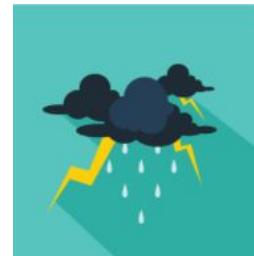


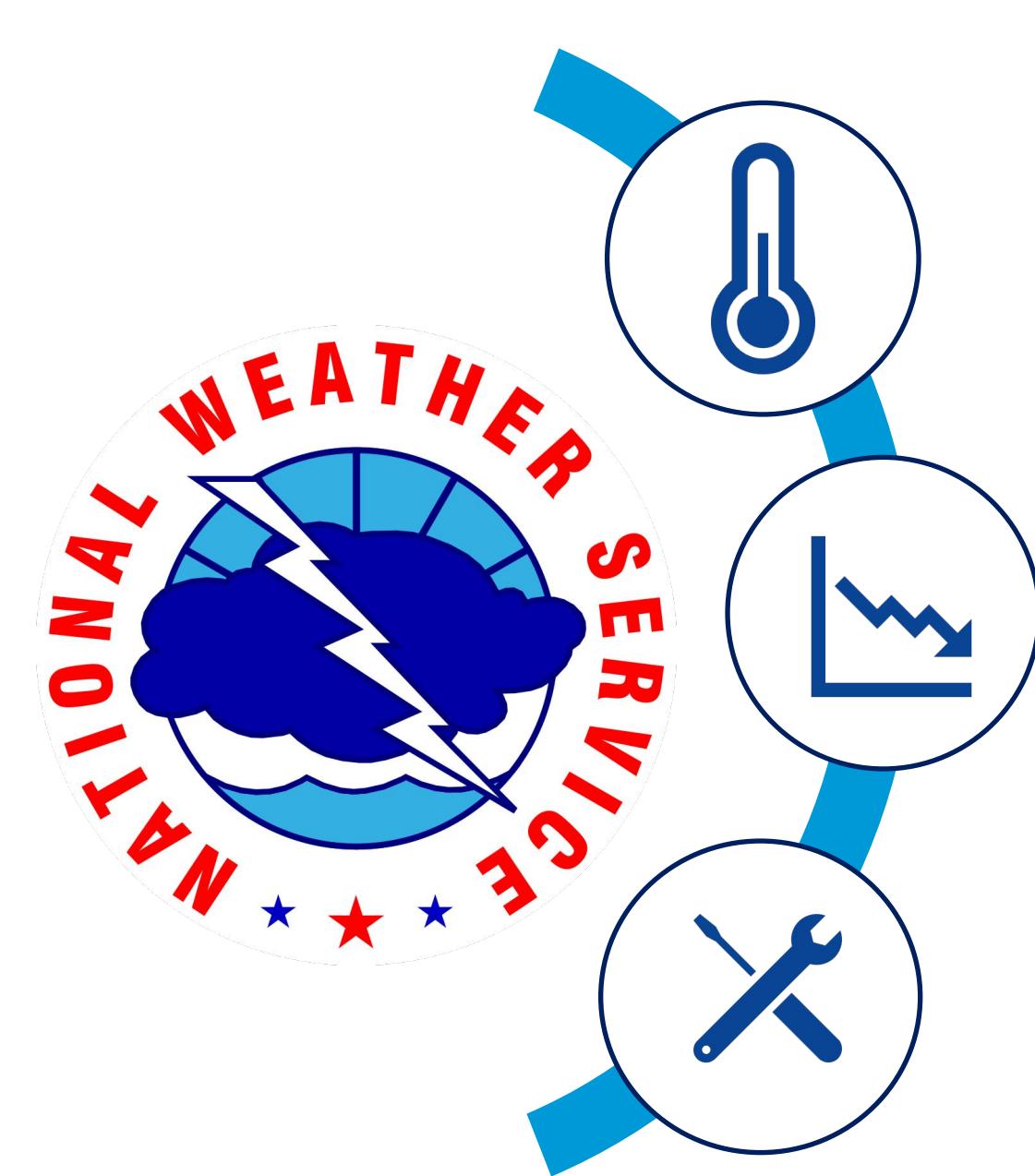


NWS JAX EM Lunch & Learn - December 2025

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Cold Weather
Products

Freeze Trends
&
Winter Outlook

Forecast
Tools

NWS JAX Lunch & Learn
December 2025



NATIONAL WEATHER SERVICE

Cold Weather Products

Cold Temperature Products

<https://www.ready.gov/winter-weather>

Impacts to PLANTS

Frost Advisory

→ Widespread Frost

Freeze Watch/Warning

→ Temperatures \leq 32 F

Protect PLANTS



Impacts to PEOPLE

Based on Apparent Temperature

Cold Weather Advisory

→ Southeast GA: 11-20 F
→ Northeast FL: 16-25 F

Extreme Cold Watch/Warning

→ Southeast GA: \leq 10 F
→ Northeast FL: \leq 15 F

Protect PEOPLE & PETS



NATIONAL WEATHER SERVICE
Jacksonville, Florida

Freeze Warning

Widespread temperatures 32°F or below for at least 2 hours.

Hard freeze temperatures 28°F

**Plants left outdoors
may be killed.**



weather.gov/safety/winter

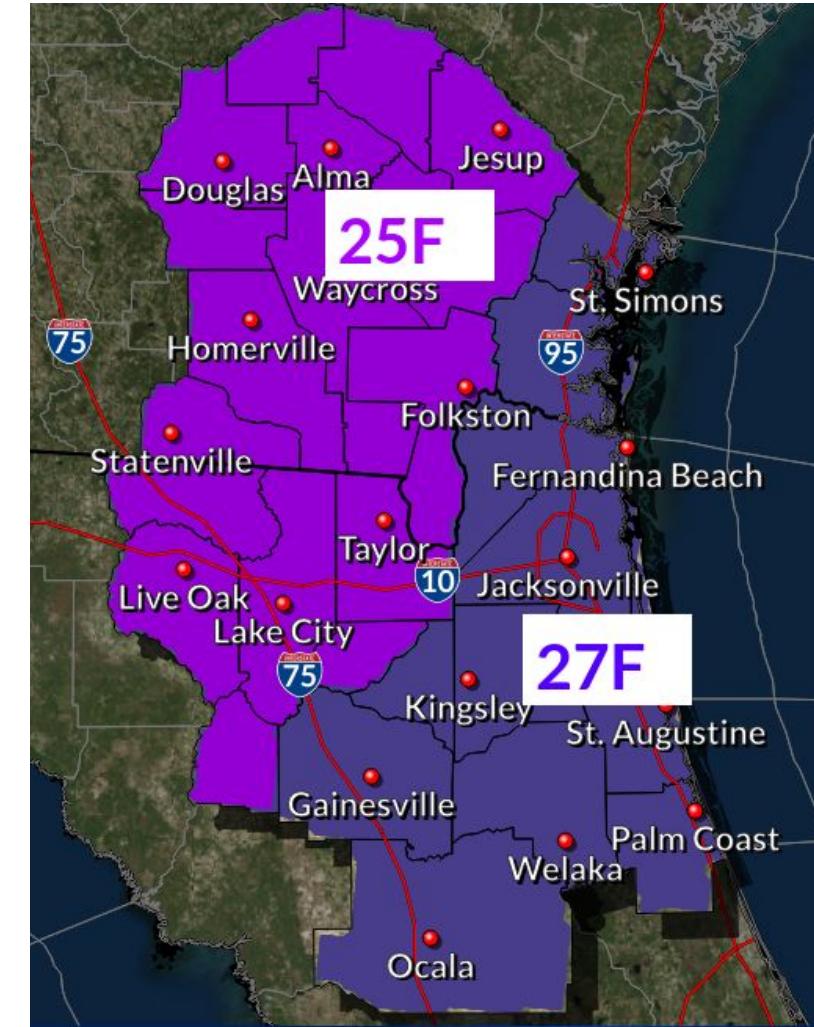
Frost Advisory

Temperatures 33-36°F with clear skies & calm winds which promotes widespread frost.

