

## VNE 544 ECR2 Midpoint - April

Latitude: 40.24 N Longitude: 73.53 W

### Weather Days

Wave Height > 4.0 ft Mean: 11.6 days Range: 7.5 - 15.7 days p50:11 days p75:10 days p90:8.5 days

Wave Height > 5.0 ft Mean: 7.5 days Range: 3.7 - 11.4 days p50:8 days p75:6 days p90:3.5 days

Wave Height > 6.0 ft Mean: 4.8 days Range: 1.5 - 8.1 days p50:5.5 days p75:3 days p90:1 days

Wind Speed > 20.0 knots Mean: 3.6 days Range: 2.0 - 5.3 days p50:4 days p75:2.5 days p90:1.5 days

Wind Speed > 25.0 knots Mean: 1.0 days Range: 0.1 - 1.8 days p50:1 days p75:1 days p90:0.5 days

Wind Speed > 30.0 knots Mean: 0.2 days Range: 0.0 - 0.5 days p50:0.5 days p75:0.5 days p90:0.5 days

### Working Window Probability

Wave Height < 4.0 ft  
3 days or longer: 43%  
5 days or longer: 12%  
7 days or longer: 5%

Wave Height < 5.0 ft  
3 days or longer: 62%  
5 days or longer: 23%  
7 days or longer: 13%

Wave Height < 6.0 ft  
3 days or longer: 73%  
5 days or longer: 37%  
7 days or longer: 23%

### Waves

Mean Height: 2 - 4 ft

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

Mean Period: 6 - 8 sec

The wave periods will occasionally reach 10 - 12 sec, but rarely longer.

