

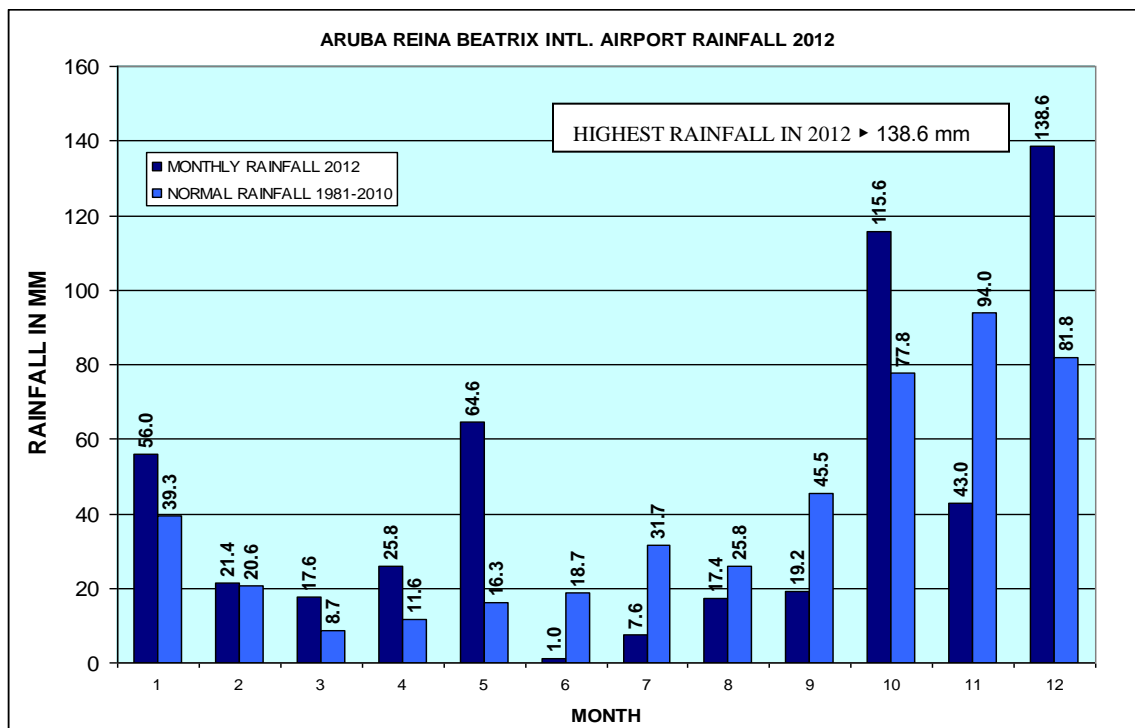


## ARUBA

### CLIMATOLOGICAL SUMMARY 2012

#### PRECIPITATION

The total amount of rainfall recorded at the Reina Beatrix Intl. Airport for the year 2012 was 527.8 mm (normal values 1981 – 2010 is 471.7 mm a total of 11.9 % more rain during 2012). During the first quarter of the year 2012 (January, February, March) a total of 95.0 mm of rainfall has been recorded at the Reina Beatrix Intl. Airport (18 % of the total amount for 2012). During the second quarter of the year 2012 (April, May, June) a total 91.4mm was recorded (17.3% of the total amount for 2012). The third quarter of the year 2012 (July, August, September) a total of 44.2 mm was recorded (8.4 % of the total amount for 2012). The last quarter of the year 2012 (October, November and December) a total of 297.2 mm (56.3 % of the total amount for 2012) was recorded. Evidently the last quarter of the year 2012 which is also a part our rainy season, was quite wet. The *wettest* month being December 2012 with a total of 138.6mm recorded (Figure 1). The highest recorded rainfall in **24 hours** was recorded on May 10, 2012 with a total of 46.8 mm.



