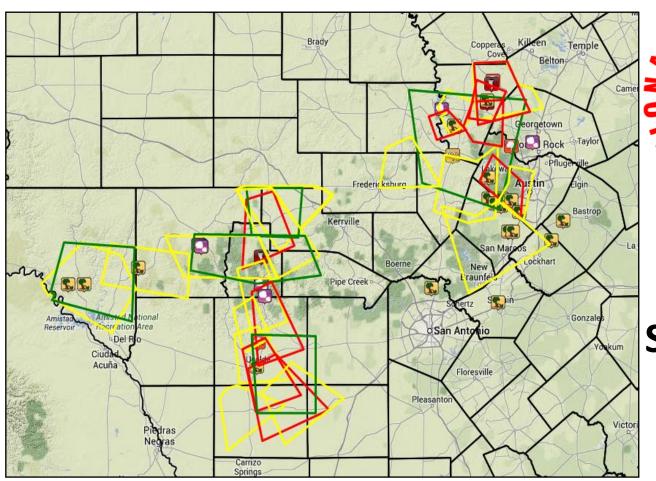
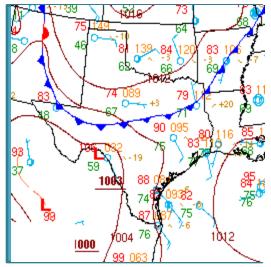
June 12th Severe Weather



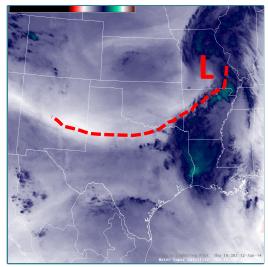


Austin San Antonio
Weather
Forecast
Office

Synoptic Set Up - Synopsis



7 PM Surface Analysis

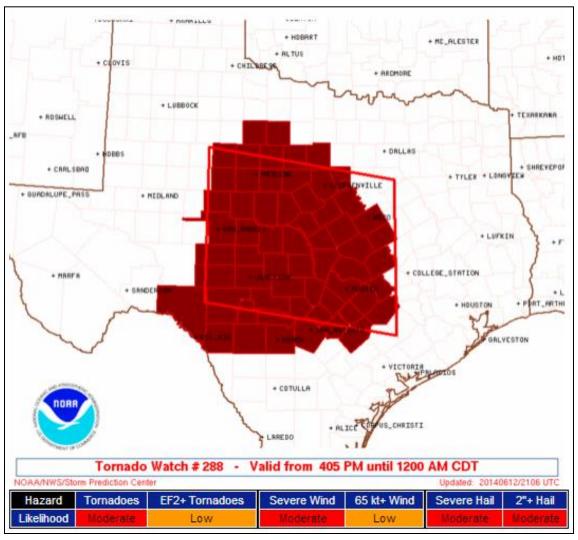


500 mb water vapor with the trough axis

A weak cold front stalled to the north of the Hill Country during the late afternoon hours and provided a surface focus for repeated thunderstorm development. At the same time, an upper level low pressure system allowed upper support for vertical motions which allowed storms to persist enhancing the severe threat. The two images to the left show the position of the cold front at 7 PM and the upper level trough axis. The atmosphere was very unstable which led to hail and straight line winds. The lower levels of the atmosphere had strong winds and this supported the chances for a few tornadoes from the stronger thunderstorms.

Storms initially became severe around 5 PM and persisted until midnight area across South Central Texas. The activity eventually spread south of the area as the dominant storm motions took over.

Tornado Watch #288



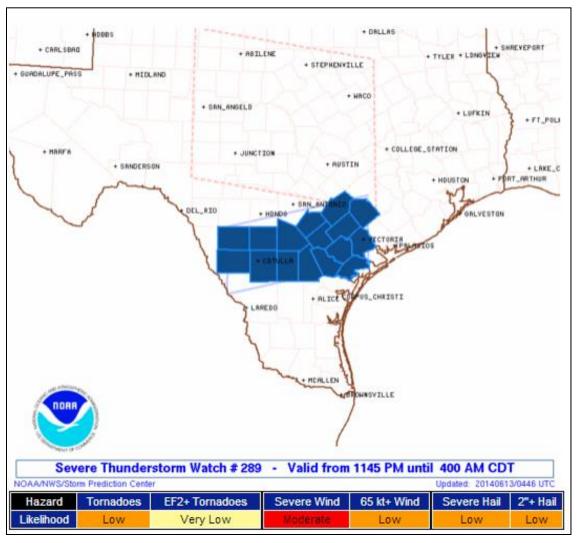
Issued by Storm Prediction Center in Norman, OK

Initially issued for the Edwards Plateau, Hill County and I-35 Corridor

Primary Threats Included:

- Large Hail to 2.5" in diameter
- Damaging wind gusts to 70mph
- A few tornados possible.

Severe Thunderstorm Watch #289



Issued by Storm Prediction Center in Norman, OK

Initially issued for the Rio Grande Valley and Counties south of I-10.

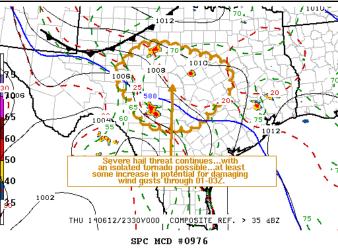
Primary Threats Included:

- Isolated Damaging Wind Gusts to 70 mph possible.
- Isolated Large Hail Events to 1.5 inches in Diameter

Mesoscale Discussions

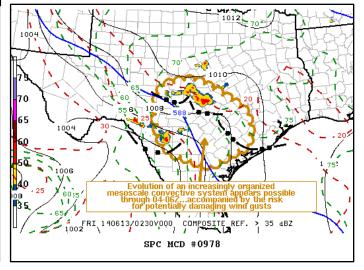
Issued by Storm Prediction Center in Norman, OK

