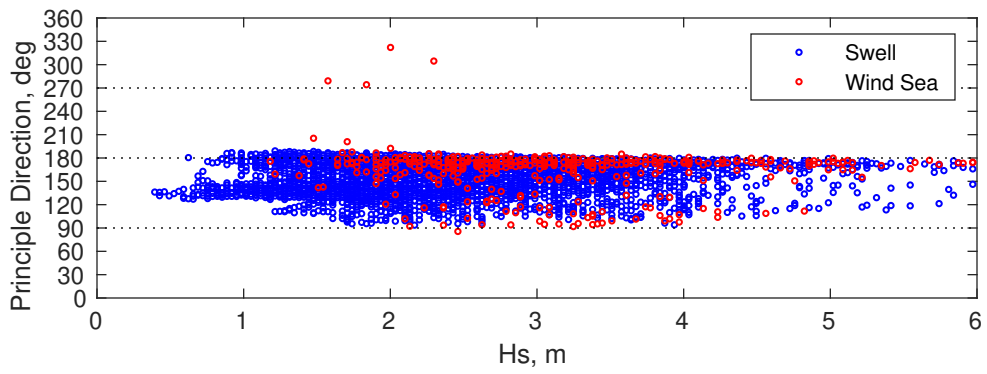
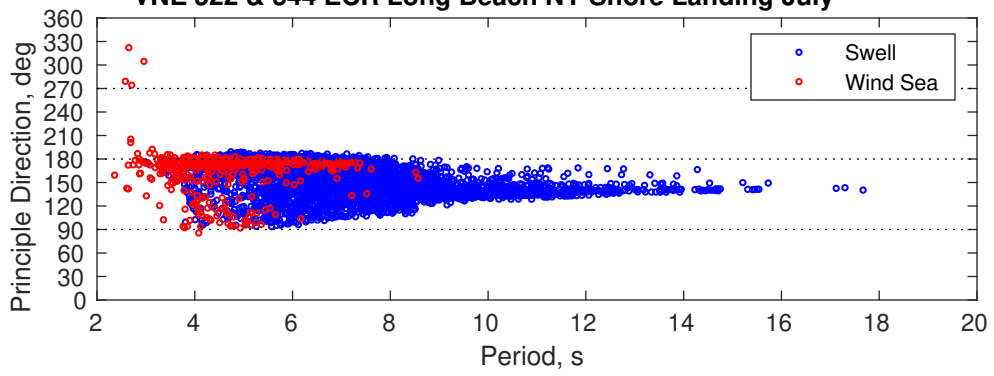
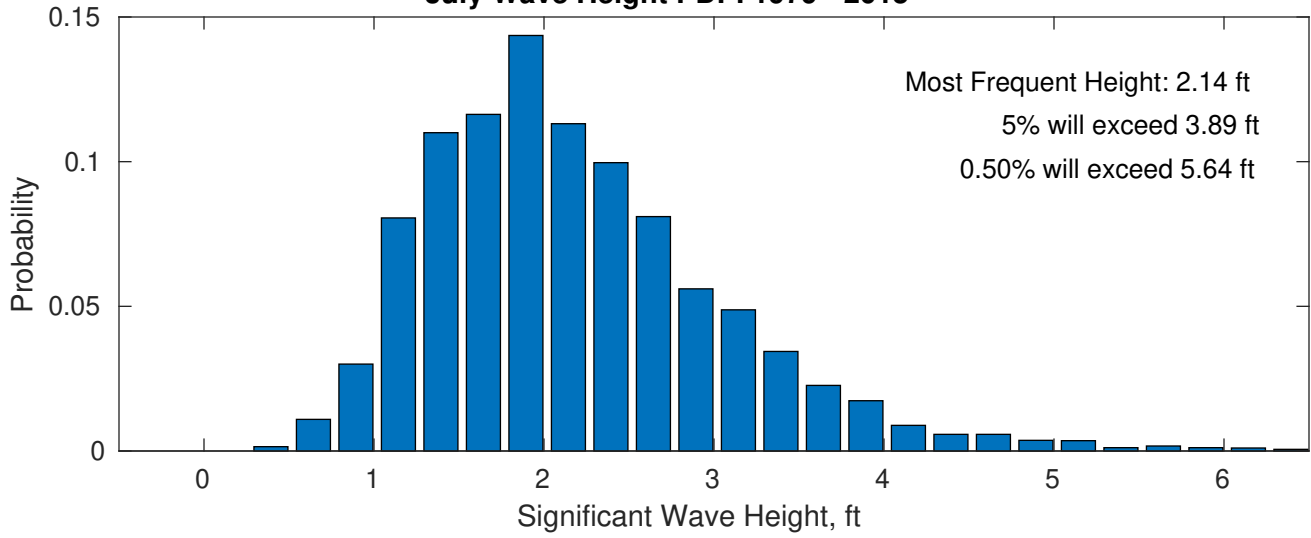


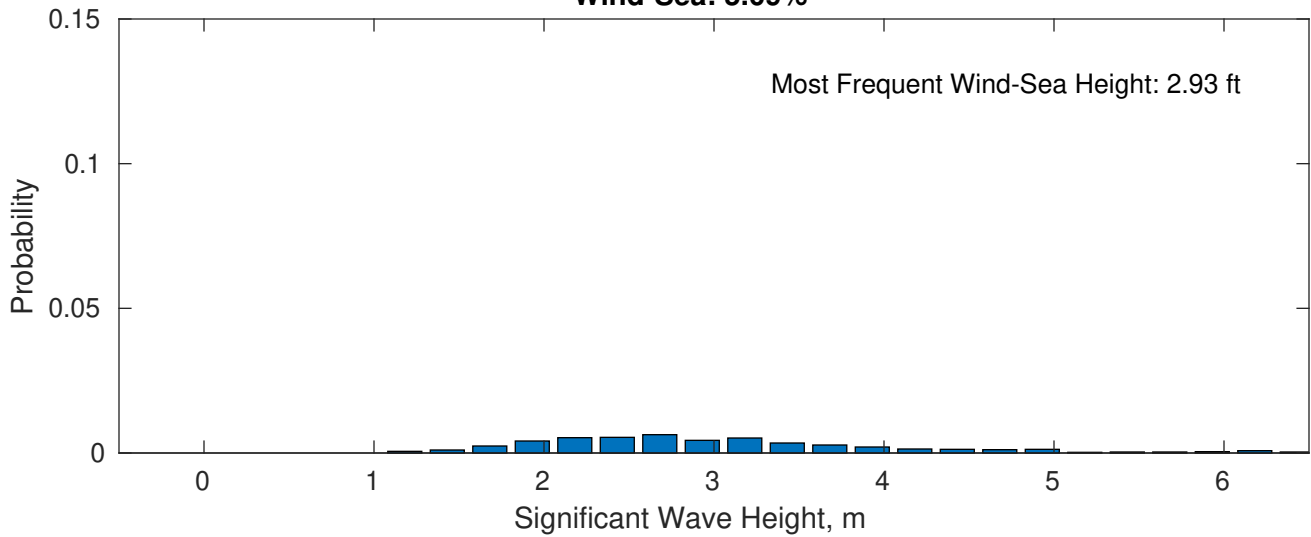
VNE 522 & 544 ECR Long Beach NY Shore Landing July



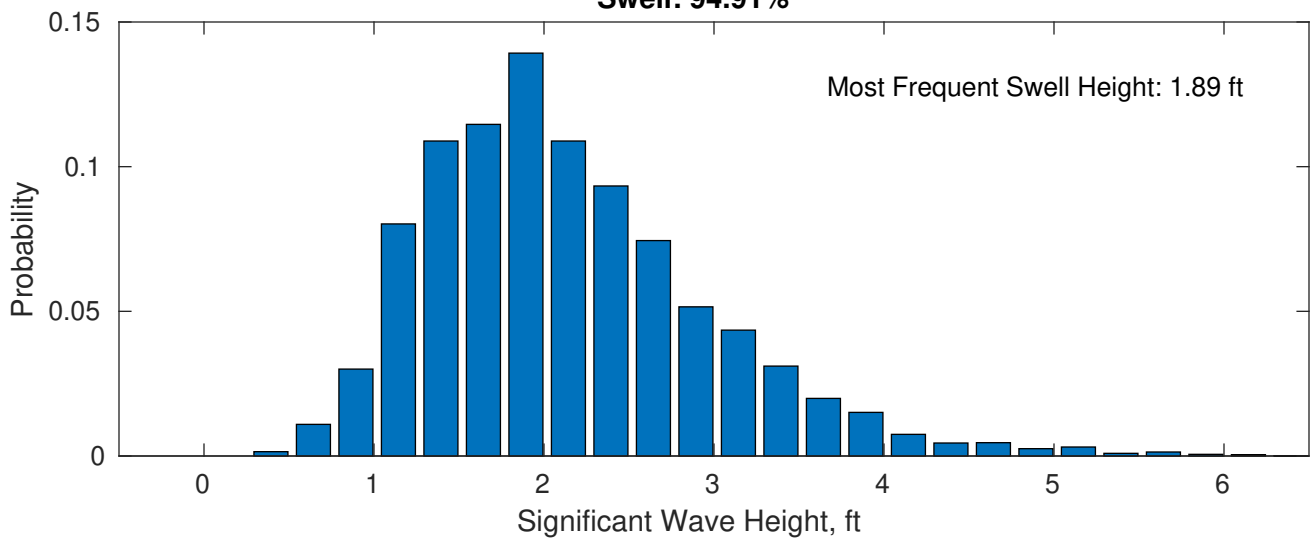
July Wave Height PDF: 1979 - 2015



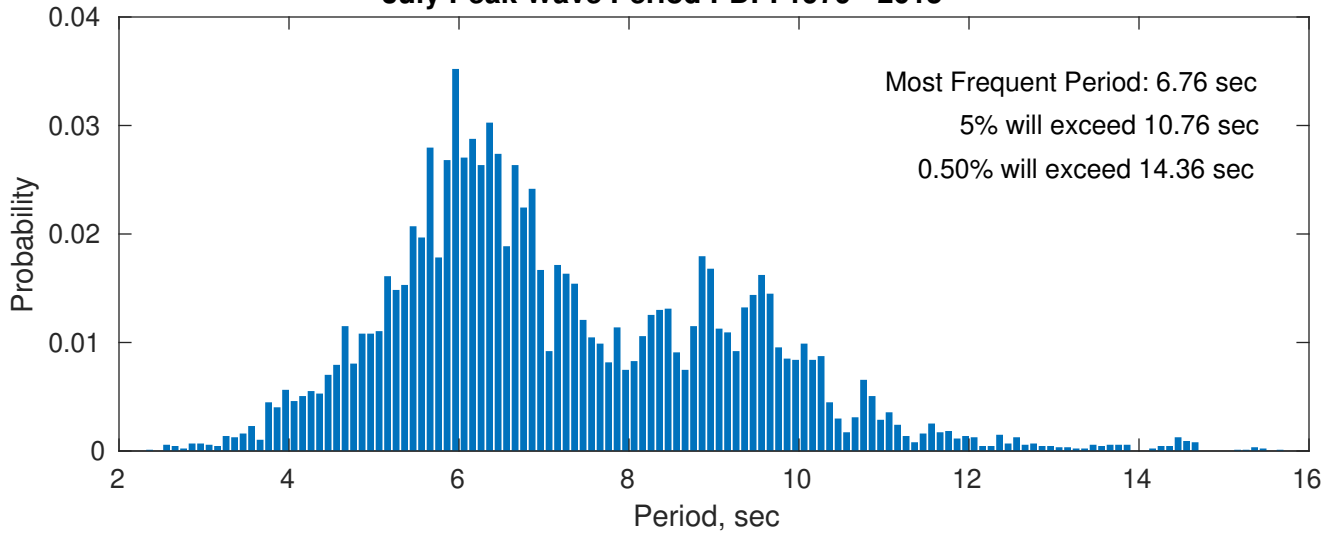
Wind-Sea: 5.09%



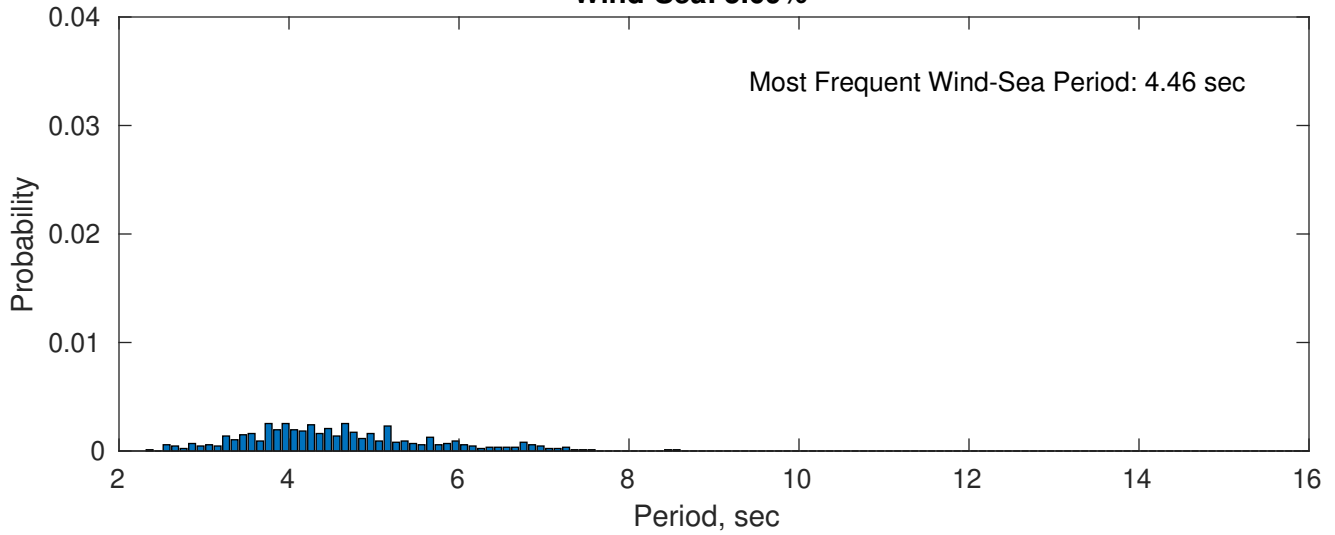
Swell: 94.91%



