

Sandown Pier Wave Gauge

Location

OS: 459964E 83835N
 WGS84: Latitude: 50° 39.07' N Longitude: 001° 09.19' W

Water Depth

N/A

Instrument Type

Rosemount WaveRadar Rex

Data Quality

C1 (%)	Sample interval
98	20 minutes

Monthly Means

All times GMT

Month	H _s	T _p	T _z	Direction	SST	No. of days
	(m)	(s)	(s)	(°)	(°C)	
January	0.44	-	3.8	-	-	30
February	0.41	-	3.9	-	-	28
March	0.41	-	3.7	-	-	31
April	0.34	-	3.6	-	-	29
May	0.31	-	3.5	-	-	30
June	0.30	-	3.5	-	-	30
July	0.28	-	3.5	-	-	30
August	0.30	-	3.5	-	-	30
September	0.34	-	3.6	-	-	29
October	0.45	-	3.8	-	-	31
November	0.46	-	3.8	-	-	30
December	0.41	-	3.7	-	-	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 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)
08-Nov-2010 08:40	1.83	9.2	5.5	-	0.49	HW -4	3.23	0.46	0.47
17-Nov-2010 09:20	1.81	8.3	4.8	-	1.52	HW +1	2.15	0.30	0.35
01-Oct-2010 12:40	1.60	8.3	5.3	-	0.43	HW -4	1.57	0.21	0.35
12-Jan-2010 20:40	1.54	8.7	4.4	-	1.35	HW -1	2.34	0.13	0.21

* Tidal information is obtained from the nearest recording tide gauge (the wave radar also provides tidal data). The surge shown is the residual at the time of the highest H_s. 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}
2006	-	1.36	1.26	1.13	0.87	0.66	03-Dec-2006 06:40	1.82
2007	1.85	1.26	1.07	0.93	0.72	0.58	18-Nov-2007 17:40	2.00
2008	1.86	1.43	1.29	1.07	0.80	0.61	13-Dec-2008 09:00	2.01
2009	1.63	1.32	1.23	1.09	0.86	0.64	13-Nov-2009 22:00	1.79
2010	1.65	1.35	1.17	0.98	0.73	0.58	08-Nov-2010 08:40	1.83

* i.e. 5 % of the H_s values measured in 2006 exceeded 0.87m

Distribution plots

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

- Percentage of occurrence of H_s , T_p , T_z for 2010
- Percentage wave height exceedance (all recorded years – note that 2006 data is for May to December only)
- Incidence of storms during 2010. 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)

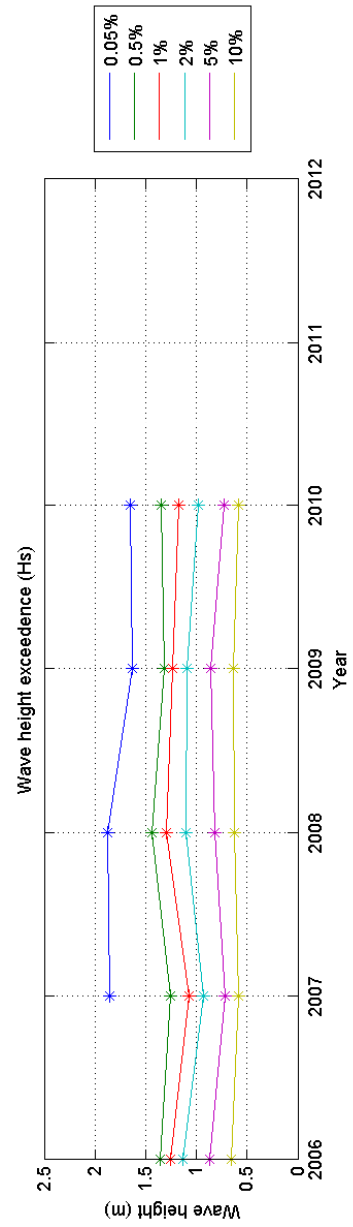
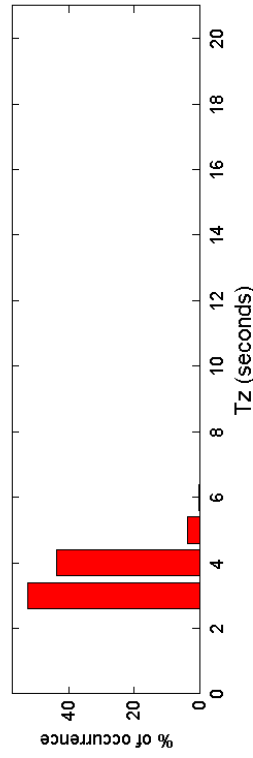
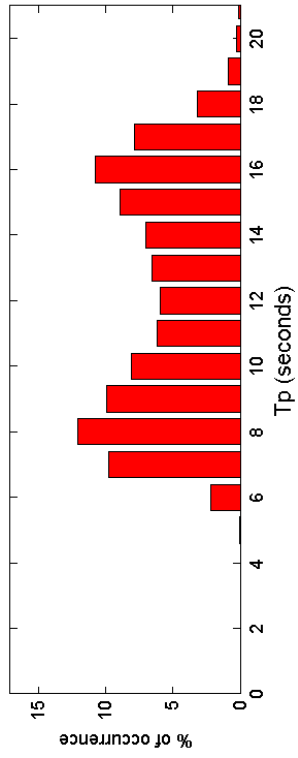
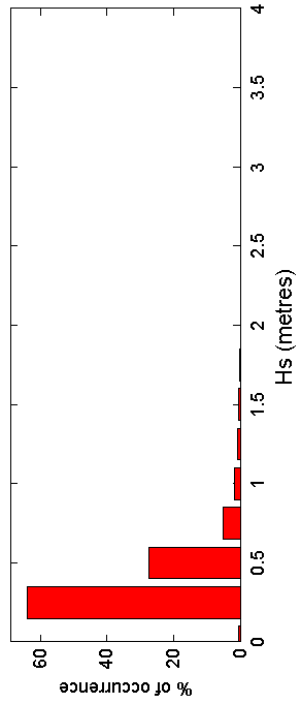
General