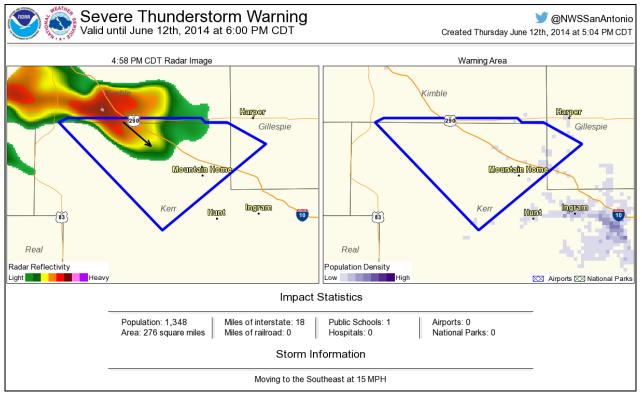




MCD #0972 issued at 2:19pm MCD #0976 issued at 6:45pm MCD #0978 issued at 9:46pm

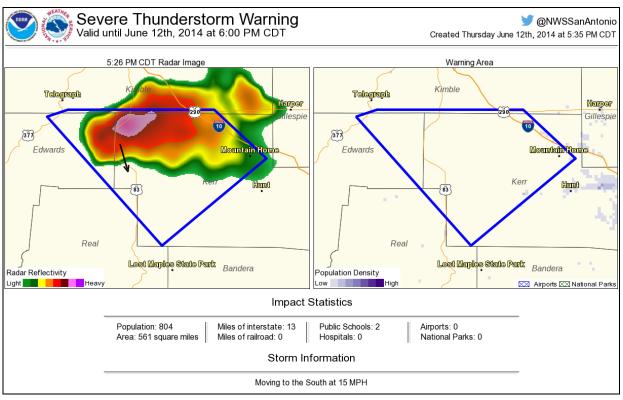
The first two highlighted the risk for hail, damaging winds and isolated tornados. The third talked about a possible Mesoscale Convective System developing.





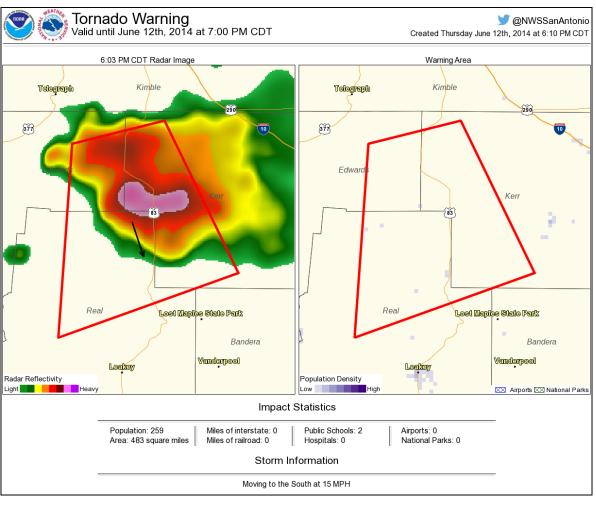
Kerr and Gillespie Counties

5:03 pm - 6:00 pm



Edwards, Kerr, and Real Counties

5:15 pm - 6:00 pm

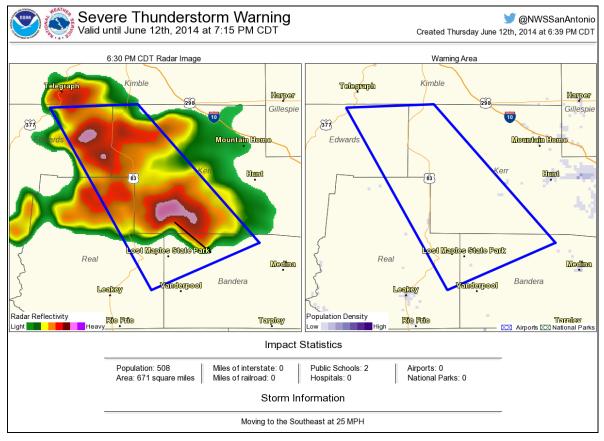


Edwards, Kerr, and Real Counties

5:53 pm – 7:00 pm

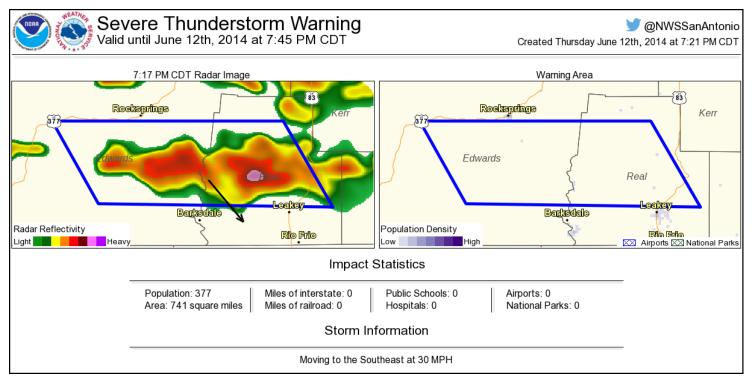
Reports:

6:30pm...Tornado...10 N Leakey



Bandera, Edwards, Kerr, and Real Counties

6:39 pm – 7:15 pm

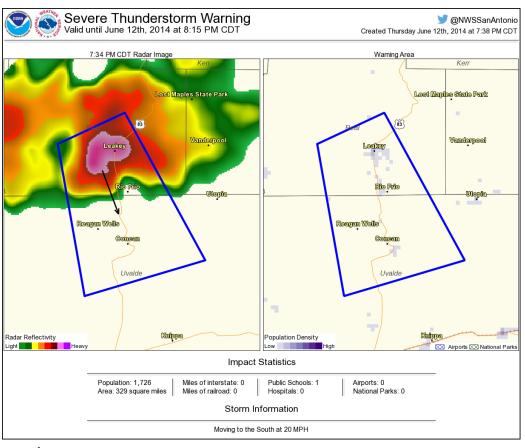


Reports:

7:05 pm...1.00" Hail...5 SSW Rocksprings

Edwards and Real Counties

7:01 pm - 7:45 pm



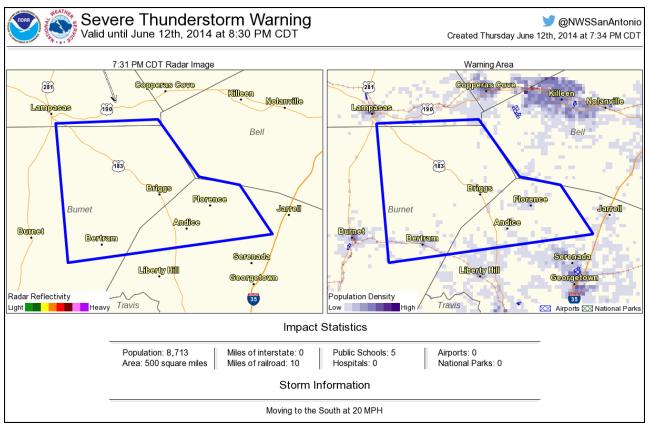
Real and Uvalde Counties

7:31 pm – 8:15 pm

Reports:

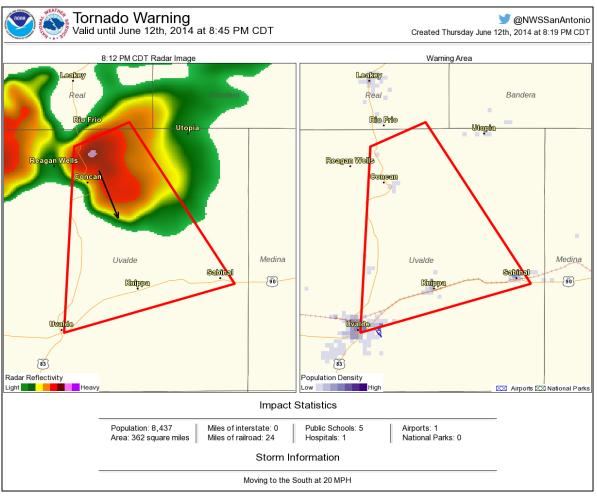
7:53 pm...T-Storm Wind Damage...2 S Leakey

7:53 pm...1.50" Hail...2 S Leakey



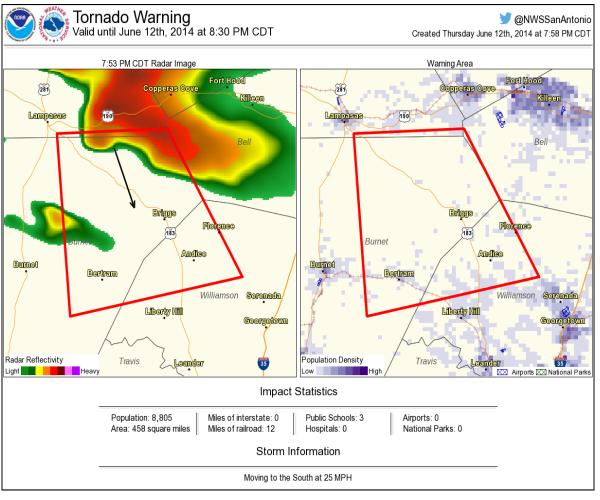
Burnet and Williamson Counties

7:33 pm – 8:30 pm



Real and Uvalde Counties

7:52 pm – 8:45 pm

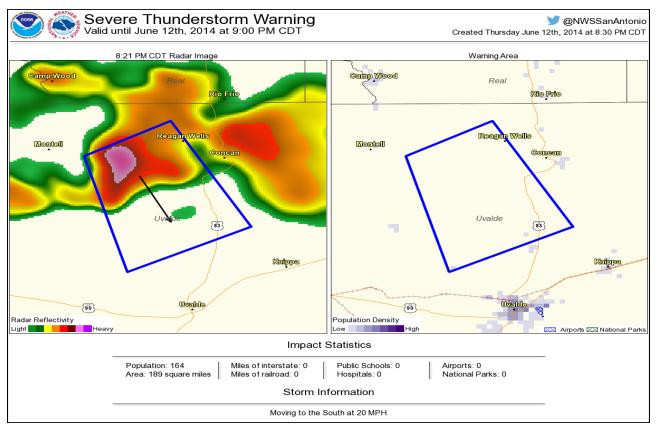


Burnet and Williamson County

7:58 pm – 8:30 pm

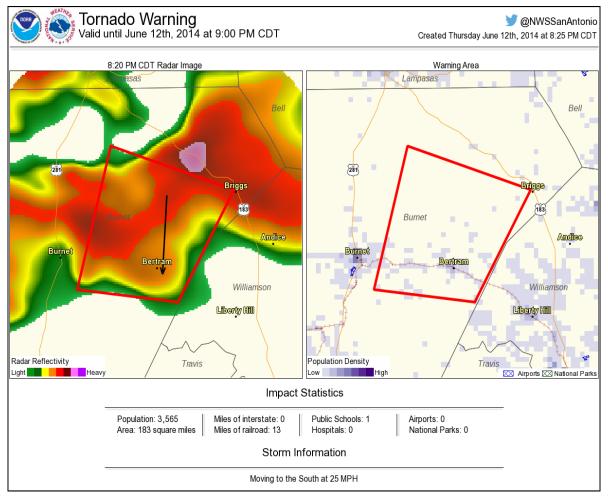
Reports:

8:18pm...Tornado...7 WNW Briggs



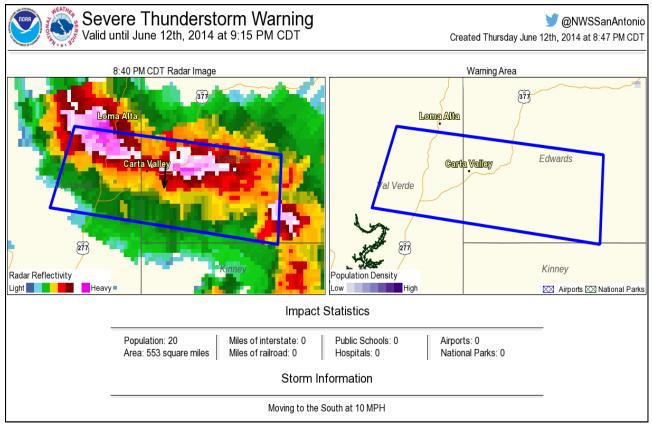
Real and Uvalde Counties

8:20 pm – 9:00 pm



Burnet County

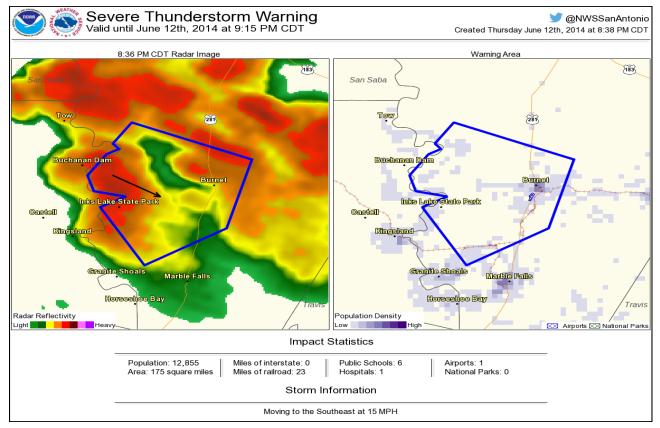
8:25 pm – 9 pm



Val Verde and Edwards County

8:20 pm – 9:00 pm

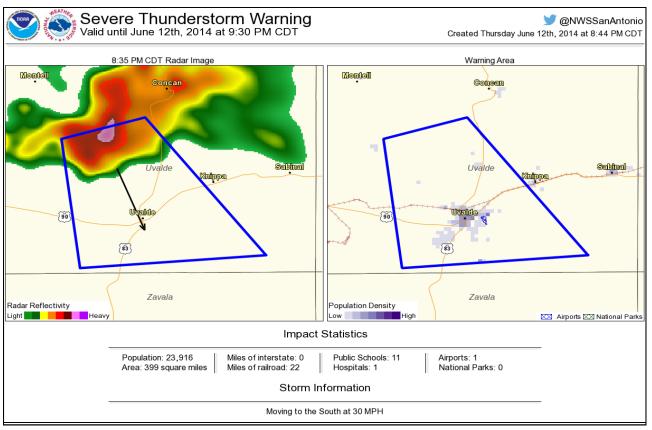
Reports: 8:50 pm...T-storm Wind Damage...Carta Valley



