

Probabilistic Forecasts from NWS Jacksonville

(updated 8/20/2026)

Synopsis

The value of probabilistic forecasts include seeing the range of reasonable possibilities for a specific weather event occurring at a particular location during a given time frame. This information can aid decision makers in considering the reasonable 'worst case' forecast scenario, not just the 'expected' forecast.

Motivation & Utility

Probabilistic products are intended to provide a range of possibilities during a given time frame for a particular weather event. These forecasts complement the existing deterministic, single value, NWS forecasts in that the probabilistic information helps better communicate inherent weather forecast uncertainties.

For example, your local forecast may be for a low temperature of 34°F. This is the official NWS forecast, but there is still uncertainty. Probabilistic information can help you understand more about this uncertainty to make better informed decisions relative to preparedness. If the forecast low temperature for your location is 34°F (what is expected), there may be a possibility for the low temperature to reach 30°F (lower confidence of this event occurring, but still a possibility). Even with the low possibility of temperatures below freezing, personal risk tolerance may motivate to prepare for a light freeze and protect tender vegetation.

Traditional forecasts have only given a single forecast for temperature and precipitation, and these specific values can change from day to day as the event approaches. The goal of probabilistic forecasts is to provide the "Goal Posts", or the reasonable range of possibilities, for a specific event, which ideally assists with better decision-making and helps motivate appropriate early preparedness.

An way to message probabilistic information with official forecast data is below:

"Expect temperatures to be at least XX." (low end probabilistic value)

"The most likely forecast temperature is XX." (deterministic forecast value)

"Temperatures are not expected to exceed XX." (high end probabilistic value)

"Given uncertainty, consider preparing for the potential of this temperature..."

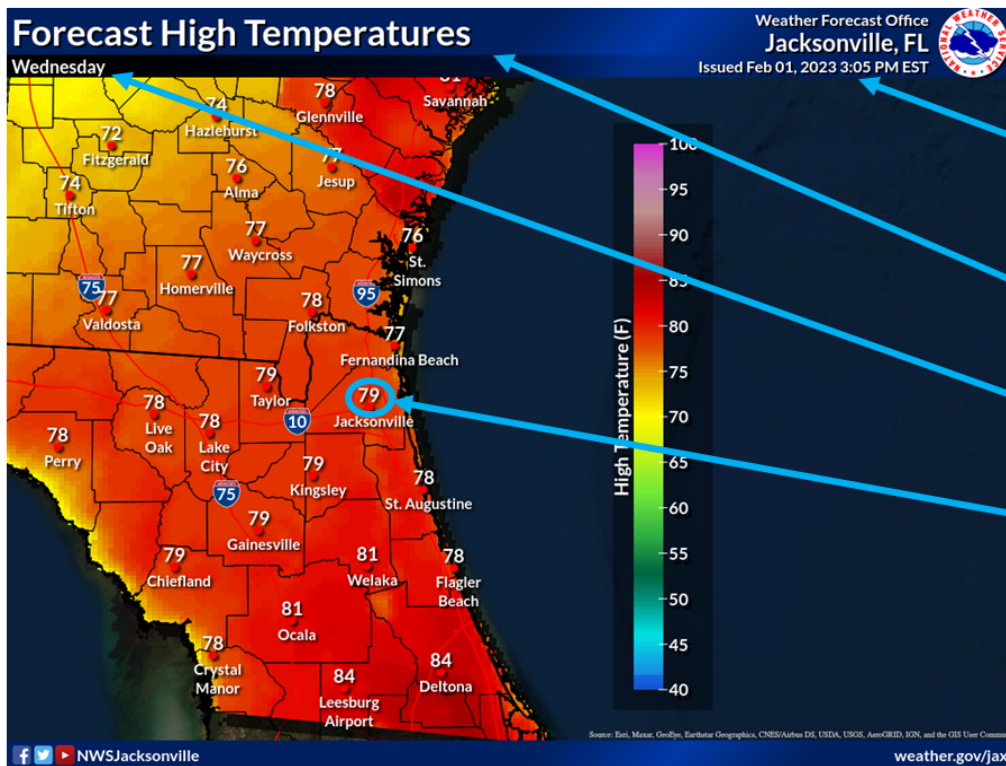
Probabilistic Forecast Graphic Resources

