERCEPT :	0.185714
SLOPE:	1.017112
STD DEV about LINE:	0.244304

APPENDIX E

Current and Temperature Data

- Deployment and monthly time history plots of current speed, direction and water temperature;
- Deployment and monthly current speed and seawater temperature statistics and exceedence percentiles;
- Deployment and monthly current speed and direction percentage occurrence matrices;
- Deployment and monthly current speed exceedence plots and tables;
- Deployment and monthly current roses;
- Deployment and monthly continuous vector plots.

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL		



Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_current_tide.c.ext.nc
© RPS MetOcean Pty Ltd	moetimehist: 09:00 13/May/2011 by jonty (timehist.2836cap002_A3_deployment.c.ps)

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL		

Period: 16:30 15 November 2010 to 13:00 15 December 2010
Current Speed (m s^{-1}), 1.82m ASB.
Current Direction (°), 1.82m ASB.

	Current Speed (m s^{-1})				Total	Exceedence Percentile Current Speed (m s^{-1})											Main Direction(s)[2]
	Min	Max	Mean	Std. Dev	Records	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0	(towards)
Total Period [1]	0.00	0.11	0.03	0.0182	3584	0.00	0.01	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.07	0.08	

Notes: 1) Total Period: 16:30 15 November 2010 to 13:00 15 December 2010
2) Main directions are where occurrence is greater than 15.0%.

Sample Interval: 10.00 minutes.

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL		

Period: 16:30 15 November 2010 to 13:00 15 December 2010
Current Speed (m s^{-1}), 5.17m ASB.
Current Direction (°), 5.17m ASB.

	Current Speed (m s^{-1})				Total	Exceedence Percentile Current Speed (m s^{-1})											Main Direction(s)[2]
	Min	Max	Mean	Std. Dev	Records	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0	(towards)
Total Period [1]	0.00	0.13	0.04	0.0225	3584	0.00	0.01	0.01	0.02	0.03	0.05	0.06	0.07	0.08	0.09	0.10	W

Notes: 1) Total Period: 16:30 15 November 2010 to 13:00 15 December 2010
2) Main directions are where occurrence is greater than 15.0%.

Sample Interval: 10.00 minutes.

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL		

Period: 16:30 15 November 2010 to 13:00 15 December 2010
Current Speed (m s^{-1}), 9.63m ASB.
Current Direction (°), 9.63m ASB.

	Current Speed (m s^{-1})				Total	Exceedence Percentile Current Speed (m s^{-1})											Main Direction(s)[2]
	Min	Max	Mean	Std. Dev	Records	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0	(towards)
Total Period [1]	0.00	0.16	0.05	0.0275	3584	0.00	0.01	0.01	0.02	0.04	0.06	0.07	0.08	0.10	0.11	0.12	NW

Notes: 1) Total Period: 16:30 15 November 2010 to 13:00 15 December 2010
2) Main directions are where occurrence is greater than 15.0%.

Sample Interval: 10.00 minutes.

Percentage Occurrence Matrix

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL		

Period: 16:30 15 November 2010 to 13:00 15 December 2010
(16:30 15 November 2010 to 13:00 15 December 2010)

Current Direction (°) 1.82m ASB

Current Speed (m s^{-1}) 1.82m ASB

=>	<	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total	Exceed%
0.00 -	0.05	4.27	3.93	3.40	4.16	5.52	4.30	4.49	3.88	4.35	4.91	6.14	7.78	8.76	8.62	5.66	4.52	84.71	100.00
0.05 -	0.10	0.22	0.17	0.31	0.47	0.78	0.45	0.22	0.14	0.28	0.53	0.86	2.43	4.63	2.54	0.64	0.53	15.21	15.29
0.10 -	0.15	.	.	.	.	.	.	.	.	.	.	.	.	0.06	0.03	.	.	0.08	0.08
0.15 -	0.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.20 -	0.25	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.25 -	0.30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.30 -	0.35	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.35 -	0.40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.40 -	0.45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.45 -	0.50	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.50 -	0.55	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.55 -	0.60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.60 -	0.65	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.65 -	0.70	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
	Total	4.49	4.10	3.71	4.63	6.31	4.74	4.72	4.02	4.63	5.44	7.00	10.21	13.45	11.19	6.31	5.05	100.00	
	Exceed%	100.00	95.51	91.41	87.70	83.06	76.76	72.01	67.30	63.28	58.65	53.21	46.21	35.99	22.54	11.36	5.05		*

* Represents less than 0.005 Expected: 4300 Matrix Total: 3584 Includes: Good, None

Statistics:	Max	Min	Mean	Standard Deviation
Current Speed (m s^{-1}) 1.82m ASB	0.11	0.00	0.03	0.0182

Current Direction (°) 1.82m ASB Direction Convention: towards. Direction label is sector centre.

Sample Interval: 10.00 minutes

Percentage Occurrence Matrix

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL		

Period: 16:30 15 November 2010 to 13:00 15 December 2010
(16:30 15 November 2010 to 13:00 15 December 2010)

Current Direction (°) 5.17m ASB

Current Speed (m s^{-1}) 5.17m ASB

=>	<	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total	Exceed%
0.00 -	0.05	3.15	3.71	3.57	4.38	5.30	4.66	3.35	3.88	3.15	3.12	4.16	6.08	8.31	7.56	5.47	4.38	74.25	100.00
0.05 -	0.10	0.36	0.33	0.36	0.89	1.26	1.45	0.53	0.39	0.14	0.14	0.39	2.04	6.58	6.50	2.76	0.67	24.80	25.75
0.10 -	0.15	.	.	.	.	0.06	.	.	.	.	.	.	0.03	0.56	0.25	0.06	.	0.95	0.95
0.15 -	0.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.20 -	0.25	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.25 -	0.30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.30 -	0.35	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.35 -	0.40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.40 -	0.45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.45 -	0.50	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.50 -	0.55	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.55 -	0.60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.60 -	0.65	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.65 -	0.70	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
	Total	3.52	4.05	3.93	5.27	6.61	6.11	3.88	4.27	3.29	3.26	4.55	8.15	15.46	14.31	8.29	5.05	100.00	
	Exceed%	100.00	96.48	92.44	88.50	83.23	76.62	70.51	66.63	62.36	59.07	55.80	51.26	43.11	27.65	13.34	5.05		*

* Represents less than 0.005 Expected: 4300 Matrix Total: 3584 Includes: Good, None

Statistics:	Max	Min	Mean	Standard Deviation
Current Speed (m s^{-1}) 5.17m ASB	0.13	0.00	0.04	0.0225

Current Direction (°) 5.17m ASB Direction Convention: towards. Direction label is sector centre.

Sample Interval: 10.00 minutes

Time Zone: UTC +08:00 hours Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_current_tide.c.ext.nc

 moematrix: 09:53 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/matrix_2836cap002_current_tide.ext.c.ps)

Percentage Occurrence Matrix

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL		

Period: 16:30 15 November 2010 to 13:00 15 December 2010
(16:30 15 November 2010 to 13:00 15 December 2010)

Current Direction (°) 9.63m ASB

Current Speed (m s^{-1}) 9.63m ASB

=>	<	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total	Exceed%
0.00 -	0.05	3.91	2.57	2.93	3.93	3.96	4.10	3.32	2.99	2.79	2.65	2.85	3.29	5.39	6.28	5.89	4.66	61.50	100.00
0.05 -	0.10	1.76	0.56	0.61	1.09	1.93	2.43	1.17	0.39	0.20	0.25	0.22	0.75	3.35	7.67	7.84	3.99	34.21	38.50
0.10 -	0.15	0.03	0.03	.	.	.	0.61	0.11	.	.	.	.	0.03	0.28	0.84	1.90	0.36	4.19	4.30
0.15 -	0.20	.	.	.	.	.	0.03	0.03	.	.	.	.	.	.	.	0.06	.	0.11	0.11
0.20 -	0.25	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.25 -	0.30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.30 -	0.35	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.35 -	0.40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.40 -	0.45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.45 -	0.50	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.50 -	0.55	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.55 -	0.60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.60 -	0.65	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.65 -	0.70	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
	Total	5.69	3.15	3.54	5.02	5.89	7.17	4.63	3.38	2.99	2.90	3.07	4.07	9.01	14.79	15.68	9.01	100.00	
	Exceed%	100.00	94.31	91.16	87.61	82.59	76.70	69.53	64.90	61.52	58.54	55.64	52.57	48.49	39.48	24.69	9.01		*

* Represents less than 0.005 Expected: 4300 Matrix Total: 3584 Includes: Good, None

Statistics:	Max	Min	Mean	Standard Deviation
Current Speed (m s^{-1}) 9.63m ASB	0.16	0.00	0.05	0.0275

Current Direction (°) 9.63m ASB Direction Convention: towards. Direction label is sector centre.

Sample Interval: 10.00 minutes

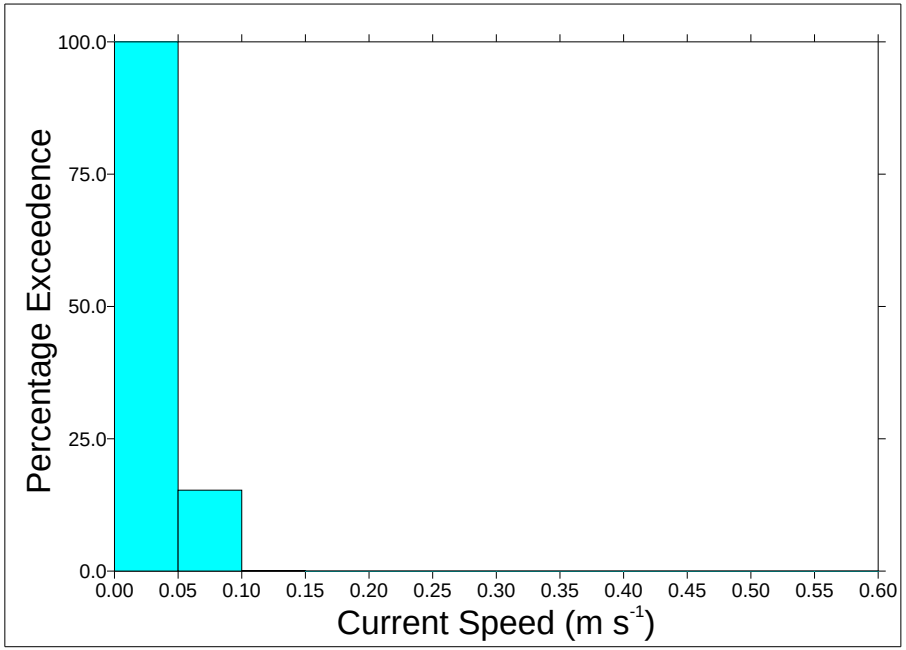
Time Zone: UTC +08:00 hours Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_current_tide.c.ext.nc

 moematrix: 09:53 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/matrix_2836cap002_current_tide.ext.c.ps)

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL		

Period: 16:30 15 November 2010 to 13:00 15 December 2010
(16:30 15 November 2010 to 13:00 15 December 2010)
Current Speed (m s^{-1}), 1.82m ASB.

Exceedence Plot



Exceedence Table

>=	Exceedence	% Exceedence
0.00	3584	100.00
0.05	548	15.29
0.10	3	0.08
0.15	0	0.00
0.20	0	0.00
0.25	0	0.00
0.30	0	0.00
0.35	0	0.00
0.40	0	0.00
0.45	0	0.00
0.50	0	0.00
0.55	0	0.00
0.60	0	0.00

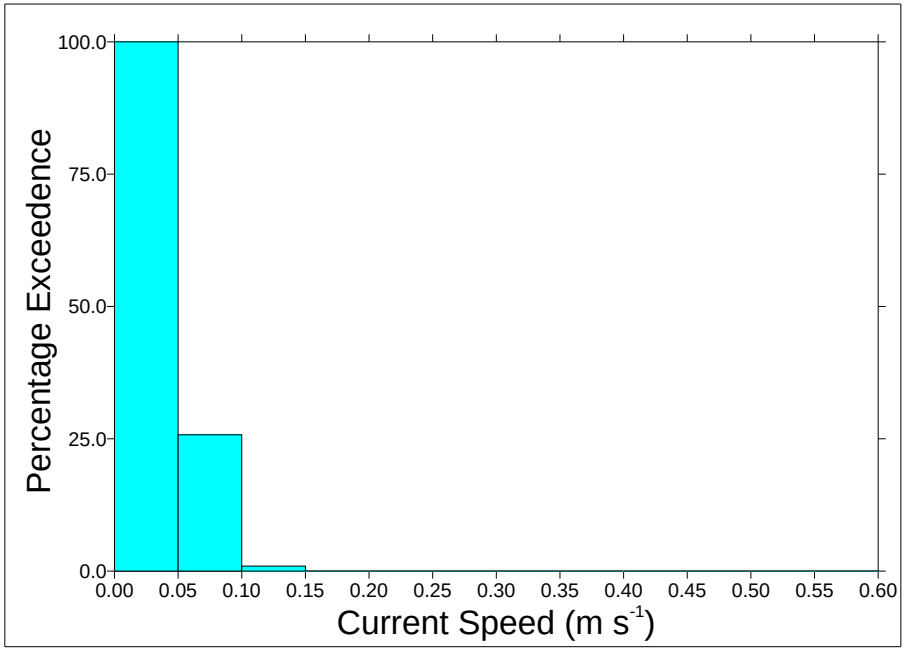
Exceedence Percentiles: 99.00 = 0.00 95.00 = 0.01 90.00 = 0.01 80.00 = 0.02 50.00 = 0.03 30.00 = 0.04
20.00 = 0.05 10.00 = 0.06 5.00 = 0.07 2.00 = 0.07 1.00 = 0.08

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_current_tide.c.ext.nc
	moematrix: 09:53 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/exceedence_2836cap002_current_tide.ext.c.ps)

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL		

Period: 16:30 15 November 2010 to 13:00 15 December 2010
(16:30 15 November 2010 to 13:00 15 December 2010)
Current Speed (m s^{-1}), 5.17m ASB.

Exceedence Plot



Exceedence Table

>=	Exceedence	% Exceedence
0.00	3584	100.00
0.05	923	25.75
0.10	34	0.95
0.15	0	0.00
0.20	0	0.00
0.25	0	0.00
0.30	0	0.00
0.35	0	0.00
0.40	0	0.00
0.45	0	0.00
0.50	0	0.00
0.55	0	0.00
0.60	0	0.00

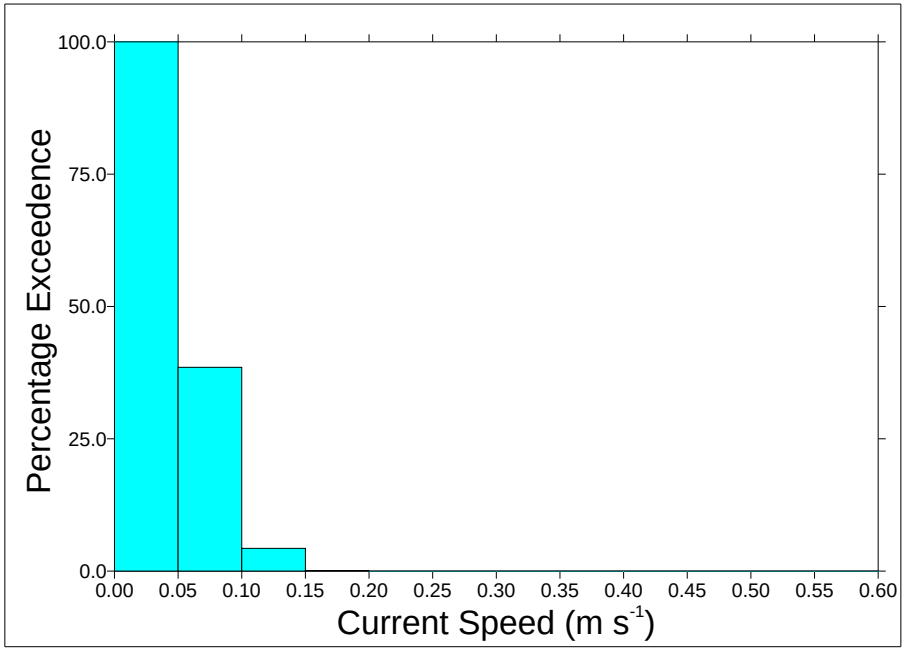
Exceedence Percentiles: 99.00 = 0.00 95.00 = 0.01 90.00 = 0.01 80.00 = 0.02 50.00 = 0.03 30.00 = 0.05
20.00 = 0.06 10.00 = 0.07 5.00 = 0.08 2.00 = 0.09 1.00 = 0.10

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_current_tide.c.ext.nc
	moematrix: 09:53 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/exceedence_2836cap002_current_tide.ext.c.ps)

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL		

Period: 16:30 15 November 2010 to 13:00 15 December 2010
(16:30 15 November 2010 to 13:00 15 December 2010)
Current Speed (m s^{-1}), 9.63m ASB.

Exceedence Plot



Exceedence Table

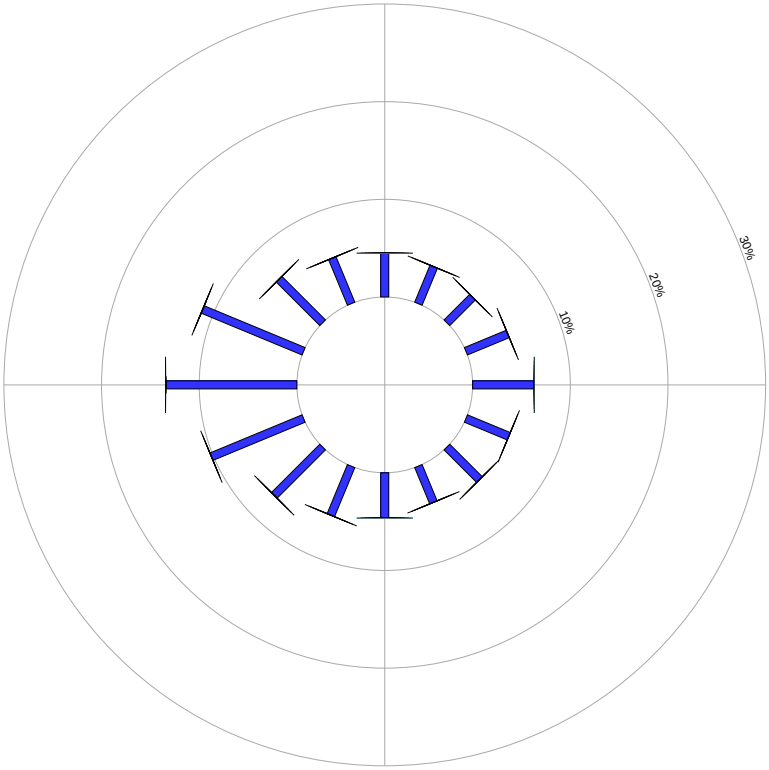
>=	Exceedence	% Exceedence
0.00	3584	100.00
0.05	1380	38.50
0.10	154	4.30
0.15	4	0.11
0.20	0	0.00
0.25	0	0.00
0.30	0	0.00
0.35	0	0.00
0.40	0	0.00
0.45	0	0.00
0.50	0	0.00
0.55	0	0.00
0.60	0	0.00

Exceedence Percentiles: 99.00 = 0.00 95.00 = 0.01 90.00 = 0.01 80.00 = 0.02 50.00 = 0.04 30.00 = 0.06
20.00 = 0.07 10.00 = 0.08 5.00 = 0.10 2.00 = 0.11 1.00 = 0.12

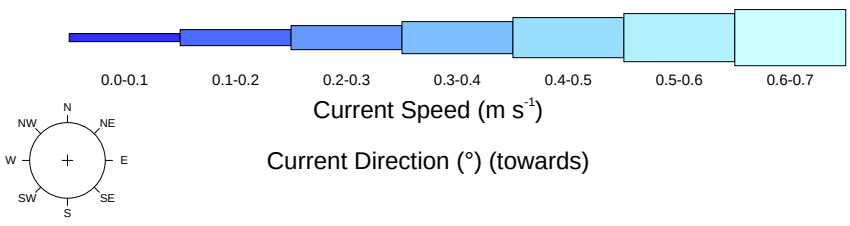
Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_current_tide.c.ext.nc
	moematrix: 09:53 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/exceedence_2836cap002_current_tide.ext.c.ps)

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL		

Deployment
16:30 15 November 2010 to 13:00 15 December 2010



Deployment

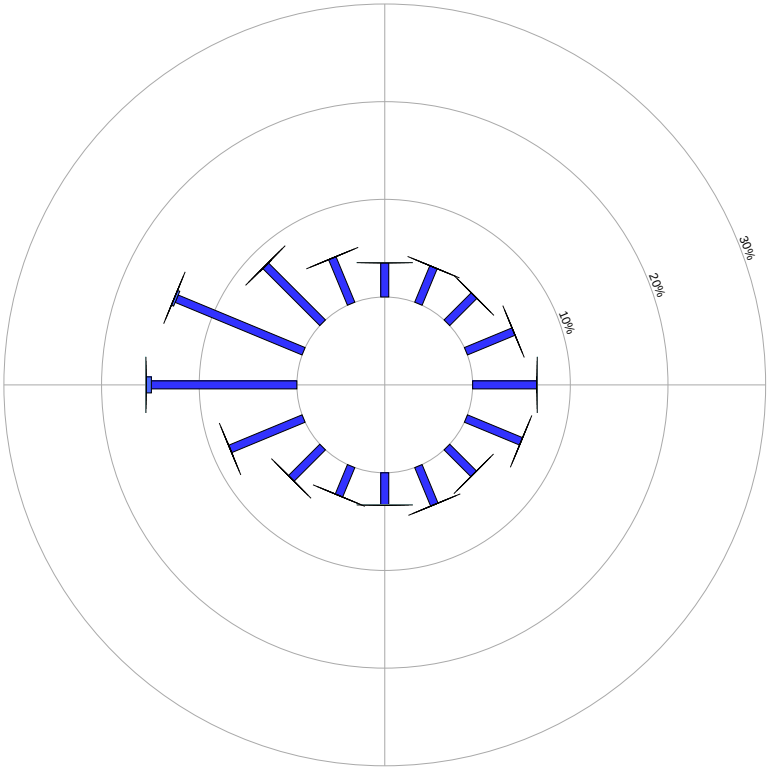


Instruments: 1.82m ASB
Data Quality: good **Total Records:** 3584

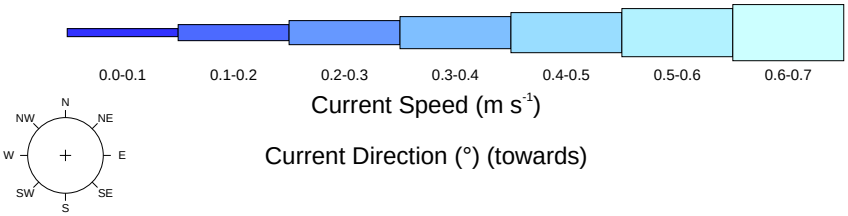
Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_current_tide.c.ext.nc
	moerose: 10:01 13/May/2011 by jonty (rose.2836cap002_current_tide.c.ext.ps)

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL		

Deployment
16:30 15 November 2010 to 13:00 15 December 2010



Deployment

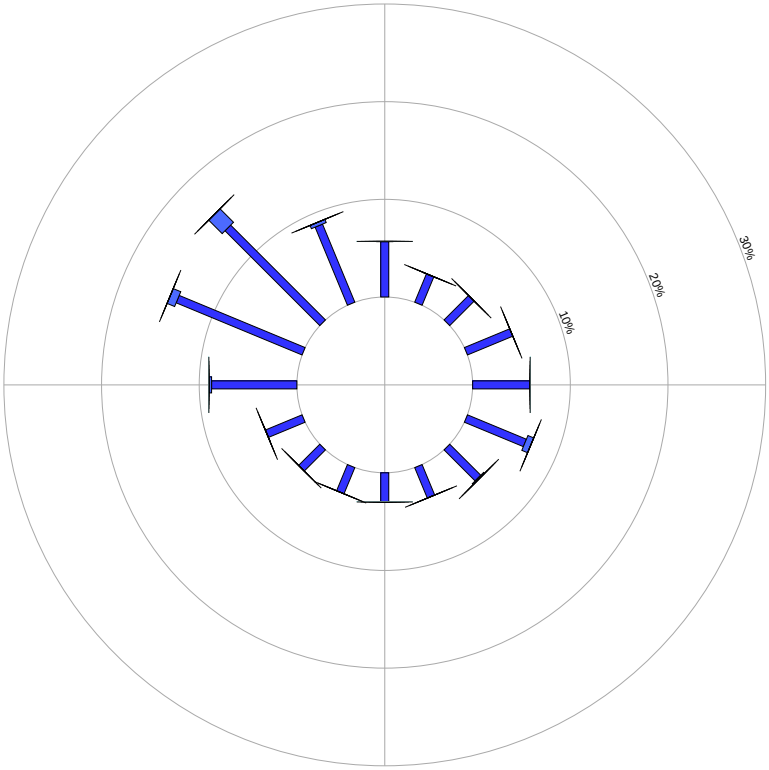


Instruments: 5.17m ASB
Data Quality: good **Total Records:** 3584

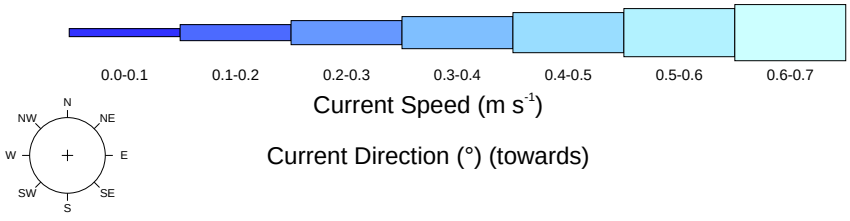
Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_current_tide.c.ext.nc
	moerose: 10:01 13/May/2011 by jonty (rose.2836cap002_current_tide.c.ext.ps)

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL		

Deployment
16:30 15 November 2010 to 13:00 15 December 2010



Deployment



Instruments: 9.63m ASB
Data Quality: good **Total Records:** 3584

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_current_tide.c.ext.nc
	moerose: 10:01 13/May/2011 by jonty (rose.2836cap002_current_tide.c.ext.ps)

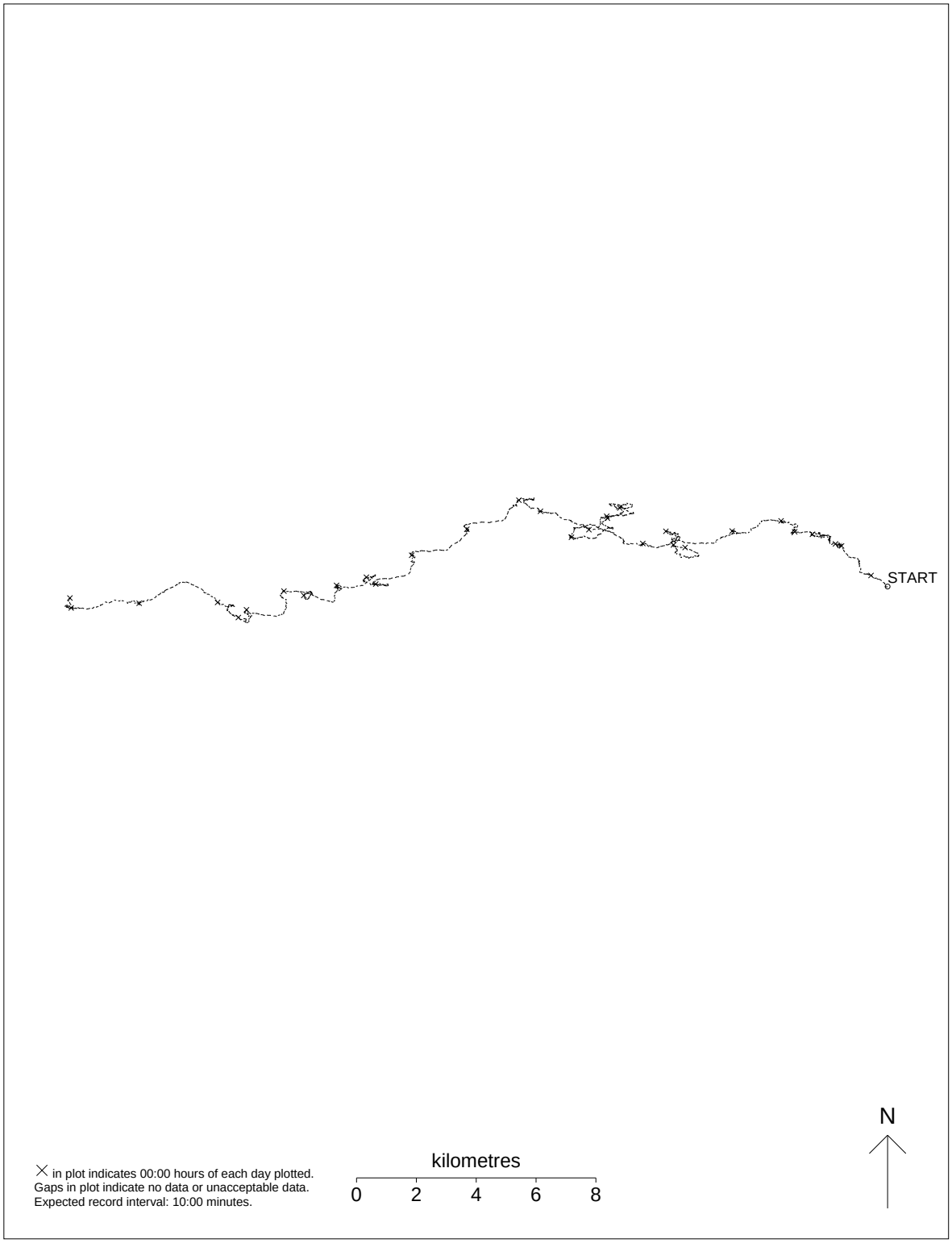
Continuous Vector Plot

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL		

Period: 16:30 15 November 2010 to 13:00 15 December 2010

Current Direction (°) 1.82m ASB

Current Speed (m s^{-1}) 1.82m ASB



Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_current_tide.c.ext.nc
	moecovep: 10:16 13/May/2011 by jonty (covep.2836cap002_current_tide.ext.c.ps)

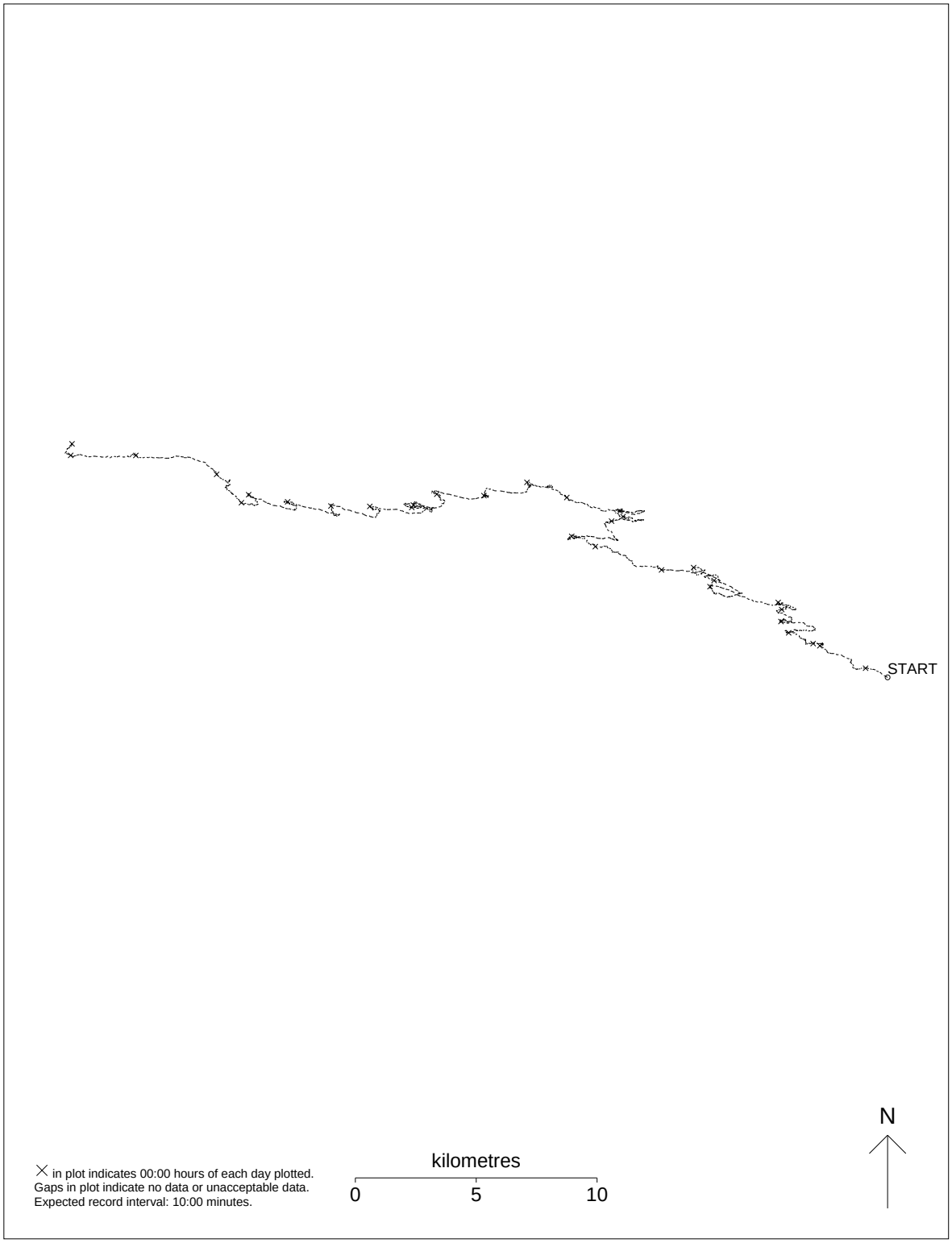
Continuous Vector Plot

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL		

Period: 16:30 15 November 2010 to 13:00 15 December 2010

Current Direction (°) 5.17m ASB

Current Speed (m s^{-1}) 5.17m ASB



Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_current_tide.c.ext.nc
	moecovep: 10:16 13/May/2011 by jonty (covep.2836cap002_current_tide.ext.c.ps)

