



DECISION SUPPORT SERVICES

NATIONAL WEATHER SERVICE - FORT WORTH, TEXAS

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U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service – Weather Forecast Office
3401 Northern Cross Blvd
Fort Worth, TX 76137

April 2, 2019

As a critical member of the Integrated Warning Team in North and Central Texas, you have an important responsibility to help keep others informed before and during hazardous weather situations. In our commitment to provide you with the best possible information, the Fort Worth National Weather Service staff provides a suite of information services designed to help you make decisions in your job. This Decision Support Services Guide was developed with the concept of being a “one-stop shopping” source of information about those services.

This guide contains a wealth of information including contact information for our staff, details on the many methods of communication between our office and you, and an overview of IWT-focused weather services including our web page content. In recent years, we have seen a rapid increase in ways to communicate weather information, including NWSChat, social media, and multimedia briefings. Further, even more changes are likely in the future. In that sense this is a living document, and one that we will strive to keep current as our capabilities and your information needs continue to evolve.

I would appreciate your feedback on the content of this guide, and especially your suggestions on how to make it even better. As a member of the Integrated Warning Team, you are an important partner in the protection of life and property, and I want to make sure you have the information you need when your decisions depend on the weather.

Sincerely,

A handwritten signature in black ink that reads "Tom Bradshaw". The signature is written in a cursive, flowing style.

Tom Bradshaw
Meteorologist-In-Charge



General Information

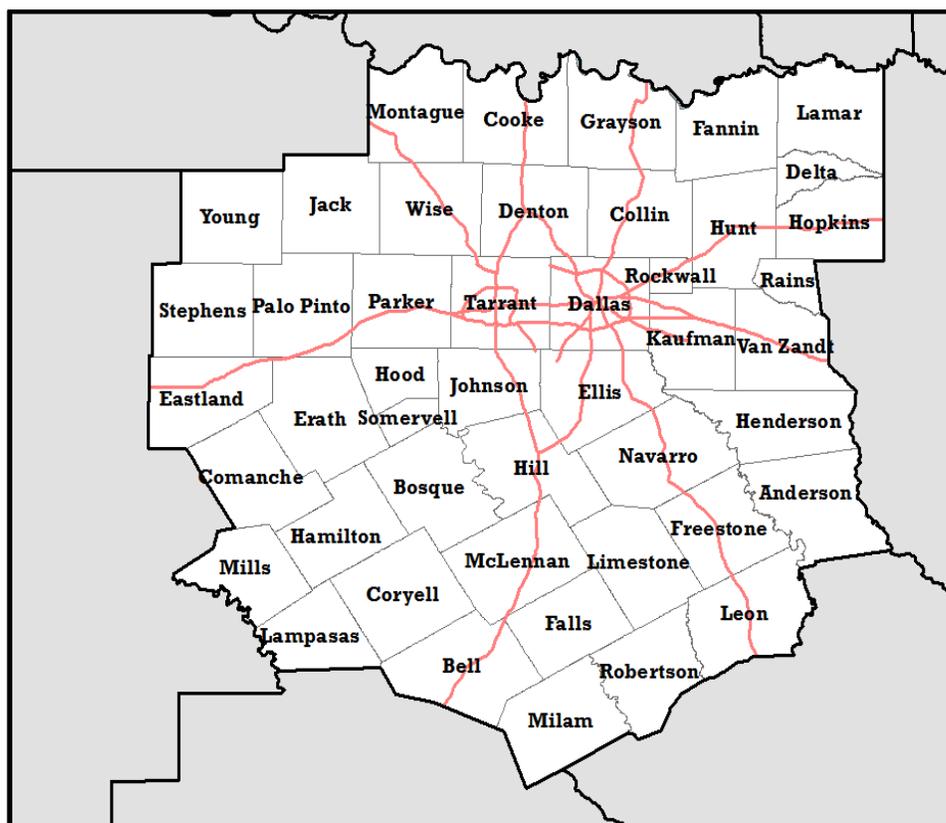
The National Weather Service (NWS) in Fort Worth is staffed by meteorologists, hydrologists, and technicians. We are open 24 hours a day, 365 days a year.

National Weather Service Contact Numbers

| | | |
|--------------|--------------------|--|
| Main Number: | 817.831.1157 | (Not for public consumption) |
| Public Line: | 817.429.2631 | (Open 7 AM to 9 PM) |
| Operations: | 817.831.1581 | (Not for public consumption) |
| | 817.831.1595 | (Not for public consumption) |
| MIC: | 817.429.2631 x 222 | (Meteorologist-in-Charge) |
| WCM: | 817.429.2631 x 223 | (Warning & Coordination Meteorologist) |
| SOO: | 817.429.2631 x 224 | (Science & Operations Officer) |

County Warning Area Map

NWS Fort Worth is responsible for warnings and forecasts for 46 counties in North and Central Texas. Every forecast office's area of responsibility is called a County Warning Area, or CWA. This is important because some of the products we issue reference our CWA. The map below provides a visual description of the extent of NWS Fort Worth's CWA.



Briefing Tools

NWS Fort Worth Webpage

Several briefing tools are available to help you understand the weather in North and Central Texas. The first place to start is the Weather Forecast Office Dallas/Fort Worth, TX (WFO Fort Worth) web page:

www.weather.gov/fortworth

This web page is designed to provide a wealth of weather information, specific to North and Central Texas. From here, one can navigate and find weather information for anywhere in the country.

Get the Local Forecast:
Type your address, city, or zip code

Submit Storm Reports: (Under Current Hazards)
Instructions on how to report severe weather; storm reports are also welcome via NWSChat

Area Forecast Discussion (AFD): (Under Forecasts)
Forecaster's meteorological reasoning behind the creation of the most recent forecast

Hazard Planner: (Under Forecasts)
Highlights probability of hazard occurrence within the week

Top News:
Important information is posted here

Radar:
Latest radar imagery

Graphicast:
Weather graphics describing current or future weather or interesting weather info
Note: Graphics are updated through the day. Check for updates in our social media accounts too.

County Warning Area (CWA) Map:
Forecast area for Ft. Worth NWS; depicts current weather advisories, watches & warnings

Current Statements:
Key for CWA map; click on each product name to read current weather advisories, watches & warnings

Website Content:
NATIONAL WEATHER SERVICE
Tropical Depression Harvey moves into the Mississippi Valley on Thursday
NWS Fort Worth/Dallas
Current Hazards, Current Conditions, Radar, Forecasts, Rivers and Lakes, Climate and Past Weather, Local Programs
Tonight, Friday, Saturday through Monday, Early September Front, DFW: 6th Wettest Summer, Next Week Temperature Trend
First September Cold Front still on the Horizon!
There will be a risk for showers and a few storms along and just behind the front on Tuesday and Wednesday.
Wednesday and Thursday will be noticeably cooler with temperatures in the low to mid 80s.
Brisk northerly winds of 10 to 20 MPH behind the front.
A cold front will slide southward through North and Central TX next week, ushering in fall-like conditions. There will be a threat for showers and a few thunderstorms along and just behind this boundary, but widespread severe weather looks unlikely. Afternoon high temperatures in the wake of the front should only climb into the 70s and 80s with brisk north winds of 10 to 20 MPH.
Click a location below for detailed forecast.
Map legend: Watches, Advisories & Outlooks; Flood Warning; Air Quality Alert; Hazardous Weather Outlook.

