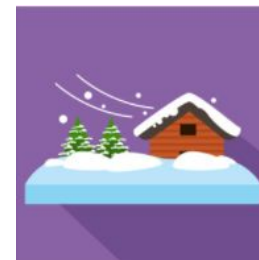
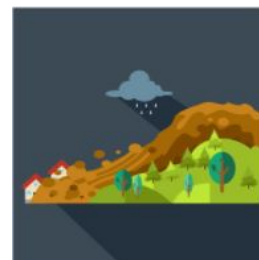
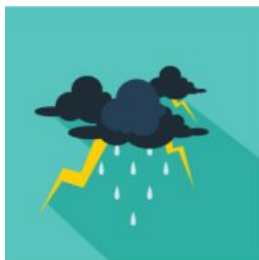


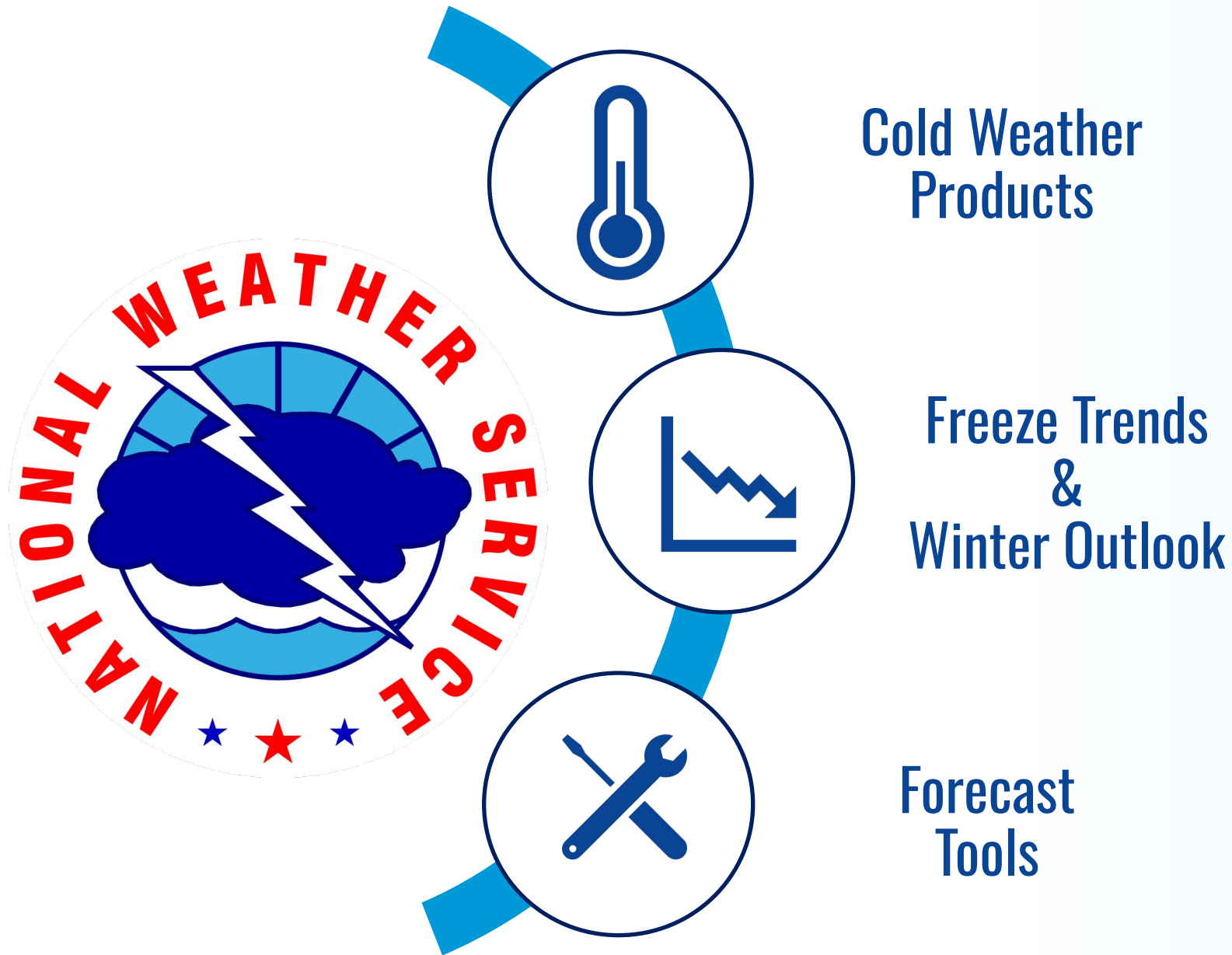
NWS JAX EM Lunch & Learn - December 2025

Angie Enyedi
angela.enyedi@noaa.gov

Kirsten Chaney
kirsten.chaney@noaa.gov



NWS JAX Lunch & Learn December 2025



A faint, circular logo of the National Weather Service is visible in the background. It features a central shield with a blue sky, white clouds, and a yellow sun. The shield is flanked by a blue wave and a yellow lightning bolt. The words "NATIONAL" and "WEATHER" are written in red, semi-circular text above and below the shield, respectively. At the bottom, the word "SERVICE" is written in red, semi-circular text, with three stars (two blue, one red) positioned between the words "NATIONAL" and "SERVICE".

Cold Weather Products

Cold Temperature Products

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

Impacts to PLANTS

Frost Advisory

→ Widespread Frost

Freeze Watch/Warning

→ Temperatures ≤ 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: ≤ 10 F

→ Northeast FL: ≤ 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.**

Frost Advisory

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

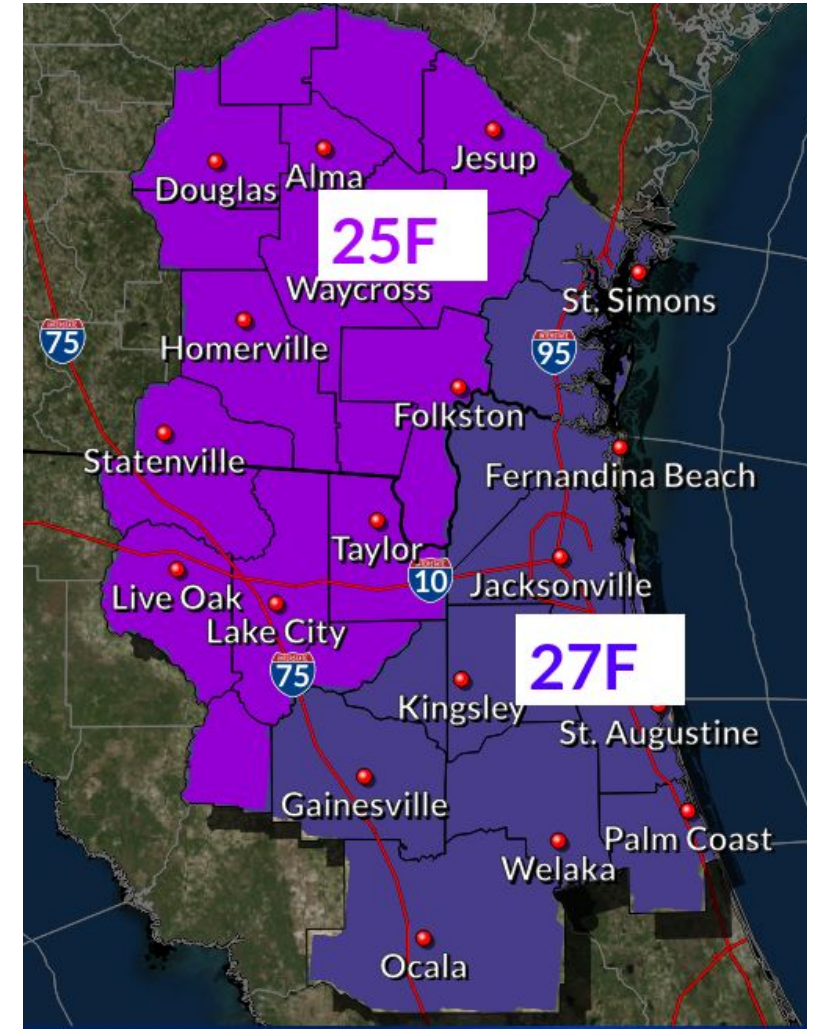
**Plants left outdoors
may be damaged.**



