

# Climate Review for PR and USVI – February 2021



**Synopsis:** *As is usual during the month of February, dry conditions prevailed across the islands. Below normal rainfall was observed across most of Puerto Rico. There was only one significant rainfall event early in the month, which is the reason why portions of eastern Puerto Rico received above normal rainfall for the month. Temperatures were above average, with St. Thomas (IST) ending as the fourth warmest February on record, while St. Croix (ISX) had the third warmest february on record. Drought conditions continued to deteriorate, with near 20% of Puerto Rico now under Moderate Drought conditions, as well as all the climatological sites over the U.S. Virgin Islands.*

## Observed Conditions:

February is typically a dry month, with normal rainfall around 1 to 3 inches across most of Puerto Rico, except the Luquillo Mountain range, which normally receives 4 to 10 inches of rain. For the U.S. Virgin Islands, normals are 1 to 2 inches. While daytime high temperatures are in the low to mid 80s across the lower elevations, the higher elevations of Puerto Rico usually experience highs in the mid 60s to low 80s. On the other hand, normal overnight lows are in the low 50s near Adjuntas and some of the highest elevations, to the upper 60s to low 70s across the lower elevations.

Below normal rainfall was observed across most of Puerto Rico and the U.S. Virgin Islands this month. For Puerto Rico, the greater rainfall deficit was over the northwest quadrant, between 1 to 3 inches. Over the extreme southwest and some areas in the central and eastern interior, it was near an inch below normal. For the U.S. Virgin Islands, rain was near one inch below normal at the international airport at ISX and less than one inch at IST (One thing to note is that IST had a few days of missing rainfall data due to a faulty rain gauge, and while rain gauge observations indicate below normal rainfall, the radar estimates indicate about one inch above normal rainfall). There were some areas that did report a superavit of rainfall over Puerto Rico, across some areas of western, interior, and the northern San Juan metropolitan area, with 1 to 5 inches above normal (Figure 1). In terms of temperatures, all the main sites ended the month with mean temperatures that were warmer than normal (Table 1).

