

Milford WaveRider Buoy

Location

OS: 427297E 90361N
 WGS84: Latitude: 50°42'73" N Longitude: 001°36'93" W

Water Depth

Approx. 10m CD

Instrument Type

Datawell WaveRider Buoy Mk II

Data Quality

C1(%)	Sample interval
67	hourly

Monthly Means

Milford 2004							
Month	H _s	H _{max}	T _p	T _z	Direction	SST	No. of days
	(m)	(m)	(s)	(s)	(°)	(°C)	
January	1.000	1.826	-	4.7	-	-	26
February	0.801	1.455	-	5.3	-	-	19
March	0.632	1.156	-	4.6	-	-	31
April	0.508	0.932	-	4.4	-	-	30
May	0.344	0.639	-	3.9	-	-	31
June	0.543	1.002	-	4.0	-	-	17
July	0.294	0.552	-	3.5	-	-	8
August	0.728	1.348	-	3.9	-	-	11
September	0.667	1.235	-	3.7	-	-	21
October	0.961	1.760	-	4.3	-	-	20
November	0.471	0.869	-	4.3	-	-	22
December	0.605	1.080	-	5.1	-	-	12

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 2004									
Date/Time	H _s	T _p	T _z	Dir.	Water level elevation [*] (OD)	Tidal stage	Tidal range (m)	Tidal surge* (m)	Max. surge* (m)
31-Jan-2004 17:00	3.44	-	6.6	-	0.47	HW -1	1.1	-	-
23-Jun-2004 14:00	3.21	-	6.1	-	-	HW -2	1.6	-	-
28-Oct-2004 08:00	2.77	-	7.5	-	0.36	HW -4	2.6	-	-
08-Jan-2004 11:00	2.73	-	6.3	-	0.37	HW	2.1	-	-
14-Sep-2004 08:00	2.56	-	4.9	-	0.18	HW -2	1.7	-	-

* Tidal information is obtained from the nearest recording tide gauge (the gauge on Royal Lympington Yacht Club starting platform). 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	2.77	2.43	2.16	1.83	1.46	28-Oct-1996 21:00	4.05
1997	2.39	2.15	1.97	1.59	1.20	24-Feb-1997 23:00	3.32
1998	2.47	2.28	2.00	1.66	1.37	27-Oct-1998 13:00	3.21
1999	2.32	2.11	1.85	1.56	1.29	24-Dec-1999 22:00	3.23
2000	2.85	2.50	2.19	1.74	1.41	31-Dec-2000 19:00	4.09
2001	2.63	2.24	1.91	1.52	1.20	01-Jan-2001 00:00	4.07
2002	2.92	2.61	2.35	1.96	1.62	15-Oct-2002 18:00	4.06
2003	2.20	2.02	1.76	1.37	1.12	14-Nov-2003 15:00	2.92
2004	2.49	2.29	2.05	1.69	1.42	31-Jan-2004 17:00	3.44
2005							

