

MAY 1991  
VOLUME 33  
NUMBER 5

# STORM DATA



**AND UNUSUAL WEATHER PHENOMENA  
WITH LATE REPORTS AND CORRECTIONS**



**noaa** NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION / NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE / NATIONAL CLIMATIC DATA CENTER ASHEVILLE, N.C.

COVER: Thunderstorms formed in northeastern Oklahoma on May 26, 1991, out ahead of a cold front. Pictured is the storm, east of Woodard, Oklahoma, that produced three tornadoes. Notice the wall cloud is accompanied by a lightning strike! (see page 16.) (Photo courtesy and © Moller, Fort Worth, Texas.)

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### **STORM DATA**

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National Climatic Data Center

Editor: Grant W. Goodge

Publication Staff: William Angel, Jay Hollifield, Jeanette King, and Sara Lackey

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**STORM DATA** contains all confirmed information on storms available to our staff at the time of publication. However, due to difficulties inherent in the collection of this type of data, it is not all-inclusive. Late reports and corrections are printed in each edition.

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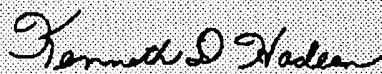
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The editors of **STORM DATA** solicit your help in acquiring photographs (prints or slides; black and white, or color), maps, clippings, etc. of significant or unusual weather events (past or present). These could be for use in the "Outstanding Storms of the Month" or "Et Cetera" sections of **STORM DATA**. We request our subscribers or other interested persons to mail such items to:

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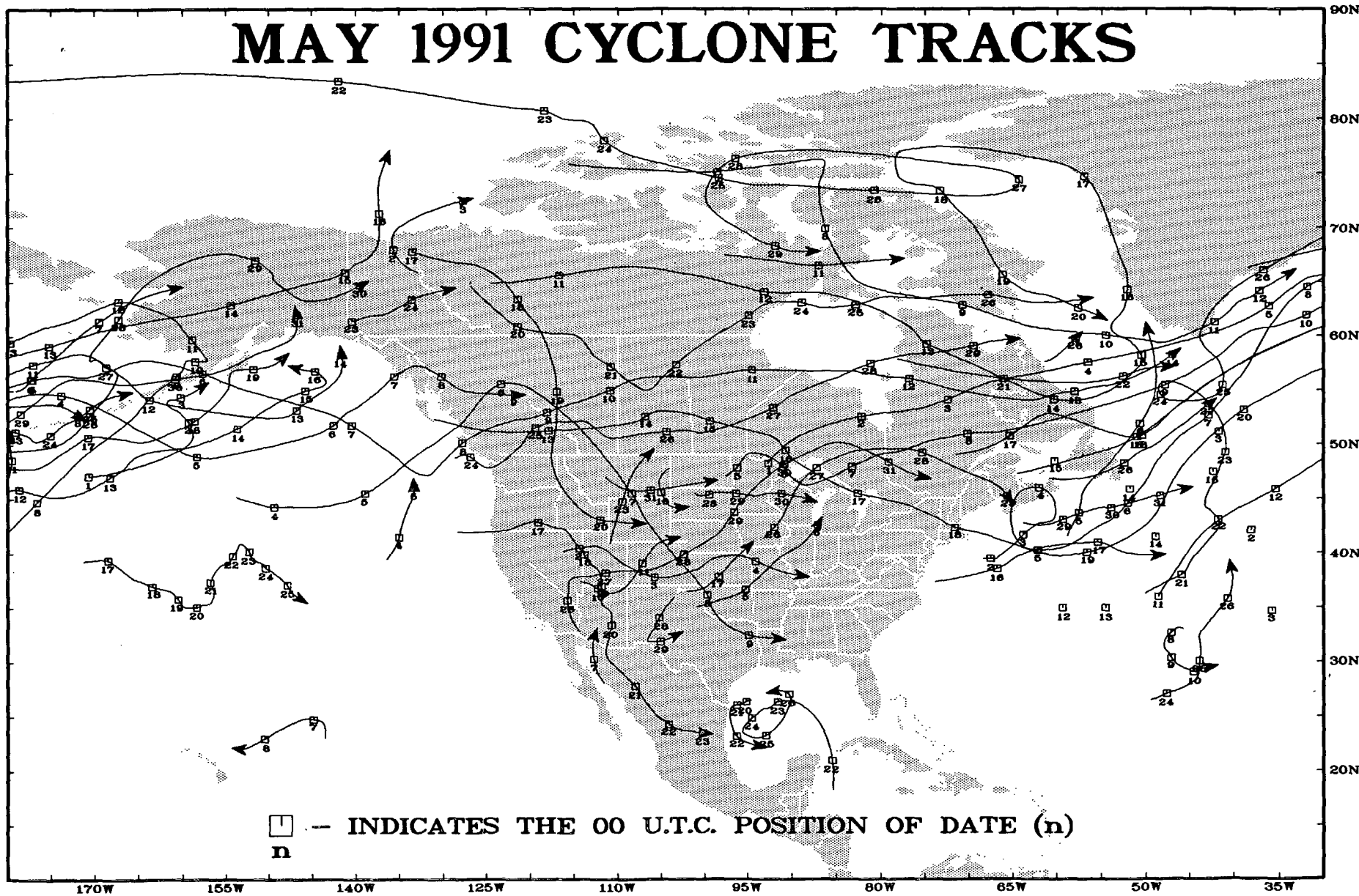
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Director  
National Climatic Data Center

# MAY 1991 CYCLONE TRACKS



# CLIMATIC DATA FOR THE MONTH

## PRECIPITATION AND TEMPERATURE ANOMALIES - MAY 1991

Table 1 lists the 97-year temperature and precipitation rankings for the nine climatologically homogeneous regions outlined in Fig. 1.

May 1991 finished the spring season on a warm, wet, and mild note. A summer-like upper air pattern dominated most of the month's weather. Numerous record daily highs from the Plains to New England were set as daytime highs went above 90°F. The heat and humidity produced apparent temperatures between 105° and 110°F across portions of the East. By contrast, cool conditions existed in the western third of the country. The West and Northwest monthly temperature departures of -3° to -5°F were common. Most of Alaska and Hawaii had warmer than normal temperatures with departures up to +10°F. Nationally, May 1991 finished as the seventh warmest May since 1895. (See Figs. 2 and 3 on page 5.)

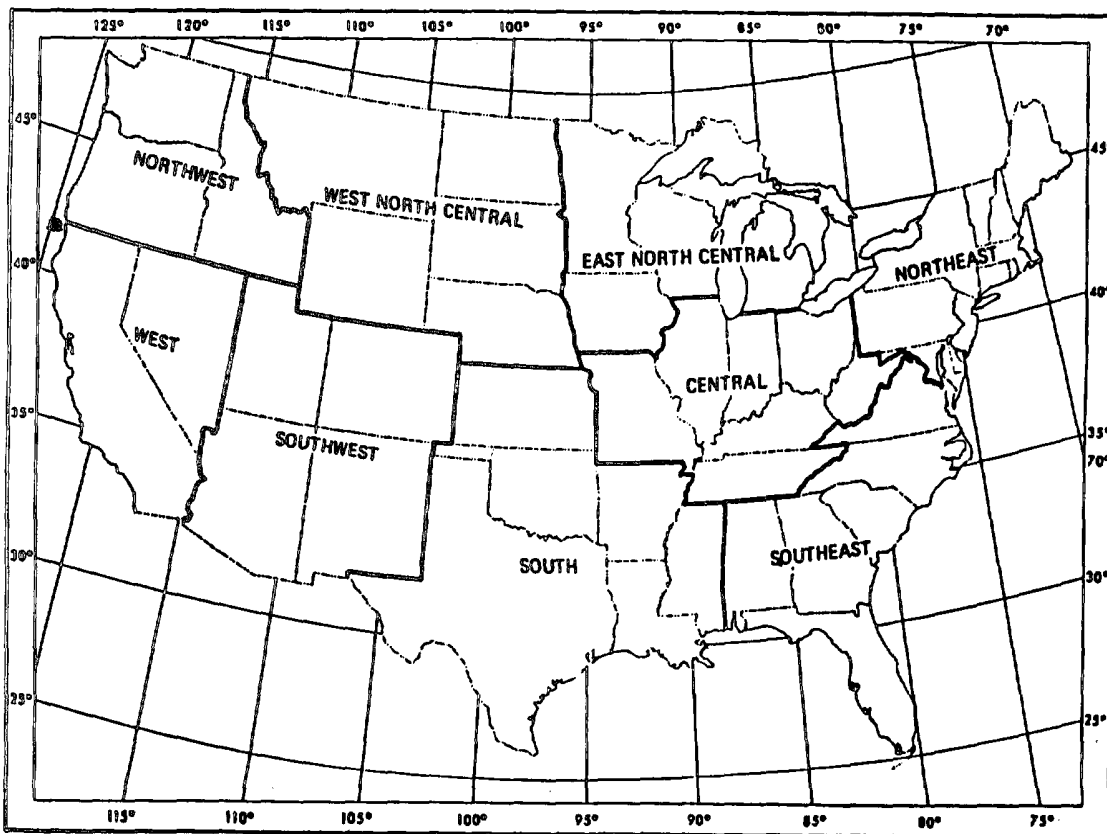
Precipitation was widespread over the nation with the exception of the southern Rockies, the Southwest, and parts of the Far West, Alaska, and Hawaii. The greatest monthly totals of precipitation (> 10 inches) fell in the lower Mississippi Valley, the Southeast, and portions of the central Plains. Nationally, May 1991 ranked as the eighth wettest May on record. (See Figs. 4 and 5 on page 6.)

TABLE 1. TEMPERATURE AND PRECIPITATION RANKINGS FOR MAY 1991, BASED ON THE PERIOD 1895-1991. 1 = DRIEST/COLDEST, 97 = WETTEST/HOTTEST.

