



GOVERNOR GREG ABBOTT

January 26, 2016

The Honorable Barack Obama
President of the United States
The White House
1600 Pennsylvania Avenue, NW
Washington, D. C. 20500

Through: Regional Administrator Tony Robinson
FEMA Region 6
FRC 800 North Loop 288
Denton, Texas 76209

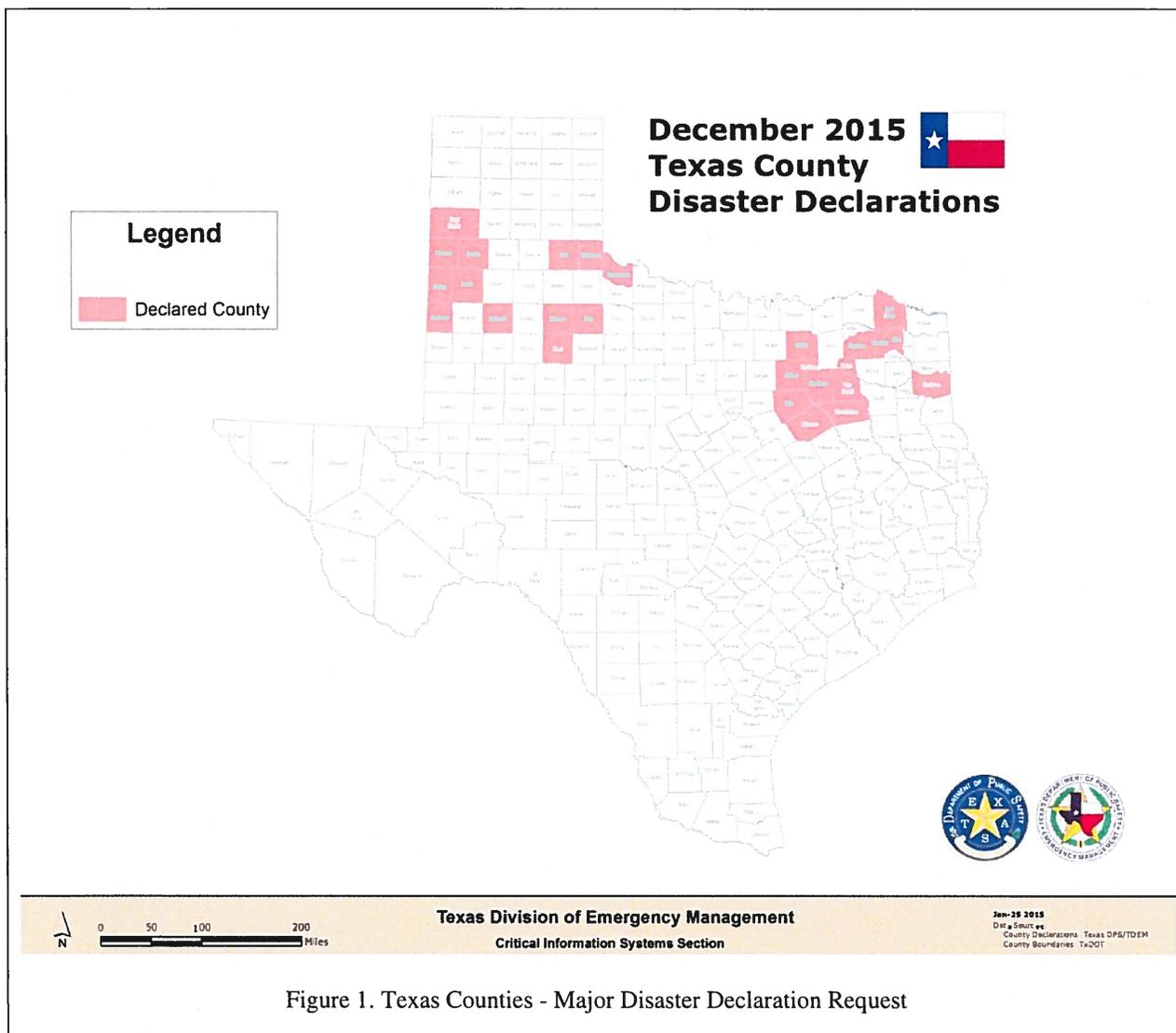
RE: Request for Presidential Disaster Declaration – Major Disaster

Dear Mr. President:

Under the provisions of Section 401 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. §§ 5121-5207 (Stafford Act), and implemented by 44 CFR § 206.36, I request that you declare a major disaster for the State of Texas as a result of severe weather, tornadoes, winter weather and flooding that began on December 26, 2015.

In response to the situation, I have taken the appropriate action under state law by directing the execution of the state's emergency plan and by declaring a state of disaster for all of the counties listed below beginning on December 27, 2015.

I am requesting that you declare the following counties as a disaster for Individual Assistance: Collin, Dallas, Ellis, Franklin, Rockwall and Van Zandt counties. I am also requesting that you declare the following counties as a disaster for Public Assistance: Bailey, Castro, Childress, Cochran, Dallas, Deaf Smith, Dickens, Ellis, Hall, Hardeman, Harrison, Henderson, Hopkins, Kaufman, Kent, King, Lamb, Lubbock, Navarro, Parmer, Rains, Red River, Rockwall, Titus and Van Zandt counties.



INCIDENT OVERVIEW

On December 25, a dangerous weather system moving across the western United States pushed its way across the Rocky Mountains into Texas. This system, created by a stronger-than-average jet stream across the southern U.S. and the disruptive effects of the weather phenomenon El Niño, generated violent tornadoes, significant blizzard conditions in the Panhandle, ice in northwest Texas, and heavy rainfall across parts of North and Northeast Texas resulting in major river flooding.

In the early evening hours of December 26, this storm system moved over north Texas to produce one of the most devastating and deadly winter tornado outbreaks in Texas history. Several supercell thunderstorms produced 12 confirmed tornadoes across north Texas, with the most significant affecting the higher population areas of eastern Dallas County into northwest Rockwall County, southeast Collin County and Ellis County.

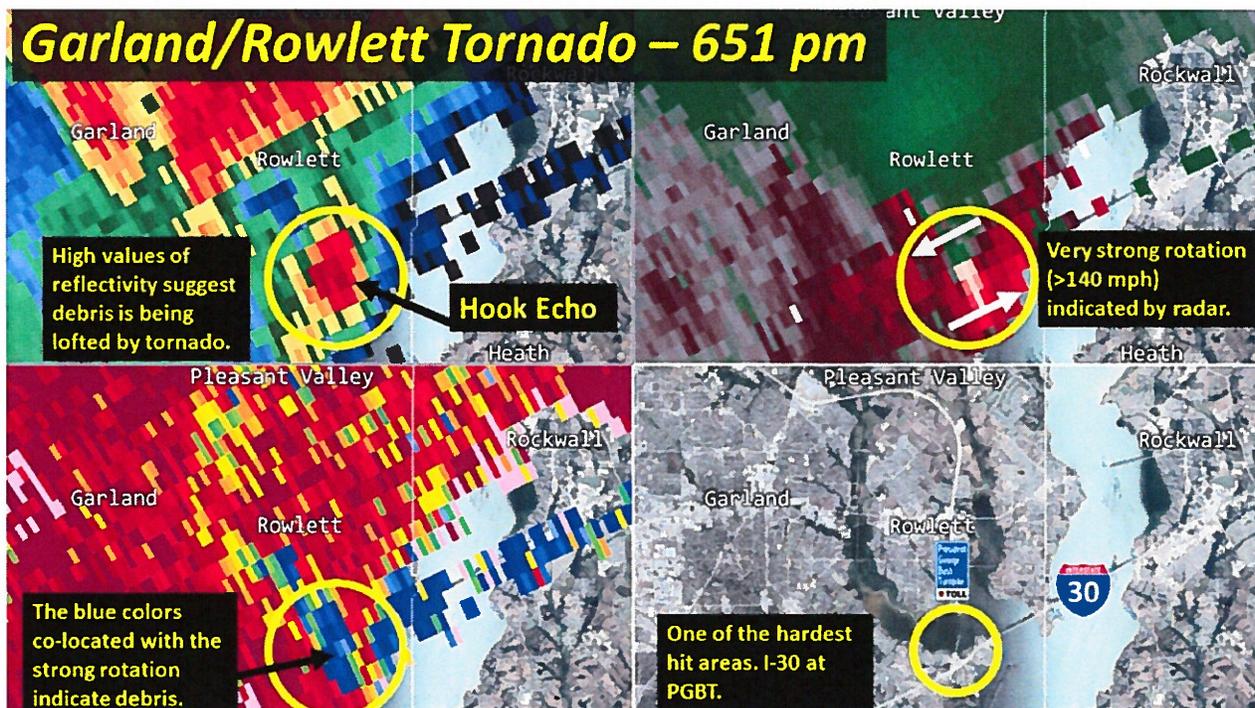


Figure 2: December 26, 2015 Radar – NWS Dallas/Fort Worth

The tornadoes that tore through Texas reached EF-4 classification on the Enhanced Fujita Scale, with winds climbing to over 175 miles per hour. An EF-4 tornado caused damage in the city of Garland, as well as producing EF-3-level damage in the City of Rowlett. This tornado produced a continuous path of damage for approximately 13 miles across Dallas and Rockwall counties. Eight of the 12 total fatalities are attributed to this tornado, most of which occurred near the intersection of Interstate 30 and the President George Bush Turnpike, where multiple cars became caught in the severe weather and plunged as far as 17 feet from a bridge. Three tornadoes were confirmed in Collin County near the City of Copeville, where National Weather Service (NWS) survey crews observed EF-2 damage. Two EF-1 tornadoes hit Blue Ridge and Farmersville respectively, both in Collin County. Two EF-0 tornadoes were confirmed, one of which touched down in Hill County and the other in southwest Ellis County.