* i.e. 5 % of the H_s values measured in 2004 exceeded 1.69m

Distribution plots

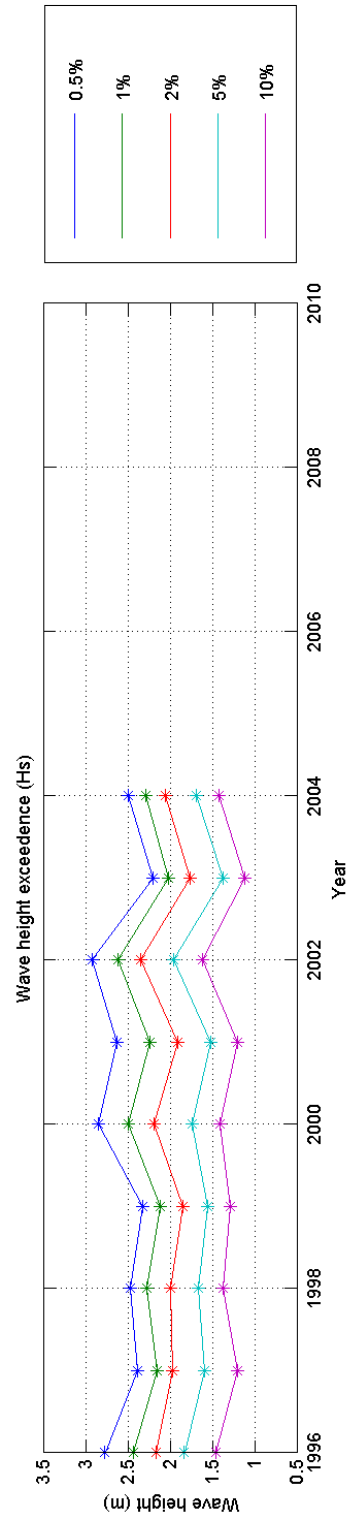
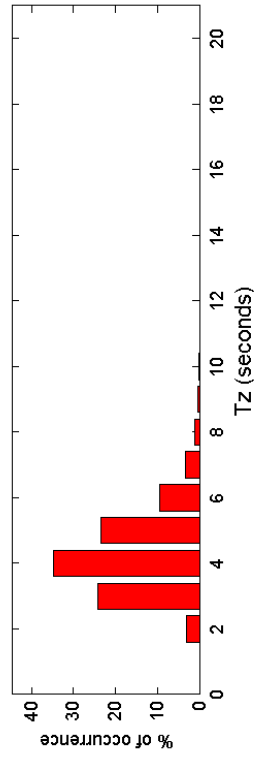
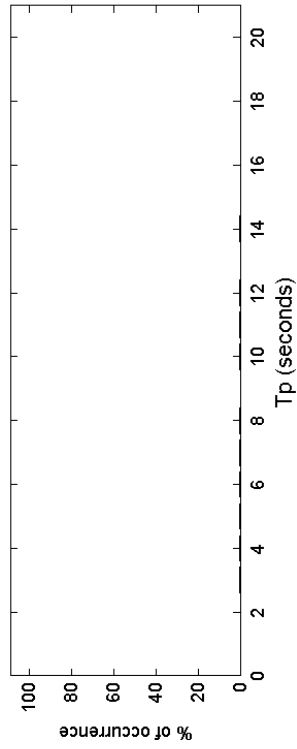
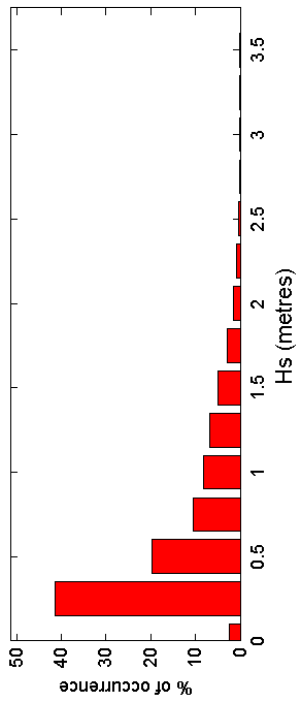
The distribution of wave parameters are shown in the accompanying graphs of:

- Percentage of occurrence of H_s , and T_z for 2004
- Percentage wave height exceedence (all recorded years) – note that the statistics for 1996 were based on measurements from May to December only
- Joint distribution of all parameters for 2004, given both as number of observations and as percentage of occurrence – note that measurement of T_p began in December 2004
- Cumulative joint distribution of parameters from start of records (percentage of occurrence only)
- Incidence of storms above a given threshold, for 2004 and for all years. Storms are defined by 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)

