

SpaceX GOM Launch Platform - December

Weather Days

Wave Height > 3.0 ft Mean: 19.5 days Range: 16.6 - 22.4 days p50: 20 days p90: 20 days
Wave Height > 4.0 ft Mean: 12.7 days Range: 9.2 - 16.1 days p50: 13 days p90: 19 days
Wave Height > 5.0 ft Mean: 7.2 days Range: 4.2 - 10.1 days p50: 8 days p90: 14 days

Working Window Probability

Wave Height < 3.0 ft	3 days or longer: 20%
	5 days or longer: 1%
	7 days or longer: 1%
Wave Height < 4.0 ft	3 days or longer: 39%
	5 days or longer: 7%
	7 days or longer: 2%
Wave Height < 5.0 ft	3 days or longer: 53%
	5 days or longer: 20%
	7 days or longer: 9%

Waves

Mean Height: 2 - 4 ft
The wave heights will occasionally reach 10 - 12 ft, but rarely higher.

Currents

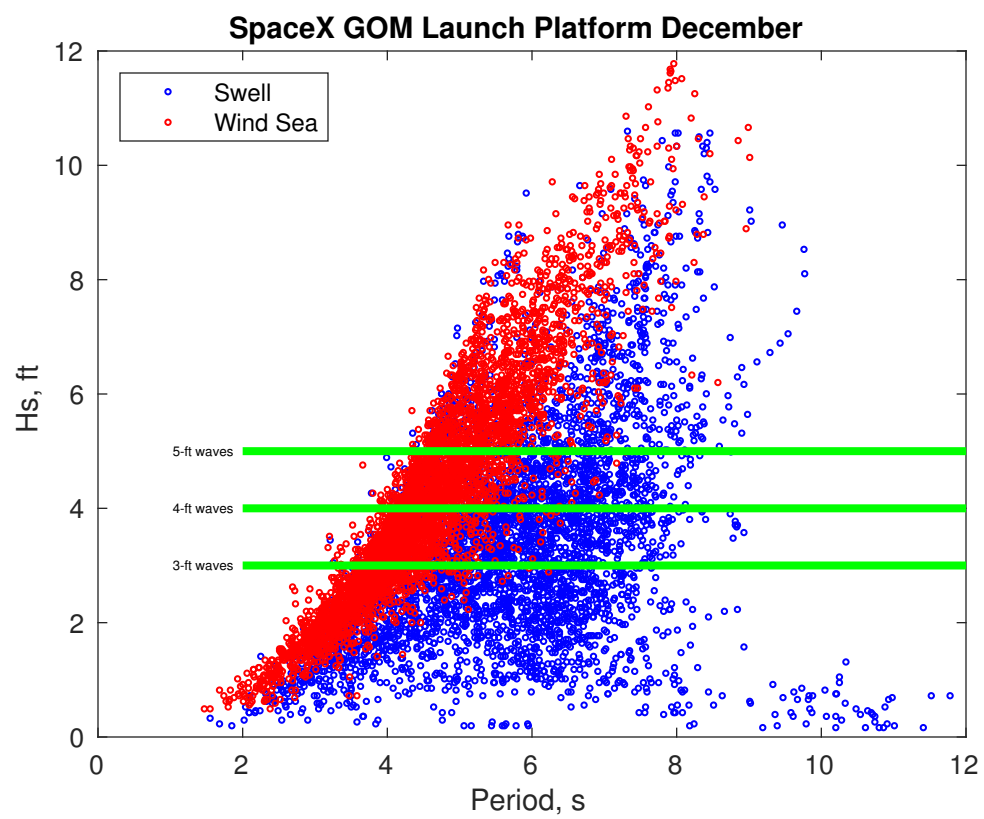
Period: 4 - 6 sec
The wave periods will occasionally reach 8 - 10 sec, but rarely longer.
Mean Speed: 0.25-0.50 kts
Principle Direction, from: SE
The currents will occasionally reach 1.00-1.25 kts, but rarely greater.
WindSea/Swell: 54% / 46%

