

## Deal Pier Wave Gauge

### Location

OS: 638145E 152700N  
 WGS84: Latitude: 51° 13' 25.652"N Longitude: 01° 24' 33.332"E

### Water Depth

N/A

### Instrument Type

Saab WaveRadar Rex

### Data Quality

All times GMT

C1(%)	Sample interval
98	20 minutes

### Monthly Means

Month	H <sub>s</sub>	T <sub>p</sub>	T <sub>z</sub>	Direction	SST	No. of days
	(m)	(s)	(s)	(°)	(°C)	
January	0.54	7.9	3.7	-	-	30
February	0.57	8.8	4.0	-	-	27
March	0.52	8.1	3.9	-	-	29
April	0.35	8.3	3.7	-	-	30
May	0.38	8.6	3.8	-	-	30
June	0.33	8.8	3.6	-	-	30
July	0.31	8.9	3.4	-	-	31
August	0.37	8.0	3.8	-	-	31
September	0.35	8.7	3.6	-	-	30
October	0.45	7.9	3.8	-	-	31
November	0.52	8.2	4.2	-	-	30
December	0.55	8.5	4.2	-	-	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 2006									
Date/Time	H <sub>s</sub>	T <sub>p</sub>	T <sub>z</sub>	Dir.	Water level elevation* (OD)	Tidal stage (hours re. HW)	Tidal range (m)	Tidal surge* (m)	Max. surge* (m)
26-Jan-2006 08:00	1.68	8.2	4.7	-	1.74	HW	3.0	-0.07	0.31
25-Feb-2006 08:40	1.67	8.1	4.9	-	1.84	HW	3.5	-0.05	-0.27
20-Feb-2006 04:20	1.64	7.9	5.0	-	2.07	HW + 2	4.1	0.16	0.31
03-Dec-2006 10:00	1.58	9.0	5.4	-	1.85	HW + 1	4.6	-0.67	-0.67

\* 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<sub>s</sub>. The maximum tidal surge is the largest positive surge during the storm event.

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

*i.e. 2% of the  $H_s$  values measured in 2005 exceeded 0.79m*

### 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 2006. 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 waves threshold)

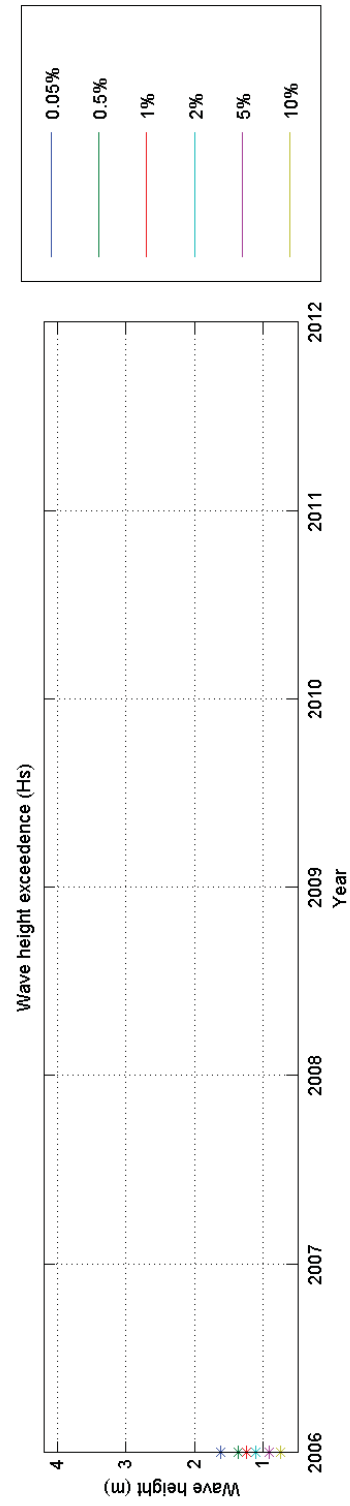
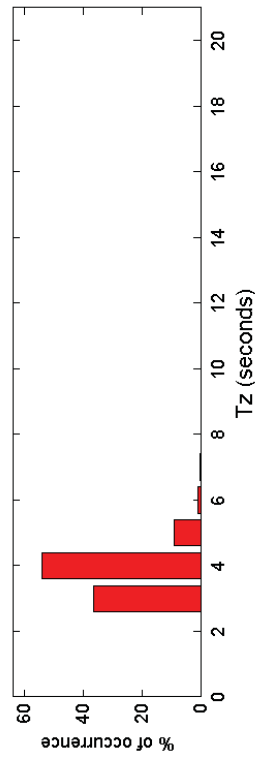
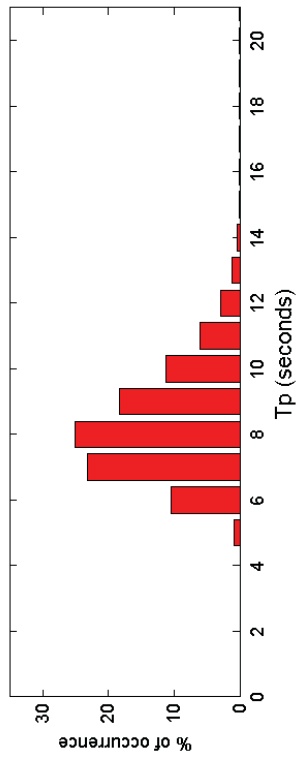
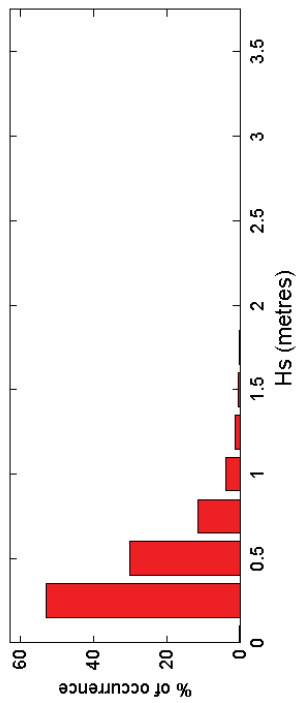
### General

