

# Angola Namibia CRS Oranjemund (BU-OR) - July

Latitude: 27.84 S Longitude: 14.78 E

## Weather Days

Wave Height > 5.0 ft Mean: 25.3 days Range: 22.9 - 27.7 days p50:25.5 days p75:24 days p90:23 days  
Wave Height > 6.5 ft Mean: 20.0 days Range: 15.9 - 24.0 days p50:21 days p75:17.5 days p90:14.5 days  
Wave Height > 8.0 ft Mean: 13.7 days Range: 9.9 - 17.5 days p50:14 days p75:11.5 days p90:8 days  
  
Wind Speed > 15.0 knots Mean: 12.3 days Range: 9.7 - 14.8 days p50:12 days p75:10.5 days p90:10 days  
Wind Speed > 20.0 knots Mean: 6.2 days Range: 4.5 - 8.0 days p50:6.5 days p75:5 days p90:4 days  
Wind Speed > 25.0 knots Mean: 2.3 days Range: 1.4 - 3.2 days p50:2.5 days p75:2 days p90:1.5 days

## Working Window

|                      |                                                                                                                                                                                                                         |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Wave Height < 5.0 ft | A 1 day or longer window will statistically occur 0.4 times per month<br>A 2 day or longer window will statistically occur 0.1 times per month<br>A 3 day or longer window will statistically occur 0.0 times per month |
| Wave Height < 6.5 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 0.7 times per month<br>A 3 day or longer window will statistically occur 0.3 times per month |
| Wave Height < 8.0 ft | A 1 day or longer window will statistically occur 3.1 times per month<br>A 2 day or longer window will statistically occur 1.8 times per month<br>A 3 day or longer window will statistically occur 1.0 times per month |

## Waves

Mean Height: 8 - 10 ft  
The wave heights will occasionally reach > 18 ft, but rarely higher.  
Mean Period: 12 - 14 sec  
The wave periods will occasionally reach 22 - 24 sec, but rarely longer.  
Principle Direction, from: SW  
WindSea/Swell: 1% / 99%

## Winds

Mean Speed: 10 - 15 kts  
The winds will occasionally reach 30 - 35 kts, but rarely greater.  
Principle Direction, from: SSE

