

## Liberia MBES - June

Latitude: 4.50 N Longitude: 9.00 W

### Weather Days

Wave Height > 4.0 ft Mean: 13.1 days Range: 12.6 - 13.7 days p50:30 days p75:30 days p90:29 days  
Wave Height > 5.0 ft Mean: 4.7 days Range: 1.0 - 8.5 days p50:24.5 days p75:23 days p90:20.5 days  
Wave Height > 6.0 ft Mean: 0.8 days Range: 0.0 - 5.1 days p50:13 days p75:10 days p90:8 days  
  
Wind Speed > 10.0 knots Mean: 13.0 days Range: 8.2 - 17.9 days p50:13 days p75:9.5 days p90:6.5 days  
Wind Speed > 15.0 knots Mean: 0.8 days Range: 0.1 - 1.4 days p50:1 days p75:0.5 days p90:0.5 days  
Wind Speed > 20.0 knots Mean: 0.0 days Range: 0.0 - 0.1 days p50:0.5 days p75:0.5 days p90:0.5 days

### Working Window

|                      |                                                                                                                                                                                                                         |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Wave Height < 4.0 ft | A 1 day or longer window will statistically occur 0.1 times per month<br>A 2 day or longer window will statistically occur 0.0 times per month<br>A 3 day or longer window will statistically occur 0.0 times per month |
| Wave Height < 5.0 ft | A 1 day or longer window will statistically occur 1.6 times per month<br>A 2 day or longer window will statistically occur 0.9 times per month<br>A 3 day or longer window will statistically occur 0.5 times per month |
| Wave Height < 6.0 ft | A 1 day or longer window will statistically occur 3.6 times per month<br>A 2 day or longer window will statistically occur 2.6 times per month<br>A 3 day or longer window will statistically occur 1.9 times per month |

### Waves

Mean Height: 4 - 6 ft  
The wave heights will occasionally reach 8 - 10 ft, but rarely higher.  
Mean Period: 12 - 14 sec  
The wave periods will occasionally reach 22 - 24 sec, but rarely longer.  
Principle Direction, from: SSW  
WindSea/Swell: 0% / 100%

### Winds

Mean Speed: 5 - 10 kts  
The winds will occasionally reach 15 - 20 kts, but rarely greater.  
Principle Direction, from: S

### Currents

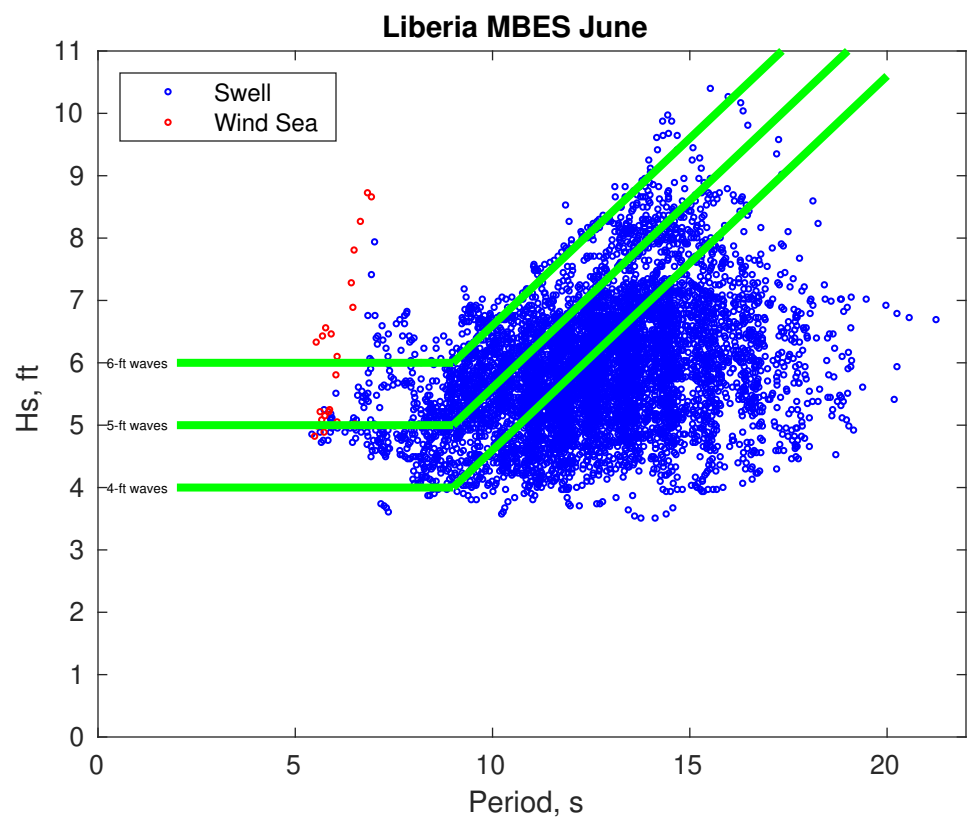
Mean Speed: 0.50-0.75 kts  
The currents will occasionally reach 1.75-2.00 kts, but rarely greater.  
Principle Direction, to: ESE

