

UK Cable Route GT - Middlesborough - March

Latitude: 54.60 N Longitude: 0.81 E

Weather Days

Wave Height > 6.0 ft Mean: 10.5 days Range: 6.3 - 14.7 days p50:10.5 days p75:8 days p90:6.5 days

Wave Height > 7.0 ft Mean: 6.9 days Range: 3.4 - 10.4 days p50:6.5 days p75:4 days p90:3 days

Wave Height > 8.0 ft Mean: 4.8 days Range: 1.9 - 7.6 days p50:4 days p75:3 days p90:2 days

Wind Speed > 15.0 knots Mean: 18.2 days Range: 14.2 - 22.3 days p50:19 days p75:16 days p90:13 days

Wind Speed > 20.0 knots Mean: 10.9 days Range: 6.8 - 15.0 days p50:11.5 days p75:8 days p90:6 days

Wind Speed > 25.0 knots Mean: 5.1 days Range: 2.6 - 7.6 days p50:4.5 days p75:3 days p90:2.5 days

Working Window

Wave Height < 6.0 ft
A 1 day or longer window will statistically occur 5.1 times per month
A 2 day or longer window will statistically occur 2.8 times per month
A 3 day or longer window will statistically occur 1.7 times per month

Wave Height < 7.0 ft
A 1 day or longer window will statistically occur 5.0 times per month
A 2 day or longer window will statistically occur 3.2 times per month
A 3 day or longer window will statistically occur 2.2 times per month

Wave Height < 8.0 ft
A 1 day or longer window will statistically occur 4.6 times per month
A 2 day or longer window will statistically occur 3.3 times per month
A 3 day or longer window will statistically occur 2.4 times per month

Waves

Mean Height: 4 - 6 ft

The wave heights will occasionally reach 14 - 16 ft, but rarely higher.

Mean Period: 6 - 8 sec

The wave periods will occasionally reach 14 - 16 sec, but rarely longer.

Principle Direction, from: N

WindSea/Swell: 51% / 49%

Winds

Mean Speed: 15 - 20 kts

The winds will occasionally reach 35 - 40 kts, but rarely greater.

Principle Direction, from: WSW

Currents

Mean Speed: 0.01-0.25 kts

The currents will occasionally reach 1.25-1.50 kts, but rarely greater.

Principle Direction, to: SE

Weather Days

Current Speed > 1.0 knots Mean: 0.1 days Range: 0.0 - 0.4 days p50:1 days p75:1 days p90:1 days

Current Speed > 1.5 knots Mean: 0.0 days Range: 0.0 - 0.0 days p50:1 days p75:1 days p90:1 days

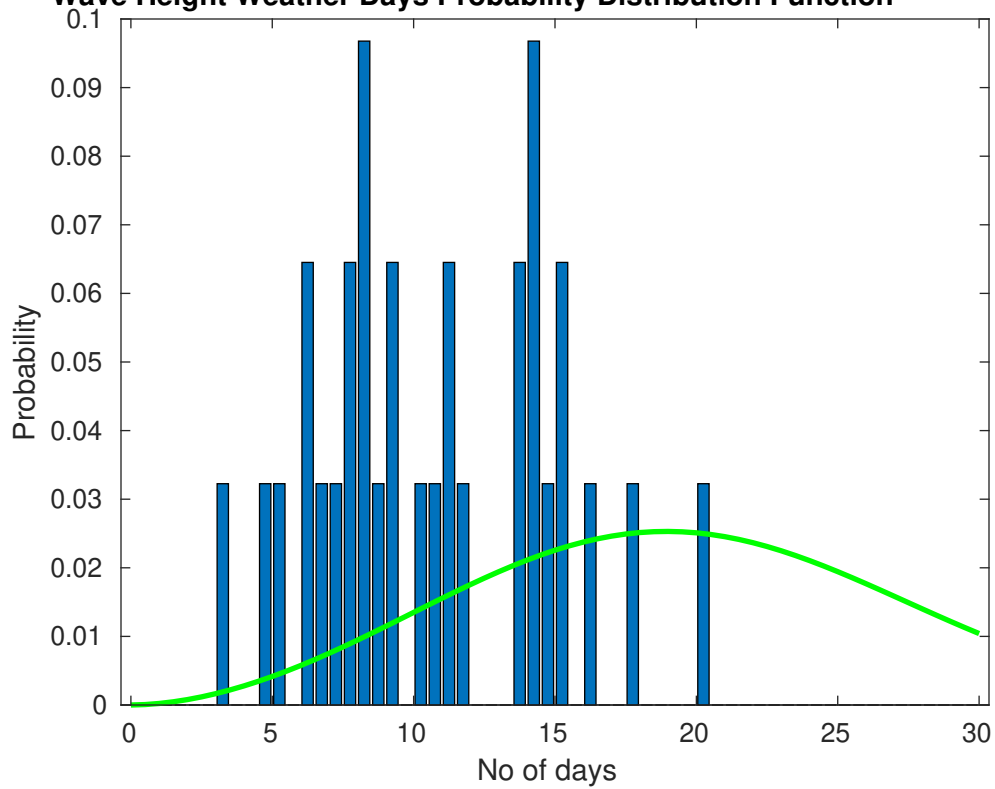
Current Speed > 2.0 knots Mean: 0.0 days Range: 0.0 - 0.0 days p50:1 days p75:1 days p90:1 days

