

Madagascar MBES - November

Latitude: 14.97 S Longitude: 45.59 E

Weather Days

Wave Height > 5.0 ft Mean: 0.2 days Range: 0.0 - 0.5 days p50:30 days p75:1 days p90:0.5 days
Wave Height > 6.5 ft Mean: 0.0 days Range: 0.0 - 0.1 days p50:30 days p75:30 days p90:30 days
Wave Height > 8.0 ft Mean: 0.0 days Range: 0.0 - 0.0 days p50:30 days p75:30 days p90:30 days
Wind Speed > 15.0 knots Mean: 1.8 days Range: 0.7 - 3.0 days p50:2 days p75:1.5 days p90:1 days
Wind Speed > 20.0 knots Mean: 0.2 days Range: 0.0 - 0.5 days p50:0.5 days p75:0.5 days p90:0.5 days
Wind Speed > 25.0 knots Mean: 0.0 days Range: 0.0 - 0.0 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 1.2 times per month A 2 day or longer window will statistically occur 1.2 times per month A 3 day or longer window will statistically occur 1.1 times per month
Wave Height < 6.5 ft	A 1 day or longer window will statistically occur 0.9 times per month A 2 day or longer window will statistically occur 0.9 times per month A 3 day or longer window will statistically occur 0.9 times per month
Wave Height < 8.0 ft	A 1 day or longer window will statistically occur 0.9 times per month A 2 day or longer window will statistically occur 0.9 times per month A 3 day or longer window will statistically occur 0.9 times per month

Waves

Mean Height: 1 - 2 ft
The wave heights will occasionally reach 4 - 6 ft, but rarely higher.
Mean Period: 4 - 6 sec
The wave periods will occasionally reach 8 - 10 sec, but rarely longer.
Principle Direction, from: NNE
WindSea/Swell: 21% / 79%

Winds

Mean Speed: 5 - 10 kts
The winds will occasionally reach 20 - 25 kts, but rarely greater.
Principle Direction, from: NW

Currents

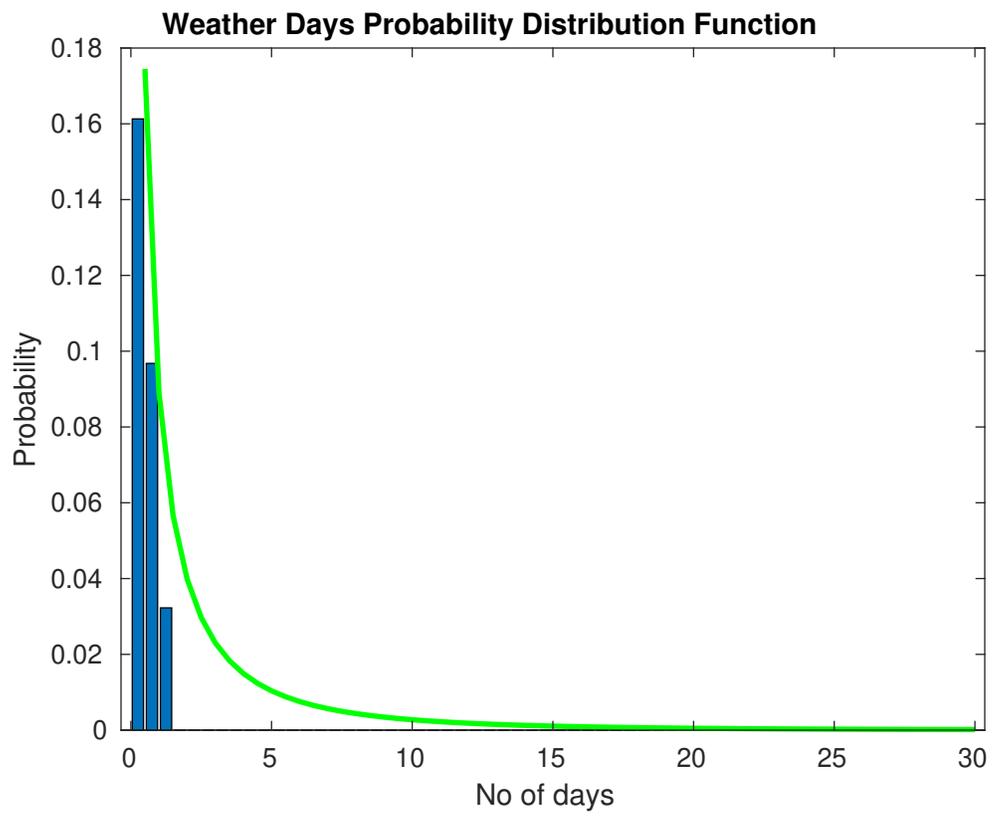
Mean Speed: 0.50-0.75 kts
The currents will occasionally reach 1.75-2.00 kts, but rarely greater.
Principle Direction, to: SE

