

Sandown Pier Wave Radar

Location

OS: 459964E 83835N

WGS84: Latitude: 50° 39.066' N Longitude: 01° 09.189' W

Water Depth

N/A

Instrument Type

Rosemount WaveRadar REX

Data Quality

Recovery rate (%)	Sample interval
93	20 minutes

Statistics - 2012

All times are GMT

Month	H _s (m)	T _p (s)	T _z (s)	Dir. (°)	SST (°C)	No. of days
January	0.24	5.6	3.6	-	-	24
February	0.20	5.0	3.5	-	-	26
March	0.15	5.2	3.4	-	-	28
April	0.30	5.3	3.5	-	-	27
May	0.15	5.0	3.1	-	-	30
June	0.23	5.1	3.2	-	-	28
July	0.16	5.1	3.1	-	-	29
August	0.19	5.3	3.2	-	-	30
September	0.18	5.2	3.3	-	-	28
October	0.29	5.2	3.6	-	-	30
November	0.30	5.5	3.7	-	-	29
December	0.32	6.3	3.9	-	-	30

Storm Analysis

Date/Time	H _s (m)	T _p (s)	T _z (s)	Dir. (°)	Water level elevation* (OD)	Tidal stage (hours re. HW)	Tidal range (m)	Tidal surge* (m)	Max. surge* (m)
25-Apr-2012 12:30	1.71	-	4.3	-	1.67	HW -1	2.8	-	-

* 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. The maximum tidal surge is the largest positive surge during the storm event.

Annual Statistics

Year	Annual H_s exceedance* (m)						Annual Maximum H_s	
	0.05%	0.5%	1%	2%	5%	10%	Date	A_{max} (m)
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
2011	1.63	1.34	1.16	0.96	0.73	0.59	13-Dec-2011 00:40	1.74
2012	1.51	1.26	1.04	0.86	0.58	0.42	25-Apr-2012 12:30	1.71

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

Distribution plots

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

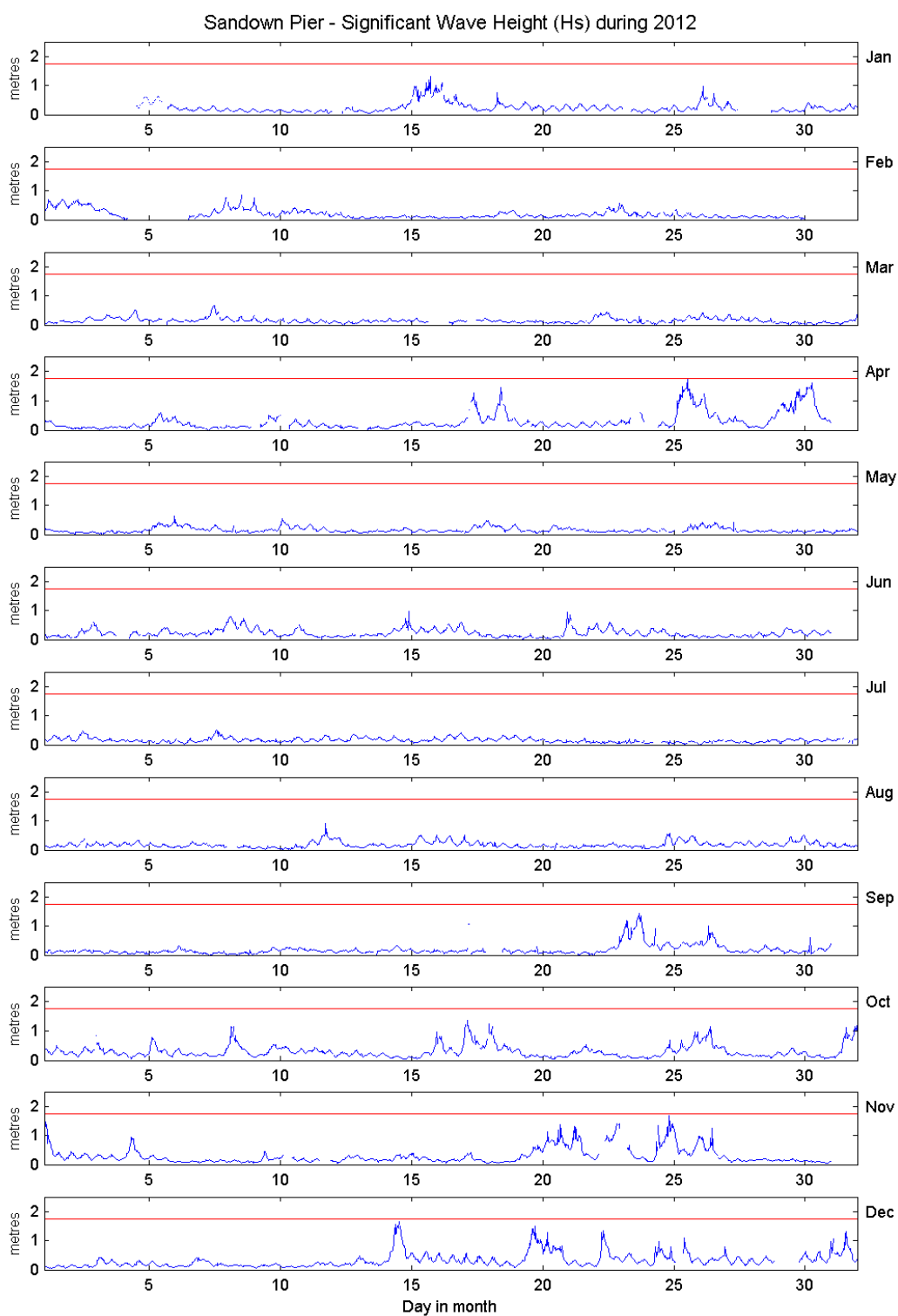
- Annual time series of H_s (red line is 1.75 m storm threshold)
- Percentage of occurrence of H_s and T_z for 2012
- Incidence of storm waves for 2012. Storm events are defined using the Peaks-over-Threshold method. The highest H_s of each storm event is shown
- Joint distribution of all parameters for all measured data, given as percentage of occurrence