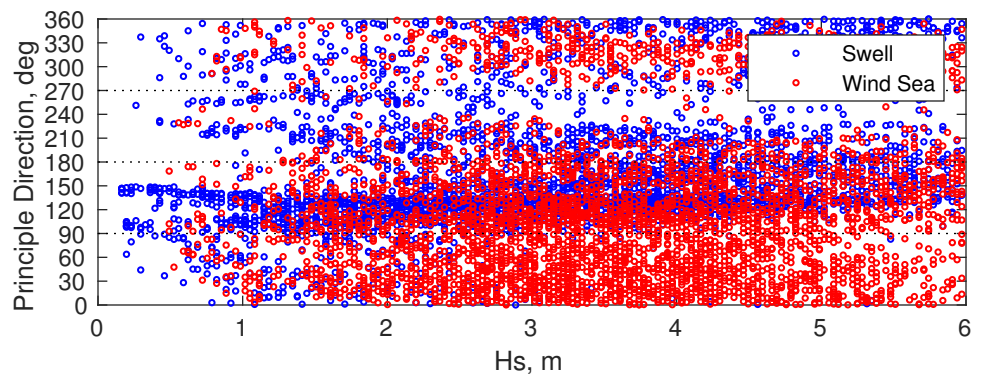
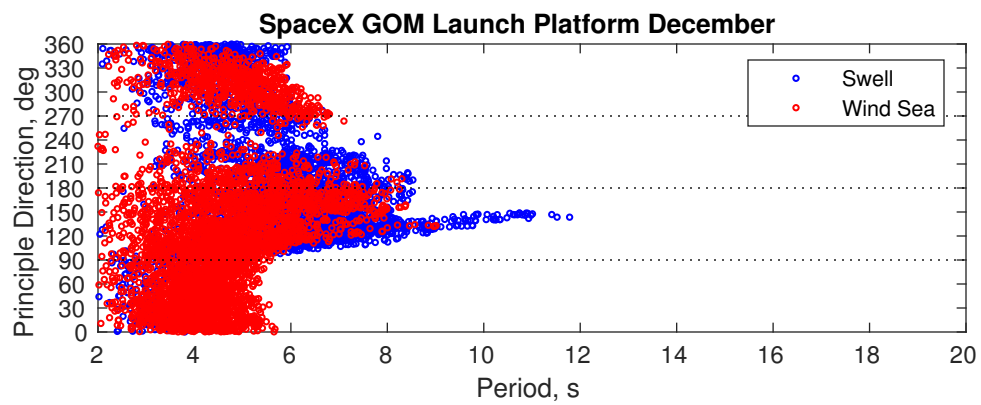
Winds

Principle Direction, from: WNW
Mean Speed: 10 - 15 kts
The winds will occasionally reach 25 - 30 kts, but rarely greater.
Principle Direction, from: NNE

