

NWS Advances in Information Delivery

National Severe Weather Workshop

Ed Calianese

Warning Coordination Meteorologist

National Weather Service Tulsa OK



NWS WFO Philosophy

The Old Way...



Winter Weather Advisory

URGENT - WINTER WEATHER MESSAGE
 NATIONAL WEATHER SERVICE NORMAN OK
 428 AM CST FRI JAN 25 2008

...SLEET AND LIGHT FREEZING RAIN TODAY IN SOUTHERN OKLAHOMA AND NORTH TEXAS...

.A JET STREAM DISTURBANCE WILL INTERACT WITH INCREASING MID LEVEL MOISTURE AND SUB-FREEZING AIR NEAR THE GROUND... TO PRODUCE A LIGHT WINTRY MIX OF PRECIPITATION. SLEET AND LIGHT FREEZING RAIN WILL FALL OVER MUCH OF CENTRAL AND SOUTHERN OKLAHOMA... AND NORTH TEXAS. A THIN GLAZE OF ICE WILL LIKELY AFFECT PARTS OF THIS REGION THIS MORNING... MAKING TRAVEL HAZARDOUS. ICE MAY REMAIN ON ELEVATED SURFACES... SUCH AS BRIDGES AND OVERPASSES... INTO THE EARLY AFTERNOON.

OKZ045-046-050-TXZ086-088>090-251830-
 /O.CON.KOUN.NW.Y.0004.000000T0000Z-080125T2100Z/
 JEFFERSON-CARTER-LOVE-WICHITA-BAYLOR-ARCHER-CLAY-
 INCLUDING THE CITIES OF...NAURIKA...ARDMORE...MARIETTA...
 WICHITA FALLS...SEYMOUR...ARCHER CITY...HOLLIDAY...
 LAKESIDE CITY...HENRIETTA
 428 AM CST FRI JAN 25 2008

...WINTER WEATHER ADVISORY REMAINS IN EFFECT UNTIL 3 PM CST THIS AFTERNOON...

A WINTER WEATHER ADVISORY REMAINS IN EFFECT UNTIL 3 PM CST THIS AFTERNOON.

LIGHT SLEET AND LIGHT FREEZING RAIN WILL FALL AT TIMES THIS MORNING. LIGHT ACCUMULATIONS OF ICE WILL BE POSSIBLE... MAINLY ON ELEVATED SURFACES... AND MAY RESULT IN HAZARDOUS DRIVING CONDITIONS. ANY ICE THAT DOES ACCUMULATE WILL MELT THIS AFTERNOON.

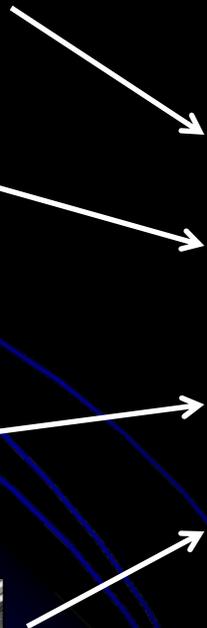
\$\$

Info → Forecaster → Product



NWS WFO Philosophy

The NEW Way...



Web Briefing



Recorded Briefing



Live Virtual Briefing



IC Center On-site



IC Incident On-site

Info → Forecaster → **Services**



Spectrum of Services

Product request

BOISE SPOT FORECAST REQUEST
Request form a RSD

PROJECT NAME:
Project Name:

REQUESTING AGENCY:
Requesting Agency/MS:
Requesting Official:
Phone Number (202) 334-9024 Ext:
FAX Number (202) 334-1880
Contact Person/Title:

PROJECT TYPE:
 Wildfire WFO HAZMAT
 Flooded Area SAR
 Mountain/Low Top Peak/Low Top
 Dam/Dike

REASON FOR SPOT REQUEST (check those that apply):
 WILDFIRE (federal, state, tribal, local agencies)
 New Wildfire Spot
 Under fire line
 US/WS, R/W
 State, tribal, or other agency
 No Intermingery
 Essential to the National

LOCATION:
 Current Conditions:
 Observations:
 Satellite Imagers:
 Reports & Labels:
 Precip:
 Hydrology:

HEAVY RAIN WITH FLOODING THIS AFTERNOON

Web Briefing

Skywarn/EM Weather Briefing

Last briefing update: Thursday 8/02/2007 10:29 UTC

Spotter activation not expected today or tonight

SIGNIFICANT FLOODING REMAINS POSSIBLE THIS MORNING AND AFTERNOON WITH RAIN RATES NEAR 2 INCHES PER HOUR

San Angelo, TX

Experimental Daily Multi-media Weather Briefing

The Daily Multi-media Weather Briefing is designed to be a briefing tool. The briefing will be updated with information concerning the latest forecast challenges, forecast uncertainty, and weather hazards. The idea is to give you more of the "Why?" of the forecast and any anticipated changes in the forecast for the following seven days.

Click here for more information about the Multi-media Weather Briefing. Please let us know what you think about this product. Thank you!

The following are alternatives to the Multimedia Weather Briefing. Just click on the MP3 audio file. The Multi-media Weather Briefing uses the latest Flash player for free here. Otherwise, just click on the MP3 audio file.

Text Summary Audio Only Briefing (*.mp3)

HEAVY RAIN WITH FLOODING THIS AFTERNOON

HEAVY FLOODING THIS AFTERNOON

HEAVY RAIN WITH FLOODING THIS AFTERNOON

Hazardous Weather Outlook:
Issued at 5:02 AM CDT, Thu Aug 2, 2007

For Guadalupe Mountains Of Eddy County, Eddy County, Central Lea County, Southern Lea County, Gaines, Darr, Martin, A. Howard, Mitchell, Yvonne Brown, and Hartsough, et al, Lea County

Recorded Briefing

Live Virtual Briefing

IC Center On-site

IC Incident On-site



Product Request – Email/Text Message Dissemination

Eastern Ok / Northwest AR Skywarn Home - Windows Internet Explorer

http://www.okarkskywarn.org/index.asp?activetab=1

File Edit View Favorites Tools Help Links Customize Links WCM Bulletin Board Index CBS System E-Learning Time & Attendance OkArkSkywarn StormDat eSpotter WFO Login

Eastern Ok / Northwest A...