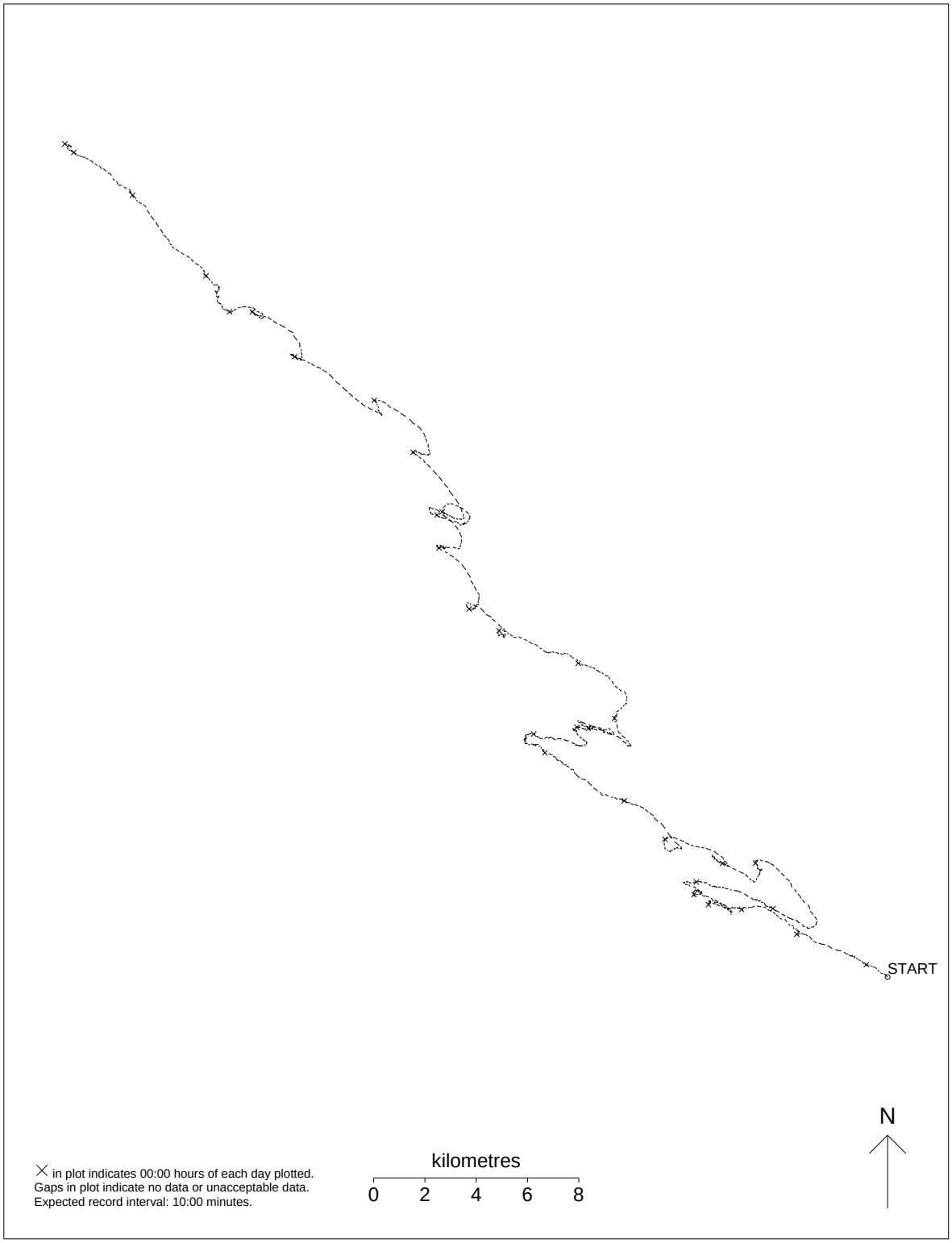
Continuous Vector Plot

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL		

Period: 16:30 15 November 2010 to 13:00 15 December 2010

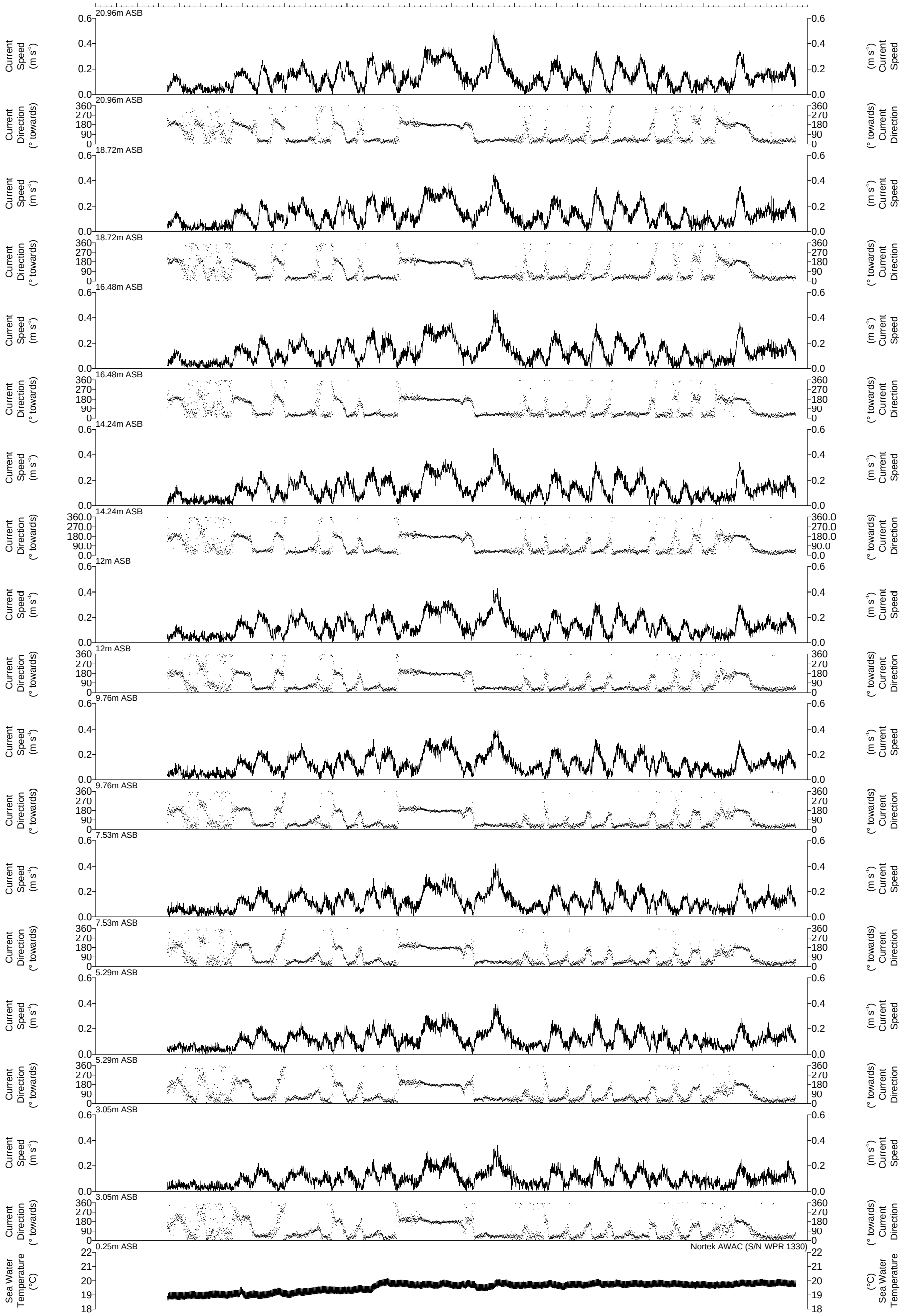
Current Direction (°) 9.63m ASB

Current Speed (m s^{-1}) 9.63m ASB



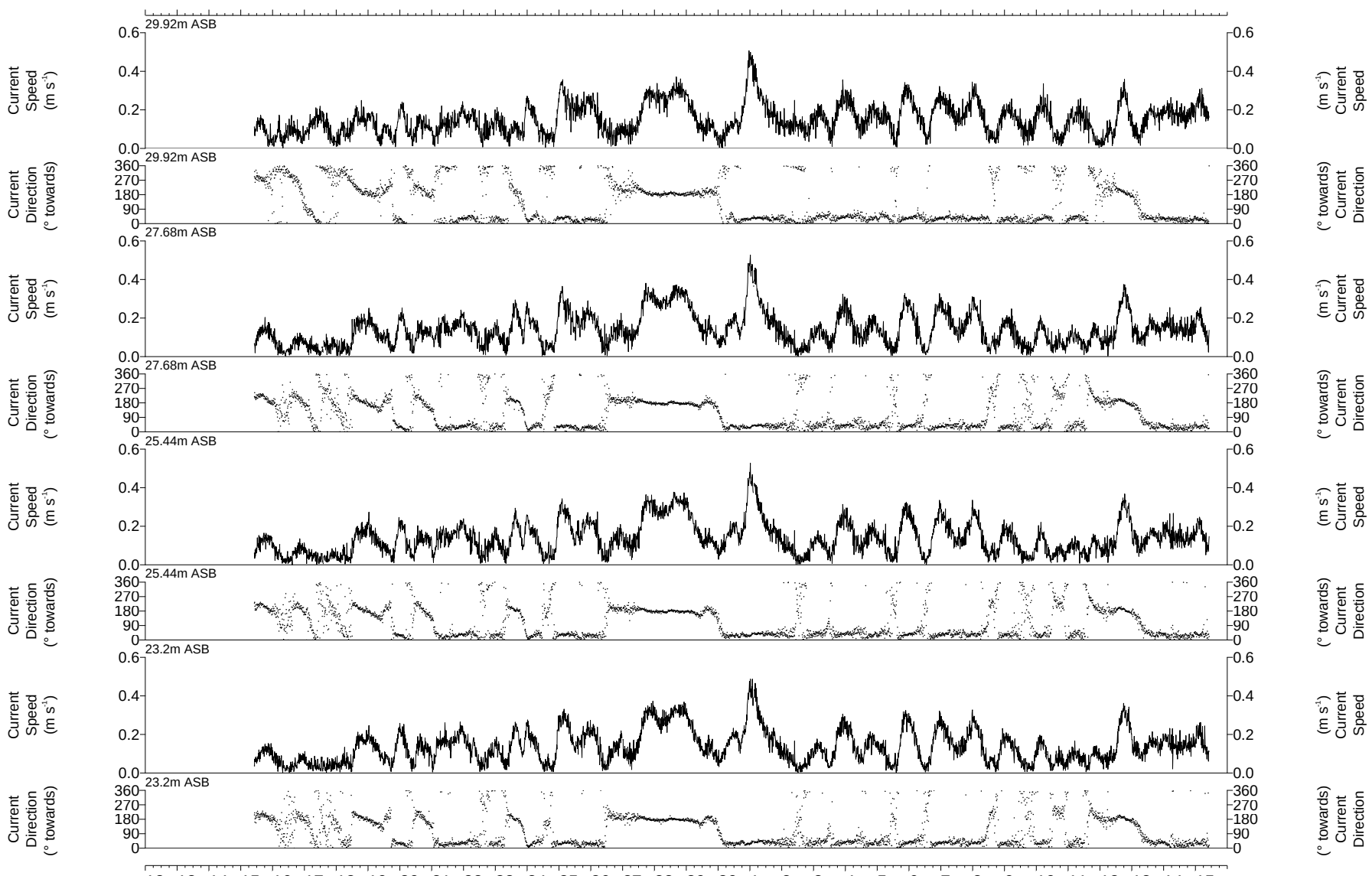
Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_current_tide.c.ext.nc
	moecovep: 10:16 13/May/2011 by jonty (covep.2836cap002_current_tide.ext.c.ps)

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL		



Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_current_tide.c.ext.nc
	moetimehist: 09:00 13/May/2011 by jonty (timehist.2836cap001_A3_deployment.c.ps)

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL		



Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_current_tide.c.ext.nc
© RPS MetOcean Pty Ltd	moetimehist: 09:00 13/May/2011 by jonty (timehist.2836cap001_A3_deployment.c.ps)

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL		

Period: 10:20 15 November 2010 to 10:20 15 December 2010
Current Speed (m s^{-1}), 3.05m ASB.
Current Direction (°), 3.05m ASB.

	Current Speed (m s^{-1})				Total	Exceedence Percentile Current Speed (m s^{-1})											Main Direction(s)[2]
	Min	Max	Mean	Std. Dev	Records	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0	(towards)
Total Period [1]	0.00	0.37	0.10	0.0590	3601	0.01	0.02	0.03	0.06	0.09	0.13	0.15	0.18	0.21	0.24	0.27	NNE NE

Notes: 1) Total Period: 10:20 15 November 2010 to 10:20 15 December 2010
2) Main directions are where occurrence is greater than 15.0%.

Sample Interval: 10.00 minutes.

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL		

Period: 10:20 15 November 2010 to 10:20 15 December 2010
Current Speed (m s^{-1}), 16.48m ASB.
Current Direction (°), 16.48m ASB.

	Current Speed (m s^{-1})				Total	Exceedence Percentile Current Speed (m s^{-1})											Main Direction(s)[2]
	Min	Max	Mean	Std. Dev	Records	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0	(towards)
Total Period [1]	0.00	0.46	0.13	0.0812	3590	0.01	0.02	0.04	0.07	0.12	0.17	0.20	0.25	0.29	0.32	0.35	NNE NE S

Notes: 1) Total Period: 10:20 15 November 2010 to 10:20 15 December 2010
2) Main directions are where occurrence is greater than 15.0%.

Sample Interval: 10.00 minutes.

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL		

Period: 10:20 15 November 2010 to 10:20 15 December 2010
Current Speed (m s^{-1}), 29.92m ASB.
Current Direction (°), 29.92m ASB.

	Current Speed (m s^{-1})				Total	Exceedence Percentile Current Speed (m s^{-1})											Main Direction(s)[2]
	Min	Max	Mean	Std. Dev	Records	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0	(towards)
Total Period [1]	0.00	0.51	0.15	0.0795	3596	0.02	0.04	0.05	0.09	0.14	0.19	0.22	0.26	0.29	0.32	0.36	NNE NE

Notes: 1) Total Period: 10:20 15 November 2010 to 10:20 15 December 2010
2) Main directions are where occurrence is greater than 15.0%.

Sample Interval: 10.00 minutes.

Percentage Occurrence Matrix

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL		

Period: 10:20 15 November 2010 to 10:20 15 December 2010
(10:20 15 November 2010 to 10:20 15 December 2010)

Current Direction (°) 3.05m ASB

Current Speed (m s^{-1}) 3.05m ASB

=>	<	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total	Exceed%
0.00 -	0.05	1.03	1.81	2.08	2.03	2.05	2.05	1.72	1.36	0.97	1.50	0.89	0.89	0.69	0.50	0.58	0.50	20.66	100.00
0.05 -	0.10	1.47	4.67	6.16	4.75	3.47	1.92	2.25	2.28	2.44	2.25	1.58	0.33	0.11	0.19	0.06	0.36	34.30	79.34
0.10 -	0.15	0.94	6.55	8.41	2.30	0.67	0.19	0.72	1.08	1.42	1.31	0.56	0.08	0.03	.	.	.	24.27	45.04
0.15 -	0.20	0.14	3.83	6.00	0.78	0.17	.	.	0.53	2.47	0.33	.	.	.	.	.	.	14.25	20.77
0.20 -	0.25	0.22	0.92	1.17	0.06	.	.	.	0.31	1.97	0.17	.	.	.	.	.	.	4.80	6.53
0.25 -	0.30	.	0.22	0.53	0.03	.	.	.	0.06	0.50	0.11	.	.	.	.	.	.	1.44	1.72
0.30 -	0.35	.	0.06	0.17	.	.	.	.	.	0.03	.	.	.	.	.	.	.	0.25	0.28
0.35 -	0.40	.	.	0.03	.	.	.	.	.	.	.	.	.	.	.	.	.	0.03	0.03
0.40 -	0.45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
0.45 -	0.50	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
0.50 -	0.55	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
0.55 -	0.60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
0.60 -	0.65	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
0.65 -	0.70	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
	Total	3.80	18.05	24.55	9.94	6.36	4.17	4.69	5.61	9.80	5.67	3.03	1.31	0.83	0.69	0.64	0.86	100.00	
	Exceed%	100.00	96.20	78.14	53.60	43.65	37.30	33.13	28.44	22.83	13.02	7.36	4.33	3.03	2.19	1.50	0.86		

* Represents less than 0.005 | Expected: 4321 | Matrix Total: 3601 | Includes: Good, None

Statistics:	Max	Min	Mean	Standard Deviation
Current Speed (m s^{-1}) 3.05m ASB	0.37	0.00	0.10	0.0590

Current Direction (°) 3.05m ASB — Direction Convention: towards. Direction label is sector centre.

Sample Interval: 10.00 minutes

Time Zone: UTC +08:00 hours — Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_current_tide.c.ext.nc

moematrix: 09:41 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/matrix_2836cap001_current_tide.ext.c.ps)

Percentage Occurrence Matrix

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL		

Period: 10:20 15 November 2010 to 10:20 15 December 2010
(10:20 15 November 2010 to 10:20 15 December 2010)

Current Direction (°) 16.48m ASB

Current Speed (m s^{-1}) 16.48m ASB

=>	<	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total	Exceed%
0.00 -	0.05	1.14	1.48	1.81	1.70	1.50	1.06	1.39	1.31	1.62	1.23	0.67	0.47	0.33	0.28	0.53	0.47	16.99	100.00
0.05 -	0.10	1.67	3.96	3.87	2.48	0.84	0.75	1.20	2.03	2.98	1.59	0.47	0.14	.	0.11	0.17	0.33	22.59	83.01
0.10 -	0.15	0.97	6.49	6.04	1.31	0.25	0.11	0.64	1.70	3.06	2.03	0.17	0.03	.	.	.	0.11	22.92	60.42
0.15 -	0.20	0.45	7.49	5.49	0.31	0.11	.	0.19	0.61	1.39	0.84	.	.	.	.	.	.	16.88	37.49
0.20 -	0.25	0.28	4.74	3.82	0.08	.	.	.	0.33	1.59	0.11	.	.	.	.	.	.	10.95	20.61
0.25 -	0.30	.	1.67	1.31	.	.	.	.	0.28	2.56	0.11	.	.	.	.	.	.	5.93	9.67
0.30 -	0.35	.	0.22	0.53	.	.	.	.	0.06	2.06	.	.	.	.	.	.	.	2.87	3.73
0.35 -	0.40	.	0.19	0.22	.	.	.	.	.	0.19	.	.	.	.	.	.	.	0.61	0.86
0.40 -	0.45	.	0.11	0.11	.	.	.	.	.	.	.	.	.	.	.	.	.	0.22	0.25
0.45 -	0.50	.	0.03	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.03	0.03
0.50 -	0.55	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
0.55 -	0.60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
0.60 -	0.65	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
0.65 -	0.70	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
	Total	4.51	26.38	23.20	5.88	2.70	1.92	3.43	6.32	15.46	5.91	1.31	0.64	0.33	0.39	0.70	0.92	100.00	
	Exceed%	100.00	95.49	69.11	45.91	40.03	37.33	35.40	31.98	25.65	10.19	4.29	2.98	2.34	2.01	1.62	0.92		

* Represents less than 0.005 Expected: 4321 Matrix Total: 3590 Includes: Good, None

Statistics:	Max	Min	Mean	Standard Deviation
Current Speed (m s^{-1}) 16.48m ASB	0.46	0.00	0.13	0.0812

Current Direction (°) 16.48m ASB Direction Convention: towards. Direction label is sector centre.

Sample Interval: 10.00 minutes

Time Zone: UTC +08:00 hours Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_current_tide.c.ext.nc

 moematrix: 09:41 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/matrix_2836cap001_current_tide.ext.c.ps)

Percentage Occurrence Matrix

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL		

Period: 10:20 15 November 2010 to 10:20 15 December 2010
(10:20 15 November 2010 to 10:20 15 December 2010)

Current Direction (°) 29.92m ASB

Current Speed (m s^{-1}) 29.92m ASB

=>	<	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total	Exceed%
0.00 -	0.05	0.78	0.61	0.64	0.25	0.11	0.33	0.44	0.31	0.50	0.39	0.58	0.53	0.44	0.97	0.89	0.81	8.59	100.00
0.05 -	0.10	2.81	2.50	1.03	0.44	0.39	0.39	0.33	0.33	1.11	1.56	1.47	1.11	1.06	1.28	1.84	2.59	20.24	91.41
0.10 -	0.15	3.81	5.67	3.98	1.22	0.22	0.03	0.14	0.47	1.42	2.17	1.53	0.53	0.67	0.70	0.72	1.28	24.56	71.16
0.15 -	0.20	2.31	8.79	6.42	0.42	0.06	.	.	0.08	1.31	0.95	0.58	0.17	0.17	0.11	0.08	0.31	21.75	46.61
0.20 -	0.25	0.58	6.28	3.67	0.22	.	.	.	.	0.81	0.64	0.14	0.06	.	.	.	0.03	12.43	24.86
0.25 -	0.30	0.08	2.59	2.25	.	.	.	.	0.06	2.73	0.81	.	.	.	.	.	.	8.51	12.43
0.30 -	0.35	.	0.81	0.86	.	.	.	.	.	0.75	0.39	.	.	.	.	.	.	2.81	3.92
0.35 -	0.40	.	0.11	0.25	.	.	.	.	.	0.06	0.03	.	.	.	.	.	.	0.44	1.11
0.40 -	0.45	.	0.28	0.06	.	.	.	.	.	.	.	.	.	.	.	.	.	0.33	0.67
0.45 -	0.50	.	0.19	0.11	.	.	.	.	.	.	.	.	.	.	.	.	.	0.31	0.33
0.50 -	0.55	.	0.03	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.03	0.03
0.55 -	0.60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.60 -	0.65	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
0.65 -	0.70	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
	Total	10.37	27.86	19.27	2.56	0.78	0.75	0.92	1.25	8.68	6.92	4.31	2.39	2.34	3.06	3.53	5.01	100.00	
	Exceed%	100.00	89.63	61.76	42.49	39.93	39.15	38.40	37.49	36.23	27.56	20.63	16.32	13.93	11.60	8.54	5.01		*

* Represents less than 0.005 | Expected: 4321 | Matrix Total: 3596 | Includes: Good, None

Statistics:	Max	Min	Mean	Standard Deviation
Current Speed (m s^{-1}) 29.92m ASB	0.51	0.00	0.15	0.0795

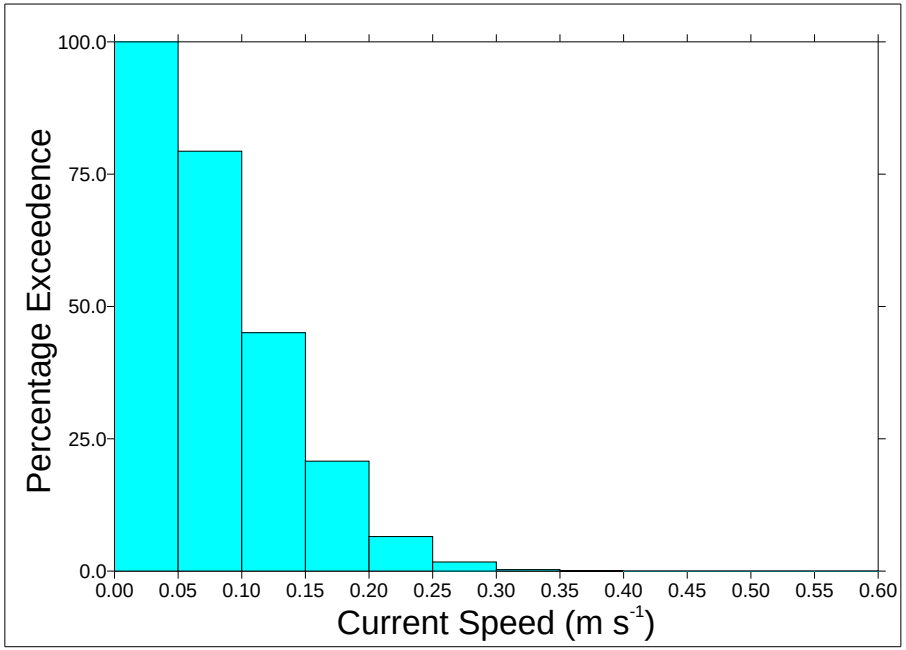
Current Direction (°) 29.92m ASB — Direction Convention: towards. Direction label is sector centre.

Sample Interval: 10.00 minutes

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL		

Period: 10:20 15 November 2010 to 10:20 15 December 2010
(10:20 15 November 2010 to 10:20 15 December 2010)
Current Speed (m s^{-1}), 3.05m ASB.

Exceedence Plot



Exceedence Table

>=	Exceedence	% Exceedence
0.00	3601	100.00
0.05	2857	79.34
0.10	1622	45.04
0.15	748	20.77
0.20	235	6.53
0.25	62	1.72
0.30	10	0.28
0.35	1	0.03
0.40	0	0.00
0.45	0	0.00
0.50	0	0.00
0.55	0	0.00
0.60	0	0.00

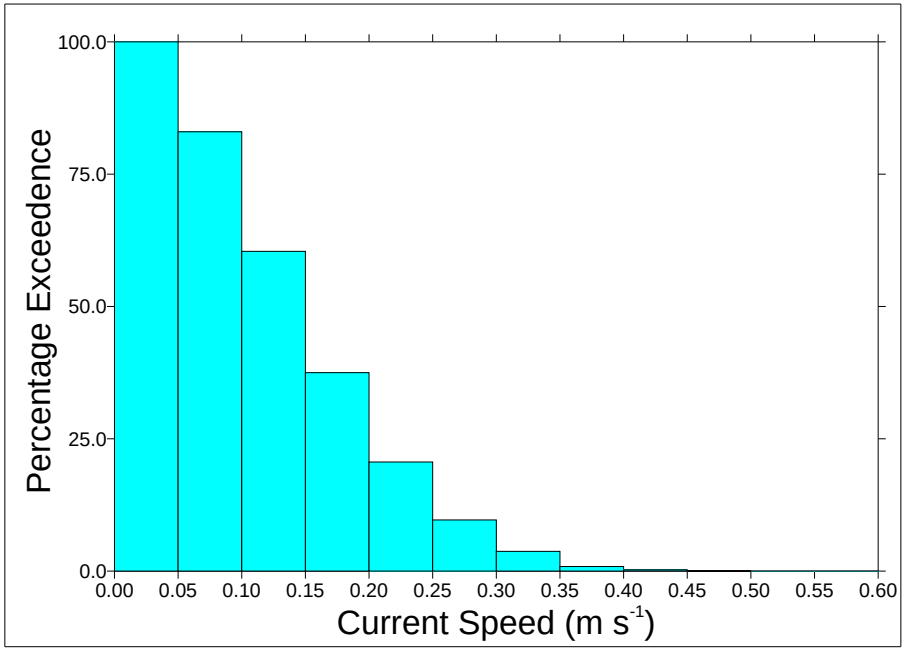
Exceedence Percentiles: 99.00 = 0.01 95.00 = 0.02 90.00 = 0.03 80.00 = 0.05 50.00 = 0.09 30.00 = 0.13
20.00 = 0.15 10.00 = 0.18 5.00 = 0.21 2.00 = 0.24 1.00 = 0.27

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_current_tide.c.ext.nc
	moematrix: 09:41 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/exceedence_2836cap001_current_tide.ext.c.ps)

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL		

Period: 10:20 15 November 2010 to 10:20 15 December 2010
(10:20 15 November 2010 to 10:20 15 December 2010)
Current Speed (m s^{-1}), 16.48m ASB.

Exceedence Plot



Exceedence Table

>=	Exceedence	% Exceedence
0.00	3590	100.00
0.05	2980	83.01
0.10	2169	60.42
0.15	1346	37.49
0.20	740	20.61
0.25	347	9.67
0.30	134	3.73
0.35	31	0.86
0.40	9	0.25
0.45	1	0.03
0.50	0	0.00
0.55	0	0.00
0.60	0	0.00

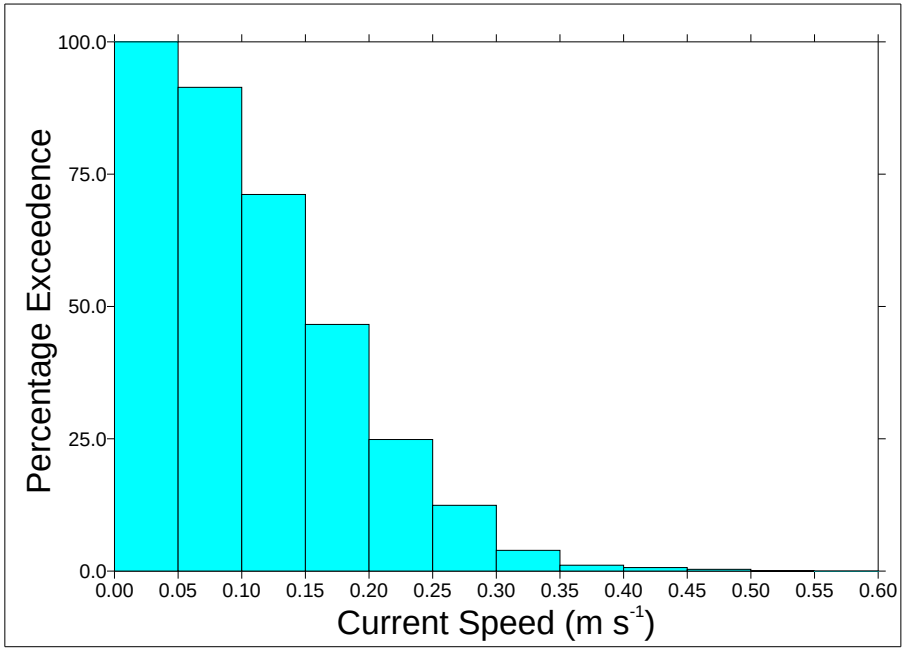
Exceedence Percentiles: 99.00 = 0.01, 95.00 = 0.02, 90.00 = 0.04, 80.00 = 0.06, 50.00 = 0.12, 30.00 = 0.17, 20.00 = 0.20, 10.00 = 0.25, 5.00 = 0.29, 2.00 = 0.32, 1.00 = 0.35

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_current_tide.c.ext.nc
	moematrix: 09:41 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/exceedence_2836cap001_current_tide.ext.c.ps)

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL		

Period: 10:20 15 November 2010 to 10:20 15 December 2010
(10:20 15 November 2010 to 10:20 15 December 2010)
Current Speed (m s^{-1}), 29.92m ASB.

