

Storm Data and Unusual Weather Phenomena - May 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
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NEW MEXICO, Southeast

LEA COUNTY --- HOBBS [32.70, -103.13]

	05/11/11 01:00 MST	0	Hail (1.25 in)
	05/11/11 01:15 MST	0	Source: COOP Observer

A Pacific cold front moved across west Texas and southeast New Mexico during the overnight hours. Increasing low level moisture convergence along this front and a dryline combined with an approaching mid level shortwave trough to produce severe thunderstorms from the southeast New Mexico plains through portions of the Permian Basin. Steep lapse rates and modest deep layer shear supported large hail.

(NM-Z028) EDDY COUNTY PLAINS

	05/24/11 12:55 MST	0	High Wind (MAX 51 kt)
	05/24/11 12:55 MST	0	

The passage of a potent upper level trough resulted in isolated strong wind gusts across portions of the southeast New Mexico plains.

LEA COUNTY --- 3.2 ENE LOVINGTON [32.95, -103.30]

	05/31/11 16:58 MST	0	Hail (1.00 in)
	05/31/11 17:03 MST	0	Source: Amateur Radio

The hail covered the ground.

LEA COUNTY --- 8.8 NNW KNOWLES [32.95, -103.13]

	05/31/11 17:19 MST	0	Hail (1.00 in)
	05/31/11 17:24 MST	0	Source: Trained Spotter

LEA COUNTY --- 4.5 NW KNOWLES [32.88, -103.13]

	05/31/11 17:25 MST	0	Hail (2.75 in)
	05/31/11 17:30 MST	0	Source: Trained Spotter

LEA COUNTY --- 5.8 NW KNOWLES [32.88, -103.16]

	05/31/11 17:36 MST	0	Hail (2.75 in)
	05/31/11 17:46 MST	0	Source: Trained Spotter

The hail covered the ground.

LEA COUNTY --- 0.9 SE KNOWLES [32.82, -103.07]

	05/31/11 17:59 MST	0	Hail (2.00 in)
	05/31/11 18:04 MST	0	Source: Trained Spotter

A warm front draped across the region and orographic lift combined with a passing mid to upper level shortwave trough to produce thunderstorms across southeast New Mexico and the Davis Mountains of west Texas. Very steep mid level lapse rates, moderate instability and sufficient deep layer shear resulted in very large hail reports.

TEXAS, West

(TX-Z074) DAVIS / APACHE MOUNTAINS AREA

	05/07/11 16:30 CST	0	Wildfire
	05/22/11 00:00 CST	0	

A low level thermal ridge resulted in very warm and dry conditions with high temperatures near 100 degrees and relative humidity values near 5 percent. Winds were from 20 to 25 MPH with gusts to 35 MPH. A Red Flag Warning was in effect for the area.

(TX-Z074) DAVIS / APACHE MOUNTAINS AREA

	05/08/11 12:30 CST	60K	Wildfire
	05/16/11 00:00 CST	0	

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An upper level low brought hot and dry conditions to the area, along with winds of 15 to 25 MPH. This resulted in critical fire weather conditions and a Red Flag Warning being issued for the area.

(TX-Z052) HOWARD, (TX-Z074) DAVIS / APACHE MOUNTAINS AREA

	05/09/11 11:00 CST		0.24M	Wildfire
	05/22/11 00:00 CST		0	

Gusty southwest winds above 20 MPH were present across West Texas. These winds combined with low relative humidity values and near triple digit temperatures to produce near critical fire weather conditions.

(TX-Z258) GUADALUPE MOUNTAINS OF CULBERSON COUNTY

	05/09/11 13:00 MST		0	High Wind (MAX 52 kt)
	05/09/11 16:00 MST		0	

Increasing mid level winds associated with an approaching upper level trough resulted in strong westerly winds in the Guadalupe Mountains.

(TX-Z258) GUADALUPE MOUNTAINS OF CULBERSON COUNTY

	05/10/11 13:51 MST		0	High Wind (MAX 52 kt)
	05/11/11 09:51 MST		0	

Increased mid level winds at the base of a passing upper level trough resulted in strong winds through the Guadalupe Mountains.

