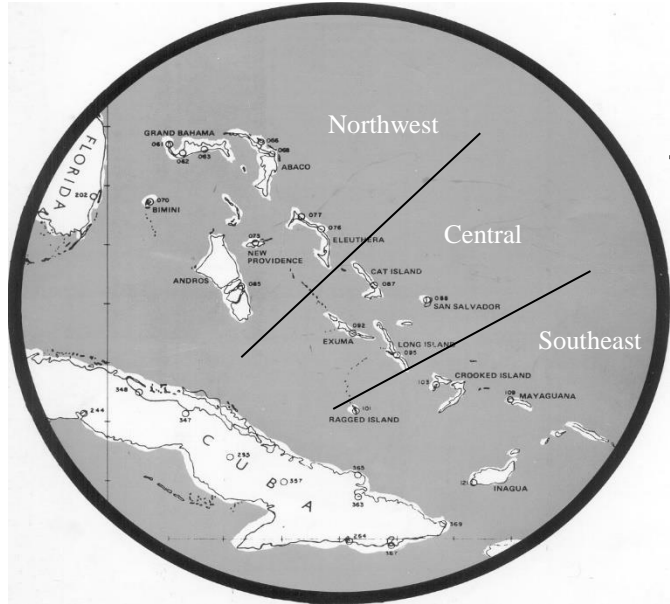




Commonwealth of The Bahamas

DEPARTMENT OF METEOROLOGY



J. L. Center
Blake Road
P.O. Box N-8330
Nassau, Bahamas

Fax: (242)-356-3739
Telegram Meteo Bahamas
Telephone (242)-702- 5250
Web Site: met.gov.bs

WEATHER LOG

AUGUST, 2021

GENERAL WEATHER SITUATION OVER THE BAHAMAS

The month of August, as expected saw a sharp increase in tropical cyclone activity. Seven cyclones formed: three tropical storms, and four hurricanes, three of which became major hurricanes (>110 mph). Fortunately for The Bahamas, none of these cyclones affected the islands directly. Special Weather Statements were issued for an earthquake in Haiti that could have generated a tsunami and moderate to large swells generated by Hurricane Larry as it passed well east of The Bahamas. Thirteen Severe Thunderstorm Warnings were issued for the month, as atmospheric troughs and low pressure systems interacted with rich tropical moisture and the occasional tropical wave to produce unsettled weather over portions of The Bahamas. Statistically, the rainfall at Lynden Pindling International Airport (LPIA) has been below average even with the increase in weather activity over the Northwest Bahamas. Maximum temperatures continued to be above the maximum average and minimum temperatures were also below the minimum average for New Providence. The relative humidity fell slightly below the average again, but winds slightly increased from the southeast to south-southeast.

During the first week of August (01st - 07th), a dominant high pressure ridge provided hot and dry conditions that were interrupted by a mid to upper level trough/low combined with rich tropical moisture that produced enhanced shower and thunderstorm activity mainly across the Northwest Bahamas. Eleven Severe Thunderstorm Warnings were issued for the Northwest Bahamas as the weather deteriorated between the 02nd and 05th of August. The mid to upper level trough weakened and gradually dissipated, and a high pressure ridge provided partly to mostly sunny, hot, and humid conditions. A Small Craft Caution was issued for the Central and Southeast Bahamas for most of the week while the Northwest Bahamas maintained a gentle to moderate breeze. Mariners and residents were advised to be vigilant for the threat of waterspout or funnel cloud activity during showers and thunderstorms. Beachgoers and swimmers were advised to exercise caution along eastern and southeastern beaches in the Central and Southeast Bahamas due to the moderate risk of rip currents. Residents were strongly advised to remain hydrated and limit outdoor activities as heat indices continued to reach the triple digits. Residents in the Northwest Bahamas were alerted to possible localized flooding in low-lying and flood-prone areas due to heavy downpours and prolonged rainfall events. High temperatures ranged from the low to mid 90's (°f) and low temperatures ranged from the low 70's (°f) to low 80's (°f) across the Bahamas.