Exceedence Plot



Exceedence Table

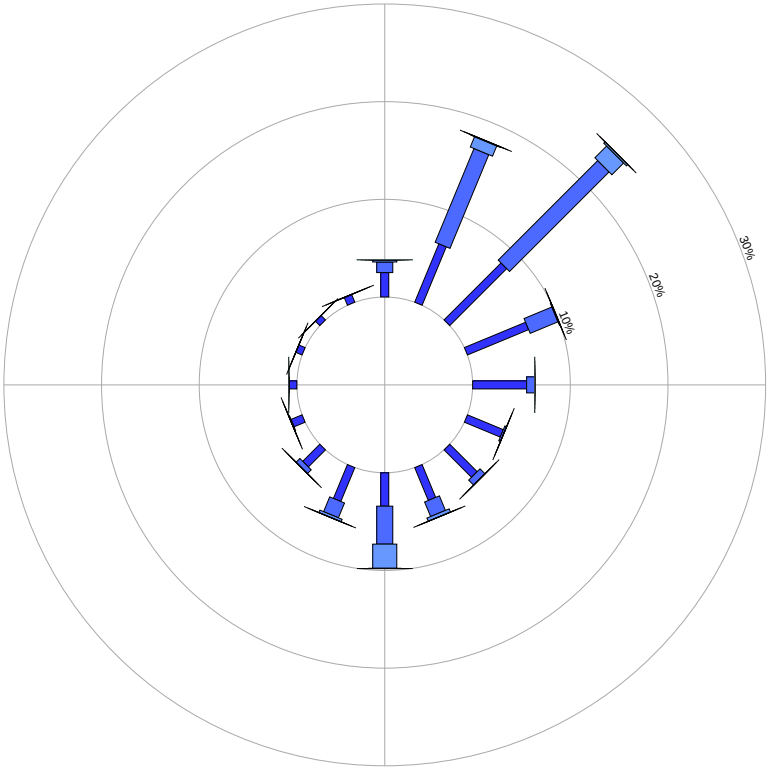
>=	Exceedence	% Exceedence
0.00	3596	100.00
0.05	3287	91.41
0.10	2559	71.16
0.15	1676	46.61
0.20	894	24.86
0.25	447	12.43
0.30	141	3.92
0.35	40	1.11
0.40	24	0.67
0.45	12	0.33
0.50	1	0.03
0.55	0	0.00
0.60	0	0.00

Exceedence Percentiles: 99.00 = 0.02 95.00 = 0.04 90.00 = 0.05 80.00 = 0.08 50.00 = 0.14 30.00 = 0.19
20.00 = 0.22 10.00 = 0.26 5.00 = 0.29 2.00 = 0.32 1.00 = 0.36

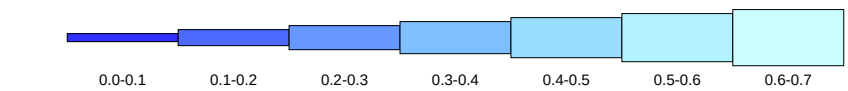
Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_current_tide.c.ext.nc
	moematrix: 09:41 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/exceedence_2836cap001_current_tide.ext.c.ps)

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL		

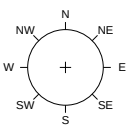
Deployment
10:20 15 November 2010 to 10:20 15 December 2010



Deployment



Current Speed (m s^{-1})



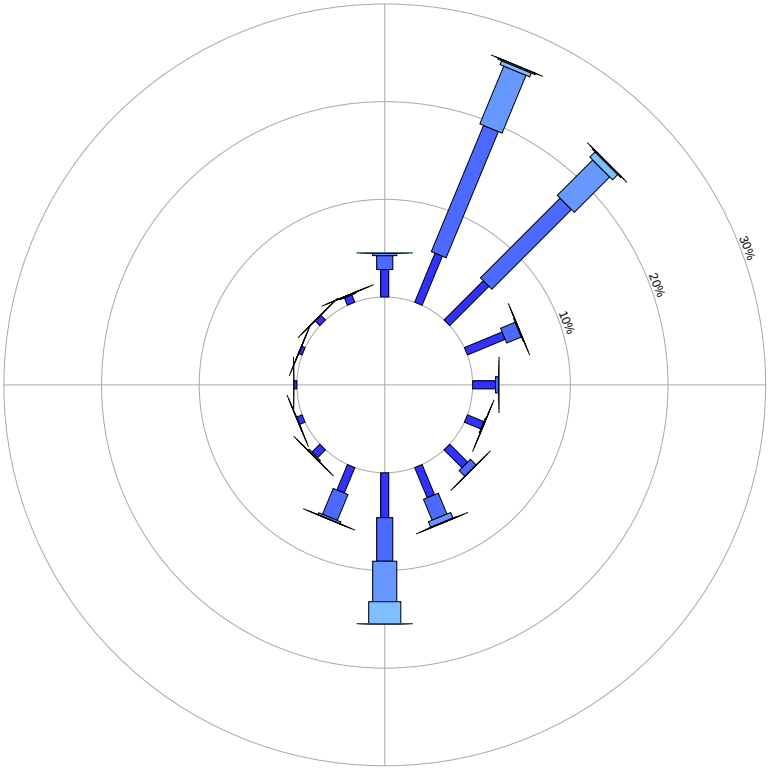
Current Direction (°) (towards)

Instruments: 3.05m ASB
Data Quality: good **Total Records:** 3601

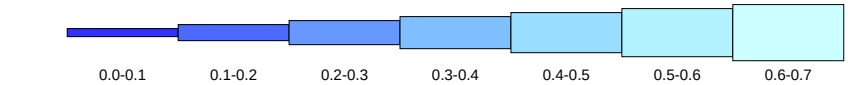
Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_current_tide.c.ext.nc
	moerose: 09:58 13/May/2011 by jonty (rose.2836cap001_current_tide.c.ext.ps)

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL		

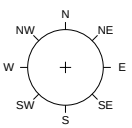
Deployment
10:20 15 November 2010 to 10:20 15 December 2010



Deployment



Current Speed (m s^{-1})



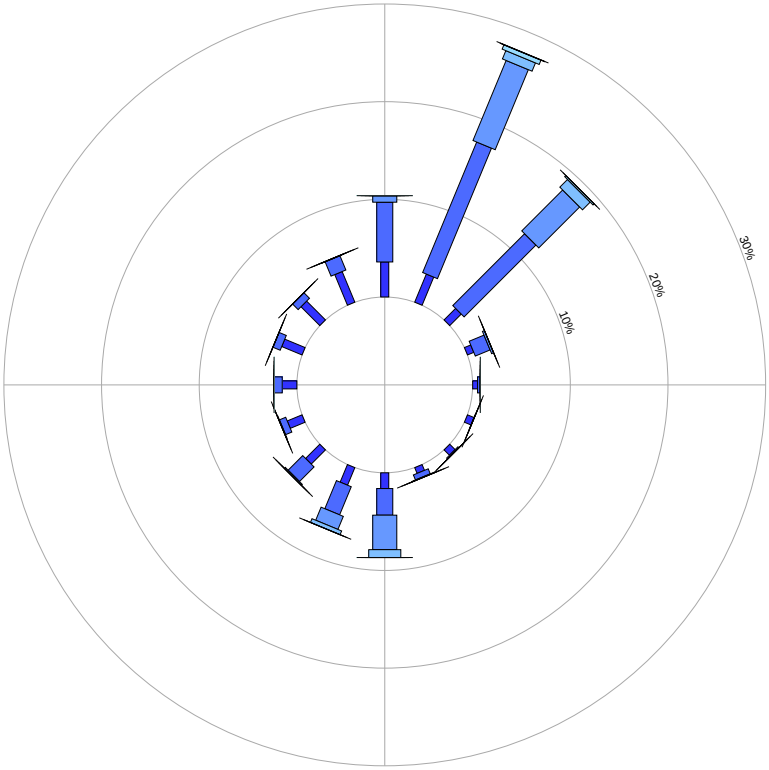
Current Direction (°) (towards)

Instruments: 16.48m ASB
Data Quality: good **Total Records:** 3590

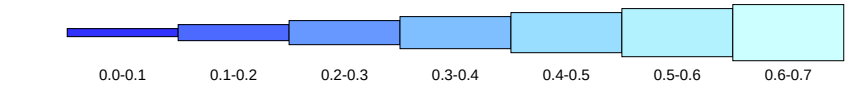
Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_current_tide.c.ext.nc
	moerose: 09:58 13/May/2011 by jonty (rose.2836cap001_current_tide.c.ext.ps)

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL		

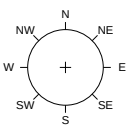
Deployment
10:20 15 November 2010 to 10:20 15 December 2010



Deployment



Current Speed (m s^{-1})



Current Direction (°) (towards)

Instruments: 29.92m ASB
Data Quality: good **Total Records:** 3596

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_current_tide.c.ext.nc
	moerose: 09:58 13/May/2011 by jonty (rose.2836cap001_current_tide.c.ext.ps)

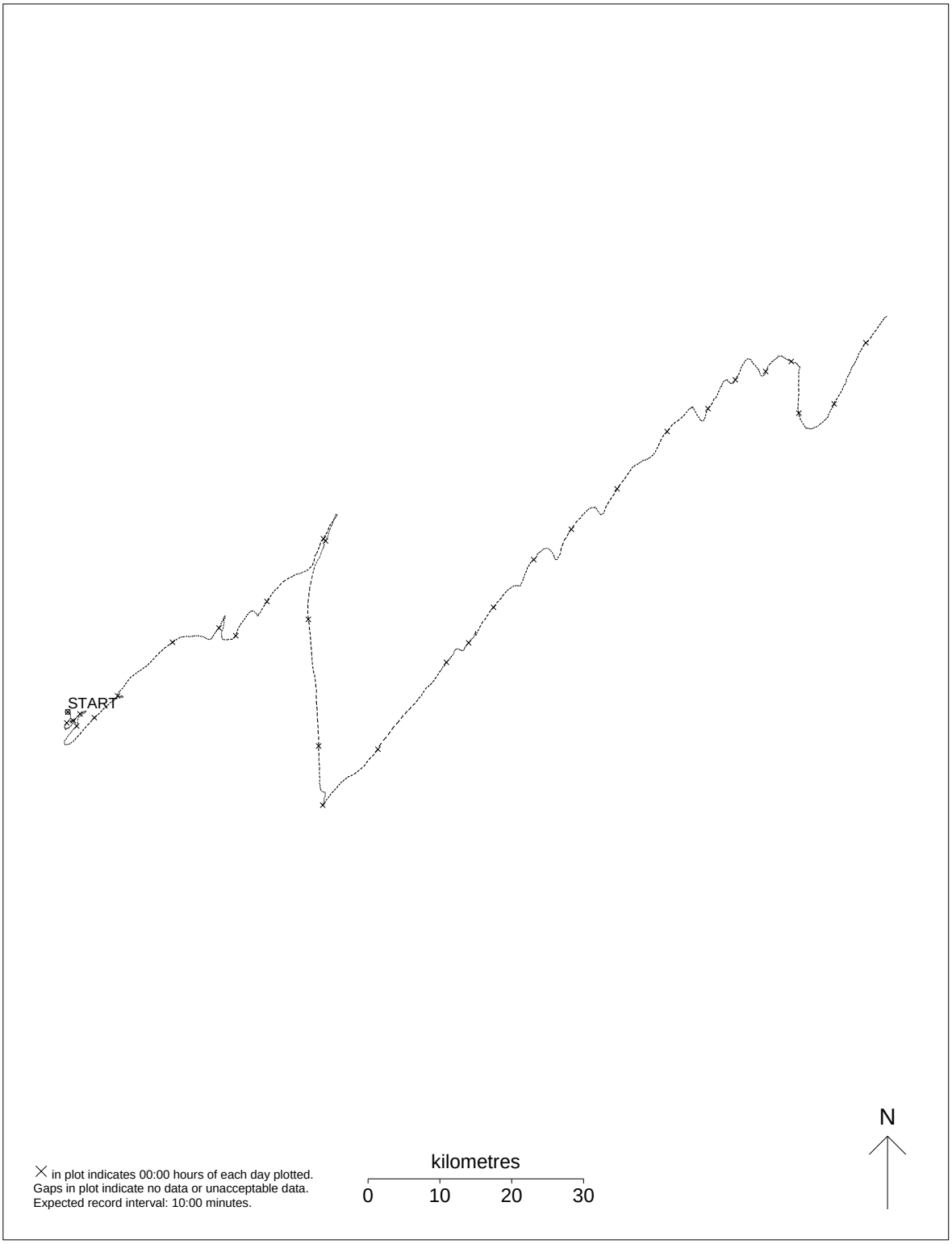
Continuous Vector Plot

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL		

Period: 10:20 15 November 2010 to 10:20 15 December 2010

Current Direction (°) 3.05m ASB

Current Speed (m s^{-1}) 3.05m ASB



Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_current_tide.c.ext.nc
	moecovep: 10:13 13/May/2011 by jonty (covep.2836cap001_current_tide.ext.c.ps)

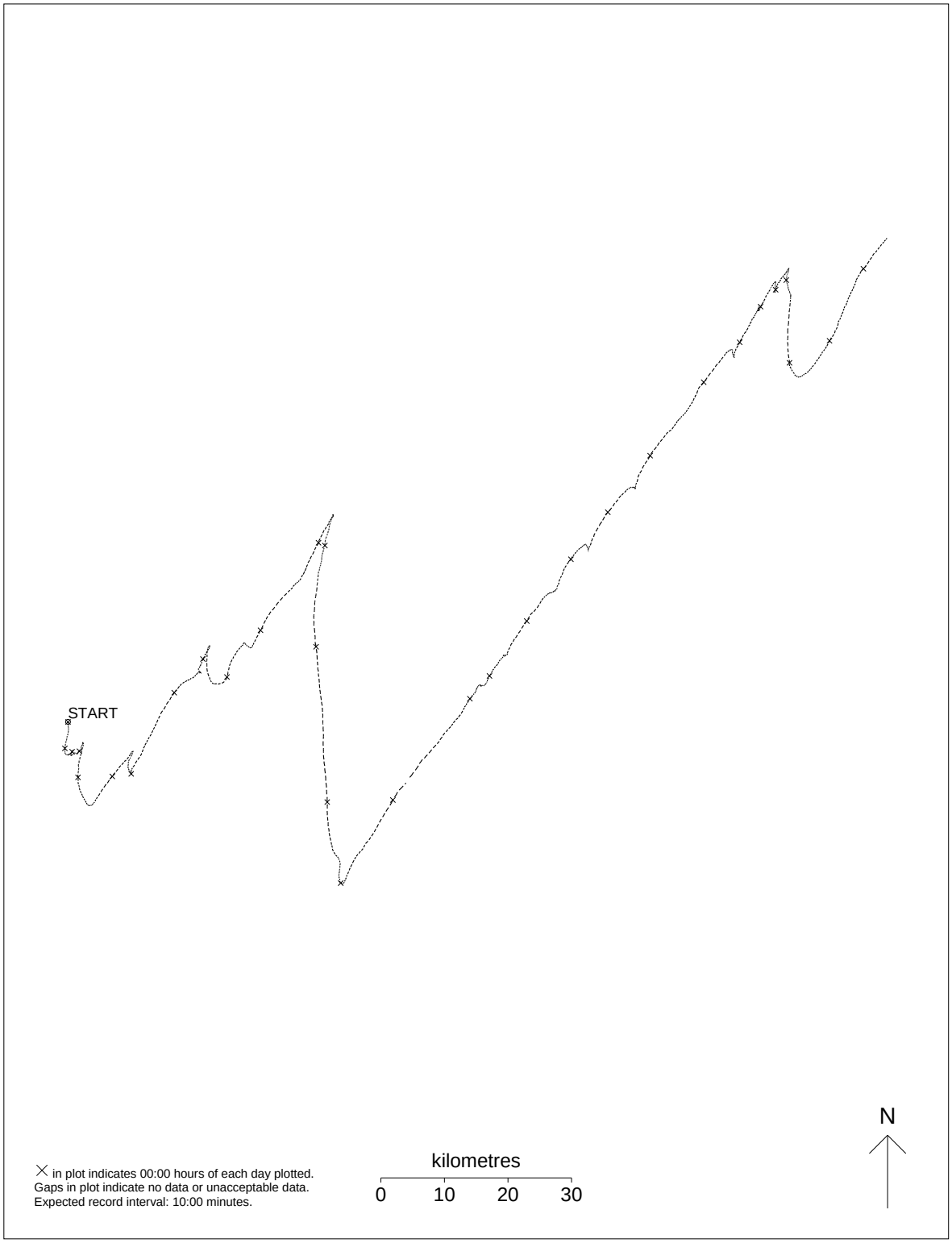
Continuous Vector Plot

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL		

Period: 10:20 15 November 2010 to 10:20 15 December 2010

Current Direction (°) 16.48m ASB

Current Speed (m s^{-1}) 16.48m ASB



Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_current_tide.c.ext.nc
	moecovep: 10:13 13/May/2011 by jonty (covep.2836cap001_current_tide.ext.c.ps)

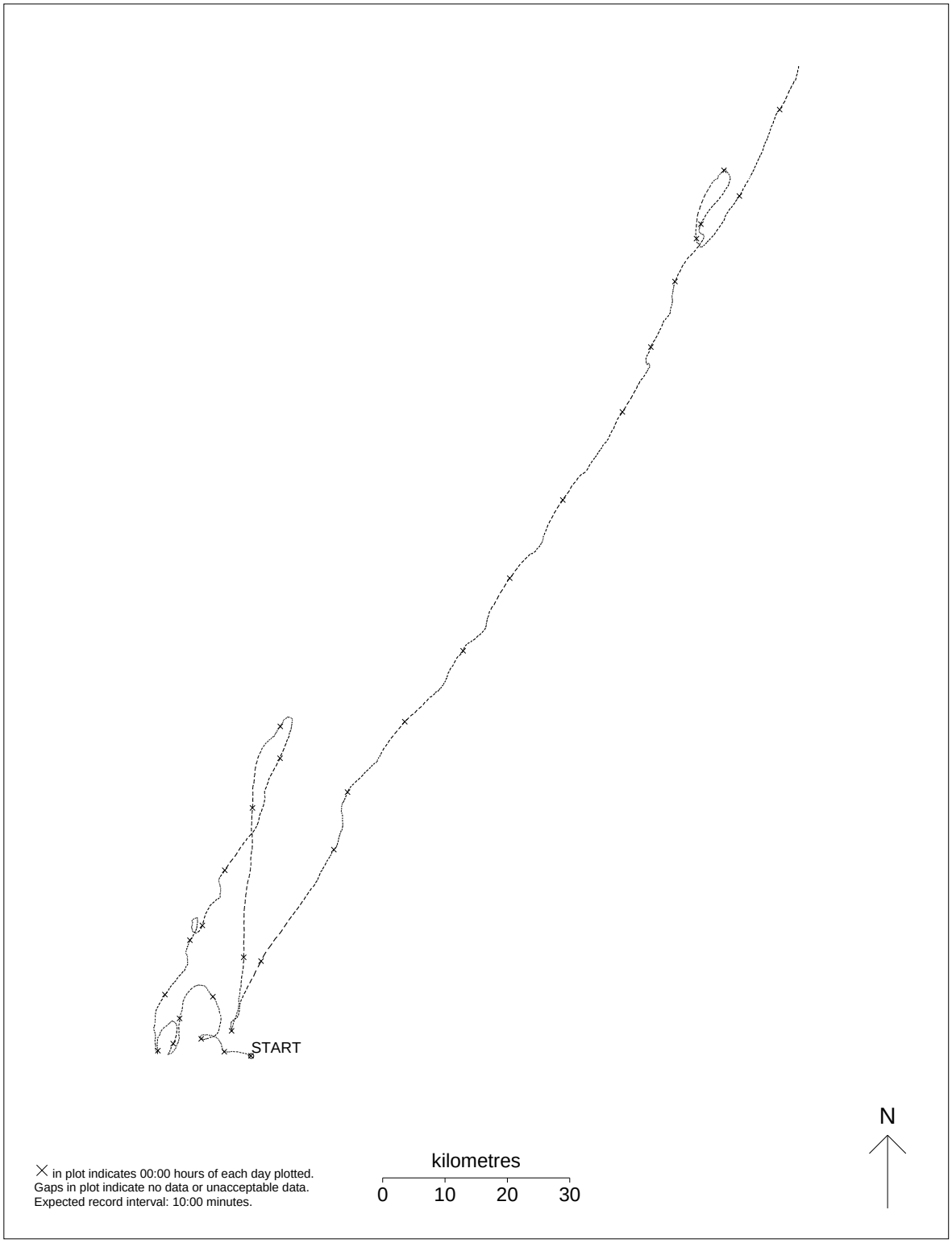
Continuous Vector Plot

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL		

Period: 10:20 15 November 2010 to 10:20 15 December 2010

Current Direction (°) 29.92m ASB

Current Speed (m s^{-1}) 29.92m ASB



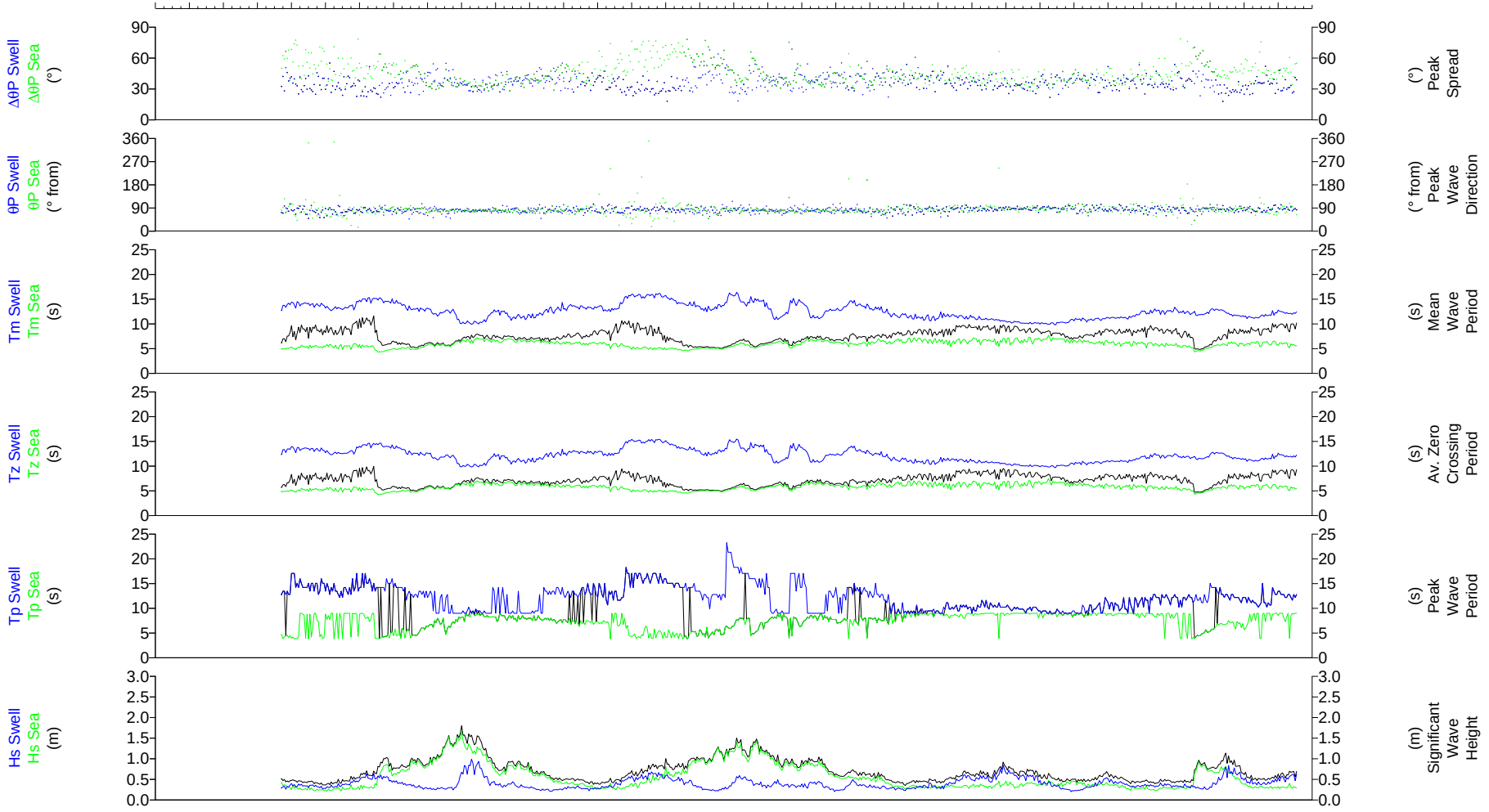
Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_current_tide.c.ext.nc
	moecovep: 10:13 13/May/2011 by jonty (covep.2836cap001_current_tide.ext.c.ps)

APPENDIX F

Directional and Non Directional Wave Data

- Deployment and monthly time history plots of H_s, T_p, T_z, T_m, θ_p and $\Delta\theta_p$ for directional waves only;
- Deployment and monthly time history plots of H_s, T_p, T_z, T_m for non-directional waves only;
- Deployment and monthly statistic tables of H_s, T_p, T_m and T_z;
- Deployment and monthly matrices of H_s vs T_p, H_s vs T_m, H_s vs T_z, H_s vs θ_p, H_s vs θ_m and T_p vs θ_p for directional waves only;
- Deployment and monthly matrices of H_s vs T_p, H_s vs T_m, H_s vs T_z for non-directional waves only;
- Deployment and monthly significant wave height exceedence tables and plots;
- Deployment and monthly significant wave height wave roses for directional waves only; and
- Deployment and monthly wave height persistence exceedence and non-exceedence tables and plots.

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s



Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_proc_cos2s_RelativePressure.nc
	moetimehist: 10:19 13/May/2011 by jonty (timehist.2836cap002_proc_cos2s.PressureRelative.deployment.c.ps)

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

Period: 17:02 15 November 2010 to 13:02 15 December 2010
Significant Wave Height (m)
Peak Wave Direction (°).

	Significant Wave Height (m)				Exceedence Percentile Significant Wave Height (m)											Main Direction(s)[2]
	Min	Max	Mean	Std. Dev	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0	(from)
Total Period [1]	0.35	1.80	0.71	0.2778	0.38	0.42	0.44	0.49	0.64	0.82	0.93	1.09	1.29	1.48	1.56	ENE E

Notes: 1) Total Period: 17:02 15 November 2010 to 13:02 15 December 2010
2) Main directions are where occurrence is greater than 15.0%.

Sample Interval: 1.00 hours.

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

Period: 17:02 15 November 2010 to 13:02 15 December 2010
Hs Sea (m)
ThetaP Sea (°).

	Hs Sea (m)				Exceedence Percentile Hs Sea (m)											Main Direction(s)[2]
	Min	Max	Mean	Std. Dev	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0	(from)
Total Period [1]	0.21	1.67	0.56	0.3079	0.23	0.26	0.28	0.32	0.41	0.69	0.84	1.00	1.20	1.35	1.42	ENE E

Notes: 1) Total Period: 17:02 15 November 2010 to 13:02 15 December 2010
2) Main directions are where occurrence is greater than 15.0%.

Sample Interval: 1.00 hours.

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

Period: 17:02 15 November 2010 to 13:02 15 December 2010
Hs Swell (m)
ThetaP Swell (°).

	Hs Swell (m)				Exceedence Percentile Hs Swell (m)											Main Direction(s)[2]
	Min	Max	Mean	Std. Dev	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0	(from)
Total Period [1]	0.20	0.99	0.40	0.1311	0.22	0.25	0.27	0.31	0.36	0.44	0.51	0.59	0.64	0.76	0.84	ENE E

Notes: 1) Total Period: 17:02 15 November 2010 to 13:02 15 December 2010
2) Main directions are where occurrence is greater than 15.0%.

Sample Interval: 1.00 hours.

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

Period: 17:02 15 November 2010 to 13:02 15 December 2010
Peak Wave Period (s)

	Peak Wave Period (s)				Exceedence Percentile Peak Wave Period (s)										
	Min	Max	Mean	Std. Dev	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0
Total Period [1]	3.82	18.29	9.98	3.2166	4.08	4.74	5.82	7.76	9.48	12.19	12.80	14.22	15.06	17.07	17.07

Notes: 1) Total Period: 17:02 15 November 2010 to 13:02 15 December 2010

Sample Interval: 1.00 hours.

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

Period: 17:02 15 November 2010 to 13:02 15 December 2010
Tp Sea (s)

	Tp Sea (s)				Exceedence Percentile Tp Sea (s)										
	Min	Max	Mean	Std. Dev	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0
Total Period [1]	3.82	9.00	7.32	1.6904	3.82	3.99	4.38	6.10	8.00	8.83	8.83	9.00	9.00	9.00	9.00

Notes: 1) Total Period: 17:02 15 November 2010 to 13:02 15 December 2010

Sample Interval: 1.00 hours.

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

Period: 17:02 15 November 2010 to 13:02 15 December 2010
Tp Swell (s)

	Tp Swell (s)				Exceedence Percentile Tp Swell (s)										
	Min	Max	Mean	Std. Dev	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0
Total Period [1]	9.00	23.27	12.17	2.5067	9.00	9.00	9.00	9.85	12.19	13.47	14.22	15.06	17.07	17.07	18.29

Notes: 1) Total Period: 17:02 15 November 2010 to 13:02 15 December 2010

Sample Interval: 1.00 hours.

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

Period: 17:02 15 November 2010 to 13:02 15 December 2010
Mean Wave Period (s)

	Mean Wave Period (s)				Exceedence Percentile Mean Wave Period (s)										
	Min	Max	Mean	Std. Dev	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0
Total Period [1]	4.82	11.64	7.69	1.3260	5.05	5.40	5.75	6.79	7.71	8.46	8.89	9.35	9.77	10.17	10.60

Notes: 1) Total Period: 17:02 15 November 2010 to 13:02 15 December 2010

Sample Interval: 1.00 hours.

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

Period: 17:02 15 November 2010 to 13:02 15 December 2010
Tm Sea (s)

	Tm Sea (s)				Exceedence Percentile Tm Sea (s)										
	Min	Max	Mean	Std. Dev	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0
Total Period [1]	4.31	7.71	5.94	0.6681	4.55	4.83	5.01	5.43	6.01	6.34	6.52	6.84	6.96	7.11	7.16

Notes: 1) Total Period: 17:02 15 November 2010 to 13:02 15 December 2010

Sample Interval: 1.00 hours.

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

Period: 17:02 15 November 2010 to 13:02 15 December 2010
Tm Swell (s)

	Tm Swell (s)				Exceedence Percentile Tm Swell (s)										
	Min	Max	Mean	Std. Dev	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0
Total Period [1]	9.81	16.38	12.59	1.5120	9.99	10.25	10.68	11.36	12.53	13.38	13.93	14.67	15.29	15.88	16.01

Notes: 1) Total Period: 17:02 15 November 2010 to 13:02 15 December 2010

Sample Interval: 1.00 hours.

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

Period: 17:02 15 November 2010 to 13:02 15 December 2010
Zero-Crossing Period (s)

	Zero-Crossing Period (s)				Exceedence Percentile Zero-Crossing Period (s)										
	Min	Max	Mean	Std. Dev	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0
Total Period [1]	4.70	9.96	7.12	1.1204	4.94	5.20	5.49	6.40	7.16	7.77	8.13	8.54	9.04	9.24	9.34

Notes: 1) Total Period: 17:02 15 November 2010 to 13:02 15 December 2010

Sample Interval: 1.00 hours.

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

Period: 17:02 15 November 2010 to 13:02 15 December 2010
Tz Sea (s)

	Tz Sea (s)				Exceedence Percentile Tz Sea (s)										
	Min	Max	Mean	Std. Dev	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0
Total Period [1]	4.25	7.50	5.77	0.6277	4.51	4.76	4.92	5.26	5.82	6.14	6.32	6.63	6.76	6.90	6.96

Notes: 1) Total Period: 17:02 15 November 2010 to 13:02 15 December 2010

Sample Interval: 1.00 hours.

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

Period: 17:02 15 November 2010 to 13:02 15 December 2010
Tz Swell (s)

	Tz Swell (s)				Exceedence Percentile Tz Swell (s)										
	Min	Max	Mean	Std. Dev	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0
Total Period [1]	9.69	15.48	12.16	1.3538	9.86	10.11	10.47	11.06	12.09	12.77	13.37	14.05	14.68	15.15	15.34

Notes: 1) Total Period: 17:02 15 November 2010 to 13:02 15 December 2010

Sample Interval: 1.00 hours.

Percentage Occurrence Matrix

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

Period: 17:02 15 November 2010 to 13:02 15 December 2010
(17:02 15 November 2010 to 13:02 15 December 2010)

Peak Wave Direction (°)

Significant Wave Height (m) => <	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total	Exceed%
0.00 - 0.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.20 - 0.40	.	.	0.28	1.26	0.70	0.28	.	.	.	.	.	.	.	.	.	.	2.51	100.00
0.40 - 0.60	.	.	0.14	12.55	28.03	1.67	.	.	.	.	.	.	.	.	.	.	42.40	97.49
0.60 - 0.80	.	.	0.14	4.74	17.29	0.28	.	.	.	0.14	.	.	.	.	.	.	22.59	55.09
0.80 - 1.00	.	.	0.14	6.28	10.88	0.14	0.14	.	.	.	.	.	.	.	.	.	17.57	32.50
1.00 - 1.20	.	.	.	2.51	5.02	.	.	.	.	.	.	.	.	.	.	.	7.53	14.92
1.20 - 1.40	.	.	.	1.12	3.49	.	.	.	.	.	.	.	.	.	.	.	4.60	7.39
1.40 - 1.60	.	.	.	0.70	1.67	.	.	.	.	.	.	.	.	.	.	.	2.37	2.79
1.60 - 1.80	.	.	.	0.28	0.14	.	.	.	.	.	.	.	.	.	.	.	0.42	0.42
1.80 - 2.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.00 - 2.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.20 - 2.40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.40 - 2.60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.60 - 2.80	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.80 - 3.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
Total			0.70	29.43	67.22	2.37	0.14			0.14							100.00	
Exceed%	100.00	100.00	100.00	99.30	69.87	2.65	0.28	0.14	0.14	0.14								

* Represents less than 0.005

Expected: 717 Matrix Total: 717 Includes: Good, None

Statistics:	Max	Min	Mean	Standard Deviation
Significant Wave Height (m)	1.80	0.35	0.71	0.2778

Peak Wave Direction (°) Direction Convention: from. Direction label is sector centre.

Sample Interval: 1.00 hours

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_proc_cos2s_RelativePressure.nc
	moematrix: 10:37 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/matrix_2836cap002.proc_cos2s.ps)

Percentage Occurrence Matrix

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

Period: 17:02 15 November 2010 to 13:02 15 December 2010
(17:02 15 November 2010 to 13:02 15 December 2010)

θP Sea (°)

Hs Sea (m) => <	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total	Exceed%
0.00 - 0.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.20 - 0.40	0.14	0.70	1.39	14.78	26.22	2.93	0.84	0.14	0.14	.	.	.	.	.	.	0.28	47.56	100.00
0.40 - 0.60	0.14	0.14	0.56	4.46	9.76	1.12	.	.	.	0.42	.	0.28	.	.	.	.	16.88	52.44
0.60 - 0.80	.	.	0.42	3.63	7.81	0.42	0.14	.	.	.	.	.	.	.	.	.	12.41	35.56
0.80 - 1.00	.	.	0.14	5.16	7.25	0.28	0.14	.	.	.	.	.	.	.	.	.	12.97	23.15
1.00 - 1.20	.	.	.	1.53	3.21	.	.	.	.	.	.	.	.	.	.	.	4.74	10.18
1.20 - 1.40	.	.	.	1.26	3.07	.	.	.	.	.	.	.	.	.	.	.	4.32	5.44
1.40 - 1.60	.	.	.	0.28	0.70	.	.	.	.	.	.	.	.	.	.	.	0.98	1.12
1.60 - 1.80	.	.	.	0.14	.	.	.	.	.	.	.	.	.	.	.	.	0.14	0.14
1.80 - 2.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.00 - 2.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.20 - 2.40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.40 - 2.60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.60 - 2.80	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.80 - 3.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
Total	0.28	0.84	2.51	31.24	58.02	4.74	1.12	0.14	0.14	0.42		0.28				0.28	100.00	
Exceed%	100.00	99.72	98.88	96.37	65.13	7.11	2.37	1.26	1.12	0.98	0.56	0.56	0.28	0.28	0.28	0.28		*

* Represents less than 0.005

Expected: 717 Matrix Total: 717 Includes: Good, None

Statistics:	Max	Min	Mean	Standard Deviation
Hs Sea (m)	1.67	0.21	0.56	0.3079

θP Sea (°) Direction Convention: from. Direction label is sector centre.