The violent storms cut approximately a 70-mile trail from Faith Lane in Waxahachie, across two lakes and past Copeville, leaving behind catastrophic damage. In 2015, there were 76 confirmed tornadoes in the Dallas-Fort Worth NWS warning area. This is the most tornadoes on record for north and central Texas since 1950.

The Enhanced Fujita Scale

EF Rank	Strength	Wind Speeds (mph)
EF-0	Weak	65-85
EF-1	Weak	86-110
EF-2	Strong	111-135

EF Rank	Strength	Wind Speeds (mph)
EF-3	Strong	▪ 136-165
EF-4	Violent	▪ 166-200
EF-5	Violent	▪ >200

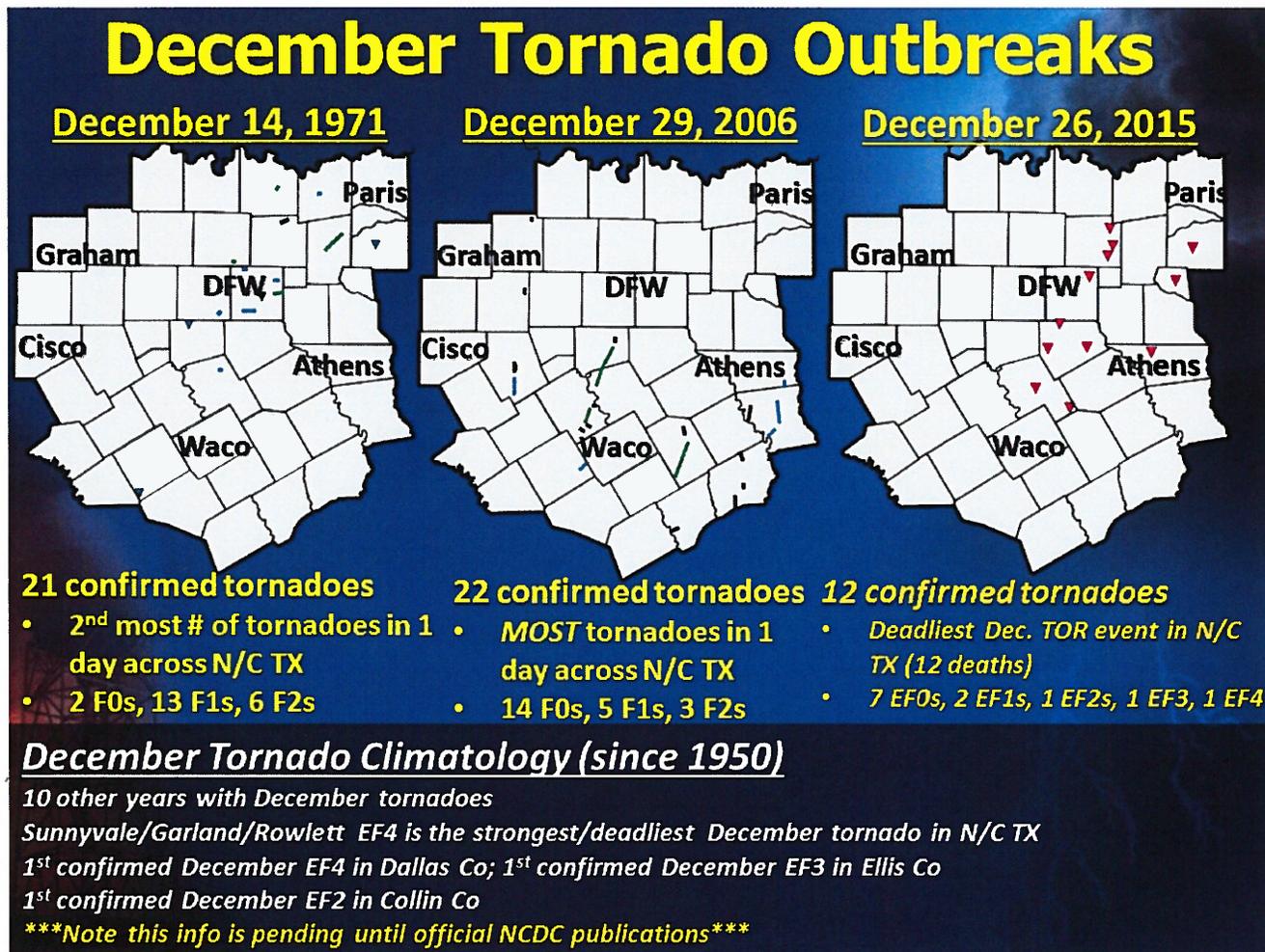


Figure 3: December Tornado Events – NWS Dallas/Fort Worth

Also on December 26, this storm system brought ice, snow and whiteout conditions caused by drifting snow and gusty winds, locking up roads across west Texas and the Panhandle. This blizzard continued to affect west Texas and the Panhandle through Monday, December 28.

Blizzard conditions caused the shutdown of major roadways, including Interstate Highways 10, 20 and 40, with many secondary roads also closed. These conditions significantly affected the dairy and cattle industries. High winds created snowdrifts as high as 14 feet and pushed livestock into fenced corners, where they suffocated. The Associated Press estimated 15,000 mature dairy cows died in Lubbock, Muleshoe and Friona, the primary impact area of the storm. This region includes the home of half the state's top 10 milk-producing counties, which provide

40 percent of Texas milk. Both Ector and Midland counties experienced record snowfall. Additionally, snow caused the collapse of the Athletic Training Center on the Texas Tech University campus in Lubbock, causing over \$30 million in damages.

Finally, in a year of historic rainfall and flooding, this system produced additional heavy rainfall, causing flooding in the areas of North, Northeast and East Texas, areas already saturated by rains from October, November and early December 2015. Specifically, Van Zandt County experienced devastating floods that tore apart roadways and flooded many businesses located at the historic Canton Trade Days site, a Texas landmark dating back to the 1850s and one of the nation's largest outdoor markets. On December 27, 2015, Lake Cypress Springs in Franklin County received up to nine inches of rain, causing water to flow over the spillway and flood many homes.

Many areas faced the continued threat of flooding from the Sulphur, Trinity and Sabine rivers. Almost a month later, a NWS flood warning continues with riverine flooding expected to affect portions of Texas as the floodwaters move downstream. Today, Liberty County is still approximately two feet above flood stage, and homes continue to be inaccessible.