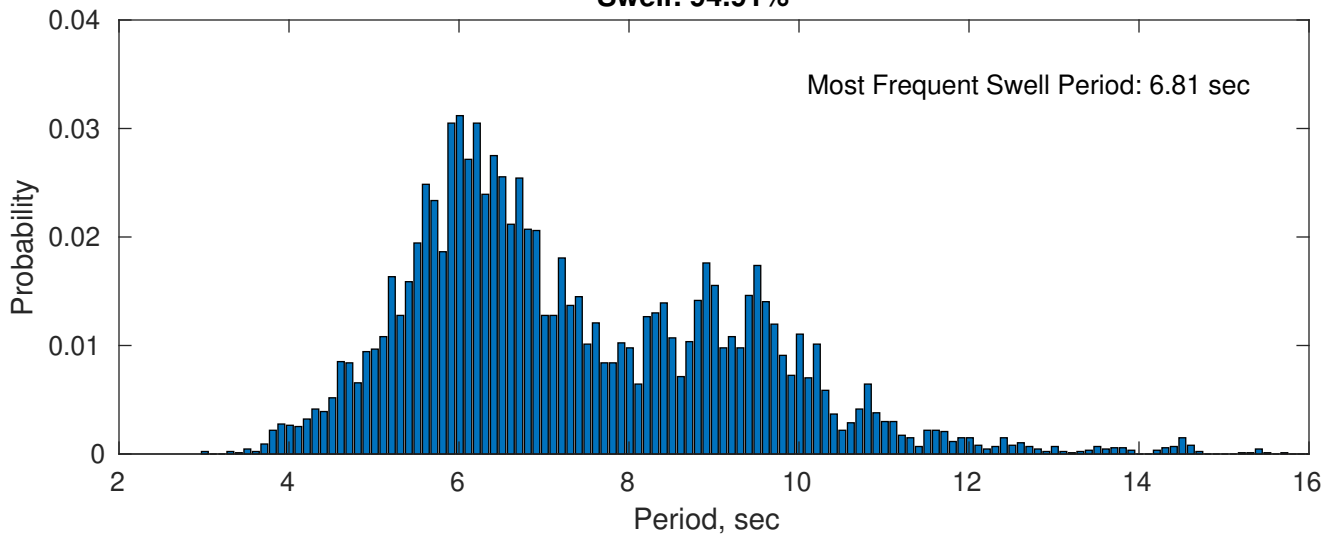
July Peak Wave Period PDF: 1979 - 2015



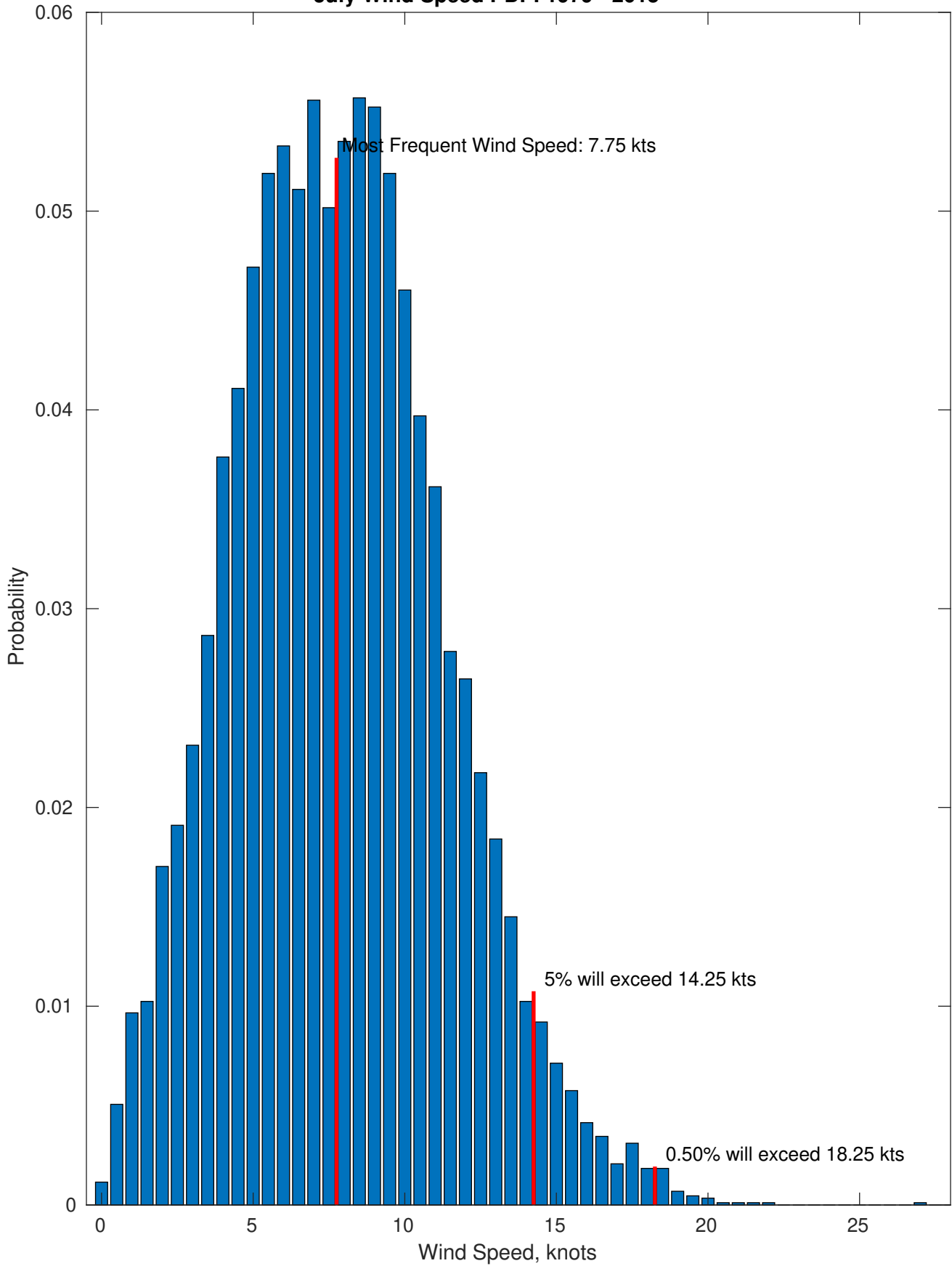
Wind-Sea: 5.09%



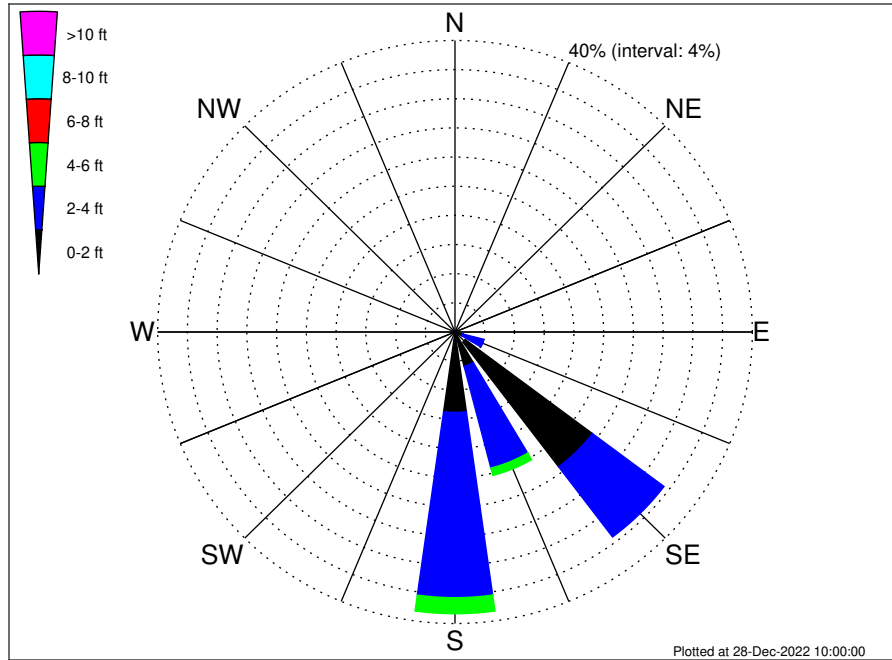
Swell: 94.91%



July Wind Speed PDF: 1979 - 2015



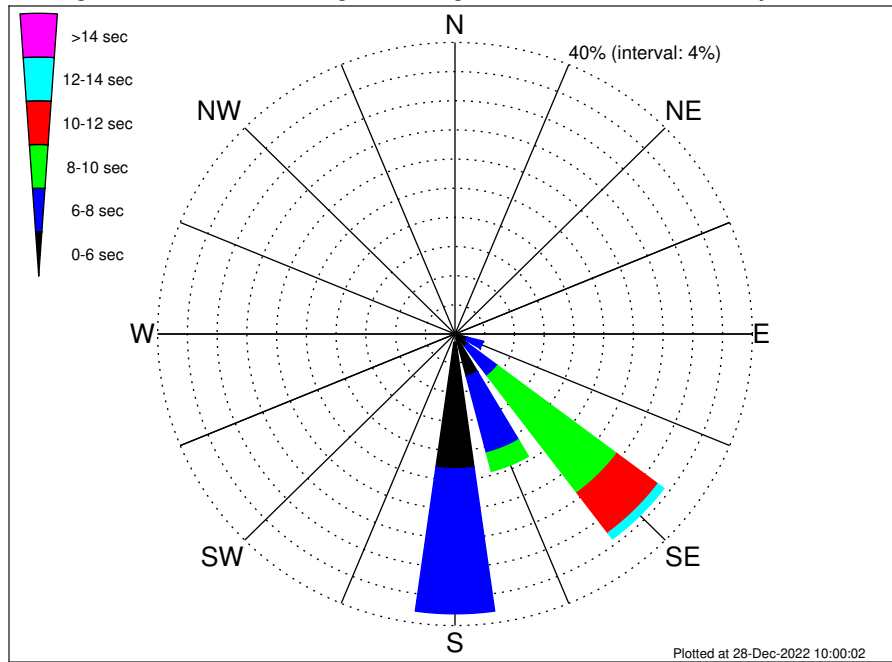
VNE 522 & 544 ECR Long Beach NY Shore Landing Climatological WaveHeight Rose for July: 1979 - 2015



Joint Frequency Distribution Table

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total
