

## Even Keel Wind Project - July

Latitude: 35.53 N Longitude: 121.68 W

### Weather Days

Wave Height > 6.0 ft Mean: 12.8 days Range: 8.4 - 17.3 days p50:18 days p75:15.5 days p90:11.5 days

Wave Height > 7.0 ft Mean: 8.0 days Range: 3.3 - 12.8 days p50:10 days p75:7 days p90:4 days

Wave Height > 8.0 ft Mean: 4.0 days Range: 0.3 - 7.7 days p50:4.5 days p75:2 days p90:0.5 days

Wind Speed > 10.0 knots Mean: 20.5 days Range: 16.9 - 24.1 days p50:20.5 days p75:18.5 days p90:16 days

Wind Speed > 15.0 knots Mean: 11.7 days Range: 7.9 - 15.6 days p50:12 days p75:9.5 days p90:7 days

Wind Speed > 20.0 knots Mean: 3.2 days Range: 1.5 - 4.9 days p50:3.5 days p75:2 days p90:1 days

### Working Window

Wave Height < 6.0 ft  
A 1 day or longer window will statistically occur 3.5 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 1.5 times per month

Wave Height < 7.0 ft  
A 1 day or longer window will statistically occur 4.1 times per month  
A 2 day or longer window will statistically occur 3.4 times per month  
A 3 day or longer window will statistically occur 2.6 times per month

Wave Height < 8.0 ft  
A 1 day or longer window will statistically occur 3.1 times per month  
A 2 day or longer window will statistically occur 2.7 times per month  
A 3 day or longer window will statistically occur 2.3 times per month

### Waves

Mean Height: 6 - 8 ft

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

Mean Period: 8 - 10 sec

The wave periods will occasionally reach 22 - 24 sec, but rarely longer.

Principle Direction, from: NW

WindSea/Swell: 12% / 88%

### Winds

Mean Speed: 10 - 15 kts

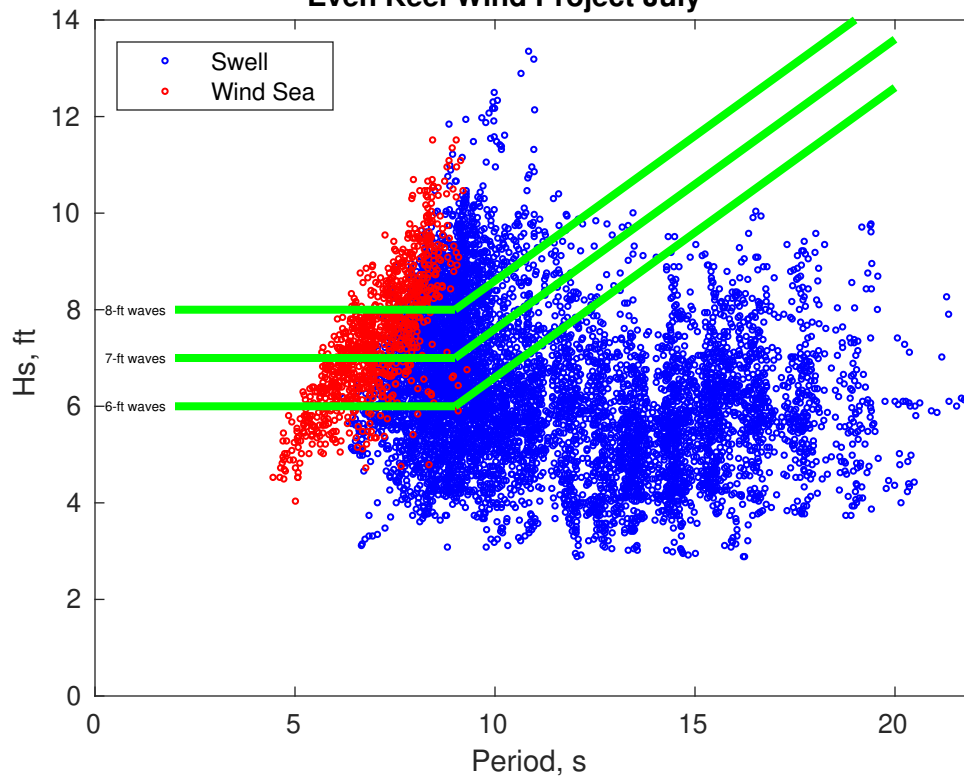
The winds will occasionally reach 20 - 25 kts, but rarely greater.