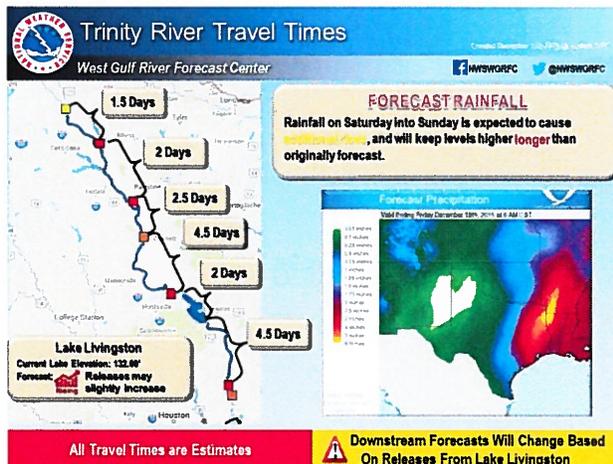


Figure 4: Trinity River Travel Times – Dec 11, 2015

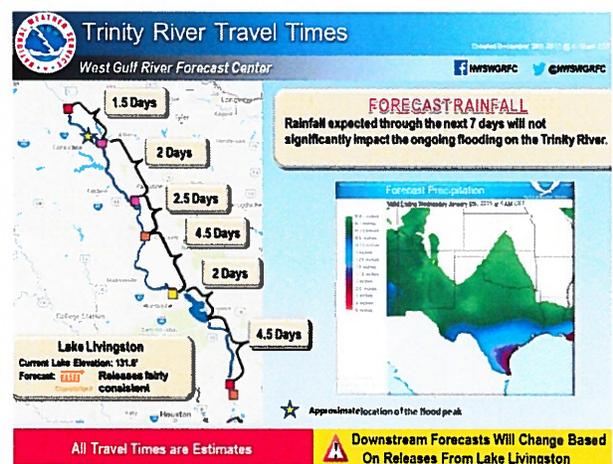


Figure 5: Trinity River Travel Times – Dec 30, 2015

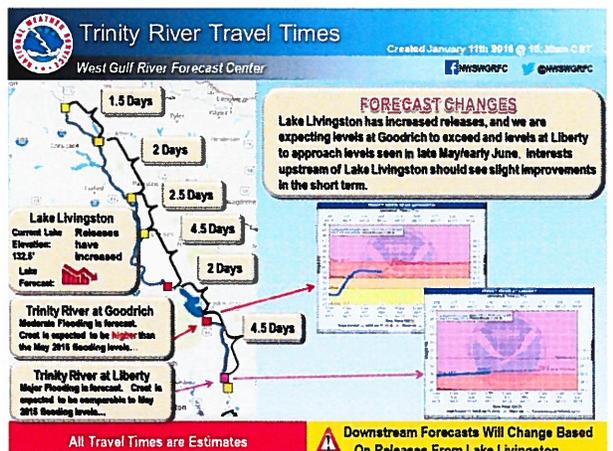


Figure 6: Trinity River Travel Times – Jan 11, 2016

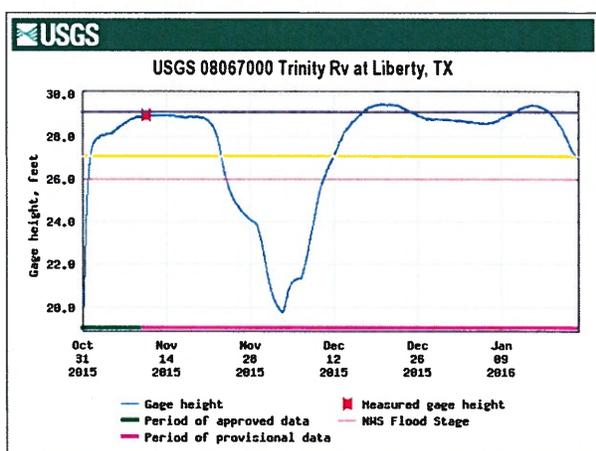


Figure 7: Trinity River at Liberty, TX, Flood Wave

In order to support the Texas jurisdictions affected by this devastating storm, on December 27, 2015, at 7:00 a.m., the State Operations Center (SOC) increased its response level to Level III (Increased Readiness Conditions). In addition, several Texas Department of Public Safety (DPS) Disaster Districts in impacted areas activated to coordinate with and assist local jurisdictions.

The table below summarizes the December 26, 2015, tornado outbreak.

December 26, 2015, North Texas Tornadoes

Information provided by the NWS Forecast Office Dallas-Fort Worth

Tornado Location	Categories	NWS Survey Information
HUBBARD	RATING	▪ EF-0
	ESTIMATED PEAK WIND	▪ 70-80 MPH
	PATH LENGTH /STATUTE/	▪ 3 MILES
	PATH WIDTH /MAXIMUM/	▪ 50 YARDS
	FATALITIES	▪ 0
	INJURIES	▪ 0
	START DATE	▪ DEC 26 2015
	START TIME	▪ 2:03 PM CST
	START LOCATION	▪ 3 N HUBBARD / HILL / TEXAS
	END DATE	▪ DEC 26 2015
	END TIME	▪ 2:07 PM CST
END LOCATION	▪ 6 N HUBBARD / HILL / TEXAS	
EUSTACE	RATING	▪ EF-0
	ESTIMATED PEAK WIND	▪ 70 MPH
	PATH LENGTH /STATUTE/	▪ 1 MILES
	PATH WIDTH /MAXIMUM/	▪ 40 YARDS
	FATALITIES	▪ 0
	INJURIES	▪ 0
	START DATE	▪ DEC 26 2015
	START TIME	▪ 2:44 PM CST
	START LOCATION	▪ 2 NE EUSTACE / HENDERSON / TEXAS
	END DATE	▪ DEC 26 2015
	END TIME	▪ 2:46 PM CST
END LOCATION	▪ 3 NE EUSTACE / HENDERSON / TEXAS	
EMORY	RATING	▪ EF-0
	ESTIMATED PEAK WIND	▪ 70 MPH
	PATH LENGTH /STATUTE/	▪ 1.0 MILE
	PATH WIDTH /MAXIMUM/	▪ 75 YARDS
	FATALITIES	▪ 0

Tornado Location	Categories	NWS Survey Information
	INJURIES	▪ 0
	START DATE	▪ DEC 26 2015
	START TIME	▪ 3:15 PM CST
	START LOCATION	▪ 3 NE EMORY / RAINS / TEXAS
	END DATE	▪ DEC 26 2015
	END TIME	▪ 3:17 PM CST
	END LOCATION	▪ 3 NE EMORY / RAINS / TEXAS
		SURVEY_SUMMARY: THIS TORNADO WAS OBSERVED AND REPORTED BY TRAINED SPOTTERS.
HILLSBORO	RATING	▪ EF-0
	ESTIMATED PEAK WIND	▪ 80 MPH
	PATH LENGTH /STATUTE/	▪ 1.0 MILE
	PATH WIDTH /MAXIMUM/	▪ 80 YARDS
	FATALITIES	▪ 0
	INJURIES	▪ 0
	START DATE	▪ DEC 26 2015
	START TIME	▪ 5:10 PM CST
	START LOCATION	▪ 1 NW HILLSBORO / HILL / TEXAS
	END DATE	▪ DEC 26 2015
	END TIME	▪ 5:12 PM CST
	END LOCATION	▪ 1 NW HILLSBORO / HILL / TEXAS
		▪ THIS TORNADO WAS OBSERVED AND REPORTED BY TRAINED SPOTTERS AND WAS CONFIRMED IN TORNADO WARNING 141.
SULPHUR SPRINGS	RATING	▪ EF-0
	ESTIMATED PEAK WIND	▪ 70 MPH
	PATH LENGTH /STATUTE/	▪ 0.5 MILE
	PATH WIDTH /MAXIMUM/	▪ 25 YARDS
	FATALITIES	▪ 0
	INJURIES	▪ 0
	START DATE	▪ DEC 26 2015
	START TIME	▪ 5:33 PM CST
	START LOCATION	▪ 3 S SULPHUR SPRINGS / HOPKINS / TEXAS
	END DATE	▪ DEC 26 2015
	END TIME	▪ 5:34 PM CST

Tornado Location	Categories	NWS Survey Information
	END LOCATION	<ul style="list-style-type: none"> ▪ 2 S SULPHUR SPRINGS / HOPKINS / TEXAS ▪ SURVEY_SUMMARY: THIS TORNADO WAS OBSERVED AND PHOTOGRAPHED BY TRAINED SPOTTERS.
MAYPEARL	RATING ESTIMATED PEAK WIND PATH LENGTH /STATUTE/ PATH WIDTH /MAXIMUM/ FATALITIES INJURIES START DATE START TIME START LOCATION END DATE END TIME END LOCATION	<ul style="list-style-type: none"> ▪ EF-0 ▪ 80 MPH ▪ 0.5 MILE ▪ 50 YARDS ▪ 0 ▪ 0 ▪ DEC 26 2015 ▪ 5:43 PM CST ▪ 1 N MAYPEARL / ELLIS / TEXAS ▪ DEC 25 2015 ▪ 5:44 PM CST ▪ 1 N MAYPEARL / ELLIS / TEXAS ▪ THIS TORNADO WAS OBSERVED AND PHOTOGRAPHED BY TRAINED SPOTTERS AND WAS CONFIRMED IN TORNADO WARNING 144.
MIDLOTHIAN/ OVILLA/ GLENN HEIGHTS	RATING ESTIMATED PEAK WIND PATH LENGTH /STATUTE/ PATH WIDTH /MAXIMUM/ FATALITIES INJURIES START DATE START TIME START LOCATION END DATE END TIME END LOCATION	<ul style="list-style-type: none"> ▪ EF-3 ▪ 145-155 MPH ▪ 8.5 MILES ▪ 125 YARDS ▪ 0 ▪ N/A ▪ DEC 26 2015 ▪ 6:01 PM CST ▪ 5 E MIDLOTHIAN / ELLIS / TEXAS ▪ DEC 26 2015 ▪ 6:13 PM CST ▪ GLENN HEIGHTS / DALLAS / TEXAS ▪ SURVEY_SUMMARY: THIS TORNADO PRODUCED A LONG AND NARROW DAMAGE PATH FROM JUST NORTHEAST OF THE MID-WAY REGIONAL AIRPORT NEAR MIDLOTHIAN TO THE