Burnet County

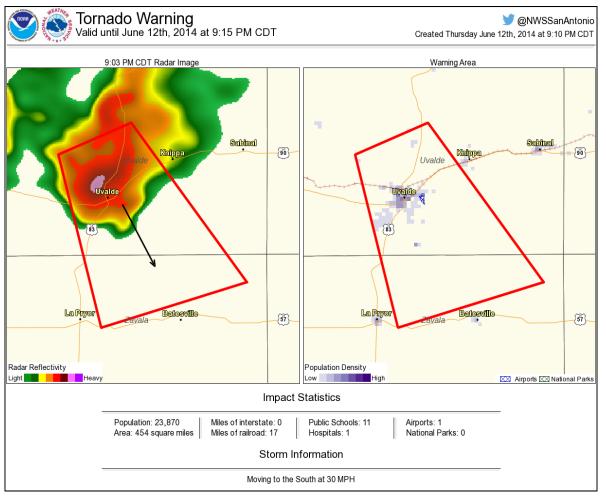
8:37 pm – 9:15 pm

Reports: 9:00 pm..T-Storm Wind Damage...6 WNW Marble Falls



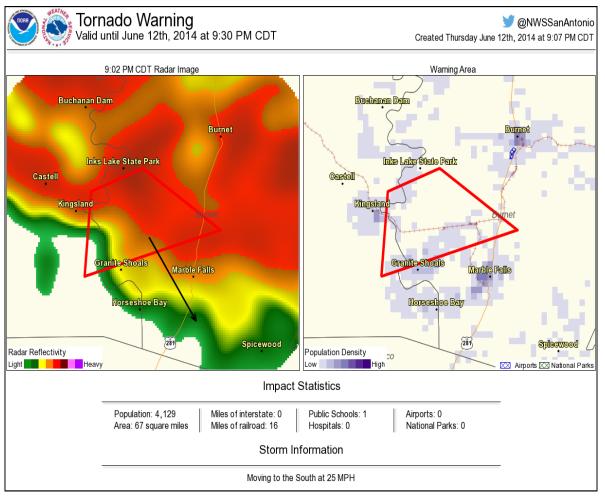
Uvalde County

8:43 pm – 9:30 pm



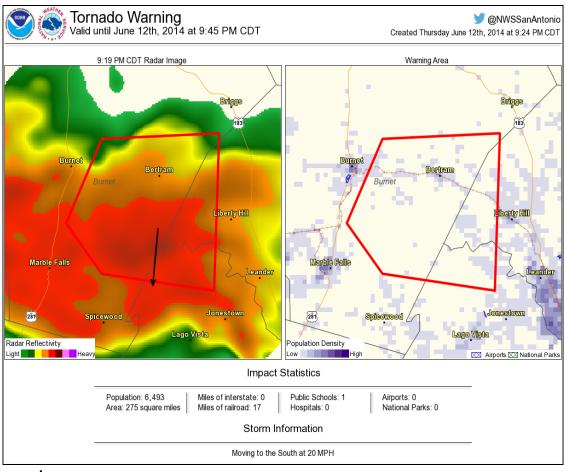
Zavala and Uvalde County

8:50 pm - 9:15 pm



Llano and Burnet County

8:52 pm - 9:30 pm



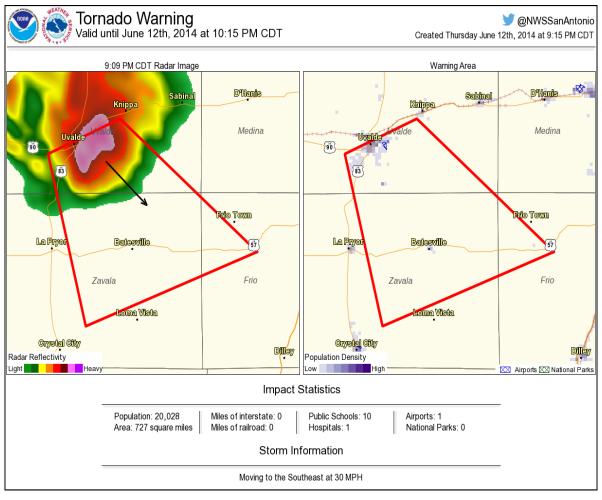
Williamson, Travis, and Burnet County

9:02 pm - 9:45 pm

Reports:

9:10 pm...Tornado...4 N Bertram

9:10 pm...T-Storm Wind Damage...4 N Bertram

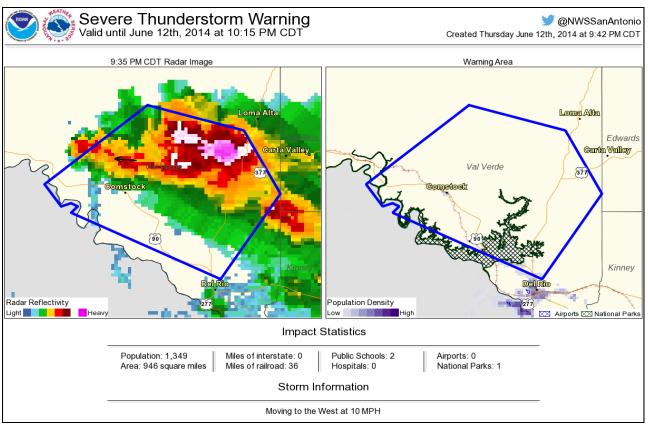


Frio, Zavala, and Uvalde County

9:15 pm – 10:15 pm

Reports:

9:38 pm...T-Storm Wind Damage...1 S Uvalde



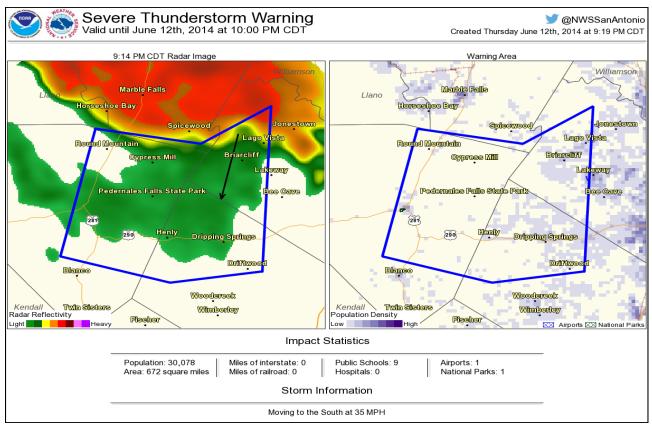
Val Verde County

9:18 pm - 10:15 pm

Reports:

9:54 pm...T-Storm Wind Damage...3 WNW Comstock

9:54 pm...T-Storm Wind Damage...5 E Comstock



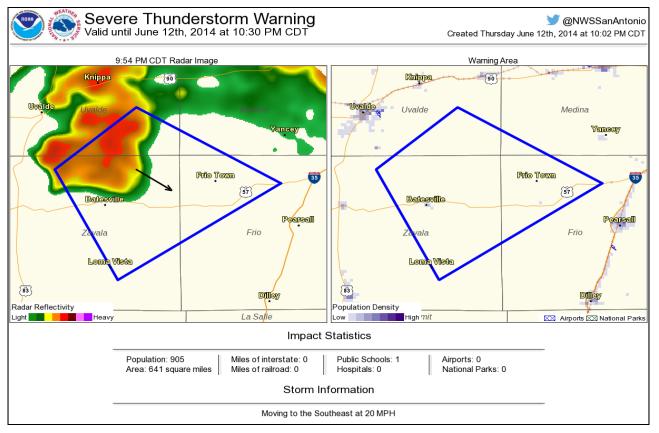
Blanco, Burnet, Hays, and Travis County

9:19 pm - 10:00 pm

Reports:

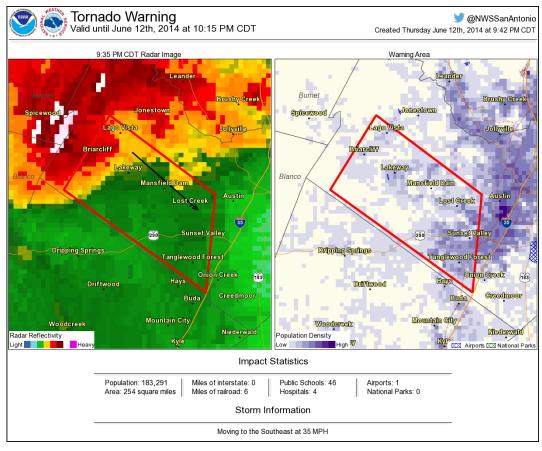
9:20 pm...Wind Gust...4 NE Round Mountain

9:45 pm...T-Storm Wind Damage...4 S Briarcliff



Zavala, Uvalde, Medina, Frio County

9:37 pm - 1030 pm



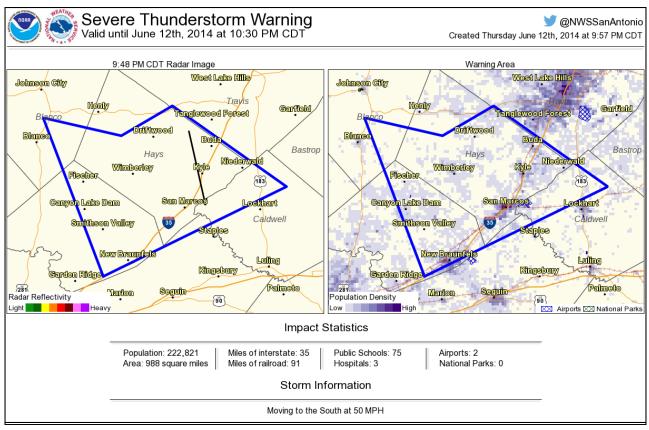
Travis County

9:41 pm – 10:15 pm

Reports:

10:00 pm...T-Storm Wind Damage...6 SSE Bee Cave

10:05 pm...T-Storm Wind Damage...Lakeway



Blanco, Caldwell, Comal, Guadalupe, Hays, and Travis County

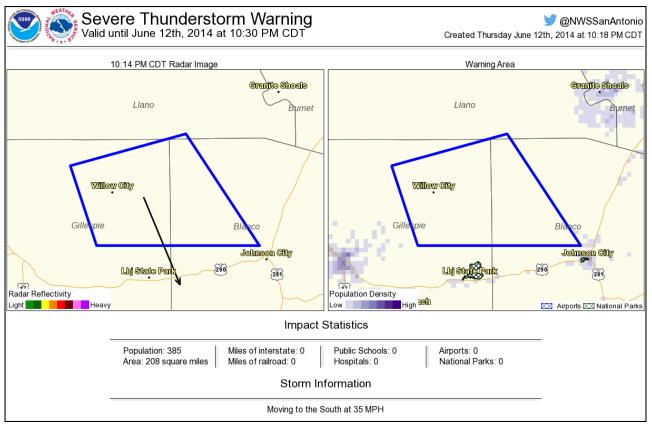
9:56 pm to 10:30 pm

Reports:

10:00 pm...T-Storm Wind Damage...6 NE Driftwood

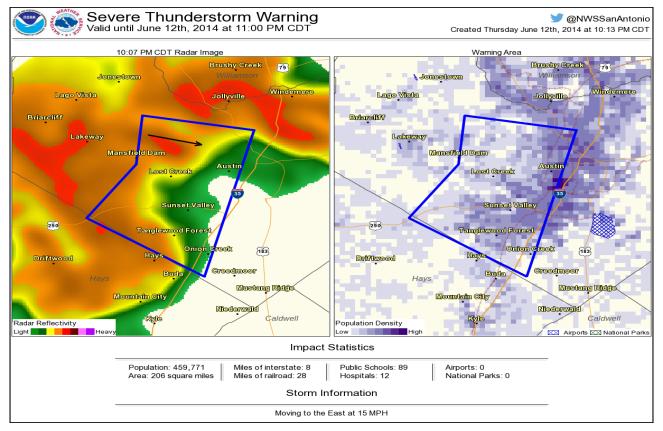
10:30 pm...T-Storm Wind Damage...5 E Dripping Springs

10:30 pm...T-Storm Wind Damage...7 NE Driftwood



Llano, Gillespie, and Blanco County

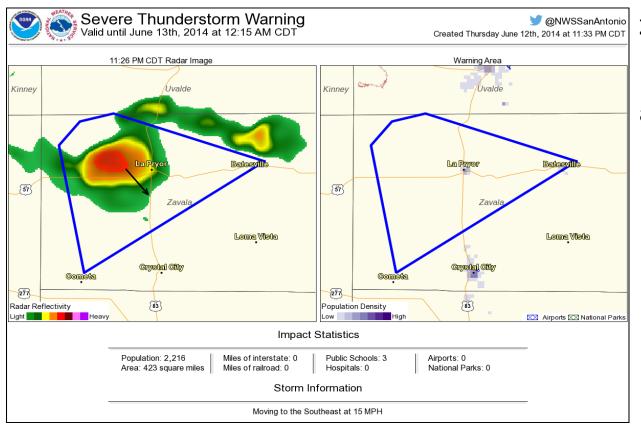
10:05 pm - 11:00 pm



Hays and Travis County

10:13 pm - 11:00 pm

Reports: 10:20 pm...T-Storm Wind Damage...4 NW Tanglewood Forest 10:45 pm...T-Storm Wind Damage...San Leanna



Zavala County

11:09 pm - 12:15 am

All Reports

0630 PM TORNADO 10 N LEAKEY 29.87N 99.76W 06/12/2014 REAL TX BROADCAST MEDIA

BRIEF TOUCHDOWN... ROOF BLOWN OFF A HOME.