Sample Interval: 1.00 hours

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_proc_cos2s_RelativePressure.nc
	moematrix: 10:37 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/matrix_2836cap002.proc_cos2s.ps)

Percentage Occurrence Matrix

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

Period: 17:02 15 November 2010 to 13:02 15 December 2010
(17:02 15 November 2010 to 13:02 15 December 2010)

θP Swell (°)

Hs Swell (m) =>	<	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total	Exceed%
0.00 -	0.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.20 -	0.40	.	.	1.26	23.99	33.75	1.81	.	.	.	.	.	.	.	.	.	.	60.81	100.00
0.40 -	0.60	.	.	.	6.28	23.43	0.98	.	.	.	.	.	.	.	.	.	.	30.68	39.19
0.60 -	0.80	.	.	.	1.26	5.86	.	.	.	.	.	.	.	.	.	.	.	7.11	8.51
0.80 -	1.00	.	.	.	0.56	0.84	.	.	.	.	.	.	.	.	.	.	.	1.39	1.39
1.00 -	1.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
1.20 -	1.40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
1.40 -	1.60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
1.60 -	1.80	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
1.80 -	2.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.00 -	2.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.20 -	2.40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.40 -	2.60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.60 -	2.80	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.80 -	3.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
	Total			1.26	32.08	63.88	2.79											100.00	
	Exceed%	100.00	100.00	100.00	98.74	66.67	2.79												

* Represents less than 0.005

Expected: 717 Matrix Total: 717 Includes: Good, None

Statistics:	Max	Min	Mean	Standard Deviation
Hs Swell (m)	0.99	0.20	0.40	0.1311
θP Swell (°)	Direction Convention: from. Direction label is sector centre.			

Sample Interval: 1.00 hours

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_proc_cos2s_RelativePressure.nc
	moematrix: 10:37 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/matrix_2836cap002.proc_cos2s.ps)

Percentage Occurrence Matrix

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

Period: 17:02 15 November 2010 to 13:02 15 December 2010
(17:02 15 November 2010 to 13:02 15 December 2010)

Peak Wave Period (s)

Significant Wave Height (m)	0.0 to 1.0	1.0 to 2.0	2.0 to 3.0	3.0 to 4.0	4.0 to 5.0	5.0 to 6.0	6.0 to 7.0	7.0 to 8.0	8.0 to 9.0	9.0 to 10.0	10.0 to 11.0	11.0 to 12.0	12.0 to 13.0	13.0 to 14.0	14.0 to 15.0	15.0 to 16.0	16.0 to 17.0	17.0 to 18.0	18.0 to 19.0	19.0 to 20.0	Total	Exceed%
0.00 - 0.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.20 - 0.40	.	.	.	.	.	.	.	0.14	0.28	.	0.14	.	0.42	0.70	0.14	0.70	.	.	.	.	2.51	100.00
0.40 - 0.60	.	.	.	.	0.14	.	0.84	4.04	5.02	8.37	4.18	4.46	6.97	2.79	2.37	1.67	0.70	0.70	0.14	.	42.40	97.49
0.60 - 0.80	.	.	.	0.28	0.42	1.12	0.42	2.93	2.65	2.51	3.35	1.39	1.81	0.28	1.95	1.53	0.70	1.26	.	.	22.59	55.09
0.80 - 1.00	.	.	.	0.42	2.23	1.95	1.26	1.67	4.60	.	0.56	0.28	1.53	.	1.12	0.98	0.42	0.56	.	.	17.57	32.50
1.00 - 1.20	.	.	.	.	1.95	0.98	0.98	0.84	2.09	.	.	.	0.42	.	.	.	0.14	0.14	.	.	7.53	14.92
1.20 - 1.40	.	.	.	.	0.42	0.98	0.84	1.12	1.12	0.14	.	.	.	.	.	.	.	.	.	.	4.60	7.39
1.40 - 1.60	.	.	.	.	0.14	0.28	0.14	0.42	0.70	0.70	.	.	.	.	.	.	.	.	.	.	2.37	2.79
1.60 - 1.80	.	.	.	.	.	.	.	.	0.42	.	.	.	.	.	.	.	.	.	.	.	0.42	0.42
1.80 - 2.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.00 - 2.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.20 - 2.40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.40 - 2.60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.60 - 2.80	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.80 - 3.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
Total				0.70	5.30	5.30	4.46	11.16	16.88	11.72	8.23	6.14	11.16	3.77	5.58	4.88	1.95	2.65	0.14		100.00	
Exceed%	100.00	100.00	100.00	100.00	99.30	94.00	88.70	84.24	73.08	56.21	44.49	36.26	30.13	18.97	15.20	9.62	4.74	2.79	0.14			

* Represents less than 0.005

Expected: 717

Matrix Total: 717

Includes: Good, None

Statistics:	Max	Min	Mean	Standard Deviation
Peak Wave Period (s)	18.29	3.82	9.98	3.2166
Significant Wave Height (m)	1.80	0.35	0.71	0.2778

Sample Interval: 1.00 hours

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_proc_cos2s_RelativePressure.nc
	moematrix: 10:37 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/matrix_2836cap002.proc_cos2s.ps)

Percentage Occurrence Matrix

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

Period: 17:02 15 November 2010 to 13:02 15 December 2010
(17:02 15 November 2010 to 13:02 15 December 2010)

Tp Sea (s)

Hs Sea (m) =>	<	0.0 to 1.0	1.0 to 2.0	2.0 to 3.0	3.0 to 4.0	4.0 to 5.0	5.0 to 6.0	6.0 to 7.0	7.0 to 8.0	8.0 to 9.0	9.0 to 10.0	10.0 to 11.0	11.0 to 12.0	12.0 to 13.0	13.0 to 14.0	14.0 to 15.0	15.0 to 16.0	16.0 to 17.0	17.0 to 18.0	18.0 to 19.0	19.0 to 20.0	Total	Exceed%
0.00 - 0.20		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.20 - 0.40		.	.	.	2.65	3.07	0.70	2.51	4.88	15.62	18.13	.	.	.	.	.	.	.	.	.	.	47.56	100.00
0.40 - 0.60		.	.	.	1.26	1.39	1.39	1.53	5.30	5.02	0.98	.	.	.	.	.	.	.	.	.	.	16.88	52.44
0.60 - 0.80		.	.	.	0.98	2.23	2.37	1.39	2.65	2.79	.	.	.	.	.	.	.	.	.	.	.	12.41	35.56
0.80 - 1.00		.	.	.	0.14	3.91	1.39	1.39	1.39	4.74	.	.	.	.	.	.	.	.	.	.	.	12.97	23.15
1.00 - 1.20		.	.	.	.	0.42	0.70	1.26	0.98	1.26	0.14	.	.	.	.	.	.	.	.	.	.	4.74	10.18
1.20 - 1.40		.	.	.	.	0.56	0.70	0.56	0.98	1.26	0.28	.	.	.	.	.	.	.	.	.	.	4.32	5.44
1.40 - 1.60		.	.	.	.	.	0.28	0.14	0.14	0.42	.	.	.	.	.	.	.	.	.	.	.	0.98	1.12
1.60 - 1.80		.	.	.	.	.	.	.	.	0.14	.	.	.	.	.	.	.	.	.	.	.	0.14	0.14
1.80 - 2.00		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.00 - 2.20		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.20 - 2.40		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.40 - 2.60		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.60 - 2.80		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.80 - 3.00		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
Total					5.02	11.58	7.53	8.79	16.32	31.24	19.53											100.00	
Exceed%		100.00	100.00	100.00	100.00	94.98	83.40	75.87	67.09	50.77	19.53												*

* Represents less than 0.005 | Expected: 717 | Matrix Total: 717 | Includes: Good, None

Statistics:	Max	Min	Mean	Standard Deviation
Tp Sea (s)	9.00	3.82	7.32	1.6904
Hs Sea (m)	1.67	0.21	0.56	0.3079

Sample Interval: 1.00 hours

Time Zone: UTC +08:00 hours | Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_proc_cos2s_RelativePressure.nc

 | moematrix: 10:37 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/matrix_2836cap002.proc_cos2s.ps)

Percentage Occurrence Matrix

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

Period: 17:02 15 November 2010 to 13:02 15 December 2010
(17:02 15 November 2010 to 13:02 15 December 2010)

Tp Swell (s)

Hs Swell (m) =>	<	0.0 to 1.0	1.0 to 2.0	2.0 to 3.0	3.0 to 4.0	4.0 to 5.0	5.0 to 6.0	6.0 to 7.0	7.0 to 8.0	8.0 to 9.0	9.0 to 10.0	10.0 to 11.0	11.0 to 12.0	12.0 to 13.0	13.0 to 14.0	14.0 to 15.0	15.0 to 16.0	16.0 to 17.0	17.0 to 18.0	18.0 to 19.0	19.0 to 20.0	Total	Exceed%
0.00	0.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.20	0.40	.	.	.	.	.	.	.	.	.	17.95	3.23	5.33	16.27	6.73	5.61	3.09	0.98	1.40	.	.	60.59	100.00
0.40	0.60	.	.	.	.	.	.	.	.	.	7.15	3.93	2.38	3.51	1.82	4.35	2.38	1.82	2.52	0.84	0.14	30.86	39.41
0.60	0.80	.	.	.	.	.	.	.	.	.	1.82	1.54	0.56	1.40	.	0.14	0.70	0.56	0.42	.	.	7.15	8.56
0.80	1.00	.	.	.	.	.	.	.	.	.	0.98	0.28	.	0.14	.	.	.	.	.	.	.	1.40	1.40
1.00	1.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
1.20	1.40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
1.40	1.60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
1.60	1.80	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
1.80	2.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.00	2.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.20	2.40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.40	2.60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.60	2.80	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.80	3.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
Total											27.91	8.98	8.27	21.32	8.56	10.10	6.17	3.37	4.35	0.84	0.14	100.00	
Exceed%		100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	72.09	63.11	54.84	33.52	24.96	14.87	8.70	5.33	0.98	0.14		

* Represents less than 0.005 | Expected: 717 | Matrix Total: 713 | Includes: Good, None

Statistics:	Max	Min	Mean	Standard Deviation
Tp Swell (s)	23.27	9.00	12.17	2.5067
Hs Swell (m)	0.99	0.20	0.40	0.1311

Sample Interval: 1.00 hours

Time Zone: UTC +08:00 hours | Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_proc_cos2s_RelativePressure.nc

 | moematrix: 10:37 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/matrix_2836cap002.proc_cos2s.ps)

Percentage Occurrence Matrix

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

Period: 17:02 15 November 2010 to 13:02 15 December 2010
(17:02 15 November 2010 to 13:02 15 December 2010)

Mean Wave Period (s)

Significant Wave Height (m)	0.0 to 1.0	1.0 to 2.0	2.0 to 3.0	3.0 to 4.0	4.0 to 5.0	5.0 to 6.0	6.0 to 7.0	7.0 to 8.0	8.0 to 9.0	9.0 to 10.0	10.0 to 11.0	11.0 to 12.0	12.0 to 13.0	13.0 to 14.0	14.0 to 15.0	15.0 to 16.0	16.0 to 17.0	17.0 to 18.0	18.0 to 19.0	19.0 to 20.0	Total	Exceed%
0.00 - 0.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.20 - 0.40	.	.	.	.	.	.	.	0.56	1.53	0.42	.	.	.	.	.	.	.	.	.	.	2.51	100.00
0.40 - 0.60	.	.	.	.	.	.	2.51	14.50	17.29	6.42	1.53	0.14	.	.	.	.	.	.	.	.	42.40	97.49
0.60 - 0.80	.	.	.	.	0.14	1.26	3.91	4.88	5.86	5.16	0.98	0.42	.	.	.	.	.	.	.	.	22.59	55.09
0.80 - 1.00	.	.	.	.	0.70	4.88	5.02	4.32	1.67	0.98	.	.	.	.	.	.	.	.	.	.	17.57	32.50
1.00 - 1.20	.	.	.	.	.	4.04	2.65	0.70	0.14	.	.	.	.	.	.	.	.	.	.	.	7.53	14.92
1.20 - 1.40	.	.	.	.	.	2.51	1.12	0.98	.	.	.	.	.	.	.	.	.	.	.	.	4.60	7.39
1.40 - 1.60	.	.	.	.	.	0.56	0.70	1.12	.	.	.	.	.	.	.	.	.	.	.	.	2.37	2.79
1.60 - 1.80	.	.	.	.	.	.	0.28	0.14	.	.	.	.	.	.	.	.	.	.	.	.	0.42	0.42
1.80 - 2.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.00 - 2.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.20 - 2.40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.40 - 2.60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.60 - 2.80	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.80 - 3.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
Total					0.84	13.25	16.18	27.20	26.50	12.97	2.51	0.56									100.00	
Exceed%	100.00	100.00	100.00	100.00	100.00	99.16	85.91	69.74	42.54	16.04	3.07	0.56	*	*	*	*	*	*	*	*		

* Represents less than 0.005

Expected: 717

Matrix Total: 717

Includes: Good, None

Statistics:	Max	Min	Mean	Standard Deviation
Mean Wave Period (s)	11.64	4.82	7.69	1.3260
Significant Wave Height (m)	1.80	0.35	0.71	0.2778

Sample Interval: 1.00 hours

Time Zone: UTC +08:00 hours

Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_proc_cos2s_RelativePressure.nc

moematrix: 10:37 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/matrix_2836cap002.proc_cos2s.ps)

Percentage Occurrence Matrix

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

Period: 17:02 15 November 2010 to 13:02 15 December 2010
(17:02 15 November 2010 to 13:02 15 December 2010)

Tm Sea (s)

Hs Sea (m) =>	<	0.0 to 1.0	1.0 to 2.0	2.0 to 3.0	3.0 to 4.0	4.0 to 5.0	5.0 to 6.0	6.0 to 7.0	7.0 to 8.0	8.0 to 9.0	9.0 to 10.0	10.0 to 11.0	11.0 to 12.0	12.0 to 13.0	13.0 to 14.0	14.0 to 15.0	15.0 to 16.0	16.0 to 17.0	17.0 to 18.0	18.0 to 19.0	19.0 to 20.0	Total	Exceed%
0.00 - 0.20		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.20 - 0.40		.	.	.	.	1.26	19.80	23.71	2.79	.	.	.	.	.	.	.	.	.	.	.	.	47.56	100.00
0.40 - 0.60		.	.	.	.	1.26	5.72	9.21	0.70	.	.	.	.	.	.	.	.	.	.	.	.	16.88	52.44
0.60 - 0.80		.	.	.	.	3.07	4.32	5.02	.	.	.	.	.	.	.	.	.	.	.	.	.	12.41	35.56
0.80 - 1.00		.	.	.	.	3.35	4.46	4.88	0.28	.	.	.	.	.	.	.	.	.	.	.	.	12.97	23.15
1.00 - 1.20		.	.	.	.	0.42	2.79	1.53	.	.	.	.	.	.	.	.	.	.	.	.	.	4.74	10.18
1.20 - 1.40		.	.	.	.	.	2.51	1.67	0.14	.	.	.	.	.	.	.	.	.	.	.	.	4.32	5.44
1.40 - 1.60		.	.	.	.	.	0.42	0.56	.	.	.	.	.	.	.	.	.	.	.	.	.	0.98	1.12
1.60 - 1.80		.	.	.	.	.	.	0.14	.	.	.	.	.	.	.	.	.	.	.	.	.	0.14	0.14
1.80 - 2.00		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.00 - 2.20		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.20 - 2.40		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.40 - 2.60		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.60 - 2.80		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.80 - 3.00		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
Total						9.34	40.03	46.72	3.91													100.00	
Exceed%		100.00	100.00	100.00	100.00	100.00	90.66	50.63	3.91														*

* Represents less than 0.005 | Expected: 717 | Matrix Total: 717 | Includes: Good, None

Statistics:	Max	Min	Mean	Standard Deviation
Tm Sea (s)	7.71	4.31	5.94	0.6681
Hs Sea (m)	1.67	0.21	0.56	0.3079

Sample Interval: 1.00 hours

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_proc_cos2s_RelativePressure.nc
	moematrix: 10:37 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/matrix_2836cap002.proc_cos2s.ps)

Percentage Occurrence Matrix

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

Period: 17:02 15 November 2010 to 13:02 15 December 2010
(17:02 15 November 2010 to 13:02 15 December 2010)

Tm Swell (s)

Hs Swell (m) =>	<	0.0 to 1.0	1.0 to 2.0	2.0 to 3.0	3.0 to 4.0	4.0 to 5.0	5.0 to 6.0	6.0 to 7.0	7.0 to 8.0	8.0 to 9.0	9.0 to 10.0	10.0 to 11.0	11.0 to 12.0	12.0 to 13.0	13.0 to 14.0	14.0 to 15.0	15.0 to 16.0	16.0 to 17.0	17.0 to 18.0	18.0 to 19.0	19.0 to 20.0	Total	Exceed%
0.00	0.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.20	0.40	.	.	.	.	.	.	.	.	.	0.42	5.02	13.95	18.69	16.46	5.44	0.70	0.14	.	.	.	60.81	100.00
0.40	0.60	.	.	.	.	.	.	.	.	.	0.42	5.02	8.79	3.63	1.67	5.72	4.74	0.70	.	.	.	30.68	39.19
0.60	0.80	.	.	.	.	.	.	.	.	.	.	3.35	1.39	0.56	.	0.14	1.39	0.28	.	.	.	7.11	8.51
0.80	1.00	.	.	.	.	.	.	.	.	.	0.28	0.98	.	0.14	.	.	.	.	.	.	.	1.39	1.39
1.00	1.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
1.20	1.40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
1.40	1.60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
1.60	1.80	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
1.80	2.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.00	2.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.20	2.40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.40	2.60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.60	2.80	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.80	3.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
Total											1.12	14.37	24.13	23.01	18.13	11.30	6.83	1.12				100.00	
Exceed%		100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	98.88	84.52	60.39	37.38	19.25	7.95	1.12	*	*	*		

* Represents less than 0.005 | Expected: 717 | Matrix Total: 717 | Includes: Good, None

Statistics:	Max	Min	Mean	Standard Deviation
Tm Swell (s)	16.38	9.81	12.59	1.5120
Hs Swell (m)	0.99	0.20	0.40	0.1311

Sample Interval: 1.00 hours

Time Zone: UTC +08:00 hours | Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_proc_cos2s_RelativePressure.nc

 | moematrix: 10:37 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/matrix_2836cap002.proc_cos2s.ps)

Percentage Occurrence Matrix

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

Period: 17:02 15 November 2010 to 13:02 15 December 2010
(17:02 15 November 2010 to 13:02 15 December 2010)

Zero-Crossing Period (s)

Significant Wave Height (m) => <	0.0 to 1.0	1.0 to 2.0	2.0 to 3.0	3.0 to 4.0	4.0 to 5.0	5.0 to 6.0	6.0 to 7.0	7.0 to 8.0	8.0 to 9.0	9.0 to 10.0	10.0 to 11.0	11.0 to 12.0	12.0 to 13.0	13.0 to 14.0	14.0 to 15.0	15.0 to 16.0	16.0 to 17.0	17.0 to 18.0	18.0 to 19.0	19.0 to 20.0	Total	Exceed%
0.00 - 0.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.20 - 0.40	.	.	.	.	.	.	0.28	1.81	0.42	.	.	.	.	.	.	.	.	.	.	.	2.51	100.00
0.40 - 0.60	.	.	.	.	.	0.28	9.90	19.53	10.60	2.09	.	.	.	.	.	.	.	.	.	.	42.40	97.49
0.60 - 0.80	.	.	.	.	0.28	2.37	6.83	4.46	5.72	2.93	.	.	.	.	.	.	.	.	.	.	22.59	55.09
0.80 - 1.00	.	.	.	.	0.84	6.69	5.44	3.49	0.56	0.56	.	.	.	.	.	.	.	.	.	.	17.57	32.50
1.00 - 1.20	.	.	.	.	0.28	4.32	2.37	0.42	0.14	.	.	.	.	.	.	.	.	.	.	.	7.53	14.92
1.20 - 1.40	.	.	.	.	.	2.93	0.84	0.84	.	.	.	.	.	.	.	.	.	.	.	.	4.60	7.39
1.40 - 1.60	.	.	.	.	.	0.56	1.12	0.70	.	.	.	.	.	.	.	.	.	.	.	.	2.37	2.79
1.60 - 1.80	.	.	.	.	.	.	0.28	0.14	.	.	.	.	.	.	.	.	.	.	.	.	0.42	0.42
1.80 - 2.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.00 - 2.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.20 - 2.40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.40 - 2.60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.60 - 2.80	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.80 - 3.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
Total					1.39	17.15	27.06	31.38	17.43	5.58											100.00	
Exceed%	100.00	100.00	100.00	100.00	100.00	98.61	81.45	54.39	23.01	5.58												

* Represents less than 0.005 | Expected: 717 | Matrix Total: 717 | Includes: Good, None

Statistics:	Max	Min	Mean	Standard Deviation
Zero-Crossing Period (s)	9.96	4.70	7.12	1.1204
Significant Wave Height (m)	1.80	0.35	0.71	0.2778

Sample Interval: 1.00 hours

Time Zone: UTC +08:00 hours
Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_proc_cos2s_RelativePressure.nc

moematrix: 10:37 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/matrix_2836cap002.proc_cos2s.ps)

Percentage Occurrence Matrix

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

Period: 17:02 15 November 2010 to 13:02 15 December 2010
(17:02 15 November 2010 to 13:02 15 December 2010)

Tz Sea (s)

Hs Sea (m) => / <	0.0 to 1.0	1.0 to 2.0	2.0 to 3.0	3.0 to 4.0	4.0 to 5.0	5.0 to 6.0	6.0 to 7.0	7.0 to 8.0	8.0 to 9.0	9.0 to 10.0	10.0 to 11.0	11.0 to 12.0	12.0 to 13.0	13.0 to 14.0	14.0 to 15.0	15.0 to 16.0	16.0 to 17.0	17.0 to 18.0	18.0 to 19.0	19.0 to 20.0	Total	Exceed%
0.00 - 0.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.20 - 0.40	.	.	.	.	2.93	25.38	19.11	0.14	.	.	.	.	.	.	.	.	.	.	.	.	47.56	100.00
0.40 - 0.60	.	.	.	.	2.09	6.83	7.53	0.42	.	.	.	.	.	.	.	.	.	.	.	.	16.88	52.44
0.60 - 0.80	.	.	.	.	3.77	4.04	4.60	.	.	.	.	.	.	.	.	.	.	.	.	.	12.41	35.56
0.80 - 1.00	.	.	.	.	4.18	4.32	4.46	.	.	.	.	.	.	.	.	.	.	.	.	.	12.97	23.15
1.00 - 1.20	.	.	.	.	0.56	3.35	0.84	.	.	.	.	.	.	.	.	.	.	.	.	.	4.74	10.18
1.20 - 1.40	.	.	.	.	.	2.79	1.39	0.14	.	.	.	.	.	.	.	.	.	.	.	.	4.32	5.44
1.40 - 1.60	.	.	.	.	.	0.56	0.42	.	.	.	.	.	.	.	.	.	.	.	.	.	0.98	1.12
1.60 - 1.80	.	.	.	.	.	.	0.14	.	.	.	.	.	.	.	.	.	.	.	.	.	0.14	0.14
1.80 - 2.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.00 - 2.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.20 - 2.40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.40 - 2.60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.60 - 2.80	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.80 - 3.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
Total					13.53	47.28	38.49	0.70													100.00	
Exceed%	100.00	100.00	100.00	100.00	100.00	86.47	39.19	0.70														*

* Represents less than 0.005 | Expected: 717 | Matrix Total: 717 | Includes: Good, None

Statistics:	Max	Min	Mean	Standard Deviation
Tz Sea (s)	7.50	4.25	5.77	0.6277
Hs Sea (m)	1.67	0.21	0.56	0.3079

Sample Interval: 1.00 hours

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_proc_cos2s_RelativePressure.nc
	moematrix: 10:37 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/matrix_2836cap002.proc_cos2s.ps)

Percentage Occurrence Matrix

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

Period: 17:02 15 November 2010 to 13:02 15 December 2010
(17:02 15 November 2010 to 13:02 15 December 2010)

Tz Swell (s)

Hs Swell (m) =>	<	0.0 to 1.0	1.0 to 2.0	2.0 to 3.0	3.0 to 4.0	4.0 to 5.0	5.0 to 6.0	6.0 to 7.0	7.0 to 8.0	8.0 to 9.0	9.0 to 10.0	10.0 to 11.0	11.0 to 12.0	12.0 to 13.0	13.0 to 14.0	14.0 to 15.0	15.0 to 16.0	16.0 to 17.0	17.0 to 18.0	18.0 to 19.0	19.0 to 20.0	Total	Exceed%
0.00 - 0.20		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.20 - 0.40		.	.	.	.	.	.	.	.	.	0.56	8.79	17.57	22.45	10.04	1.26	0.14	.	.	.	.	60.81	100.00
0.40 - 0.60		.	.	.	.	.	.	.	.	.	0.98	8.23	6.28	2.79	5.16	5.30	1.95	.	.	.	.	30.68	39.19
0.60 - 0.80		.	.	.	.	.	.	.	.	.	0.42	3.07	1.26	0.56	.	0.84	0.98	.	.	.	.	7.11	8.51
0.80 - 1.00		.	.	.	.	.	.	.	.	.	0.70	0.56	.	0.14	.	.	.	.	.	.	.	1.39	1.39
1.00 - 1.20		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
1.20 - 1.40		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
1.40 - 1.60		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
1.60 - 1.80		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
1.80 - 2.00		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.00 - 2.20		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.20 - 2.40		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.40 - 2.60		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.60 - 2.80		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
2.80 - 3.00		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
Total											2.65	20.64	25.10	25.94	15.20	7.39	3.07					100.00	
Exceed%		100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	97.35	76.71	51.60	25.66	10.46	3.07						

* Represents less than 0.005 | Expected: 717 | Matrix Total: 717 | Includes: Good, None

Statistics:	Max	Min	Mean	Standard Deviation
Tz Swell (s)	15.48	9.69	12.16	1.3538
Hs Swell (m)	0.99	0.20	0.40	0.1311

Sample Interval: 1.00 hours

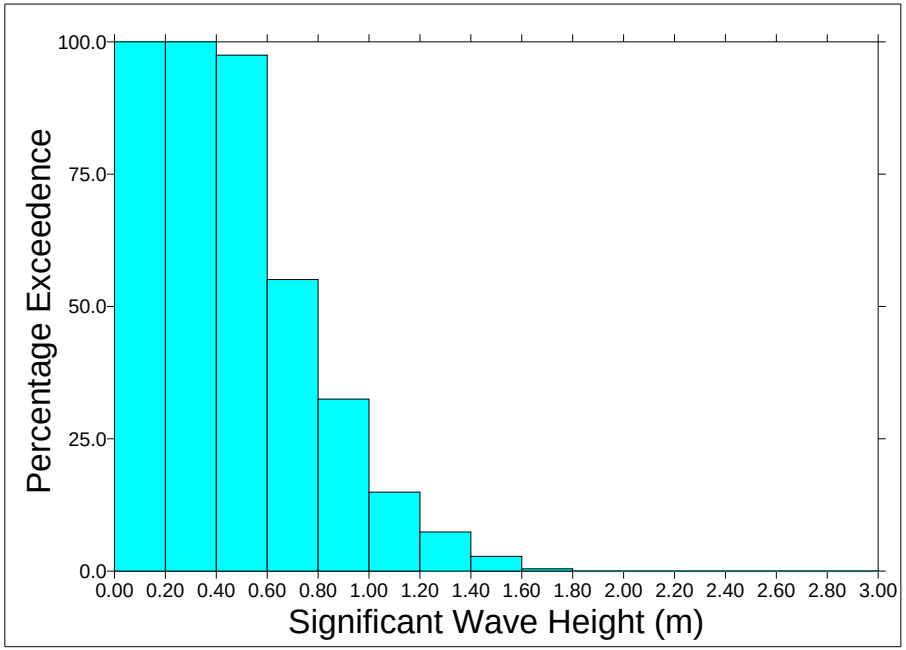
Time Zone: UTC +08:00 hours | Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_proc_cos2s_RelativePressure.nc

 | moematrix: 10:37 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/matrix_2836cap002.proc_cos2s.ps)

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

Period: 17:02 15 November 2010 to 13:02 15 December 2010
(17:02 15 November 2010 to 13:02 15 December 2010)
Significant Wave Height (m).

Exceedence Plot



Exceedence Table

>=	Exceedence	% Exceedence
0.00	717	100.00
0.20	717	100.00
0.40	699	97.49
0.60	395	55.09
0.80	233	32.50
1.00	107	14.92
1.20	53	7.39
1.40	20	2.79
1.60	3	0.42
1.80	0	0.00
2.00	0	0.00
2.20	0	0.00
2.40	0	0.00
2.60	0	0.00
2.80	0	0.00
3.00	0	0.00

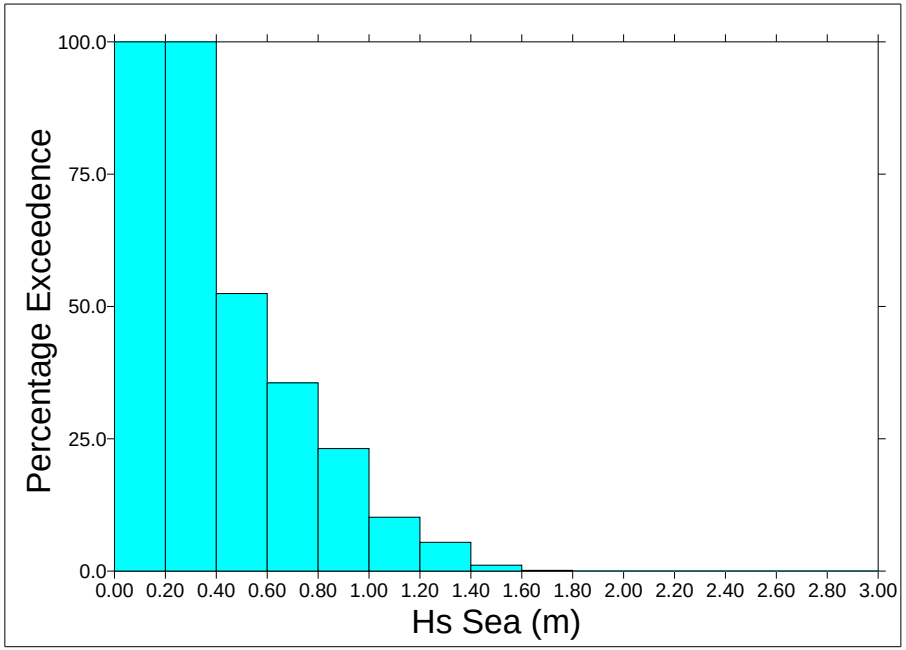
Exceedence Percentiles: 99.00 = 0.38 98.00 = 0.39 95.00 = 0.42 90.00 = 0.44 80.00 = 0.47 50.00 = 0.64
20.00 = 0.93 10.00 = 1.09 5.00 = 1.29 2.00 = 1.48 1.00 = 1.56

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_proc_cos2s_RelativePressure.nc
	moematrix: 10:37 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/exceedence_2836cap002.proc_cos2s.ps)

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

Period: 17:02 15 November 2010 to 13:02 15 December 2010
(17:02 15 November 2010 to 13:02 15 December 2010)
Hs Sea (m).

Exceedence Plot



Exceedence Table

>=	Exceedence	% Exceedence
0.00	717	100.00
0.20	717	100.00
0.40	376	52.44
0.60	255	35.56
0.80	166	23.15
1.00	73	10.18
1.20	39	5.44
1.40	8	1.12
1.60	1	0.14
1.80	0	0.00
2.00	0	0.00
2.20	0	0.00
2.40	0	0.00
2.60	0	0.00
2.80	0	0.00
3.00	0	0.00

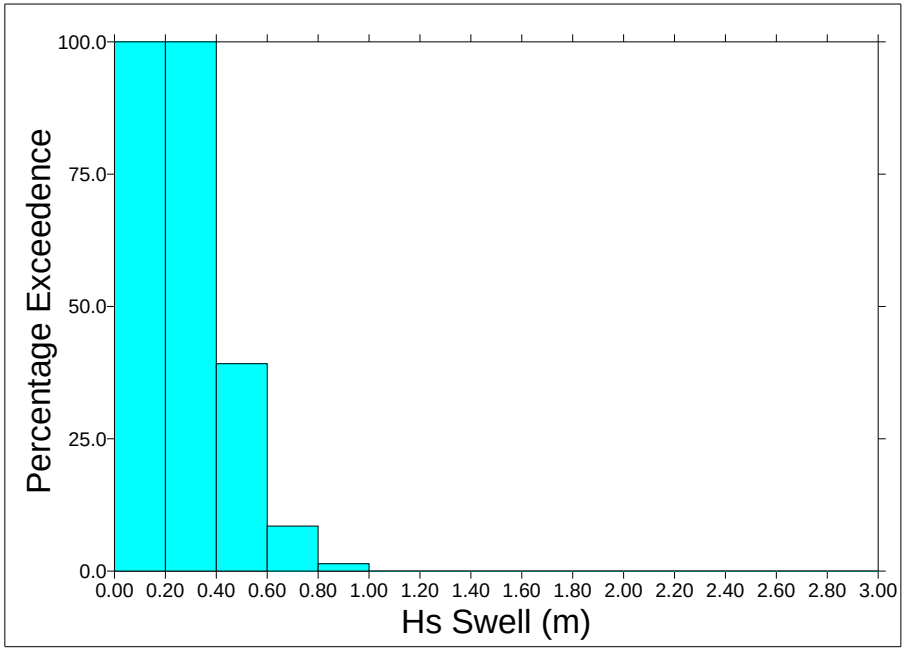
Exceedence Percentiles: 99.00 = 0.23 98.00 = 0.24 95.00 = 0.26 90.00 = 0.28 80.00 = 0.31 50.00 = 0.41
20.00 = 0.84 10.00 = 1.00 5.00 = 1.20 2.00 = 1.35 1.00 = 1.42

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_proc_cos2s_RelativePressure.nc
	moematrix: 10:37 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/exceedence_2836cap002.proc_cos2s.ps)

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

Period: 17:02 15 November 2010 to 13:02 15 December 2010
(17:02 15 November 2010 to 13:02 15 December 2010)
Hs Swell (m).