REGION	PRECIPITATION	TEMPERATURE
Northeast	36	95
East North Central	79	94
Central	62	95
Southeast	94	93
West North Central	86	73
South	76	93
Southwest	35	56
Northwest	86	15
West	65	12
National	90	91

*From National Climatic Data Center*

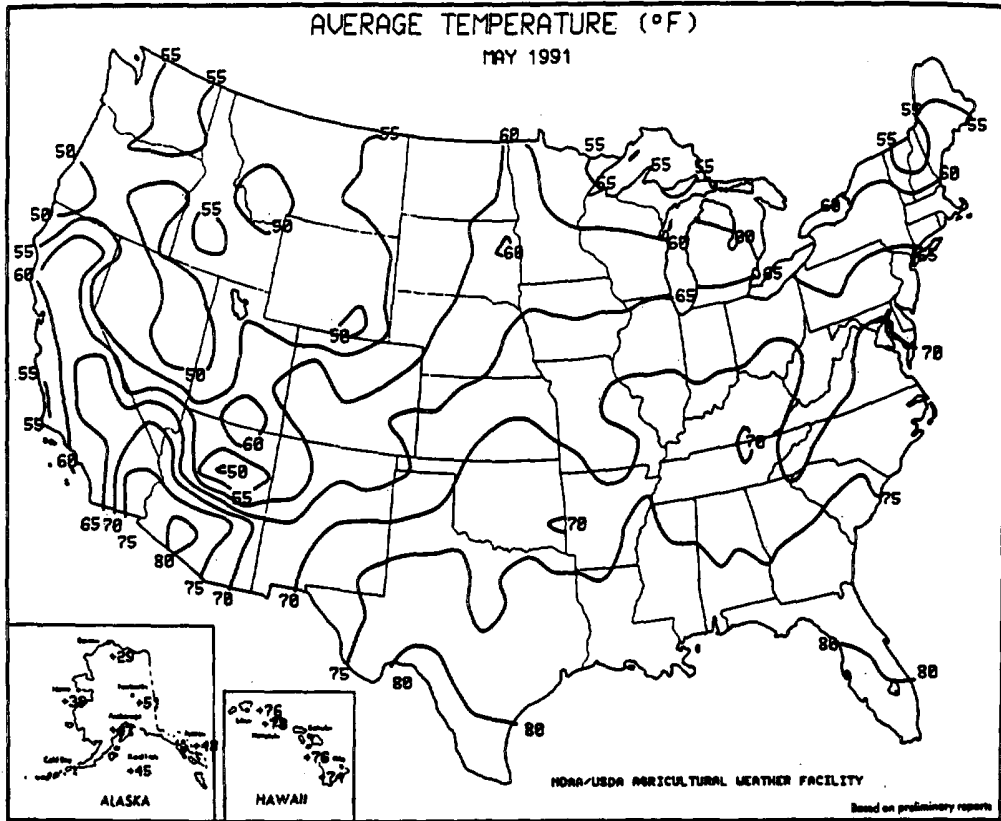
Fig. 1



*From National Climatic Data Center*

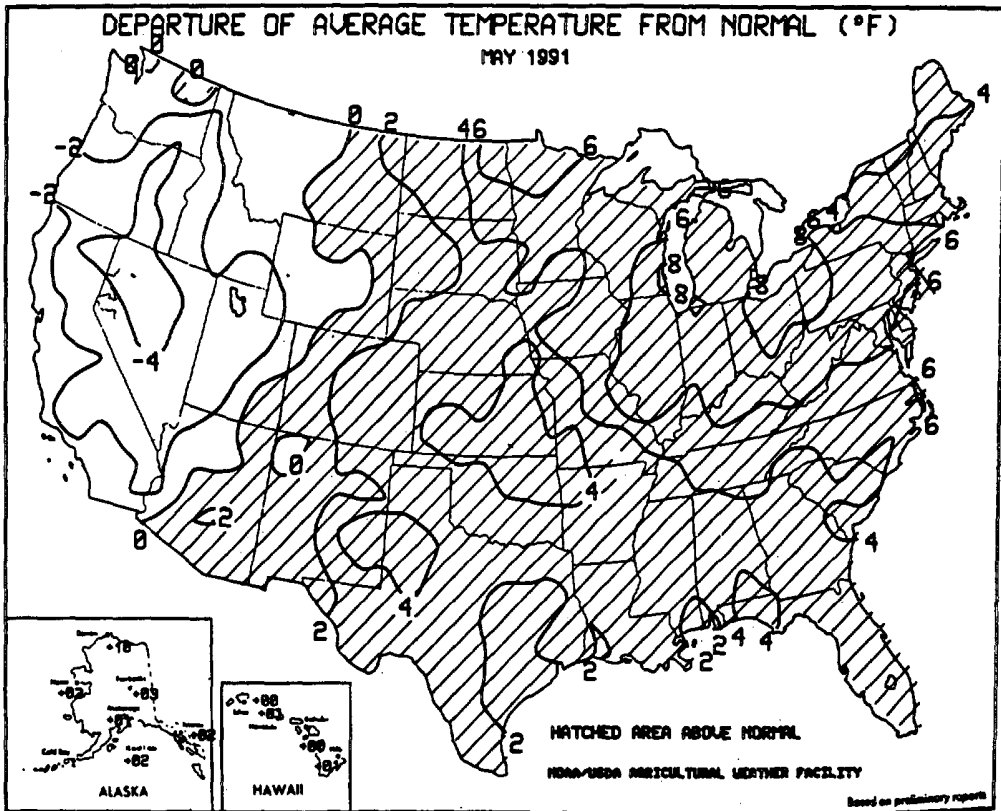


Fig. 2



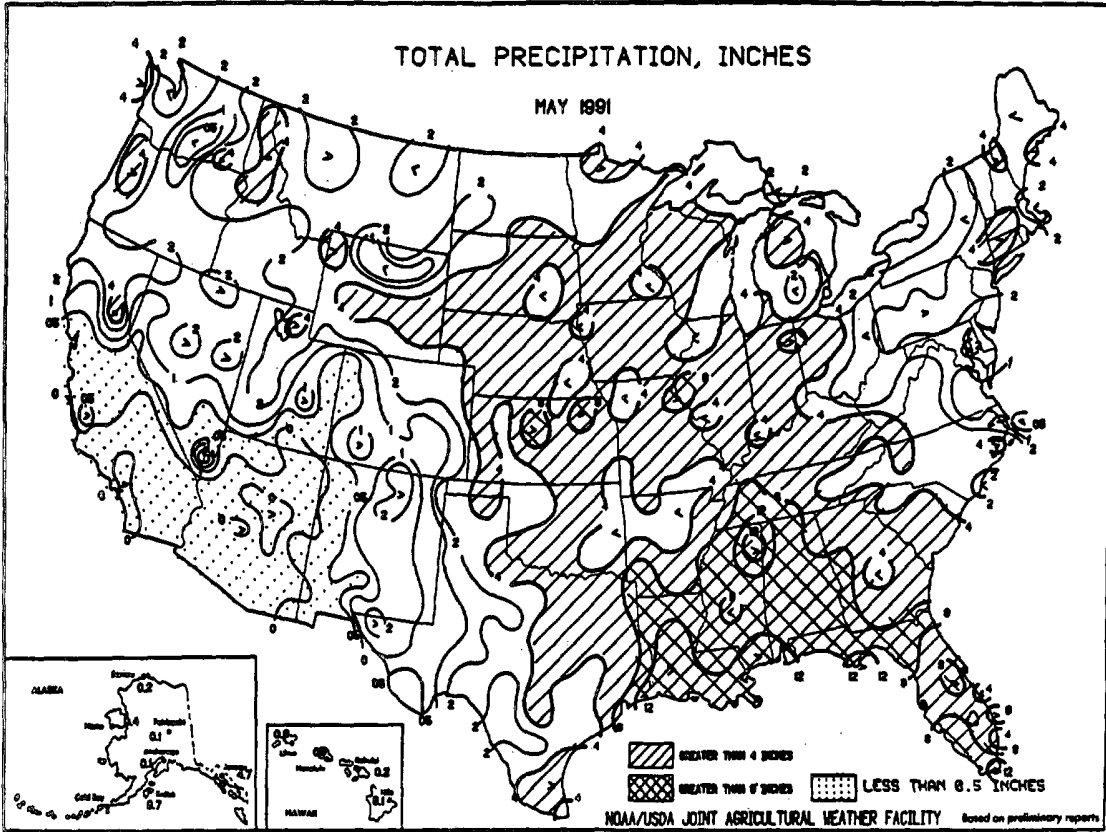
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Fig. 3



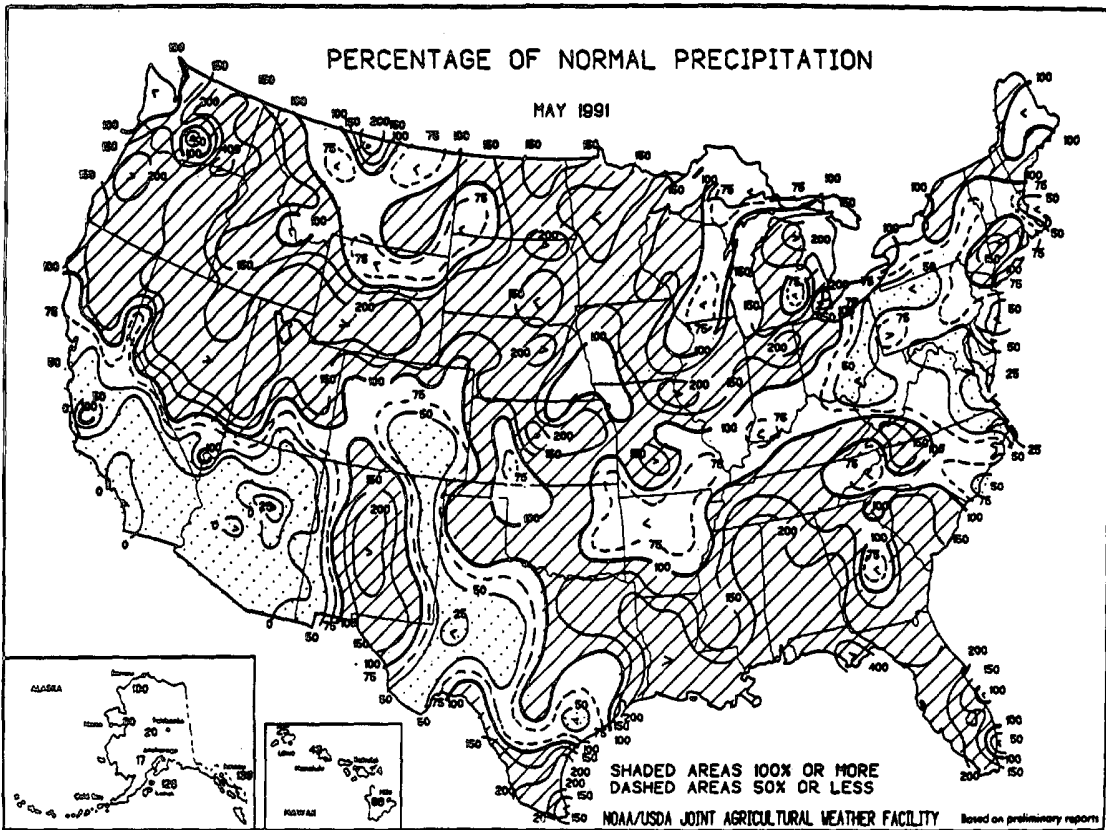
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Fig. 4

