



**ANNOUNCEMENTS**

Predictability of rainfall remains low until March. However, an El Nino is forecasted to develop ;eading to normal to below normal rainfall across the Caribbean during June to August.

**REGIONAL OVERVIEW ON WEATHER AND CLIMATE FOR FEBRUARY 2014**

Mixed conditions were experienced in the Eastern Caribbean and Guyana for the month. Trinidad, St. Vincent, St. Lucia and Dominica were normal; Tobago moderately wet; Grenada very wet; Barbados abnormally wet; Antigua abnormally dry; and Guyana normal in the west and abnormally wet in the east. Jamaica was normal, while Belize was abnormally dry in the south and normal in the north.

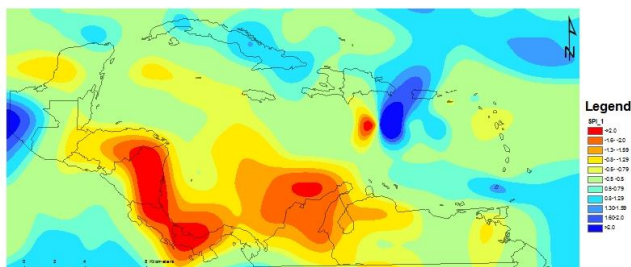


Figure 1. SPI for the Caribbean for February 2014. More information on the SPI can be viewed at <http://63.175.159.26/~cdpmn/spimonitor.html>.

Most annual cropping takes place over a period of about three months. Normal to above normal rainfall totals were experienced in the eastern Caribbean and Guyana. Trinidad, Barbados and St. Vincent were abnormally wet; Tobago, Dominica and Antigua normal; Grenada exceptionally wet; St. Lucia extremely wet; and Guyana moderately wet in the south west to normal in the east. Jamaica was

normal, but Belize ranged from abnormal to very wet.

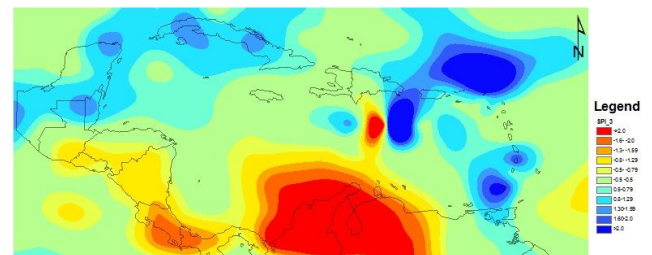


Figure 2. SPI for the Caribbean for December 2013 to February 2014. More information on the SPI can be viewed at <http://63.175.159.26/~cdpmn/spimonitor.html>

The frequency of movement of a number of fast-moving frontal systems into the north-western Atlantic during February, resulted in the continued erosion of the western side of the Bermuda/Azores ridge. Thus, the high pressure system was centered nearer to the Azores for most of the month all the while maintaining its dominance across the eastern Caribbean.

**NATIONAL OVERVIEWS**

**Barbados**

The Bermuda/Azores High pumped moderate to fresh east to east north-easterly trade-winds of 25 to 40 km/hr across Barbados and the rest of the region.

Two dry spells that occurred during the month of February contributed to below normal rainfall at the

Grantley Adams Airport. The first was a four-day spell between the 11<sup>th</sup> and 14<sup>th</sup>; the second was a five-day spell which occurred between the 20<sup>th</sup> and the 24<sup>th</sup>. The February, 2014 rainfall total of 37.0mm was approximately 2mm less than that observed in February, 2013 and 4mm short of the long-term (1981-2010) average. Meanwhile, Golden Ridge in St. George recorded a rainfall total of 55.3mm for February over 15 rain days (rainfall ≥ 1mm). This was five more than the number of rain days which occurred at the Airport.

February also turned out to be a relatively cool month. There were two occurrences on which the daily maximum temperature equalled the long-term average of 29.2°C. In all other instances the daily maximum temperature was cooler than the long-term average. The lowest minimum temperature observed at the Airport was 22.0°C on the 19<sup>th</sup>.

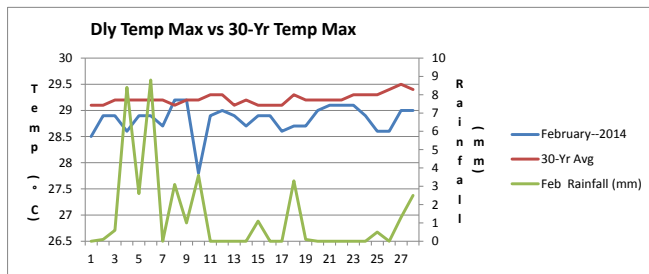


Figure 3 February 2014 daily rainfall and maximum temperature (compared with the average) at Grantley Adams Airport.

