

# Climate Review for PR and USVI –December 2022



**Synopsis:** *The last month of the year closed on the dry side, with all the climatological sites ending drier than normal. In fact, the U.S. Drought Monitor reintroduced Abnormally Dry (D0) conditions for many of the coastal areas of Puerto Rico, and for St. Croix and St. Thomas in the U.S. Virgin Islands. Temperatures were near normal, with all the sites ending close to the climatological value.*

## Observed Conditions:

After experiencing wetter than normal conditions, below normal rains were observed along the majority of the territories. Estimates from the Doppler radar indicated less than two inches for the southern and western half of Puerto Rico, and for sections of Vieques, Culebra and all of the U.S. Virgin Islands. Some areas near Mayagüez did receive 1 to 2 inches, due to local effects. The northern and eastern sections of Puerto Rico received 2 to 4 inches, with areas near Sierra de Luquillo collecting 5 to 10 inches (Fig 1). Rainfall deficits were in the order of 4 to 8 inches below normal for the east and north of Puerto Rico, and 1 to 3 inches for the rest of the islands (Fig 2).

There were no main rain events registered, but patches of moisture moved at times, resulting in light showers for the eastern and western half of Puerto Rico. The only day with widespread rains was on the 18th, but even then the accumulations were not too impressive. No reports for flooding or mudslides were received this month. At the end of the day, all of the climatological sites ended drier than normal (Table 1). There were no days of temperatures above 90 degrees. San Juan (JSJ) and St. Croix (ISX) ended a little warmer than normal, while it was a little cooler than normal at St. Thomas (IST) (Table 2). No daily temperatures or rainfall records were established (Table 3).

Across the COOP stations, Lajas Substation observed the warmest day, with a high of 92 on the 12th, while Adjuntas Substation registered the coolest temperature, with a low of 55 on the 27th. The station at Adjuntas 1S reported the wettest month, with 13.95 inches collected.

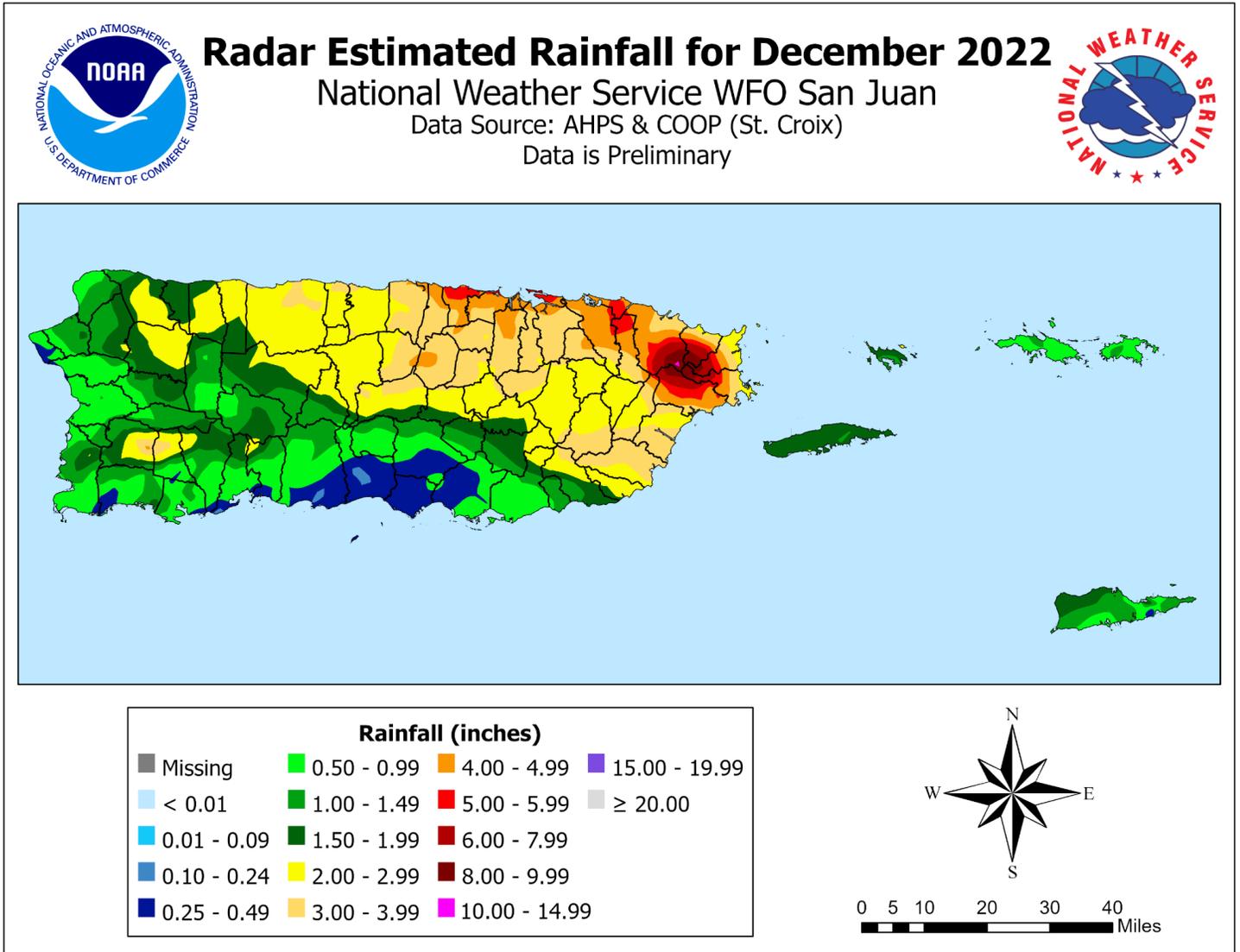
Due to the lack of rains, the northeast, northwest and southern plains of Puerto Rico, as well as St. Thomas and St. Croix across the U.S. Virgin Islands are now classified at Abnormally Dry (D0). Streams in the northeast were running below normal, while the vegetation was stressed in the south and west (Fig.3), due to the continuous rain events, especially at the beginning of the month. All of the reservoirs, wells and rivers are running near normal to above normal.

