



Climatological Summary 2024

& Hurricane Season Review





This report provides a summary of all the meteorological data recorded at the Princess Juliana International Airport during the year 2024. The data was collected from various meteorological parameters under regulations stipulated by the World Meteorological Organization (WMO). These elements include rainfall, relative humidity, atmospheric pressure, wind speed and direction, cloud cover, and sunshine duration, among others.

The Meteorological Department St. Maarten (MDS) records and compiles climatological data for use in research in several fields and institutions. Records go as far back as the 1950s in certain parameters. Requests for data must be put in writing through the Department Head.

The information contained in this Climatological Summary must not be copied in part or any form or communicated for the use of any other party without the expressed written permission of the Meteorological Department St. Maarten. All data and observations were recorded at the Princess Juliana International Airport.

This document is published by the Meteorological Department St. Maarten, and a digital copy is available on our website.

Prepared by: Sheryl Etienne-Leblanc
Climatologist

Assisted by: Carshena Gordon
Meteorologist

Designed by: Sherenn R. Leblanc

Published by: **Climate Section**
Meteorological Department St. Maarten
Modesta Drive #12, Simpson Bay, Sint Maarten.

Telephone: +1 (721) 545-4226/545-2024
Website: www.meteosxm.com
Facebook: www.facebook.com/sxmweather

Front page photo compliments Paul Ellinger.



Table of Contents

Introduction.....	4
Island Climatology.....	5
About Us.....	6
2024 Hurricane Season.....	7
<i>Summary.....</i>	<i>7</i>
<i>Local Weather Effects.....</i>	<i>8</i>
<i>Summary Table.....</i>	<i>9</i>
<i>Overview of Storms Formed.....</i>	<i>10</i>
2024 Climate Data.....	12
<i>Rainfall.....</i>	<i>12</i>
<i>Temperature.....</i>	<i>14</i>
<i>Wind.....</i>	<i>16</i>
<i>Air Pressure.....</i>	<i>17</i>
<i>Cloud Cover.....</i>	<i>18</i>
<i>Sunshine Duration.....</i>	<i>19</i>
<i>Statistical Summary.....</i>	<i>20</i>
Outlook for 2025.....	21
<i>Rainfall Outlook for APR-MAY-JUN 2025.....</i>	<i>21</i>
<i>2025 Tropical Cyclone Names.....</i>	<i>22</i>
Conclusion.....	23
Appendix.....	24
<i>Stages of Tropical Cyclone Development.....</i>	<i>24</i>
<i>Saffir-Simpson Hurricane Scale.....</i>	<i>25</i>
<i>Watches and Warnings.....</i>	<i>25</i>

INTRODUCTION

The country of Sint Maarten is located in the extreme northeast section of the Eastern Caribbean. It is part of an island which is approximately 37 square miles shared by two countries: French St. Martin to the north and Dutch Sint Maarten to the south, they occupy 21 and 16 square miles respectively. The island is relatively flat but has a central range with various peaks. Pic Paradise on the French side is the highest point (1400ft) on the island while Sentry Hill is the highest point on the Dutch side (1100ft).



The *Princess Juliana International Airport (PJIA)* is located on the southwestern strip of Sint Maarten at latitude $18^{\circ}02'$ north and longitude $-63^{\circ}06'$ west.





ISLAND CLIMATOLOGY

Based on records (1991-2020) at the Princess Juliana International Airport (PJIA), the normal annual rainfall is approximately 1112mm or 44 inches. Like many other Caribbean islands, the driest months are from December to May, while the wettest months are from June to November. December and May are considered “transition-months” since they can be either dry or wet.

The driest month on record is March, while the wettest is November. On average, there are about 140 rainy days a year, with March and April having the least (8 days) and August and November with the most (14 days).

Rainfall during December to April comes mainly from old frontal boundaries or shear lines, dipping southwards from the northeast coast of the United States. The rainfall during May and June are often associated with upper-level trough interactions. From July onwards, rainfall is mostly associated with tropical cyclone activity.

The average daily temperature is 27°C/81°F; the normal maximum and minimum temperatures are 32°C and 23°C respectively. August and September are the warmest months, while February is the coolest.

The Caribbean heat season is from June to October. Based on the climatological data (1991-2020), Sint Maarten experiences approximately thirty-nine (39) hot days (days with maximum temperature above 32.2°C/90°F) during that season. Heat waves are also prevalent during this season. A heat wave period is considered: two (2) or more consecutive days when the maximum temperature is above 32.2°C/90°F.

On average, Sint Maarten receives approximately 250 hours of sunshine monthly, with 8 to 10 hours daily. The months with the most sunshine hours are March and April, and the least hours are recorded in November.



ABOUT US

The Meteorological Department of Sint Maarten (MDS) -referred to as the Met. Office - is a scientific organization that operates 24 hours a day, all year round, monitoring and continuously keeping watch of the weather conditions across the island.

OUR MISSION

Our aim is to “Protect life and property through the issuance of timely and appropriate weather products for the adjacent waters, air space and the general public and to provide meteorological, hydrological and seismological related services to specific sectors, in order to sustain social and economic developments”.

OUR VISION

The vision of the Meteorological Department of Sint Maarten is to be a leading weather service provider collaborating with stakeholders to deliver services of high quality and accuracy.

OUR TASKS

Observe, Record & Transmit Surface/ Upper Air Data

Produce Monthly Climate Outlooks & Bulletins

Produce Public & Marine Weather Forecasts

Maintain National, Regional & International Standards/ Policies

Issue Special Reports/ Warnings for Tropical Storms & Other Hazardous Weather Phenomena

Monitor Weather Conditions 24 Hours Daily/ All Year Round

Produce Aviation Forecasts & Flight Folders

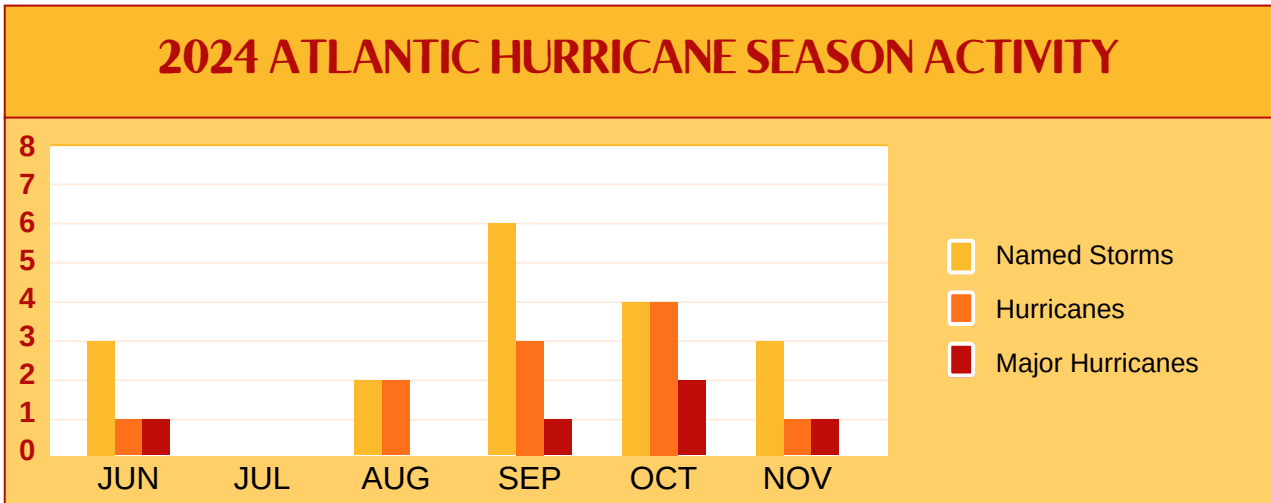
Compile & Analyze Meteorological & Climatological Data



2024 HURRICANE SEASON

SUMMARY

The Atlantic hurricane season officially came to an end on the 30th of November, 2024. There were eighteen (18) named storms and eleven (11) hurricanes; five (5) of which intensified to major hurricane status..



It was the ninth successive season with above average activity. An average season produces 14 named storms, seven hurricanes and three major hurricanes.