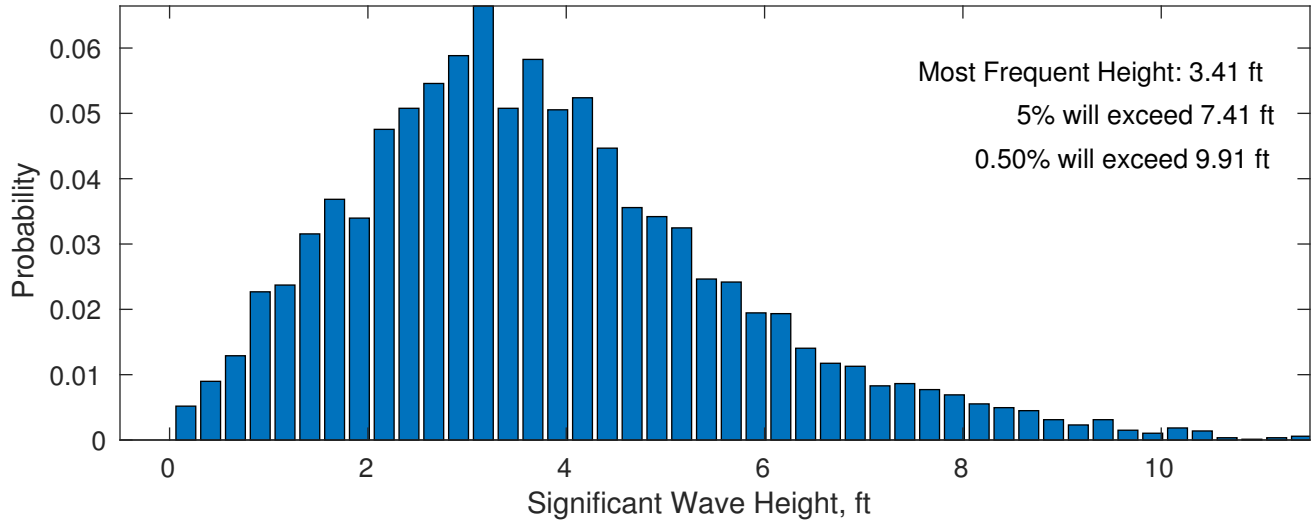
Severe Storms

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

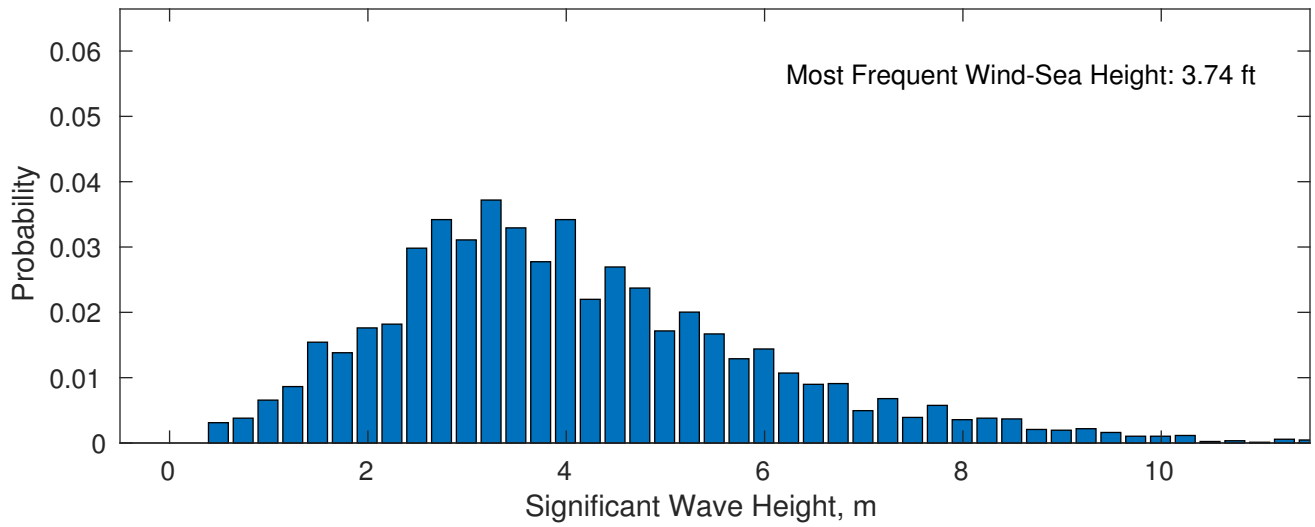