**Figure 1.** Rainfall 2012 versus 30 years normal's period 1981-2010

## TEMPERATURE

The year average air temperature recorded at the Reina Beatrix Intl. Airport Aruba for 2012 was 28.4 °C (normal value is 28.1 °C). August 2012 with an average of 29.1 °C and September 2012 with an average of 29.2 °C, are the warmest months of 2012. The Average maximum temperature during August 2012 was 33 °C and the average maximum during September 2012 was 34.1 °C.

The absolute maximum temperature of 35.6 °C was recorded on August 1st 2012 (Figure 2). The absolute minimum temperature of 22.0 °C was recorded on January 21st 2012.

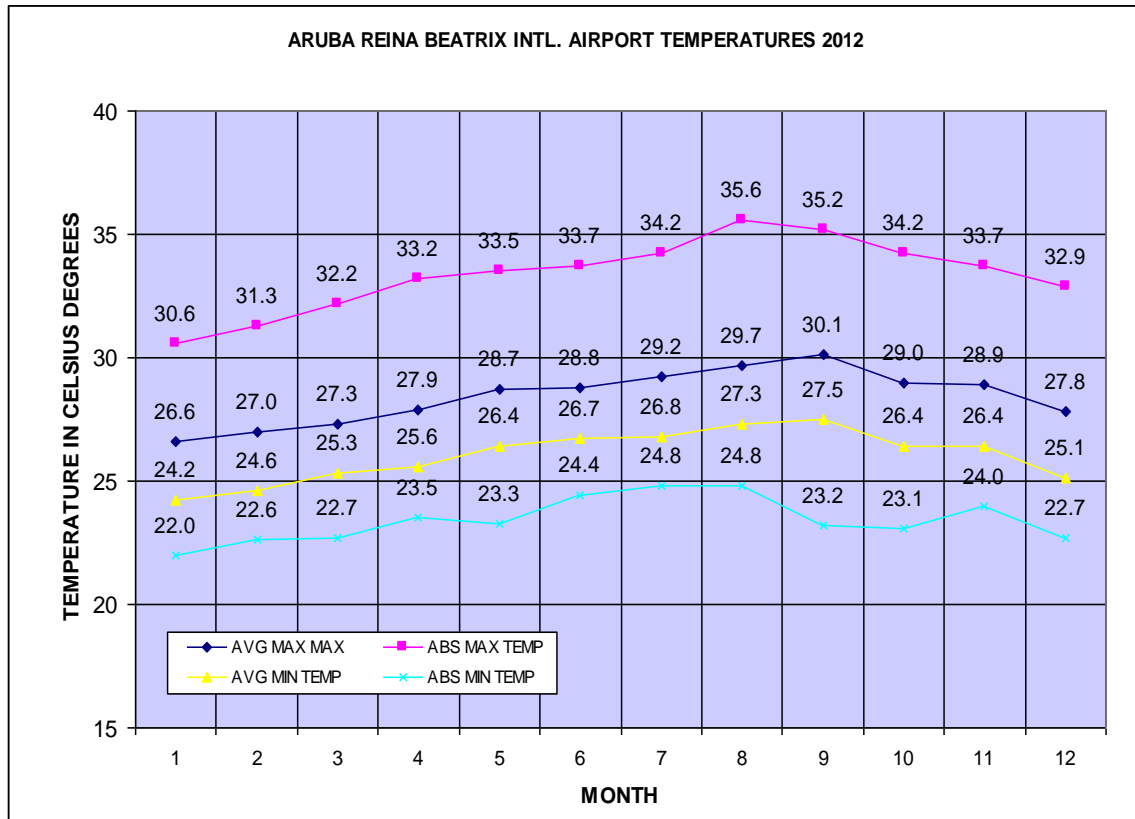
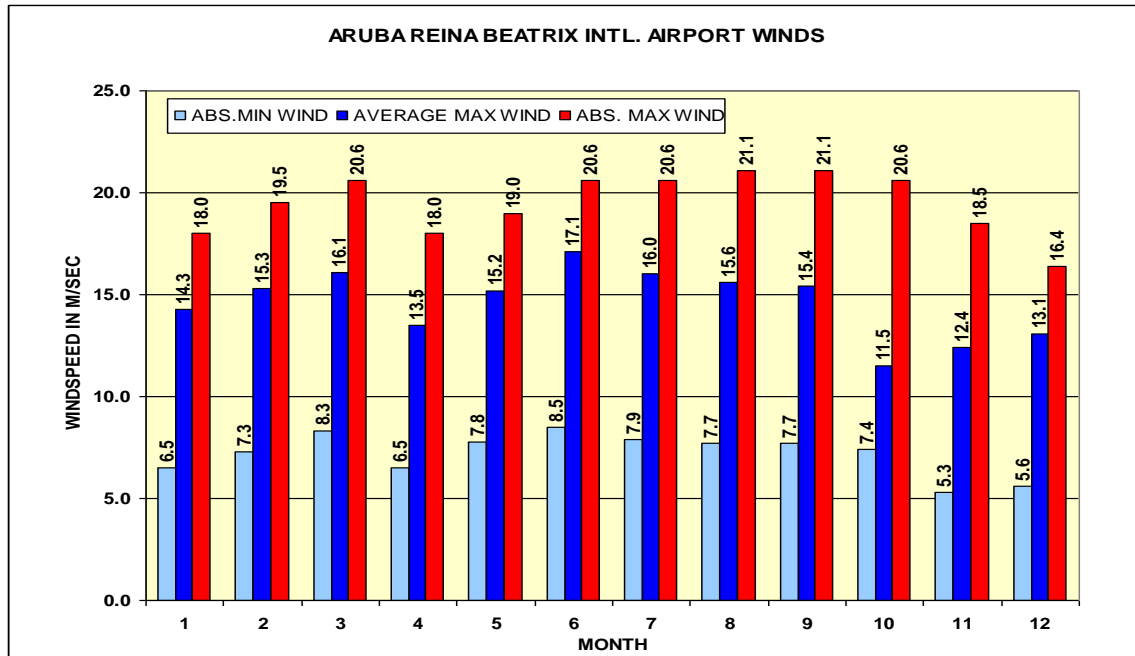


