

FALL 2026 EDITION



WEATHER-READY INSIDER

Official Newsletter of the National Weather Service Office in Springfield, MO

Preparing for Fall 2026

This issue:

Preparing for Fall

Fire

Rapid Onset Drought

Frost and Freeze

Fog

Outdoor Safety

PAGE 1-6

Weather in Review

PAGE 7

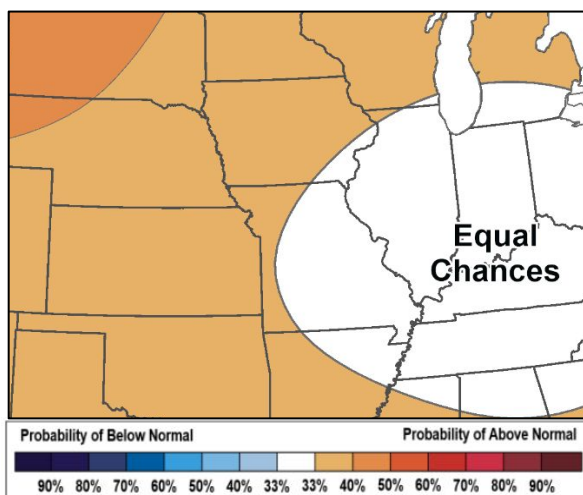
Science and IDSS Spotlights

PAGES 8-9

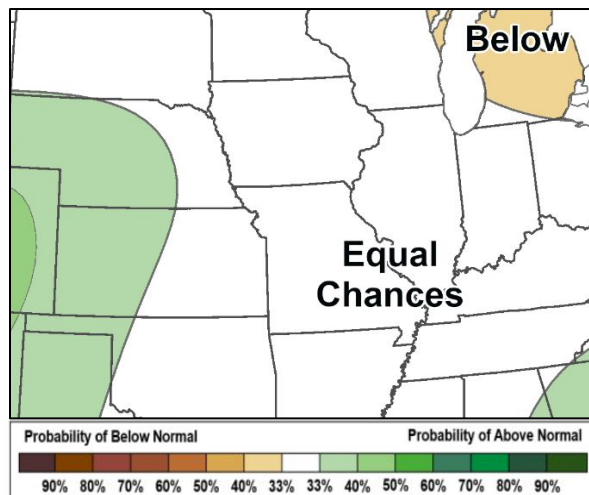
Featured Article

PAGE 10

Temperature



Precipitation



The Fall outlook favors equal chances of above or below normal temperatures and equal chances for above and below normal precipitation. For more information visit: [Climate Prediction Outlook](#).

Understanding the Start of Fall

Astronomical

Based on the position of the sun relative to the Earth

Begins on the Autumnal Equinox when the sun is directly overhead the equator, and length of days and nights are equal

Varies annually, sometime September 21-23



Meteorological

Based on annual temperature cycles and lasts for the 3 months between the hottest and coldest quarters of the year. Used for recordkeeping.

September, October, November

Consistently September 1st every year

Preparing for Fall: Fire

WILDFIRE SAFETY

- Properly discard cigarettes.
- Keep vehicles off of dry grass.
- Avoid activities with open flames or sparks.
- Avoid power equipment that creates sparks.
- Obey burn bans.
- Evacuate if fire/smoke is heading your way.
- Evacuate if ordered to do so by local officials.

weather.gov/fire



Did you know that most wildfires are caused by humans? Fire danger increases when low humidity, heat, and strong winds occur over areas of dry or dead vegetation. Many everyday things can create sparks that ignite fires: grills, cigarettes, vehicles – even lawnmowers! Once wildfires form, they can spread quickly and erratically, posing a risk to life and property.

A **Fire Weather Watch** alerts land managers and the public that upcoming weather conditions could result in extensive wildfire occurrence or extreme fire behavior within the next 24 to 72 hours.

A **Red Flag Warning** means that outdoor burning is dangerous even for trained, experienced fire personnel with proper equipment and resources. Always follow local burn bans and regulations to keep yourself, your community, and first responders safe!

Red Flag Warning

A Red Flag Warning (RFW) will be issued when there is a high degree of confidence that weather and fuel conditions consistent with local RFW criteria will occur within 24 hours or less.

