Probabilistic Forecasts from NWS Jacksonville

(updated 2/24/2024)

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 forecast uncertainties before and during weather events.

For example, your local forecast may be 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..."

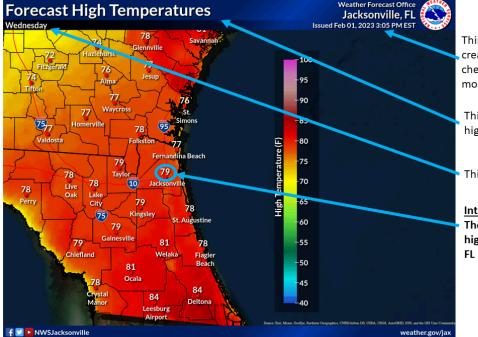
"This is the most likely temperature..." (deterministic forecast value) "Given uncertainty, consider preparing for the potential of this temperature..."

Probabilistic Forecast Graphic Resources

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

REGIONAL GRAPHIC EXAMPLE FOR TEMPERATURES

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

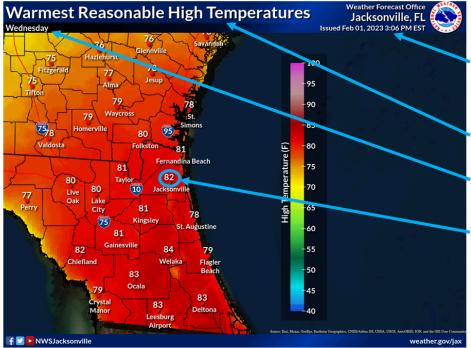


This is when the forecast was created. This is important to check to make sure you have the most up-to-date information

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

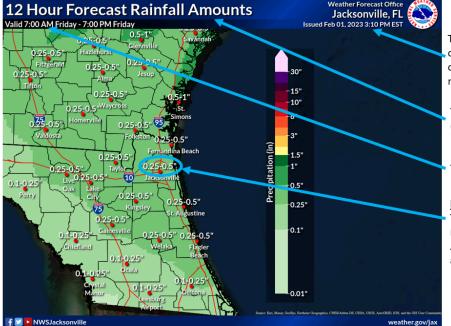
This is when the forecast is valid

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

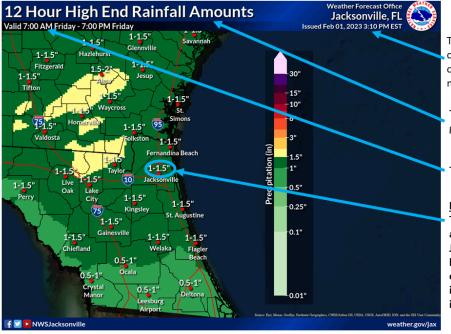


This is when the forecast was created. This is important to check to make sure you have the most up-to-date information

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



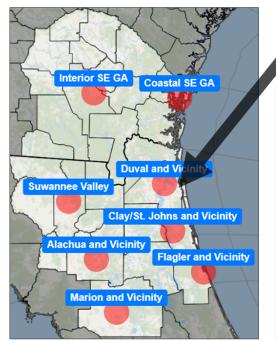
This is when the forecast was created. This is important to check to make sure you have the most up-to-date information

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

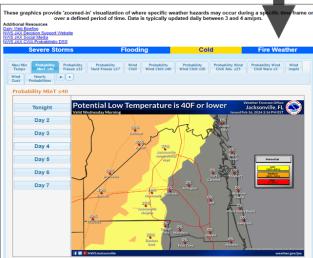
This is when the forecast is valid

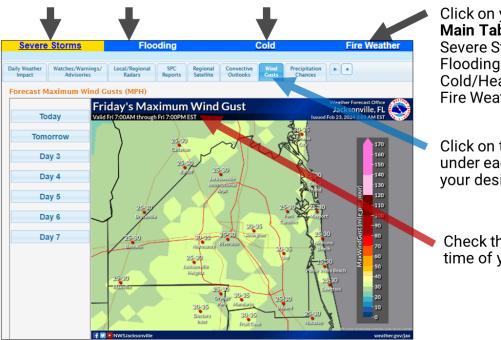
Interpretation of this graphic: The high end (or greatest) amount of rainfall at Jacksonville, FL during this 12 hour period is not expected to exceed 1 to 1.5 inches. In fact, it's very likely (90% chance) that it will be less

LOCAL GRAPHICS: https://www.weather.gov/jax/jaxdssmap



Click on a dot closest to your area on the map. The local probabilistic graphic page loads for that area.





Click on your desired Main Tab: Severe Storms Flooding Cold/Heat Fire Weather.

Click on the Sub-Tabs under each Main Tab for your desired graphic.

Check the day & valid time of your graphic