Regional Graphics: <https://www.weather.gov/jax/probabilistic>

Localized Graphics: <https://www.weather.gov/jax/graphics>

REGIONAL GRAPHIC EXAMPLE FOR TEMPERATURES

<https://www.weather.gov/jax/probabilistic>

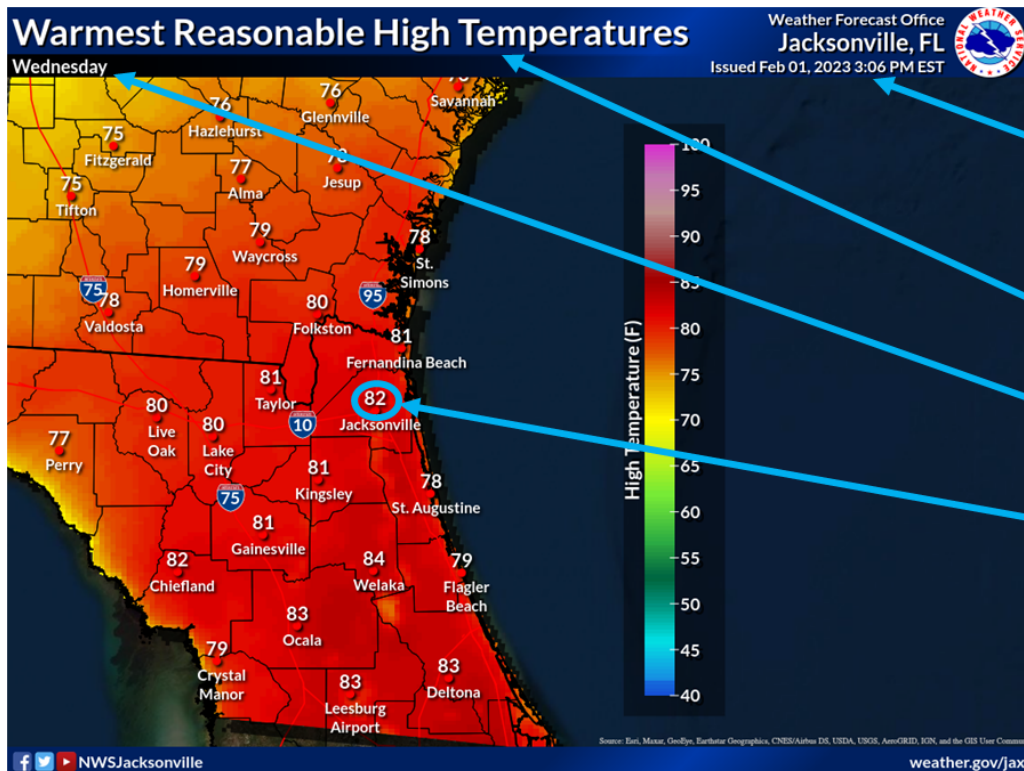


This is when the forecast was created. This is important to check to make sure you have the most up-to-date information

This is the forecast (expected) high temperatures

This is when the forecast is valid

Interpretation of this graphic:
The most likely (or expected) high temperature at Jacksonville, FL is 79°F on this day



This is when the forecast was created. This is important to check to make sure you have the most up-to-date information

