

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
97	20 minutes

Monthly Means

Month	H _s	T _p	T _z	Direction	SST	No. of days
	(m)	(s)	(s)	(°)	(°C)	
January	0.57	8.2	4.3	-	-	31
February	0.41	8.6	3.9	-	-	27
March	0.55	8.3	4.3	-	-	22
April	0.39	8.3	3.7	-	-	22
May	0.47	7.9	3.6	-	-	31
June	0.31	8.2	3.7	-	-	22
July	0.32	8.2	3.7	-	-	30
August	0.36	7.8	3.8	-	-	30
September	0.44	7.7	3.7	-	-	30
October	0.42	8.4	4.0	-	-	30
November	0.55	7.7	4.1	-	-	30
December	0.47	7.8	3.9	-	-	31

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 2008									
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)
22-Mar-2008 11:00	1.97	8.8	5.5	-	2.68	HW -1	5.24	0.34	0.46
16-Mar-2008 18:40	1.72	8.3	5.0	-	1.89	HW	2.85	0.37	0.47
31-Jan-2008 16:00	1.68	9.4	6.2	-	-0.01	HW -3	3.17	-1.00	-1.25
15-Jan-2008 16:40	1.67	9.2	5.3	-	1.53	HW	3.71	-0.49	-0.58
10-Mar-2008 09:40	1.53	8.5	4.8	-	-1.44	HW -5	5.91	0.18	0.18

* 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	1.58	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

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
- Incidence of storm waves for 2008. 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)

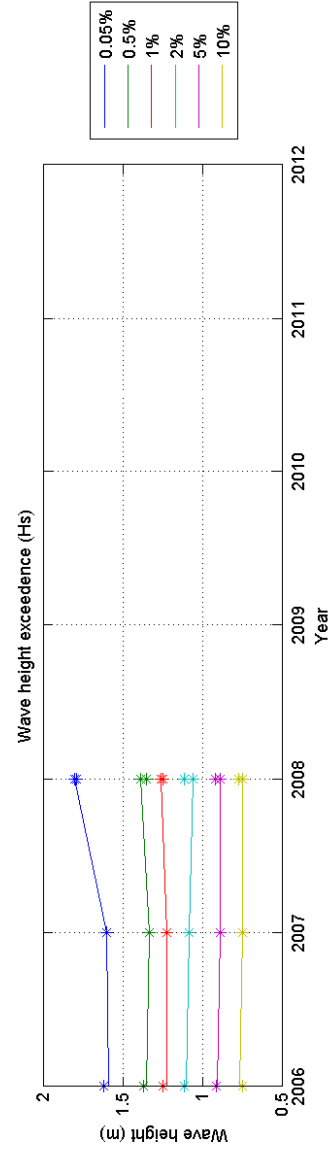
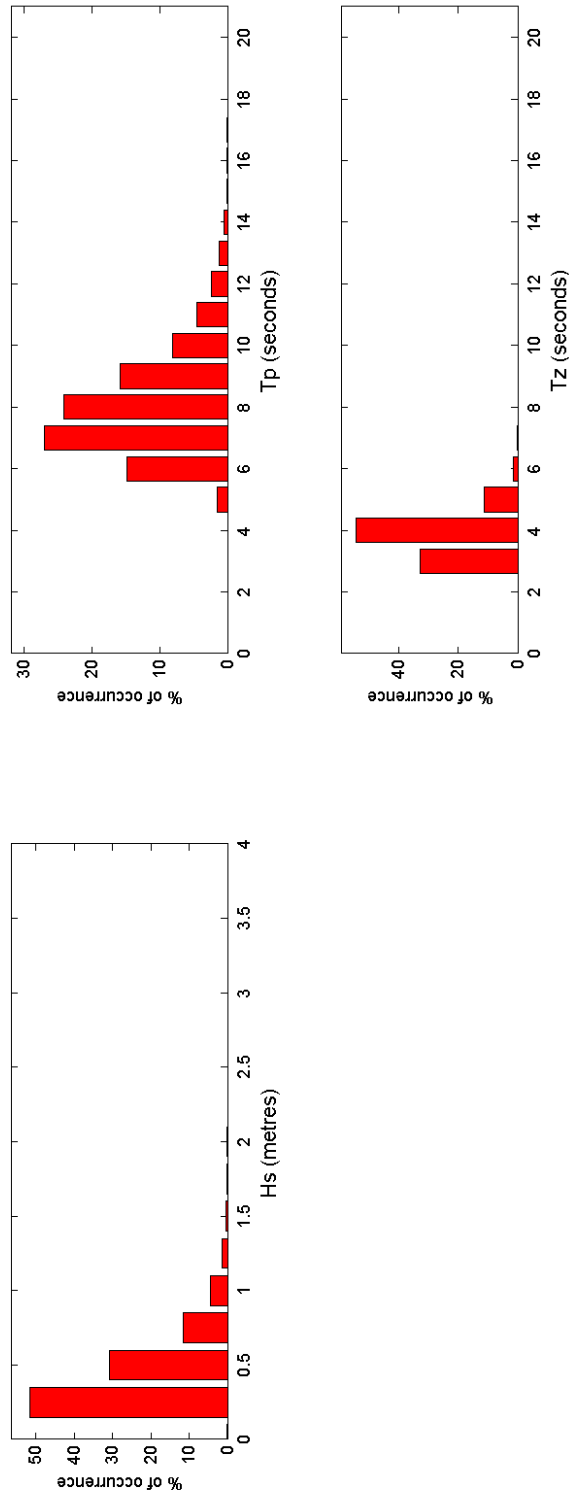
General