Weather Days

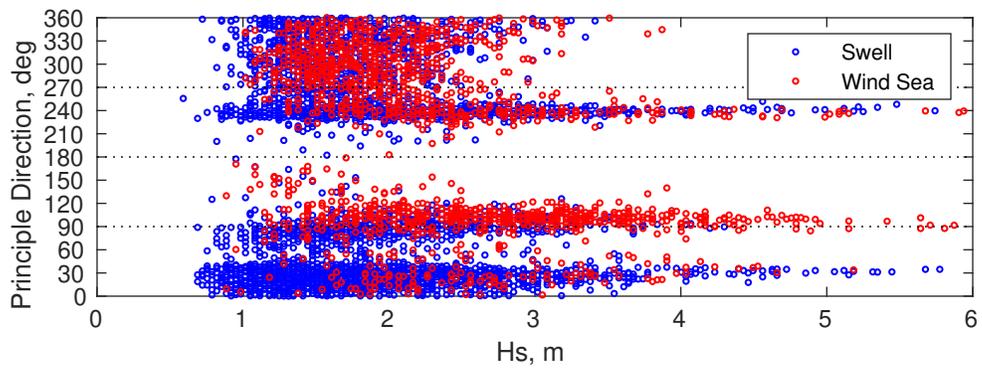
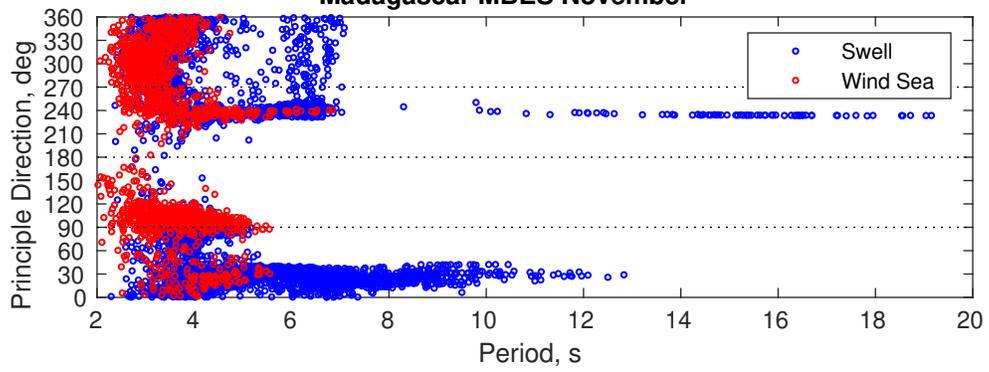
Current Speed > 0.5 knots Mean: 17.5 days Range: 8.8 - 26.2 days p50:21 days p75:12 days p90:4 days
Current Speed > 1.0 knots Mean: 4.1 days Range: 0.0 - 10.2 days p50:2 days p75:1 days p90:1 days
Current Speed > 1.5 knots Mean: 0.9 days Range: 0.0 - 3.0 days p50:1 days p75:1 days p90:1 days