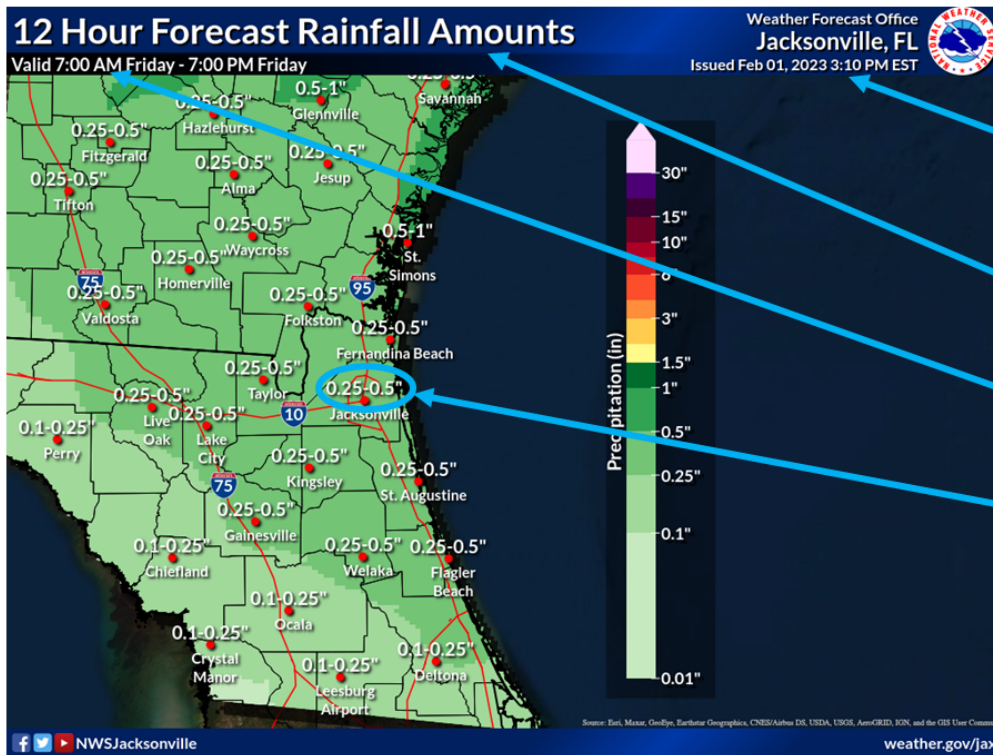
This is the forecast high end (warmest reasonable) high temperatures

This is when the forecast is valid

Interpretation of this graphic:
The high temperature at Jacksonville, FL is not expected to be any higher than 82°F. In fact, it's very likely (90% chance) that it will be lower

