Ozark Observer

National Weather Service Forecast Office
Springfield, Missouri

Volume XIII Number 1
March 2008
Spring Edition

Ozark Observer Team

William Davis
Meteorologist-In-Charge

Steve Runnels
Warning Coordination Meteorologist

David Gaede
Science and Operations Officer

Megan Terry & Brian Barjunbruck
Editors

Steve Lindenberg
Web Development

Article Contributors

Andy Foster
Jason Schaumann
James Taggart

Inside this Issue:

Prepare for Severe Weather

Join the National Weather Service, Missouri State Emergency Management Agency, and the Kansas Division of Emergency Management to promote Severe Weather Awareness Week from March 10-14, 2008

State emergency management officials and the National Weather Service (NWS) will conduct a **Statewide Severe Weather Tornado Drill on Tuesday, March 11, 2008.** Every school, citizen and business is encouraged to participate in the drill by practicing seeking secure, save shelter from a tornado or other damaging wind event.

The Missouri Ozarks and extreme southeast Kansas experience a variety of severe weather including tornadoes, severe thunderstorms with damaging winds and large hail, and flash flooding. Residents are encouraged to use this week, and the annual test day, to review their severe weather safety plans. Practice what you would do in a real tornado emergency.

Severe Weather Websites

NWS Springfield Winter Awareness Page

NWS Springfield Winter Weather Briefing Page

American Red Cross
www.redcross.org

Dept. of Homeland Security
www.ready.gov

MISSOURI SEVERE WEATHER AWARENESS WEEK MARCH 10-14, 2008

Forecaster Focus

In February, a new intern joined the NWS Springfield team. Ryan Kardell, a native of Iowa, came to the NWS from the Air Force, where he served as an enlisted weather forecaster assigned to the 25th Operational Weather Squadron at Davis-Monthan Air Force Base near Tucson, Arizona. Before joining the Air Force, Ryan graduated from Iowa State University, where he received his bachelor's degree in Meteorology in 2001 and a master's degree in Engineering Mechanics in 2004. Ryan's looking forward putting his graduate work, the design and testing of a large scale laboratory tornado simulator, to practical use while protecting the public here in the Ozarks. After living in Tucson for nearly 4 years, Ryan, his wife Holly, and their 14 month old daughter Alex are happy to be back to the Midwest to experience the change of the seasons once again.

Welcome aboard Ryan!

Farewell!

NWS Springfield said goodbye to Electronics Systems Analyst Steve Berry in January. Steve was instrumental in getting the office leadership training established, and was always able to keep our computer systems up and running. Steve accepted a position at Central Region Headquarters in Kansas City. We wish him the best of luck in KC!

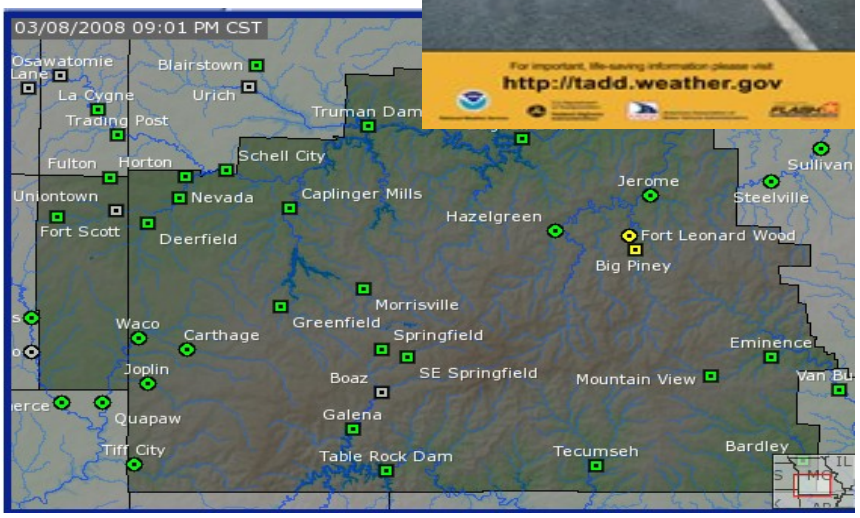
FORECASTS, WARNINGS, AND MORE 24 HOURS A DAY, 7 DAYS A WEEK!