Email Briefings

WFO Fort Worth sends briefing emails ahead of significant weather events, sometimes a few days in advance. The emails go out with a subject line that begins with “NWS UPDATE:”.

The emails are sent to emergency management officials, spotter groups, media, ISDs, public safety officials, and other state of Texas officials. They are meant to inform interested parties that significant weather is possible somewhere within our 46 county area of responsibility. These emails are intended to be for planning purposes, and sending will usually cease on the day of the event. Once the event starts, use the links at the end of the email or in this guide for tactical updates.

The email briefings are sent from a number of meteorologists in the forecast office, using their work (NOAA) email accounts.

If you have not been getting these briefing emails and would like to be included on the list, please send an email to Jennifer Dunn (jennifer.dunn@noaa.gov) asking to be put on the list.

NWS UPDATE: Wintry Mix Potential Today (Saturday) NWS Update Emails x

Jennifer Dunn - NOAA Federal <jennifer.dunn@noaa.gov> Sat, Dec 8, 2018, 9:50 AM ☆ ↶ ⋮
to me, bcc: _nws, bcc: _nws

Weather Forecast Office
Fort Worth, TX

Bottom Line
Rain will transition to a rain/snow mix in parts of North Texas late this morning or this afternoon, with light accumulations possible on elevated and grassy surfaces. The potential for heavy rainfall has ended.

Overview
By late morning and early afternoon, rain will begin to mix with or transition to snow roughly northwest of a Cisco to Sherman line. Since surface temperatures are likely to remain near or above freezing during this time, snow accumulations on area roads are unlikely. However, elevated and grassy surfaces could see some light accumulations if a burst of wet snow occurs. A few slick spots on bridges or overpasses are possible but widespread travel impacts are not expected. The rest of the area will continue to see intermittent light rain throughout the day. Lingering rain/snow will taper off from southwest to northeast this evening.

Areas of Concern

Cold and Damp Saturday
Rain/Snow Mix Possible Across the Northwest
Issued December 8, 2018 5:31 AM CT

Saturday
Saturday Evening

- A cold, light rain for most of North and Central Texas, but snow may mix with rain in northwestern areas.
- A light accumulation on grassy surfaces will be possible in the pink shaded region.
- Surface temperatures will be above freezing, in the upper 30s to mid 40s.
- Precipitation will come to an end as we head into the evening hours.
- Temperatures will range from the low 30s to around 40 degrees.

NWSFortWorth weather.gov/fortworth

NWS Fort Worth Hazard Planner

On the web page there is a configurable page to help you plan for hazardous weather:

<http://www.weather.gov/fwd/hazardplanner?nort,TODAY>

The Hazard Planner displays potential meteorological hazards and will highlight the forecast risks of these hazards for your county. The forecast risks are color coded within the Hazard Planner:

Green: No Risk Forecast
Yellow: Elevated Risk
Red: Significant Risk

Use the selection box located at the top of the page (shown in the red box) to configure the page for your own county.

NATIONAL WEATHER SERVICE
 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

HOME FORECAST PAST WEATHER SAFETY INFORMATION EDUCATION NEWS SEARCH ABOUT

Local forecast by "City, ST" or ZIP code
 Enter location ... Go
[Location Help](#)

Heat Wave Continues in Western U.S This Weekend
 The heat wave across the Western U.S will continue through Sunday as an upper-level ridge remains over the region. Day time high temperatures in the California valleys will exceed 100 degrees in most areas with isolated locations surpassing 110 degrees. Numerous Excessive Heat Warnings and Heat Advisories are in effect from southwest Washington to southern California. [Read More >](#)

NWS Ft. Worth Hazard Planner
 Weather.gov > Fort Worth/Dallas, TX > NWS Ft. Worth Hazard Planner

Fort Worth/Dallas, TX
 Weather Forecast Office

Current Hazards Current Conditions Radar Forecasts Rivers and Lakes Climate and Past Weather Local Programs

City, ST
 Enter Your City, ST or ZIP Code
 Remember Me
 Get Weather
 Privacy Policy

Weather Hazard PLANNER

North Texas

Select County or North Texas Region ▼

TODAY
 Issued: 1043 AM CDT SAT SEP 2 2017

Threat Key
 None Elevated
 No Forecast Significant

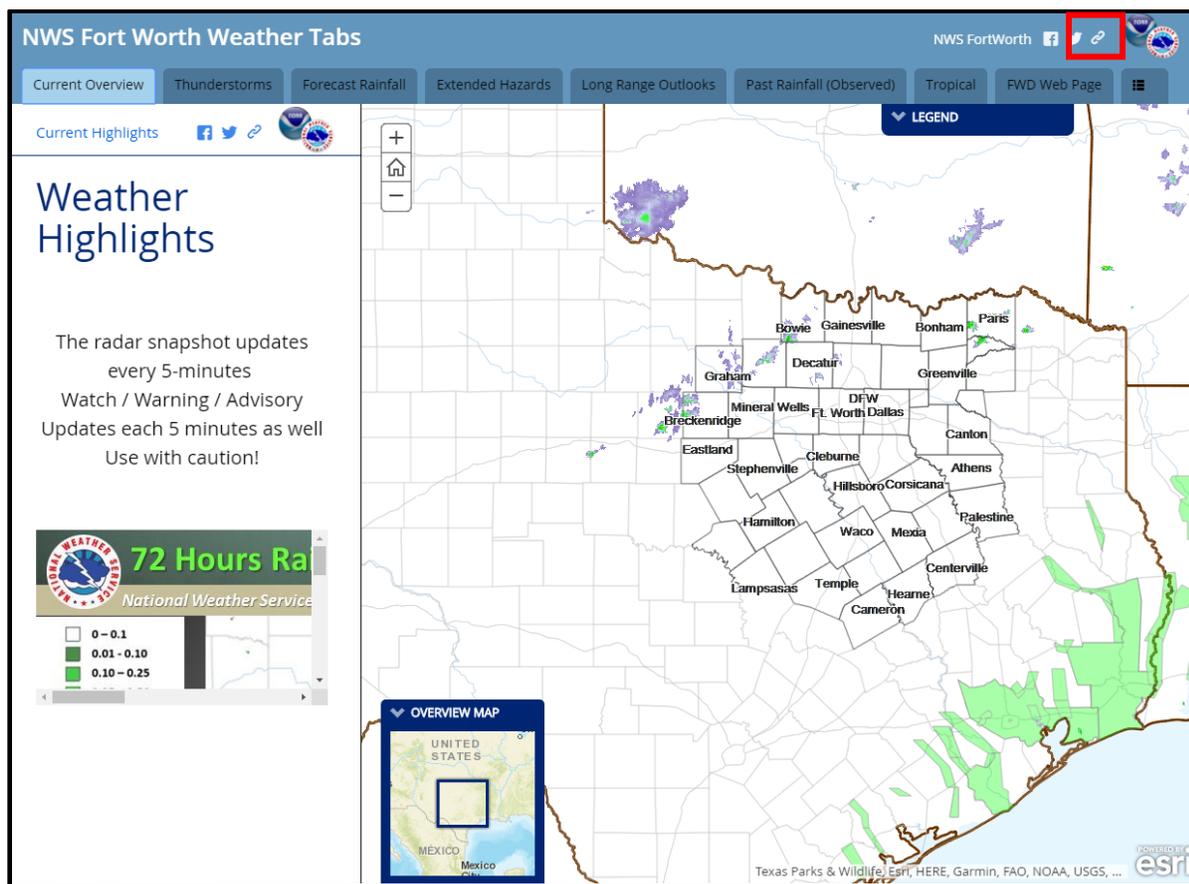
| TODAY | TONIGHT | SUNDAY | MONDAY | TUESDAY | WEDNESDAY | THURSDAY |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Wind |
| Lightning |
| Fl. Flood |
| Winter |
| Temp |
| Fog |
| Severe |
| Hail |
| Dmg Wind |
| Tornado |