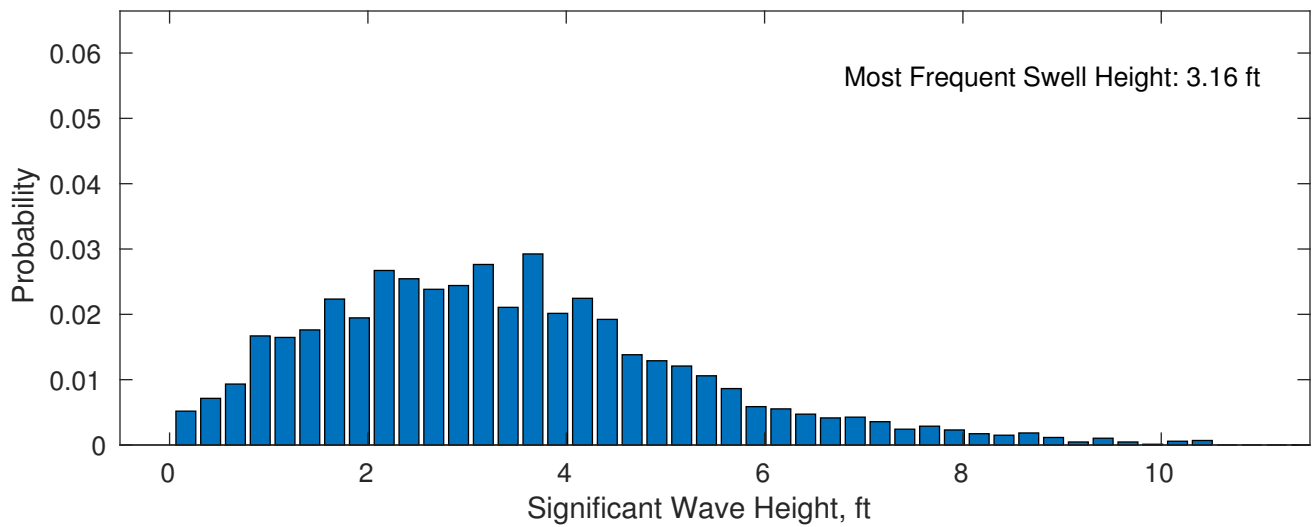
December Wave Height PDF: 1979 - 2015



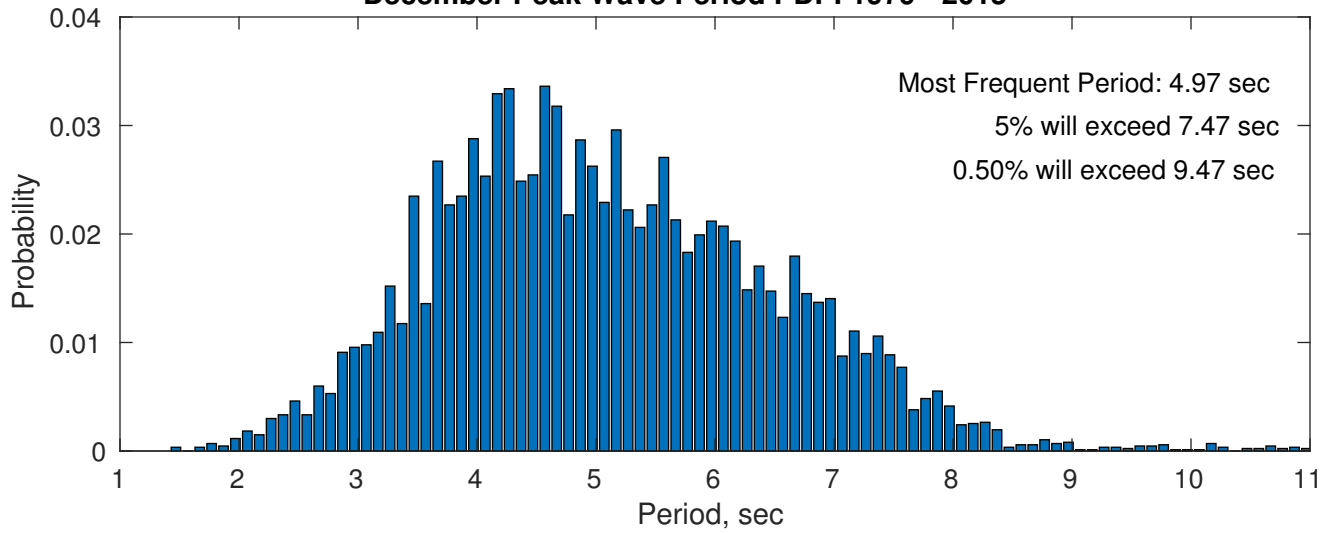
Wind-Sea: 54.23%