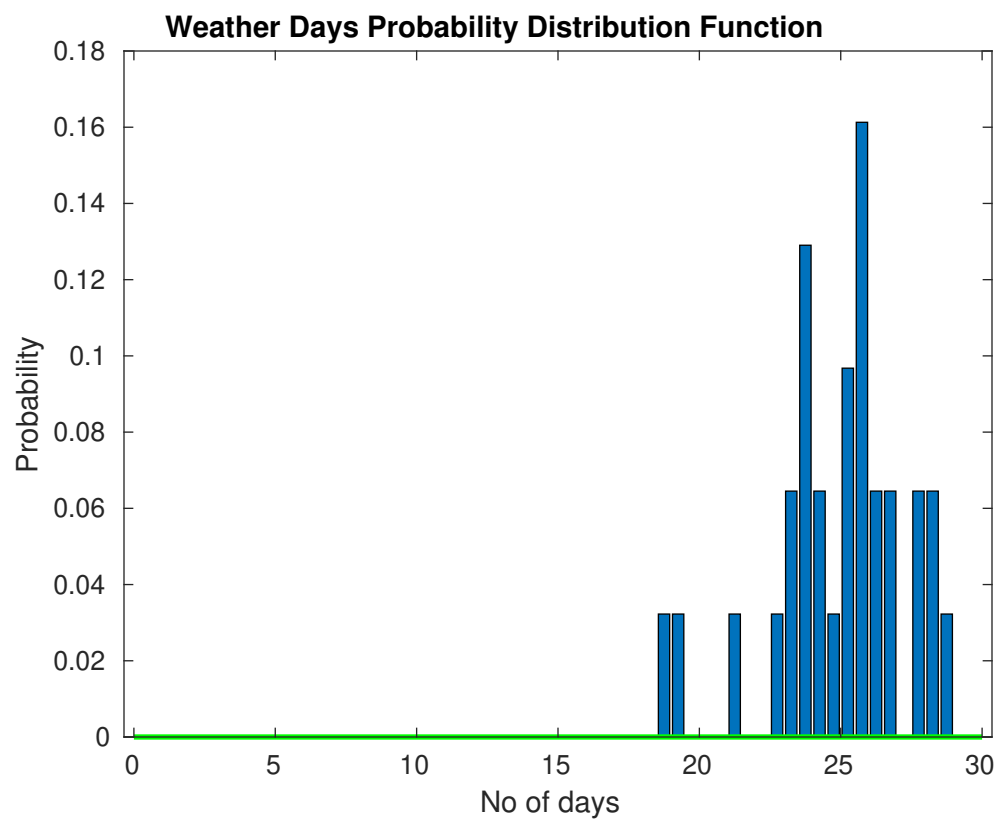
## Currents

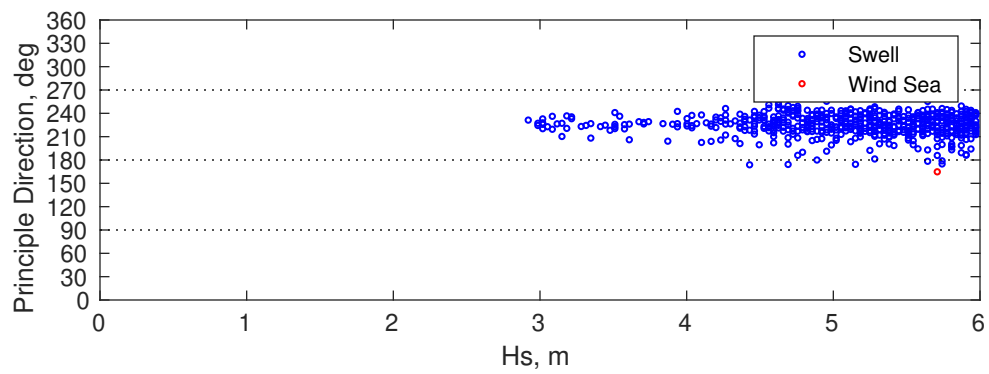
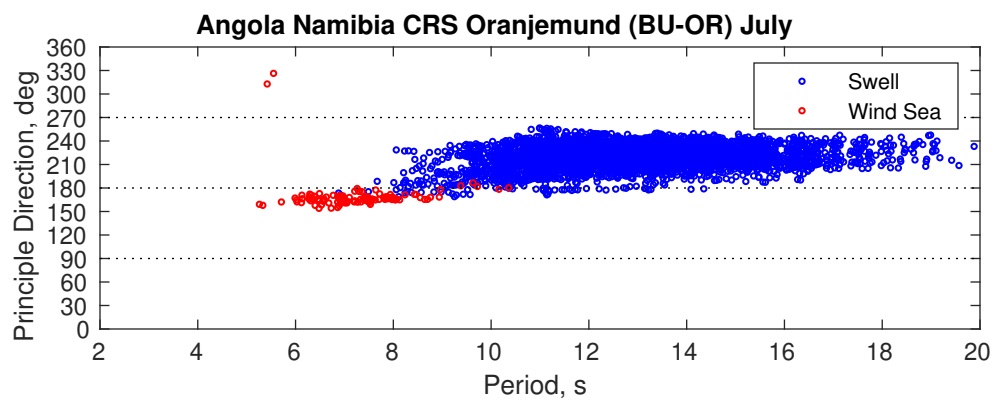
Mean Speed: 0.25-0.50 kts  
The currents will occasionally reach 1.00-1.25 kts, but rarely greater.  
Principle Direction, to: NW

Weather Days  
Current Speed > 0.5 knots Mean: 8.4 days Range: 3.6 - 13.2 days p50:9 days p75:6 days p90:4 days  
Current Speed > 1.0 knots Mean: 0.3 days Range: 0.0 - 1.2 days p50:1 days p75:1 days p90:1 days  
Current Speed > 1.5 knots Mean: 0.0 days Range: 0.0 - 0.0 days p50:1 days p75:1 days p90:1 days