**Plants left outdoors
may be damaged.**

Freeze & Hard Freeze Criteria

Counties	Freeze	Hard Freeze
Glynn, Camden, Nassau, Duval, St. Johns, Flagler, Clay, Bradford, Putnam, Alachua, Marion	28-32 °F 2 hrs or more	≤ 27 °F 2 hrs or more
Baker, Union, Columbia, Gilchrist, Suwannee, Hamilton, Echols, Clinch, Atkinson, Coffee, Jeff Davis, Appling, Bacon, Ware, Pierce, Charlton, Brantley, Wayne	26-32 °F 2 hrs or more	≤ 25 °F (no duration)



EXTREME COLD WATCH

An Extreme Cold Watch is issued when dangerously cold air, with or without wind, is **possible**.

Check the forecast, and be prepared in case a Warning is issued.

Be Prepared

A photograph showing a person walking away from the camera on a snow-covered street. In the background, there are snow-covered trees and buildings, creating a cold, wintry atmosphere.

EXTREME COLD WARNING

An Extreme Cold Warning is issued when dangerously cold air, with or without wind, is **expected**.

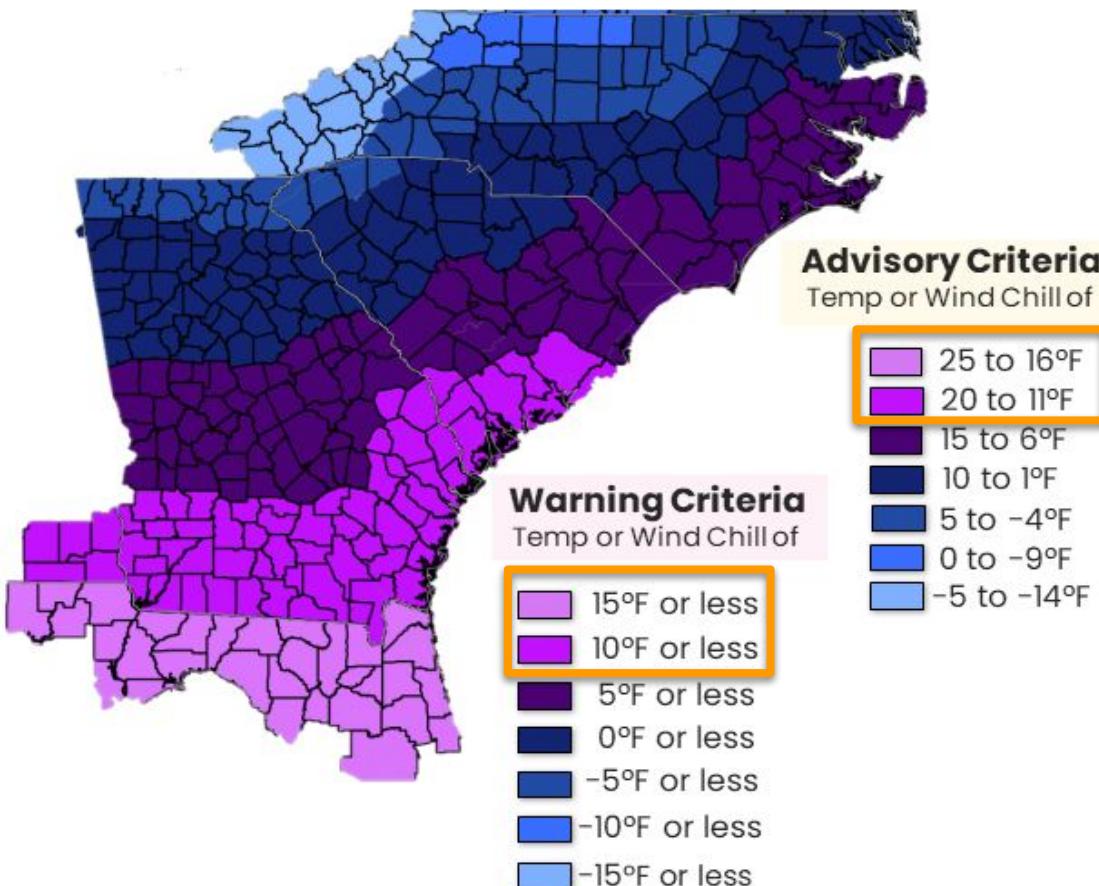
Conditions could lead to frostbite or hypothermia. Limit time outside, dress in layers, and cover up exposed skin.

Take Action!

COLD CRITERIA

ADVISORY VS WARNING

See how **Cold Weather Advisory** and **Extreme Cold Warning** criteria differ across the region



	Cold Weather Advisory	Extreme Cold Watch/Warning
SE Georgia	11 - 20 °F	≤ 10 °F
NE Florida	16 - 25 °F	≤ 15 °F

NOTE: Apparent Temperatures
Considers Wind Chills



NATIONAL WEATHER SERVICE

Advisory, Watch & Warning

Advisory “Caution”	Watch “Head’s Up”	Warning “Expected”
Forecast weather will not pose a widespread threat to life or property. Some impacts are expected.	Forecast weather will pose a threat to life & property. Preparations to mitigate loss are advised.	
Typically issued within 24 hrs of expected weather impact	Typically issued within 24-48 hrs of possible weather impact.	Typically issued within 24 hrs of expected weather impact.

Cold Weather Advisory

Freeze Watch
Extreme Cold Watch

Freeze Warning
Extreme Cold Warning



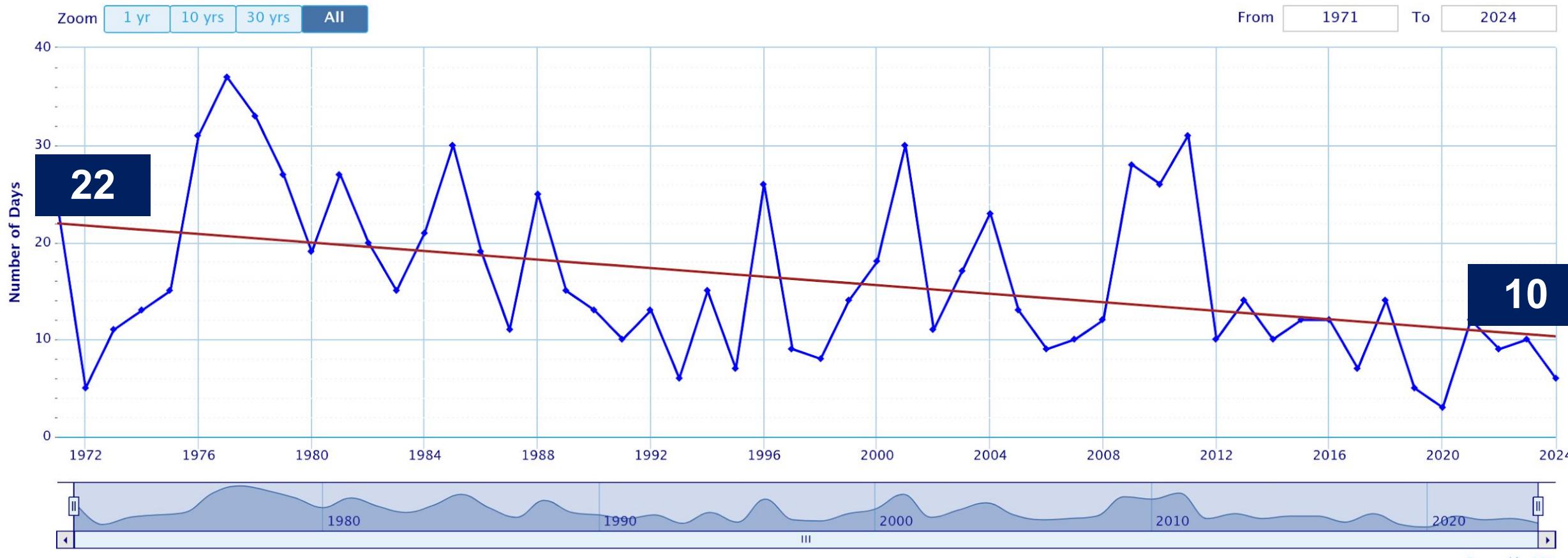
NATIONAL WEATHER SERVICE

Local Freeze Climatology

Jacksonville Freeze Climatology

Number of Days Min Temperature <= 32 Nov 1 to Mar 30 – Jacksonville Area, FL (ThreadEx)