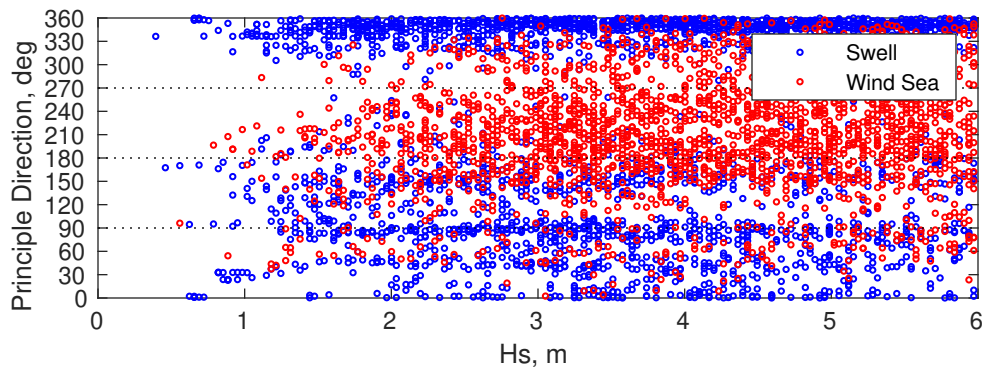
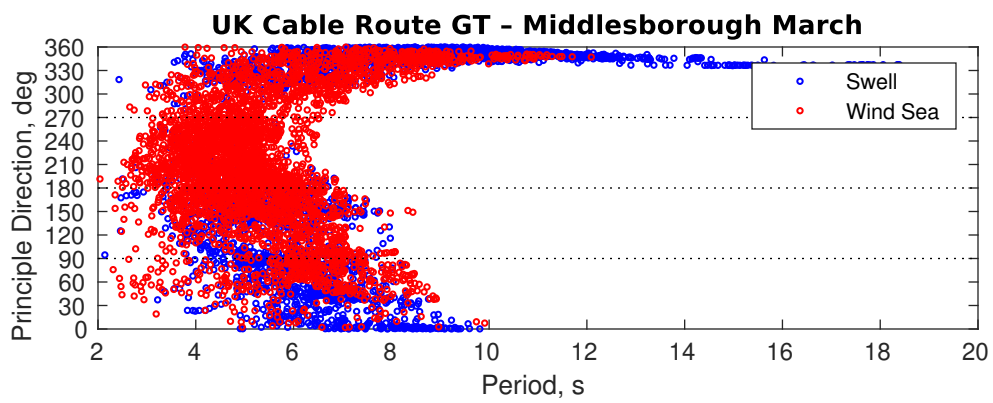
Severe Storms

There is a 29 % chance of a storm occurring in the month with winds peaking above 34 kts.

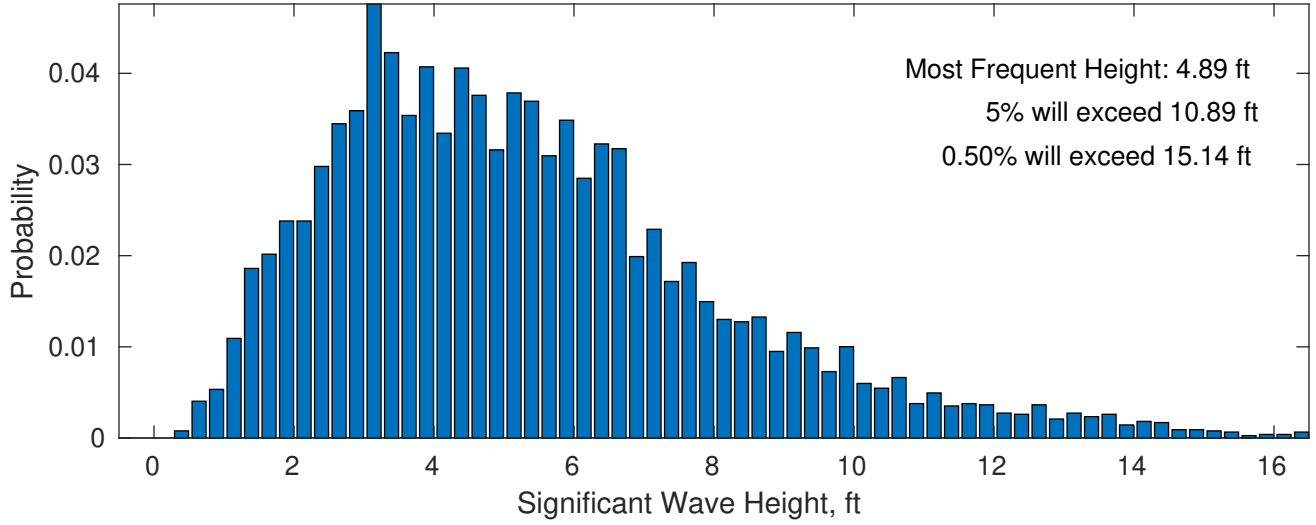
There is a 6 % chance of a storm occurring in the month with waves exceeding 3 m (10 ft) above the mean wave height.