NWS Springfield RFW Criteria:

- 20 ft Winds $\geq$ 20 mph
- Relative Humidity $\leq$ 25%
- 10-hr Fuel Moisture $<$ 9%



Hotspot Notifications

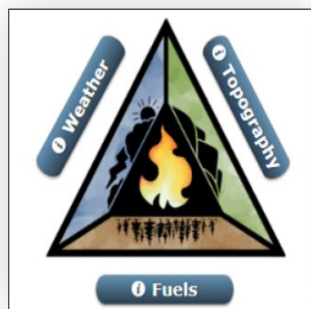
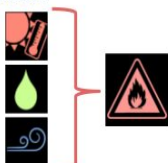
Hotspot Notifications

When a Red Flag Warning is in effect, the NWS will monitor satellite for hotspots using satellite imagery. Fire weather partners will then receive alerts with the potential wildfire's location.

The Fire Behavior Triangle

- The relationship between weather, topography, and the type and availability of fuels determines the extent of fire potential
- Of the three, weather is the most variable over space and time
- The most relevant weather variables for fire behavior include:

- Temperature
- Humidity
- Wind



Fire Weather Dashboard

Marshfield, MO Weekly Summary

	Fri Feb 23	Sat Feb 24	Sun Feb 25	Mon Feb 26	Tue Feb 27	Wed Feb 28	Thu Feb 29
Max Temp, °F	61	56	68	72	75	56	51
Min Temp, °F	41	33	44	47	58	34	28
Max RH, %	70	75	64	80	70	71	66
Min RH, %	33	34	40	42	45	45	36
Max Dewpoint, °F	33	31	43	50	53	46	28
Min Dewpoint, °F	29	26	31	41	48	20	18
Max Wind, mph	20	13	17	18	25	24	14
Min Wind, mph	12	6	10	8	17	14	12
Max Wind Gust, timelidir	3 PM	11 PM	9 AM	5 PM	3 PM	12 AM	12 AM
Max Wind Gust, mph	30	17	25	26	39	36	21
Min Wind Gust, mph	17	10	14	13	20	21	17
Max Cloud Cover, %	22	8	22	46	78	67	22
Min Cloud Cover, %	0	0	2	1	34	24	16
Max Prob. of Precip., %	1	1	2	1	41	43	24
Max Haines	5	5	5				
Max LAL	1	1	1	1	4	4	1
Max Mixing Height, ft	8854	3471	4715				
Min Mixing Height, ft	466	377	100				
Max Ventilation Rate, kt-ft	283	30	85				
Min Ventilation Rate, kt-ft	5	3	1				

<https://www.weather.gov/dlh/fwd>

Hourly and 7-day forecast information

Preparing for Fall: Rapid Onset Drought

What Is Flash Drought?

Flash drought is simply the **rapid onset** or **intensification** of drought. It is set in motion by lower-than-normal rates of precipitation, accompanied by abnormally high temperatures, winds, and radiation. Together, these changes in weather can rapidly alter the local climate.

Higher temperature increases evapotranspiration — the process by which water is transferred from the land to the atmosphere by evaporation from the soil and by transpiration from plants—and further lowers soil moisture, which decreases rapidly as drought conditions continue.

If not predicted and discovered early enough, changes in soil moisture that accompany flash drought can cause extensive damage to agriculture, economies, and ecosystem goods and services.

UNDERSTANDING DROUGHT

Drought is a shortage of water over an extended period of time.

Droughts are a normal part of a climate cycle.

They occur in all climate zones.

Drought can be short or span years.

CONNECTION TO WILDFIRES

Dry conditions often lead to brush fires or wildfires.

Local officials may ask that you not burn brush or trash during dry conditions.

In extreme fire conditions, officials may issue mandatory evacuation orders to protect your life.