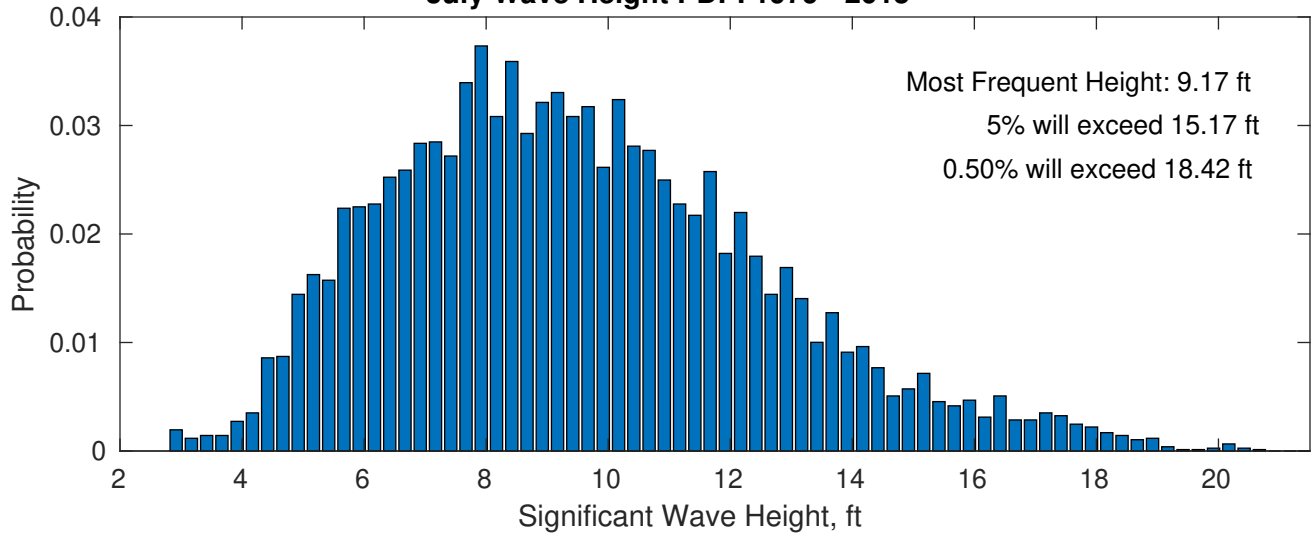
## Severe Storms

There is a 3 % chance of a storm occurring in the month with winds peaking above 34 kts.  
There is little chance of a storm occurring in the month with waves peaking at 4m (13 ft) or greater.

