

Madagascar MBES - February

Latitude: 14.97 S Longitude: 45.59 E

Weather Days

Wave Height > 5.0 ft Mean: 3.2 days Range: 0.0 - 6.4 days p50:5 days p75:2 days p90:1.5 days
Wave Height > 6.5 ft Mean: 1.7 days Range: 0.0 - 4.1 days p50:6.5 days p75:1.5 days p90:1 days
Wave Height > 8.0 ft Mean: 1.1 days Range: 0.0 - 2.7 days p50:6 days p75:1 days p90:1 days

Wind Speed > 15.0 knots Mean: 3.7 days Range: 0.5 - 7.0 days p50:3 days p75:1 days p90:0.5 days
Wind Speed > 20.0 knots Mean: 1.4 days Range: 0.0 - 3.1 days p50:1 days p75:0.5 days p90:0.5 days
Wind Speed > 25.0 knots Mean: 0.4 days Range: 0.0 - 1.2 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 1.7 times per month A 2 day or longer window will statistically occur 1.5 times per month A 3 day or longer window will statistically occur 1.4 times per month
Wave Height < 6.5 ft	A 1 day or longer window will statistically occur 1.1 times per month A 2 day or longer window will statistically occur 1.0 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 0.8 times per month

Waves

Mean Height: 2 - 4 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: NNE
WindSea/Swell: 18% / 82%

Winds

Mean Speed: 5 - 10 kts
The winds will occasionally reach 25 - 30 kts, but rarely greater.

Principle Direction, from: WNW

Currents

Mean Speed: 0.50-0.75 kts
The currents will occasionally reach 1.50-1.75 kts, but rarely greater.

