

## Storm Data and Unusual Weather Phenomena - April 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
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### TEXAS, South Panhandle

(TX-Z021) PARMER, (TX-Z022) CASTRO, (TX-Z023) SWISHER, (TX-Z024) BRISCOE, (TX-Z025) HALL, (TX-Z026) CHILDRESS, (TX-Z027) BAILEY, (TX-Z028) LAMB, (TX-Z029) HALE, (TX-Z030) FLOYD, (TX-Z031) MOTLEY, (TX-Z032) COTTLE, (TX-Z033) COCHRAN, (TX-Z034) HOCKLEY, (TX-Z035) LUBBOCK, (TX-Z036) CROSBY, (TX-Z037) DICKENS, (TX-Z038) KING, (TX-Z039) YOAKUM, (TX-Z040) TERRY, (TX-Z041) LYNN, (TX-Z042) GARZA, (TX-Z043) KENT, (TX-Z044) STONEWALL

04/01/11 00:00 CST	0	Drought
04/30/11 23:59 CST	5M	

The extended dry period which began over west Texas during the 2010 autumn persisted through April, and resulted in a rapid intensification of drought over the South Plains. During the first week of April, Severe (D2) expanded northward over all of the South Plains and extreme southern Texas Panhandle while Extreme (D3) drought expanded to include the extreme southeastern Panhandle, the southwestern South Plains, and all of the Low Rolling Plains.

Rainfall since November 2010 ranged from under a tenth of an inch at Plains (Yoakum County) to close to two inches at Friona (Parmer County), Plainview (Hale County), Tulia (Swisher County) and Guthrie (King County)...while most other locations across the South Plains experienced around one inch of rain during the seven-month period. These totals were two to six inches below climatological normal values. In addition, temperatures during the month of April averaged 5 to 8 degrees above normal. Keetch-Byram Drought Index values ranged between 600 and 700 across the region by the end of April.

Through April, impacts of the deepening drought were most evident in an unprecedented level of wildfire activity across the state. Multiple long-lived and massive wildfires occurred across the state during the month, including several that persisted for upwards of two weeks in duration and totaling nearly 2 million acres statewide. During April, agricultural impacts were additionally worsening. Local experts estimated that winter wheat crops sustained a 60 percent loss. South Plains cotton farmers delayed planting through the month of April due to the drought's impact. It was evident that if rain did not increase during the late spring and early summer, cotton crops (the area's main economy) would suffer tremendous adverse impacts.

Economic losses due to drought through April were estimated near \$5 million, and were predominately a result of failed winter wheat.

#### (TX-Z039) YOAKUM

04/02/11 16:10 CST	0	Wildfire
04/02/11 19:30 CST	0	

A wildfire ignited east-northeast of Denver City (Yoakum County) shortly after 16:00 CST on the 2nd. The fire burned 2,000 acres before it was contained around 19:30 CST. No significant property damages were reported.

#### (TX-Z034) HOCKLEY, (TX-Z040) TERRY, (TX-Z042) GARZA

04/03/11 15:30 CST	0.33M	Wildfire
04/04/11 10:00 CST	0	

#### (TX-Z042) GARZA

04/04/11 00:45 CST	0	High Wind (MAX 59 kt)
04/04/11 00:45 CST	0	

Strong southwest to westerly winds accompanied the passage of a strong upper air storm system on the 3rd. The winds combined with very dry air and deepening drought to contribute toward at least three significant wildfires on the South Plains of west Texas.

A 100 acre fire broke out just southwest of Denver City (Yoakum County) around 14:30 CST. The fire threatened at least 80 homes and 150 residents were evacuated. No structural damages were reported.

By 18:00 CST a second fire had ignited near Justiceburg (Garza County). This fire quickly jumped U.S. Highway 84 and threatened some 400 recreational vehicles and trailer homes near Lake Alan Henry. Firefighters were able to save the properties, but suffered minor damages to several fire trucks. The fire burned approximately 5,000 acres before it was finally contained during the morning hours of the 4th.