Figure 2. Temperature data 2012

## WINDSPEED

The year average wind-speed at 10 meters height for the year 2012 at the Reina Beatrix Intl. Airport was 6.0 m/sec (21.6 km/h). The highest average windspeed of 7.6 m/sec (27.4 km/h) was recorded during the month of July 2012 and the lowest during the month of November 2011 with a 4.2 m/sec (15.1 km/h). The highest average maximum of 15.2 m/sec (54.7 km/h) during July 2011 and the absolute maximum windspeed of 21.1 m/sec (76.0 km/h) were recorded during the month of December 2012 (Figure 3a)

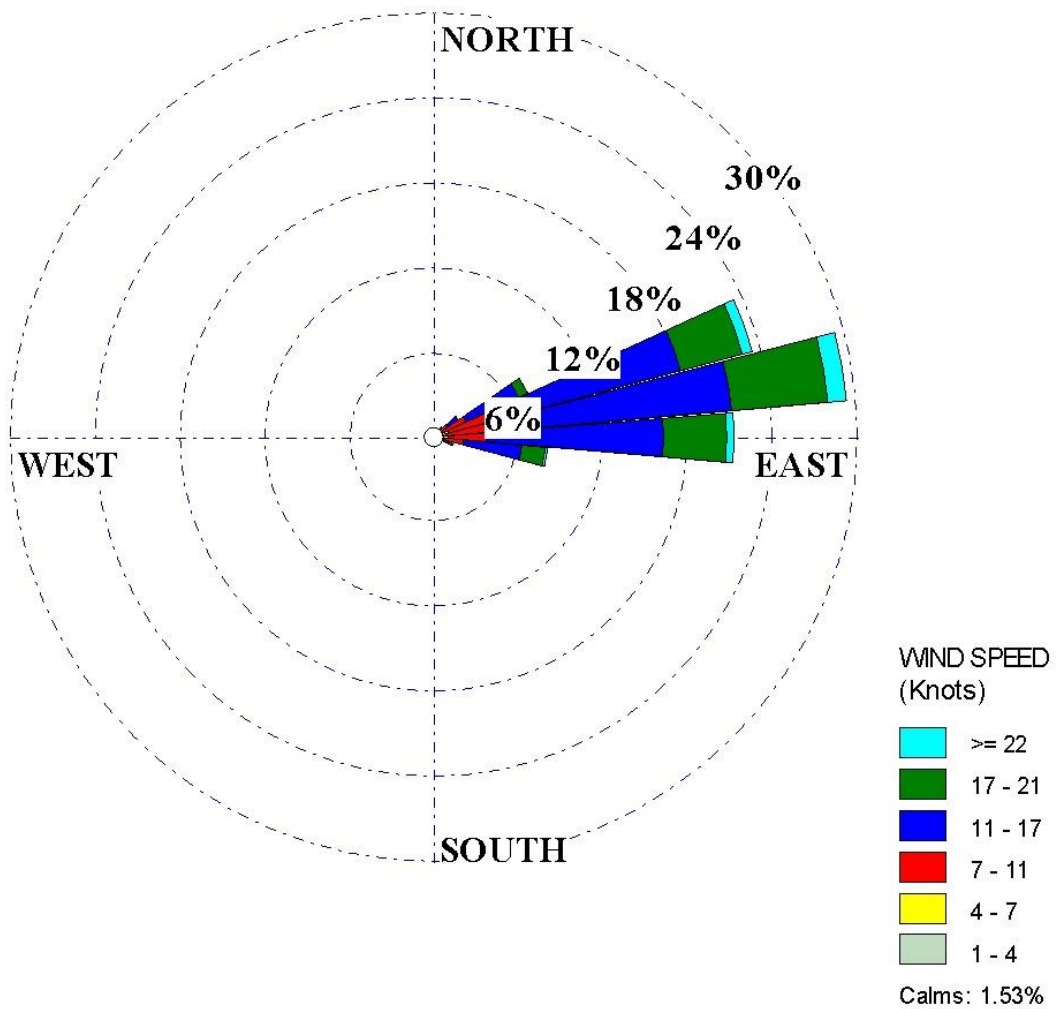


**Figure 3a.** Windspeed data 2012

The average wind direction for 2012 was 080 degrees or East-Northeast. This is a tab more north than the 30-year average (1971-2000) of 91 degrees or East.

The wind rose (figure 3b) shows that throughout 2012 the direction of the wind at the Airport was between 65 degrees (East-Northeast) and 95 degrees (East-northeast) for more than 80% of the time.