During a Drought, **Conserve Water.**



Water your lawn less often



Identify and fix leaks



Take shorter showers



Turn off the water while brushing teeth



Run the wash less frequently



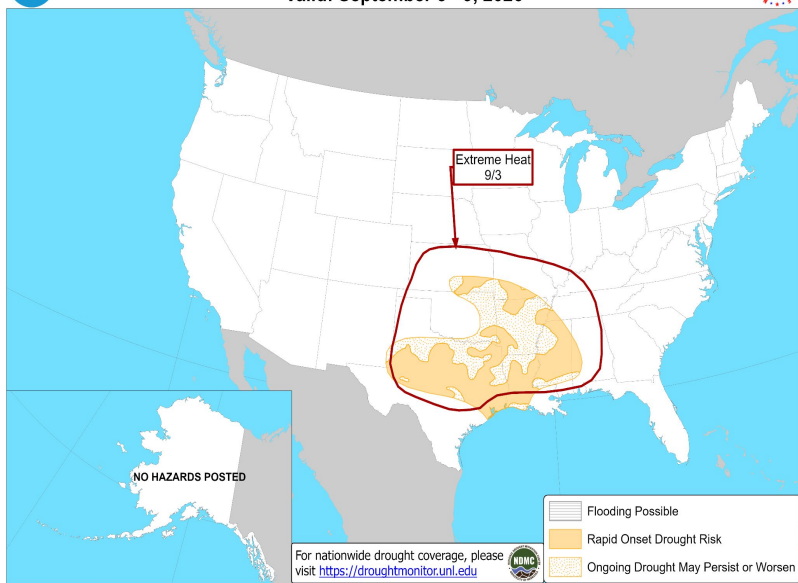
Heed any local water use restrictions



weather.gov



Days 8-14 U.S. Hazards Outlook
Valid: September 3 - 9, 2026



Climate Prediction Center
Released: August 26, 2026 3:00 PM EDT

Follow us:
www.cpc.ncep.noaa.gov

Predicting Rapid Onset Drought

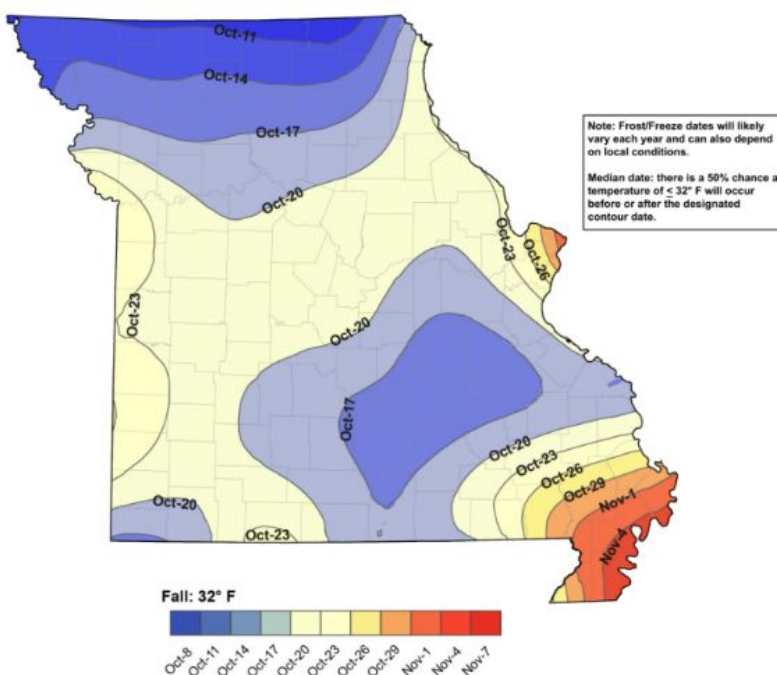
The Climate Prediction Center issues a Rapid Onset Drought risk product within the Day 8–14 U.S. Hazards Outlook. This product highlights areas where rapid drought development (sometimes known as “**flash drought**”) may occur in the coming 2–4 weeks as depicted by the U.S. Drought Monitor. Forecasters use initial conditions, such as antecedent dryness (e.g., soil moisture), and skillful temperature and precipitation outlooks during the next 2 weeks to communicate the risk of rapidly developing drought. Rapid Onset Drought risk areas give end users, particularly farmers making decisions about planting and supplemental irrigation, an early warning of the potential for hot and dry conditions.

Source: NIDIS (Drought.gov)