Severe Storms

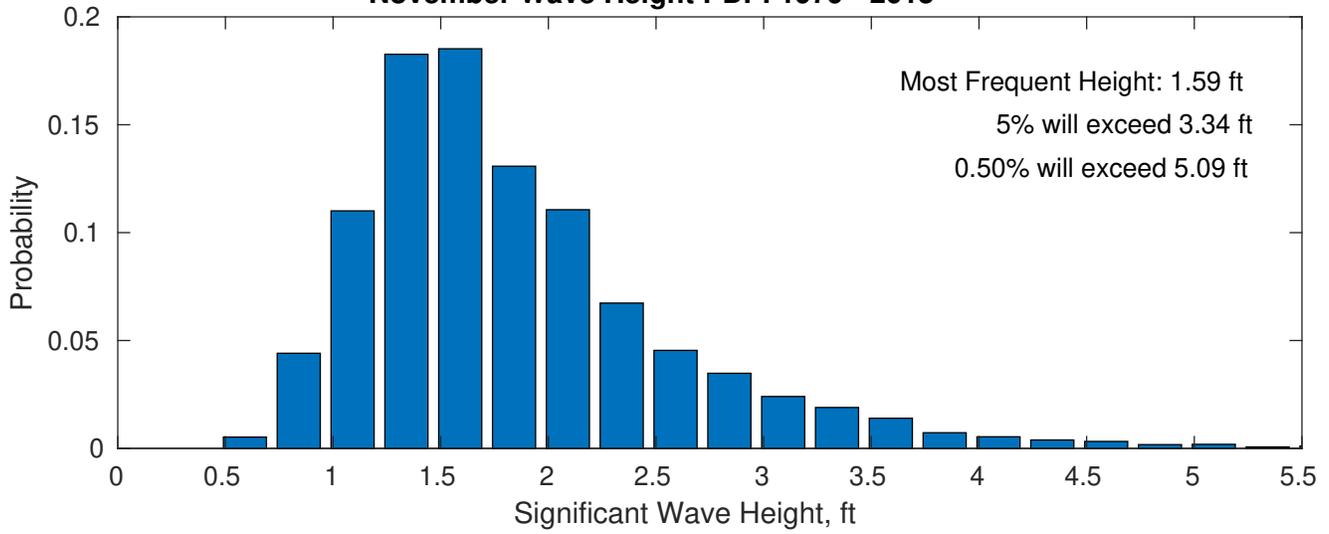
Severe storms with gale force winds and extreme waves are not expected during this month.