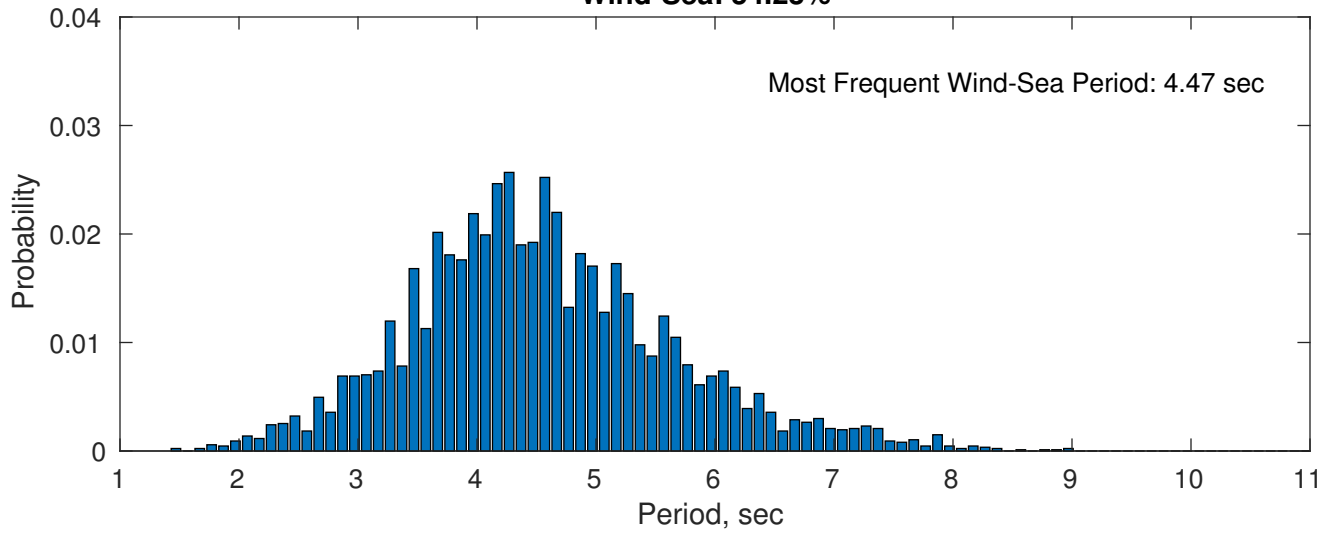
Swell: 45.77%



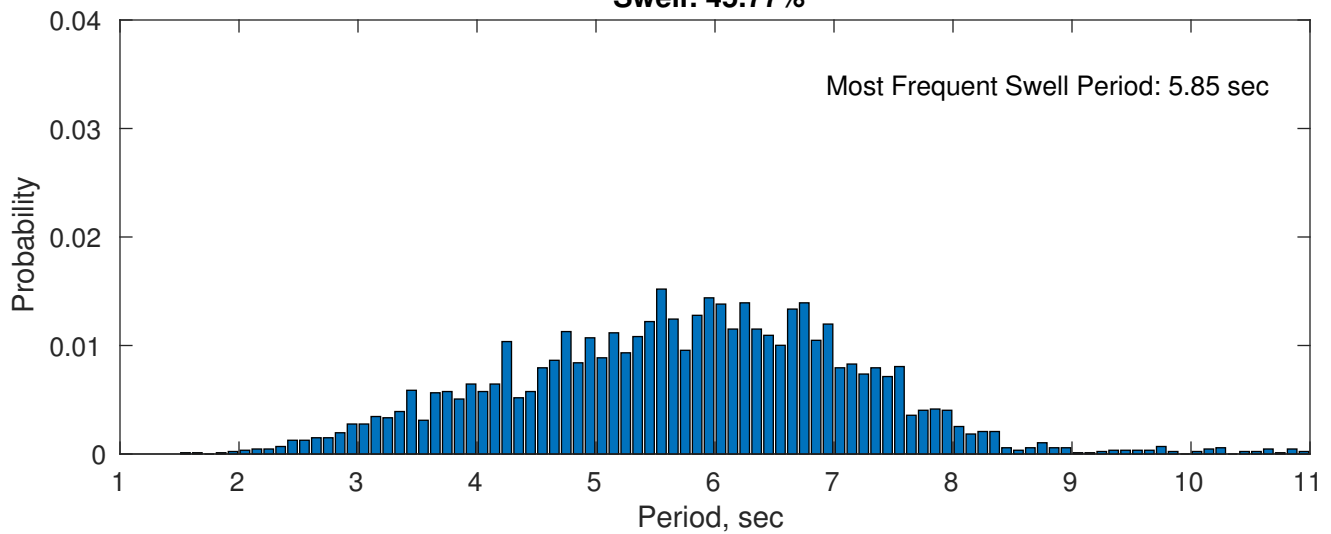
December Peak Wave Period PDF: 1979 - 2015