2024 ATLANTIC HURRICANE SEASON

	AVERAGE (1991-2020)	NOAA (AUG. 2024)	2024 SEASON
NAMED STORMS	14	17 - 24	18
HURRICANES	7	8 - 13	11
MAJOR HURRICANES	3	4 - 7	5

The 2024 Atlantic seasonal activity fell within the NOAA Climate Prediction Centre’s predicted ranges for named storms and hurricanes in the August updated outlook.

2024 TROPICAL ATLANTIC CYCLONE NAMES

Alberto	Debby	Gordon	Joyce	Milton	Patty	Tony
Beryl	Ernesto	Helene	Kirk	Nadine	Rafael	Valerie
Chris	Francine	Isaac	Leslie	Oscar	Sara	William

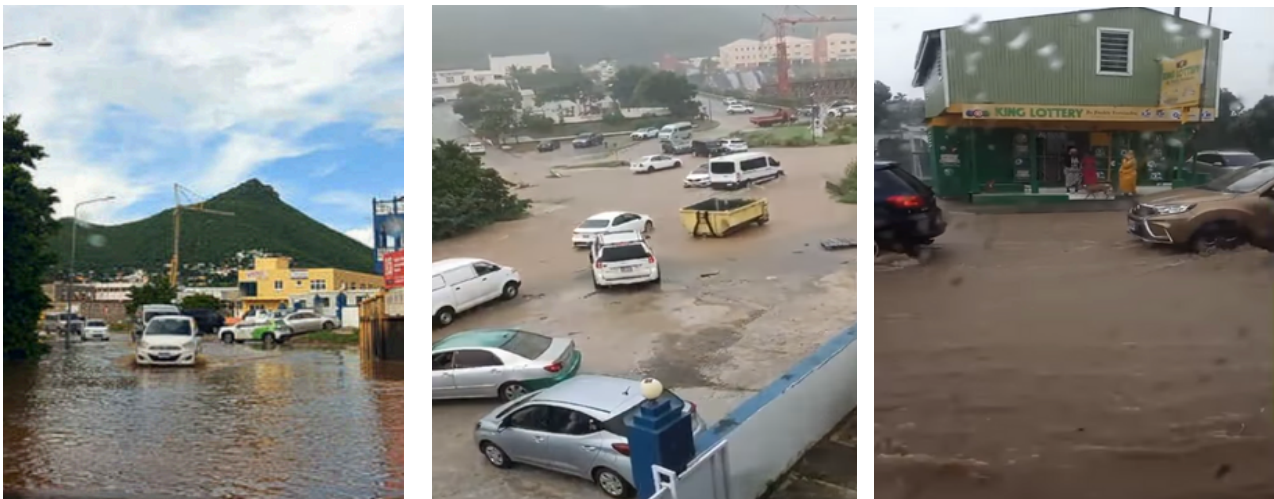
WEATHER EFFECTS ON ST.MAARTEN

During the 2024 Atlantic Hurricane season, there were no significant impacts by storms or hurricanes on St. Maarten.

Rainfall Events

The island endured two consecutive rain events in the month of November 2024, each bringing accumulations of 5 inches. At Princess Juliana International Airport, approximately 2 inches of rainfall was recorded within a six-hour period. Since soils were already saturated, this led to major flooding in many parts of the island.

Both events were as a result of trough-interaction with frontal boundaries over the northeastern Caribbean. These events served as a clear reminder that heavy rainfall can have a substantial impact on lives, even without a hurricane or named storm.



Footage of flooding across St. Maarten in November 2024

Heat Season (June to October)

In 2024, there were 132 hot days during the heat season; this was the highest number of hot days recorded in a season since 1991. There were eighteen (18) heatwave periods, the longest heatwave lasted for seventeen (17) days from October 6 to 22, in total there were 27 hot days in October. October 2024 was the warmest month of the year with an average temperature of 29.9°C/86°F. The maximum temperature was 33.8°C/93°F, recorded on August 29th and October 13th.



SUMMARY TABLE

A recap of the 2024 Atlantic Hurricane Season and associated effects on St.Maarten.

	STORM NAME	ACTIVE DATES	HIGHEST CAT.	MIN. PRESSURE	MAX. WINDS		OBSERVED RAINFALL	OBSERVED WIND GUSTS	
				mbs	kt	mph	mm	kt	mph
1	Alberto	Jun. 19 - 20	TS	992	45	52			
2	Beryl	Jun. 28 - Jul. 9	MH	932	145	166			
3	Chris	Jun. 30 - Jul. 1	TS	1005	40	46			
4	Debby	Aug. 3 - 9	H	979	70	81			
5	Ernesto	Aug. 12 - 20	H	967	55	63	23.3	52	60
6	Francine	Sept. 9 - 12	H	972	90	104			
7	Gordon	Sept. 11 - 17	TS	1004	40	46			
8	Helene	Sept. 24 - 27	MH	939	120	138			
9	Isaac	Sept. 26 - 30	H	963	90	104			
10	Joyce	Sept. 27 - Oct. 1	TS	1001	45	52			
11	Kirk	Sept. 29 - Oct. 7	MH	928	130	150			
12	Leslie	Oct. 2 - 12	H	970	90	104			
13	Milton	Oct. 5 -10	MH	895	155	178			
14	Nadine	Oct. 19 - 20	TS	1002	50	58			
15	Oscar	Oct. 19 - 22	H	984	75	86			
16	Patty	Nov. 2 - 4	TS	982	55	63			
17	Rafael	Nov. 4 -10	MH	954	105	121			
18	Sara	Nov. 14 -18	TS	997	45	52			
19	Tony								
20	Valerie								
21	William								

TS: Tropical Storm
H: Hurricane
MH: Major Hurricane



OVERVIEW OF THE STORMS FORMED IN 2024

JUNE 2024

June produced three (3) tropical storms of which one (1) became a major Hurricane:

1. **Alberto** was a short-lived tropical storm which formed in the southern Gulf. It took two (2) lives; one (1) in Texas and one (1) in Mexico.
2. **Beryl** went down on record as the earliest category 5 hurricane in the Atlantic. Beryl caused severe damage in the Windward Islands, Mexico and Texas and was responsible for 34 deaths.
3. **Chris** was a short-lived tropical storm which formed in the southern Gulf. Chris made landfall in Mexico bringing heavy rainfall, flooding and mudslides killing 5 people.

JULY 2024

There was no storm development in July.

AUGUST 2024

There were two (2) named systems in August; both became hurricanes:

1. **Debby** made landfall in Florida as a category 1 and later in South Carolina. Debby was responsible for eighteen (18) deaths and \$4 billion USD in damage in the USA and Canada.
2. **Ernesto** was a category 2 hurricane that made landfall on Bermuda as a category 1 hurricane. Heavy rains and tropical storm conditions also occurred in the Leeward Islands and Puerto Rico as Ernesto moved through as a tropical storm. Rip currents associated with the hurricane took the lives of three people along the southeastern United States coastline.

SEPTEMBER 2024

September produced six (6) named storms: four (4) became hurricanes; two (2) intensified to major hurricane status.

1. **Francine** was a category 2 hurricane that made landfall in southeastern Louisiana. Francine produced significant flash flooding, wind, and storm surge impacts across portions of the southern United States and was responsible for over \$1 billion (US) in damage in the United States.
2. **Gordon** was a tropical storm that formed over the far eastern Atlantic Ocean and did not affect land.
3. **Helene** became a tropical storm on September 24 just west of the Cayman Islands in the Caribbean Sea. It continued to intensify and made landfall in Florida Big Bend region as a Category 4 hurricane. Helene is responsible for at least 249 fatalities in the United States, making it the deadliest hurricane in the U.S. since Katrina in 2005. Helene also produced tropical storm conditions and minor damage across portions of Mexico and Cuba.
4. **Isaac** was a hurricane that formed over the northern Atlantic Ocean and did not affect land.
5. **Joyce** was a relatively short-lived tropical storm over the central Atlantic that did not affect land.
6. **Kirk** was a late-season Cabo Verde Hurricane that reached category 4 intensity and remained at sea over the Atlantic.