Exceedence Plot



Exceedence Table

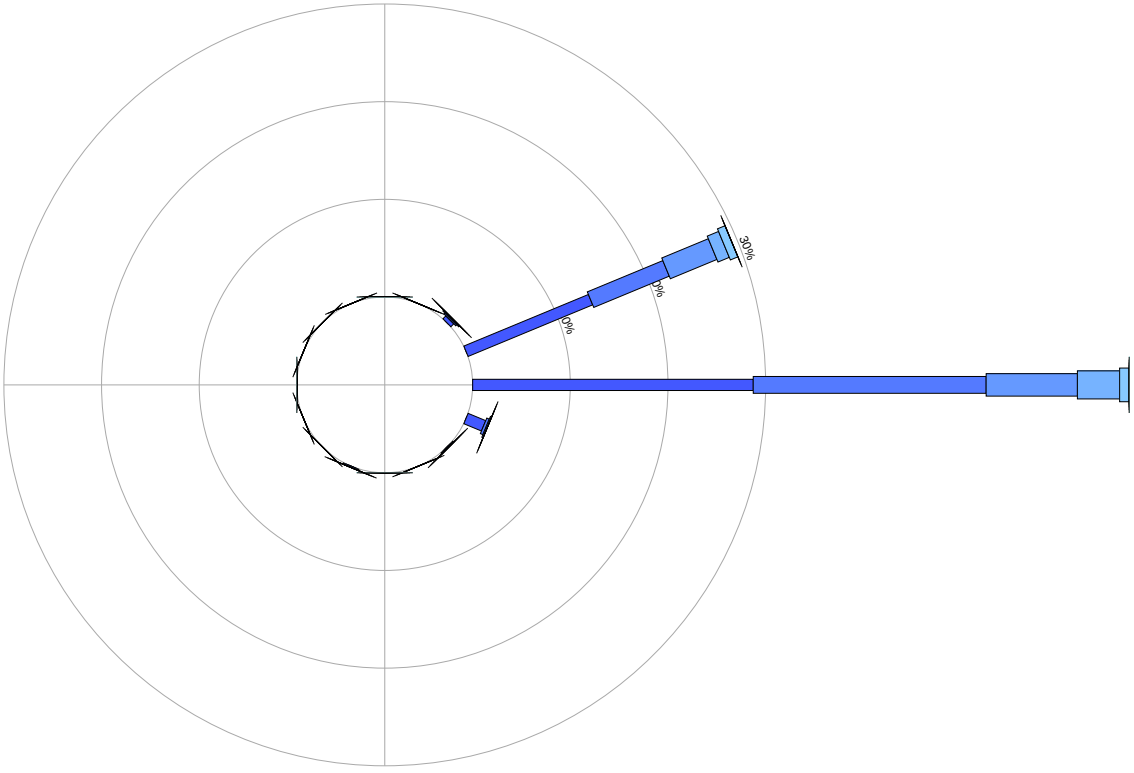
>=	Exceedence	% Exceedence
0.00	717	100.00
0.20	717	100.00
0.40	281	39.19
0.60	61	8.51
0.80	10	1.39
1.00	0	0.00
1.20	0	0.00
1.40	0	0.00
1.60	0	0.00
1.80	0	0.00
2.00	0	0.00
2.20	0	0.00
2.40	0	0.00
2.60	0	0.00
2.80	0	0.00
3.00	0	0.00

Exceedence Percentiles: 99.00 = 0.22 98.00 = 0.23 95.00 = 0.25 90.00 = 0.27 80.00 = 0.29 50.00 = 0.36
20.00 = 0.51 10.00 = 0.59 5.00 = 0.64 2.00 = 0.76 1.00 = 0.84

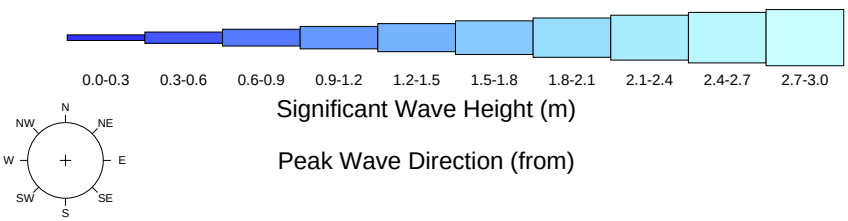
Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_proc_cos2s_RelativePressure.nc
	moematrix: 10:37 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/exceedence_2836cap002.proc_cos2s.ps)

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

Deployment
17:02 15 November 2010 to 13:02 15 December 2010



Deployment



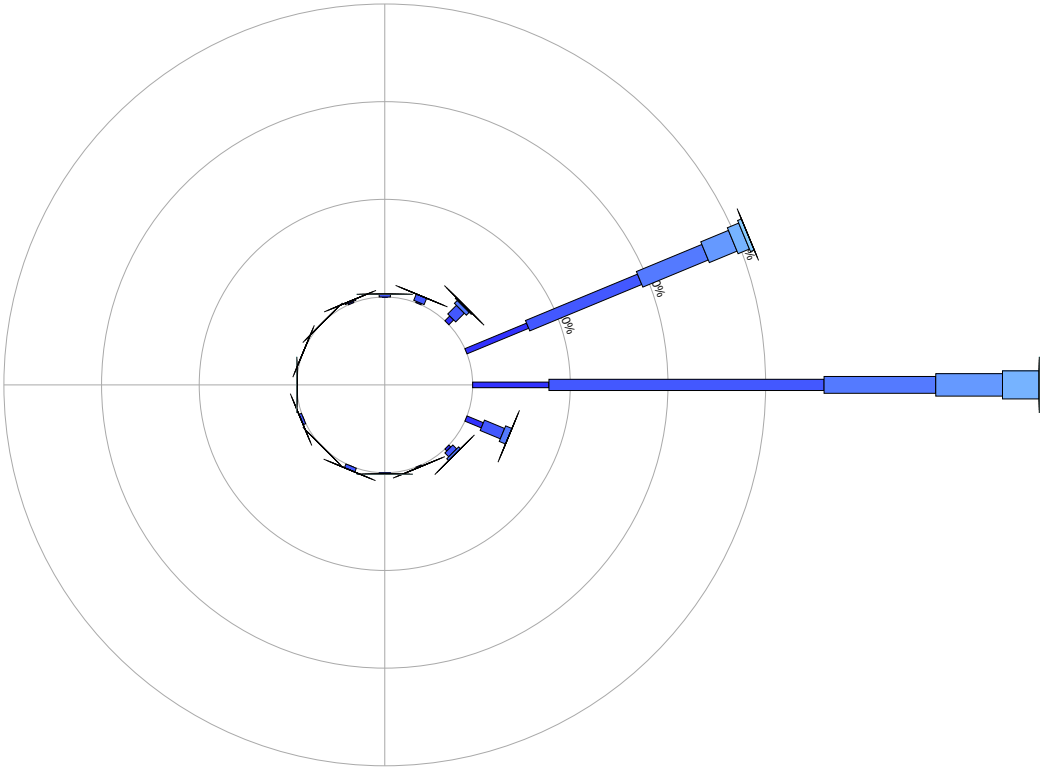
Instruments:

Data Quality: good **Total Records:** 717

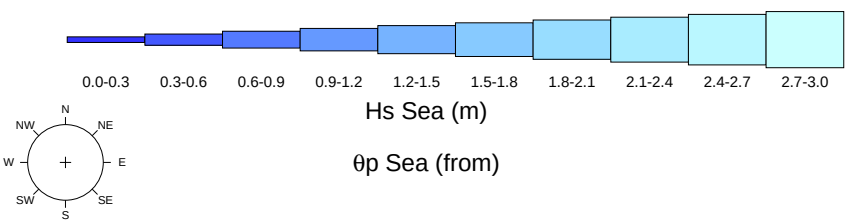
Time Zone: UTC +08:00 hours	Data Source: ...jobs/J2836/measured/awac/dec10/2836cap002_proc_cos2s_RelativePressure.nc
	moerose: 10:42 13/May/2011 by jonty (rose.2836cap002_proc_cos2s.ps)

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

Deployment
17:02 15 November 2010 to 13:02 15 December 2010



Deployment



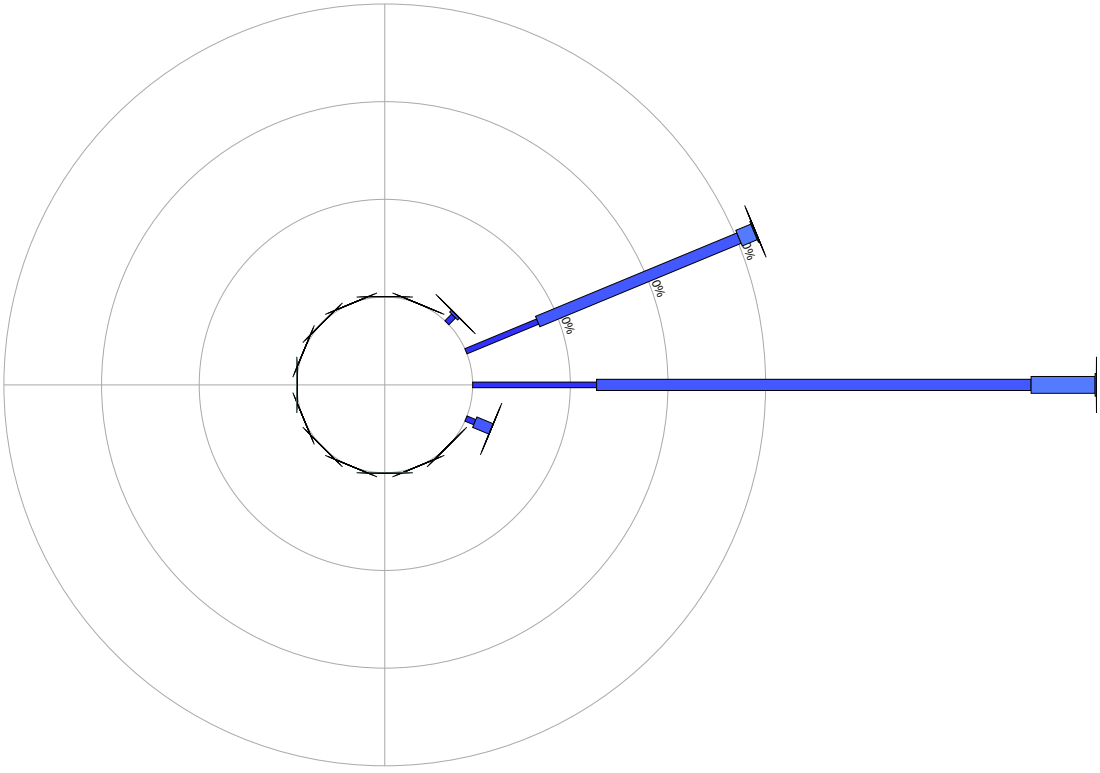
Instruments:

Data Quality: good **Total Records:** 717

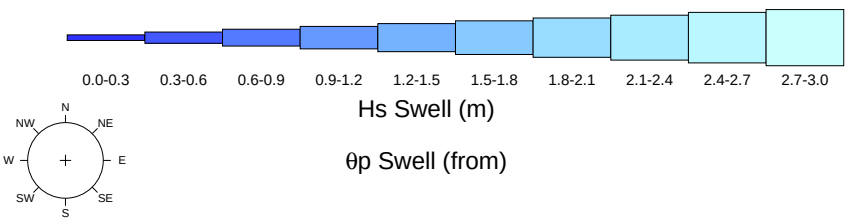
Time Zone: UTC +08:00 hours	Data Source: ...jobs/J2836/measured/awac/dec10/2836cap002_proc_cos2s_RelativePressure.nc
	moerose: 10:42 13/May/2011 by jonty (rose.2836cap002_proc_cos2s.ps)

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

Deployment
17:02 15 November 2010 to 13:02 15 December 2010



Deployment



Instruments:

Data Quality: good **Total Records:** 717

Time Zone: UTC +08:00 hours	Data Source: ...jobs/J2836/measured/awac/dec10/2836cap002_proc_cos2s_RelativePressure.nc
	moerose: 10:42 13/May/2011 by jonty (rose.2836cap002_proc_cos2s.ps)

Persistence Exceedence

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

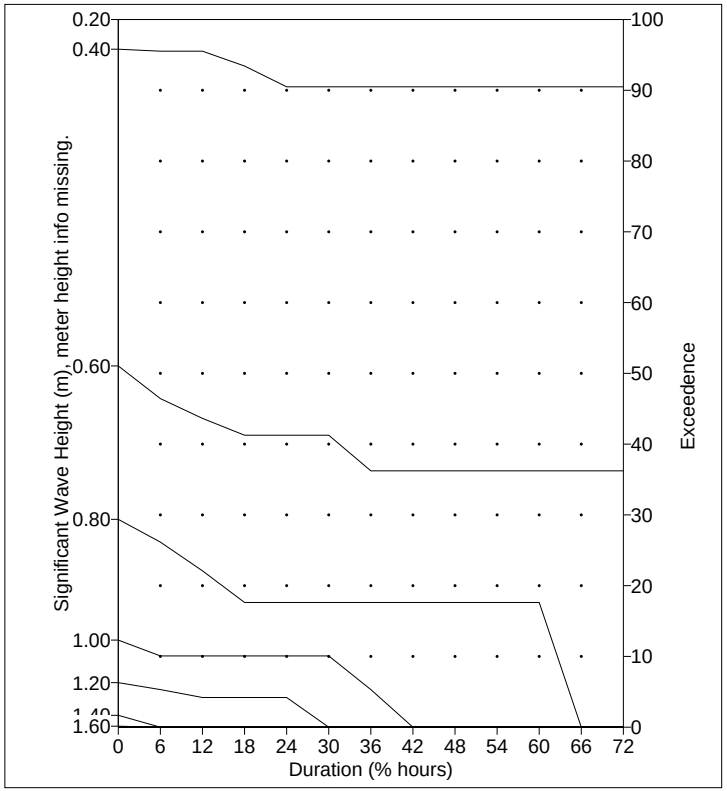
Period: 17:02 15 November 2010 to 13:02 15 December 2010
(17:02 15 November 2010 to 13:02 15 December 2010)

Exceedence

Duration (% hours)

Significant Wave Height (m), meter height info missing.

	> 0	> 6	> 12	> 18	> 24	> 30	> 36	> 42	> 48	> 54	> 60	> 66	> 72	Total Occ.(h)
>= 0.00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	715.0
>= 0.20	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	715.0
>= 0.40	95.8	95.5	95.5	93.4	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	685.0
>= 0.60	51.0	46.4	43.6	41.3	41.3	41.3	36.2	36.2	36.2	36.2	36.2	36.2	36.2	365.0
>= 0.80	29.4	26.2	22.1	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6			210.0
>= 1.00	12.3	10.1	10.1	10.1	10.1	10.1	5.3							88.0
>= 1.20	6.3	5.3	4.2	4.2	4.2									45.0
>= 1.40	1.7													12.0
>= 1.60	0.1													1.0
>= 1.80														
>= 2.00														
>= 2.20														
>= 2.40														
>= 2.60														
>= 2.80														



expected record interval: 3600 seconds
* denotes values less than 0.1

Persistence Non-Exceedence

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

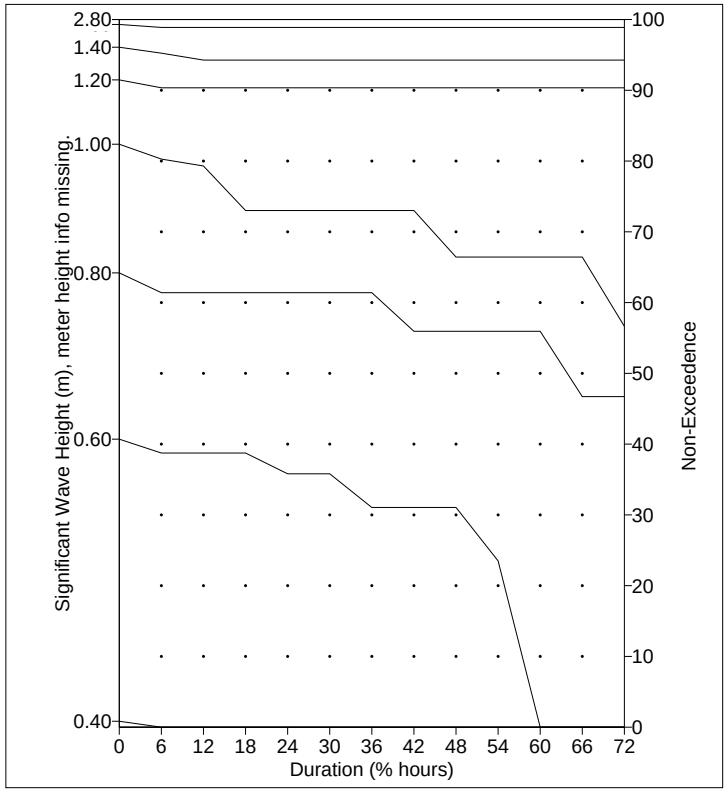
Period: 17:02 15 November 2010 to 13:02 15 December 2010
(17:02 15 November 2010 to 13:02 15 December 2010)

Non-Exceedence

Duration (% hours)

Significant Wave Height (m), meter height info missing.

	> 0	> 6	> 12	> 18	> 24	> 30	> 36	> 42	> 48	> 54	> 60	> 66	> 72	Total Occ.(h)
< 2.80	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	715.0
< 2.60	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	715.0
< 2.40	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	715.0
< 2.20	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	715.0
< 2.00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	715.0
< 1.80	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	715.0
< 1.60	99.3	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	710.0
< 1.40	96.1	95.2	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	687.0
< 1.20	91.5	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	654.0
< 1.00	82.4	80.3	79.3	73.0	73.0	73.0	73.0	73.0	66.4	66.4	66.4	66.4	56.6	589.0
< 0.80	64.2	61.4	61.4	61.4	61.4	61.4	61.4	55.9	55.9	55.9	55.9	46.7	46.7	459.0
< 0.60	40.7	38.7	38.7	38.7	35.8	35.8	31.0	31.0	31.0	23.5				291.0
< 0.40	0.8													6.0
< 0.20														
< 0.00														



expected record interval: 3600 seconds
* denotes values less than 0.1

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_proc_cos2s_RelativePressure.nc
	moepersist: 10:48 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/persist_2836cap002_proc_cos2s.ps)

Persistence Exceedence

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

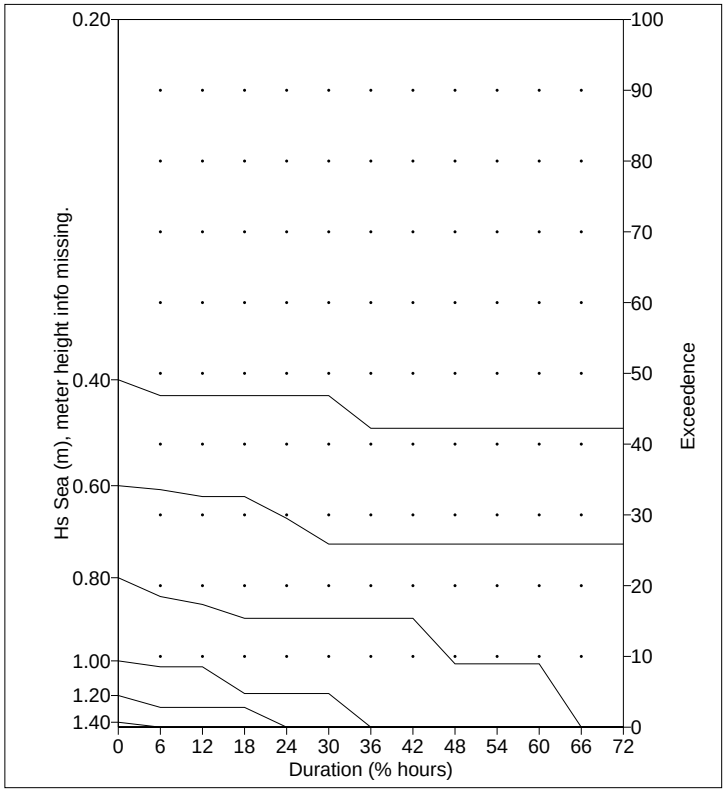
Period: 17:02 15 November 2010 to 13:02 15 December 2010
(17:02 15 November 2010 to 13:02 15 December 2010)

Exceedence

Duration (% hours)

Hs Sea (m), meter height info missing.

	> 0	> 6	> 12	> 18	> 24	> 30	> 36	> 42	> 48	> 54	> 60	> 66	> 72	Total Occ.(h)
>= 0.00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	715.0
>= 0.20	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	715.0
>= 0.40	49.1	46.9	46.9	46.9	46.9	46.9	42.2	42.2	42.2	42.2	42.2	42.2	42.2	351.0
>= 0.60	34.1	33.6	32.6	32.6	29.5	25.9	25.9	25.9	25.9	25.9	25.9	25.9	25.9	244.0
>= 0.80	21.1	18.5	17.3	15.4	15.4	15.4	15.4	15.4	9.0	9.0	9.0			151.0
>= 1.00	9.4	8.5	8.5	4.8	4.8	4.8								67.0
>= 1.20	4.5	2.8	2.8	2.8										32.0
>= 1.40	0.7													5.0
>= 1.60														
>= 1.80														
>= 2.00														
>= 2.20														
>= 2.40														
>= 2.60														
>= 2.80														



expected record interval: 3600 seconds
* denotes values less than 0.1

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_proc_cos2s_RelativePressure.nc
	moepersist: 10:48 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/persist_2836cap002_proc_cos2s.ps)

Persistence Non-Exceedence

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

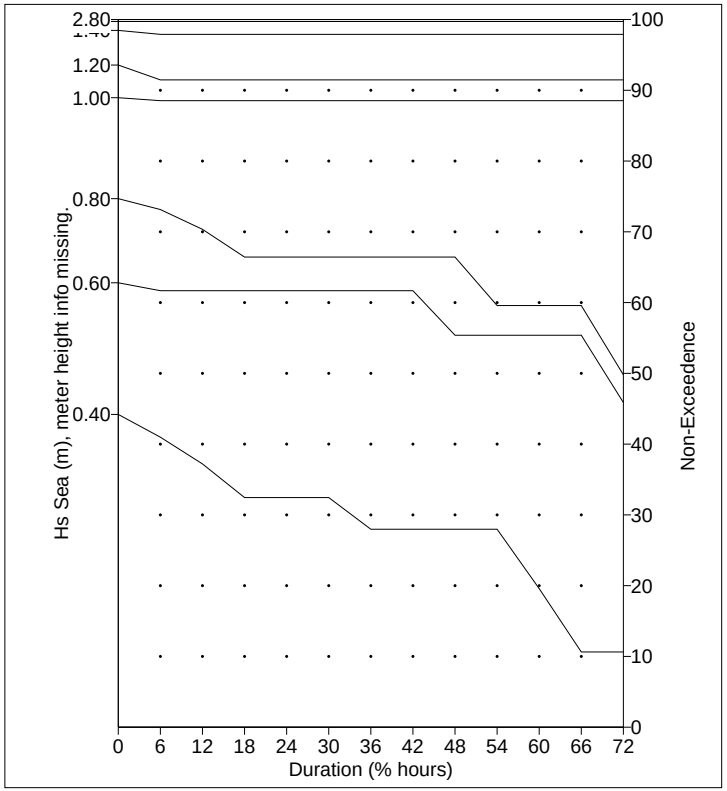
Period: 17:02 15 November 2010 to 13:02 15 December 2010
(17:02 15 November 2010 to 13:02 15 December 2010)

Non-Exceedence

Duration (% hours)

Hs Sea (m), meter height info missing.

	> 0	> 6	> 12	> 18	> 24	> 30	> 36	> 42	> 48	> 54	> 60	> 66	> 72	Total Occ.(h)
< 2.80	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	715.0
< 2.60	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	715.0
< 2.40	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	715.0
< 2.20	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	715.0
< 2.00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	715.0
< 1.80	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	715.0
< 1.60	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	713.0
< 1.40	98.5	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	704.0
< 1.20	93.6	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	669.0
< 1.00	89.0	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	636.0
< 0.80	74.7	73.1	70.3	66.4	66.4	66.4	66.4	66.4	66.4	59.6	59.6	59.6	49.8	534.0
< 0.60	62.8	61.7	61.7	61.7	61.7	61.7	61.7	61.7	55.4	55.4	55.4	55.4	45.9	449.0
< 0.40	44.2	41.0	37.2	32.4	32.4	32.4	28.0	28.0	28.0	28.0	19.6	10.6	10.6	316.0
< 0.20														
< 0.00														



expected record interval: 3600 seconds
* denotes values less than 0.1

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_proc_cos2s_RelativePressure.nc
	moepersist: 10:48 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/persist_2836cap002_proc_cos2s.ps)

Persistence Exceedence

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

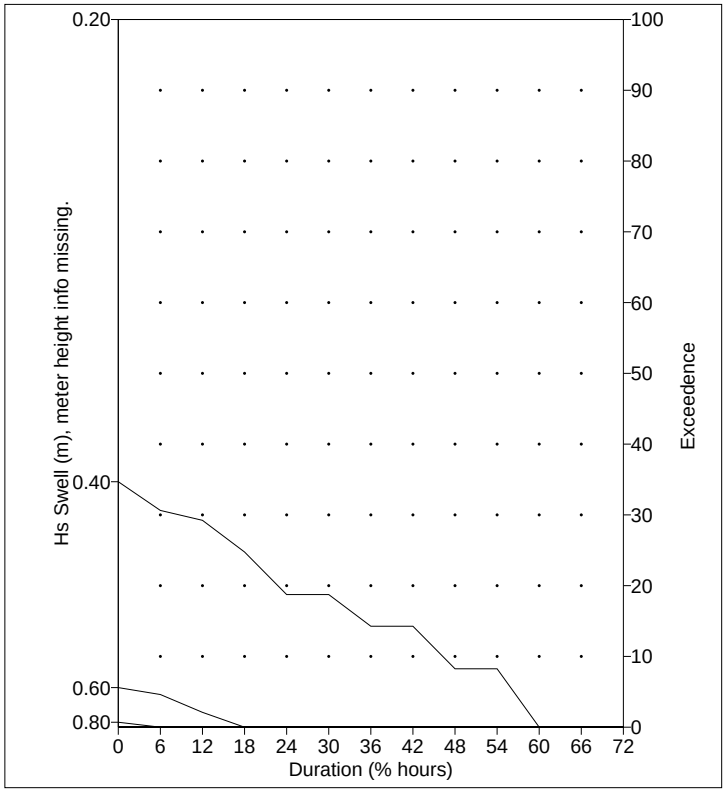
Period: 17:02 15 November 2010 to 13:02 15 December 2010
(17:02 15 November 2010 to 13:02 15 December 2010)

Exceedence

Duration (% hours)

Hs Swell (m), meter height info missing.

	> 0	> 6	> 12	> 18	> 24	> 30	> 36	> 42	> 48	> 54	> 60	> 66	> 72	Total Occ.(h)
>= 0.00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	715.0
>= 0.20	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	715.0
>= 0.40	34.7	30.6	29.2	24.8	18.7	18.7	14.3	14.3	8.3	8.3				248.0
>= 0.60	5.6	4.6	2.1											40.0
>= 0.80	0.7													5.0
>= 1.00														
>= 1.20														
>= 1.40														
>= 1.60														
>= 1.80														
>= 2.00														
>= 2.20														
>= 2.40														
>= 2.60														
>= 2.80														



expected record interval: 3600 seconds
* denotes values less than 0.1

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_proc_cos2s_RelativePressure.nc
	moepersist: 10:48 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/persist_2836cap002_proc_cos2s.ps)

Persistence Non-Exceedence

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL	Sea/Swell:	9.0 s

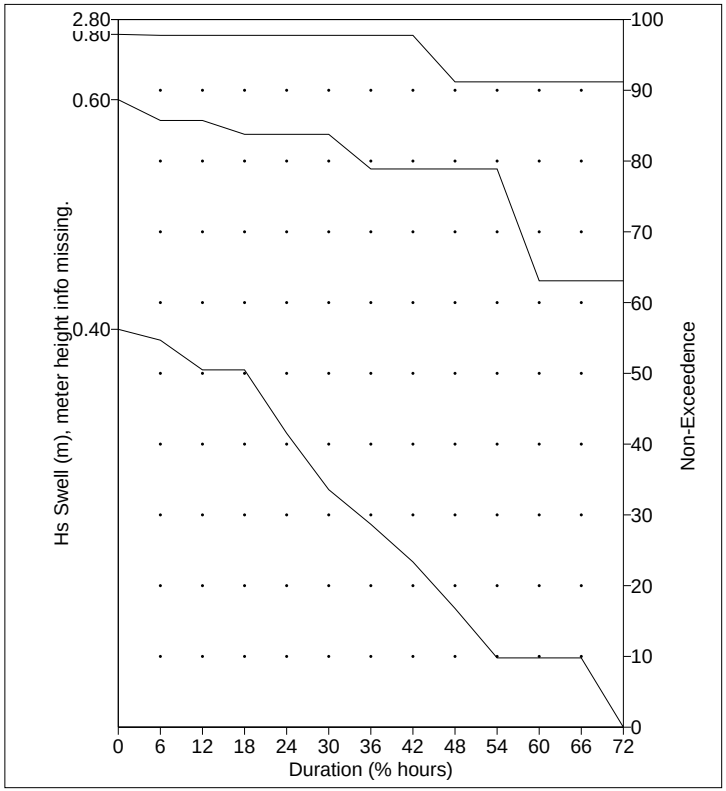
Period: 17:02 15 November 2010 to 13:02 15 December 2010
(17:02 15 November 2010 to 13:02 15 December 2010)

Non-Exceedence

Duration (% hours)

Hs Swell (m), meter height info missing.

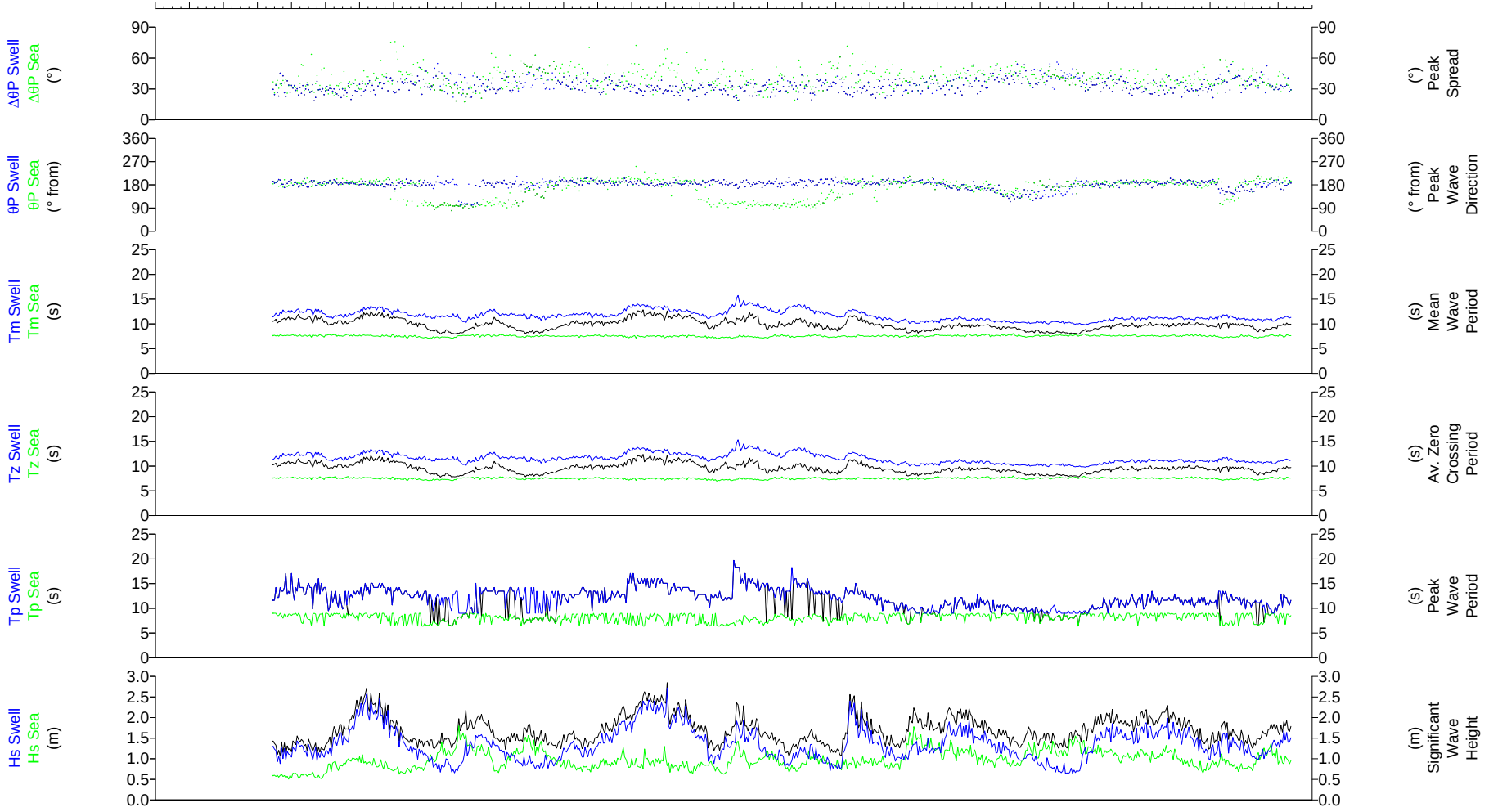
	> 0	> 6	> 12	> 18	> 24	> 30	> 36	> 42	> 48	> 54	> 60	> 66	> 72	Total Occ.(h)
< 2.80	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	715.0
< 2.60	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	715.0
< 2.40	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	715.0
< 2.20	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	715.0
< 2.00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	715.0
< 1.80	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	715.0
< 1.60	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	715.0
< 1.40	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	715.0
< 1.20	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	715.0
< 1.00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	715.0
< 0.80	97.9	97.8	97.8	97.8	97.8	97.8	97.8	97.8	91.2	91.2	91.2	91.2	91.2	700.0
< 0.60	88.7	85.7	85.7	83.8	83.8	83.8	78.9	78.9	78.9	78.9	63.1	63.1	63.1	634.0
< 0.40	56.2	54.7	50.5	50.5	41.5	33.6	28.7	23.4	16.8	9.8	9.8	9.8		402.0
< 0.20														
< 0.00														



expected record interval: 3600 seconds
* denotes values less than 0.1

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap002_proc_cos2s_RelativePressure.nc
© RPS MetOcean Pty Ltd	moepersist: 10:48 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/persist_2836cap002_proc_cos2s.ps)

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s



Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_proc_cos2s_RelativePressure.nc
	moetimehist: 10:18 13/May/2011 by jonty (timehist.2836cap001_proc_cos2s.PressureRelative.deployment.c.ps)

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

Period: 11:02 15 November 2010 to 09:02 15 December 2010
Significant Wave Height (m)
Peak Wave Direction (°).