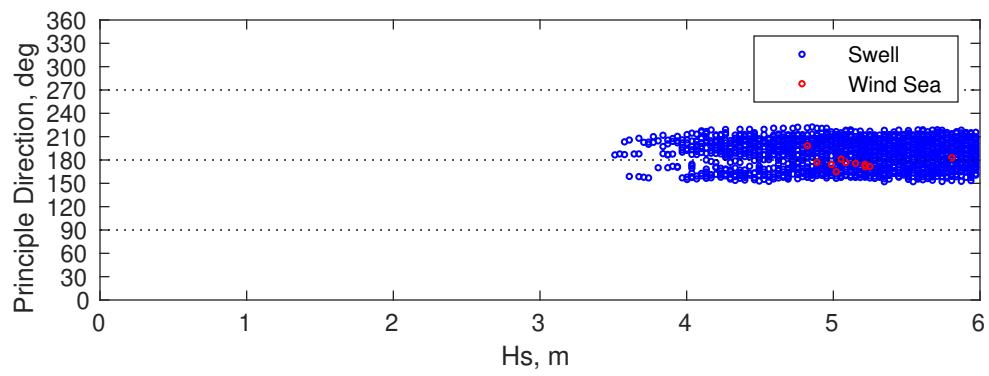
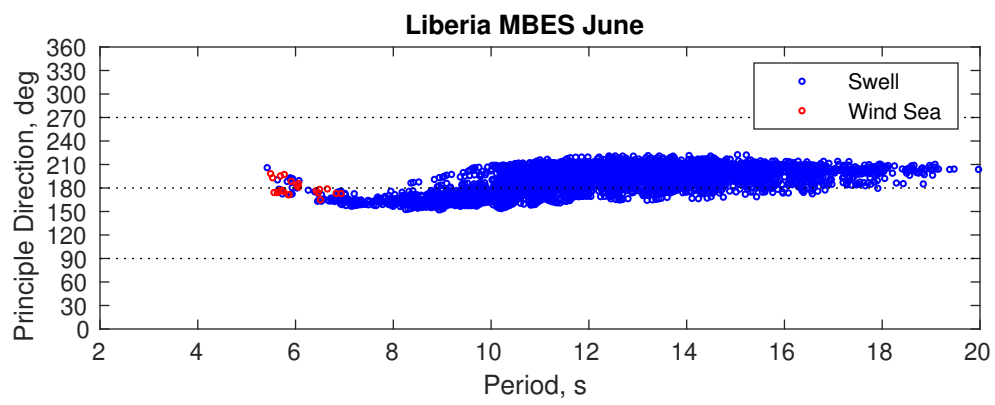
#### Weather Days

Current Speed > 0.5 knots Mean: 25.4 days Range: 20.6 - 30.0 days p50:27 days p75:23 days p90:20 days  
Current Speed > 1.0 knots Mean: 12.3 days Range: 5.7 - 19.0 days p50:12 days p75:9 days p90:5 days  
Current Speed > 1.5 knots Mean: 3.2 days Range: 0.0 - 8.7 days p50:2 days p75:1 days p90:1 days