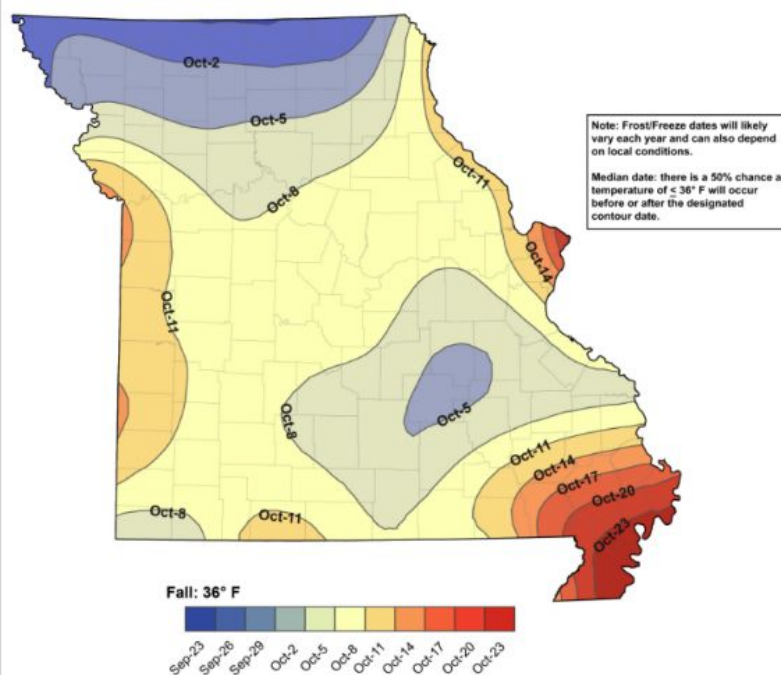
Preparing for Fall: Frost and Freeze



Fall Median Date of Temperature $\leq 32^{\circ}$



Fall Median Date of Temperature $\leq 36^{\circ}$



Frost and freeze dates vary depending on location each year. In general, as low temperatures approach 36 degrees or lower, the chance for frost increases. This varies from early to late October across the area.

Hard Freeze Watch

Freeze Watch

Consolidated to

Freeze Watch

Hard Freeze Warning

Freeze Warning

Consolidated to

Freeze Warning

As a reminder, the NWS has consolidated the Freeze and Hard Freeze products into one streamlined Freeze Watch/Warning, with enhanced language for hard freeze conditions as needed. The scope of the NWS Frost/Freeze services is focused on vegetation and agriculture, taking into account growing season, impacts, and precautionary/preparedness actions.

Recommended Safety Actions:

Protect Plants: Cover sensitive outdoor plants with cloth, burlap, or sheets down to the ground, or move potted plants indoors.

Care for Pipes: Disconnect outdoor hoses and wrap exposed exterior pipes to prevent splitting from ice.

Freeze Warning

Temperatures of **32°F or colder** for several hours over a widespread area during growing season. A **hard freeze** is when temperatures are **below 28°F**.

Plants left outdoors may be killed.

Frost Advisory

Temperatures of **33 to 36°F** with clear skies and light winds over a widespread area during growing season, which would promote the development of frost.

Plants left outdoors may be damaged.



Preparing for Fall: Fog



The three main types of fog are...

...radiation

...advection

...evaporation

EVER WONDER WHAT CAUSES FOG?

Fog forms when water vapor condenses into tiny drops near the ground



Fog is common throughout the year here in the Ozarks, but does increase in frequency as we go into the fall season. Fog forms when water vapor condenses into small droplets near the ground but stay suspended in the air. The three main types of fog are: radiation, advection, evaporation.

A **Dense Fog Advisory** is when widespread dense fog develops. When this happens, visibilities frequently drop to one-quarter of a mile or less. These conditions make travel difficult. Take extra caution when on the road or avoid driving if possible.

A **Freezing Fog Advisory** is when fog develops and surface temperatures are at or below freezing. The tiny liquid droplets in the fog can freeze instantly to any surface, including vehicles and road surfaces. Freezing fog makes driving, boating, flying and other forms of transportation particularly hazardous. Visibilities are typically at or below 1 mile.

What to Do in Dense Fog: Drive with caution and turn on your low-beam lights. Be ready for sudden changes in visibility. Use extra caution on bridges and in valleys. In dense fog where visibility is near zero, it is recommended to turn on your hazard lights, then pull into a safe location such as a parking lot of a local business and stop. If there is no parking lot or driveway to pull into, pull your vehicle off to the side of the road as far as possible. Once you come to a stop, turn off all lights except your hazard lights, set the emergency brake, and take your foot off of the brake pedal to be sure the tail lights are not illuminated so that other drivers don't mistakenly run into you.

Patchy fog can be a hazard to motorists

Turn on your low-beam lights

Drive slowly and with caution

Tips For Driving in Patchy Fog



PATCHY FOG CAN SURPRISE YOU



Be ready for sudden changes in visibility



Turn on your low-beam headlights when approaching fog



Drive slowly, and keep your distance from other vehicles



Use extra caution on bridges and in valleys



weather.gov



Preparing for Fall: Outdoor Safety

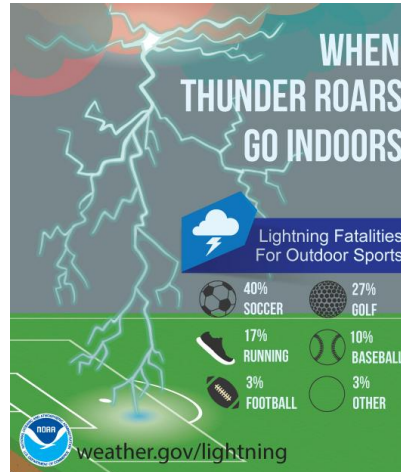


When heading outdoors, it's important to Know Before You Go. Know the forecast before heading out and have multiple ways to receive warnings. Knowing where the nearest shelter is can also be helpful to know how long it will take to reach your nearest shelter in the case of inclement weather.