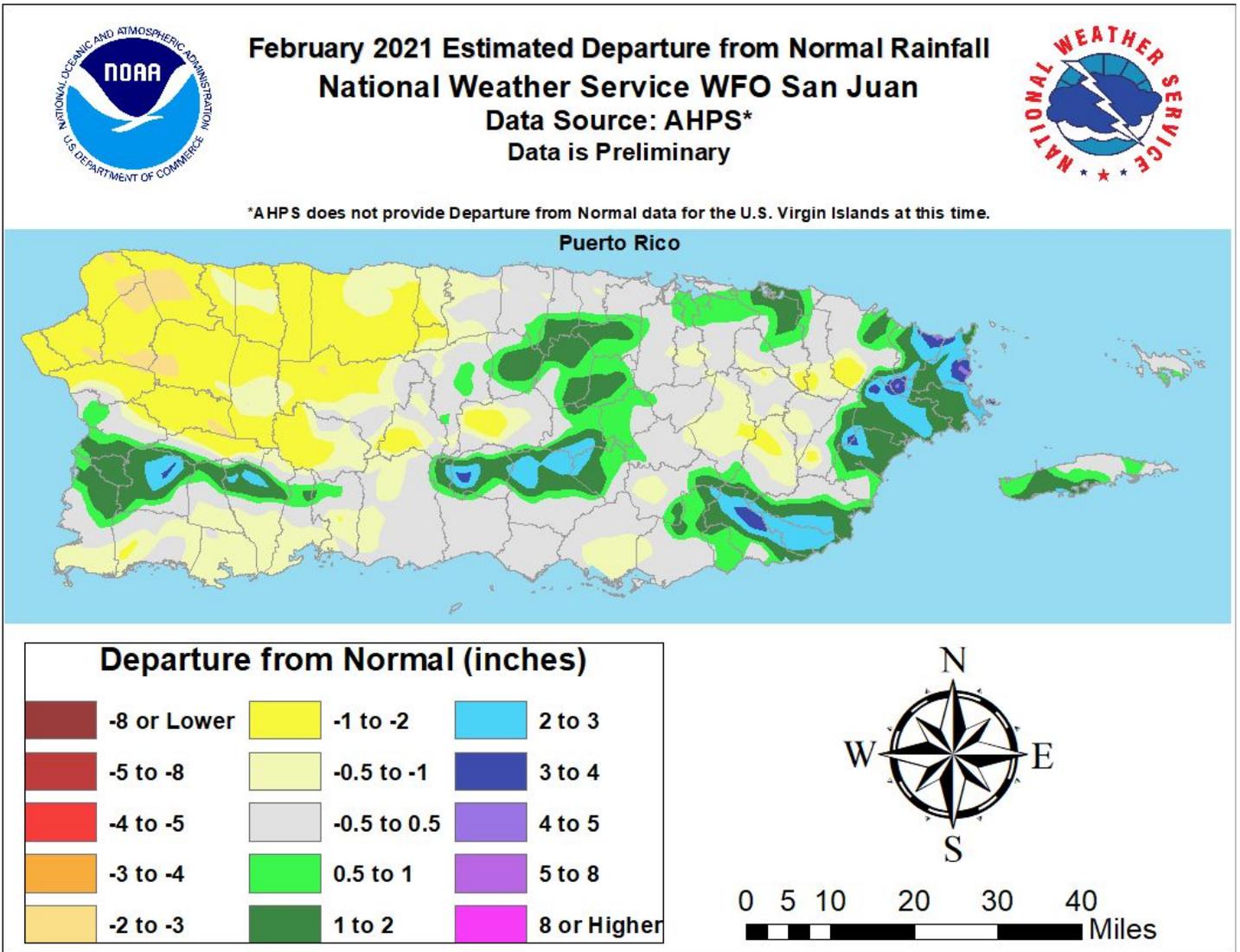
The main rain event during this month was associated with a surface trough that brought 3 to 5 inches of rain for the east and the eastern interior sections of Puerto Rico. Other than that, rainfall was associated with light to moderate showers affecting eastern Puerto Rico and the U.S. Virgin Islands, and additional showers developing due to local effects over western Puerto Rico. For Puerto Rico, total rainfall estimates by the Doppler radar in Cayey indicated a wide range of rainfall distribution, with 1 to 2 inches for the northwest, the southern coast, and eastern Vieques, 2 to 4 inches for the eastern interior and the west, 5 to 10 inches for the east, and over 10 inches across the Luquillo Mountain Range (Figure 2). For the U.S. Virgin Islands, less than one inch fell in general, but a few spots in eastern St. Thomas registered 1-2 inches. A rainfall record was reported at IST with 0.48 inches on February 11th, and a temperature record was established on February 3rd at the San Juan International Airport (JSJ) (Table 3). Across our COOP sites, the highest temperature recorded was 90 degrees at the Aguirre and Dos Bocas stations, while the coldest temperature was recorded at the Adjuntas Substation, with 50 degrees. The rainiest station was Río Blanco Lower in Naguabo with 5.59” monthly rainfall.

The local drought conditions continued to deteriorate over the northwestern quadrant of Puerto Rico, while some municipalities in the south coast as well as Vieques and Culebra now exhibit “Abnormally Dry” (D0) conditions. For the northern portion of Puerto Rico, the 90-day rainfall deficit remains around 4 to 8 inches. By the end of February, roughly 41% of Puerto Rico now classified as (D0), and nearly 18% under a “Moderate Drought” (D1) (Figure 3). Over the U.S. Virgin Islands, D1 conditions were also introduced for St. Croix, while these conditions persist for the northern islands (Figure 4).

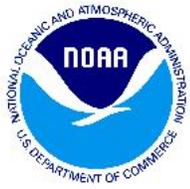
## Looking Ahead:

The latest seasonal outlook issued by the Caribbean Climate Outlook Forum (CariCOF) for the 3-month period of March-April-May (MAM) slightly favors the chances for below normal rainfall (Figure 5) and below normal temperatures (Figure 6). We are still under La Niña conditions; but the latest forecasts favor ENSO-Neutral conditions by the Spring season. **More info:** <http://rcc.cimh.edu.bb/climate-outlooks/>