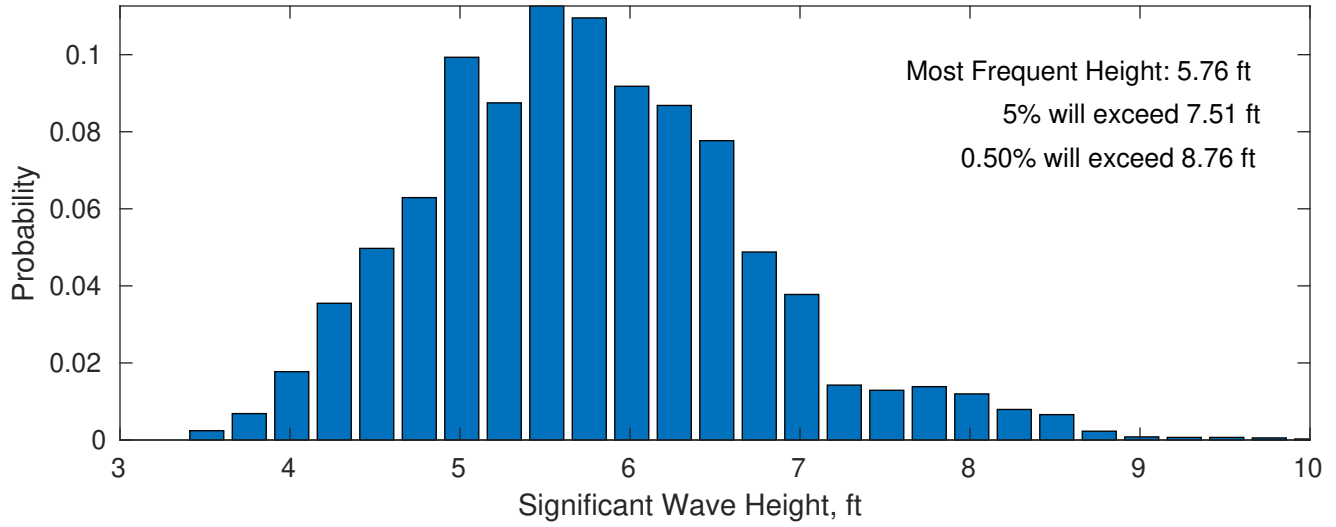
### Severe Storms

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

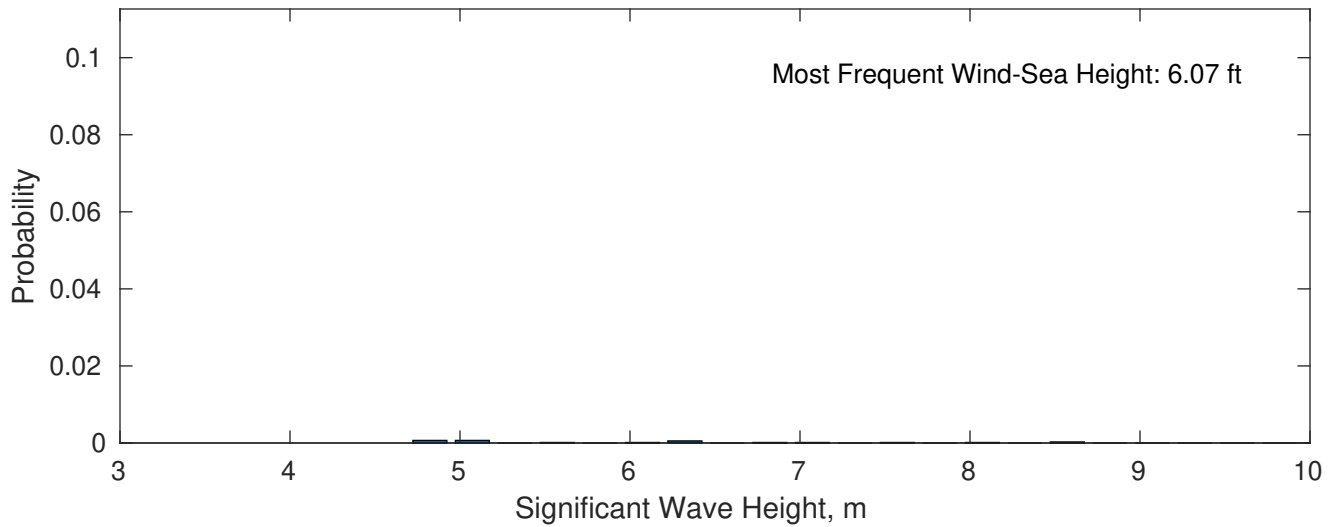