REGIONAL GRAPHIC EXAMPLE FOR PRECIPITATION

<https://www.weather.gov/jax/probabilistic>

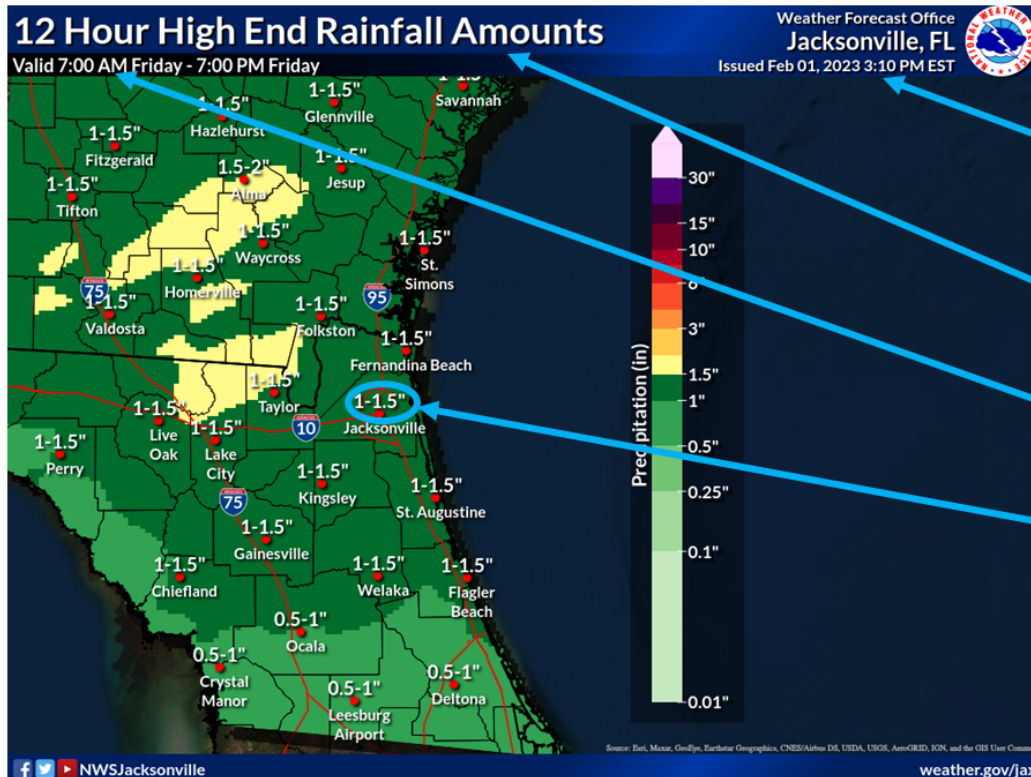


This is when the forecast was created. This is important to check to make sure you have the most up-to-date information

This is the 12 hour forecast (expected) rainfall amount

This is when the forecast is valid

Interpretation of this graphic:
The most likely (or expected) rainfall during this 12 hours at Jacksonville, FL is between 0.25 and 0.50 inch



This is when the forecast was created. This is important to check to make sure you have the most up-to-date information

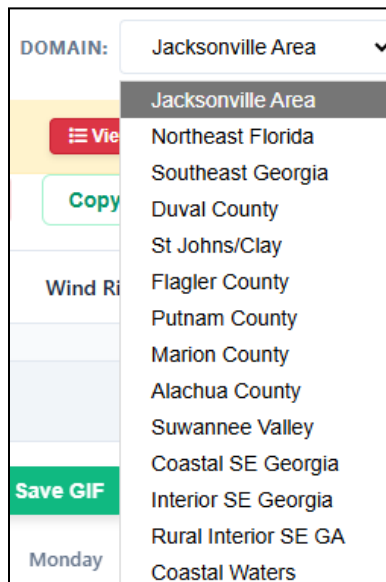
This is the 12-hour high end (or greatest) rainfall amount

This is when the forecast is valid

Interpretation of this graphic:
The high end (or greatest) amount of rainfall at Jacksonville, FL during this 12 hour period is not expected to exceed 1 to 1.5 inches. In fact, it's very likely (90% chance) that it will be less

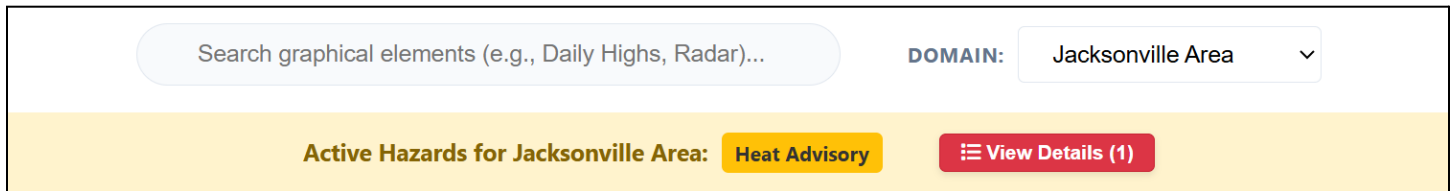
LOCAL GRAPHICS: <https://www.weather.gov/jax/graphics>

1. Choose your area of interest via the Domain Drop Down Menu:



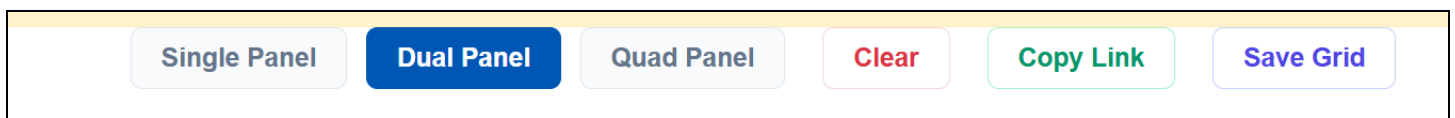
A screenshot of a web interface showing a domain selection dropdown menu. The menu is open, displaying a list of regions. The 'Jacksonville Area' is selected and highlighted. Other visible options include Northeast Florida, Southeast Georgia, Duval County, St Johns/Clay, Flagler County, Putnam County, Marion County, Alachua County, Suwannee Valley, Coastal SE Georgia, Interior SE Georgia, Rural Interior SE GA, and Coastal Waters. To the left of the dropdown, there are buttons for 'View', 'Copy', 'Wind Ri', 'Save GIF', and 'Monday'.

