

Herne Bay Wave Recorder

Location

OS: 616870E 169390N
 WGS84: Latitude: 51° 22' 55.5"N Longitude: 01° 06' 54.66"E

Water Depth

~0.5m CD

Instrument Type

Etrometa Step Gauge

Data Quality

C1(%)	Sample interval
88	20 minutes

Monthly Means

Herne Bay 2005							
Month	H _s	H _{max}	T _p	T _z	Direction	SST	No. of days
	(m)	(m)	(s)	(s)	(°)	(°C)	
January	0.334	0.597	3.1	2.9	-	-	31
February	0.436	0.777	3.4	3.1	-	-	28
March	0.254	0.471	3.2	3.0	-	-	31
April	0.187	0.348	3.2	3.0	-	-	30
May	0.268	0.495	3.2	3.1	-	-	31
June	0.114	0.220	2.6	2.9	-	-	2
July	0.232	0.430	3.1	3.1	-	-	19
August	0.217	0.394	3.1	3.0	-	-	31
September	0.208	0.389	3.0	2.9	-	-	30
October	0.215	0.409	3.3	3.0	-	-	31
November	0.326	0.590	3.1	2.9	-	-	30
December	0.311	0.582	3.3	3.0	-	-	29

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 2005									
Date/Time	H _s	T _p	T _z	Dir.	Water level elevation (OD)	Tidal stage	Tidal range (m)	Tidal surge* (m)	Max. surge* (m)
14-Feb-2005 04:20	1.94	5.0	4.2	-	2.613	HW	4.5	0.14	1.10
03-Mar-2005 03:20	1.73	5.0	4.0	-	1.973	HW -1	4.0	0.17	0.50
17-Dec-2005 14:00	1.61	4.8	3.9	-	2.780	HW	3.9	1.00	1.11
08-Apr-2005 13:20	1.58	5.0	3.9	-	2.693	HW +1	5.0	0.58	1.31

* Tidal information is obtained from the nearest recording tide gauge (the Etrometa 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)	
	0.5%	1%	2%	5%	10%	Date	A_{max}
1996	1.42	1.33	1.19	0.93	0.72	23-Dec-1996 10:20	1.73
1997	1.15	1.04	0.88	0.69	0.54	01-Jan-1997 20:00	1.75
1998	1.17	1.00	0.87	0.71	0.54	08-Oct-1998 11:20	1.74
1999	1.28	1.16	1.01	0.79	0.62	11-Nov-1999 19:40	1.83
2000	1.19	1.05	0.92	0.67	0.50	04-Apr-2000 22:20	1.78
2001	1.30	1.14	0.98	0.77	0.59	08-Nov-2001 15:00	2.12
2002	1.17	1.05	0.90	0.72	0.54	14-Feb-2002 01:00	1.54
2003	1.25	1.13	0.96	0.73	0.55	29-Jan-2003 09:40	1.78
2004	1.25	1.11	0.94	0.70	0.52	07-Jul-2004 14:40	1.71
2005	1.36	1.21	1.04	0.81	0.61	14-Feb-2005 04:20	1.94

* 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 2005
- 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 2005, 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 2005 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 waves threshold).