0657 PM HAIL 5 S ROCKSPRINGS 29.94N 100.22W 06/12/2014 E2.00 INCH EDWARDS TX TRAINED SPOTTER

HAIL FALLING AT THE TIME OF THE REPORT. MOSTLY OUARTER

SIZE HAIL WITH A FEW AS BIG AS EGGS.

0700 PM HAIL 6 S ROCKSPRINGS 29.93N 100.21W 06/12/2014 M1.00 INCH EDWARDS TX COCORAHS

ONE INCH SIZE HAIL ALONG WITH SOME TREE DAMAGE.

0705 PM HAIL 5 SSW ROCKSPRINGS 29.94N 100.23W 06/12/2014 E1.00 INCH EDWARDS TX TRAINED SPOTTER

QUARTER SIZE HAIL CONTINUES.

0720 PM HAIL 6 S ROCKSPRINGS 29.93N 100.21W 06/12/2014 M0.50 INCH EDWARDS TX COCORAHS

PEA TO HALF INCH SIZE HAIL.

0753 PM HAIL 2 S LEAKEY 29.70N 99.76W 06/12/2014 E1.50 INCH REAL TX TRAINED SPOTTER

LARGE HAIL JUST ENDED AT THE TIME OF THE REPORT.



Straight-line wind damage from Dripping Springs.
Photo Credit: Devon H. via Facebook.



Large Tree
Limbs down
from
Thunderstorm
Winds in North
Austin. Photo
Credit: David C.
via Facebook.

0753 PM TSTM WND DMG 2 S LEAKEY 29.70N 99.76W 06/12/2014 REAL TX TRAINED SPOTTER

SEVERAL GOOD SIZE TREES DOWN WITH SEVERAL LIMBS OF 6 INCHES IN DIAMETER DOWN.

0759 PM HAIL RIO FRIO 29.63N 99.73W 06/12/2014 E2.00 INCH REAL TX TRAINED SPOTTER

LARGE HAIL REPORTED.

BRIEF FUNNEL CLOUD REPORT SOUTH OF WATSON.

0818 PM TORNADO 7 WNW BRIGGS 30.91N 98.03W 06/12/2014 BURNET TX STORM CHASER

TORNADO REPORTED ON THE GROUND BY SEVERAL STORM CHASERS.

0830 PM TSTM WND DMG 6 NNW MARBLE FALLS 30.65N 98.31W 06/12/2014 BURNET TX COCORAHS

> TOP PORTION OF A WEAK CEDAR ELM BLOWN OVER...SEVERAL 6 INCH DIAMETER TREE BRANCHES TORE OFF TREES...STRAIGHT LINE WINDS WERE OBSERVED

0845 PM HAIL 10 W BURNET 30.76N 98.40W 06/12/2014 E0.75 INCH BURNET TX TRAINED SPOTTER

PENNY SIZE HAIL.



Picture of the Tornado in Northern Burnet County on 6/12/14. This Tornado was located near Watson (or NW of Briggs). This tornado was rated an EF-2 for damage it did to two homes and a farm house. Photo Credit: Aaron Dooley (via Facebook)

0850 PM TSTM WND DMG CARTA VALLEY 29.80N 100.68W 06/12/2014 EDWARDS TX CO-OP OBSERVER

WIND GUSTS ESTIMATED BETWEEN 60 AND 70 MPH BLEW THE TOPS OF PORTIONS OF THEIR BARNS AND HORSE STALLS

0900 PM FUNNEL CLOUD 9 N UVALDE 29.35N 99.78W 06/12/2014 UVALDE TX EMERGENCY MNGR

SEVERAL FUNNEL CLOUDS SPOTTED.

0900 PM TSTM WND DMG 6 NNW MARBLE FALLS 30.66N 98.31W 06/12/2014 BURNET TX COCORAHS

PORTION OF METAL ROOF PEELED BACK...10 INCH CEDAR ELM BLOWN OVER...UP TO 10 INCH DIAMETER TREE BRANCHES TORE OFF. TIME OF OCCURRENCE IS APPROX

0910 PM TSTM WND DMG 4 N BERTRAM 30.81N 98.06W 06/12/2014 BURNET TX LAW ENFORCEMENT

NUMEROUS TREES DOWN AND DAMGE TO A HOME. OFF OF HIGHWAY 1174 NEAR JOPPA.

0910 PM TORNADO 4 N BERTRAM 30.80N 98.06W 06/12/2014 BURNET TX BROADCAST MEDIA

UNCONFIRMED REPORT OF A TORNADO NEAR JOPPA.





Top: Storms over the Hill Country on 6/12 as seen from Canyon Lake. Bottom: Lightning over Canyon Lake. Photo Credit: Cullen B. (via Facebook)

0915 PM TSTM WND DMG 3 NW KYLE 30.02N 97.90W 06/12/2014 HAYS TX COCORAHS

FOUR PANELS OF A WOOD PRIVACY FENCE BLOWN AWAY...A LARGE ARIZONA ASH AND A LARGE RED OAK TREE BLOWN DOWN...LOTS OF 6 INCH TREE BRANCHES TORE OFF...

0920 PM TSTM WND GST 4 NE ROUND MOUNTAIN 30.48N 98.32W

06/12/2014 M66 MPH BLANCO TX AMATEUR RADIO

66 MPH WIND GUST.

0934 PM FUNNEL CLOUD 2 SW LEANDER 30.54N 97.88W 06/12/2014 TRAVIS TX EMERGENCY MNGR

SEVERAL FUNNEL CLOUDS SEEN.

0938 PM TSTM WND DMG 1 S UVALDE 29.20N 99.79W 06/12/2014 UVALDE TX EMERGENCY MNGR

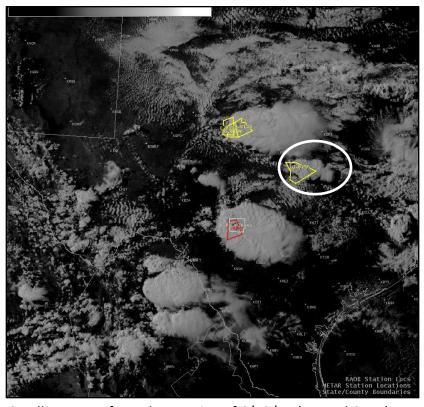
LOSS OF POWER FOR MOST OF UVALDE... PLANES OVERTURNED... LOTS OF HALF INCH SIZE HAIL AND VERY HIGH WINDS.

