

## Santa Marta Colombia - December

Latitude: 11.45 N Longitude: 74.66 W

### Weather Days

Wave Height > 5.0 ft Mean: 22.8 days Range: 19.4 - 26.3 days p50: 20 days p90: 20 days

Wave Height > 6.0 ft Mean: 17.0 days Range: 12.6 - 21.4 days p50: 17 days p90: 20 days

Wave Height > 7.0 ft Mean: 10.1 days Range: 5.8 - 14.4 days p50: 11 days p90: 18 days

### Working Window Probability

Wave Height < 5.0 ft 3 days or longer: 21%

5 days or longer: 5%

7 days or longer: 3%

Wave Height < 6.0 ft 3 days or longer: 22%

5 days or longer: 7%

7 days or longer: 4%

Wave Height < 7.0 ft 3 days or longer: 28%

5 days or longer: 14%

7 days or longer: 10%

### Waves

Mean Height: 6 - 8 ft

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

Mean Period: 6 - 8 sec

The wave periods will occasionally reach 8 - 10 sec, but rarely longer.

Principle Direction, from: NE

WindSea/Swell: 77% / 23%

### Winds

Mean Speed: 20 - 25 kts

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

Principle Direction, from: ENE

### Currents

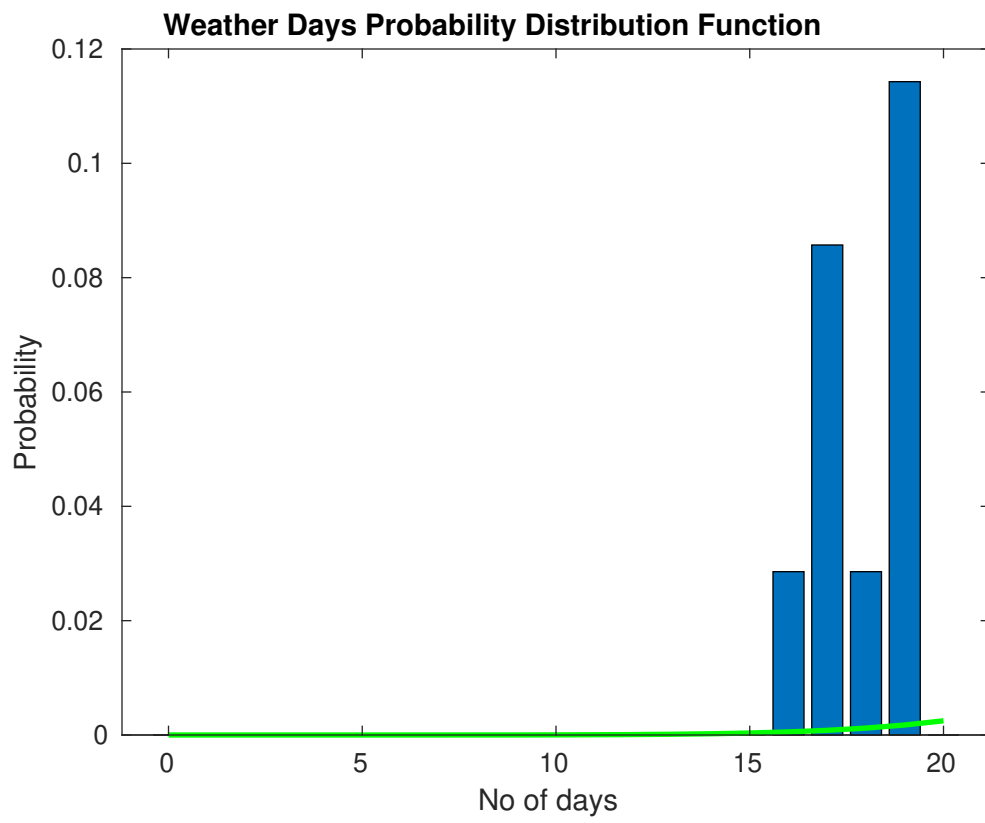
Mean Speed: 0.50-0.75 kts

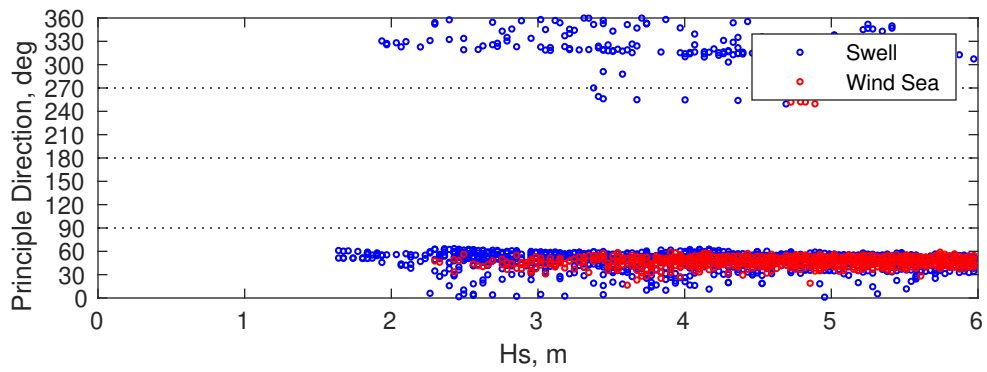
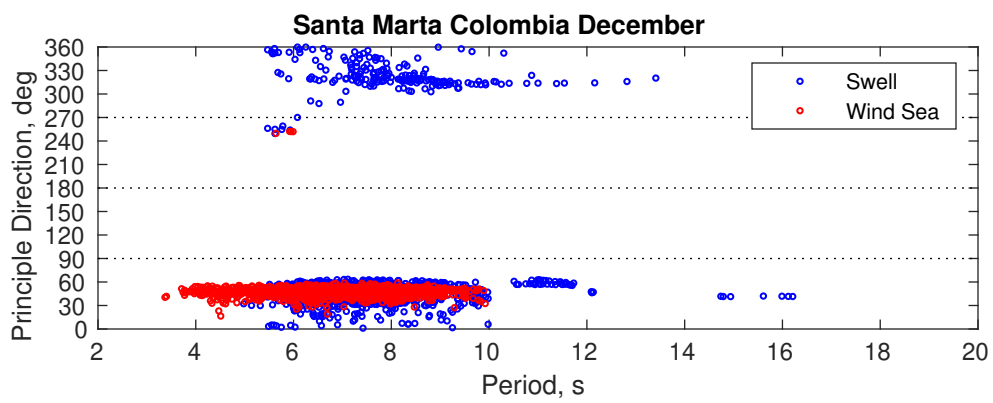
The currents will occasionally reach 1.75-2.00 kts, but rarely greater.

Principle Direction, to: W

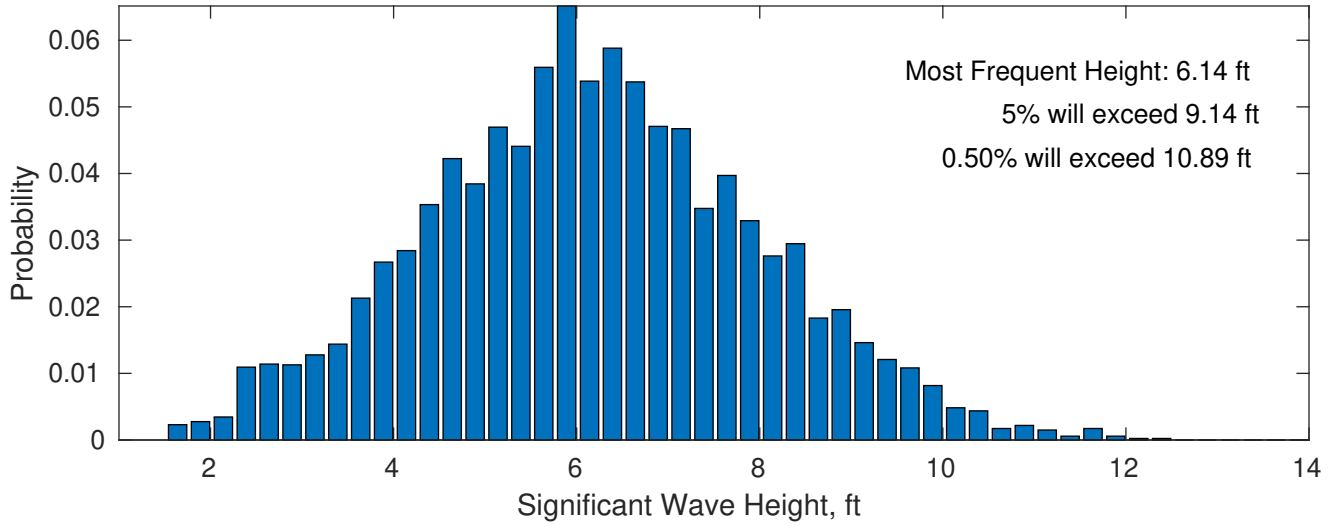
### Severe Storms

There is a 3 % chance of a storm with winds peaking above 34 kts.

