

# Angola Namibia CRS Luanda (BU-LU) - January

Latitude: 8.85 S Longitude: 12.41 E

## Weather Days

Wave Height > 5.0 ft Mean: 0.4 days Range: 0.0 - 1.0 days p50:30 days p75:1.5 days p90:1 days  
Wave Height > 6.5 ft Mean: 0.0 days Range: 0.0 - 0.0 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: 0.3 days Range: 0.0 - 0.7 days p50:0.5 days p75:0.5 days p90:0.5 days  
Wind Speed > 20.0 knots Mean: 0.0 days Range: 0.0 - 0.0 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 2.9 times per month<br>A 2 day or longer window will statistically occur 2.5 times per month<br>A 3 day or longer window will statistically occur 2.3 times per month |
| Wave Height < 6.5 ft | A 1 day or longer window will statistically occur 1.2 times per month<br>A 2 day or longer window will statistically occur 1.2 times per month<br>A 3 day or longer window will statistically occur 1.2 times per month |
| Wave Height < 8.0 ft | A 1 day or longer window will statistically occur 0.9 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 0.9 times per month |

## Waves

Mean Height: 4 - 6 ft  
The wave heights will occasionally reach 6 - 8 ft, but rarely higher.  
Mean Period: 10 - 12 sec  
The wave periods will occasionally reach 18 - 20 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: SSW

