

UK Cable Route GT - Middlesborough - July

Latitude: 54.60 N Longitude: 0.81 E

Weather Days

Wave Height > 6.0 ft Mean: 2.3 days Range: 0.6 - 4.1 days p50:3 days p75:1.5 days p90:0.5 days

Wave Height > 7.0 ft Mean: 1.4 days Range: 0.0 - 2.7 days p50:2.5 days p75:1.5 days p90:1 days

Wave Height > 8.0 ft Mean: 0.9 days Range: 0.0 - 1.9 days p50:2.5 days p75:1 days p90:1 days

Wind Speed > 15.0 knots Mean: 9.9 days Range: 6.4 - 13.4 days p50:9.5 days p75:7.5 days p90:5.5 days

Wind Speed > 20.0 knots Mean: 2.9 days Range: 1.1 - 4.6 days p50:3 days p75:1.5 days p90:1 days

Wind Speed > 25.0 knots Mean: 0.7 days Range: 0.0 - 1.6 days p50:1 days p75:0.5 days p90:0.5 days

Working Window

Wave Height < 6.0 ft
A 1 day or longer window will statistically occur 2.6 times per month
A 2 day or longer window will statistically occur 2.3 times per month
A 3 day or longer window will statistically occur 2.0 times per month

Wave Height < 7.0 ft
A 1 day or longer window will statistically occur 2.1 times per month
A 2 day or longer window will statistically occur 1.9 times per month
A 3 day or longer window will statistically occur 1.8 times per month

Wave Height < 8.0 ft
A 1 day or longer window will statistically occur 1.5 times per month
A 2 day or longer window will statistically occur 1.5 times per month
A 3 day or longer window will statistically occur 1.5 times per month

Waves

Mean Height: 2 - 4 ft

The wave heights will occasionally reach 10 - 12 ft, but rarely higher.

Mean Period: 4 - 6 sec

The wave periods will occasionally reach 8 - 10 sec, but rarely longer.

Principle Direction, from: N

WindSea/Swell: 43% / 57%

Winds

Mean Speed: 10 - 15 kts

The winds will occasionally reach 30 - 35 kts, but rarely greater.

Principle Direction, from: SW

Currents

Mean Speed: 0.01-0.25 kts

The currents will occasionally reach 0.75-1.00 kts, but rarely greater.

Principle Direction, to: NNE

Weather Days

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

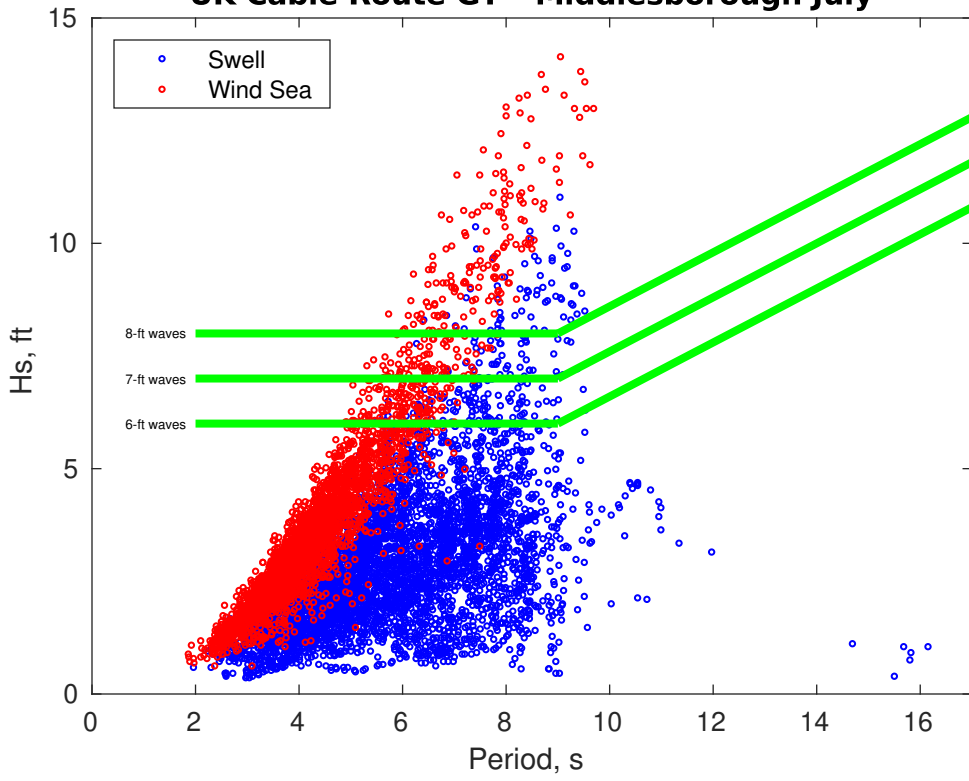
Current Speed > 1.5 knots Mean: 0.0 days Range: 0.0 - 0.0 days p50:1 days p75:1 days p90:1 days