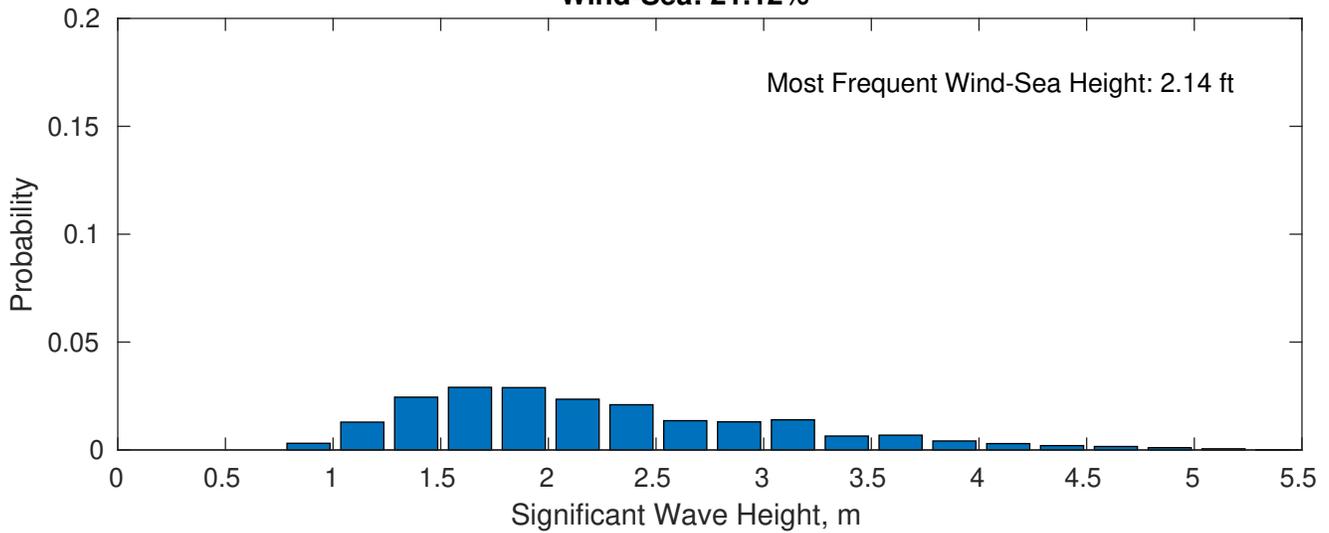
Madagascar MBES November



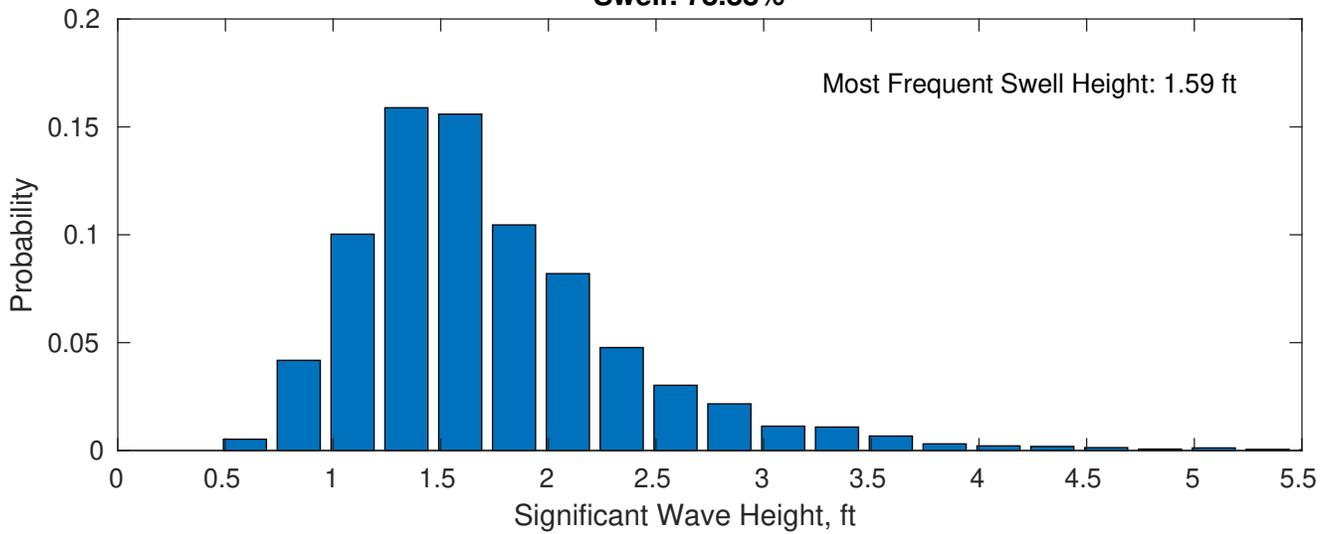
November Wave Height PDF: 1979 - 2015



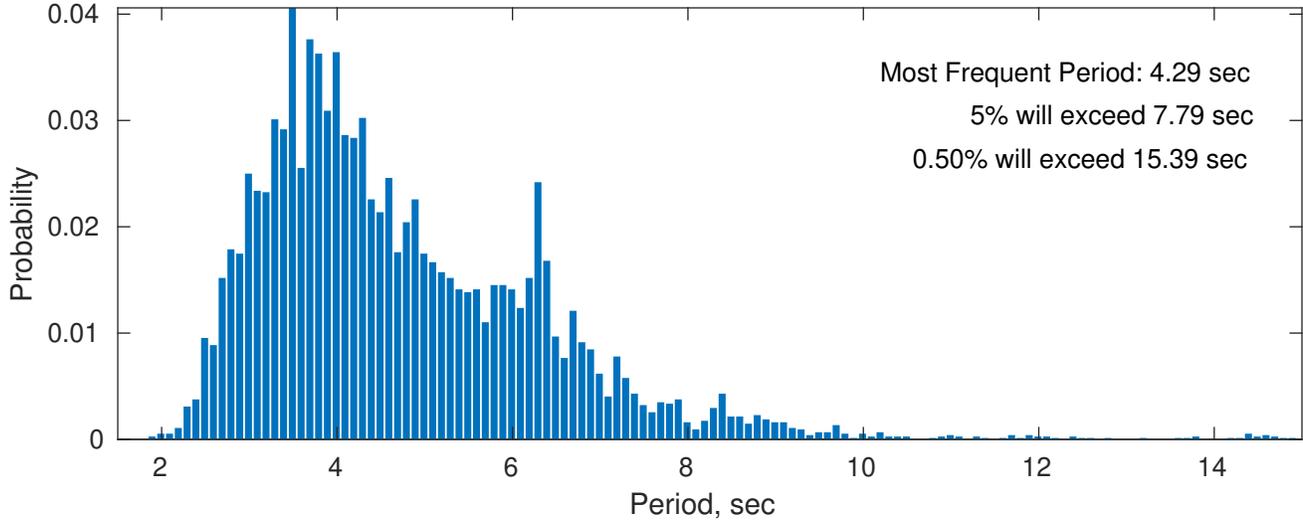