Wave Height Weather Days Probability Distribution Function

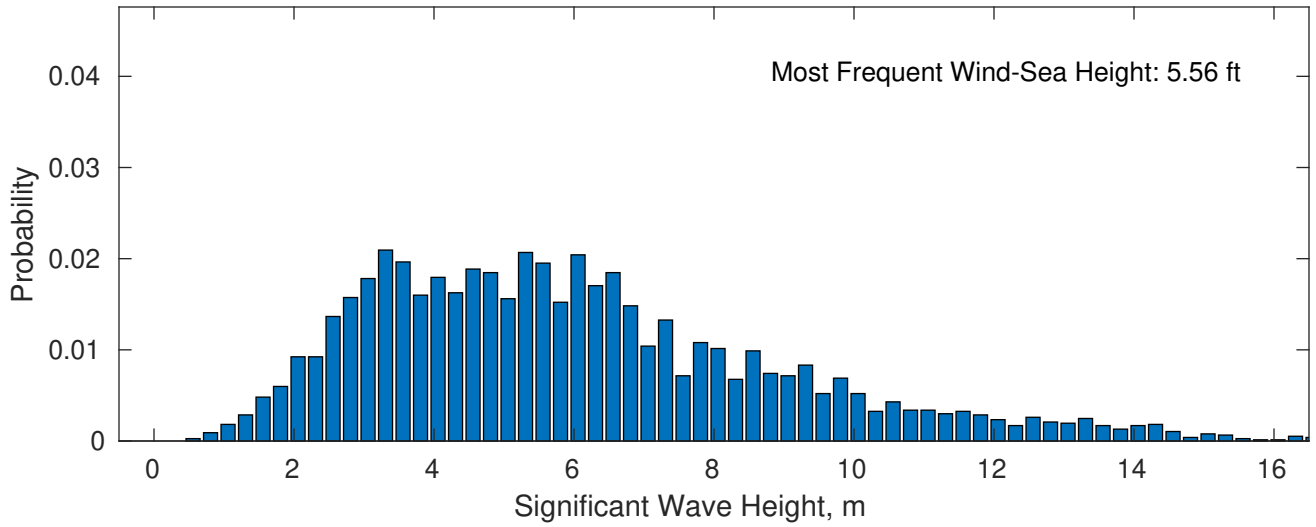




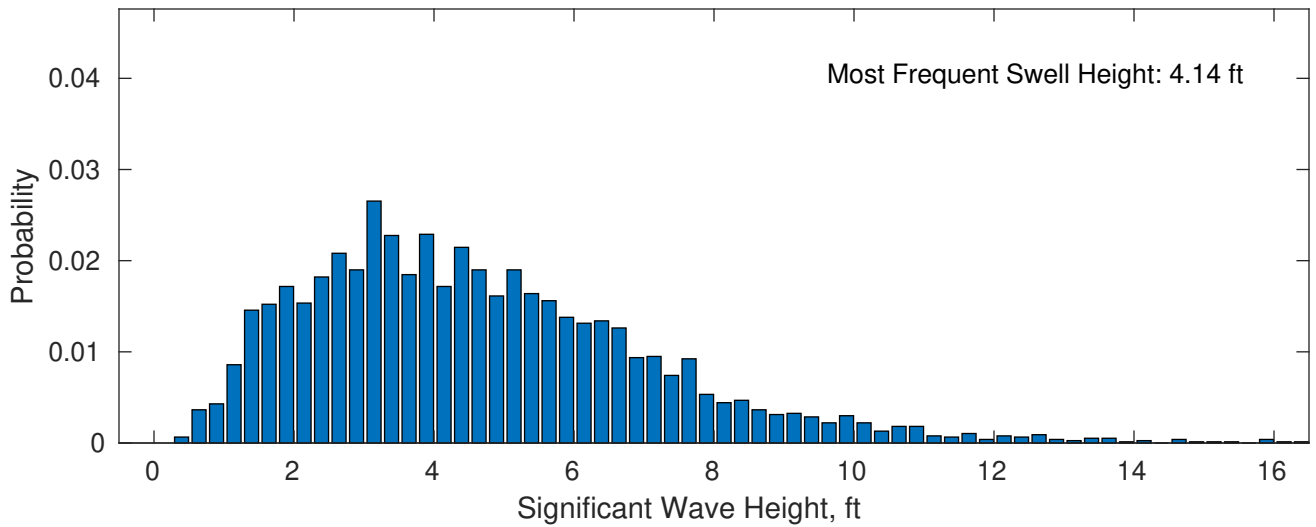
March Wave Height PDF: 1979 - 2015



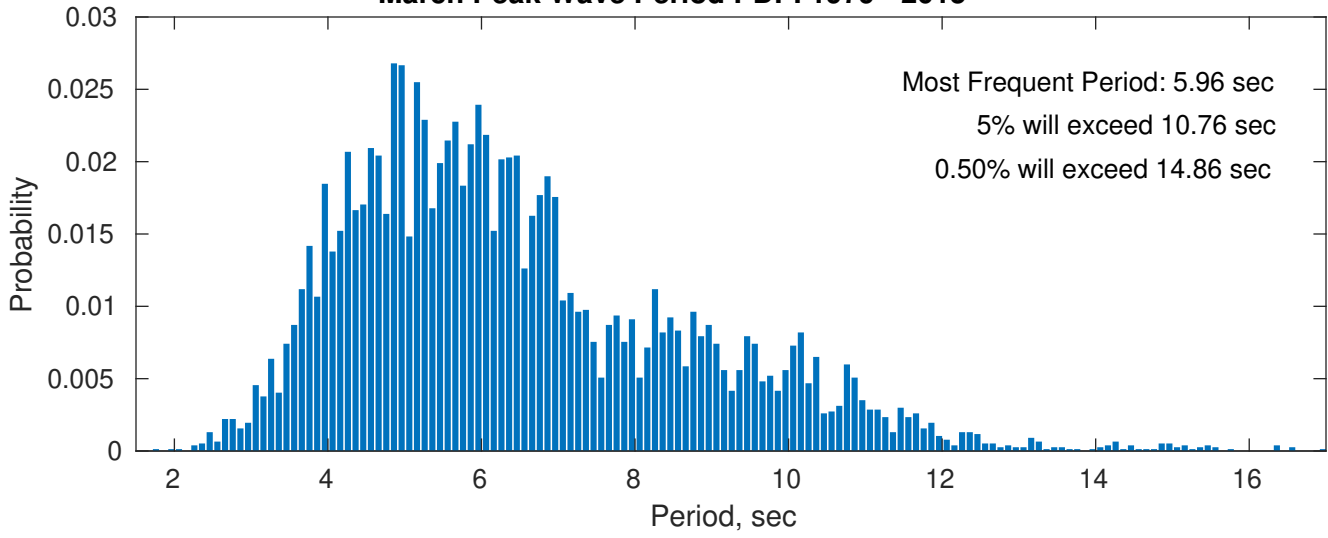
Wind-Sea: 50.98%



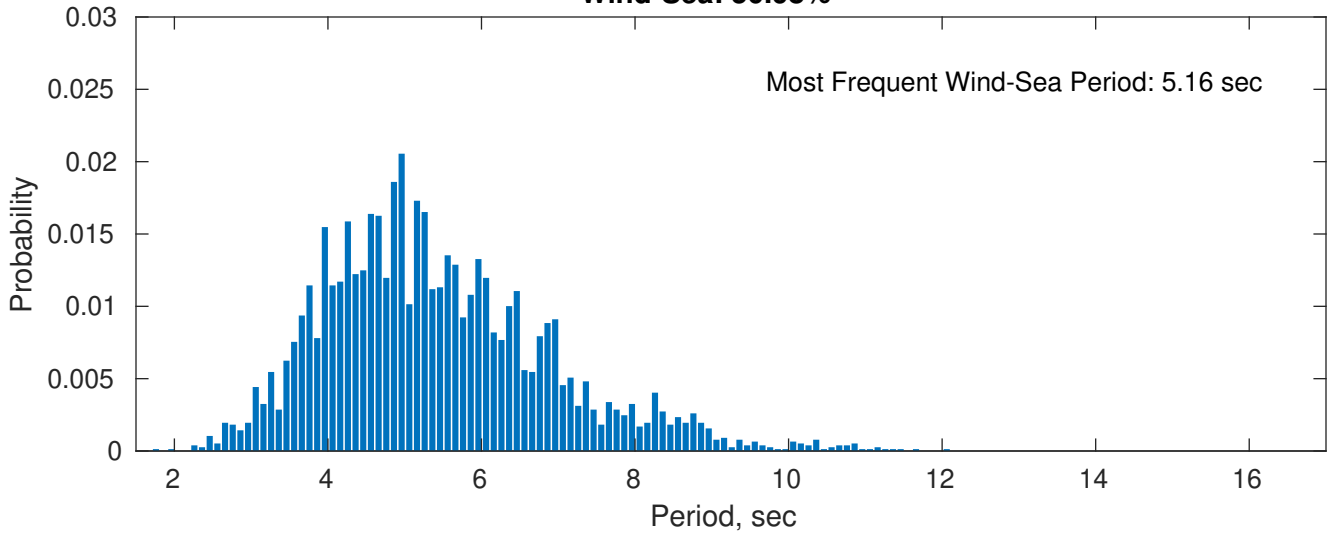
Swell: 49.02%



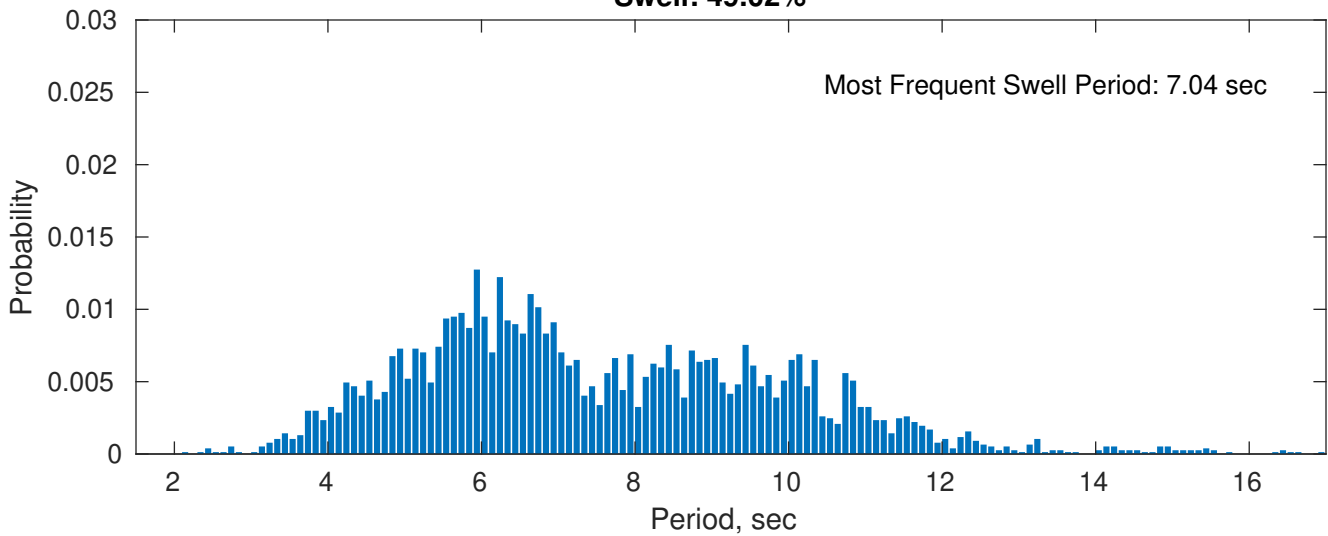