Around 19:00 CST a fire began near two abandoned homes north of Smyer (Hockley County). The homes were destroyed, but firefighters were able to contain the blaze at 15 acres.

During the overnight hours, a localized but intense wind gust was observed by the Texas Tech University West Texas Mesonet site near Post. The 68 mph gust recorded at 00:45 CST on the 5th resulted in no damage, and was likely enhanced as winds associated with a passing cold front interacted with local topographical features.

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Total economic losses due to wildfire on the 3rd were estimated at \$325,000.



*A large wildfire is seen crossing U.S. Highway 84 near Justiceburg (Garza County) at 17:45 CST on the 3rd. Photo courtesy: Betty Moore via KCBD-TV - Lubbock, Texas.*

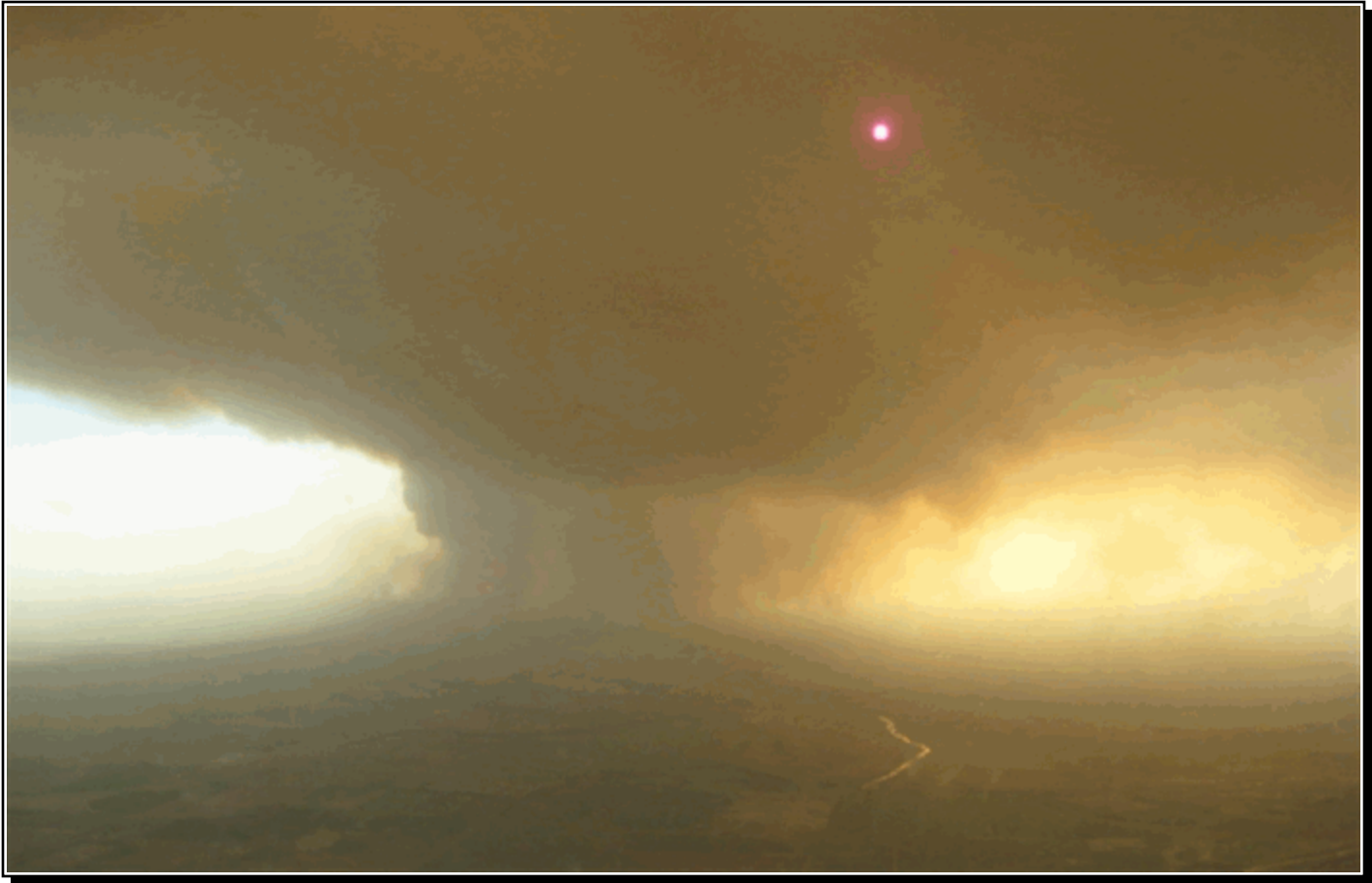
(TX-Z038) KING, (TX-Z044) STONEWALL

04/06/11 14:25 CST	2.54M	Wildfire
04/21/11 12:00 CST	0	

The massive 'Swenson Fire' ignited during the afternoon hours of the 6th in Stonewall County, north of the Swenson community. The use of a cutting torch during critical fire weather conditions started the blaze, which consumed 122,500 acres before it was finally contained on the 21st. During the fire's 15-day run, it burned into grasslands of adjacent King and Knox Counties. At least nine structures were destroyed. Tragically, a 105-year old cowboy and his wife lost four ranch homes to the fire. The couple, who were uninjured, had lived in Stonewall County their entire lives and as patriarch to six generations of family cowboys on their ranch. The fire destroyed 155 utility poles in Stonewall County and 130 poles in King County. Dozens of cattle were reported killed. Total economic damages were estimated at \$2.54 million.

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*The 'Swenson Fire' photographed from the air over Stonewall County on the 7th. Photo courtesy: Texas Forest Service.*

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**(TX-Z021) PARMER, (TX-Z028) LAMB**