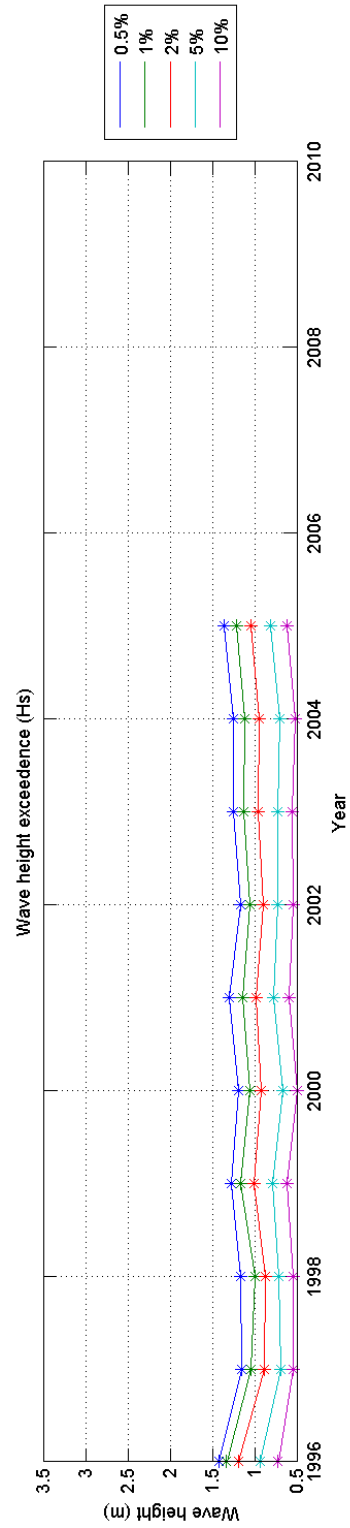
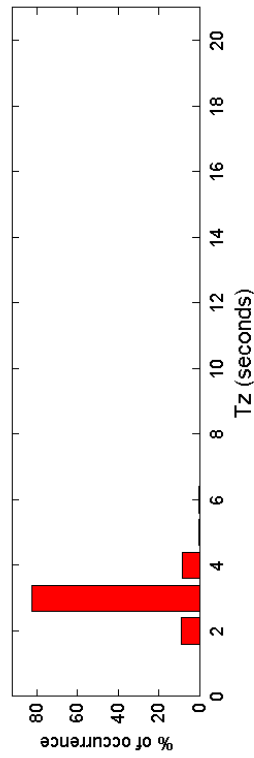
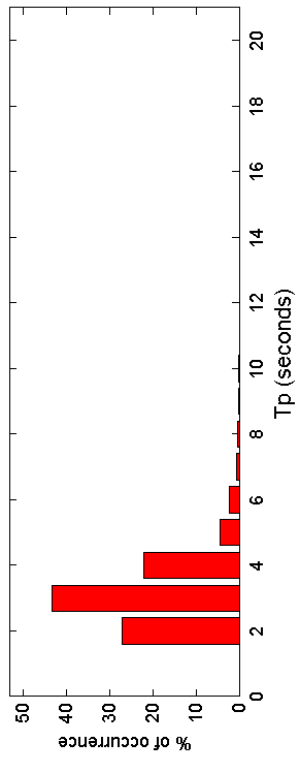
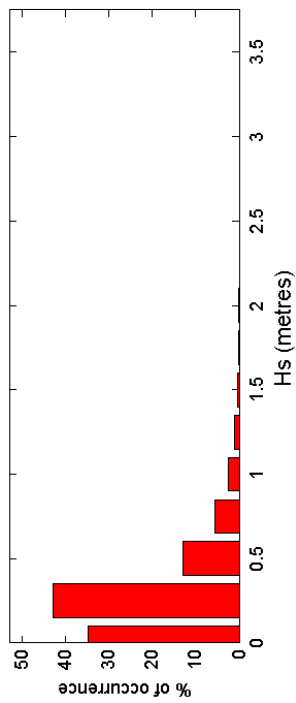
General

The Gauge was deployed on 19 March 1996.