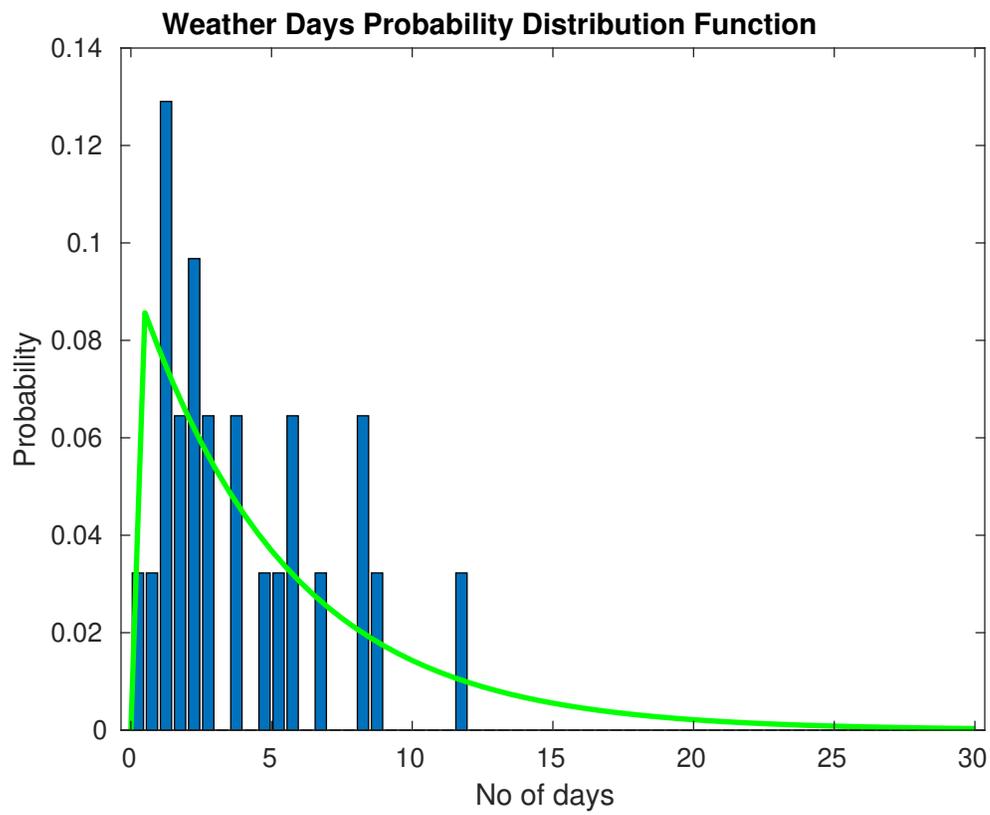
Principle Direction, to: ENE

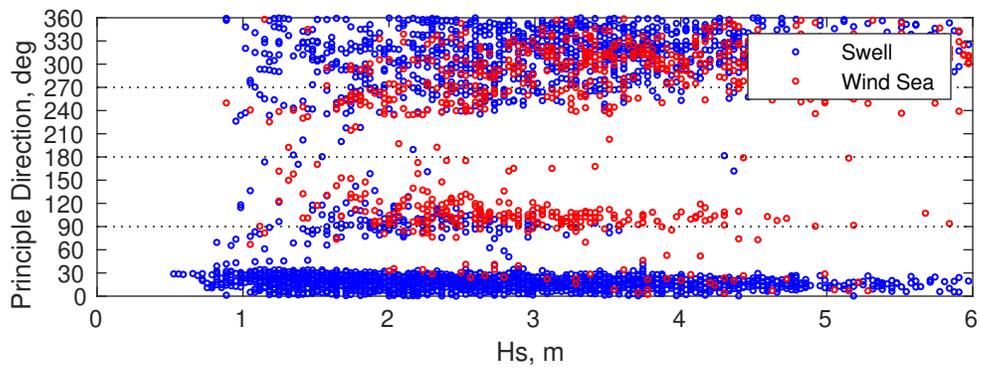
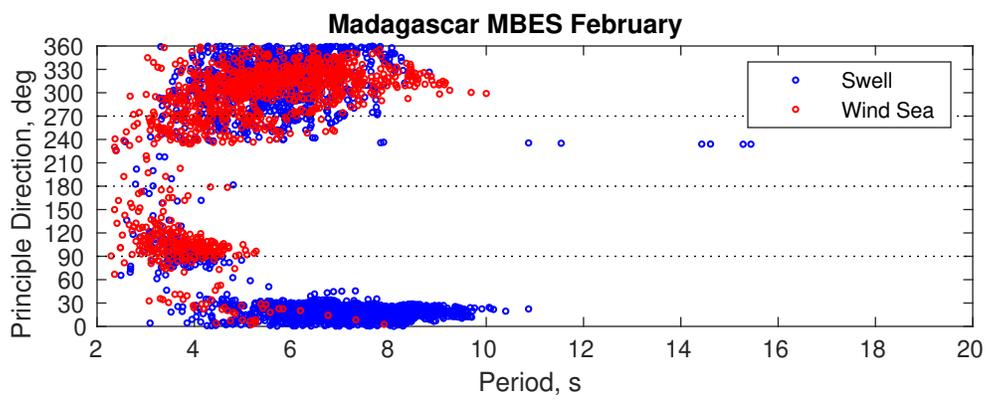
Weather Days

Current Speed > 0.5 knots Mean: 19.5 days Range: 12.6 - 26.4 days p50:21 days p75:16 days p90:9 days
Current Speed > 1.0 knots Mean: 4.6 days Range: 0.0 - 9.9 days p50:4 days p75:1 days p90:1 days
Current Speed > 1.5 knots Mean: 0.7 days Range: 0.0 - 2.2 days p50:1 days p75:1 days p90:1 days

