



Time Path Path Number of Estimated Local/ Length Width Persons Damage
Location Date Standard (Miles) (Yards) Killed Injured Property Crops Character of Storm

### **NEW MEXICO, Southeast**

#### Lea County

2.5 NE Crossroads

04 2045MST 0 0 200K 0 Thunderstorm Wind (EG61)

Severe thunderstorm winds blew down an oil field pulling unit northeast of Crossroads. The pulling unit was a large "L"-shaped structure towering 110 feet tall and weighing approximately fifty tons. In addition, several large tree limbs measuring ten inches in diameter were broken and some tin was partially removed from the roof of an abandoned house.

#### Lea County

1 N Crossroads to 2 N Crossroads 04 2100MST 2300MST 0 0 0 Flash Flood

Oil field workers reported flood waters covering State Highway 206 north of Crossroads.

A complex of strong to severe thunderstorms propagated southeast across the southeastern New Mexico plains during the late evening of the 4th. Severe winds resulted in significant damage to oil field machinery and a part of State Highway 206 was under water as a result of flash flooding.

### Eddy County Queen

07 1650MST 1707MST 0 0 5K 0 Hail(1.75)

Scattered thunderstorms affected the Guadalupe Mountains and the plains of southeastern New Mexico during the afternoon and evening of the 7th. An isolated storm became severe and produced large hail near Queen in southwestern Eddy County. A store manager reported that hail began as quarter size stones, but grew to the size of golfballs before it ended more than fifteen minutes later.

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### Eddy County Carlsbad to Malaga

12 2123MST 2210MST 0 500K 200K

Thunderstorm Wind (MG68)



Damaging thunderstorm winds affected a large part of Eddy County on the evening of the 12th. Downed power lines, poles, and trees were widespread in the area between Carlsbad and Malaga. Numerous light structures also were damaged. The photo above shows an exterior brick wall that collapsed when a portion of the roof was peeled off of a Malaga business by the winds. Photo courtesy: National Weather Service Midland/Odessa, Texas.

A linear bow-shaped complex of severe storms swept southeast across Eddy County during the late evening of the 12th. These storms resulted in widespread wind damage as they affected Carlsbad, Loving, and Malaga. Numerous trees, utility lines, and dozens





August 2004 Time Local Path Length Path Number of Estimated Width Persons Damage **NEW MEXICO, Southeast** of power poles were downed by the storms. Several trailers and other light structures also sustained damage. A National Weather Service damage assessment team also found wind damage to area agricultural crops. A wind gust of 78 MPH was recorded by the Carlsbad Municipal Airport ASOS at 21:39 MST. No injuries were reported. **Eddy County** Carlsbad 2127MST 2130MST Hail(1.00) Penny to quarter size hail was reported in Carlsbad. **Eddy County** Carlsbad to 10 NW Carlsbad 50K Flash Flood 12 13 0030MST Law enforcement officials and trained storm spotters reported flash flooding that inundated numerous city streets with flowing flood waters. The floods damaged at least one business when up to half a foot of water entered a local hotel. In addition, several area highways were deemed impassable due to high water. State Highway 137 was completely submerged by flood waters near the intersection of U.S. Highway 285. No injuries were reported. **Eddy County** Carlsbad 12 Lightning A man was transported to a local hospital after being severely injured by lightning. The injury occurred on Forest Drive in the city of Carlsbad **Eddy County** 21 ESE Malaga 12 Thunderstorm Wind (MG50) A severe wind gust was measured on the Eddy/Lea County line at the Paduca RAWS site Lea County 31 WNW Jal 12 Thunderstorm Wind (MG50) A severe wind gust was measured on the Eddy/Lea County line at the Paduca RAWS site Lea County **Hobbs** 21 1800MST Hail(1.75) Several thunderstorms developed over the southeastern plains of New Mexico during the late afternoon and evening of the 21st. This activity quickly moved into parts of west Texas where an extensive severe weather episode unfolded. One thunderstorm became severe over Hobbs. Law enforcement officials reported golfball size hail in the city. Lea County 8 W Jal to 10 W Jal 31 Flash Flood Strong thunderstorms resulted in very heavy rainfall over rural areas west of Jal. Doppler radar estimates indicated nearly four inches of rainfall fell over State Highway 128. The Jal Police Department reported high water flowing over the highway at several locations between eight and ten miles west of Jal. TEXAS, West **Dawson County** 4 NNE Grandview to 2108CST 20K 350K Hail(2.75) 06 4 N Arvana A high precipitation supercell moved slowly southeast across northern Dawson County during the late evening of the 6th. This storm resulted in a large swath of damaging hail ranging in size from quarters to baseballs. Most of the damage was restricted to cotton crops from the Lynn/Dawson county line near Grandview. A survey by the Dawson County Agricultural Extension Agent concluded

pea size hail.