Eastern Oklahoma / Northwestern Arkansas

Skywarn
WX5TUL • WWW.OKARKSKYWARN.ORG

Home Info/News Training My Skywarn

10/6/08 2:08:46 PM - Ed Callanese [Log Out]

Skywarn Contributors
• View Contributors

Weather Center
• Radar - NWS Tulsa
• Radar - NWS Ft. Smith
• Radar - NWS OKC

Amateur Radio / Net Control
• HAM Radio Partners
• Skywarn Net Info & Training
• Skywarn HAM Frequencies
• NOAA Weather Radio

Links
• Northwest AR Info
• Roger Edwards Online Tornado FAQ

About Us
• OkArkSkywarn
• Advisory Committee
• Disclaimer
• Request an Account

Site Admin
• Manage News
• Manage Contributors
• Email Members
• Threat Test

News Error! No New Items Found!

More News Headlines
4/11/08 - kebbale (updated)
[Additional Link System Repeater](#)
4/1/08 - obluford (updated)
[NWS and OkArkSkywarn Weather Alerts via Email - Q&A!!](#)
2/18/08 - obluford (updated)
[A fresh face for 2008!](#)
1/23/08 - skuford
[NWS Tulsa December 2007 ICE Storm Media Summary](#)
1/23/08 - obluford
[NWS Tulsa January 7-8 Tornado Event Summary](#)
1/14/07 - tsubnic (updated)
[Gibson Ridge Radar Software](#)
[All The News! <<<>>>](#)

DECISION SUPPORT PAGE
LIGHTNING THREAT LEVEL
SIGNIFICANT

NWS Tulsa Hazardous Weather Outlook
US NWS issued Watch / Warnings
Day 1 Convective Outlook
Current SPC Watch / Warnings

Get a forecast by city & state or zip code!

Active Warnings
At 1:44 PM CST
⚡ Little River County, AR - Until 2:15 PM
SWIFT
[Add this to your website](#)

Neither Okarkskywarn.org nor INTERNETworks inc guarantee the timeliness or availability of information on this web site, other than where indicated on the articles and segments here-in.
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INTERNETWORKS

Monday, October 06, 2008 1:48 PM



Product Request – Spot Weather Forecast

National Weather Service Forecast Office - Tulsa, Oklahoma - Windows Internet Explorer

http://www.srh.noaa.gov/tsa/fireweather.html

File Edit View Favorites Tools Help

Google

National Weather Service Forecast Office - ...

National Weather Service Forecast Office
Tulsa, Oklahoma

Local News SRH Home Organization Search Enter Search Here

Local weather forecast by "City, St" or zip code

City, St Go

Current Hazards
E OK / NW AR
National

Current Conditions
Observations
Satellite Images
Rivers & Lakes
AHPS
Precip Estimate
Hydrology

Radar Imagery
Tulsa
Fort Smith
Nationwide

Forecasts
E OK / NW AR
Graphical
XML Products
Aviation
Fire Weather

Climate
Local
National
More...

Weather Safety
Storm Ready

NWS Tulsa home > Forecasts > Fire Weather

Fire Weather Forecasts

Spot Fire Weather Forecast Form

Use the map below to access your latest county-based fire weather forecast.

Fire Weather Text Products

Fire Weather Forecasts	Fire Weather Watch / Red Flag Warning (please check date and time)
Tulsa	Tulsa
Norman	Norman
Little Rock	Little Rock

Tulsa Spot Forecasts - Windows Internet Explorer

http://spot.nws.noaa.gov/cgi-bin/spot/spotmon?site=tsa

File Edit View Favorites Tools Help

Google

Tulsa Spot Forecasts

National Weather Service Tulsa Fire Weather

TULSA SPOT FORECASTS

for
Tuesday
Dec 4 2007
[CALENDAR](#)

Submit a new Spot Request

Pending Question Complete

Name	Ignition Time	Status
No Entries		

National Oceanic and Atmospheric Administration (NOAA)

[Privacy Policy](#)

National Weather Service
Fire & Public Weather Services Branch
Page Author: NWS Internet Services Team
Page last updated at 7:57 am CST 3/5/07

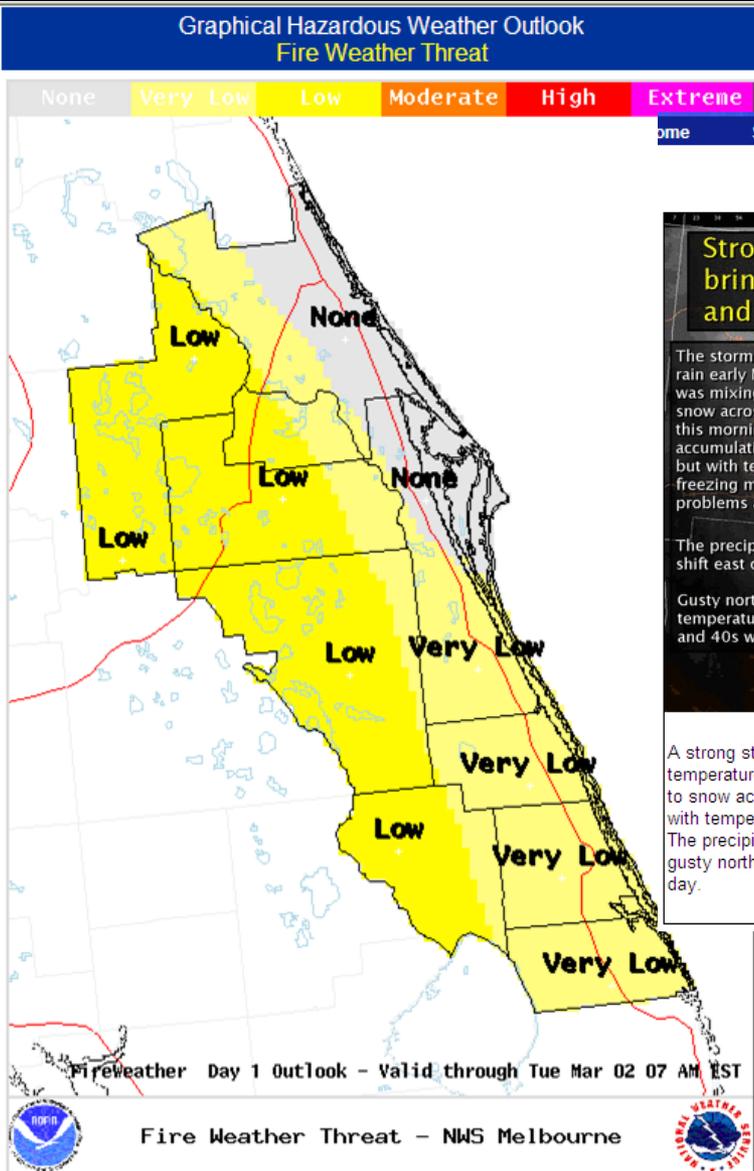
Done

start C:\Documents ... 4CEM2007.ppt ... SMART_Briefing... Tulsa Spot Fore... Adobe Photo...