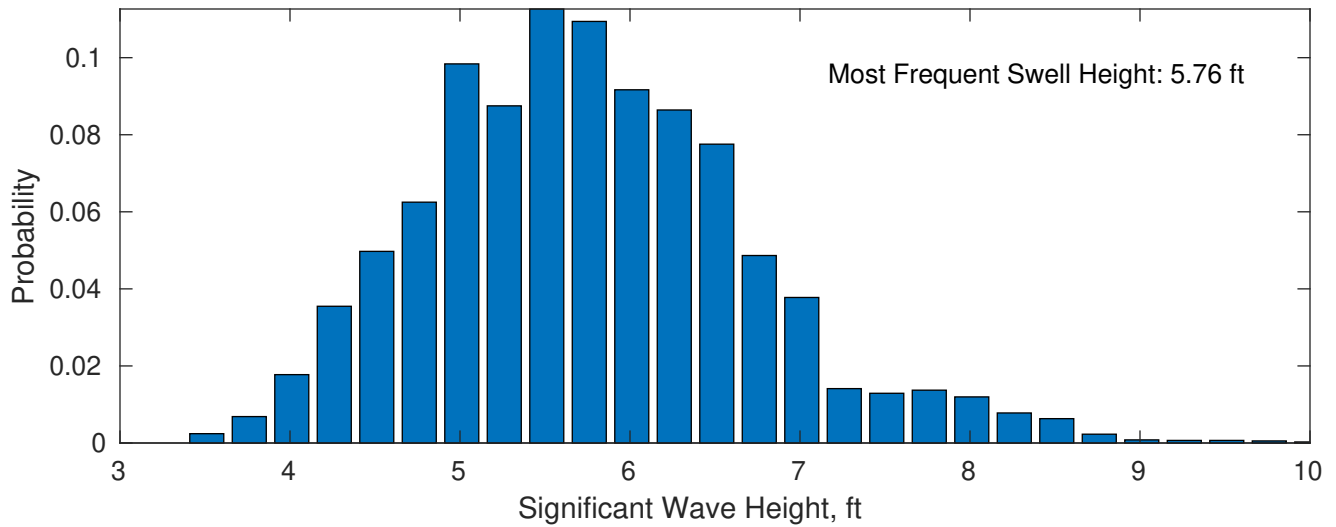
**June Wave Height PDF: 1979 - 2015**



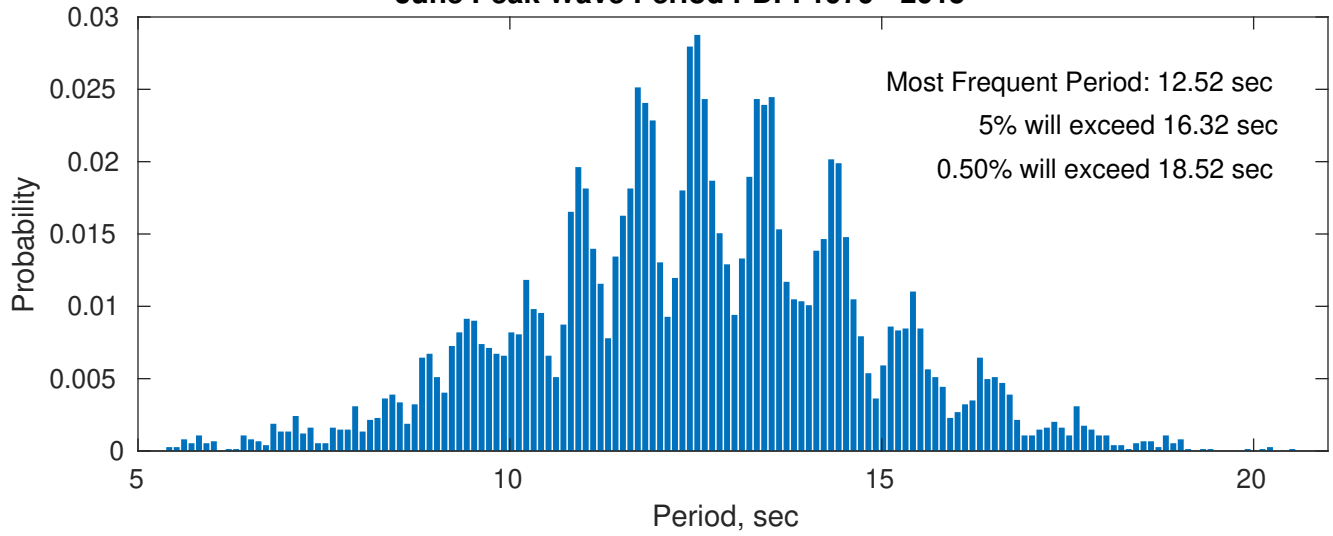