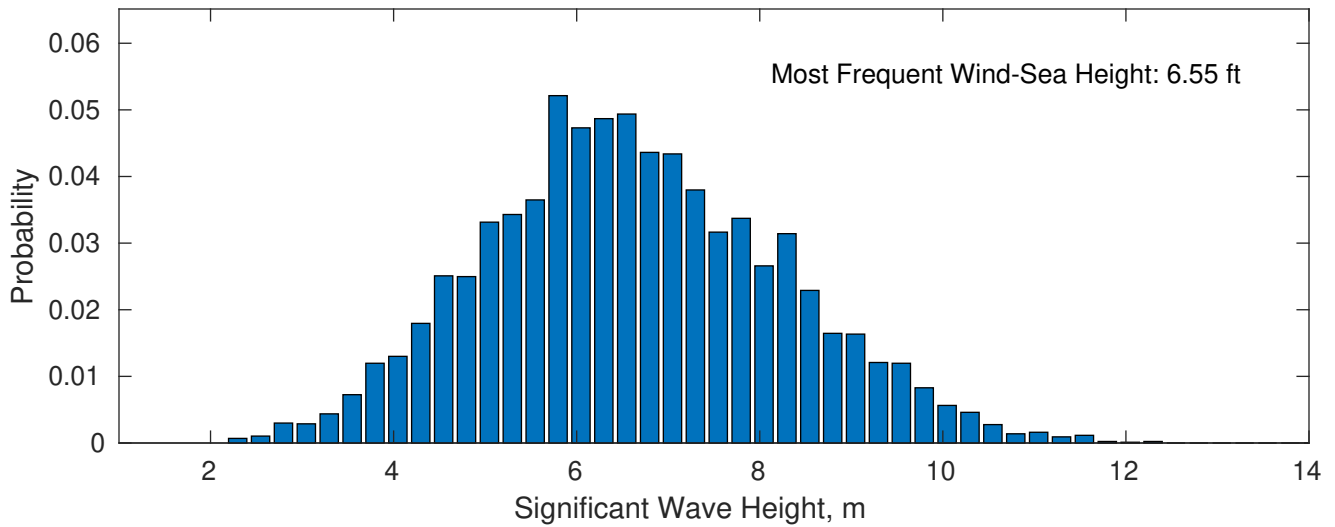




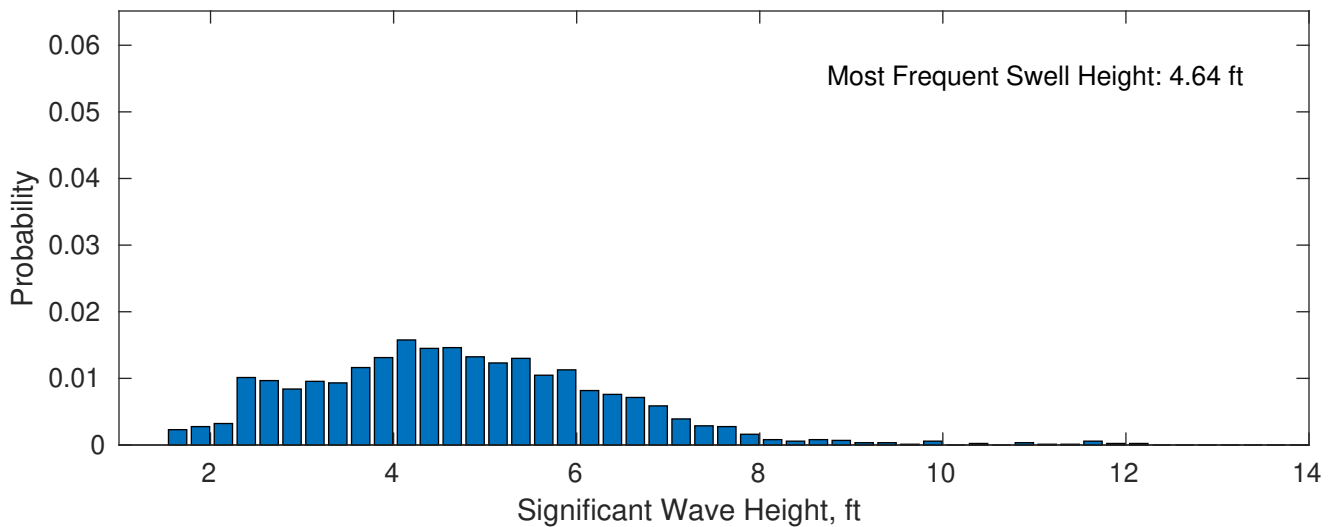
**December Wave Height PDF: 1979 - 2015**