March Peak Wave Period PDF: 1979 - 2015



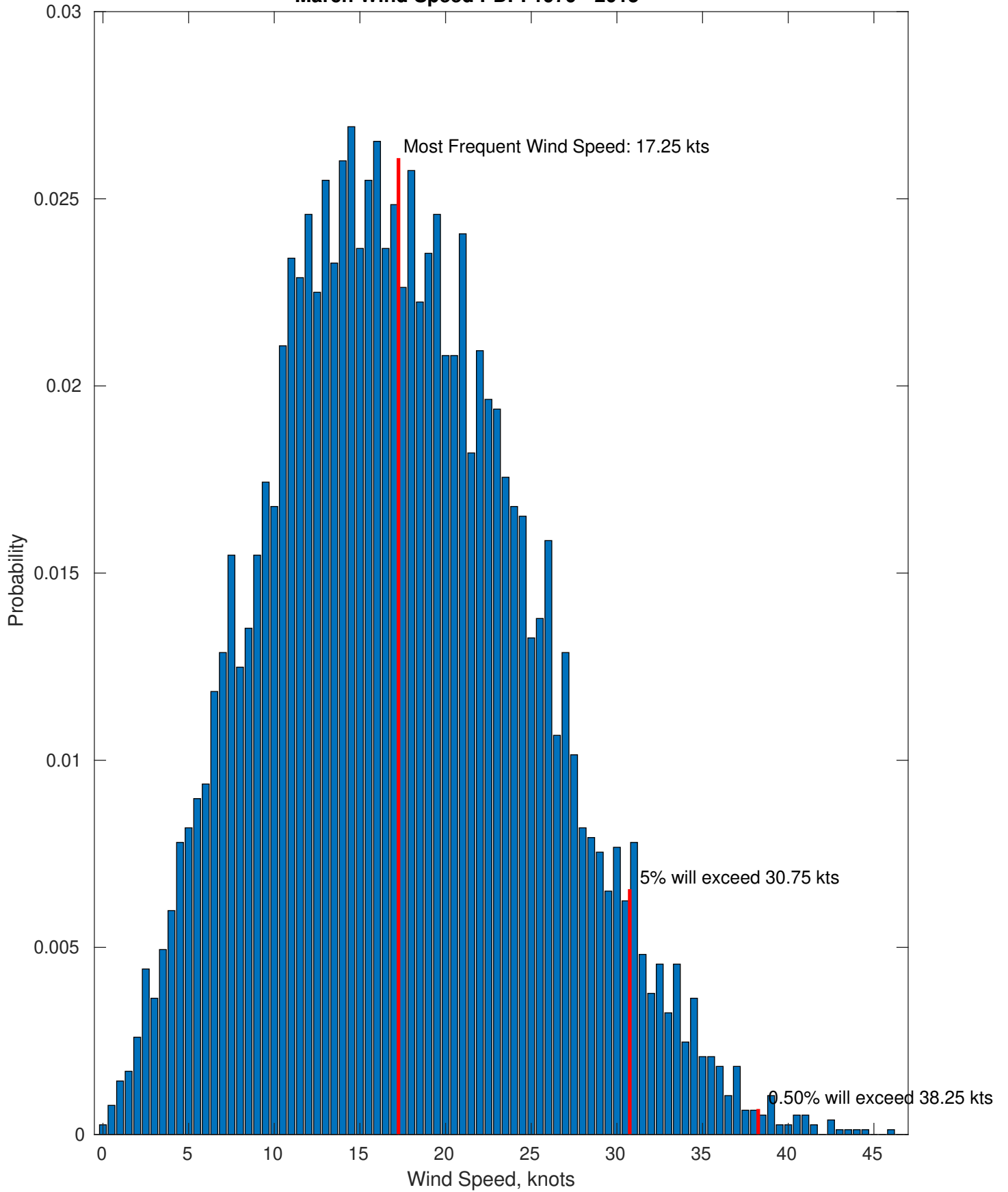
Wind-Sea: 50.98%



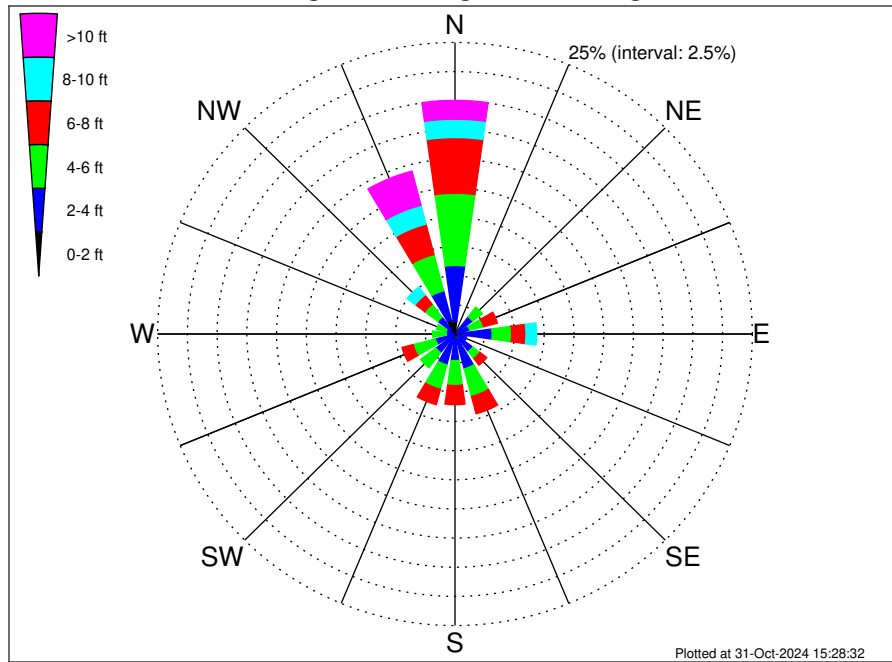
Swell: 49.02%



March Wind Speed PDF: 1979 - 2015



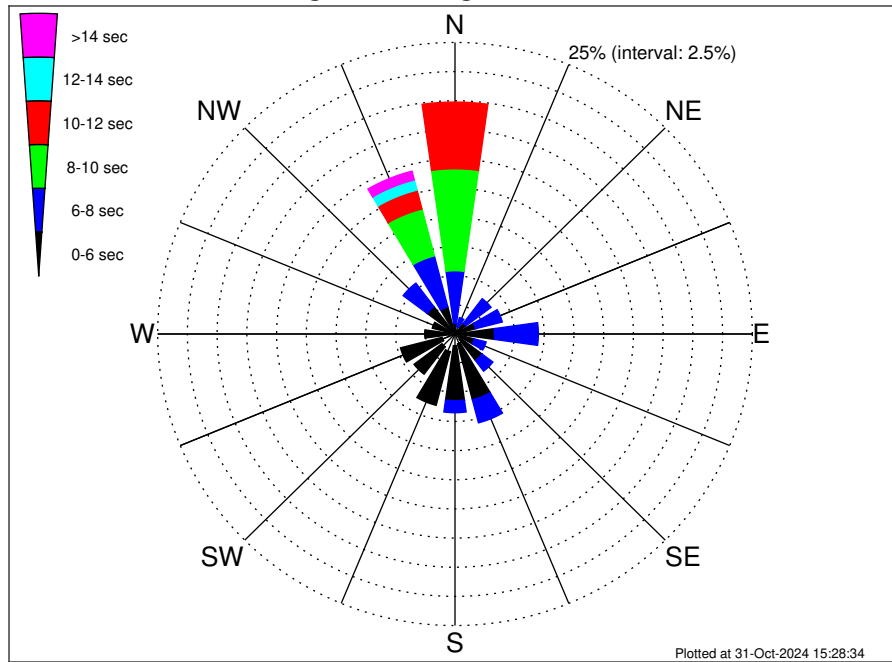
UK Cable Route GT - Middlesborough Climatological WaveHeight Rose for March: 1979 - 2015



Joint Frequency Distribution Table