Tornado Location	Categories	NWS Survey Information
		<p>BORDER OF DESOTO AND GLENN HEIGHTS. THERE WERE SEVERAL HOMES WITH DAMAGE TO ROOFS...WITH SEVERAL HOMES SUFFERING WALL FAILURE DAMAGE. ADDITIONALLY...TWO CHURCHES AND ONE ELEMENTARY SCHOOL SUFFERED EXTENSIVE DAMAGE.</p>
<p>SUNNYVALE/ GARLAND/ ROWLETT</p>	<p>RATING ESTIMATED PEAK WIND PATH LENGTH /STATUTE/ PATH WIDTH /MAXIMUM/ FATALITIES INJURIES</p> <p>START DATE START TIME START LOCATION</p> <p>END DATE END TIME END LOCATION</p>	<ul style="list-style-type: none"> ▪ EF-4 ▪ 170-180 MPH ▪ 13 MILES ▪ 550 YARDS ▪ 8 ▪ 7+ ▪ DEC 26 2015 ▪ 6:45 PM CST ▪ SUNNYVALE / DALLAS / TEXAS ▪ DEC 26 2015 ▪ 7:02 PM CST ▪ LAKE RAY HUBBARD / ROCKWALL / TEXAS
<p>ENNNIS</p>	<p>RATING ESTIMATED PEAK WIND PATH LENGTH /STATUTE/ PATH WIDTH /MAXIMUM/ FATALITIES INJURIES</p> <p>START DATE START TIME START LOCATION</p> <p>END DATE END TIME END LOCATION</p>	<ul style="list-style-type: none"> ▪ EF-0 ▪ 80 MPH ▪ 1 MILE ▪ 150 YARDS ▪ 0 ▪ 0 ▪ DEC 26 2015 ▪ 7:00 PM CST ▪ 3 N ENNIS / ELLIS / TEXAS ▪ DEC 26 2015 ▪ 7:02 PM CST ▪ 4 NE ENNIS / ELLIS / TEXAS ▪ SURVEY_SUMMARY: TRAINED SPOTTERS OBSERVED A TORNADO APPROXIMATELY 3 MILES NORTHEAST OF ENNIS ON THE EVENING OF THE 26TH.
<p>COPEVILLE</p>	<p>RATING ESTIMATED PEAK WIND PATH LENGTH /STATUTE/</p>	<ul style="list-style-type: none"> ▪ EF-2 ▪ 115-125 MPH ▪ 5.5 MILES

Tornado Location	Categories	NWS Survey Information
	PATH WIDTH /MAXIMUM/ FATALITIES INJURIES	<ul style="list-style-type: none"> ▪ 200 YARDS ▪ 2 ▪ N/A
	START DATE START TIME START LOCATION	<ul style="list-style-type: none"> ▪ DEC 26 2015 ▪ 7:09 PM CST ▪ 1 N LAVON / COLLIN / TEXAS
	END DATE END TIME END LOCATION	<ul style="list-style-type: none"> ▪ DEC 26 2015 ▪ 7:22 PM CST ▪ 3 N COPEVILLE / COLLIN / TEXAS
FARMERSVILLE	RATING ESTIMATED PEAK WIND PATH LENGTH /STATUTE/ PATH WIDTH /MAXIMUM/ FATALITIES INJURIES	<ul style="list-style-type: none"> ▪ EF-1 ▪ 95-105 MPH ▪ 4 MILES ▪ 300 YARDS ▪ 0 ▪ 1
	START DATE START TIME START LOCATION	<ul style="list-style-type: none"> ▪ DEC 26 2015 ▪ 7:17 PM CST ▪ 2 W FARMERSVILLE / COLLIN / TEXAS
	END DATE END TIME END LOCATION	<ul style="list-style-type: none"> ▪ DEC 26 2015 ▪ 7:23 PM CST ▪ 4 NW FARMERSVILLE / COLLIN / TEXAS
BLUE RIDGE	RATING ESTIMATED PEAK WIND PATH LENGTH /STATUTE/ PATH WIDTH /MAXIMUM/ FATALITIES INJURIES	<ul style="list-style-type: none"> ▪ EF-1 ▪ 90-100 MPH ▪ 5 MILES ▪ 250 YARDS ▪ 1 ▪ N/A
	START DATE START TIME START LOCATION	<ul style="list-style-type: none"> ▪ DEC 26 2015 ▪ 7:33 PM CST ▪ 3 SE BLUE RIDGE / COLLIN / TEXAS
	END DATE END TIME END LOCATION	<ul style="list-style-type: none"> ▪ DEC 26 2015 ▪ 7:38 PM CST ▪ 5 NE BLUE RIDGE

**Information provided by the NWS is preliminary and subject to change pending final review of the events and publication in NWS Storm Data.*

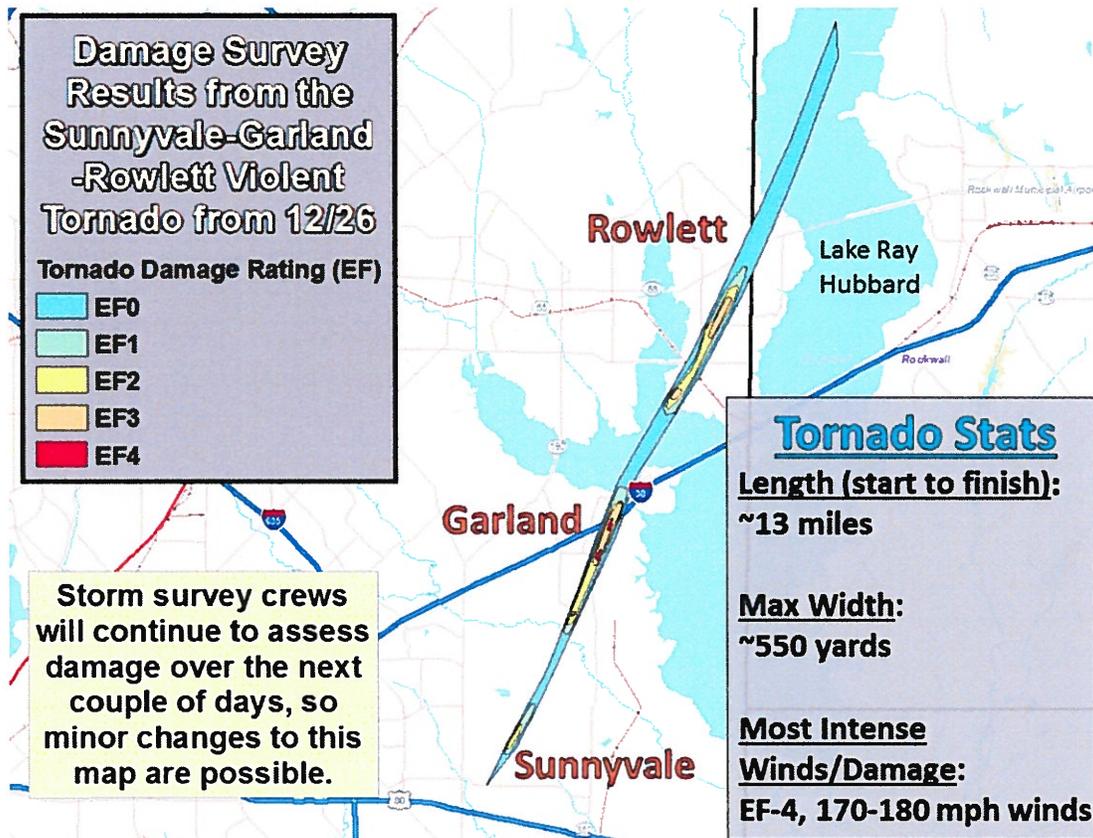


Figure 8: Tornado Track – NWS Dallas/Fort Worth



Ellis County Damage – NWS Dallas-Fort Worth



Ellis County Damage – NWS Dallas-Fort Worth



Ellis County Damage – NWS Dallas-Fort Worth



City of Garland Damage – NWS Dallas-Fort Worth



City of Rowlett Damage – NWS Dallas-Fort Worth



Collapsed Athletic Training Center on the Texas Tech Campus in Lubbock, Texas.

Impact Summary

The main impacts of this weather system hit Texas particularly hard from December 26 through December 27, 2015. The 27 counties included in this request include a population of 4,187,002.

