

## Madagascar MBES - March

Latitude: 14.97 S Longitude: 45.59 E

### Weather Days

Wave Height > 5.0 ft Mean: 1.0 days Range: 0.0 - 2.4 days p50:30 days p75:1.5 days p90:1 days

Wave Height > 6.5 ft Mean: 0.5 days Range: 0.0 - 1.5 days p50:30 days p75:1 days p90:1 days

Wave Height > 8.0 ft Mean: 0.3 days Range: 0.0 - 1.1 days p50:30 days p75:30 days p90:2 days

Wind Speed > 15.0 knots Mean: 2.9 days Range: 0.6 - 5.1 days p50:2.5 days p75:1.5 days p90:1 days

Wind Speed > 20.0 knots Mean: 0.7 days Range: 0.0 - 1.9 days p50:0.5 days p75:0.5 days p90:0.5 days

Wind Speed > 25.0 knots Mean: 0.2 days Range: 0.0 - 0.8 days p50:0.5 days p75:0.5 days p90:0.5 days

### Working Window

Wave Height < 5.0 ft  
A 1 day or longer window will statistically occur 1.4 times per month  
A 2 day or longer window will statistically occur 1.3 times per month  
A 3 day or longer window will statistically occur 1.3 times per month

Wave Height < 6.5 ft  
A 1 day or longer window will statistically occur 1.2 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 1.1 times per month

Wave Height < 8.0 ft  
A 1 day or longer window will statistically occur 1.1 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 1.1 times per month

### Waves

Mean Height: 1 - 2 ft

The wave heights will occasionally reach 6 - 8 ft, but rarely higher.

Mean Period: 4 - 6 sec

The wave periods will occasionally reach 14 - 16 sec, but rarely longer.

Principle Direction, from: NNE

WindSea/Swell: 23% / 77%

### Winds

Mean Speed: 5 - 10 kts

The winds will occasionally reach 25 - 30 kts, but rarely greater.

Principle Direction, from: ESE

### Currents

Mean Speed: 0.50-0.75 kts

The currents will occasionally reach 1.50-1.75 kts, but rarely greater.

Principle Direction, to: E

### Weather Days

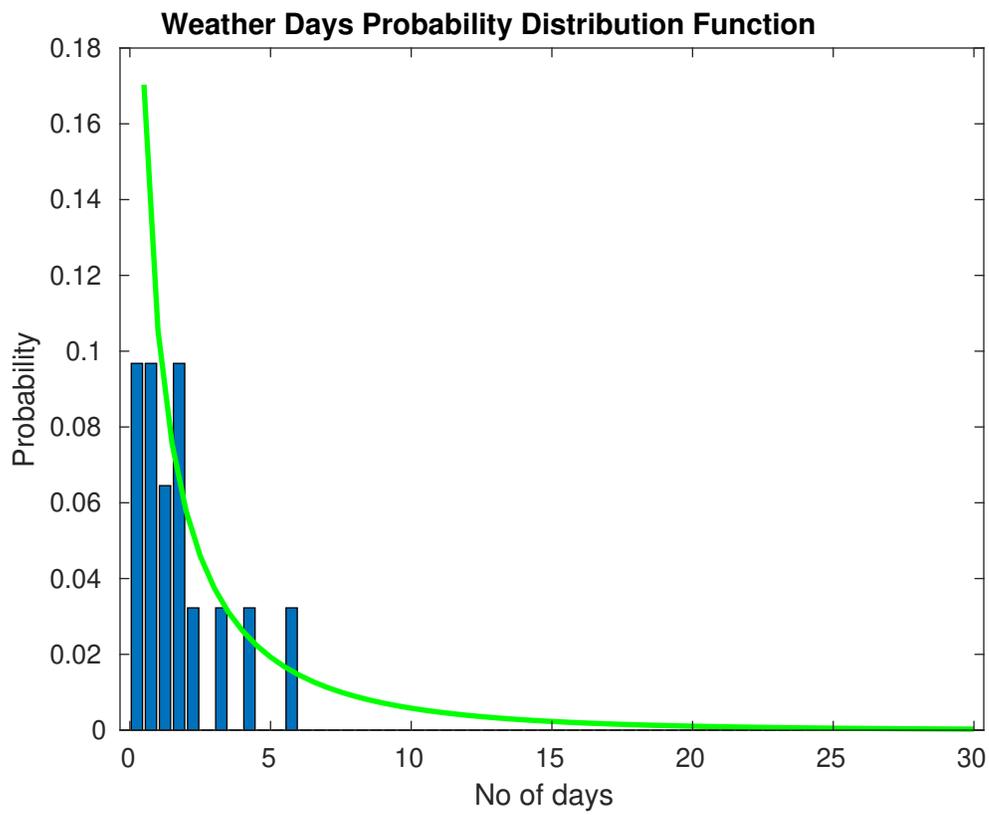
Current Speed > 0.5 knots Mean: 18.2 days Range: 13.0 - 23.3 days p50:19 days p75:15 days p90:11 days

