

Deal Pier Wave Gauge

Location

OS: 638145E 152700N

WGS84: Latitude: 51° 13.43' N Longitude: 001° 24.56' E

Water Depth

N/A

Instrument Type

Rosemount WaveRadar Rex

Data Quality

All times GMT

C1 (%)	Sample interval
96	20 minutes

Monthly Means

Month	H _s	T _p	T _z	Direction	SST	No. of days
	(m)	(s)	(s)	(°)	(°C)	
January	0.52	8.3	4.0	-	-	31
February	0.54	8.5	4.1	-	-	28
March	0.43	8.3	3.8	-	-	31
April	0.38	8.2	3.7	-	-	28
May	0.46	7.9	3.8	-	-	31
June	0.41	8.4	3.7	-	-	29
July	0.26	8.7	3.5	-	-	29
August	0.38	7.8	3.8	-	-	30
September	0.40	8.2	3.9	-	-	29
October	0.53	7.6	4.0	-	-	27
November	0.57	8.0	4.2	-	-	29
December	0.56	8.2	4.1	-	-	30

Tables and plots of these values, together with the minimum and maximum values and the standard deviation are available on the website.

Highest storm events in 2010									
Date/Time	H _s	T _p	T _z	Dir.	Water level elevation* (OD)	Tidal stage (hours re. HW)	Tidal range (m)	Tidal surge* (m)	Max. surge* (m)
23-Dec-2010 23:20	2.20	9.4	5.3	-	0.29	HW -2	4.96	-0.08	0.41
09-Jan-2010 18:00	2.13	9.3	5.0	-	1.67	HW -1	3.40	-0.03	0.14
11-Feb-2010 09:20	1.89	8.7	5.2	-	1.97	HW -1	3.69	0.08	0.25

* Tidal information is obtained from the nearest recording tide gauge (the radar also provides tidal data). The surge shown is the residual at the time of the highest H_s.

Year	Annual H_s exceedance* (m)						Annual Maximum H_s (m)	
	0.05%	0.5%	1%	2%	5%	10%	Date	A_{max}
2005	-	1.37	1.23	1.12	0.92	0.78	16-Oct-2005 09:40	1.62
2006	1.62	1.37	1.25	1.11	0.91	0.75	26-Jan-2006 08:00	1.68
2007	1.60	1.33	1.22	1.08	0.89	0.75	28-Sep-2007 11:00	1.77
2008	1.79	1.35	1.25	1.11	0.92	0.77	22-Mar-2008 11:00	1.97
2009	1.71	1.43	1.30	1.16	0.97	0.79	12-May-2009 00:00	1.97
2010	2.00	1.58	1.40	1.24	1.02	0.83	23-Dec-2010 23:20	2.20

i.e. 2% of the H_s values measured in 2005 exceeded 1.12m

Distribution plots

The distribution of wave parameters are shown in the accompanying graphs of:

- Percentage of occurrence of H_s , T_p , and T_z for 2010
- Percentage wave height exceedence (all recorded years)
- Joint distribution of all parameters for 2010, given both as number of observations and as percentage of occurrence
- Cumulative joint distribution of parameters from start of records (percentage of occurrence only)
- Incidence of storms during 2010 and for all previous years. Storm events are defined using the Peaks-over-Threshold method. The highest H_s of each storm event is shown.
- Annual time series of H_s (red line is storm threshold)

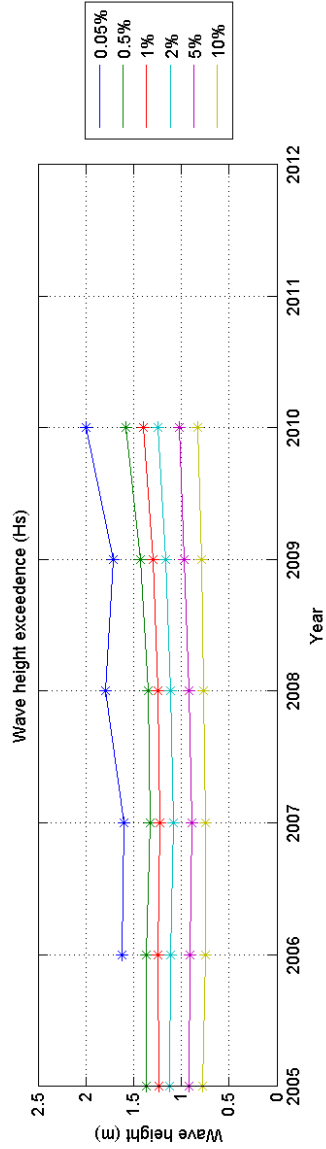
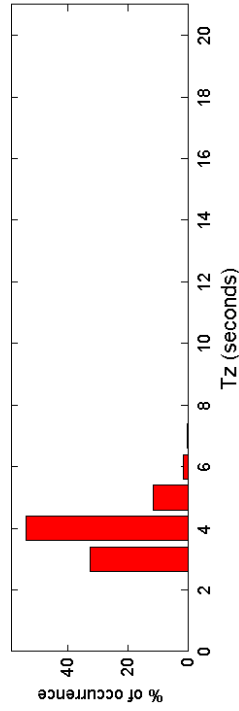
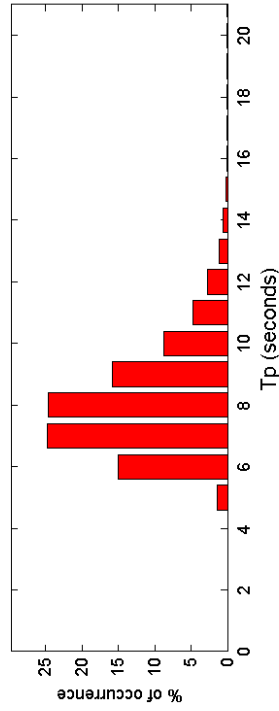
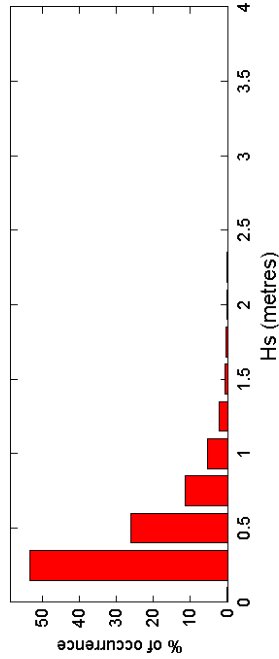
General