A quick breakdown of the severe weather/tornado components includes:

- 12 tornadoes across north Texas (December 26)
- 12 fatalities
- Approximately 1,100 structures damaged or destroyed
- Additional severe thunderstorms that generated large hail and continued into December 27

Preliminary statistics on the winter weather component reveal:

- Interstate Highway 20 closed in Midland due to ice, snow and drifting snow on December 28 and opened on December 30. Dangerous conditions on I-20 caused stranded motorists.
- Interstate Highway 40 closed in Carson County due to ice, snow, and drifting snow on December 29 and opened on December 30. Dangerous conditions on I-40 caused stranded motorists.
- Between four to six inches of snow fell across the Panhandle.
- Approximately eight to 12 inches of snow spread across the South Plains to the Permian Basin.
- Wind gusts between 40 and 60 miles per hour caused power outages and whiteout conditions.

Preliminary data on the heavy rain/flooding component shows:

- A majority of the heavy rainfall fell over northeast Texas from the Red River to the Louisiana state line.
- Heavy rainfall generated major flooding along the Navasota, Trinity and Sabine rivers.
- Between five to 10 inches of rain fell mainly east of the Interstate Highway 35 corridor and north of a San Antonio to College Station line.
- In Van Zandt County, five county roads and a portion of United States Highway 80 closed due to flooding.
- Multiple road closures affected Anderson, Henderson, Rusk, Smith and Wood counties.
- Additional moderate to major flooding is likely to continue along the smaller basins of north and east Texas.

Search and Rescue (SAR) data:

- Texas Task Force 1 (TX-TF1) searched over 300 damaged buildings and identified 500 damaged or destroyed buildings or homes in assigned search areas.
- TX-TF1 rescued six victims trapped in their homes or needing assistance to leave.
- Texas A&M Forest Service (TFS) assisted 97 vehicles and over 106 stranded persons on Texas roadways.

- TFS aided the Texas Department of State Health Services (DSHS) with transporting two dialysis patients to the hospital.
- Texas Military Department (TMD) completed 12 missions with 74 stranded motorists rescued and 11 assists.
- Texas Parks and Wildlife (TPWD) made a swift-water rescue to save a mother, father and three children (ages two, four and eight) stuck in an SUV stalled in rising floodwaters.
- TPWD assisted 210 stranded motorists and conducted 130 welfare checks.

Shelter data:

- The American Red Cross (ARC) opened five shelters with 242 residents.
- Independent shelters housed an estimated 400 residents.

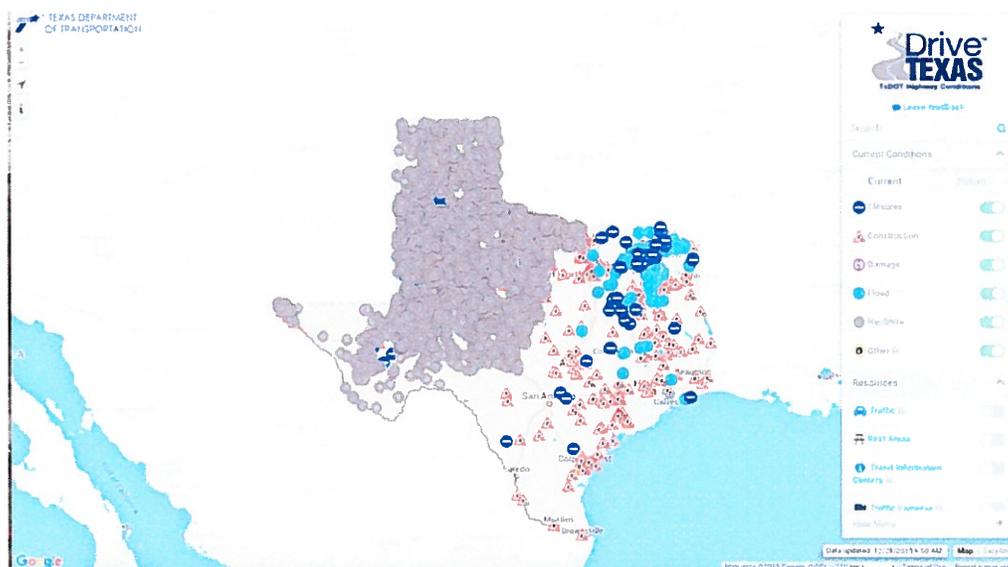


Figure 9: Texas Department of Transportation Road Conditions Map – December 28, 2015

RESPONSE OVERVIEW

The following information details state and local government resources used to alleviate conditions of this disaster:

Texas Department of Public Safety

Texas Highway Patrol (THP) assisted with road closures and rescuing stranded motorists on roadways. Impassable snowdrifts and abandoned vehicles along stretches of highways hampered efforts to reach some motorists until conditions and resources improved. DPS conducted aerial surveillance in Gaines and Andrews counties to look for stranded motorists. An additional 65 troopers assisted local law enforcement agencies in security and local road and street closures stemming from the tornado damage. The Texas Division of Emergency Management (TDEM)

provided systems personnel, finance personnel and district coordinators (DCs) in support of the tornadoes.

Texas Task Force 1

TX-TF1 began conducting search and rescue operations on December 27, providing over 88 personnel from 30 participating agencies.

TX-TF 1, a Type 1 Urban Search and Rescue (US&R) team activated after Texas Task Force 2 (TX-TF 2), a regional Type 2 US&R team, identified the need for additional search and rescue resources due to the large size and scope of damage because of tornados striking the cities of Rowlett and Garland. Additionally, a state search and rescue overhead team and four liaisons activated to support affected authorities having jurisdiction and coordinate responding SAR resources.

TX-TF1 conducted the search of over 300 damaged buildings and identified over 500 damaged or destroyed buildings and homes in their assigned search areas. Additionally, they rescued two victims trapped in homes and vehicles and assisted four victims out of their homes and helped move them to local shelters.

The majority of task force members are provided by local fire departments, EMS agencies, and other local first responder organizations, which then must backfill positions to compensate for those providing search and rescue efforts across Texas.

Texas Task Force 2

During the response from December 26 to 27, TX-TF2 conducted wide area search operations in the areas affected by tornadoes in Garland. TX-TF2 identified 600 damaged buildings, including 200 buildings with critical damage.

Texas Military Department

During the response from December 26 to 30, TMD activated 58 personnel, 17 High Mobility Multipurpose Wheeled Vehicles (HMMWVs), two field litter ambulances and two wreckers. TMD rescued 122 citizens and assisted another 65 citizens during the conduct of missions.



Homes devastated by the tornadoes ripping through north Texas.

Texas Department of Transportation (TxDOT)

TxDOT personnel assisted with refueling emergency response vehicles in the DFW Metroplex during the tornado and storm response. More than 1,400 TxDOT team members braved severe temperatures and conditions to clear roadways. From plowing several feet of snow and moving debris off roads to closing roadways that were flooded and even crumbling due to fierce waters, TxDOT men and women worked around the clock, putting in more than 35,000 hours to make roadways passable for drivers.

Texas Parks and Wildlife Department

TPWD game wardens deployed to the areas affected by the tornadoes, snow and flooding. They provided 47 game wardens, assisted 210 stranded motorists and conducted 130 welfare checks. In tornado-affected areas, game wardens assisted with SAR operations, securing perimeters and guarding against looting. In blizzard affected areas, wardens worked alongside Texas A&M Forest Service, TxDOT, DPS and local law enforcement agencies with livestock recovery, vehicle accidents, stranded motorists and welfare checks of residents and travelers. Additionally, wardens assisted counties experiencing flooding with high water rescue calls.

Texas A&M Forest Service

TFS personnel at the SOC provided support for the Emergency Services Branch. TFS provided approximately 52 personnel along with six local government personnel assigned to All-Hazard Incident Management Teams (AHIMTs) to support response in the City of Garland and Ellis County. TFS continued operations in the Panhandle and northwest Texas with winter weather

support, and in the Dallas area with tornado support, assisting TxDOT in the cities of Abilene, Childress, Amarillo and Lubbock. TFS assisted 97 vehicles and over 106 stranded persons on Texas roadways due to inclement weather. TFS assisted the Texas Department of State Health Services with transportation of two dialysis patients to the hospital, both in critical condition. TFS provided 24 personnel who supported the Dallas area tornadoes incident.

Texas Commission on Environmental Quality (TCEQ)

TCEQ staff contacted drinking water and wastewater facilities in the impacted areas including but not limited to Collin, Dallas, Ellis, Fannin, Kaufman, Haskell, Wichita, Jones and Rockwall counties to determine operational status. Regional staff followed up on reported sanitary sewer overflows. TCEQ engaged staff around the state to provide technical guidance to local governments with debris issues and ensure the proper authorizations were received. Staff also coordinated with water and wastewater utilities to ensure systems were operational, boil water notices issued as needed and public notifications submitted for significant wastewater overflows. Staff also prepared to support hazardous materials statewide.