	Significant Wave Height (m)				Exceedence Percentile Significant Wave Height (m)											Main Direction(s)[2]
	Min	Max	Mean	Std. Dev	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0	(from)
Total Period [1]	1.05	2.85	1.70	0.3309	1.14	1.25	1.32	1.43	1.66	1.85	1.97	2.16	2.33	2.49	2.56	S SSW

Notes: 1) Total Period: 11:02 15 November 2010 to 09:02 15 December 2010
2) Main directions are where occurrence is greater than 15.0%.

Sample Interval: 1.00 hours.

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

Period: 11:02 15 November 2010 to 09:02 15 December 2010
Hs Sea (m)
ThetaP Sea (°).

	Hs Sea (m)				Exceedence Percentile Hs Sea (m)											Main Direction(s)[2]
	Min	Max	Mean	Std. Dev	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0	(from)
Total Period [1]	0.51	1.80	0.98	0.2241	0.54	0.64	0.71	0.82	0.95	1.08	1.17	1.28	1.39	1.50	1.56	S SSW

Notes: 1) Total Period: 11:02 15 November 2010 to 09:02 15 December 2010
2) Main directions are where occurrence is greater than 15.0%.

Sample Interval: 1.00 hours.

Location:	**Cape Riche Offshore**		
Latitude:	34° 36’ 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47’ 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

Period: 11:02 15 November 2010 to 09:02 15 December 2010
Hs Swell (m)
ThetaP Swell (°).

	Hs Swell (m)				Exceedence Percentile Hs Swell (m)											Main Direction(s)[2]
	Min	Max	Mean	Std. Dev	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0	(from)
Total Period [1]	0.63	2.72	1.35	0.3900	0.67	0.79	0.89	1.07	1.30	1.52	1.65	1.89	2.09	2.31	2.40	S SSW

Notes: 1) Total Period: 11:02 15 November 2010 to 09:02 15 December 2010
2) Main directions are where occurrence is greater than 15.0%.

Sample Interval: 1.00 hours.

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

Period: 11:02 15 November 2010 to 09:02 15 December 2010
Peak Wave Period (s)

	Peak Wave Period (s)				Exceedence Percentile Peak Wave Period (s)										
	Min	Max	Mean	Std. Dev	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0
Total Period [1]	6.40	19.69	11.67	2.3950	6.74	7.53	8.26	9.85	11.64	12.80	13.47	14.22	15.06	16.00	17.07

Notes: 1) Total Period: 11:02 15 November 2010 to 09:02 15 December 2010

Sample Interval: 1.00 hours.

Location:	**Cape Riche Offshore**		
Latitude:	34° 36’ 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47’ 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

Period: 11:02 15 November 2010 to 09:02 15 December 2010
Tp Sea (s)

	Tp Sea (s)				Exceedence Percentile Tp Sea (s)										
	Min	Max	Mean	Std. Dev	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0
Total Period [1]	6.40	9.00	8.13	0.8164	6.40	6.56	6.74	7.53	8.26	8.83	9.00	9.00	9.00	9.00	9.00

Notes: 1) Total Period: 11:02 15 November 2010 to 09:02 15 December 2010

Sample Interval: 1.00 hours.

Location:	**Cape Riche Offshore**		
Latitude:	34° 36’ 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47’ 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

Period: 11:02 15 November 2010 to 09:02 15 December 2010
Tp Swell (s)

	Tp Swell (s)				Exceedence Percentile Tp Swell (s)										
	Min	Max	Mean	Std. Dev	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0
Total Period [1]	9.00	19.69	12.14	1.9679	9.00	9.00	9.48	10.67	12.19	13.47	13.47	14.22	15.06	16.00	17.07

Notes: 1) Total Period: 11:02 15 November 2010 to 09:02 15 December 2010

Sample Interval: 1.00 hours.

Location:	**Cape Riche Offshore**		
Latitude:	34° 36’ 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47’ 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

Period: 11:02 15 November 2010 to 09:02 15 December 2010
Mean Wave Period (s)

	Mean Wave Period (s)				Exceedence Percentile Mean Wave Period (s)										
	Min	Max	Mean	Std. Dev	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0
Total Period [1]	7.90	12.87	9.88	1.0630	8.04	8.25	8.49	9.10	9.80	10.28	10.81	11.45	11.84	12.19	12.41

Notes: 1) Total Period: 11:02 15 November 2010 to 09:02 15 December 2010

Sample Interval: 1.00 hours.

Location:	**Cape Riche Offshore**		
Latitude:	34° 36’ 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47’ 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

Period: 11:02 15 November 2010 to 09:02 15 December 2010
Tm Sea (s)

	Tm Sea (s)				Exceedence Percentile Tm Sea (s)										
	Min	Max	Mean	Std. Dev	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0
Total Period [1]	6.98	8.07	7.55	0.1765	7.13	7.24	7.31	7.43	7.57	7.65	7.70	7.76	7.81	7.86	7.92

Notes: 1) Total Period: 11:02 15 November 2010 to 09:02 15 December 2010

Sample Interval: 1.00 hours.

Location:	**Cape Riche Offshore**		
Latitude:	34° 36’ 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47’ 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

Period: 11:02 15 November 2010 to 09:02 15 December 2010
Tm Swell (s)

	Tm Swell (s)				Exceedence Percentile Tm Swell (s)										
	Min	Max	Mean	Std. Dev	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0
Total Period [1]	9.82	15.76	11.69	1.0234	9.98	10.23	10.43	10.97	11.53	12.14	12.56	13.22	13.61	13.89	14.15

Notes: 1) Total Period: 11:02 15 November 2010 to 09:02 15 December 2010

Sample Interval: 1.00 hours.

Location:	**Cape Riche Offshore**		
Latitude:	34° 36’ 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47’ 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

Period: 11:02 15 November 2010 to 09:02 15 December 2010
Zero-Crossing Period (s)

	Zero-Crossing Period (s)				Exceedence Percentile Zero-Crossing Period (s)										
	Min	Max	Mean	Std. Dev	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0
Total Period [1]	7.78	12.38	9.58	0.9635	7.89	8.11	8.32	8.88	9.52	9.92	10.36	11.01	11.38	11.67	11.96

Notes: 1) Total Period: 11:02 15 November 2010 to 09:02 15 December 2010

Sample Interval: 1.00 hours.

Location:	**Cape Riche Offshore**		
Latitude:	34° 36’ 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47’ 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

Period: 11:02 15 November 2010 to 09:02 15 December 2010
Tz Sea (s)

	Tz Sea (s)				Exceedence Percentile Tz Sea (s)										
	Min	Max	Mean	Std. Dev	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0
Total Period [1]	6.96	8.03	7.51	0.1746	7.10	7.20	7.27	7.39	7.53	7.61	7.66	7.72	7.77	7.83	7.88

Notes: 1) Total Period: 11:02 15 November 2010 to 09:02 15 December 2010

Sample Interval: 1.00 hours.

Location:	**Cape Riche Offshore**		
Latitude:	34° 36’ 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47’ 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

Period: 11:02 15 November 2010 to 09:02 15 December 2010
Tz Swell (s)

	Tz Swell (s)				Exceedence Percentile Tz Swell (s)										
	Min	Max	Mean	Std. Dev	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0
Total Period [1]	9.79	15.33	11.55	0.9690	9.91	10.17	10.34	10.89	11.42	12.00	12.39	12.98	13.36	13.65	13.93

Notes: 1) Total Period: 11:02 15 November 2010 to 09:02 15 December 2010

Sample Interval: 1.00 hours.

Percentage Occurrence Matrix

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

Period: 11:02 15 November 2010 to 09:02 15 December 2010
(11:02 15 November 2010 to 09:02 15 December 2010)

Peak Wave Direction (°)

Significant Wave Height (m) => <	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total	Exceed%
0.00 - 0.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.20 - 0.40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.40 - 0.60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.60 - 0.80	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.80 - 1.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
1.00 - 1.20	.	.	.	.	.	0.28	0.14	0.14	0.97	1.39	.	.	.	.	.	.	2.92	100.00
1.20 - 1.40	.	.	.	.	1.25	0.42	0.97	1.53	7.65	5.42	.	.	.	.	.	.	17.25	97.08
1.40 - 1.60	.	.	.	.	0.97	1.53	1.81	2.09	12.38	5.15	.	.	.	.	.	.	23.92	79.83
1.60 - 1.80	.	.	.	.	0.42	0.56	0.97	2.50	11.68	5.01	.	.	.	.	.	.	21.14	55.91
1.80 - 2.00	.	.	.	.	0.56	0.28	0.14	1.95	11.27	2.78	.	.	.	.	.	.	16.97	34.77
2.00 - 2.20	.	.	.	.	.	0.42	.	0.97	6.12	1.67	.	.	.	.	.	.	9.18	17.80
2.20 - 2.40	.	.	.	.	.	.	.	0.14	4.31	1.11	.	.	.	.	.	.	5.56	8.62
2.40 - 2.60	.	.	.	.	.	.	.	.	2.36	0.28	.	.	.	.	.	.	2.64	3.06
2.60 - 2.80	.	.	.	.	.	.	.	.	0.28	.	.	.	.	.	.	.	0.28	0.42
2.80 - 3.00	.	.	.	.	.	.	.	.	0.14	.	.	.	.	.	.	.	0.14	0.14
Total					3.20	3.48	4.03	9.32	57.16	22.81							100.00	
Exceed%	100.00	100.00	100.00	100.00	100.00	96.80	93.32	89.29	79.97	22.81	*	*	*	*	*	*		*

* Represents less than 0.005

Expected: 719 Matrix Total: 719 Includes: Good, None

Statistics:	Max	Min	Mean	Standard Deviation
Significant Wave Height (m)	2.85	1.05	1.70	0.3309

Peak Wave Direction (°) Direction Convention: from. Direction label is sector centre.

Sample Interval: 1.00 hours

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_proc_cos2s_RelativePressure.nc
	moematrix: 10:32 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/matrix_2836cap001.proc_cos2s.ps)

Percentage Occurrence Matrix

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

Period: 11:02 15 November 2010 to 09:02 15 December 2010
(11:02 15 November 2010 to 09:02 15 December 2010)

θP Sea (°)

Hs Sea (m) => <	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total	Exceed%
0.00 - 0.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.20 - 0.40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.40 - 0.60	.	.	.	.	.	.	.	.	2.36	0.70	.	.	.	.	.	.	3.06	100.00
0.60 - 0.80	.	.	.	.	0.97	3.34	0.83	1.11	6.12	5.56	.	.	.	.	.	.	17.94	96.94
0.80 - 1.00	.	.	.	.	3.20	4.87	2.50	3.34	11.27	11.96	0.28	.	.	.	.	.	37.41	79.00
1.00 - 1.20	.	.	.	.	3.06	3.62	1.39	2.50	8.48	5.70	.	0.14	.	.	.	.	24.90	41.59
1.20 - 1.40	.	.	.	.	0.70	1.95	0.42	0.83	5.42	2.50	0.14	.	.	.	.	.	11.96	16.69
1.40 - 1.60	.	.	.	.	0.42	0.42	0.28	0.70	1.39	0.83	.	.	.	.	.	.	4.03	4.73
1.60 - 1.80	.	.	.	.	0.28	.	.	.	0.14	0.28	.	.	.	.	.	.	0.70	0.70
1.80 - 2.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.00 - 2.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.20 - 2.40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.40 - 2.60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.60 - 2.80	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.80 - 3.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
Total					8.62	14.19	5.42	8.48	35.19	27.54	0.42	0.14					100.00	
Exceed%	100.00	100.00	100.00	100.00	100.00	91.38	77.19	71.77	63.28	28.09	0.56	0.14	*	*	*	*		*

* Represents less than 0.005

Expected: 719 Matrix Total: 719 Includes: Good, None

Statistics:	Max	Min	Mean	Standard Deviation
Hs Sea (m)	1.80	0.51	0.98	0.2241

θP Sea (°) Direction Convention: from. Direction label is sector centre.

Sample Interval: 1.00 hours

Time Zone: UTC +08:00 hours

Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_proc_cos2s_RelativePressure.nc

moematrix: 10:32 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/matrix_2836cap001.proc_cos2s.ps)

Percentage Occurrence Matrix

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

Period: 11:02 15 November 2010 to 09:02 15 December 2010
(11:02 15 November 2010 to 09:02 15 December 2010)

θP Swell (°)

Hs Swell (m) => <	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total	Exceed%
0.00 - 0.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.20 - 0.40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.40 - 0.60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.60 - 0.80	.	.	.	.	.	.	0.97	0.97	2.23	1.39	.	.	.	.	.	.	5.56	100.00
0.80 - 1.00	.	.	.	.	.	0.56	1.11	0.70	5.84	4.31	.	.	.	.	.	.	12.52	94.44
1.00 - 1.20	.	.	.	.	.	0.56	1.25	2.23	11.68	6.40	.	.	.	.	.	.	22.11	81.92
1.20 - 1.40	.	.	.	.	0.14	0.28	0.83	1.53	11.96	4.59	.	.	.	.	.	.	19.33	59.81
1.40 - 1.60	.	.	.	.	.	0.56	.	2.36	11.40	3.20	.	.	.	.	.	.	17.52	40.47
1.60 - 1.80	.	.	.	.	.	.	0.14	0.97	6.82	1.95	.	.	.	.	.	.	9.87	22.95
1.80 - 2.00	.	.	.	.	.	.	.	0.42	4.03	1.53	.	.	.	.	.	.	5.98	13.07
2.00 - 2.20	.	.	.	.	.	.	.	.	3.20	0.42	.	.	.	.	.	.	3.62	7.09
2.20 - 2.40	.	.	.	.	.	.	.	.	2.23	0.28	.	.	.	.	.	.	2.50	3.48
2.40 - 2.60	.	.	.	.	.	.	.	.	0.70	0.14	.	.	.	.	.	.	0.83	0.97
2.60 - 2.80	.	.	.	.	.	.	.	.	0.14	.	.	.	.	.	.	.	0.14	0.14
2.80 - 3.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
Total					0.14	1.95	4.31	9.18	60.22	24.20							100.00	
Exceed%	100.00	100.00	100.00	100.00	100.00	99.86	97.91	93.60	84.42	24.20	*	*	*	*	*	*		*

* Represents less than 0.005

Expected: 719 Matrix Total: 719 Includes: Good, None

Statistics:	Max	Min	Mean	Standard Deviation
Hs Swell (m)	2.72	0.63	1.35	0.3900

θP Swell (°) Direction Convention: from. Direction label is sector centre.

Sample Interval: 1.00 hours

Time Zone: UTC +08:00 hours
Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_proc_cos2s_RelativePressure.nc

moematrix: 10:32 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/matrix_2836cap001.proc_cos2s.ps)

Percentage Occurrence Matrix

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

Period: 11:02 15 November 2010 to 09:02 15 December 2010
(11:02 15 November 2010 to 09:02 15 December 2010)

Peak Wave Period (s)

Significant Wave Height (m) => <	0.0 to 1.0	1.0 to 2.0	2.0 to 3.0	3.0 to 4.0	4.0 to 5.0	5.0 to 6.0	6.0 to 7.0	7.0 to 8.0	8.0 to 9.0	9.0 to 10.0	10.0 to 11.0	11.0 to 12.0	12.0 to 13.0	13.0 to 14.0	14.0 to 15.0	15.0 to 16.0	16.0 to 17.0	17.0 to 18.0	18.0 to 19.0	19.0 to 20.0	Total	Exceed%
0.00 - 0.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.20 - 0.40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.40 - 0.60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.60 - 0.80	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.80 - 1.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
1.00 - 1.20	.	.	.	.	.	.	.	0.28	0.42	0.14	.	.	0.97	0.70	0.14	.	.	0.28	.	.	2.92	100.00
1.20 - 1.40	.	.	.	.	.	.	0.70	1.39	1.81	1.25	1.25	2.64	3.48	1.81	1.95	0.56	0.42	.	.	.	17.25	97.08
1.40 - 1.60	.	.	.	.	.	.	1.11	1.67	2.64	2.09	1.95	3.62	5.01	3.20	1.53	0.83	0.28	.	.	.	23.92	79.83
1.60 - 1.80	.	.	.	.	.	.	0.28	1.11	2.92	2.92	2.64	3.76	3.20	2.64	0.83	0.42	0.14	0.14	.	0.14	21.14	55.91
1.80 - 2.00	.	.	.	.	.	.	.	0.28	0.97	1.81	2.09	3.20	4.31	1.81	0.97	0.83	0.56	.	0.14	.	16.97	34.77
2.00 - 2.20	.	.	.	.	.	.	0.14	.	0.14	1.53	1.11	2.09	1.95	0.42	1.11	0.14	0.14	0.28	0.14	.	9.18	17.80
2.20 - 2.40	.	.	.	.	.	.	.	.	.	0.14	0.14	0.56	0.56	0.56	1.39	1.39	0.56	.	0.28	.	5.56	8.62
2.40 - 2.60	.	.	.	.	.	.	.	.	.	.	.	.	0.14	0.56	0.70	0.70	0.56	.	.	.	2.64	3.06
2.60 - 2.80	.	.	.	.	.	.	.	.	.	.	.	.	.	0.14	.	.	0.14	.	.	.	0.28	0.42
2.80 - 3.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.14	.	.	.	.	0.14	0.14
Total							2.23	4.73	8.90	9.87	9.18	15.86	19.61	11.82	8.62	5.01	2.78	0.70	0.56	0.14	100.00	
Exceed%	100.00	100.00	100.00	100.00	100.00	100.00	100.00	97.77	93.05	84.14	74.27	65.09	49.24	29.62	17.80	9.18	4.17	1.39	0.70	0.14		*

* Represents less than 0.005 | Expected: 719 | Matrix Total: 719 | Includes: Good, None

Statistics:	Max	Min	Mean	Standard Deviation
Peak Wave Period (s)	19.69	6.40	11.67	2.3950
Significant Wave Height (m)	2.85	1.05	1.70	0.3309

Sample Interval: 1.00 hours

Percentage Occurrence Matrix

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

Period: 11:02 15 November 2010 to 09:02 15 December 2010
(11:02 15 November 2010 to 09:02 15 December 2010)

Tp Sea (s)

Hs Sea (m) =>	<	0.0 to 1.0	1.0 to 2.0	2.0 to 3.0	3.0 to 4.0	4.0 to 5.0	5.0 to 6.0	6.0 to 7.0	7.0 to 8.0	8.0 to 9.0	9.0 to 10.0	10.0 to 11.0	11.0 to 12.0	12.0 to 13.0	13.0 to 14.0	14.0 to 15.0	15.0 to 16.0	16.0 to 17.0	17.0 to 18.0	18.0 to 19.0	19.0 to 20.0	Total	Exceed%
0.00 - 0.20		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.20 - 0.40		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.40 - 0.60		.	.	.	.	.	.	0.14	.	2.09	0.83	.	.	.	.	.	.	.	.	.	.	3.06	100.00
0.60 - 0.80		.	.	.	.	.	.	4.03	2.64	5.98	5.29	.	.	.	.	.	.	.	.	.	.	17.94	96.94
0.80 - 1.00		.	.	.	.	.	.	5.70	8.07	17.11	6.54	.	.	.	.	.	.	.	.	.	.	37.41	79.00
1.00 - 1.20		.	.	.	.	.	.	3.48	4.45	11.40	5.56	.	.	.	.	.	.	.	.	.	.	24.90	41.59
1.20 - 1.40		.	.	.	.	.	.	1.11	2.23	5.98	2.64	.	.	.	.	.	.	.	.	.	.	11.96	16.69
1.40 - 1.60		.	.	.	.	.	.	0.28	0.97	2.23	0.56	.	.	.	.	.	.	.	.	.	.	4.03	4.73
1.60 - 1.80		.	.	.	.	.	.	0.14	.	0.42	0.14	.	.	.	.	.	.	.	.	.	.	0.70	0.70
1.80 - 2.00		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.00 - 2.20		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.20 - 2.40		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.40 - 2.60		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.60 - 2.80		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.80 - 3.00		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
Total								14.88	18.36	45.20	21.56											100.00	
Exceed%		100.00	100.00	100.00	100.00	100.00	100.00	100.00	85.12	66.76	21.56												*

* Represents less than 0.005 | Expected: 719 | Matrix Total: 719 | Includes: Good, None

Statistics:	Max	Min	Mean	Standard Deviation
Tp Sea (s)	9.00	6.40	8.13	0.8164
Hs Sea (m)	1.80	0.51	0.98	0.2241

Sample Interval: 1.00 hours

Time Zone: UTC +08:00 hours
Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_proc_cos2s_RelativePressure.nc

moematrix: 10:32 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/matrix_2836cap001.proc_cos2s.ps)

Percentage Occurrence Matrix

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

Period: 11:02 15 November 2010 to 09:02 15 December 2010
(11:02 15 November 2010 to 09:02 15 December 2010)

Tp Swell (s)

Hs Swell (m) =>	<	0.0 to 1.0	1.0 to 2.0	2.0 to 3.0	3.0 to 4.0	4.0 to 5.0	5.0 to 6.0	6.0 to 7.0	7.0 to 8.0	8.0 to 9.0	9.0 to 10.0	10.0 to 11.0	11.0 to 12.0	12.0 to 13.0	13.0 to 14.0	14.0 to 15.0	15.0 to 16.0	16.0 to 17.0	17.0 to 18.0	18.0 to 19.0	19.0 to 20.0	Total	Exceed%
0.00 - 0.20		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.20 - 0.40		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.40 - 0.60		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.60 - 0.80		.	.	.	.	.	.	.	.	.	3.34	0.56	0.56	0.83	0.28	.	.	.	.	.	.	5.56	100.00
0.80 - 1.00		.	.	.	.	.	.	.	.	.	4.03	0.83	1.11	3.20	2.23	0.83	.	.	0.14	0.14	.	12.52	94.44
1.00 - 1.20		.	.	.	.	.	.	.	.	.	4.45	2.64	3.34	4.45	3.06	2.23	1.25	0.56	0.14	.	.	22.11	81.92
1.20 - 1.40		.	.	.	.	.	.	.	.	.	3.34	2.50	4.31	3.89	2.50	1.95	0.56	0.14	.	0.14	.	19.33	59.81
1.40 - 1.60		.	.	.	.	.	.	.	.	.	1.95	2.36	4.03	5.29	2.36	0.28	0.70	0.28	0.14	.	0.14	17.52	40.47
1.60 - 1.80		.	.	.	.	.	.	.	.	.	0.56	1.53	2.78	2.50	1.25	0.56	0.14	0.42	.	0.14	.	9.87	22.95
1.80 - 2.00		.	.	.	.	.	.	.	.	.	0.14	0.42	0.70	1.81	0.42	1.11	0.70	0.14	0.28	0.28	.	5.98	13.07
2.00 - 2.20		.	.	.	.	.	.	.	.	.	.	.	0.14	0.14	0.56	1.39	0.83	0.56	.	.	.	3.62	7.09
2.20 - 2.40		.	.	.	.	.	.	.	.	.	.	.	.	0.14	0.56	0.70	0.56	0.56	.	.	.	2.50	3.48
2.40 - 2.60		.	.	.	.	.	.	.	.	.	.	.	.	.	0.14	0.14	0.42	0.14	.	.	.	0.83	0.97
2.60 - 2.80		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.14	.	.	.	.	0.14	0.14
2.80 - 3.00		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
Total											17.80	10.85	16.97	22.25	13.35	9.18	5.29	2.78	0.70	0.70	0.14	100.00	
Exceed%		100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	82.20	71.35	54.38	32.13	18.78	9.60	4.31	1.53	0.83	0.14		*

* Represents less than 0.005	Expected: 719	Matrix Total: 719	Includes: Good, None

Statistics:	Max	Min	Mean	Standard Deviation
Tp Swell (s)	19.69	9.00	12.14	1.9679
Hs Swell (m)	2.72	0.63	1.35	0.3900

Sample Interval: 1.00 hours

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_proc_cos2s_RelativePressure.nc
	moematrix: 10:32 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/matrix_2836cap001.proc_cos2s.ps)

Percentage Occurrence Matrix

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

Period: 11:02 15 November 2010 to 09:02 15 December 2010
(11:02 15 November 2010 to 09:02 15 December 2010)

Mean Wave Period (s)

Significant Wave Height (m) => <	0.0 to 1.0	1.0 to 2.0	2.0 to 3.0	3.0 to 4.0	4.0 to 5.0	5.0 to 6.0	6.0 to 7.0	7.0 to 8.0	8.0 to 9.0	9.0 to 10.0	10.0 to 11.0	11.0 to 12.0	12.0 to 13.0	13.0 to 14.0	14.0 to 15.0	15.0 to 16.0	16.0 to 17.0	17.0 to 18.0	18.0 to 19.0	19.0 to 20.0	Total	Exceed%
0.00 - 0.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.20 - 0.40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.40 - 0.60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.60 - 0.80	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.80 - 1.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
1.00 - 1.20	.	.	.	.	.	.	.	.	0.42	1.25	0.97	0.28	.	.	.	.	.	.	.	.	2.92	100.00
1.20 - 1.40	.	.	.	.	.	.	.	0.56	4.73	6.54	4.03	1.39	.	.	.	.	.	.	.	.	17.25	97.08
1.40 - 1.60	.	.	.	.	.	.	.	0.14	6.54	9.18	6.40	1.67	.	.	.	.	.	.	.	.	23.92	79.83
1.60 - 1.80	.	.	.	.	.	.	.	0.14	5.98	7.93	5.70	1.39	.	.	.	.	.	.	.	.	21.14	55.91
1.80 - 2.00	.	.	.	.	.	.	.	.	2.09	7.79	4.59	2.23	0.28	.	.	.	.	.	.	.	16.97	34.77
2.00 - 2.20	.	.	.	.	.	.	.	.	0.83	3.89	1.39	2.64	0.42	.	.	.	.	.	.	.	9.18	17.80
2.20 - 2.40	.	.	.	.	.	.	.	.	0.14	0.56	0.97	2.50	1.39	.	.	.	.	.	.	.	5.56	8.62
2.40 - 2.60	.	.	.	.	.	.	.	.	.	.	.	1.39	1.25	.	.	.	.	.	.	.	2.64	3.06
2.60 - 2.80	.	.	.	.	.	.	.	.	.	.	.	0.14	0.14	.	.	.	.	.	.	.	0.28	0.42
2.80 - 3.00	.	.	.	.	.	.	.	.	.	.	.	.	0.14	.	.	.	.	.	.	.	0.14	0.14
Total								0.83	20.72	37.13	24.06	13.63	3.62								100.00	
Exceed%	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.17	78.44	41.31	17.25	3.62	*	*	*	*	*	*	*		*

* Represents less than 0.005

Expected: 719

Matrix Total: 719

Includes: Good, None

Statistics:	Max	Min	Mean	Standard Deviation
Mean Wave Period (s)	12.87	7.90	9.88	1.0630
Significant Wave Height (m)	2.85	1.05	1.70	0.3309

Sample Interval: 1.00 hours

Time Zone: UTC +08:00 hours

Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_proc_cos2s_RelativePressure.nc

moematrix: 10:32 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/matrix_2836cap001.proc_cos2s.ps)

Percentage Occurrence Matrix

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

Period: 11:02 15 November 2010 to 09:02 15 December 2010
(11:02 15 November 2010 to 09:02 15 December 2010)

Tm Sea (s)

Hs Sea (m) => / <	0.0 to 1.0	1.0 to 2.0	2.0 to 3.0	3.0 to 4.0	4.0 to 5.0	5.0 to 6.0	6.0 to 7.0	7.0 to 8.0	8.0 to 9.0	9.0 to 10.0	10.0 to 11.0	11.0 to 12.0	12.0 to 13.0	13.0 to 14.0	14.0 to 15.0	15.0 to 16.0	16.0 to 17.0	17.0 to 18.0	18.0 to 19.0	19.0 to 20.0	Total	Exceed%
0.00 - 0.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.20 - 0.40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.40 - 0.60	.	.	.	.	.	.	.	3.06	.	.	.	.	.	.	.	.	.	.	.	.	3.06	100.00
0.60 - 0.80	.	.	.	.	.	.	0.14	17.80	.	.	.	.	.	.	.	.	.	.	.	.	17.94	96.94
0.80 - 1.00	.	.	.	.	.	.	.	37.27	0.14	.	.	.	.	.	.	.	.	.	.	.	37.41	79.00
1.00 - 1.20	.	.	.	.	.	.	.	24.90	.	.	.	.	.	.	.	.	.	.	.	.	24.90	41.59
1.20 - 1.40	.	.	.	.	.	.	.	11.96	.	.	.	.	.	.	.	.	.	.	.	.	11.96	16.69
1.40 - 1.60	.	.	.	.	.	.	.	4.03	.	.	.	.	.	.	.	.	.	.	.	.	4.03	4.73
1.60 - 1.80	.	.	.	.	.	.	.	0.70	.	.	.	.	.	.	.	.	.	.	.	.	0.70	0.70
1.80 - 2.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.00 - 2.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.20 - 2.40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.40 - 2.60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.60 - 2.80	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.80 - 3.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
Total							0.14	99.72	0.14												100.00	
Exceed%	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.86	0.14	*	*	*	*	*	*	*	*	*	*	*		*

* Represents less than 0.005	Expected: 719		Matrix Total: 719	Includes: Good, None
Statistics:	Max	Min	Mean	Standard Deviation
Tm Sea (s)	8.07	6.98	7.55	0.1765
Hs Sea (m)	1.80	0.51	0.98	0.2241

Sample Interval: 1.00 hours

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_proc_cos2s_RelativePressure.nc
	moematrix: 10:32 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/matrix_2836cap001.proc_cos2s.ps)

Percentage Occurrence Matrix

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

Period: 11:02 15 November 2010 to 09:02 15 December 2010
(11:02 15 November 2010 to 09:02 15 December 2010)

Tm Swell (s)

Hs Swell (m) => <	0.0 to 1.0	1.0 to 2.0	2.0 to 3.0	3.0 to 4.0	4.0 to 5.0	5.0 to 6.0	6.0 to 7.0	7.0 to 8.0	8.0 to 9.0	9.0 to 10.0	10.0 to 11.0	11.0 to 12.0	12.0 to 13.0	13.0 to 14.0	14.0 to 15.0	15.0 to 16.0	16.0 to 17.0	17.0 to 18.0	18.0 to 19.0	19.0 to 20.0	Total	Exceed%
0.00 - 0.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.20 - 0.40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.40 - 0.60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.60 - 0.80	.	.	.	.	.	.	.	.	.	0.42	2.64	2.23	0.28	.	.	.	.	.	.	.	5.56	100.00
0.80 - 1.00	.	.	.	.	.	.	.	.	.	0.56	2.64	6.82	1.95	0.56	.	.	.	.	.	.	12.52	94.44
1.00 - 1.20	.	.	.	.	.	.	.	.	.	0.42	7.09	7.51	5.15	1.95	.	.	.	.	.	.	22.11	81.92
1.20 - 1.40	.	.	.	.	.	.	.	.	.	0.14	5.42	8.21	4.31	1.25	.	.	.	.	.	.	19.33	59.81
1.40 - 1.60	.	.	.	.	.	.	.	.	.	.	4.31	9.46	2.36	0.97	0.42	.	.	.	.	.	17.52	40.47
1.60 - 1.80	.	.	.	.	.	.	.	.	.	.	1.53	5.29	2.09	0.42	0.56	.	.	.	.	.	9.87	22.95
1.80 - 2.00	.	.	.	.	.	.	.	.	.	.	0.56	1.11	2.64	1.25	0.14	0.28	.	.	.	.	5.98	13.07
2.00 - 2.20	.	.	.	.	.	.	.	.	.	.	.	.	1.39	2.09	0.14	.	.	.	.	.	3.62	7.09
2.20 - 2.40	.	.	.	.	.	.	.	.	.	.	.	.	1.25	1.25	.	.	.	.	.	.	2.50	3.48
2.40 - 2.60	.	.	.	.	.	.	.	.	.	.	.	.	.	0.83	.	.	.	.	.	.	0.83	0.97
2.60 - 2.80	.	.	.	.	.	.	.	.	.	.	.	.	.	0.14	.	.	.	.	.	.	0.14	0.14
2.80 - 3.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
Total										1.53	24.20	40.61	21.42	10.71	1.25	0.28					100.00	
Exceed%	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	98.47	74.27	33.66	12.24	1.53	0.28	*	*	*	*		*

* Represents less than 0.005	Expected: 719	Matrix Total: 719	Includes: Good, None
Statistics:	Max	Min	Mean	Standard Deviation
Tm Swell (s)	15.76	9.82	11.69	1.0234
Hs Swell (m)	2.72	0.63	1.35	0.3900

Sample Interval: 1.00 hours

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_proc_cos2s_RelativePressure.nc
	moematrix: 10:32 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/matrix_2836cap001.proc_cos2s.ps)

Percentage Occurrence Matrix

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

Period: 11:02 15 November 2010 to 09:02 15 December 2010
(11:02 15 November 2010 to 09:02 15 December 2010)