0945 PM TSTM WND DMG 4 S BRIARCLIFF 30.35N 98.05W 06/12/2014 TRAVIS TX COCORAHS

20 PERCENT OF COMPOSITION SHINGLES ON ROOF BLOWN OFF HOME

0954 PM TSTM WND DMG 5 E COMSTOCK 29.70N 101.09W 06/12/2014 VAL VERDE TX LAW ENFORCEMENT

VERY STRONG WINDS... BLEW THE ROOF OF A HOME.



Satellite Image from the evening of 6/12/14 (around 6 pm). You can see the three clusters of storms (and the NWS warnings being issued). The circled storm would eventually spawn the Burnet EF-2 tornado.

1000 PM TSTM WND DMG 6 S BEE CAVE 30.22N 97.95W 06/12/2014 TRAVIS TX PUBLIC

NUMEROUS TREES BLOWN DOWN... ROWS OF FENCES BLOWN OVER.

1000 PM TSTM WND DMG 6 NE DRIFTWOOD 30.18N 97.96W 06/12/2014 HAYS TX PUBLIC

WIND GUSTS TO 70 MPH. SEVERAL ROOFS DAMAGE AND MANY LARGE TREES DOWN.

1008 PM HAIL 4 NW ROUND ROCK 30.56N 97.72W 06/12/2014 E0.70 INCH WILLIAMSON TX TRAINED SPOTTER

HALF INCH TO DIME SIZE HAIL.

1015 PM TSTM WND DMG 3 NE DRIPPING SPRINGS 30.22N 98.05W TX COCORAHS

DAMAGE TO A 40 YEAR OLD CEDAR ELM...6 INCH DIAMETER OAK TREE BRANCHES TORE OFF...STRAIGHT LINE WINDS OBSERVED

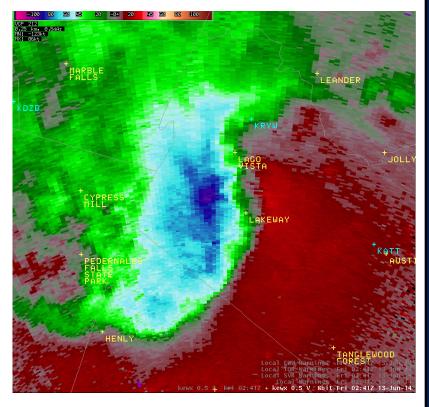
1020 PM TSTM WND DMG 4 NW TANGLEWOOD FOREST 30.21N 97.88W

06/12/2014 TRAVIS TX COCORAHS

5 INCH BRANCHES TORE OFF SOME LACE BARK ELM TREES

1023 PM TSTM WND DMG 1 NW SEGUIN 29.59N 97.98W 06/12/2014 GUADALUPE TX NEWSPAPER

PART OF THE HEXEL WAREHOUSE NEAR SEGUIN HAS MAJOR DAMAGE.



A Radar Velocity Image from the New Braunfels (KEWX) radar showing 80-90 knots of wind about 4,000 feet up in the atmosphere. Some of this wind was pushed to the surface and caused straight-line wind damage across western Travis and parts of Hays Co.

1025 PM TSTM WND DMG 1 NNE CEDAR CREEK 30.09N 97.49W 06/12/2014 BASTROP TX PUBLIC

SEVERAL VERY LARGE TREES BLOWN OVER.

1030 PM TSTM WND DMG 5 E DRIPPING SPRINGS 30.19N 98.00W 06/12/2014 HAYS TX PUBLIC

MULTIPLE LARGE TREES SNAPPED AND UPROOTED. A WOODY FENCE WAS BLOWN AT LEAST 30 YARDS AWAY.

1039 PM TSTM WND DMG 9 NE LOCKHART 29.97N 97.58W 06/12/2014 CALDWELL TX TRAINED SPOTTER

POSSIBLE MICROBURST MOVED POTTED PLANTS...LARGE SHRUBS...AND 300 LB YARD FURNITURE ALL IN DIFFERENT DIRECTIONS.

1045 PM TSTM WND DMG SAN LEANNA 30.14N 97.82W 06/12/2014 TRAVIS TX COCORAHS

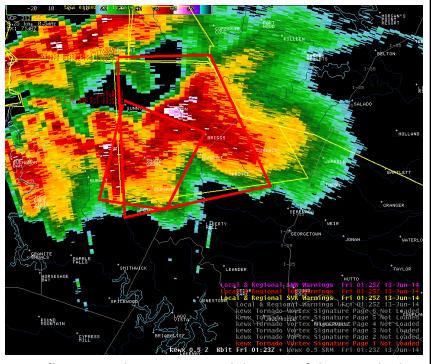
8 INCH DIAMETER CHINA BERRY TREE BLOWN DOWN...5 INCH DIAMETER ELM TREE BLOWN DOWN...LOTS OF TREE DAMAGE IN NEIGHBORHOOD...STRAIGHT LINE WINDS FROM NORTH TO SOUTH WERE OBSERVED

1114 PM TSTM WND DMG 2 N KYLE 30.02N 97.87W 06/12/2014 HAYS TX PUBLIC

NUMEROUS TREES BLOWN DOWN AND POWER LINES BETWEEN KYLE... BUDA AND DRIPPING SPRINGS.

1121 PM TSTM WND DMG 2 S TIMBERWOOD PARK 29.68N 98.48W 06/12/2014 BEXAR TX PUBLIC

TREES BLOWN INTO POWER LINES CAUSING LOSS OF POWER.



A reflectivity radar image around the time of the EF-2 Shady Grove tornado in Burnet County.

Burnet County Tornadoes.

.WATSON TORNADO...

RATING: EF-0
ESTIMATED PEAK WIND: 75 MPH
PATH LENGTH /STATUTE/: 0.1 MILES
PATH WIDTH /MAXIMUM/: 50 YARDS

FATALITIES: 0
INJURIES: 0

START DATE: JUNE 12 2014 START TIME: 8:18 PM CDT

START LOCATION: 1.5 W WATSON / BURNET COUNTY / TX

START LAT/LON: 30.9321 / -98.0402

END DATE: JUNE 12 2014
END TIME: 8:19 PM CDT

END LOCATION: 1.5 W WATSON / BURNET COUNTY / TX

END LAT/LON: 30.9303 / -98.0400

SURVEY SUMMARY: U.S. NATIONAL WEATHER SERVICE METEOROLOGISTS SURVEYED DAMAGE WEST OF WATSON. THE SURVEY TEAM FOUND A SMALL WEAK EFO TORNADO TOUCHED DOWN NEAR COUNTY ROAD 208. THE ONLY DAMAGE FOUND WAS TO HARDWOOD TREES. WINDS WERE ESTIMATED TO BE NEAR 75 MPH.