Use navigation tools above and below chart to change displayed range



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Alma Freeze Climatology

Number of Days Min Temperature <= 32 Nov 1 to Mar 30 – ALMA BACON COUNTY AP, GA



Use navigation tools above and below chart to change displayed range

From To

Zoom



Powered by ACIS



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Gainesville Freeze Climatology

Number of Days Min Temperature \leq 32 Nov 1 to Mar 30 – Gainesville Area, FL (ThreadEx)



Use navigation tools above and below chart to change displayed range

Zoom

From To



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Freeze Climatology Trends

Location	Average Number of Freezes 1971*	Number of Freezes 2024*
Alma, GA	27	21
St. Simons Island, GA	16	4
Jacksonville, FL	22	10
Gainesville, FL	17	13
St. Augustine, FL	9	3

* Data based on 'best fit' regression curve



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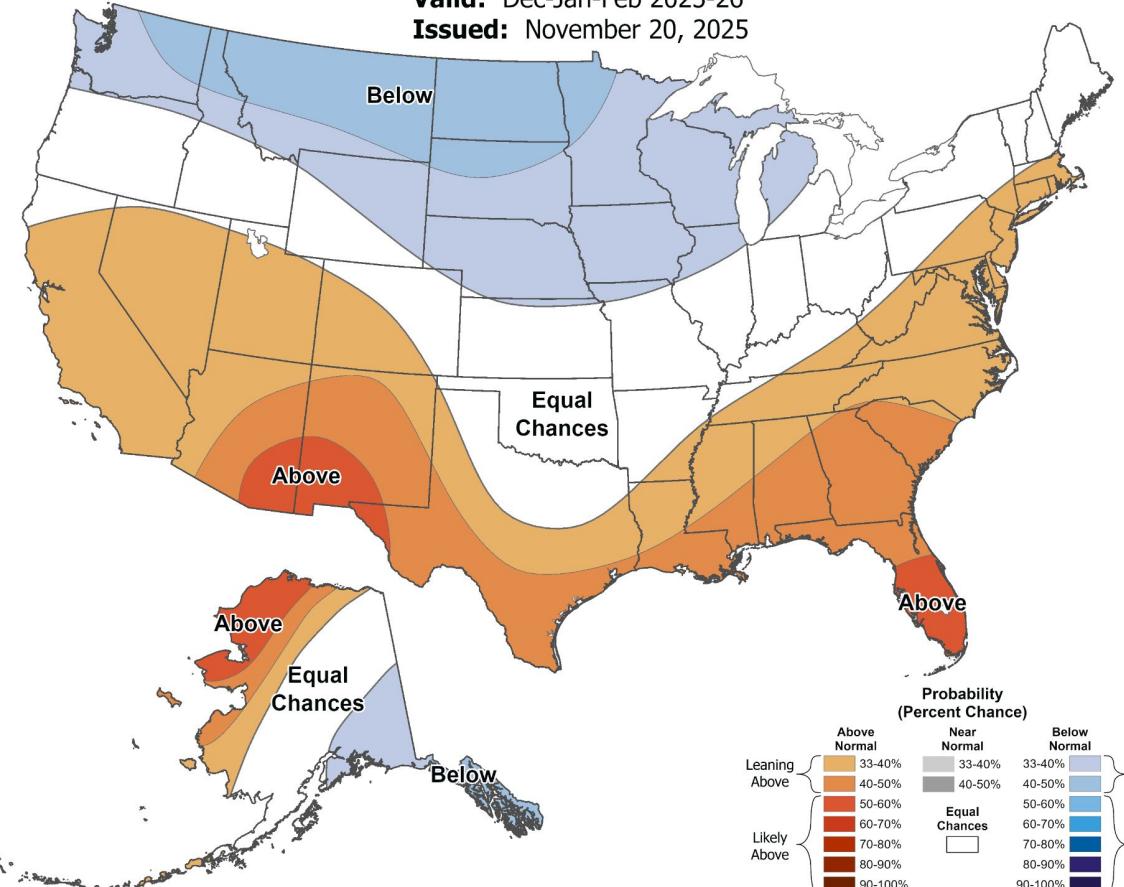
Winter Outlook

