

# Hurricane Beryl churns towards Mexico after hammering Jamaica

July 4 2024, by Ivan SHAW

---



A lifeguard is seen ahead of the potential arrival of Hurricane Beryl in Cancun, Mexico on July 3, 2024.

Deadly Hurricane Beryl powered towards Mexico late Wednesday, after battering Jamaica's southern coast with devastating winds and sea surge.

The Category 4 [storm](#) has left a trail of destruction in its path across the Caribbean, killing at least seven people as it has strengthened rapidly.

Beryl was pulling away from Jamaica late Wednesday and was expected to pass just south of the Cayman Islands overnight, before moving onward to Mexico's Yucatan Peninsula, the US National Hurricane Center (NHC) said.

The storm is the first since NHC records began to reach the Category 4 level in June and the earliest to reach Category 5 in July.

Mexican officials are scrambling to prepare, with Beryl expected to bring damaging winds, a dangerous storm surge and heavy rainfall over the Yucatan Peninsula and Belize.

"We will have intense rains and [wind gusts](#)" from Thursday, Civil Protection national coordinator Laura Velazquez said, announcing the deployment of hundreds of military personnel, marines and electricity workers in anticipation of damage.

The government has prepared 112 shelters with a capacity for around 20,000 people and suspended school in the state of Quintana Roo, where Beryl will likely hit.



High waves crash along the beach in Kingston, Jamaica, before the arrival of Hurricane Beryl on July 3, 2024. Beryl churned towards Jamaica on July 3, with forecasters warning of potentially deadly winds and storm surge, after at least seven people were killed and widespread destruction was reported across the southeastern Caribbean. The powerful hurricane, which is rare so early in the Atlantic season, was expected to pass over Jamaica around midday as a "life-threatening" Category 4 storm, meteorologists said.

In Jamaica, "life-threatening flash flooding and mudslides from [heavy rainfall](#)" were still expected overnight, the NHC said.

More than 400,000 people were without power, according to the Jamaica Gleaner newspaper, citing a public service company.

The devastating hurricane-force winds, life-threatening storm surge, and damaging waves that continue to damage Jamaica are expected in the Cayman Islands overnight, when Beryl passes by while at or near major hurricane intensity.

Jamaica Prime Minister Andrew Holness had declared a curfew from 6:00 am to 6:00 pm across the island of 2.8 million and urged Jamaicans to comply with evacuation orders.

Desmon Brown, manager of the National Stadium in Kingston, said his staff had scrambled to be ready.

"We've taped up our windows, covered our equipment—including computers, printers and that sort of thing. Apart from that, it's mainly concrete so there's not much we can do," Brown told the Jamaica Observer newspaper.

As of Wednesday night, Beryl was packing maximum sustained winds of 130 mph (215 kph), said the NHC.

# What makes a hurricane?

**CHARACTERISTICS**

Height: 8 - 10 km (5 - 6 miles)  
 Diameter: avg. 500 - 650 km (310 - 400 miles)  
 Movement: 15 - 25 km/h (9 - 15 m/h)  
 Can reach speed of 65 km/h (40 m/h)



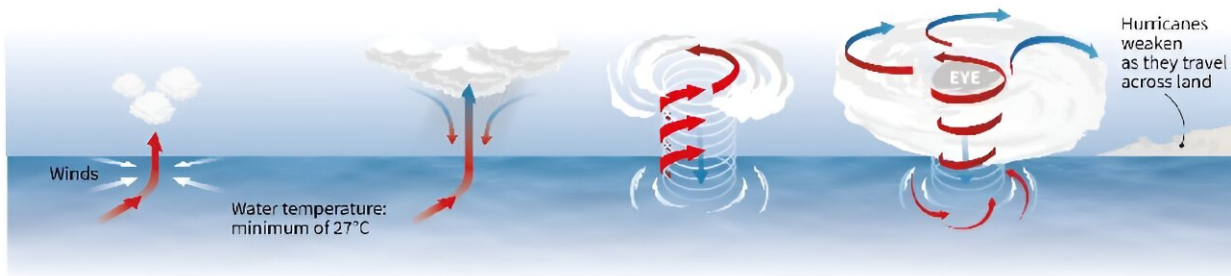
**Different names by region**

- ||| Cyclone: Indian and Southern Pacific Oceans
- ||| Hurricane: North Atlantic and North-East Pacific Oceans
- ||| Typhoon: North-West Pacific Ocean