Wind-Sea: 21.12%



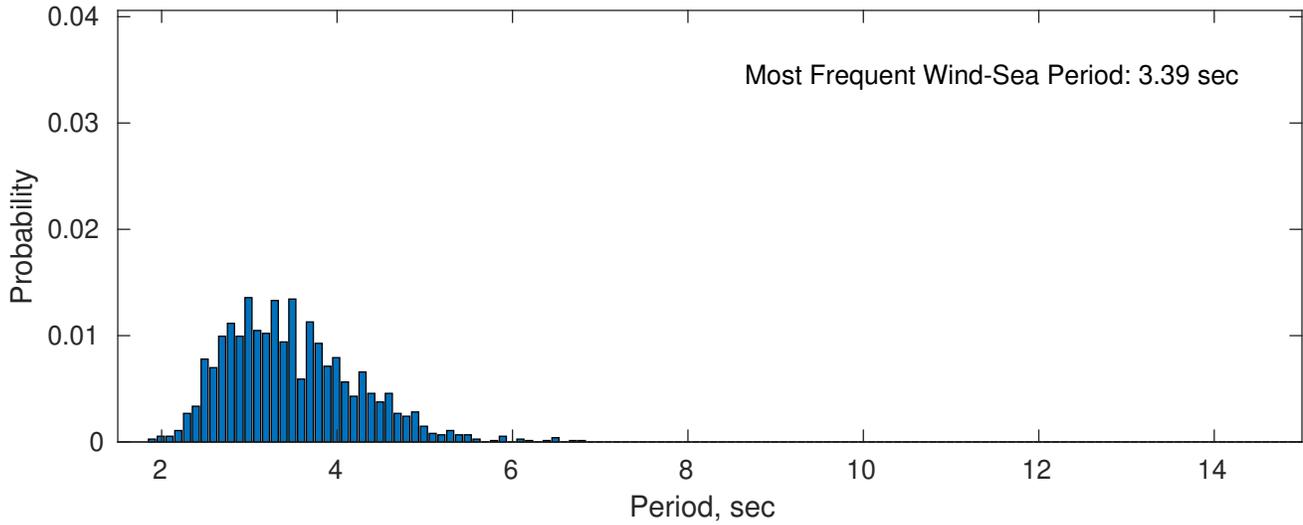
Swell: 78.88%



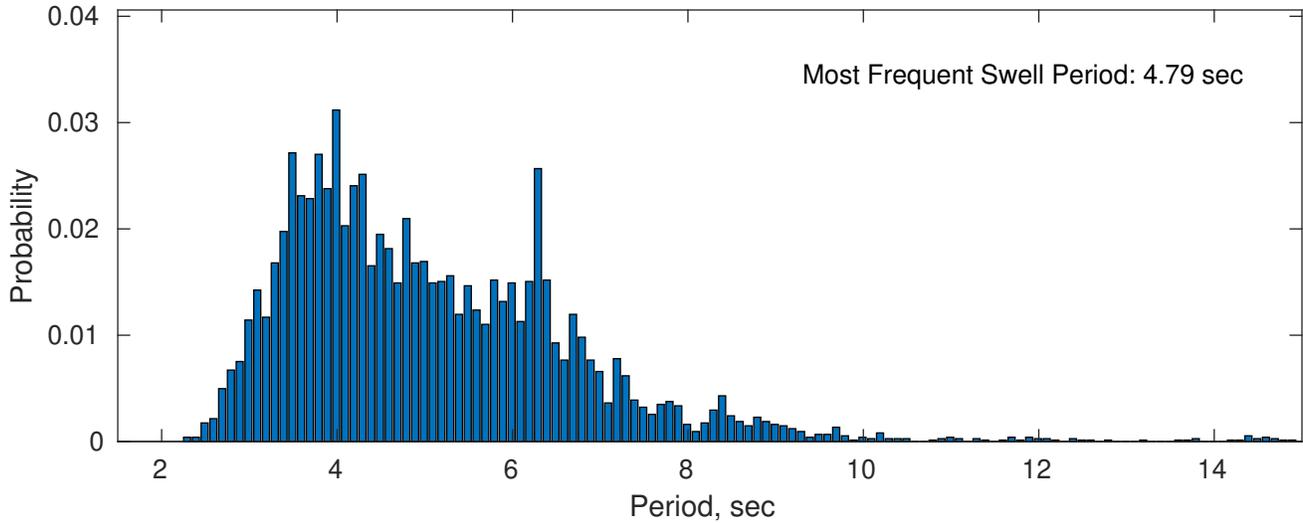
November Peak Wave Period PDF: 1979 - 2015