Principle Direction, from: S

WindSea/Swell: 26% / 74%

### Winds

Mean Speed: 10 - 15 kts

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

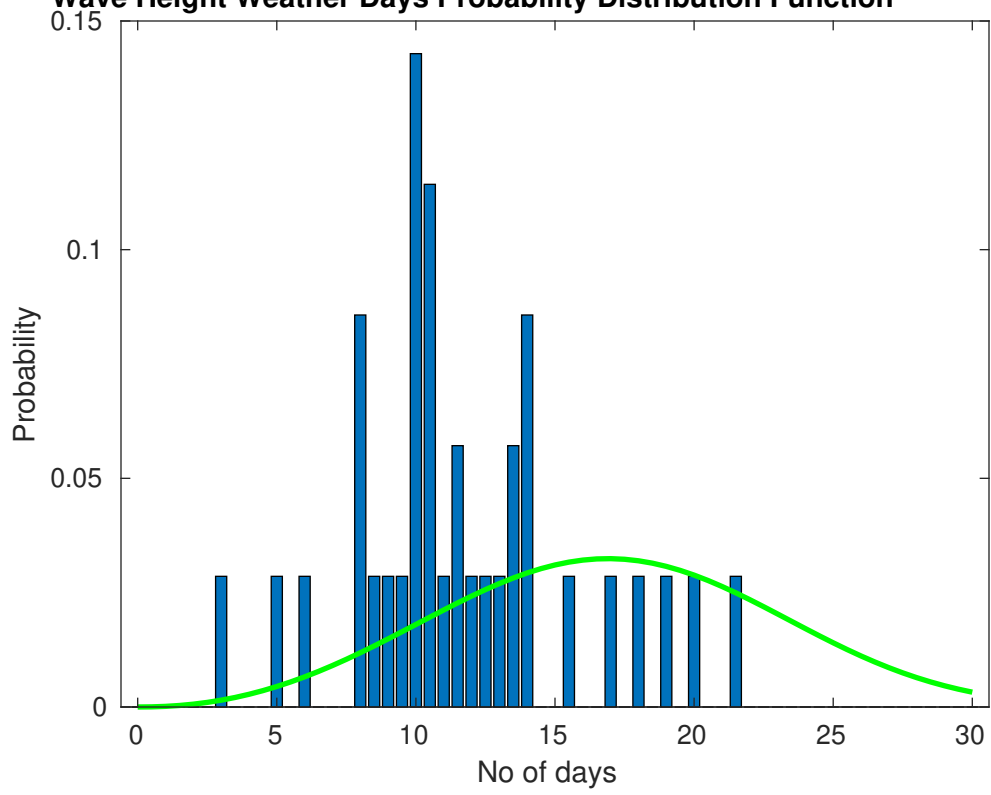
Principle Direction, from: SSW

### Severe Storms

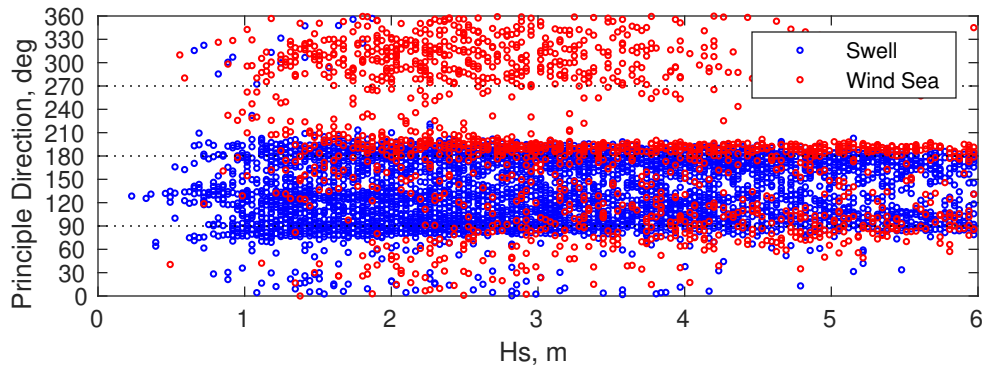
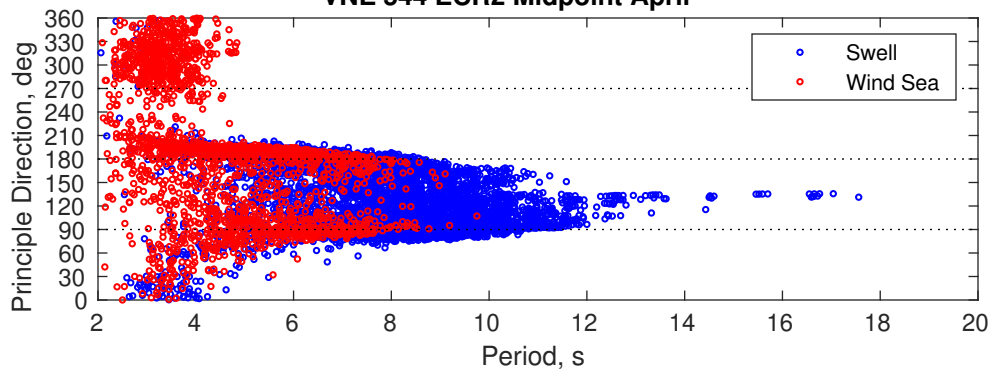