The wave radar was deployed on 04 May 2006.

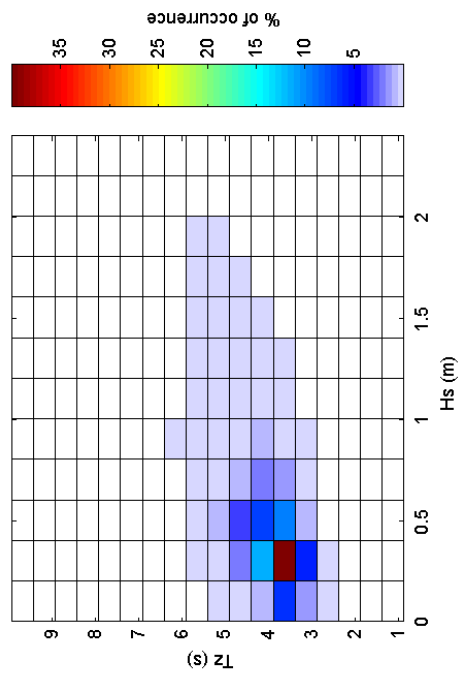
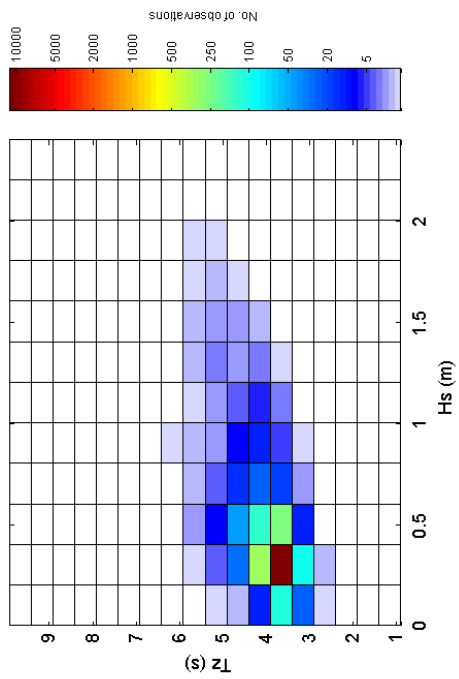
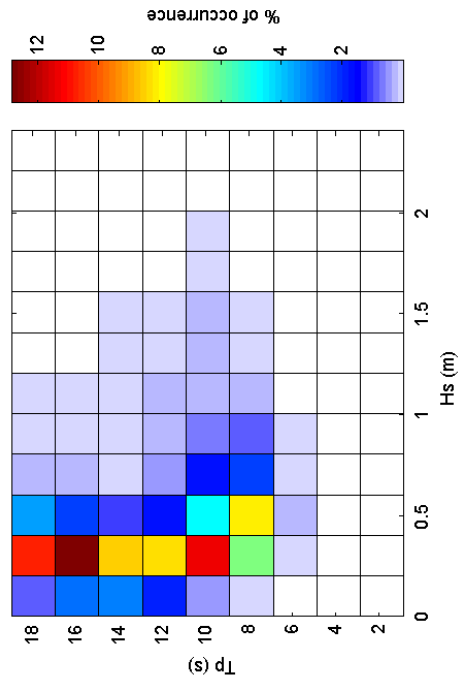
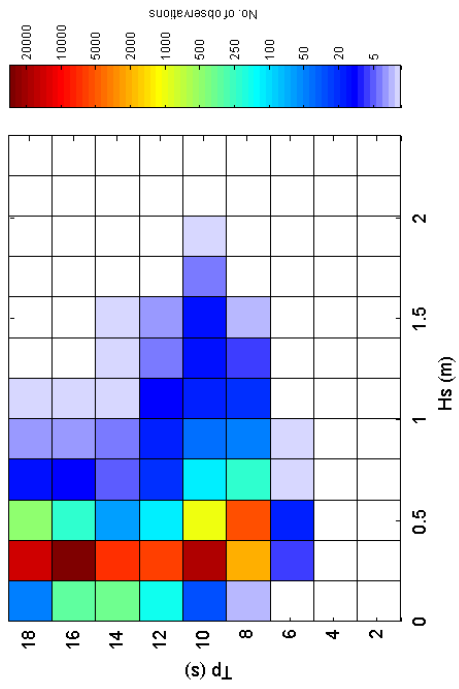
Acknowledgements