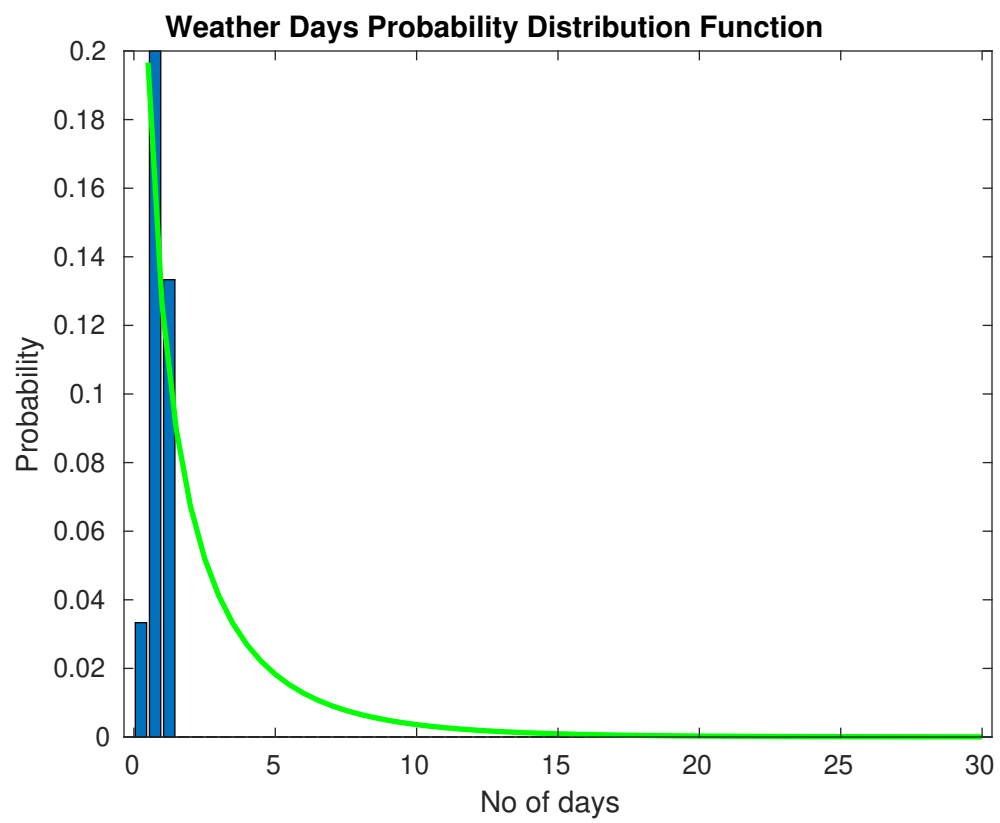
## Currents

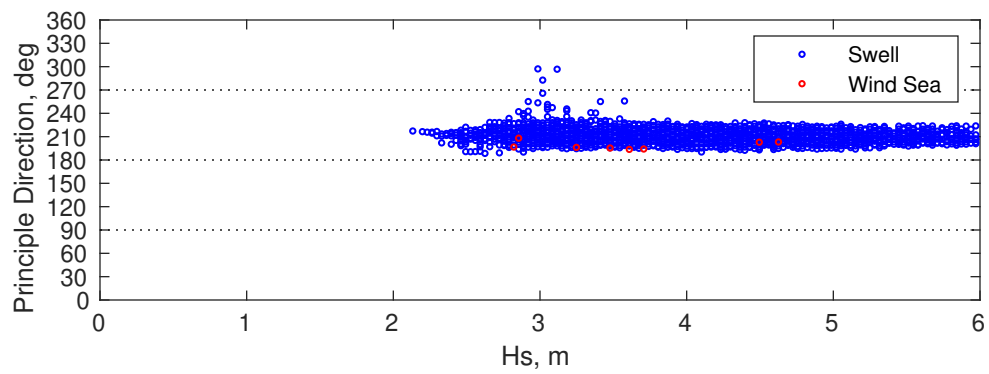
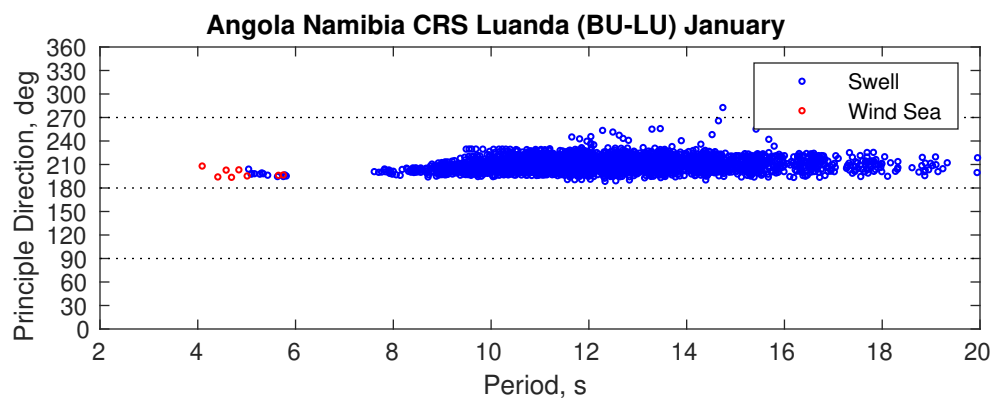
Mean Speed: 0.25-0.50 kts  
The currents will occasionally reach 1.00-1.25 kts, but rarely greater.  
Principle Direction, to: NNW

Weather Days  
Current Speed > 0.5 knots Mean: 8.3 days Range: 4.1 - 12.5 days p50:9 days p75:6 days p90:5 days  
Current Speed > 1.0 knots Mean: 0.3 days Range: 0.0 - 1.0 days p50:1 days p75:1 days p90:1 days  
Current Speed > 1.5 knots Mean: 0.1 days Range: 0.0 - 0.3 days p50:1 days p75:1 days p90:1 days