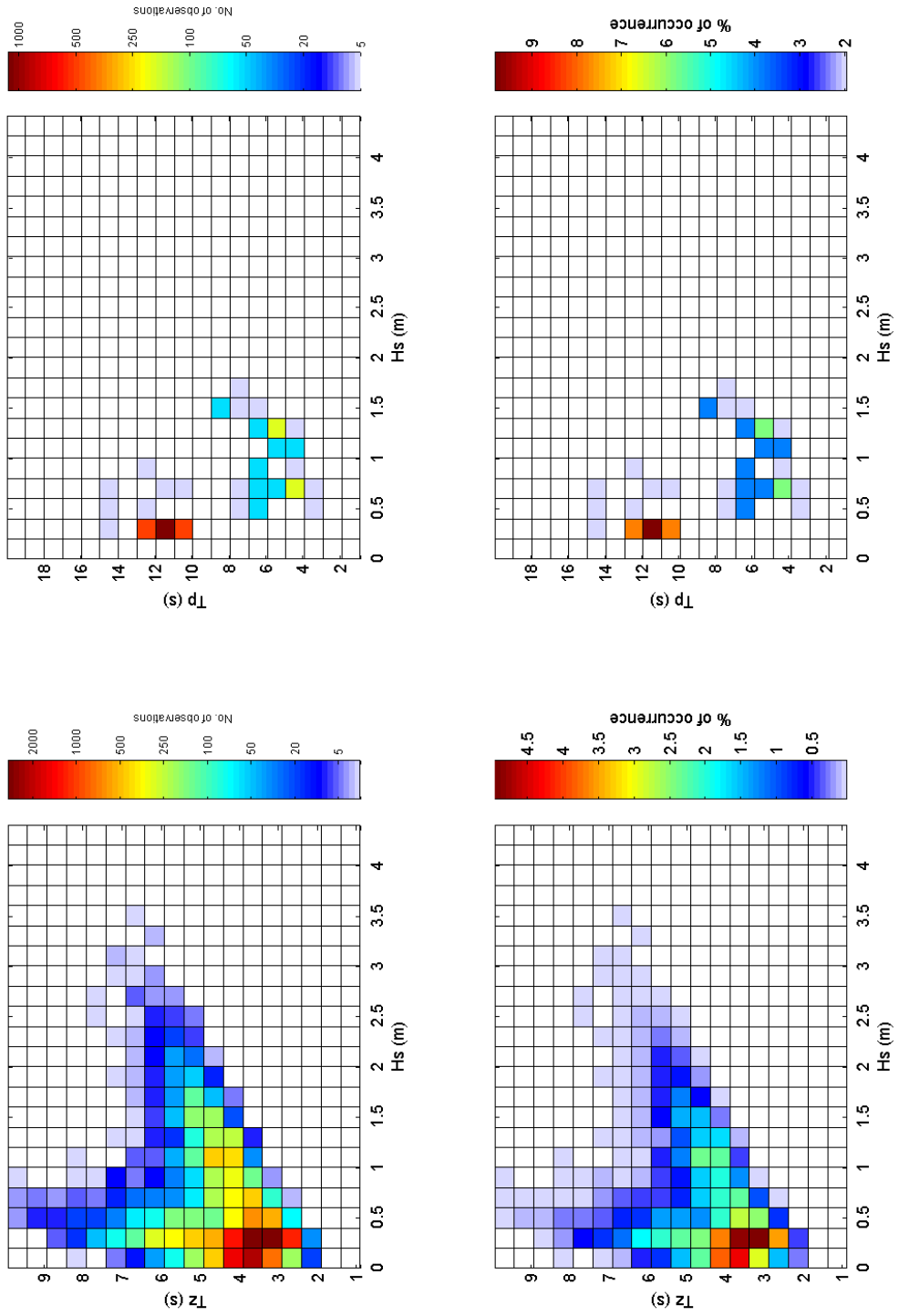
General

The buoy was first deployed in May 1996.