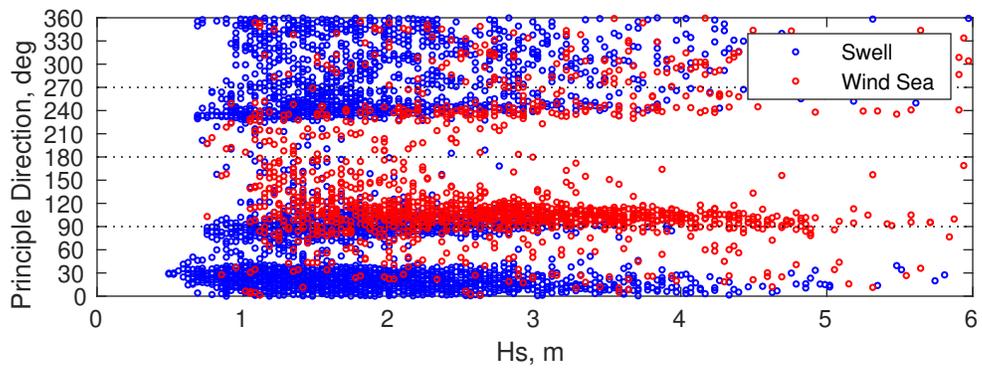
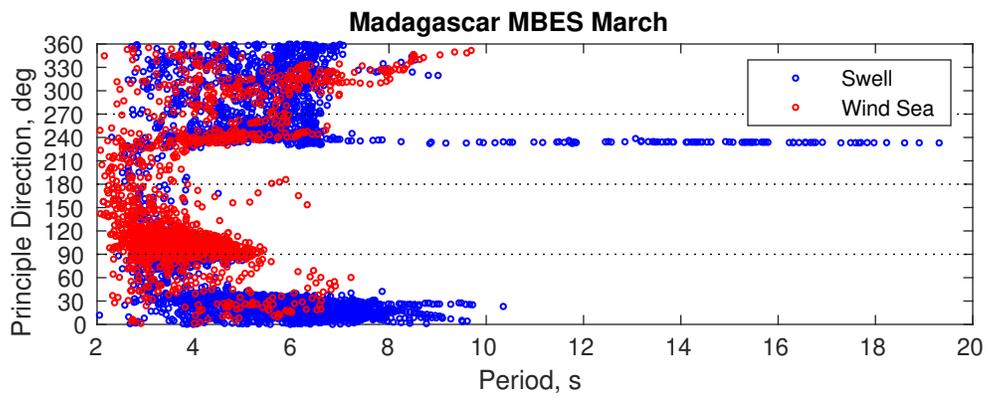
Current Speed > 1.0 knots Mean: 2.9 days Range: 0.0 - 7.0 days p50:3 days p75:2 days p90:1 days

Current Speed > 1.5 knots Mean: 0.4 days Range: 0.0 - 1.2 days p50:1 days p75:1 days p90:1 days