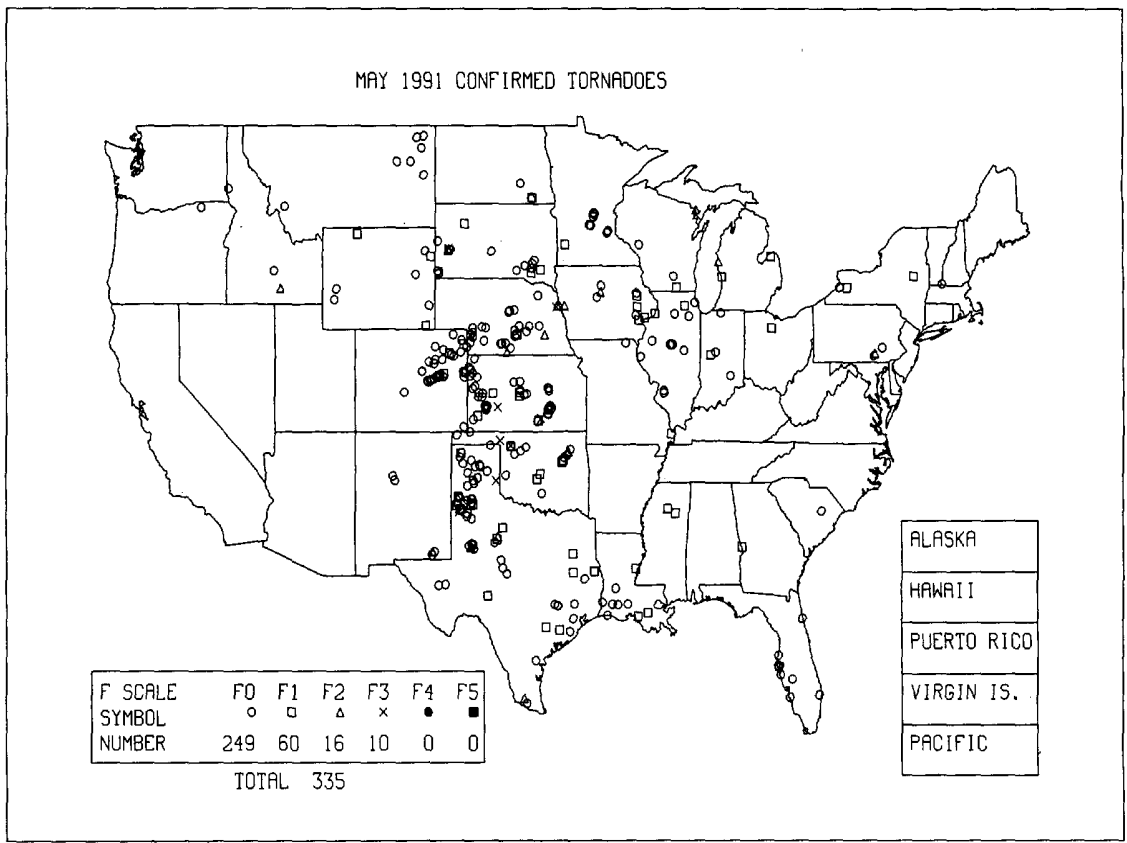


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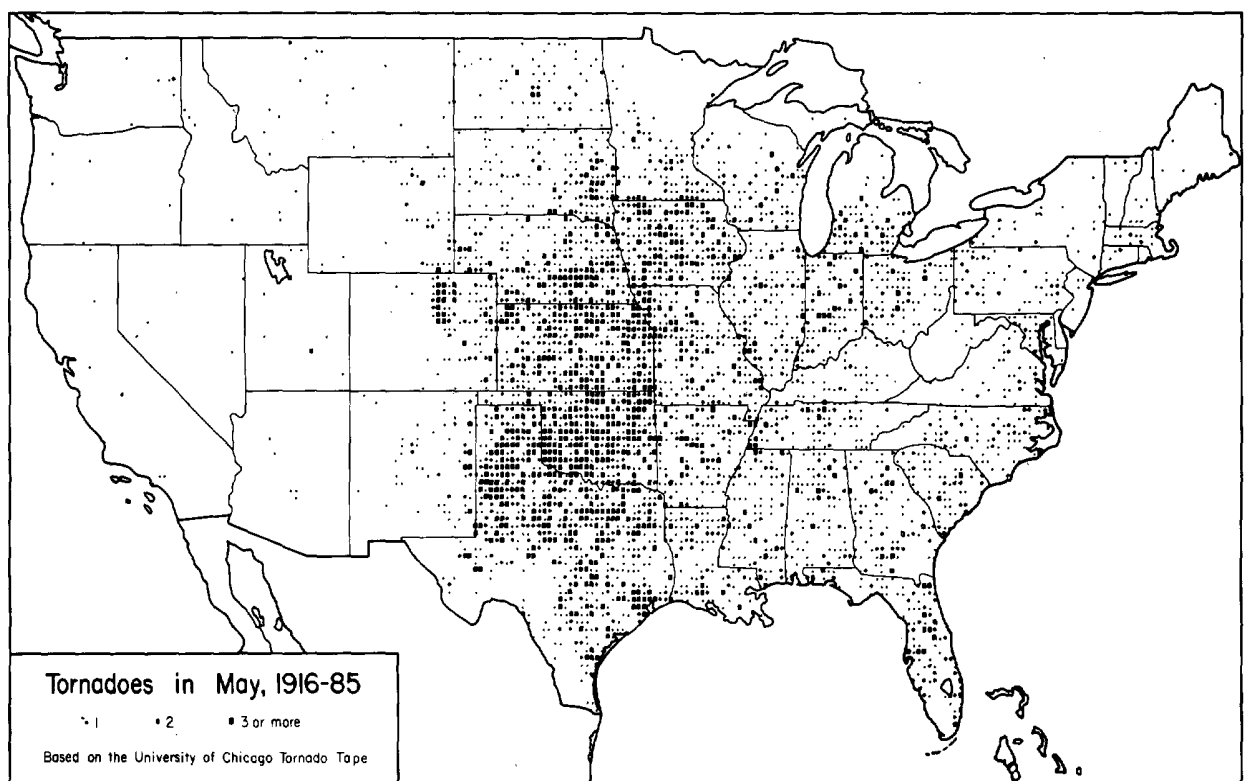
Fig. 5



Reprinted from *Weekly Weather and Crop Bulletin* - June 11, 1991



May was an extremely active month for tornadoes. A total of 335 tornadoes touched down during the month; 249 tornadoes were classified as F0. There were no reported F4 or F5 tornadoes in the month of May 1991. (See map above.) In May 1991, the year's most tornadic month, not a single death occurred; however, 66 injuries were reported.



# OUTSTANDING STORMS OF THE MONTH

## 1. FLOODING IN MAY 1991

Flooding occurred throughout parts of the United States during the month of May 1991. Some of the flooding was the worst ever in the affected areas. On the following pages are pictures of some of the more notable flooding events such as Arkansas (May 3rd), Nebraska (May 10th-11th and 22nd-23rd), South Dakota (May 15th), Iowa (May 17th), and finally, Massachusetts (May 30th-31st).

### ARKANSAS - MAY 3RD

Heavy rain fell on areas already rain-soaked thus aggravating the flooding. The flood damage had people comparing this flood to that of 1927. Governor Bill Clinton declared Ashley County (pictured below) and a dozen other counties disaster areas.



*Left: High water forced families from their homes. (Photo courtesy: Ashley County (AR) Ledger.)*

*Right: The tractors, photographed near the county line on Highway 165, sit idle in a field during planting season. (Photo courtesy: Ashley County (AR) Ledger.)*



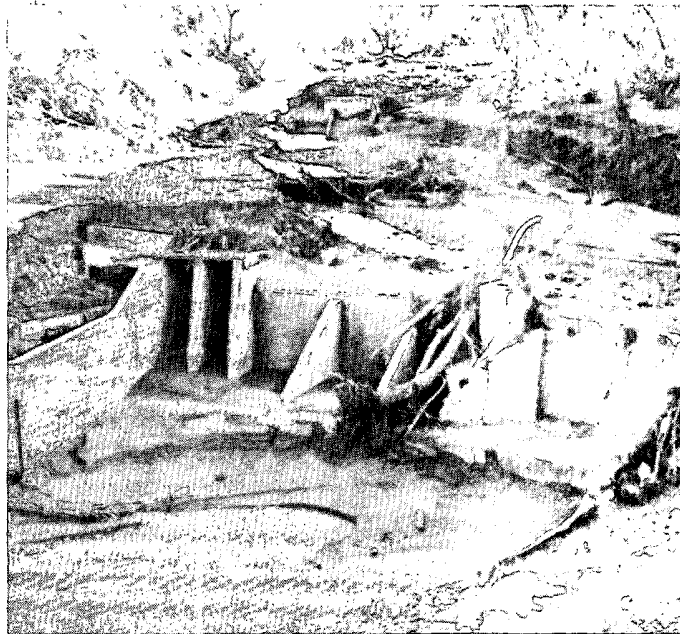
*Left: Highway 8 east of Hamburg at Overflow Hill where fishermen were catching catfish in areas normally under cultivation. (Photo courtesy: Ashley County (AR) Ledger.)*

## NEBRASKA - MAY 10-11

Up to 7 inches of rain fell in the Soldier Creek and White River basins. The White River crested over 16 feet. Damage included washed out roads, bridges, and railroad tracks. A golf course, state fish hatchery, and a mobile home park were destroyed. Four hundred cattle were killed at the livestock market. Only one human fatality occurred when a 27-year-old male was swept away by the flood waters. Preliminary damage estimates total over \$16 million!