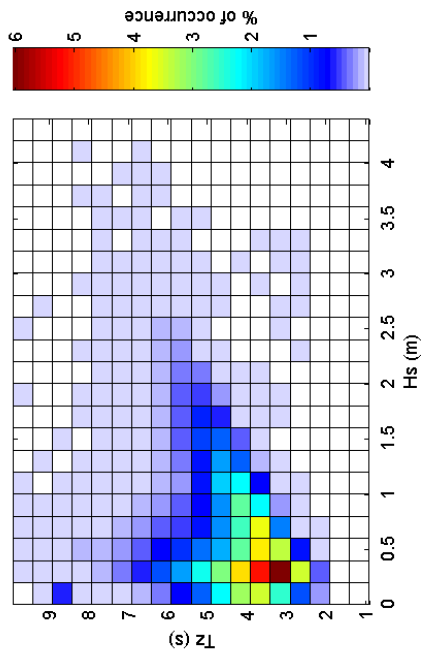
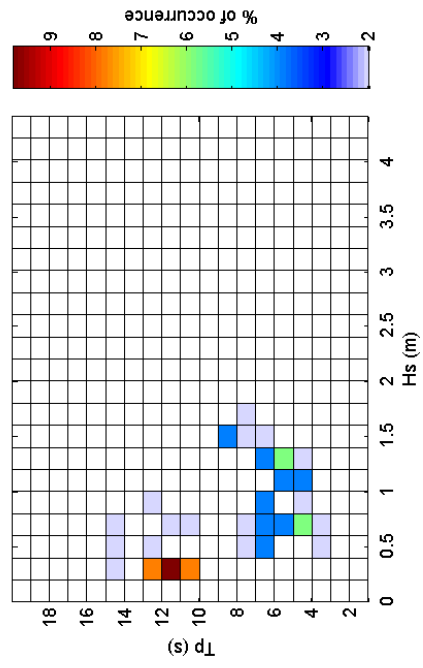
Milford 2004



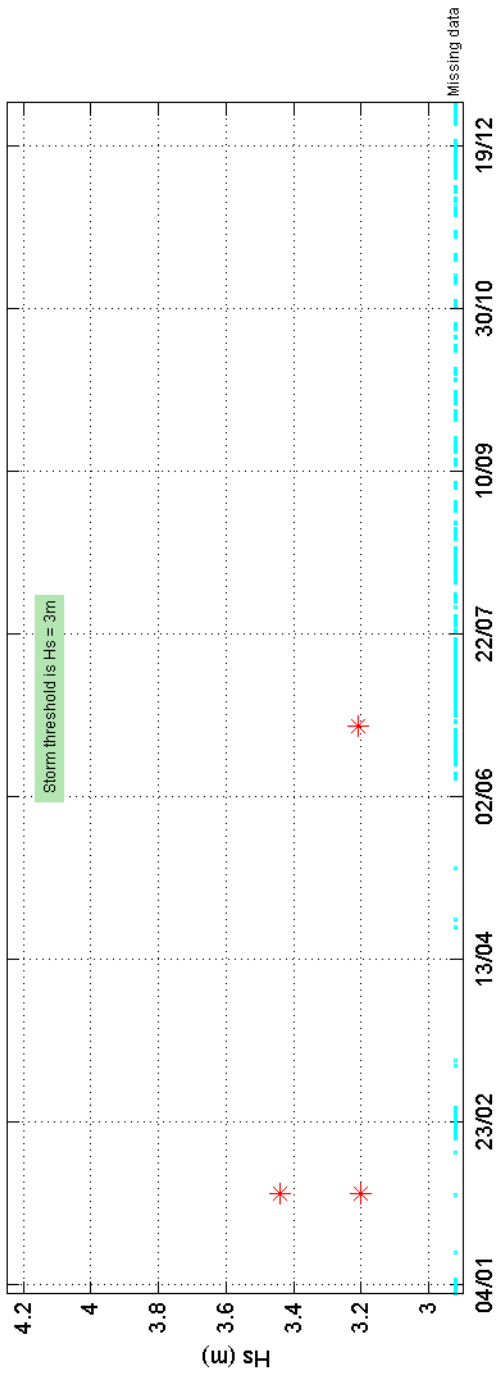
Milford 2004 - Joint distribution



Milford 1996 to 2004 - Joint distribution (% of occurrence)



Storms at Milford during 2004



Storms at Milford - all years

