



Cayman Islands Monthly Climate Bulletin

The Cayman Islands Monthly 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. Weather observations are taken at the Owen Roberts International Airport.

Highlights

Jan – Mar shows a slower than usual decrease in rainfall, wet days, wet spells, and a slower increase in dry spells.

For 2022:

- September was the wettest month accumulating 11.42 inches of rainfall, of which 4.43 inches were recorded during the passage of Hurricane Ian.
- March was the driest month corresponding with the 30-Year Average, having an accumulation of less than an inch of rainfall.

What Happened (Oct 2022 – Dec 2022)

Rainfall Review

The Oct-Nov-Dec climatological rainfall range at Owen Roberts Airport is 323.9 to 488.2 mm. The Oct-Nov-Dec total rainfall recorded was 351.3 mm. October to December's rainfall totals were 25% lower than the climatological average.

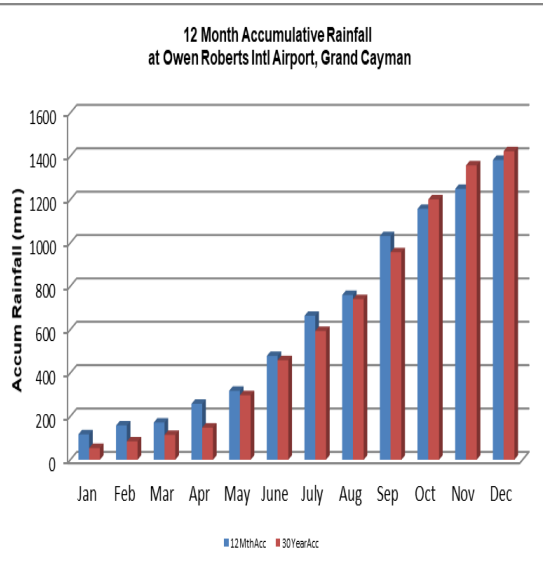


Figure 1. The graph displays the monthly accumulative rainfall over the past 12 months compared to the 30-year average. The rainfall totals for the past 12 months were 8.7% below the 30-year average.

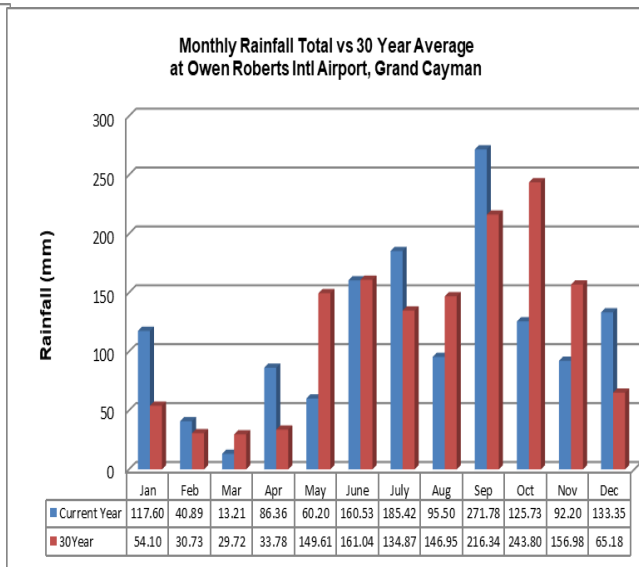
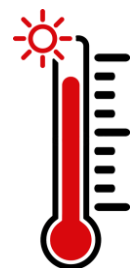


Figure 2. The graph displays the monthly rainfall totals over the past 12 months compared to the 30-year average. **September's rainfall total of 271.8mm is currently the highest for 2022 with 115.3mm of the total associated with the passage of Hurricane Ian (September 25th-26th).**

Temperature Review

The Oct-Nov-Dec average temperature recorded at Owen Roberts Airport was 28.3°C, which was 0.7 above the climatological average.

Temperature (°C)	Climatological Average (1991-2020)	Dec 2022		
		Highest	Avg	Lowest
Monthly Max	28.9	31.1	29.8	26.6
Monthly Min	23.6	27.0	23.9	20.5
Monthly Avg	27.6	28.9	27.2	24.8



Outlook or What Should We Expect? (Jan 2023 – Mar 2023)



Climatological Rainfall Range				Forecast	
84.1– 133.6mm				40% probability below average	
Frequency of Wet Days		Frequency of 7-Day Wet Spells		Frequency of Extreme (top 1%) 3-Day Wet Spells	
<i>Climatological</i>	<i>Forecast</i>	<i>Climatological</i>	<i>Forecast</i>	<i>Climatological</i>	<i>Forecast</i>
4–10	6–13	0–0.9	0.2–1.1	0–0	0–0



Climatological <u>Minimum</u> Temperature Range	Forecast	Climatological <u>Average</u> Temperature Range	Forecast	Climatological <u>Maximum</u> Temperature Range	Forecast
22.7°C – 23.2°C	45% Probability below average	26.1°C – 26.5°C	45% Probability above average	28.6°C – 28.9°C	45% probability above average
Heat Outlook N/A					



Drought: Short term and long term show a drought watch.

No of 7–Day Dry Spells(Three 7 DDS)		No of 10–Day Dry Spells	
<i>Climatological</i>	<i>Forecast</i>	<i>Climatological</i>	<i>Forecast</i>
3-5	3-5	1-3	1-3

El Niño Southern Oscillation (ENSO)

Recent observations: Sea Surface Temperatures (SSTs) in the eastern Pacific remain below normal (i.e. -1°C); La Niña conditions have so far maintained for all of 2022.

Model forecast and guidance: The forecast models indicate a return to ENSO neutral conditions is possible in JFM (50-60% confidence) and likely by AMJ (65-70% confidence), with the possible development of El Niño conditions from then onwards.

Expected impacts on rainfall and temperatures: La Niña tilts the odds to more rainfall JFM, 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

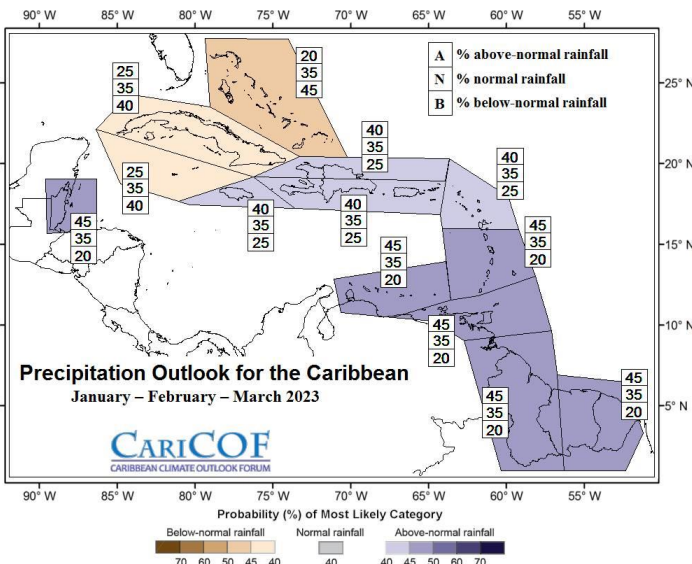


Figure 3: CariCOF Precipitation Outlook

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>

Disclaimer: The Cayman Islands National Climate Bulletin is meant to provide a general summary of current climate conditions and an outlook of future seasonal climate conditions for Cayman as well as some implications for the agriculture, health and tourism sectors. The information contained herein is provided with the understanding that the Cayman Islands National Weather Service makes no warranties, either expressed or implied, concerning the accuracy, completeness, reliability or suitability of said information and takes no responsibility for improper use or interpretation of the Bulletin.