Principle Direction, from: NW

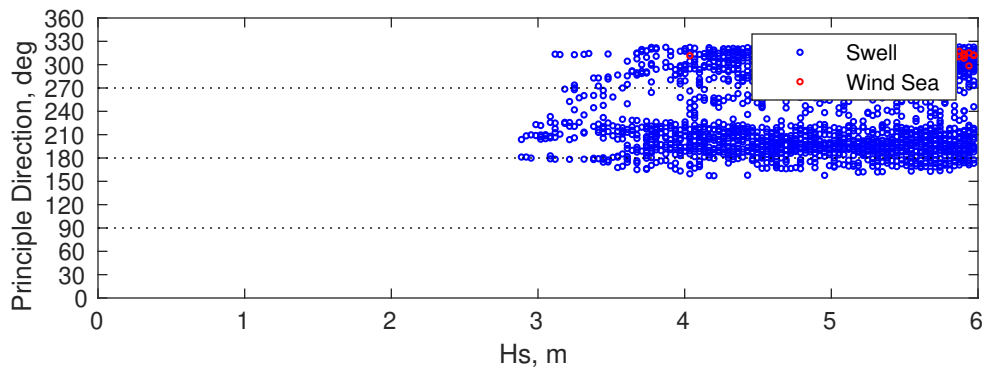
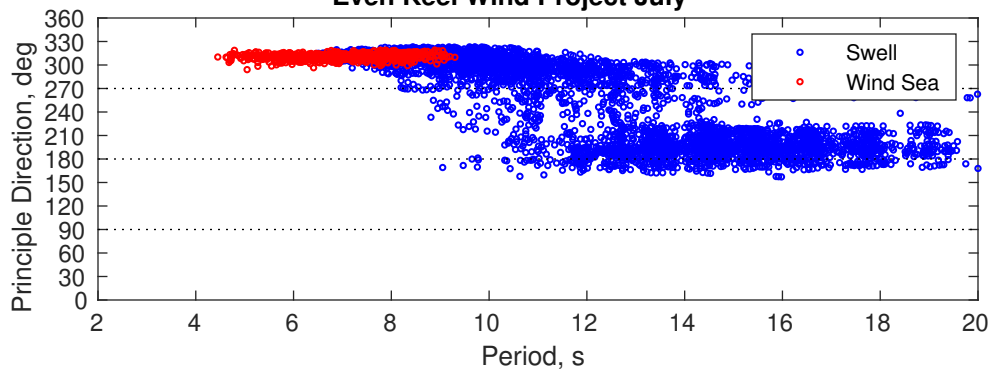
### Severe Storms

