Cayman Islands Monthly Climate Bulletin

The Cayman national climate bulletin provides a broad overview of current climate conditions, as well as, an outlook of climate conditions up to 3 months in advance. The information is developed and disseminated by the Cayman Islands National Met Service and is intended to help Public manage climate risk and help build resilience to climate related hazards in Cayman Islands.

Highlights

The transition into the dry season, December - early dry season. Decreasing shower frequency & intensity.

The Dec-Jan-Feb outlook calls for 3% probability of normal rainfall.

The outlook calls for 35% probability of normal to below normal temperatures..

What Happened

Rainfall Review

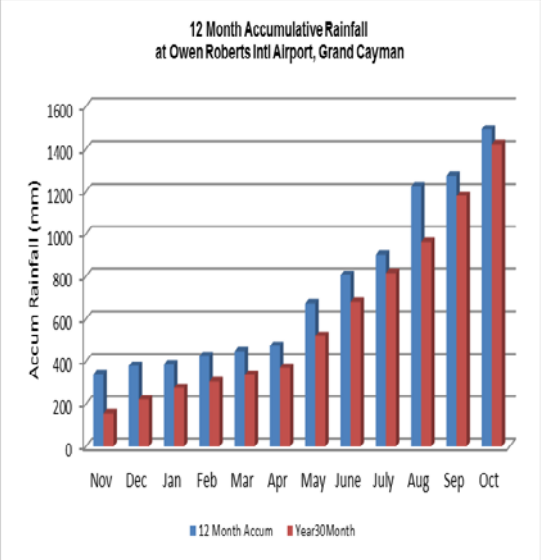
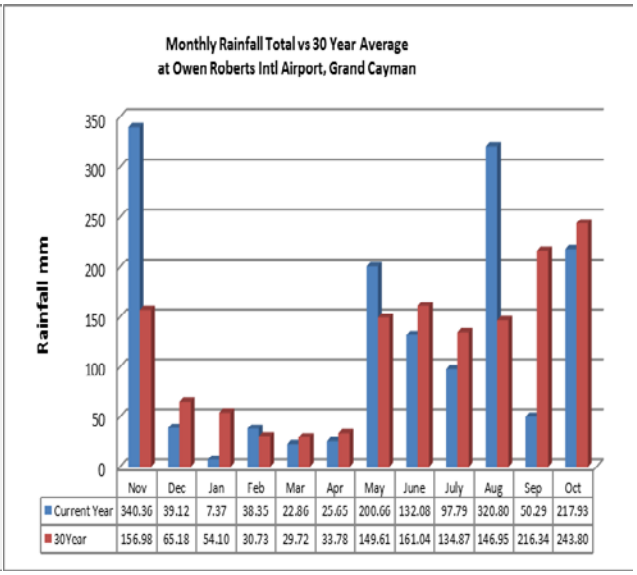


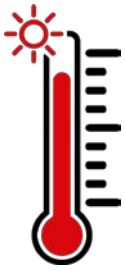
Figure 1. The graph displays the monthly accumulative rainfall over the past 12 months compared to the 30 year average. The rainfall totals for the past 12 months were 5**%** above the 30 year average.



	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct
Current Year	340.36	39.12	7.37	38.35	22.86	25.65	200.66	132.08	97.79	320.80	50.29	217.93
30Year	156.98	65.18	54.10	30.73	29.72	33.78	149.61	161.04	134.87	146.95	216.34	243.80

Figure 2. The graph displays the monthly rainfall totals over the past 12 months compared to the 30 year average. Sept rainfall total of 50.29 mm is the lowest on record.

Temperature Review



Temp(°C)	Climatological Mean (1991-2020)	October 2021		
		Highest	Mean	Lowest
Monthly Max	31.0	33.5	32.3	31.2
Monthly Min	25.2	26.1	25.4	22.5
Monthly Mean	28.5	30.2	29.3	27.8

Outlook or What Should We Expect? (Dec 2021 – Feb 2022)

Precipitation: The climatological rainfall range for Aug-Sep-Oct at Owen Roberts Airport is 511.6 to 667.3 mm. Aug-Sep-Oct total rainfall was 589.0 mm which was within the climatological range. The climatological rainfall range for Dec-Jan-Feb is 130 to 159.5 mm. The Dec-Jan-Feb outlook calls for 33% probability of normal rainfall.