# Figures and Tables



**Figure 1.** Departure from normal rainfall for the month of February 2021.



# February 2021 Estimated Rainfall

## National Weather Service WFO San Juan

Data Source: AHPS, COOP  
Data is Preliminary

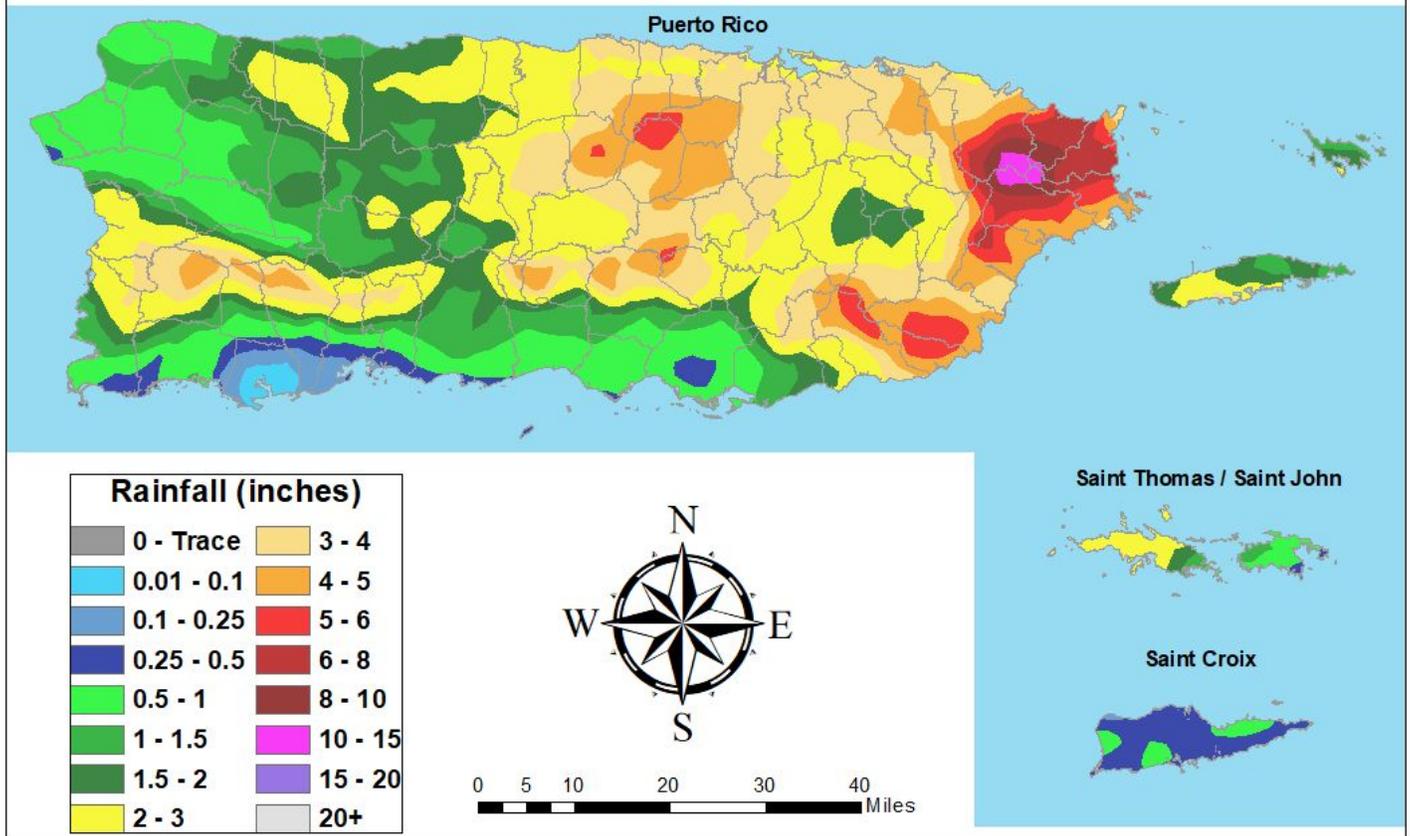
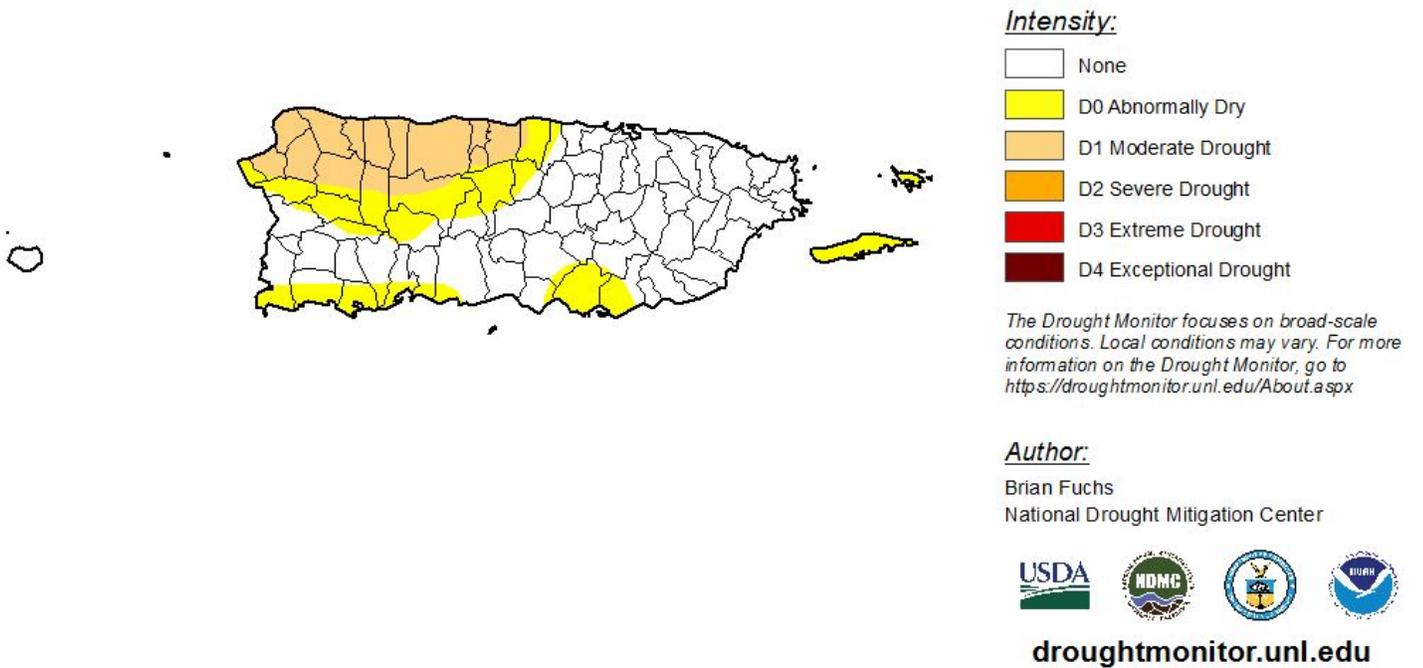