OCTOBER 2024

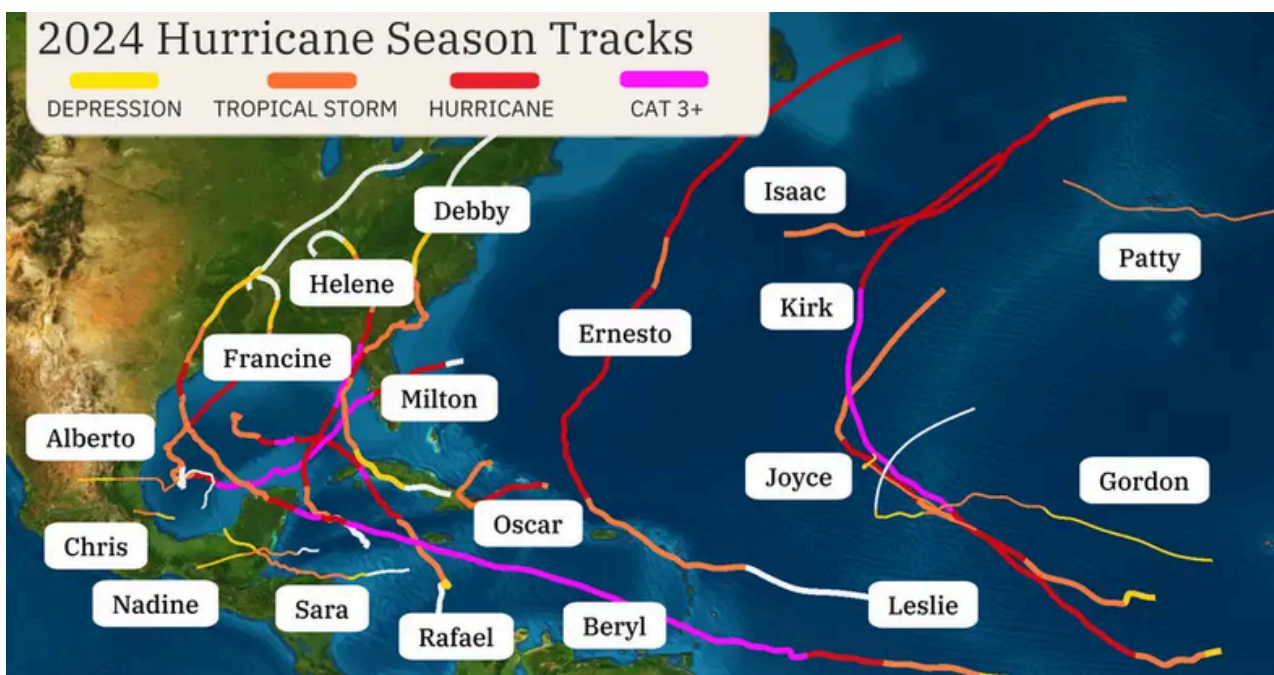
October produced four (4) named storms; three (3) became hurricanes; one reaching major hurricane status:

1. **Leslie** was a hurricane that formed over the eastern Atlantic Ocean and did not affect land.
2. **Milton** was one of the strongest hurricanes on record in the Atlantic basin, reaching category 5 intensity with a minimum central pressure below 900 mb. It made landfall on the west coast of the Florida peninsula as a category 3 hurricane, causing major damage.
3. Short-lived **Nadine** made landfall as a tropical storm in Belize, bringing heavy rainfall and flooding to portions of Central America and southeastern Mexico that resulted in at least 7 direct fatalities.
4. **Oscar** was a compact category 1 hurricane that made landfall on Grand Turk Island and the northeast coast of Cuba. The hurricane was responsible for eight deaths, primarily due to heavy rainfall that led to flash flooding and mudslides across the eastern portion of Cuba.

NOVEMBER 2024

November produced three (3) named storms; one (1) became a hurricane and reached major hurricane status.

1. **Patty** originated from an extratropical cyclone over the central Atlantic that transitioned to a subtropical and then tropical storm. This system produced tropical-storm force winds and areas of heavy rain across portions of the Azores.
2. **Rafael** was a late-season category 3 hurricane that formed over the central Caribbean Sea and made landfall in western Cuba. The hurricane eventually dissipated a few days later over the central Gulf. Rafael produced devastating wind and flooding across western Cuba, and was responsible for 2 deaths in Jamaica, and caused over \$1billion (USD) in damage across countries of the Caribbean.
3. **Sara** made landfall as a tropical storm in Honduras and Belize, bringing heavy rainfall and flooding to portions of Central America and southeastern Mexico that resulted in at least 7 direct fatalities.



Map compliments : "The Weather Channel"

2024 CLIMATE DATA

RAINFALL

The *total* rainfall recorded at the Princess Juliana International Airport, for the year 2024 was **1306.5 mm/51.4 inches**. The normal annual rainfall ranges from about 976-1246 mm/38-49 inches (1991—2020). This year’s total rainfall was above the normal range. This was the highest annual rainfall total in thirteen years (since 2011).

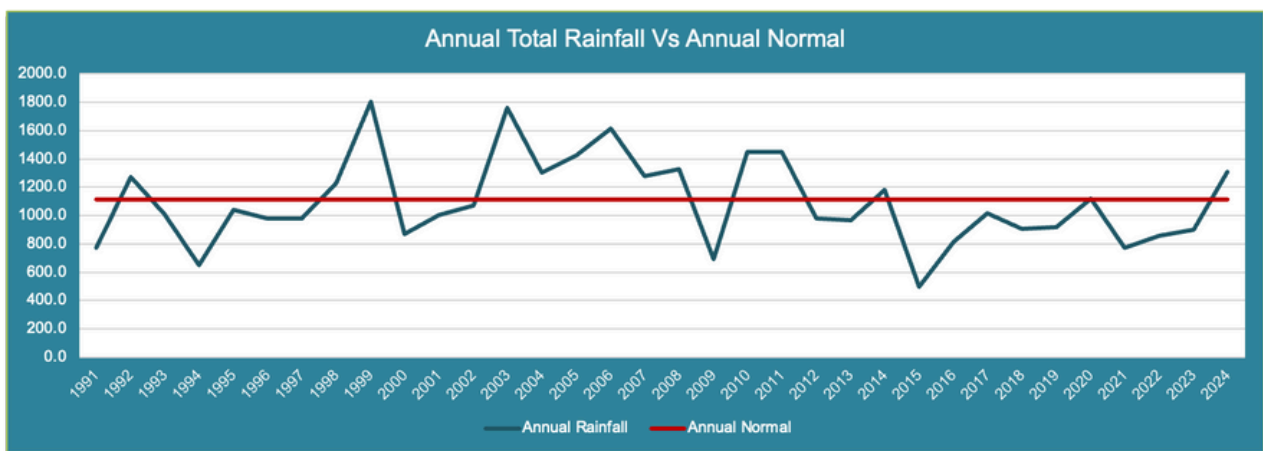


Figure 1.

November was the *wettest* month of the year, with a total of 307.0 mm/12.1 inches. The *driest* month was **March** with 26.7 mm/1.1 inches. The *wettest* day of the year was **May 3rd** when 103.2 mm/4.1 inches of rainfall was recorded. This was as a result of the instability and moisture associated with a multi-layered trough. 69 mm/2.7 inches of rainfall was recorded within a 6-hour period.