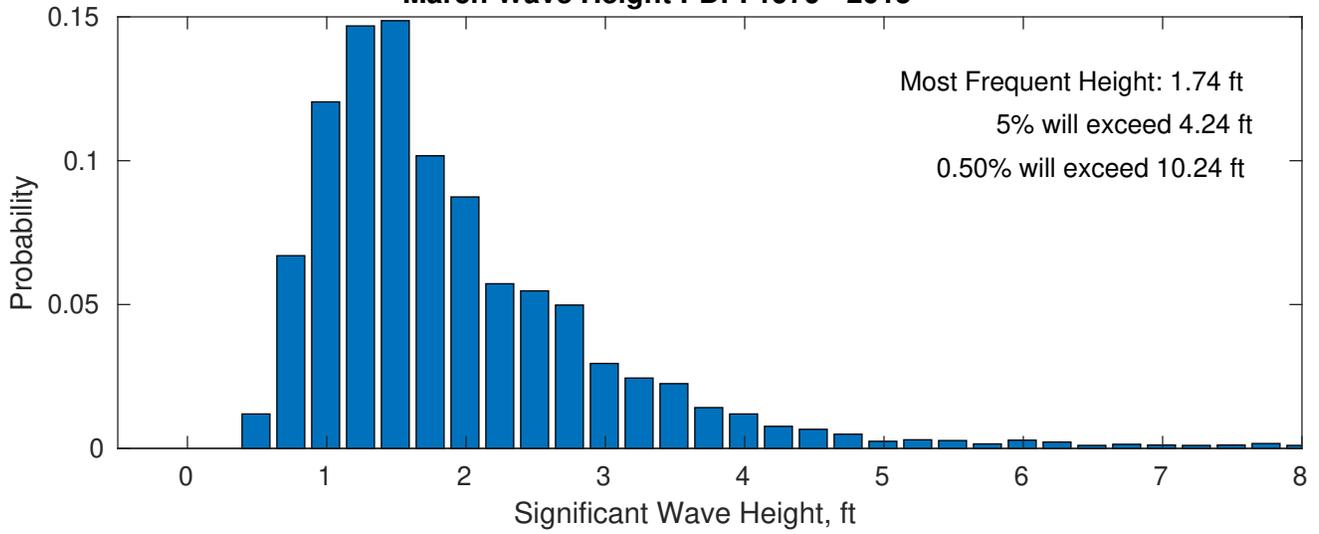
### Severe Storms

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

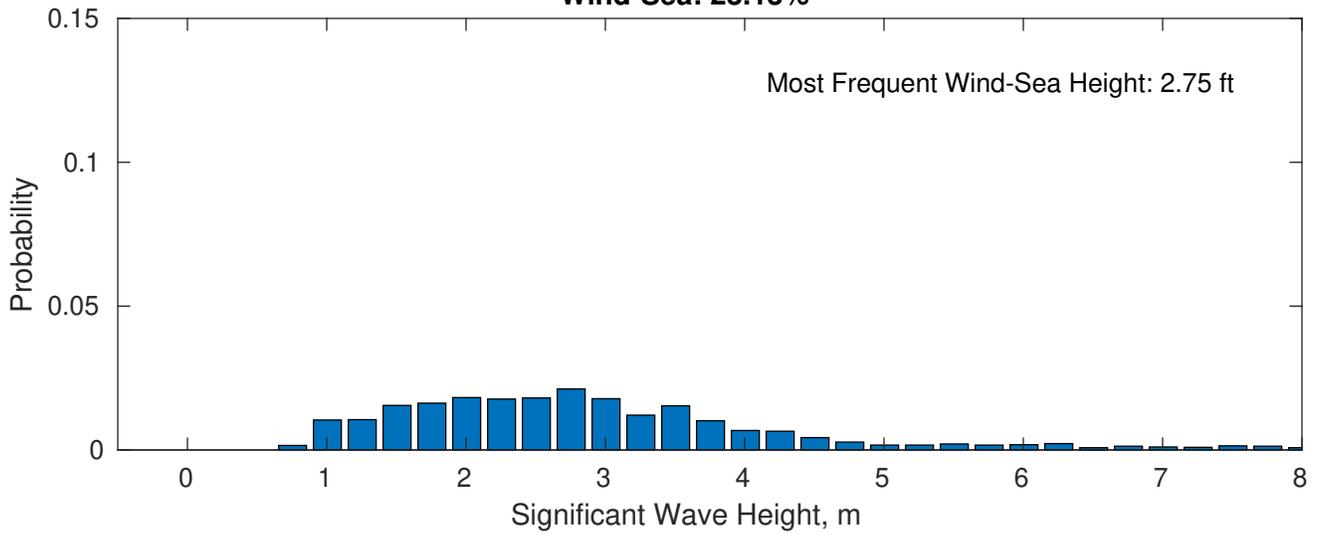