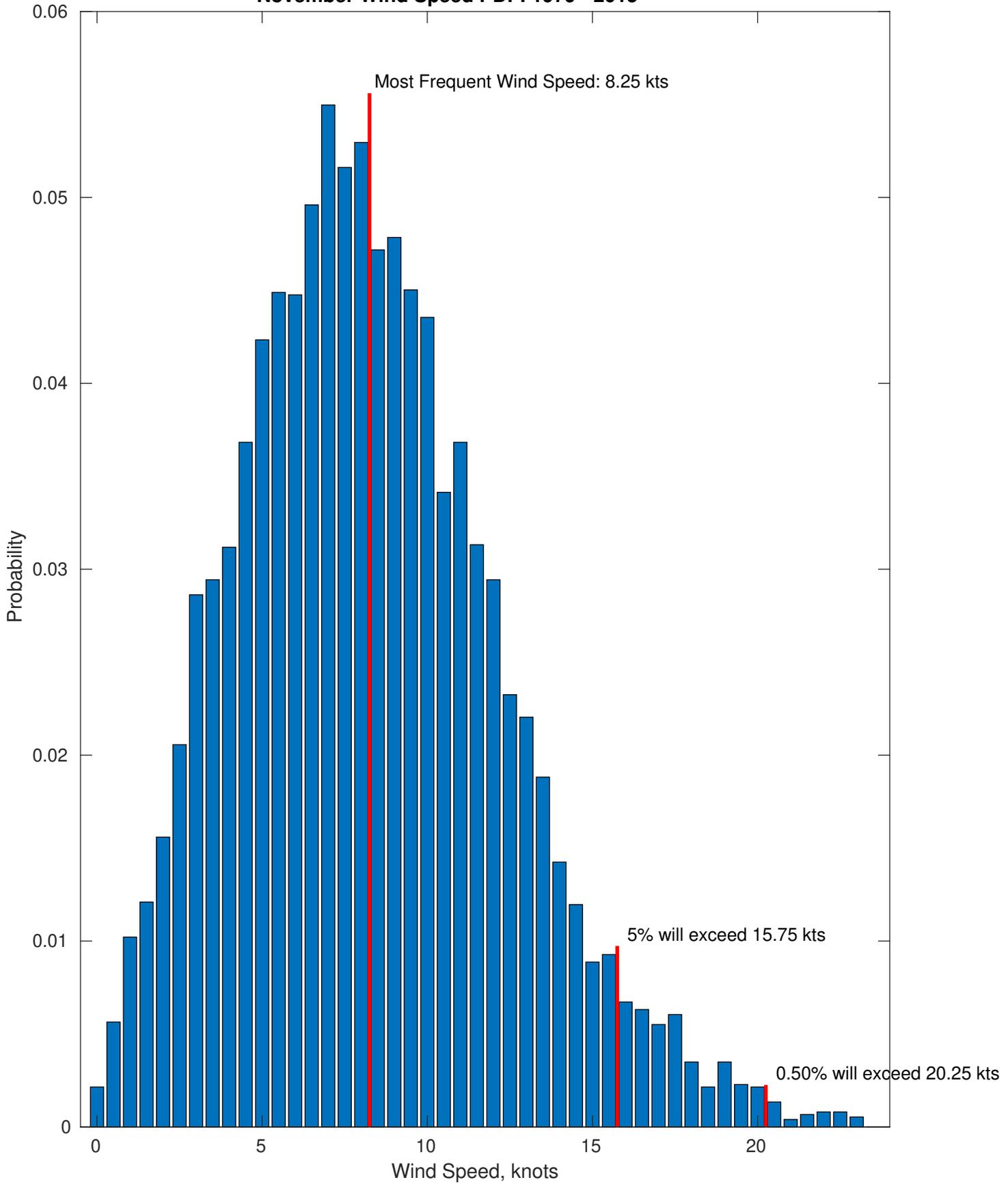
Wind-Sea: 21.12%



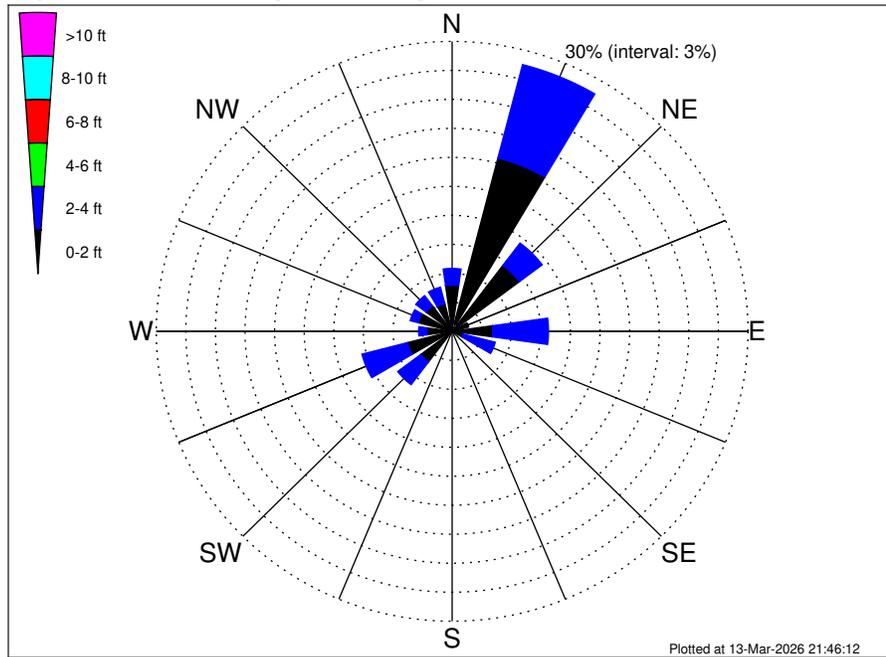
Swell: 78.88%



November Wind Speed PDF: 1979 - 2015



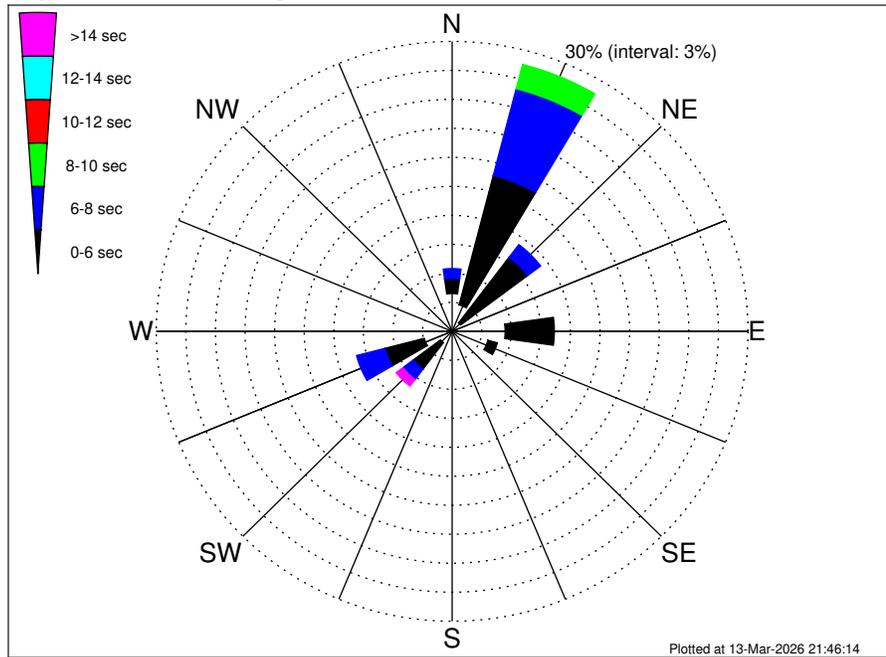
Madagascar MBES Climatological WaveHeight Rose for November: 1979 - 2015



Joint Frequency Distribution Table

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total
calm	0.28	0.79	0.38	0.12	0.09	•	0.03	•	0.03	0.01	0.40	0.15	0.03	0.05	0.08	0.07	2.51
1 - 2 ft	4.50	17.73	8.16	1.61	4.02	1.16	0.32	0.26	0.04	0.15	3.59	4.54	2.54	3.48	3.23	2.88	58.20
2 - 4 ft	1.72	9.99	2.90	0.51	5.66	3.36	0.15	0.01	0.01	0.15	2.92	4.76	0.83	0.86	1.32	1.77	36.92
4 - 6 ft	•	0.42	0.22	0.01	0.59	0.22	•	•	•	•	0.19	0.60	•	•	•	•	2.24
6 - 8 ft	•	•	•	•	•	•	•	•	•	•	•	0.12	•	•	•	•	0.12
8 - 10 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
10 - 12 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
12 - 14 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
14 - 16 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
16 - 18 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
> 18 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Total	6.51	28.92	11.65	2.26	10.36	4.73	0.50	0.27	0.08	0.31	7.10	10.17	3.40	4.40	4.62	4.72	100.00