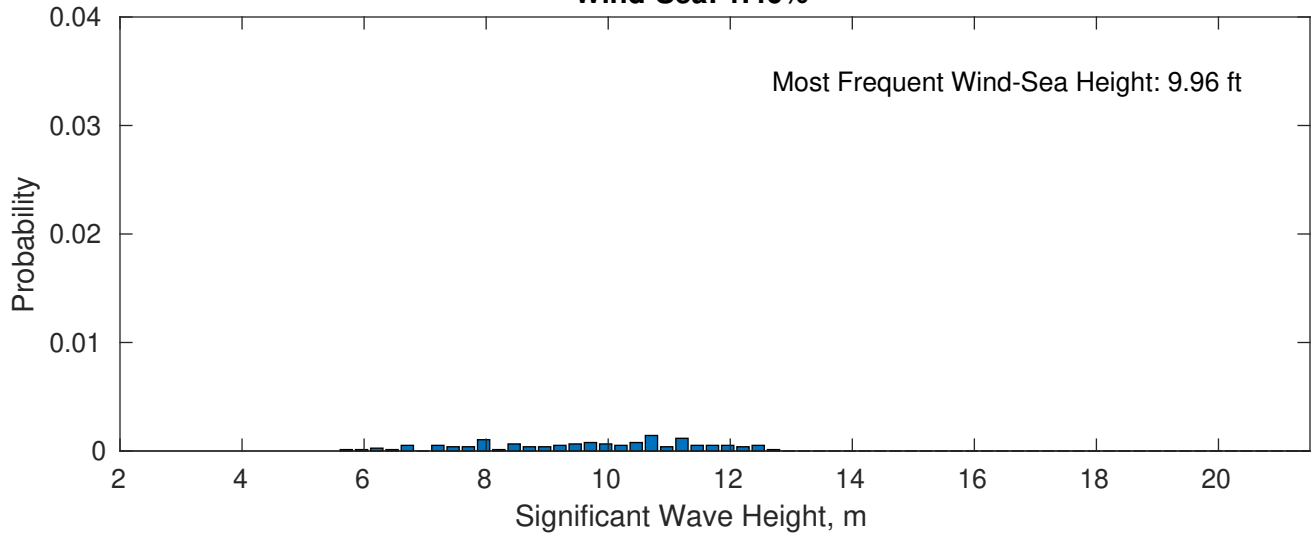




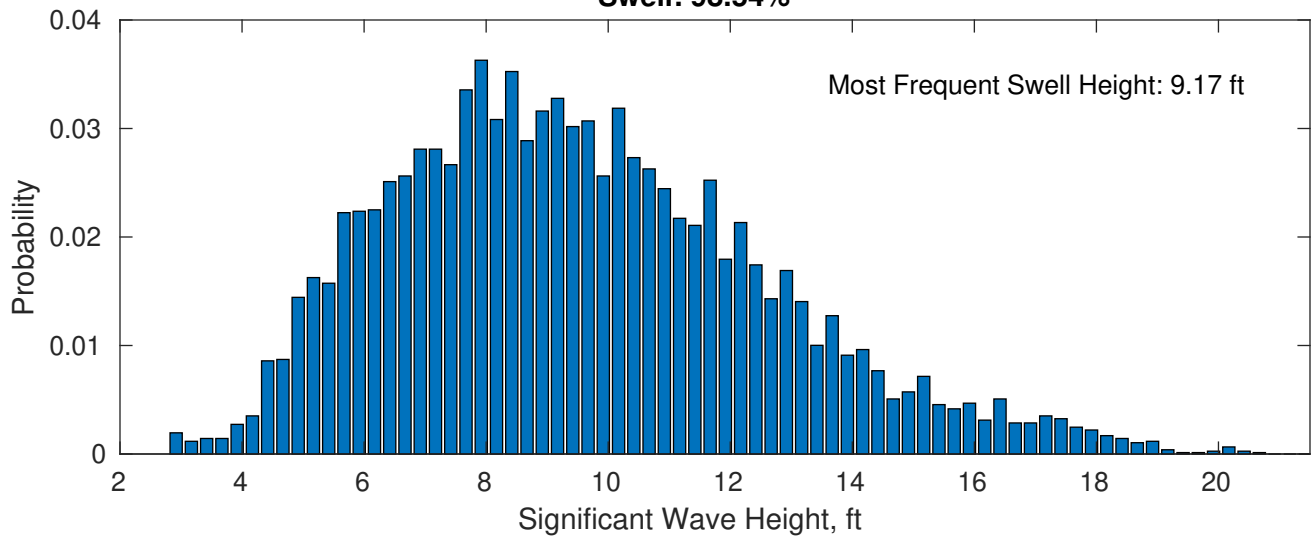
**July Wave Height PDF: 1979 - 2015**



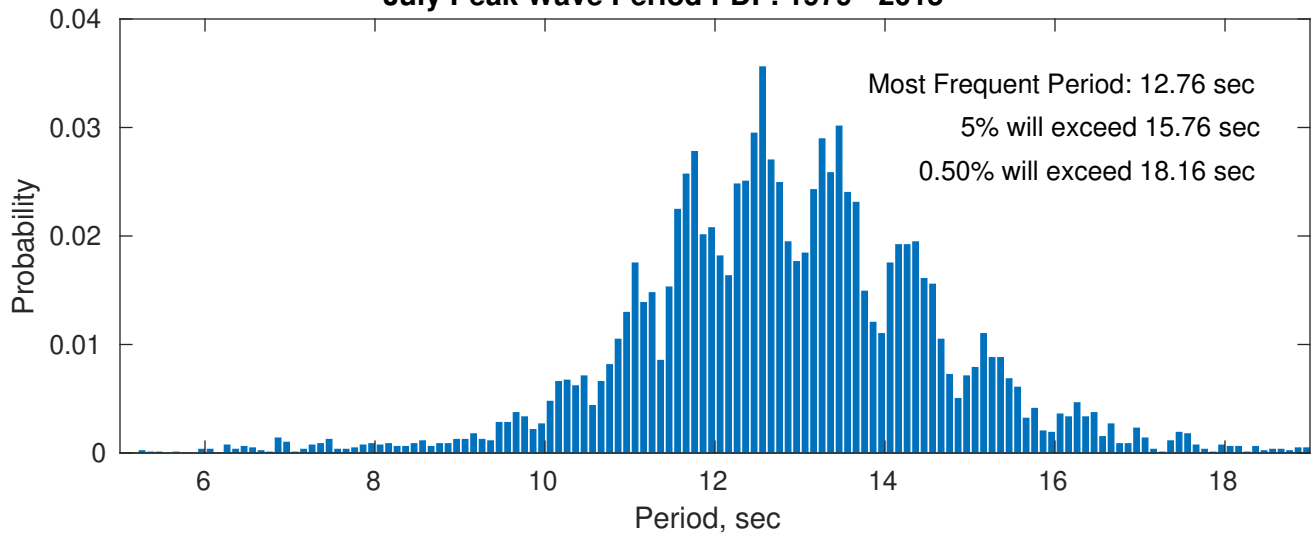