calm	•	•	•	•	•	•	1.74	0.17	0.29	•	•	•	•	•	•	•	2.20
1 - 2 ft	•	•	•	•	0.14	1.12	21.42	4.68	10.74	0.02	•	•	0.02	•	•	•	38.14
2 - 4 ft	•	•	•	•	0.39	2.92	12.06	14.42	25.42	0.01	•	•	•	•	0.02	•	55.25
4 - 6 ft	•	•	•	•	•	0.41	0.47	1.05	2.21	•	•	•	•	•	•	•	4.14
6 - 8 ft	•	•	•	•	•	•	0.05	0.07	0.12	•	•	•	•	•	•	•	0.23
8 - 10 ft	•	•	•	•	•	•	•	0.02	•	•	•	•	•	•	•	•	0.02
10 - 12 ft	•	•	•	•	•	•	•	0.01	•	•	•	•	•	•	•	•	0.01
12 - 14 ft	•	•	•	•	•	•	•	0.01	•	•	•	•	•	•	•	•	0.01
14 - 16 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
16 - 18 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
> 18 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Total	•	•	•	•	0.53	4.45	35.73	20.44	38.77	0.03	•	•	0.02	•	0.02	•	100.00

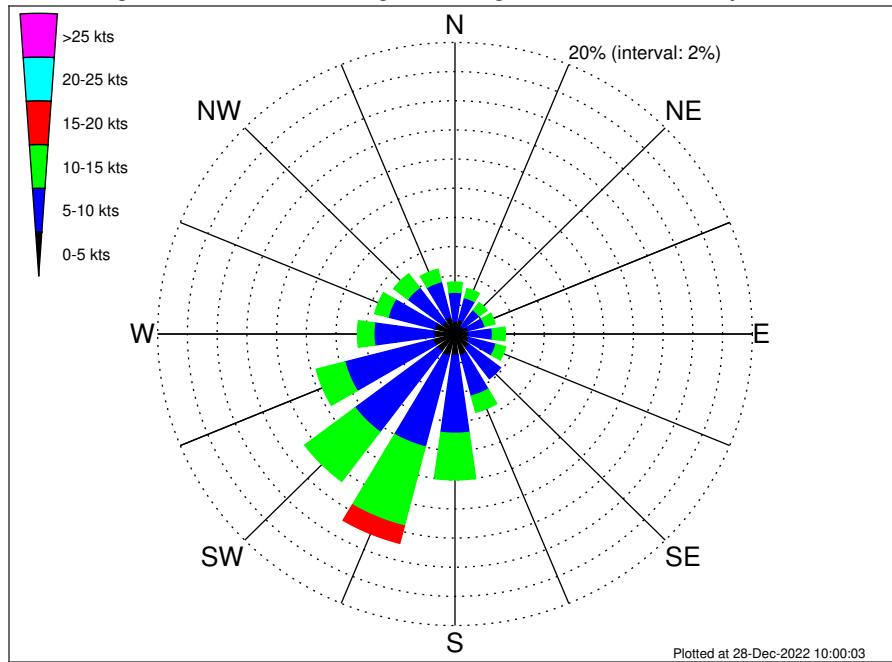
VNE 522 & 544 ECR Long Beach NY Shore Landing Climatological WavePeriod Rose for July: 1979 - 2015