**Above:** Paul Brookhart of Crawford shows a hail chunk that hit the area. Hail up to 5 inches in diameter was observed. (Photo courtesy: *The Chadron Record (NE)*.)  
**Right:** The Crawford City Dam was completely destroyed by the 7-inch rain. (Photo courtesy: *Deb Kennedy, photographer/production manager, Crawford Clipper/Harrison Sun.*)



**Above:** This is not a riverbed. The flood waters rushed through the Ft. Rob area making a new path. **Above right:** One of the cars that remained at the Norgard's Trailer Court. **Right:** Two young men hit by the flood waters swam to safety and spent the night in the treetops in the background. (Photo courtesy: *Deb Kennedy, photographer/production manager, Crawford Clipper/Harrison Sun.*)





## NEBRASKA - MAY 22-23

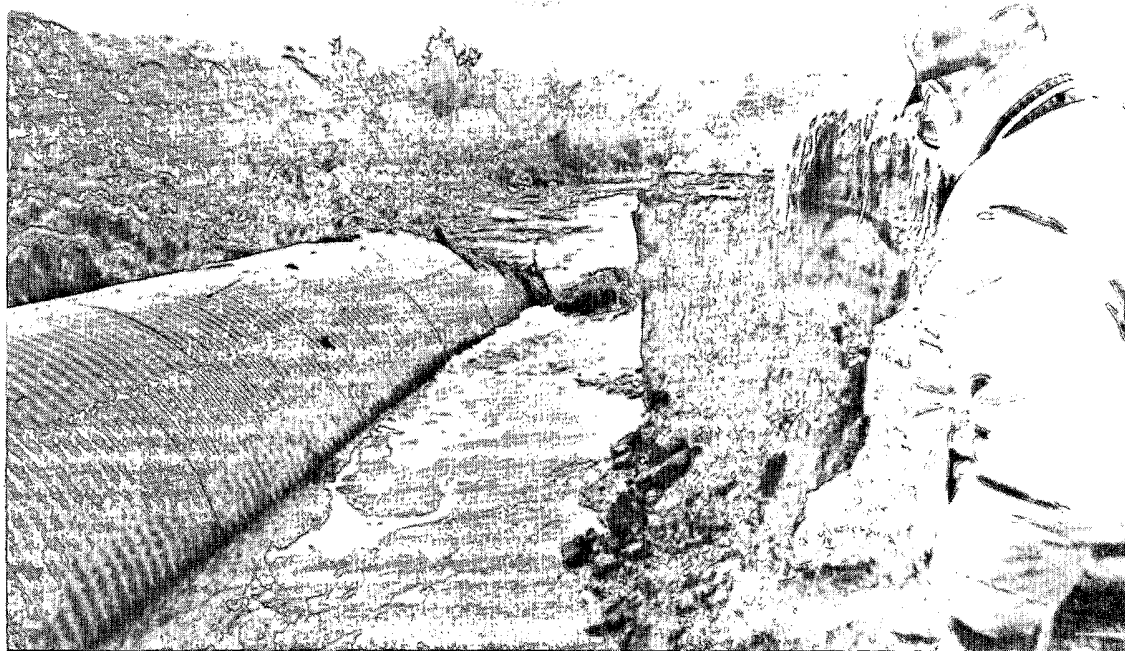
Thunderstorms hit Cozad, Nebraska, dumping up to 8 inches of rain. Reports of street and basement flooding were extensive. Most streets had water up to the car doors. A mud slide on Highway 21, north of Lexington, swept three cars into the ditch. Water and silt damaged 10,000 acres of crops in Dawson County, Nebraska.



*Above (left):* This Volkswagen became a victim of the high water in Cozad, Nebraska. *Above (right):* A boat was a necessary idea in southeastern Cozad, Nebraska. (Photo courtesy: Dean Dorsey (publisher), Tri-City Trib, Cozad, Nebraska.)

## SOUTH DAKOTA - MAY 15

A series of slow-moving thunderstorms moved over Bennett County, South Dakota. Five- to six-inch rains caused flooding which resulted in many washed out roads and bridges. *Below:* Jerry Donovan looks at damage caused by flood waters washing around culverts south of Harrington, South Dakota. (Photo courtesy: Booster Publishing Co., Martin, South Dakota.)

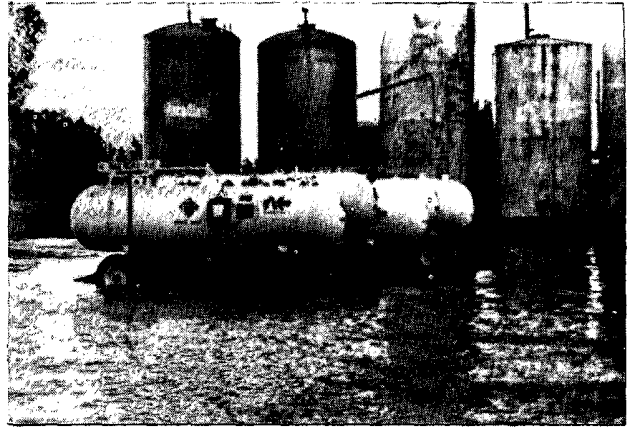


## IOWA - May 17

An unstable airmass over Iowa on May 17, 1991 fueled a severe weather outbreak of hail, flash floods, thunderstorm winds, and tornadoes. Hardest hit was Butler County, Iowa. Unofficial reports indicated up to 7 inches of rain fell in spots!



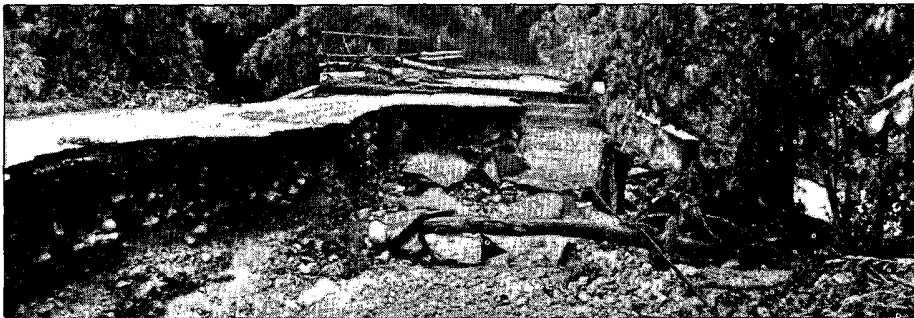
Butler County REC warehouse complex surrounded by water. (Photo courtesy: Tribune-Journal, Butler County, Iowa.)



Flood waters covered all low-lying areas. (Photo courtesy: Tribune-Journal, Butler County, Iowa.)

## MASSACHUSETTS - MAY 30-31

Thunderstorms produced 5.65 inches of rain in a 3-hour period which resulted in severe flooding. Total damage was estimated between \$5 and \$10 million. A state of emergency was declared as a result of the worst flooding since 1955!



*Top (left):* A bridge on Konkpot Road in New Marlborough. Notice the logs laying on the bridge. *Left:* Severe road erosion on Mill River-Clayton Road. *Right:* Major road erosion on Southfield Clayton Road. (Photo courtesy: Edgar Zukauskas, photographer, Gershire Eagle, Massachusetts.)



## 2. TORNADOES IN MAY 1991

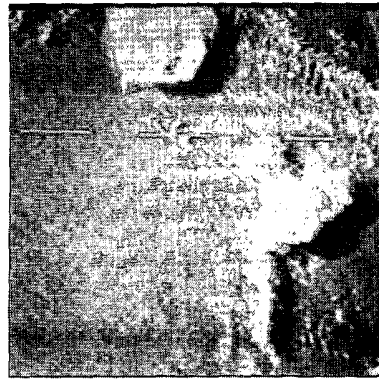
The month of May 1991 produced several tornado outbreaks. On May 16, 1991, severe thunderstorms spawned an outbreak of high winds, large hail, and 45 tornadoes. May 26, 1991, also proved to be another day of severe weather. Twelve tornadoes touched down during this outbreak. There were also numerous reports of large hail and damaging winds. On May 29th, a tornado outbreak occurred in the Texas panhandle with eight funnel touchdowns.

### KANSAS - MAY 16

Thunderstorms formed along and ahead of a cold front crossing the central High Plains, with low pressure centered over northwestern Oklahoma. The severe thunderstorms spawned 27 tornadoes in Kansas alone. Hail up to 5 inches in diameter was reported with these storms. The satellite photos below are valid for the indicated times of May 16, 1991. (Satellite photos courtesy: Gene Rhoden, NSSL, Norman, Oklahoma.)



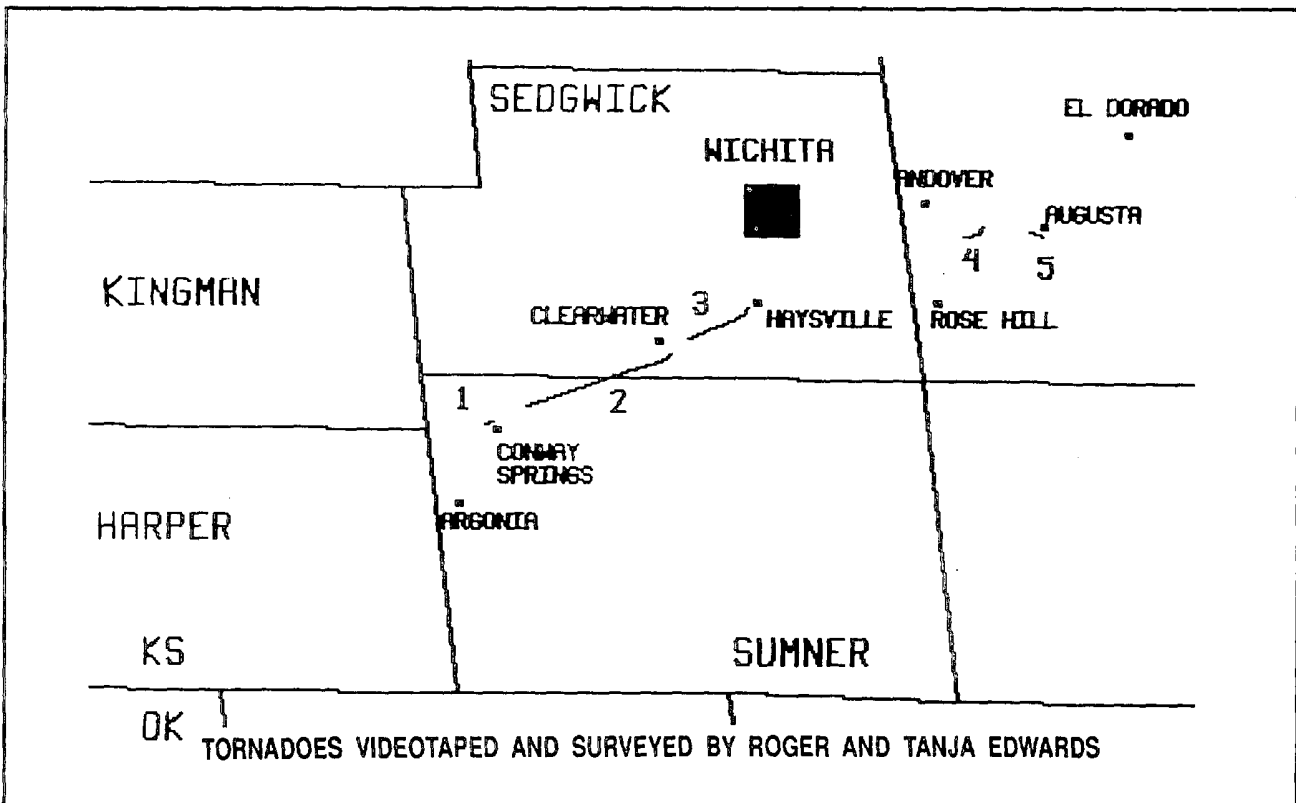
1631 CST (2231Z)