There is a 9 % chance of a storm occurring in the month with winds peaking above 34 kts.

There is a 3 % chance of a storm occurring in the month with waves peaking at 4m (13 ft) or greater.

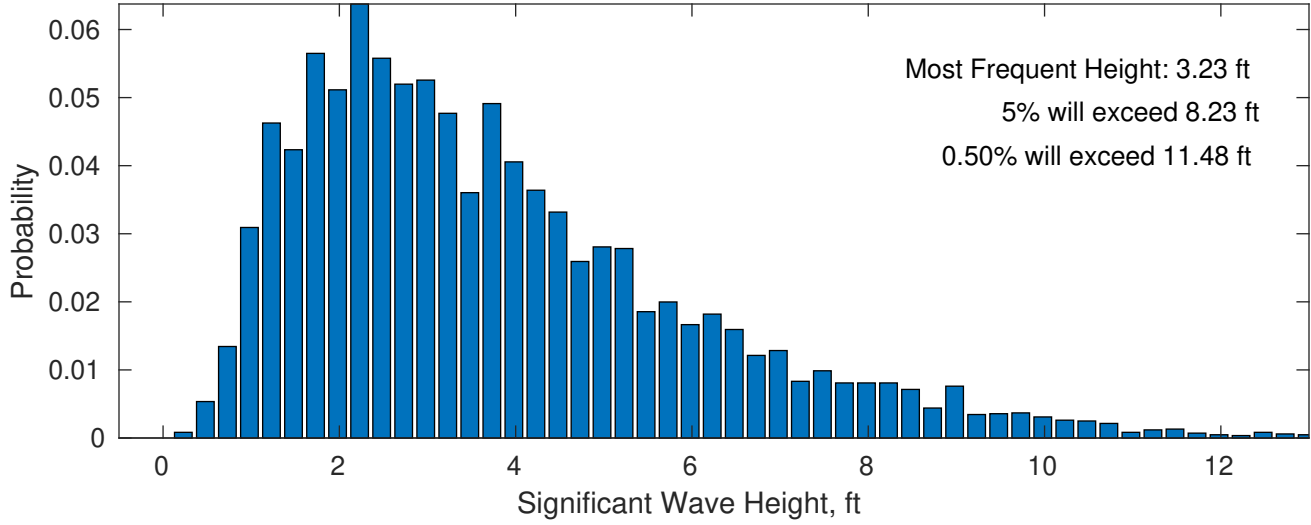
**Wave Height Weather Days Probability Distribution Function**