Graphical HWO

- Activation
 - THUNDERSTORM
 - Lightning
 - Tornado
 - Severe Hail
 - Severe Wind
 - HEAVY RAIN
 - (Flash) Flood
 - SEASONAL
 - Excessive Heat
 - Excessive Cold
 - High Wind
 - Dense Fog / Smoke
 - Fire Weather
 - COASTAL / MARINE
 - Rip Current
 - Coastal Flood
 - Waterspout
 - Wind and Sea
 - Thunderstorm Gust
 - RIVER
 - River Flood
 - TROPICAL
 - Tropical Cyclone
-
- | Threat Level Scale | |
|--------------------|--|
| Extreme | |
| High | |
| Moderate | |
| Low | |
| Very Low | |
| Non-Threatening | |
- [Click Scale for General Description](#)
- [Hazardous Weather Outlook text](#)
- [Product Description](#)



Home Site Map News Organization Search for: NWS All NOAA

Today

Strong storm system brings morning rain and snow...

The storm brought widespread rain early Monday, but the rain was mixing with and changing to snow across the Caprock early this morning. Some light snow accumulations will be possible, but with temperatures near the freezing mark, major travel problems are not anticipated.

The precipitation will quickly shift east of the area this aftn.

Gusty northeasterly winds and temperatures only in the 30s and 40s will make for a raw day.

water vapor satellite image at 5:15 am

700 AM CST
Mon Mar 1 2010
National Weather Service
Lubbock, TX

Today

Strong storm system brings morning rain and snow...

The storm brought widespread rain early Monday, but the rain was mixing with and changing to snow across the Caprock early this morning. Some light snow accumulations will be possible, but with temperatures near the freezing mark, major travel problems are not anticipated.

The precipitation will quickly shift east of the area this aftn.

Gusty northeasterly winds and temperatures only in the 30s and 40s will make for a raw day.

Long Term

A couple days of quiet weather is in store Tuesday and Wednesday

Ridge of high pressure brings mild, dry weather

We will watch to see if a cold front can make it into the Rolling Plains - perhaps Wednesday night

Highs in the 50s Tuesday, warming into the 60s across the southwest Wednesday

A strong storm system brought widespread rain to West Texas early this morning. As temperatures have fallen to near the freezing mark, the rain has mixed with and changed to snow across portions of the Caprock. There could be some light accumulations, but with temperatures very near the freezing mark, major travel problems are not expected. The precipitation will quickly shift eastward and come to an end by midday or so. Still, gusty northeasterly winds and temperatures only in the 30s and 40s will make for a raw day.





Web Briefing – Decision Support Page

Hazardous Weather Decision Support

Tulsa Home
SRH Home
HWO Audio:

Element	Fri	Sat	Sun	Mon	Tue	Wed	Thu
<input checked="" type="checkbox"/> SEVERE_TSTORM							
<input type="checkbox"/> SEVERE_TSTORM6							
<input type="checkbox"/> MAX_HAIL_SIZE							
MAX_TSTORM_WIND							
<input checked="" type="checkbox"/> LIGHTNING							
LIGHTNING6							
RIVER_FLOOD							
HEATINDEX							

County: ALL
 MouseOver ShowAll

DEVELOPING THUNDERSTORMS ON SOUTHERN EDGE WHERE INCREASED INSTABILITY IS LOCATED

Graphical HWO

This graphic is manually produced at 5am and 1pm daily. It depicts expected weather features and associated hazards.

Definitions
Safety
GHWO
Briefing

Obs
Txt
Rad
Sat
SPC
Hyd

National Weather Service • Since 1870

Error on page.

start
Inbox for ed.callane...
Compose: Re: Fw: H...
NWS Tulsa :: Decisio...
Decision Support - Wi...