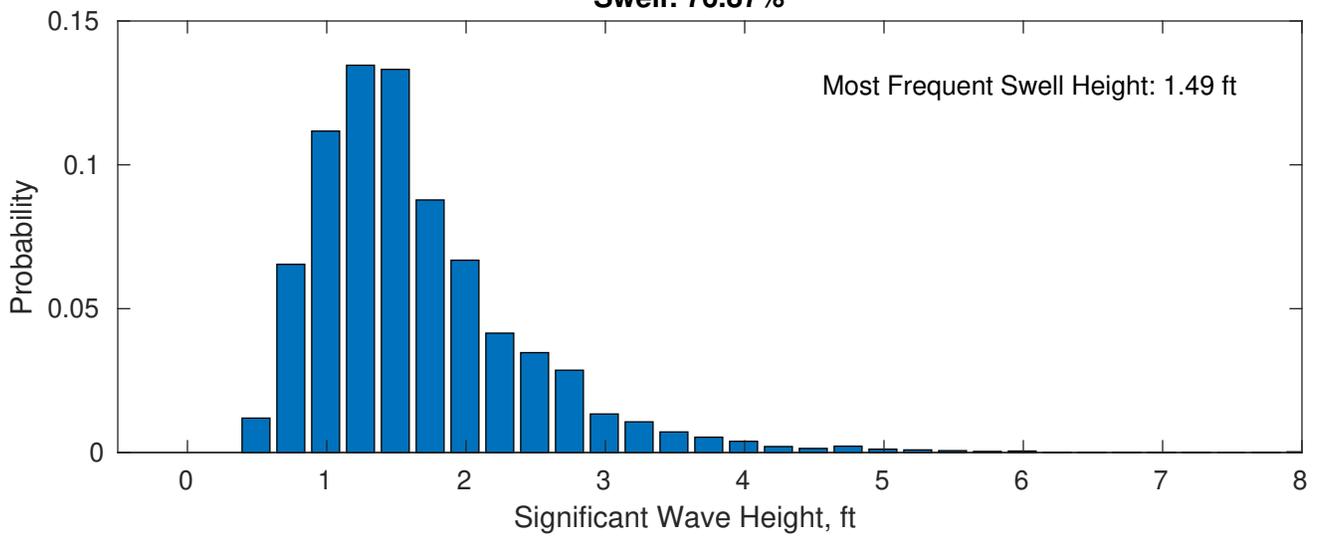
**March Wave Height PDF: 1979 - 2015**



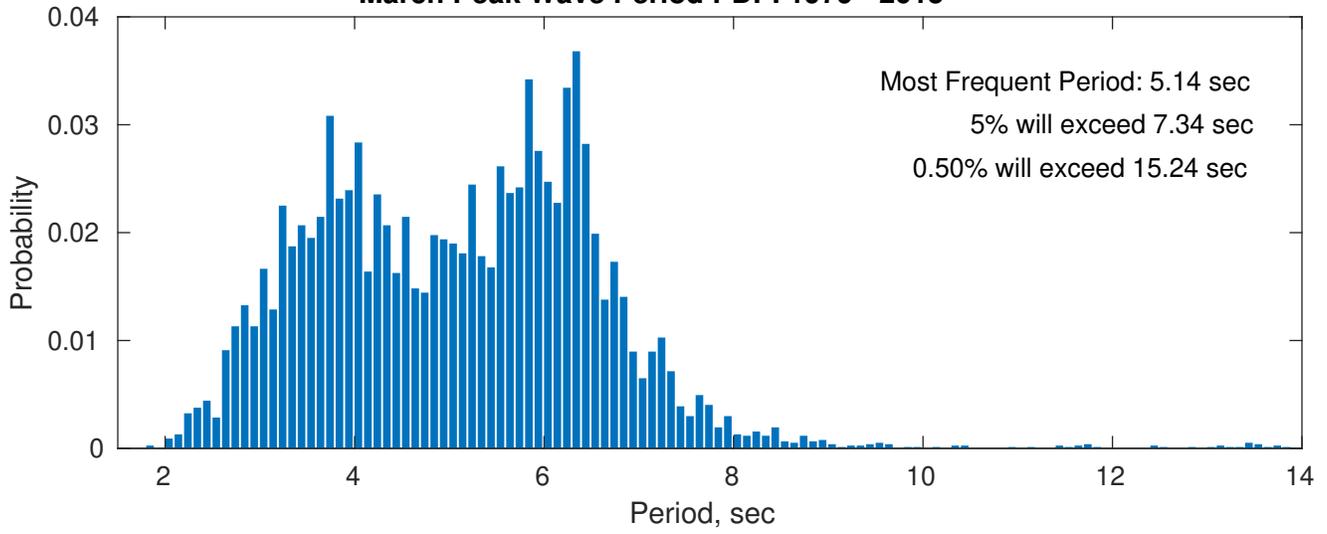
