

RWE Humboldt Bay OCS-P-0561 - April

Latitude: 41.00 N Longitude: 125.00 W

Weather Days

Wave Height > 6.0 ft Mean: 20.3 days Range: 17.6 - 23.1 days p50:26 days p75:24.5 days p90:20.5 days

Wave Height > 7.0 ft Mean: 16.6 days Range: 12.8 - 20.4 days p50:22 days p75:20.5 days p90:16 days

Wave Height > 8.0 ft Mean: 12.5 days Range: 8.2 - 16.8 days p50:19 days p75:15 days p90:12 days

Wind Speed > 10.0 knots Mean: 21.0 days Range: 18.6 - 23.5 days p50:21.5 days p75:19.5 days p90:18 days

Wind Speed > 15.0 knots Mean: 13.7 days Range: 10.7 - 16.6 days p50:13.5 days p75:12 days p90:10.5 days

Wind Speed > 20.0 knots Mean: 7.5 days Range: 4.8 - 10.1 days p50:8 days p75:5.5 days p90:4.5 days

Working Window

Wave Height < 6.0 ft
A 1 day or longer window will statistically occur 1.5 times per month
A 2 day or longer window will statistically occur 0.7 times per month
A 3 day or longer window will statistically occur 0.2 times per month

Wave Height < 7.0 ft
A 1 day or longer window will statistically occur 2.5 times per month
A 2 day or longer window will statistically occur 1.1 times per month
A 3 day or longer window will statistically occur 0.7 times per month

Wave Height < 8.0 ft
A 1 day or longer window will statistically occur 3.3 times per month
A 2 day or longer window will statistically occur 1.8 times per month
A 3 day or longer window will statistically occur 1.0 times per month

Waves

Mean Height: 8 - 10 ft

The wave heights will occasionally reach > 18 ft, but rarely higher.