that over 5,000 acres of cotton were lost. The storm weakened before crossing U.S. Highway 87 at Arvana where it produced only





August 2004 Time Local Path Length Path Number of Estimated Persons Width Damage TEXAS, West **Scurry County** Snyder 0 0 0 0 Flash Flood The Scurry County Sheriffs Department reported flash flooding that resulted in high water running through several city streets. Deputies closed some streets with barricades. A complex of strong to severe thunderstorms tracked from the Texas south plains into the northeastern Permian Basin during the late evening of the 6th. The southern storm of the linear complex was an intense high precipitation supercell. This storm produced a swath of very large and damaging hail. Thunderstorms and heavy rainfall also resulted in flash flooding in Snyder. **Reagan County** 2 W Big Lake 08 1640CST Hail(0.75) Hail was reported on U.S. Highway 67. **Brewster County** 5 NNW Alpine 08 09 Flash Flood The Texas Department of Public Safety reported high water flowing over State Highway 118 north of Alpine Two areas of convection affected parts of west Texas during the afternoon and evening of the 8th. During the late afternoon hours, a small cluster of multicell thunderstorms moved southeast over the southern Permian Basin. One of these storms became severe and produced penny size hail west of Big Lake. Thunderstorms with heavy rainfall moved over the Davis Mountains and Big Bend during the evening hours. Several waves of storm activity over northern Brewster County resulted in localized flash flooding. Midland County Greenwood 12 0512CST Hail(0.75) Midland County 2 SW (Maf) Midland Intl 12 0516CST Hail(1.00) **Ector County** Odessa 12 0524CST Hail(0.75) A complex of strong to severe thunderstorms moved across the central Permian Basin during the early morning hours of the 12th. A few severe cells within this linear complex resulted in large hail up to the size of quarters. **Loving County** Red Bluff Res 12 5K Thunderstorm Wind (EG61) A rural resident of northwestern Loving County reported severe thunderstorm winds that broke large tree limbs and displaced large appliances, including a retired clothes dryer, that were stored outside **Ward County** Thunderstorm Wind (EG61) **Barstow** 10K 12 13 0100CST Severe thunderstorm winds blew the roof off of a barn in Barstow. **Reeves County** Pecos 13 0100CST 0 0 0 Thunderstorm Wind (EG52) A local radio station broadcaster reported 60 MPH winds in Pecos. A National Weather Service rainfall observer reported that a large tree was blown down by the severe thunderstorm winds.

A bow-shaped linear complex of thunderstorms that produced widespread wind damage across southeastern New Mexico propagated southeast across the Upper Trans Pecos region of west Texas around midnight CST on the 12th. Although damage reports were likely limited by the rural and largely unpopulated nature of the area, several large trees were blow down and at least



Jeff Davis County Ft Davis

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# National Weather Service Storm Data and Unusual Weather Phenomena



August 2004 Time Local/ Path Length Path Width Number of Estimated Persons Damage TEXAS, West one light structure sustained damage. **Brewster County** 5 WSW Alpine to 5 SSE Alpine 1324CST 1345CST Hail(0.88) Law enforcement officials and a local radio station reported a swath of nickel size hail from U.S. Highway 90/67 west of Alpine to State Highway 118 south of the city. **Brewster County** 0 50K 0 Flash Flood Alpine 14 Several Alpine residents were evacuated from their homes during the afternoon of the 14th when heavy rainfall resulted in the most significant flooding along Alpine Creek in thirty years. Photo courtesy: Beste Esparza/Alpine Avalanche. The Alpine Police Department barricaded city streets at several low water crossings at 14:15 CST due to flash flooding. Shortly before 1600 CST Alpine Creek began to overflow its banks, and washed away the police barricades. During the next half hour, residents were evacuated from several homes along the creek as flood waters continued to rise. **Pecos County** 1630CST 1830CST 9 N Ft Stockton Flash Flood 14 Flash flooding resulted in high water flowing over Farm to Market Road 1053 north of Fort Stockton A cluster of strong to severe thunderstorms developed over the Davis and Glass Mountains during the afternoon of the 14th. One storm produced nickel size hail near Alpine. Heavy rainfall associated with the thunderstorm activity also produced significant flash flooding along Alpine Creek in Alpine. Local officials called it the worst flooding to affect the city in thirty years. Flash flooding also resulted in road closures across parts of Pecos County.