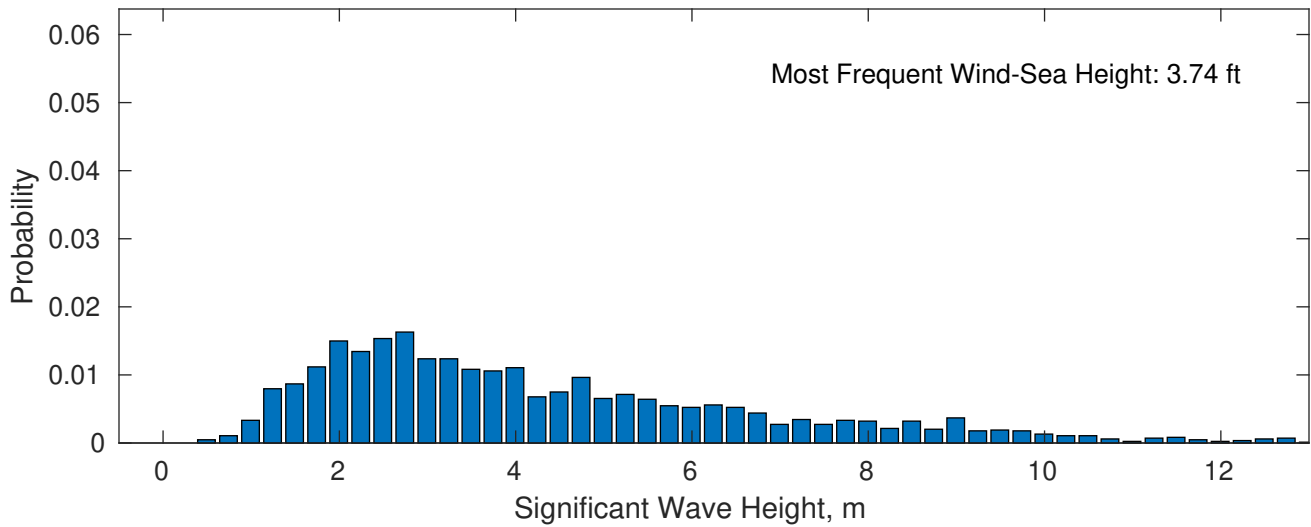
VNE 544 ECR2 Midpoint April



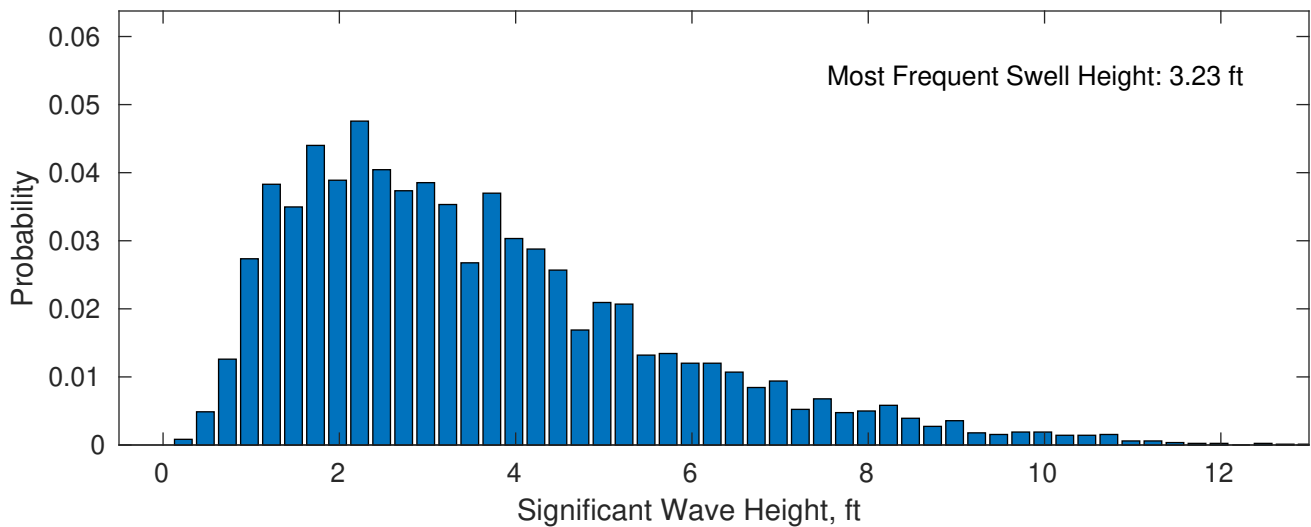
**April Wave Height PDF: 1979 - 2015**



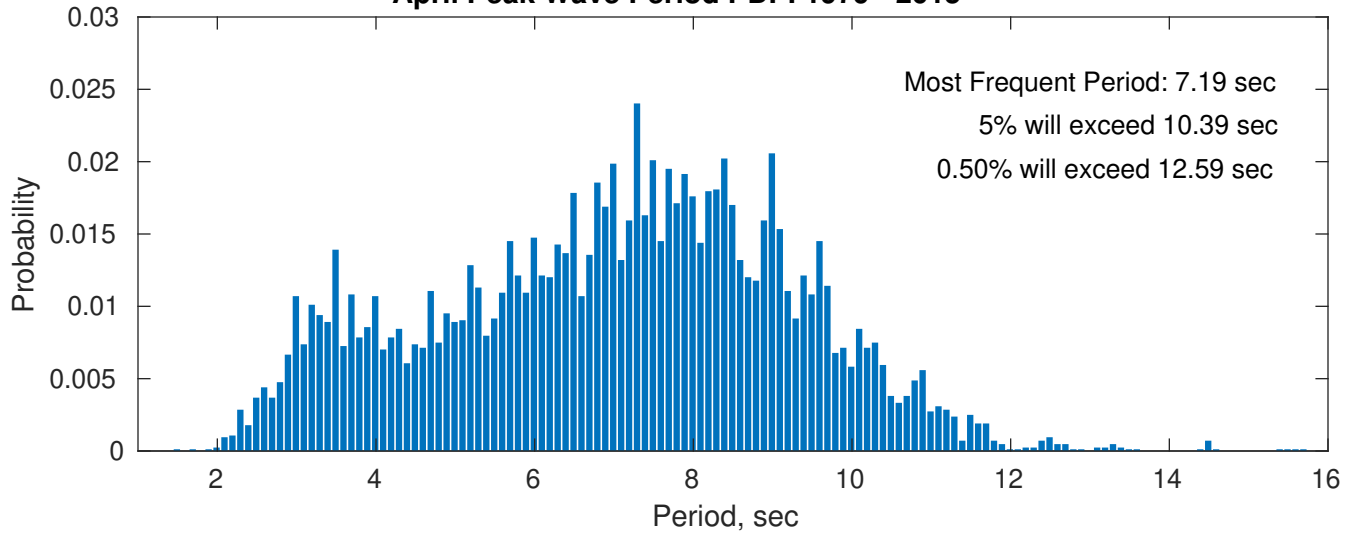