Frequency of wet days: Historically, in Dec-Jan-Feb, there are about 11 to 22 wet days. The forecast indicates 5-25 wet days for the next 3 months.
Frequency of 7-day wet spells: Between 1 and 7 wet spells expected for Dec-Jan-Feb.
Frequency of extreme (top 1%) 3-day wet spells: The forecast indicates 0 - 1 number of extreme wet spells.

Temperature: Aug-Sept-Oct average temperature was 29.6 ºC, which was about 0.3 ºC more that the climatological mean.
The usual temperature range for Dec-Jan-Feb at Owen Roberts Airport is 25.8 ºC to 26.3ºC. The outlook calls for 35% probability of normal to below normal temperatures.

Drought: Short term (end of Jan) there is a drought warning. Long term (end of May) there is no drought concern.
Frequency of 7–day dry spells: Historically, in Dec-Jan-Feb, there are about 6 to 8 dry spells. The forecast indicates about 6 to 9 for the next 3 months. There is a 90% probability of at least three 7-day dry spells.
Frequency of 10–day dry spells: Historically, 3-5 dry spells occur from Dec-Jan-Feb. The forecast indicates 3-5 dry spells.

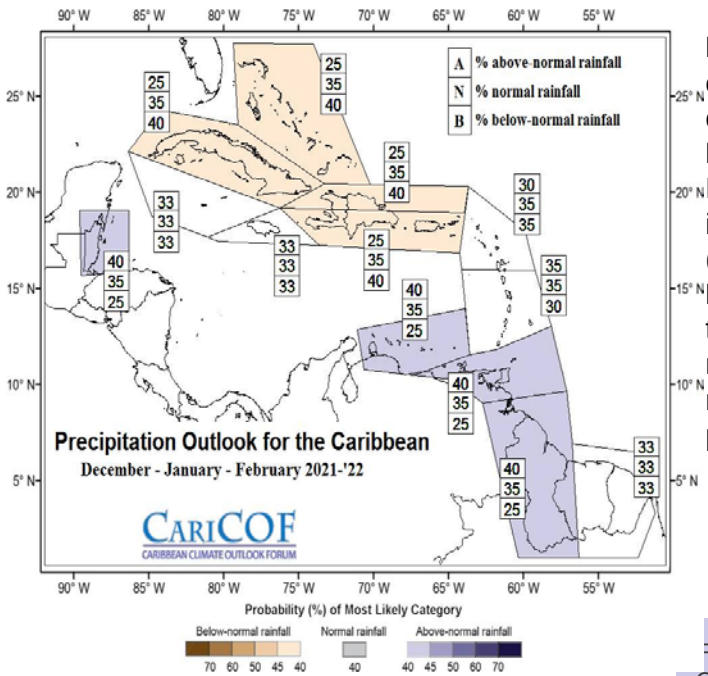


Figure 4: CariCOF Precipitation Outlook

El Niño Southern Oscillation (ENSO)

Recent observations: Sea Surface Temperatures (SSTs) in the eastern Pacific have recently dropped to below -0.5°C; La Niña conditions have returned this year.
Model forecast and guidance: The models forecast indicate La Niña conditions in DJF (85-90% confidence), which may continue into MAM (30-50% confid.), or return to ENSO neutral conditions (50-65% confid.).
Expected impacts on rainfall and temperatures: La Niña tilts the odds to more rainfall activity in DJF and MAM, except in the northern Caribbean where it tilts the odds to less rainfall. ENSO neutral offers little contribution to seasonal rainfall or temperature prediction in the Caribbean.

Above-normal (A) - within the wettest/hottest third of the historical record
Near-normal (N) - within the middle third of the historical record
Below-normal (B) - within the driest/coldest third of the historical record

Find out more about climate conditions in the Caribbean region by reading the CariCOF Outlook Newsletter:
http://www.weather.gov.ky/portal/page/portal/nwshome/climate/Climate%20Outlook%20Newsletter

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