**Belize**

Gusty and sunny conditions prevailed over the first few days of the month. A cold front stretched from northern Florida to the Mexican Gulf coast on the afternoon of 5<sup>th</sup>. Some showers occurred inland during the following morning. On 7<sup>th</sup> the surface flow backed to the northeast as a few showers occurred over northern Belize. The showers increased in frequency during morning of the 8<sup>th</sup> along coastal areas before spreading inland later. More coastal showers occurred on the 9<sup>th</sup> morning, as the moist northeasterly flow prevailed. The International Airport recorded 34.8mm for that day.

Weather continued on the 10<sup>th</sup> with generally cloudy skies with a few showers occurring over northern and some inland areas. The Belize Zoo (BZO) in western Belize district recorded the most rainfall-45.4mm. A few showers occurred over southern

Belize into the following morning. Punta Gorda (PGA) town measured 58.2mm. Early on the morning of the 12<sup>th</sup>, showers occurred over southern coastal Belize. These showers also impacted the Banana Farms for a considerable part of the morning. In the evening, there were showers and isolated thunderstorms in the north and inland.

On 17<sup>th</sup> isolated showers occurred over southern coastal waters. The showers occurred more frequently on 18<sup>th</sup> along southern coastal and some inland areas. Savannah (SVH) in the Stann Creek district recorded 16.4mm followed by Pomona (PMA) with 10.0mm. On 19<sup>th</sup>, all parts of the country experienced some showers. PMA recorded the highest rainfall with 34.1mm followed by Barton Creek with 29.0mm and Belmopan with 23.7mm.

Windy and dry southeasterly airflow persisted into 24<sup>th</sup>. On the 26<sup>th</sup> morning, layered clouds with embedded low clouds invaded southern coastal Belize. Punta Gorda town recorded the highest rainfall of 30.5mm. For the rest of the country, the weather continued mostly sunny. Mostly dry weather prevailed on the 27<sup>th</sup>. Showers were experienced over the Stann Creek district on the morning of the 28<sup>th</sup> due to a frontal trough. The showers spread to northern inland Belize later that day.

Table 1 Rainfall and Temperature Summary for February 2014 for stations in Belize

Station	Liber tad	Zoo	PGIA	Belmopan	Central Farm	Savannah
Elevation (m)	12	30	5	90	90	13
<b>Rainfall (mm)</b>	<b>21.6</b>	<b>64.8</b>	<b>50.2</b>	<b>58.3</b>	<b>29.0</b>	<b>52.2</b>
Mean.	36.4	53.3	75.4	55.2	65.8	86.8
Max	7.1	45.4	34.8	23.7	8.9	16.4
Rain days	6	5	5	6	6	11
<b>Temp (°C)</b>						
Mean	19.8	21.0	23.1	20.4	20.1	22.5
Min.						
Mean	18.8	18.6	20.7	18.3	18.2	20.7
Lowest						
Min.	15.9	18.0	20.2	17.0	16.5	20.1
Mean	30.1	12.5	15.9	12.1	13.0	16.2
Max.						
Mean	27.0	27.5	26.4	26.3	26.7	28.0
Highest	29.0	28.1	27.7	28.0	28.4	26.9
Max.						

Rainfall values in Green represent amounts above the monthly average; Temperature values in Red represent means above the monthly average; Temperature values in Blue represent means below the monthly average

## Dominica

The Atlantic high pressure system was the dominant feature throughout the month. Patches of low level clouds moved across the island with the brisk trade wind flow. This resulted in normal to below normal rainfall totals recorded across the island with breezy conditions throughout the month.

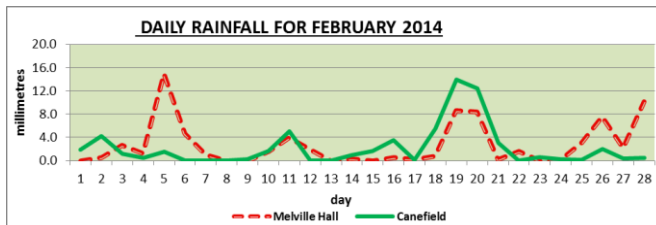


Figure 4 February 2014 daily rainfall at Melville Hall and Canefield.