**Wind-Sea: 26.06%**



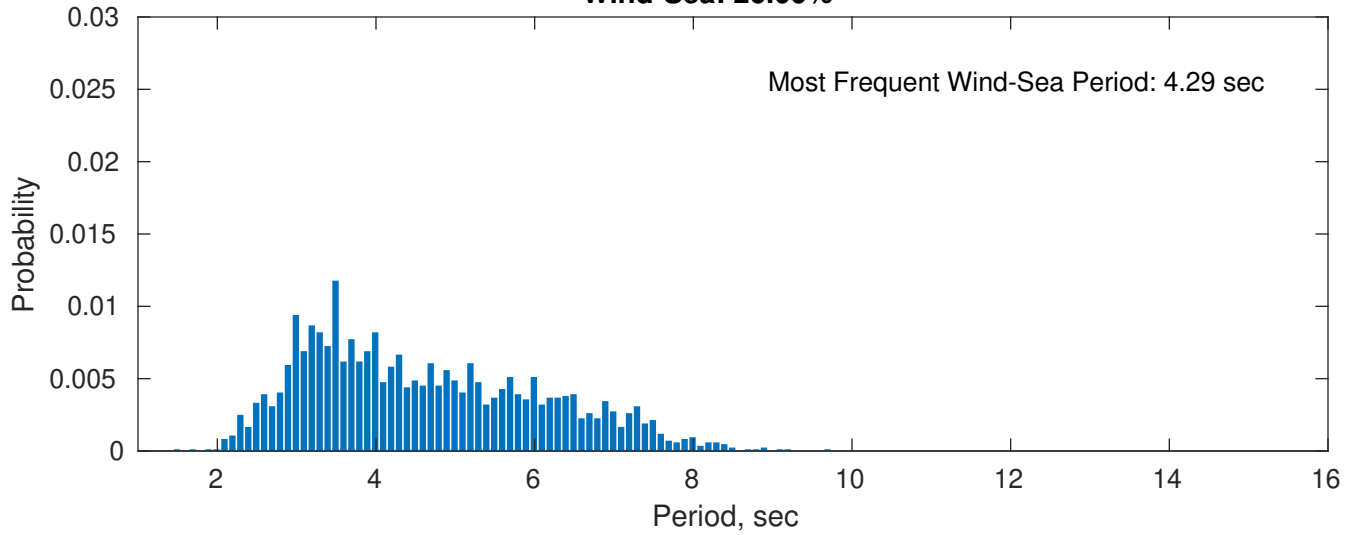
**Swell: 73.94%**



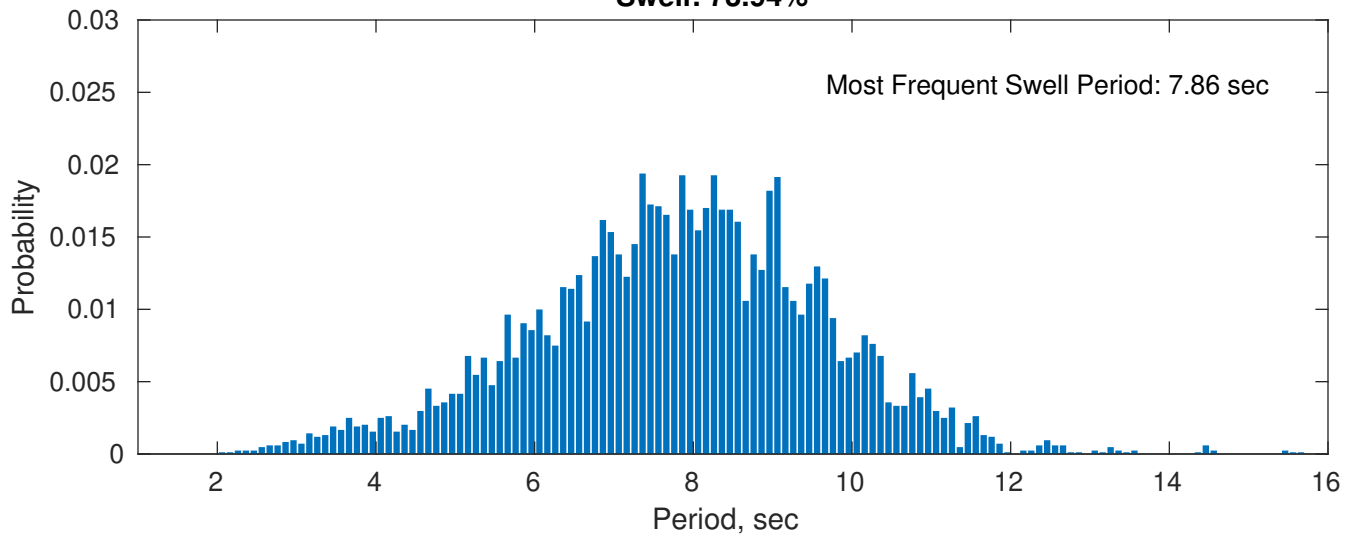
### April Peak Wave Period PDF: 1979 - 2015