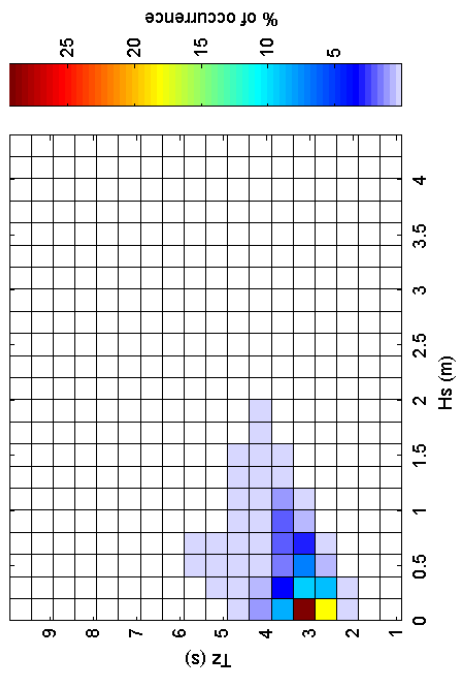
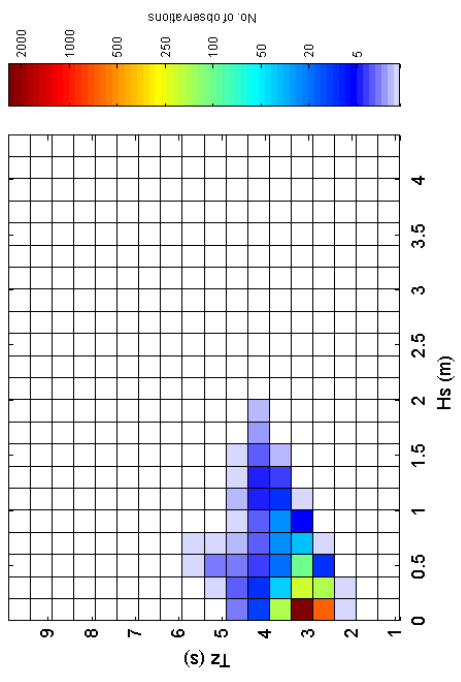
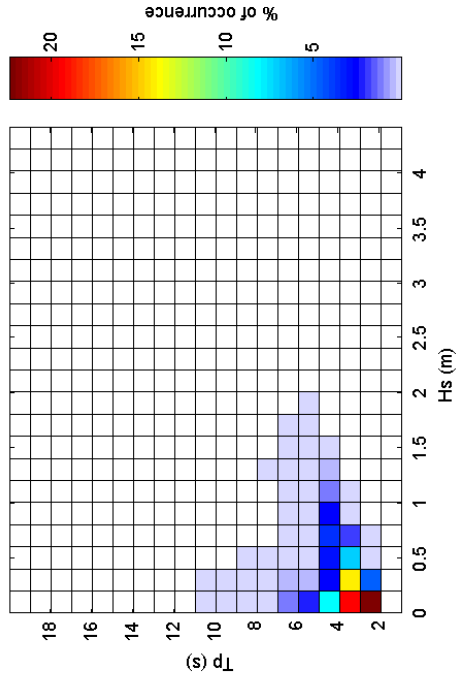
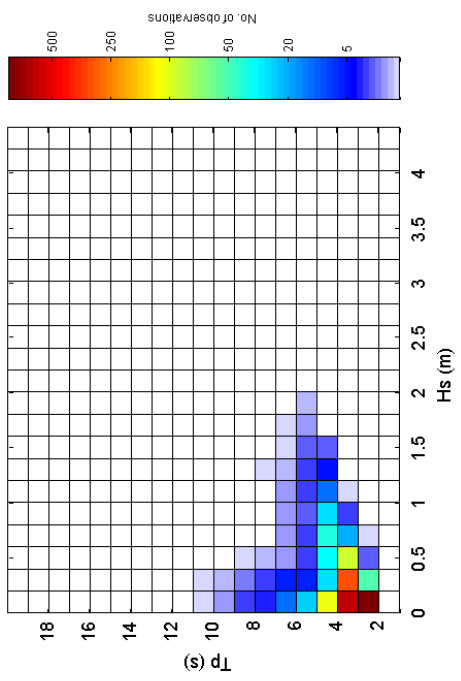
Acknowledgements

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

Herne Bay 2005



Herne Bay 2005 - Joint distribution



Herne Bay 1996 to 2005 - Joint distribution (% of occurrence)