**Wind-Sea: 0.30%**



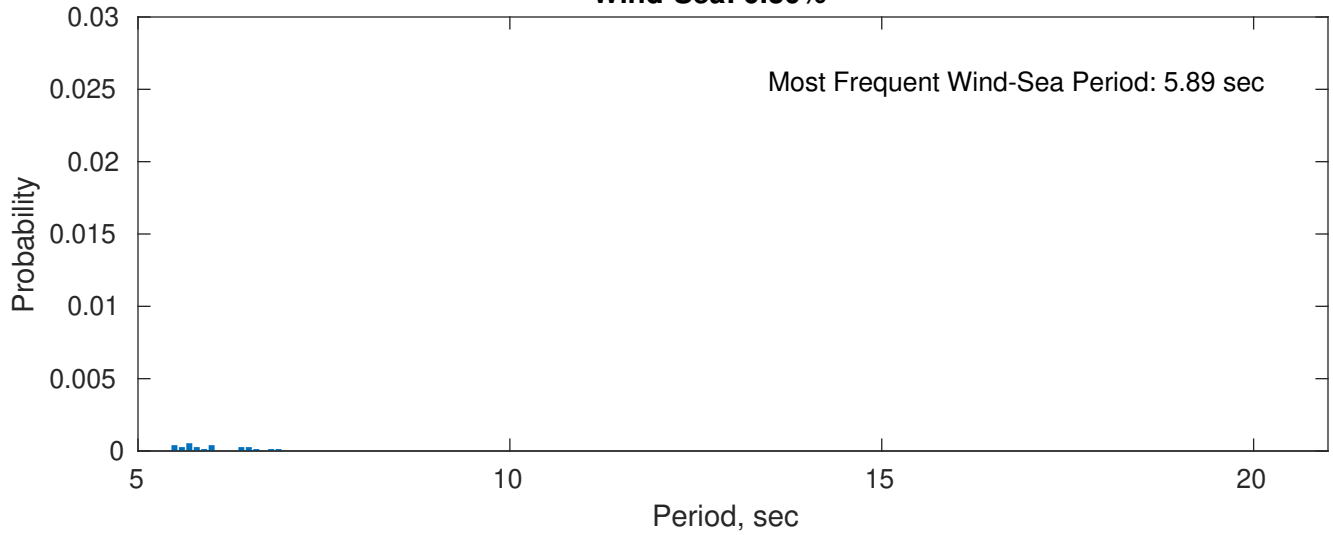
**Swell: 99.70%**



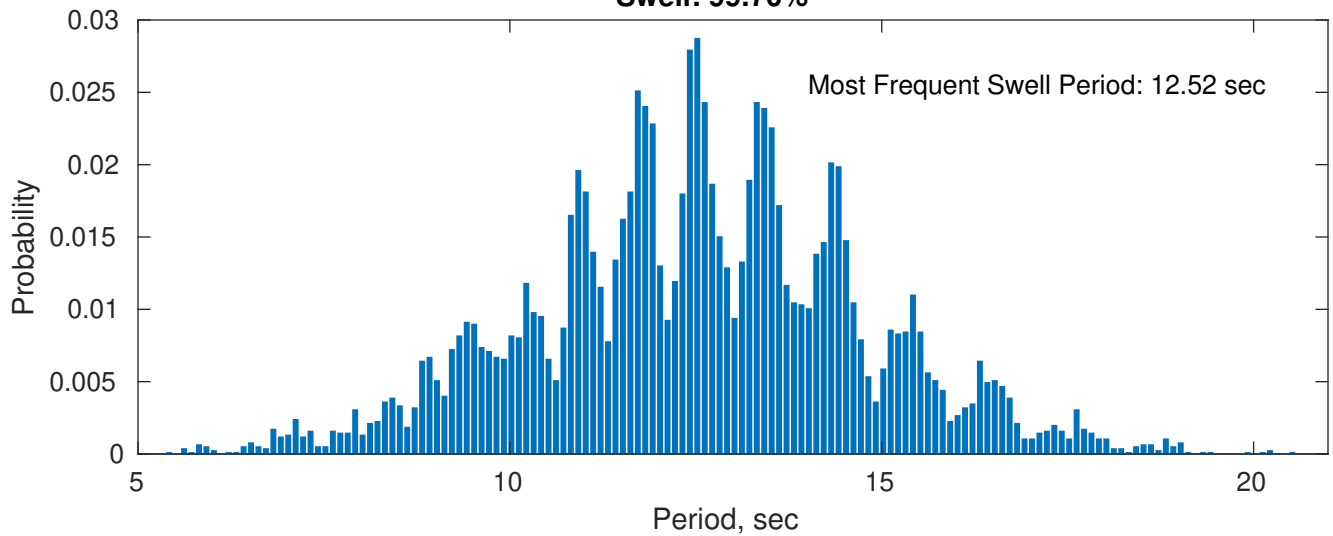
**June Peak Wave Period PDF: 1979 - 2015**