At Canefield Airport, a total of 61.4mm of rainfall was recorded and that is 0.7mm below the mean. The highest daily total recorded was 13.9mm on the 19<sup>th</sup>. There were 14 rainfall days, and that is 2 days above the mean. There were 2 periods with 4 day dry spells. The average air temperature recorded was 26.2°C and this is 0.2°C below average. The highest daily temperature recorded was 30.8°C on the 14<sup>th</sup> with the lowest being 20.1°C recorded on the 17<sup>th</sup>. The average wind direction was east south easterly (120°) at an average speed of 7km/hr. The highest wind gust of 48km/hr was recorded on the 6<sup>th</sup>.

Below average rainfall total was recorded at the Melville Hall Airport. A total of 76.4mm was recorded and that is 22% below average. The highest daily total recorded was 15.0mm on the 5<sup>th</sup>. Fifteen (15) rainfall days were recorded, and that is average. A 6 days dry spell was recorded mid-month. The average air temperature recorded was 26.2°C and that is 0.3°C above the mean. The highest temperature recorded was 29.0°C on the 27<sup>th</sup> and the lowest recorded was 21.6°C on the 27<sup>th</sup>. Winds maintained an east south east (110°) direction at an average speed of 17km/hr. The highest wind gust recorded was 65km/hr on the 18<sup>th</sup>.

Dominica micro climate became evident in February with farmers on the east having just enough rainfall to see them through while those on the west experienced significantly dry conditions. Vegetables like lettuce tomatoes and cabbages, root crops like dasheen, ginger, sweet potatoes and yams were in

abundance throughout the regions. The west region is beginning to harvest water melon.

High rainfall amounts received during late 2013 into early 2014 produced favourable conditions for the increase and wide spread of The Black Sigatoka Disease all across the island. The Irish potato plants are being affected by Early Blight Disease. There is an increase in the Giant African Snails in the north region (Dos Dane). An increase in slugs was reported in the south east region.

## Grenada

A relatively stable month, as all meteorological parameters showed about average values. The average maximum temperature was 28.9°C with the highest temperature of 30°C occurring on the 3<sup>rd</sup>. Little cloud cover during the night was responsible for the average minimum temperature of 23.1°C during the month. The lowest temperature of the 21°C occurred on the 21<sup>st</sup>, with eleven days during the month the minimum thermometer read below 23°C, making February a relatively cool month.

During the month of February a total of 61.8mm of rainfall was recorded at the Maurice Bishop International Airport, 26.4mm above the long term average of 35.4 mm, making February 2014 the third wettest on record. Most of the rain however fell during the first half of the month as a mid-level trough produced 13.2mm and 12.5mm on the 4<sup>th</sup> and 6<sup>th</sup> respectively. Upper and mid-level winds coming from the west, along with shallow moisture observed, indicates the presence of the dry season. So although the month was relatively wet, the Airport had twenty one days of little or no rainfall.

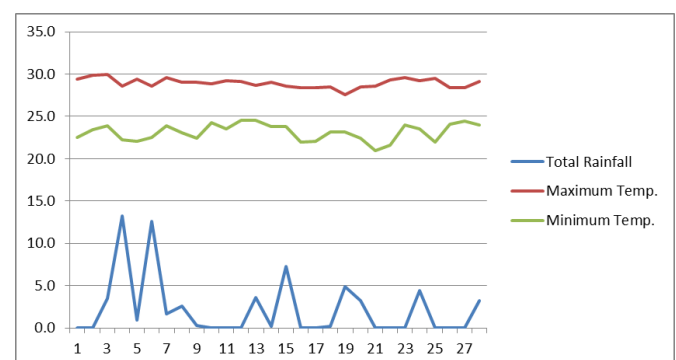


Figure 5 Daily rainfall and maximum and minimum temperature at Maurice Bishop International Airport during February 2014.

The sub-tropical high which constantly exceeds 1030.0 mb produced strong winds (average 27.8 km/hr) and rough seas during the month. The strong winds prohibited fisher folks from venturing out of port. As a result, fish catch was very low. Small Jacks, Tuna and Bonita were caught when conditions were ideal for going out to seas.

There was a noticeable reduction of citrus, yams and green peas. However, other ground provisions, coconuts and cabbage were prevalent

**Jamaica**

High pressure ridges and troughs were the dominant weather features across the island during the month of February. Although the troughs featured more frequently than high pressure ridges there was very little rainfall associated with these systems. Both Sangster International airport (Sangster) in the northwest and Norman Manley International airport (Norman Manley) in the southeast recorded below average rainfall.