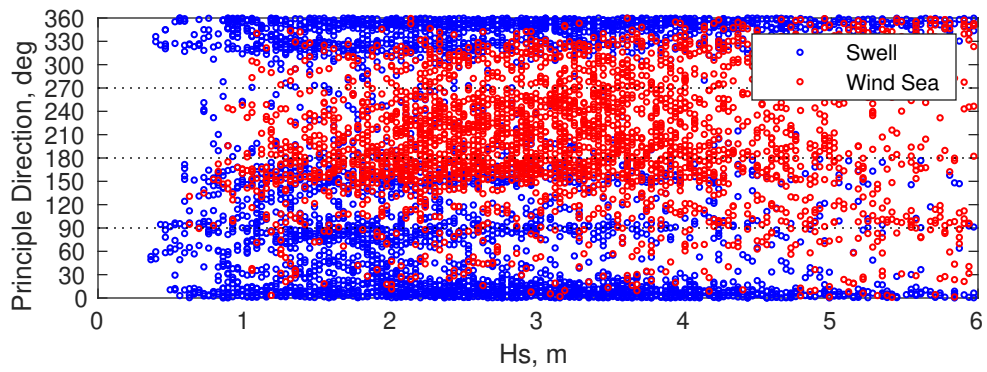
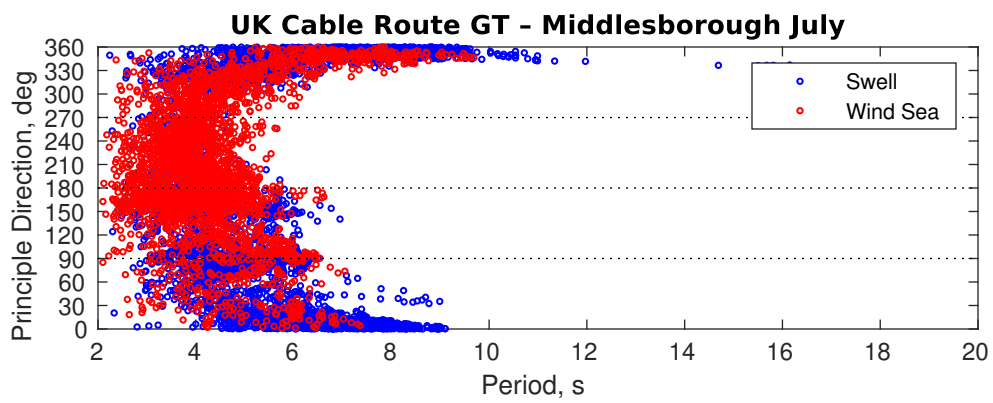
Current Speed > 2.0 knots Mean: 0.0 days Range: 0.0 - 0.0 days p50:1 days p75:1 days p90:1 days

Severe Storms

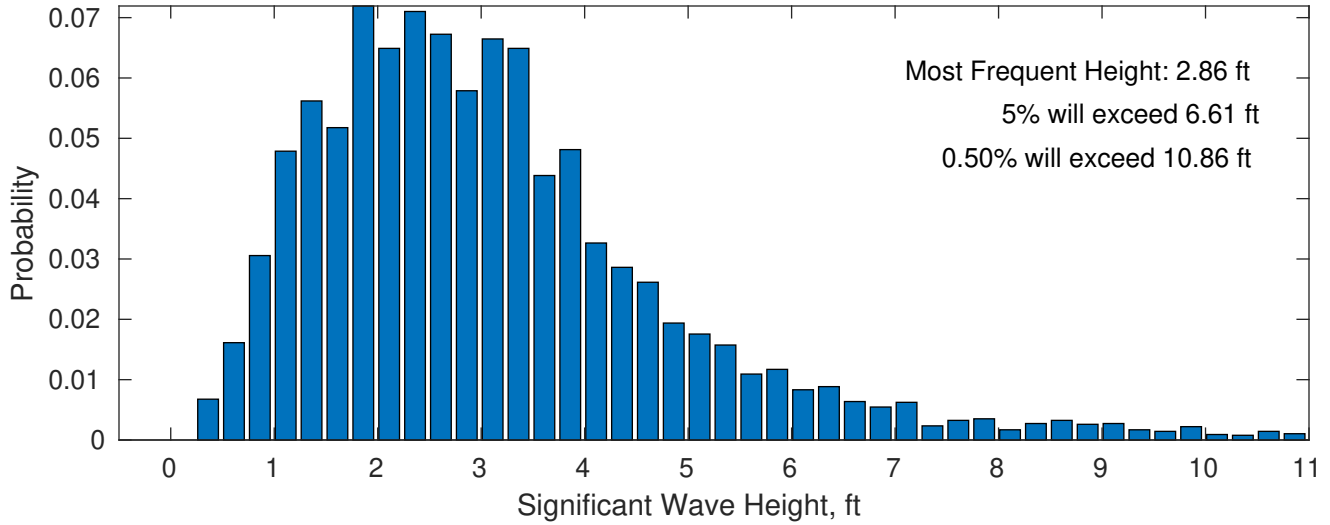
Severe storms with gale force winds and extreme waves are not expected during this month.