Zero-Crossing Period (s)

Significant Wave Height (m) => <	0.0 to 1.0	1.0 to 2.0	2.0 to 3.0	3.0 to 4.0	4.0 to 5.0	5.0 to 6.0	6.0 to 7.0	7.0 to 8.0	8.0 to 9.0	9.0 to 10.0	10.0 to 11.0	11.0 to 12.0	12.0 to 13.0	13.0 to 14.0	14.0 to 15.0	15.0 to 16.0	16.0 to 17.0	17.0 to 18.0	18.0 to 19.0	19.0 to 20.0	Total	Exceed%
0.00 - 0.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.20 - 0.40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.40 - 0.60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.60 - 0.80	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.80 - 1.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
1.00 - 1.20	.	.	.	.	.	.	.	.	0.83	1.25	0.83	.	.	.	.	.	.	.	.	.	2.92	100.00
1.20 - 1.40	.	.	.	.	.	.	.	0.70	6.40	6.40	3.34	0.42	.	.	.	.	.	.	.	.	17.25	97.08
1.40 - 1.60	.	.	.	.	.	.	.	0.83	7.23	11.54	3.89	0.42	.	.	.	.	.	.	.	.	23.92	79.83
1.60 - 1.80	.	.	.	.	.	.	.	0.42	7.23	9.87	3.48	0.14	.	.	.	.	.	.	.	.	21.14	55.91
1.80 - 2.00	.	.	.	.	.	.	.	0.14	2.92	9.18	3.34	1.39	.	.	.	.	.	.	.	.	16.97	34.77
2.00 - 2.20	.	.	.	.	.	.	.	.	1.11	4.31	1.81	1.95	.	.	.	.	.	.	.	.	9.18	17.80
2.20 - 2.40	.	.	.	.	.	.	.	.	0.14	0.83	1.25	3.06	0.28	.	.	.	.	.	.	.	5.56	8.62
2.40 - 2.60	.	.	.	.	.	.	.	.	.	.	0.28	1.95	0.42	.	.	.	.	.	.	.	2.64	3.06
2.60 - 2.80	.	.	.	.	.	.	.	.	.	.	0.14	0.14	.	.	.	.	.	.	.	.	0.28	0.42
2.80 - 3.00	.	.	.	.	.	.	.	.	.	.	.	.	0.14	.	.	.	.	.	.	.	0.14	0.14
Total								2.09	25.87	43.39	18.36	9.46	0.83								100.00	
Exceed%	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	97.91	72.04	28.65	10.29	0.83									*

* Represents less than 0.005 | Expected: 719 | Matrix Total: 719 | Includes: Good, None

Statistics:	Max	Min	Mean	Standard Deviation
Zero-Crossing Period (s)	12.38	7.78	9.58	0.9635
Significant Wave Height (m)	2.85	1.05	1.70	0.3309

Sample Interval: 1.00 hours

Time Zone: UTC +08:00 hours | Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_proc_cos2s_RelativePressure.nc

 | moematrix: 10:32 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/matrix_2836cap001.proc_cos2s.ps)

Percentage Occurrence Matrix

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

Period: 11:02 15 November 2010 to 09:02 15 December 2010
(11:02 15 November 2010 to 09:02 15 December 2010)

Tz Sea (s)

Hs Sea (m) => / <	0.0 to 1.0	1.0 to 2.0	2.0 to 3.0	3.0 to 4.0	4.0 to 5.0	5.0 to 6.0	6.0 to 7.0	7.0 to 8.0	8.0 to 9.0	9.0 to 10.0	10.0 to 11.0	11.0 to 12.0	12.0 to 13.0	13.0 to 14.0	14.0 to 15.0	15.0 to 16.0	16.0 to 17.0	17.0 to 18.0	18.0 to 19.0	19.0 to 20.0	Total	Exceed%
0.00 - 0.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.20 - 0.40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.40 - 0.60	.	.	.	.	.	.	.	3.06	.	.	.	.	.	.	.	.	.	.	.	.	3.06	100.00
0.60 - 0.80	.	.	.	.	.	.	0.14	17.80	.	.	.	.	.	.	.	.	.	.	.	.	17.94	96.94
0.80 - 1.00	.	.	.	.	.	.	.	37.27	0.14	.	.	.	.	.	.	.	.	.	.	.	37.41	79.00
1.00 - 1.20	.	.	.	.	.	.	.	24.90	.	.	.	.	.	.	.	.	.	.	.	.	24.90	41.59
1.20 - 1.40	.	.	.	.	.	.	.	11.96	.	.	.	.	.	.	.	.	.	.	.	.	11.96	16.69
1.40 - 1.60	.	.	.	.	.	.	.	4.03	.	.	.	.	.	.	.	.	.	.	.	.	4.03	4.73
1.60 - 1.80	.	.	.	.	.	.	.	0.70	.	.	.	.	.	.	.	.	.	.	.	.	0.70	0.70
1.80 - 2.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.00 - 2.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.20 - 2.40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.40 - 2.60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.60 - 2.80	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
2.80 - 3.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
Total							0.14	99.72	0.14												100.00	
Exceed%	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.86	0.14	*	*	*	*	*	*	*	*	*	*	*		*

* Represents less than 0.005	Expected: 719		Matrix Total: 719	Includes: Good, None
Statistics:	Max	Min	Mean	Standard Deviation
Tz Sea (s)	8.03	6.96	7.51	0.1746
Hs Sea (m)	1.80	0.51	0.98	0.2241

Sample Interval: 1.00 hours

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_proc_cos2s_RelativePressure.nc
	moematrix: 10:32 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/matrix_2836cap001.proc_cos2s.ps)

Percentage Occurrence Matrix

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

Period: 11:02 15 November 2010 to 09:02 15 December 2010
(11:02 15 November 2010 to 09:02 15 December 2010)

Tz Swell (s)

Hs Swell (m)			0.0 to 1.0	1.0 to 2.0	2.0 to 3.0	3.0 to 4.0	4.0 to 5.0	5.0 to 6.0	6.0 to 7.0	7.0 to 8.0	8.0 to 9.0	9.0 to 10.0	10.0 to 11.0	11.0 to 12.0	12.0 to 13.0	13.0 to 14.0	14.0 to 15.0	15.0 to 16.0	16.0 to 17.0	17.0 to 18.0	18.0 to 19.0	19.0 to 20.0	Total	Exceed%
=>	<																							
0.00	0.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.20	0.40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.40	0.60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		100.00
0.60	0.80	.	.	.	.	.	.	.	.	.	0.56	2.50	2.50	.	.	.	.	.	.	.	.	.	5.56	100.00
0.80	1.00	.	.	.	.	.	.	.	.	.	0.56	3.48	6.68	1.39	0.42	.	.	.	.	.	.	.	12.52	94.44
1.00	1.20	.	.	.	.	.	.	.	.	.	0.70	7.93	7.65	4.45	1.39	.	.	.	.	.	.	.	22.11	81.92
1.20	1.40	.	.	.	.	.	.	.	.	.	0.14	6.54	7.79	4.17	0.70	.	.	.	.	.	.	.	19.33	59.81
1.40	1.60	.	.	.	.	.	.	.	.	.	.	5.29	8.76	2.23	1.25	.	.	.	.	.	.	.	17.52	40.47
1.60	1.80	.	.	.	.	.	.	.	.	.	.	2.64	4.59	1.81	0.42	0.42	.	.	.	.	.	.	9.87	22.95
1.80	2.00	.	.	.	.	.	.	.	.	.	.	0.70	1.25	2.78	0.83	0.28	0.14	.	.	.	.	.	5.98	13.07
2.00	2.20	.	.	.	.	.	.	.	.	.	.	.	.	1.53	2.09	.	.	.	.	.	.	.	3.62	7.09
2.20	2.40	.	.	.	.	.	.	.	.	.	.	.	.	1.39	1.11	.	.	.	.	.	.	.	2.50	3.48
2.40	2.60	.	.	.	.	.	.	.	.	.	.	.	.	0.14	0.70	.	.	.	.	.	.	.	0.83	0.97
2.60	2.80	.	.	.	.	.	.	.	.	.	.	.	.	.	0.14	.	.	.	.	.	.	.	0.14	0.14
2.80	3.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		*
	Total										1.95	29.07	39.22	19.89	9.04	0.70	0.14						100.00	
	Exceed%	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	98.05	68.98	29.76	9.87	0.83	0.14	*	*	*	*			*

* Represents less than 0.005	Expected: 719	Matrix Total: 719	Includes: Good, None
Statistics:	Max	Min	Mean	Standard Deviation
Tz Swell (s)	15.33	9.79	11.55	0.9690
Hs Swell (m)	2.72	0.63	1.35	0.3900

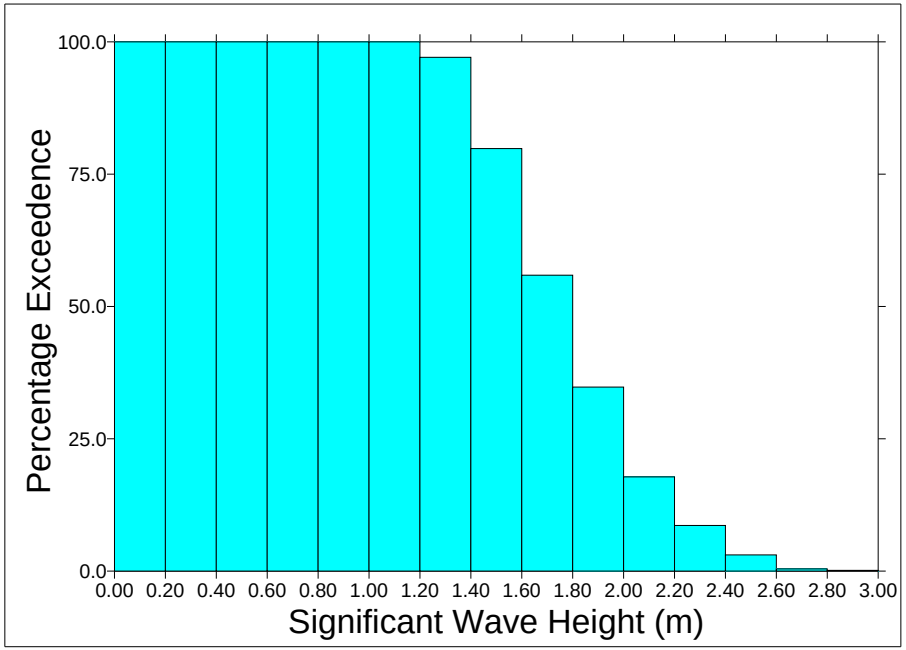
Sample Interval: 1.00 hours

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_proc_cos2s_RelativePressure.nc
	moematrix: 10:32 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/matrix_2836cap001.proc_cos2s.ps)

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

Period: 11:02 15 November 2010 to 09:02 15 December 2010
(11:02 15 November 2010 to 09:02 15 December 2010)
Significant Wave Height (m).

Exceedence Plot



Exceedence Table

>=	Exceedence	% Exceedence
0.00	719	100.00
0.20	719	100.00
0.40	719	100.00
0.60	719	100.00
0.80	719	100.00
1.00	719	100.00
1.20	698	97.08
1.40	574	79.83
1.60	402	55.91
1.80	250	34.77
2.00	128	17.80
2.20	62	8.62
2.40	22	3.06
2.60	3	0.42
2.80	1	0.14
3.00	0	0.00

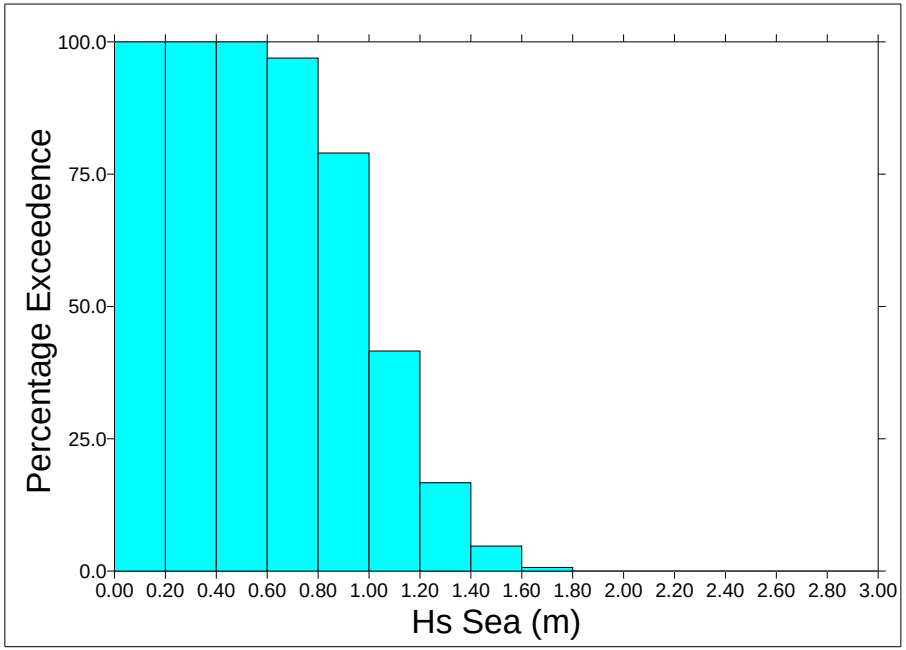
Exceedence Percentiles: 99.00 = 1.14 98.00 = 1.17 95.00 = 1.25 90.00 = 1.32 80.00 = 1.40 50.00 = 1.66
20.00 = 1.97 10.00 = 2.16 5.00 = 2.33 2.00 = 2.49 1.00 = 2.56

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_proc_cos2s_RelativePressure.nc
	moematrix: 10:32 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/exceedence_2836cap001.proc_cos2s.ps)

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

Period: 11:02 15 November 2010 to 09:02 15 December 2010
(11:02 15 November 2010 to 09:02 15 December 2010)
Hs Sea (m).

Exceedence Plot



Exceedence Table

>=	Exceedence	% Exceedence
0.00	719	100.00
0.20	719	100.00
0.40	719	100.00
0.60	697	96.94
0.80	568	79.00
1.00	299	41.59
1.20	120	16.69
1.40	34	4.73
1.60	5	0.70
1.80	0	0.00
2.00	0	0.00
2.20	0	0.00
2.40	0	0.00
2.60	0	0.00
2.80	0	0.00
3.00	0	0.00

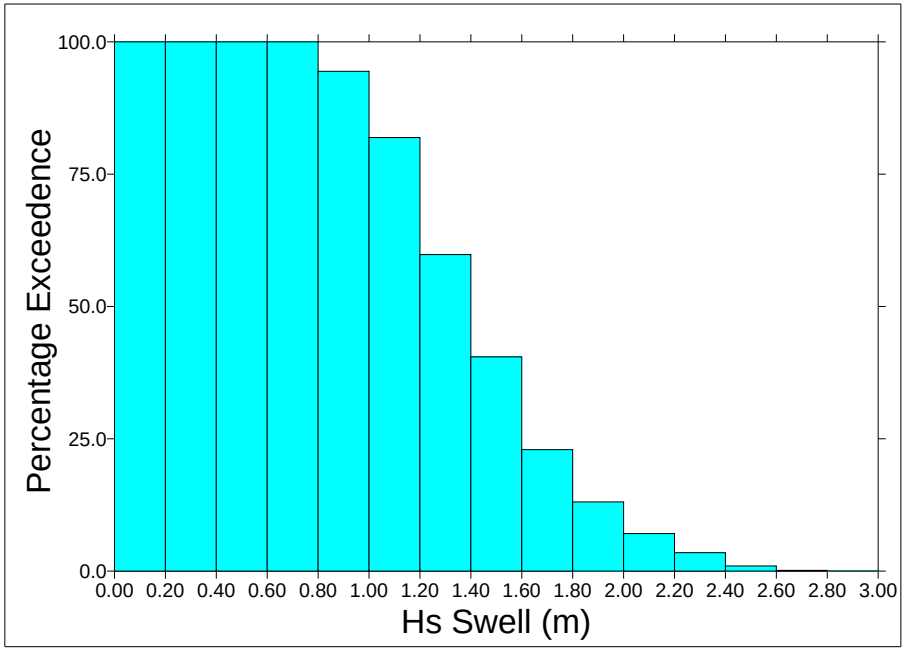
Exceedence Percentiles: 99.00 = 0.54 98.00 = 0.58 95.00 = 0.64 90.00 = 0.71 80.00 = 0.79 50.00 = 0.95
20.00 = 1.17 10.00 = 1.28 5.00 = 1.39 2.00 = 1.50 1.00 = 1.56

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_proc_cos2s_RelativePressure.nc
	moematrix: 10:32 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/exceedence_2836cap001.proc_cos2s.ps)

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

Period: 11:02 15 November 2010 to 09:02 15 December 2010
(11:02 15 November 2010 to 09:02 15 December 2010)
Hs Swell (m).

Exceedence Plot



Exceedence Table

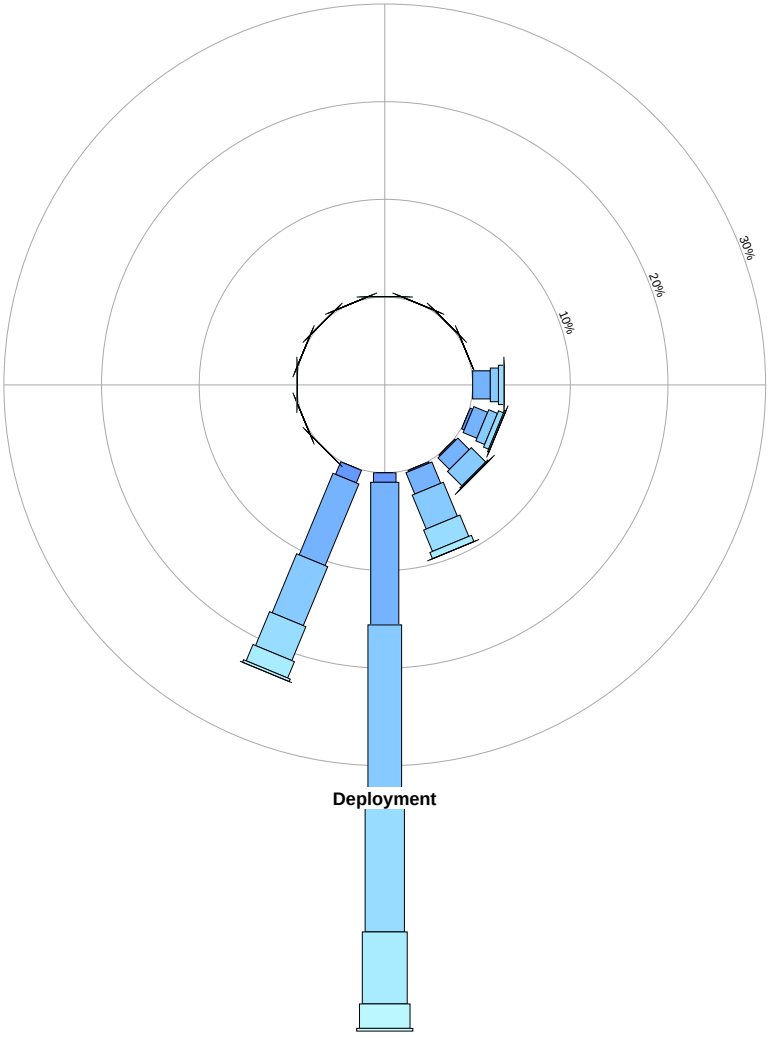
>=	Exceedence	% Exceedence
0.00	719	100.00
0.20	719	100.00
0.40	719	100.00
0.60	719	100.00
0.80	679	94.44
1.00	589	81.92
1.20	430	59.81
1.40	291	40.47
1.60	165	22.95
1.80	94	13.07
2.00	51	7.09
2.20	25	3.48
2.40	7	0.97
2.60	1	0.14
2.80	0	0.00
3.00	0	0.00

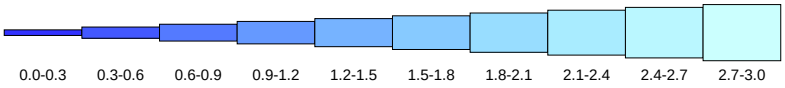
Exceedence Percentiles: 99.00 = 0.67 98.00 = 0.70 95.00 = 0.79 90.00 = 0.89 80.00 = 1.03 50.00 = 1.30
20.00 = 1.65 10.00 = 1.89 5.00 = 2.09 2.00 = 2.31 1.00 = 2.40

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_proc_cos2s_RelativePressure.nc
	moematrix: 10:32 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/exceedence_2836cap001.proc_cos2s.ps)

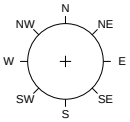
Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

Deployment
11:02 15 November 2010 to 09:02 15 December 2010





Significant Wave Height (m)



Peak Wave Direction (from)

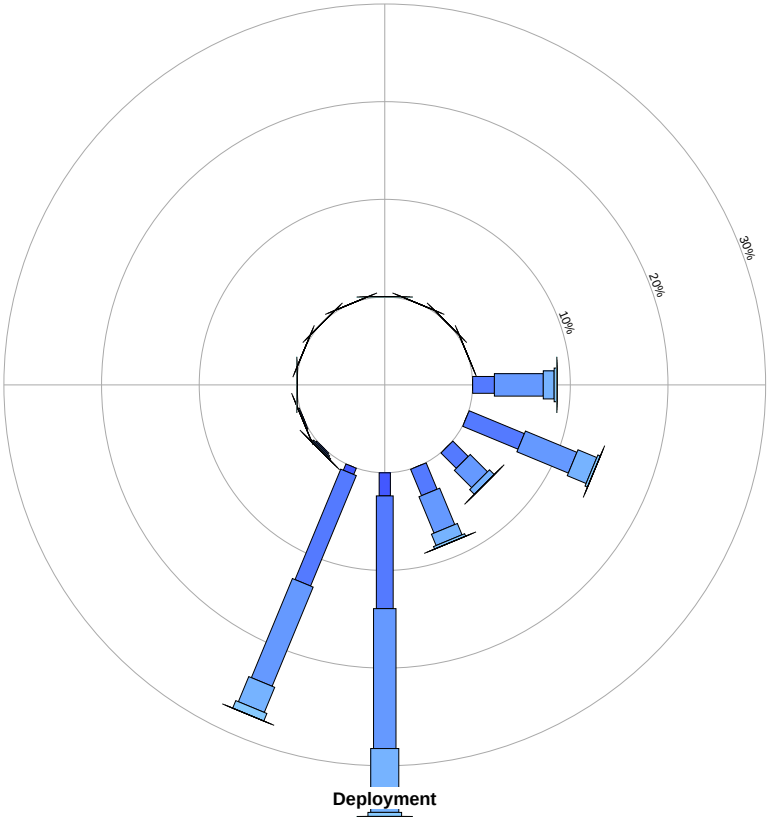
Instruments:

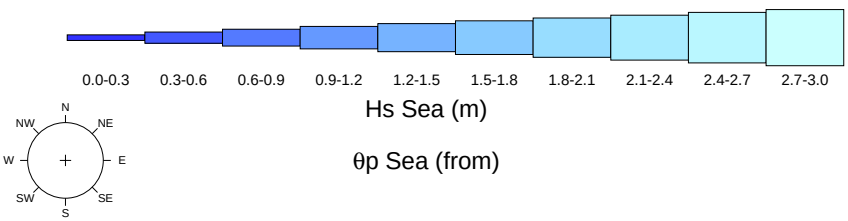
Data Quality: good **Total Records:** 719

Time Zone: UTC +08:00 hours	Data Source: ...jobs/J2836/measured/awac/dec10/2836cap001_proc_cos2s_RelativePressure.nc
	moerose: 10:41 13/May/2011 by jonty (rose.2836cap001_proc_cos2s.ps)

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

Deployment
11:02 15 November 2010 to 09:02 15 December 2010





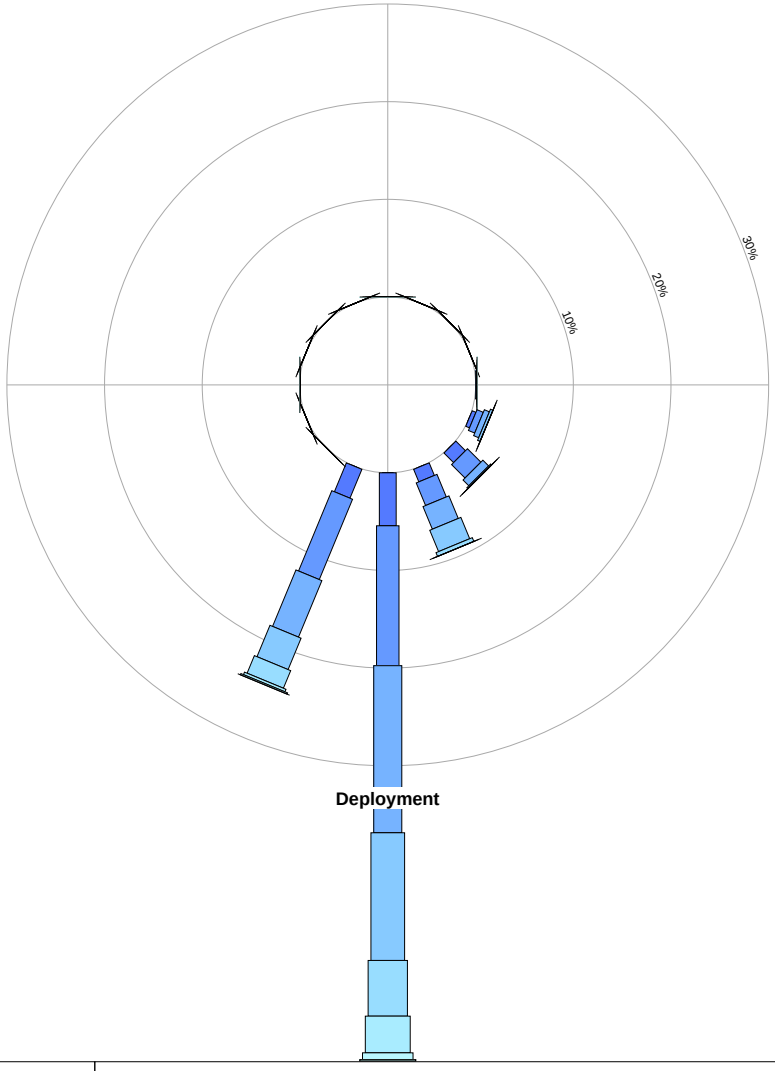
Instruments:

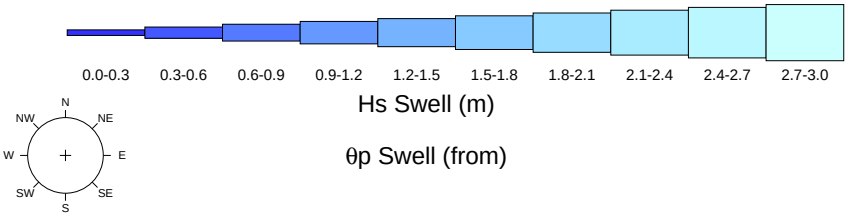
Data Quality: good **Total Records:** 719

Time Zone: UTC +08:00 hours	Data Source: ...jobs/J2836/measured/awac/dec10/2836cap001_proc_cos2s_RelativePressure.nc
	moerose: 10:41 13/May/2011 by jonty (rose.2836cap001_proc_cos2s.ps)

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

Deployment
11:02 15 November 2010 to 09:02 15 December 2010





θp Swell (from)

Instruments:

Data Quality: good **Total Records:** 719

Time Zone: UTC +08:00 hours	Data Source: ...jobs/J2836/measured/awac/dec10/2836cap001_proc_cos2s_RelativePressure.nc
	moerose: 10:41 13/May/2011 by jonty (rose.2836cap001_proc_cos2s.ps)

Persistence Exceedence

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

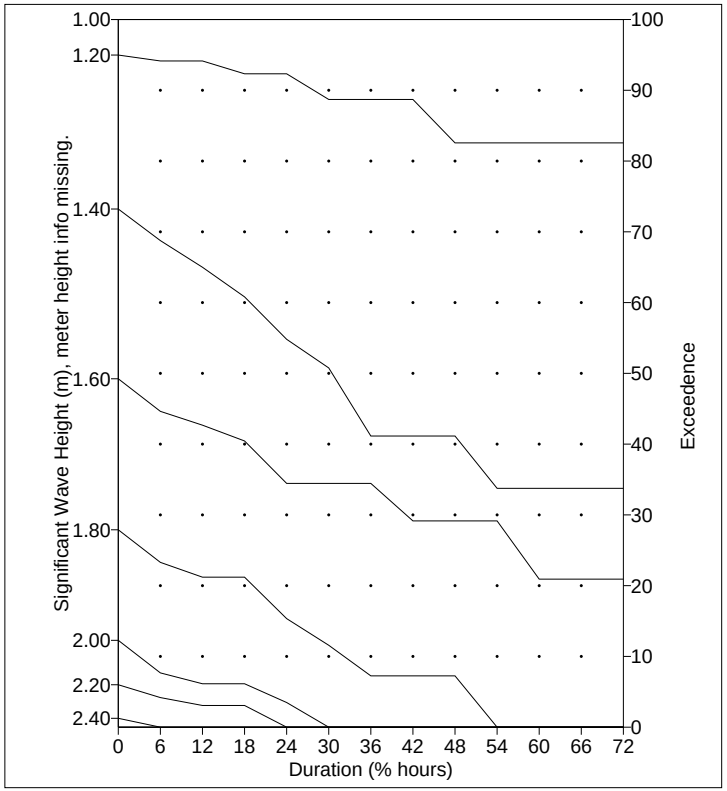
Period: 11:02 15 November 2010 to 09:02 15 December 2010
(11:02 15 November 2010 to 09:02 15 December 2010)

Exceedence

Duration (% hours)

Significant Wave Height (m), meter height info missing.

	> 0	> 6	> 12	> 18	> 24	> 30	> 36	> 42	> 48	> 54	> 60	> 66	> 72	Total Occ.(h)
>= 0.00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	717.0
>= 0.20	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	717.0
>= 0.40	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	717.0
>= 0.60	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	717.0
>= 0.80	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	717.0
>= 1.00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	717.0
>= 1.20	95.0	94.1	94.1	92.3	92.3	88.7	88.7	88.7	82.6	82.6	82.6	82.6	82.6	681.0
>= 1.40	73.2	68.8	65.0	60.8	54.8	50.8	41.1	41.1	41.1	33.8	33.8	33.8	33.8	525.0
>= 1.60	49.2	44.6	42.7	40.4	34.4	34.4	34.4	29.1	29.1	29.1	20.9	20.9	20.9	353.0
>= 1.80	27.9	23.3	21.2	21.2	15.3	11.6	7.3	7.3	7.3					200.0
>= 2.00	12.3	7.7	6.1	6.1	3.5									88.0
>= 2.20	6.0	4.2	3.1	3.1										43.0
>= 2.40	1.3													9.0
>= 2.60														
>= 2.80														



expected record interval: 3600 seconds
* denotes values less than 0.1

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_proc_cos2s_RelativePressure.nc
	moepersist: 10:48 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/persist_2836cap001_proc_cos2s.ps)

Persistence Non-Exceedence

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

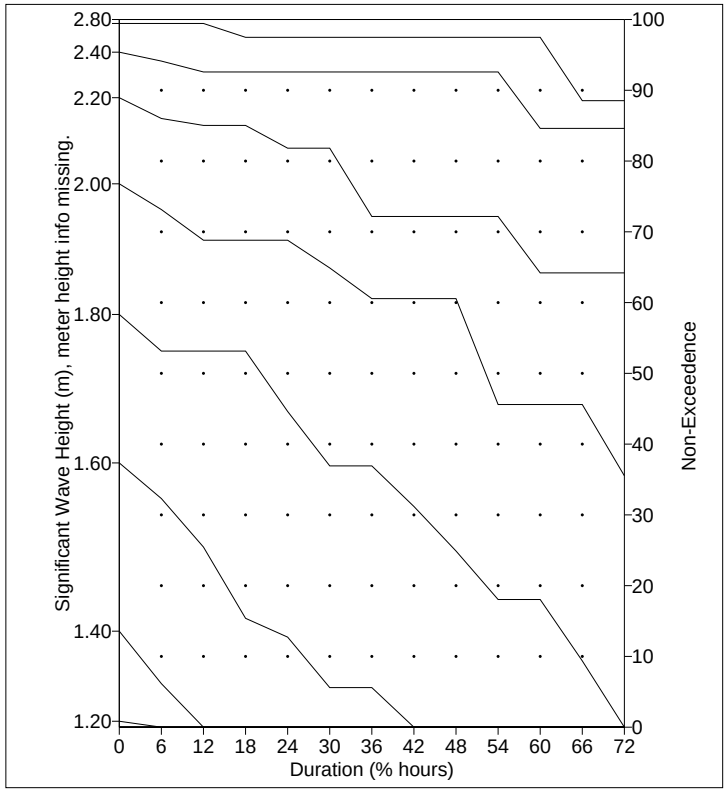
Period: 11:02 15 November 2010 to 09:02 15 December 2010
(11:02 15 November 2010 to 09:02 15 December 2010)

Non-Exceedence

Duration (% hours)

Significant Wave Height (m), meter height info missing.