Web Briefing – Decision Support Page

weather.gov

National Weather Service Weather Forecast Office
Dallas/Fort Worth, TX

Home Site Map News Organization Search for: NWS All NOAA

Weather Hazard PLANNER
 North Texas

Select County or North Texas Region

TODAY
 Issued: 1107 AM CDT THU JUN 11 2009

Threat Key

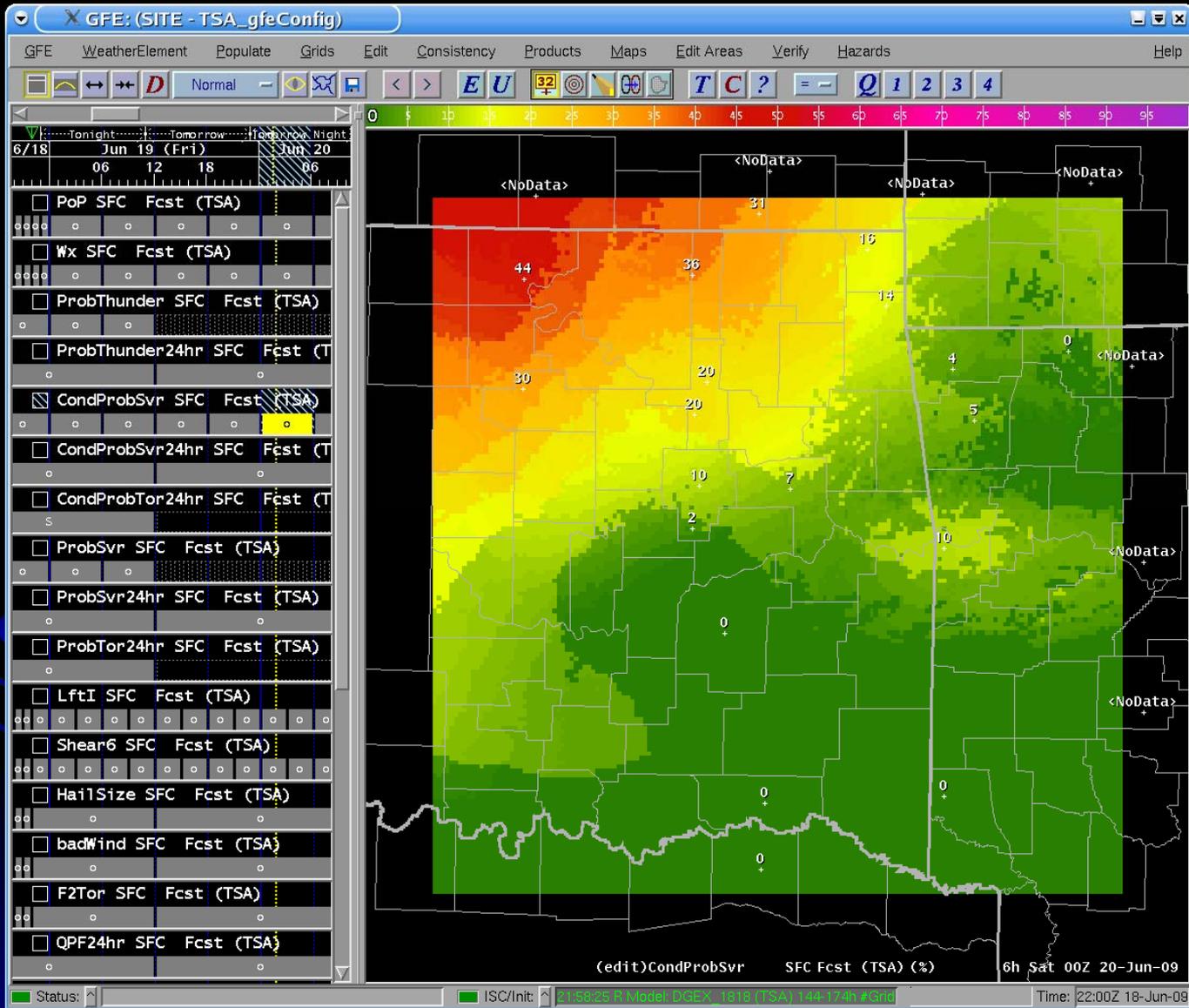
None	Elevated
No Forecast	Significant

TODAY	TONIGHT	FRIDAY	SATURDAY	SUNDAY	MONDAY	TUESDAY
Wind						
Lightning						
Fl. Flood						
Winter						
Temp						
Fog						
Severe						
Hail						
Dmg Wind						
Tornado						

