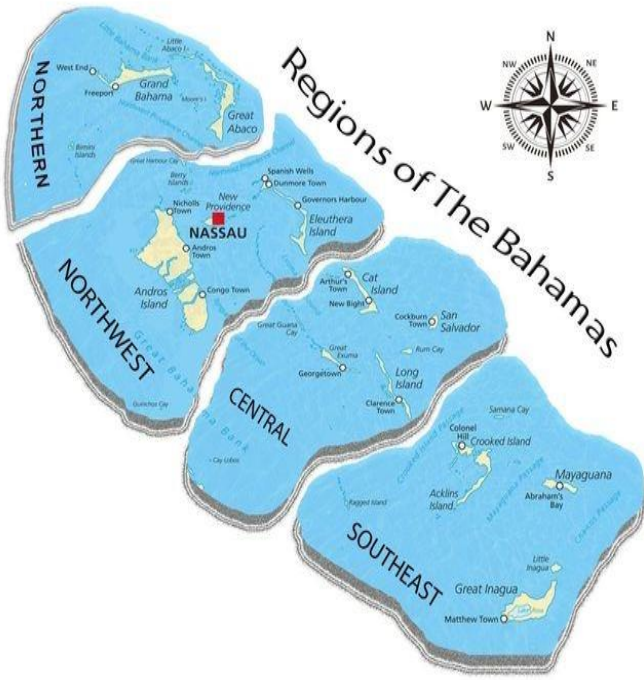


Commonwealth of The Bahamas

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WEATHER LOG SEPTEMBER 2024

GENERAL WEATHER SITUATION OVER THE BAHAMAS

During the first week in September (01st– 07th), a complex mid to upper level disturbance along with low level troughing supported by ample moisture, produced widespread showers and occasionally severe thunderstorms across the Northern and Northwest Bahamas as the system slowly meandered westwards. At the same time, high pressure system built across the Central and Southeast Bahamas to yield relatively drier and sunnier conditions. As the upper level system weakened and shifted west of the area, warmer and drier conditions prevailed until tropical moisture from a stationary front north of the Bahamas and advancing moisture from an approaching tropical wave entered the Southeast Bahamas through the weekend. The Bahamas Department of Meteorology (BDM) issued a Severe Weather Watch for the Northern Bahamas until 6 pm Sunday, 01st September 2024. A Heat Advisory was also in effect for the Central and Southeast Bahamas. Beachgoers were alerted to the moderate risk of rip currents impacting Atlantic beaches, mainly in the Southeast Bahamas. The high temperatures ranged from the low to mid 90's°F and the low temperatures from the low 70's to low 80's°F across The Bahamas.

A stationary frontal boundary over northern Florida and a westward-moving tropical wave in the Caribbean Sea, impacted the Southeast Bahamas with some showers and thunderstorms, as a weak high pressure ridge continued over the area from September 08th through 14th. The westward-moving tropical wave in the Caribbean Sea and the sagging of a frontal boundary north of the area brought streaming tropical moisture that enhanced shower and thunderstorm chances. As the tropical wave exited the Bahamas, a weak high pressure ridge dominated the western Atlantic until a trough developed near the Northern Bahamas ahead of the approach of another tropical wave on Wednesday. As the frontal boundary lifted northward on Thursday, ample tropical moisture enhanced showers and thunderstorms over the Northern and Northwest Bahamas as a mid to upper level trough developed over the area. A Heat Advisory continued across the Bahama Islands with expected heat indices of 108°F to 114°F across all regions. Beachgoers and swimmers should exercise caution, especially in areas exposed to Atlantic-facing beaches due to the moderate risk of rip currents and easterly swells. Mariners in the Northern, Northwest, and Southeast Bahamas were advised to be vigilant for possible waterspout activity. There was an elevated threat of minor coastal flooding due to King Tides that began on Saturday and lasted through Monday, 23rd of September 2024.