Winter Season Outlook - D/J/F



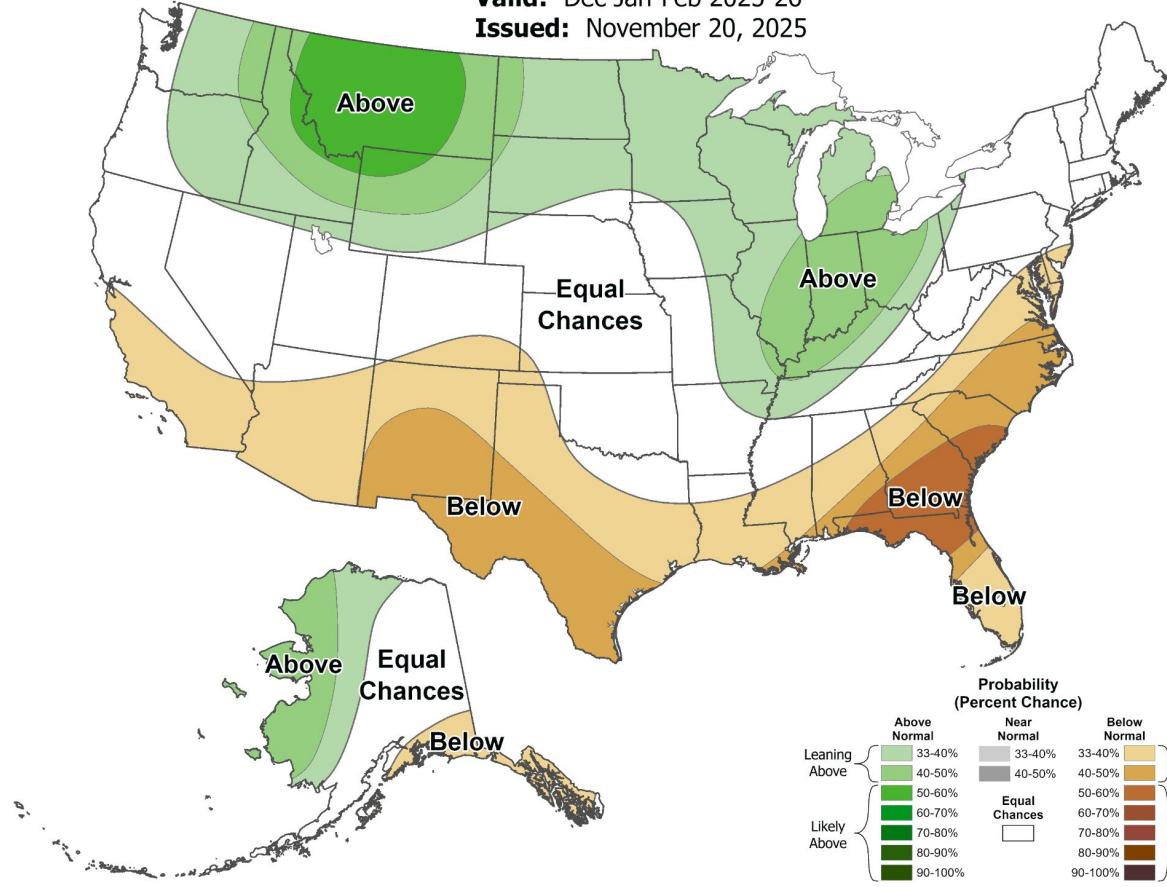
Seasonal Temperature Outlook

Valid: Dec-Jan-Feb 2025-26
Issued: November 20, 2025



Seasonal Precipitation Outlook

Valid: Dec-Jan-Feb 2025-26
Issued: November 20, 2025

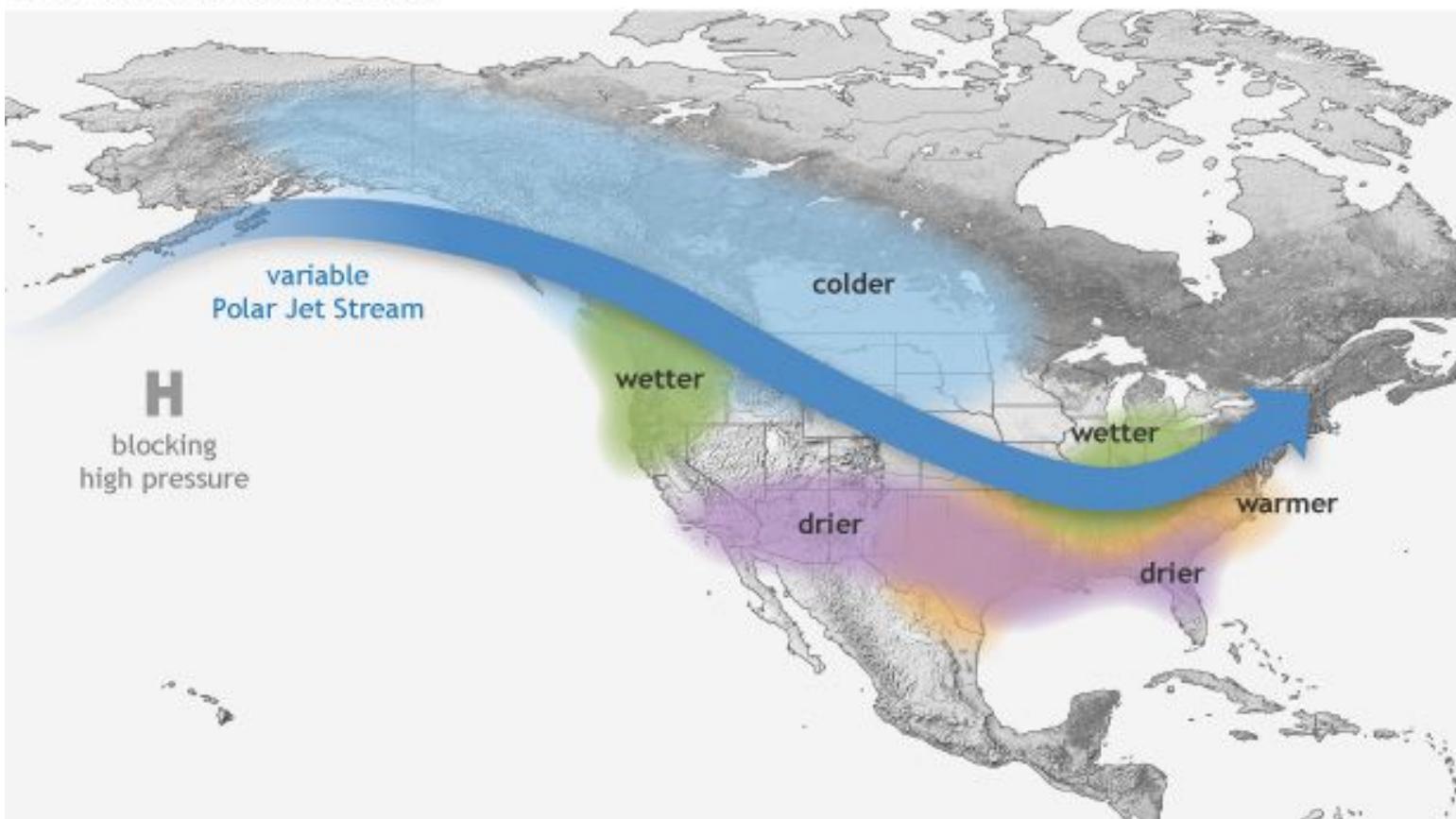


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La Niña Influence

WINTER LA NIÑA PATTERN



- Typically La Niña US southeast experiences 'warmer' than average temperatures
- Jet Stream displaced farther north → less frequent "Polar Vortex" southward plunges



NATIONAL WEATHER SERVICE

Weak La Nina

- Weak La Nina to ENSO Neutral this winter
- 'Warm and dry' winter forecast for weak La Nina not as confident as moderate or strong La Nina winters

Jacksonville, Florida

During weak La Nina winters, there are slightly above average freezes compared to 30 year climatology

BUT

During individual winter seasons, there is HIGH variability of freeze events

Weak La Nina Winters & Jacksonville Freeze Events 1971-2024

Winter	Freezes (32F)	Hard Freeze (≤ 26F)
1971-72	5	0
1974-75	15	1
1983-84	21	8
1984-85	30	9
2000-01	30	13
2005-06	9	1
2008-09	28	5
2016-17	7	1
2017-18	14	2
2022-23	10	4
Average	17	4
30 Year Average 1991-2020	14	3



Local Freezes

- “Warmer than Average Temperatures” does not mean less freeze events
- In fact, locally, we have had numerous freeze & hard freeze events during La Nina winters

Jacksonville, Florida 1971-2024

Rank	Season	Number of Days Min Temperature <= 32	
1	1976-1977	31	
2	2010-2011	30	La Nina
-	1977-1978	30	
4	1975-1976	29	La Nina
5	1984-1985	27	La Nina
6	2000-2001	26	La Nina
-	1978-1979	26	
8	1980-1981	25	La Nina
9	1995-1996	23	La Nina
10	2009-2010	22	

Rank	Season	Number of Days Min Temperature <= 27	
1	2000-2001	14	La Nina
2	2010-2011	13	La Nina
3	2009-2010	12	
-	1976-1977	12	
5	1984-1985	11	La Nina
-	1980-1981	11	
-	1977-1978	11	
8	1995-1996	10	La Nina
-	1975-1976	10	La Nina
10	1978-1979	9	

Jacksonville, Florida

6 out of 10 winters with the most freezes occurred during La Nina winters.

5 out of 10 winters with the most hard freezes occurred during La Nina winters



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Forecast Tools

NWS JAX Decision Support

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

Immediate Support

NWS Jacksonville Operations
904-741-4370 extension 1

[NWS Jacksonville Briefing](#)

NWSChat2.0 by Slack
Channel: #wfo-jacksonville-fl
About [NWSChat](#)

 [NWS Jacksonville](#)

 [@NWSJacksonville](#)

Forecast Options (Choose Location)

- [Point Forecast Dashboard](#)
- [Marine Dashboard](#)
- [Fire Weather Dashboard](#)
- [SPOT Forecast Request](#)

Products & Services

- [NWS JAX Met Watch \(Met Watch Job Sheet\)](#)
- [Local Probabilistic Forecast Graphics \(Job Sheet\)](#)
- Downscaled, county level forecast graphics
- [Regional Probabilistic Forecast Graphics \(Job Sheet\)](#)
- Graphics of SE Georgia & NE Florida
- [Atlas Precipitation Frequency Analysis \(Job Sheet\)](#)
- [Graphical Hazardous Weather Outlook](#)



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Immediate Support

Immediate Support

NWS Jacksonville Operations
904-741-4370 extension 1

NWS Jacksonville Briefing

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Key Messages

Southeast Georgia & Northeast Florida

Cold Weather Continues

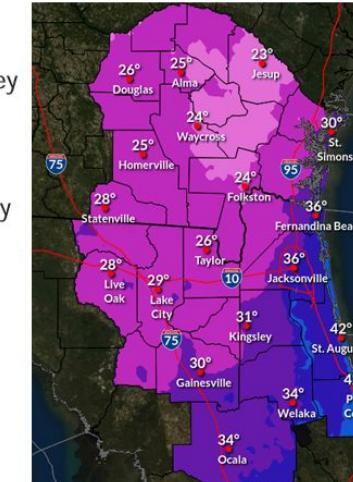
- **Tonight:**
 - Freeze Watch for far interior southeast GA
 - Frost potential in large open fields for inland SE GA areas
- **Friday Night:**
 - Inland Freeze/Widespread Frost potential for SE GA and Suwannee Valley (Freeze Watch)
- **Saturday Night:**
 - Frost potential for inland southeast GA & the Suwannee Valley