GAINES COUNTY --- SEAGRAVES [32.93, -102.55]

	05/11/11 03:30 CST		0	Hail (1.00 in)
	05/11/11 03:35 CST		0	Source: Emergency Manager

A Pacific cold front moved across west Texas and southeast New Mexico during the overnight hours. Increasing low level moisture convergence along this front and a dryline combined with an approaching mid level shortwave trough to produce severe thunderstorms from the southeast New Mexico plains through portions of the Permian Basin. Steep lapse rates and modest deep layer shear supported large hail.

(TX-Z258) GUADALUPE MOUNTAINS OF CULBERSON COUNTY

	05/14/11 05:51 MST		0	High Wind (MAX 37 kt)
	05/14/11 07:51 MST		0	

The passage of a cold front resulted in high northeast winds through the lower elevations of the Guadalupe Mountains.

(TX-Z258) GUADALUPE MOUNTAINS OF CULBERSON COUNTY

	05/17/11 14:49 MST		0	High Wind (MAX 63 kt)
	05/17/11 18:51 MST		0	

An approaching upper level trough resulted in strong mid level winds mixing down into the Guadalupe Mountains, which supported high wind speeds in the mountains.

(TX-Z063) GLASSCOCK

	05/18/11 00:00 CST		0	Wildfire
	05/19/11 00:00 CST		0	

Dry, west winds of 20 MPH or greater were present west of a dryline aiding in minimum relative humidity values from 10 to 15 percent. A Red Flag Warning was in effect for the area.

(TX-Z258) GUADALUPE MOUNTAINS OF CULBERSON COUNTY

	05/18/11 07:00 MST		0	High Wind (MAX 55 kt)
	05/19/11 06:51 MST		0	

The approach and passing of an upper level trough resulted in strong westerly winds in the Guadalupe Mountains.

MARTIN COUNTY --- 5.8 NNW LENORAH [32.38, -101.90]

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	05/19/11 23:15 CST		0	Hail (0.88 in)
	05/19/11 23:20 CST		0	Source: Public

SCURRY COUNTY --- IRA [32.58, -101.00]

	05/20/11 01:30 CST		0	Hail (0.88 in)
	05/20/11 01:35 CST		0	Source: Public

PECOS COUNTY --- 7.7 SE BAKERSFIELD [30.80, -102.19]

	05/20/11 01:45 CST		0	Hail (1.00 in)
	05/20/11 02:00 CST		0	Source: Public

MIDLAND COUNTY --- MIDLAND [32.00, -102.08]

	05/20/11 12:26 CST		0	Hail (1.00 in)
	05/20/11 12:31 CST		0	Source: NWS Employee

Increasing divergence aloft combined with a nocturnal low level jet and surface convergence along a retreating dryline to produce scattered thunderstorms across the Permian Basin and Lower Trans Pecos during the overnight hours. Deep layer shear and steep mid level lapse rates supported severe hail sizes.

(TX-Z258) GUADALUPE MOUNTAINS OF CULBERSON COUNTY

	05/20/11 03:51 MST		0	High Wind (MAX 50 kt)
	05/20/11 15:51 MST		0	

Continued strong mid level winds in the wake of a passing upper trough resulted in high winds in the Guadalupe Mountains.

MITCHELL COUNTY --- 7.6 S LORAINE [32.31, -100.71]

	05/22/11 16:30 CST		0	Hail (1.00 in)
	05/22/11 16:35 CST		0	Source: Public

This report was relayed by the local radio station. Minor damage to tree limbs was also reported.

MITCHELL COUNTY --- COLORADO CITY [32.40, -100.85]

	05/22/11 16:50 CST		0	Thunderstorm Wind (EG 56 kt)
	05/22/11 17:00 CST		0	Source: CoCoRaHS

Several tree limbs were snapped by strong wind gusts, in addition to an 18 wheel cattle trailer being blown over. The size of the tree limbs was unknown.

