Commonwealth of The Bahamas

DEPARTMENT OF METEOROLOGY



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WEATHER LOG NOVEMBER 2024

GENERAL WEATHER SITUATION OVER THE BAHAMAS

During the first days of November (01st – 02nd), a strong high pressure in the western Atlantic Ocean caused strong to gale force winds and hazardous marine conditions (a Gale Watch was in effect for all areas and a gale warning for Central and Southeast Bahamas). At the same time, a trough near the Southeast Bahamas triggered showery activity in the area through the weekend. The BDM issued a Special Weather Statement at 4 pm EDT Monday, 28th October 2024, highlighting the strong to gale force wind and dangerous marine conditions expected through Monday, 04th November 2024. The BDM warned beachgoers and mariners to avoid entering the waters due to life-threatening rough surf, high seas, large sea swells and rip currents. Motorists and pedestrians were advised of possible coastal road hazards due to coastal erosion, sea spray, and overtopping waves, especially along the Glass Window Bridge, Eleuthera. The high temperatures ranged from the mid 80's to low 90's°F, and the low temperatures from the low 70's°F to low 80's°F across The Bahamas.

During the first week of November (03rd – 09th), a gale warning to near gale warning was in place for parts of the Bahamas, as the tight pressure gradient from a strong western Atlantic high pressure dominated the area. Daylight Savings Time ended 2:00 am Sunday, 03rd November 2024, and the BDM reminded the public to set clocks back one hour for Eastern Standard Time. The BDM monitored a trough of low pressure near Puerto Rico that spread cloudiness and shower activity across the Southeast Bahamas and the Turks and Caicos Islands. The BDM advised small craft operators across the Bahamas to remain in port or seek shelter until conditions improved. Likewise, swimmers and beachgoers were advised to remain onshore due to hazardous rip currents, dangerous surf, and life-threatening high seas that affected most areas. By mid-week, the tightening of the pressure gradient between a strong high pressure ridge and the intensification of Hurricane Rafael in the northwestern Caribbean Sea kept strong to potentially gale-force winds over the archipelago. The approach of a tropical disturbance by the weekend would again cause strong to near gale-force winds across portions of the Central and Southeast Bahamas ahead of the system before it nudges south of the area by a building high pressure system. Eventually, a robust surface trough would move westward across the Southeast Bahamas that produced locally heavy rainfall and strong gusty winds in strong to severe thunderstorms. The high temperatures ranged from the mid 80's to low 90's F, and the low temperatures from the low 70's F to low 80's F across The Bahamas.

A surface trough continued to move through the Central Bahamas with showers and the chance of thunderstorm activity during the second week of November $(10^{th} - 16^{th})$, as a weak cold front moved through the Northern Bahamas on Tuesday morning, followed by a strong building high pressure system. A near gale warning (28-33 knots) and a gale watch (34 - 40 knots) were issued by the BDM for 6:00 am EST Wednesday, 13^{th} November 2024, as the high pressure gradient between the front and a developing tropical system in the Caribbean Sea tighten. Winds would slacken briefly before another reinforcing cold front entered the Northern Bahamas with seasonable cooler air by Friday evening. High

pressure system following the front produced drier and cooler conditions across the archipelago. A marginal risk of mist and fog formation during the early morning reduced visibility for pedestrians and motorists through daybreak. There was a high risk of rip currents along Atlantic exposed beaches and swimmers were urged to avoid entering the water in these areas. The BDM warned the public of the potential for minor flooding from Thursday through the weekend due to King Tides. The high temperatures ranged from the low 80's to low 90's°F, and the low temperatures from the mid 60's°F to upper 70's°F across The Bahamas.

The week of the 17th to 23rd November 2024 had a broad high pressure system nestled across the Southeast United States, bringing relatively mild temperatures with few showers across the Bahamas. The high pressure shifted south and east of the Northern Bahamas ahead of a cold front and pre-frontal activity that moved in from the eastern Gulf of Mexico across the Northern Bahamas late Wednesday into early Thursday. This front quickly moved through the islands to the Southeast Bahamas as high pressure ridge pushed another reinforcing cold front that enhanced colder nighttime temperatures across the Northern and Northwest Bahamas. A cool, dry and stable airmass dominated the conditions over the Bahamas except for a trough that produced on-and-off showers in the Southeast Bahamas. A reinforcing frontal boundary did advance quickly through the Bahamas and merged with a cold front in the Southeast Bahamas. Meanwhile, high pressure built behind the front and ushered in drier and stable conditions across the Northern, Northwest, and Central Bahamas. The BDM urged beachgoers and swimmers to remain vigilant for rip currents and avoid entering the water when a near gale warning (28-33 knots) to near gale watch is in effect through 6 pm Friday. The high temperatures ranged from the low to mid 90's F, and the low temperatures from the upper 50's F to mid 70's F across The Bahamas.

The last week in November $(24^{th}-30^{th})$ had a high pressure system that produced a dry and cold airmass early in the week, as an upper level trough across the eastern Gulf of Mexico interacted with a frontal boundary that triggered showers and thunderstorms across the Southeast Bahamas through Sunday night. The front migrated northward, and a low pressure system developed along the boundary on Tuesday, leading to a tight pressure gradient with strong gusty winds to near gale force (28-33 knots). A near gale watch was in place for the Southeast Bahamas and small craft boaters were urged to remain in port. On Thursday, the low pressure/low level trough shifted west of the Bahamas, allowing a weak cold front to move southeastward across the Northern and Northwest Bahamas. A lingering trough in the Central Bahamas triggered showers and thunderstorms in the area as high pressure system built behind the front. The front moved through the Central Bahamas and became quasi-stationary across the Southeast Bahamas with lingering cloudiness and showers over portions of the Bahamas. The high temperatures ranged from the mid 70's to upper 80's F, and the low temperatures from the mid 50's F to mid 70's F across The Bahamas.

General Weather Situation Over New Providence for November 2024

The mean maximum daytime temperature (83.0°F) rose 0.1°F above the normal average, and the mean minimum nighttime temperature (71.9°F) rose 1.8°F above the normal average. The total rainfall was 1.41 inches, 2.00 inches above the mean average. The monthly mean relative humidity (74.0 percent) was four percent below the long-term mean. The daily average sunshine hours (7.4) was 0.1 of an hour below the 30-year norm. Wind speed averaged 13.4 knots, which was 5.6 knots above the 30-year average. The wind direction blew from the east-northeast through the east-southeast across the Bahamas. The standard deviation for the month was 1.79°C, which was 0.29°C above the norm.

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Supplementary

BDM – Bahamas Department of Meteorology

Issued date and time: 12/16/2024 1:49 PM