Texas Department of State Health Services

DSHS activated three Medical Incident Support Teams (MIST) from the Emergency Medical Task Force (EMTF) for deployment in support of the tornado response. MISTs from EMTFs 7 and 2 deployed to DDC Garland to assist with ESF-8 coordination and possible follow-on assignments. The third MIST, from EMTF-4, deployed to provide ESF-8 support to the City of Rowlett Command Post and prepare for possible public health and medical resource deployment. Additionally, during the blizzard response, an AMBUS from EMTF-9 moved five patients from Culberson Hospital to University Medical Center El Paso. Overall, EMTFs rostered for possible deployment included three Type I Mobile Medical Units (MMUs) and two Type III MMUs, 9 AMBUSes, 13 Ambulance Strike Teams (65 ambulances), five Ambulance Staging Managers (ASMs) and 10 MIST members. DSHS staff and representatives from the North Central Texas Regional Advisory Council (NCTRAC) were assigned to DDC Garland during the tornado response. DSHS staff was also assigned to DDC Lubbock and in support of DDC El Paso during the blizzard response. Lastly, a DSHS liaison officer was assigned to the SOC to coordinate ESF-8 support during the tornado and blizzard response.

Other Agencies and Organizations

Additional agencies and organizations provided support to victims across the state including the Texas A&M AgriLife Extension Service, Public Utility Commission of Texas, Texas Department of Family and Protective Services, Texas Health and Human Services Commission, Civil Air Patrol and Texas Animal Health Commission.

Local Government

Local law enforcement, fire, EMS, public works, public utilities and emergency management spent countless hours responding to debris clearing, stranded motorists/travelers and weather-

related injuries. Human services operations continued to support locals through ongoing winter weather and flooding concerns along the state's major river basins.

Voluntary Agency Assistance

Voluntary Organizations Active in Disaster (VOAD) have been very active throughout Texas beginning with providing many services for the May severe weather event as well as recovery efforts for the Eagle Pass flooding, Hidden Pines wildfires and the October flooding events. Due to the large number of disasters throughout Texas this year, many VOAD resources (financial and personnel) are depleted and operating with little to no funding. Resources are mostly donor-based and dependent upon the economic climate.

VOADs provided mass care sheltering; feeding; bulk distribution; reunification; damage assessments; emergency food boxes; Volunteer Reception Center (VRC) and Family Assistance Center staffing; packing and salvaging of personal property; debris removal; spiritual and emotional care; shower units; heavy equipment; clothing distribution; clean-up kits; direct financial assistance such as gift cards, food and hotel vouchers; personal care and comfort kits ; medical kits; blankets and many more services. These resources, however, are not a long-term recovery solution.

Voluntary Agency statistics through January 23, 2016:

- Many local independent shelters and respite centers opened throughout the state.
- More than 11,471 clean-up and comfort kits distributed.
- More than 76,000 meals, snacks and drinks served.

American Red Cross: The ARC opened 5 shelters with 242 residents fed by The Salvation Army with 102 volunteers supporting the shelters. The last shelter closed on January 10, 2016. ARC also provided mental health counselors in the shelters. ARC supported three Emergency Operation Centers. Twenty-two Emergency Response Vehicles (ERVs) were in the north Texas area distributing food, hygiene kits and clean-up buckets.

The Salvation Army (TSA): TSA had two fixed feeding sites and five mobile feeding units providing meals in Garland, Rowlett, the Glenn Heights area and Collin County. Approximately 21,389 meals were served through January 22, with more than 55,605 snacks and drinks distributed. More than 11,471 clean-up kits and hygiene kits were distributed to affected communities. A Multi-Agency Resource Center (MARC) was established at the Long Branch Elementary School in Ellis County where TSA provides feeding and financial assistance to survivors. TSA also provided emotional and spiritual care.

Texas Baptist Men and Southern Baptists of Texas: Two teams mobilized to assess damage and find a location for a command post. They also provided chainsaw crews and trucks to assist homeowners with removal of home items they wished to save.

Adventist Community Services: Adventist Community Services operated a warehouse for the Garland community to assist with the many incoming donations.

Mercy Chefs: Mercy Chefs prepared and distributed 1,500 meals per day using 250 volunteers.

Team Rubicon: One hundred Team Rubicon volunteers deployed from 15 states in support of the tornadoes. They engaged over 146 homeowners with 70 work orders, removing 85,740 cubic feet of debris with 7,932 volunteer hours.

United Methodist Committee on Relief: The committee supported the MARC in Ellis County and offered financial assistance and homeowner clean up.

Community Emergency Response Team (CERT): Dallas County CERT provided SAR and support to the Dallas County EOC.

Samaritan's Purse: Samaritan's Purse provided volunteers and personnel for cleanup.

Reach Out America: Reach Out America provided support, warehouse space and clothing.

Victim Relief Ministries: Victim Relief Ministries provided emotional and spiritual support in the cities of Garland and Rowlett. Victim Relief members walked the streets and engaged residents to determine need. If needed, they provided referrals to the local mental health group.

Behavioral Health Impacts

The behavioral health impact continues to develop for an event that has been ongoing for much of the state since the severe weather in May and June and then again in October and December. Individuals, first responders and communities from across Texas continue to respond to the impacts from tornadoes, heavy rain, severe flooding and winter weather. Reports from behavioral health providers in the field indicate that staff, consumers and behavioral health services have been significantly impacted.

As behavioral health personnel respond daily to new and ongoing events across the state, many survivors wonder when this dangerous weather is ever going to end, which is leaving them feeling anxious and distressed, including intrusive thoughts and sleep disturbances. For those who have already been through a recent flood or tornado event, the thought of more bad weather has resulted in additional distress and hyper-vigilance, delaying their ability to begin the emotional recovery process.

The storm system, which spawned 12 tornadoes in the Dallas-Fort Worth Metroplex and took the lives of 12 people, will have a behavioral health impact on the communities affected. Some of these effects may not manifest right away due to those affected being in survival mode.

The literature on emotional distress in relation to tornadoes and severe storms shows the unpredictability of tornadoes can cause feelings of guilt in those whose homes were not affected. Feelings of overwhelming anxiety can occur when weather conditions call for rain or wind. Victims can have feelings of helplessness due to not being able to do more for self or neighbors,

and suffer emotional distress manifesting as nightmares, outbursts of emotion, flashbacks or distressing memories.

Crisis counselors, mental health workers and chaplains in the field supported families as the reality and scope of the disaster became real.

The Garland/Rowlett tornado created a path 13 miles long and over a quarter-mile wide. We anticipate that residents in that path will also need disaster behavioral health support, even if their homes were not damaged.

The residents of the Glenn Heights area experienced an EF-3 tornado creating a path 8.5 miles long. This tornado damaged churches and the elementary school. While the community was able to rehabilitate a closed school to use as an elementary school when children returned from Christmas break, those children from the destroyed school will need support as well.

The literature shows that children of elementary school age may show stress symptoms in the form of stomachaches, headaches, inability to focus or concentrate, missing school and excessive talking about the disaster. It is very important to provide disaster behavioral health support to affected schools and families.

Counselors who worked in Van after the May tornado described survivor reactions centering around intrusive thoughts and fears as they relive the tornado hitting their homes and community. Continued tornado watches and warnings have become a reminder of not only what happened, but of what could happen again, compounding their fears and stress. Upon deployment to Van following a devastating tornado, disaster behavioral health providers used the Crisis Counseling and Training Program's Office of Management and Budget Individual/Family Crisis Counseling Services Encounter Log, Group Log and Weekly Tally Sheet to document the number of contacts made and their disaster reactions. According to preliminary data gathered following the Van tornado:

- 57% sadness/tearful
- 52% anxious/fearful
- 45% agitated/jittery/shaky
- 26% distressing dreams/nightmares
- 24% intrusive thoughts/images
- 21% fatigue/exhaustion
- 21% difficulty falling/staying asleep
- 21% irritable/angry
- 21% numb/disconnected
- 93% home damage
- 44% vehicle or major property loss
- 20% past substance use/mental health problem
- 25% life was threatened
- 18% assisted with rescue/recovery
- 18% sheltered in place/sought shelter due to immediate threat

Though this is a small sample from one town, this reflects the true need for the disaster behavioral health services made available through the longer-term crisis-counseling program. Without federal assistance, Texas does not have the ability or resources to meet or absorb the disaster behavioral health-related response and recovery needs and expenses associated with providing crisis-counseling services. If these costs are to be absorbed by the local provider, a