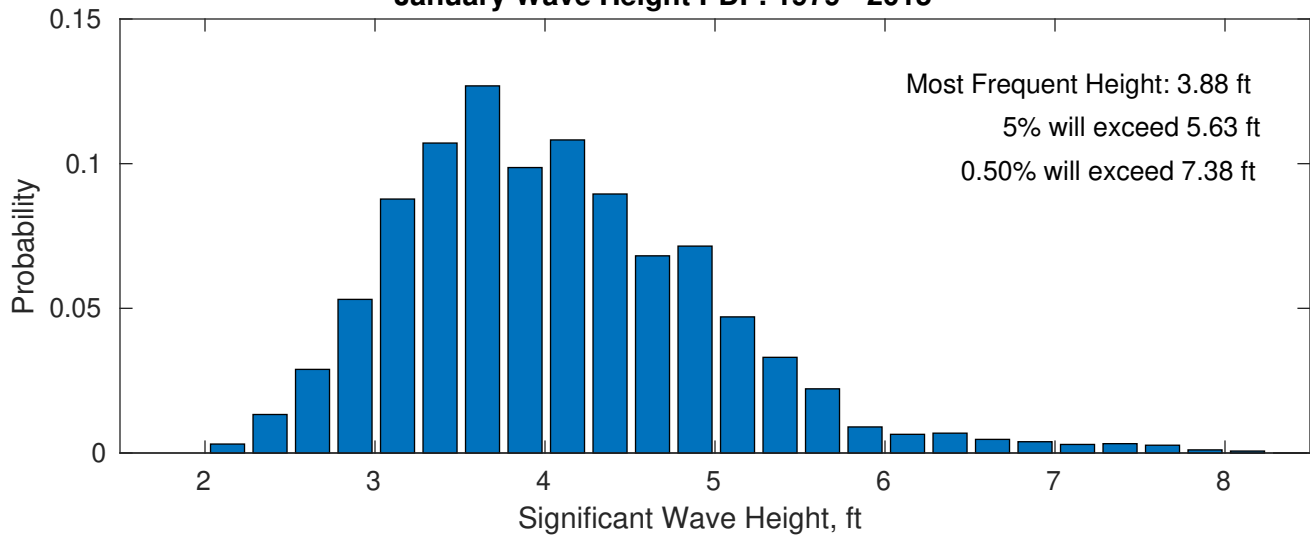
## Severe Storms

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

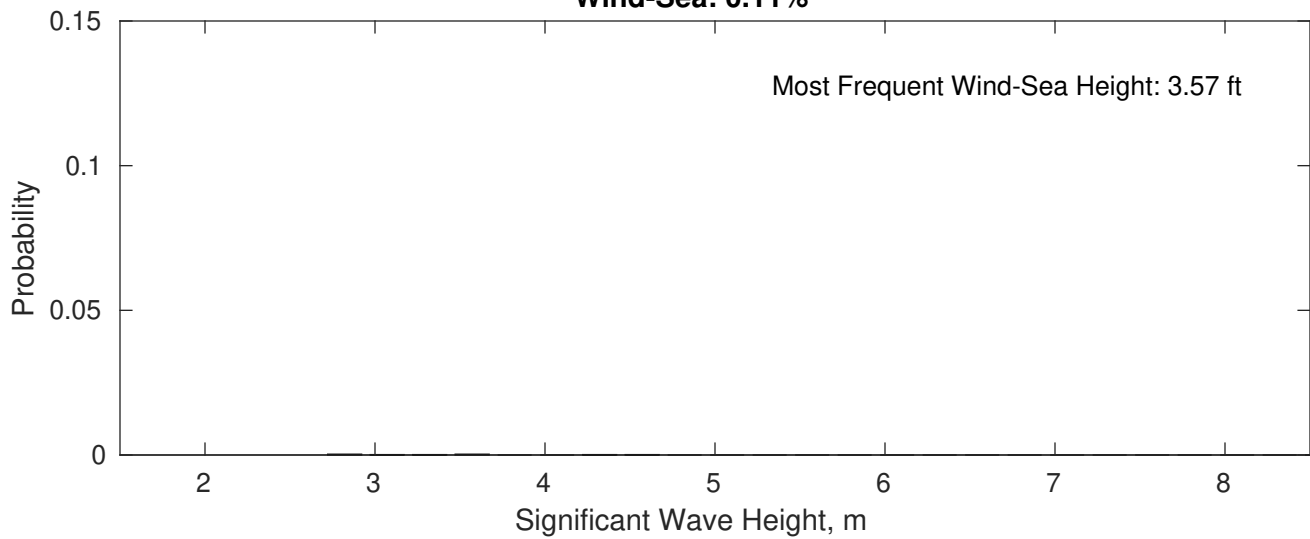




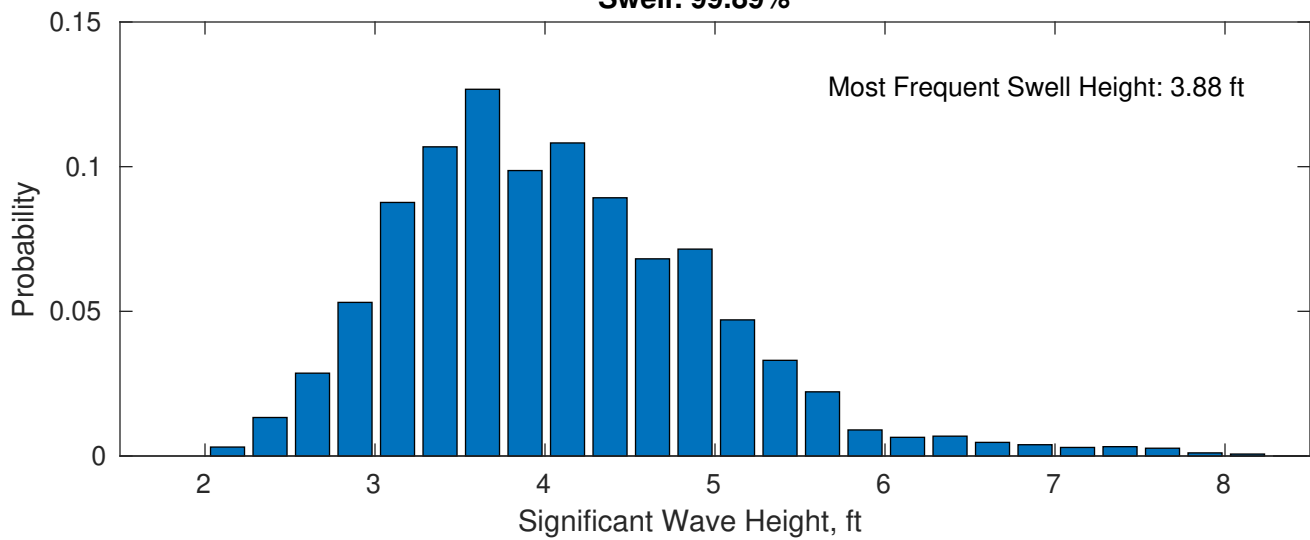
**January Wave Height PDF: 1979 - 2015**