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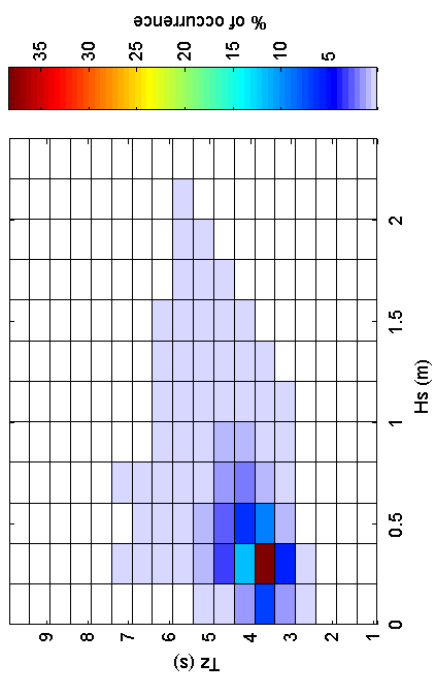
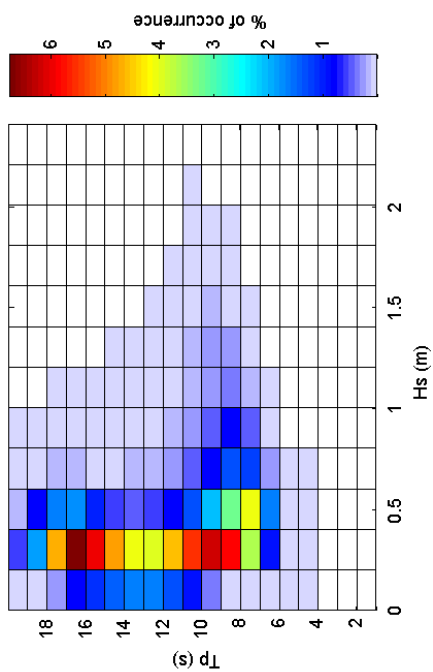
Sandown Pier 2010



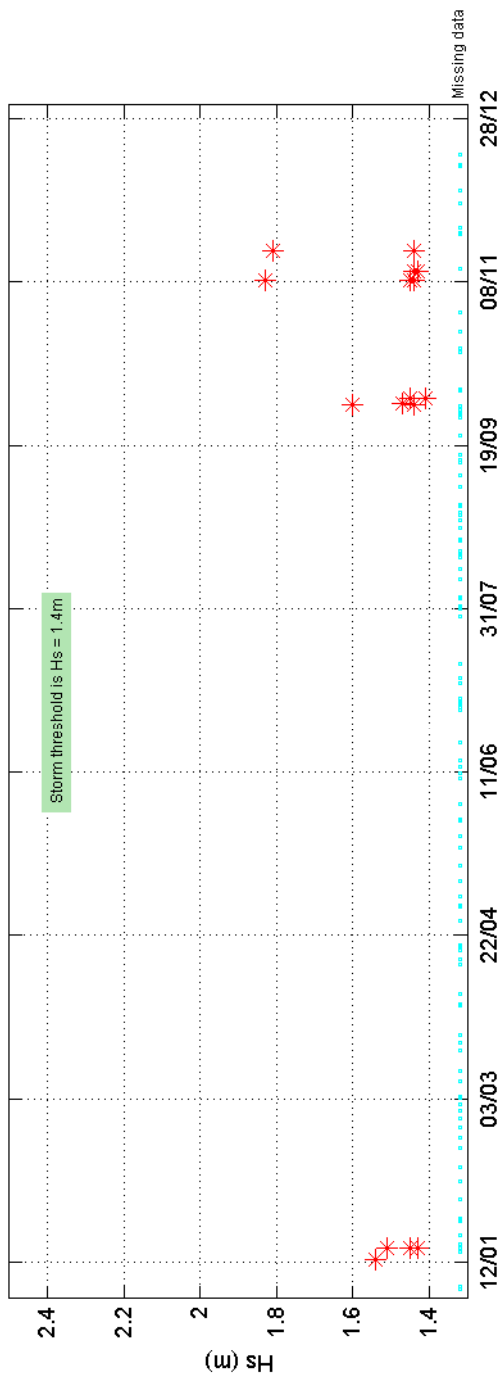
Sandown Pier 2010 - Joint distribution



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



Storms at Sandown Pier during 2010



Storms at Sandown Pier - all years