Burnet County Tornadoes.

.SHADY GROVE TORNADO...

RATING: EF-2
ESTIMATED PEAK WIND: 125 MPH
PATH LENGTH /STATUTE/: 1.7 MILES
PATH WIDTH /MAXIMUM/: 100 YARDS

FATALITIES: 0
INJURIES: 0

START DATE: JUNE 12 2014 START TIME: 8:25 PM CDT

START LOCATION: 3.5 N SHADY GROVE / BURNET COUNTY / TX

START LAT/LON: 30.8685 / -98.0875

END DATE: JUNE 12 2014 END TIME: 8:29 PM CDT

END LOCATION: 2.7 NNW SHADY GROVE / BURNET COUNTY / TX

END LAT/LON: 30.8507 / -98.1068

SURVEY SUMMARY: U.S. NATIONAL WEATHER SERVICE METEOROLOGISTS SURVEYED DAMAGE NORTH OF SHADY GROVE. THE SURVEY TEAM FOUND A STRONG TORNADO INITIALLY TOUCHED DOWN NORTH OF FM 963 NEAR BAR D TRAIL. DAMAGE TO A WIND MILL...NUMEROUS TREES UPROOTED AND DAMAGE TO A METAL BARN WERE NOTED. A SINGLE FAMILY HOME ALSO LOST NUMEROUS SPANISH TILE SHINGLES FROM ITS ROOF. THE DAMAGE AT THIS LOCATION WAS NOTED TO BE EF1. THE TORNADO THEN TRACKED TO THE SOUTHWEST WHERE EF2 DAMAGE WAS NOTED TO A HOME TO THE EAST OF FM 1174 ABOUT 0.5 MILES SOUTH OF THE INTERSECTION WITH FM 963. DAMAGE TO A SINGLE RESIDENCE HOUSE WAS OBSERVED. THE HOUSE WAS PICKED UP OFF ITS FOUNDATION OF ABOUT 30 PIERS AND LANDED ABOUT 100 YARDS TO THE S/SW OF THE ORIGINAL LOCATION. FIVE PEOPLE TOOK APPROPRIATE ACTIONS AND SOUGHT SHELTER IN THEIR BATHROOM. THE RESIDENTS EXPERIENCED ONLY VERY MINOR CUTS AND SCRAPES DESPITE THE SEVERITY OF THE DAMAGE TO THE HOME. THE TORNADO THEN CAUSED TREE DAMAGE ON THE WEST SIDE OF FM 1174 BEFORE LIFTING. MAXIMUM WINDS WERE ESTIMATED TO BE NEAR 125 MPH.





Uvalde / Leakey Damage.

PUBLIC INFORMATION STATEMENT NATIONAL WEATHER SERVICE AUSTIN/SAN ANTONIO TX 1048 PM CDT FRI JUN 13 2014

...STORM SURVEY RESULTS FROM UVALDE AND REAL COUNTY...

A NATIONAL WEATHER SURVEY TEAM SURVEYED TWO AREAS OF DAMAGE IN UVALUE AND REAL COUNTY. THE TEAM CONCLUDED THAT BOTH AREAS OF DAMAGE WERE THE RESULT OF STRAIGHT LINE DOWNBURST WINDS. WIND SPEEDS WERE ESTIMATED TO BE BETWEEN 60-70 MPH FOR BOTH LOCATIONS. WIDESPREAD DAMAGE WAS NOTED IN UVALUE WITH NUMEROUS TREES AND POWERPOLES DOWN DUE TO THE HIGH WINDS. A GRAIN SILO SUFFERED MAJOR DAMAGE NORTH OF UVALUE AND SEVERAL TRAIN CARS WERE ALSO OVERTURNED IN UVALUE.

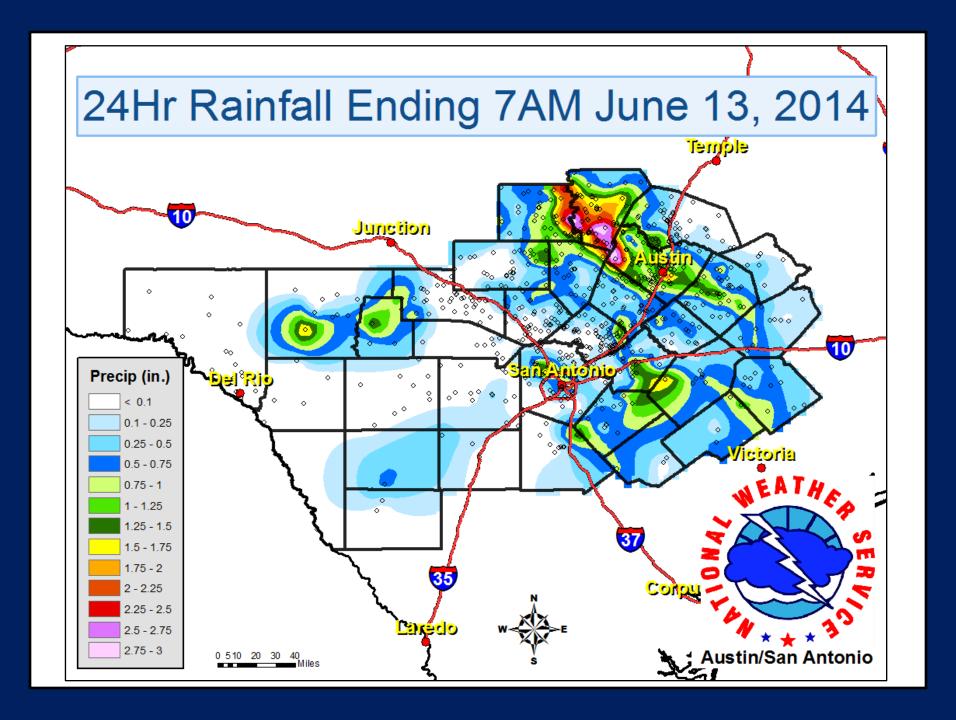




SS







Social Media





Two damage survey crews went out on the morning of 6/13/14. Our SOO and Intern went to Burnet to survey tornado damage (above), while our Hydrologist and a Lead Forecaster went to Uvalde and Leakey to determine whether the damage there was caused by a tornado or straight line winds. While out surveying we conducted media interviews, took pictures, and plotted damage points using our phones and GPS.

We conduct these damage surveys not only to give a rating to the tornado, but the results of these surveys help us educate the public and media, further meteorological research, and help engineers build stronger and safer homes.