Upper level troughing in the eastern Gulf of Mexico and a moist air mass over the Bahamas contributed to more showers and thunderstorms, as a weak pressure pattern promoted a light wind regime during the week of the 15th through the 21st of September 2024. A Special Weather Statement on Severe Weather Events, Seas Swells, and Abnormal Spring Tides were issued Monday, 16th of September 2024 at noon EDT. The statement detailed the likelihood of developing Potential Tropical Cyclone Eight (8) on an old frontal boundary near Florida. There was concern for severe weather development across the Bahamas;

substantial rainfall would cause flooding, hazardous marine conditions, and coastal erosion that affected the entire archipelago. On Wednesday, 18th of September 2024 an updated Special Weather Statement was issued at 3 pm EDT on the Severe Weather Event, Seas Swells, and Abnormal Spring Tides. The impacts in each area of the Bahamas were pointed out, and mariners and residents were urged to stay vigilant. A Heat Advisory remained in effect for the entire Bahamas due to heat indices reaching triple digits and UV indices in the high to extreme ranges. Residents were advised to keep hydrated, wear loose-fitted clothing and protective coverings/shades, apply sunscreen while outdoors, and take frequent breaks during peak sunshine hours (noon to 4 pm). Beachgoers in the Central and Southeast Bahamas were urged to exercise caution due to the risk of rip currents along eastern shorelines. An elevated threat of minor coastal flooding due to King Tides continued through the week. The BDM warned that street and coastal flooding due to the impacts of King Tide events may have worsened during rainfall through the weekend. Motorists and pedestrians were advised to proceed with caution when traversing coastal and flood-prone roads. The high temperatures ranged from the low to mid 90's°F and the low temperatures from the low 70's to low 80's°F across The Bahamas.

During the last week of September (22nd – 28th), a weak pressure pattern promoted light to gentle winds over the islands, as an upper level trough kept some showers and clouds across the Central and Southeast Bahamas as it slowly shifted eastward. By mid-week, the strengthening of Tropical Storm Helene over the northwestern Caribbean Sea between the Yucatan Peninsula and western Cuba, moved to the eastern Gulf of Mexico during the week. The outer rain bands of Helene affected the Bahamas as tighter gradients around a high pressure system made boating and beaching conditions hazardous. The BDM issued a Special Weather Statement update regarding land and marine impacts associated with upgraded Hurricane Helene that moved in the southeastern Gulf of Mexico. Rain bands were expected to bring localized flooding across portions of the Northern and Northwest Bahamas during heavy rainfall events and strong to near gale force winds to the islands of Andros, Bimini, and portions of Grand Bahama through Friday. The BDM alerted residents of the possible mist and patchy fog conditions that would limit visibility during the early morning hours until sunrise across the Bahamas. The BDM continued to alert the public to the slight risk of minor coastal flooding at the start of the week, and flooding was possible in low-lying and flood-prone areas during heavy showers or prolonged rainfall. The high temperatures ranged from the low to mid 90's°F and the low temperatures from the low 70's to low 80's°F across The Bahamas.

During the last days of September (29th through 30th), an Atlantic high pressure built across the Bahamas. However, lingering tropical moisture led to pockets of showers and thunderstorms during the afternoon and evening hours. A Heat Advisory was in effect for the entire Bahamas. The high temperatures ranged from the low to mid 90's°F, and the low temperatures from the mid 70's to low 80's°F across The Bahamas.

General Weather Situation Over New Providence for September 2024

The mean maximum daytime temperature (90.8°F) rose 0.9°F above the normal average, and the mean minimum nighttime temperature (79.0°F) rose 2.6°F above the normal average. The total rainfall was 4.28 inches, 3.42 inches below the mean average. The monthly mean relative humidity (78.0 percent) was two percent below the long-term mean. The daily average sunshine hours (7.7) were about 0.2 of an hour above the 30-year norm. Wind speed averaged 11.9 knots, which was 6.0 knots above the 30-year average. The wind direction blew from the southeast through the south across the Bahamas. The standard deviation for the month was 0.97°C, 0.07°C above the norm.



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For (Director)

Supplementary
BDM – Bahamas Department of Meteorology

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