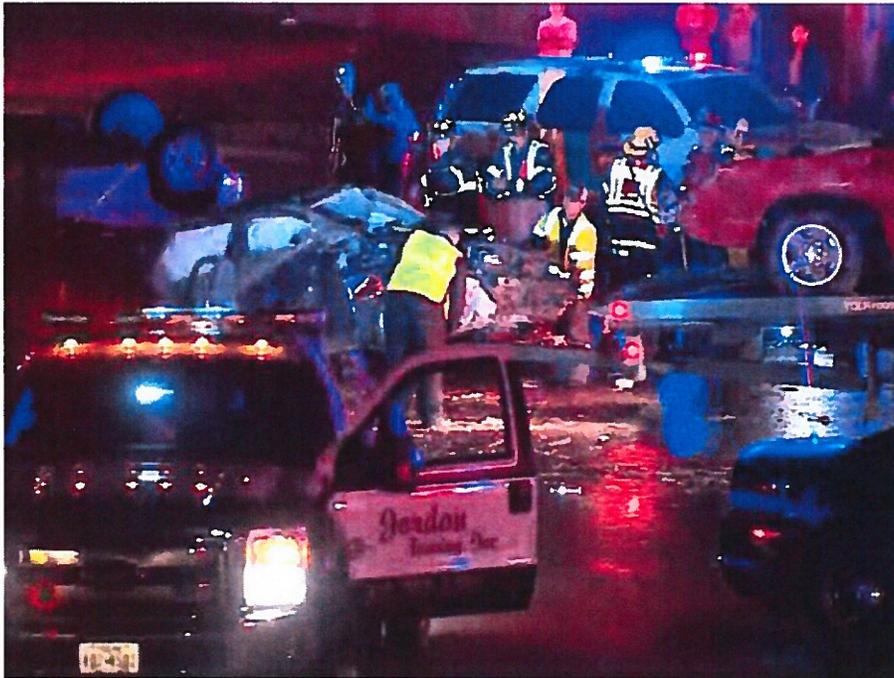
direct negative impact will be experienced on both service delivery and the state's disaster response plan because funds designated for services to Texas's priority populations will be redirected to disaster response and recovery operations and not for the fund's intended purpose.

Deaths

Although data is still preliminary, 12 deaths and 521 injuries are attributed to the severe weather and tornadoes in the four-county area. Hardest hit was the Dallas suburb of Garland, where authorities confirmed eight fatalities. The fatalities in Garland, ages 1 to 77, occurred when a tornado threw cars off an overpass onto traffic below and vehicles slammed into concrete and each other at I-30 and the Bush Turnpike. Aerial footage showed rows of flattened homes and homes with roofs ripped off and windows shattered. The city of Rowlett confirmed a fatality of an individual because of injuries received when the tornado destroyed his residence. He was flown to Parkland Hospital in Dallas, where he later succumbed to his injuries. Officials in Collin County confirmed three fatalities from the storms, including two at a Copeville gas station destroyed in the storms and a separate death in Blue Ridge, which is about 50 miles northeast of central Dallas and 20 miles north of Copeville.



Aerial view of tornado damage in Garland.



The chaotic scene along Interstate 30 in Garland after a tornado hit the area.

Residential and Business Impacts

Initial assessments have identified 1,077 homes have been destroyed or received major damage and 1,265 homes have been affected or received minor damage. Business losses include 56 with major damage and 4 destroyed.

	Destroyed	Major	Minor	Affected
ARC final damage assessment report for Dallas, Collin, Ellis and Rockwall	650	599	826	422
Joint PDAs in Dallas, Collin, Ellis, Franklin, Rockwall and Van Zandt Counties (state, federal and local)**	713	364	260	1005
<i>**Additional state, federal and local PDAs may be scheduled as needed as areas affected by flooding become accessible.</i>				

The following is detailed information on the impacted population, including percentage of insurance, percentage below poverty level, median household income and percentage of elderly, disabled and pre-disaster unemployment rates.

December 2015 Severe Weather Event					
	Average of Persons Below Poverty Level in percent	Median Household Income in dollars	Percent of Elderly (Age 65 and Older) in percent	Percent of Disabled (Under the Age of 65) in percent	Percent Pre-Disaster Unemployment (November 2015)
National Average	15.4	\$53,046.00	14.1	8.4	5.0
State Average	17.6	\$51,900.00	11.2	8.2	4.6
Counties					
Collin	7.0	\$84,233.00	9.7	4.2	3.6
Dallas	19.3	\$49,925.00	9.7	6.7	4.2
Ellis	11.0	\$61,898.00	11.9	9.2	3.9
Franklin	14.4	\$45,523.00	20.3	19.0	5.1
Rockwall	6.8	\$86,597.00	11.9	9.2	3.7
Van Zandt	16.4	\$43,439.00	19.8	19.0	5.2

Data from U.S. Census Records; unemployment data from U.S. Bureau of Labor Statistics.

2014 Texas Property Insurance

The following table provides a brief analysis of property insurance in affected counties for Individual Assistance.

County Name	Total Policy Count	2010 Census Data	Percentage of Insurance
Collin	303,737	782,341	38.82%
Dallas	673,886	2,368,139	28.46%
Ellis	44,102	149,610	29.48%
Franklin	3,266	10,605	30.79%
Rockwall	29,199	78,337	37.27%
Van Zandt	11,547	52,579	21.96%

Note: These numbers include homeowner, residential dwelling, renters/condo, farm and ranch dwelling and farm owners' policies. This excludes policies written by farm mutual insurers and policies written in the surplus lines market. These policies do not include flood policies.

Insurance Detail by Zip Code for Affected Counties

The following tables provide detailed insurance coverage by zip code in Dallas, Collin, Ellis and Rockwall counties. Detailed homeowners insurance coverage for Franklin and Van Zandt counties is not applicable due to flood damages. The insurance coverage for the major and destroyed homes in Van Zandt validated to be zero.

Homeowners Insurance Analysis – Dallas County						
Garland	Zip Code	Homeowners	Renters	Total	Population	% Insured
	75040	11,573	1,955	13,528		
	75042	5,575	1,039	6,614		
	75044	10,041	2,803	12,844		
	75048	6,367	582	6,949		
	75082	5,617	1,694	7,311		
Garland Totals		39,173	8,073	47,246	234,566	20%
Desoto	Zip Code	Homeowners	Renters	Total	Population	% Insured
	75115	11,785	3,011	14,796		
	75123	0	0	0		
Desoto Totals		11,785	3,011	14,796	51,483	29%
Sunnyvale	Zip Code	Homeowners	Renters	Total	Population	% Insured
	75182	1,765	56	1,821	5,651	32%
Glenn Heights	Zip Code	Homeowners	Renters	Total	Population	% Insured
	75154	8,709	1,140	9,849	11,763	84%
Rowlett	Zip Code	Homeowners	Renters	Total	Population	% Insured
	75030	0	0	0		
	75088	6,876	659	7,535		
	75089	8,269	577	8,846		
Rowlett Totals		15,145	1,236	16,381	58,043	28%
Dallas County Affected Cities Total				90,093	361,506	25%

Homeowners Insurance Analysis – Collin County						
Farmersville	Zip Code	Homeowners	Renters	Total	Population	% Insured
	75442	1,558	258	1,816	3,395	53%
Nevada	Zip Code	Homeowners	Renters	Total	Population	% Insured
	75173	972	51	1,023	4,353	24%
Blue Ridge	Zip Code	Homeowners	Renters	Total	Population	% Insured
	75424	480	90	570	3,548	16%
Collin County Affected Cities Total				3,409	11,296	30%

Homeowners Insurance Analysis – Ellis County						
Red Oak & Ovilla	Zip Code	Homeowners	Renters	Total	Population	% Insured
	75154	8,709	1,140	9,849	14,788	66%
Waxahachie	Zip Code	Homeowners	Renters	Total	Population	% Insured
	75165	7,789	1,967	9,756		
	75167	1,966	132	2,098		
	75168	0	0	0		
Waxahachie Totals		9,755	2,099	11,854	31,591	38%
Midlothian	Zip Code	Homeowners	Renters	Total	Population	% Insured
	76065	8,323	1,091	9,414	19,891	47%
Ellis County Affected Cities Total				31,117	66,270	47%

Homeowners Insurance Analysis – Rockwall County						
Rowlett	Zip Code	Homeowners	Renters	Total	Population	% Insured
	75088	7,535		7,535		28%
	75089					
Rockwall County Affected Cities Total				7,535		28%

It is important to note that the insurance percentages do not tell the entire story. Many policies do not include additional living expenses, and some mortgages require a forced payoff. Insured survivors may receive insurance proceeds and their bank or mortgage holder may require the total mortgage paid in full. In this situation, a survivor is left with unmet needs and no proceeds to rebuild. The debris clean-up alone prior to rebuilding is going to be a major undertaking.

According to a 2008 study by Marshall & Swift/Boeckh LLC, a provider of building cost data, nearly 60 percent of American homes are underinsured, leaving almost two out of every three homes in the United States undervalued and underinsured, putting the homeowner at risk of substantial loss. Typically, these underinsured homeowners have only enough coverage to rebuild or replace less than 78 percent of their home in the case of a disaster. In an example where a \$250,000 home is destroyed, the homeowner would be at a loss of more than \$50,000. An additional study performed by Southwest Insurance Information Service (SIIS) found that roughly 50 to 70 percent of Texas homes are underinsured.