Done

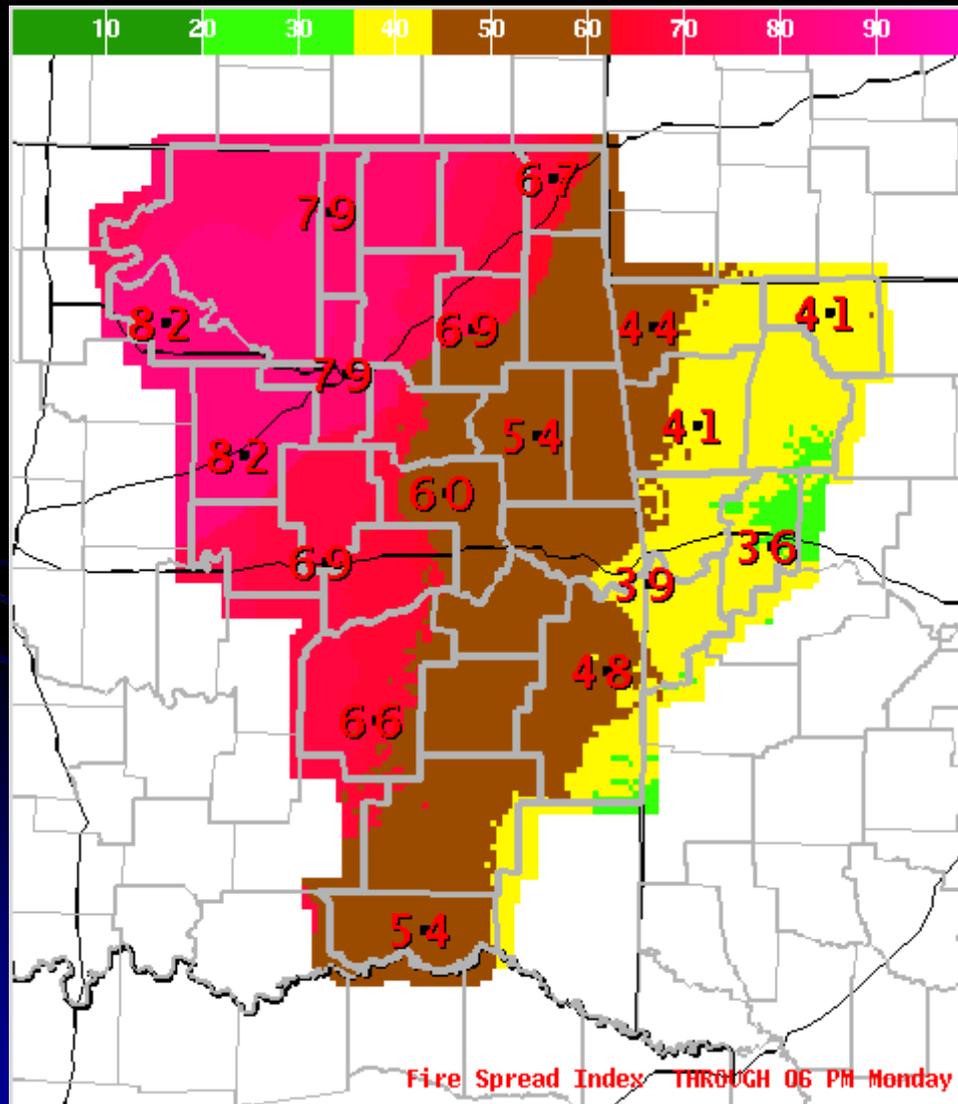


Digital Forecast Database





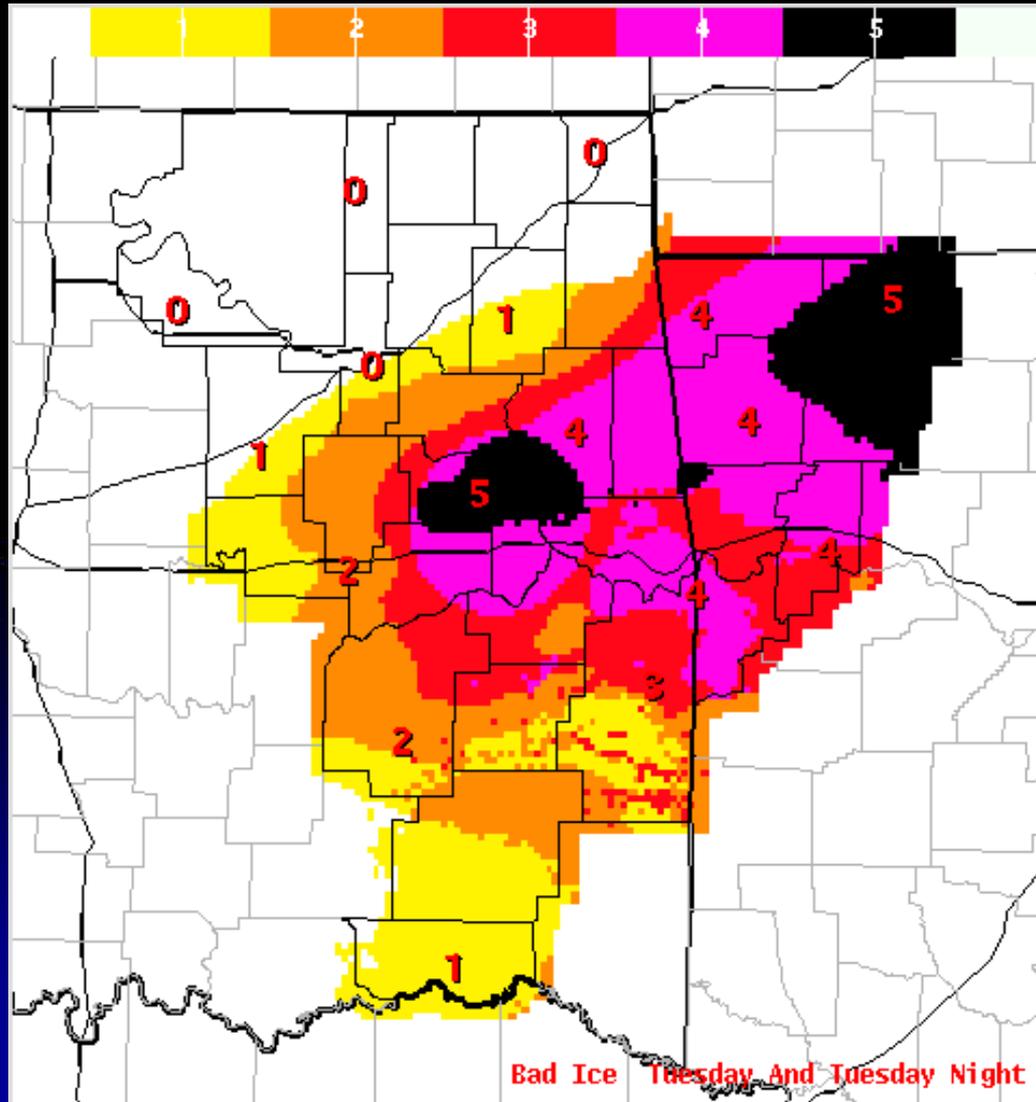
DSP-derivative products from GFE



- SPREAD INDEX
 - MaxT
 - MinRH
 - Wind
 - Vegetation State (constant)
- Computed Hourly; max value for each grid point displayed
- Modeled from AR Forestry



DSP-derivative products from GFE



- SPERRY-PILTZ ICE DAMAGE INDEX
 - Ice Accum
 - Wind
- Modeled from OK Asscn of Elec Coops



MultiMedia Recorded Briefing

Ag and Ranch Weather

Current Weather

Observations

Satellite Images

Rivers/Lakes

Precip Estimate

Radar Imagery

Nationwide

Dyess AFB Radar

San Angelo Radar

Climate

Local

National

More...

Weather Safety

Get Prepared

Weather Radio

SKYWARN

Additional Info

Our Office

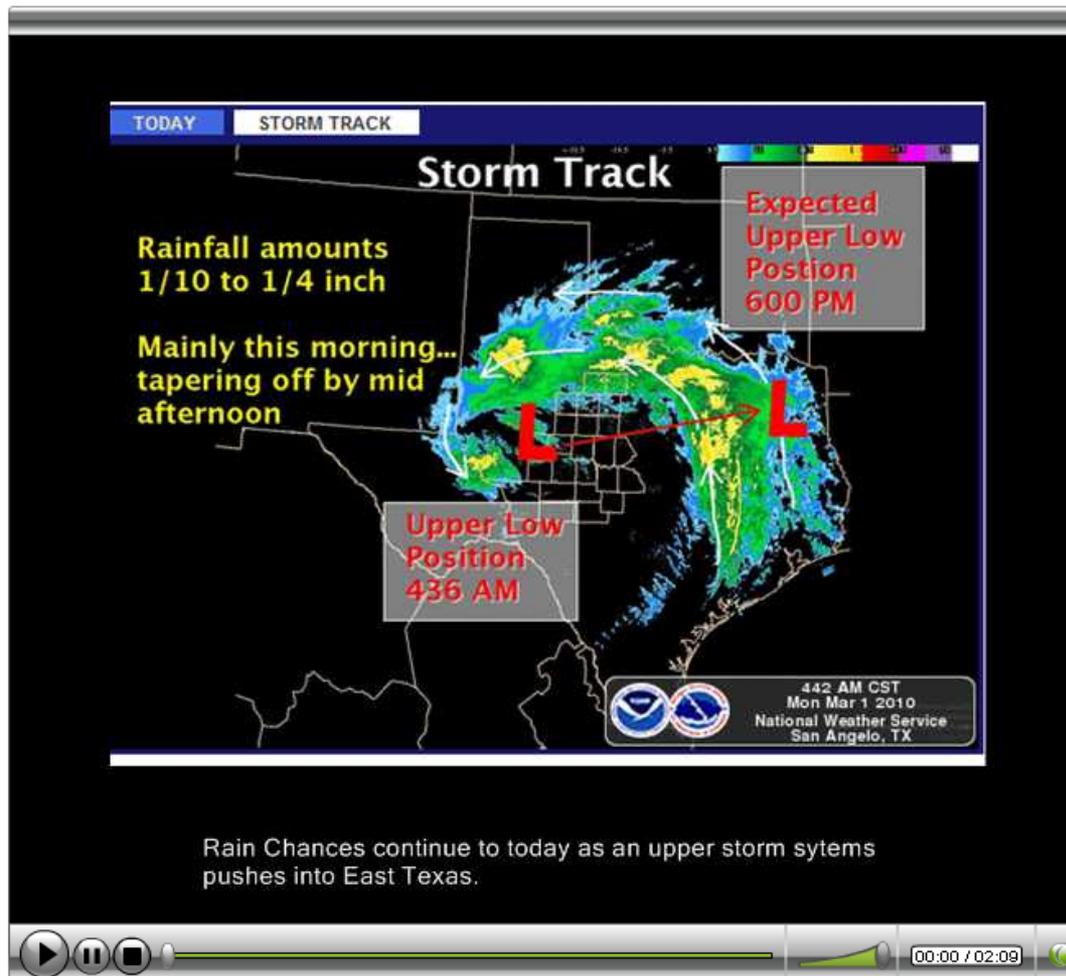
Past Weather Events

Weather Calculator

from NWS El Paso

[Audio Only Briefing \(*.mp3\)](#)