The Jeff Davis County Emergency Manager reported that flash flooding resulted in high water in several city streets of Fort Davis.

Flash Flood





August 2004 Time Local Path Length Path Number of Estimated Persons Width Damage TEXAS, West **Reeves County** Pecos 17 0 0 0 0 Flash Flood Local emergency management officials reported widespread flooding of city streets in Pecos. Over one inch of rain reportedly fell in a twenty minute period. Scattered strong thunderstorms produced locally heavy rainfall in the Davis Mountains and the Upper Trans Pecos region of west Texas. Officials in both Reeves and Jeff Davis Counties reported dangerous conditions due to street flooding. **Martin County** 1710CST 1900CST 10 WNW Tarzan to Flash Flood 18 3 E Tarzan The Martin County Sheriff's Office reported flood waters flowing over State Highway 349 in northwest Martin County and Farm to Market Road 829 near Grady. **Mitchell County** 3 S Loraine 18 0 Flash Flood Heavy rainfall resulted in flash flooding over rural portions of northern Mitchell County. Local officials reported high water flowing over the intersection of County Road 426 and Farm to Market Road 644 south of Loraine Strong thunderstorms affected the northern and eastern Permian Basin of west Texas during the late afternoon and evening of the 18th. These storms produced very heavy rainfall at some locations. A Mitchell County resident measured 4.8 inches of rain that fell in a short time south of Loraine. Flash flooding made local roads and highways impassable across portions of Martin and Mitchell Counties. Reagan County 0 19 NE Stiles 1440CST 1450CST 0 Hail(1.00) 21 A complex of severe multicell convection back built into the southeastern Permian Basin from the west-central Texas area near San Angelo along and north of a stalled frontal boundary. This was first of several waves to affect the west Texas Permian Basin and the Trans Pecos region during an extensive severe weather episode. Pea to quarter size hail was first reported at the Cope Ranch in rural northeastern Reagan County. **Reagan County** 13 NNW Stiles 1503CST 1700CST Flash Flood Flash flooding across northern Reagan County resulted in high water that flowed over the intersection of State Highway 137 and Morton Drive. A National Weather Service cooperative observer reported 1.8 inches of rainfall in the immediate area Reagan County 13 NNW Stiles 0 21 1525CST 0 0.50K0 Thunderstorm Wind (EG57) The North Reagan County Fire Department reported severe thunderstorm winds that produced minor damage around the fire station. A large wooden swing and jungle gym unit was blown over by the winds **Glasscock County** 1 E Garden City Hail(0.75) A left moving anticyclonic supercell split from the multicell complex over Reagan County and moved north across eastern Glasscock

County. This storm produced penny size hail over State Highway 158 just east of Garden City.