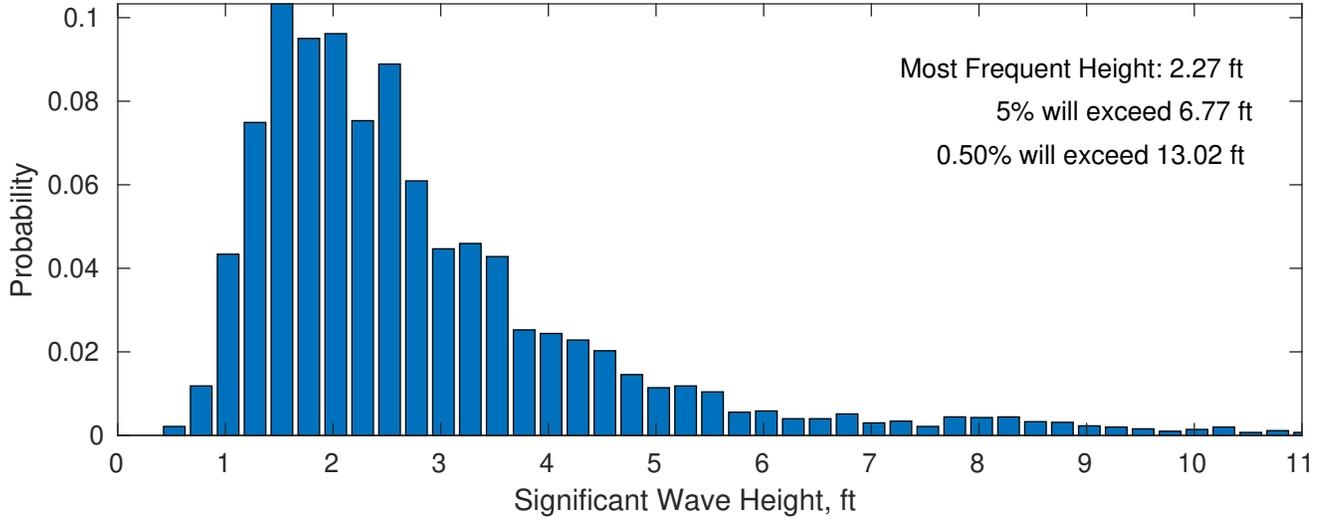
Severe Storms

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

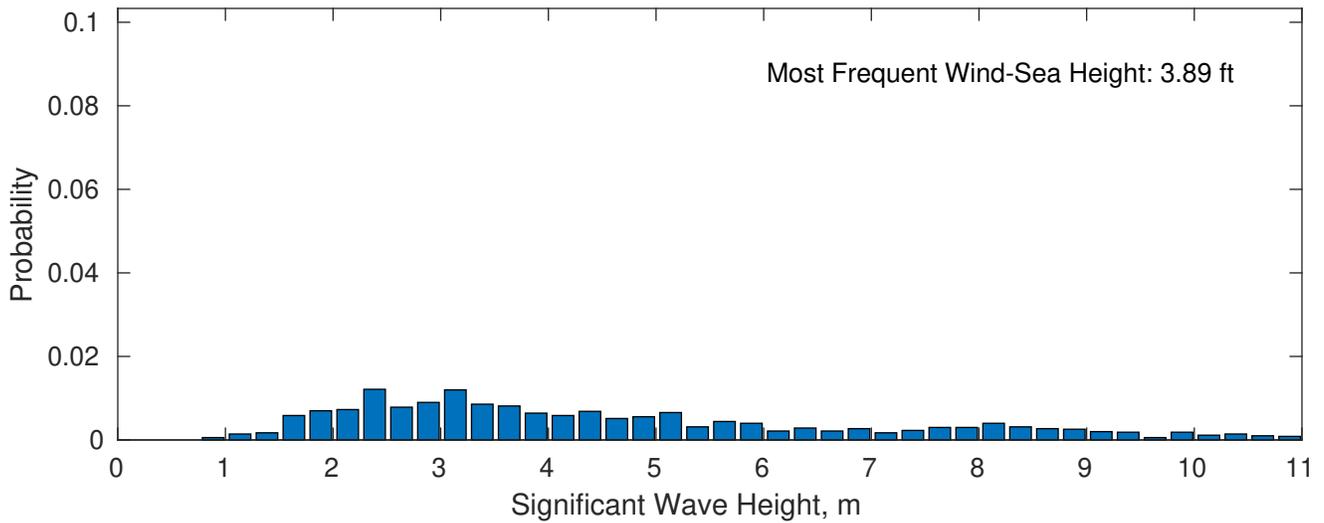