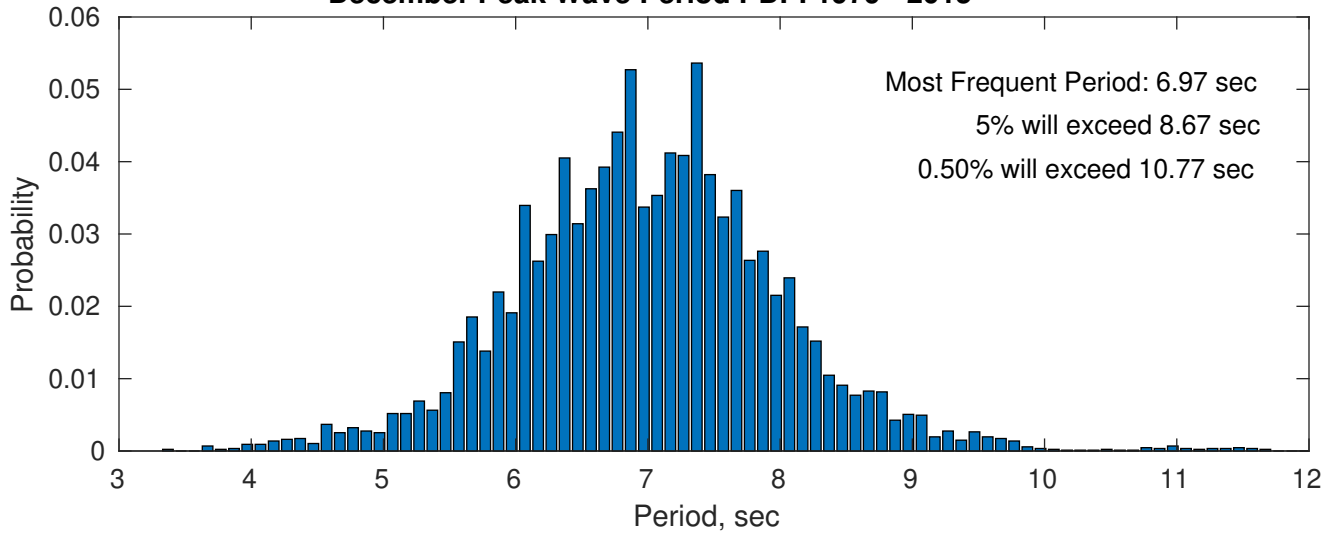
**Wind-Sea: 76.87%**



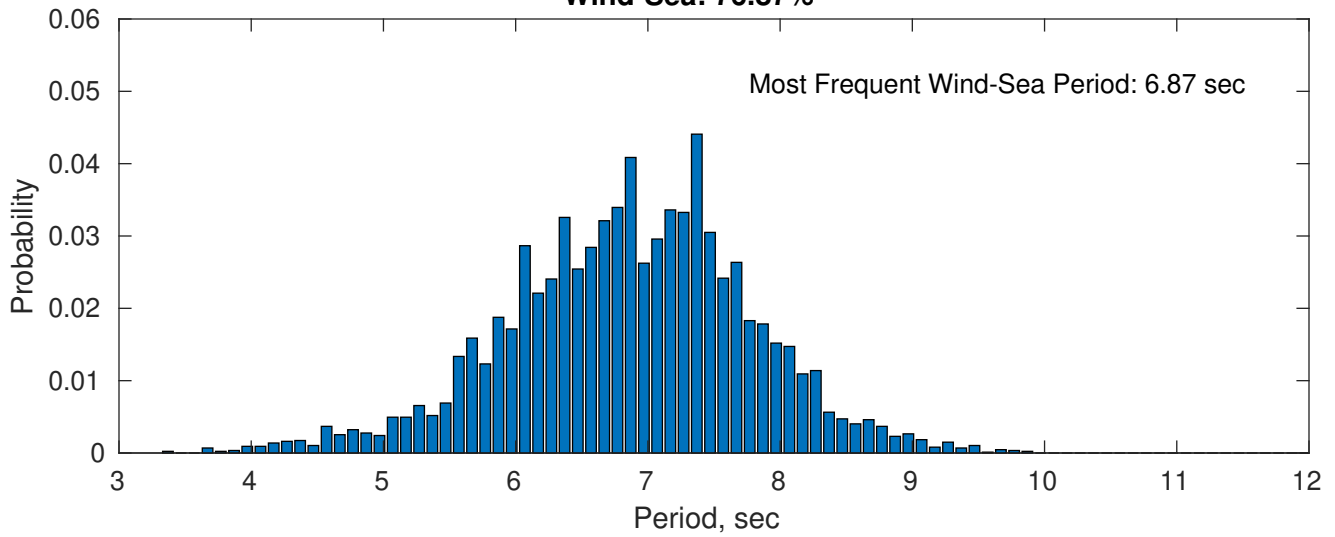