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

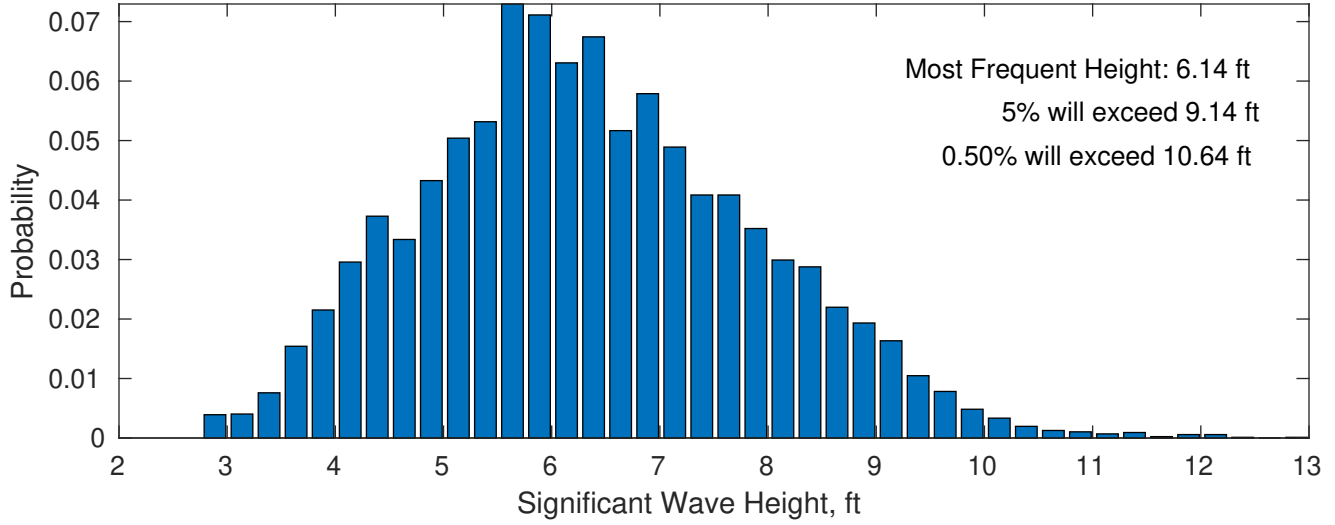
### Even Keel Wind Project July



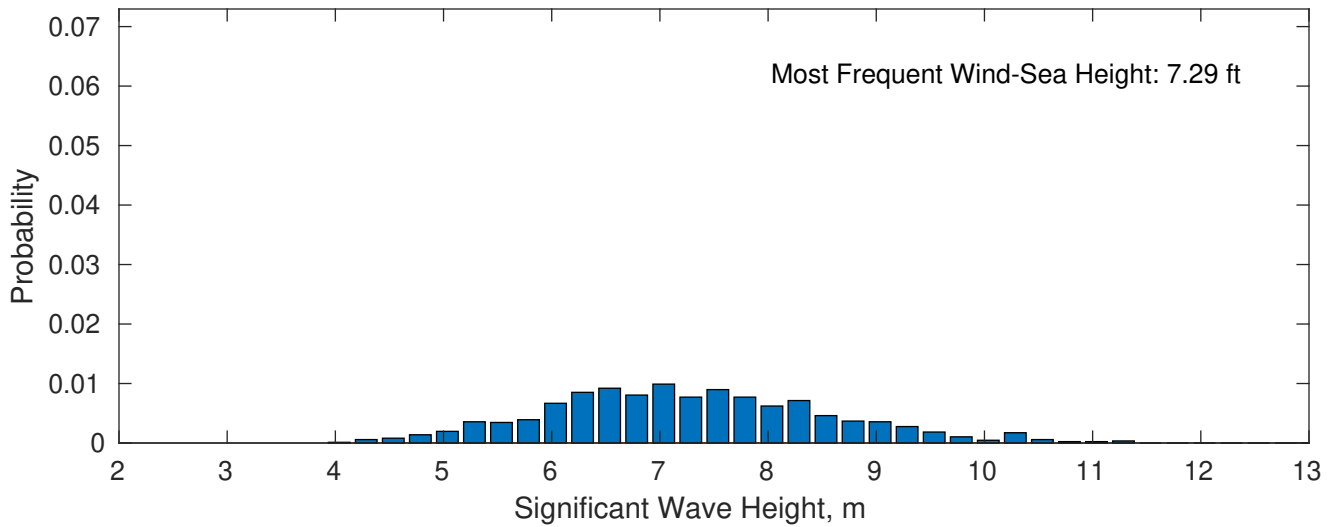