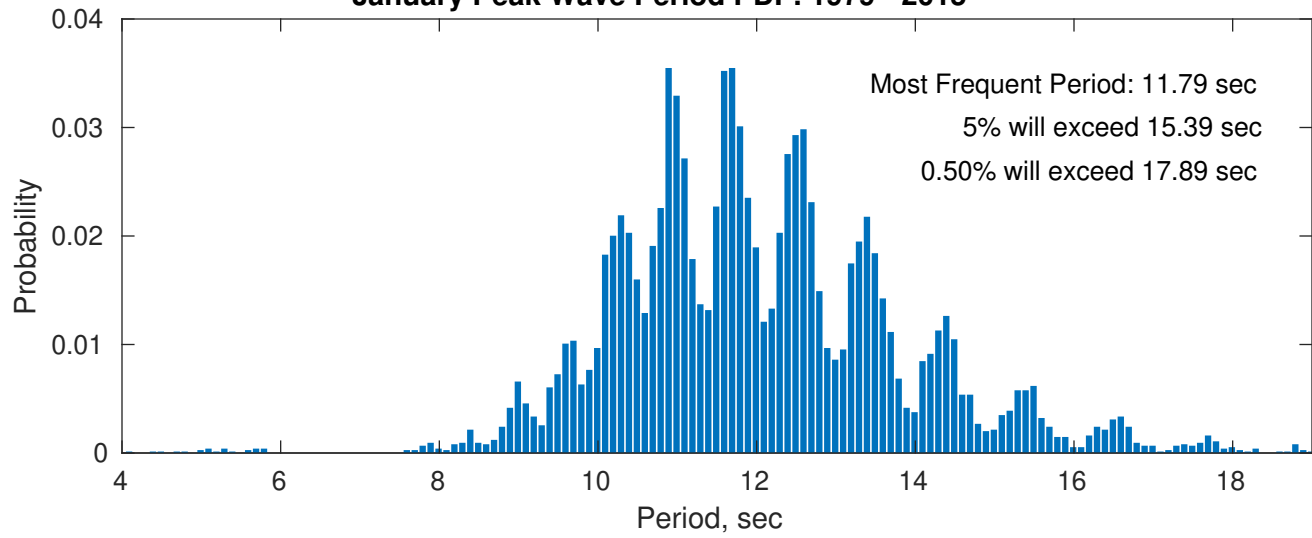
**Wind-Sea: 0.11%**



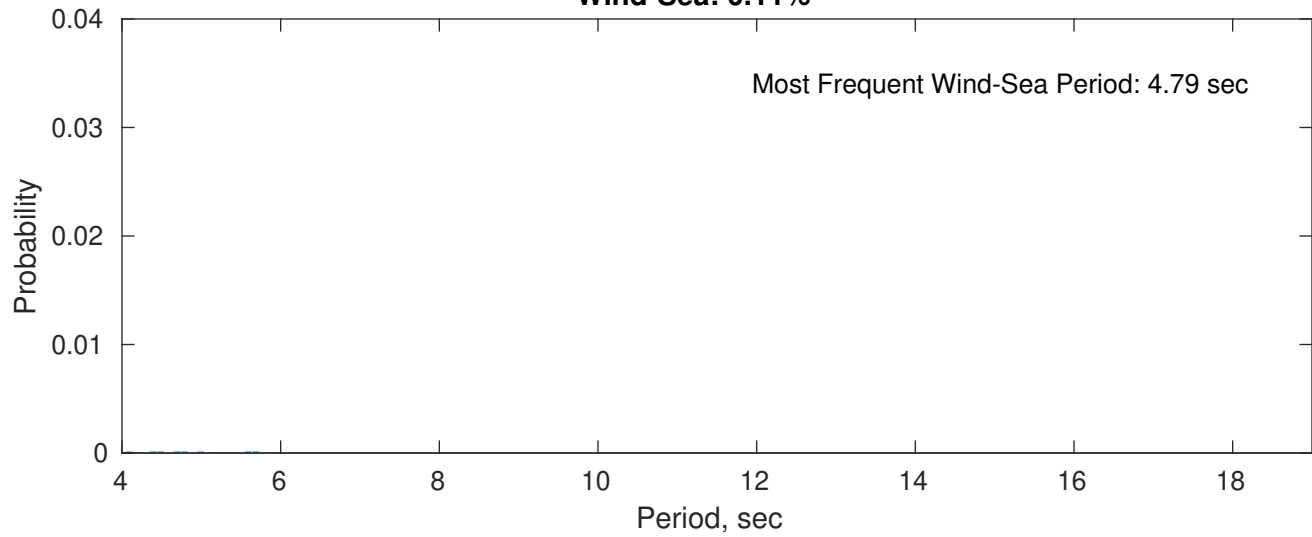