	04/06/11 21:15 CST	0	High Wind (MAX 53 kt)
	04/06/11 22:35 CST	0	

Scattered high-based virga showers spread over the extreme southwestern Panhandle and the northwestern South Plains during the late evening hours of the 6th. This weak convection resulted in localized severe wind gusts as measured by the Texas Tech University West Texas and KVII-TV Schoolnet mesonets near Lazbuddie (Parmer County) and Amherst (Lamb County). No damages were reported.

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**HALE COUNTY --- 5.0 ENE ABERNATHY [33.86, -101.77]**

	04/07/11 13:25 CST	0	Dust Devil
	04/07/11 13:25 CST	0	Source: Mesonet

A dust devil resulted in a brief severe wind gust of 59 mph that was recorded by the Texas Tech University West Texas Mesonet site near Abernathy (Hale County) just before 13:25 CST on the 7th.

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**(TX-Z036) CROSBY, (TX-Z040) TERRY, (TX-Z042) GARZA**

	04/09/11 11:30 CST	0.75M	Wildfire
	04/14/11 12:00 CST	0	

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**(TX-Z034) HOCKLEY**

	04/09/11 16:25 CST	0	High Wind (MAX 51 kt)
	04/09/11 16:25 CST	0	

A potent spring-time storm system impacted the western and central U.S. during the 9th and 10th of April. Strong wind through a deep layer of the atmosphere overspread the Southern Plains on the 9th as the parent storm system initially approached the southern

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Rockies. The strengthening wind fields overspread pronounced surface heating and drying over the Southern Plains. This resulted in an outbreak of wind-driven wildfires across portions of five states.

Locally on the South Plains, winds that gusted upwards of 59 mph (Hockely County) contributed to two significant and damaging wildfires. The 'Prentice' Fire ignited in Terry County around midday on the 9th. The fire consumed 15,000 acres and destroyed three outbuildings and at least 50 utility poles. Five homes were threatened before the fire was contained during the late afternoon.

