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July 2024

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

Wet Season:
May – Nov

Hurricane Season:
Jun – Nov

Jul – Sept
Peak of the Caribbean Heat Season

A transition from El Niño to Neutral or La Niña conditions is expected for Jul-Aug-Sept and likely La Niña conditions by Oct-Nov-Dec.

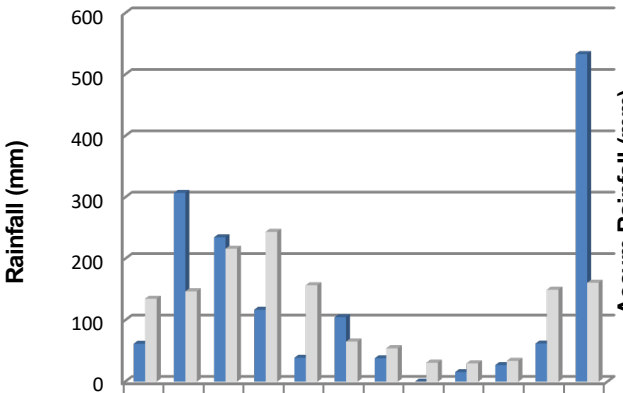
A transition to La Niña conditions is usually marked by an increased chance of heavy showers, higher rainfalls totals, higher temperatures and enhanced tropical cyclone activity during the Hurricane Season.

What Happened (Apr 2024 – Jun 2024)

Rainfall Review

The Apr-May-Jun climatological rainfall range at the Owen Roberts International Airport is 293.9 to 379.2 mm. The Apr-May-Jun total rainfall recorded was 622.3 mm. June's rainfall total of 533.4 mm, was **above** its climatological value of 161.0 mm.

Monthly Rainfall Total vs 30 Year Average at Owen Roberts Intl Airport, Grand Cayman



	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Current Year	61.7	307.	234.	117.	38.8	104.	38.1	0.00	15.4	26.9	61.9	533.
30Year	134.	146.	216.	243.	156.	65.1	54.1	30.7	29.7	33.7	149.	161.

Figure 1. The graph displays the monthly rainfall totals over the past 12 months compared to the 30-year average.
June 2024's rainfall total of 533.4mm is currently the highest for the 12-month period. Currently, the lowest for 2024 is February with 0.0mm.

12 Month Accumulative Rainfall at Owen Roberts Intl Airport, Grand Cayman

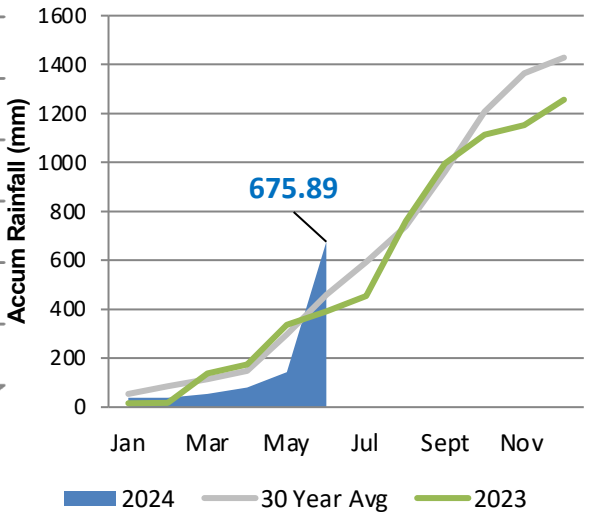


Figure 2. The graph displays the accumulated monthly rainfall totals over the current year compared to the 30-year average and the previous year.
Currently, 2024 accumulated rainfall is **675.9mm/26.6in** as of **June**.

Temperature Review

The Apr-May-Jun average temperature recorded at Owen Roberts International Airport was 29.3°C. June's average temperature was 29.2°C, which was 0.1°C **below** the month's climatological average.

Temperature (°C)	Climatological Average (1991-2020)	June 2024		
		Highest	Avg	Lowest
Monthly Avg Max	31.7	33.8	31.7	28.3
Monthly Avg Min	25.8	29.0	25.9	23.1
Monthly Avg	29.3	31.3	29.2	26.6

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Outlook or What Should We Expect? (Jul 2024 – Sept 2024)

HOW WET?

Climatological Average Rainfall Range	Forecast
408.9 – 585.2 mm	50-60% **above** average

Frequency of Wet Days		Frequency of 7-Day Wet Spells		Frequency of Extreme (top 1%) 3-Day Wet Spells	
Climatological	*Forecast*	*Climatological*	*Forecast*	*Climatological*	*Forecast*
31 - 46	31 - 51	3.4 - 6.4	3.8 - 8.6	0 - 1	0 - 1.4

HOW HOT?

Climatological **Minimum** Temperature Range	Forecast	Climatological **Average** Temperature Range	Forecast	Climatological **Maximum** Temperature Range	Forecast
25.7°C – 26.1°C	80% Probability **above** average	29.6°C – 29.8°C	70% Probability **above** average	31.9°C – 32.3°C	70% Probability **above** average

HEAT IMPACT: 40% CHANCE OF EXPERIENCING HEAT WAVES DURING THE PERIOD

HOW DRY?

No of 7–Day Dry Spells(Three 7 DDS)		No of 10–Day Dry Spells	
Climatological	*Forecast*	*Climatological*	*Forecast*
2-3	0	0-1	0

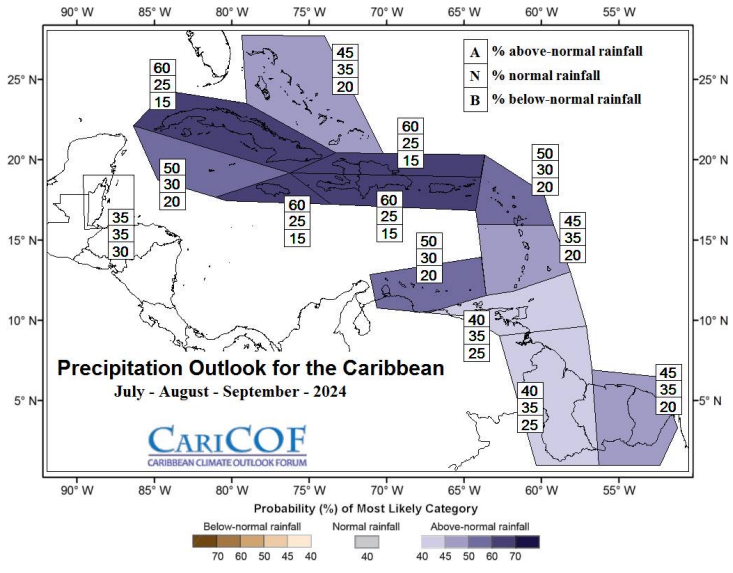

Figure 3: CariCOF Precipitation Outlook

El Niño Southern Oscillation (ENSO)

Recent observations: A strong El Niño event which peaked in December in the eastern equatorial Pacific has ended, with Sea Surface Temperatures (SSTs) having anomalously cooled to average by mid-May.

Model forecast and guidance: The forecast models indicate further cooling to either ENSO neutral (~35-65% confidence) or La Niña conditions in JAS (~35-65% confidence) and likely La Niña conditions by OND (~55-85% confidence).

Expected impacts on rainfall and temperatures: A transition into La Niña is often associated with increased chances of heavy showers, higher rainfall totals and air temperatures in JAS, as well as increased Atlantic Hurricane Season activity from September onwards.

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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