Local Surveys

- The City of Rowlett collected disaster underinsurance data from households through an online survey. The survey resulted in a 24 percent underinsurance rate. Of the 399 major and destroyed homes, 99 homes were underinsured.
- The City of Sunnyvale in Dallas County has reported a 30 percent underinsurance rate. Of the 71 major and destroyed homes, 21 were underinsured.
- Collin County reported a 30 percent underinsurance rate. Of the 33 major and destroyed homes, 10 were underinsured.
- Ellis County has reported a 20 percent underinsurance rate. Of the 63 major and destroyed homes, 13 were underinsured.

Texas Previous Disaster Underinsurance Data

The following table shows the number of applicants in DR-4029-TX and DR-4223-TX that had insurance and then qualified for housing assistance through rental, repair, and/or replacement. This data clearly indicates an unmet need exists after insurance.

Disaster	Total Apps INS	Total Sent in INS	% Sent in INS	Total Approved Rental Post INS	Total Approved Repair Post INS	Total Approved Replacement Post INS
4029	1087	166	15.20%	95	37	94
4223	1752	467	26.60%	357	197	4

Based on this data, and using the average of both disasters percent of underinsured of 20.9 percent, and calculating by the total number of insured of 1,798, based on preliminary damage assessment (PDA) data for Individual Assistance, Texas calculates approximately 375 applicants that will be underinsured in this disaster.

Many of the major and destroyed homes were in medium-income neighborhoods where many survivors will struggle with housing while trying to rebuild, make a mortgage payment and pay rent in a market where there is a lack of affordable rental resources. Federal assistance is needed in order to help qualifying survivors with repair, rebuild and rental assistance, which will be some of the most challenging issues survivors will face.

The devastation to single-family homes, multi-family homes, businesses, churches, schools, roads and public structures is overwhelming. For example, in Ellis County and the City of Glenn Heights, the Ovilla Road Church of the Nazarene, was leveled by a tornado. The tornado tore through the east wing of the building and left church vans flipped over in the adjacent field. The church was part of the community for 27 years. Another nearby church, the Harvest of Praise Church, was destroyed in the storm. Nearby Shields Elementary School in Red Oak sustained a direct hit from a tornado and was destroyed. Over 400 volunteers spent hours sifting through the debris to salvage anything possible in order to move to a temporary location at the old Red Oak Intermediate School.

The personal and economic impact to these communities will take a significant amount of time and effort to recover. Long-term recovery from such devastation is the most difficult part of a disaster. Federal assistance will be key to a rapid and resilient recovery.

HISTORICAL INFORMATION

The estimated 12 tornado fatalities on December 26, 2015, are the highest number of deaths in a north Texas tornado outbreak since 1927, which caused at least 34 fatalities.

The EF-4 rated Garland tornado is the strongest December tornado on record in the U.S. since an EF-4 tornado struck the state of Alabama on December 16, 2000.

Texas received two presidential disaster declarations in 2015 for the severe weather events from May 4 to June 22, 2015, (DR-4223-TX) and October 22 to October 31, 2015, (DR-4245-TX) and a Fire Management Assistance Grant (FMAG 5116) for the Hidden Pines Fire (Bastrop County) in October 2015. The state continues to work DR-4223-TX and DR-4245-TX in addition to 10 open disasters, including major disasters such as Hurricanes Dolly, Rita and Ike and the most destructive wildfires in Texas history, the 2011 wildfires. In the past 12 months, the state has experienced numerous local flooding, tornado and wildfire events that in other states would have been considered major disasters.

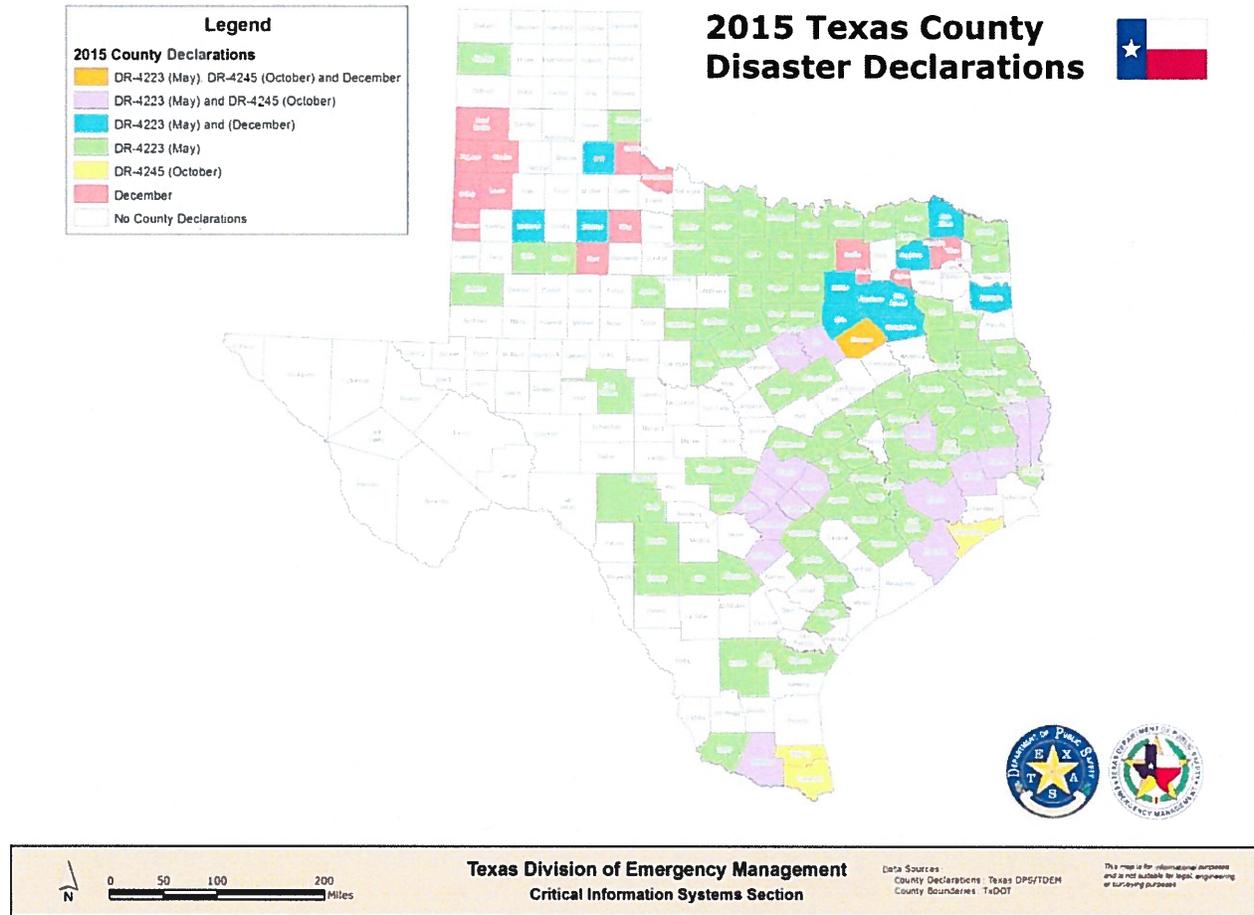


Figure 10: Many highly populated counties have been devastated by more than one disaster in 2015.

CLOSING

Pursuant to 44 CFR § 206.36 (Major Disaster), this incident is of such magnitude and severity that effective response is beyond state and local capability, and supplementary federal assistance is necessary to save lives and protect property, public health and safety.

As a result of this disaster, the State of Texas is specifically requesting a major disaster declaration for:

Individual Assistance including the Individuals and Households Programs (IA), Other Needs Assistance (ONA), Crisis Counseling, Disaster Unemployment Assistance, Disaster Legal Assistance, Disaster Case Management for Collin, Dallas, Ellis, Franklin, Rockwall and Van Zandt counties; Public Assistance Categories A-G for Bailey, Castro, Childress, Cochran, Dallas, Deaf Smith, Dickens, Ellis, Hall, Hardeman, Harrison, Henderson, Hopkins, Kaufman, Kent, King, Lamb, Lubbock, Navarro, Parmer, Rains, Red River, Rockwall, Titus and Van Zandt counties and Hazard Mitigation Statewide. I am also requesting U.S. Small Business

The Honorable Barack Obama
January 26, 2016
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Administration Disaster Loan Program for Physical and Economic Loss for all counties
requesting Individual Assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Greg Abbott". The signature is fluid and cursive, with a long horizontal stroke at the end.

Greg Abbott
Governor

Enclosures: OMB No. 1660-0009/FEMA Form 010-0-13
A: Individual Assistance
B: Public Assistance
C: Requirements for Other Federal Agency Programs
D: Governor's Disaster Declaration, 01/26/16