weather.gov/safety/winter

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

EXTREME COLD WARNING

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

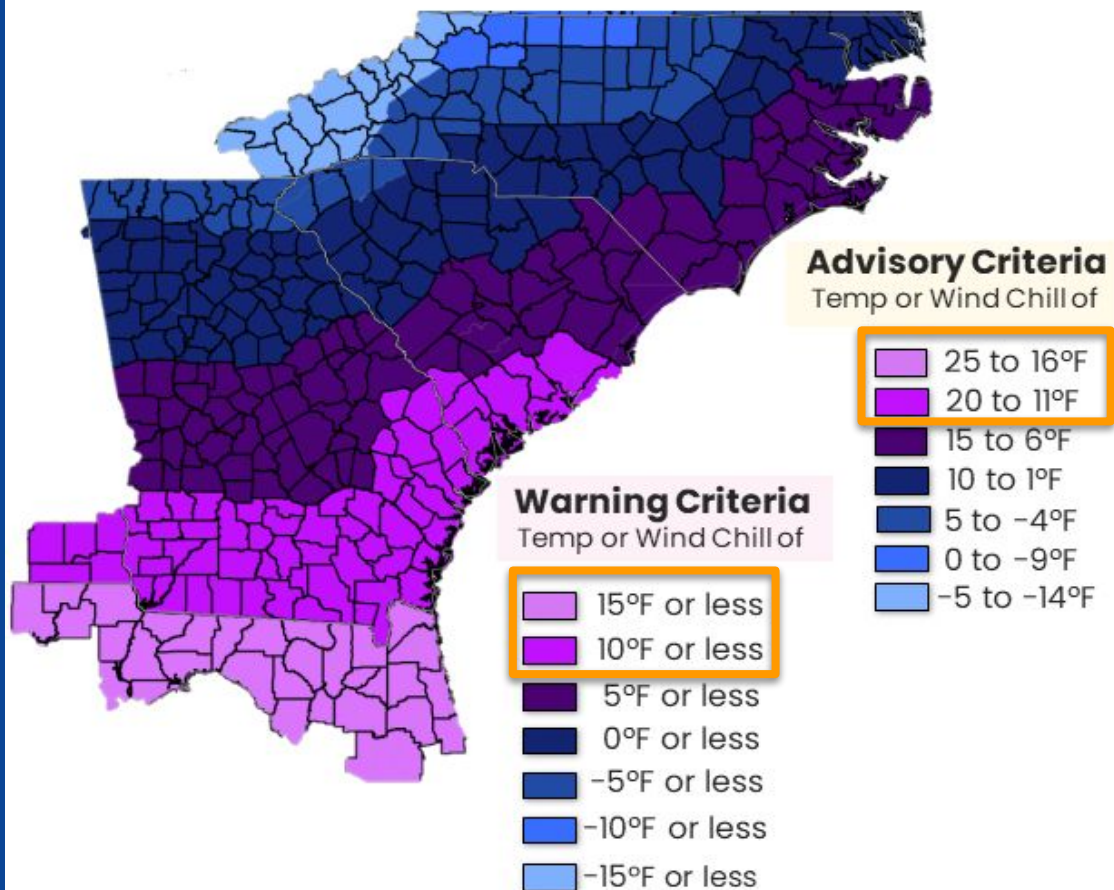
Conditions could lead to frostbite or hypothermia. Limit time outside, dress in layers, and cover up exposed skin.

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**

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



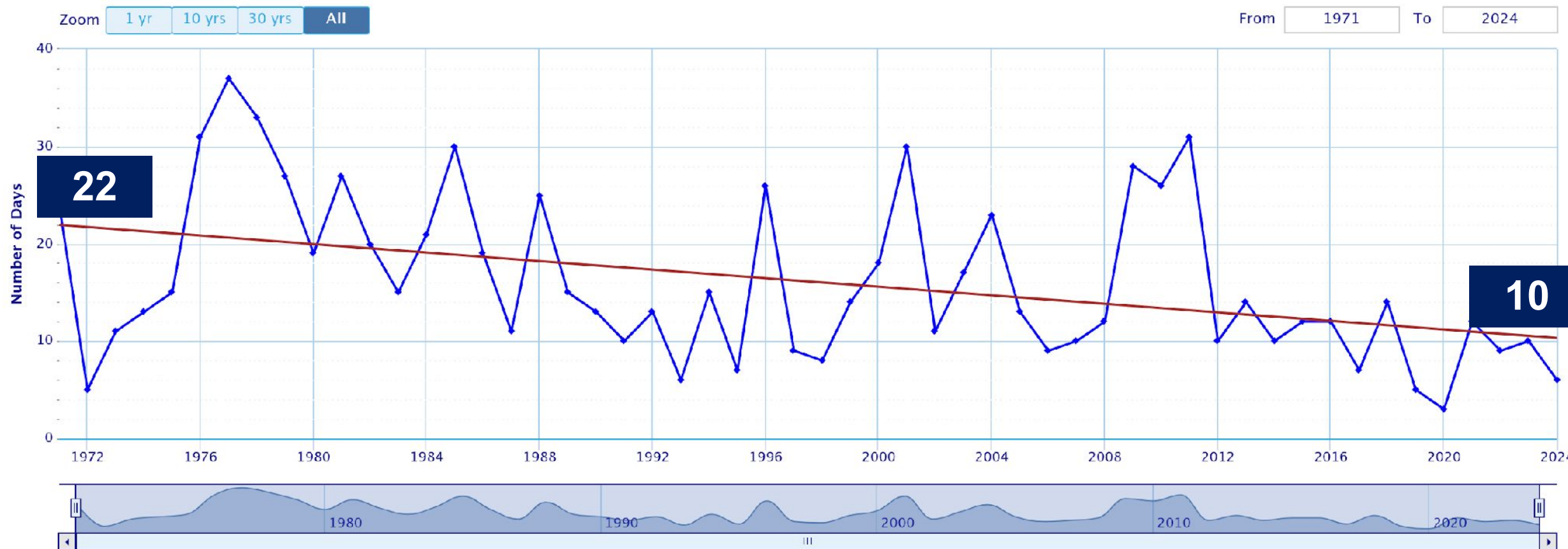
A faint, circular logo of the National Weather Service is visible in the background. It features a central shield with a sun, a cloud, and a lightning bolt. The words "NATIONAL" and "WEATHER" are arched across the top, and "SERVICE" is arched across the bottom. Three stars are positioned at the bottom center of the shield.