Shortly before 14:00 CST, a large fire broke out near the Garza and Crosby County line north of Post. This fire quickly grew to become the massive and long-lived 'Killough' Fire, which eventually consumed 54,000 acres in northern Garza and southern Crosby County before it was contained on the 14th. The 'Killough' Fire destroyed one home and an oil field station. The development of additionally extremely critical fire weather on the 10th resulted in a 20-mile run of the 'Killough' Fire. By 20:30 CST on the 10th the fire threatened 60 homes near White River Lake in southeastern Crosby County and evacuation orders were issued. No serious injuries were reported.

Total economic loss from the 'Prentice' and 'Killough' Fires was estimated at \$750,000.

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(TX-Z043) KENT, (TX-Z044) STONEWALL

04/11/11 12:00 CST	1.26M	Wildfire
04/22/11 17:00 CST	0	

Following the initial influences of a potent upper air storm system that brought strong winds and an outbreak of wind-driven wildfires to much of the Southern Plains on the 9th and 10th, isolated to scattered showers and thunderstorms developed over west Texas as the center of the system passed during the nighttime hours of the 10th and predawn hours of the 11th. Lightning associated with this convective activity initiated several additional wildfires. The massive and long-lived 'Cooper Mountain Ranch' Fire emerged around midday on the 11th from a smoldering lightning-start in southeastern Kent County, about 9 miles south of Clairemont.

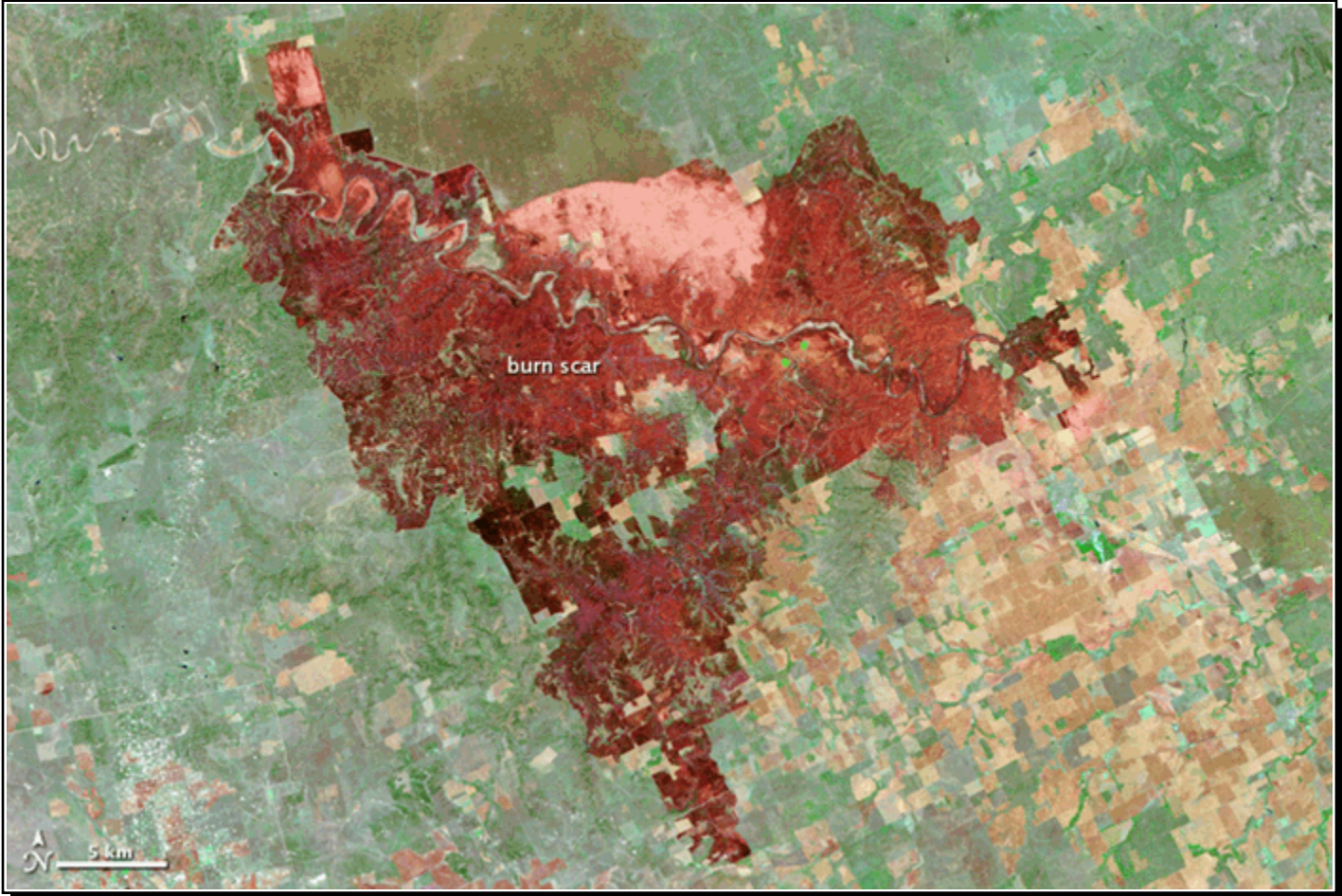
The wildfire consumed 162,625 acres of grasslands before it was contained on the 22nd. The fire burned into adjacent areas of Scurry and Fisher Counties, and spread into Stonewall County during another bout of extremely critical fire weather on the 14th. A home was destroyed near the Kent and Stonewall County line on the 15th. Local electrical companies reported that 350 utility poles were destroyed. One oil field structure was additionally lost.