UK Cable Route GT - Middlesborough July

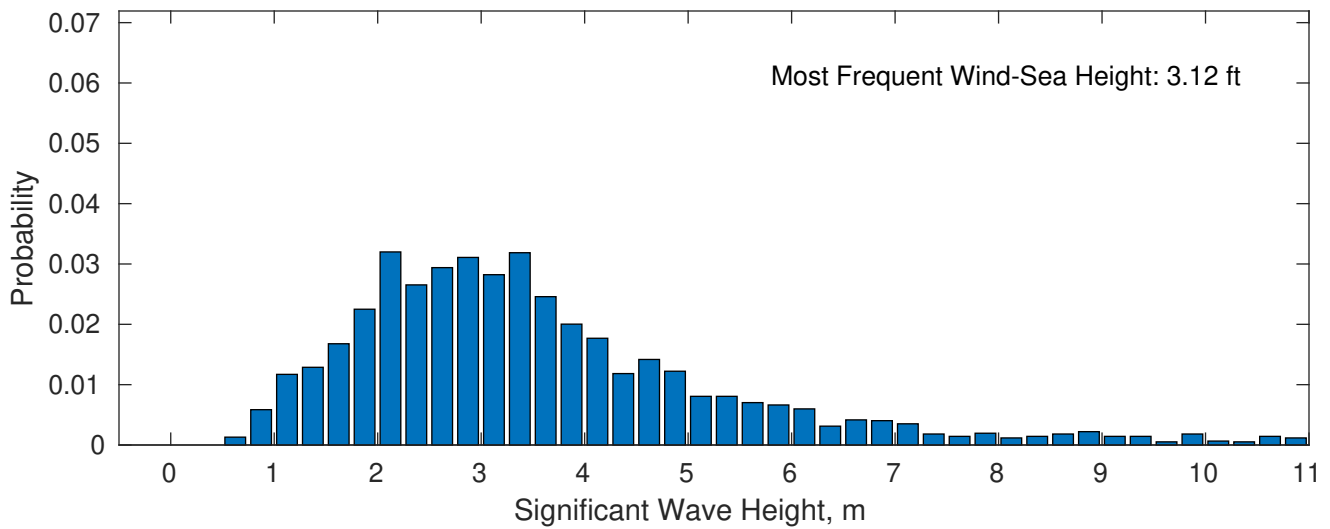




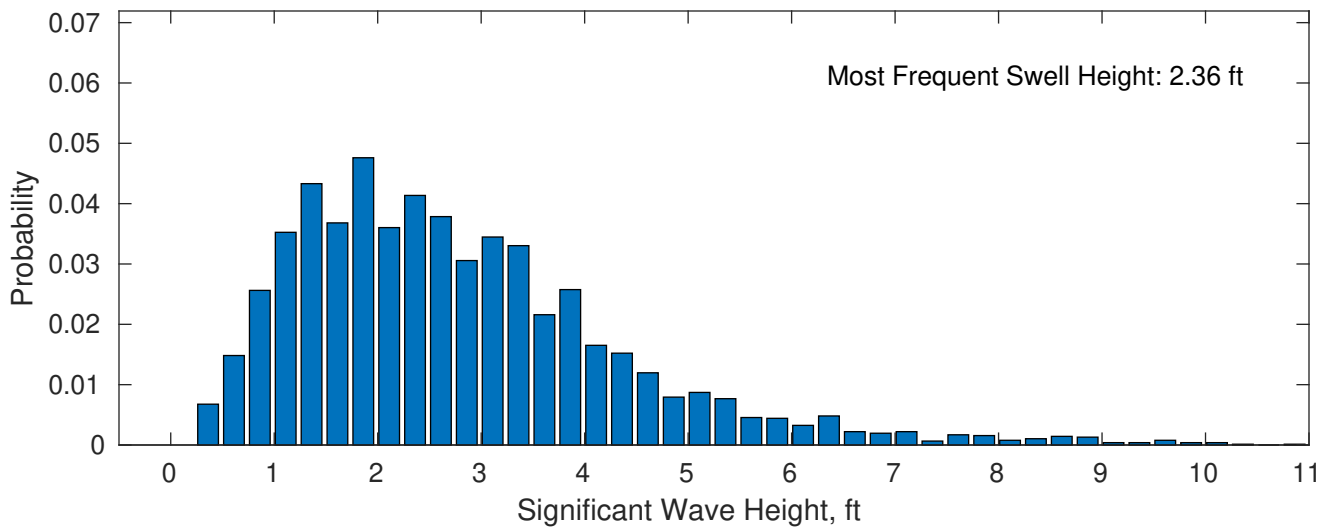
July Wave Height PDF: 1979 - 2015



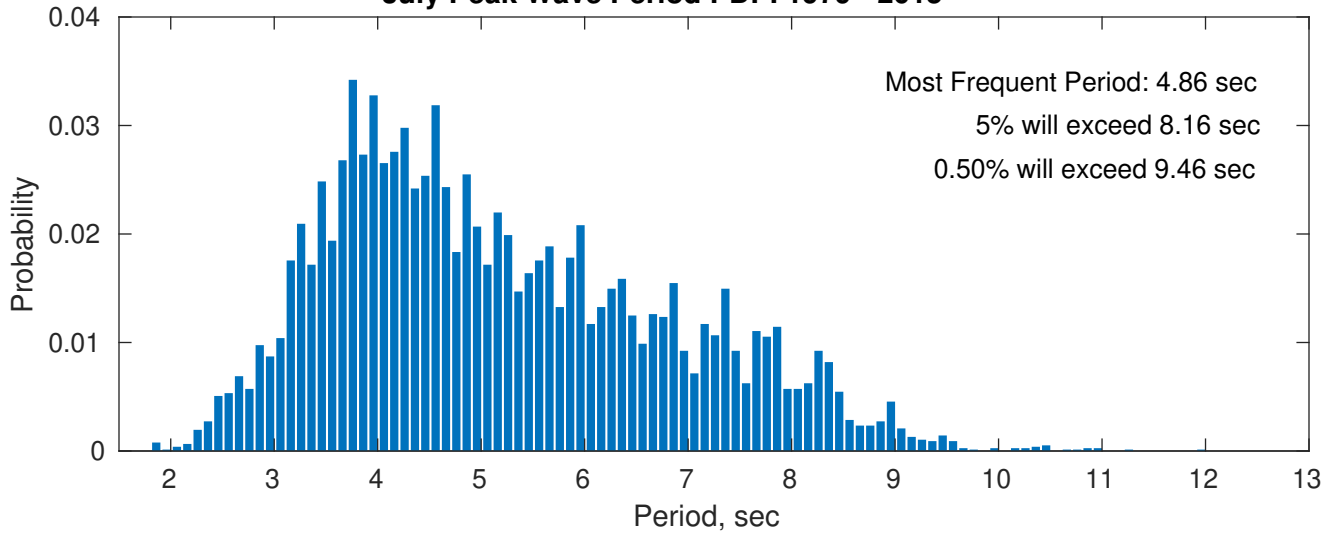
Wind-Sea: 42.66%



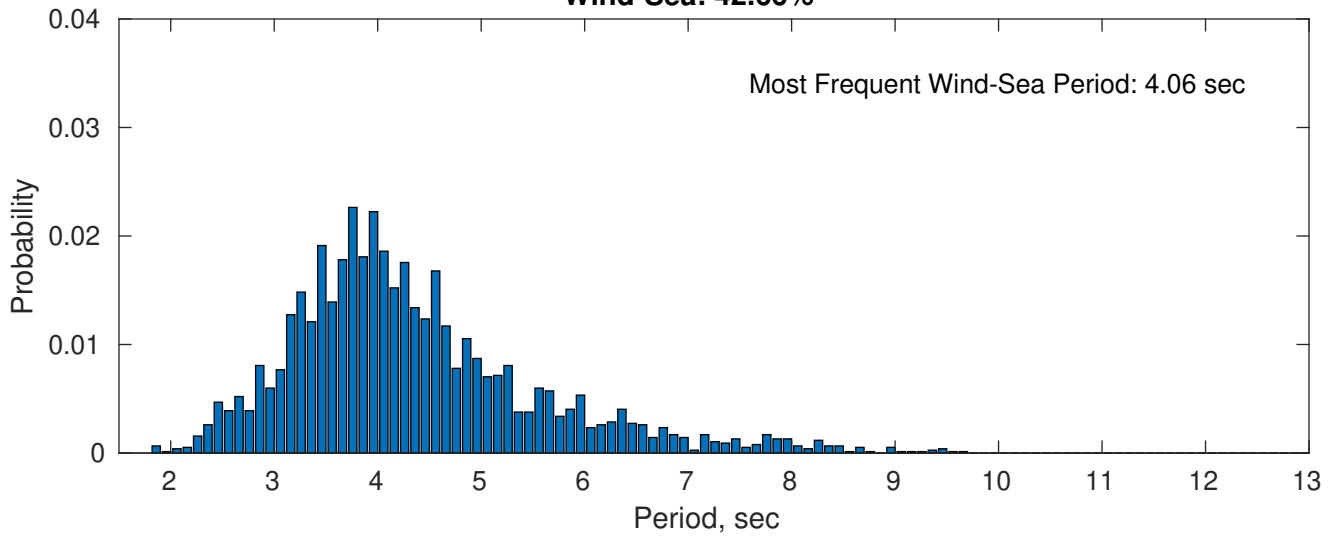
Swell: 57.34%



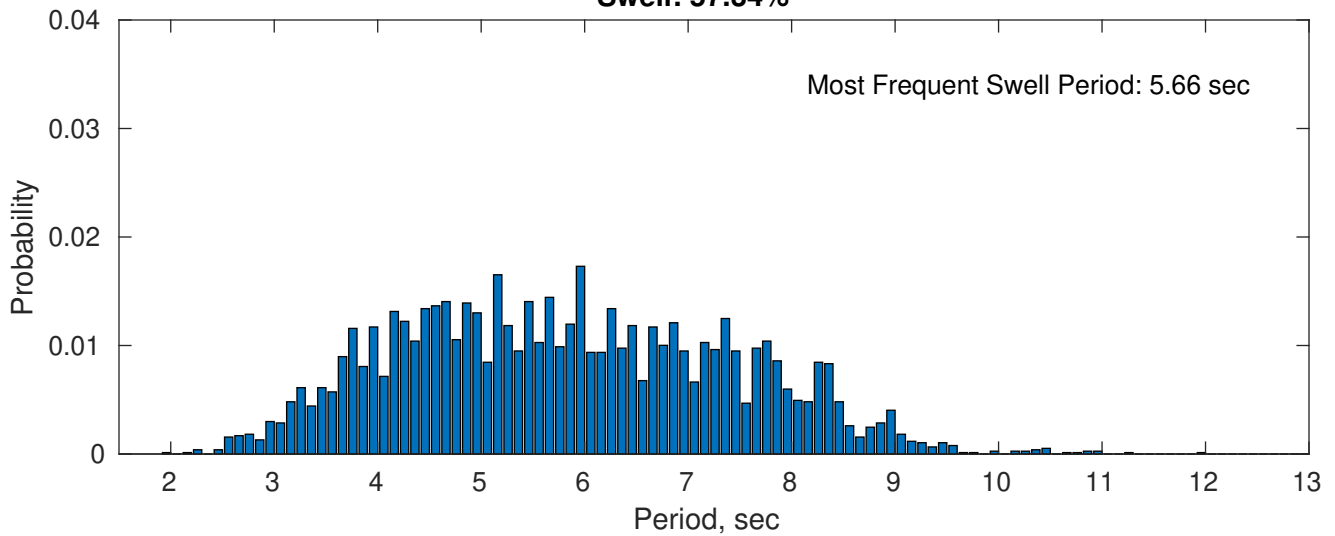