The wave radar was deployed on 25 August 2005. Wave data were unobtainable during periods of when mains power was cut off whilst the Pier was undergoing refurbishment.

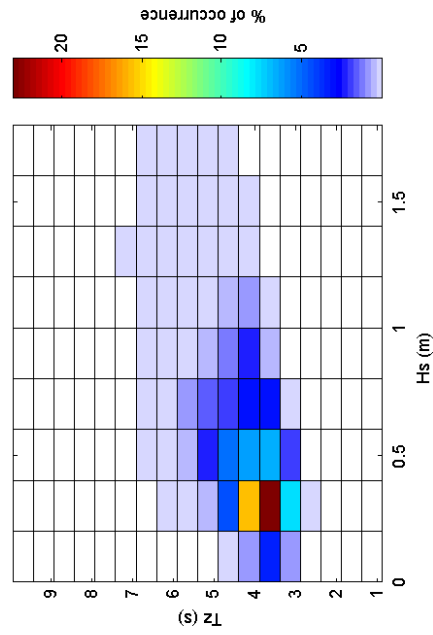
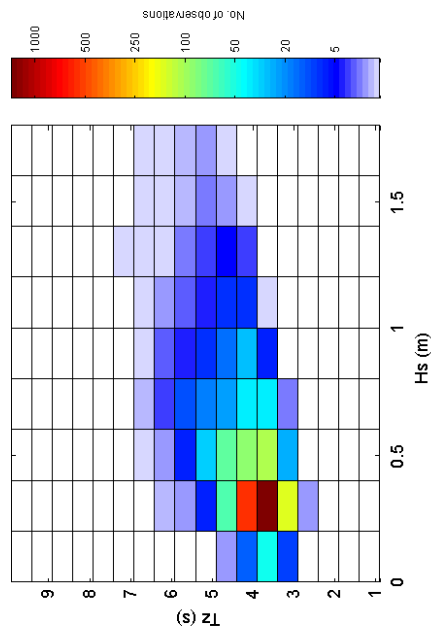
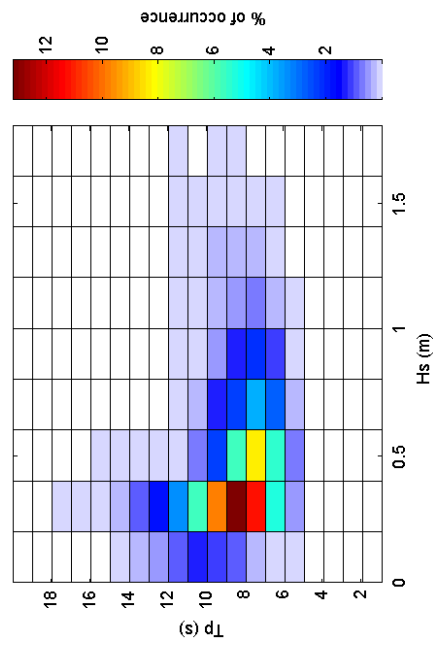
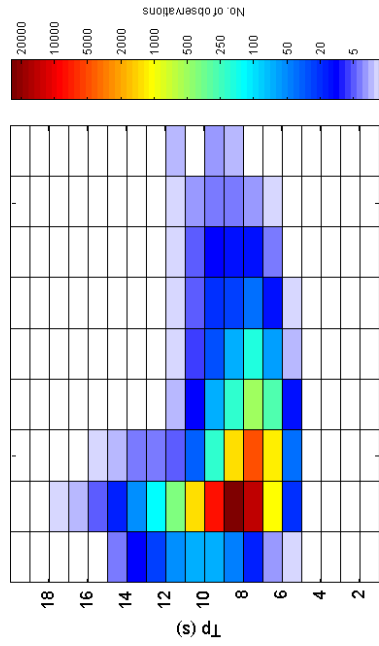
Acknowledgements

TASK2000 tidal prediction software was kindly provided by the Permanent Service for Mean Sea Level, Proudman Oceanographic Laboratory.

Deal Pier 2008



Deal Pier 2008 - Joint distribution



Deal Pier 2005 to 2008 - Joint distribution (% of occurrence)