## Looking Ahead:

The latest seasonal outlook issued by the Caribbean Climate Outlook Forum (CariCOF) for the 3-month period of January-February-March (JFM) favors above normal precipitation (Figure 4) and slightly below normal mean temperatures (Figure 5) across the eastern Caribbean. La Niña conditions are observed, but are expected to transition into ENSO-neutral during winter or early spring 2023.

**More info:** <http://rcc.cimh.edu.bb/climate-outlooks/>

# Figures and Tables



**Figure 1.** Normal rainfall amounts for the month of December 2022.



# Estimated Departure from Normal Rainfall

## National Weather Service WFO San Juan



Data Source: AHPS\*  
Data is Preliminary

\* AHPS does not provide Departure from Normal data for the U.S. Virgin Islands

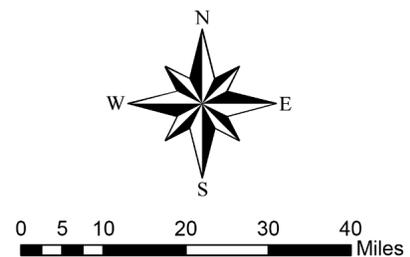
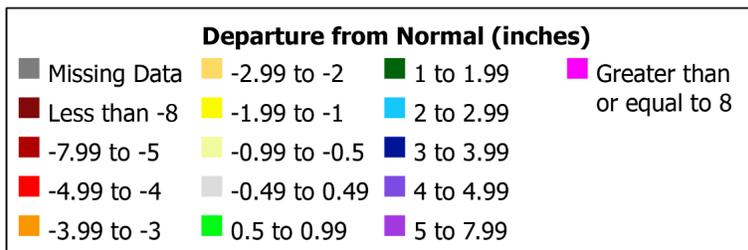
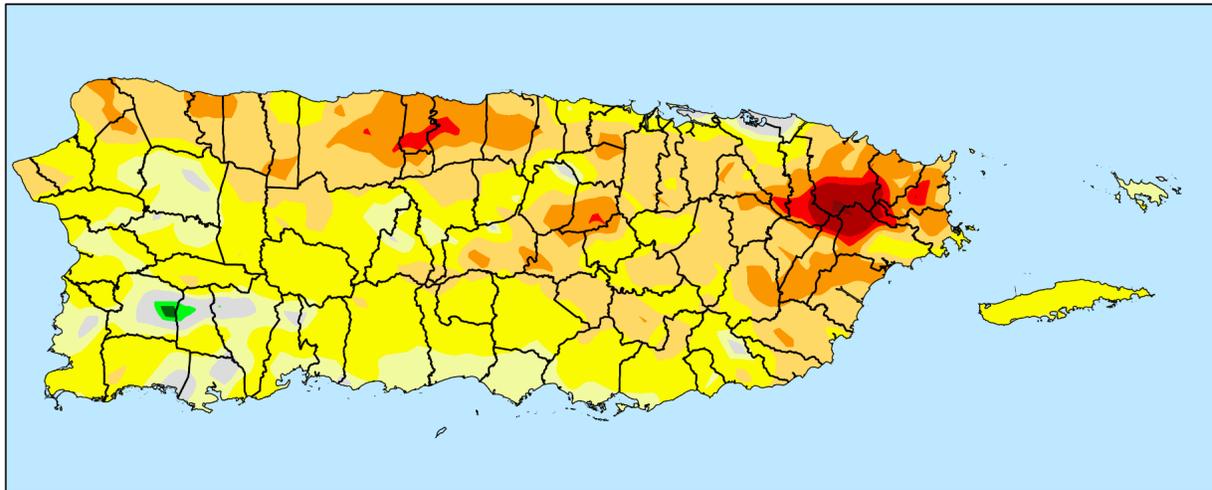


Figure 2. Estimated Departure from normal rainfall for December 2022 from AHPS.

# U.S. Drought Monitor Caribbean

**January 3, 2023**  
(Released Thursday, Jan. 5, 2023)  
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	81.52	18.48	0.00	0.00	0.00	0.00
<b>Last Week</b> <i>12-27-2022</i>	81.52	18.48	0.00	0.00	0.00	0.00
<b>3 Months Ago</b> <i>10-04-2022</i>	100.00	0.00	0.00	0.00	0.00	0.00
<b>Start of Calendar Year</b> <i>01-03-2023</i>	81.52	18.48	0.00	0.00	0.00	0.00
<b>Start of Water Year</b> <i>09-27-2022</i>	100.00	0.00	0.00	0.00	0.00	0.00
<b>One Year Ago</b> <i>01-04-2022</i>	18.24	81.76	28.04	0.00	0.00	0.00

Note: Statistics do not include areas represented by points.

**Intensity:**

- None
- 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>

U.S. and Puerto Rico Author:

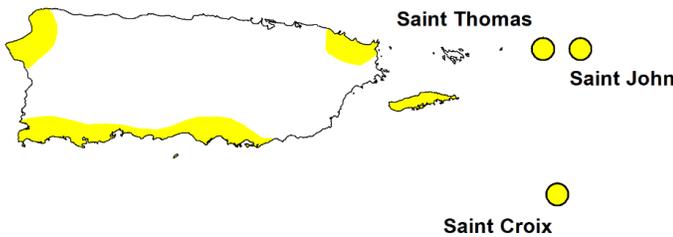
Brad Pugh  
CPC/NOAA

Pacific Islands and Virgin Islands Author:

Brad Pugh  
CPC/NOAA



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



**Figure 3.** U.S. Drought Monitor for Puerto Rico and the U.S. Virgin Islands. Released January 3<sup>rd</sup>, 2022.

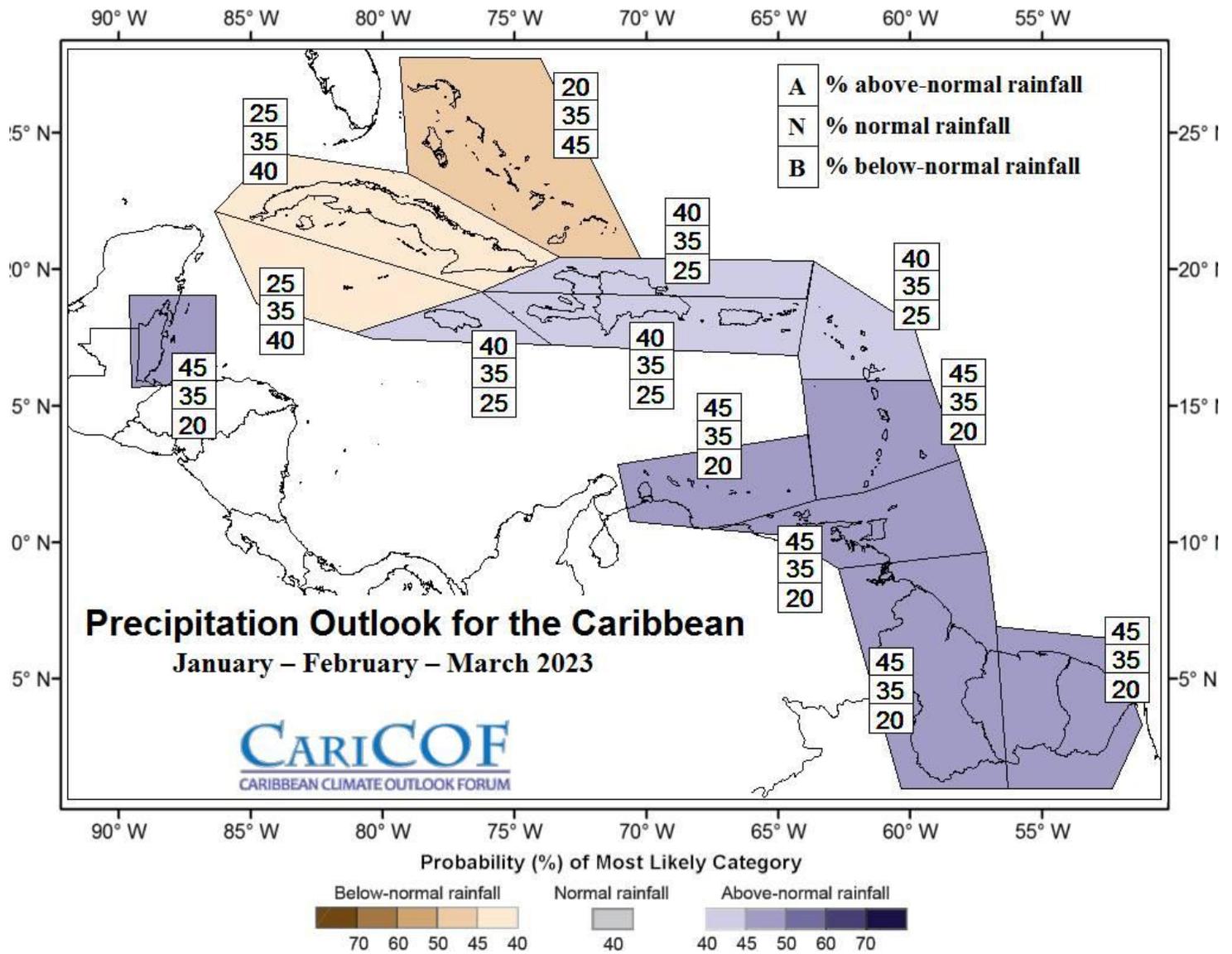
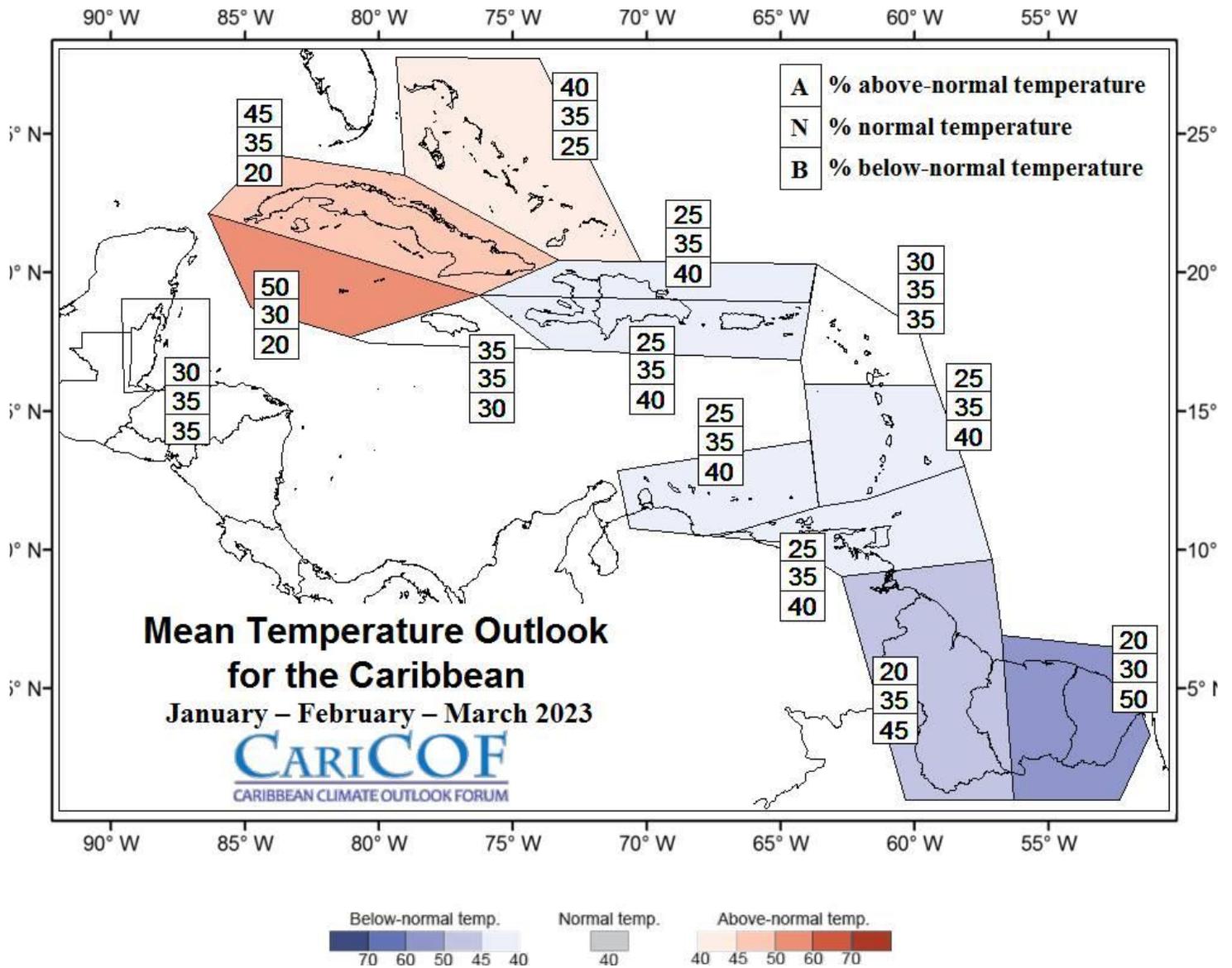


Figure 4. CariCOF 3-month rainfall forecast



**Figure 5.** CariCOF 3-month temperature forecast

	Total Monthly Rainfall	Monthly departure from normal rainfall	Year-To-Date departure from normal rainfall.
JSJ	3.72"	-1.13"	11.89"
IST	0.82"	-2.11"	-0.24"
ISX	0.60"	-2.65"	0.30"

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

	Highest Daily Max Temp (°F)	Lowest Daily Min Temp (°F)	Monthly Mean Temp (°F)	Monthly departure from normal Mean Temp (°F)
JSJ	87 – Dec 27 <sup>th</sup> *	71 – Dec 13 <sup>th</sup>	79.4	0.6
IST	87 – Dec 29 <sup>th</sup> *	71 – Dec 13 <sup>th</sup> *	79.9	-0.2
ISX	88 – Dec 16 <sup>th</sup>	66 – Dec 12 <sup>th</sup>	79.9	0.2

**Table 2.** Temperature (°F) highlights for the local international airports.

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

	Records Set or Tied This Month	Previous Record and Year
JSJ	-None-	-None-
IST	-None-	-None-
ISX	-None-	-None-

**Table 3.** Records set or tied this month.