July Peak Wave Period PDF: 1979 - 2015



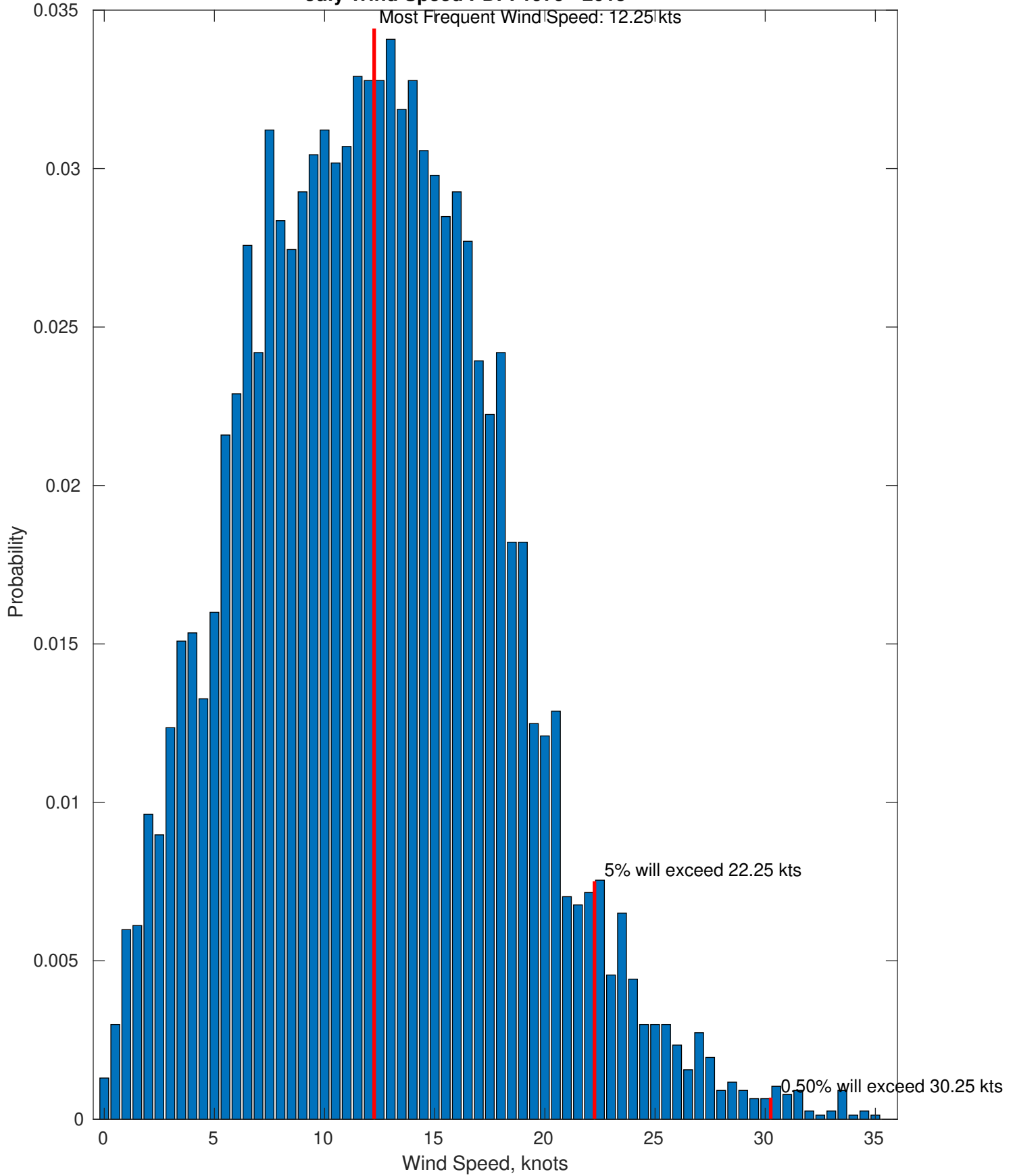
Wind-Sea: 42.66%



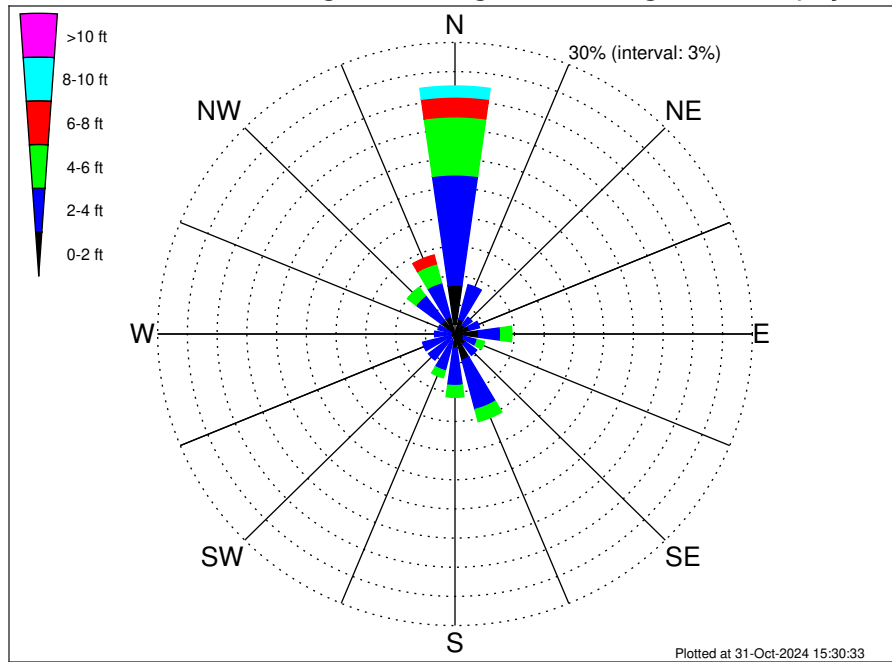
Swell: 57.34%



July Wind Speed PDF: 1979 - 2015



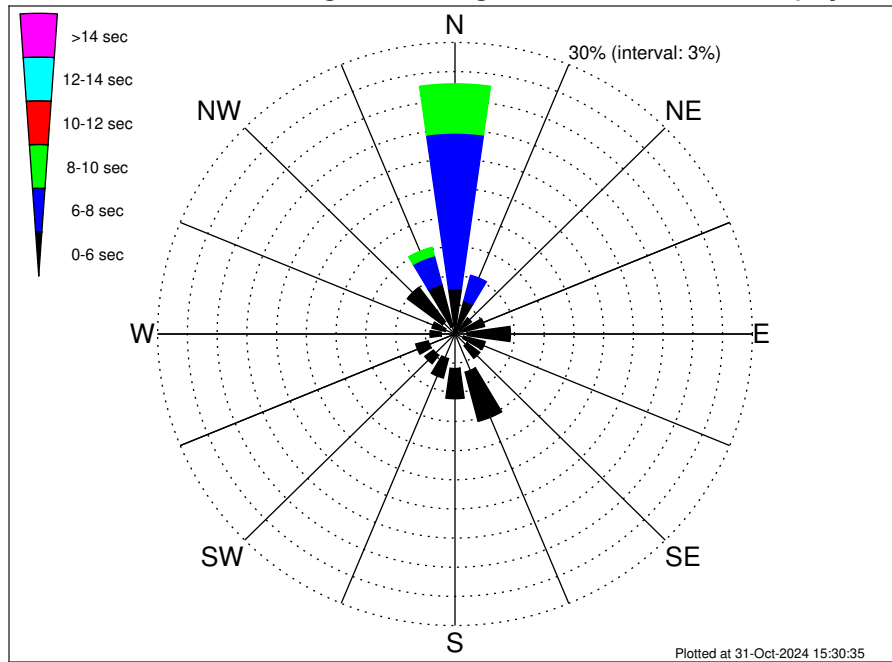
UK Cable Route GT - Middlesborough Climatological WaveHeight Rose for July: 1979 - 2015



Joint Frequency Distribution Table