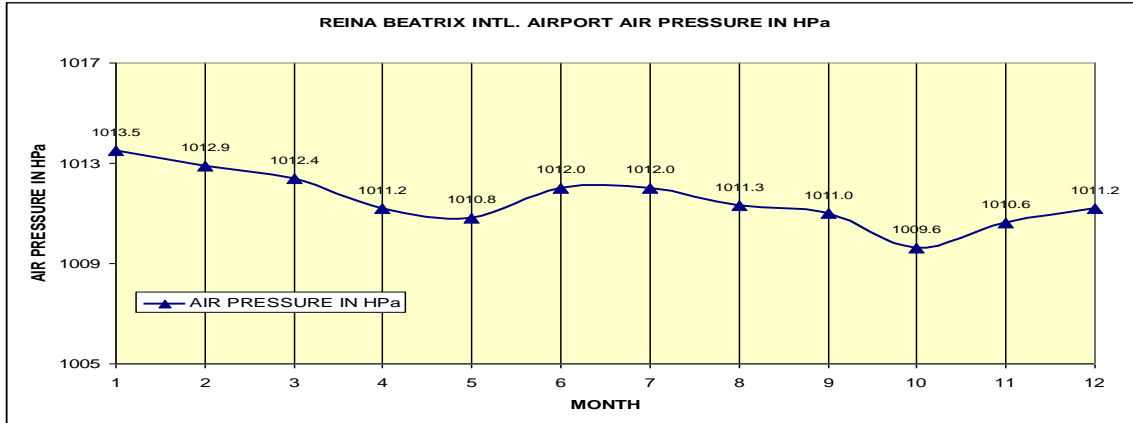
The longest spike indicated that 30% of the time winds were from the East-northeast and 17% of which were between 6 and 9 m/s, 7% were between 9 and 11 m/s while 1% were above 11 m/s.



**Figure 3b.** Windrose data 2012

## ATMOSPHERIC PRESSURE

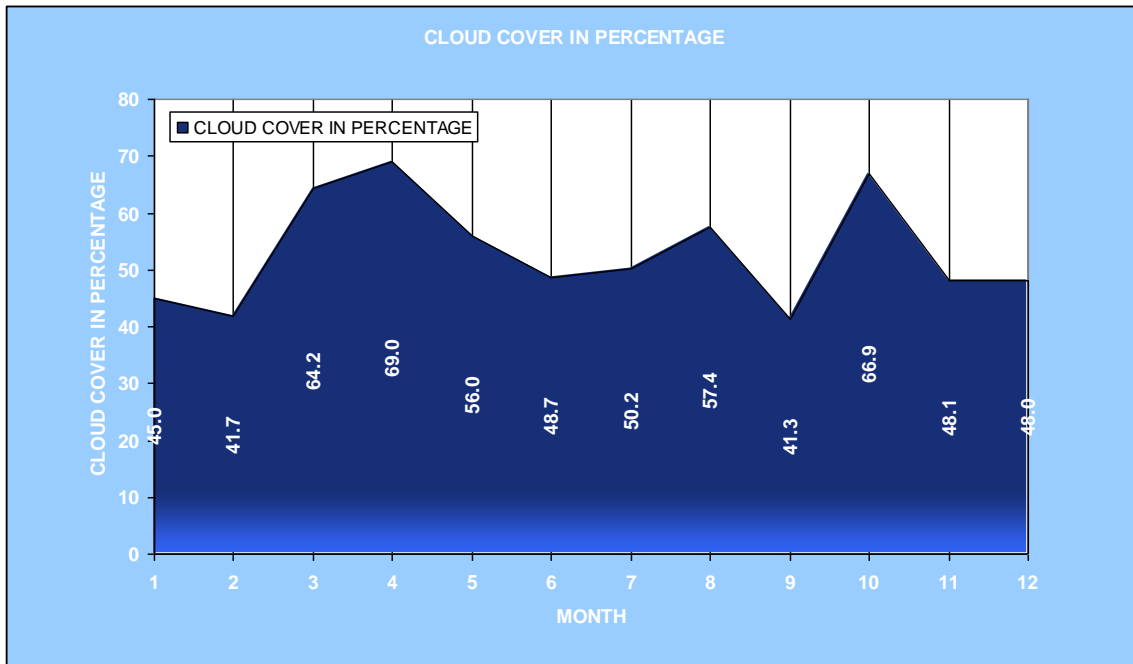
The average atmospheric pressure recorded at the Reina Beatrix Intl. Airport was 1011.5 hPa. The highest monthly average atmospheric Pressure of 1013.5 hPa was recorded during January 2012 with the lowest during October 2012 of 1009.6 hPa. (Figure 4).