12/5/2024 10:27 AM

Weekend Chill – Low Temperatures in the 30s



Forecast Lows Saturday Morning
(Official Forecast, What we Expect)



Key Messages

- Inland Freeze Potential Saturday morning
- Inland SE GA & Suwannee Valley
- Frost possible for inland north central FL



Timing

- Late Friday Night / early Saturday morning

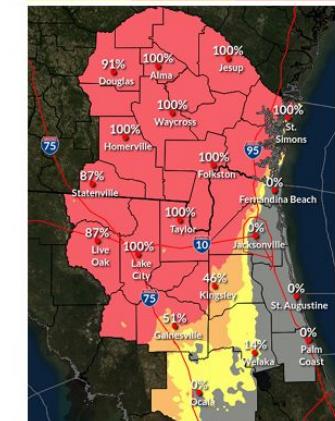


Actions

- Consider preparations to protect sensitive outdoor crops, plants, livestock, pets & people

Probability of Freezing Temperatures Saturday Morning

Low < 40% Medium 40-70% High > 70%



NATIONAL WEATHER SERVICE
JACKSONVILLE, FL

ISSUED: Thursday, December 5, 2024 10:27 AM

Point Forecast

Forecast Options (Choose Location)

- [Point Forecast Dashboard](#)
- [Marine Dashboard](#)
- [Fire Weather Dashboard](#)
- [SPOT Forecast Request](#)



IDSS Point Forecasts

Search Map...

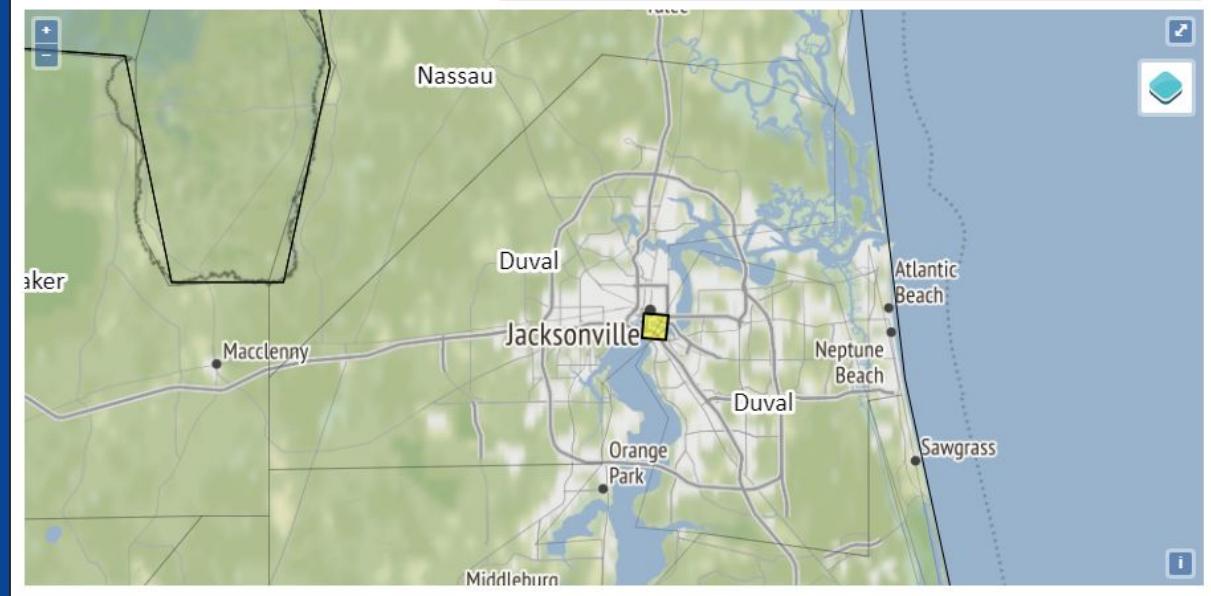


Table updated: 1216 pm EDT Sun. 5/1/2022 (Last Update: 25 minutes ago)

Click for Text Forecast

JAX Forecast Discussion

4 miles W of Green Cove Springs, FL

Weekly Summary

	Sun May 1	Mon May 2	Tue May 3	Wed May 4	Thu May 5	Fri May 6	Sat May 7
Max Temp, °F	87	89	90	90	92	92	88
Max Heat Index, °F	88	91	93	95	97	97	90
Min Temp, °F	63	63	64	67	66	67	69
Max Wind, mph	14	14	10	6	7	12	12
Min Wind, mph	5	2	3	2	2	3	5
Max Wind Gust, mph	21	21	16	9	10	17	17
Max Cloud Cover, %	43	56	50	82	35	26	46
Min Cloud Cover, %	20	33	26	31	10	6	26
Max Prob. of Precip., %	17	17	33	51	17	25	32
Max RH, %	90	100	100	100	100	100	97
Min RH, %	45	44	47	50	47	46	48
Max Dew Point, °F	66	68	69	70	69	69	69
Min Dew Point, °F	63	63	65	67	67	67	65