In the southern hemisphere, the rotation is clockwise  
 In the northern hemisphere, the reverse



**FORMATION OF A HURRICANE** A tropical storm becomes a hurricane when winds exceed 118 km/h (74 miles/h)



Converging winds push warm, moist air, rapidly upwards, creating clouds above the ocean surface

**1** Sea water evaporates, the warm moist air continues to ascend

**2** Storm clouds (cumulonimbus) form around a central depression (low-air pressure)

**3** The Coriolis force, linked to the Earth's rotation, produces a column of rising air. The hurricane takes the form of a cylinder of clouds around a central eye of subsiding air, often dry with little wind

**4** The spiralling winds accelerate inwards and upwards. By releasing heat and moisture, they continue to fuel the storm system

**WHAT ARE THE LINKS WITH CLIMATE CHANGE?**

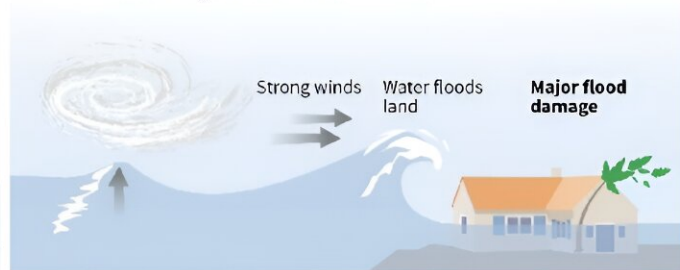
Warming oceans, increase humidity, fuelling hurricanes

If average global temperature rose by 2°C, this could increase the:

- average **intensity** of hurricanes
- **proportion** of powerful hurricanes
- average level of **rainfall**



Rising sea levels amplify the consequences of storm surges associated with hurricanes



Changes in the frequency of hurricanes associated with climate change still remain uncertain

Sources: UK Met Office, IPCC **AFP**

Graphic explaining the formation of hurricanes.

'No communication'

Beryl has already left a trail of death with at least three people killed in Grenada, where the storm made landfall Monday, as well as one in St Vincent and the Grenadines and three in Venezuela.

Ralph Gonsalves, prime minister of St Vincent and the Grenadines, said that it would take a "herculean effort" to rebuild after the substantial destruction and that "90-odd percent of the houses were blown away" on Union Island.

"Most of the country doesn't have electricity, and more than half without water at the moment," he said.

Grenada's Prime Minister Dickon Mitchell said the island of Carriacou, which was struck by the eye of the storm, has been all but cut off, with houses, telecommunications and fuel facilities there flattened.

The 13.5-square mile (35-square kilometer) island is home to around 9,000 people. At least two people there died, Mitchell said, with a third killed on the country's main island of Grenada when a tree fell on a house.

In St Vincent and the Grenadines, one person on the island of Bequia was reported dead from the storm, while a man died in Venezuela's northeastern coastal state of Sucre when he was swept away by a flooded river, officials there said.