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



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



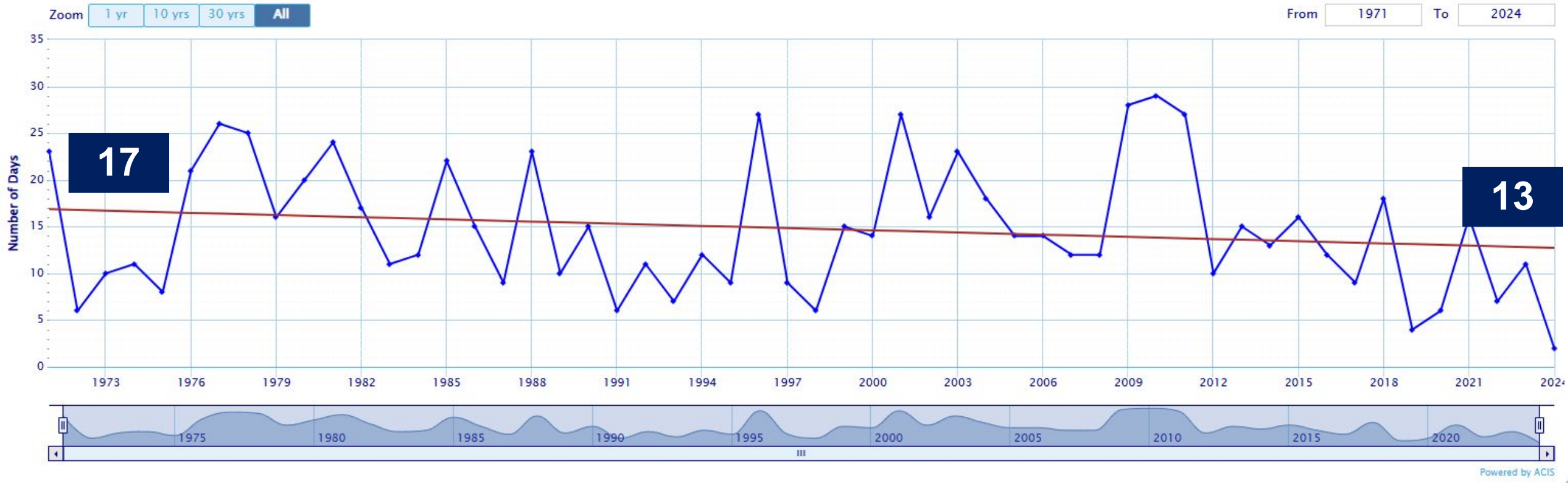
Powered by ACIS



Gainesville Freeze Climatology

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

Use navigation tools above and below chart to change displayed range



NATIONAL WEATHER SERVICE

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

A faint, circular logo of the National Weather Service is visible in the background. It features a central shield with a blue sky, white clouds, and a yellow sun. The shield is flanked by a blue wave and a yellow lightning bolt. The words "NATIONAL" and "WEATHER" are written in a semi-circle above the shield, and "SERVICE" is written in a semi-circle below it. Three stars (two blue, one red) are positioned at the bottom of the circle.