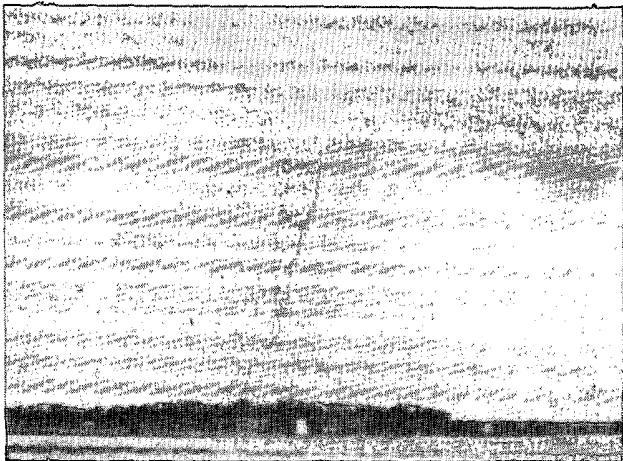
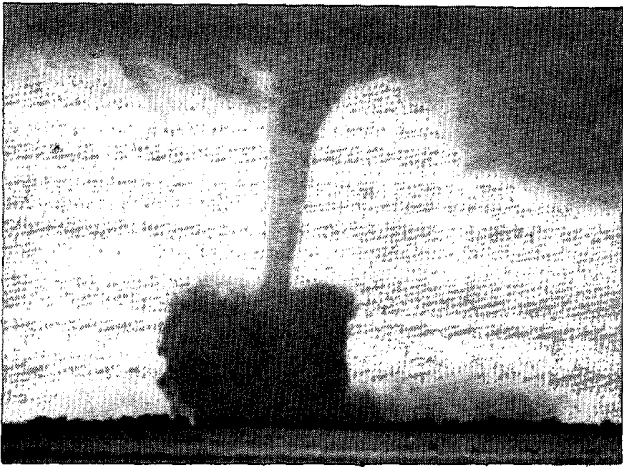
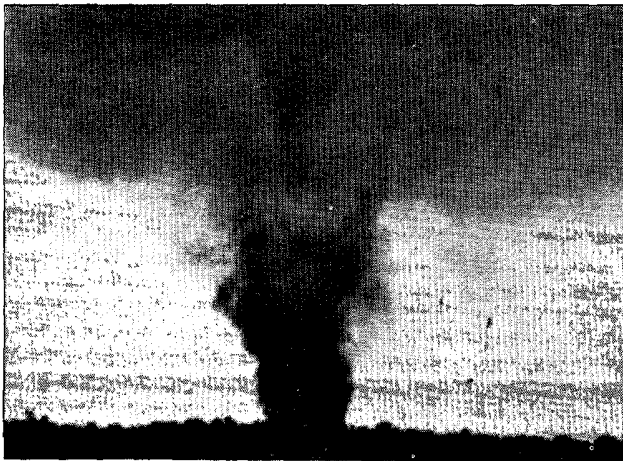
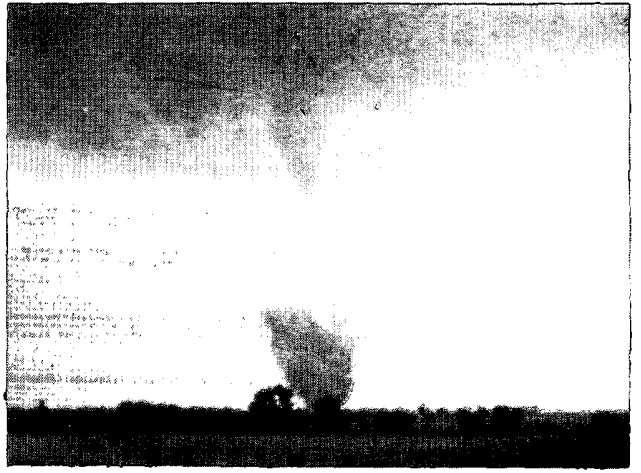
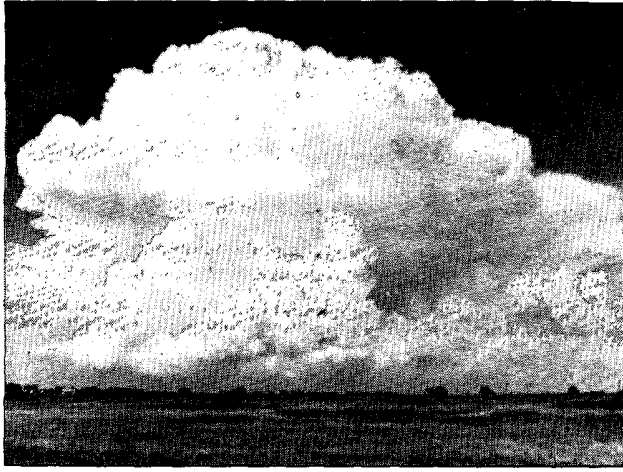
1731 CST (2331Z)



1801 CST (0001Z)

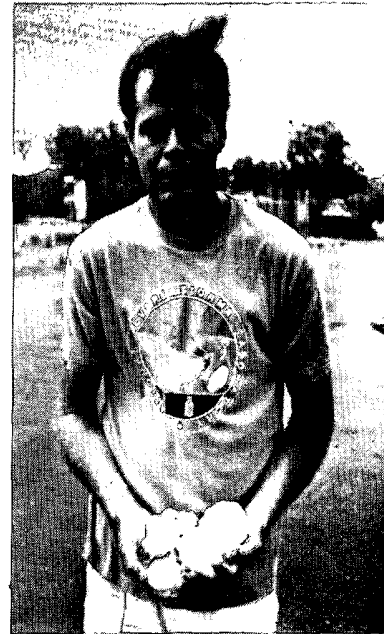
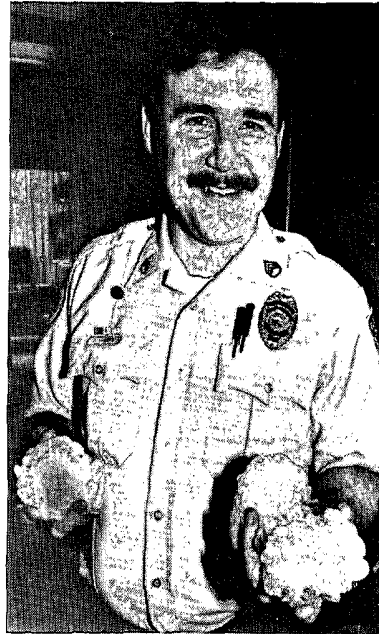
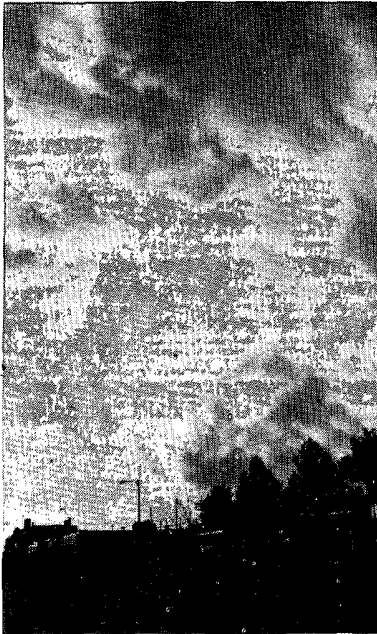


A map showing the tornadoes near Clearwater, Kansas. (Map courtesy: Roger Edwards, NHC, Coral Gables, Florida.)



**Top (left):** The supercell located over Conway Springs, Kansas. This is the same storm that produced the six tornadoes near Clearwater, Kansas. Time of photo is 4:35 p.m. CDT (2135Z). (Photo courtesy ©: Jack "Thunderhead" Corso.)  
**Top (right) and remaining page:** This tornado was formed 3 miles northeast of Conway Springs and was on the ground for 16 minutes. The tornado dissipated 1 mile southeast of Clearwater. The tornado had a well-defined laminar vortex that was often shrouded in dust. The supercell later produced an F3 tornado 2 miles east of Clearwater to 2 miles southwest of Haysville. Times of photos are approximately 5:10 to 5:20 p.m. CDT. (Photo courtesy: Second row (left): Tim Marshall, Lewisville, TX; Left: © Keith Brewster, Norman, OK; remaining photos courtesy: Richard Pasch, Coral Gables, FL.)

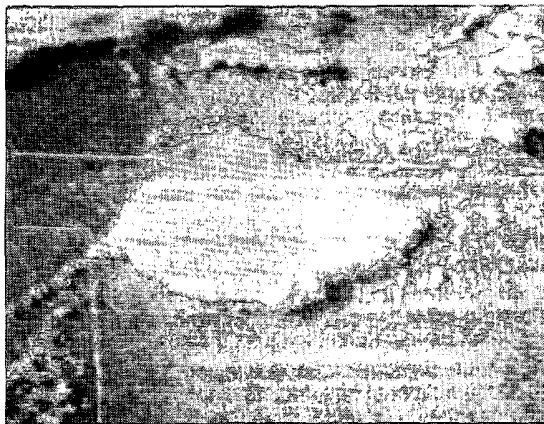




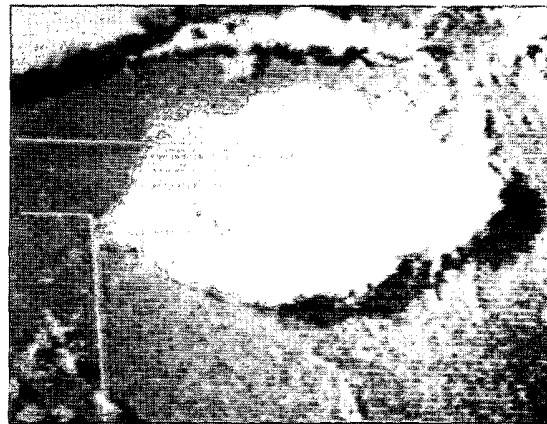
*Above (all):* The tornadic supercell on the previous page moved northeast into Butler County, Kansas. Hail up to 5 inches in diameter pounded El Dorado and caused damage to vehicles and buildings. (Photo courtesy: Far Right and Left, Matt Crowther, Atlanta, Georgia; Middle: The El Dorado Times; photo provided by Laury Smith.)

## KANSAS, OKLAHOMA - MAY 26

Two cold fronts, one over the Kansas/Missouri area and the other crossing Colorado and western Nebraska, were the triggering mechanisms for the tornado outbreak of May 26th. A total of 12 touchdowns were reported during the outbreak; 6 tornadoes in Kansas, 4 in Oklahoma, and lastly, 2 in Colorado. Satellite photos below show the storm's development in Oklahoma and Kansas.