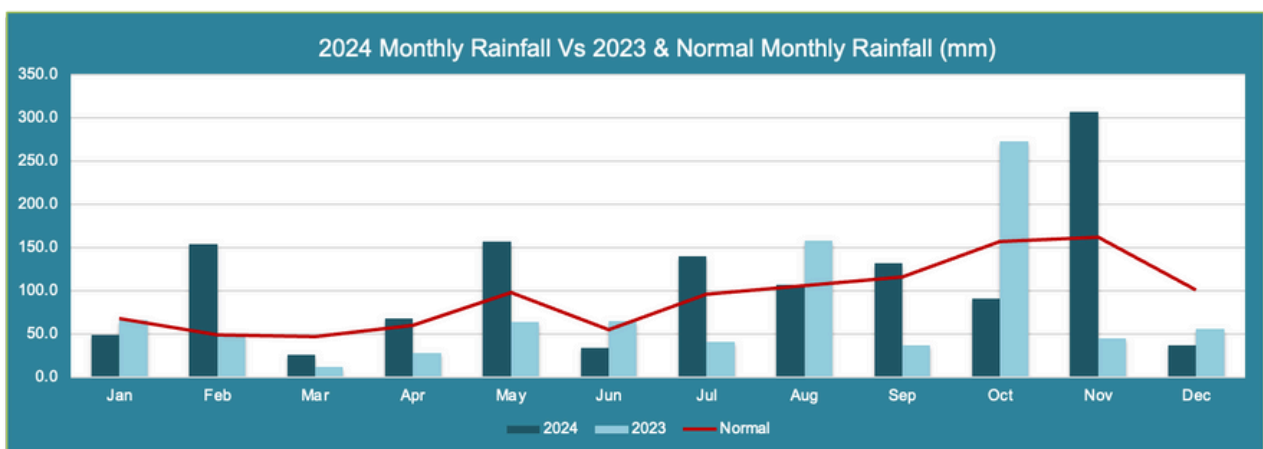


Figure 2.

February was the *wettest February* since 2000 while **May** and **November** were the *wettest* since 2014. **December** was the *driest December* since 2012.

A rain day is considered as any day, which records 1.0 mm or more of rainfall. On average there are approximately 140 rain days in a year on St. Maarten. For 2024, 139 rain days were recorded with the months of July and September having the most (19 days), while October had the least days (5).

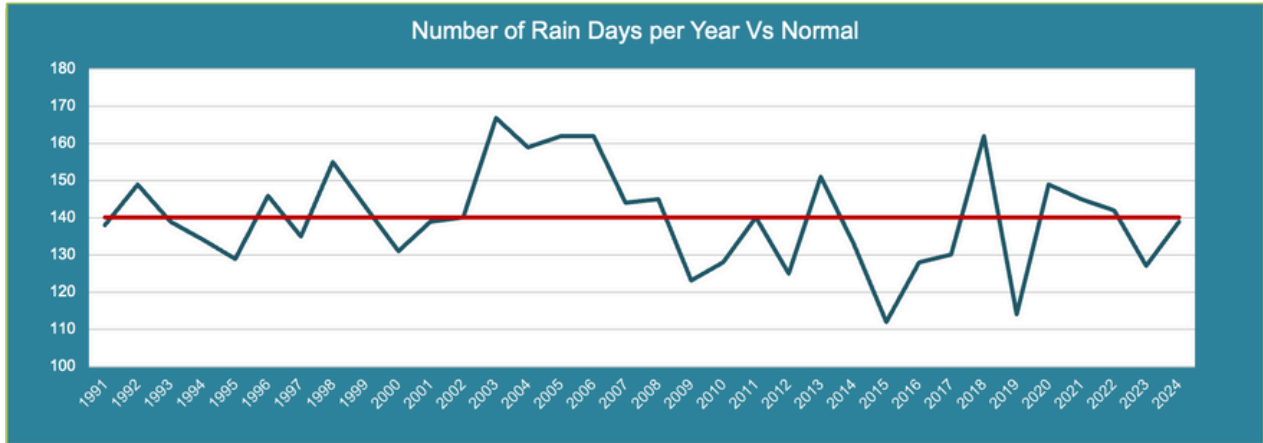


Figure 3.

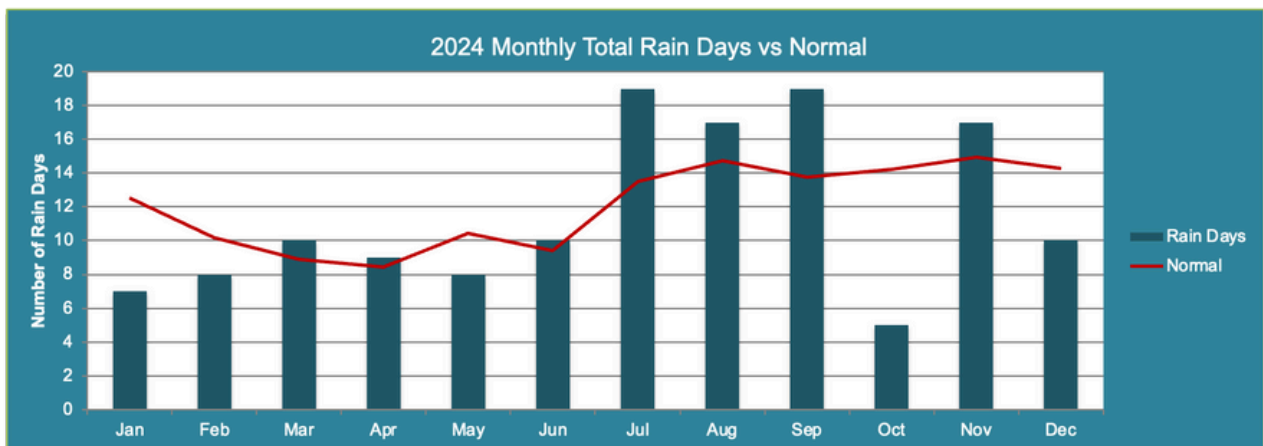


Figure 4.

TEMPERATURE

The average temperature recorded in 2024 was **28.3°C/83°F** which was above normal. The 30-year normal (1991—2020) is 27.3°C/81°F. 2024 was the *warmest* year on record at PJJA.

October was the *warmest* month with an average temperature of 29.9°C/86°F.

February was the *coolest* month with an average temperature of 26.2°C/79°F.

The *highest* daytime temperature recorded in 2024 was 33.8°C/93°F which was recorded on **August 29th** and **October 13th** while the *lowest* night-time temperature was recorded on **February 9th** as 20.7°C/69°F.

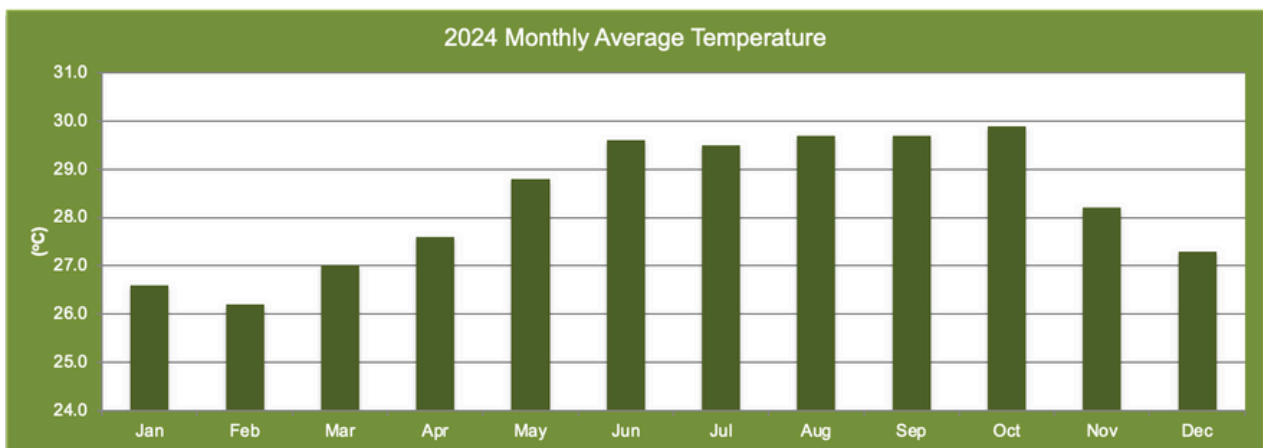


Figure 5.