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	•	•	•	•	0.05	0.10	0.26	0.55	1.16	0.03	•	•	0.02	•	0.02	•	2.21
4 - 6 sec	•	•	•	•	0.44	1.57	1.84	5.44	17.32	•	•	•	•	•	•	•	26.61
6 - 8 sec	•	•	•	•	0.05	2.23	5.07	10.86	19.91	•	•	•	•	•	•	•	38.12
8 - 10 sec	•	•	•	•	•	0.55	20.09	2.61	0.37	•	•	•	•	•	•	•	23.62
10 - 12 sec	•	•	•	•	•	•	6.92	0.69	0.01	•	•	•	•	•	•	•	7.62
12 - 14 sec	•	•	•	•	•	•	1.01	0.23	•	•	•	•	•	•	•	•	1.24
14 - 16 sec	•	•	•	•	•	•	0.46	0.05	•	•	•	•	•	•	•	•	0.51
18 - 20 sec	•	•	•	•	•	•	0.07	•	•	•	•	•	•	•	•	•	0.07
22 - 24 sec	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Total	•	•	•	•	0.53	4.45	35.73	20.44	38.77	0.03	•	•	0.02	•	0.02	•	100.00

VNE 522 & 544 ECR Long Beach NY Shore Landing 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	0.05	0.05	0.02	0.03	0.01	0.05	0.06	0.03	0.07	0.03	0.06	0.03	0.06	0.01	0.05	0.62