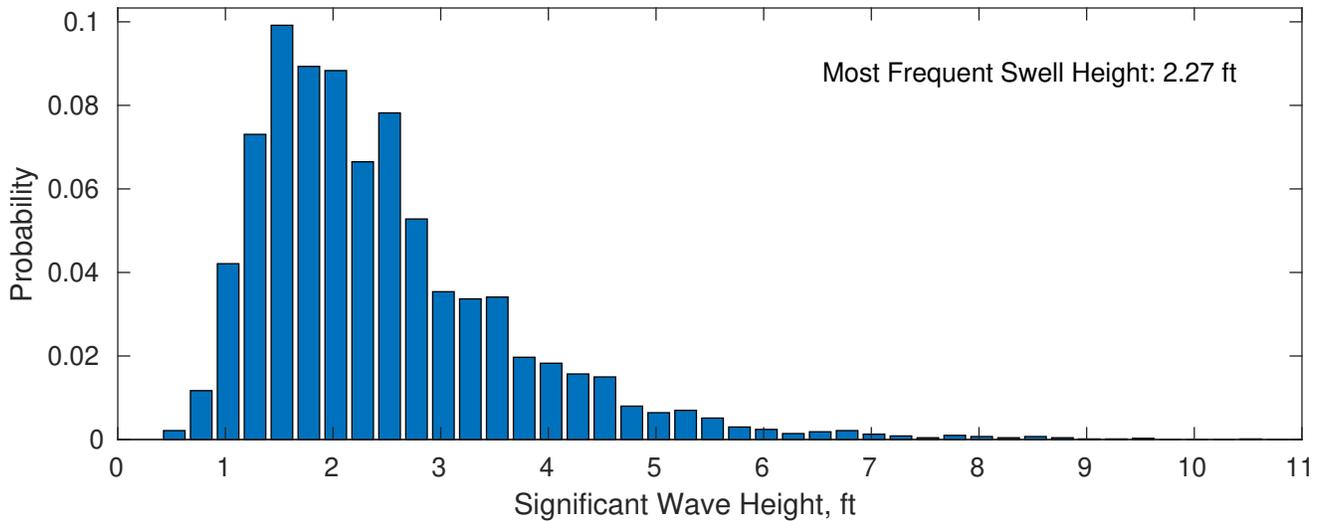
February Wave Height PDF: 1979 - 2015



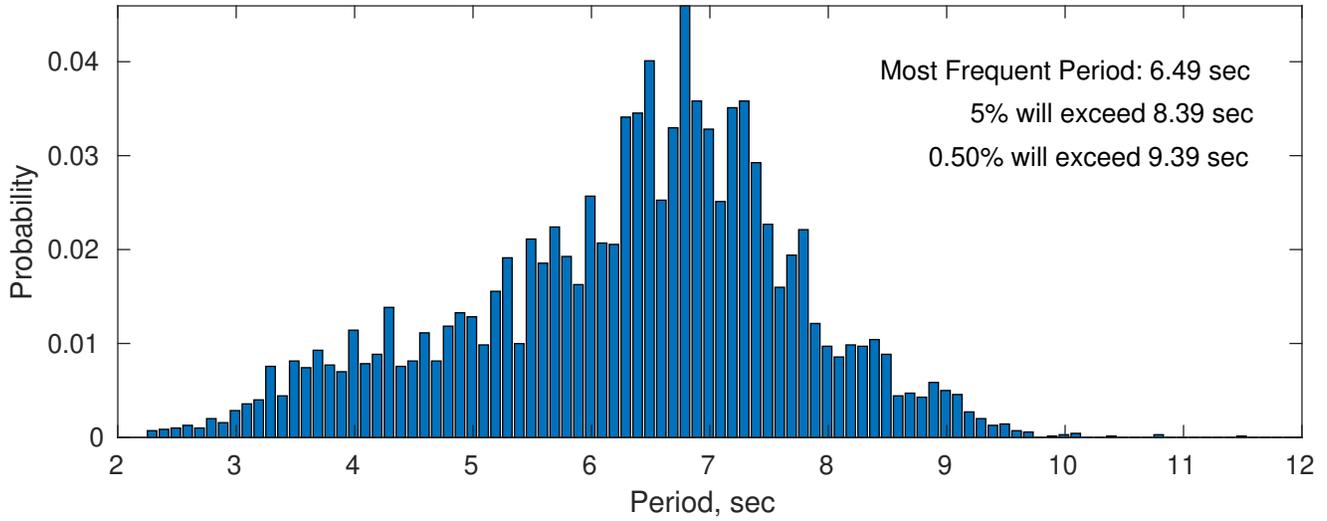
Wind-Sea: 18.08%