August 2004 Time Local Path Length Path Number of Estimated Persons Damage Width TEXAS, West Midland County Greenwood 21 1525CST 0 0 0 Hail(1.75) Convective development quickly increased north of the stalled frontal boundary. A severe thunderstorm developed in northeastern Midland County, and produced golfball size hail in Greenwood. No damage was reported. **Martin County** 1 WSW Stanton 21 1650CST 0 Hail(1.75) The storm that produced large hail over Greenwood moved northeast into Martin County. Motorists traveling along Interstate 20 reported golfball size hail just outside of Stantor. **Martin County** 8 SW Stanton 21 1820CST 2000CST 0 Flash Flood A trained storm spotter reported flood waters in excess of a foot deep flowing over Interstate 20 on the Martin/Midland County line **Midland County** 12 NE Midland Flash Flood 21 2000CST A trained storm spotter reported flood waters in excess of a foot deep flowing over Interstate 20 on the Martin/Midland County line **Upton County** O 0 Hail(1.75) Mc Camey to 7 NNE Mc Camey Additional thunderstorm activity developed west along the front. The public reported golfball size hail in McCamey. The storm continued to produce large hail as it tracked northeast of the city. A local electric company reported penny size hail at a power generating windmill facility on King Mountain north-northeast of McCamey. No damage was reported. **Upton County** Mc Camey to 1 S Mc Camey Flash Flood 21 Local officials reported high water flowing through several city streets in McCamey. In addition, Farm to Market Road 1901 was impassable due to flood waters in and just south of the city. **Andrews County** Andrews 21 1642CST Hail(1.75) 1643CST The first of several rounds of severe storms impacted the northwest Permian Basin during the late afternoon as convective development continued to increase towards the northwest. A severe thunderstorm rapidly developed over Andrews and produced hailstones ranging in size from nickels to golfballs. No damage was reported. **Andrews County** 1 W Andrews to 6 SE Andrews 0 Hail(0.75) The initial severe storm that developed over Andrews evolved into a cluster of strong to severe thunderstorms. A second cell produced large hail in Andrews west of U.S. Highway 385. As the complex propagated southeast, it produced a six miles long swath of penny size hail southeast of the city. The hail was described as "mushy" and disintegrated upon impacting the grounc. **Andrews County** Andrews 21 150K Flash Flood





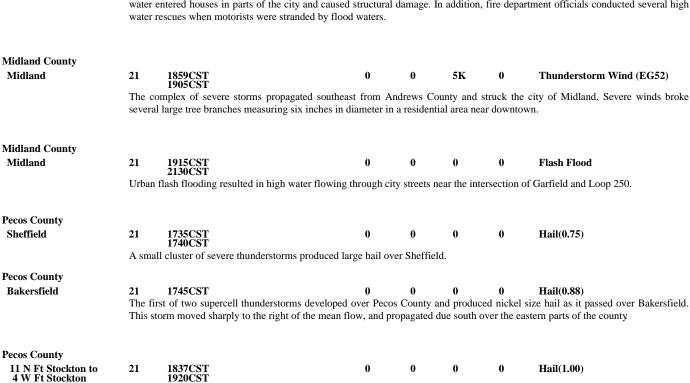
August 2004 Time Local/ Path Length Path Width Number of Estimated Persons Damage

### TEXAS, West



Members of the Andrews Fire Department work to rescue the occupants of a car submerged in flood waters. Photo courtesy: Sherie Reid/Andrews

Storm spotters and local officials reported flash flooding in Andrews. Several city streets were inundated by flowing water. High water entered houses in parts of the city and caused structural damage. In addition, fire department officials conducted several high



The second supercell storm to affect Pecos County on the evening of the 21st, and the most destructive storm of the event, developed over the northern parts of the county and propagated south-southwest toward Fort Stockton. A rural resident reported three-quarter inch hail north of the city. The Texas Department of Public Safety reported nickel size hail at mile marker 254 on Interstate 10 as the





Time Path Path Number of Estimated August 2004

Local/ Length Width Persons Damage

Location Date Standard (Miles) (Yards) Killed Injured Property Crops Character of Storm

### **TEXAS, West**

core of the storm passed just west of Fort Stockton. Quarter size hail fell at the municipal airport located just west of the city.

**Pecos County** 

2 SW Ft Stockton to 2.1 SW Ft Stockton 21 1910CST 0.1 75 0 0 0 0 Tornado (F0) 1911CST

A tornado was observed by a trained storm spotter and security officials at the Lynbaugh Texas Department of Corrections Unit. The tornado was short-lived, and occurred just southwest of Fort Stockton west of U.S. Highway 385. No damage or injuries resulted.

**Pecos County** 

7 SW Ft Stockton to 7 SSW Ft Stockton 21 1920CST 0 0 0 1940CST

A broad swath of golfball size hail affected rural areas southwest of Fort Stockton. The hail resulted in significant crop damage at Belding Farms. The large agricultural complex suffered over \$1.5 million in damage to pecan orchards

10K

1.5M

Hail(1.75)

Pecos County
7 SW Ft Stockton

21 1920CST 0 0 40K 0 Hail(2.50)

Hailstones ranging in size from golfballs to tennis balls followed the damaging winds that destroyed a large hay barn and severely damaged a home on the property. The hail was responsible for additional damage to the home's roof and windows.