1701 CST (2301Z)



1731 CST (2331Z)

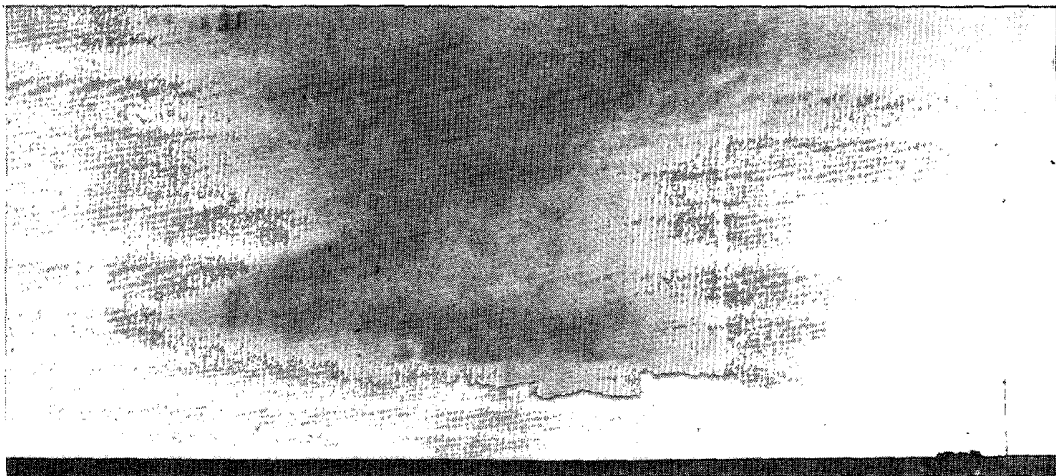


1801 CST (0001Z)

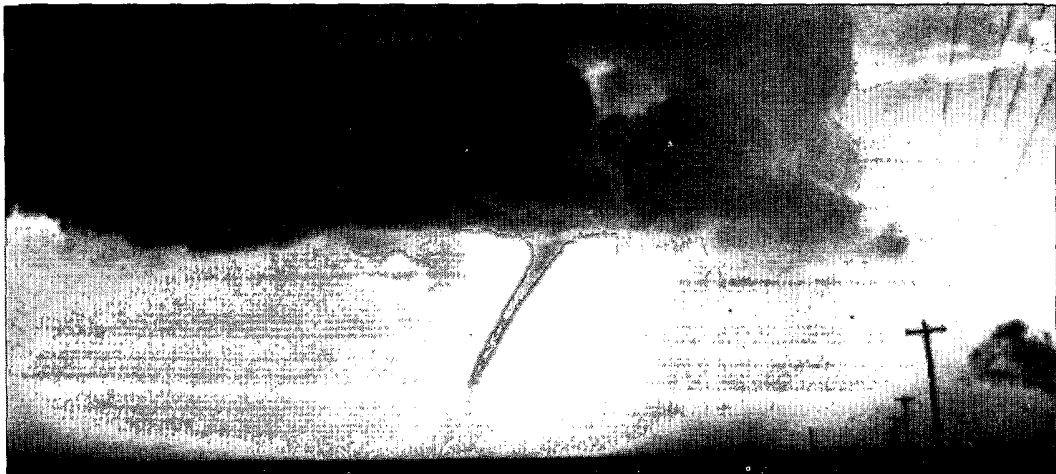




Top of the Ulysses, Kansas Supercell

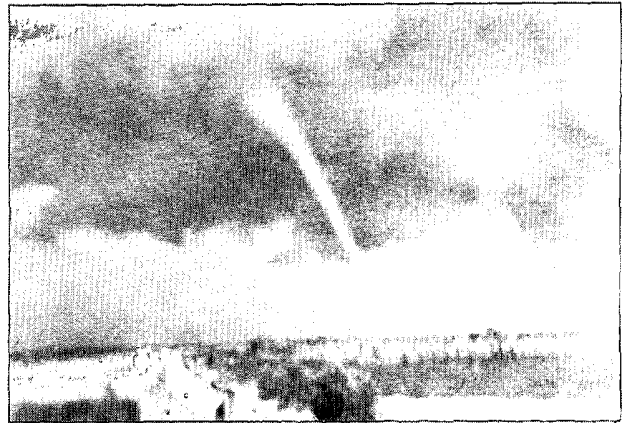


Bottom of the Supercell looking west-southwest.

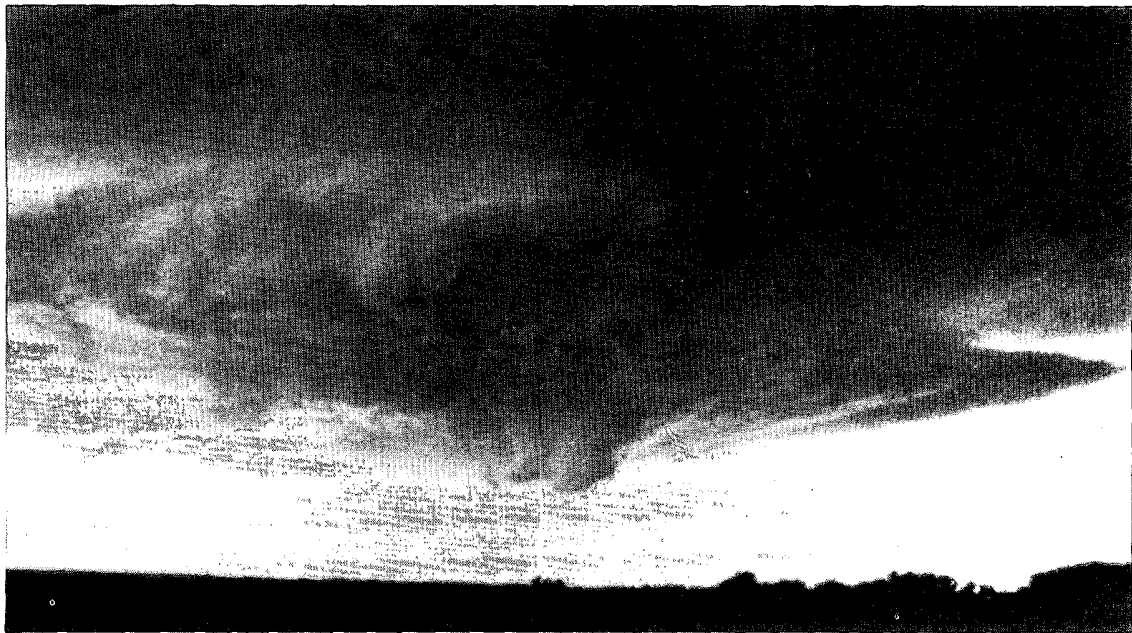


The F1 tornado from the Supercell.

**Top:** Pictured is the Ulysses, Kansas Supercell which produced an F1 tornado. Photo was taken from NOAA P-3 Aircraft during CAPS '91. (Photo courtesy: Bill Martin, NSSL, Norman, Oklahoma.) **Middle:** Picture of the same supercell mentioned above at 1750 CDT (2250Z) from the ground (25 minutes before tornado touchdown!). View is to the west-southwest. **Bottom:** The first tornado of the outbreak on May 26, 1991. View is to the west-southwest at 1825 CDT (2325Z). The narrow, stovepipe-shaped tornado had almost continuous ground contact for 14 minutes! Luckily, damage was light. The F1 tornado destroyed a shed, windmill, and damaged a roof to a pumphouse. The tornado was seen as far as 50 miles away! (Photo courtesy and ©: middle and bottom, David Hadley, Falls Church, Virginia.)



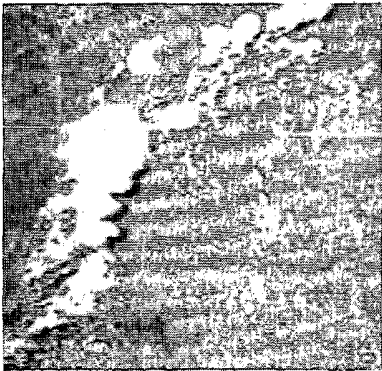
Two tornadoes formed near El Dorado, Texas. *Top (left)*: Picture was taken a few minutes after the large "bowl-shaped" rain free base emerges with the wall cloud and the flanking line visible. Time of photo is 1810 CST. *Top (right)*: Large funnel emerges from the wall cloud. Shortly afterwards, the first tornado touches the ground. Time of photo is 1816 CST. *Above (left)*: The F0 tornado roping out (dissipating). Time of photo is 1818 CST. A second tornado (*above right*) forms east of El Dorado Lake and just south of the turnpike about 1 hour after the first tornado, and is backlit by lightning. (Photo courtesy: top right: Dave Keller, NSSL, Norman, Oklahoma; remaining photos: Tim Marshall, Lewisville, Texas.)



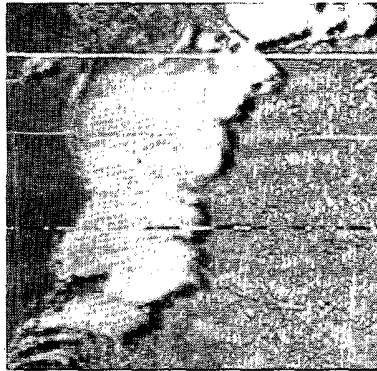
Thunderstorms formed in northwestern Oklahoma out ahead of a cold front. Four tornadoes were spawned in Oklahoma with three near Woodard. The strongest tornado was an F3, also observed were two F1s and one F0. Pictured above is the storm, east of Woodard, that produced three tornadoes. Notice the wall cloud is accompanied by lightning strike! (Photo courtesy and ©: Alan Moller, Fort Worth, TX.)

## TEXAS - MAY 29

Thunderstorms formed along a slow-moving cold front trailing southwestward into Texas from a low pressure system over central Minnesota. Eight tornadoes struck the Texas panhandle on May 29, 1991. The tornadoes were rated at F0 and caused some light damage to power poles.