**Wind-Sea: 23.13%**



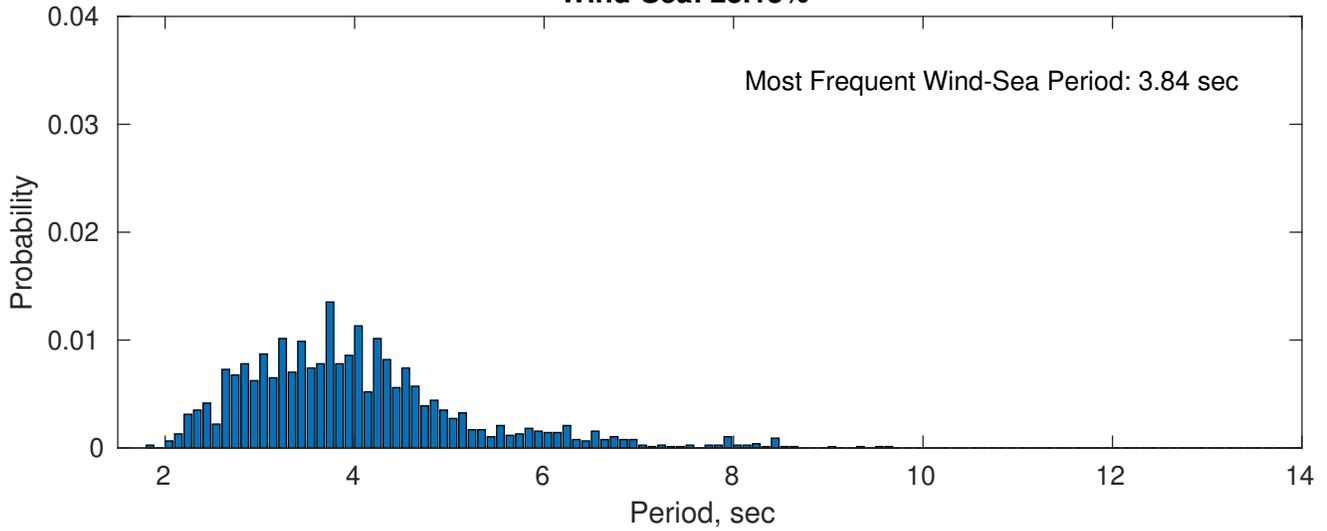
**Swell: 76.87%**



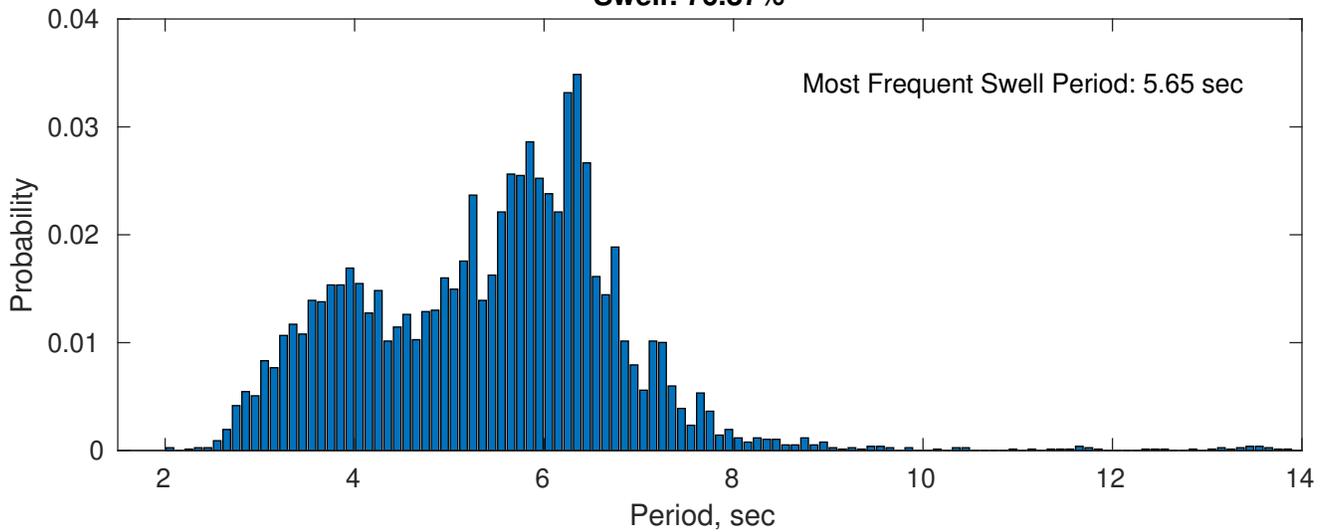
**March Peak Wave Period PDF: 1979 - 2015**