### Even Keel Wind Project July



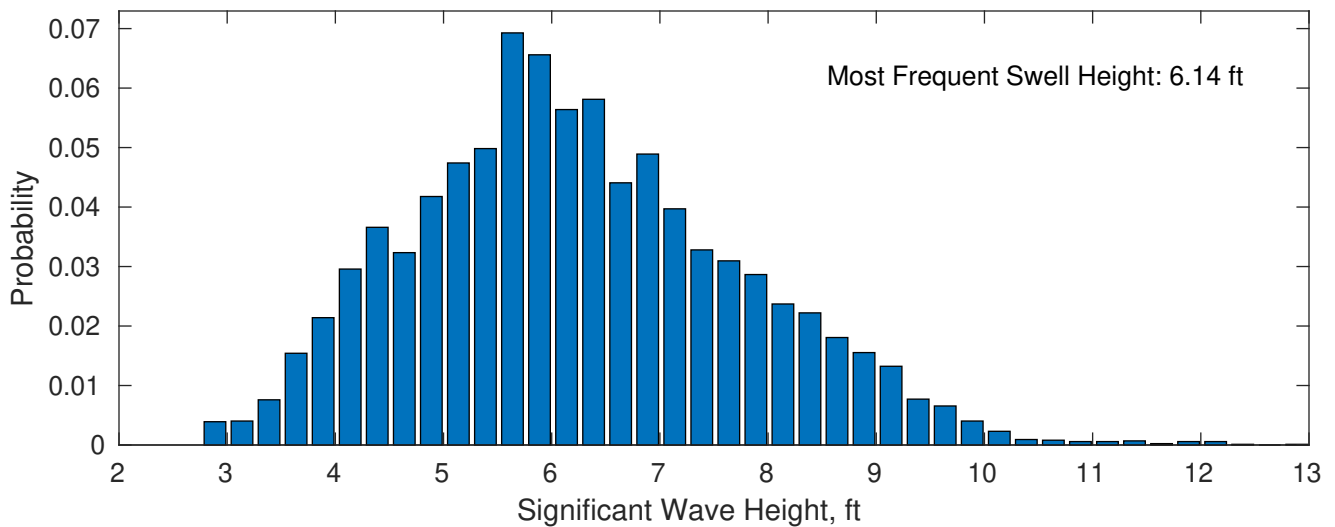
**July Wave Height PDF: 1979 - 2015**



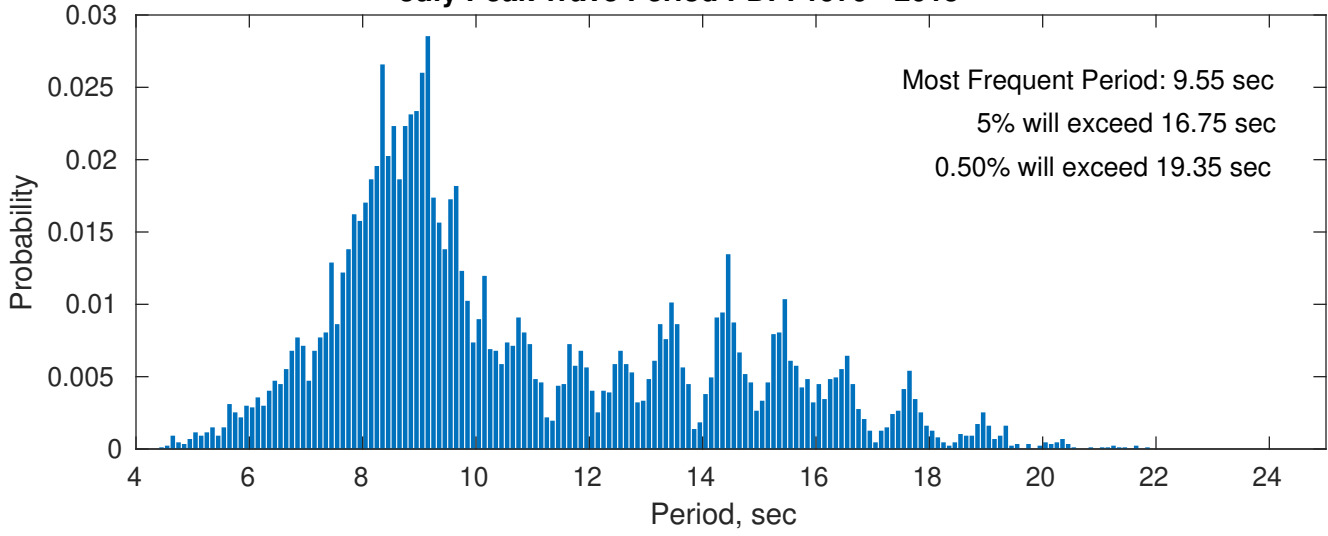