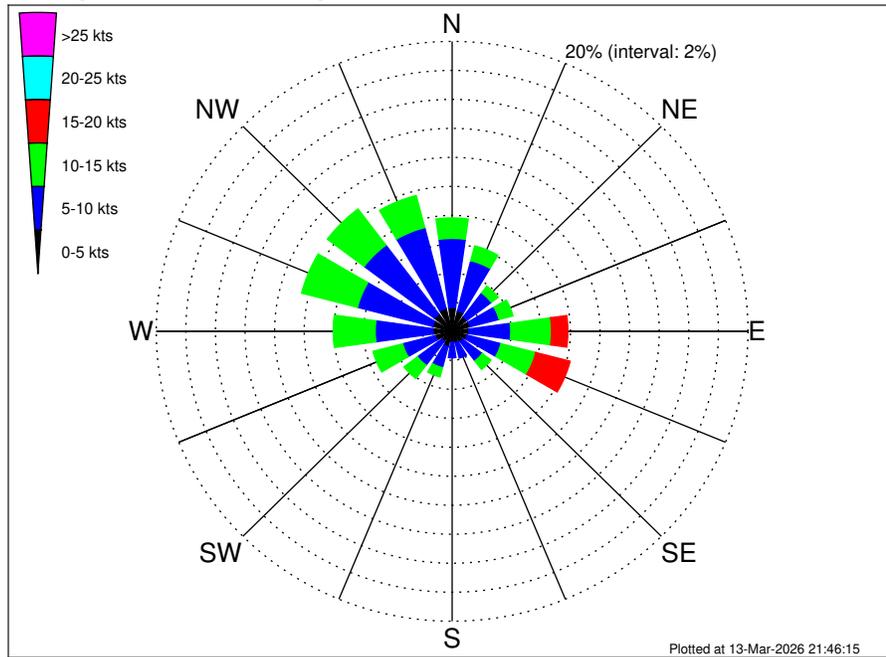
Madagascar MBES Climatological WavePeriod Rose for November: 1979 - 2015



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	3.90	2.82	1.09	1.81	5.38	3.74	0.46	0.26	0.07	0.28	1.48	2.92	2.90	3.95	3.95	3.82	38.82
4 - 6 sec	1.57	13.84	8.49	0.44	4.99	0.99	0.04	0.01	•	0.03	3.44	4.11	0.27	0.17	0.38	0.56	39.35
6 - 8 sec	1.01	9.26	1.65	•	•	•	•	•	•	•	1.22	2.98	0.23	0.27	0.30	0.34	17.26
8 - 10 sec	0.01	2.59	0.38	•	•	•	•	•	•	•	•	0.04	•	•	•	•	3.02
10 - 12 sec	•	0.36	0.04	•	•	•	•	•	•	•	0.03	0.05	•	•	•	•	0.48
12 - 14 sec	•	0.04	•	•	•	•	•	•	•	•	0.09	0.07	•	•	•	•	0.20
14 - 16 sec	•	•	•	•	•	•	•	•	•	•	0.48	•	•	•	•	•	0.48
18 - 20 sec	•	•	•	•	•	•	•	•	•	•	0.27	•	•	•	•	•	0.27
22 - 24 sec	•	•	•	•	•	•	•	•	•	•	0.08	•	•	•	•	•	0.08
Total	6.51	28.92	11.65	2.26	10.36	4.73	0.50	0.27	0.08	0.31	7.10	10.17	3.40	4.40	4.62	4.72	100.00

Madagascar MBES Climatological Wind Rose for November: 1979 - 2015



Joint Frequency Distribution Table

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total
calm	0.04	0.03	0.07	0.03	0.05	0.05	0.07	0.08	0.04	0.04	0.07	0.03	0.03	0.09	0.04	0.03	0.78
0 - 5 kts	1.60	1.44	1.20	1.24	1.09	0.99	0.85	0.73	0.71	1.06	0.81	1.14	1.28	1.26	1.45	1.61	18.45
5 - 10 kts	4.77	3.58	2.06	2.02	2.82	2.37	1.64	1.10	1.08	1.49	2.06	2.28	3.90	5.26	5.95	5.75	48.12
10 - 15 kts	1.41	1.05	0.58	0.97	2.76	2.43	0.74	0.34	0.28	0.66	1.14	2.07	2.84	3.90	3.12	2.28	26.56
15 - 20 kts	0.07	0.08	0.09	0.11	1.10	2.39	0.12	•	0.01	0.15	0.23	0.43	0.26	0.11	0.17	0.09	5.42
20 - 25 kts	•	•	0.01	0.01	0.05	0.47	0.01	•	•	0.04	0.03	0.03	0.01	•	•	•	0.67
25 - 30 kts	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
30 - 35 kts	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
35 - 40 kts	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
40 - 45 kts	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
45 - 50 kts	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Total	7.89	6.17	4.01	4.37	7.88	8.71	3.43	2.24	2.12	3.44	4.33	5.98	8.31	10.62	10.74	9.77	100.00