**Swell: 99.89%**



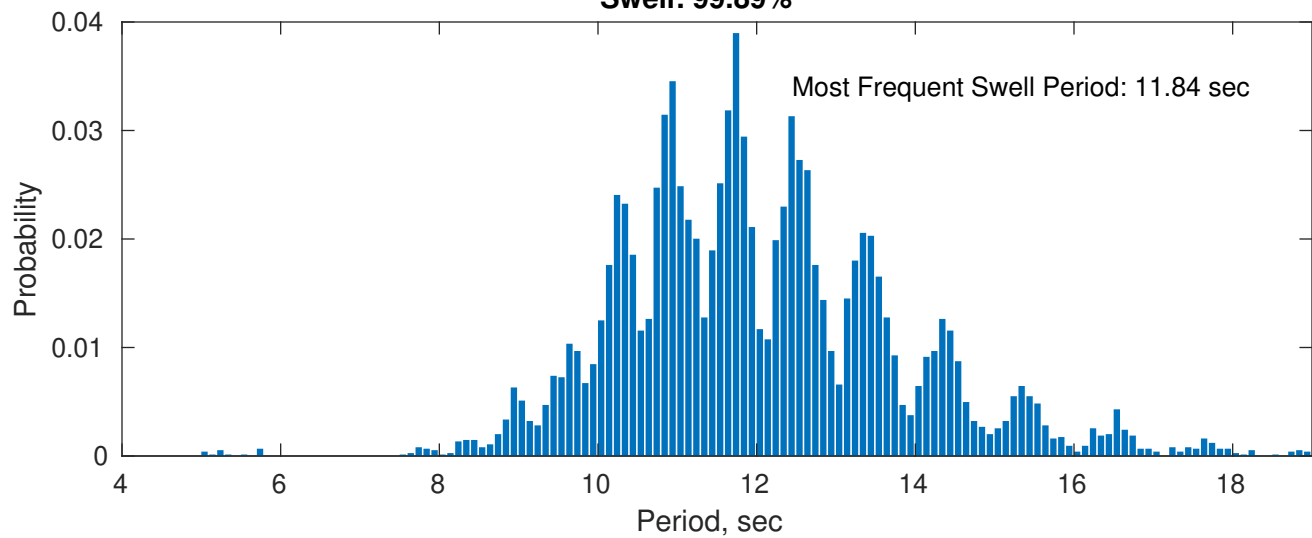
**January Peak Wave Period PDF: 1979 - 2015**