Lightning can be deadly, we have two catch phrases we use to promote lightning safety for those who are outdoors:

Thunder Roars Go Indoors
See a Flash, Dash Inside!

Once you see lightning, or hear thunder, it's important to seek shelter right away in an enclosed building or car. It's recommended to wait 30 minutes after hearing thunder before returning outside.



Weather Safety ON THE LAKE



As the fall season approaches, camping and outdoor recreation activities will continue. Having plans for heat, severe weather, and flooding will ensure you Know Your Action. Knowing Your Action leads to making informed decisions in regard to your safety.

Avoid hiking in canyons and don't camp near streams or rivers. Water can rise quickly and there may be limited evacuation routes.

Remain hydrated and bring extra water. Wear lightweight clothing, use sunscreen, and take breaks in the shade. Check the heat index, heat risk, or wet-bulb globe temperature before a hike or spending extended time outside.

Check the forecast at [weather.gov](https://www.weather.gov) and always pack for inclement weather as it can change in a hurry!

CAMPING SAFETY TIPS



FLASH FLOODING
Know Your Action
Avoid hiking in canyons
Don't camp near streams or rivers



HEAT
Know Your Action
Remain hydrated/bring extra water
Wear light, loose fitting clothing
Use sunscreen
Take breaks in shade



LIGHTNING
Know Your Action
Remain weather-ready
If you hear thunder or see lightning... go immediately to an enclosed building or hard-topped vehicle.
Avoid isolated tall trees or ridge tops.

KNOW BEFORE YOU GO
Check the forecast at [weather.gov](https://www.weather.gov)
Always pack for inclement weather, regardless of the forecast!



Weather in Review:

July 4th Central Missouri Damaging Winds

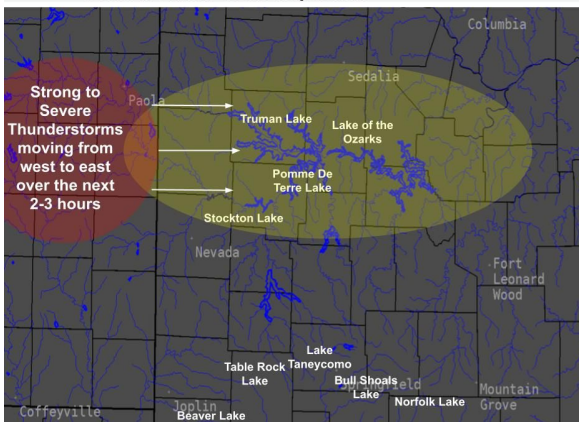
This year, Independence Day occurred on a Saturday with numerous people outside enjoying the area's lakes and rivers. However on this particular day, conditions went from clear to severe in a matter of a few hours. There were indications mid to late morning that an area of thunderstorms across Kansas would make an easterly trajectory into central Missouri, potentially affecting the area lakes (Truman, Stockton, Pomme and Lake of the Ozarks). A Severe Thunderstorm Watch was issued for this area at 12:18pm. Social media posts were sent out with the intent of conveying this message. Most of the morning hours were sunny and warm, with little in the way of visual clues of storm activity. Therefore, unless you were Weather-Ready, you may have been caught off guard by the upcoming storms.



Strong to Severe Storms This Afternoon

July 4, 2026
11:26 AM

Several Lakes to be Impacted



Check the forecast before heading out.



Outdoor plans? Remain weather aware.



Boaters – Be ready to seek safe shelter.