WWW.WEATHER.GOV/SGF

RAISING FLOOD SAFETY AWARENESS IN THE OZARKS

By James Taggart, NWS Springfield Service Hydrologist

The Ozarks region has distinct topographic and climatological characteristic that lead to flash flooding and river flooding each year. Our office has the task of warning the public when flash flooding occurs or is expected to occur. Numerous low water crossings, where roadways intersect low lying drainage areas that are usually dry, flood rapidly during heavy rainfall events. Flash flood related deaths due to flooded low water crossings continue to plague the Ozarks region.



In order to raise public awareness and knowledge concerning the hazards associated with floods, the National Weather Service, in coordination with local, state and federal agencies, has provided a web page that elaborates on, and stresses the importance of flood safety. This web page contains links to the Advance Hydrologic Prediction Services (AHPS)page, which provides direct access to river flooding and forecast information across the nation. In addition, the page has links related to drought conditions, snowmelt flooding, ice jams, debris flows and flood insurance.

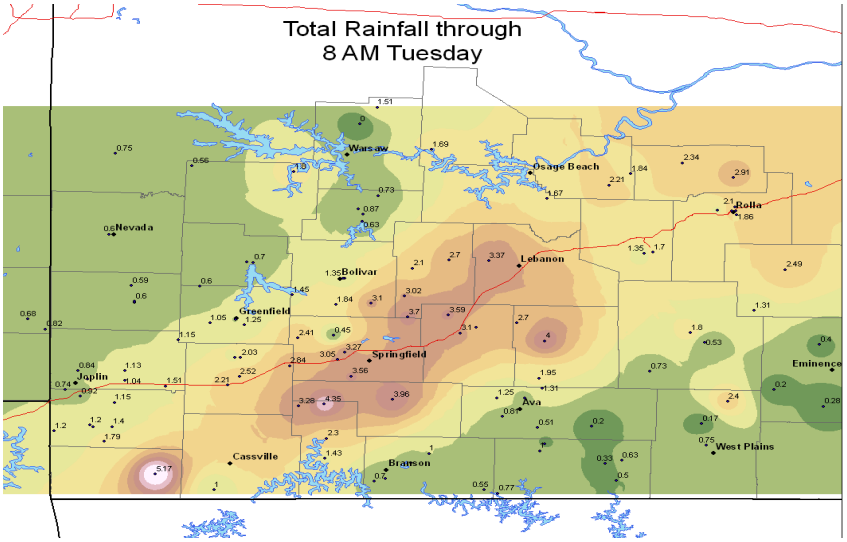
Our home web page offers even more specific information in the form of a flood briefing page. This web page has all of the current flood products and forecasts pertaining to river and flash flooding. To view this page, go to: http://www.crh.noaa.gov/sgf/?n=flood_briefing.

The annual Flood Safety Awareness Week is set for March 17-21.

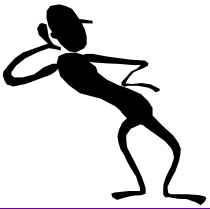
Additional information on flood safety and preparedness can be found at: http://www.floodsafety.noaa.gov

Did You Know?

Severe weather outbreaks and winter storms are occasionally accompanied by Flash Flooding. During the tornado outbreak of January 7th, 2008, widespread rainfall amounts over three inches on the Ozark Plateau led to flash flooding and caused over $8M in damage. The image on the right shows rainfall accumulations from the night of January 7th.



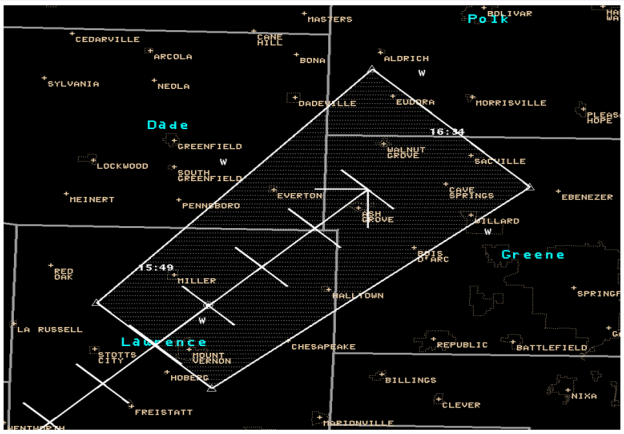
Have You Heard? Storm-Based Warning Era Has Begun