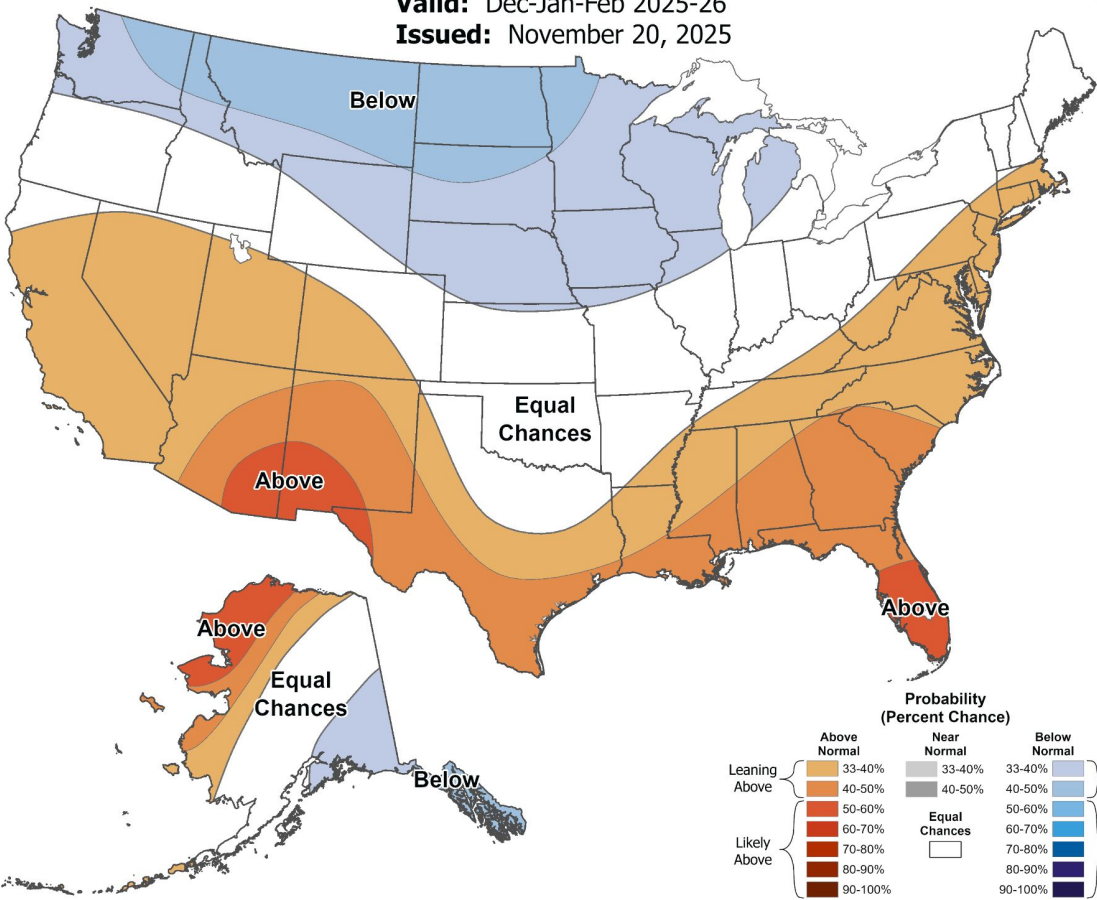
Winter Outlook

Winter Season Outlook - D/J/F



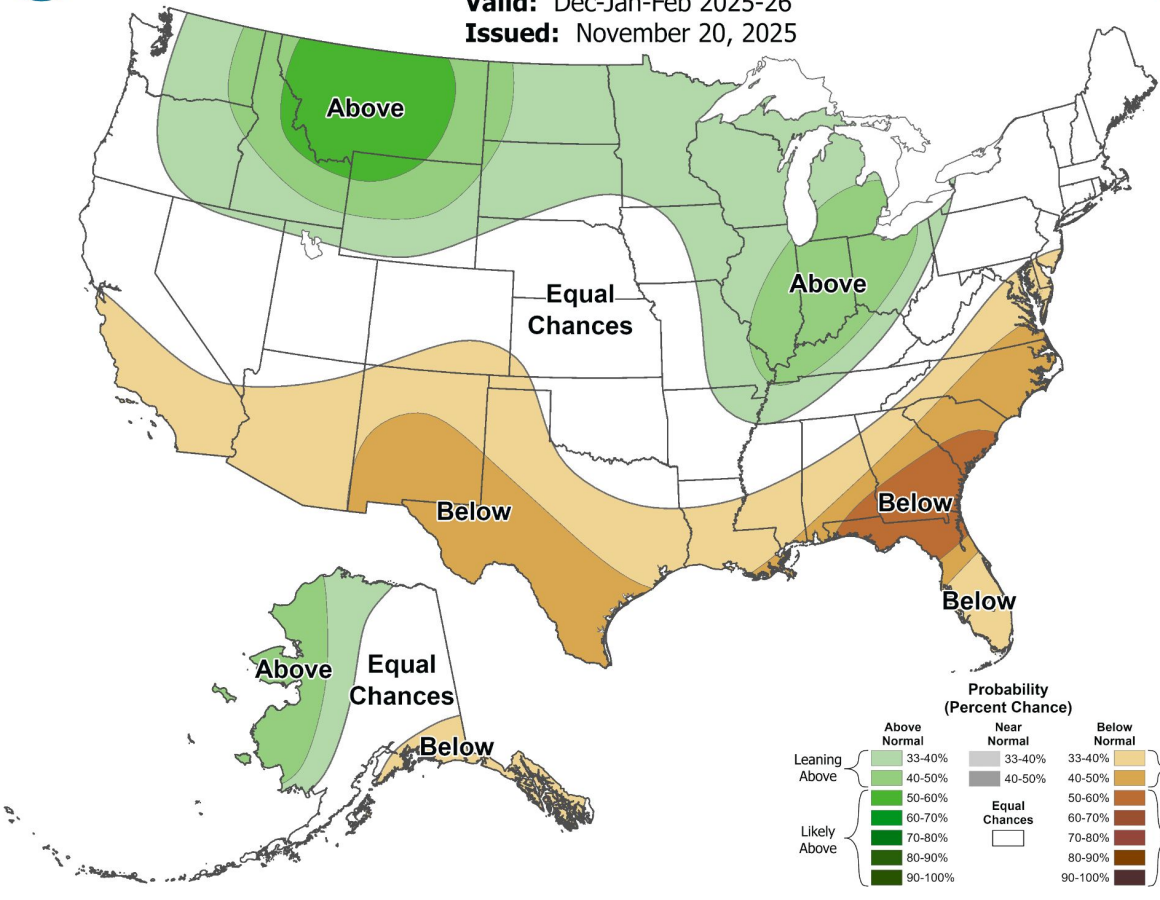
Seasonal Temperature Outlook

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



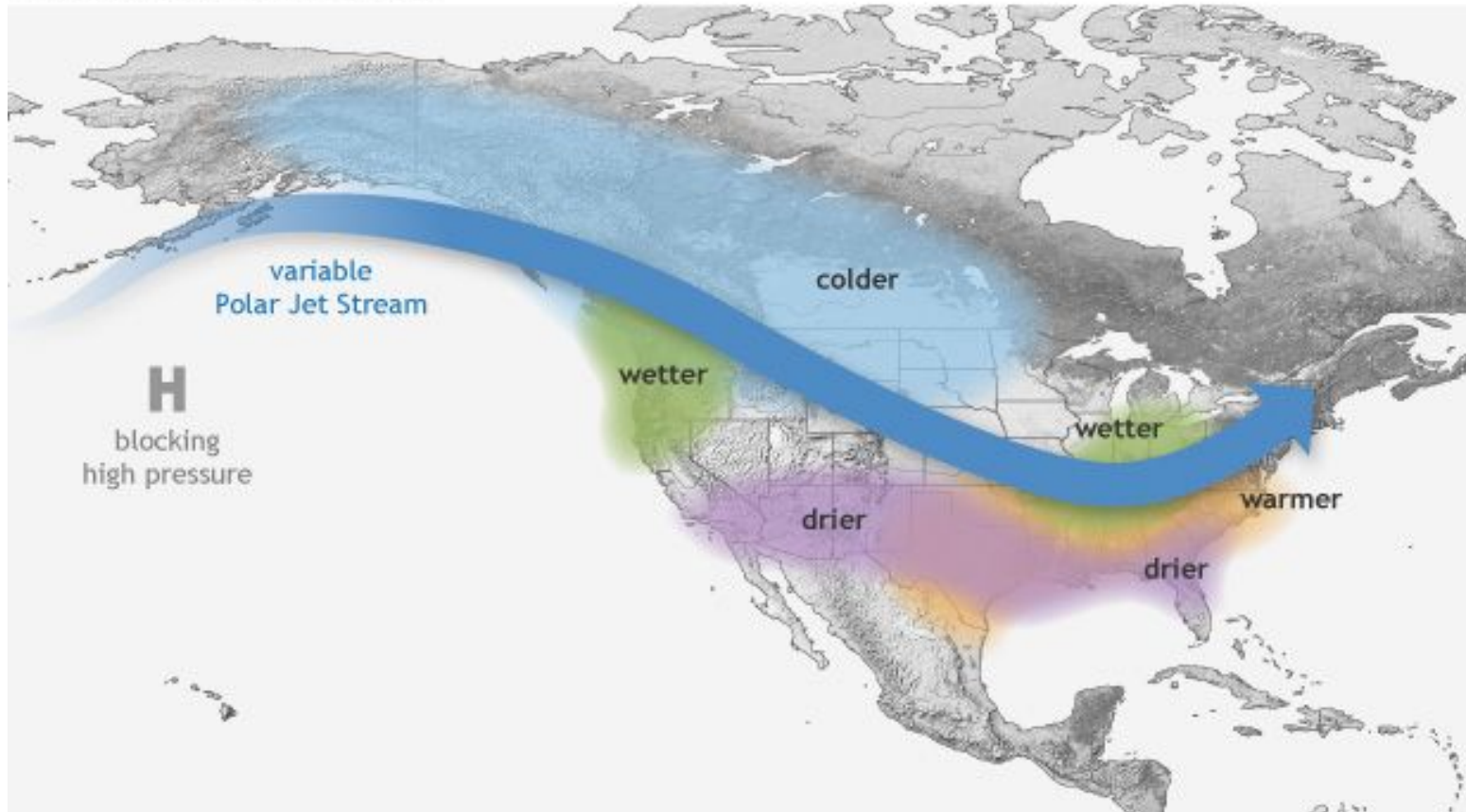
Seasonal Precipitation Outlook

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



La Nina Influence

WINTER LA NIÑA PATTERN



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

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 ($\leq 26F$)
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

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

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	

The background features a large, faint, circular logo of the National Weather Service. The logo is composed of a light blue outer ring containing the words "NATIONAL" on the left and "SERVICE" on the right in red, uppercase letters. Inside the ring is a stylized weather symbol in light blue, depicting a sun with rays, a cloud, and a lightning bolt. Below the symbol are three stars: a light blue star on the left, a red star in the center, and a light blue star on the right. A solid dark blue horizontal band is superimposed over the center of the logo.