	> 0	> 6	> 12	> 18	> 24	> 30	> 36	> 42	> 48	> 54	> 60	> 66	> 72	Total Occ.(h)
< 2.80	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	715.0
< 2.60	99.4	99.4	99.4	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	88.5	88.5	711.0
< 2.40	95.4	94.1	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	84.6	84.6	84.6	682.0
< 2.20	89.0	86.0	85.0	85.0	81.8	81.8	72.2	72.2	72.2	72.2	64.2	64.2	64.2	636.0
< 2.00	76.8	73.1	68.8	68.8	68.8	64.9	60.6	60.6	60.6	45.6	45.6	45.6	35.5	549.0
< 1.80	58.3	53.1	53.1	53.1	44.6	36.9	36.9	31.2	24.9	18.0	18.0	9.4		417.0
< 1.60	37.3	32.3	25.5	15.4	12.7	5.6	5.6							267.0
< 1.40	13.6	6.2												97.0
< 1.20	0.8													6.0
< 1.00														
< 0.80														
< 0.60														
< 0.40														
< 0.20														
< 0.00														



expected record interval: 3600 seconds
* denotes values less than 0.1

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_proc_cos2s_RelativePressure.nc
	moepersist: 10:48 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/persist_2836cap001_proc_cos2s.ps)

Persistence Exceedence

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

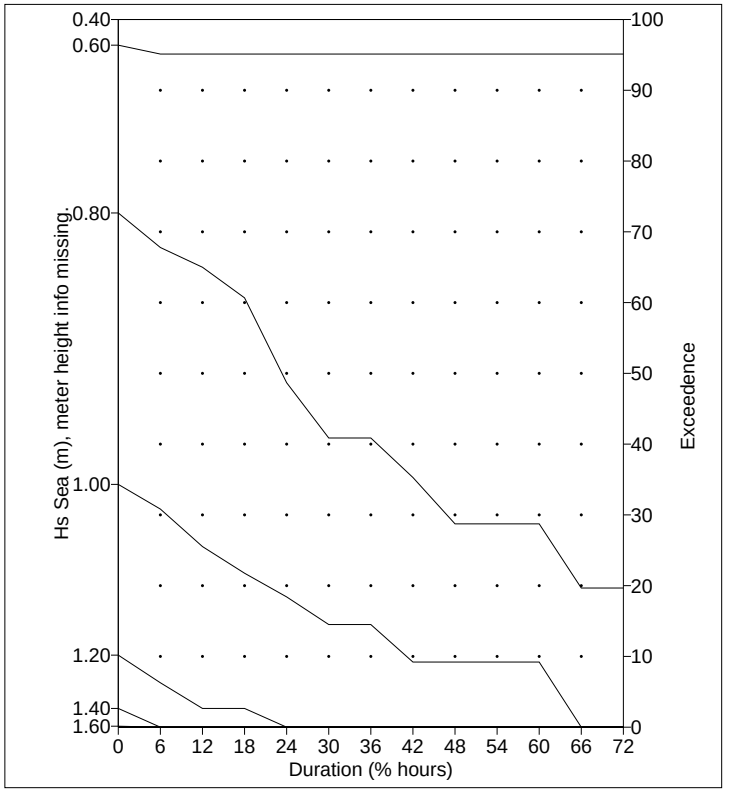
Period: 11:02 15 November 2010 to 09:02 15 December 2010
(11:02 15 November 2010 to 09:02 15 December 2010)

Exceedence

Duration (% hours)

Hs Sea (m), meter height info missing.

	> 0	> 6	> 12	> 18	> 24	> 30	> 36	> 42	> 48	> 54	> 60	> 66	> 72	Total Occ.(h)
>= 0.00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	717.0
>= 0.20	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	717.0
>= 0.40	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	717.0
>= 0.60	96.4	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	691.0
>= 0.80	72.7	67.8	65.0	60.7	48.7	40.9	40.9	35.3	28.7	28.7	28.7	19.7	19.7	521.0
>= 1.00	34.3	30.8	25.5	21.8	18.4	14.5	14.5	9.2	9.2	9.2	9.2			246.0
>= 1.20	10.2	6.3	2.6	2.6										73.0
>= 1.40	2.6													19.0
>= 1.60	0.1													1.0
>= 1.80														
>= 2.00														
>= 2.20														
>= 2.40														
>= 2.60														
>= 2.80														



expected record interval: 3600 seconds
* denotes values less than 0.1

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_proc_cos2s_RelativePressure.nc
	moepersist: 10:48 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/persist_2836cap001_proc_cos2s.ps)

Persistence Non-Exceedence

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

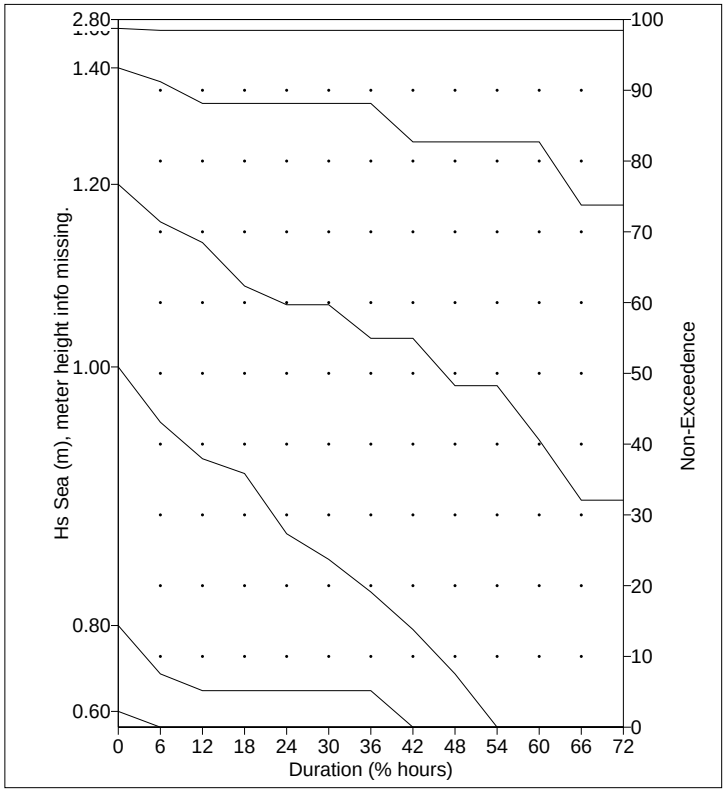
Period: 11:02 15 November 2010 to 09:02 15 December 2010
(11:02 15 November 2010 to 09:02 15 December 2010)

Non-Exceedence

Duration (% hours)

Hs Sea (m), meter height info missing.

	> 0	> 6	> 12	> 18	> 24	> 30	> 36	> 42	> 48	> 54	> 60	> 66	> 72	Total Occ.(h)
< 2.80	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	717.0
< 2.60	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	717.0
< 2.40	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	717.0
< 2.20	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	717.0
< 2.00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	717.0
< 1.80	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	717.0
< 1.60	98.7	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	708.0
< 1.40	93.2	91.2	88.1	88.1	88.1	88.1	88.1	82.7	82.7	82.7	82.7	73.8	73.8	668.0
< 1.20	76.7	71.4	68.5	62.3	59.7	59.7	55.0	55.0	48.3	48.3	40.6	32.1	32.1	550.0
< 1.00	50.9	43.1	37.9	35.8	27.3	23.7	19.1	13.8	7.5					365.0
< 0.80	14.4	7.5	5.2	5.2	5.2	5.2	5.2							103.0
< 0.60	2.2													16.0
< 0.40														
< 0.20														
< 0.00														



expected record interval: 3600 seconds
* denotes values less than 0.1

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_proc_cos2s_RelativePressure.nc
	moepersist: 10:48 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/persist_2836cap001_proc_cos2s.ps)

Persistence Exceedence

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

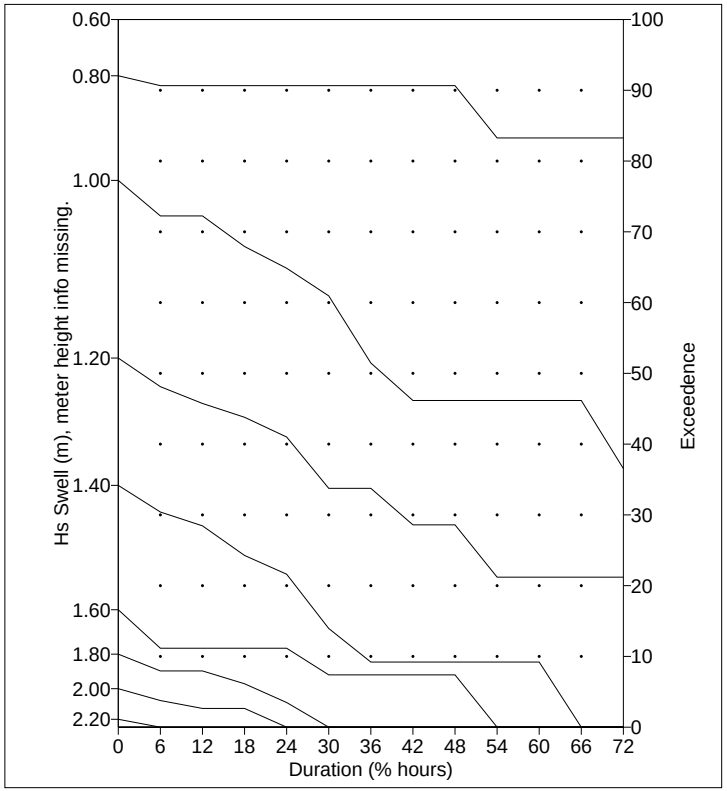
Period: 11:02 15 November 2010 to 09:02 15 December 2010
(11:02 15 November 2010 to 09:02 15 December 2010)

Exceedence

Duration (% hours)

Hs Swell (m), meter height info missing.

	> 0	> 6	> 12	> 18	> 24	> 30	> 36	> 42	> 48	> 54	> 60	> 66	> 72	Total Occ.(h)
>= 0.00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	717.0
>= 0.20	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	717.0
>= 0.40	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	717.0
>= 0.60	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	717.0
>= 0.80	92.1	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	83.3	83.3	83.3	83.3	660.0
>= 1.00	77.3	72.2	72.2	67.9	64.9	60.9	51.5	46.2	46.2	46.2	46.2	46.2	36.5	554.0
>= 1.20	52.2	48.1	45.7	43.8	41.0	33.8	33.8	28.6	28.6	21.2	21.2	21.2	21.2	374.0
>= 1.40	34.2	30.4	28.5	24.3	21.6	13.9	9.2	9.2	9.2	9.2	9.2			245.0
>= 1.60	16.6	11.2	11.2	11.2	11.2	7.4	7.4	7.4	7.4					119.0
>= 1.80	10.3	7.9	7.9	6.1	3.5									74.0
>= 2.00	5.4	3.8	2.6	2.6										39.0
>= 2.20	1.1													8.0
>= 2.40														
>= 2.60														
>= 2.80														



expected record interval: 3600 seconds
* denotes values less than 0.1

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_proc_cos2s_RelativePressure.nc
	moepersist: 10:48 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/persist_2836cap001_proc_cos2s.ps)

Persistence Non-Exceedence

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL	Sea/Swell:	9.0 s

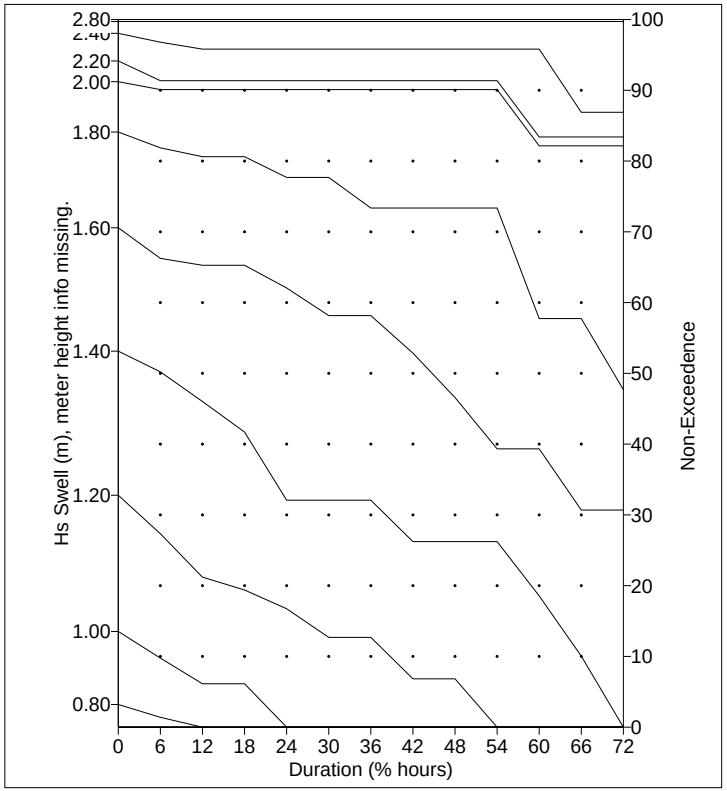
Period: 11:02 15 November 2010 to 09:02 15 December 2010
(11:02 15 November 2010 to 09:02 15 December 2010)

Non-Exceedence

Duration (% hours)

Hs Swell (m), meter height info missing.

	> 0	> 6	> 12	> 18	> 24	> 30	> 36	> 42	> 48	> 54	> 60	> 66	> 72	Total Occ.(h)
< 2.80	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	717.0
< 2.60	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	715.0
< 2.40	98.0	96.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	86.9	86.9	703.0
< 2.20	94.1	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	83.4	83.4	83.4	675.0
< 2.00	91.2	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	82.1	82.1	82.1	654.0
< 1.80	84.1	81.9	80.6	80.6	77.7	77.7	73.4	73.4	73.4	73.4	57.7	57.7	47.7	603.0
< 1.60	70.6	66.2	65.3	65.3	62.1	58.2	58.2	52.9	46.6	39.3	39.3	30.7	30.7	506.0
< 1.40	53.1	50.2	46.0	41.7	32.1	32.1	32.1	26.2	26.2	26.2	18.5	10.0		381.0
< 1.20	32.8	27.3	21.2	19.4	16.7	12.7	12.7	6.8	6.8					235.0
< 1.00	13.5	9.8	6.1	6.1										97.0
< 0.80	3.2	1.4												23.0
< 0.60														
< 0.40														
< 0.20														
< 0.00														



expected record interval: 3600 seconds
* denotes values less than 0.1

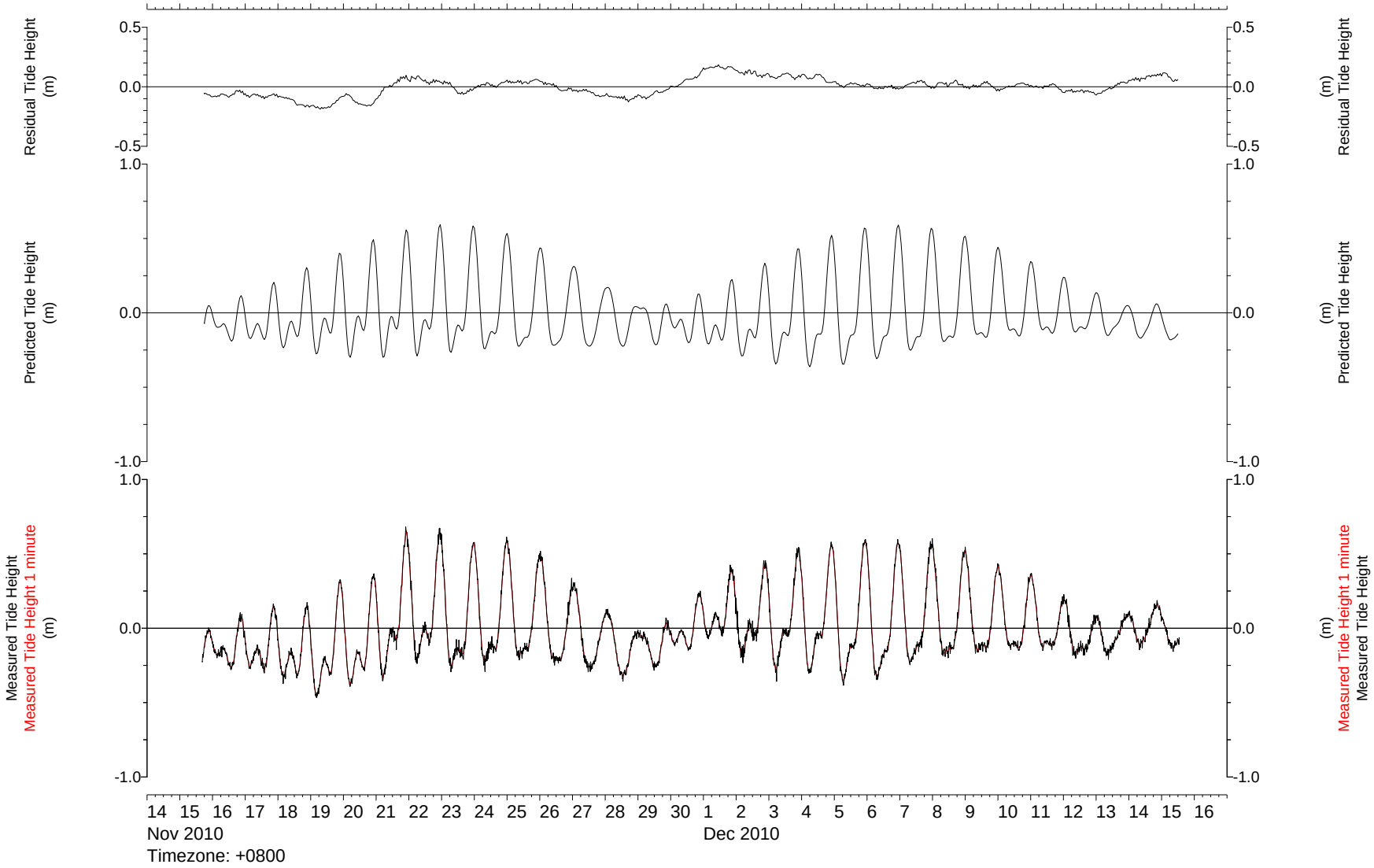
Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/2836cap001_proc_cos2s_RelativePressure.nc
	moepersist: 10:48 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/persist_2836cap001_proc_cos2s.ps)

APPENDIX G

Tide Data

- Deployment time history plots of measured, predicted and residual tide height;
- Statistics of measured, predicted and residual tide height; and
- Table of constituents derived by harmonic analysis of the tide height.

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL		



Time Zone: UTC +08:00 hours	Data Source: ...red/awac/dec10/harmonic_analysis/TideHeight/2836cap002_current_tide.c.ext.nc and 2836cap002_PREDICT0.nc
	moetimehist: 13:00 13/May/2011 by jonty (timehist.2836cap002.meas_pred_resid.deploy.c.ps)

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL		

Period: 16:30 15 November 2010 to 13:00 15 December 2010
Measured Tide Height 10 minutes (m)

	Measured Tide Height 10 minutes (m)				Total	Exceedence Percentile Measured Tide Height 10 minutes (m)										
	Min	Max	Mean	Std. Dev	Records	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0
Total Period [1]	-0.47	0.68	-0.00	0.2258	3584	-0.36	-0.28	-0.24	-0.16	-0.06	0.06	0.17	0.37	0.48	0.56	0.58

Notes: 1) Total Period: 16:30 15 November 2010 to 13:00 15 December 2010

Sample Interval: 10.00 minutes.

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL		

Period: 16:30 15 November 2010 to 13:00 15 December 2010
Modelled Tide Height 60 minutes (m)

	Modelled Tide Height 60 minutes (m)				Total	Exceedence Percentile Modelled Tide Height 60 minutes (m)										
	Min	Max	Mean	Std. Dev	Records	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0
Total Period [1]	-0.45	0.65	-0.00	0.2242	715	-0.35	-0.28	-0.24	-0.16	-0.06	0.06	0.17	0.35	0.48	0.56	0.57

Notes: 1) Total Period: 16:30 15 November 2010 to 13:00 15 December 2010

Sample Interval: 10.00 minutes.

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL		

Period: 16:30 15 November 2010 to 13:00 15 December 2010
Predicted Tide Height (m), 0.25m ASB.

	Predicted Tide Height (m)				Total	Exceedence Percentile Predicted Tide Height (m)										
	Min	Max	Mean	Std. Dev	Records	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0
Total Period [1]	-0.36	0.59	-0.00	0.2134	715	-0.32	-0.25	-0.21	-0.15	-0.08	0.05	0.17	0.35	0.45	0.54	0.57

Notes: 1) Total Period: 16:30 15 November 2010 to 13:00 15 December 2010

Sample Interval: 10.00 minutes.

Location:	**Cape Riche Diffuser**		
Latitude:	34° 36' 10" S	Client:	GHD Pty Ltd
Longitude:	118° 46' 1" E	Project:	J2836
Location Water Depth:	11.30 m MSL		

Period: 16:30 15 November 2010 to 13:00 15 December 2010
Residual Tide Height (m), 0.25m ASB.

	Residual Tide Height (m)				Total	Exceedence Percentile Residual Tide Height (m)										
	Min	Max	Mean	Std. Dev	Records	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0
Total Period [1]	-0.19	0.18	0.00	0.0752	715	-0.17	-0.14	-0.09	-0.05	0.00	0.04	0.06	0.10	0.12	0.16	0.17

Notes: 1) Total Period: 16:30 15 November 2010 to 13:00 15 December 2010

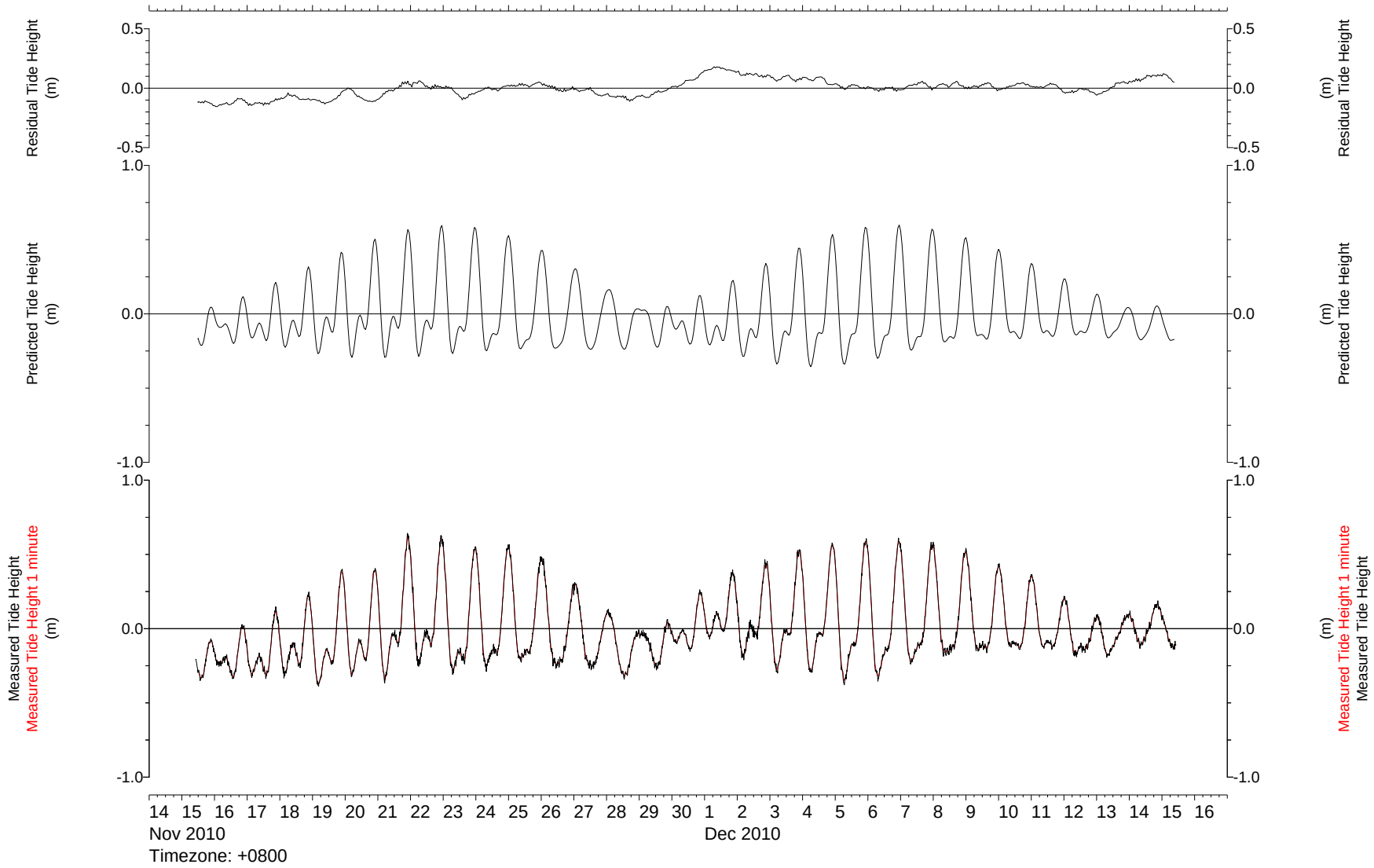
Sample Interval: 10.00 minutes.

Time Zone: UTC +08:00 hours	Data Source: /data/jobs/J2836/measured/awac/dec10/harmonic_analysis/TideHeight/2836cap002_current_tide.c.ext.nc and 2836cap002_PREDICT0.nc
	moematrix: 14:29 13/May/2011 by jonty (/data/jobs/J2836/measured/awac/dec10/harmonic_analysis/TideHeight/stats_2836cap002.meas_pred_resid.ps)

Cape Riche Diffuser
-34 -36 -9 S
118 46 1 E
WST 8.00
900 15 11 2010
500 15 12 2010
Inferred (TideHeight)

1	Z0	0.00000000	0.0000	180.00	0.0000	180.00	
2	MSF	0.00282193	0.0748	51.71	0.0748	188.31	
3	2Q1	0.03570635	0.0028	125.97	0.0029	139.79	
4	Q1	0.03721850	0.0248	295.53	0.0257	296.47	
5	O1	0.03873065	0.1413	315.21	0.1455	303.31	
6	NO1	0.04026859	0.0149	302.42	0.0212	101.84	
7	P1	0.04155259	0.0573	332.55	0.0572	86.25	K1
8	K1	0.04178075	0.1726	332.55	0.1765	119.50	
9	J1	0.04329290	0.0057	55.38	0.0059	186.85	
10	OO1	0.04483084	0.0021	318.81	0.0027	77.00	
11	UPS1	0.04634299	0.0040	165.57	0.0047	270.96	
12	MU2	0.07768947	0.0041	16.51	0.0041	10.26	N2
13	N2	0.07899925	0.0307	20.15	0.0307	164.92	
14	NU2	0.07920162	0.0058	20.15	0.0058	1.79	N2
15	M2	0.08051140	0.0877	325.23	0.0875	96.62	
16	T2	0.08321926	0.0063	325.07	0.0063	201.32	S2
17	S2	0.08333334	0.1084	325.07	0.1084	235.20	
18	K2	0.08356149	0.0310	323.32	0.0322	77.10	S2
19	ETA2	0.08507364	0.0052	353.68	0.0056	92.51	
20	MO3	0.11924206	0.0009	280.14	0.0009	39.62	
21	M3	0.12076710	0.0027	9.37	0.0027	26.24	
22	MK3	0.12229215	0.0002	181.86	0.0002	100.20	
23	SK3	0.12511408	0.0043	163.75	0.0044	220.84	
24	MN4	0.15951064	0.0010	21.97	0.0010	298.13	
25	M4	0.16102280	0.0025	75.98	0.0025	338.75	
26	MS4	0.16384473	0.0014	97.73	0.0014	139.26	
27	S4	0.16666667	0.0004	127.44	0.0004	307.72	
28	2MK5	0.20280355	0.0005	79.92	0.0005	129.65	
29	2SK5	0.20844743	0.0011	232.48	0.0011	199.71	
30	2MN6	0.24002205	0.0009	235.90	0.0009	283.44	
31	M6	0.24153420	0.0005	229.12	0.0005	263.28	
32	2MS6	0.24435613	0.0010	300.57	0.0010	113.48	
33	2SM6	0.24717808	0.0001	207.08	0.0001	158.74	
34	3MK7	0.28331494	0.0004	140.04	0.0004	321.16	
35	M8	0.32204559	0.0007	35.77	0.0007	201.32	

Location:	**Cape Riche Offshore**		
Latitude:	34° 36' 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47' 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL		



Time Zone: UTC +08:00 hours	Data Source: ...red/awac/dec10/harmonic_analysis/TideHeight/2836cap001_current_tide.c.ext.nc and 2836cap001_PREDICT0.nc
	moetimehist: 12:58 13/May/2011 by jonty (timehist.2836cap001.meas_pred_resid.deploy.c.ps)

Location:	**Cape Riche Offshore**		
Latitude:	34° 36’ 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47’ 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL		

Period: 10:20 15 November 2010 to 10:20 15 December 2010
Measured Tide Height 10 minutes (m)

	Measured Tide Height 10 minutes (m)				Total	Exceedence Percentile Measured Tide Height 10 minutes (m)										
	Min	Max	Mean	Std. Dev	Records	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0
Total Period [1]	-0.39	0.64	-0.00	0.2252	3601	-0.34	-0.29	-0.24	-0.16	-0.06	0.06	0.18	0.37	0.48	0.55	0.58

Notes: 1) Total Period: 10:20 15 November 2010 to 10:20 15 December 2010

Sample Interval: 10.00 minutes.

Location:	**Cape Riche Offshore**		
Latitude:	34° 36’ 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47’ 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL		

Period: 10:20 15 November 2010 to 10:20 15 December 2010
Modelled Tide Height 60 minutes (m)

	Modelled Tide Height 60 minutes (m)				Total	Exceedence Percentile Modelled Tide Height 60 minutes (m)										
	Min	Max	Mean	Std. Dev	Records	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0
Total Period [1]	-0.37	0.63	-0.00	0.2238	718	-0.33	-0.28	-0.24	-0.16	-0.06	0.06	0.18	0.36	0.47	0.55	0.57

Notes: 1) Total Period: 10:20 15 November 2010 to 10:20 15 December 2010

Sample Interval: 10.00 minutes.

Location:	**Cape Riche Offshore**		
Latitude:	34° 36’ 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47’ 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL		

Period: 10:20 15 November 2010 to 10:20 15 December 2010
Predicted Tide Height (m), 0.25m ASB.

	Predicted Tide Height (m)				Total	Exceedence Percentile Predicted Tide Height (m)										
	Min	Max	Mean	Std. Dev	Records	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0
Total Period [1]	-0.36	0.60	-0.00	0.2143	718	-0.31	-0.24	-0.21	-0.15	-0.08	0.05	0.16	0.35	0.46	0.53	0.57

Notes: 1) Total Period: 10:20 15 November 2010 to 10:20 15 December 2010

Sample Interval: 10.00 minutes.

Location:	**Cape Riche Offshore**		
Latitude:	34° 36’ 41" S	Client:	GHD Pty Ltd
Longitude:	118° 47’ 33" E	Project:	J2836
Location Water Depth:	31.40 m MSL		

Period: 10:20 15 November 2010 to 10:20 15 December 2010
Residual Tide Height (m), 0.25m ASB.

	Residual Tide Height (m)				Total	Exceedence Percentile Residual Tide Height (m)										
	Min	Max	Mean	Std. Dev	Records	99.0	95.0	90.0	75.0	50.0	30.0	20.0	10.0	5.0	2.0	1.0
Total Period [1]	-0.16	0.18	-0.00	0.0713	718	-0.14	-0.12	-0.10	-0.05	0.00	0.03	0.05	0.09	0.12	0.15	0.16

Notes: 1) Total Period: 10:20 15 November 2010 to 10:20 15 December 2010

Sample Interval: 10.00 minutes.

Cape Riche Offshore
-34 -36 -41 S
118 47 31 E
WST 8.00
300 15 11 2010
200 15 12 2010
Inferred (TideHeight)

1	Z0	0.00000000	0.0000	180.00	0.0000	180.00	
2	MSF	0.00282193	0.0764	42.60	0.0764	184.28	
3	2Q1	0.03570635	0.0032	153.47	0.0033	231.56	
4	Q1	0.03721850	0.0246	298.55	0.0255	6.47	
5	O1	0.03873065	0.1416	314.55	0.1458	12.36	
6	NO1	0.04026859	0.0152	301.30	0.0216	173.19	
7	P1	0.04155259	0.0575	332.82	0.0574	161.32	K1
8	K1	0.04178075	0.1733	332.82	0.1772	194.98	
9	J1	0.04329290	0.0048	62.89	0.0049	272.29	
10	OO1	0.04483084	0.0024	345.91	0.0031	184.79	
11	UPS1	0.04634299	0.0044	166.94	0.0052	355.75	
12	MU2	0.07768947	0.0040	17.56	0.0040	151.14	N2
13	N2	0.07899925	0.0303	21.27	0.0303	308.23	
14	NU2	0.07920162	0.0057	21.27	0.0057	145.47	N2
15	M2	0.08051140	0.0878	325.95	0.0876	242.26	
16	T2	0.08321926	0.0063	325.44	0.0063	351.48	S2
17	S2	0.08333334	0.1089	325.44	0.1089	25.58	
18	K2	0.08356149	0.0312	323.68	0.0323	227.87	S2
19	ETA2	0.08507364	0.0042	343.59	0.0046	235.55	
20	MO3	0.11924206	0.0007	270.81	0.0007	244.94	
21	M3	0.12076710	0.0028	10.77	0.0028	245.02	
22	MK3	0.12229215	0.0009	218.35	0.0009	356.82	
23	SK3	0.12511408	0.0045	152.59	0.0046	74.88	
24	MN4	0.15951064	0.0010	10.64	0.0010	213.91	
25	M4	0.16102280	0.0024	71.30	0.0024	263.91	
26	MS4	0.16384473	0.0018	101.09	0.0018	77.54	
27	S4	0.16666667	0.0007	92.94	0.0007	213.21	
28	2MK5	0.20280355	0.0003	148.80	0.0003	203.58	
29	2SK5	0.20844743	0.0007	229.78	0.0007	212.21	
30	2MN6	0.24002205	0.0009	161.70	0.0009	281.28	
31	M6	0.24153420	0.0005	243.63	0.0005	352.56	
32	2MS6	0.24435613	0.0005	274.84	0.0005	167.60	
33	2SM6	0.24717808	0.0003	90.15	0.0003	126.73	
34	3MK7	0.28331494	0.0004	122.68	0.0004	93.77	
35	M8	0.32204559	0.0007	61.11	0.0007	86.35	