WIND LIGHTNING FLASH FLOOD WINTER TEMPERATURE
 FOG SEVERE HAIL DAMAGING WIND TORNADO

Tools and Social Media

NWS Fort Worth Briefing Page (NWS Fort Worth Weather Tabs)

The NWS Fort Worth Briefing Page is another tool available to access the current weather conditions and hazards, past weather, and short and longer range forecast outlooks. One of the many advantages of this page is that it automatically updates with the latest observations and forecast. The weather tabs are intended for planning purposes, as the information is updated once every five minutes at best. This web page can be accessed from any computer, mobile and tablet devices with the following link: <https://arcgis/1S19nH> Click the link button in the upper right (shown in the red box) to have the tabs display in auto-play mode.



NWSChat

From the NWSChat webpage (<https://nwschat.weather.gov/>):

The NWS based Instant Messaging service, NWSChat, is used for sharing critical warning decision expertise and other types of significant weather information between the NWS and partners in all levels of government, emergency managers, and the media. NWSChat allows multiple users to send messages to each other in forums known as “chat rooms.”

NWSChat is used to enhance decision support during discussions related to high impact weather events, and improve outreach and real-time feed-back from partners. It allows for:

- *An information exchange between NWS, the media, and emergency response community;*
- *Media and emergency response partners to communicate significant event reports back to NWS operational personnel, who in turn utilize the information to make effective warning decisions; and*
- *An efficient means of seeking clarifications and enhancements to the communication stream originating from the NWS.*

NWSChat will include a wide variety of types of information:

- *Contents of official NWS products available through other NWS systems and thus available to the public;*
- *Preliminary data which has not been screened by NWS for accuracy or applicability;*
- *Highly technical discussions, some of them speculative, regarding atmospheric or other environmental conditions; and*
- *Other types of information not intended for a general audience.*

NWSChat participants are expected to avoid release of information to a broader audience that might be misinterpreted or cause confusion.

NWSChat is an enhancement to communications between the NWS and its partners, and is not intended to replace official NWS products or official means of communications. Additional information can be found in the "NWSChat Terms of Use".

NWSChat is one of the best communication tools where everyone can get the same tactical information at the same time. Therefore, we do ask for a limit on “private chats” as they only answer one specific question for one specific user. Utilizing the main chatroom to ask/answer questions can help out multiple jurisdictions. Also, private chats may not be seen in a timely manner.

If you do not currently have access to NWSChat, you can request an account, provided you meet the guidelines above and listed on the webpage, at: <https://nwschat.weather.gov/>. If you need assistance or are having technical difficulties with the program, please contact Jennifer Dunn (jennifer.dunn@noaa.gov). All requests for new accounts are vetted by our office before approved, and you may be contacted for additional information if needed. It may take up to 30 days to approve an account request. Password resets go to the email account associated with your specific username. If you change location or jurisdiction, your log-in information will stay the same but you will need to update your email account with the NWSChat Admins (nwschatadmin@noaa.gov)

Password resets can be done here: <https://nwschat.weather.gov/pwupdate.php>

iNWS

Interactive National Weather Service, or iNWS, is a real-time information system that provides severe weather, fire weather, and flooding information straight to your cell phone, email, or both. It keeps you in touch with what is going on with the weather, especially when you are not in your

office, and is open only to emergency management and elected officials. Sign up for the account at: <https://inws.ncep.noaa.gov>. The decision for approval for iNWS is done nationally and is not done at WFO Fort Worth.

Twitter

You can follow our Twitter handle @NWSFortWorth. Our Twitter account can be viewed without having a Twitter account and/or being logged in! However, if you want to send anything to us through Twitter, you have to be signed into a valid Twitter account.

Twitter is another tool that you can use to enhance situational awareness. Our graphics and other important forecast and weather information will be sent through Twitter, but we will also be using Twitter to provide quick storm updates and relay certain local storm reports during hazardous weather events. Tornado and Severe Thunderstorm warnings (and their follow up severe weather statements) are automatically tweeted, showing the affected area (polygon) under the warning. Storm reports and pictures can be submitted to our office through our Twitter account as well.

Hashtags we use:

- North Texas/Metroplex: #dfwx
- Central Texas (including Killeen, Waco, Temple): #ctxwx
- Along the Red River (including Paris, Sherman, Denison): #texomawx
- East Texas (including Athens and Palestine): #etwx
- Texas Weather: #txwx



Facebook

You may find our Facebook page by searching for “US National Weather Service Fort Worth Texas” on Facebook or by going to <https://www.facebook.com/NWSDallasFortWorth/>. Our Facebook account can be viewed without having a Facebook account and/or being logged in! However, if you want to send anything to us through Facebook, you have to be signed into a valid Facebook account.

This is an additional resource that can be used for situational awareness. Graphiccasts (visual forecast summaries), weather updates, and interesting meteorological information are posted to our Facebook page daily. Storm reports may also be submitted through our Facebook page, but these reports may not be seen in real-time. Our Facebook posts tend to be longer fused type products (forecasts ranging from a few hours to several days). During severe weather events, we usually post more frequent updates on Twitter.