National Oceanic and Atmospheric Administration
U.S. Department of Commerce

National Weather Service
Springfield, Missouri

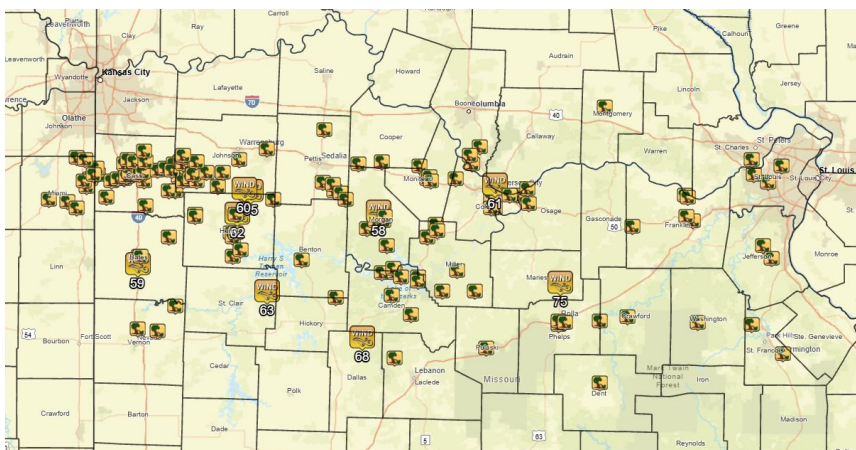


Severe thunderstorms with damaging winds moved into the area a little before 1pm. These storms moved essentially due east along and either side of the Highway 54 corridor. Skies darkened and severe thunderstorms with damaging winds of 60-75 mph moved across the Truman and Lake of the Ozarks regions. At 1:36pm, A Severe Thunderstorm Warning was issued for the entire Lake of the Ozarks region. This warning included the “Considerable” Impact Based Warning tag with expected winds of 70 mph. Pictures from the lake area courtesy of Ozarks First showed area boaters trying their best to get back to shore during the severe storm. Both Truman and Lake of the Ozarks have numerous west to east lake fetches. This most likely aided in these damaging winds creating dangerous waves and boating conditions. These storms then moved through the Rolla/Vichy area and east of the area by late afternoon. Fortunately, no injuries or fatalities were reported from this event. However widespread damage occurred to trees, boat docks and the power infrastructure due to the widespread 60-75 mph winds. Tens of thousands were without power in the lake area.

These types of events magnify the importance for those outdoors to have multiple ways to receive watches and warnings. This includes non cellular methods such as NOAA Weather Radios. Remember to always be Weather-Ready on area lakes and rivers! It may just save your life!