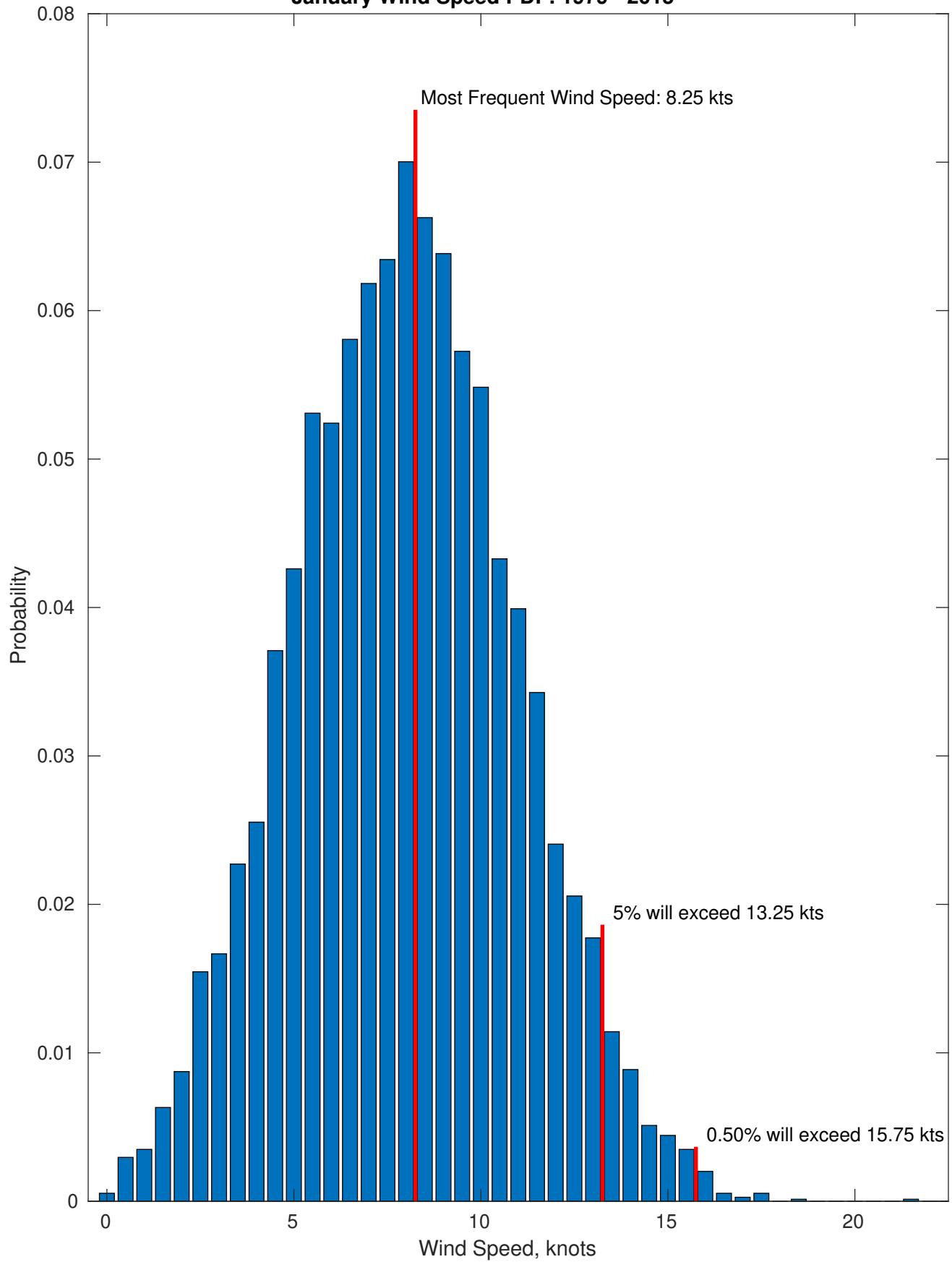
**Wind-Sea: 0.11%**



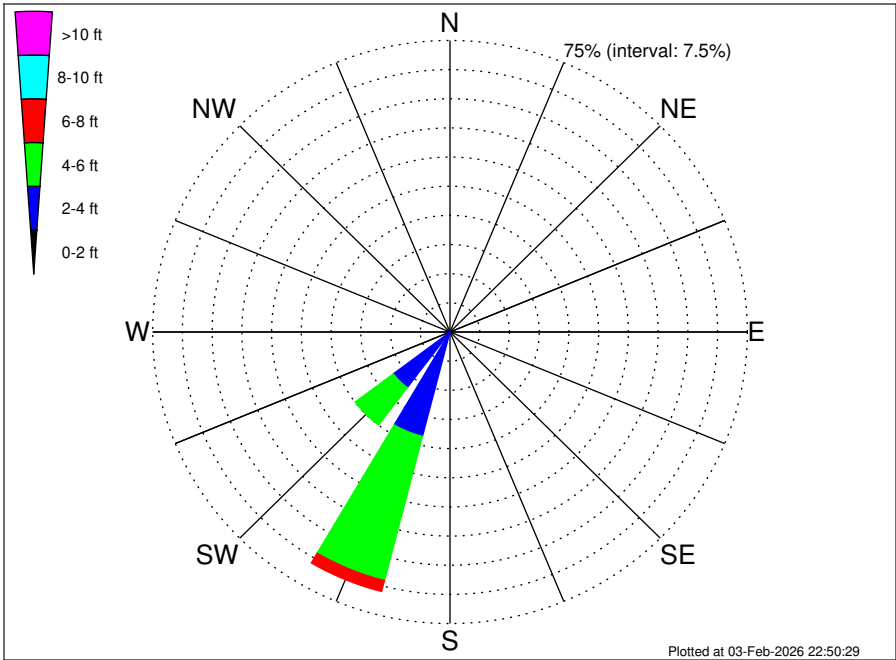
**Swell: 99.89%**



January Wind Speed PDF: 1979 - 2015



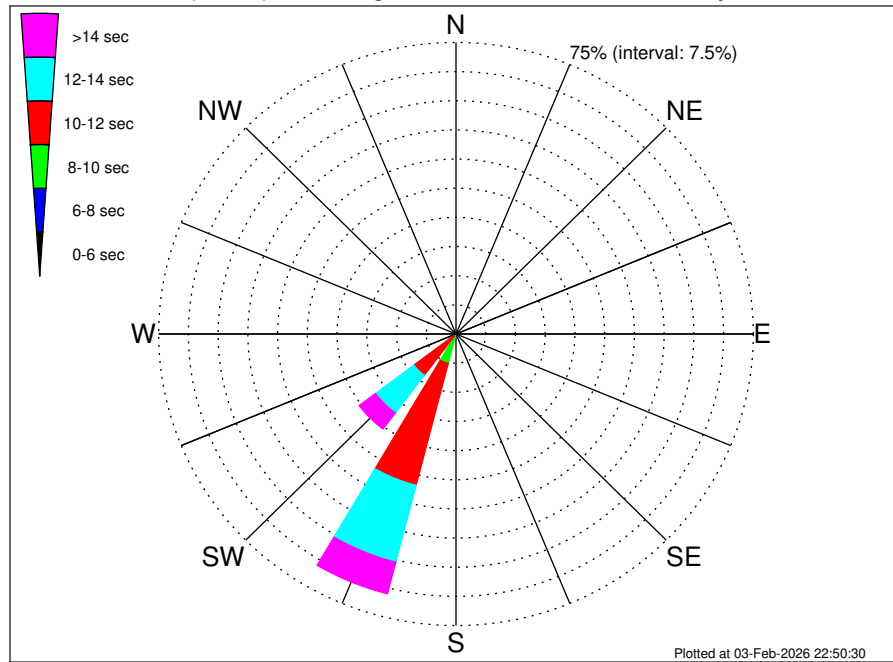
Angola Namibia CRS Luanda (BU-LU) Climatological WaveHeight Rose for January: 1979 - 2015



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   | . | .   | .  | .   | . | .   | .  | .   | 0.09 | 27.74 | 17.90 | 0.22 | 0.01 | 0.04 | .  | .   | 46.01  |
| 4 - 6 ft   | . | .   | .  | .   | . | .   | .  | .   | 0.01 | 38.29 | 12.04 | .    | .    | .    | .  | .   | 50.35  |
| 6 - 8 ft   | . | .   | .  | .   | . | .   | .  | .   | .    | 2.90  | 0.65  | .    | .    | .    | .  | .   | 3.55   |
| 8 - 10 ft  | . | .   | .  | .   | . | .   | .  | .   | .    | 0.09  | .     | .    | .    | .    | .  | .   | 0.09   |