During the month, Sangster recorded 20.8 mm of rainfall, while Norman Manley recorded 15.3 mm. There were three rainfall days reported for Sangster and Norman Manley during the month. Sangster recorded approximately 34% of the 1971-2000 mean while Norman Manley recorded 73% of the 1971-2000 mean.

The highest maximum temperature recorded for Sangster Airport was 32.1°C (21<sup>st</sup>) while 33.0 °C (9<sup>th</sup>) was reported for Norman Manley Airport.

Table 2 Climatological Statistics for Manley and Sangster Airports for January 2014.

Monthly Averages	Norman Manley	Sangster
Extreme Maximum Temperature	33.0 °C <b>(32.6 °C)</b>	32.1 °C <b>(31.6 °C)</b>
Lowest Minimum Temperature	22.1 °C <b>(21.0 °C)</b>	21.2°C <b>(19.7 °C)</b>
Rainfall Total	15.3 mm <b>(21)</b>	20.8 mm <b>(62)</b>
Rainfall days (≥1mm)	1 days <b>(3.6)</b>	3 days <b>(9.2)</b>

Values in red indicate the 1992-2010(19-year) averages.  
 Values in orange represent 1971-2000 mean.

**St Vincent and the Grenadines**

Although high pressure ridges dominated the weather conditions during the month of February, occasional cloudiness moved across St. Vincent and the Grenadines bringing scattered showers. Brisk easterly winds continued to be observed into the month of February, generating moderate to rough seas ranging between 2 to 3m. Maximum winds recorded at E.T. Joshua Airport - Arnos Vale was 50 km/hr.

At the E. T. Joshua Airport, total rainfall recorded for February 2014 was 83.1 mm. This was 7.2 mm lower than the average of 90.3 mm for this station.

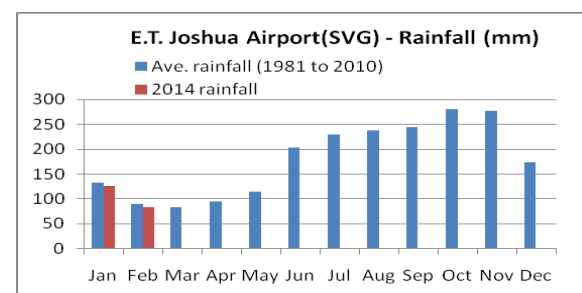


Figure 6 Daily rainfall and maximum temperature at E.T. Joshua Airport during February 2014.

The highest 24 hour rainfall was 10.2 mm, which was recorded on the last day (28<sup>th</sup>) of the month. Rainfall distribution showed the first dekad (ten-day period) had 48.4%; the second had 31.2% and the third had ~20.5% of the total rainfall. There were 16 days with rainfall ≥ 1mm, which is also the average for this station, and there were 12 days with < 1mm of rainfall.

The average maximum temperature was 29.0°C, and the average minimum temperature was 23.5°C. The extreme maximum temperature was 29.5°C and the extreme minimum temperature was 22.4°C.

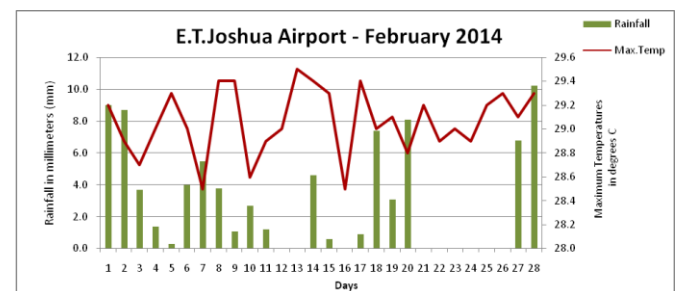


Figure 7 February 2014 daily rainfall and temperature at ET Joshua Airport.

**REGIONAL OVERVIEW ON SEASONAL CLIMATE FORECAST**

**March to May 2014**

Low predictability continue in the Caribbean for this period, apart from in the north in the vicinity of The Bahamas and Turks and Caicos, where above normal rainfall is the most likely scenario. Slightly better than average chances for normal to below normal rainfall exist in the Windward and Leeward islands and Belize. Conversely, slightly better than average chances exist for normal to above normal rainfall in the Guianas and Cuba. There is no clear signal in the remainder of the Caribbean.

With respect to temperature, there is high confidence that temperatures would be above normal over the Guianas and the northwest Caribbean.