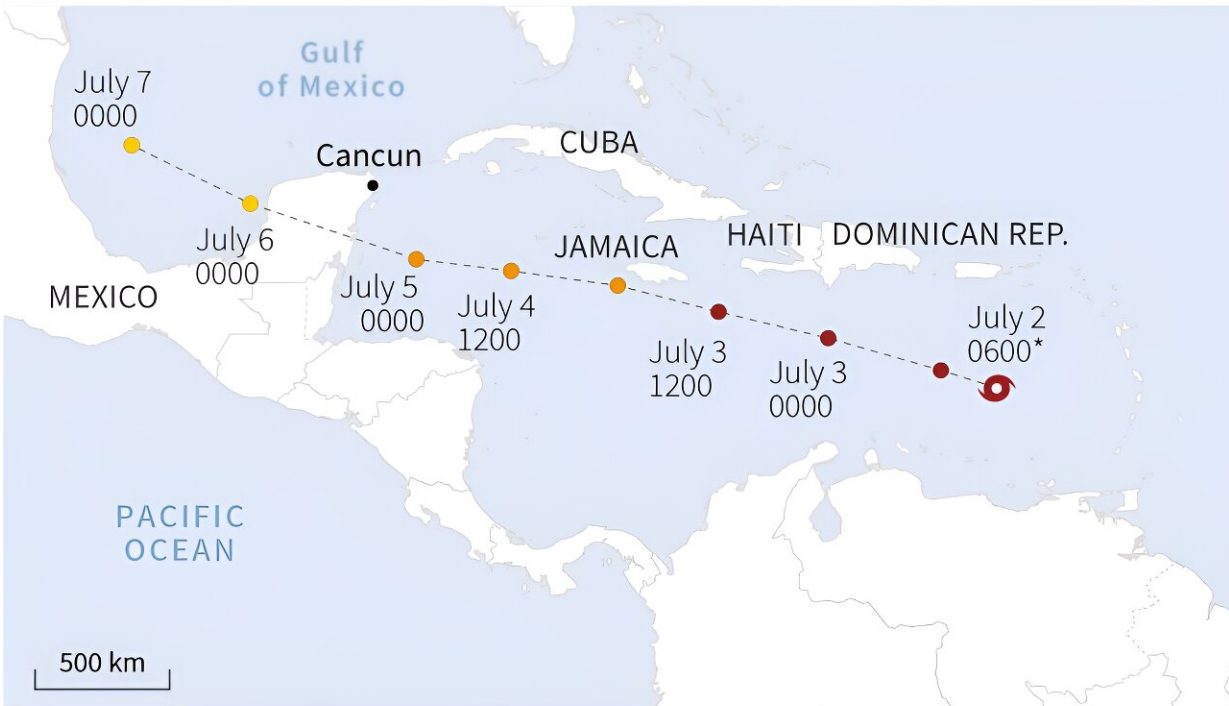


Hurricane Beryl is seen on July 3, 2024 as it approaches Jamaica in a satellite image obtained from the National Oceanic and Atmospheric Administration.

# Hurricane Beryl



Wind speed (km/h) ● 63-118 ● 119-177 ● Over 178



Source: NHC, forecast at 0600 GMT on Tuesday, July 2 \*GMT



Map showing the path forecast of Hurricane Beryl, according to the US National Hurricane Center (NHC) at 0600 GMT on July 2.

## Climate change

It is extremely rare for such a powerful storm to form this early in the Atlantic hurricane season, which runs from early June to late November.

Warm ocean temperatures are key for hurricanes, and North Atlantic waters are currently between two and five degrees Fahrenheit (1-3 degrees Celsius) warmer than normal, according to the US National



Oceanic and Atmospheric Administration (NOAA).

UN climate chief Simon Stiell, who has family on the island of Carriacou, said climate change was "pushing disasters to record-breaking new levels of destruction."

"Disasters on a scale that used to be the stuff of science fiction are becoming meteorological facts, and the climate crisis is the chief culprit," he said Monday, reporting that his parents' property was damaged.

© 2024 AFP

Citation: Hurricane Beryl churns towards Mexico after hammering Jamaica (2024, July 4) retrieved 4 July 2024 from <https://phys.org/news/2024-07-hurricane-beryl-churns-mexico-jamaica.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.