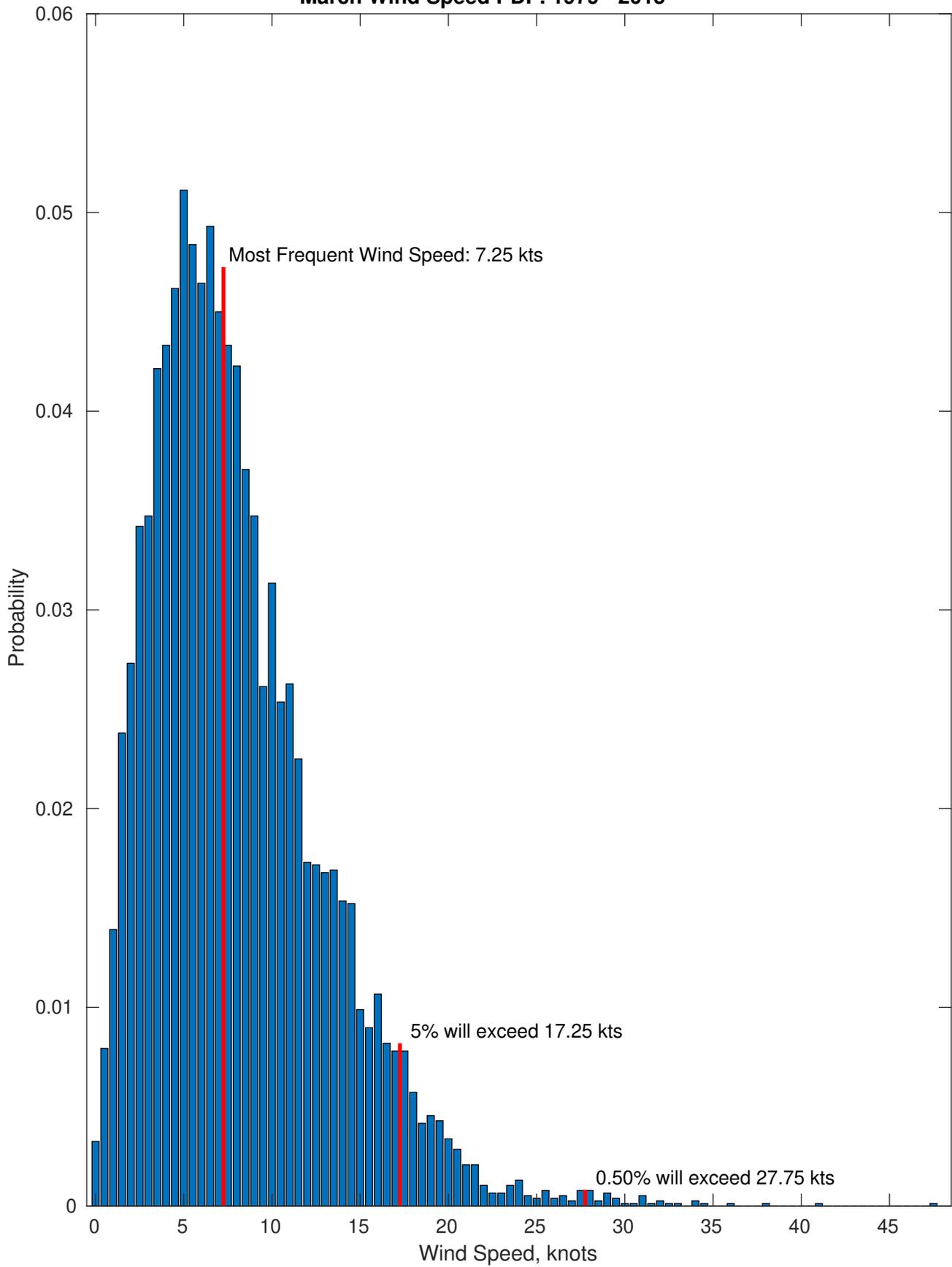
**Wind-Sea: 23.13%**



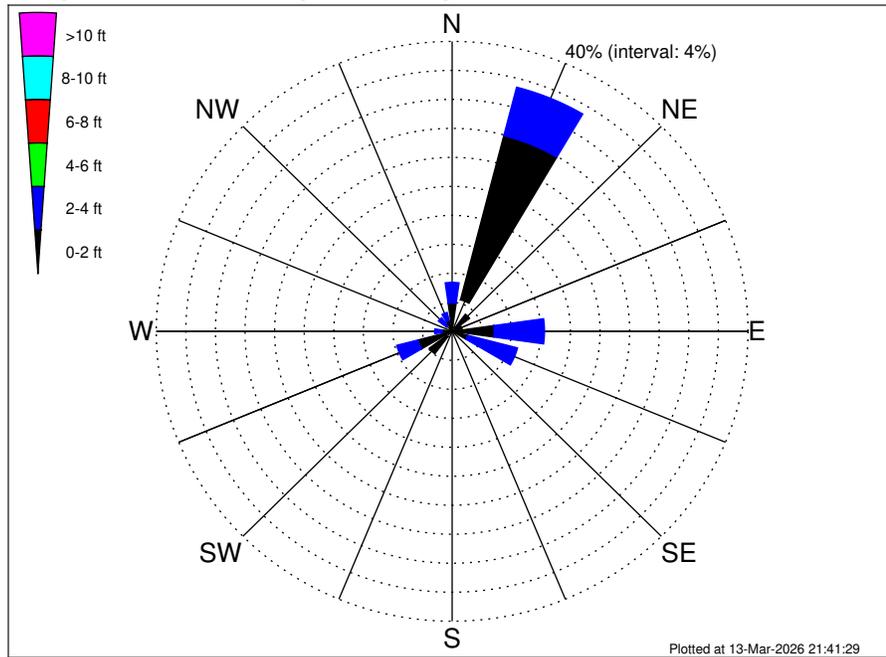
**Swell: 76.87%**



March Wind Speed PDF: 1979 - 2015



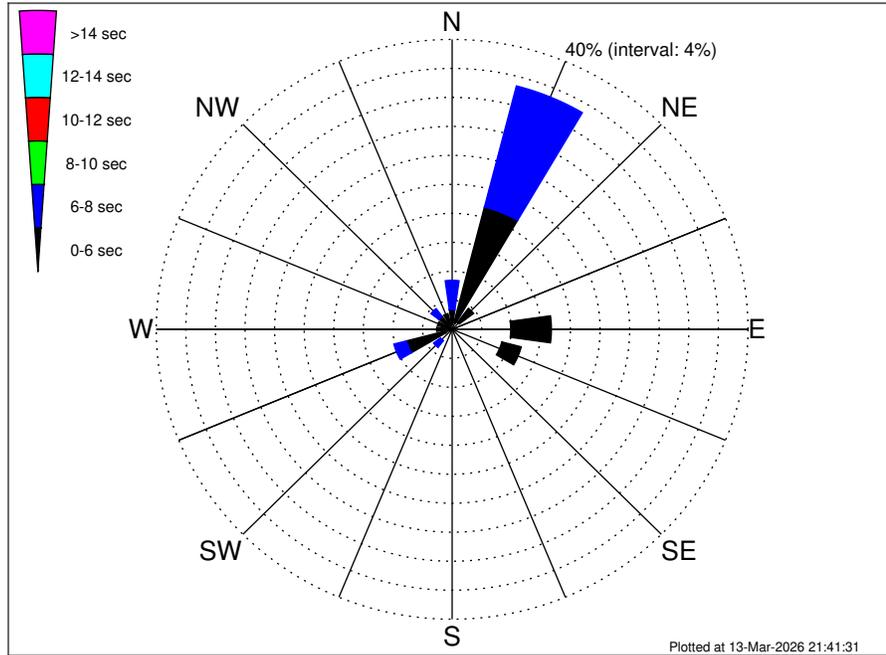
**Madagascar MBES Climatological WaveHeight Rose for March: 1979 - 2015**



**Joint Frequency Distribution Table**

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total
calm	0.48	4.49	0.64	0.17	0.42	0.04	•	0.05	0.03	0.07	0.91	0.36	0.13	0.01	0.04	0.07	7.90
1 - 2 ft	3.43	23.40	2.33	1.21	5.27	2.12	0.78	0.59	0.38	0.35	2.98	4.41	1.22	0.90	0.94	1.47	51.77
2 - 4 ft	2.84	6.91	0.87	0.48	6.80	6.97	0.57	0.23	0.13	0.07	0.68	2.97	1.01	0.94	1.37	1.16	33.99
4 - 6 ft	0.27	0.42	0.10	0.12	0.91	0.52	0.01	0.03	0.01	•	0.01	0.23	0.30	0.49	0.35	0.31	4.10
6 - 8 ft	0.01	0.16	0.05	0.04	0.03	•	•	•	0.03	•	•	0.18	0.03	0.12	0.57	0.05	1.26
8 - 10 ft	•	•	0.08	0.03	•	•	•	0.03	0.01	•	•	•	•	0.01	0.23	0.07	0.46
10 - 12 ft	0.01	•	•	•	•	•	•	•	•	•	•	•	•	•	0.05	0.04	0.10
12 - 14 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	0.10	0.16	0.26
14 - 16 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	0.08	0.08
16 - 18 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	0.04	0.04
> 18 ft	0.03	•	•	•	•	•	•	•	•	•	•	•	•	•	•	0.03	0.05
Total	7.08	35.37	4.07	2.04	13.42	9.65	1.37	0.92	0.59	0.48	4.58	8.16	2.69	2.47	3.66	3.46	100.00

