

Herne Bay Wave Gauge

Location

OS: 616895E 169377N
 WGS84: Latitude: 51° 22.92' N Longitude: 001° 06.93' E

Water Depth

~0.5m CD

Instrument Type

Etrometa Step Gauge

Data Quality

C1(%)	Sample interval
67	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
February	-	-	-	-	-	0
March	0.33	-	4.2	-	-	8
April	0.29	-	4.1	-	-	10
May	0.25	-	3.7	-	-	29
June	0.11	-	3.4	-	-	29
July	0.10	-	3.4	-	-	30
August	0.09	-	3.4	-	-	30
September	0.16	-	3.6	-	-	29
October	0.21	-	3.9	-	-	28
November	0.31	-	4.1	-	-	26
December	0.26	-	4.1	-	-	29

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

Highest 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-Nov-2008 10:00	1.74	3.9	5.4	-	1.41	HW +3	3.5	1.04	1.04
16-Mar-2008 18:00	1.68	5.1	5.0	-	1.59	HW -2	2.90	0.64	0.74

* Tidal information is obtained from the nearest recording tide gauge (the step gauge 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}
1996	1.66	1.42	1.33	1.19	0.93	0.72	23-Dec-1996 10:20	1.73
1997	1.50	1.15	1.04	0.88	0.69	0.54	01-Jan-1997 20:00	1.75
1998	1.64	1.17	1.00	0.87	0.71	0.54	08-Oct-1998 11:20	1.74
1999	1.56	1.28	1.16	1.01	0.79	0.62	11-Nov-1999 19:40	1.83
2000	1.61	1.19	1.05	0.92	0.67	0.50	04-Apr-2000 22:20	1.78
2001	1.74	1.30	1.14	0.98	0.77	0.59	08-Nov-2001 15:00	2.12
2002	1.44	1.17	1.05	0.90	0.72	0.54	14-Feb-2002 01:00	1.54
2003	1.60	1.25	1.13	0.96	0.73	0.55	29-Jan-2003 09:40	1.78
2004	1.51	1.25	1.11	0.94	0.70	0.52	07-Jul-2004 14:40	1.71
2005	1.71	1.36	1.21	1.04	0.81	0.61	14-Feb-2005 04:20	1.94
2006	1.50	1.26	1.11	0.93	0.71	0.53	20-Feb-2006 03:20	1.60
2007	1.45	1.23	1.11	0.98	0.76	0.60	20-Mar-2007 14:20	1.58
2008	1.54	1.06	0.92	0.78	0.58	0.44	22-Nov-2008 10:00	1.74

* i.e. 5 % of the H_s values measured in 2004 exceeded 0.70m

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 2008
- Percentage wave height exceedance (all recorded years) – note that the statistics for 1996 were based on measurements from March to December only
- Joint distribution of all parameters for 2008, 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 2008 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).

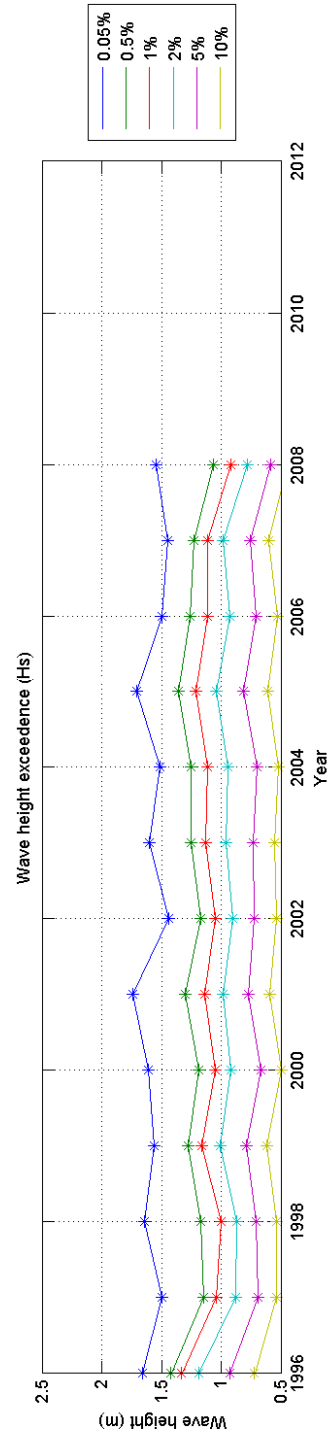
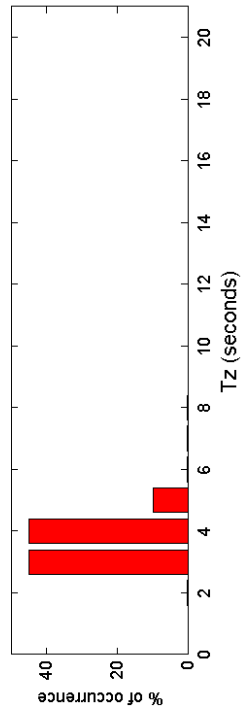
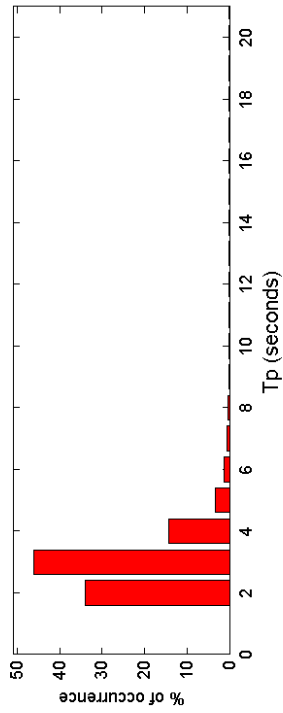
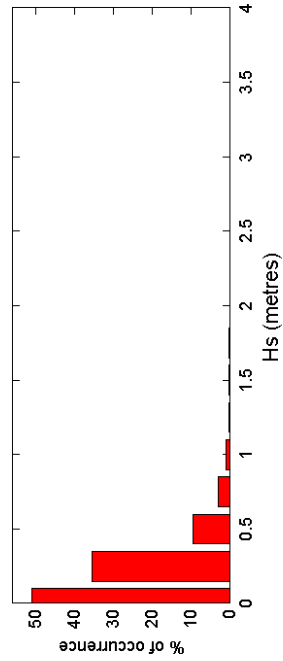
General