By Jason Schaumann, Meteorologist

The National Weather Service successfully transitioned from a county-based to a storm-based warning system last fall. Tornado, severe thunderstorm and flood warnings are now issued exclusively for areas that are expected to be impacted, not entire counties. There are several benefits offered by storm-based warnings including more specific information and fewer false alarms. Storm-based warnings promote improved graphical warning displays, and in partnership with the private sector, support a wider warning distribution through cell phone alerts, pagers, web-enabled Personal Data Assistants (PDA), etc. NOAA Weather Radios work as before and continue to alert entire counties.

In the past, the displayed box would have led to a tornado warning for all of Lawrence, Greene, Dade and Polk counties. In the new storm-based warning era, only sections of counties will be included if applicable. An example of this warning output is included to the right.



* TORNADO WARNING FOR...
NORTHEASTERN LAWRENCE COUNTY IN SOUTHWEST MISSOURI...
NORTHWESTERN GREENE COUNTY IN SOUTHWEST MISSOURI...
SOUTHEASTERN DADE COUNTY IN SOUTHWEST MISSOURI...
SOUTHWESTERN POLK COUNTY IN SOUTHWEST MISSOURI...

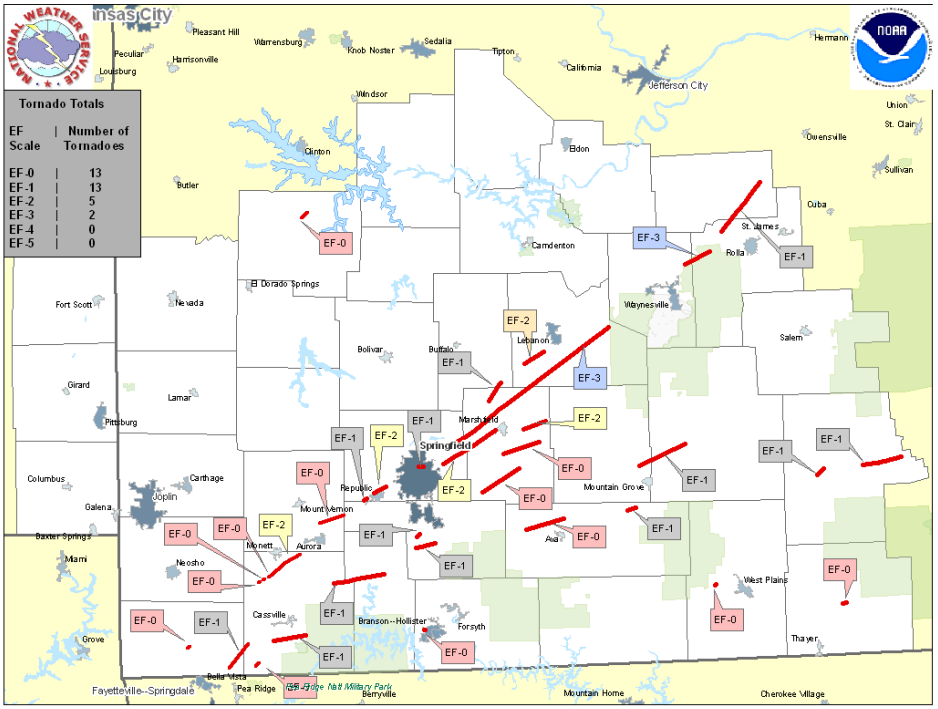
* THIS TORNADIC STORM WILL BE NEAR...
EVERTON BY 1020 AM CST.
ASH GROVE BY 1025 AM CST.
6 MILES SOUTH OF WALNUT GROVE AND 9 MILES WEST OF WILLARD BY 1030 AM CST.

THE TOWN OF HALLTOWN IS ALSO IN THE PATH OF THIS TORNADIC STORM. THIS ALSO INCLUDES INTERSTATE 44 BETWEEN MILE MARKERS 44 AND 61.