Outreach & Educational Resources

StormReady

What is StormReady?



StormReady is a nationwide community preparedness program that uses a grassroots approach to help communities develop plans to handle all types of severe weather—from tornadoes to tsunamis. The program encourages emergency managers to take a proactive approach to hazardous weather by providing clear-cut guidelines on how to improve their hazardous weather operations.

How can my community, university, or business become StormReady?

StormReady is a voluntary program. There is no cost to apply. Your community may need to upgrade your emergency preparedness operations to meet StormReady program guidelines. Established emergency management programs should incur little or no additional expense. Meteorologists at WFO Fort Worth will gladly help you with the process. Here is what needs to be done:

- Incorporate your community's severe weather threats into your community's hazard mitigation and emergency response plans;
- Establish a 24-hour Warning Point and Emergency Operations Center;
- Establish multiple ways to receive severe weather warnings and forecasts and to alert the public;
- Create a system that monitors weather conditions locally; and
- Promote the importance of public readiness through community seminars, severe weather spotter training and by conducting emergency exercises.

What are the benefits of being StormReady?

The StormReady program is a “win” situation for everyone involved: community leaders; the NWS; emergency managers; and the general public. Here are just a few of the benefits your community will realize once you become StormReady:

- Improves the timeliness and effectiveness of hazardous weather warnings for the public;
- Provides detailed and clear recommendations which will help local emergency managers establish and improve effective hazardous weather operations. It can also help justify costs and purchases needed to support hazardous mitigation and emergency response plans;
- Provides a means to possibly acquire additional Community Rating System points assigned by the National Flood Insurance Program (NFIP);
- Provides an image incentive to communities, which once recognized, can identify themselves as being StormReady; and
- StormReady can help ensure your community is prepared for other civil emergencies.

How do I apply to be recognized as StormReady?

There are three easy steps to becoming StormReady.

1. Contact NWS Fort Worth. Contact Jennifer Dunn (jennifer.dunn@noaa.gov) and/or Eric Martello (eric.martello@noaa.gov) before applying. This will help make the process even easier.
2. Fill out one of the application forms available here: <https://www.weather.gov/media/stormready/forms/SRAApplicationMay18.pdf> (If you have jurisdiction over a community as well as unincorporated areas of the surrounding county, you only need to submit one application with the combined populations.)
3. Arrange a verification visit.
4. Receive Local Advisory Board approval.

That's it. Once done, you may conduct an optional recognition ceremony where a meteorologist from WFO Fort Worth will present you with the recognition and sign.

Weather-Ready Nation

The Weather-Ready Nation Ambassador™ (WRN) initiative is the National Oceanic and Atmospheric Administration's (NOAA) effort to formally recognize NOAA partners who are improving the nation's readiness, responsiveness, and overall resilience against extreme weather, water, and climate events. As a WRN Ambassador, partners commit to working with NOAA and other Ambassadors to strengthen national resilience against extreme weather. In effect, the WRN Ambassador initiative helps unify the efforts across government, non-profits, academia, and private industry toward making the nation more ready, responsive, and resilient against extreme environmental hazards. There is no cost to apply.

Jurisdictions can be both StormReady and a Weather-Ready Nation Ambassador. Learn more about the WRN initiative here: <https://www.weather.gov/wrn/about>

How to Become a Weather-Ready Nation Ambassador

Any organization across all levels of government, businesses large and small, non-profit and non-governmental organizations, and academia can become a WRN Ambassador. The WRN Ambassador initiative is intended for organizations and designed to help serve the public by strengthening our national resilience against extreme weather events.



Becoming a Weather-Ready Nation Ambassador is a much less stringent process than StormReady, so those jurisdictions, businesses, or local jurisdictions which may not meet all of the requirements for StormReady recognition, can apply and become an Ambassador. As an ambassador, the NWS will provide you with seasonal preparedness information and configurable content that you can use with those you serve.

[Apply to Become a Weather-Ready Nation Ambassador](#)

Weather Talks and Office Tours

NWS Fort Worth meteorologists are available to present specific weather information or represent the National Weather Service at safety expos, schools, preparedness fairs, or any kind of weather/safety community event. NWS Fort Worth is also open for tours; we are happy to give a “behind the scenes” look at the forecasting process as well as have you meet NWS Fort Worth staff.

To schedule these talks or an office tour, please give us a call at 817-429-2631 or contact Jennifer Dunn (jennifer.dunn@noaa.gov). *Please be advised that talks or tours may be rescheduled if they occur on a day where significant weather is forecast.*

Educational Materials

Electronic pamphlets and brochures are available online for you to print and distribute within your community. A list of online educational materials available is here:

<http://www.weather.gov/fwd/preparedness> & <https://www.weather.gov/safety/>

Historical Tornado Database

Meteorologists at the office have created a web page with the best available information on known tornadoes in the CWA since 1950. The web page is: <http://www.weather.gov/fwd/fwdtornadoes>. This page features corrected raw data from the Storm Prediction Center’s data and contains an individual page for each of our 46 counties.

SKYWARN®

Skywarn® is the National Weather Service’s (NWS) severe weather spotting program with nearly 290,000 trained volunteers nationwide. Since the late 1960s, trained Skywarn® spotters have helped support the NWS’ primary mission of protecting life and property through the issuance of severe weather warnings. These dedicated citizens help keep their local community safe by conveying severe weather reports to their local NWS Forecast Office. Skywarn® spotters are integral to the success of our Nation’s severe weather warning system.

There is no charge and a typical class takes about 2 hours to conduct. Our local Skywarn “season” is January through March. This ensures an opportunity for all 46 counties to have trained spotters before the main severe weather season (April - June). Skywarn® classes are limited to one main training session for each county. Our office offers both Basic and Advanced Training classes during this period as well. The class schedule is here:

<http://www.weather.gov/fwd/skywarnsch?sptrsch>

Our local SKYWARN webpage with more information can be found here:

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



Amateur Radio

Our office also utilizes the service of amateur (ham) radio volunteers during severe weather events. These volunteers will listen to repeaters across North and Central Texas and serve as liaisons between the spotters in the field and the forecasters. The ham radio desk will use a variety of repeater systems, listed on the WX5FWD website at <http://wx5fwd.org/cwamap>. Due to technology limitations, not all of the 46 counties can be reached directly through amateur radio. Similarly, the liaisons are limited to listening to one main (County level) repeater for reports from each county.

Severe Storm Notification / Spotter Activation Information

SKYWARN spotters are the “eyes and ears” that help the National Weather Service (NWS) and local jurisdictions by providing reports about the storm. Storm spotters help meteorologists determine how a thunderstorm event is developing. Storm spotters are not just used to determine whether or not a storm has produced a tornado, but help observe and report other potentially hazardous phenomena, such as strong winds, large hail, or flooding.