Pecos County
7 SW Ft Stockton to
7.5 SSW Ft Stockton

21 1920CST 0 0 125K 300K Thunderstorm Wind (EG65) 1935CST



Two large hay barns were destroyed as a tornadic supercell tracked south across central Pecos County. A National Weather Service damage assessment team determined the damage was the result of severe rear flank downdraft winds on the back side of the storm. Photo courtesy: National Weather Service, Midland/Odessa, Texas.

Intense rear flank down draft winds developed along the southwest and west flank of the storm as it propagated south of Interstate 10. These winds destroyed two large hay barns on adjacent ranches between Belding and Fort Stockton, subjecting the hay to rain and causing a total loss. Debris from the tin roof of one barn was blown into a nearby homestead. Power poles and lines were snapped as the debris slammed into the house causing structural damage and killing a cow.





August 2004 Time Local Path Length Path Number of Estimated Width Damage Persons TEXAS, West **Pecos County** 6 SSW Ft Stockton to 6.2 SSW Ft Stockton 21 0.2 75 0 0 0 0 Tornado (F0) A second tornado was observed by guards at the Lynbaugh Texas Department of Corrections Unit. The tornado occurred in open range land between Belding and Fort Stockton west of U.S. Highway 385. It was short-lived and resulted in no damage or injuries. **Pecos County** 11 S Ft Stockton 1955CST 21 0 Hail(2.75) 2K A motorist encountered baseball size hail on U.S. Highway 385 south of Fort Stockton **Gaines County** 8 NW Seminole 21 1835CST 0 0 12K 0 Thunderstorm Wind (EG57) Additional thunderstorm development over the northwestern Permian Basin resulted in damaging winds that blew down a row of power poles along State Highway 214 northwest of Seminole. Sparking utility lines set the poles on fire after they were downed by the storm. **Gaines County** 8 W Seminole 21 1915CST Hail(1.75) A severe thunderstorm that initiated in Lea County, New Mexico, moved east across western Gaines County. This was the second severe storm to affect the county within an hour. Golfball size hail was reported on U.S. Highway 62/180 west of Seminole. **Gaines County** 4 N Seminole 21 0 Flash Flood 2030CST A section of U.S. Highway 62/385 was closed when flash flooding resulted in high water flowing over the highway A stalled frontal boundary ignited a round of significant severe weather across the west Texas Permian Basin and Upper Trans Pecos during the afternoon and evening of the 21st. Convection initially developed over west-central Texas. This activity back built into the southeastern Permian Basin. As the afternoon progressed, development quickly increased northwest along the frontal boundary. Storms that developed over much of the Permian Basin were largely elevated and multicell in nature and produced large hail and damaging winds along with very heavy rainfall. Several storms that developed south of the front organized into classic supercells. One storm resulted in at least two tornadoes and extensive wind and hail damage over central Pecos County. By the conclusion of the event during the late evening hours, almost \$2 million of property and agricultural damage had occurred across the region. **Howard County Big Spring** 25 0325CST 0 Hail(1.00) **Howard County** 25 0330CST 15K **Big Spring** Thunderstorm Wind (EG61) A round of early morning thunderstorms moved across the west Texas Permian Basin before dawn on the 25th. One storm embedded in the convective complex became severe and resulted in large hail and damaging winds near Big Spring. Penny to quarter size hail was reported in the city. Severe thunderstorm gusts caused minor roof damage to a structure on the south side of the city. **Terrell County** 5 W Dryden 26 0 0 O O Thunderstorm Wind (MG51) An isolated thunderstorm produced a severe wind gust that was measured by the Terrell County Airport ASOS during the early evening of the 27th.