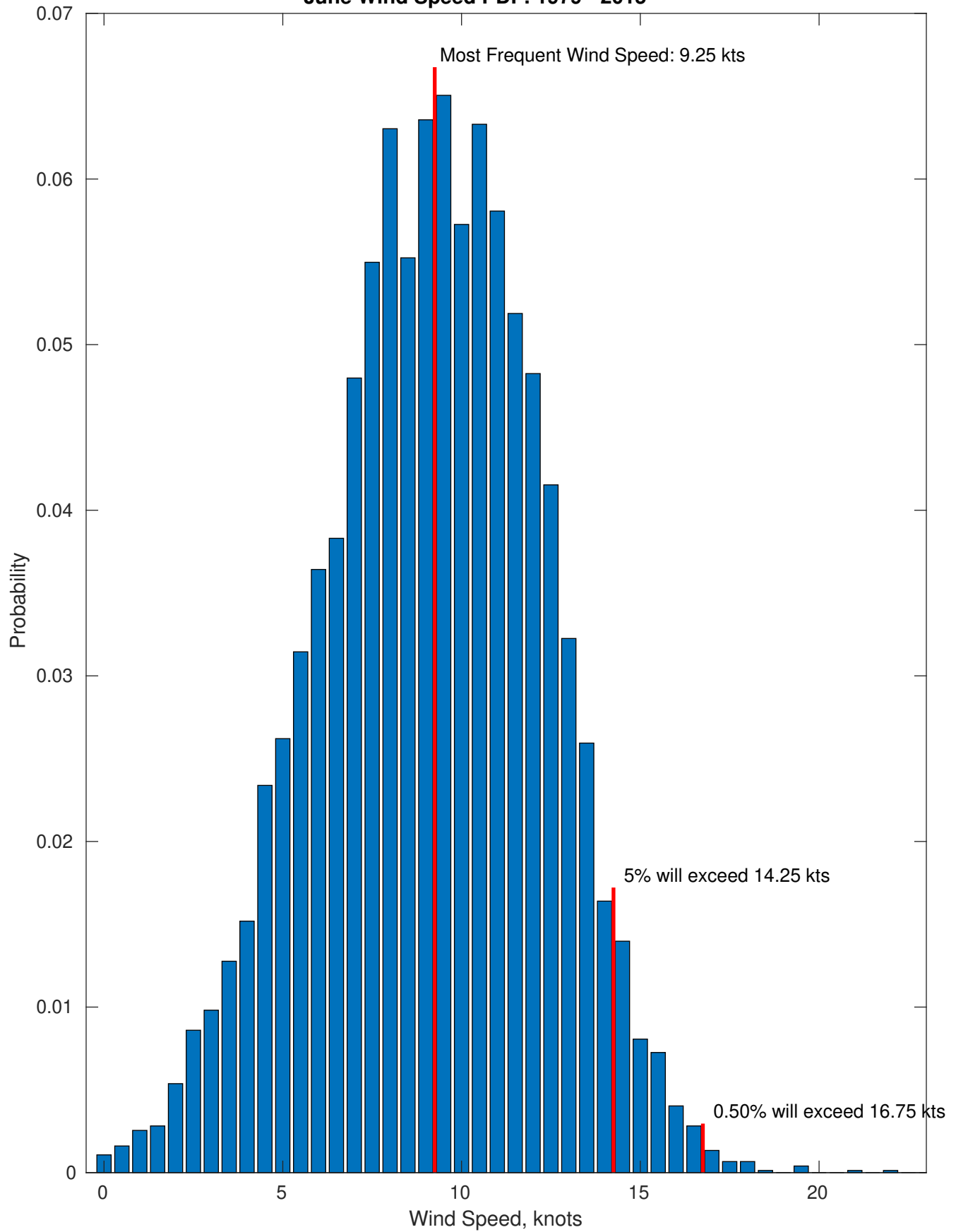
**Wind-Sea: 0.30%**



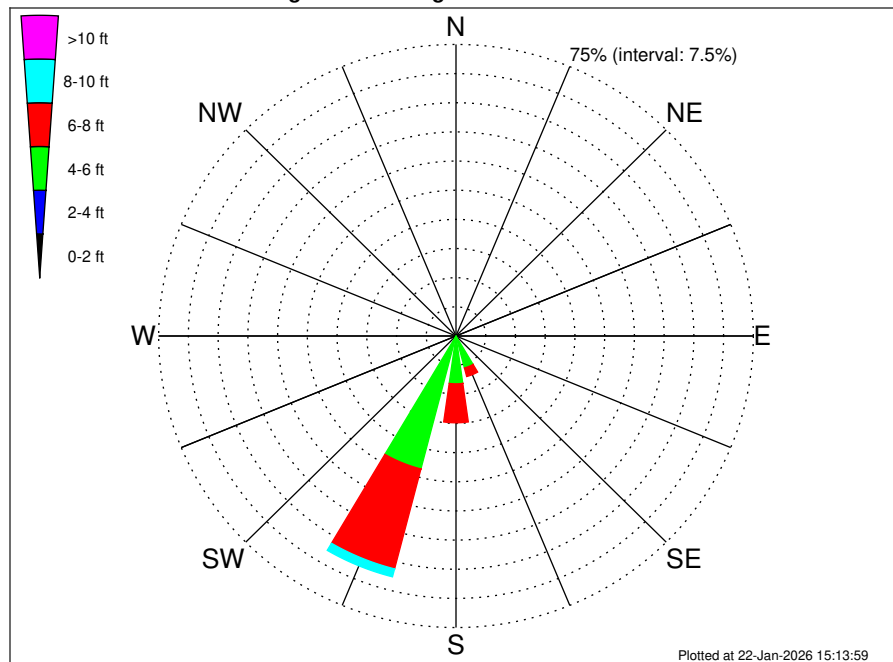
**Swell: 99.70%**



June Wind Speed PDF: 1979 - 2015



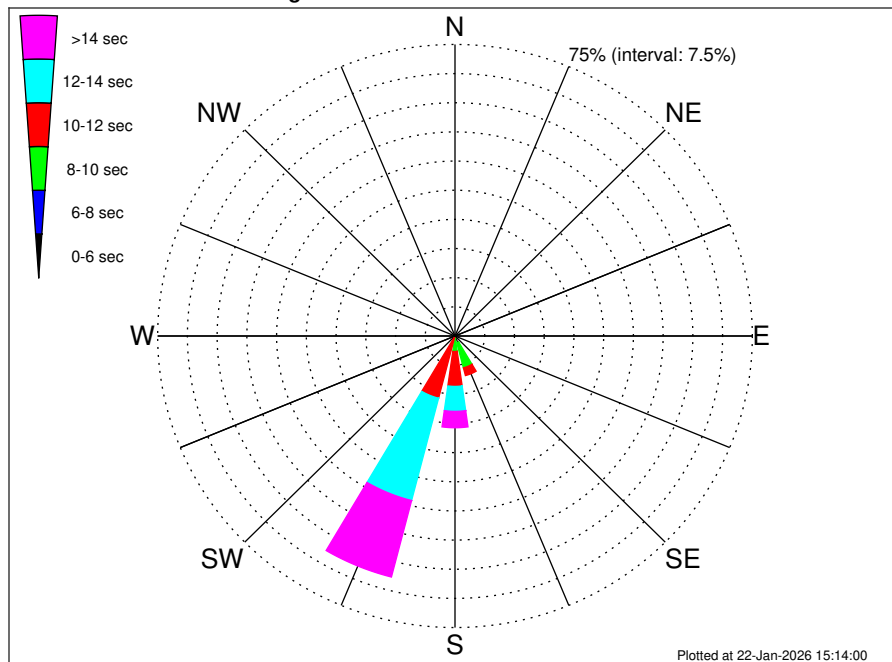
Liberia MBES Climatological WaveHeight Rose for June: 1979 - 2015



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   | . | .   | .  | .   | . | .   | .  | .     | .     | .     | .    | .   | . | .   | .  | .   | .      |
| 2 - 4 ft   | . | .   | .  | .   | . | .   | .  | 0.08  | 0.26  | 0.46  | .    | .   | . | .   | .  | .   | 0.79   |
| 4 - 6 ft   | . | .   | .  | .   | . | .   | .  | 8.40  | 12.06 | 34.87 | 1.05 | .   | . | .   | .  | .   | 56.37  |
| 6 - 8 ft   | . | .   | .  | .   | . | .   | .  | 2.28  | 10.01 | 26.56 | 0.54 | .   | . | .   | .  | .   | 39.40  |
| 8 - 10 ft  | . | .   | .  | .   | . | .   | .  | .     | 1.28  | 2.11  | .    | .   | . | .   | .  | .   | 3.39   |