**Wind-Sea: 1.46%**



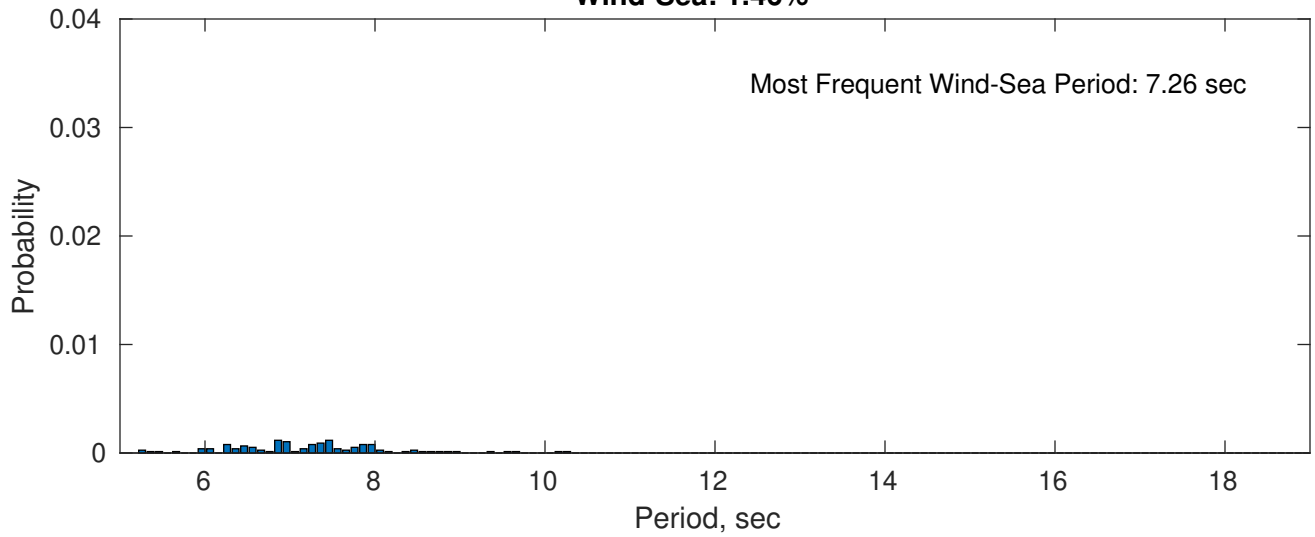
**Swell: 98.54%**



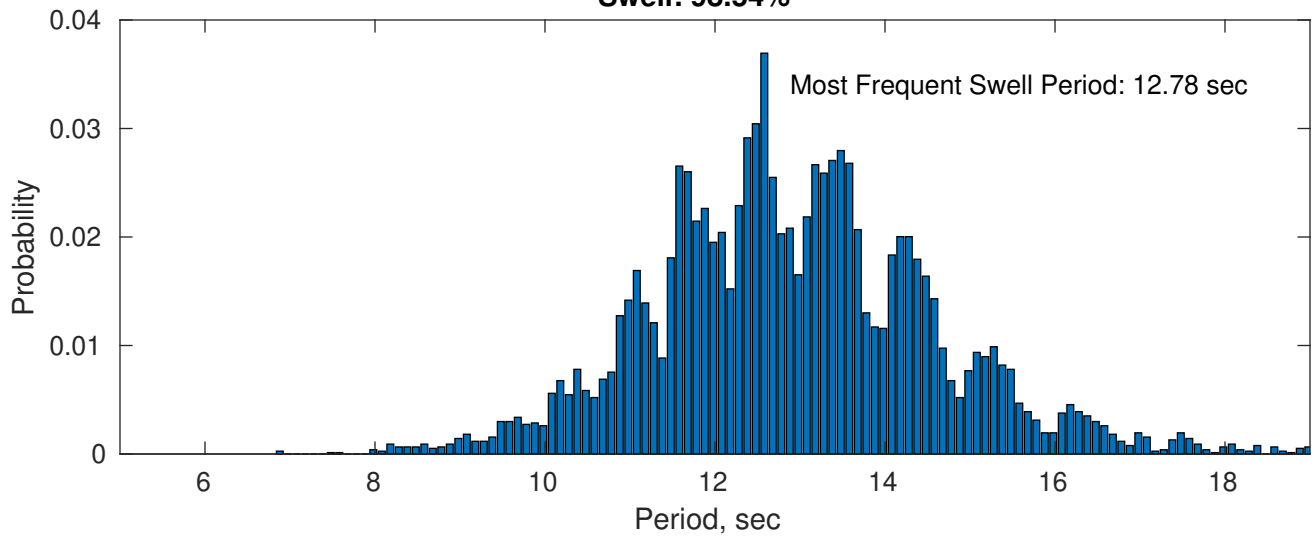
**July Peak Wave Period PDF: 1979 - 2015**