[Online Survey](#)



Rain Chances continue to today as an upper storm systems pushes into East Texas.



File Downloads

MP3 Audio, 1008 KB



Live Virtual Briefing – G2M

hwo.png - Windows Picture and Fax Viewer

Updated Wed 29 Nov 2006 05:09:12 PM CST
National Weather Service TULSA

ICE WILL FALL WITH THE SURFACE LOW AS HEAVY SNOW DEVELOPS WITH THE UPPER SYSTEM.

BOTH LOW CENTERS WILL COMBINE INTO A FINAL LARGE STORM.

HEAVY SNOW

SIGNIFICANT ICE

MAP VALID NOON THURSDAY

Meeting ID# 497-158-639
GoToMeeting™

Screen Sharing: ON AIR: Showing screen

Attendee List: (1 | Max 26)
Attendees: WFO Tulsa (Organizer, Presenter, Me)

Chat Log

To: [Type message here]

Meeting Info: Meeting ID# 497-158-639

Windows Taskbar: start, Calen..., 2 Wi..., 4 Mi..., 2 Mi..., Inbox..., Nation..., KSRX..., Adobe..., GoTo..., Search Desktop, 2:52 PM



Live Virtual Briefing - OHMARS

Outdoor Hazards Monitor and Response System

Country Fever Fest - NWS Tulsa Monitor and Response System - Mozilla Firefox

http://www.srh.weather.gov/tsa/ohmars/Pryor/checkPass.php

Getting Started Latest Headlines Oklahoma Mesonet Mozilla Firefox Start P...

Flag Status
At 06:30 PM

- Lightning within 25 miles upstream
- Severe/Tornado Watch
- [NEW! ProbSvr Fcst](#)
- [NEW! ProbThunder Fcst](#)

[View an Ochsers Log ==>](#)

[here audio brief](#)

Pryor 6:20 PM

Temp (F) : 84
RH (%) : 71
HeatIndx : 90
WindGst : South 5 MPH



Hazard Fcst	Act	Ele	Ovr
Tornado			
Svr Tornado			
Lightning			
HeatIndex			
Winds			
UV			
HeavyRain			

Storm Movement From 0 / 0 mph

NWS Text Products
updated: 06/10/2007 18:29 LT

Issued	Product	Expire
612 PM	1-4 Hr Forecast	700 PM
610 PM	Short Term Forecast	730 PM
546 PM	Discussion	500 AM
440 PM	7 Day Forecast	500 AM
433 PM	Svr/Tor Watch	1200 AM
354 PM	Fire Weather	300 AM
340 PM	Forecast Table	300 AM