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](#)

NWS JAX Support



Immediate Support

Immediate Support

NWS Jacksonville Operations
904-741-4370 extension 1

NWS Jacksonville Briefing

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

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 [@NWSJacksonville](#)



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



Key Messages

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



Timing

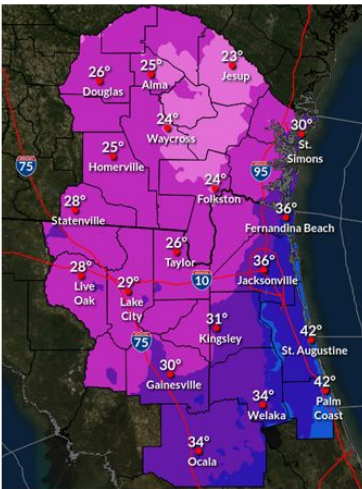
- Late Friday Night / early Saturday morning



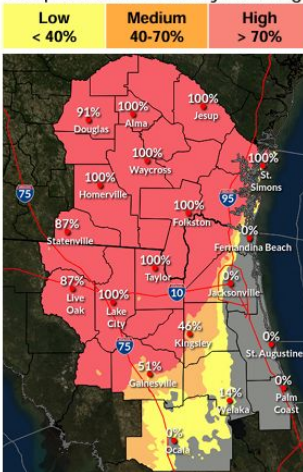
Actions

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

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



Probability of Freezing Temperatures Saturday Morning



NATIONAL WEATHER SERVICE



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...

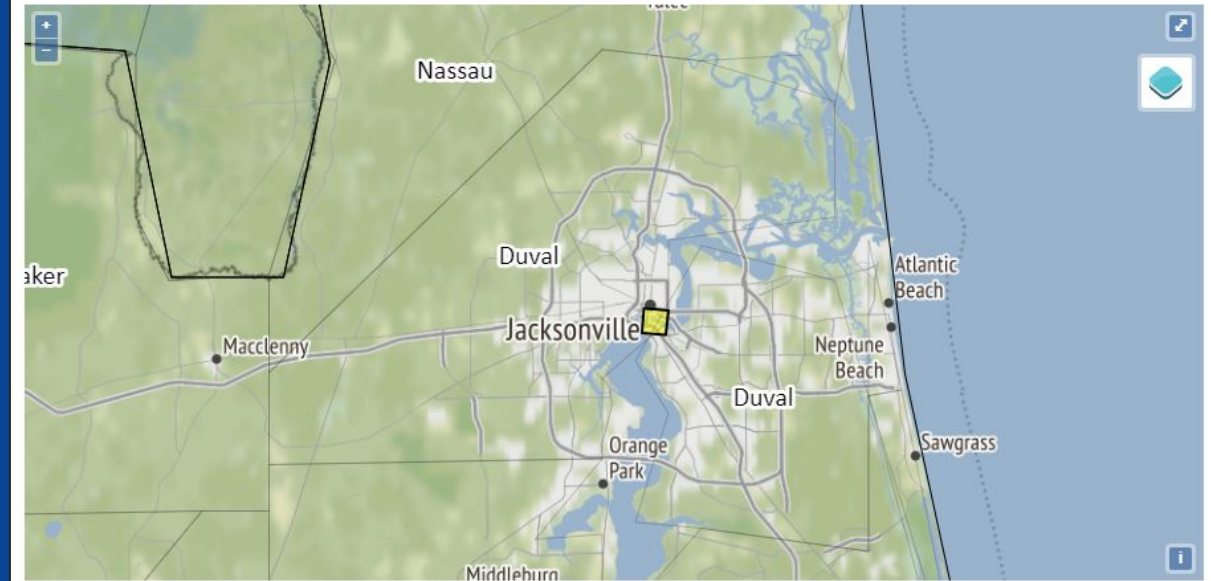


Table updated: 1216 pm EDT Sun. 5/1/2022 (Last Update: 25 minutes ago)

[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

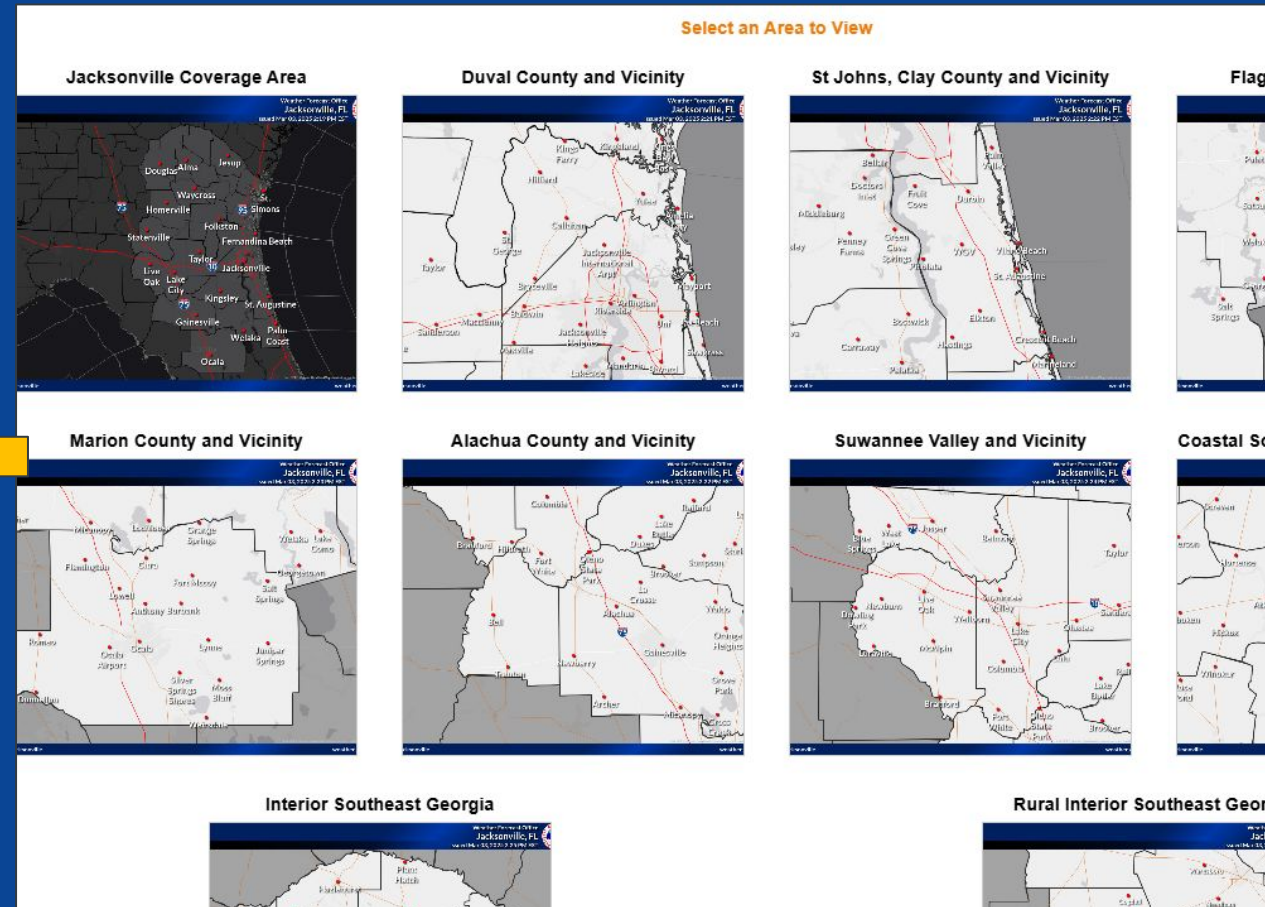


NATIONAL WEATHER SERVICE

Products & Services

Products & Services

- [NWS JAX Met Watch \(Met Watch Job Sheet\)](#)
- [Local Probabilistic Forecast Graphics \(Job Sheet\)](#)
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- [Atlas Precipitation Frequency Analysis \(Job Sheet\)](#)
- [Graphical Hazardous Weather Outlook](#)