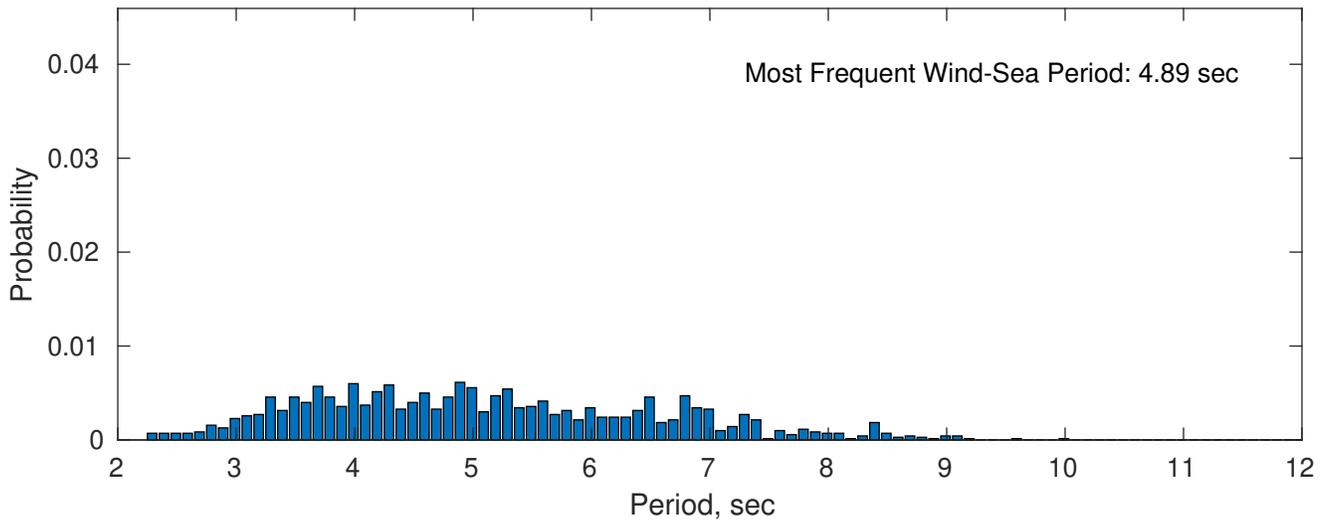
Swell: 81.92%



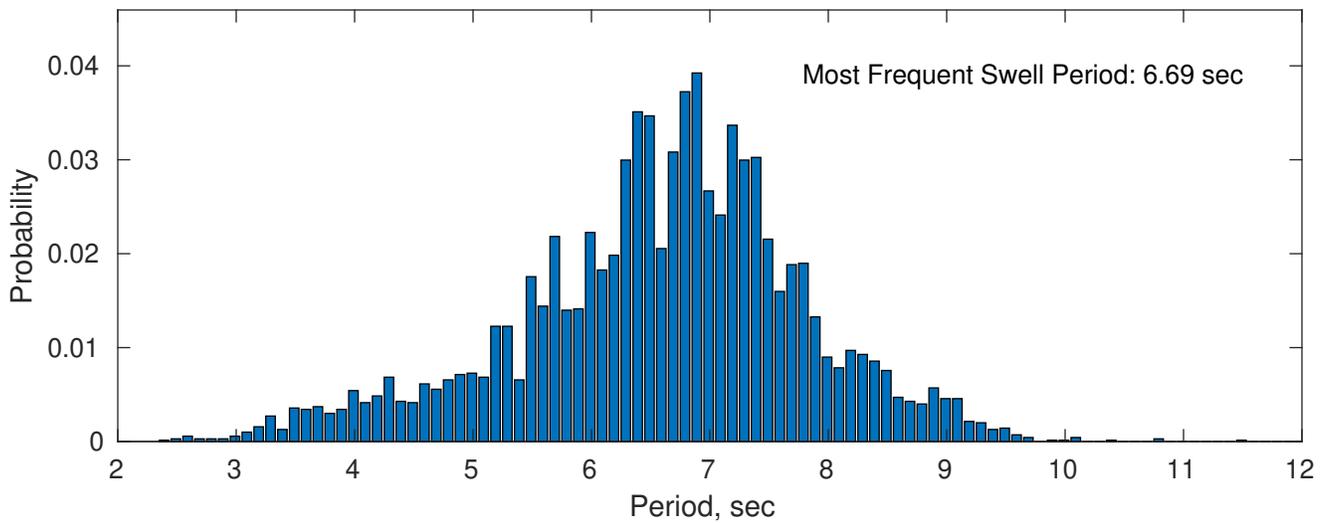
February Peak Wave Period PDF: 1979 - 2015