2. If there are any active weather hazards in effect for your chosen domain, they will appear below the domain selection area. Below there is a 'Heat Advisory' in effect.



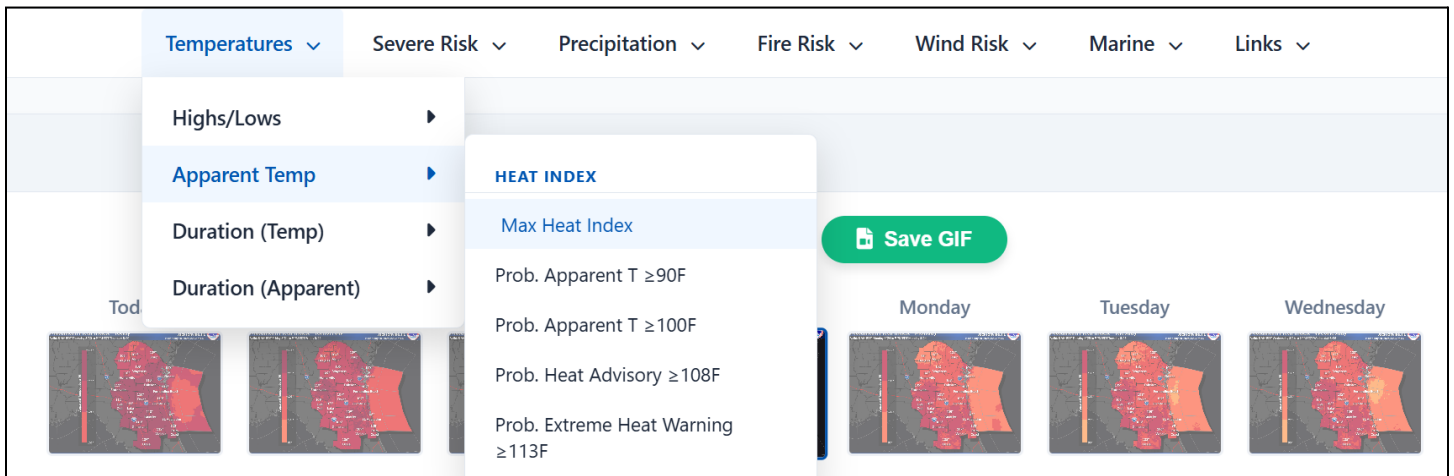
A screenshot of the 'Active Hazards' section. At the top, there is a search bar with the text 'Search graphical elements (e.g., Daily Highs, Radar)...' and a domain dropdown menu set to 'Jacksonville Area'. Below this, a yellow banner displays 'Active Hazards for Jacksonville Area: Heat Advisory' with a button to 'View Details (1)'.

3. The next section allows you to view up to 4 graphics at once (Single Panel, Dual Panel or Quad Panel). Once you build out your graphics, you can bookmark the panel.



A screenshot of the panel selection interface. It features six buttons: 'Single Panel', 'Dual Panel' (which is highlighted in blue), 'Quad Panel', 'Clear', 'Copy Link', and 'Save Grid'.

4. Choose your Weather Element Tab (Temperatures, Severe Risk, Precipitation, Fire Risk, Wind Risk, Marine). Click on the graphics you wish to see using the dropdown menu:



5. Each graphic has its own unique url. You can bookmark or build into a briefing.

Below is an example of the Domain: St. Johns/Clay &, Quad Panel. Weather elements displayed are daily high temperatures (panel 1), the risk of daily heat Index above 108 degF (panel 2), the 24-hr daily expected rainfall forecast (panel 3) & chance of rainfall > 2 inches across the domain area over the next 72 hrs. This panel is bookmarked and saved [HERE](#)