0 - 5 kts	0.87	0.98	0.62	0.90	0.87	0.97	1.15	1.45	1.44	1.50	1.46	1.47	1.39	1.37	1.06	1.15	18.65
5 - 10 kts	1.98	1.55	1.38	1.16	1.61	1.86	2.64	2.89	5.34	6.43	6.92	6.12	4.03	3.22	2.91	2.51	52.55
10 - 15 kts	0.70	0.64	0.64	0.70	0.86	0.68	0.49	1.15	3.20	5.60	4.25	1.99	1.10	0.93	1.19	0.89	25.03
15 - 20 kts	0.08	0.08	0.07	0.12	0.10	0.05	0.03	0.07	0.41	1.23	0.39	0.12	0.03	0.06	0.10	0.10	3.05
20 - 25 kts	0.01	.	.	0.02	.	0.01	.	0.01	.	0.01	.	.	.	.	0.01	.	0.08
25 - 30 kts	.	.	.	.	.	0.01	.	.	.	.	.	.	.	.	.	.	0.01
30 - 35 kts	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
35 - 40 kts	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
40 - 45 kts	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
45 - 50 kts	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Total	3.66	3.30	2.76	2.92	3.49	3.59	4.36	5.63	10.43	14.84	13.05	9.76	6.59	5.64	5.28	4.70	100.00