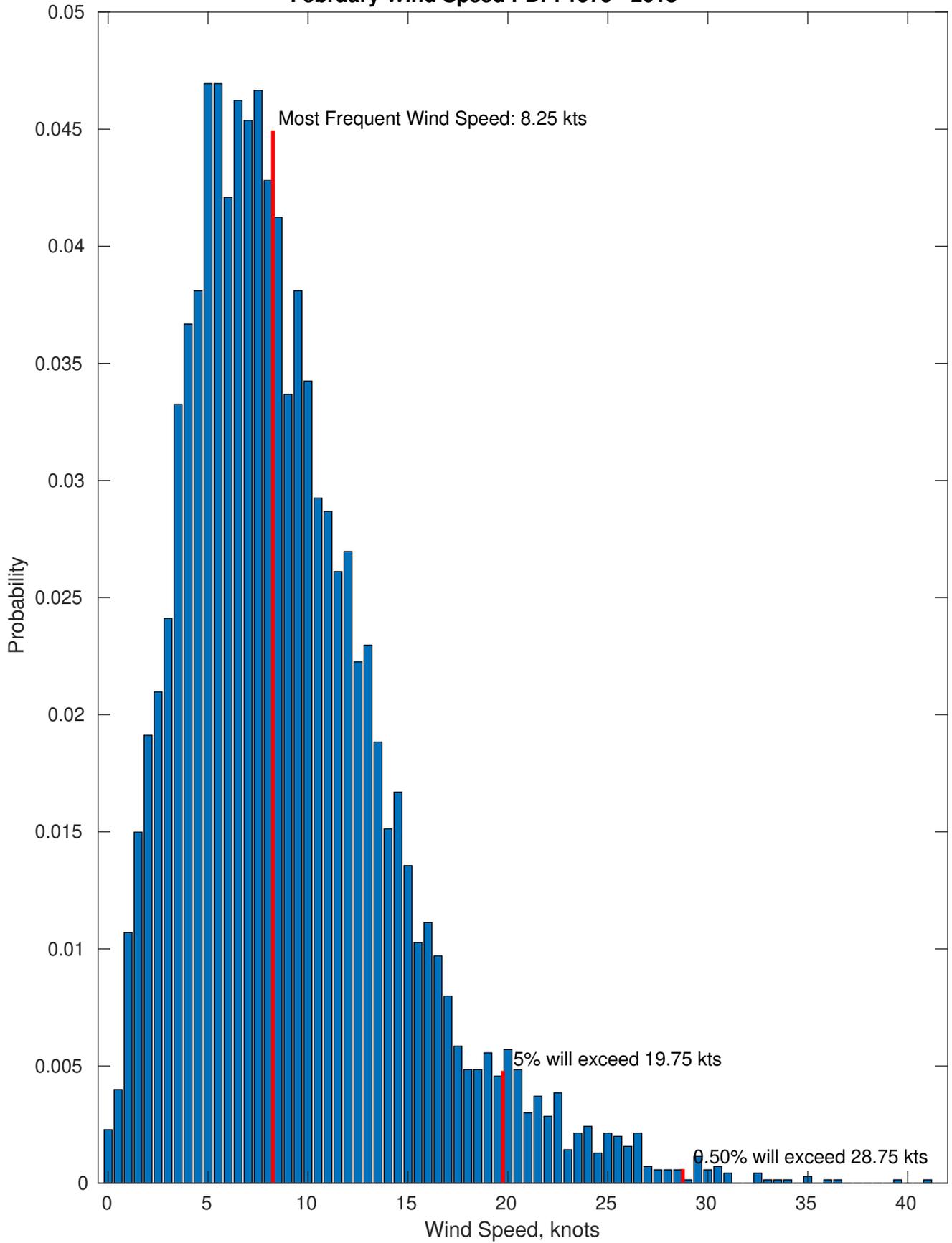
Wind-Sea: 18.08%



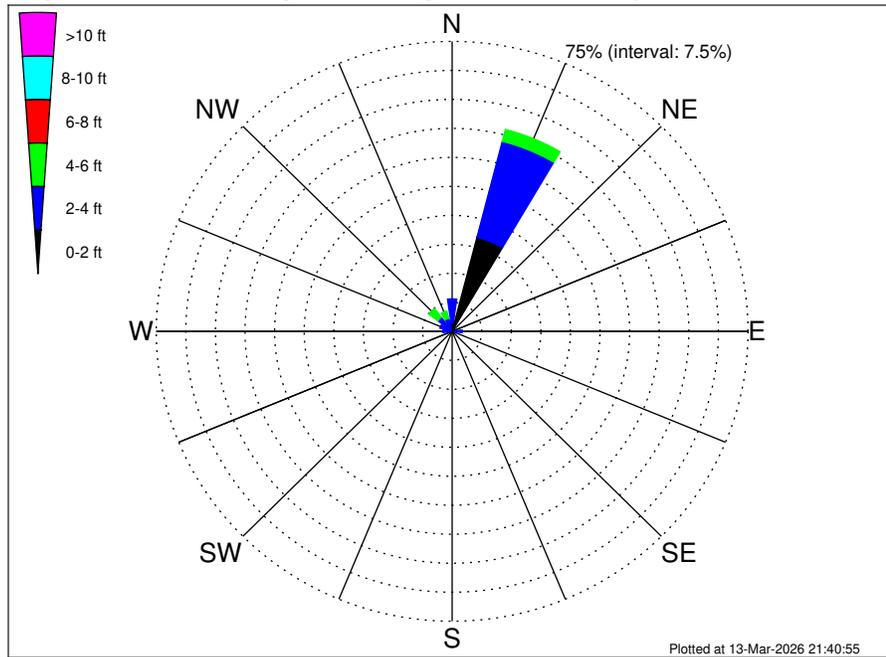
Swell: 81.92%



February Wind Speed PDF: 1979 - 2015



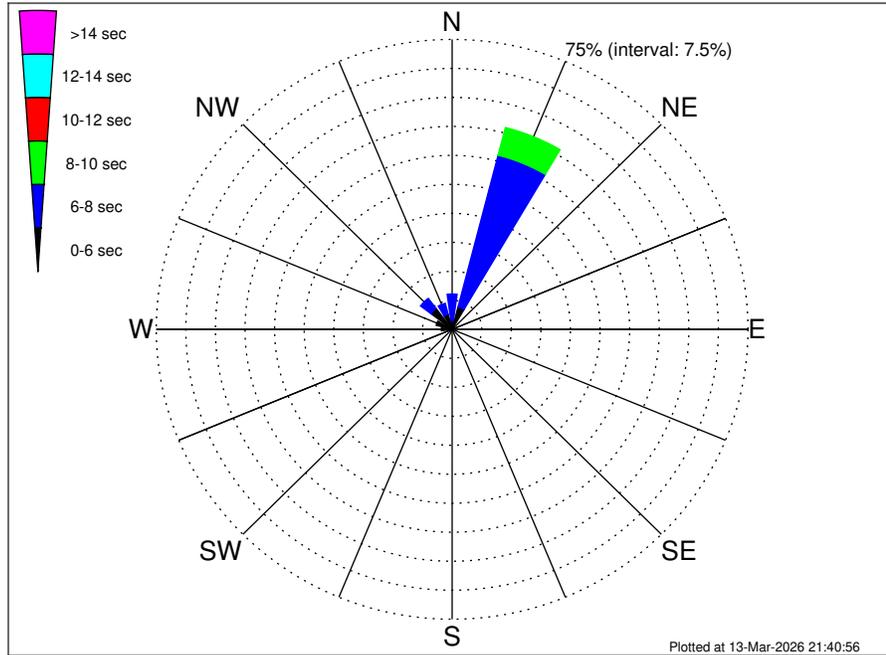
Madagascar MBES Climatological WaveHeight Rose for February: 1979 - 2015



Joint Frequency Distribution Table

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total
calm	0.09	0.97	0.04	0.04	•	0.03	•	•	•	•	0.04	0.01	•	•	•	•	1.23
1 - 2 ft	2.03	24.17	0.17	0.16	0.61	0.31	0.17	0.10	0.07	0.04	0.16	0.57	0.37	0.60	0.60	0.47	30.61
2 - 4 ft	6.28	25.64	0.24	0.13	1.94	1.53	0.19	0.10	0.06	0.04	0.11	1.13	1.95	2.60	3.97	2.97	48.87
4 - 6 ft	1.41	3.14	0.01	0.03	0.14	0.16	•	0.01	0.04	•	0.01	0.23	0.81	1.57	2.81	1.98	12.37
6 - 8 ft	0.31	0.09	•	•	0.01	0.01	•	•	•	•	•	0.06	0.20	0.21	1.37	1.00	3.27
8 - 10 ft	0.11	•	•	•	•	•	•	•	•	•	•	0.06	0.17	0.49	0.86	0.54	2.23
10 - 12 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	0.19	0.50	0.13	0.81
12 - 14 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	0.01	0.13	0.10	0.24
14 - 16 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	0.01	0.21	0.03	0.26
16 - 18 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	0.03	0.07	•	0.10
> 18 ft	•	•	•	•	•	•	•	•	•	•	•	•	•	0.01	•	•	0.01
Total	10.23	54.01	0.47	0.36	2.71	2.04	0.36	0.21	0.17	0.09	0.33	2.05	3.51	5.72	10.52	7.22	100.00