2201Z (1601 CST)

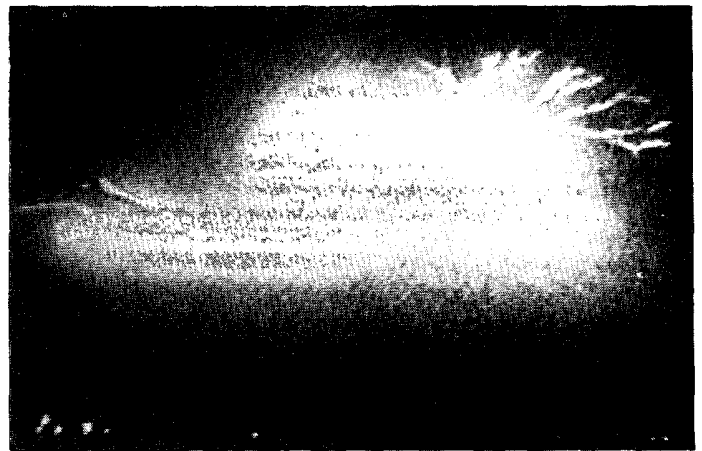
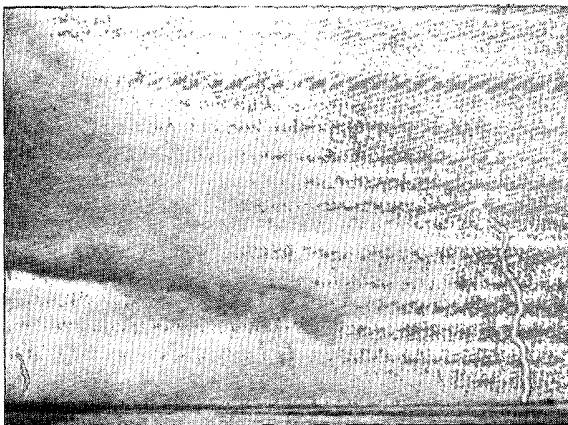
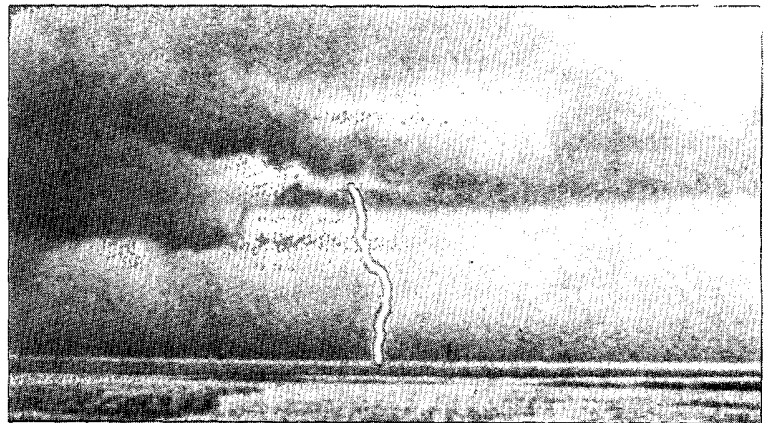
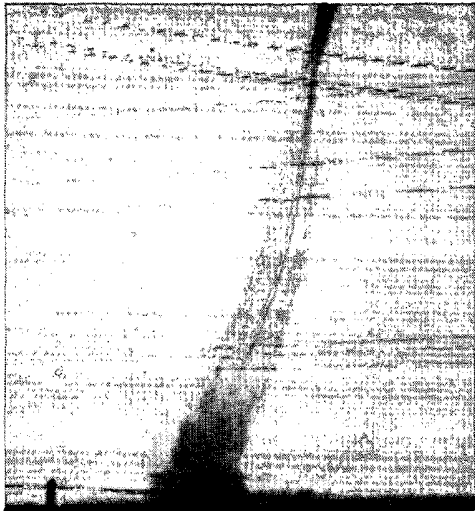


2301Z (1701 CST)



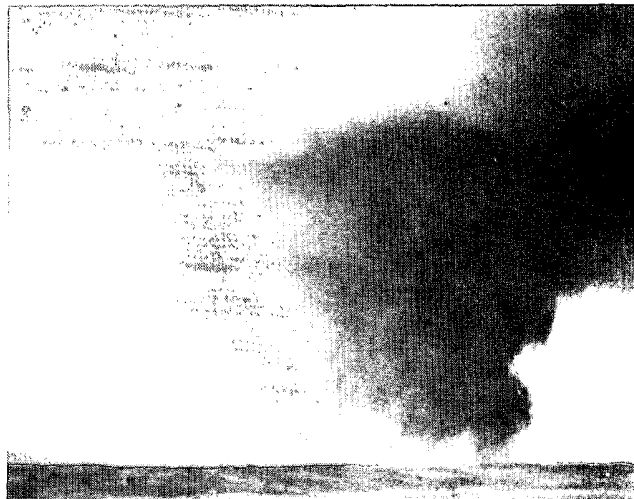
0001Z (1801 CST)

**Above (all):** Satellite pictures showing the developing thunderstorms over the Texas panhandle that produced the tornadoes. (Satellite photos courtesy: Gene Rhoden, NSSL, Norman, Oklahoma.)



**Middle (left):** Video photo of a tornado near Amarillo, Texas. (Video courtesy: KFDA-TV, Amarillo, Texas.) **Middle (right) and above (left):** A high precipitation (HP) supercell discharges a few positive giant lightning bolts. The supercell is located near Darrrouzett, Texas. (Photo courtesy: Gene Rhoden, NSSL, Norman, Oklahoma.) **Above (right):** Nature puts on a lightning show in Perryton, Texas. (Photo courtesy: Marty Feely, NSSL, Norman, Oklahoma.)

## OTHER TORNADOES OF MAY 1991



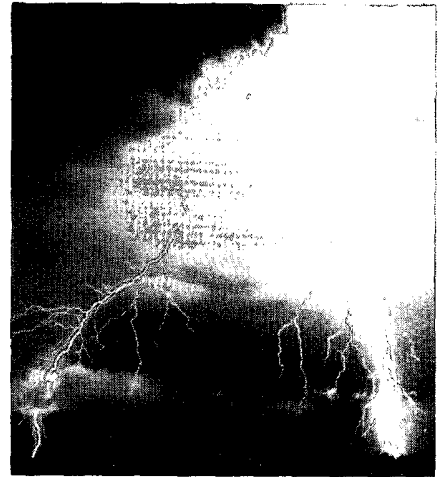
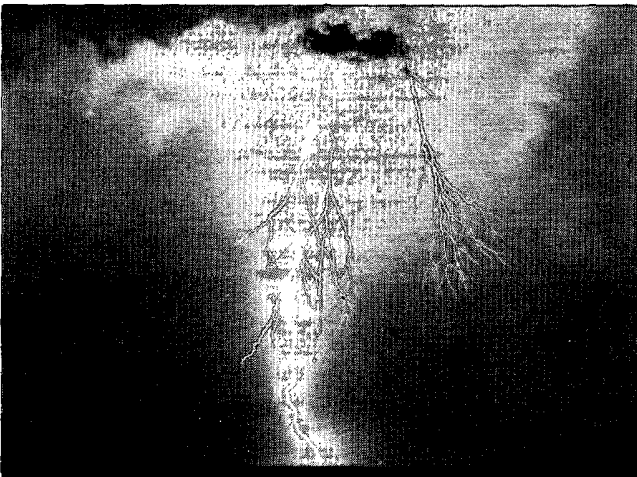
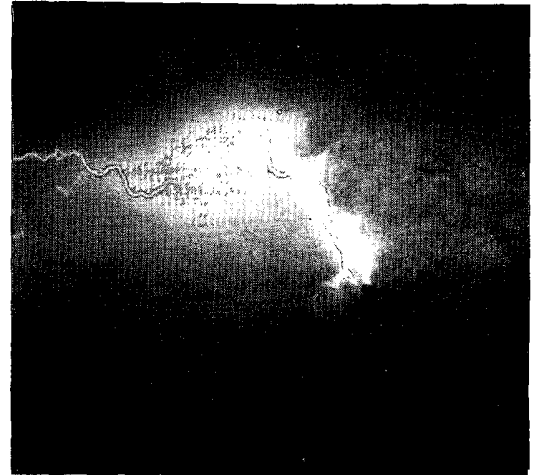
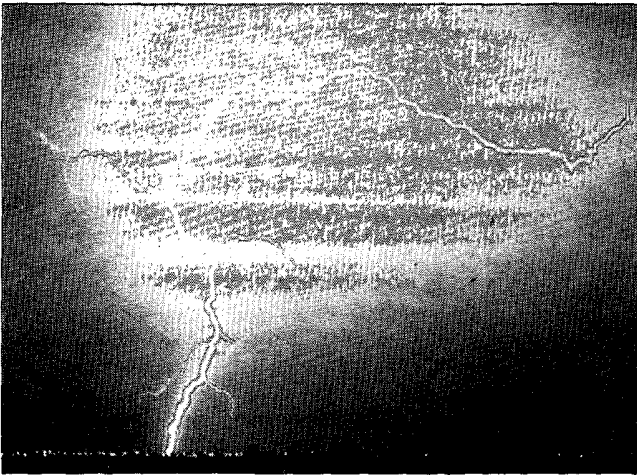
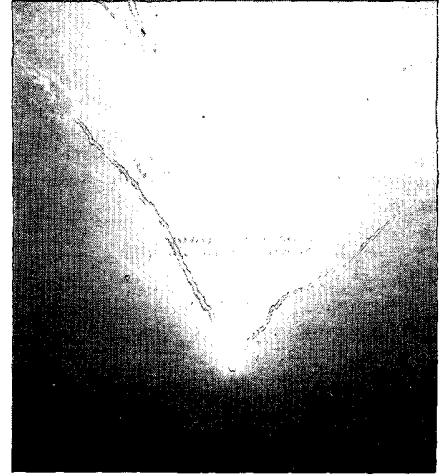
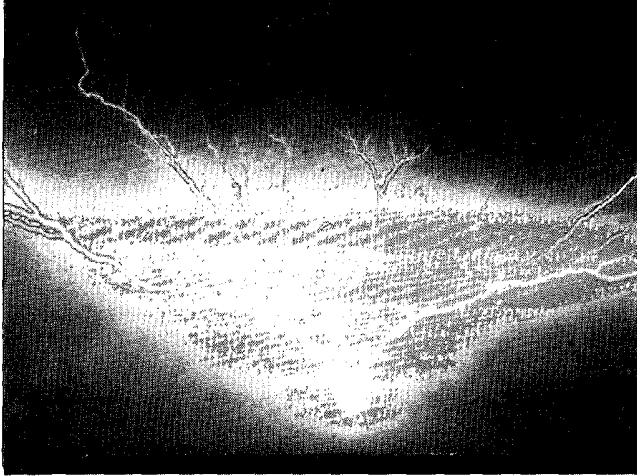
On May 15, 1991, severe thunderstorms developed over Oklahoma and produced five tornadoes. One of these tornadoes was an F3 tornado that went through Laverne, Oklahoma. Luckily, no deaths occurred; however, three injuries were reported.

*Top (left):* The Laverne tornado shortly after touchdown. Tornado touchdown was approximately 1935 CST (0135Z) and was on the ground for 36 minutes. Approximately 3 to 5 minutes later (*top, right*) the dust cloud reaches the cloud base and tornado widens to its widest point—900 yards! The tornado dissipated at 2011 CST (0211Z). (*Above:* Tornado damage to the rural housing in Laverne. Total damage was estimated at \$500,000! (Photo courtesy: Top photos, Dave Keller, NSSL, Norman, Oklahoma; Above (left), photographer - Al Harris; Above (right), photographer - Sonya Harris; Leader Tribune, Laverne, Oklahoma.) *Right:* On May 11, Cimarron County, Oklahoma, had an F0 tornado on the ground for 13 minutes. The tornado crossed open country and did no damage. (Photo courtesy: Greg Stumpf, NSSL, Norman, Oklahoma.)





