Deal Pier Wave Recorder

Location
OS: 638145E 152700N
WGS84: *Latitude:* 51° 13' 25.652"N *Longitude:* 01° 24' 33.332"E

Water Depth
N/A

Instrument Type
Saab WaveRadar Rex

Data Quality

C1(%)	Sample interval
26	20 minutes

Monthly Means

Deal Pier 2005							
Month	**H_s** (m)	**H_{max}** (m)	**T_p** (s)	**T_z** (s)	**Direction** (^{o})	**SST** (^{o}C)	**No. of days**
January	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-
March	-	-	-	-	-	-	-
April	-	-	-	-	-	-	-
May	-	-	-	-	-	-	-
June	-	-	-	-	-	-	-
July	-	-	-	-	-	-	-
August	-	-	-	-	-	-	-
September	0.284	-	-	3.5	-	-	15
October	0.336	-	-	3.5	-	-	27
November	0.356	-	-	3.9	-	-	24
December	0.370	-	-	3.8	-	-	30

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)**
30-Dec-2005 12:20	1.159	-	4.4	-	1.032	HW +3	4.5	-0.47	-0.63
16-Sep-2005 08:40	1.183	-	4.8	-	2.579	HW	4.0	0.26	0.68
03-Dec-2005 01:40	1.137	-	4.6	-	1.388	HW +1	5.2	-0.34	-0.47

* *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.*

Year	Annual H_S exceedance* (m)					Annual Maximum H_S (m)	
	0.5%	1%	2%	5%	10%	Date	A_{max}
2005	1.00	0.88	0.79	0.66	0.57	30-Dec-2005 12:20	1.194
2006							
2007							

i.e. 2% of the H_s values measured in 2005 exceeded 0.79m

Distribution plots

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

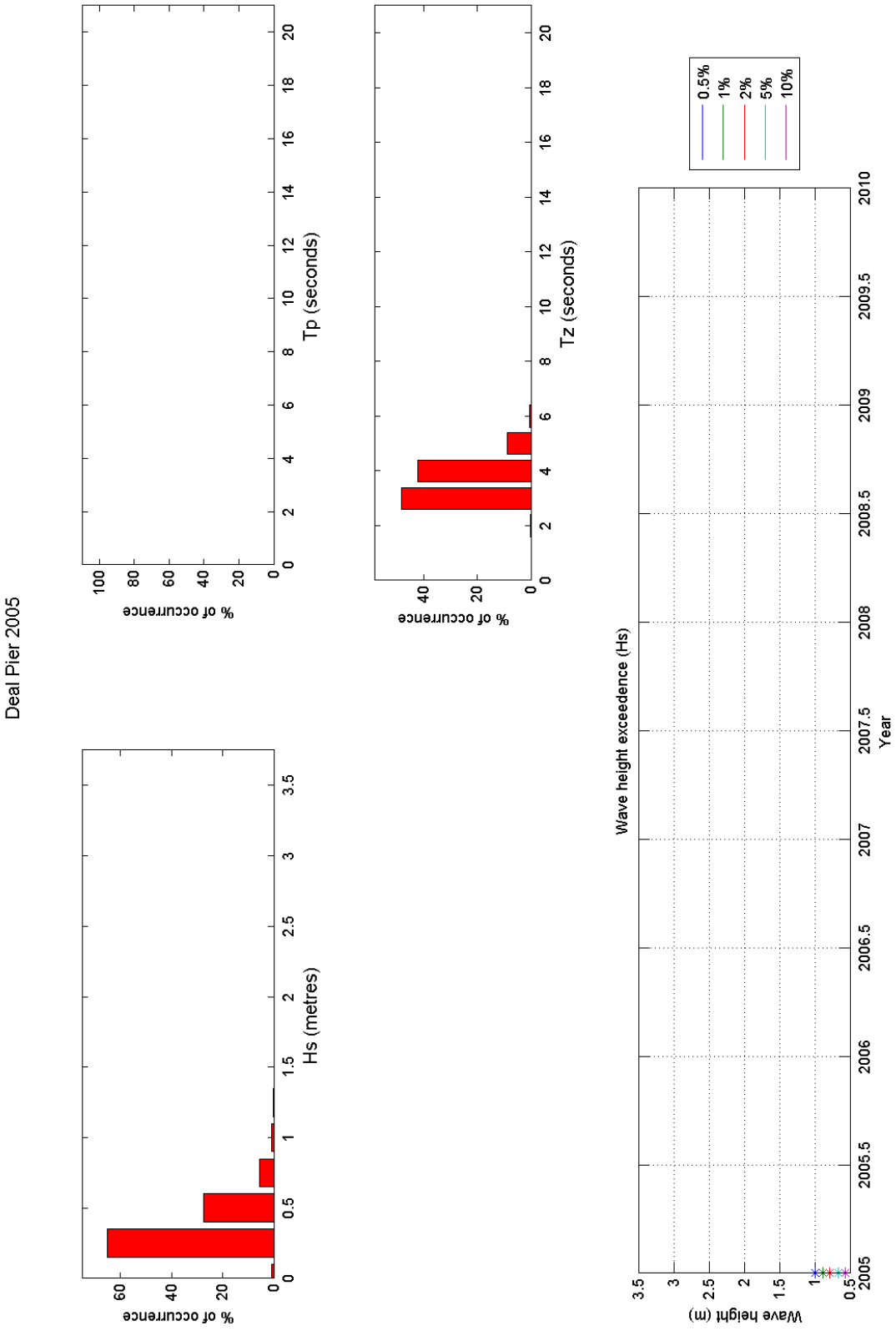
- Percentage of occurrence of H_s, T_p, and T_z
- Incidence of storm waves for 2005. Storm events are defined using the Peaks-over-Threshold method. The highest H_s of each storm event is shown.
- Annual time series of H_s (red line is storm waves threshold)