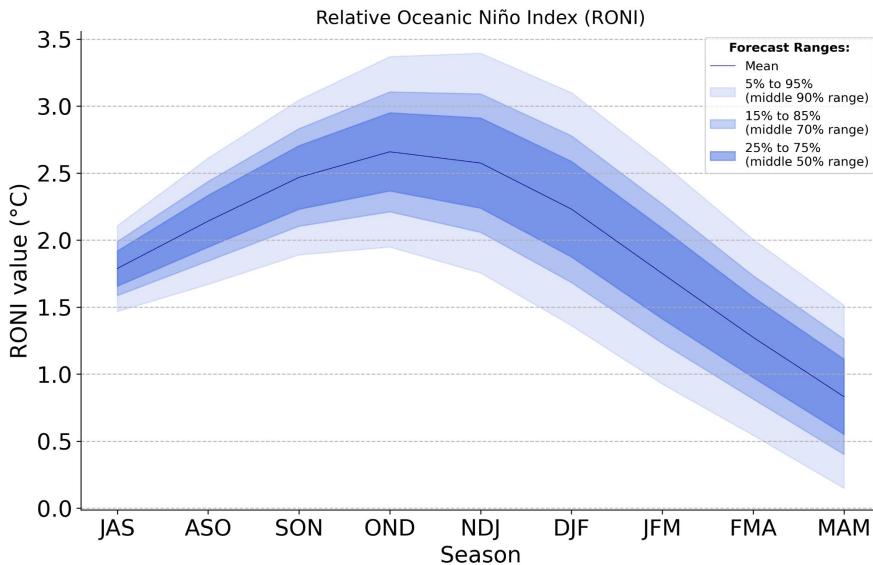
Photo credit: Ozarks First



Science Spotlight: El Nino and La Nina

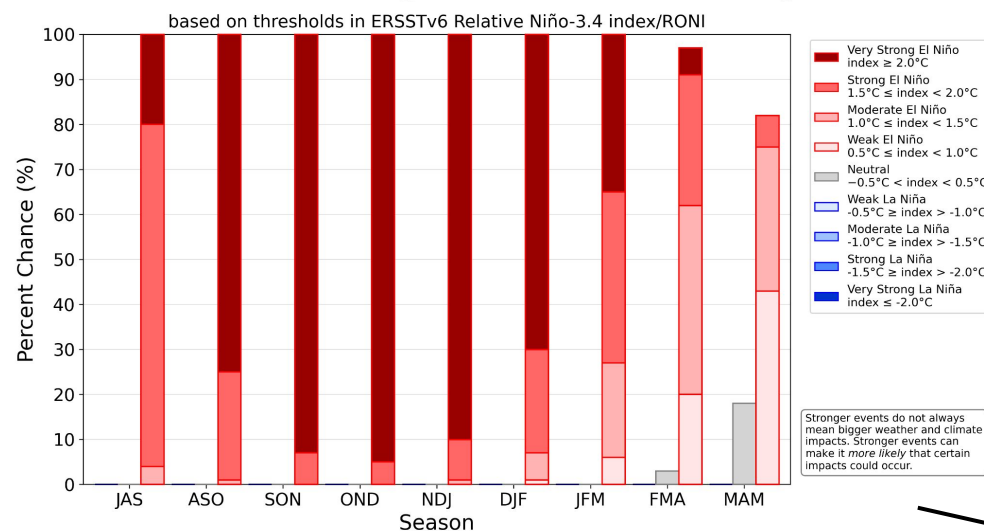


NOAA CPC Official ENSO Outlook (issued August 2026)



El Nino and La Nina are naturally occurring phenomena that result from interactions between the ocean surface and the atmosphere over the tropical Pacific. Changes in the sea surface temperatures affect tropical rainfall patterns and atmospheric winds over the Pacific ocean, which in turn impact the ocean temperatures and currents. Changes in tropical rainfall patterns cause changes in the weather patterns around the globe. Large scale relationships between climate and weather are called teleconnection patterns and El Nino and La Nina play an important role in those processes.

NOAA CPC ENSO Strength Probabilities (issued August 2026)



We have a 100% chance of experiencing a very strong El Nino during OND (October, November, December). El Nino can also be known as a “warm episode.” The increased heating of the tropical atmosphere over the central and eastern Pacific during warm episodes, affects atmospheric circulation features, such as the jet streams in the subtropics and in the temperate latitudes of the winter hemisphere. The jet streams over the eastern Pacific Ocean are stronger than normal during warm episodes. Low pressure systems and fronts follow paths that are significantly different from normal, resulting in temperature and precipitation anomalies in many areas.

ENSO Probabilities

Season	La Niña	Neutral	El Niño
JAS	0	0	100
ASO	0	0	100
SON	0	0	100
OND	0	0	100
NDJ	0	0	100
DJF	0	0	100
JFM	0	0	100
FMA	0	3	97
MAM	0	18	82

“Stronger events do not always mean bigger weather and climate impacts. Stronger events can make it *more likely* that certain impacts could occur.”

Why is This Important?

Better predictions of the potential for extreme climate episodes like floods and droughts could save the United States billions of dollars in damage costs. Predicting the life cycle and strength of a Pacific warm or cold episode is critical in helping water, energy and transportation managers, and farmers plan for, avoid or mitigate potential losses. Advances in improved climate predictions will also result in significantly enhanced economic opportunities, particularly for the national agriculture, fishing, forestry and energy sectors, as well as social benefits.

– Climate Prediction Center

IDSS Spotlight: Friday Night Lights



Details

NWS Support of Friday Night Lights focuses on the potential of hazardous weather impacting varsity football games. The NWS can provide weather info such as:

- Hazard Types
- Locations
- Timing
- Impacts
- Forecast Confidence
- Forecast Changes