The WaveRadar Rex was installed on 25 August 2005.

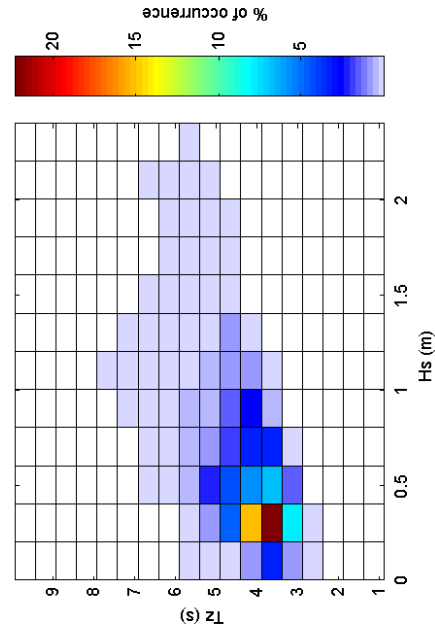
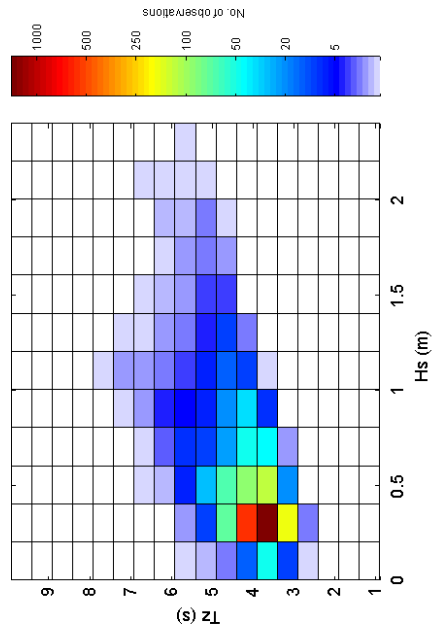
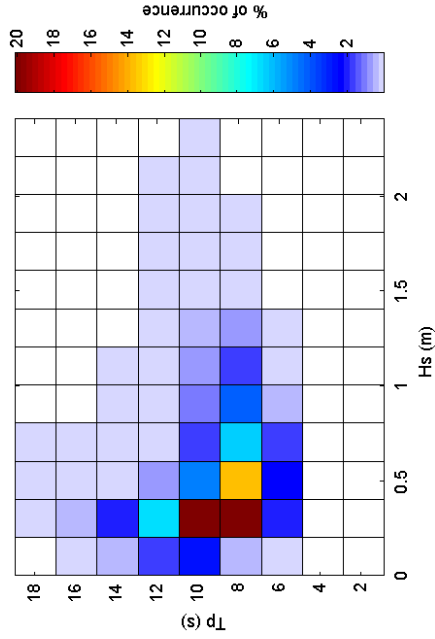
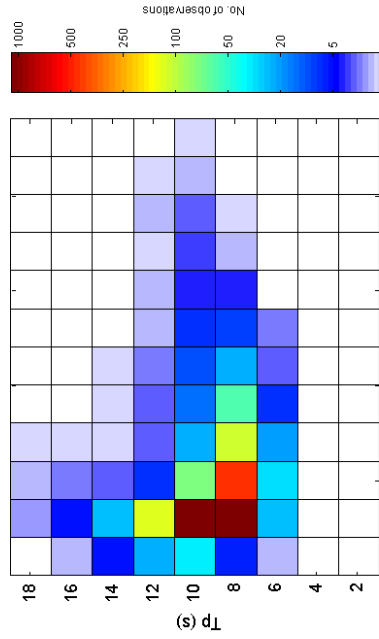
Acknowledgements

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Deal Pier 2010



Deal Pier 2010 - Joint distribution



Deal Pier 2006 to 2010 - Joint distribution (% of occurrence)