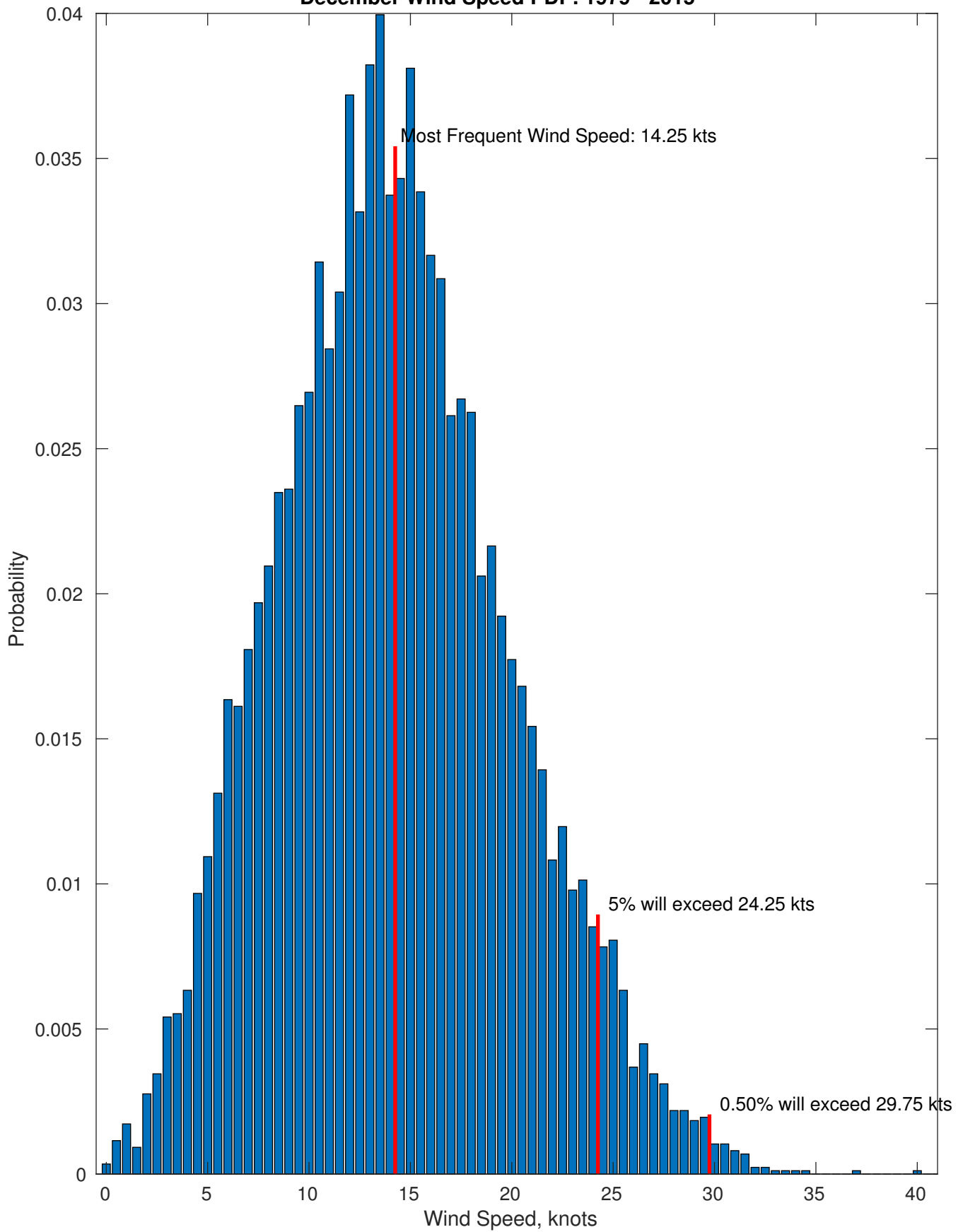
Wind-Sea: 54.23%



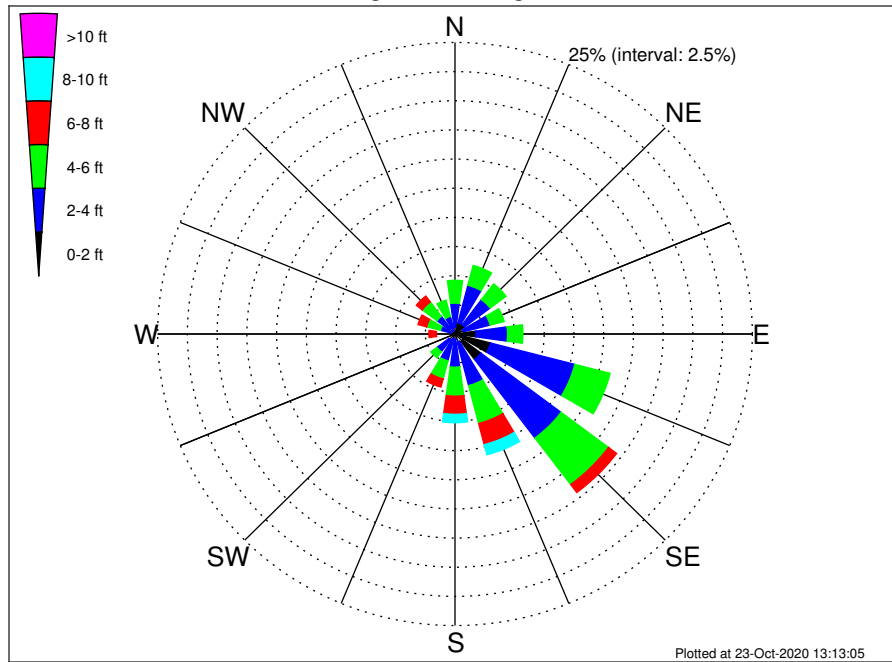
Swell: 45.77%



December Wind Speed PDF: 1979 - 2015



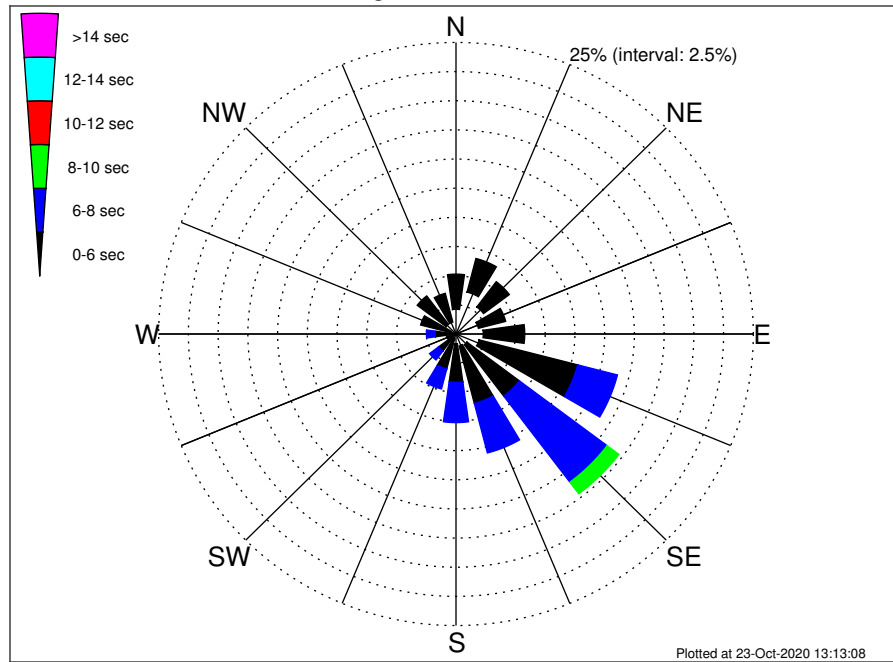
SpaceX GOM Launch Platform Climatological WaveHeight Rose for December: 1979 - 2015



Joint Frequency Distribution Table

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total
calm	0.06	0.09	0.23	0.29	0.47	0.44	0.81	0.28	0.05	0.02	0.25	0.13	0.01	0.13	0.15	0.09	3.49
1 - 2 ft	0.51	0.91	0.77	0.45	1.29	2.64	1.92	0.45	0.41	0.43	0.37	0.17	0.45	0.24	0.44	0.17	11.62
2 - 4 ft	2.08	3.32	2.69	2.31	2.66	7.33	8.44	3.85	2.38	1.92	1.29	0.37	0.55	0.90	1.31	1.29	42.71
4 - 6 ft	1.96	1.75	1.68	1.22	1.29	3.06	5.00	3.35	2.49	1.60	0.63	0.21	0.55	1.20	1.54	1.44	28.97
6 - 8 ft	0.40	0.60	0.24	0.05	0.07	0.54	0.85	1.88	1.55	0.73	0.24	0.08	0.63	0.75	0.63	0.48	9.73
8 - 10 ft	0.13	0.02	.	.	.	0.09	0.23	0.90	0.73	0.24	.	0.03	0.29	0.12	0.06	0.13	2.96
10 - 12 ft	.	.	.	.	.	0.01	0.08	0.17	0.21	0.05	.	0.01	.	.	.	.	0.53
12 - 14 ft	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
14 - 16 ft	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
16 - 18 ft	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
> 18 ft	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Total	5.14	6.69	5.62	4.32	5.78	14.12	17.33	10.87	7.82	4.99	2.79	1.00	2.49	3.33	4.13	3.60	100.00