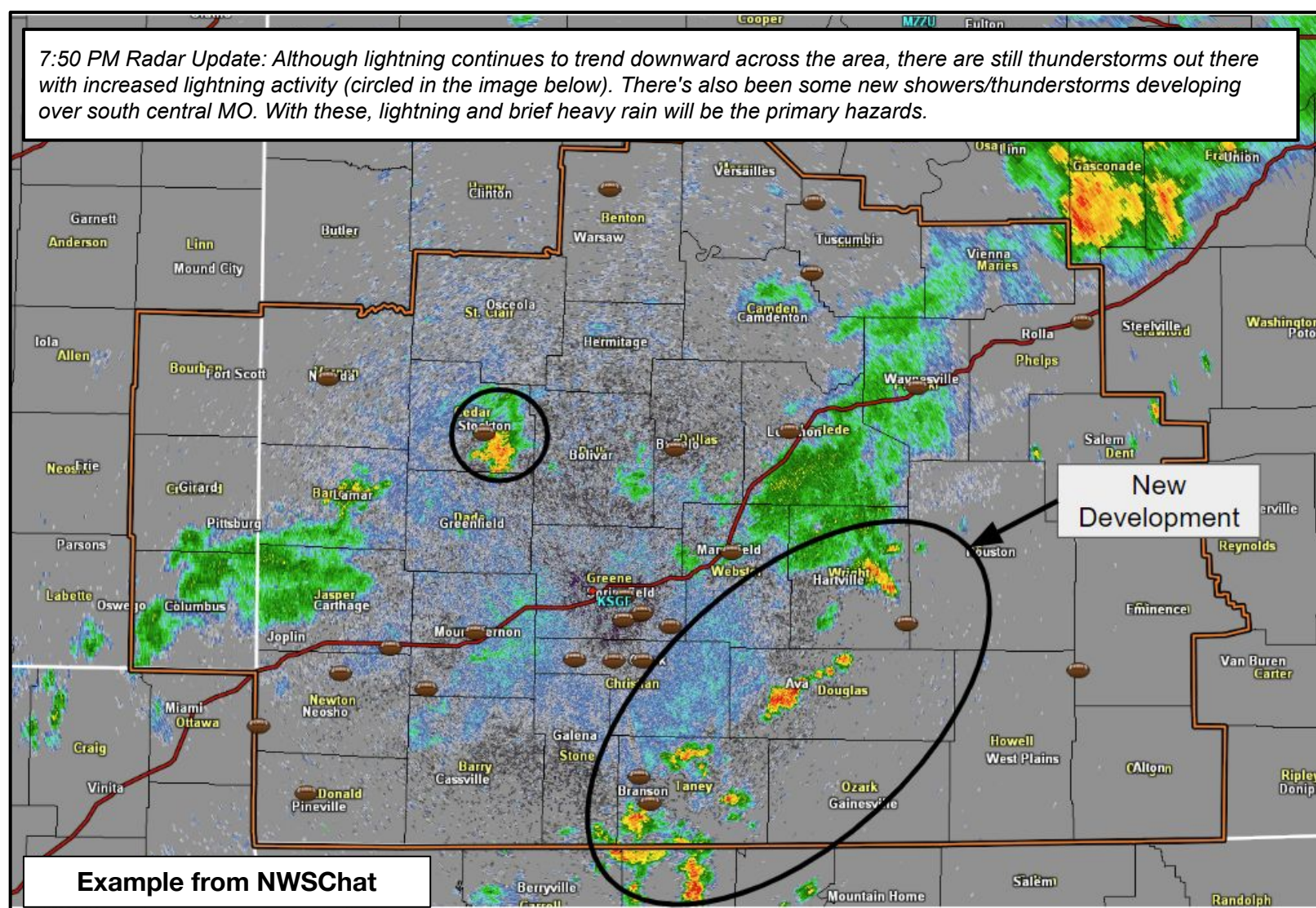


Decision Support Services (DSS)

The NWS partners with Emergency Management to provide virtual Decision Support Services (DSS) of varsity football games via a DSS Packet and NWSChat.

The NWS will assess the potential for hazardous weather to impact varsity football games on Friday nights. The NWS will email a DSS packet each Friday during the season.

7:50 PM Radar Update: Although lightning continues to trend downward across the area, there are still thunderstorms out there with increased lightning activity (circled in the image below). There's also been some new showers/thunderstorms developing over south central MO. With these, lightning and brief heavy rain will be the primary hazards.



Example from NWSChat

Featured Article: *Careers in the NWS*



What is a Meteorologist?

Atmospheric scientists who forecast the weather are known as operational meteorologists. They study information on air pressure, temperature, humidity, and wind velocity, and apply physical and mathematical relationships to make short- and long-range weather forecasts. National Weather Service meteorologists have the challenging and exclusive task of issuing watches and warnings for the United States to protect the public from severe weather, tornadoes, flooding, hurricanes, strong winds, winter storms, and excessive heat and cold.

NWS Local Weather Forecast Offices

The National Weather Service has 122 local Weather Forecast Offices across the United States and its territories. Local offices employ around two dozen people, most of whom are meteorologists who work rotating shift work to support the National Weather Service's mission, 24/7. Meteorologists use science and technology to provide accurate, timely, and effective weather and water forecast products and services. Offices also provide weather support to decision makers in federal, tribal, state, and local government agencies, including e-mails, webinars, and on-site weather support.



NWS Careers

Info: <https://www.weather.gov/careers/>

The NWS employs over 4,000 people serving in a variety of careers, including scientific, technical, and administrative positions in offices across the country. In addition to the 122 local offices, there are also career opportunities at sector offices, national forecast centers, and the headquarters office. Some of the career opportunities include:

- Meteorologist
- Hydrologist
- Physical Scientist (A catch-all term for many scientists across the NWS)
- Operational Support
- Information Technology
- Electronics Maintenance
- Administrative Assistance
- And more!



NWS Mission: Provide weather, water, and climate data, forecasts and warnings for the protection of life and property and enhancement of the national economy.

Student Opportunity Hub:



**NWS Student
Employment
Programs**



**NOAA
Student
Opportunities**



**Pathways
FAQs**



USAJobs