The Step gauge was deployed on 19 March 1996. Sections of the gauge were renewed during February and July 2007. The telemetry system was intermittently faulty for several months during the first part of 2008.

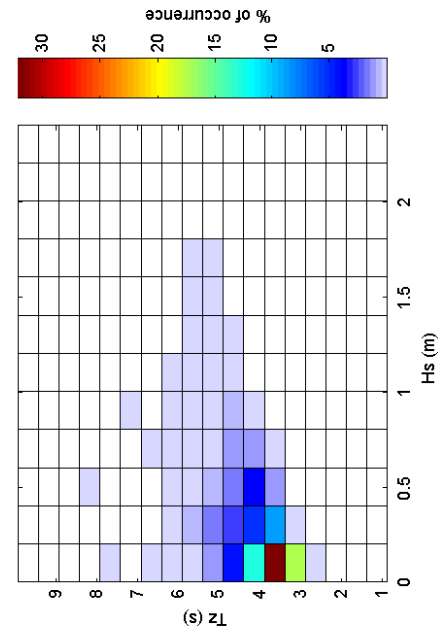
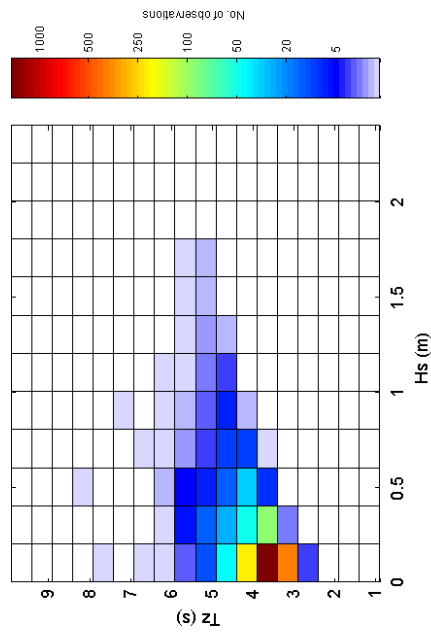
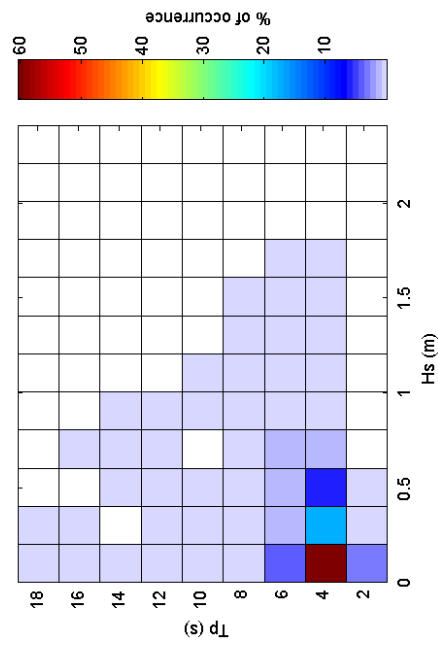
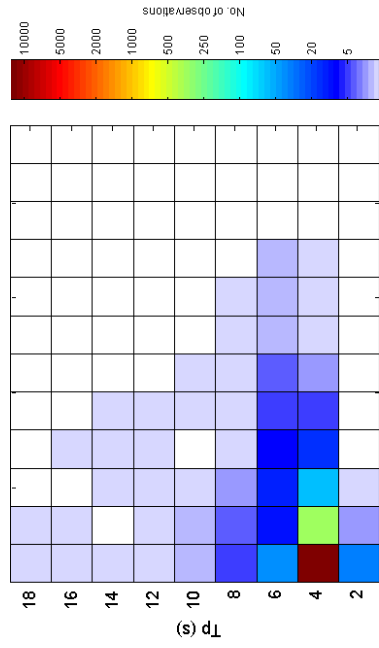
Acknowledgements

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Herne Bay 2008



Herne Bay 2008 - Joint distribution



Herne Bay 1996 to 2008 - Joint distribution (% of occurrence)