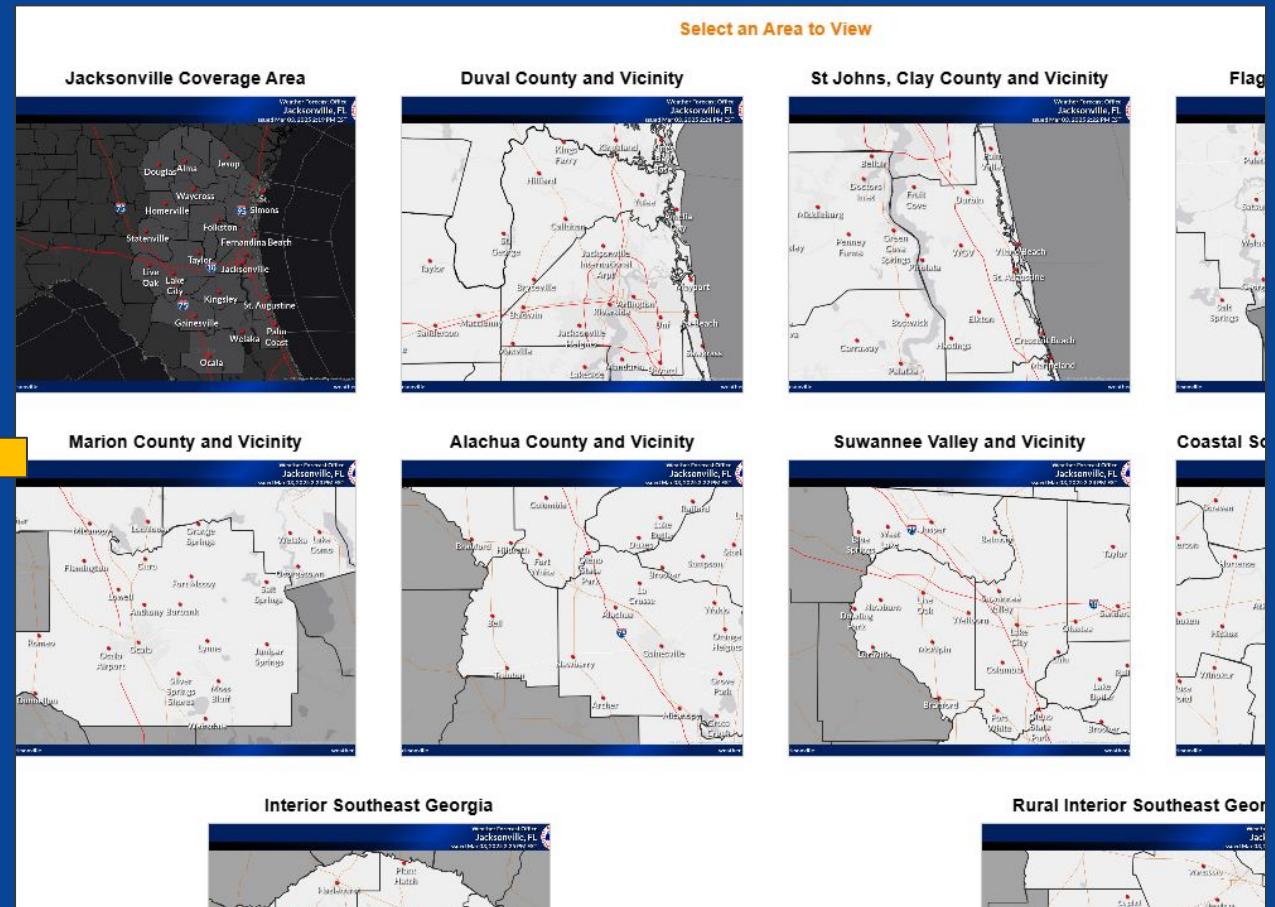


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Products & Services

Products & Services

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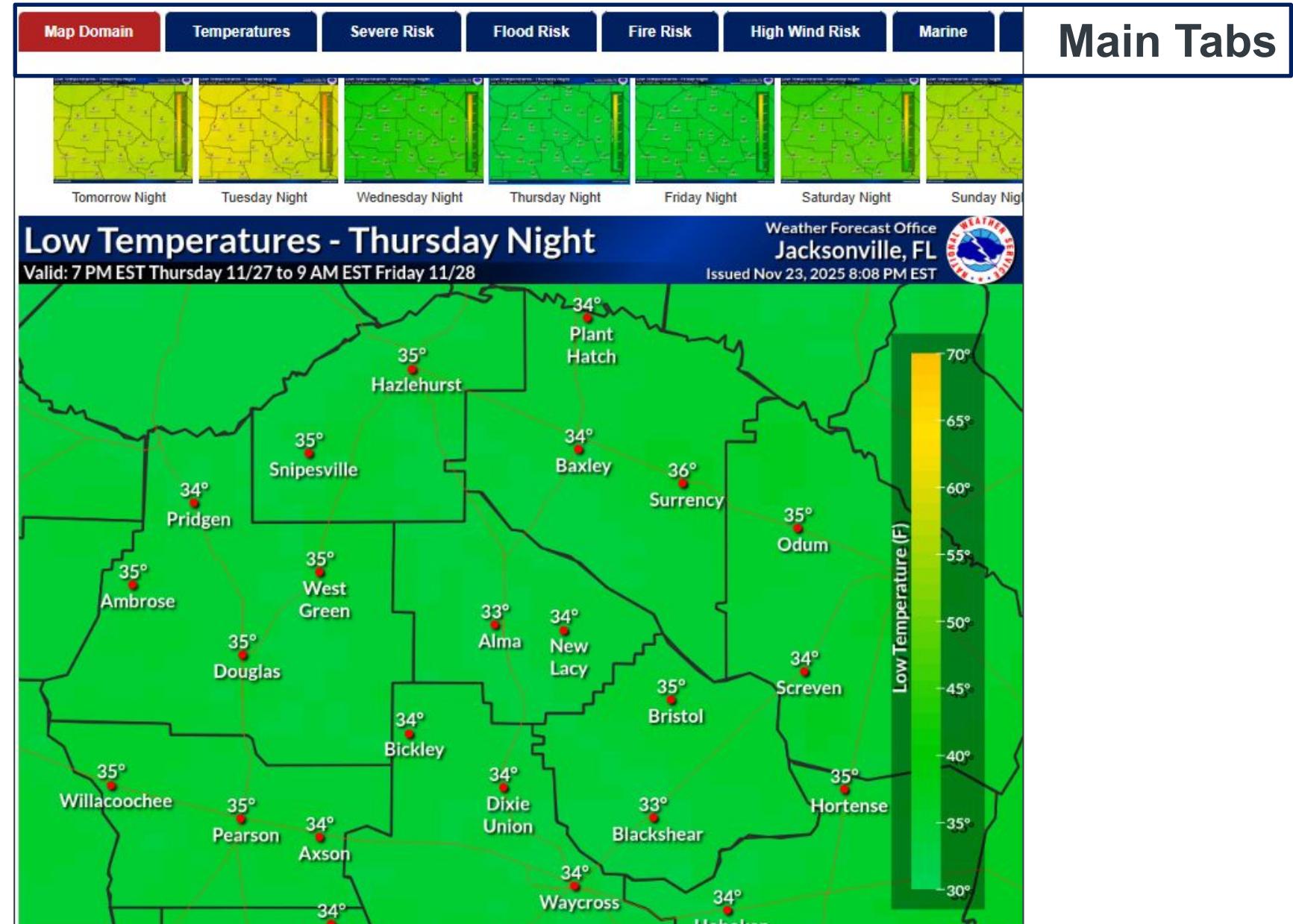


Choose Your Location



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Local Graphics



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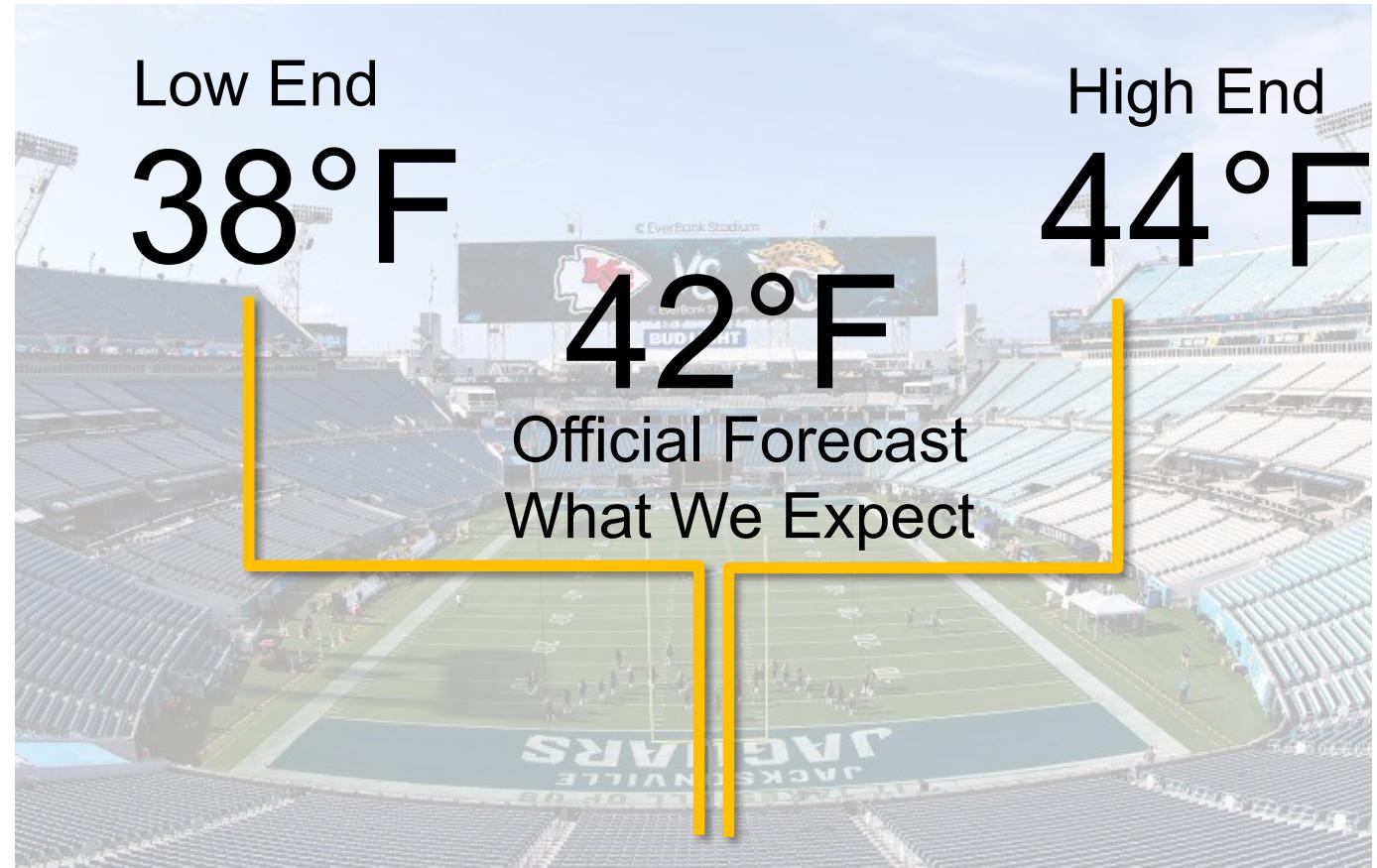
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Probabilistic Forecasts

How can they help?