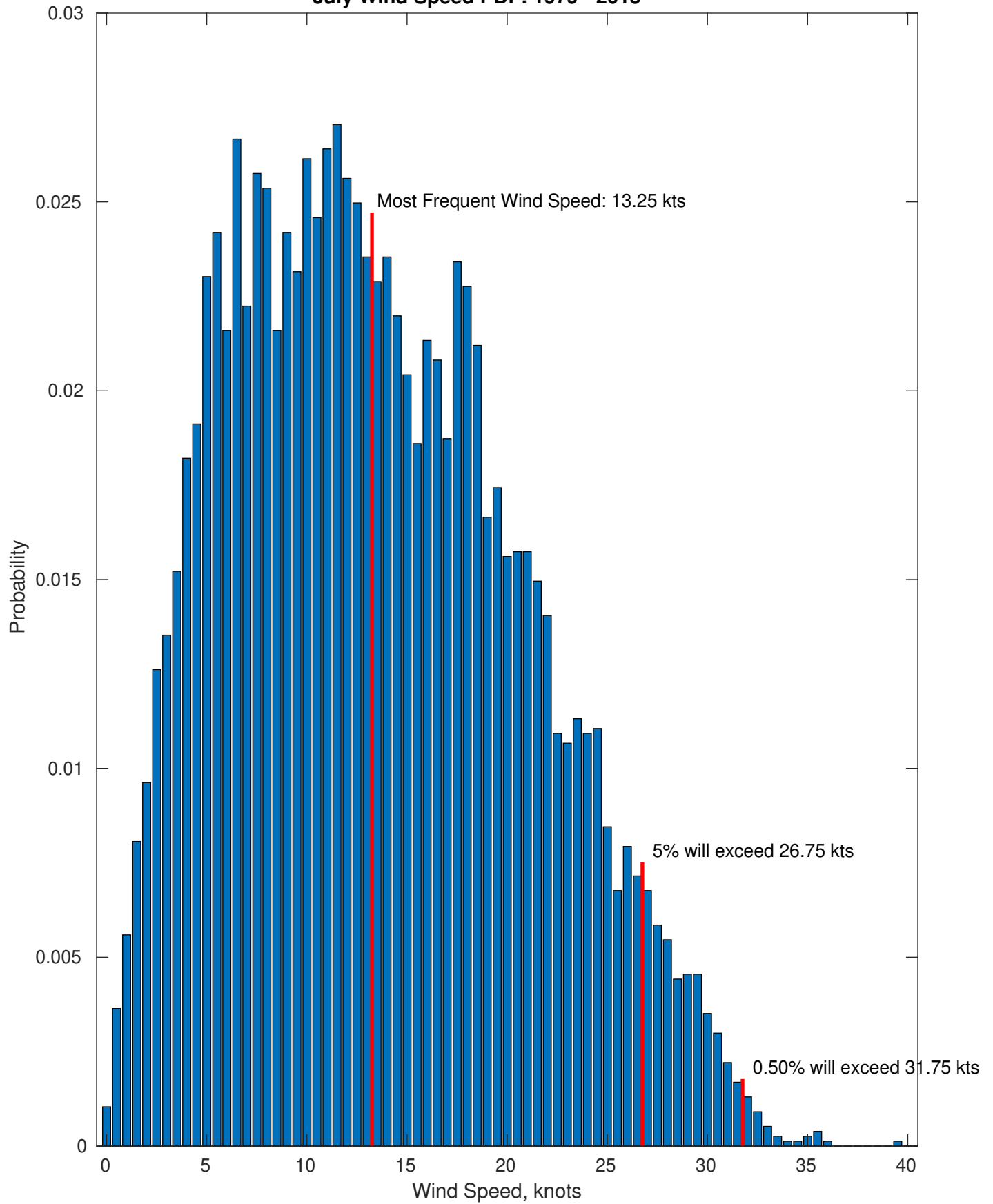
**Wind-Sea: 1.46%**



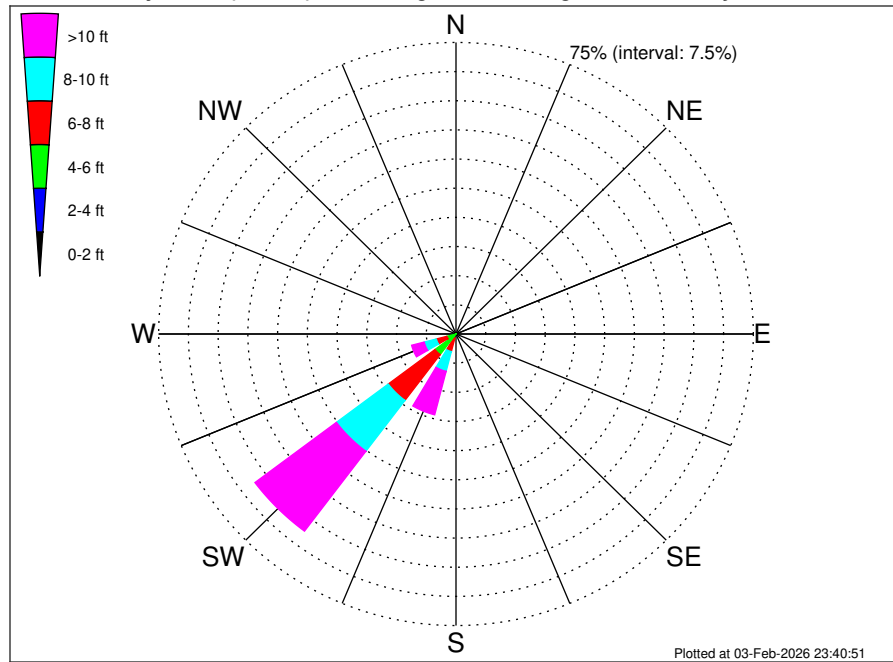
**Swell: 98.54%**



July Wind Speed PDF: 1979 - 2015



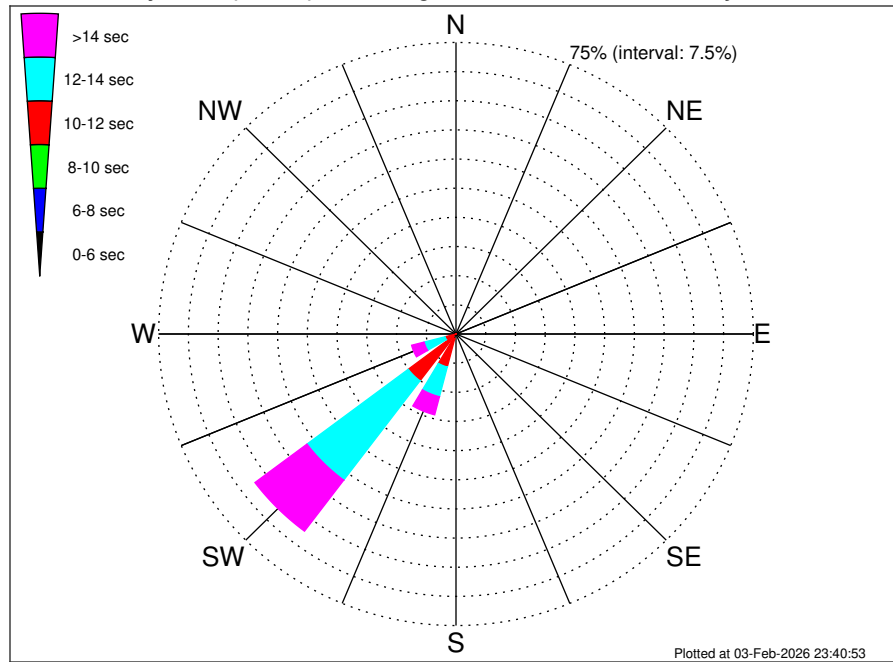
# Angola Namibia CRS Oranjemund (BU-OR) Climatological WaveHeight Rose for July: 1979 - 2015



## 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   | • | •   | •  | •   | • | •   | •  | •    | •    | 0.05  | 0.55  | 0.05  | • | •   | •    | •    | 0.65   |
| 4 - 6 ft   | • | •   | •  | •   | • | •   | •  | 0.01 | 0.18 | 1.08  | 6.09  | 2.33  | • | •   | •    | •    | 9.69   |
| 6 - 8 ft   | • | •   | •  | •   | • | •   | •  | 0.14 | 0.60 | 3.55  | 14.76 | 2.74  | • | •   | 0.01 | 0.01 | 21.83  |
| 8 - 10 ft  | • | •   | •  | •   | • | •   | •  | 0.30 | 0.91 | 5.25  | 16.38 | 3.17  | • | •   | •    | •    | 26.01  |