**Swell: 23.13%**



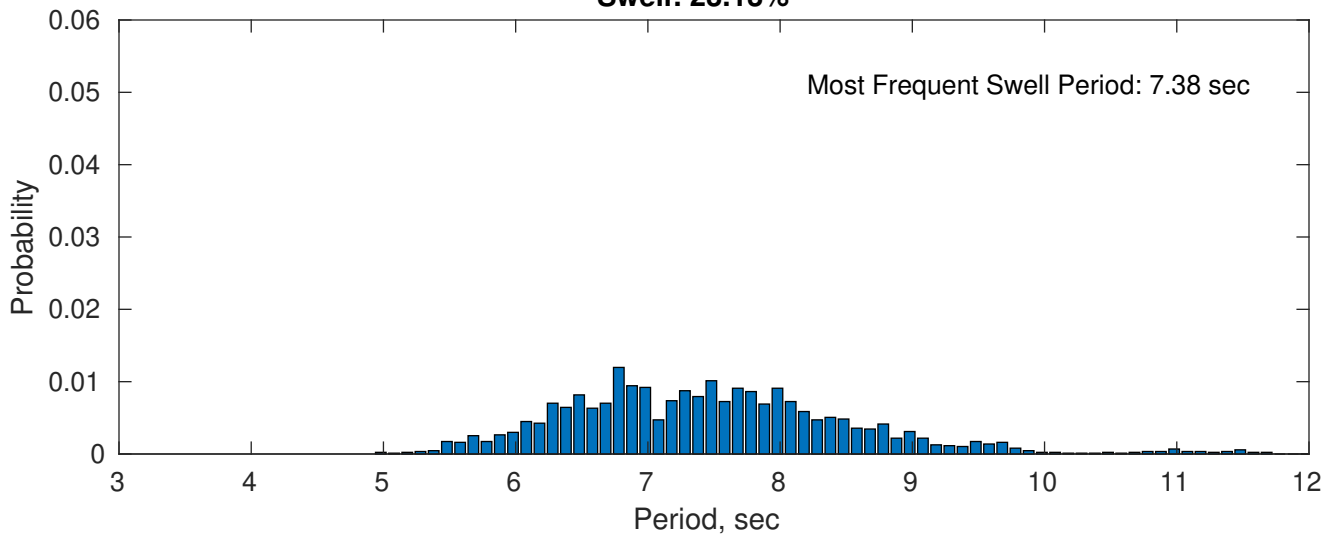
### December Peak Wave Period PDF: 1979 - 2015