| 10 - 12 ft | . | .   | .  | .   | . | .   | .  | .     | .     | 0.05  | .    | .   | . | .   | .  | .   | 0.05   |
| 12 - 14 ft | . | .   | .  | .   | . | .   | .  | .     | .     | .     | .    | .   | . | .   | .  | .   | .      |
| 14 - 16 ft | . | .   | .  | .   | . | .   | .  | .     | .     | .     | .    | .   | . | .   | .  | .   | .      |
| 16 - 18 ft | . | .   | .  | .   | . | .   | .  | .     | .     | .     | .    | .   | . | .   | .  | .   | .      |
| > 18 ft    | . | .   | .  | .   | . | .   | .  | .     | .     | .     | .    | .   | . | .   | .  | .   | .      |
| Total      | . | .   | .  | .   | . | .   | .  | 10.77 | 23.60 | 64.05 | 1.59 | .   | . | .   | .  | .   | 100.00 |

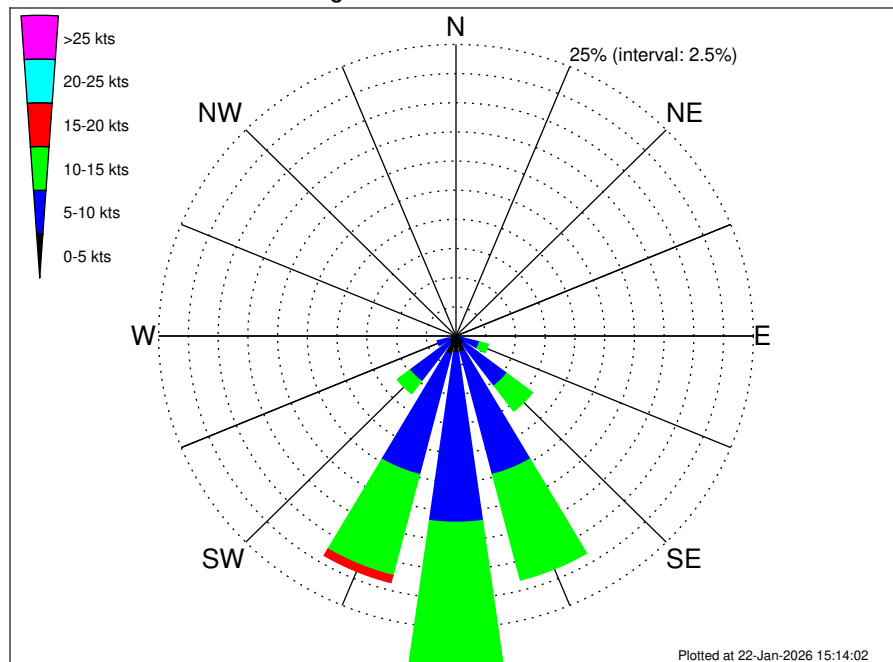
Liberia MBES Climatological WavePeriod Rose for June: 1979 - 2015