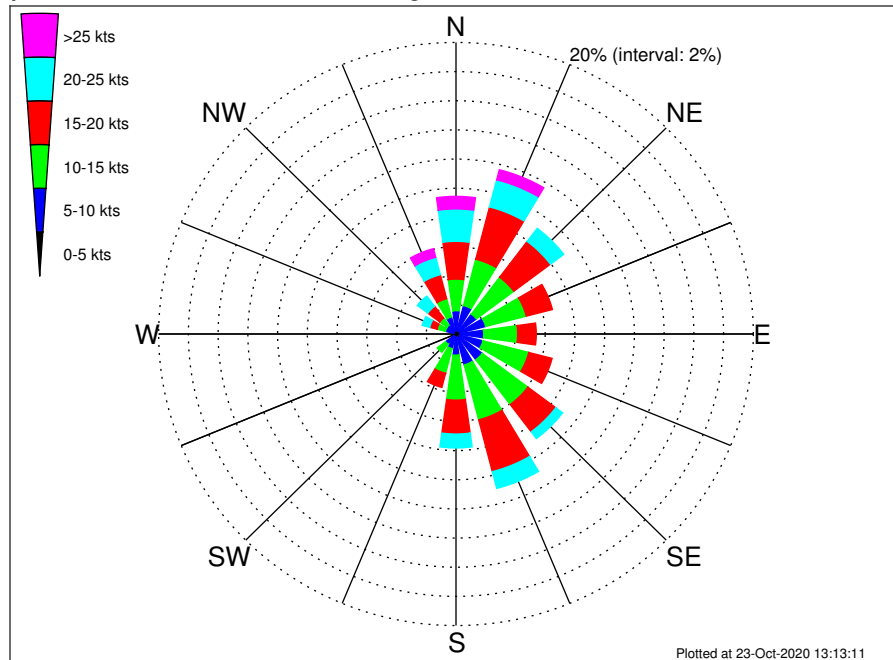
SpaceX GOM Launch Platform Climatological WavePeriod Rose for December: 1979 - 2015



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	0.02	0.05	0.02	•	0.06	0.02	•	0.02	•	•	0.01	•	•	0.22
2 - 4 sec	2.12	3.71	2.89	1.92	2.25	1.98	1.15	1.00	0.82	0.46	0.38	0.18	0.30	0.45	1.04	1.06	21.70
4 - 6 sec	3.02	2.98	2.72	2.37	3.49	8.57	5.52	5.09	3.30	2.64	1.44	0.63	1.45	2.61	3.05	2.54	51.42
6 - 8 sec	•	•	•	•	•	3.45	9.25	4.39	3.45	1.77	0.94	0.18	0.74	0.25	0.05	•	24.48
8 - 10 sec	•	•	•	•	•	0.09	1.24	0.17	0.22	0.12	•	•	•	•	•	•	1.84
10 - 12 sec	•	•	•	•	•	•	0.17	0.16	•	•	•	•	•	•	•	•	0.33
12 - 14 sec	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
14 - 16 sec	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
18 - 20 sec	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
22 - 24 sec	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Total	5.14	6.69	5.62	4.32	5.78	14.12	17.33	10.87	7.82	4.99	2.79	1.00	2.49	3.33	4.13	3.60	100.00

SpaceX GOM Launch Platform Climatological Wind Rose for December: 1979 - 2015



Joint Frequency Distribution Table

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNNW	NW	NNW	Total
calm	•	•	•	0.01	•	0.02	0.02	0.02	•	0.01	0.01	0.01	•	0.01	0.01	0.01	0.15
0 - 5 kts	0.25	0.31	0.24	0.31	0.25	0.28	0.29	0.26	0.20	0.24	0.17	0.18	0.06	0.15	0.17	0.21	3.58
5 - 10 kts	1.35	1.70	1.47	1.74	1.61	1.58	1.90	1.90	1.26	0.78	0.69	0.41	0.35	0.58	0.58	0.99	18.88
10 - 15 kts	2.16	3.28	3.15	2.82	2.28	3.18	3.85	3.89	3.09	1.75	0.70	0.32	0.41	0.59	0.61	1.29	33.38
15 - 20 kts	2.59	3.71	3.09	1.82	1.26	1.62	2.35	3.67	2.33	1.00	0.36	0.22	0.28	0.51	1.01	1.70	27.51
20 - 25 kts	2.22	1.92	1.12	0.39	0.23	0.38	0.58	1.19	0.96	0.30	0.15	0.10	0.14	0.52	0.88	1.23	12.30
25 - 30 kts	0.66	0.68	0.09	0.09	0.07	0.08	0.09	0.26	0.21	0.05	0.03	0.02	0.08	0.37	0.41	0.53	3.73
30 - 35 kts	0.21	0.02	•	•	0.01	0.01	0.02	•	0.01	•	0.01	•	•	0.02	0.05	0.08	0.45
35 - 40 kts	•	0.01	•	•	•	•	•	•	•	•	•	•	•	•	•	•	0.01
40 - 45 kts	•	•	•	•	0.01	•	•	•	•	•	•	•	•	•	•	•	0.01
45 - 50 kts	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Total	9.44	11.64	9.17	7.18	5.72	7.15	9.10	11.20	8.04	4.13	2.13	1.28	1.31	2.74	3.72	6.04	100.00