By the second week of August (08th – 14th) a dominant high pressure ridge provided partly sunny, hot, and humid conditions with summertime showers or isolated thunderstorms. During this time Potential Tropical Cyclone Six, which later developed into Tropical Storm Fred threatened the Southeast Bahamas with its predicted track. A Tropical Cyclone Alert was issued for the Southeast Bahamas, followed by a Tropical Cyclone Watch as Tropical Storm Fred made landfall in Hispaniola, but moved between eastern Cuba and Inagua as a tropical depression, before hitting parts of central and western Cuba. Fred regenerated into a tropical storm in the Gulf of Mexico and made final landfall across Cape San Blas in the Florida Panhandle. Fred rapidly weakened as it crossed Georgia, North, and South Carolina, and dissipated near Massachusetts. Tropical Depression Fred affected the Bahamas with scattered showers and widely scattered thunderstorms, along with fresh to strong breezes gusting to gale-force at times. Seas had built to 8 to 12 feet in the Central and Southeast Bahamas and kept mariners near or in port. Beachgoers and swimmers were advised to remain onshore or exercise caution due to hazardous rip currents and rough surf. Mariners were advised to remain vigilant for the threat of water spout or funnel cloud activity, gusty winds, and reduced visibility 3nm or less in heavy showers and thunderstorms. Residents were alerted that storms could cause flooding in low-lying and flood-prone areas during heavy showers and prolonged rainfall events. The weather remained variably cloudy to overcast, windy, and humid with widespread showers and few scattered thunderstorms. Small Craft Advisory was in effect for the majority of the week, but a Small Craft Caution was issued later in the week. High temperatures ranged from the low to mid 90's (°f) and low temperatures ranged from the upper 60's (°f) to low 80's (°f) across the Bahamas. A Special Weather Statement was issued by the Bahamas Department of Meteorology at 9:00 am EDT Saturday, 14th August 2021 for a 7.0 magnitude earthquake near the region of Haiti, positioned at 18.6°N and 73.5°W at a depth of 8.0 miles. There was no significant tsunami threat from the earthquake, however, there were reports of tremors in Inagua with no significant damage.

The third week of August (15th – 21st) brought more unsettled weather associated with a passing tropical wave and the newly formed Tropical Depression Grace. A tightened pressure gradient across the area maintained moderate to fresh breezes, mainly across the Central and Southeast Bahamas. Moderate to large ocean swells generated by Tropical Storm Henri affected the Bahamas as the system moved across the western Atlantic Ocean. Tropical Storm Grace which had a projected path similar to Tropical Storm Fred, triggered a Tropical Storm Alert for the Southeast Bahamas. However, the Tropical Storm Alert was discontinued once the storm's curve towards the Bahamas never materialized. Mariners were advised to keep vigilant for the threat of possible water spouts in or near showers and thunderstorms. Beachgoers and swimmers were advised to exercise caution, especially along north and east coast beaches for rough surf, hazardous rip currents, and dangerous ocean swells. Residents were urged to limit outdoor activity and remain hydrated as heat indices climbed to the triple digits. Small Craft Advisories were in effect for the Central and Southeast Bahamas earlier but decreased to Small Craft Caution mainly across Southeast Bahamas and Small Craft Cautions were intermittent in the Northwest and Central Bahamas. High temperatures ranged from the low to mid 90's (°f) and low temperatures ranged from the mid 70's (°f) to low 80's (°f) across the Bahamas.

In the last week of August (22nd – 28th), a robust ridge of high pressure coupled with a dense plume of Saharan dust maintained dry and stable weather conditions along with fresh to locally strong breezes throughout the island chain. Later in the week, troughing associated with a mid to upper level disturbance, coupled with abundant tropical moisture generated unsettled weather over portions of the Bahamas as the systems moved to the west. The Northwest Bahamas was variably cloudy to overcast, warm, and windy with scattered showers and isolated thunderstorms, some showers locally heavy and thunderstorms strong to severe at times. Meanwhile, the Central and Southeast Bahamas was variably cloudy, warm, and breezy with