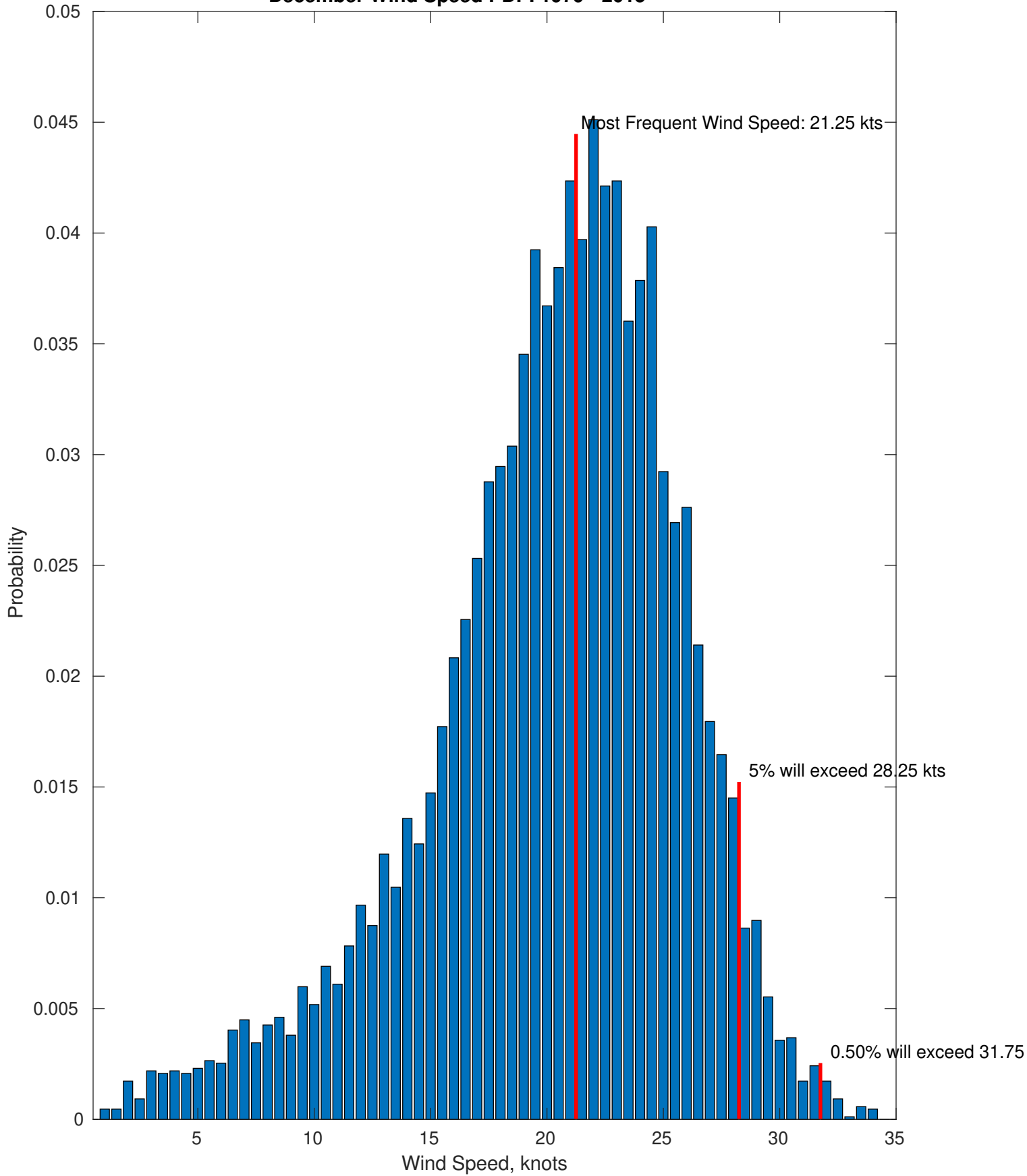
### Wind-Sea: 76.87%



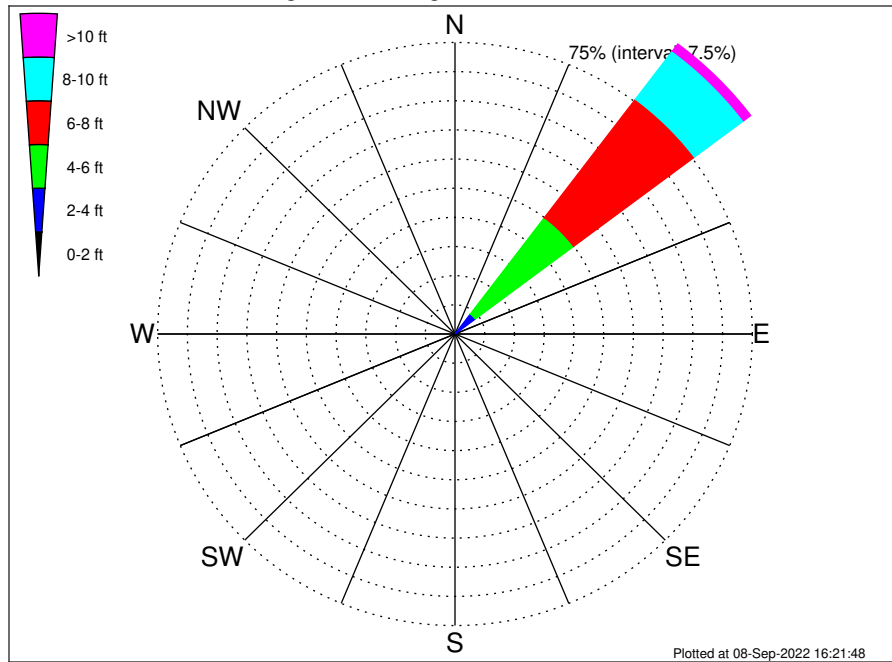
### Swell: 23.13%



December Wind Speed PDF: 1979 - 2015



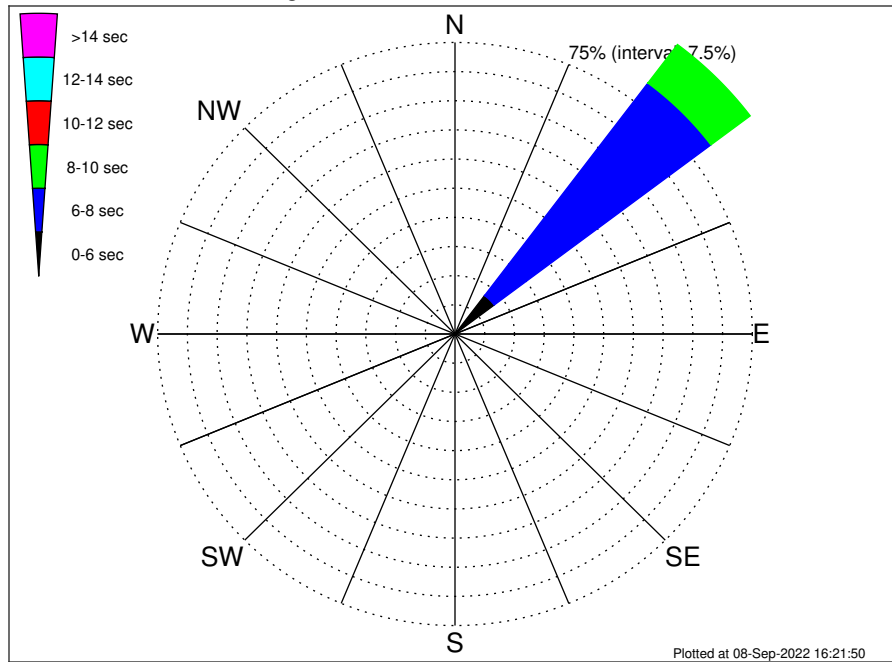
Santa Marta Colombia Climatological WaveHeight Rose for December: 1979 - 2015



Joint Frequency Distribution Table

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total
calm	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
1 - 2 ft	•	•	0.23	0.10	•	•	•	•	•	•	•	•	•	•	0.01	0.02	0.37
2 - 4 ft	0.37	0.68	6.20	1.52	•	•	•	•	•	•	•	0.02	0.02	0.02	0.37	0.23	9.44
4 - 6 ft	0.07	0.61	31.04	0.79	•	•	•	•	•	•	•	0.08	•	0.05	0.81	0.20	33.64
6 - 8 ft	0.01	0.17	38.15	0.01	•	•	•	•	•	•	•	•	•	•	0.20	•	38.54
8 - 10 ft	0.03	0.07	15.55	0.02	•	•	•	•	•	•	•	•	•	•	•	•	15.67
10 - 12 ft	•	0.10	2.15	•	•	•	•	•	•	•	•	•	•	•	•	•	2.26
12 - 14 ft	•	0.01	0.07	•	•	•	•	•	•	•	•	•	•	•	•	•	0.08
14 - 16 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
16 - 18 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
> 18 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Total	0.48	1.65	93.39	2.45	•	•	•	•	•	•	•	0.10	0.02	0.07	1.38	0.45	100.00