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total
calm	0.99	0.26	0.21	0.26	0.51	0.13	0.26	0.39	0.07	0.07	0.01	0.10	0.03	•	0.23	0.34	3.85
1 - 2 ft	4.03	1.33	0.98	1.26	1.87	0.77	1.05	2.37	1.38	0.72	0.55	0.40	0.35	0.35	1.51	1.50	20.41
2 - 4 ft	11.36	3.66	0.98	1.04	2.24	1.43	1.43	5.27	3.86	3.12	2.80	2.87	1.69	1.43	3.20	3.60	49.97
4 - 6 ft	5.97	0.66	0.26	0.59	1.13	0.75	0.38	1.29	1.21	0.75	0.44	0.59	0.39	0.52	1.08	2.02	18.03
6 - 8 ft	2.04	0.23	0.08	0.09	0.44	0.10	0.08	0.09	0.16	0.03	0.03	0.13	0.07	0.13	0.20	0.95	4.84
8 - 10 ft	1.13	0.12	0.01	0.05	0.04	•	•	0.01	0.05	•	•	•	•	0.01	0.03	0.47	1.93
10 - 12 ft	0.27	•	•	0.03	0.01	•	•	•	•	•	•	•	•	•	0.01	0.40	0.73
12 - 14 ft	0.08	•	•	•	•	•	•	•	•	•	•	•	•	•	•	0.16	0.23
14 - 16 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	0.01	0.01
16 - 18 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
> 18 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Total	25.87	6.26	2.51	3.32	6.24	3.19	3.20	9.42	6.72	4.68	3.82	4.10	2.52	2.45	6.26	9.44	100.00