Total economic losses associated with the 'Cooper Mountain Ranch' Fire were estimated at \$1.26 million.



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*High-resolution Landsat-5 satellite imagery of the 'Cooper Mountain Ranch Fire' burn scar. Image courtesy: NASA.*

(TX-Z024) BRISCOE, (TX-Z025) HALL, (TX-Z026) CHILDRESS, (TX-Z031) MOTLEY, (TX-Z032) COTTLE

	04/14/11 14:05 CST	0	High Wind (MAX 58 kt)
	04/15/11 13:00 CST	0	

A potent upper air storm system slowly moved eastward over the Southern Plains on the 14th and 15th. This system brought relentless winds to portions of west Texas and supported an outbreak of at least 36 wildfires across the states of New Mexico, Texas and Oklahoma that burned more than 300,000 acres.

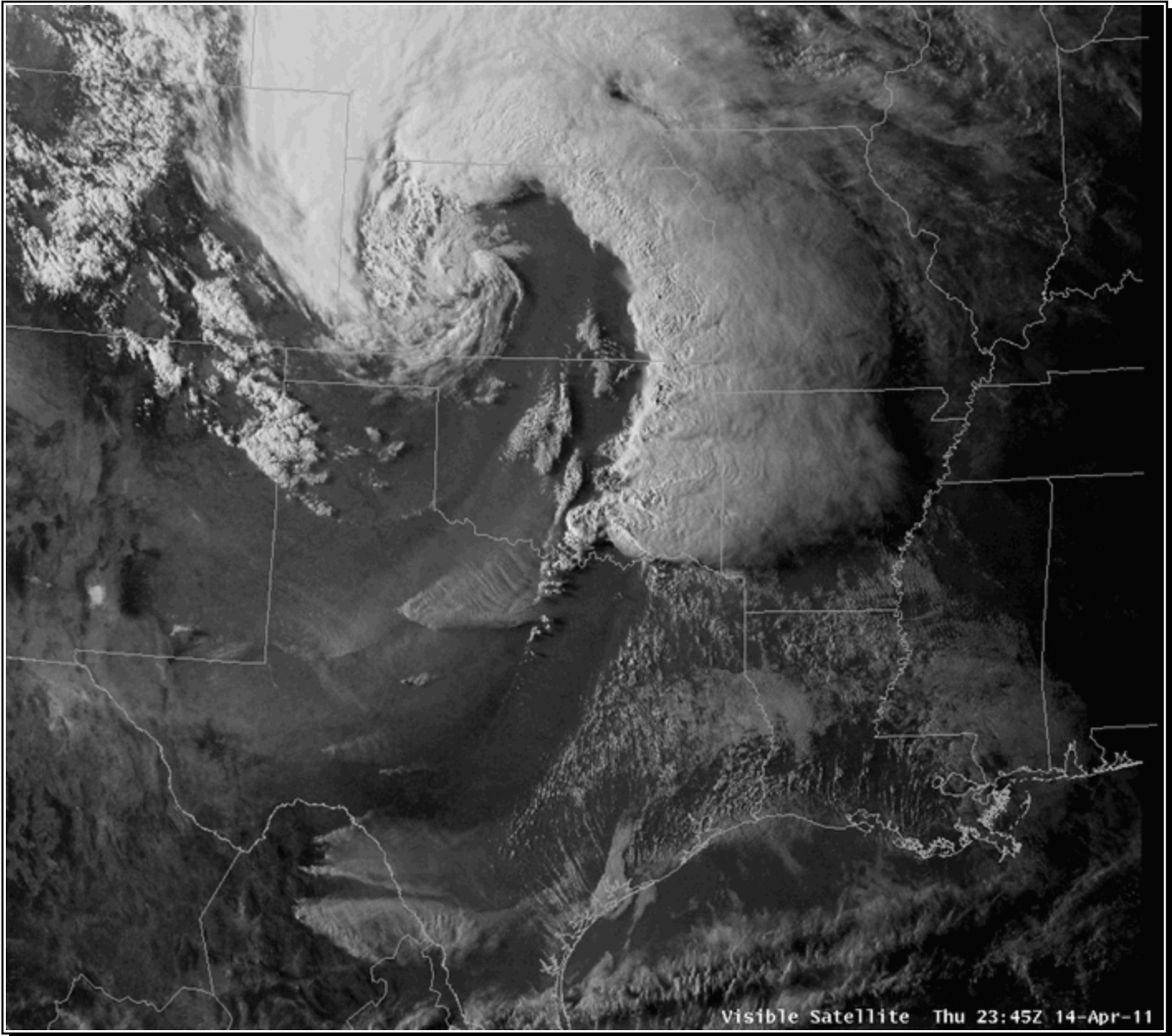
This system began to influence weather across the South Plains region of west Texas on the 14th, when westerly winds sustained in the 25 mph to 35 mph range caused blowing dust and contributed to extremely critical fire weather. A localized and brief severe gust of 60 mph was recorded at the Texas Tech University West Texas Mesonet site near Silverton (Briscoe County) shortly after 14:00 CST. Although new fire starts on the west Texas South Plains were limited on the 14th, significant runs were observed on several ongoing massive and long-lived wildfires including the 'Swenson' and 'Cooper Mountain Ranch' fires (see separate wildfire episodes for each wildfire for details).

As the upper air storm system slowly progressed east, a strong cold front pushed southward across the region in its wake. Post frontal winds reached severe levels, with gusts as high as 67 mph. The most intense winds occurred over the extreme southeastern Panhandle and the northern Rolling Plains, in closest proximity to the exiting storm system. Although the winds were in the post frontal environment, temperatures only cooled modestly behind the front, and relative humidities again dropped below critical fire weather thresholds. The combination of damaging wind gusts and low relative humidities resulted in a swarm of new fire starts over western Oklahoma and western north Texas, and another significant run of the ongoing 'Swenson' and 'Cooper Mountain Ranch' fires on the west Texas South Plains which accounted for scorching tens of thousands of acres during the two-day period.

A list of measured severe wind gusts follows: 67 mph at Childress (Childress County), 63 mph at Memphis (Hall County), 59 mph at Northfield (Motley County), 59 mph at Turkey (Hall County), and 58 mph at Paducah (Cottle County).