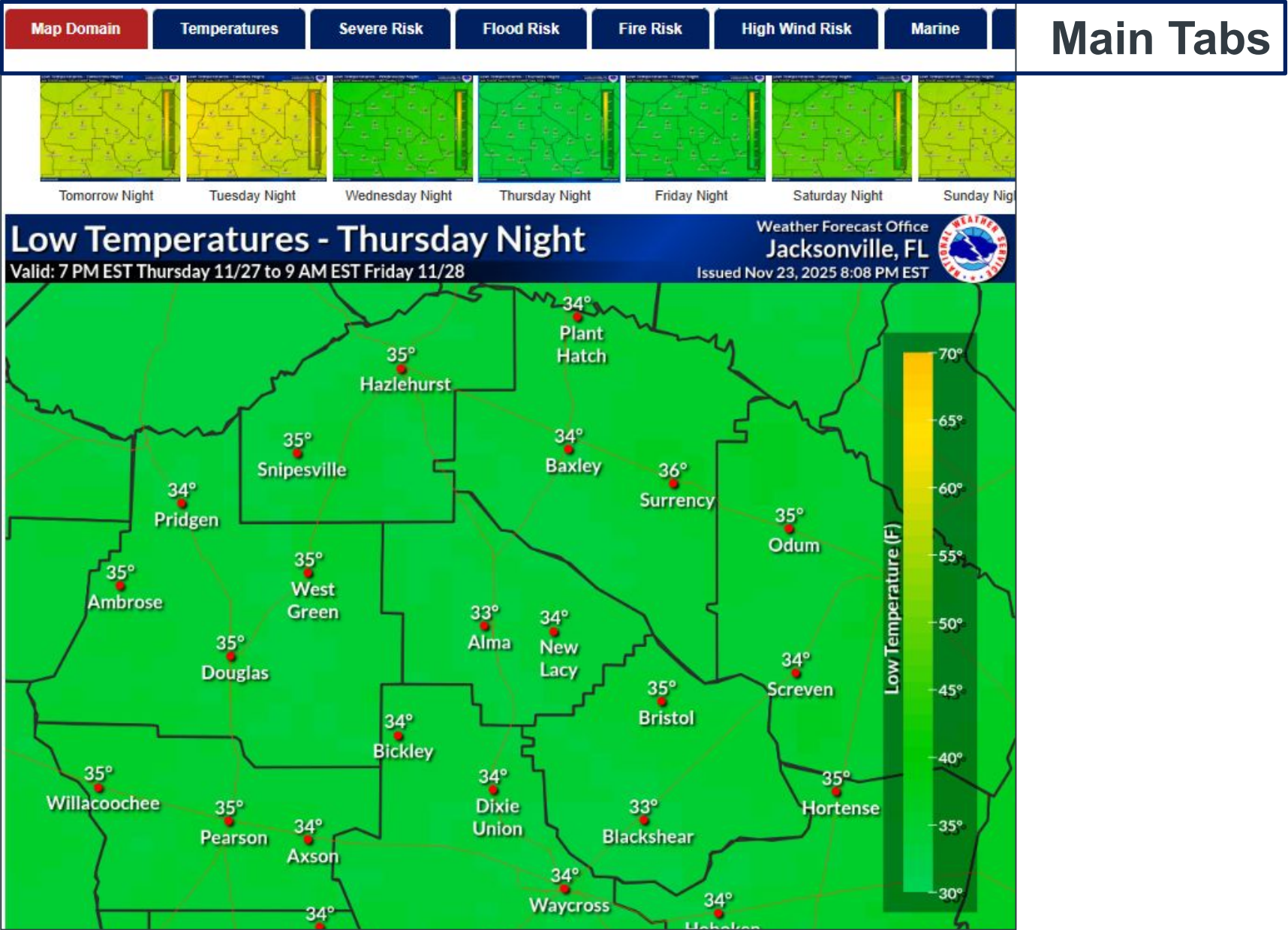


Choose Your Location



NATIONAL WEATHER SERVICE

Local Graphics





NATIONAL WEATHER SERVICE

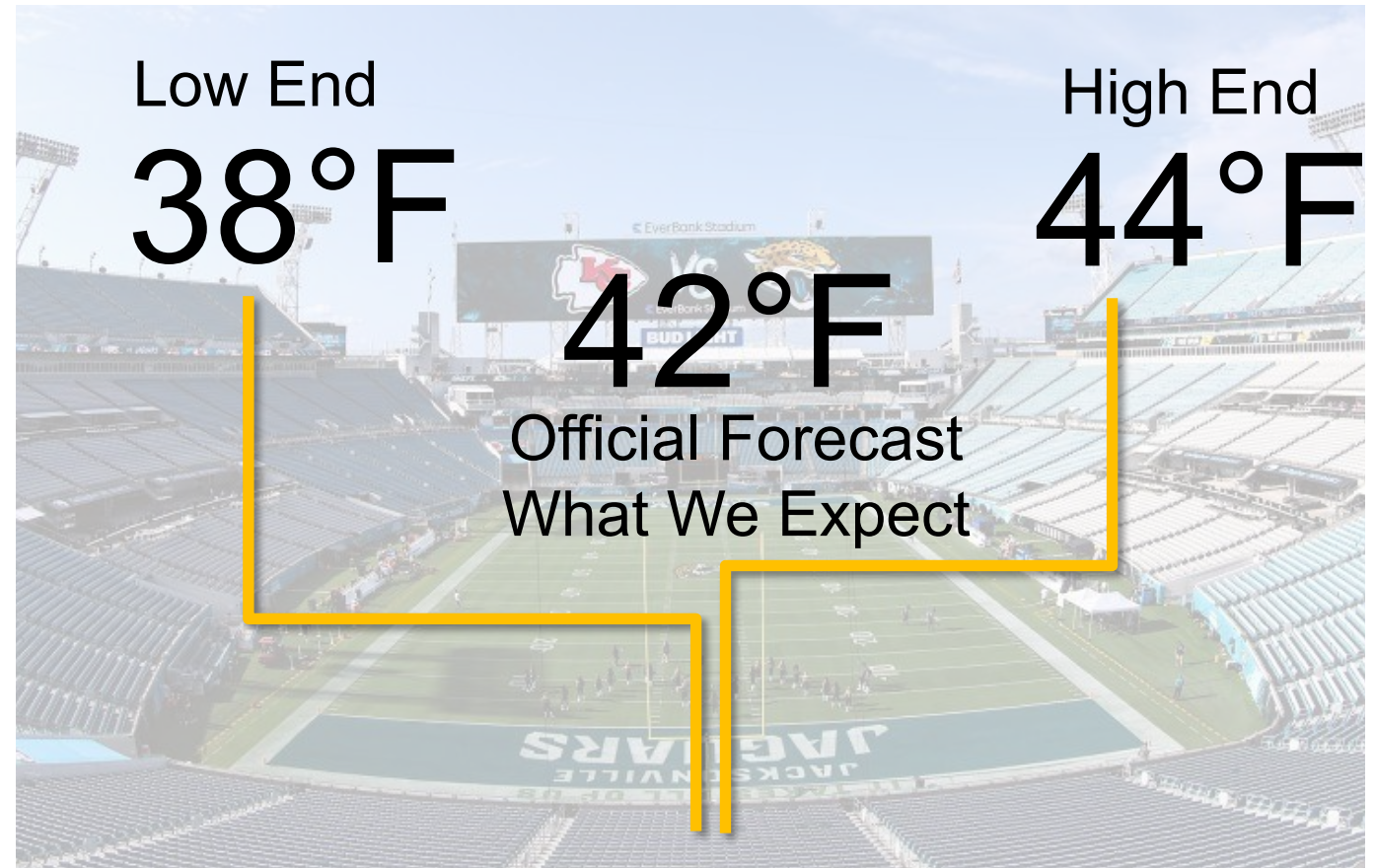
Department of Commerce // National Oceanic and Atmospheric Administration // 25