Updated: Sun Jun 10 18:04:50 CDT 2007

Mon, Jun 11 Lo: 71°
Tue, Jun 12 Lo: 69°
Hi: 88°
Dewpoint

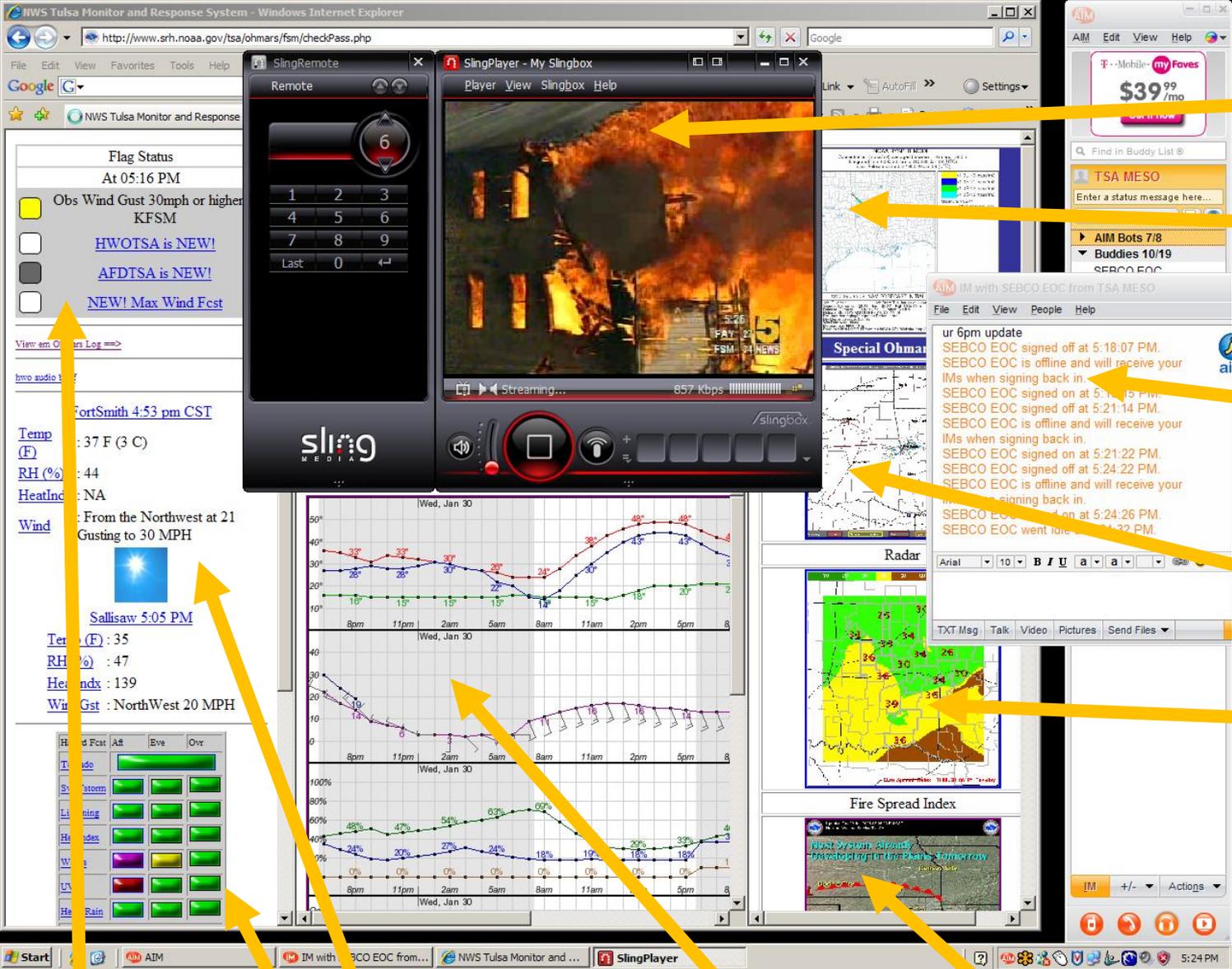
Radar

Lightning

Outlook graphic

Done

start Country Fever Fest - ... KINX Tulsa, OK - GR2... Messenger Express - ... 6:30 PM



NWS Forecasters watch the fire from AR TV stations via the Internet.

NWS Forecasters run HYSPLIT out of concern that potentially dangerous materials could be involved.

NWS Forecasters IM with Fire Command Post answering questions from the Incident Commander and EMs.

Radar Display

NWS Forecasters provided hourly updates on Fire Spread Potential.

Audio and Visual Alarms for changes in current conditions ...NWS text products, and grids.

Current Local Conditions
Grid-Based Hazard Potential Indicators

WFO Tulsa assigned an Incident Meteorologist to provide hourly updates to grids which in turn gave the command post high-resolution forecast meteograms for the site.

NWS Forecasters provided hand-drawn graphics.



Live Virtual Briefing – Skype

The screenshot displays a Skype virtual briefing environment. In the background, a video call window shows a man in a blue shirt speaking, with a National Weather Service logo and "TULSA, OKLAH" visible behind him. Overlaid on the call is the "Skype™ - Options" dialog box, specifically the "Video settings" tab. The "Video settings" section includes a preview of the webcam feed and options for "Automatically receive video and screen sharing from..." and "Show that I have video to...". The "Automatically receive video and screen sharing from..." section has radio buttons for "anyone", "people in my Contact list only" (selected), and "no one". The "Show that I have video to..." section has radio buttons for "people in my Contact list" (selected) and "no one". Below the dialog box is the "Live! Central 2" control panel, which includes "Effects" and "Settings" tabs. The "Settings" tab is active, showing "View Control" options: "Pan & Zoom" (with a slider), "Face Tracking" (selected), "Mode" (set to "Continuous"), "Speed" (set to "Normal"), and "Show Original Video" (with options "On the left" and "On the right").



ICP/On-Scene Support Services

- NWS meteorologists will:
 - Work within ICS under Planning Section Chief
 - Interpret meteorological data and coordinate with meteorologists back at WFO
 - Proactively and routinely monitor and brief IC and others on changing weather conditions that will affect incident operations





NWSChat

- To provide clear communication between the WFO and our partners in the media and emergency management
- To provide information for decision support
- To supplement traditional “products”



tsachat@conference.nwschat.weather.gov
Welcome to WFO Tulsa

(2:49:25 PM) em-jimmy.e.moore [em-jimmy.e.moore@nwschat.weather.gov/1414f81d] entered the room.

(2:49:43 PM) nws-tsasoo [nws-steve.amburn@nwschat.weather.gov/Office] entered the room.

(2:51:09 PM) Fox23 wx: pea size hail in prattville as storm passed

(2:51:29 PM) kotv-wxdesk: \$.05 in downtown

(2:52:02 PM) nws-tsasoo: **overheard possible golfball hail near berryhill. anyone confirm that?**

(2:52:07 PM) nwstsa22: Thanks for the reports, guys...

(2:52:41 PM) nwsbot: TSA [issues Severe Thunderstorm Warning](#) for Madison, Washington [AR] till 3:45 PM CDT

(2:54:06 PM) nwsbot: TSA: 3 Nw Delaware [Nowata Co, OK] public [reports HAIL of penny size \(E0.75 INCH\)](#) at 01:45 PM CDT --

(2:54:06 PM) nwsbot: TSA: 2 Nw Tulsa [Tulsa Co, OK] broadcast media [reports HAIL of nickel size \(E0.88 INCH\)](#) at 02:52 PM CDT --

(2:54:57 PM) nwsbot: TSA [issues Severe Thunderstorm Warning](#) for Creek, Nowata, Rogers, Tulsa, Wagoner, Washington [OK] till 4:00 PM CDT

(2:58:53 PM) kotv-wxdesk: est. 60mph 36N and 169 min ago

(3:00:32 PM) nwsbot: TSA [issues Tornado Warning](#) for Madison, Washington [AR] till 3:45 PM CDT ...* AT 259 PM CDT...NATIONAL WEATHER SERVICE DOPPLER RADAR INDICATED A SEVERE THUNDERSTORM CAPABLE OF PRODUCING A TORNADO 7 MILES WEST OF CROSSES...MOVING EAST AT 10 MPH.

(3:01:30 PM) nwsbot: TSA [issues Severe Thunderstorm Warning](#) for Osage, Washington [OK] till 4:00 PM CDT

(3:02:16 PM) Fox23 wx: viewer rpt of \$.25 hail downtown a few min ago

(3:02:36 PM) Fox23 wx: w/pic

(3:02:42 PM) kotv-wxdesk: waanna share 😊

(3:02:49 PM) nwsbot: TSA [continues Severe Thunderstorm Warning](#) for Creek, Okmulgee, Tulsa [OK] till 3:15 PM CDT

(3:02:53 PM) nws-tsasoo: **Tks**

(3:03:15 PM) media-kevin.lighty [media-kevin.lighty@nwschat.weather.gov/Home] entered the room.

(3:04:00 PM) nws-tsasoo: **quarter hail downtown tulsa at 3 pm**

(3:05:09 PM) nwsbot: TSA: Tulsa [Tulsa Co, OK] broadcast media [reports HAIL of quarter size \(E1.00 INCH\)](#) at 03:00 PM CDT -- downtown

(3:05:53 PM) media-darren.stephens [media-darren.stephens@nwschat.weather.gov/JetiApple] entered the room.

