

Commonwealth of The Bahamas

DEPARTMENT OF METEOROLOGY



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WEATHER LOG DECEMBER 2024

GENERAL WEATHER SITUATION OVER THE BAHAMAS

A low level trough generated unsettled weather across the Northwest Bahamas, while a cold front with prefrontal activity meandered across the Southeast Bahamas from December 01st through 07th. A second front swept through the islands, eventually merging with a stalled front in the Southeast Bahamas. A high pressure system following the front brought cooler temperatures, drier conditions, and brisk winds across the archipelago during mid-week. A near-gale watch was in effect for the winds from early Monday morning and progressed through the Central and Southeast Bahamas through the next 36 hours. The BDM warned swimmers and small craft operators of the elevated risk of rip currents along northern and eastern shorelines. Small craft operators were advised to avoid entering Atlantic waters due to rough surf and moderate northerly to northeasterly swells. The high temperatures ranged from the low 80's to upper 80's°F, and the low temperatures from the mid 50's°F to mid 70's°F across The Bahamas.

A cold front dissipated in the vicinity of the Central and Southeast Bahamas while a high pressure ridge rebuilt across the remainder of the Bahamas through Sunday, 08th December. By Wednesday night into Thursday morning, a strong cold front would support cloudiness and shower activity across the Northern and Northwest Bahamas, followed by a strong high pressure ridge that generated brisk winds and cooler conditions. A dissipating frontal boundary in the Central Bahamas supported a few showers through Saturday. However, a surface trough formed near the Southeast Bahamas, tightening the pressure gradient between it and a high pressure system over the Northern Bahamas. This scenario resulted in the marine conditions deteriorating to cause a near-gale warning (28-33 knots) to gale warnings (34-47 knots) across the Northern and Northwest Bahamas and near-gale warnings (28-33 knots) at times across the remainder of the Bahamas. The BDM advised small craft operators in the Northern and Northwest Bahamas to remain in port due to strong winds, rough seas, and moderate north and northeasterly swells. A small craft caution was in effect for the Central and Southeast Bahamas. The stalled cold front across the Central Bahamas would later cause increased winds, leading to an advisory with gusts in portions of the Northern, Northwest, and Central Bahamas on Thursday. The advisory was again extended across the entire Bahamas through the weekend. Beachgoers and swimmers were strongly urged to avoid entering the water due to rough surf and dangerous and life threatening rip currents. Motorists and pedestrians were encouraged to exercise caution while traversing coastal roads, such as the Glass Window Bridge in Eleuthera due to the potential of overtopping waves and sea spray. The high temperatures ranged from the low 80's to upper 80's°F, and the low temperatures from the mid 50's°F to mid 70's°F across The Bahamas.

The week of the 15th through the 21st of December started with a westward-moving surface trough across the Southeast Bahamas that supported showers and thunderstorms over the Central and Southeast Bahamas. A gale warning (34-40 knots) was issued for the Northern and Northwest Bahamas through Sunday night, and a near-gale warning (28-33 knots) was issued for the Central and Southeast Bahamas due to a tight pressure gradient between the high pressure to the north and a surface trough. Small craft operators were advised to remain in port and beachgoers along with swimmers to refrain from entering

the water due to powerful winds, high seas, rough surf and dangerous, life-threatening rip currents. On Wednesday a low level trough moved westward across the Southeast Bahamas, as a cold front brought showers and thunderstorms across the Northern and Northwest Bahamas. Several Severe Thunderstorms Warnings and Severe Thunderstorm Watches were issued by the BDM from Tuesday, 12:10 am EST on the 17th of December to 12:009 pm EST Friday, 20th of December 2024 for the Turk and Caicos Islands, Abaco, Grand Bahama, and Mayaguana along with their adjacent waters. The cold front weakened as it moved progressively southeastward into the Central Bahamas on Saturday, followed by a building high pressure ridge in its wake. The high temperatures ranged from the low 80's to upper 80's°F, and the low temperatures from the low 60's°F to mid 70's°F across The Bahamas.

Cooler temperatures and primarily light winds provided mainly stable conditions across the Bahamas, as a developing surface trough supported some cloudiness over the area from the 22nd through the 28th of December. A cold front continued to trek across the Southeast Bahamas, increasing the winds to 15 to 20 knots. The BDM issued a small craft advisory for the Southeast Bahamas and a small craft caution for areas exposed to Atlantic waters for the remainder of the Bahamas. On Monday a broad high pressure system moved eastward over the Bahamas, supporting rough seas and moderate to strong winds. Meanwhile, a frontal boundary near Hispaniola occasionally generated showers across the Southeast Bahamas. Beachgoers and swimmers were urged to refrain from entering the water due to the rough surf, dangerous breaking waves and the high risk of rip currents along Atlantic exposures. The BDM issued a near-gale warning for the Central and Southeast Bahamas as a surface trough near the outer periphery of the broad Atlantic surface ridge merged with a low pressure system as it developed north of the Bahamas. This feature increased cloudiness and generated showers across the Central and Southeast Bahamas. Beachgoers and swimmers were urged to remain on shore, and motorists and pedestrians were encouraged to exercise caution as they traverse along the eastern coastlines of the Central and Southeast Bahamas due to possible overtopping waves and sea spray. Later in the week, another frontal boundary becomes stationary across the Northwest Bahamas, as an atmospheric disturbance in the area produced showers and possible thunderstorm activity in the Central and Southeast Bahamas. By the weekend, building high pressure over the area nudged a weakened frontal boundary through the Bahamas while generating fresh to strong breezes through the islands. The high temperatures ranged from the low 80's°F to upper 80's°F, and the low temperatures from the mid 50's°F to mid 70's°F across The Bahamas.

In the last days of December (28th – 31st), as the high pressure ridge moved eastward into the Atlantic Ocean, a series of fast passing cold fronts and a low level trough advanced through the Bahamas. During this period some showers and isolated thunderstorms were affecting the islands, followed by partly cloudy and milder conditions. The high temperatures ranged from the mid 70's to mid 80's°F, and the low temperatures from the mid 60's°F to mid 70's°F across The Bahamas.

General Weather Situation Over New Providence for December 2024

The mean maximum daytime temperature (78.9°F) fell 1.4°F below the normal average, and the mean minimum nighttime temperature (68.4°F) rose 1.2°F above the normal average. The total rainfall was 1.73 inches, 0.03 inches above the mean average. The monthly mean relative humidity (75.0 percent) was four percent below the long-term mean. The daily average sunshine hours (5.8) was 1.2 of an hour above the 30-year norm. Wind speed averaged 12.9 knots, which was 5.5 knots above the 30-year average. The wind direction blew from the northeast through the east across the Bahamas. The standard deviation for the month was 1.19°C, which was 0.49°C above the norm.



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For (Director)

Supplementary
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