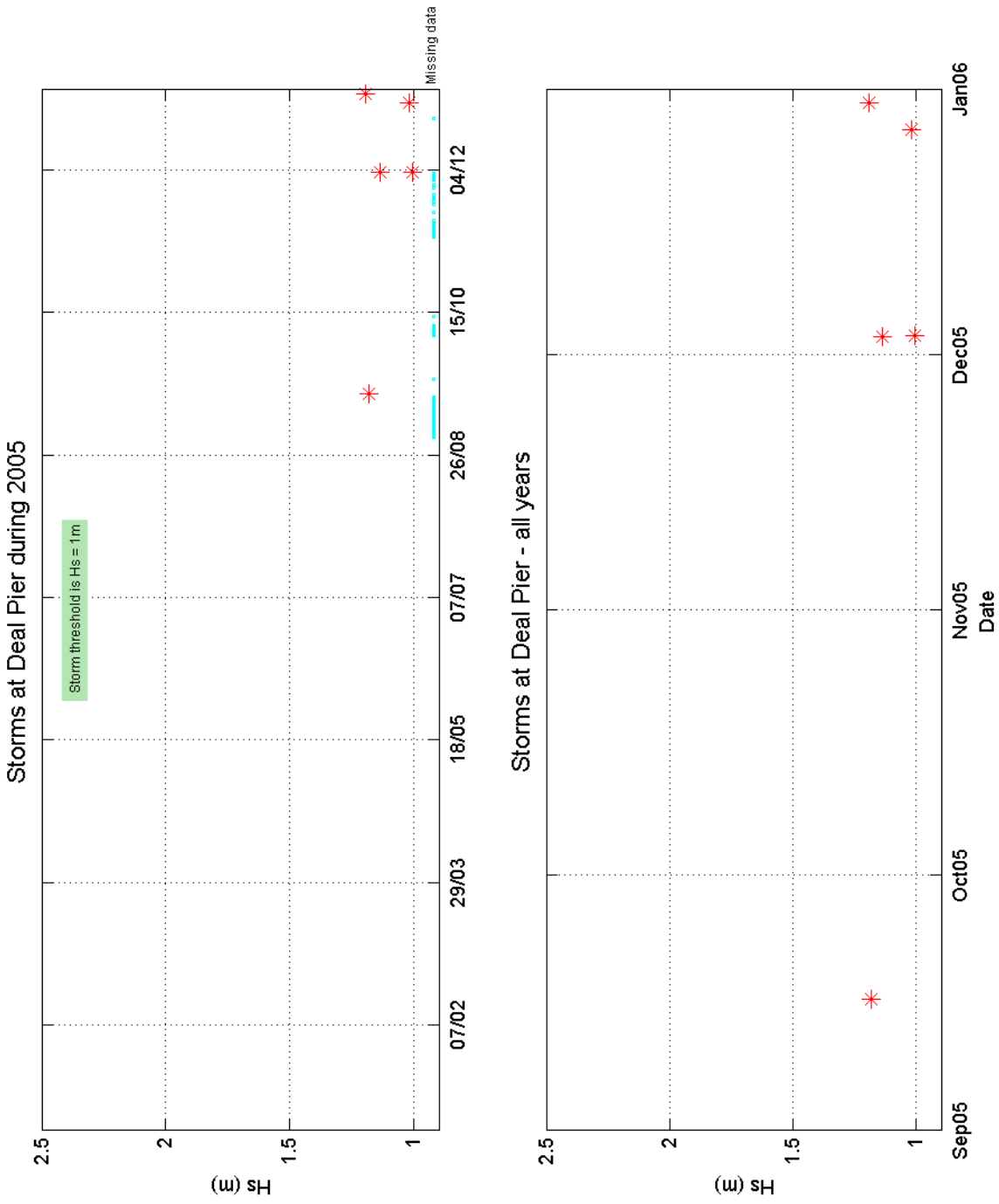
General

The wave radar was deployed on 25 August 2005 and therefore statistics are based on only 3 months worth of measurements.

Acknowledgements

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


Deal Pier 2005
% of occurrence
Hs (metres)
Tz (seconds)
Tp (seconds)
Wave height exceedence (Hs)
Wave height (m)
Year
0.5%
1%
2%
5%
10%


Storms at Deal Pier during 2005
Storm threshold is Hs = 1m
Missing data
Hs (m)
2.5
2
1.5
1
07/02
29/03
18/05
07/07
26/08
15/10
04/12
Storms at Deal Pier - all years
Hs (m)
2.5
2
1.5
1
Sep05
Oct05
Nov05
Dec05
Jan06
Date

Deal Pier - Significant wave height (Hs) during 2005