| 10 - 12 ft | • | •   | •  | •   | • | •   | •  | 0.47 | 0.43 | 5.20  | 13.09 | 1.43  | • | •   | •    | •    | 20.62  |
| 12 - 14 ft | • | •   | •  | •   | • | •   | •  | 0.13 | 0.26 | 3.72  | 7.27  | 1.00  | • | •   | •    | •    | 12.38  |
| 14 - 16 ft | • | •   | •  | •   | • | •   | •  | •    | •    | 1.63  | 3.11  | 0.47  | • | •   | •    | •    | 5.20   |
| 16 - 18 ft | • | •   | •  | •   | • | •   | •  | •    | •    | 0.70  | 1.76  | 0.29  | • | •   | •    | •    | 2.74   |
| > 18 ft    | • | •   | •  | •   | • | •   | •  | •    | •    | 0.29  | 0.51  | 0.08  | • | •   | •    | •    | 0.87   |
| Total      | • | •   | •  | •   | • | •   | •  | 1.05 | 2.38 | 21.48 | 63.50 | 11.56 | • | •   | 0.01 | 0.01 | 100.00 |

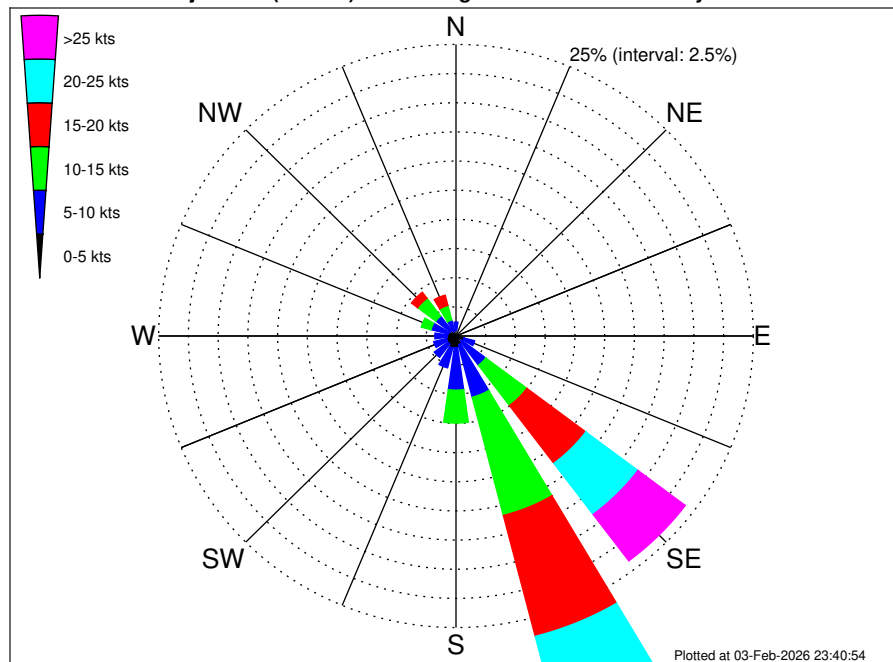
# Angola Namibia CRS Oranjemund (BU-OR) Climatological WavePeriod Rose for July: 1979 - 2015