NWS Fort Worth sends phone page notifications and/or spotter activation requests to a certain group of emergency management and amateur radio partners 5-30 minutes in advance of anticipated warnings using the Everbridge system. These notifications serve to provide advanced notice that a warning *may* be issued and allow our partners time to activate their severe weather plans before the warning is issued and storms arrive. If we are unable to send the notification/activation before the warning is issued, then no notification will be sent (as the warning will serve as your notification/activation).

Most notification pages will not specifically request Storm Spotter Activation, but each jurisdiction should determine their plan of action when these notifications are received. This plan may involve activating spotters to gather reports all of the time or just in specific situations at the discretion of the jurisdiction. Most notifications will look like this:

“The NWS is becoming concerned about the potential for severe weather in your area. A warning may be needed. We would appreciate any reports you can send to our office through any methods.”

There are times NWS Fort Worth will specifically request “spotter activation” when we are particularly concerned about a storm(s), usually with rotation or a tornado threat. During these times, we believe having spotters on the storm will help us make warning decisions. These notifications may look similar to this:

“The NWS is increasingly concerned about the potential for tornado development in [area of concern]. We would appreciate spotter deployment if possible.”

What does it mean when NWS Fort Worth sends a “Severe Storm Notification”?

A “Severe Storm Notification” means that we anticipate a Severe Thunderstorm Warning will be issued for your county in the next 5-30 minutes. You may need to consider activating your severe

weather plan or increasing your situational awareness about the incoming weather. This is also a good time to activate your spotter network(s) if you would like their help.

What does it mean when NWS Fort Worth requests “Spotter Activation”?

“Spotter activation” means that the National Weather Service in Fort Worth is notifying you there is a significant thunderstorm threat occurring in or near your county, and asks that you send SKYWARN storm spotters to areas where they will be able to observe the threat. This activation will usually be issued when tornadic activity is a potential or immediate threat.

When will the NWS issue notifications and activations?

Our goal is 20 to 30 minutes before a warning is needed, but in certain situations this will not always be possible due to limited predictability of severe thunderstorms. If we are unable to issue the notification or activation before the warning is issued, the warning will serve as your notification/activation. The NWS will indicate the probability of spotter activation in the near future (next few hours or day) at the bottom of its Hazardous Weather Outlook (HWO). The latest HWO can be accessed by visiting the NWS Fort Worth webpage at:

<https://forecast.weather.gov/product.php?site=NWS&issuedby=fwd&product=HWO&glossary=1>

How can I receive these notifications and activations?

Notifications and spotter activation are sent on a county-by-county basis by the NWS Fort Worth using the Everbridge paging system. Everbridge is a service that will send any combination of a phone call, email, or text message to a number of recipients. If you would like to receive these notifications on behalf of your jurisdiction, please contact Jennifer Dunn (jennifer.dunn@noaa.gov) for more information.

What should storm spotters be looking for when activated?

The NWS meteorologist who asks for storm spotter activation should provide information about threats expected with the thunderstorm event. If more information is needed, then ask for it through NWSChat or by calling our office. This will give you a good idea of what storm spotters should be trying to identify. It is important to keep in mind that spotters may observe features not specifically indicated by the NWS. These features should still be reported to the NWS.

What kinds of weather should be reported (regardless of spotter activation)?

(For a comprehensive list, see next page)

| | |
|---------------------------------------|---------------------------|
| Funnel clouds or rotating wall clouds | Hail (3/4” or larger) |
| Tornadoes | Damage to buildings |
| Wind gusts near, or over 50 MPH | Broken tree limbs |
| | Flooding / Flash Flooding |

Is there any kind of weather that should not be reported?

Rainfall rate or “heavy rain” should not be reported. The rate of rainfall, no matter how high, is not useful for NWS meteorologists to make warning decisions. The effects of the rainfall, such as

flooding, should always be reported. A report of “clear skies”, or any other null report should not be given, unless it is to relay the end of a severe weather episode or in response to a specific question. In other words, idle chatter should be kept to a minimum. Lightning also does not need to be reported, unless it causes damage, injuries, or fatalities.

Where can I submit reports from storm spotters?

Follow your group’s protocol. Amateur radio remains one of the best options for reporting. Partners with access can also let the NWS know via NWSChat. Other methods for reporting are listed here:

<https://www.weather.gov/fwd/skywarn-report>

Pictures can be sent to sr-fwd.webmaster@noaa.gov during or after events.

When In Doubt, Report It!

Tornadoes, Funnel Clouds, and Rotating Wall Clouds

Report:

- Time
- Location
- Confirmed or Suspected?
- Damage (if applicable)

Example:

• "At 4:15pm, a tornado ripped roofs off of multiple homes near Interstate 20 and Park Springs Road in southwest Arlington."

Hail $\frac{3}{4}$ " or Larger

Report:

- Time
- Location
- Size (measured or estimated)
- Damage (if applicable)

| | |
|----------------|-------|
| Pea | 0.25" |
| Plain M&M | 0.50" |
| Penny | 0.75" |
| Nickel | 0.88" |
| Quarter | 1.00" |
| Half Dollar | 1.25" |
| Ping Pong Ball | 1.50" |
| Golf Ball | 1.75" |
| Hen Egg | 2.00" |
| Tennis Ball | 2.50" |
| Baseball | 2.75" |
| Grapefruit | 4.00" |

Example:

• "Golf ball size hail was falling in downtown Dallas near the corner of Elm and Houston Streets at 2:50pm."

Winds 50 mph or Greater

Report:

- Time
- Location
- Speed (measured or estimated)
- Damage (if applicable)
 - Buildings
 - Type of building
 - Extent of damage
 - Shingles off or part of roof missing?
 - Trees
 - Tree branches or tree trunks?
 - Leaves off trees
 - Size of branches/trunks damaged

Remember: Winds over 60 mph should be associated with some type of damage.

Example:

• "At 9:20pm, strong winds snapped several trees over 6" in diameter in Benbrook."

Flooding and Rainfall Amounts

Report:

- Time
- Location
- Extent
- Rain amounts

Examples:

• "Corinth Street in Dallas was closed 5 minutes ago (1:00am) due to flooding on Cedar Creek."

• "At 4:00pm we received 0.85" of rainfall within the last hour 2 miles north of Plano."

How to Report

1. NWS Chat is always the best way to share your reports.
Chatrooms: [fwdchat](#)
[fwdemachat](#)
2. If NWS Chat is not an option, Twitter is a good alternative.
Twitter: [@NWSFortWorth](#)
[#dfwvx](#)
[#fwdspotter](#)
3. Call us! Use our unlisted direct number 24/7, or the following automated reporting line:
Phone: 1-800-792-2257

Don't assume everyone already knows about what you are seeing.