General

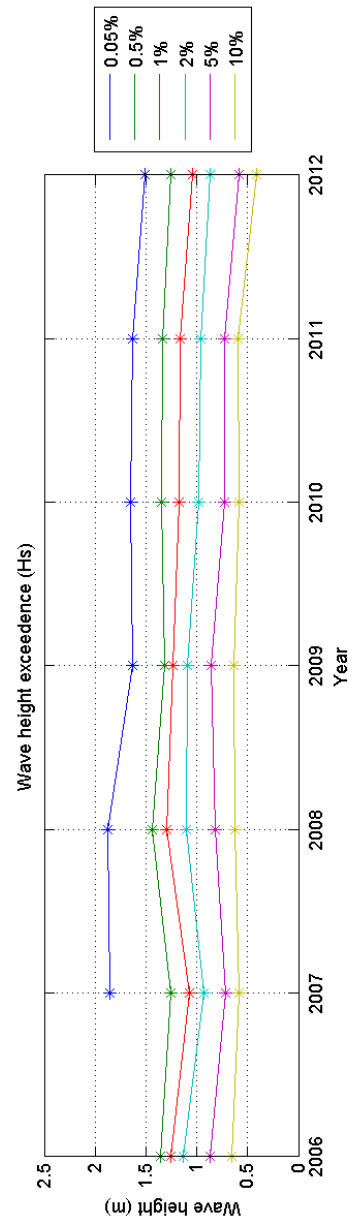
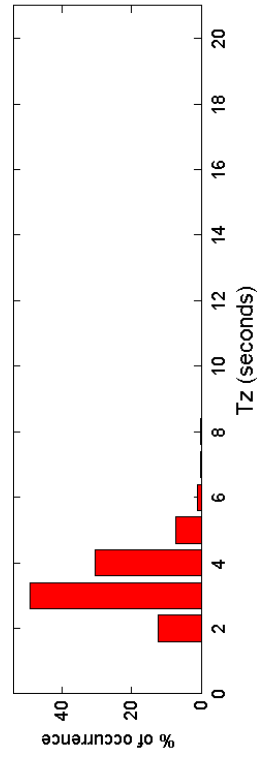
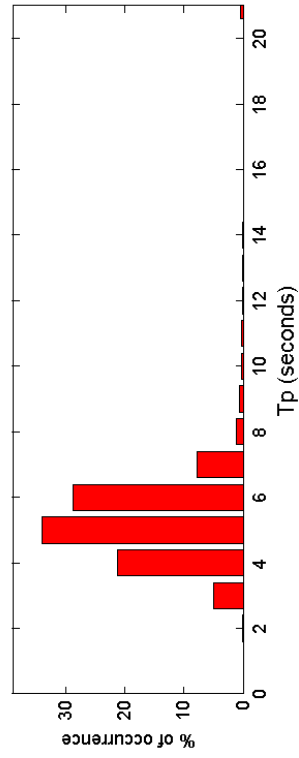
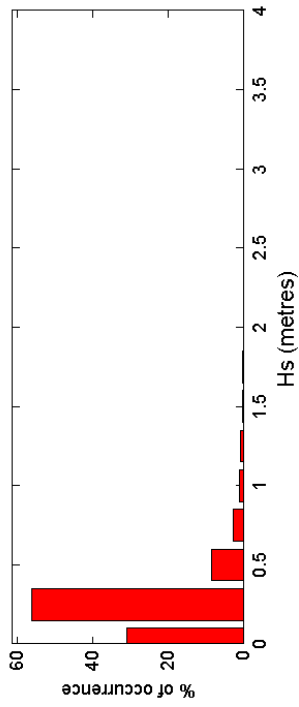
The WaveRadar REX was installed on 04 May 2006.