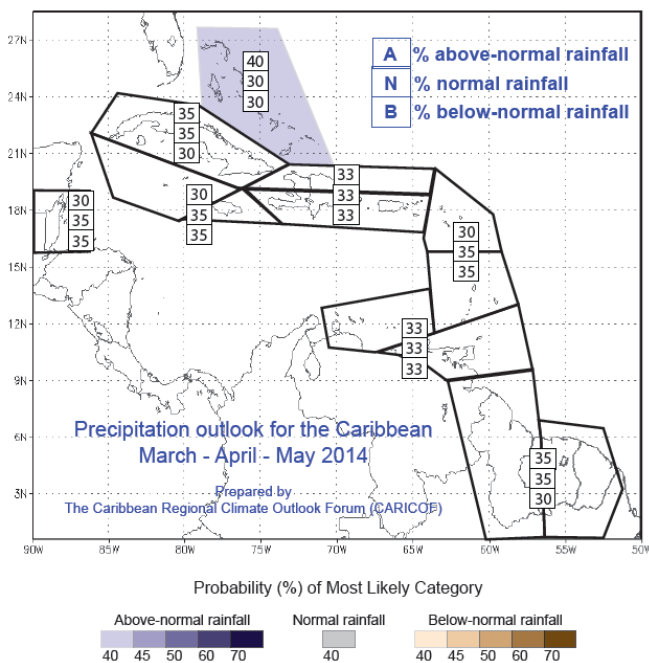


Figure 8 The February to April 2014 rainfall forecast

The tropical north Atlantic should influence the likely increase in rainfall to above normal during the next few months. The Trade Winds may influence a reduction in the rainfall in the remainder of the Caribbean.

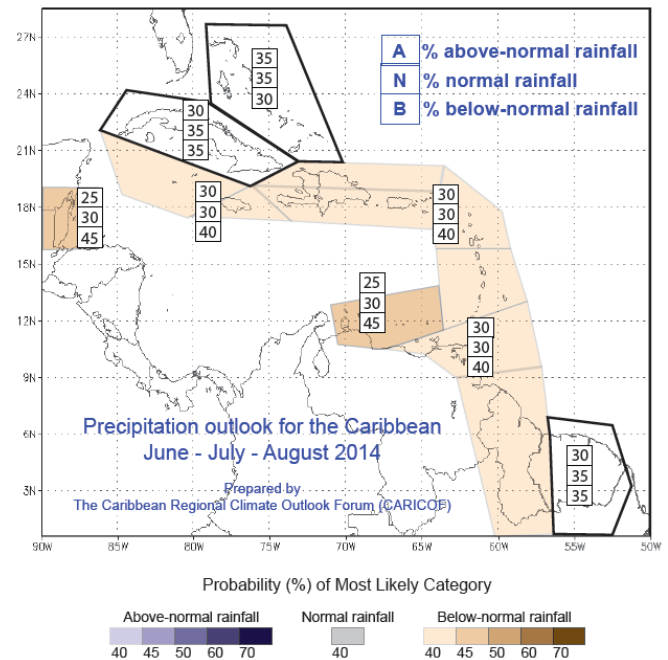


Figure 8 The May to July 2014 rainfall forecast

**June to August 2014**

Normal to below normal conditions, with a greater likelihood of below normal, is likely to dominate the region as an El Niño is forecasted to develop during the wet season. There is however, slightly better than normal chance of the northern islands being normal to above normal.

**ENSO Conditions**

ENSO-neutral conditions persist, with Eastern Pacific equatorial Sea Surface Temperature (SST) close to 0°C. However, most models indicate upward trend to about 0.5-2°C above average from June to August, possibly initiating an El Niño event – a development that the region should monitor closely. The influence of ENSO on rainfall and temperature is expected to be minimal for the period March to May, however there is a real chance for a shift to below normal rainfall in the south-eastern Caribbean from June to August, including a delay of onset of wet season. There is also a possibility of a small shift to above-normal rainfall in the north-western most portions of the Caribbean.

**Conditions in the Tropical North Atlantic and Caribbean**

SSTs are 0.5-1.5°C above average around the northern islands, and average to the east of the Antilles. The above average SSTs are forecasted to remain in the north and to possibly manifest by June

to the east. The atmosphere is expected to contain little moisture during dry season, but is likely to increase during May to August. Though with little predictability, the Trade Winds are currently slightly above average, and are expected to possibly remain stronger than average.

*Prepared by*

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Antigua and Barbuda, Barbados, Belize, Dominica, Grenada, Guyana,  
Jamaica, St Lucia, St Vincent and the Grenadines and Trinidad and Tobago**

***CAMI is funded by the European Union in partnership with the institutions that have prepared this bulletin, along  
with the Caribbean Agricultural Research and Development Institute and the World Meteorological Organization***