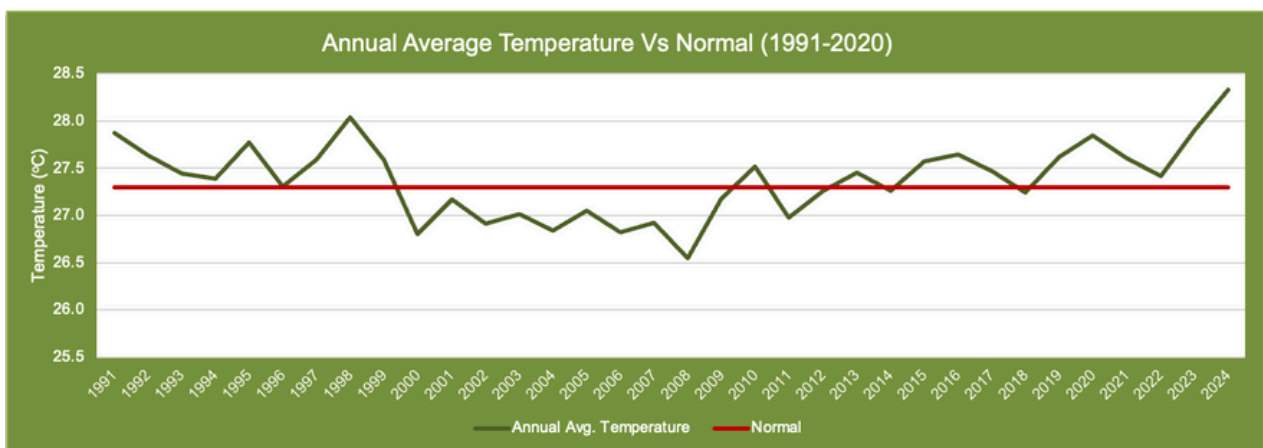


Figure 6.

Hot days and warm nights were very prevalent in 2024. The month of **October** had the *highest* number of hot days; 27 out of the 31 days of October were hot days. There were 132 hot days in 2024, 114 of those days were during the Caribbean ‘Heat Season’ from June to October. From 2018 there is an increasing trend in the number of hot days on St. Maarten. In 2024, there were twenty-three (23) more hot days than 2023 and hot days were recorded much earlier in 2024 (April) than 2023 (June). A hot day is considered as a day with a maximum temperature of 32.2 °C or higher.

Over the past 13 years, there is an increasing trend in the number of warm nights in St. Maarten.

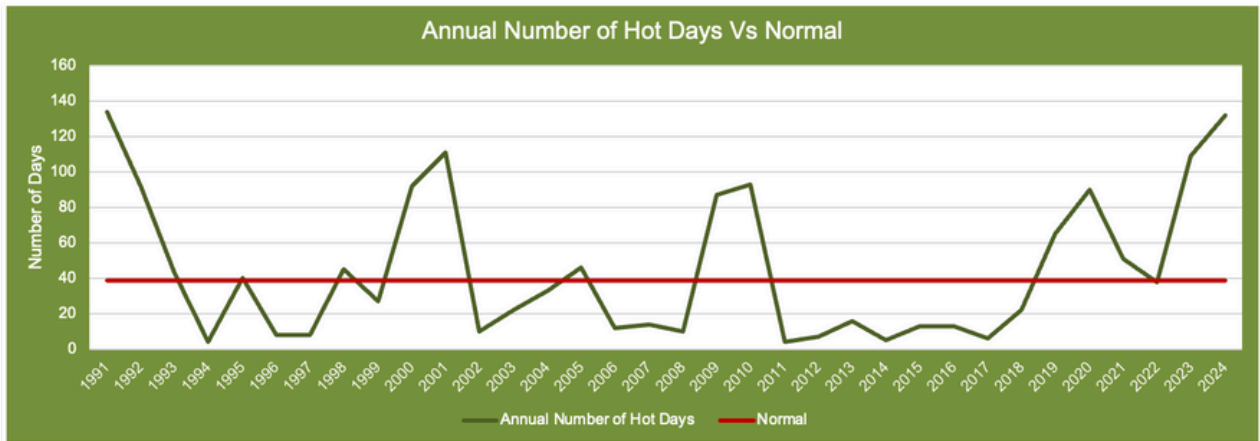


Figure 7.

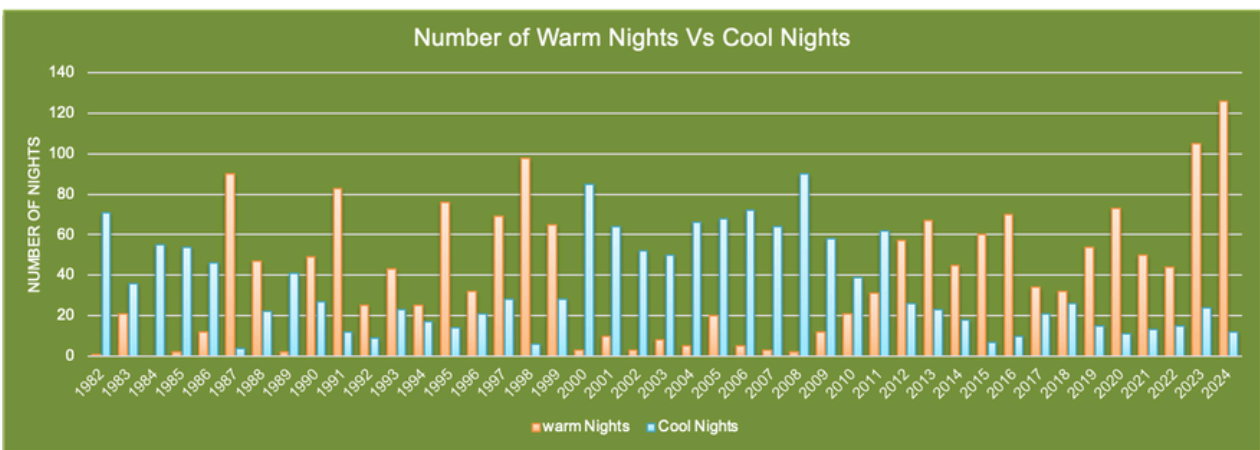


Figure 8.

WIND

Surface winds at the Princess Juliana International Airport for 2024 were generally from the east at an *average speed* of **8 knots/9 mph** which was slightly below the average compared to the 30—year average (1991—2020) of 10 knots/12 mph.

The *highest* monthly average wind speeds were recorded in **July** as 10 knots/12 mph; while **September** had the *lowest* monthly average wind speeds of 7 knots/8 mph. The *highest* wind gust was recorded on **August 13th** as 52 knots/60 mph as a result of Tropical Storm Ernesto which past South southwest of St. Maarten.

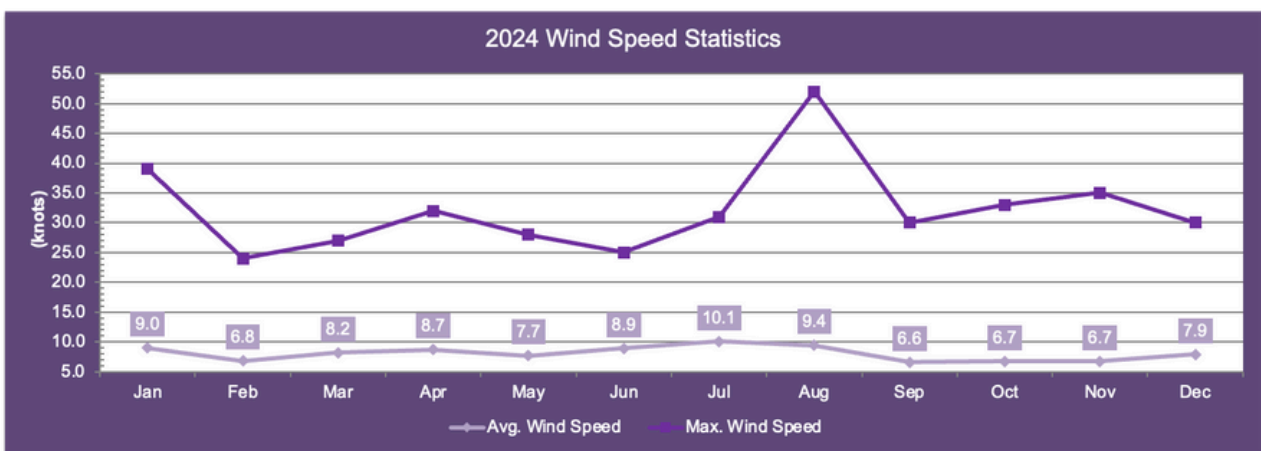


Figure 9.