(3:10:40 PM) nwsbot: TSA issues [Hazardous Weather Outlook \(HWO\)](#)

(3:11:08 PM) nws-john.robinson [nws-john.robinson@nwschat.weather.gov/NWS] entered the room.

(3:11:12 PM) nwsbot: TSA [continues Tornado Warning](#) for Madison, Washington [AR] till 3:45 PM CDT ...AT 309 PM CDT...WEATHER SERVICE DOPPLER RADAR CONTINUED TO INDICATE A SEVERE THUNDERSTORM CAPABLE OF PRODUCING A TORNADO. THIS STORM WAS LOCATED NEAR CROSSES...MOVING NORTHEAST AT 15 MPH.

(3:11:43 PM) nwsbot: TSA [extends area of Severe Thunderstorm Watch](#) for Carroll, Crawford, Franklin, Madison, Sebastian [AR] and Le Flore [OK] till 10:00 PM CDT

10 people in room

- nwsbot
- nwstsa-wcm
- Fox23 wx
- kjrh_wx
- kotv-wxdesk
- media-cyndi.kahlbaum
- media-ray.foreman
- media-steve.c.lanore
- nws-kelsey.angle
- nwszlz-3

Media and NWS exchange reports as they are relayed from spotters and the public to them





NOAA's National Weather Service NWSChat

Search NWS All NOAA Go



NWSChat Home Reset Password Documentation/Help Contacts Online Tools NWS Toolbox

EXPERIMENTAL, NON-OPERATIONAL

VTEC Options

Help RADAR Map **Text Data** **Google Map** SBW History Storm Reports within SBW All Storm Reports Geography Included List Events

Issuing Office:
TULSA

Phenomena:
Tornado

Significance:
Warning

Event Number:
0034

Year:
2009

Event Timeline:
[Timeline slider]

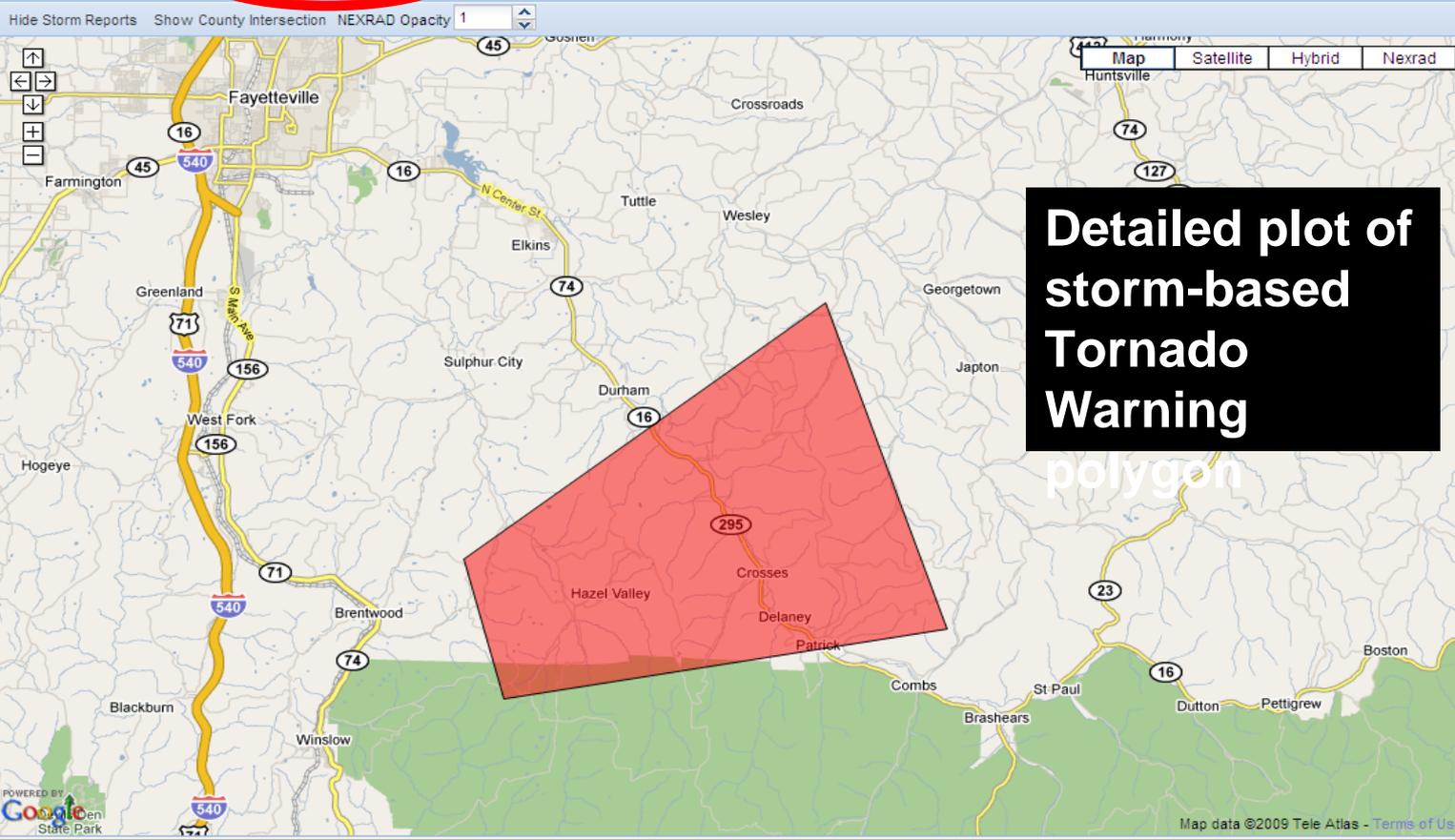
Update Page

LSR KML Source

Warning KML Source

County Intersection KML

TULSA Tornado Warning #0034 issued 2009-09-21 20:00Z expires 2009-09-21 20:45Z



Detailed plot of
storm-based
Tornado
Warning
polygon

Map Disclaimer



Summary

- WFO philosophy evolving from product-driven to service-driven past 10 years
- “True Collaboration” important now and for future evolution of NWS services

Contacts

- My Contact Info...
 - Phone - 918-832-4133
 - Email - ed.calianese@noaa.gov
- Contact the **Warning Coordination Meteorologist** of your local NWS Office