The wave radar was deployed on 25 August 2005.

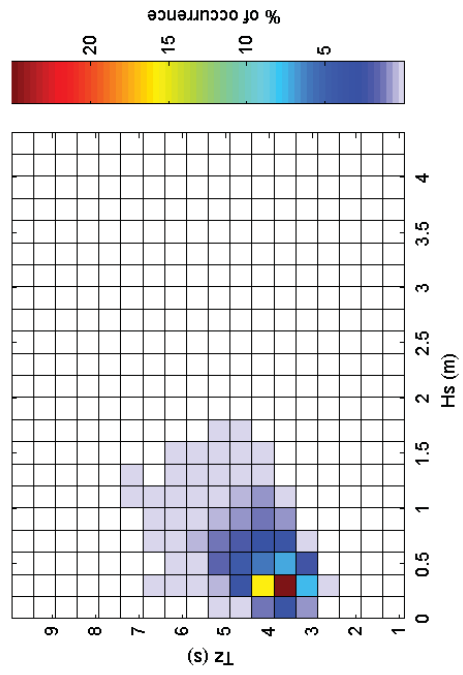
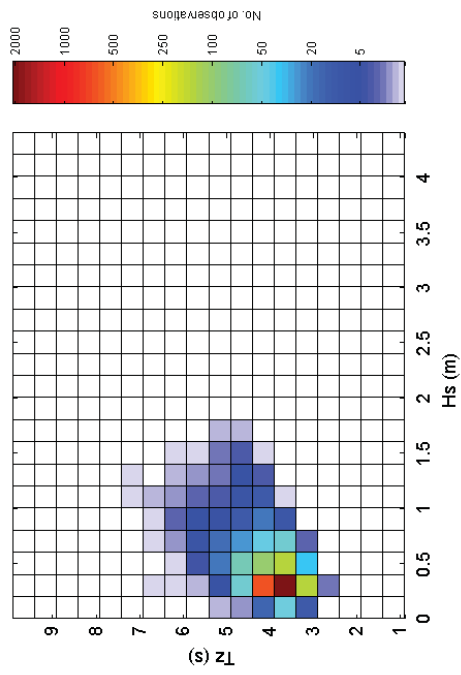
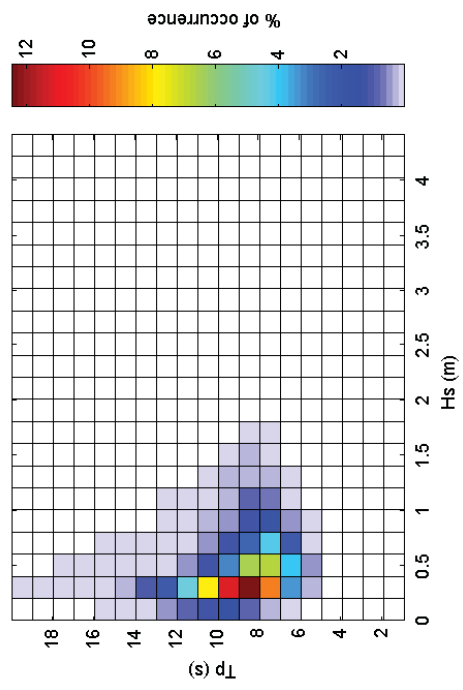
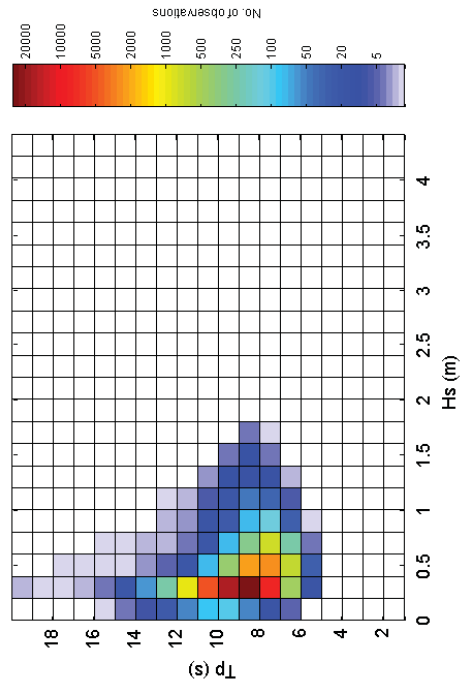
### Acknowledgements

TASK2000 tidal prediction software was kindly provided by Proudman Oceanographic Laboratory.

Deal Pier 2006



Deal Pier 2006 - Joint distribution



Deal Pier 2005 to 2006 - Joint distribution (% of occurrence)