| 10 - 12 ft | . | .   | .  | .   | . | .   | .  | .   | .    | .     | .     | .    | .    | .    | .  | .   | .      |
| 12 - 14 ft | . | .   | .  | .   | . | .   | .  | .   | .    | .     | .     | .    | .    | .    | .  | .   | .      |
| 14 - 16 ft | . | .   | .  | .   | . | .   | .  | .   | .    | .     | .     | .    | .    | .    | .  | .   | .      |
| 16 - 18 ft | . | .   | .  | .   | . | .   | .  | .   | .    | .     | .     | .    | .    | .    | .  | .   | .      |
| > 18 ft    | . | .   | .  | .   | . | .   | .  | .   | .    | .     | .     | .    | .    | .    | .  | .   | .      |
| Total      | . | .   | .  | .   | . | .   | .  | .   | 0.11 | 69.03 | 30.59 | 0.22 | 0.01 | 0.04 | .  | .   | 100.00 |

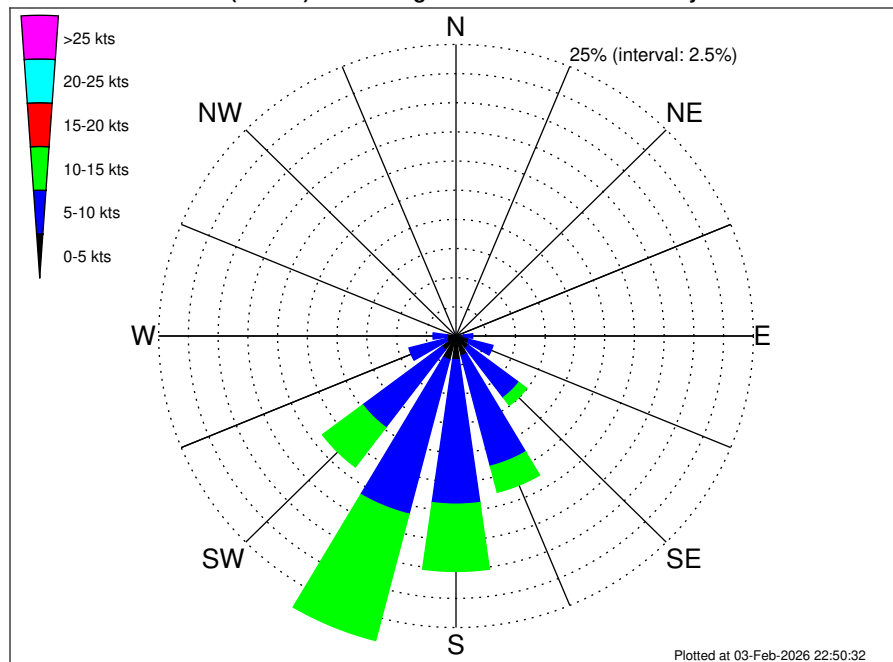
# Angola Namibia CRS Luanda (BU-LU) Climatological WavePeriod Rose for January: 1979 - 2015