Probabilistic Forecasts

How can they help?

- Gives potential for high/low values which can help with contingency planning
- Gain 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



Map Domain

Temperatures

Severe Risk

Flood Risk

Fire Risk

High Wind Risk

Marine

Links

Highs/Lows

Daily Highs Daily Lows

Probability Low $\leq 40^{\circ}\text{F}$

Probability Freeze $\leq 32^{\circ}\text{F}$

Probability Hard Freeze Florida $\leq 27^{\circ}\text{F}$

Probability Hard Freeze Georgia $\leq 25^{\circ}\text{F}$

Apparent Temperature

Minimum Wind Chill

Apparent Temperature ≤ 40

Apparent Temperature ≤ 30

Cold Weather Advisory Florida ≤ 25

Cold Weather Advisory Georgia ≤ 20

Extreme Cold Warning Florida ≤ 15

Extreme Cold Warning Georgia ≤ 10

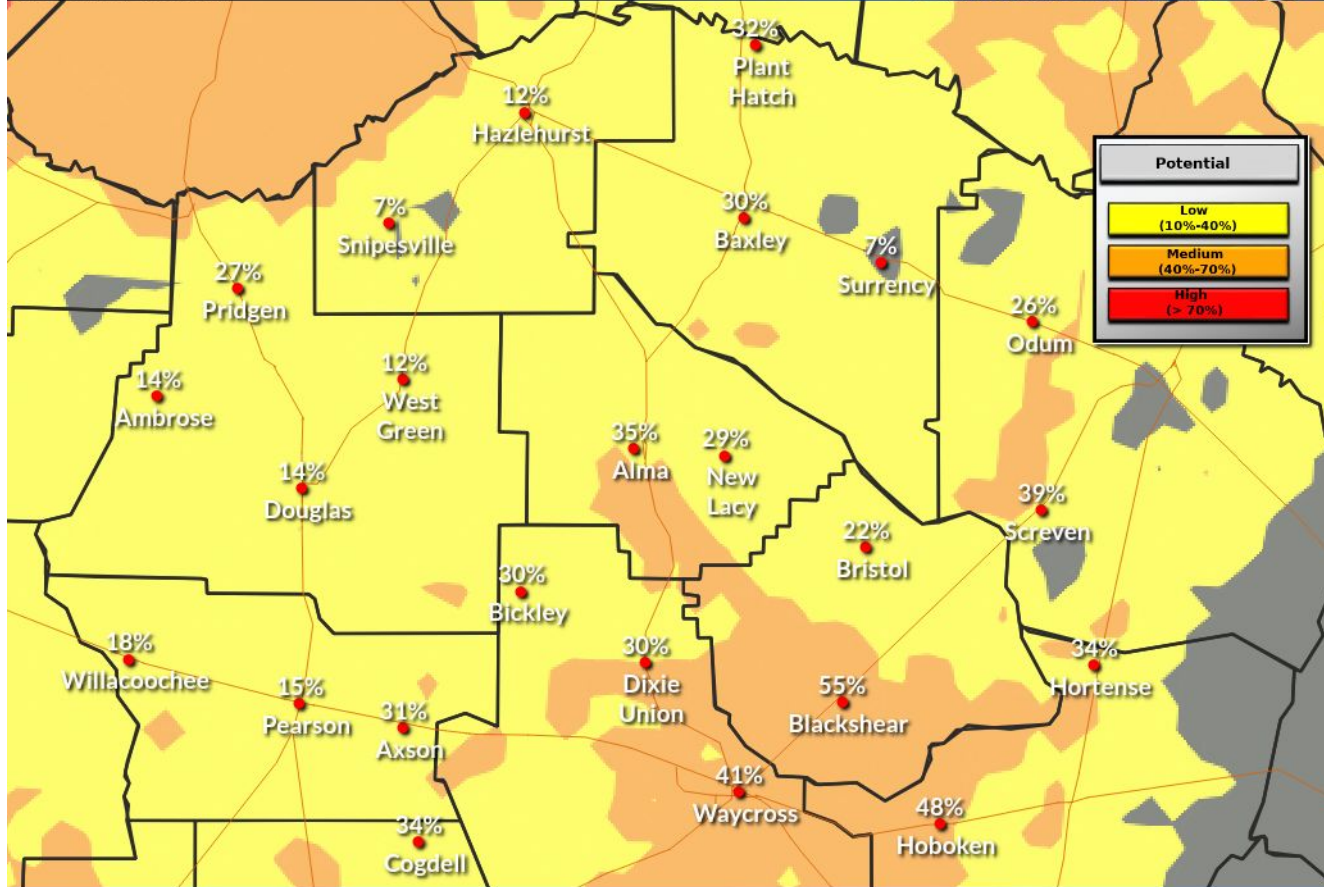
Potential Low Temperature is 32°F or lower

Weather Forecast Office
Jacksonville, FL

Issued Nov 23, 2025 3:19 PM EST



Valid Friday Morning



NWSJacksonville

weather.gov/jax



NATIONAL WEATHER SERVICE

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 4



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 warmer temperatures can help serve as an upper-end scenario for planning purposes.