Sharing information within the IWT is crucial for everyone to receive the message!



Severe Weather Products and Information

Severe weather is the most common weather hazard in North and Central Texas. This area is primed for severe weather because of the interaction of rich moisture from the Gulf of Mexico with fronts and dry lines sweeping in from the west and north. Adding in help from upper level disturbances causes Texas to experience severe weather many times a year.

The typical severe weather season in this region runs from mid-March through early June. In addition to the lightning hazard associated with all storms, North and Central Texans experience threats from all types of severe weather. Tornadoes, large hail, damaging winds, and flooding can accompany thunderstorms across Texas any time of the year. There are many ways to stay on top of impending severe weather episodes and the expected threats; below is a menu of information:

| Product | Web Address |
|---|---|
| NWS Fort Worth Webpage <i>Includes Graphics, watch/warning information</i> | http://weather.gov/fortworth http://weather.gov/dallas http://weather.gov/waco |
| Hazard Planner | http://www.weather.gov/fwd/hazardplanner?nort,TODAY |
| Hazardous Weather Outlook <i>Describes hazards expected in the next seven days</i> | https://forecast.weather.gov/product.php?site=NWS&issuedby=fwd&product=HWO&glossary=1 |
| Emergency Managers' Briefing Page | http://www.weather.gov/fwd/embrief |
| Graphical Storm Reports | https://nwschat.weather.gov/lsr/#FWD/ |
| Local Severe Weather Parameters | http://www.weather.gov/fwd/convectiveparameters |
| Briefing and Spotter Activation Map | http://www.weather.gov/fwd/brief |
| Hourly Weather Graphs (Click on your location) | http://forecast.weather.gov/gridpoint.php?site=fwd&TypeDefault=graphical |
| Area Forecast Discussions <i>Technical discussions explaining the weather the next 0-8 days</i> | https://forecast.weather.gov/product.php?site=NWS&issuedby=FWD&product=AFD&format=CI&version=1&glossary=0 |

During severe weather, don't forget you can call the office to ask for any specific or updated information, or you may also reach us on NWSChat. You may also follow the reports, warnings, and information flow through NWSChat before, during, and after the event.

Storm Prediction Center

The NWS Storm Prediction Center (SPC) in Norman, OK, also has a few tools available to keep you advised of severe weather potential from within a 24-hour period all the way out to 8 days.

- **Convective Outlooks:** Convective outlooks describe the forecast probability of severe weather occurring in an area. There are six probabilities that can be assigned to an area:
 - *General Thunderstorms*
 - *Marginal*
 - *Slight*
 - *Enhanced*
 - *Moderate*
 - *High*

Convective outlooks can (and sometimes are) generalized into categories of “what to expect.” This can be a dangerous misconception. The categories themselves are related to the probability and coverage of severe weather and not the intensity of storm. In other words, there can be significant severe weather no matter the outlook category.

Convective outlooks are available here:

<http://www.spc.noaa.gov/products/outlook/>

- **Watches:** Watches are issued by SPC when conditions are favorable for severe thunderstorm or tornado development. Watches are usually issued an hour before the first severe weather report which may not be near your location at the time, and may arrive a few hours later. Watch statements describe the most likely threats to occur during the watch period. Current watches are typically updated on social media as soon as possible. NWS Fort Worth cancels, expires or extends parts or all of watch boxes as needed.

Current watches are available here:

<http://www.spc.noaa.gov/products/watch/>

- **Mesoscale Discussions:** Mesoscale discussions from SPC describe an area where severe weather development is possible. They also describe the likelihood of the Storm Prediction Center issuing a watch for a given area or give status updates on watches currently in effect.

Current mesoscale discussions are available here:

<http://www.spc.noaa.gov/products/md/>

Watches and Warnings

When severe weather is forecasted to occur or is occurring, the National Weather Service will issue watches and warnings to keep the public alert to a hazardous weather event. The difference between a watch and a warning can be confusing; below are the descriptions of the differences between severe thunderstorm watches and warnings as well as tornado watches and warnings.

A tornado warning and a flash flood warning will trigger the **Wireless Emergency Alert (WEA)** feature on smart phones. While the NWS does not issue the WEA, the WEA is triggered off of the issuance of these warnings.

| | |
|--|---|
| <p style="text-align: center;"><i>Severe Thunderstorm Watch</i></p> <p>A Severe Thunderstorm Watch outlines an area where an organized episode of hail 1 inch diameter or larger and/or damaging thunderstorm winds (58+ mph) are expected during 1 to 7 hour period.</p> | <p style="text-align: center;"><i>Severe Thunderstorm Warning</i></p> <p>A Severe Thunderstorm Warning means that a thunderstorm capable of producing hail 1 inch in diameter or larger and/or damaging winds (58+ mph) is imminent or occurring.</p> |
| <p style="text-align: center;"><i>Tornado Watch</i></p> <p>A Tornado Watch includes the large hail and damaging wind threats, as well as the possibility of multiple tornadoes. Typical watches cover about 25,000 square miles, or about half the size of Iowa.</p> | <p style="text-align: center;"><i>Tornado Warning</i></p> <p>A Tornado Warning means that a tornado is imminent or occurring.</p> |

No action is immediately required when a Watch has been issued. However, the Watch means conditions are becoming favorable for hazardous weather. Once the Watch has been issued, this is a good time to go through your checklist and ensure you are ready for weather warnings to be issued at a moment's notice.

Particularly Dangerous Situation (PDS)

Occasionally, a severe weather event is expected to pose a significant impact to life and property. The Storm Prediction Center will append a "Particularly Dangerous Situation" statement, or PDS, to watches when this occurs. The absence of PDS wording does not imply "less intense" severe thunderstorms.

The "Particularly Dangerous Situation" wording is used in rare situations when long-lived, strong and violent tornadoes are possible. This enhanced wording may also accompany severe thunderstorm watches for exceptionally intense and well organized convective wind storms. PDS watches are issued, when in the opinion of the SPC forecaster, the likelihood of significant events is boosted by very volatile atmospheric conditions. Usually this decision is based on a number of atmospheric clues and parameters, so the decision to issue a PDS watch is subjective. There is no hard threshold or criteria. In high risk outlooks, PDS watches are issued most often.

Emergencies (Tornado/Flash Flood)

In rare cases, a Tornado Warning or Flash Flood Warning will be given a designation of an "Emergency." The emergencies are issued within a (new or existing) Tornado/Flash Flood Warnings, so only the text of the warning is 'different.'

A tornado emergency is issued when the NWS has confirmation of a large tornado with significant and widespread damage, and there is a high likelihood of numerous fatalities. This definition is somewhat subjective, yet the intent of an emergency is to heighten urgency to motivate those in the path to take protective actions immediately.