Figure 2. Total estimated rainfall for the month of February 2021.

# U.S. Drought Monitor Puerto Rico

**March 2, 2021**  
(Released Thursday, Mar. 4, 2021)  
Valid 7 a.m. EST



**Figure 3.** U.S. Drought Monitor for Puerto Rico. Released March 2<sup>nd</sup>, 2021.

# U.S. Drought Monitor U.S. Virgin Islands

**March 2, 2021**  
(Released Thursday, Mar. 4, 2021)  
Valid 7 a.m. EST



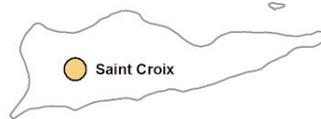
### Intensity:

- ⊗ No Data
- No Drought or Dryness
- D0 - Abnormally Dry
- D1 - Moderate Drought
- D2 - Severe Drought
- D3 - Extreme Drought
- D4 - Exceptional Drought

*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>*

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[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

**Figure 4.** U.S. Drought Monitor for the U.S. Virgin Islands. Released March 2<sup>nd</sup>, 2021.

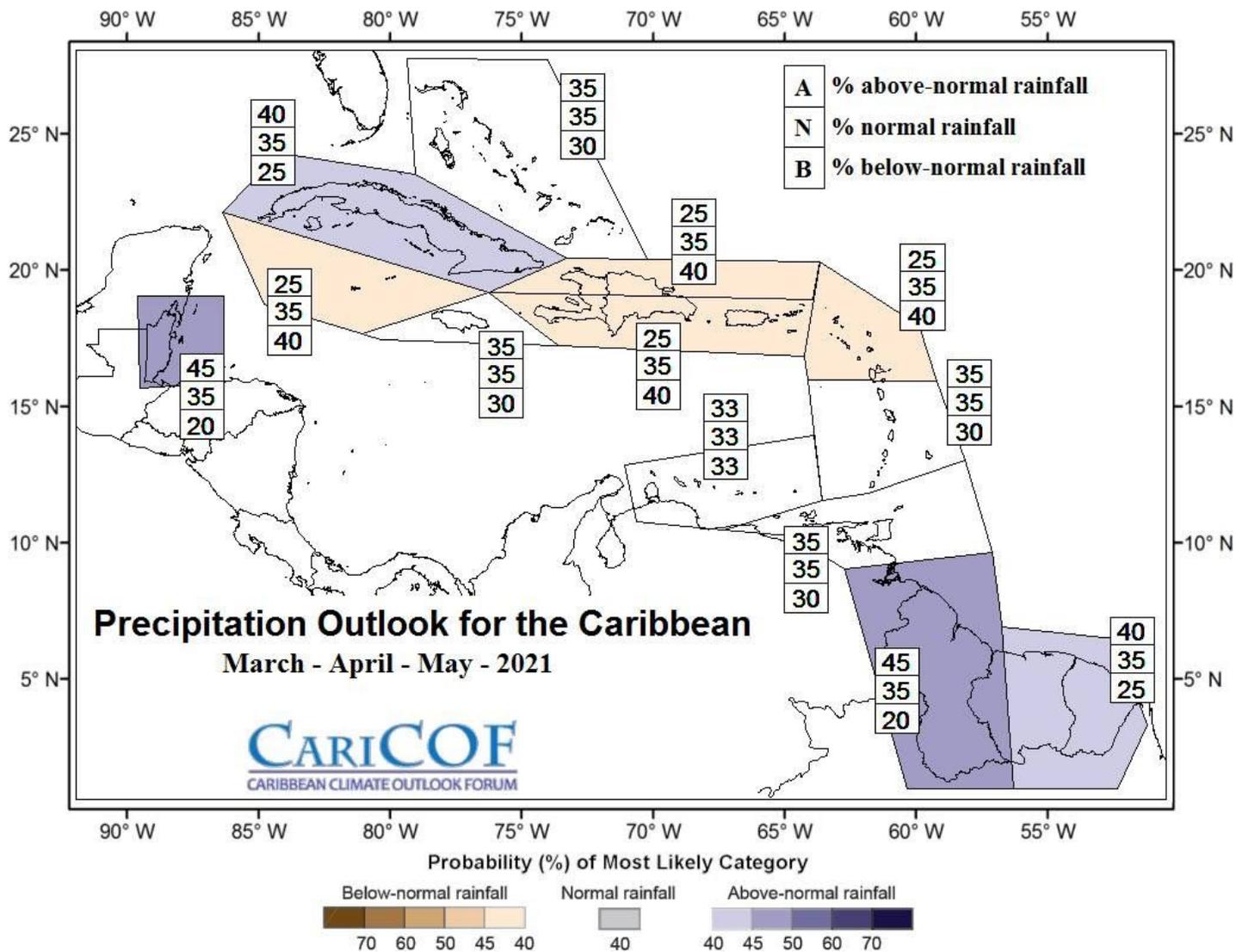


Figure 5. CariCOF 3-month rainfall forecast.