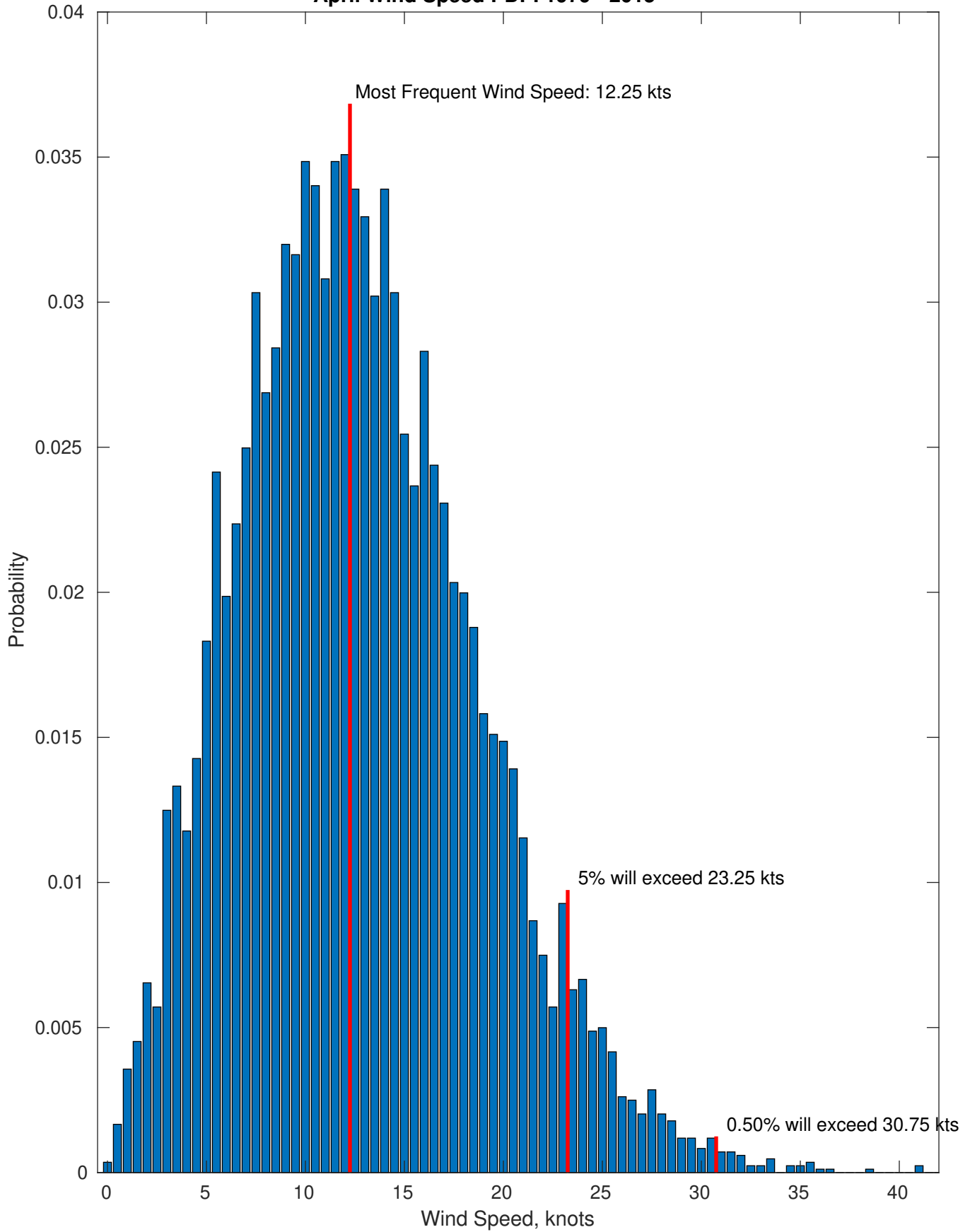
### Wind-Sea: 26.06%



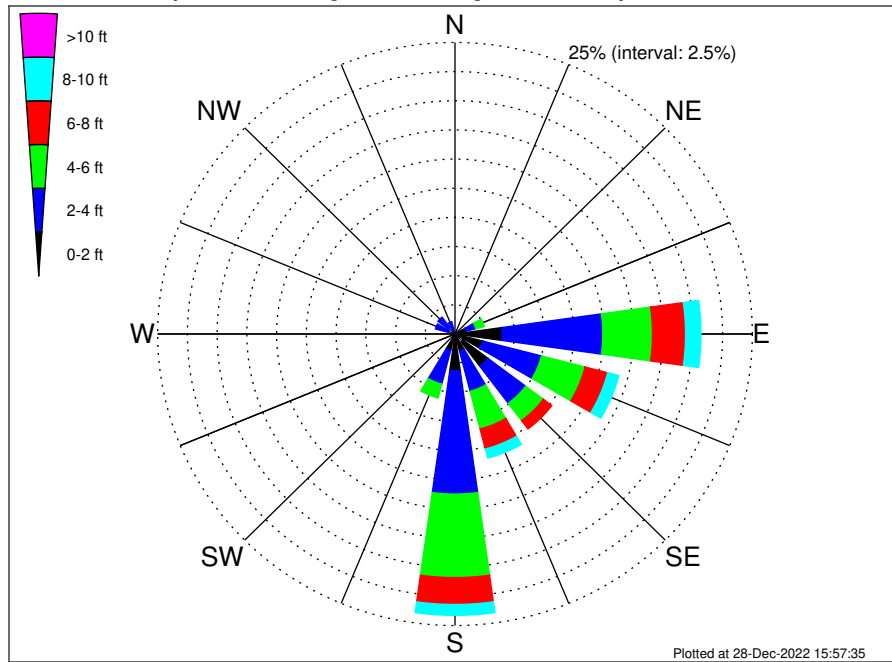
### Swell: 73.94%



April Wind Speed PDF: 1979 - 2015



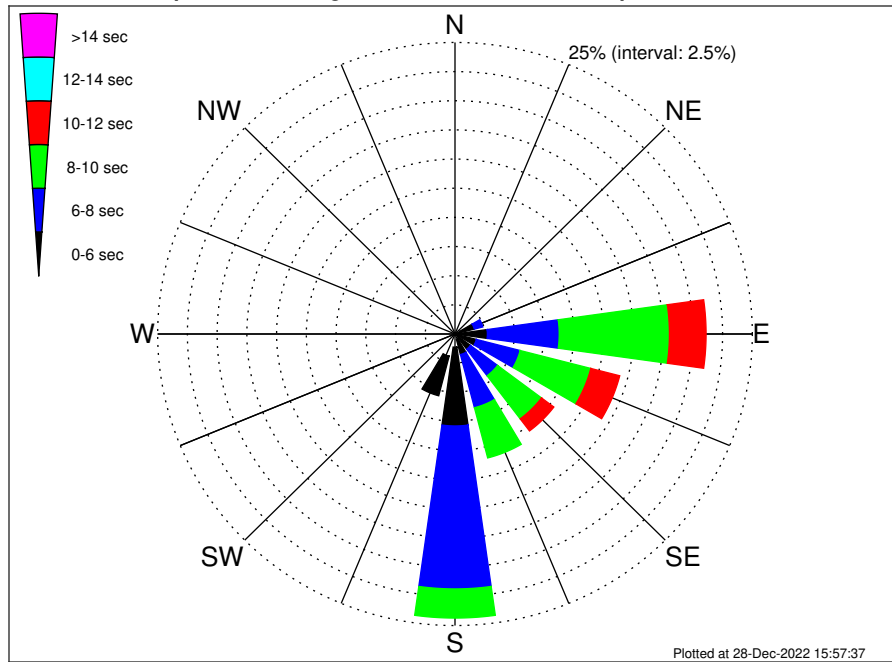
VNE 544 ECR2 Midpoint Climatological WaveHeight Rose for April: 1979 - 2015



Joint Frequency Distribution Table

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total
calm	•	0.04	0.02	0.21	0.29	0.29	0.83	0.12	0.20	0.12	0.02	0.01	0.01	0.04	0.06	0.01	2.27
1 - 2 ft	0.23	0.25	0.13	0.76	3.68	2.12	2.63	1.42	2.95	1.32	0.17	0.07	0.18	0.52	0.61	0.27	17.29
2 - 4 ft	0.58	0.40	0.36	0.83	8.47	5.11	3.98	3.53	10.57	3.00	0.17	0.12	0.58	1.14	1.14	0.81	40.81
4 - 6 ft	0.06	0.06	0.12	0.74	4.17	3.78	1.86	3.34	7.16	1.23	0.01	0.02	0.10	0.14	0.17	0.10	23.05
6 - 8 ft	•	0.01	0.01	0.21	2.78	1.96	0.89	1.77	2.31	0.18	•	•	•	•	0.05	0.02	10.20
8 - 10 ft	•	0.01	•	0.06	1.30	0.96	0.54	0.81	0.93	•	•	•	•	•	•	•	4.60
10 - 12 ft	•	•	0.02	0.01	0.38	0.23	0.14	0.45	0.20	•	•	•	•	•	•	•	1.44
12 - 14 ft	•	•	•	•	0.05	0.05	0.06	0.12	0.04	•	•	•	•	•	•	•	0.31
14 - 16 ft	•	•	•	•	•	•	0.02	•	•	•	•	•	•	•	•	•	0.02
16 - 18 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
> 18 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Total	0.87	0.77	0.67	2.83	21.11	14.50	10.95	11.56	24.36	5.84	0.37	0.23	0.87	1.84	2.02	1.21	100.00