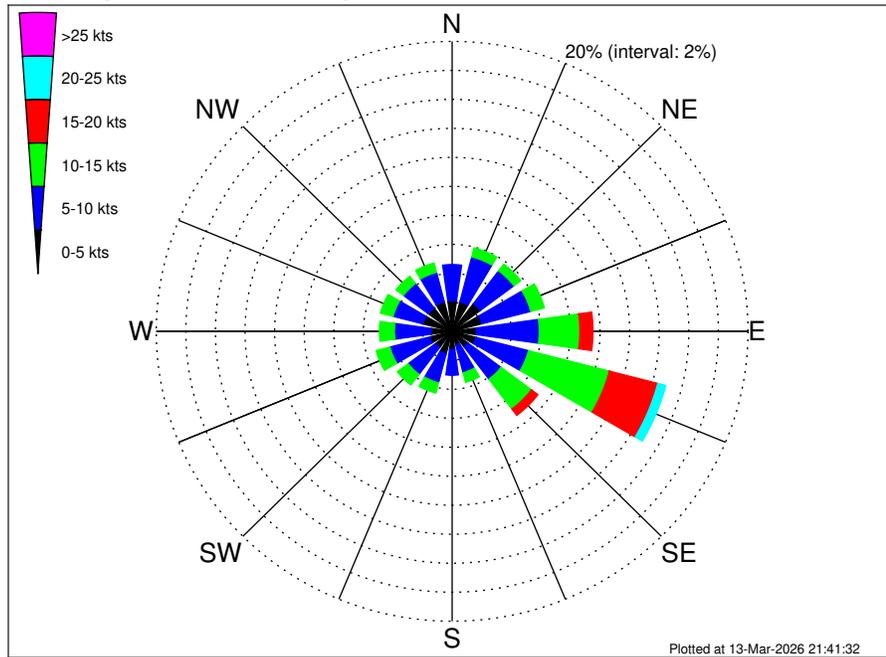
**Madagascar MBES Climatological WavePeriod Rose for March: 1979 - 2015**



**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	•	•	•	•	•	•	0.03
2 - 4 sec	0.62	0.95	1.21	1.61	7.92	6.93	1.33	0.81	0.52	0.47	1.12	0.95	0.29	0.47	0.48	0.60	26.27
4 - 6 sec	2.11	16.48	2.43	0.36	5.50	2.72	0.04	0.08	0.07	•	0.85	5.41	1.82	1.59	1.77	1.65	42.87
6 - 8 sec	4.03	17.26	0.43	0.07	•	•	•	0.03	•	•	1.18	1.78	0.59	0.42	1.34	0.94	28.06
8 - 10 sec	0.31	0.66	•	•	•	•	•	•	•	•	0.09	•	•	•	0.07	0.27	1.40
10 - 12 sec	•	0.01	•	•	•	•	•	•	•	•	0.20	•	•	•	•	•	0.21
12 - 14 sec	•	•	•	•	•	•	•	•	•	•	0.25	0.01	•	•	•	•	0.26
14 - 16 sec	•	•	•	•	•	•	•	•	•	•	0.59	•	•	•	•	•	0.59
18 - 20 sec	•	•	•	•	•	•	•	•	•	•	0.23	•	•	•	•	•	0.23
22 - 24 sec	•	•	•	•	•	•	•	•	•	•	0.08	•	•	•	•	•	0.08
Total	7.08	35.37	4.07	2.04	13.42	9.65	1.37	0.92	0.59	0.48	4.58	8.16	2.69	2.47	3.66	3.46	100.00

Madagascar MBES Climatological Wind Rose for March: 1979 - 2015



Joint Frequency Distribution Table

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total
calm	0.09	0.05	0.09	0.08	0.03	0.07	0.05	0.08	0.07	0.05	0.10	0.07	0.08	0.05	0.07	0.10	1.12
0 - 5 kts	2.02	2.04	2.29	2.00	1.61	1.61	1.29	0.90	1.20	1.55	1.30	1.50	1.34	1.98	1.95	1.99	26.56
5 - 10 kts	2.50	3.21	2.85	3.41	4.25	3.66	2.80	1.98	1.77	2.07	2.32	2.78	2.48	2.09	2.11	2.11	42.38
10 - 15 kts	0.38	0.64	0.57	0.95	2.74	5.65	2.58	0.68	0.46	0.73	0.91	0.96	1.01	0.88	0.62	0.66	20.42
15 - 20 kts	0.12	0.14	0.13	0.22	0.88	3.38	0.55	0.07	0.04	0.05	0.17	0.17	0.30	0.44	0.42	0.13	7.21
20 - 25 kts	0.05	0.12	0.09	0.04	0.08	0.56	0.03	•	0.04	•	0.05	0.08	0.03	0.13	0.23	0.04	1.56
25 - 30 kts	0.01	0.01	0.07	0.04	0.04	•	•	•	•	0.01	0.03	0.01	•	•	0.16	0.14	0.52
30 - 35 kts	0.01	0.01	0.03	•	•	•	0.01	•	0.03	•	•	•	•	•	•	0.09	0.18
35 - 40 kts	•	•	0.01	•	•	•	•	•	0.01	•	•	•	•	•	•	•	0.03
40 - 45 kts	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	0.01	0.01
45 - 50 kts	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	0.01	0.01
Total	5.18	6.23	6.13	6.74	9.64	14.92	7.30	3.69	3.60	4.46	4.88	5.57	5.24	5.58	5.55	5.29	100.00