Night 1



Night 2



Night 3



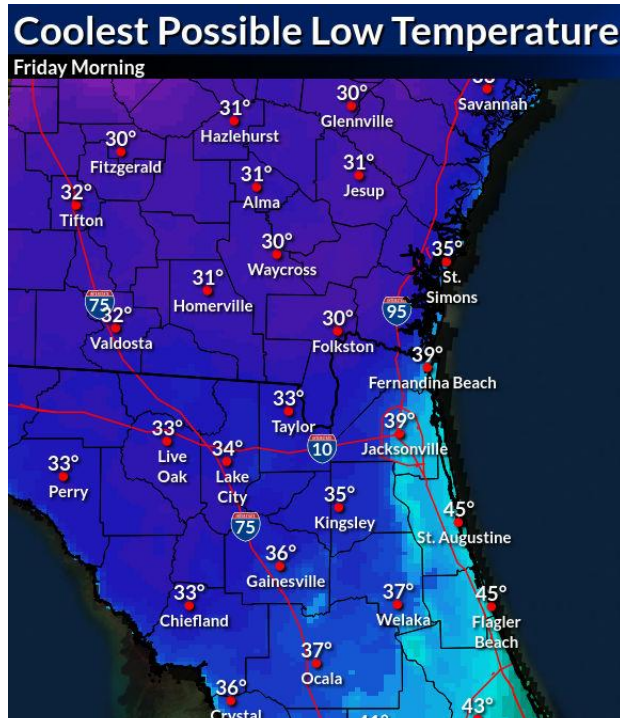
Night 4



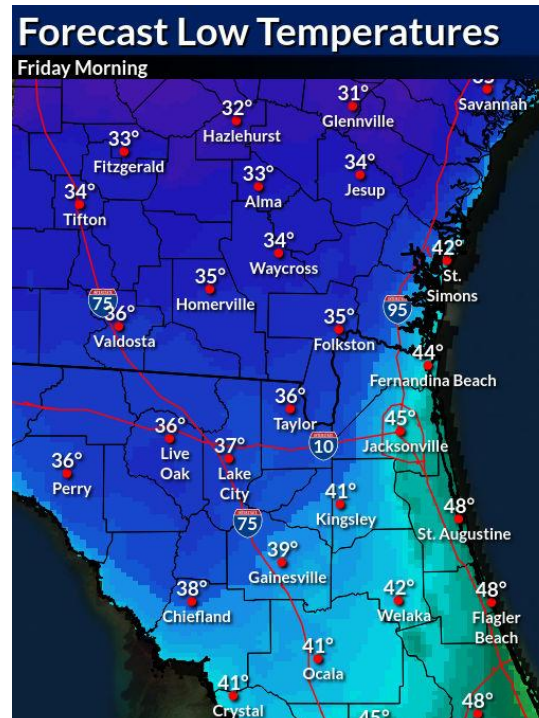
NATIONAL WEATHER SERVICE

Regional Graphics - NBM (Model)

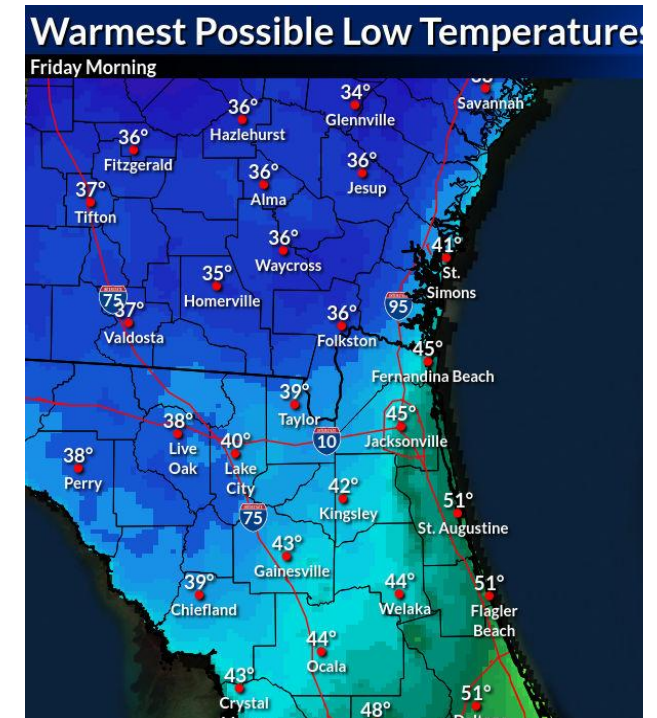
Coolest Possible Low Temperature
90% chance temps warmer than these values



Most Likely Temperature
(Official Forecast)



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



NATIONAL WEATHER SERVICE

Deterministic with Probabilistic

Frost & Light Freeze Inland Tonight



Key Messages

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



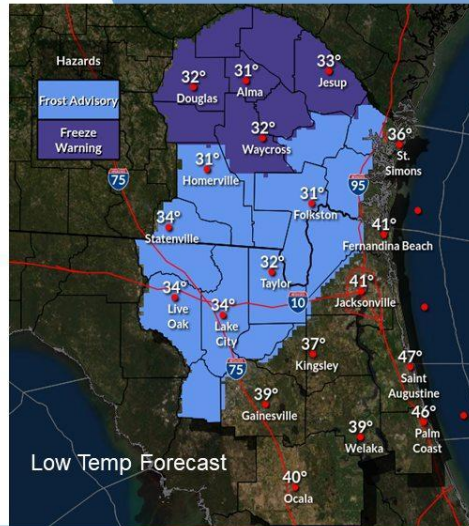
Actions

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



Timing

- Near Freezing Temperatures 3 am – 8 am



ISSUED: Friday, November 29, 2024 2:34 PM



NATIONAL WEATHER SERVICE
JACKSONVILLE, FL

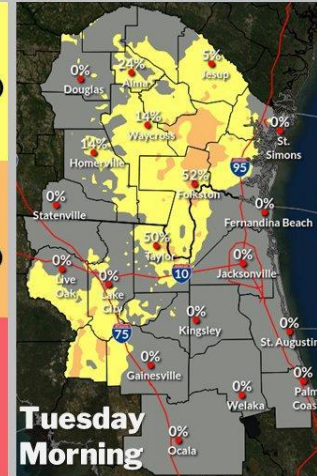
DANGEROUS COLD

Probability of Low Temperature $\leq 27^{\circ}\text{F}$

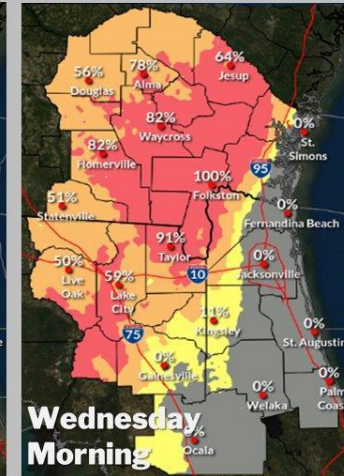
Low
(10%-40%)

Medium
(40%-70%)

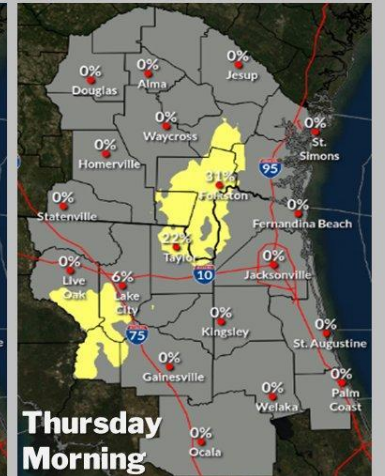
High
(>70%)



NWS Jacksonville



ISSUED: Monday, December 2, 2024 11:24 AM

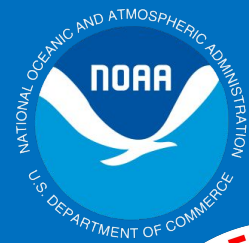


NATIONAL WEATHER SERVICE

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