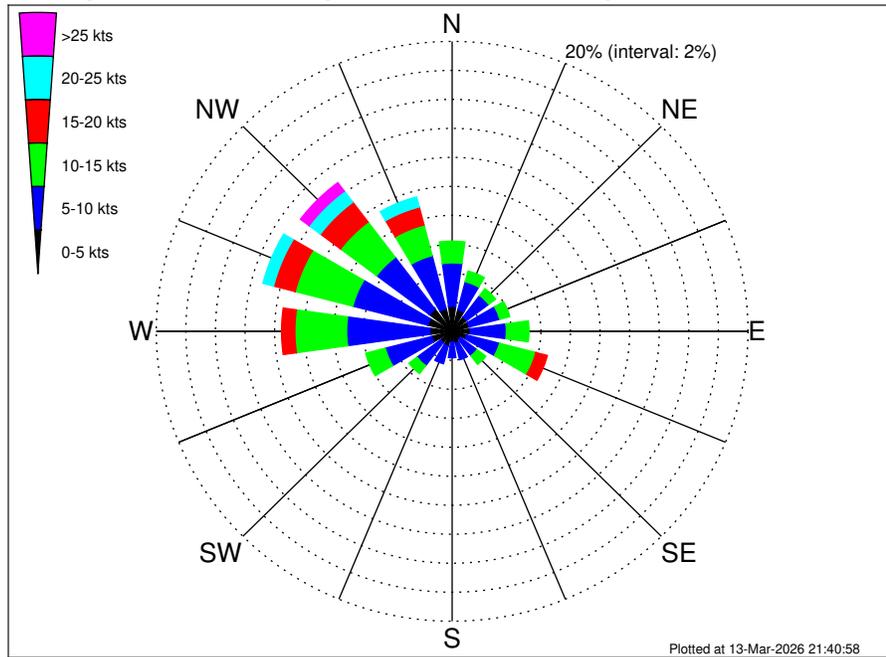
Madagascar MBES Climatological WavePeriod Rose for February: 1979 - 2015



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	0.09	0.11	0.10	0.27	1.61	1.60	0.36	0.20	0.13	0.09	0.20	0.68	0.57	0.68	0.29	0.21	7.19
4 - 6 sec	2.11	5.84	0.14	0.09	1.10	0.44	•	0.01	0.04	•	0.03	1.21	2.17	3.51	6.44	3.81	26.94
6 - 8 sec	6.93	40.58	0.23	•	•	•	•	•	•	•	0.01	0.16	0.77	1.46	3.31	2.93	56.38
8 - 10 sec	1.10	7.39	•	•	•	•	•	•	•	•	•	•	•	0.07	0.49	0.27	9.32
10 - 12 sec	•	0.09	•	•	•	•	•	•	•	•	0.03	•	•	•	•	•	0.11
12 - 14 sec	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
14 - 16 sec	•	•	•	•	•	•	•	•	•	•	0.06	•	•	•	•	•	0.06
18 - 20 sec	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
22 - 24 sec	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Total	10.23	54.01	0.47	0.36	2.71	2.04	0.36	0.21	0.17	0.09	0.33	2.05	3.51	5.72	10.52	7.22	100.00

Madagascar MBES Climatological Wind Rose for February: 1979 - 2015



Joint Frequency Distribution Table

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total
calm	0.03	0.03	0.04	0.03	0.07	0.01	0.03	0.03	0.07	0.04	0.01	0.04	0.07	0.03	0.03	0.06	0.63
0 - 5 kts	1.70	1.51	1.18	1.17	1.16	1.00	0.67	0.84	0.67	1.00	0.97	1.38	1.43	1.67	1.88	1.56	19.79
5 - 10 kts	3.00	2.00	1.87	2.13	2.44	2.30	1.41	1.16	1.08	1.27	1.98	3.24	5.64	5.24	4.48	3.78	43.01
10 - 15 kts	1.50	0.76	0.59	0.70	1.53	2.54	0.74	0.37	0.24	0.34	0.68	1.37	3.50	4.02	3.05	2.18	24.12
15 - 20 kts	0.49	0.23	0.13	0.07	0.17	0.80	0.10	0.03	0.03	•	0.04	0.34	0.90	1.51	1.71	1.28	7.83
20 - 25 kts	0.09	0.01	•	0.01	•	0.09	•	0.01	0.04	0.01	0.01	0.10	0.33	0.74	0.96	0.71	3.12
25 - 30 kts	0.06	•	•	•	0.01	0.01	•	•	•	•	•	0.01	0.06	0.23	0.51	0.26	1.16
30 - 35 kts	•	•	•	•	•	•	•	•	•	•	•	•	0.03	0.04	0.17	0.01	0.26
35 - 40 kts	•	•	•	•	•	•	•	•	•	•	•	•	•	•	0.04	0.03	0.07
40 - 45 kts	•	•	•	•	•	•	•	•	•	•	•	•	•	0.01	•	•	0.01
45 - 50 kts	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Total	6.85	4.54	3.81	4.11	5.38	6.75	2.95	2.44	2.14	2.67	3.71	6.49	11.94	13.50	12.84	9.87	100.00