UPTON COUNTY --- 0.6 E MIDKIFF [31.63, -101.84]

	05/22/11 17:02 CST		0	Hail (1.00 in)
	05/22/11 17:07 CST		0	Source: Trained Spotter

PECOS COUNTY --- 1.4 WSW IRAAN [30.91, -101.90]

	05/22/11 17:10 CST		0	Hail (1.00 in)
	05/22/11 17:15 CST		0	Source: Public

PECOS COUNTY --- 1.4 WSW IRAAN [30.91, -101.90]

	05/22/11 19:00 CST		0	Hail (1.75 in)
	05/22/11 19:07 CST		0	Source: Public

A surface low was located over the Trans Pecos region during the afternoon hours on this day, with a dryline extending from the Big Bend area through the Permian Basin. Thunderstorms developed along this boundary, and quickly became severe. Moderate instability, low convective inhibition and sufficient deep layer shear supported large hail and damaging winds through the early evening hours.

(TX-Z258) GUADALUPE MOUNTAINS OF CULBERSON COUNTY

	05/24/11 09:51 MST		0	High Wind (MAX 60 kt)
	05/24/11 15:21 MST		0	

The passing of a potent upper level trough resulted in strong westerly winds across the Guadalupe Mountains.

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(TX-Z050) ANDREWS, (TX-Z062) MIDLAND				
	05/24/11 13:00 CST		0.22M	Wildfire
	05/25/11 01:00 CST		0	
Relative humidity values were near 5 percent, and high temperatures were 5 to 10 degrees above normal. A Wind Advisory and a Red Flag Warning were in effect for the Permian Basin.				
(TX-Z060) WINKLER				
	05/25/11 13:00 CST		0	Wildfire
	05/27/11 00:00 CST	1	0	
Low relative humidity values and gusty winds of 20 MPH or greater were present across the area. A red flag warning was issued.				
(TX-Z258) GUADALUPE MOUNTAINS OF CULBERSON COUNTY				
	05/27/11 09:51 MST		0	High Wind (MAX 37 kt)
	05/27/11 15:51 MST		0	
Strong mid level winds at the base of a passing upper trough resulted in high westerly winds in the Guadalupe Mountains.				
(TX-Z258) GUADALUPE MOUNTAINS OF CULBERSON COUNTY				
	05/30/11 09:51 MST		0	High Wind (MAX 52 kt)
	05/30/11 15:51 MST		0	
Strong mid level winds at the base of an upper trough moving over the central Rocky Mountains resulted in high westerly winds in the Guadalupe Mountains.				
JEFF DAVIS COUNTY --- 3.0 E VALENTINE [30.58, -104.45]				
	05/31/11 18:30 CST		0	Hail (2.75 in)
	05/31/11 18:35 CST		0	Source: Park/Forest Service
The park ranger's windshield was broken by the hail.				
JEFF DAVIS COUNTY --- 0.7 N VALENTINE [30.59, -104.50]				
	05/31/11 18:36 CST		0	Hail (1.25 in)
	05/31/11 18:41 CST		0	Source: Public
PRESIDIO COUNTY --- 7.6 S RYAN [30.31, -104.28]				
	05/31/11 18:36 CST		0	Hail (1.50 in)
	05/31/11 18:41 CST		0	Source: Public
GAINES COUNTY --- 3.1 SW HIGGINBOTHAM [32.87, -103.02]				
	05/31/11 18:58 CST		0	Hail (2.00 in)
	05/31/11 19:03 CST		0	Source: Trained Spotter
PRESIDIO COUNTY --- 1.5 NNW RUIDOSA HOT SPGS ARP [30.02, -104.66]				
	05/31/11 19:50 CST		0	Hail (2.75 in)
	05/31/11 20:10 CST		0	Source: Public
The time of this report was estimated based on radar data.				
PRESIDIO COUNTY --- 0.9 NE PRESIDIO [29.56, -104.36]				
	05/31/11 21:05 CST		0	Hail (1.75 in)
	05/31/11 21:10 CST		0	Source: Public
A warm front draped across the region and orographic lift combined with a passing mid to upper level shortwave trough to produce thunderstorms across southeast New Mexico and the Davis Mountains of west Texas. Very steep mid level lapse rates, moderate instability and sufficient deep layer shear resulted in very large hail reports.				