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*MODIS visible satellite imagery of a dynamic storm system over the Southern Plains of the U.S. at 23:45 UTC on the 14th. The system caused widespread extremely critical fire weather and massive smoke plumes can be seen imminating from wildfires over west Texas. The largest smoke plume was associated with the 'Swenson' fire in Stonewall County.*

(TX-Z031) MOTLEY, (TX-Z042) GARZA

04/16/11 15:50 CST	0	Wildfire
04/19/11 15:00 CST	0	

An extended period of critical fire weather persisted for several days following the high winds and Southern Plains wildfire outbreak on 14th and 15th. This episode of critical fire weather resulted in at least two significant fires near Matador (Motley County) during the afternoon of the 16th and in Garza County on the 19th.

A 400 acre wildfire ignited four miles north-northwest of Matador just before 15:00 CST on the 16th. The Texas Forest Service deployed air-attack to stop the blaze.

On the 19th, a 2,000 acre fire threatened multiple homes near U.S. Highway 82 east of Post in Garza County.

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No significant damages or injuries were reported with either incident.

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**(TX-Z032) COTTLE, (TX-Z040) TERRY, (TX-Z041) LYNN**

	04/25/11 09:00 CST		0	Wildfire
	04/25/11 17:45 CST		0	

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**(TX-Z041) LYNN**

	04/25/11 13:10 CST		0	High Wind (MAX 51 kt)
	04/25/11 13:10 CST		0	

The first of two upper air storm systems to impact the Southern Plains on the consecutive days of the 25th and 26th brought a localized and brief bout of high wind and contributed to three significant wildfires on the west Texas South Plains.

Critical fire weather associated with the system's passage overspread the region by late morning, and a 4,000 acre wildfire quickly spread ten miles west-northwest of Tahoka (Lynn County) around 09:00 CST. By 13:10 CST, a brief severe wind gust up to 59 mph was recorded by the Texas Tech University West Texas Mesonet site near Tahoka (Lynn County). Neither the fire nor the wind resulted in significant damage.

Additional fires ignited in grasslands immediately north of Paducah (Cottle County) and north-northeast of Tokio (Terry County) between 13:00 CST and 15:25 CST. These fire consumed 1,500 and 300 acres respectively. Although neither fire resulted in damages, the Paducah fire did threaten several homes before it was contained.

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**BAILEY COUNTY --- 4.0 W NEEDMORE [34.03, -102.80], 2.1 E BAILEYBORO [34.03, -102.78]**

	04/26/11 12:40 CST		0	Tornado (EF0, L: 0.75 mi , W: 50 yd)
	04/26/11 12:44 CST		0	Source: Broadcast Media

The broadcast media relayed photographs of a non-mesocyclonic tornado which developed beneath a shallow convective cell between 12:40 CST and 12:44 CST on the 26th. Per post-event radar and surface analysis, the tornado occurred during the updraft phase of a small convective shower, apparently due to the vertical stretching of pre-existing low level vorticity. The low-level environment was characterized by very dry air with surface temperatures in the 70s (F) and dewpoints in the 10s (F). A pre-existing surface boundary was not identified, and winds were uniform from a westerly direction.

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**MOTLEY COUNTY --- NORTHFIELD [34.28, -100.60]**

	04/26/11 14:06 CST		0	Hail (1.00 in)
	04/26/11 14:06 CST		0	Source: Public

The public reported that quarter size hail briefly accompanied a thunderstorm at Northfield shortly after 14:00 CST.

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**(TX-Z023) SWISHER, (TX-Z029) HALE**

	04/26/11 15:37 CST		0.35M	Wildfire
	04/26/11 19:00 CST		0	

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**(TX-Z021) PARMER, (TX-Z022) CASTRO, (TX-Z027) BAILEY**

	04/26/11 17:20 CST		0	High Wind (MAX 51 kt)
	04/26/11 19:35 CST		0	

The second in a series of potent upper air storm systems transited the Southern Plains on the 26th. Isolated convective shower and thunderstorms developed in advance of the system during the midday and early afternoon hours, as cold mid level temperatures overspread the region and steepened lapse rates. One of these storms, beneath the system's cold pool aloft, stretched a pre-existing circulation sufficiently to result in a weak non-mesocyclonic tornado west of Needmore (Bailey County) between 12:40 CST and 12:44 CST. Convection became more vigorous as it progressed east produced quarter size hail over northern Motley County shortly after 14:00 CST.