Mean Period: 10 - 12 sec

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

Principle Direction, from: WNW

WindSea/Swell: 6% / 94%

Winds

Mean Speed: 10 - 15 kts

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

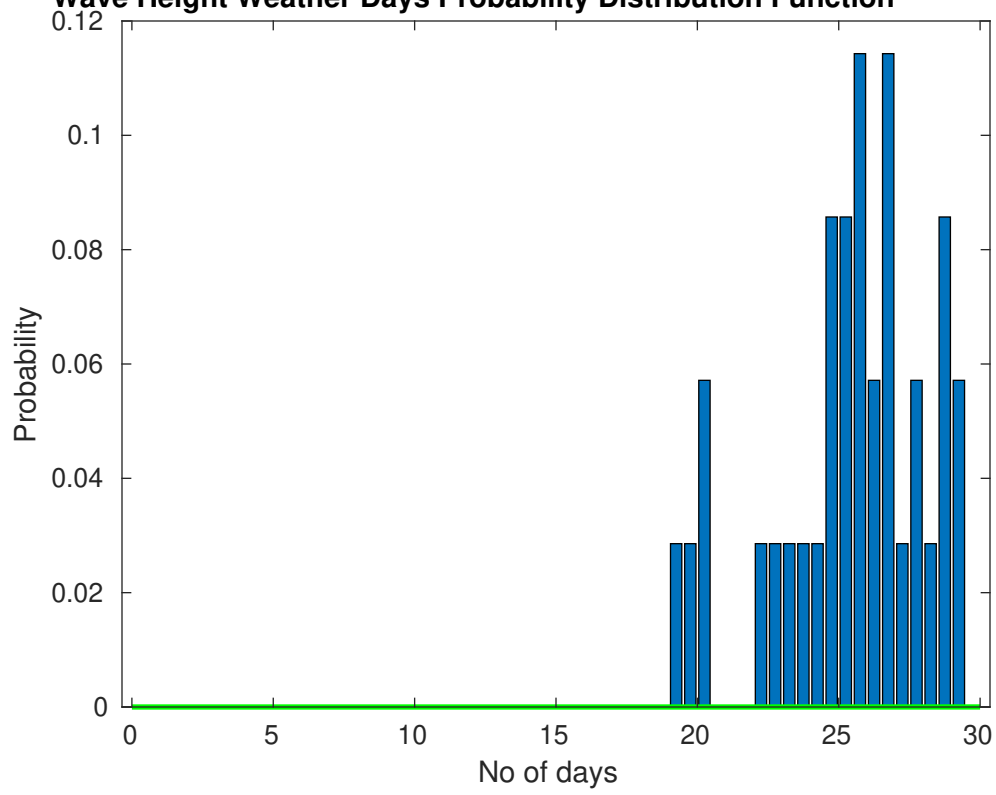
Principle Direction, from: NNW

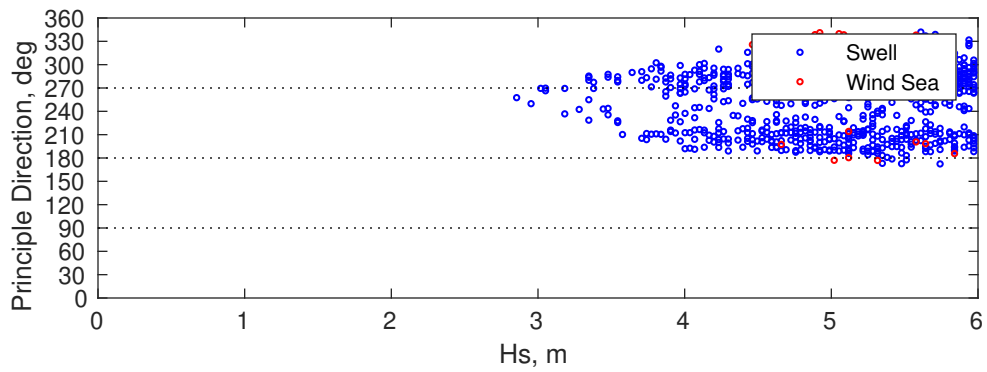
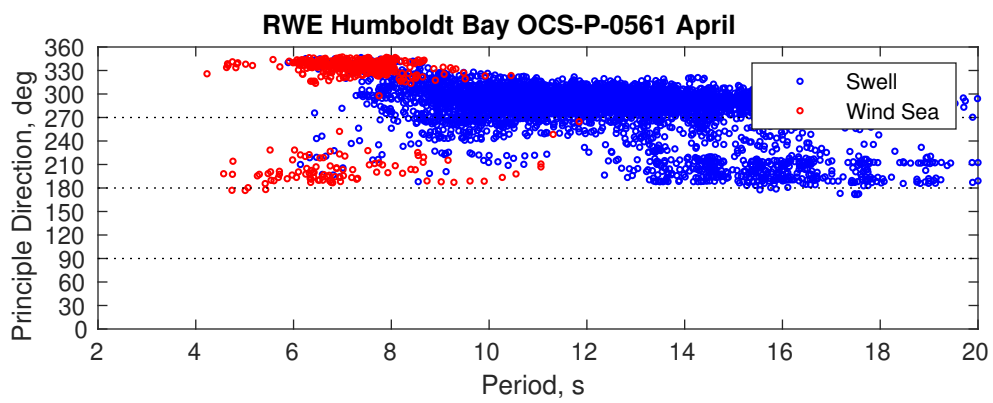
Severe Storms

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

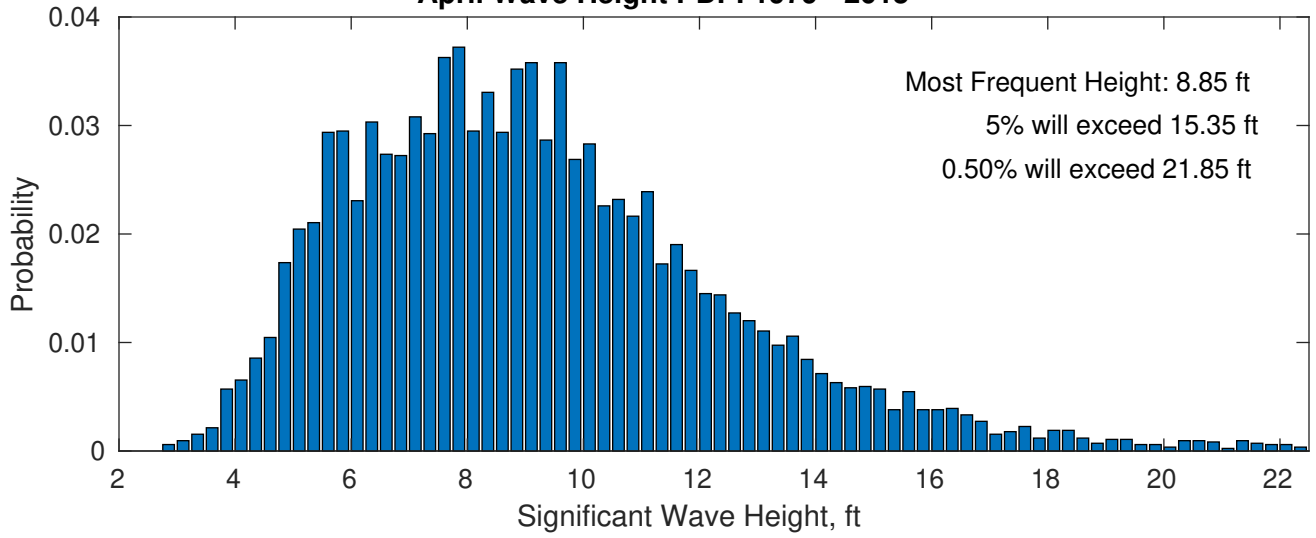
There is a 23 % chance of a storm occurring in the month with waves exceeding 3 m (10 ft) above the mean wave height.

