Commonwealth of The Bahamas

DEPARTMENT OF METEOROLOGY



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WEATHER LOG FEBRUARY 2025

GENERAL WEATHER SITUATION OVER THE BAHAMAS

The first week of February (1st – 8th) was marked by a high-pressure system that brought mostly sunny and warm conditions across the Bahamas. During this time, a cold front moved southeastward over Florida before stalling near the Northern Bahamas. Pre-frontal activity impacted the Northern, Northwestern, and Central Bahamas, while a high-pressure ridge generated moderate to fresh easterly winds across the archipelago. As the front moved into the Atlantic Ocean, deep-layered ridging created dry conditions, prompting the Bahamas Department of Meteorology (BDM) to warn residents of an elevated bushfire risk. Later, slight troughing at the low levels of the surface ridge caused spotty showers across the Bahamas and maintained moderate to fresh breezes in the area. Mariners and beachgoers were advised to exercise extreme caution due to the moderate to high risk of rip currents in the Central and Southeast Bahamas, as well as along Atlantic shorelines. The BDM also alerted the public to a slight risk of mist and patchy fog before sunrise, which could affect motorists, pedestrians, and other road users in the Northern and Northwestern Bahamas. By Tuesday, the BDM issued a near gale watch for waters near Inagua, lasting through Thursday afternoon. This was due to the tight pressure gradient between the high-pressure system and an area of low pressure in the Caribbean Sea. During this period, high temperatures ranged from the low to mid-80s (°F), while lows varied from the upper 50s to low 70s (°F) across the archipelago.

During the second week of February (9th – 15th), an eastern Tropical Atlantic high-pressure system extended a moderate ridge across the Bahamas, resulting in mostly stable and dry weather with gentle to fresh breezes. However, ample low-level moisture and weak troughing increased the likelihood of showers in portions of the Northern, Northwestern, and Central Bahamas. The development of a strong high pressure system over the Bahamas blocked a cold front and its prefrontal activity north of the Northern Bahamas. This system supported fresh to near-gale winds across the archipelago and brought warm temperatures. Simultaneously, streaming moisture enhanced the chances of showers over the Central and Southeast Bahamas. The Bahamas Department of Meteorology (BDM) issued a small craft advisory for the Southeast Bahamas, which was escalated to a near-gale watch on Wednesday. By Thursday, a near-gale warning was in effect for the Central and Southeast Bahamas, lasting through Sunday, with additional warnings issued later for the Northern and Southeast Bahamas. Small craft operators, particularly in the Southeast Bahamas, were urged to remain in port. Beachgoers and mariners were advised to avoid the eastern, southern, and Atlantic shorelines of the Central and Southeast Bahamas and to exercise caution elsewhere due to the moderate to high risk of rip currents and locally rough surf. High temperatures ranged from the low to mid-80s (°F), while lows were in the low 60s to mid-70s (°F) across the Bahamas.

During the week of February 16th to 22nd, a high-pressure ridge over The Bahamas weakened on Sunday, paving the way for a cold front to move across the Northern and Northwest Bahamas on Monday. By

Tuesday, the cold front stalled and eventually dissipated over the Northwest Bahamas, while a low level trough contributed to scattered showers in the Central and Southeast Bahamas. On Thursday, a relatively dry cold front passed through the Northern and Northwest Bahamas, bringing strong, gusty winds and cooler temperatures. Meanwhile, a high-pressure system began to build southeastward from the continental United States. By Friday and Saturday, this front pushed through the Central and Southeast Bahamas, interacting with a surface-to-low-level trough that triggered additional shower activity in those regions. The Bahamas Department of Meteorology (BDM) issued a near Gale Watch (28–33 knots) at noon on Thursday for the Northern Bahamas, later extending it at 6:00 PM EST to the Northwest Bahamas. By Friday, this advisory was upgraded to a Gale Warning and expanded to cover the Central and Southeast Bahamas through Saturday. Small craft operators were strongly advised to remain in port due to rough seas and large, overtopping waves. Similarly, beachgoers were warned to avoid entering the water because of life-threatening rip currents, particularly along the north and east coasts. Throughout the week, high temperatures ranged from the low to mid-80s (°F), while low temperatures varied from the mid-60s to mid-70s (°F) across The Bahamas.

During the last week of February $(23^{\rm rd}-28^{\rm th})$, subtle troughing in the wind flow, combined with low-level moisture, sustained scattered showers over parts of the Central and Southeast Bahamas, as a lingering frontal boundary remained just south of the area. A low pressure system over the Gulf of Mexico tracked eastward, dragging a cold front that brought moderate to occasionally heavy showers and thunderstorms across the Northern, Northwest, and Central Bahamas through Tuesday. As the low-pressure system shifted northeastward, the cold front stalled over the Southeast Bahamas and gradually dissipated. Meanwhile, prefrontal activity and a surface trough produced showers over the Northern Bahamas ahead of a weak cold front, which moved through the area and quickly dissipated. Additionally, a meandering surface trough, accompanied by low level moisture, triggered more shower activity across the Central Bahamas, while high pressure rebuilt across the region. Throughout this period, high temperatures ranged from the low to mid-80s (°F), while low temperatures varied from the low 50s to low 70s (°F) across The Bahamas.

General Weather Situation over New Providence for February 2025

The mean maximum daytime temperature (81.0°F) rose 1.1°F above the normal average, and the mean minimum nighttime temperature (68.7°F) rose 1.4°F above the normal average. The total rainfall was 0.85 of an inch, 1.05 inches below the mean average. The monthly mean relative humidity (78.0 percent) was one percent below the long-term mean. The daily average sunshine hours (8.3) was the same as the 30-year norm. Wind speed averaged 12.3 knots, 4.8 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 1.52°C, which was 0.38°C below the norm.

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For (Director)

Supplementary

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Issued date and time: 3/15/2025 10:58 PM