**Wind-Sea: 11.69%**



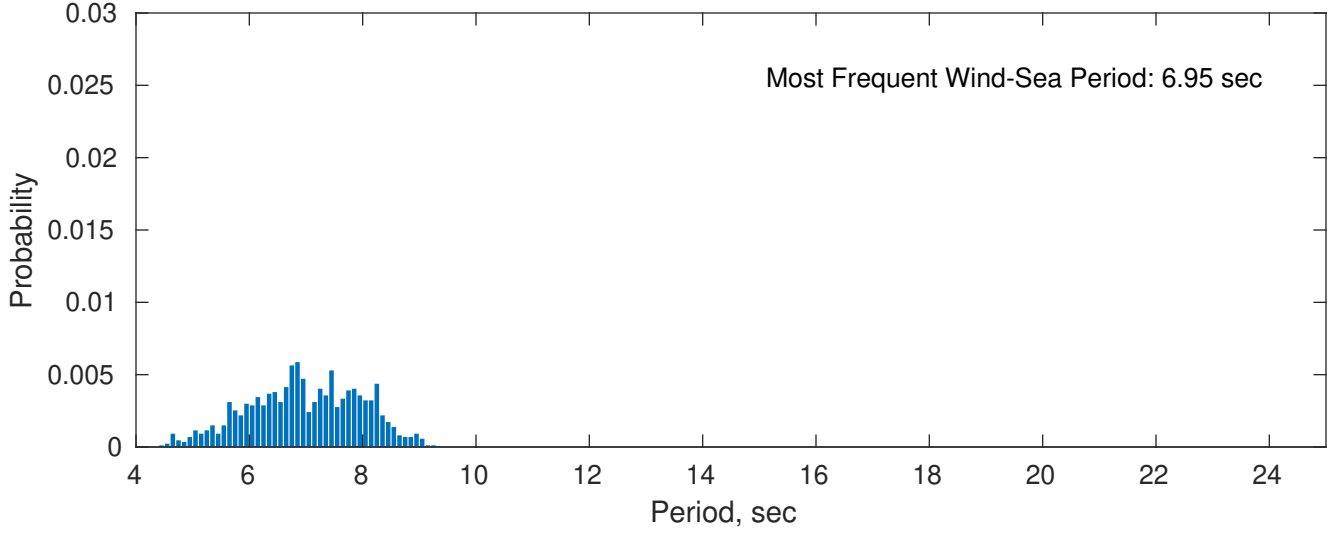
**Swell: 88.31%**



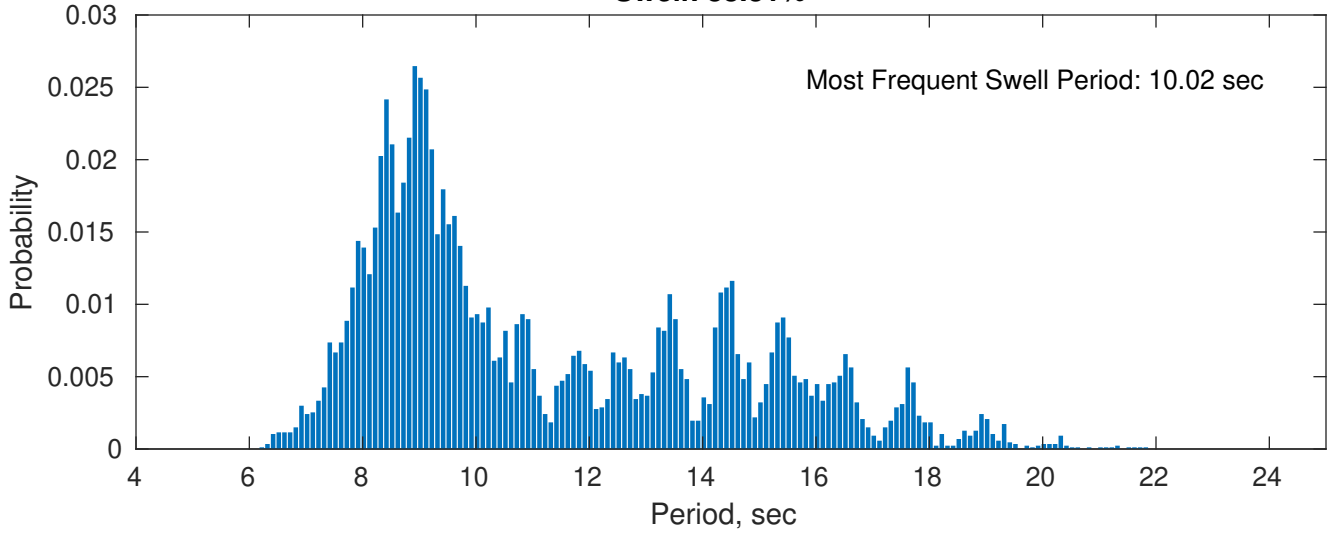
**July Peak Wave Period PDF: 1979 - 2015**