Wave Height Weather Days Probability Distribution Function

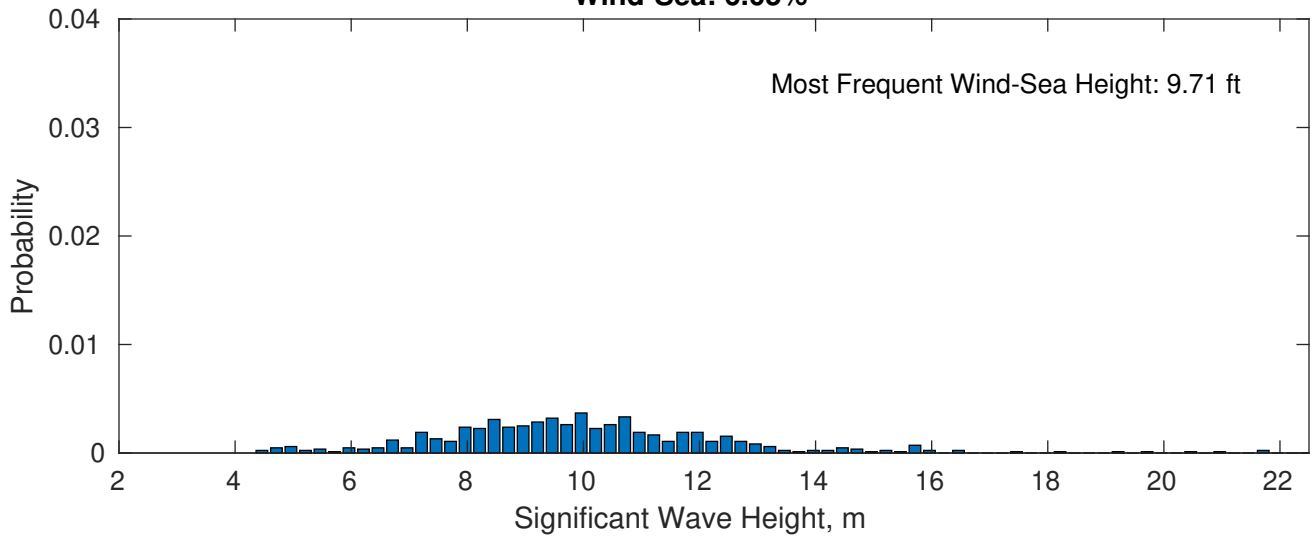




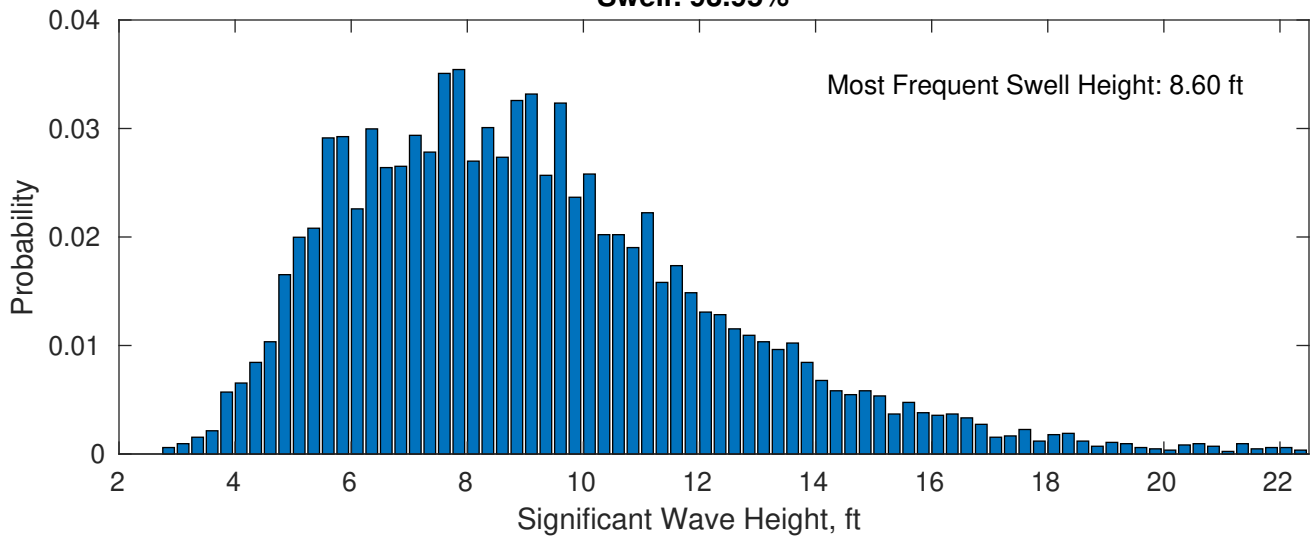
April Wave Height PDF: 1979 - 2015



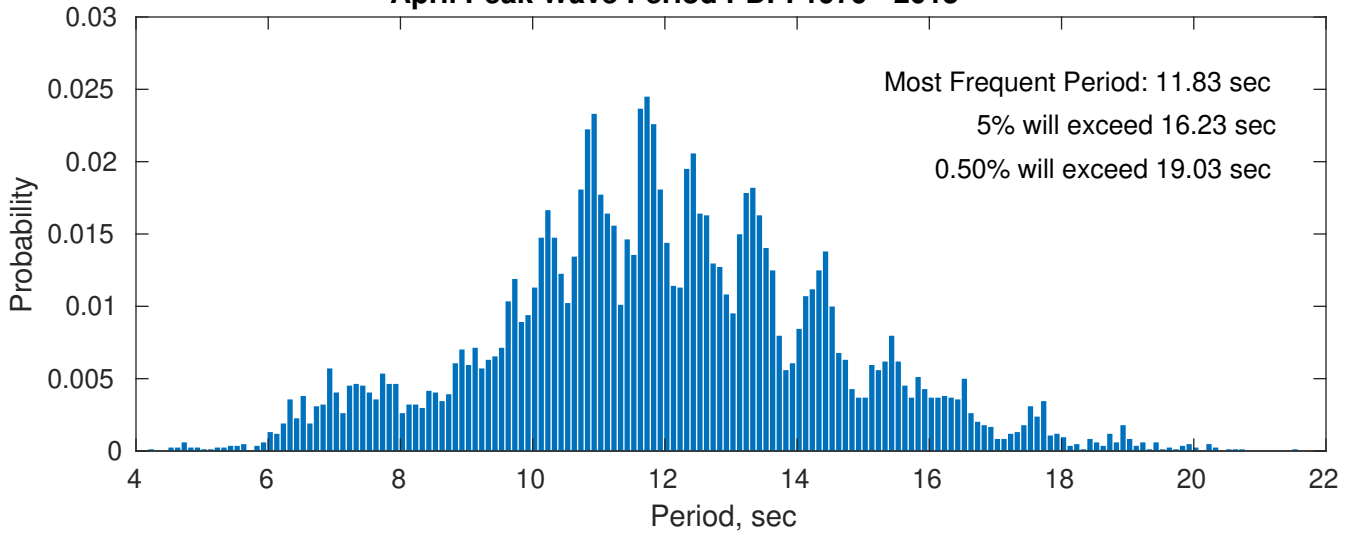
Wind-Sea: 6.05%



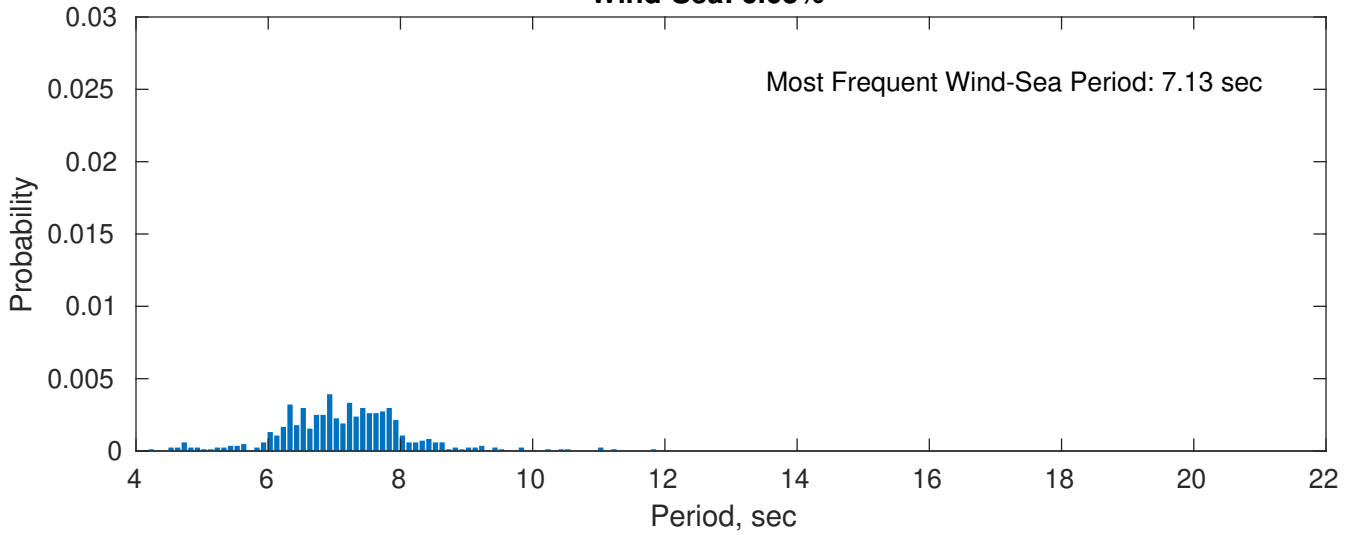
Swell: 93.95%