isolated showers and thunderstorms. Mariners especially in the Extreme Northwest Bahamas were advised to be vigilant for the possible threat of water spout activity, along with gusty winds, choppy seas, and occasional reduced visibility below 3 nm in heavy showers and thunderstorms. Beachgoers were advised to remain alert for the risk of rip currents along eastern shorelines. Residents in low-lying and flood-prone areas were urged to be prepared for flooding due to heavy downpours and prolonged rainfall events. Residents were reminded to remain hydrated and limit outdoor activity as heat indices climbed into the triple digits. High temperatures ranged from the low to mid 90's (°f) and low temperatures ranged from the upper 60's (°f) to low 80's (°f) across the Bahamas. A Small Craft Advisory was in effect for the Central and Southeast Bahamas while a Small Craft Caution was issued for the Northwest Bahamas. The Small Craft Advisory shifted across the Northwest and Central Bahamas and the Southeast Bahamas received a Small Craft Caution. Three Severe Thunderstorm Warnings were issued on Wednesday, 25th August 2021 between 8:50 am EDT to 2:50 pm EDT for the islands of Abaco, Grand Bahama, Bimini, and the Berry Islands along with their adjacent waters. A Severe Thunderstorm Watch was issued for New Providence and its adjacent waters during the afternoon.

The last days of August (29th – 31st) streaming tropical moisture associated with Hurricane Ida moved west of the area producing pockets of unsettled weather. While a high pressure system north of the Bahamas gradually expanded southward. A plume of Saharan dust moved across the Bahamas as the high pressure system weakened over the area. The weather was partly cloudy, hot, humid, and hazy with few widely scattered showers and isolated thunderstorms. Winds were light and variable, but a Small Craft Caution went into effect for the Southeast Bahamas. Mariners were advised to be vigilant for possible water spout or funnel cloud activity. Beachgoers and swimmers were briefed of possible rip currents along east coast beaches. The public was reminded to stay hydrated and limit outdoor activity during the early afternoon as the heat indices climbed into the triple digits. High temperatures ranged from the low to mid 90's (°f) and low temperatures ranged from the low 70's (°f) to low 80's (°f) across the Bahamas.

Tropical Weather Summary

After a very slow month for tropical cyclone development in July, the season became very active in August. Several tropical storms and hurricanes traversed the Gulf of Mexico, the Caribbean Sea, and Atlantic Ocean waters.

1. Tropical Storm Fred began as a disturbance in the middle of the Atlantic Ocean on the 04th of August 2021. On the 09th of August, the system moved into a favorable environment, the National Hurricane Center (NHC) issued advisories on the system under the name Potential Tropical Cyclone Six. The system became Tropical Storm Fred just after it passed the Leeward Islands. It tracked over the northern Caribbean Sea, making landfall in the Dominican Republic, Hispaniola. Fred weakened to a tropical depression across the mountainous terrain of Hispaniola and exited southwest of Haiti into waters between east Cuba and Inagua. The system moved over central Cuba, exited western Cuba, and moved into the Central Gulf of Mexico. Fred regenerated to a tropical storm before it moved through the eastern Gulf of Mexico, making landfall in San Blas, Florida. Fred posed a threat to the Southeast Bahamas, according to the projected models, however, it passed south of Inagua as a weak tropical depression.

2. Hurricane Grace originated as a tropical wave south of Cape Verde Islands on the 10th of August. As the system became better organized, the National Hurricane Center (NHC) upgraded the wave to Potential Tropical Cyclone Seven and issued advisories. On August 14th it became Tropical Storm Grace but weakened again to a depression on August 15th. Grace made landfall over Hispaniola on August 16th and reformed into a tropical storm a day later in the

Caribbean Sea. By August 18th Grace had intensified and become a category one hurricane. Grace continued to move westwards and made landfall in Tulum, Quintana Roo. It weakened to a tropical storm while making a second landfall across the Yucatan Peninsula. By August 20th Grace entered the southwest Gulf of Mexico and re-strengthened to a category one hurricane. The storm rapidly intensified on August 21st to a major category 3 storm with peak winds of 125 mph before it made landfall again near Tecolutla, Veracruz. The system weakened over the mountainous terrain of central Mexico and dissipated. Grace was a potential threat to the Southeast Bahamas according to the projected models but this never materialized.