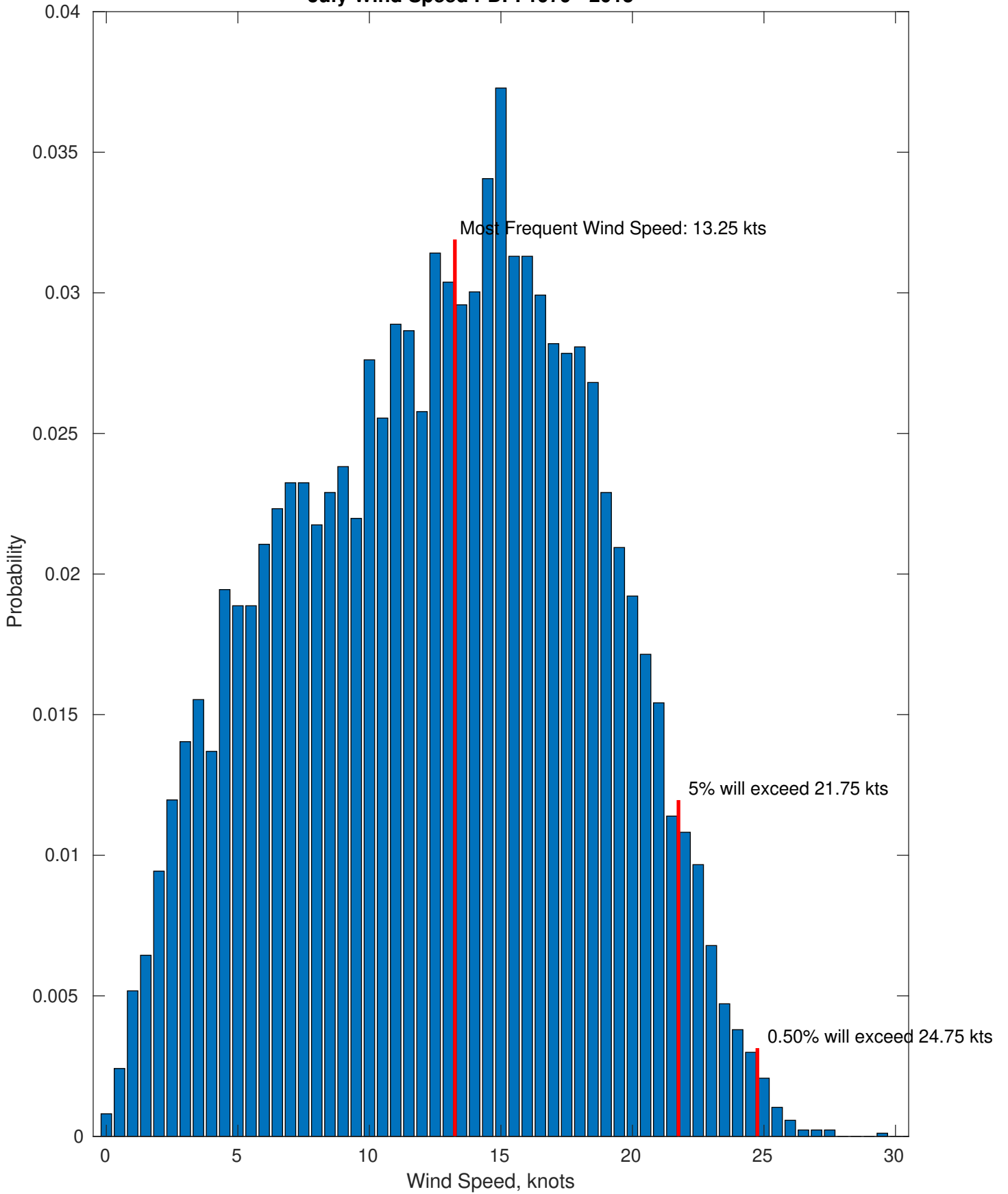
**Wind-Sea: 11.69%**



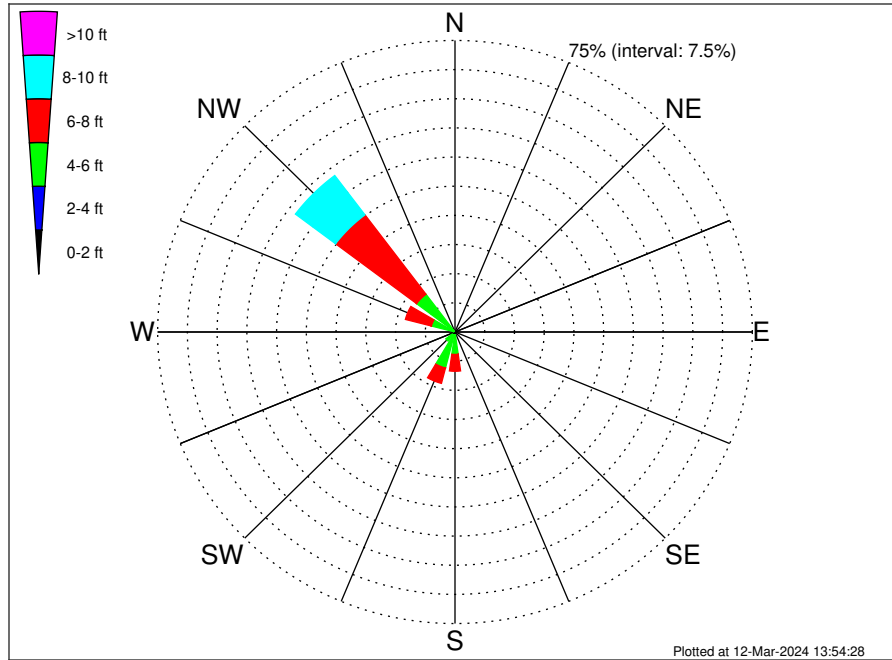
**Swell: 88.31%**



July Wind Speed PDF: 1979 - 2015



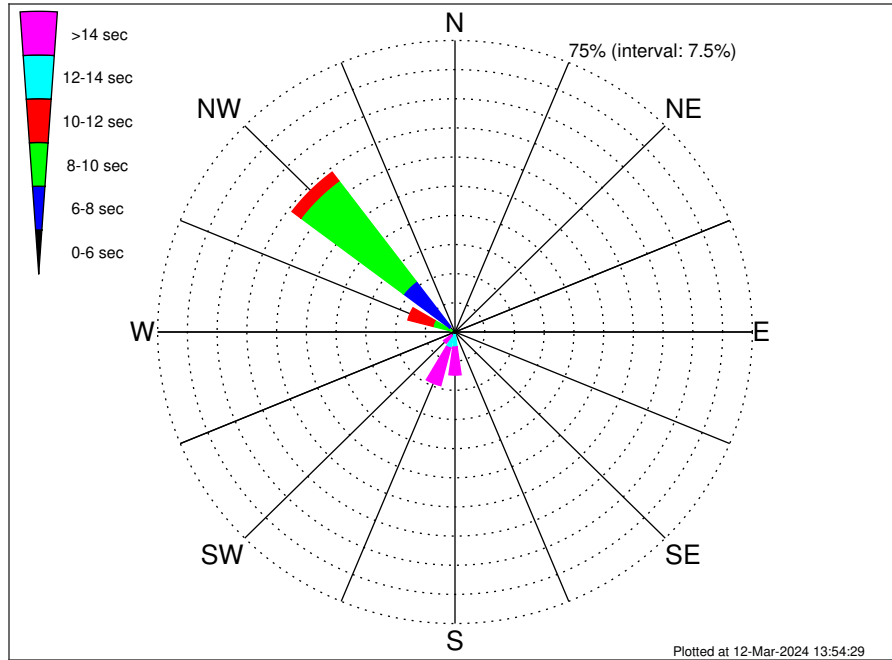
Even Keel Wind Project Climatological WaveHeight Rose for July: 1979 - 2015



Joint Frequency Distribution Table

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total
calm	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
1 - 2 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
2 - 4 ft	•	•	•	•	•	•	•	0.07	0.74	1.06	0.89	0.09	0.20	0.38	0.33	•	3.75
4 - 6 ft	•	•	•	•	•	•	•	0.38	5.04	8.52	2.03	0.90	1.80	5.78	11.82	•	36.25
6 - 8 ft	•	•	•	•	•	•	•	0.08	4.33	4.07	0.71	0.26	1.06	6.77	25.58	•	42.87
8 - 10 ft	•	•	•	•	•	•	•	•	0.98	0.62	0.02	0.03	0.02	1.47	12.67	•	15.82
10 - 12 ft	•	•	•	•	•	•	•	•	0.01	0.01	•	•	•	0.09	1.08	•	1.20
12 - 14 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	0.12	•	0.12
14 - 16 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
16 - 18 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
> 18 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Total	•	•	•	•	•	•	•	0.53	11.09	14.28	3.65	1.29	3.07	14.49	51.60	•	100.00