The following wind analysis was obtained, by using the average hourly wind speeds and direction from the 1st January to 31st December 2024.

Approximately:

- **65%** of the time, wind speeds at Juliana were between **5 and 10 knots**.
- **19%** of the time, wind speeds were between **10 and 15 knots**.
- **8%** of the time, wind speeds were between **1 and 5 knots**.
- **5%** of the time, winds were **calm**.
- **2%** of the time, winds speeds were between **15 and 20 knots**.

Less than 1% of the time, winds speeds were **greater than 20 knots**.

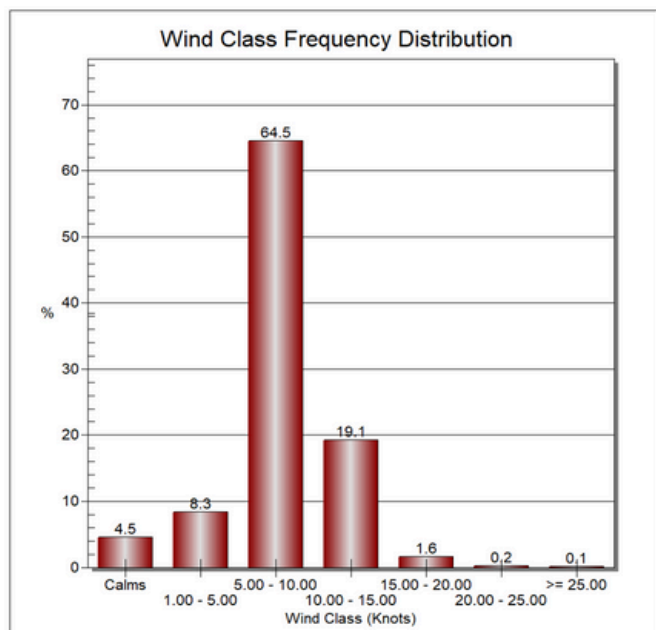


Figure 10.

49% of the time, winds came from the East (E).

29% of the time, winds came from the Northeast (NE).

10% of the time, winds came from Southeast (SE).

5% of the time, winds were calm.

3% of the time, winds came from the North (N).

Winds came from other directions 2% of the time and 2% of the data was missing.

2024 WIND ROSE

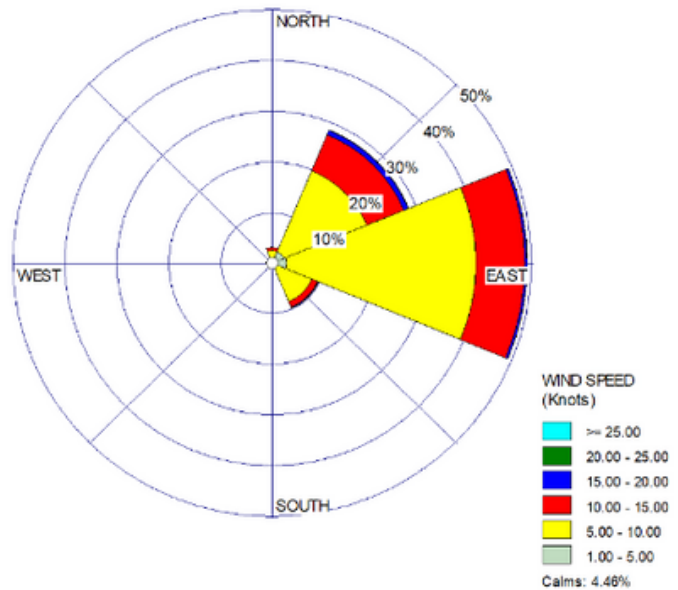


Figure 11.

AIR PRESSURE

At the Princess Juliana International Airport, on average, the *mean* sea level Pressure for 2024 was **1016.0 millibars (mb)**.

The *highest* monthly average was in **January** while the *lowest* was in **November**. The *highest* daily average was recorded as 1026.6 mb on **February 14th** while the *lowest* daily average of 1009.2 mb occurred on **November 14th**.

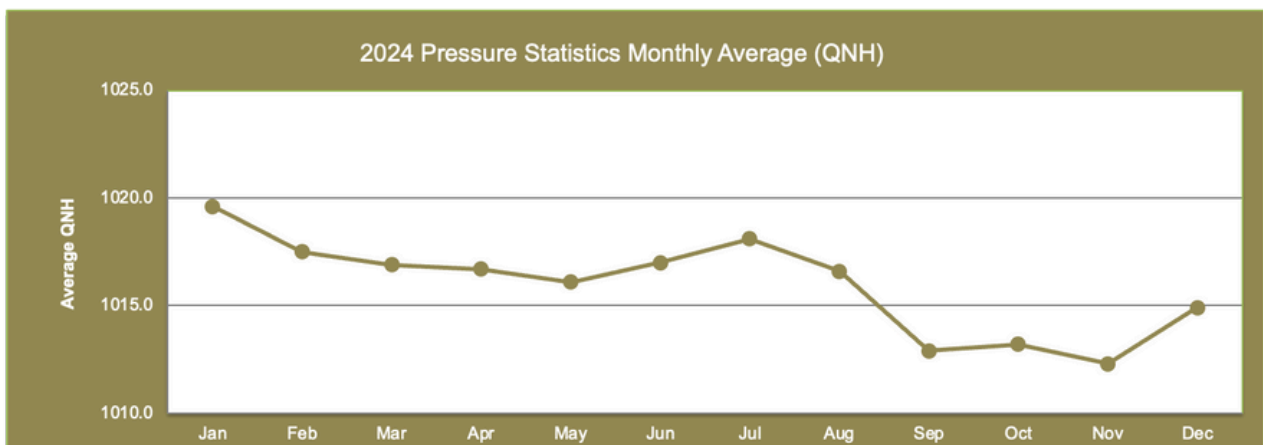


Figure 12.

CLOUD COVER

The average cloud cover for St. Maarten over the past year as recorded at the Princess Juliana International Airport was about **47%**.

The *highest* monthly average cloud cover was 60% during the month of **November** while **March** had the *lowest* value of 34%.

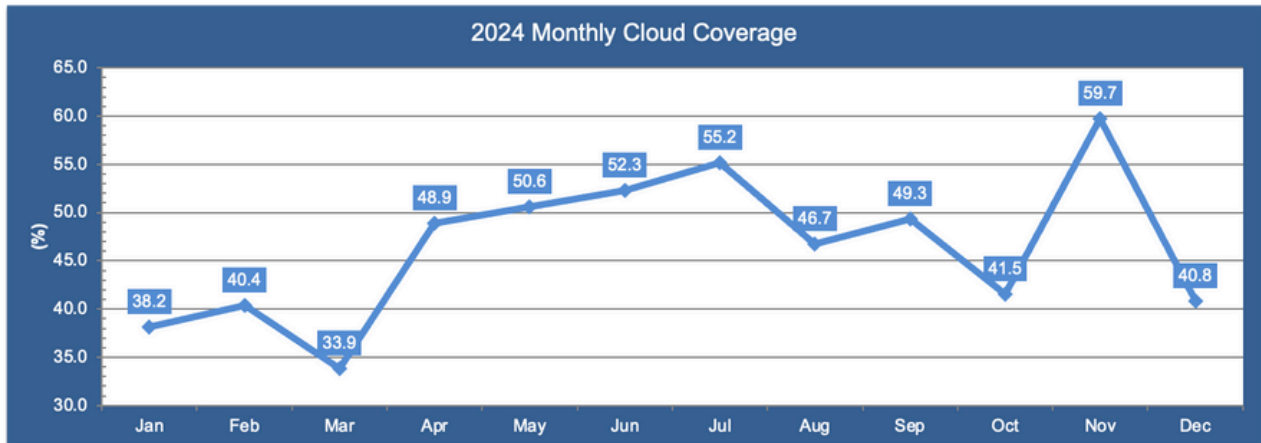


Figure 13.