- Gives potential for high/low values which can help with contingency planning
- Glean confidence in forecast – How large is the range in values?
- At this time, we expect 42.

Given forecast uncertainty, we could get as high as 44 but will most likely remain above 37



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[Map Domain](#)[Temperatures](#)[Severe Risk](#)[Flood Risk](#)[Fire Risk](#)[High Wind Risk](#)[Marine](#)[Links](#)

Highs/Lows

[Daily Highs](#) [Daily Lows](#)[Probability Low \$\leq 40F\$](#) [Probability Freeze \$\leq 32F\$](#) [Probability Hard Freeze Florida \$\leq 27F\$](#) [Probability Hard Freeze Georgia \$\leq 25F\$](#)

Apparent Temperature

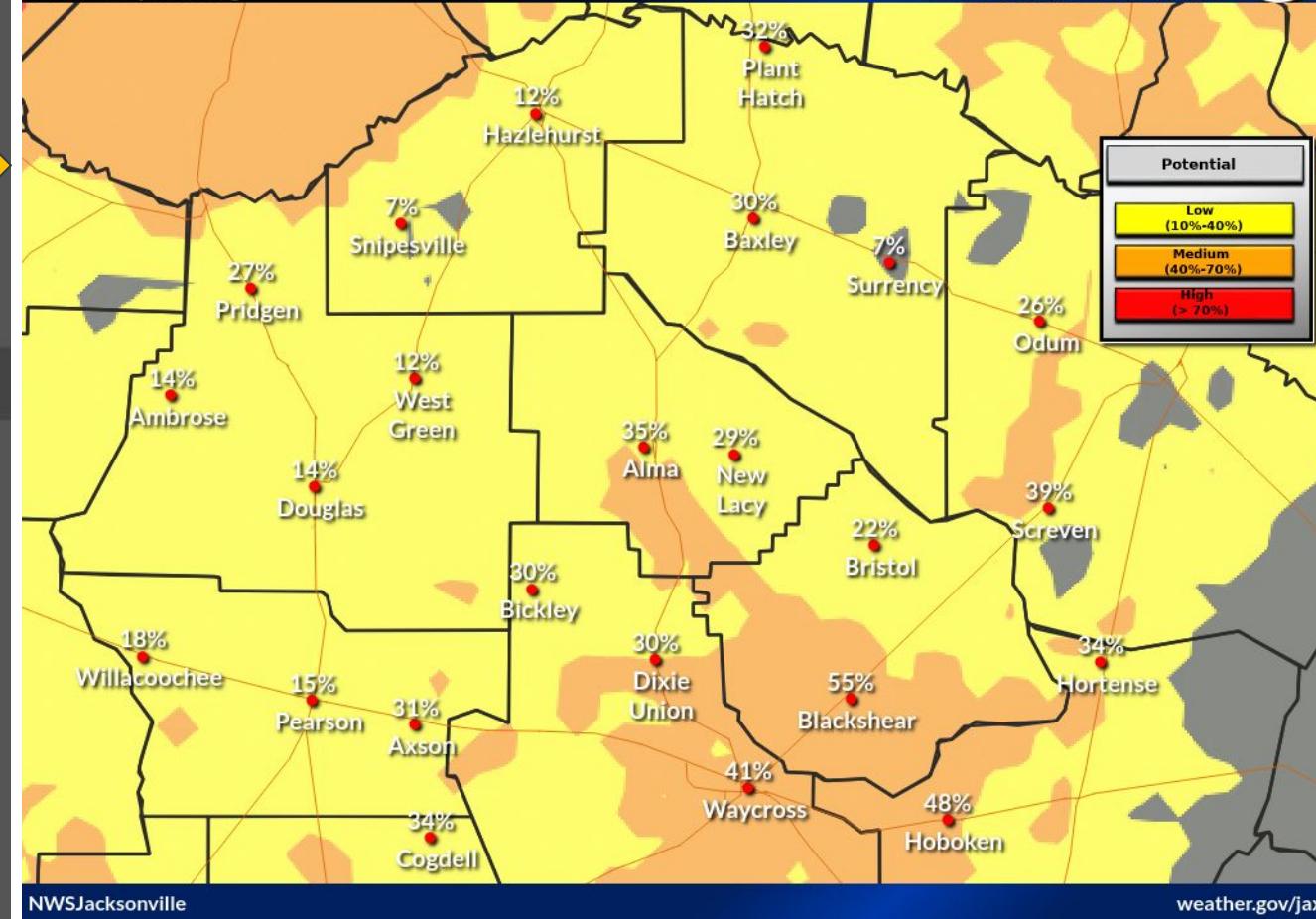
[Minimum Wind Chill](#)[Apparent Temperature \$\leq 40\$](#) [Apparent Temperature \$\leq 30\$](#) [Cold Weather Advisory Florida \$\leq 25\$](#) [Cold Weather Advisory Georgia \$\leq 20\$](#) [Extreme Cold Warning Florida \$\leq 15\$](#) [Extreme Cold Warning Georgia \$\leq 10\$](#)

Potential Low Temperature is 32F or lower

Valid Friday Morning

Weather Forecast Office
Jacksonville, FL

Issued Nov 23, 2025 3:19 PM EST

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Products & Services

Products & Services

- [NWS JAX Met Watch \(Met Watch Job Sheet\)](#)
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- [Graphical Hazardous Weather Outlook](#)

Overview High Temp Low Temp Prob $\geq 90^{\circ}\text{F}$ Prob $\geq 100^{\circ}\text{F}$ Prob $\leq 32^{\circ}\text{F}$ Prob $< 28^{\circ}\text{F}$ 12hr Rain 24hr Rain Misc QPF

Expected Low Temperature ($^{\circ}\text{F}$)

These maps are the official NWS low temperature forecast in degrees Fahrenheit during the time period shown on the graphic. These low temperatures are determined by NWS forecasters to be the most likely outcome based on evaluation of data from computer models, satellite, radar, and other observations.

Night 1



Night 2



Night 3



Night



Night 5



Night 6



Night 7



Warmest Possible Low Temperature ($^{\circ}\text{F}$)

These maps depict a reasonable upper-end low temperature for the time period shown on the graphic, based on many model simulations of possible low temperatures. These higher temperatures are an unlikely scenario, with only a 1 in 10 chance that a temperature higher than this will occur, and a 9 in 10, or 90% chance that the temperatures will be lower. These temperatures can help serve as an upper-end scenario for planning purposes.