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total	
calm	0.20	0.16	0.01	•	0.07	•	0.01	0.04	0.07	0.04	0.01	•	•	•	0.01	0.07	0.68	
1 - 2 ft	0.92	0.07	0.30	0.22	0.62	0.31	0.49	0.42	0.29	0.39	0.23	0.13	0.03	0.10	0.36	1.18	6.07	
2 - 4 ft	4.76	0.61	1.53	1.05	2.43	0.69	1.37	2.63	1.94	2.30	1.76	1.57	0.72	0.66	1.43	2.58	28.03	
4 - 6 ft	6.19	0.44	1.04	1.21	1.64	0.49	0.75	2.45	2.13	2.16	1.63	1.93	1.14	0.83	1.38	3.21	28.63	
6 - 8 ft	4.77	0.20	0.51	1.20	1.21	0.59	0.72	1.53	1.64	1.37	0.62	0.98	0.56	0.42	1.00	2.69	19.99	
8 - 10 ft	1.57	0.14	0.42	0.26	0.90	0.48	0.51	0.55	0.53	0.31	0.13	0.22	0.21	0.42	0.86	1.66	9.17	
10 - 12 ft	0.96	0.07	0.12	0.17	0.16	0.14	0.12	0.21	0.16	0.04	0.04	0.09	0.08	0.13	0.39	1.27	4.14	
12 - 14 ft	0.33	0.05	0.13	0.16	0.13	•	0.01	0.07	•	•	•	•	•	•	0.01	0.12	1.09	2.09
14 - 16 ft	0.18	•	0.04	0.10	•	•	0.01	•	•	•	•	•	•	•	0.04	0.46	0.83	
16 - 18 ft	0.10	•	•	•	•	•	•	0.01	•	•	•	•	•	•	•	0.14	0.26	
> 18 ft	0.04	•	•	•	•	•	•	•	•	•	•	•	•	•	•	0.07	0.10	
Total	20.03	1.73	4.10	4.37	7.15	2.71	3.99	7.90	6.75	6.61	4.42	4.92	2.73	2.58	5.59	14.43	100.00	