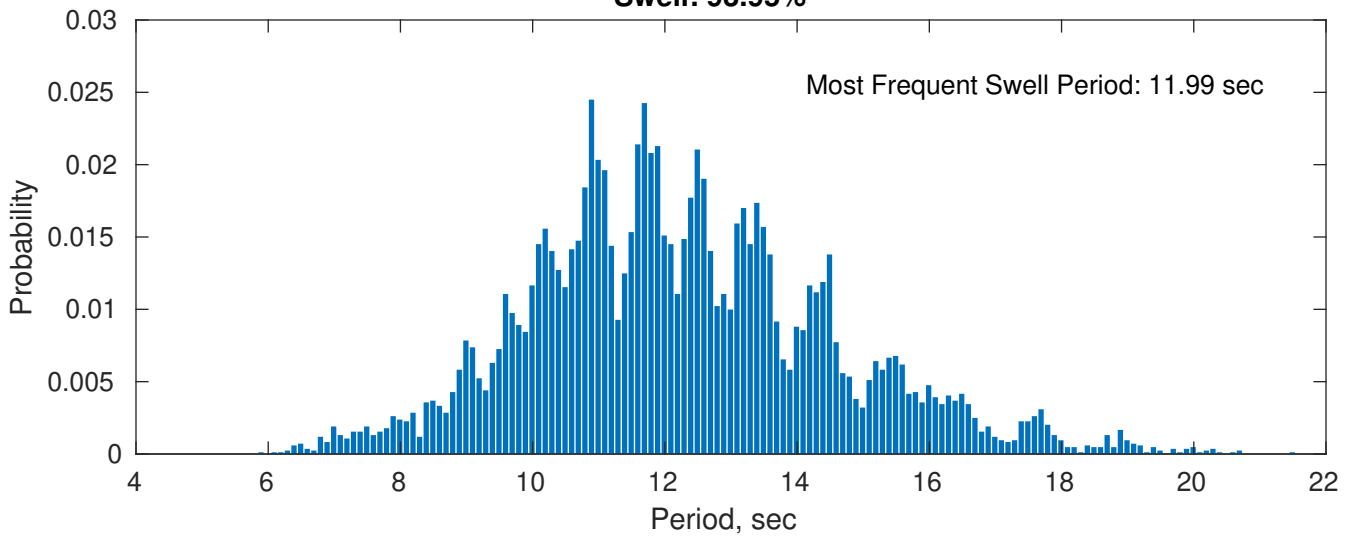
April Peak Wave Period PDF: 1979 - 2015



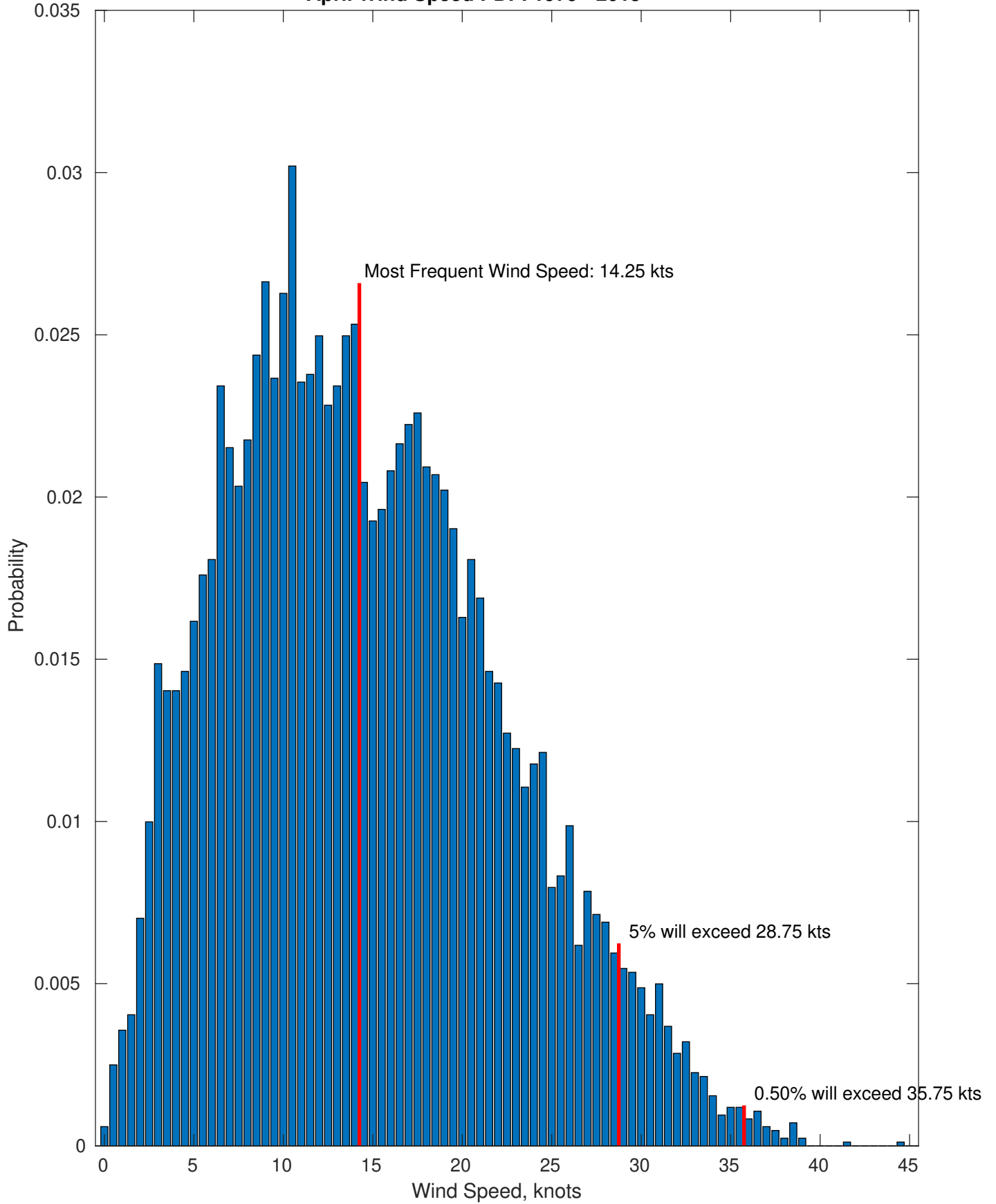
Wind-Sea: 6.05%



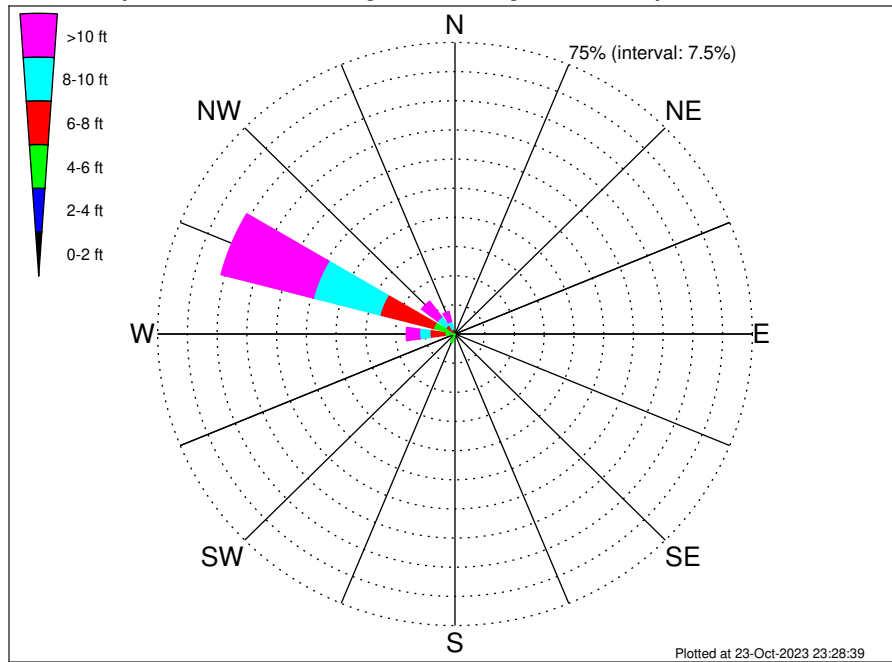
Swell: 93.95%



April Wind Speed PDF: 1979 - 2015



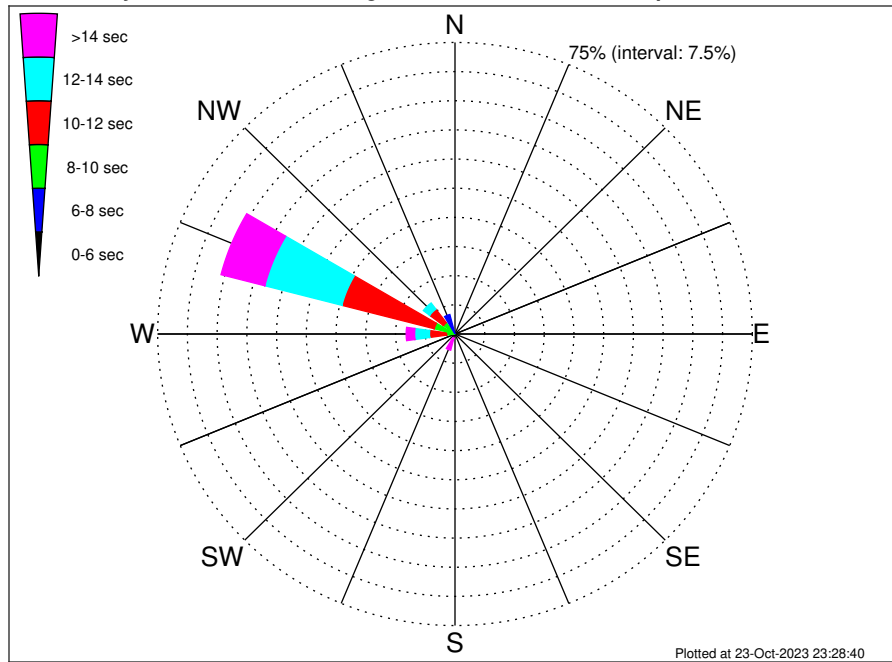
RWE Humboldt Bay OCS-P-0561 Climatological WaveHeight Rose for April: 1979 - 2015