As subsidence overspread the region in the wake of the passing system, strong westerly winds impacted portions of the extreme southwestern Panhandle and the western South Plains. High winds were observed by the Texas Tech University West Texas Mesonet and the KVII-TV Schoolnet across Bailey, Castro and Parmer Counties.

A list of observed severe wind gusts follows: 59 mph at Friona (Parmer County) and 59 mph at Lazbuddie (Castro County).

A list of high sustained winds follows: 40 mph at Muleshoe (Bailey County), 41 mph at Dimmitt (Castro County), 41 mph at Hart (Castro County) and 43 mph at Friona (Parmer County).



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The strong winds were accompanied by critical fire weather and promoted the ignition and spread of two significant wildfires within ambient drought-stricken fuels. A fire that spread to over 500 acres north of Petersburg (Hale County) destroyed four structures at a homestead and a tractor. A second 3,000 acre fire west of Happy (Swisher County) destroyed two structures and caused evacuations of the town. No injuries were reported, however, total economic losses were estimated at \$350,000.



*A wildfire burned four structures and a tractor near Petersburg (Hale County) during the late afternoon hours of the 26th. Photo courtesy: KCBD-TV - Lubbock, Texas.*

(TX-Z034) HOCKLEY

04/28/11 18:30 CST	50K	Wildfire
04/28/11 20:30 CST	0	

Critical fire weather supported the growth of a significant wildfire near the intersection of Farm to Market Roads 303 and 597 near Pep (Hockley County) during the evening hours of the 28th. The wildfire sparked when heavy machinery malfunctioned, and more than 1,500 acres were consumed. The fire destroyed a well house before it was contained. No injuries were reported.



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*A 1,500 acre wildfire destroyed a well house near Pep (Hockley County) during the early evening hours of the 28th. Photo courtesy: KCBD-TV - Lubbock, Texas.*

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(TX-Z034) HOCKLEY, (TX-Z035) LUBBOCK, (TX-Z042) GARZA

04/29/11 10:30 CST			0.10M	Wildfire
04/29/11 19:00 CST	1		0	

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(TX-Z027) BAILEY, (TX-Z035) LUBBOCK

04/29/11 15:33 CST			10K	High Wind (MAX 59 kt)
04/29/11 15:45 CST			0	

A potent storm system lingered over the western U.S. on the 29th, but strong wind fields in advance of the system overspread west Texas during the afternoon hours. The strong downslope winds promoted hot and dry conditions and extremely critical fire weather. A few damaging wind gusts occurred during the late afternoon. At 15:33 CST the Preston Smith International Airport's Automated Surface Observing System near Lubbock recorded a peak gust of 68 mph. Several minutes later an intense wind gust caused damage to a Texas Forest Service greenhouse near Idalou (Lubbock County). A second severe gust of 62 mph was recorded by the Texas Tech University West Texas Mesonet near Muleshoe (Bailey County) at 15:40 CST.

The winds and associated hot and dry conditions combined with the ongoing drought to result in several wind-driven wildfires. A fire sparked approximately four miles southwest of Justiceburg (Garza County) at around 10:30 CST and burned 750 acres before it was contained by 13:30 CST. Fire re-ignited at the site of a significant wildfire the previous evening (4/28) near Pep (Hockley County). This re-start burned an additional 3,000 acres (4,500 acre two-day total), but no additional property damage was reported. At approximately 14:30 CST a fire spread and consumed two trailer homes and two outbuildings near Idalou (Lubbock County). One man was left homeless and a firefighter suffered minor injuries battling the blaze. The fire developed as extremely critical fire weather interacted with a small burn area that was lit in violation of a burn ban the previous day (4/28).