VNE 544 ECR2 Midpoint Climatological WavePeriod Rose for April: 1979 - 2015

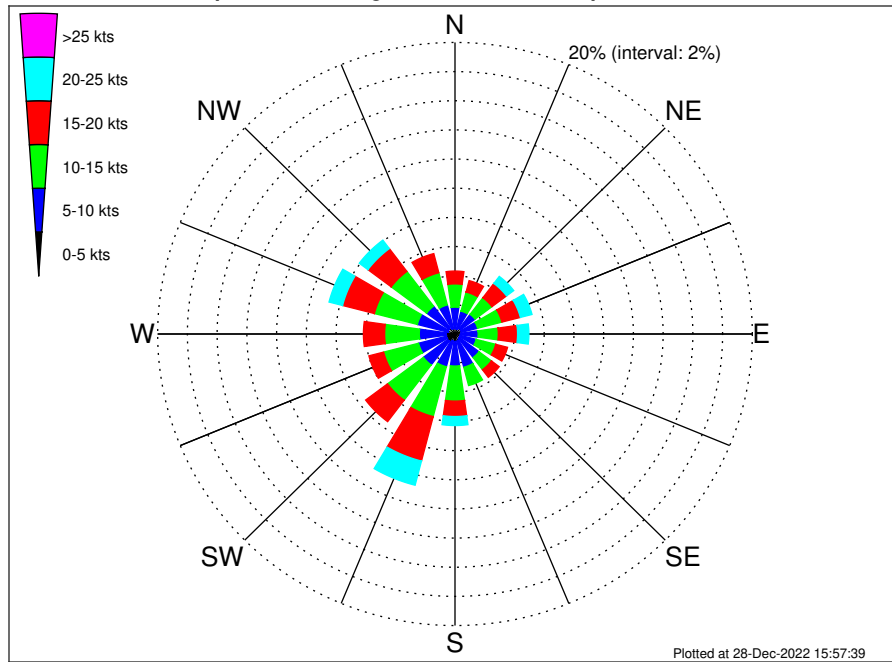


Joint Frequency Distribution Table

	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	•	0.01	•	•	•	•	•	•	0.04
2 - 4 sec	0.71	0.67	0.39	0.44	0.36	0.20	0.39	0.46	1.13	1.95	0.36	0.18	0.77	1.75	1.80	1.12	12.68
4 - 6 sec	0.15	0.11	0.23	1.24	2.37	1.65	1.24	1.34	6.76	3.51	0.01	0.05	0.10	0.10	0.23	0.10	19.16
6 - 8 sec	•	•	0.04	0.74	6.04	3.81	2.85	4.71	13.97	0.37	•	•	•	•	•	•	32.53
8 - 10 sec	•	•	•	0.42	9.26	6.14	4.63	4.45	2.50	•	•	•	•	•	•	•	27.39
10 - 12 sec	•	•	•	•	3.08	2.51	1.30	0.58	•	•	•	•	•	•	•	•	7.47
12 - 14 sec	•	•	•	•	•	0.18	0.31	•	•	•	•	•	•	•	•	•	0.49
14 - 16 sec	•	•	•	•	•	0.01	0.13	•	•	•	•	•	•	•	•	•	0.14
18 - 20 sec	•	•	•	•	•	•	0.11	•	•	•	•	•	•	•	•	•	0.11
22 - 24 sec	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Total	0.87	0.77	0.67	2.83	21.11	14.50	10.95	11.56	24.36	5.84	0.37	0.23	0.87	1.84	2.02	1.21	100.00



VNE 544 ECR2 Midpoint Climatological Wind Rose for April: 1979 - 2015



Joint Frequency Distribution Table

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total
calm	0.02	•	•	0.02	0.02	0.02	0.01	0.01	•	•	0.02	•	0.02	0.01	0.02	•	0.20
0 - 5 kts	0.34	0.36	0.48	0.43	0.37	0.32	0.37	0.46	0.51	0.48	0.59	0.59	0.56	0.48	0.49	0.39	7.22
5 - 10 kts	1.47	1.26	1.21	1.12	1.17	1.13	1.64	1.88	1.69	1.84	2.05	1.94	1.82	2.13	1.88	1.67	25.89
10 - 15 kts	1.59	1.36	1.43	1.69	1.36	1.36	1.05	1.30	2.40	3.53	3.02	2.43	2.33	2.99	2.99	2.28	33.09
15 - 20 kts	0.88	0.81	1.23	1.28	1.30	0.82	0.65	0.49	1.06	3.15	1.84	1.02	1.43	2.21	1.96	1.36	21.49
20 - 25 kts	0.30	0.31	0.61	0.81	0.76	0.32	0.13	0.25	0.62	1.71	0.42	0.20	0.38	0.94	0.73	0.45	8.93
25 - 30 kts	0.10	0.11	0.30	0.31	0.17	0.11	0.17	0.10	0.18	0.43	0.01	•	0.06	0.21	0.17	0.13	2.53
30 - 35 kts	0.04	0.04	0.01	0.04	0.04	0.04	0.08	•	0.01	0.07	•	•	0.04	0.01	0.10	0.02	0.52
35 - 40 kts	0.02	•	•	•	0.02	•	0.04	•	0.01	•	•	•	•	•	•	•	0.10
40 - 45 kts	0.02	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	0.02
45 - 50 kts	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Total	4.79	4.23	5.26	5.70	5.20	4.12	4.14	4.48	6.48	11.22	7.96	6.18	6.64	8.98	8.33	6.30	100.00