Joint Frequency Distribution Table

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total
calm	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
1 - 2 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
2 - 4 ft	•	•	•	•	•	•	•	•	•	0.13	0.11	0.10	0.23	0.23	•	•	0.78
4 - 6 ft	•	•	•	•	•	•	•	•	0.67	2.15	0.94	0.64	2.39	5.37	0.65	0.23	13.04
6 - 8 ft	•	•	•	•	•	•	•	•	0.46	1.27	0.33	0.73	3.73	13.98	2.16	1.11	23.78
8 - 10 ft	•	•	•	•	•	•	•	•	0.43	0.40	0.31	0.43	2.62	17.34	2.72	2.05	26.29
10 - 12 ft	•	•	•	•	•	•	•	•	0.11	0.19	0.11	0.12	1.30	11.46	2.50	1.84	17.62
12 - 14 ft	•	•	•	•	•	•	•	•	0.01	0.05	0.13	0.11	0.83	6.63	1.37	0.57	9.70
14 - 16 ft	•	•	•	•	•	•	•	•	0.01	0.06	0.02	•	0.45	3.34	0.58	0.18	4.65
16 - 18 ft	•	•	•	•	•	•	•	•	0.02	•	•	•	0.27	1.50	0.29	0.02	2.10
> 18 ft	•	•	•	•	•	•	•	•	0.01	0.06	•	0.02	0.50	1.11	0.32	•	2.02
Total	•	•	•	•	•	•	•	•	1.72	4.32	1.95	2.14	12.32	60.96	10.59	5.99	100.00