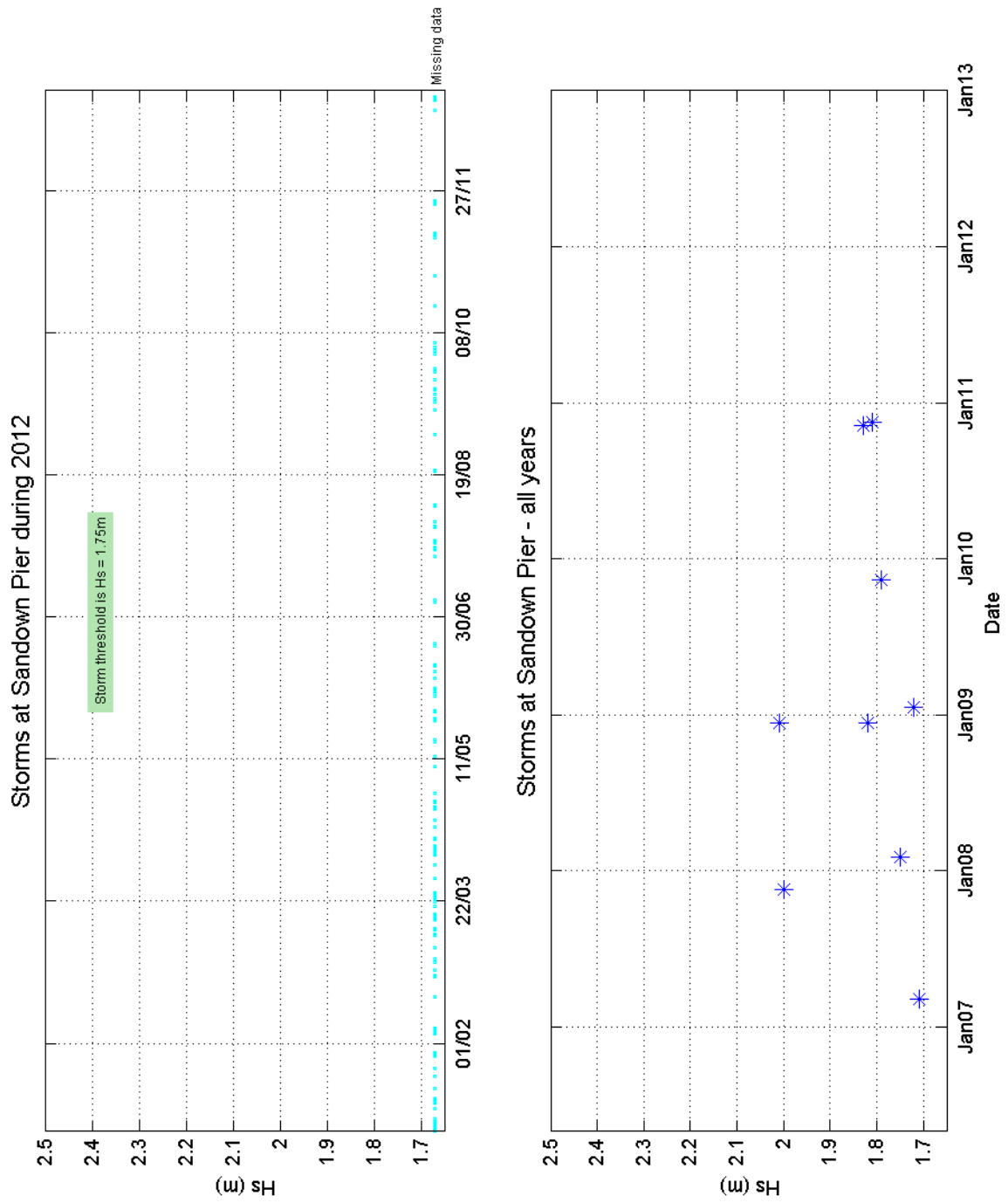
Acknowledgements

The WaveRadar is deployed on Sandown Pier by kind permission of the Pier owners. TASK2000 tidal prediction software was kindly provided by the Permanent Service for Mean Sea Level, Proudman Oceanographic Laboratory.



Sandown Pier 2012





Sandown Pier 2006 to 2012 - Joint distribution (% of occurrence)