A flash flood emergency is similarly issued when 'normal' flash flood protective actions are not enough. For example, for most flash flood warnings, we ask people to stay indoors and not drive through high water. For a flash flood emergency, we may be asking people to immediately abandon their residence and flee to higher ground. In other words, people are not safe in their normal safe

space. Active evacuations of areas are likely happening before a flash flood emergency would be issued

Flooding

Flooding and flash flooding are often high impact, reactionary events in North and Central Texas. These events can occur any time of the year and are often the result of intense storms that bring heavy rainfall. (Flash) Flooding occurs from prolonged rainfall over several days, intense rainfall over a short period of time, or a debris jam causes a river or stream to overflow and flood the surrounding area.

When significant rainfall events are forecasted to occur, NWS Fort Worth will monitor the situation closely to determine if watches or warnings are necessary. Please make sure to report any kind of flooding within your community to NWS Fort Worth as it may help us decide to issue a warning sooner.

The following products may be issued before, during or after a flooding event:

- Watch: Indicates current or developing conditions that are favorable for flooding to occur in and close to the watch area
- Flash Flood Warning/Statement: Indicates flash flooding is imminent or occurring. A flash flood occurs and ends within a 6-hour window and is usually the result of intense rainfall over a short period of time.
- Areal Flood Warning/Statement: Indicates flooding is occurring; usually issued after a flash flood has ended but flood waters still remain, or issued for a flood that occurs due to a steady rise of waters from steady, persistent rainfall.
- Flood Advisory (Also known as Areal Flood Advisory): Indicates nuisance and/or minor street flooding will occur over an area, maybe not associated with a creek or stream
- River Flood Warning/Statement – Flooding along a river or creek channel.

To determine where river and creek flooding in North and Central Texas is occurring, you may check current observations here:

<http://water.weather.gov/ahps2/index.php?wfo=fwd>

Winter Weather, Excessive Heat, and Other High Impact Events

Winter Weather

Winter weather is one of the most challenging aspects of weather forecasting for North and Central Texas. Oftentimes, the situation changes within a few hours of the beginning of the winter weather event. North Texas usually gets about 3-4 winter weather events a season (December – mid March). Most of these winter weather events occur over the northwestern counties of North Texas. In North and Central Texas, we are just as prone to receiving ice or sleet as we are snow; and oftentimes we end up with more ice because the sub-freezing air above the surface does not always advance as far south as Texas. In addition to the travel interruptions, winter weather events can cause injury or fatalities.

Tips on how to prepare for winter and winter weather storms can be found at the following two links:

- <http://www.weather.gov/fwd/winterwx>
- <http://www.weather.gov/fwd/preparedness>

A few days before a winter weather event is expected, we will discuss the potential in the Hazardous Weather Outlook. If confidence is growing, we may issue a Winter Weather Outlook leading up to the event. The outlook will be issued as a Special Weather Statement. A Winter Storm Watch is issued 1-2 days in advance, and then a Winter Weather Advisory or Winter Storm Warning is issued within 24 hours of the beginning of the event.

| Winter Weather Advisory Criteria | Winter Storm Warning Criteria |
|---|---|
| <ul style="list-style-type: none"> • <i>Snow</i>: 1-3" in 12 hours • <i>Blowing Snow</i>: visibility < ¼ mile, winds over 20 mph • <i>Freezing Rain</i>: < ¼ inch accumulation • <i>Sleet</i>: < ½ inch accumulation • <i>Freezing Drizzle</i>: light accumulation • Combination of elements, none of which meets warning criteria | <ul style="list-style-type: none"> • <i>Heavy Snow</i>: 4+” in 12 hours, 6+” in 24 hours • <i>Blizzard</i>: 35+ mph wind, visibility less than ¼ mi, for 3+ hours • <i>Ice Storm</i>: ≥ ¼ inch freezing rain accumulation • <i>Heavy Sleet</i>: ≥ ½ inch sleet accumulation • <i>Winter Storm</i>: Combination of events with one meeting warning criteria |

Note: We factor impacts and/or responses into borderline advisory/warning decisions!! This means in Central Texas, the “criteria” may be lower than listed here.

Excessive Heat

Summer weather brings a different type of threat to North and Central Texas: excessive heat. Excessive Heat Warnings are typically issued within 12 hours of the onset of the following criteria: heat index of 110° or a high temperature of at least 105° for two consecutive days. A Heat Advisory is issued when the heat index is forecast to be at least 105° or the high temperature is 103° or higher for two consecutive days. We also will factor in impacts and/or responses into borderline advisory or warning decisions.

Other High Impact Events

High Wind Warning: sustained winds of 40 mph or stronger lasting for 1 hour or longer, or wind gusts of 58+ mph for any duration

Wind Advisory: sustained winds 25+ mph for 2 hours or longer (frequent gusts 35+ mph)

Dense Fog Advisory: widespread or localized fog reducing visibilities to 1/4 mile or less

Freezing Fog Advisory: visibility less than 3 miles with temps at or below 32 F, results in light ice accumulation

Freeze Warning: first freeze of season (late Fall to early Spring) or significant freeze after a warm spell

Hard Freeze Warning: 10 degrees F or lower

Frost Advisory: first frost of season, frost after growing season starts

Fire Weather

The peak fire weather season in North and Central Texas typically runs from November through the spring. These are some of our driest months of the year when temperatures tend to vary considerably and passing fronts bring bouts of strong winds and dry air; however we can also experience dangerous fire danger conditions during dry summer periods. NWS Fort Worth issues routine fire weather forecasts twice a day. They are issued by 5 am on the overnight shift and by 4 pm during the day. The fire weather forecast can be found on our Fire Weather Forecast site:

<http://www.weather.gov/fwd/fireweather>

We can also provide a spot forecast for your location to aid in your response efforts. The request form for spot forecasts is available here:

<http://www.weather.gov/spot/?site=fwd>

The spot forecast will be received in our office within a few minutes, and we will typically post it back to the webpage in 15 to 30 minutes. You can retrieve your request on the same page.

However, if you need an informal briefing or spot forecast, don't hesitate to call our office.

Red Flag Warning

A term used by forecasters to call attention to weather conditions of particular importance that may result in extreme burning conditions. A Red Flag Warning is issued when there is a high degree of confidence that critical fire and fuel conditions necessary for wildfires will occur within 24 hours. Proper fuel conditions are typically found when a geographical area is in drought or has experienced an extensive dry period. The usual necessary weather criteria are outlined below.

- ✓ A sustained wind greater than 20 mph for 2 or more hours.
- ✓ Relative humidity less than or equal to 30 percent; and
- ✓ Afternoon temperatures near or above seasonal normal.