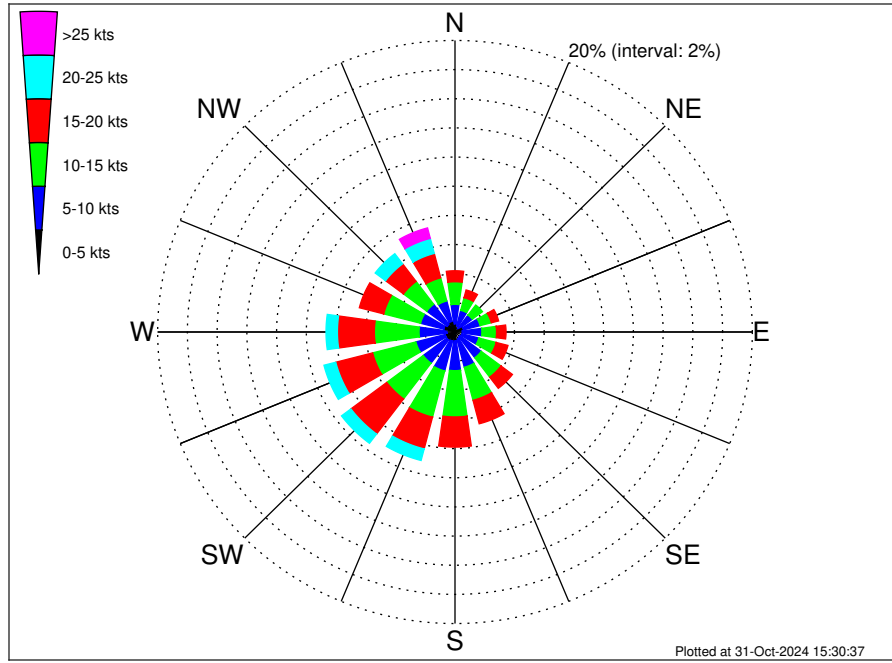
UK Cable Route GT - Middlesborough Climatological WavePeriod Rose for July: 1979 - 2015



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	0.03	0.01	0.01	•	•	•	•	•	0.01	0.09
2 - 4 sec	0.18	0.22	0.59	0.72	1.22	0.91	1.50	4.02	3.54	2.60	2.73	2.78	1.40	1.05	1.59	0.82	25.87
4 - 6 sec	4.47	3.32	1.50	2.38	4.36	2.24	1.63	5.24	3.11	2.07	1.09	1.31	1.12	1.35	4.45	4.45	44.08
6 - 8 sec	16.02	2.71	0.33	0.22	0.65	0.04	0.07	0.13	0.07	•	•	•	•	0.04	0.22	3.03	23.52
8 - 10 sec	5.06	0.01	0.10	•	•	•	•	•	•	•	•	•	•	•	•	0.91	6.09
10 - 12 sec	0.13	•	•	•	•	•	•	•	•	•	•	•	•	•	•	0.14	0.27
12 - 14 sec	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
14 - 16 sec	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	0.07	0.07
18 - 20 sec	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	0.01	0.01
22 - 24 sec	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Total	25.87	6.26	2.51	3.32	6.24	3.19	3.20	9.42	6.72	4.68	3.82	4.10	2.52	2.45	6.26	9.44	100.00

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



Joint Frequency Distribution Table

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total
calm	0.04	0.05	0.01	0.04	0.03	0.03	0.01	0.01	0.01	•	•	0.04	0.05	0.03	0.04	0.04	0.43
0 - 5 kts	0.52	0.39	0.29	0.55	0.47	0.44	0.40	0.48	0.60	0.64	0.69	0.64	0.49	0.75	0.61	0.72	8.68
5 - 10 kts	1.34	1.09	1.16	1.16	1.31	1.18	1.80	2.00	2.04	2.12	1.99	2.04	1.87	1.61	1.73	1.44	25.90
10 - 15 kts	1.55	0.90	0.86	0.78	0.99	1.21	1.66	2.34	3.17	3.28	3.07	3.00	3.00	2.56	1.96	1.64	31.98
15 - 20 kts	0.75	0.55	0.25	0.51	0.64	0.82	0.96	1.66	2.07	2.25	3.02	2.56	2.48	1.69	1.51	1.73	23.45
20 - 25 kts	0.23	0.16	0.14	0.13	0.20	0.12	0.18	0.21	0.36	0.82	0.79	0.82	0.77	0.33	0.87	1.07	7.19
25 - 30 kts	0.08	0.03	0.03	0.08	•	•	0.03	0.01	0.07	0.12	0.04	0.20	0.18	0.12	0.31	0.55	1.82
30 - 35 kts	0.01	•	0.04	•	•	•	•	•	0.03	0.01	0.01	0.03	0.05	0.07	0.09	0.20	0.53
35 - 40 kts	•	•	•	•	•	•	•	•	0.01	•	•	•	•	•	•	•	0.01
40 - 45 kts	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
45 - 50 kts	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Total	4.53	3.16	2.77	3.24	3.63	3.80	5.05	6.72	8.36	9.24	9.61	9.33	8.91	7.15	7.13	7.38	100.00