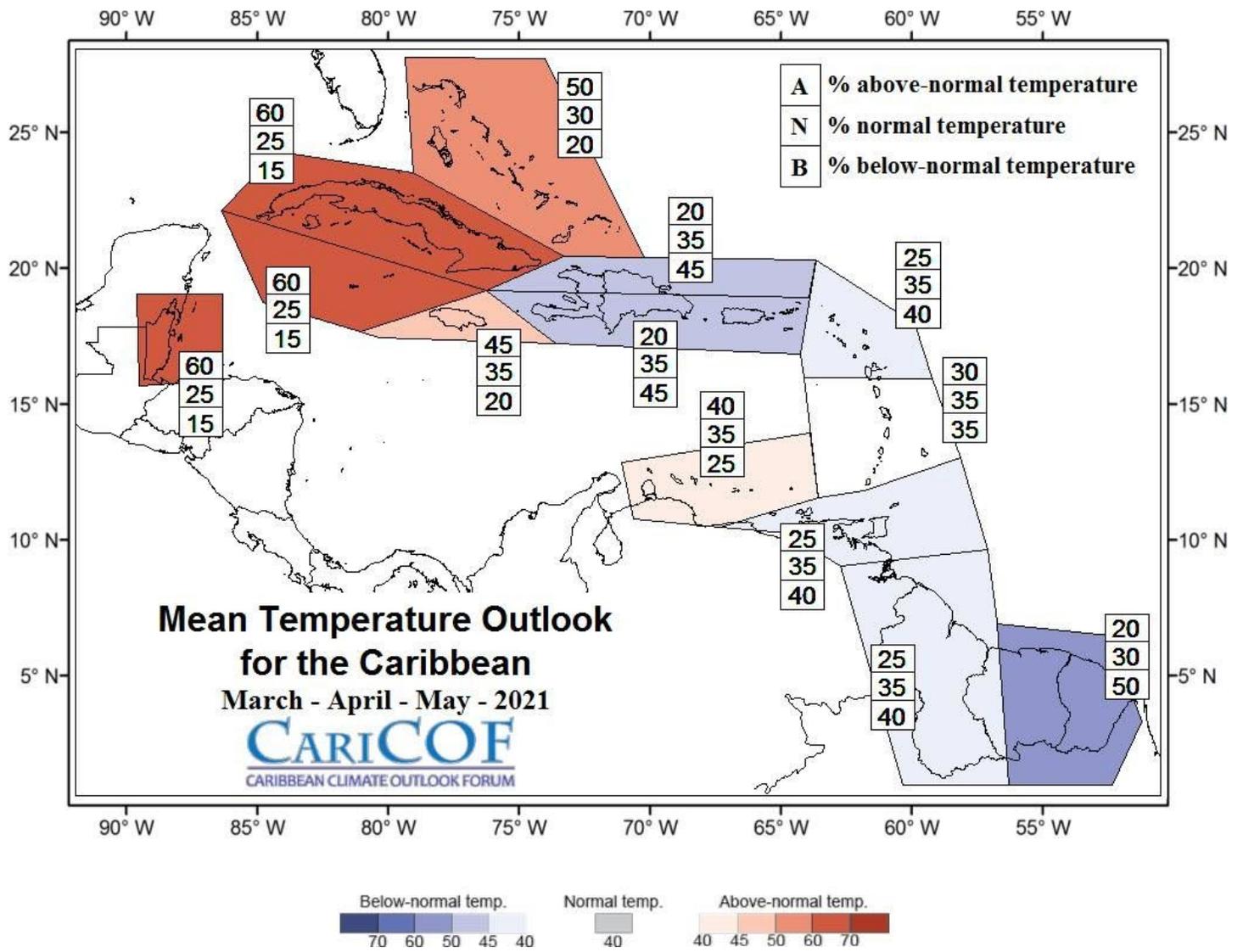


Figure 6. CariCOF 3-month temperature forecast

	Max Temp (°F)	Min Temp (°F)	Mean Temp (°F)	Monthly departure from normal Mean Temp (°F)
JSJ	89 – Feb 3 <sup>rd</sup>	70 – Feb 3 <sup>rd</sup>	78.6	0.7
IST	88 – Feb 25 <sup>th</sup> *	73 – Feb 27 <sup>th</sup> *	80.4	1.6
ISX	87 – Feb 25 <sup>th</sup>	70 – Feb 11 <sup>th</sup>	79.9	1.7

**Table 1.** Temperature highlights for the local international airports.

\*Date of last occurrence. This temperature was observed in more than one day.

	Total Monthly Rainfall	Monthly departure from normal rainfall	Year-To-Date departure from normal rainfall.
JSJ	3.06''	0.67''	-1.05''
IST	1.13''*	-0.30''*	-1.93''*
ISX	0.88''	-0.77''	-1.05''

**Table 2.** Rainfall highlights for the local international airports.

\*The official total rainfall for IST is missing 7 days of rainfall data due to equipment problems. Significant rainfall was observed in a couple of days within that period. The radar estimated monthly rainfall total for IST is **2.52''**.

	Records Set or Tied This Month	Previous Record and Year
JSJ	89°F - Feb 3 <sup>rd</sup>	88 - 2010
IST	0.48'' - Feb 11 <sup>th</sup>	0.35'' - 1978
ISX	-No Records-	N/A

**Table 3.** Rainfall records that were set in the month of February 2021