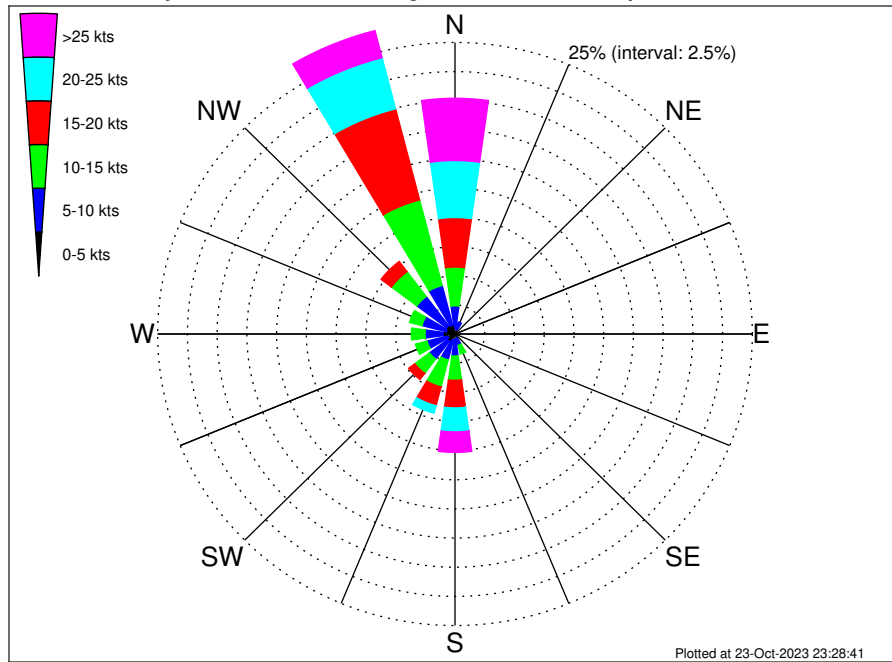
RWE Humboldt Bay OCS-P-0561 Climatological WavePeriod Rose for April: 1979 - 2015



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	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
2 - 4 sec	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
4 - 6 sec	•	•	•	•	•	•	•	•	0.08	0.13	0.04	•	•	•	0.01	0.17	0.43
6 - 8 sec	•	•	•	•	•	•	•	•	0.12	0.43	0.21	0.08	0.12	0.36	0.64	5.02	6.98
8 - 10 sec	•	•	•	•	•	•	•	•	0.07	0.10	0.20	0.48	2.02	5.07	2.98	0.81	11.72
10 - 12 sec	•	•	•	•	•	•	•	•	•	0.08	0.07	0.38	4.29	24.05	4.36	•	33.25
12 - 14 sec	•	•	•	•	•	•	•	•	0.18	0.39	0.40	0.46	3.76	20.08	2.00	•	27.28
14 - 16 sec	•	•	•	•	•	•	•	•	0.56	1.68	0.62	0.55	1.57	8.64	0.50	•	14.11
18 - 20 sec	•	•	•	•	•	•	•	•	0.49	1.14	0.34	0.19	0.48	2.24	0.10	•	4.97
22 - 24 sec	•	•	•	•	•	•	•	•	0.23	0.37	0.06	•	0.08	0.52	•	•	1.26
Total	•	•	•	•	•	•	•	•	1.72	4.32	1.95	2.14	12.32	60.96	10.59	5.99	100.00

RWE Humboldt Bay OCS-P-0561 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	0.01	0.01	0.01	0.04	•	•	0.02	0.04	0.02	0.02	•	0.05	0.01	0.31
0 - 5 kts	0.49	0.38	0.27	0.32	0.27	0.13	0.29	0.37	0.45	0.54	0.75	0.62	0.96	0.76	0.84	0.77	8.22
5 - 10 kts	1.90	0.67	0.21	0.11	0.15	0.20	0.33	0.64	1.44	1.74	1.90	1.78	1.53	2.10	3.13	3.51	21.36
10 - 15 kts	3.33	0.38	0.06	0.07	0.10	0.08	0.27	0.77	2.08	2.39	1.55	1.01	1.15	1.08	2.68	7.57	24.58
15 - 20 kts	4.24	0.20	0.02	0.01	0.01	0.02	0.17	0.59	2.37	1.66	0.65	0.57	0.56	0.44	1.09	8.07	20.70
20 - 25 kts	4.89	0.25	•	•	•	0.01	0.11	0.37	2.06	0.67	0.34	0.27	0.11	0.11	0.30	4.53	14.01
25 - 30 kts	3.31	0.08	•	•	•	•	0.05	0.33	1.07	0.21	0.14	0.05	0.06	0.02	0.04	1.74	7.10
30 - 35 kts	1.77	•	•	•	•	•	0.01	0.10	0.46	0.11	0.04	0.04	•	•	0.01	0.52	3.06
35 - 40 kts	0.26	•	•	•	•	•	•	0.02	0.20	0.01	•	•	•	•	0.01	0.14	0.65
40 - 45 kts	•	•	•	•	•	•	•	•	0.02	•	•	•	•	•	•	•	0.02
45 - 50 kts	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Total	20.21	1.99	0.59	0.52	0.55	0.46	1.26	3.20	10.15	7.35	5.41	4.36	4.40	4.52	8.15	26.87	100.00