**Figure 4.** Atmospheric pressure 2012

## CLOUD COVERAGE DURING 2012

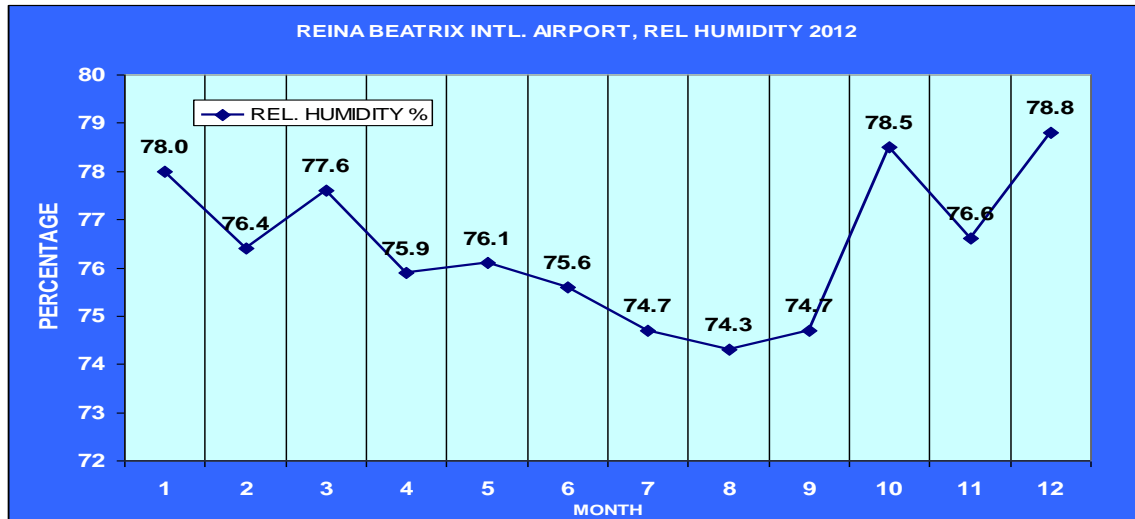
Highest Cloud coverage was during the Month of April 2012 69.0% with the lowest during the month of February 2012, 41.7 % (Figure 5). Most of the cloud cover in April was due to high-level clouds.



**Figure 5.** Cloud Cover 2012

## RELATIVE HUMIDITY 2012

Highest monthly average Relative Humidity was during the December 2012 with a low monthly average during the month of August 2012 (Figure 6).



**Figure 6.** Relative humidity 2012

## **SPECIAL OCCURRENCE (EVENTS) DURING THE YEAR 2012**

### **1. Weather**

On October 17<sup>th</sup> 2012 near 10:37lt, heavy showers were spotted Northeast of Aruba. These showers gradually moved westward over the Island near the Noord district. Between 11:00lt –11:14lt, rapid and strong descending winds ahead these thundershower clouds caused moderate damage to a roof and inner structure of a house in the district of Noord (Alto Vista area) (Figure 7a,b,c).



**Figure 7a.** Picture showing some roof shingles blown away.



**Figure 7b.** Minor damage caused to the roof.



**Figure 7c.** Picture showing some damage on the inside structure of the house.



Next day on October 18<sup>th</sup> 2012 a waterspout was spotted near the Hi-Rise Hotel Area which lasted for approximately 30-45 seconds (figure. 8). Although the potential destructive power of these two weather phenomena's no human injuries or casualties were reported.



Figure 8. Waterspout picture taken from the DMA Office (October 18 2012).

## 2. Earthquakes

Two Earthquakes were felt by the public, respectively on January 3 and 9, 2012.

- Jan 3, 2012 10:37 am lst, 12.41N, 70.10W, Mw 2.2, Depth 16.6 km.
- Jan 9, 2012 6:21 am lst, 12.43N, 69.86W, Mw 2.0, Depth 22 km

Although both quakes were felt by the public, none caused damage since they were weak.

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