SUNSHINE DURATION

Approximately 73% of possible sunshine was recorded at the surface at the Princess Juliana International Airport, that is, 3239.3 hours out of a possible 4443.1 hours. The average daily sunshine duration was **8 hours 54 minutes**.

August received the *most* hours of sunshine (303 hours) in 2024 and was also the month with the *highest* daily average sunshine: 9 hours and 48 minutes. **November** received the *least* sunshine and was the month with the *lowest* daily average: 6 hours 48 minutes.

The day with the *highest* daily sunshine hours was **July 11th** with 12 hours 6 minutes. The days with the *least* sunshine in 2024 were **February 8th, October 31st and November 11th** when no sunshine was recorded due to overcast conditions.

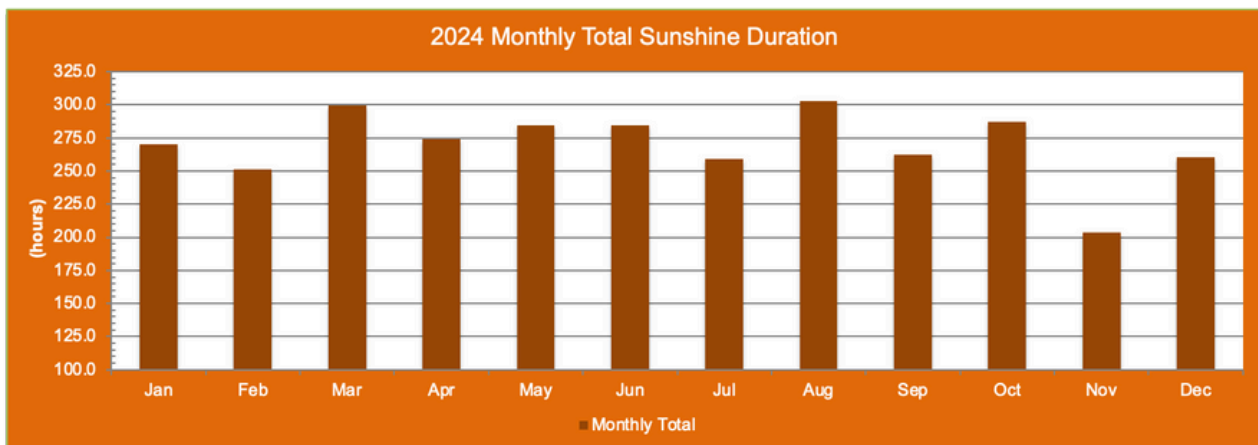


Figure 14.

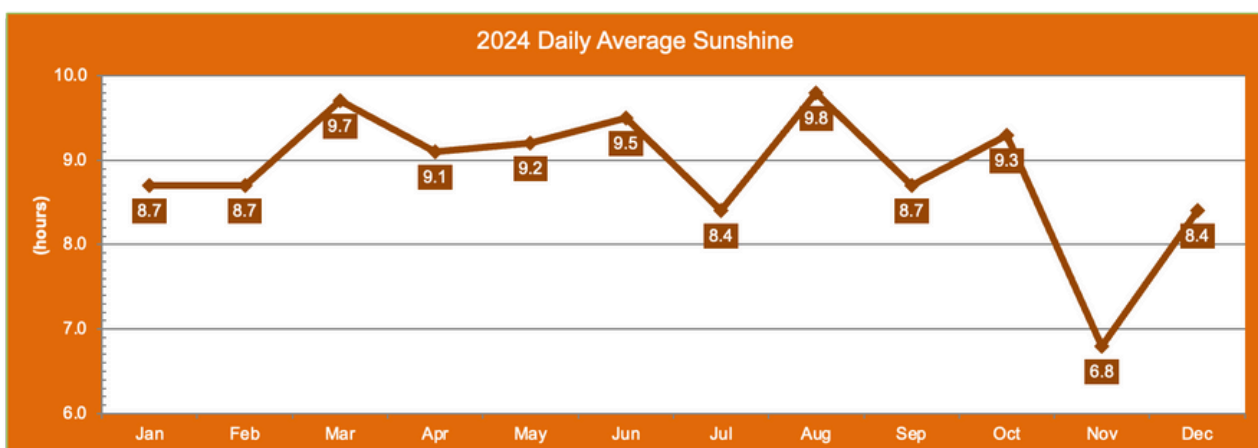


Figure 15.



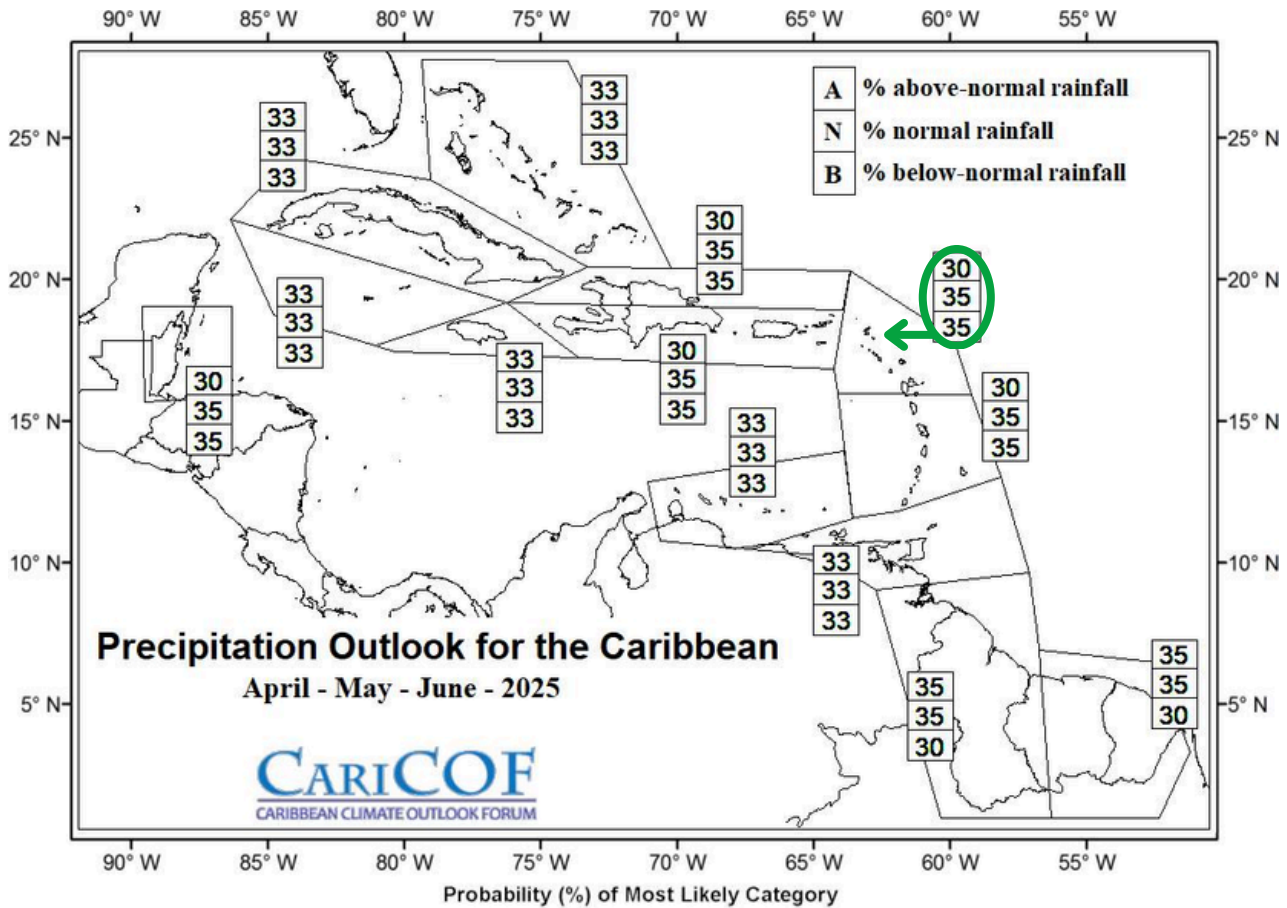
STATISTICAL SUMMARY

A recap of the 2024 climate data, in terms of averages, extremes, and totals.