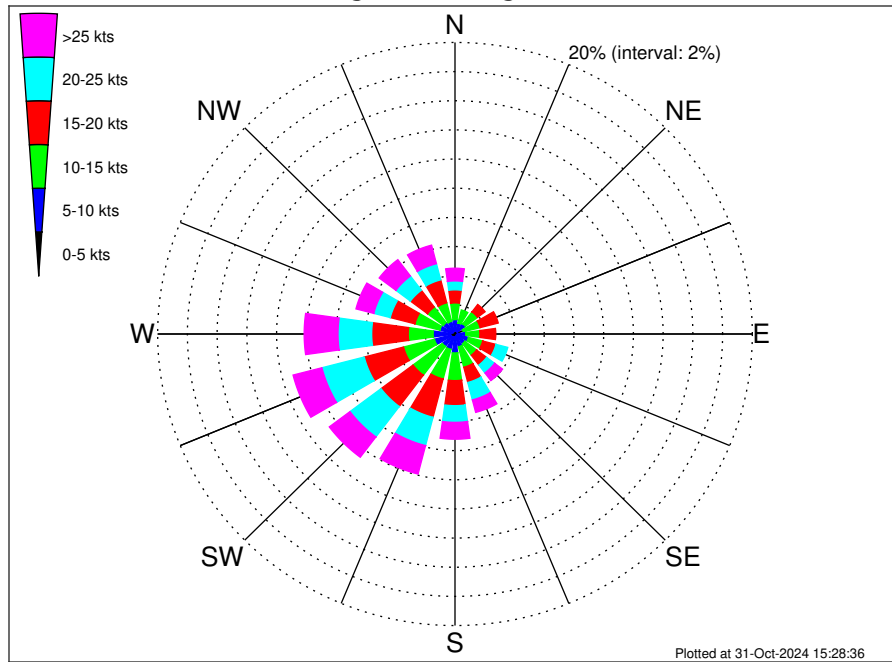
UK Cable Route GT - Middlesborough Climatological WavePeriod Rose for March: 1979 - 2015



Joint Frequency Distribution Table

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total
calm	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
1 - 2 sec	•	•	•	•	0.01	•	•	•	•	•	•	•	•	•	•	•	0.01
2 - 4 sec	0.04	0.05	0.23	0.25	0.18	0.33	0.55	0.86	1.00	1.56	1.37	1.12	0.51	0.34	0.39	0.13	8.90
4 - 6 sec	0.87	0.60	0.92	1.53	3.12	1.35	2.30	4.97	4.72	4.76	2.95	3.62	2.04	1.64	2.54	2.26	40.21
6 - 8 sec	4.51	0.81	2.64	2.33	3.69	1.03	1.14	2.04	1.03	0.29	0.10	0.18	0.18	0.60	2.54	4.53	27.64
8 - 10 sec	8.74	0.27	0.30	0.26	0.14	•	•	0.03	•	•	•	•	•	•	0.13	4.15	14.02
10 - 12 sec	5.72	•	•	•	•	•	•	•	•	•	•	•	•	•	•	1.68	7.40
12 - 14 sec	0.14	•	•	•	•	•	•	•	•	•	•	•	•	•	•	0.90	1.04
14 - 16 sec	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	0.52	0.52
18 - 20 sec	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	0.21	0.21
22 - 24 sec	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	0.05	0.05
Total	20.03	1.73	4.10	4.37	7.15	2.71	3.99	7.90	6.75	6.61	4.42	4.92	2.73	2.58	5.59	14.43	100.00

UK Cable Route GT - Middlesborough Climatological Wind Rose for March: 1979 - 2015



Joint Frequency Distribution Table

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total
calm	•	0.01	•	0.03	0.03	•	•	•	0.01	•	0.01	•	0.01	•	•	•	0.10
0 - 5 kts	0.29	0.20	0.20	0.13	0.14	0.17	0.12	0.20	0.21	0.22	0.25	0.29	0.30	0.22	0.16	0.18	3.25
5 - 10 kts	0.70	0.57	0.68	0.43	0.56	0.77	0.72	0.72	1.08	0.87	0.81	1.14	1.16	0.83	0.82	0.72	12.57
10 - 15 kts	1.14	0.92	1.03	1.16	0.95	0.99	0.99	1.44	1.90	2.09	2.47	2.15	1.68	1.73	1.34	1.31	23.30
15 - 20 kts	0.90	0.48	0.64	1.26	1.07	0.92	0.85	1.08	1.72	2.72	2.69	2.73	2.46	1.72	1.44	1.63	24.30
20 - 25 kts	0.61	0.27	0.48	0.43	0.47	0.82	0.68	1.24	1.14	2.00	2.61	2.94	2.26	1.14	1.22	1.14	19.47
25 - 30 kts	0.43	0.03	0.10	0.23	0.27	0.29	0.44	0.49	0.68	1.35	1.37	1.40	1.27	0.60	0.83	0.88	10.68
30 - 35 kts	0.34	0.03	0.17	0.16	0.09	0.03	0.21	0.25	0.31	0.49	0.30	0.43	0.72	0.48	0.53	0.35	4.88
35 - 40 kts	0.07	0.04	•	•	•	0.01	0.01	0.10	0.16	0.16	0.07	0.14	0.25	0.10	0.04	0.05	1.20
40 - 45 kts	0.04	•	•	•	•	•	•	0.04	0.01	0.01	0.01	0.03	0.04	0.05	•	0.01	0.25
45 - 50 kts	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	0.01	0.01
Total	4.51	2.55	3.29	3.82	3.58	3.99	4.01	5.55	7.22	9.92	10.59	11.25	10.15	6.88	6.39	6.30	100.00