

Drought and Precipitation Statement for Antigua - January 2015



Dale C. S. Destin ([follow @anumetservice](#))
 Antigua and Barbuda Meteorological Service Climate Section
 February 5, 2015

[Please take our Weather Survey](#)

...Drought remains at slight levels although January was extremely dry...

Statement

Our worst drought since 2002/2003 continues; however, it has eased and remains at slight levels notwithstanding an extremely dry January. The meteorological drought, which started September 2013 and degenerated into an **economic drought**, was eased by the rainfall of November and remains at slight levels. The rainfall total for January, 1.27 inches, was well below normal and the seventh driest on record; it was also the driest January since 2002. Meanwhile, the rainfall total for Nov-Jan, 11.87 inches, was near normal. See table 1 for more.

Based on our latest analyses, below normal rainfall is projected for **February** and also the period **February-April 2015**. Given the projections, the meteorological drought is likely to, at least, remain at slight levels.

Period	Rainfall			Description of Actual (1981 – 2010)	Rainfall Record – 1928 to 2015			
	Actual	Normal (1981 – 2010)	Anomaly (1981 – 2010)		Max	Year	Min	Year
1(Jan)	1.27	2.70	- 1.43	Well below normal	8.57	2006	0.64	1931
3(Nov-Jan)	11.87	12.55	- 0.68	Near normal	26.06	1999	4.95	1983
6(Aug-Jan)	25.71	28.63	- 2.92	Near normal	44.96	1936	16.19	1983
9(May-Jan)	31.07	39.15	- 8.08	Below normal	64.40	1970	21.65	1930
12(Feb-Jan)	35.07	46.49	- 11.42	Well below normal	69.81	1951	24.80	1930
24(Feb-Jan)	80.79	93.94	- 13.15	Below normal	131.40	1951	65.82	1929

Table 1: Rainfall (inches) over the past 24 months. (For records, the year given marks the start of the period).

Definition

Drought in general means water shortage and rainfall deficiency. **Meteorological (climatological) drought** is defined in terms of the magnitude of a precipitation shortfall and the duration of this shortfall event. This is assessed by first examining the rainfall periods of three months or more for selected places to see whether they lie below the 30th percentile (lowest 30% of the historical records). The approach used to determine the rainfall deficit is an adjusted version of the decile method developed by Gibbs and Maher (1967). An adjusted version of this method is used as the measurement of droughts within the Australian Drought Watch System.

The drought levels, based on historical data, are defined as follow:

- **Slight:** rainfall ranges from less than 30th percentile to the 20th percentile
- **Moderate:** rainfall ranges from less than the 20th percentile to the 10th percentile
- **Serious:** rainfall ranges from less than the 10th percentile to the 5th percentile
- **Severe:** rainfall less than the 5th percentile

Probability of drought:

- **Slight Chance:** 5 to 25% chance of occurring
- **Chance:** 30 to 55% chance of occurring
- **Likely:** 60 to 75% chance of occurring

- **Highly Likely/Expected:** Greater than or equal to 80% chance of occurring

Rainfall Description used on the 1981 to 2010 rainfall dataset:

- **Well Below normal:** Rainfall totals in the lowest 10% of the dataset
- **Below Normal:** Rainfall totals in the lowest 33.3% of the dataset
- **Near Normal:** Rainfall totals in the middle 33.3% of the data
- **Above Normal:** Rainfall totals in the highest 33.3% of the dataset
- **Well Above Normal:** Rainfall totals in the highest 10% of the dataset
- **Rainfall:** Island average, based on rainfall at the airport and Green Castle

Disclaimer

The information contained herein is provided with the understanding that the Antigua and Barbuda Meteorological Service makes no warranties, either expressed or implied, concerning the accuracy, completeness, reliability, or suitability of this statement. The information may be used freely by the public with appropriate acknowledgement of its source, but shall not be modified in content and then presented as original material.