RAINFALL	Total Rainfall	1306.5 mm 51.4 in	
	Wettest Month	307.0 mm 12.1 in	November
	Driest Month	26.7 mm 1.1 in	March
	24-hr Maximum Rainfall	103.2 mm 4.1 in	May 3rd
	Number of Rain Days (>1.0MM)	139 days	
	Number of Heavy Rain Days (>10.0MM)	32 days	
TEMPERATURE	Average Air Temperature	28.3°C 83°F	
	Absolute Maximum Temperature	33.8°C 94°F	Aug. 29th, Oct. 13th
	Absolute Minimum Temperature	20.7°C 69°F	February 9th
	Warmest Month	29.9°C 86°F	October
	Coollest Month	26.2°C 79°F	February
	Average Relative Humidity	82%	
WIND & PRESSURE	Average Wind Speed	8 knots 9 mph	
	Average Wind Direction	80° East	
	Maximum Wind Gust	52 knots 60 mph	August 13th
	Most Frequent Category Speed	5-10 knots	49%
	Average Air Pressure	1016.0 mb	
CLOUDS & SUNSHINE	Average Cloud Coverage	47%	
	Average Daily Sunshine Duration	8 hours 54 minutes	
	Month With Maximum Sunshine	303 hours	August
	Month With Minimum Sunshine	204 hours	November
	Daily Maximum Sunshine	12 hours 06 minutes	July 11th
	Daily Minimum Sunshine	0 hours 00 minutes	Feb 8th, Oct. 31st & Nov. 11th

OUTLOOK FOR 2025

RAINFALL OUTLOOK FOR APR-MAY-JUN 2025



Map compliments : " CARICOF: Caribbean Institute for Meteorology & Hydrology "

Rainfall for the next three (3) months Apr-May-Jun 2025 is expected to be the usual in St. Maarten and the entire Caribbean basin.

Normal rainfall for this season in St. Maarten ranges between 148-253 mm or 6-10 inches. Based on historical data, the current state of the weather and some subjective input, the rainfall forecast for the next three (3) months in St. Maarten is as follows: a **30%** chance of being **Above Normal** (more than 253 mm); a **35%** chance of being **Near Normal** (between 148 mm and 250 mm); and a **35%** chance of being **Below Normal** (less than 148 mm).

Note that the green arrow points to St. Maarten and the forecast probabilities are circled in green on the map above.



TROPICAL CYCLONE NAMES FOR THE 2025 ATLANTIC HURRICANE SEASON

ANDREA	HUMBERTO	OLGA
BARRY	IMELDA	PABLO
CHANTAL	JERRY	REBEKAH
DEXTER	KAREN	SEBASTIEN
ERIN	LORENZO	TANYA
FERNAND	MELISSA	VAN
GABRIELLE	NESTOR	WENDY

BE PREPARED !!!

BE ALERT !!!

BE READY !!!

Be reminded that it only takes one storm to impact our island to make it an active season for us. Therefore, everyone should prepare for every season, regardless of how much activity is predicted.



CONCLUSION

The 2024 Climatological Summary highlights several key meteorological trends and events for St. Maarten. With an annual total of 1,306.5 mm of rainfall, the island exceeded its long-term average, recording its highest yearly total in thirteen years. While St. Maarten was fortunate to experience no major hurricanes or storms, extreme weather events—particularly the significant flooding in November—underscored the urgent need for continued infrastructure improvements.

The data also indicates a persistent rise in temperatures, with a record-high annual average of 28.3°C and an increased frequency of hot days, suggesting potential shifts in local climate patterns influenced by broader global climate change. Wind and pressure analyses reflect typical Caribbean conditions, yet the variability in precipitation highlights the importance of adaptive strategies to enhance climate resilience.

As we move into 2025, strengthening climate monitoring and preparedness will be essential. Local authorities and stakeholders must remain proactive in mitigating risks and adapting to evolving weather patterns. By prioritizing resilience and sustainable development, St. Maarten can better protect its communities and ensure a more climate-resilient future.



APPENDIX

STAGES OF TROPICAL CYCLONE DEVELOPMENT

STAGE	DECISIVE FACTORS (CRITERIA)
Tropical Disturbance	A discrete system of clouds, showers, and thunderstorms that originates in the tropics and maintains its identity for 24 hours or more.
Tropical Wave	A type of trough of low pressure or tropical disturbance that moves generally from east to west, typically embedded in the tropical easterlies. They are also sometimes called easterly waves.
Tropical Depression	A tropical disturbance that has developed a closed circulation (counterclockwise winds blowing around a center of low pressure in the Northern Hemisphere). Tropical depressions contain maximum sustained (1-minute) winds of 38 mph (62 km/h or 33 knots) or less.
Tropical Storm	A well-organized warm-core tropical cyclone that has maximum sustained (1-minute) winds of 39-73 mph (63-118 km/h or 34-63 knots). Once a system reaches tropical storm status, it is given a name by the National Hurricane Center (located in Miami, Florida).
Hurricane	A warm-core tropical cyclone that has maximum sustained (1-minute) winds of at least 74 mph (119 km/h or 64 knots). Hurricanes are categorized by the Saffir-Simpson Scale. (<i>See next page</i>)
Extra-tropical Cyclone	A cyclone that is no longer tropical in origin, which usually means the system moves away from the tropics and moves toward the poles. An extra-tropical cyclone has no wind speed criteria and may exceed hurricane force.
Subtropical Cyclone	A closed circulation, low-pressure system that has characteristics of both tropical and extra-tropical cyclones. Subtropical cyclones typically have a radius of maximum winds occurring relatively far from the center (usually more than 60 nautical miles), and generally have a less symmetric wind field and distribution of convection (clouds and thunderstorms).
Post-tropical Cyclone	A former tropical cyclone that no longer possesses sufficient tropical characteristics to be considered a tropical cyclone. Post-tropical cyclones can, however, continue carrying heavy rains and high winds.



SAFFIR-SIMPSON SCALE

The Saffir-Simpson Hurricane Wind Scale is a 1 to 5 rating based on a hurricane’s sustained wind speed. This scale estimates potential property damage. Hurricanes reaching Category 3 and higher are considered major hurricanes because of their potential for significant loss of life and damage.

CATEGORY	MAXIMUM SUSTAINED WINDS			EFFECTS
	MPH	KM/H	KNOTS	
1	74-95	119-153	64-82	Minimal Damage
2	96-110	154-177	83-95	Moderate Damage
3	111-129	178-208	96-112	Extensive Damage
4	130-156	209-251	113-136	Extreme Damage
5	157+	252+	137+	Catastrophic Damage

WATCHES & WARNINGS

TROPICAL STORMS

Issued when tropical storm conditions (sustained winds of 39-73mph, 63-118 km/h, or 34-63 knots) are *possible* within the specified area within the next 48 hours (2 days).

Issued when tropical storm conditions (sustained winds of 39-73mph, 63-118 km/h, or 34-63 knots) are expected somewhere within the specified area within the next 36 hours (1.5 days).

HURRICANES

Issued when hurricane conditions (sustained winds of 74+ mph, 119+ km/h, or 64+ knots) are possible within the specified area within the next 48 hours (2 days).

Issued when hurricane conditions (sustained winds of 74+ mph, 119+ km/h, or 64+ knots) are expected within the specified area within the next 36 hours (1.5 days).

Note: Hurricane preparedness activities become difficult once winds reach tropical storm force, therefore, hurricane watches & warnings are issued well in advance of the anticipated onset of tropical-storm-force winds.



Prepared by: Sheryl Etienne-Leblanc
Climatologist

Assisted by: Carshena Gordon
Meteorologist

Designed by: Sherenn R. Leblanc

Published by: **Climate Section**
Meteorological Department St. Maarten
Modesta Drive #12, Simpson Bay, Sint Maarten.

Telephone: +1 (721) 545-4226/545-2024
Website: www.meteosxm.com
Facebook: www.facebook.com/sxmweather