3. Hurricane Henri began as a small but well-defined low pressure system about 200 miles north-northwest of Bermuda, on August 15th. The system was officially called a tropical depression on August 16th developing eighteen hours later into Tropical Storm Henri. The storm was under constant wind shear as it tried to become organized, leaving the low-level center on the western edge of the system. Henri moved southward, turned westward, and made a northward trek as it strengthened into a category 1 hurricane. Henri moved ashore near Westerly, Rhode Island, on August 22nd with maximum winds of 60 mph. The system quickly weakened to a tropical depression and later degenerated to an extratropical cyclone as it moved east-northeastwards.

4. Hurricane Ida began as a tropical wave over the eastern Caribbean Sea. The wave moved into favorable environmental conditions where it intensified to form Tropical Depression Nine. The depression became Tropical Storm Ida six hours later when an Air Force aircraft detected tropical storm-force winds. Ida made a turn towards the northwest in the northern Caribbean Sea where it became a category 1 storm at 75 mph. The storm made landfall in Isla de la Juventud, Cuba on August 27th and later crossed Pinar del Rio, western Cuba with peak winds reaching 80 mph. Ida entered warm favorable waters of the Gulf of Mexico, intensified into a category 2 storm, and then into a category 3 storm on August 29th. As Ida approached Louisiana it rapidly intensified into a category 4 storm with winds of 150 mph making landfall near Port Fourchon, Louisiana. The storm weakened slowly as it moved further inland across Louisiana, Mississippi, Tennessee, Southern Ohio, Southern West Virginia, Northern Maryland, and Southern New England. Ida was never a threat to the Bahamas.

5. Tropical Storm Julian began on August 20th as a tropical wave off the coast of Africa. The westward traveling tropical wave moved in a northwest direction toward the subtropical ridge of the Atlantic. As the wave became better organized and acquired low-level circulation it was upgraded to a tropical depression, on August 29th. Later that day the depression became better organized and it was called Tropical Storm Julian. Julian was a fish storm that became extratropical, it interacted with a deep area of low pressure near Newfoundland on August 30th. Julian was never a threat to the Bahamas.

6. Tropical Storm Kate was monitored as a tropical wave coming off the western coast of Africa, just south of the Cape Verde Islands, on August 23rd. By the 28th of August, the system became better organized, and it was named a depression. The depression became better organized and reaching sustained winds of 45 mph, NHC named it Tropical Storm Kate, on August 30th. Kate entered a hostile environment where strong upper level winds displaced convective activity to the east of the center. Kate was downgraded to a tropical depression on August 31st, the depression was downgraded into a remnant disturbance on September 01st. Kate was never a threat to the Bahamas.

7. Hurricane Larry was first monitored as a tropical wave coming off the western coast of Africa. As the wave entered a conducive environment for development, it quickly formed a tropical depression on August 31st. The depression became better organized and was named Tropical Storm Larry, on September 01st. Larry moved westward in the western Atlantic Ocean,

underwent rapid intensification, and became a hurricane on September 02nd. As Hurricane Larry moved west and northwestwards over warm environmentally friendly waters, it further intensified to a category 2 storm, and then a category 3 storm as it moved midway between the southernmost Cape Verde Islands and the Leeward Islands. Larry began to enter less hospitable waters between September 07th through 09th, it decreased to a category 2, and then a category 1 as it raced towards the northeast. On September 11th Hurricane Larry made landfall over Newfoundland, near East Bight, before it transitioned to a post-tropical cyclone. Larry indirectly affected the Bahamas as it produced moderate to large ocean swells, that created hazardous beaching and marine conditions along the Atlantic Ocean exposed east shorelines.

General Weather Situation over New Providence for August 2021

The mean maximum daytime temperature of 91.3°F rose 0.3°F above the average for August, the mean minimum nighttime temperature of 74.0°F was 3.0°F below normal. The mean relative humidity was 76.0 percent, 2.0 percent below normal. The total rainfall was 6.16 inches, well below the mean monthly rainfall total of 8.31 inches. The daily average sunshine hours was 9.1, just 0.6 of an hour above the norm. The winds were predominantly from the southeast through south-southeast at an average speed of 7.9 knots, 2.0 knots above the statistical average. The standard deviation for the month was 1.0°F.



Geoffrey Greene
For (Director)