Night 1



Night 2



Night 3



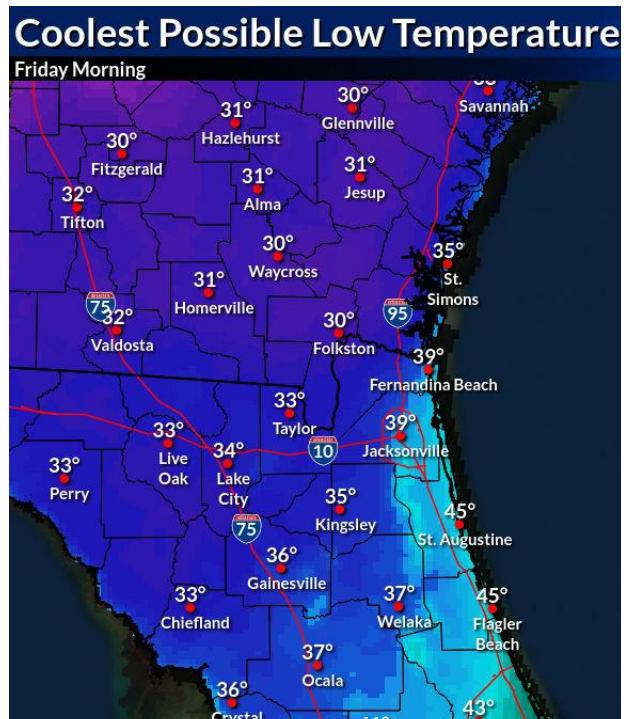
Night



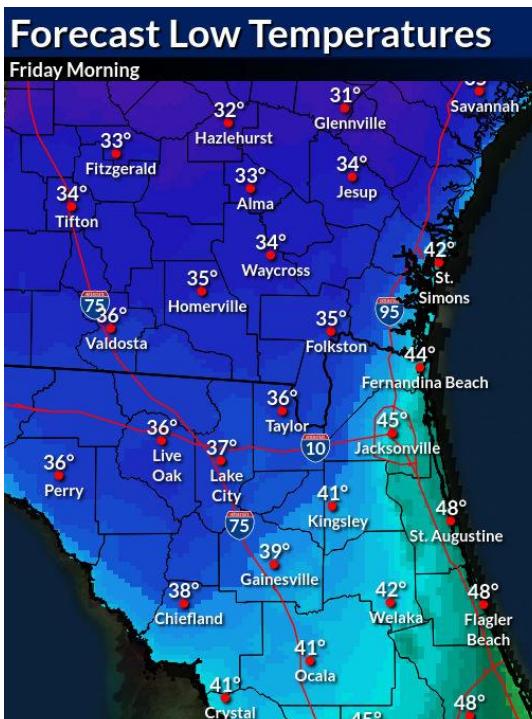
NATIONAL WEATHER SERVICE

Regional Graphics - NBM (Model)

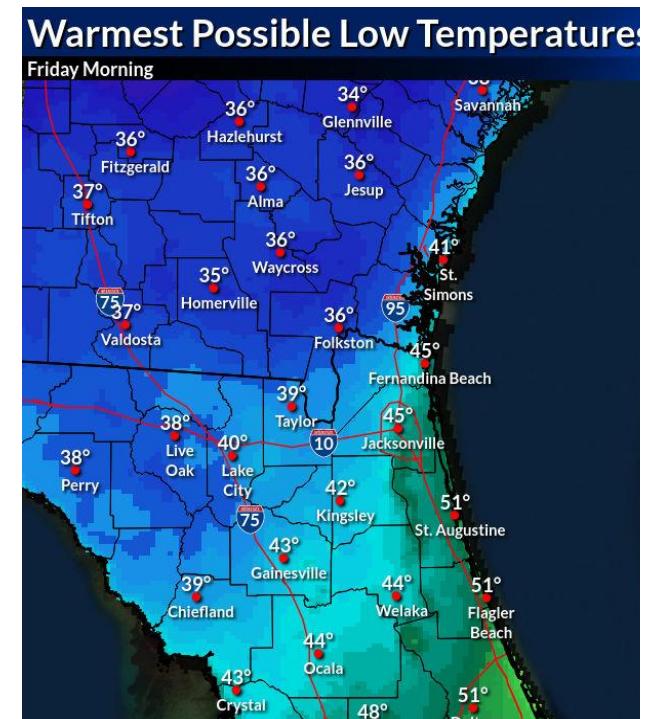
Coolest Possible Low Temperature
90% chance temps warmer than these values



Most Likely Temperature
(Official Forecast)



Warmest Possible Low Temperatures
90% chance temps cooler than these values



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Deterministic with Probabilistic

Frost & Light Freeze Inland Tonight



Key Messages

- Low around freezing for a few hours late tonight
- Inland Southeast GA, Suwannee Valley



Actions

- Protect plants, pets, pipes, and people
- Stay indoors, if outside wear appropriate clothing

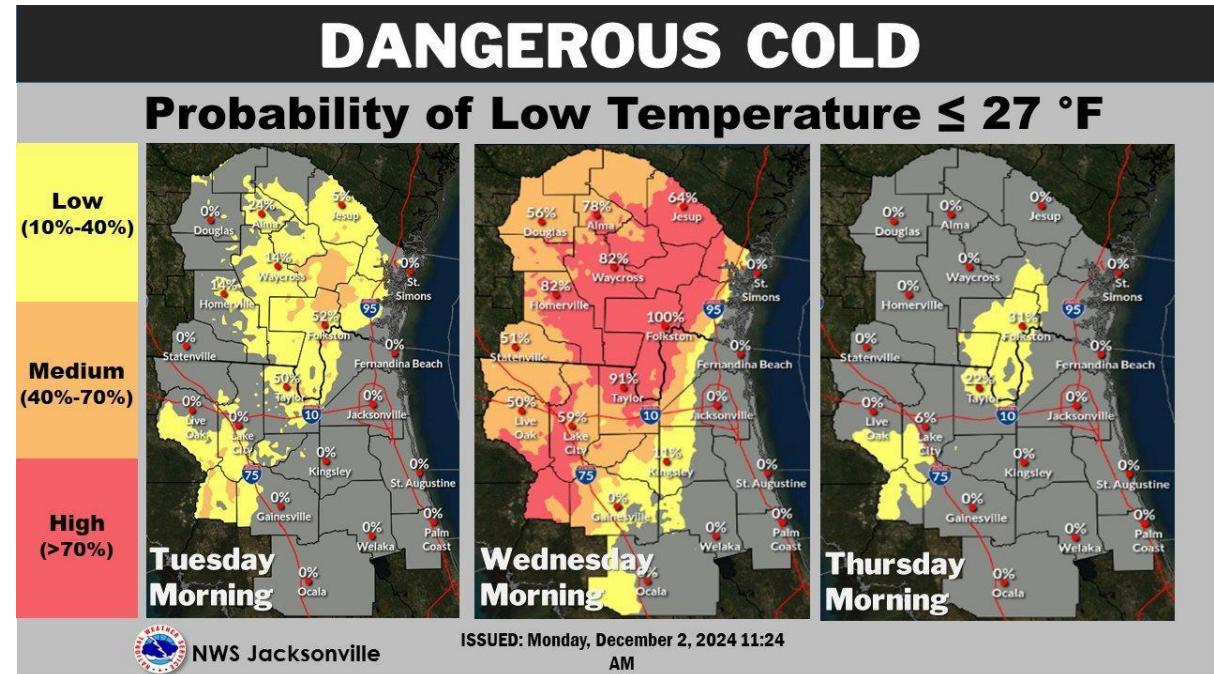
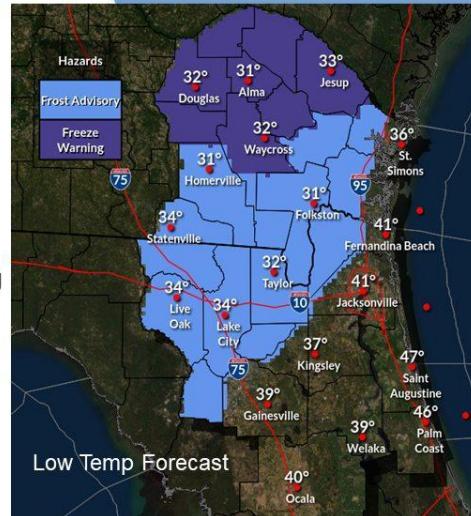


Timing

- Near Freezing Temperatures 3 am – 8 am



NATIONAL WEATHER SERVICE
JACKSONVILLE, FL



NATIONAL WEATHER SERVICE

Summary

- Cold Temperature Products
 - ◆ Frost Advisory & Freeze Watch/Warning - Protect Plants
 - ◆ Cold Weather Advisory & Extreme Cold Watch/Warning - Protect People
- 50-year trend of less frequent freeze events
- Downscaled, county-level graphics
 - Includes Probabilistic - 'goal post' outcomes





NWS JAX Lunch-and-Learn Series

December 2025

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NWS JAX Support