Santa Marta Colombia Climatological WavePeriod Rose for December: 1979 - 2015

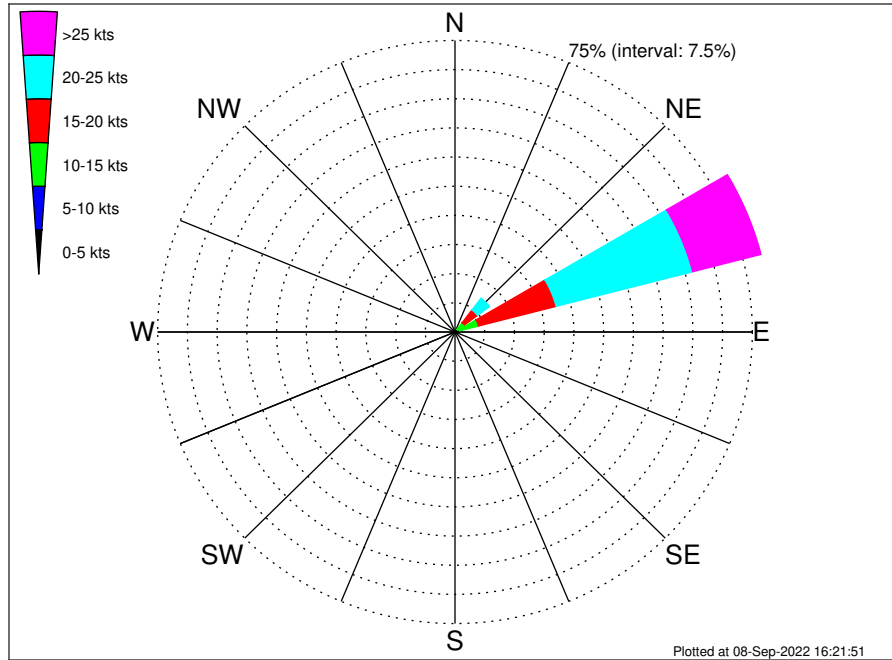


Joint Frequency Distribution Table

	N	NNE	NE	E	ENE	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total
calm	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1 - 2 sec	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2 - 4 sec	.	.	0.20	.	.	.	.	.	.	.	.	.	.	.	.	.	0.20
4 - 6 sec	0.16	0.16	12.19	0.06	.	.	.	.	.	.	.	0.10	0.01	.	0.02	0.01	12.72
6 - 8 sec	0.20	1.08	68.45	1.62	.	.	.	.	.	.	.	.	0.01	0.05	0.47	0.37	72.25
8 - 10 sec	0.12	0.40	12.41	0.43	.	.	.	.	.	.	.	.	.	0.02	0.75	0.07	14.19
10 - 12 sec	0.01	.	0.02	0.35	.	.	.	.	.	.	.	.	.	.	0.10	.	0.48
12 - 14 sec	.	.	0.05	.	.	.	.	.	.	.	.	.	.	.	0.03	.	0.08
14 - 16 sec	.	.	0.06	.	.	.	.	.	.	.	.	.	.	.	.	.	0.06
18 - 20 sec	.	.	0.02	.	.	.	.	.	.	.	.	.	.	.	.	.	0.02
22 - 24 sec	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Total	0.48	1.65	93.39	2.45	.	.	.	.	.	.	.	0.10	0.02	0.07	1.38	0.45	100.00



**Santa Marta Colombia Climatological Wind 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 - 5 kts	0.02	0.05	0.18	0.15	0.20	0.12	0.10	0.09	0.07	0.12	0.02	0.01	0.03	•	0.01	0.03	1.21
5 - 10 kts	0.06	0.29	0.63	1.04	0.91	0.23	0.12	0.08	0.16	0.14	0.08	0.01	0.02	•	0.02	0.02	3.81
10 - 15 kts	•	0.18	2.19	4.97	1.54	0.07	0.03	0.02	0.07	0.14	0.06	•	•	•	•	0.01	9.29
15 - 20 kts	•	0.06	4.11	20.20	1.85	•	•	•	•	0.07	0.06	0.01	•	•	•	•	26.36
20 - 25 kts	•	•	3.77	35.59	0.69	•	•	•	•	0.03	0.01	•	•	•	•	•	40.10
25 - 30 kts	•	•	1.27	16.35	0.10	•	•	•	•	•	•	•	•	•	•	•	17.72
30 - 35 kts	•	•	0.08	1.44	•	•	•	•	•	•	•	•	•	•	•	•	1.52
35 - 40 kts	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
40 - 45 kts	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
45 - 50 kts	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Total	0.08	0.58	12.23	79.73	5.29	0.41	0.25	0.20	0.30	0.49	0.23	0.03	0.06	•	0.03	0.07	100.00