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   | • | •   | •  | •   | • | •   | •  | •     | •     | •     | •    | •   | • | •   | •  | •   | •      |
| 4 - 6 sec   | • | •   | •  | •   | • | •   | •  | •     | 0.23  | 0.12  | •    | •   | • | •   | •  | •   | 0.35   |
| 6 - 8 sec   | • | •   | •  | •   | • | •   | •  | 1.79  | 0.39  | •     | •    | •   | • | •   | •  | •   | 2.18   |
| 8 - 10 sec  | • | •   | •  | •   | • | •   | •  | 6.67  | 3.37  | 0.38  | •    | •   | • | •   | •  | •   | 10.42  |
| 10 - 12 sec | • | •   | •  | •   | • | •   | •  | 2.06  | 8.98  | 16.03 | 0.15 | •   | • | •   | •  | •   | 27.22  |
| 12 - 14 sec | • | •   | •  | •   | • | •   | •  | 0.17  | 6.41  | 27.19 | 0.89 | •   | • | •   | •  | •   | 34.66  |
| 14 - 16 sec | • | •   | •  | •   | • | •   | •  | 0.08  | 3.15  | 15.26 | 0.50 | •   | • | •   | •  | •   | 18.98  |
| 18 - 20 sec | • | •   | •  | •   | • | •   | •  | •     | 1.02  | 4.34  | 0.05 | •   | • | •   | •  | •   | 5.42   |
| 22 - 24 sec | • | •   | •  | •   | • | •   | •  | •     | 0.05  | 0.73  | •    | •   | • | •   | •  | •   | 0.78   |
| Total       | • | •   | •  | •   | • | •   | •  | 10.77 | 23.60 | 64.05 | 1.59 | •   | • | •   | •  | •   | 100.00 |

Liberia MBES Climatological Wind Rose for June: 1979 - 2015



Joint Frequency Distribution Table

|             | N    | NNE  | NE   | ENE  | E    | ESE  | SE   | SSE   | S     | SSW   | SW   | WSW  | W    | WNW  | NW   | NNW  | Total  |
|-------------|------|------|------|------|------|------|------|-------|-------|-------|------|------|------|------|------|------|--------|
| calm        | 0.01 | •    | 0.03 | 0.03 | •    | •    | •    | 0.01  | 0.03  | 0.03  | •    | 0.04 | 0.05 | 0.03 | 0.01 | •    | 0.27   |
| 0 - 5 kts   | 0.13 | 0.04 | 0.04 | 0.13 | 0.20 | 0.32 | 0.83 | 1.40  | 1.42  | 1.59  | 0.77 | 0.58 | 0.30 | 0.12 | 0.11 | 0.07 | 8.05   |
| 5 - 10 kts  | 0.01 | 0.01 | •    | 0.04 | 0.17 | 1.72 | 4.50 | 10.85 | 14.53 | 10.66 | 4.09 | 1.01 | 0.46 | 0.09 | 0.04 | 0.04 | 48.23  |
| 10 - 15 kts | •    | •    | •    | 0.01 | 0.01 | 0.77 | 2.72 | 9.35  | 17.53 | 8.94  | 1.33 | 0.17 | 0.03 | •    | 0.03 | •    | 40.89  |
| 15 - 20 kts | •    | •    | •    | •    | •    | 0.01 | 0.16 | 0.52  | 1.12  | 0.63  | 0.09 | •    | •    | •    | •    | •    | 2.54   |
| 20 - 25 kts | •    | •    | •    | •    | •    | •    | •    | •     | 0.03  | •     | •    | •    | •    | •    | •    | •    | 0.03   |
| 25 - 30 kts | •    | •    | •    | •    | •    | •    | •    | •     | •     | •     | •    | •    | •    | •    | •    | •    | •      |
| 30 - 35 kts | •    | •    | •    | •    | •    | •    | •    | •     | •     | •     | •    | •    | •    | •    | •    | •    | •      |
| 35 - 40 kts | •    | •    | •    | •    | •    | •    | •    | •     | •     | •     | •    | •    | •    | •    | •    | •    | •      |
| 40 - 45 kts | •    | •    | •    | •    | •    | •    | •    | •     | •     | •     | •    | •    | •    | •    | •    | •    | •      |
| 45 - 50 kts | •    | •    | •    | •    | •    | •    | •    | •     | •     | •     | •    | •    | •    | •    | •    | •    | •      |
| Total       | 0.16 | 0.05 | 0.07 | 0.22 | 0.39 | 2.82 | 8.21 | 22.14 | 34.65 | 21.84 | 6.28 | 1.80 | 0.83 | 0.24 | 0.19 | 0.11 | 100.00 |