Even Keel Wind Project Climatological WavePeriod Rose for July: 1979 - 2015

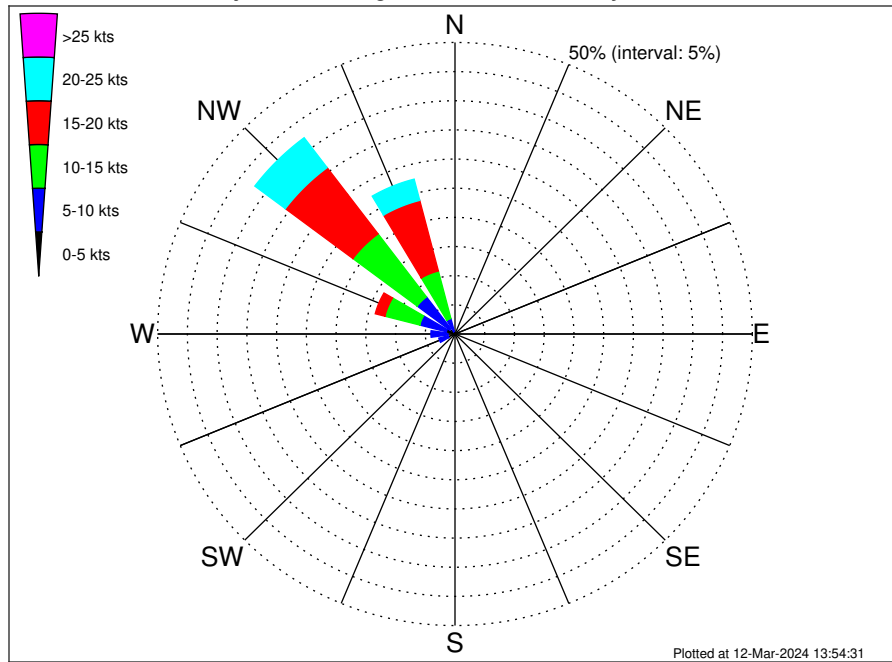


Joint Frequency Distribution Table

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total	
calm	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
1 - 2 sec	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
2 - 4 sec	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
4 - 6 sec	•	•	•	•	•	•	•	•	•	•	•	•	•	•	0.15	1.77	•	1.92
6 - 8 sec	•	•	•	•	•	•	•	•	•	•	•	•	•	•	0.74	14.51	•	15.25
8 - 10 sec	•	•	•	•	•	•	•	•	0.07	•	0.10	0.13	0.51	4.91	32.38	•	38.10	
10 - 12 sec	•	•	•	•	•	•	•	0.10	0.71	0.75	0.33	0.45	1.08	6.49	2.83	•	12.75	
12 - 14 sec	•	•	•	•	•	•	•	0.14	3.10	3.52	0.72	0.38	1.05	1.59	0.10	•	10.60	
14 - 16 sec	•	•	•	•	•	•	•	0.18	3.74	6.14	1.50	0.26	0.31	0.53	•	•	12.67	
18 - 20 sec	•	•	•	•	•	•	•	0.09	2.45	3.27	0.64	0.02	0.09	0.08	•	•	6.65	
22 - 24 sec	•	•	•	•	•	•	•	0.01	1.02	0.60	0.35	0.05	0.03	•	•	•	2.06	
Total	•	•	•	•	•	•	•	0.53	11.09	14.28	3.65	1.29	3.07	14.49	51.60	•	100.00	



Even Keel Wind Project 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	•	0.01	•	0.01	0.02	•	0.02	0.02	0.05	•	0.07	0.05	0.02	0.02	0.01	0.01	0.32
0 - 5 kts	0.21	0.02	0.12	0.06	0.17	0.20	0.29	0.46	0.72	0.84	1.08	1.17	1.19	1.48	1.12	0.45	9.57
5 - 10 kts	0.22	0.01	•	0.01	0.03	0.05	0.32	0.75	0.68	0.70	0.87	1.60	2.84	4.61	6.84	2.27	21.81
10 - 15 kts	0.13	•	•	•	•	0.01	0.03	0.08	0.01	0.06	0.06	0.08	0.69	6.06	13.54	8.43	29.19
15 - 20 kts	0.05	•	•	•	•	•	•	0.01	•	•	•	•	•	1.67	14.22	12.51	28.46
20 - 25 kts	•	•	•	•	•	•	•	•	•	•	•	•	•	0.01	6.42	3.76	10.20
25 - 30 kts	•	•	•	•	•	•	•	•	•	•	•	•	•	•	0.29	0.16	0.45
30 - 35 kts	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
35 - 40 kts	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
40 - 45 kts	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
45 - 50 kts	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Total	0.60	0.05	0.12	0.08	0.23	0.25	0.67	1.32	1.46	1.60	2.08	2.90	4.74	13.87	42.44	27.59	100.00