		Time	Path	Path	Number of Persons		Estimated Damage		August 2004
Location	Date	Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	Character of Storm
TEXAS, West									
IEAAS, West									
<b>Andrews County</b>									
4 W Andrews	30	1327CST 1331CST			0	0	0	0	Hail(1.00)
	Quart	er size hail was re	eported on Stat	te Highway 1	76.				
<b>Scurry County</b>									
10 WSW Snyder to Knapp	30	1510CST 1529CST			0	0	0	0	Hail(1.25)
	Residents of southwestern Scurry County reported quarter to half dollar size hail between Snyder and Knapp.								
P. I. C. A									
Borden County Lake J B Thomas	30	1542CST			0	0	0	25K	Hail(0.75)
		1542CST 1555CST							
Borden County Lake J B Thomas	30	1550CST			0	0	0	5K	Thunderstorm Wind (EG52)
Lake 3 D Thomas		1555CST	4 4 1	11 1 21					, ,
	The severe thunderstorm that produced large hail in Scurry County propagated southwest across parts of Borden County. along the shores of Lake J.B. Thomas reported large hail that covered the ground and damaging thunderstorm winds								
	stripp	ed pecans from a	small private j	pecan orchard	d and thunde	erstorm wi	nds broke	off branche	es six inches in diameter.
Andrews County 18 SE Andrews	30	1610CST			0	0	0	0	Hail(0.75)
10 SE Andrews		size hail was rep	orted on Farm	to Market R	oad 1788 in	•	-	vs County.	
Midland County									
7 NW (Maf) Midland Int		1630CST		1 Gl	0	0	0.50K	0	Thunderstorm Wind (EG52)
	Sever	e thunderstorm w	inas biew dow	n a large mag	g poie at a ru	irai nomes	tead in noi	tnwestern	Midiand County
Crane County									
12 N Crane	30	1720CST			0	0	0	0	Hail(1.75)
	Golfb	all size hail was r	eported at a tra	ailer park alo	ng U.S. Hig	hway 385	in northea	stern Crane	e County
<b>T</b>									
Ector County 10 W Odessa	30	1730CST			0	0	0	0	Hail(0.75)
Crane County					-	-		-	
14 N Crane	30	1807CST			0	0	0	0	Flash Flood
	1930CST Local officials reported one foot deep flood waters crossing U.S. Highway 385 north of Crane								
	Widespread convection erupted over the west Texas Permian Basin during the afternoon of the 30th. Several storms became severe with organized multicell structures the dominant mode for convection. One relatively long-lived thunderstorm propagated southwest								
									ed pecan trees. Another well-organized
	storm produced golfball size hail over U.S. Highway 385 in northern Crane County. This storm remained stationary ov highway for nearly an hour, and resulted in flash flooding along the steep terrain of the Caprock Escarpment.								
Pecos County									
Ft Stockton to	31	1050CST			0	0	75K	0	Flash Flood
5 SSW Ft Stockton	Thund	1700CST derstorms were sta	ationary over	Fort Stockton	around mic	dday on th	e 31st. Th	ese storms	resulted in up to two inches of rainfall

Thunderstorms were stationary over Fort Stockton around midday on the 31st. These storms resulted in up to two inches of rainfall over the city by 11:00 CST. Extensive flooding in Fort Stockton was reported along with flooding along U.S. Highway 385 just southwest of the city. Fire department officials reported that several high water rescues were conducted in the south side of the city, and residents were evacuated from their homes in one neighborhood. A National Weather Service cooperative observer on the south side of Fort Stockton measured 5.10 inch of rain for the event. Flooding in the city receded by mid afternoon. High water persisted





August 2004 Path Length (Miles) Time Local/ Path Width Number of Estimated Persons Damage TEXAS, West over U.S. Highway 385 just southwest of the city through 17:00 CST. No injuries were reported. **Andrews County** Andrews 1515CST 1630CST Flash Flood A thunderstorm persisted over the north side of Andrews and produced between one and two inches of rainfall within half an hour during the afternoon of the 31st. Multiple reports indicated dangerous flash flooding conditions in the city. Local officials barricaded northwest Avenue G from Eighth to Eleventh Streets. Flooding of city streets was widespread in the vicinity of City Lake. Flood waters flowed two feet deep through some streets. **Andrews County** 1650CST 1800CST 0 Flash Flood 8 E Andrews 31 A second thunderstorm produced very heavy rainfall east of Andrews. As a result, flood waters flowed across State Highway 176. **Crane County** 1750CST 1930CST 8 N Crane 0 31 0 Flash Flood Strong thunderstorms and locally heavy rainfall resulted in flash flooding for the second consecutive day over northeastern Crane

County on the 31st. Local officials reported flood waters flowing over U.S. Highway 385 north of Crane.

Scattered thunderstorms erupted over the west Texas Trans Pecos region by midday on the 31st. The activity initiated over Pecos County where dangerous flash flooding conditions affected Fort Stockton. Convection spread northeast during the afternoon and evening into the Permian Basin. Officials reported that flash flooding "effectively shut down" the city of Andrews during the late afternoon.