## 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   | • | •   | •  | •   | • | •   | •  | 0.05 | •    | •     | •     | •     | • | •   | 0.01 | 0.01 | 0.08   |
| 6 - 8 sec   | • | •   | •  | •   | • | •   | •  | 0.88 | 0.31 | •     | •     | •     | • | •   | •    | •    | 1.20   |
| 8 - 10 sec  | • | •   | •  | •   | • | •   | •  | 0.12 | 0.85 | 1.24  | 0.92  | 0.01  | • | •   | •    | •    | 3.13   |
| 10 - 12 sec | • | •   | •  | •   | • | •   | •  | •    | 0.79 | 7.53  | 14.16 | 2.84  | • | •   | •    | •    | 25.33  |
| 12 - 14 sec | • | •   | •  | •   | • | •   | •  | •    | 0.26 | 7.91  | 31.98 | 5.48  | • | •   | •    | •    | 45.63  |
| 14 - 16 sec | • | •   | •  | •   | • | •   | •  | •    | 0.14 | 3.71  | 13.90 | 2.56  | • | •   | •    | •    | 20.32  |
| 18 - 20 sec | • | •   | •  | •   | • | •   | •  | •    | 0.03 | 1.03  | 2.11  | 0.53  | • | •   | •    | •    | 3.69   |
| 22 - 24 sec | • | •   | •  | •   | • | •   | •  | •    | •    | 0.07  | 0.42  | 0.14  | • | •   | •    | •    | 0.62   |
| Total       | • | •   | •  | •   | • | •   | •  | 1.05 | 2.38 | 21.48 | 63.50 | 11.56 | • | •   | 0.01 | 0.01 | 100.00 |

Angola Namibia CRS Oranjemund (BU-OR) Climatological Wind Rose for July: 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 | 0.01 | 0.07 | 0.01 | 0.04 | 0.04 | •     | 0.03  | 0.04 | 0.04 | 0.04 | 0.05 | 0.01 | 0.03 | 0.03 | 0.03 | 0.47   |
| 0 - 5 kts   | 0.49 | 0.36 | 0.51 | 0.44 | 0.46 | 0.66 | 0.59  | 0.74  | 0.96 | 1.03 | 0.83 | 0.78 | 0.73 | 0.64 | 0.57 | 0.40 | 10.20  |
| 5 - 10 kts  | 0.69 | 0.51 | 0.46 | 0.38 | 0.62 | 0.92 | 2.55  | 4.66  | 3.64 | 1.76 | 1.42 | 1.11 | 1.04 | 1.51 | 1.53 | 0.99 | 23.78  |
| 10 - 15 kts | 0.35 | 0.25 | 0.13 | 0.17 | 0.22 | 0.52 | 4.33  | 10.47 | 2.82 | 0.53 | 0.23 | 0.25 | 0.35 | 0.85 | 1.91 | 1.29 | 24.67  |
| 15 - 20 kts | 0.04 | 0.05 | 0.07 | 0.03 | 0.03 | 0.47 | 6.20  | 10.70 | 0.53 | 0.08 | 0.12 | 0.05 | 0.10 | 0.10 | 0.65 | 0.91 | 20.14  |
| 20 - 25 kts | 0.05 | •    | •    | •    | •    | 0.17 | 5.49  | 6.66  | 0.01 | 0.03 | 0.01 | 0.04 | 0.03 | 0.03 | 0.21 | 0.38 | 13.10  |
| 25 - 30 kts | 0.01 | •    | •    | •    | •    | 0.09 | 4.03  | 1.91  | •    | •    | •    | •    | •    | 0.01 | 0.04 | 0.09 | 6.19   |
| 30 - 35 kts | •    | •    | •    | •    | •    | •    | 0.91  | 0.34  | •    | •    | •    | •    | •    | •    | •    | 0.12 | 1.37   |
| 35 - 40 kts | •    | •    | •    | •    | •    | •    | 0.04  | 0.01  | •    | •    | •    | •    | •    | •    | •    | 0.04 | 0.09   |
| 40 - 45 kts | •    | •    | •    | •    | •    | •    | •     | •     | •    | •    | •    | •    | •    | •    | •    | •    | •      |
| 45 - 50 kts | •    | •    | •    | •    | •    | •    | •     | •     | •    | •    | •    | •    | •    | •    | •    | •    | •      |
| Total       | 1.65 | 1.18 | 1.22 | 1.03 | 1.37 | 2.87 | 24.14 | 35.52 | 8.01 | 3.46 | 2.65 | 2.28 | 2.26 | 3.16 | 4.94 | 4.24 | 100.00 |