It should be noted that a Fire Weather Watch is issued 12 to 72 hours before a potential Red Flag event when there is high confidence that the necessary criteria will be met.

Fire Warning

In cases where a grass fire or wildfire threatens a community, town, or city, and evacuations are ordered, the NWS can trigger an EAS Broadcast that plays these evacuations over NOAA All-Hazards Radio and displays it on our webpage and Facebook Page. Simply call our office to provide the information and details, and we will issue a *Fire Warning* that contains the details of the evacuation. Remember to call our office back to cancel the warning or provide additional information when the threat diminishes and/or residents are allowed to return to their residences.

Tropical Weather

Tropical storms or hurricanes rarely *directly* affect North and Central Texas, but when they do, their main threats in this area are usually limited to heavy rain and strong wind. However, the outer rain bands from a tropical storm or hurricane may reach North and Central Texas with a threat for tornadoes in embedded supercells. If a tropical storm or hurricane is poised to affect North and Central Texas, it will *usually* affect the southern and/or southeastern counties of Central Texas.

Much more common for our region is for the tropical storm or hurricane to weaken as it moves inland, and then pass over Central and North Texas as a tropical depression or the remnants of the storm. This scenario can still bring a threat for heavy rain for us if the system is slow moving. If strong winds (i.e. tropical storm force winds over 39 mph) are expected to affect parts of North and Central Texas, Tropical Storm Watches and/or Warnings will be issued for specific counties. Information about tropical storms or hurricanes that may affect our region is typically disseminated via a Hurricane Local Statement. This information will play on NOAA All-Hazards Radio for the affected area(s) and can be viewed on our webpage. A Flood Watch may also be issued if significant heavy rain is expected with the system.

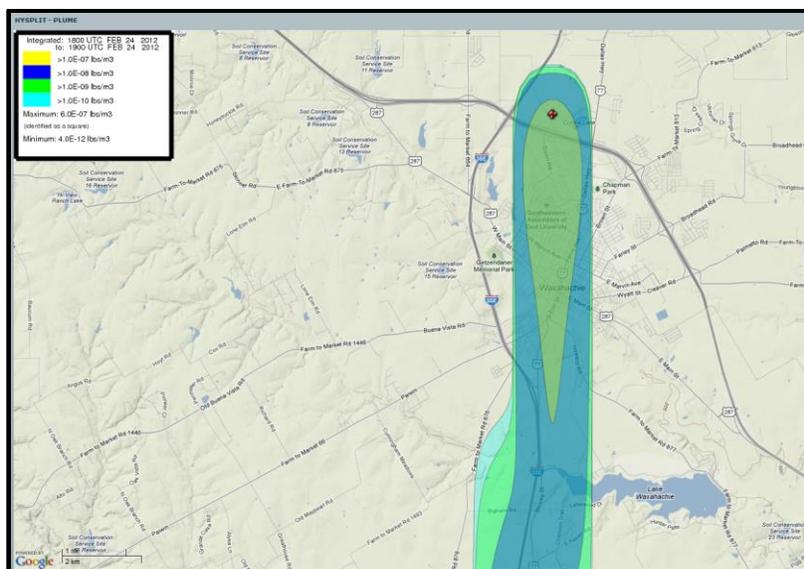
National Hurricane Center: www.nhc.noaa.gov

Event-Specific Information

Hazardous Materials

NWS Fort Worth provides specialized atmospheric expertise 24 hours a day. In the event of a hazardous materials spill or release in your community, don't hesitate to contact us. Some of the decision support services we offer during a hazardous materials event include:

- Interpretation of current and forecast weather conditions
- HYSPLIT trajectory/ dispersion modeling
- On-site weather support



The image above is a screen capture of a HYSPLIT model run. HYSPLIT is a plume and dispersion model which can be generated at the request of an Emergency Manager or Incident Commander by calling the NWS office. The model is a tool that helps explain how, where, and when chemicals and materials are atmospherically transported, dispersed, and deposited. The model can be run to determine plume height and direction of deposition, and can be run from one to twelve hours in the future. HYSPLIT takes into account the latest current and forecast meteorological conditions. The output can be made into an image, a shapefile, or a kmz file which can be imported into Google Earth. NWS Fort Worth forecasters will be available to assist with the interpretation of the output.

Spot Forecast Requests

We can also provide a spot forecast for your location to aid in your response efforts. The request form for spot forecasts is available here:

<http://www.weather.gov/spot/?site=fwd>

The spot forecast will be received in our office within a few minutes, and we will typically finalize the spot forecast request within 15 to 30 minutes. You can retrieve your request on the same web page.

Non-Weather Emergency Messages

Certain products can only be issued by local, state, or federal agencies but are disseminated by NWS Fort Worth as a way to access the Emergency Alert System for non-meteorological emergencies.

Remember, NWS Fort Worth can only issue these products by request. To request one of these messages, call the NWS office directly. There is no form to fill out and fax, only a phone call is necessary. The duty forecasters will confirm the request is being made by an official source before finalizing the message. However, message creation and dissemination should take less than 10 minutes.

| Product | Primary Use |
|---------------------------------------|--|
| Administrative Message | Non-emergency message that updates an event that is in progress or has expired or any other administrative matter pertaining to EAS |
| Child Abduction Emergency | Emergency message about a missing child believed to be abducted |
| Civil Danger Warning | Warning of an event that presents a danger to a significant civilian population; warns of a specific hazard and protective action and has a higher priority than the Local Area Emergency |
| Civil Emergency Message | Emergency message regarding an in-progress or imminent significant threat to public safety; higher priority than Local Area Emergency, but less specific than Civil Danger Warning |
| Earthquake Warning | Warning of current or imminent earthquake activity |
| Evacuation Immediate | Warning where immediate evacuation is recommended or ordered according to state law or local ordinance |
| Fire Warning | Warning of a spreading structural fire or wildfire that threatens a populated area |
| Hazardous Materials Warning | Warning of the release of a non-radioactive hazardous material that may recommend evacuation or shelter-in-place |
| Local Area Emergency | Emergency message that defines an event that does not pose a significant threat to public safety and/or property but could escalate or contribute to other more serious events |
| Law Enforcement Warning | Warning of a bomb explosion, riot, or other criminal event |
| Nuclear Power Plant Warning | Warning of an event at a nuclear power plant that is either confined to the plant site or confined to an area less than a 10-mile radius around the plant |
| Radiological Hazard Warning | Warning of the loss, discovery, or release of a radiological hazard |
| Shelter in Place Warning | Warning of an event where the public is recommended to shelter in place |
| 911 Telephone Outage Emergency | Emergency message that defines a local or state 9-1-1 telephone network outage by geographic area or telephone exchange; authorized officials should provide alternate phone numbers with which to reach 9-1-1 or dispatch personnel |

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