Tornadoes in January? Unfortunately...Yes

When the ingredients for severe storms and tornadoes are present, moisture, instability and a lifting mechanism such as a cold front or dryline, the time of year does not matter. This was the case during the evening of January 7th and the early morning of January 8th, when 33 tornadoes touched down across the Missouri Ozarks. Unfortunately there were three fatalities and over a dozen people as a direct result of these storms . The map on the right shows the confirmed tornado tracks from that night, along with a listing of Enhanced Fujita (EF) scale ratings.

For more information on the Enhanced Fujita scale, visit the Storm Prediction Center web site at: www.spc.noaa.gov



Junior Observer Page

Word Find!

Search for these storm words:

Tornado	Warning
Hail	Wind
Watch	Flood
Gust	Storm

T	W	A	H	A	I	L	W
R	O	L	R	Z	C	I	A
W	A	R	N	I	N	G	T
G	E	D	N	D	R	E	C
U	D	P	G	A	F	R	H
S	F	L	O	O	D	F	R
T	S	K	N	I	K	O	P
V	M	O	M	R	O	T	S

Try This Weather Experiment!

Tornado in a Jar!

What you will need:

Glass jar with a lid

Food Coloring

Dishwashing Soap

Steps:

1. Fill the glass 3/4 full of water
2. Add a few drops of food coloring and a teaspoon of dish detergent.
3. Put the lid on the jar and shake vigorously for about 20 seconds
4. Twist the jar, set it down and watch!

What's happening...

The liquid inside the jar will form a vortex that looks and acts just like a real tornado. The tornado's body will even grow longer and shorter just like the a real tornado too.

Keep this page as your Severe Weather Reference!

VISIT WWW.WEATHER.GOV/SGF FOR ALL OF OUR SEVERE WEATHER PRODUCTS

Spring Outlook

Overall, expect a near-normal Spring across the Missouri Ozarks and southeast Kansas, with respect to temperatures and precipitation for the period April through June.

Interested in more information on outlooks and climate? Visit the Climate Prediction Center website at www.cpc.noaa.gov.

NWS Springfield Severe Storm Products

Your National Weather Service in Springfield issues severe storm weather warnings and advisories to keep you updated with the latest hazardous weather. Here are some of the products we issue:

Severe Thunderstorm Warnings are issued for storms which are capable of producing hail one inch in diameter or larger, wind gusts of 58 mph or greater.

Tornado Warnings are issued for storms which are deemed capable of producing a tornado, based on either radar observations or trained storm spotter observations and reports.

Severe Weather Statements are products we use to update severe thunderstorm and tornado warnings.

Flash Flood Warnings are issued for storms which have produced excessive rainfall within a 6 hour period or less. Typically, storms that produce rainfall rates in excess of 2 inches of rain per hour usually produce flash flooding in the Ozarks due to steep terrain and shallow soil depths.

Significant Weather Alerts are issued for strong storms that do not meet severe thunderstorm or tornado warning criteria. These are usually for storms producing dime to nickel size hail or winds of 50 mph.

Local Storm Reports are sent by the National Weather Service when reports of severe weather are received.

Tornado Watches are issued when atmospheric conditions favor the development of tornadoes, while **Severe Thunderstorm Watches** are issued when conditions are ripe for strong to severe thunderstorms capable of producing hail and damaging straight-line winds. Both of these watches are issued by the Storm Prediction Center in Norman, OK.

Severe Weather Safety

Tornadoes

- Be prepared to take shelter immediately when warnings are issued
- The best place to shelter is in a basement. If no basement is available, go to the most interior room on the lowest level of the building you're in.
- Leave mobile homes, vehicles and trailers and go the lowest floor of a sturdy building or storm shelter.
- **If caught outside**, lie flat in a nearby ditch or depression, with hands on your head.

Thunderstorms:

- Postpone outdoor activities.
- Get inside a home, building, or hard top automobile (not a convertible).
- Avoid showering or bathing. Plumbing and bathroom fixtures can conduct electricity.

Use a corded telephone only for emergencies. Cordless and cellular telephones are safe to use.

If caught outside, avoid being near tall objects such as trees and high fences.

Flash Flooding:

- Do not drive into flooded areas. If flood waters rise around your car, abandon the car and move to higher ground if you can do so safely.
- Do not walk through moving water. Six inches of rapidly flowing water will knock you off your feet.

Be prepared to move to higher ground if flooding occurs at your location.