## 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   | . | .   | .  | .   | . | .   | .  | .   | .    | 0.31  | .     | .    | .    | .    | .  | .   | 0.31   |
| 6 - 8 sec   | . | .   | .  | .   | . | .   | .  | .   | .    | 0.23  | .     | .    | .    | .    | .  | .   | 0.23   |
| 8 - 10 sec  | . | .   | .  | .   | . | .   | .  | .   | .    | 7.28  | 0.67  | .    | .    | .    | .  | .   | 7.96   |
| 10 - 12 sec | . | .   | .  | .   | . | .   | .  | .   | 0.04 | 32.39 | 12.63 | 0.04 | .    | .    | .  | .   | 45.11  |
| 12 - 14 sec | . | .   | .  | .   | . | .   | .  | .   | 0.05 | 20.43 | 12.14 | 0.13 | .    | .    | .  | .   | 32.76  |
| 14 - 16 sec | . | .   | .  | .   | . | .   | .  | .   | 0.01 | 6.51  | 4.09  | 0.04 | 0.01 | 0.04 | .  | .   | 10.70  |
| 18 - 20 sec | . | .   | .  | .   | . | .   | .  | .   | .    | 1.52  | 0.98  | .    | .    | .    | .  | .   | 2.50   |
| 22 - 24 sec | . | .   | .  | .   | . | .   | .  | .   | .    | 0.36  | 0.08  | .    | .    | .    | .  | .   | 0.44   |
| Total       | . | .   | .  | .   | . | .   | .  | .   | 0.11 | 69.03 | 30.59 | 0.22 | 0.01 | 0.04 | .  | .   | 100.00 |

Angola Namibia CRS Luanda (BU-LU) Climatological Wind Rose for January: 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 | 0.03 | •    | 0.01 | 0.01  | 0.01  | 0.03  | 0.01  | 0.04 | 0.07 | 0.01 | •    | 0.01 | 0.35   |
| 0 - 5 kts   | 0.12 | 0.23 | 0.24 | 0.42 | 0.60 | 1.12 | 1.29 | 1.73  | 2.03  | 2.07  | 1.48  | 0.78 | 0.67 | 0.44 | 0.24 | 0.13 | 13.60  |
| 5 - 10 kts  | 0.17 | 0.23 | 0.31 | 0.42 | 0.78 | 2.10 | 5.31 | 9.78  | 12.38 | 13.68 | 8.33  | 3.27 | 1.20 | 0.39 | 0.32 | 0.22 | 58.88  |
| 10 - 15 kts | 0.07 | 0.04 | 0.11 | 0.09 | 0.26 | 0.39 | 0.83 | 2.31  | 5.77  | 11.20 | 4.23  | 0.51 | 0.05 | 0.04 | 0.03 | 0.08 | 26.01  |
| 15 - 20 kts | •    | •    | •    | •    | •    | 0.05 | 0.04 | 0.15  | 0.24  | 0.58  | 0.07  | 0.01 | •    | •    | •    | •    | 1.14   |
| 20 - 25 kts | •    | •    | •    | 0.01 | •    | •    | •    | •     | •     | •     | •     | •    | •    | •    | •    | •    | 0.01   |
| 25 - 30 kts | •    | •    | •    | •    | •    | •    | •    | •     | •     | •     | •     | •    | •    | •    | •    | •    | •      |
| 30 - 35 kts | •    | •    | •    | •    | •    | •    | •    | •     | •     | •     | •     | •    | •    | •    | •    | •    | •      |
| 35 - 40 kts | •    | •    | •    | •    | •    | •    | •    | •     | •     | •     | •     | •    | •    | •    | •    | •    | •      |
| 40 - 45 kts | •    | •    | •    | •    | •    | •    | •    | •     | •     | •     | •     | •    | •    | •    | •    | •    | •      |
| 45 - 50 kts | •    | •    | •    | •    | •    | •    | •    | •     | •     | •     | •     | •    | •    | •    | •    | •    | •      |
| Total       | 0.38 | 0.51 | 0.73 | 0.95 | 1.67 | 3.66 | 7.49 | 13.99 | 20.43 | 27.55 | 14.13 | 4.61 | 1.99 | 0.89 | 0.59 | 0.44 | 100.00 |