### 3. LIGHTNING DISPLAYS OF MAY 1991

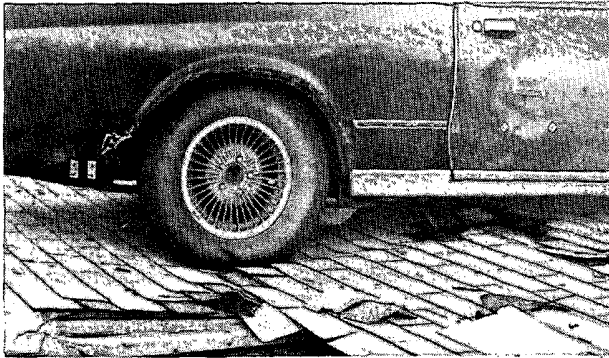
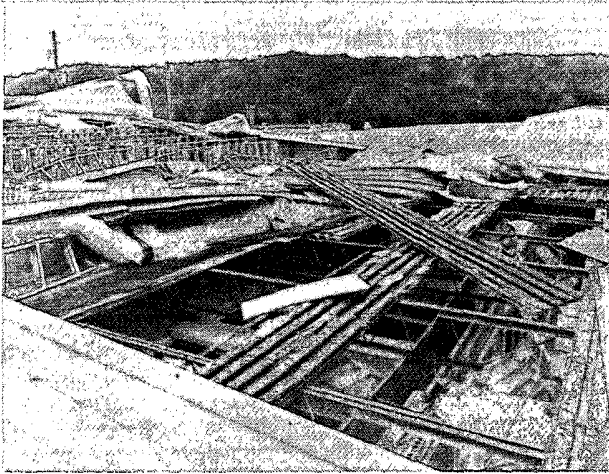


A severe thunderstorm developed near Amarillo, Texas, on May 10, 1991, and initiated several ground-to-cloud lightning discharges (*top left and right*) that emanated from the top of a tall radio tower. Notice that the branching pattern of the lightning is spread upward from the top of the tower unlike the more typical downward branching pattern as seen *lower (left)*. The upward branching indicates that the step-leaders initiating the lightning discharges, began at the top of the tower rather than the more usual case where the step-leader begins in the cloud and moves downward to the ground as is seen in the *lower (left)* photo. *Middle (right)*: Intra-cloud lightning illuminating the supercell structure. One hour earlier this storm produced the Cimarron County tornado. *Above (left)*: A thunderstorm produced this cloud-to-ground lightning west of Salina, Kansas, on May 13, 1991. *Above (right)*: This double cloud-to-ground lightning struck south of Amarillo, Texas, on May 22, 1991. (Photo courtesy and ©: Jack "Thunderhead" Corso, Harrison, New York.)



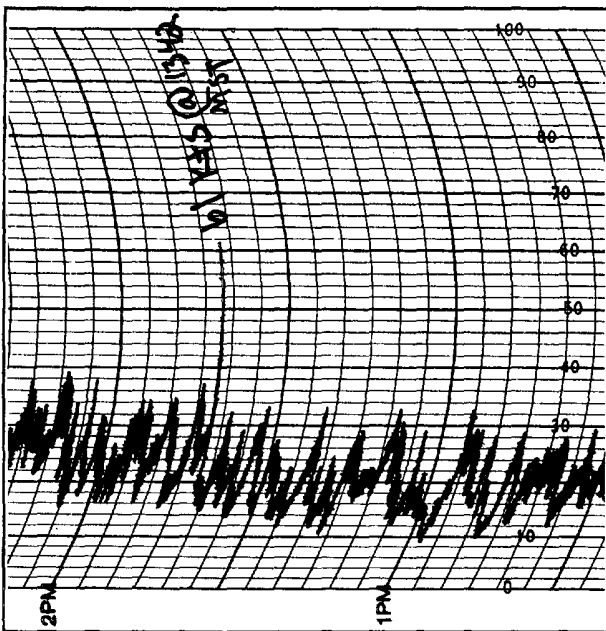
## 4. POTPOURRI OF WEATHER EVENTS OF MAY 1991

### WIND DAMAGE - MAY 3 AND MAY 16



*Above (left):* Thunderstorm winds on May 3rd damaged the roof of the Caddo Hills High School of Montgomery County, Arkansas. (Photo courtesy: Mike Wallace, Montgomery County news and Glenwood Herald, Arkansas.) *Above (right) and left:* Wind damaged several buildings in Goff, Kansas. Pictured *above (right)* is most of the roof from the American Legion building. Damage also occurred to First National Bank. A witness saw a car being lifted up and a large piece of the American Legion roof slide underneath the car *(left)*! (Photo courtesy: Matt Diehl, The Courier-Tribune, Seneca, Kansas.)

### DUST DEVIL AND HAIL - MAY 14 AND MAY 28



*Liles, WSFO ABQ; Chart provided by National Climatic Data Center.) Above (right):* Hailstones damaged many parts of east-central South Dakota on May 28. Pictured are some of the collected stones. The leaves in the background are from an ash tree. Some of the hailstones approached softball size! (Photo courtesy: Woonsocket News Photo, Woonsocket, South Dakota.)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CORPSES	

## ALABAMA

<b>Dale County</b>	01	1250CST			0	0	?	?	<b>Thunderstorm Winds</b>
	01	1250CST			0	0	0	0	<b>Hail (0.75)</b>
In Ariton, dime-size hail fell causing minor roof damage. Two trees were also blown down.									
<b>Coffee County</b>	01	1255CST			0	0	?	?	<b>Thunderstorm Winds</b>
Strong thunderstorm winds damaged several buildings at New Brockton.									
<b>Henry County</b>	01	1315CST			0	0	0	0	<b>Hail (0.75)</b>
	01	1320CST			0	0	?	?	<b>Thunderstorm Winds</b>
At 1315 CST, dime-size hail fell while trees and power lines were blown down at Abbeville. At 1320 CST, an awning was blown off a building at Headland.									
<b>Houston County</b>	01	1340CST			0	0	0	0	<b>Hail (0.75)</b>
Dime-size hail fell at Dothan.									
<b>Lamar County</b>	05	1018CST			0	0	?	?	<b>Thunderstorm Winds</b>
Trees and power lines were blown down 5 miles south of Vernon.									
<b>Choctaw County</b>	05	1200CST			0	0	?	?	<b>Hail (0.75)</b>
Penny-size hail fell 14 miles southwest of Butler.									
<b>Sumter County</b>	05	1220CST			0	0	?	?	<b>Thunderstorm Winds</b>
Trees were blown down at Cuba.									
<b>Jefferson County</b>	05	1235CST			0	1	?	?	<b>Thunderstorm Winds</b>
	05	1245CST			0	3	?	?	<b>Thunderstorm Winds</b>
At 1235 CST, in Bessemer, straight-line thunderstorm winds damaged 13 apartments and demolished a mobile home. One person was injured at a convenience store by flying debris. At 1245 CST, in Hoover, windows were blown out of a restaurant. Three persons received minor injuries from flying glass.									
<b>Shelby County</b>	05	1255CST			0	0	?	?	<b>Thunderstorm Winds (G52)</b>
Storm spotters estimated thunderstorm winds to be 60 mph at several locations in northern Shelby County. Trees were blown down at scattered locations, and two homes were damaged by falling trees in Pelham.									
<b>Washington County</b>	05	1300CST			0	0	?	?	<b>Thunderstorm Winds</b>
	05	1315CST			0	0	?	?	<b>Thunderstorm Winds</b>
At 1300 CST, trees were blown down in the Millry vicinity. At 1315 CST, numerous trees were uprooted in Chatom.									
<b>Saint Clair County</b>	05	1310CST			0	0	?	?	<b>Thunderstorm Winds</b>
Trees were blown down at Pell City.									
<b>Chilton County</b>	05	1312CST			0	0	?	?	<b>Hail (1.75)</b>
Golf ball-size hail fell 2 miles south of Clanton.									

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## ALABAMA Cont'd

<b>Bibb County</b>	05	1340CST			0	0	?	?	<b>Thunderstorm Winds</b>
									Trees were blown down at scattered locations in the county. Windows were blown out of cars and power poles were blown down at Centreville.
<b>Calhoun County</b>	05	1343CST			0	0	0	0	<b>Hail (0.75)</b>
									Dime-size hail fell at Anniston.
<b>Autauga County</b>	05	1350CST			0	0	?	?	<b>Thunderstorm Winds</b>
	05	1400CST			0	0	?	?	<b>Thunderstorm Winds</b>
									At 1350CST, strong thunderstorm winds blew trees onto a few homes in Prattville. At 1400 CST, a roof was blown off a barn and trees and power lines were blown down.
<b>Montgomery County</b>	05	1355CST			0	0	?	?	<b>Thunderstorm Winds (G52)</b>
	05	1405CST			0	0	?	?	<b>Thunderstorm Winds</b>
									At 1355 CST, a thunderstorm wind gust to 60 mph was reported at the Montgomery Airport. Nearby, Maxwell Air Force Base also reported a wind gust to 60 mph at about the same time. Between 1400 and 1410 CST, trees and power lines were blown down all around Montgomery.
<b>Elmore County</b>	05	1400CST			0	0	?	?	<b>Thunderstorm Winds</b>
	05	1420CST			0	0	?	?	<b>Thunderstorm Winds</b>
									At 1400 CST, trees were blown down at Wetumpka, and there was damage to hangars at the Elmore County Airport. At 1420 CST, trees were blown across roads in Tallassee.
<b>Coosa County</b>	05	1407CST			0	0	?	?	<b>Thunderstorm Winds</b>
									Trees were blown down at Weogufka.
<b>Montgomery County</b>	05	1410CST			0	0	?	?	<b>Thunderstorm Winds</b>
									Trees were blown down at Hope Hull and Snowdown, and a car was overturned at Pine Level.
<b>Tallapoosa County</b>	05	1415CST			0	0	?	?	<b>Thunderstorm Winds</b>
	05	1430CST			0	0	?	?	<b>Thunderstorm Winds</b>
									At 1415 CST, trees were blown down, and a house was damaged at Dadeville by strong thunderstorm winds. At 1430 CST, a house was damaged at Reelftown.
<b>Macon County</b>	05	1430CST			0	0	?	?	<b>Thunderstorm Winds</b>
	05	1445CST			0	0	?	?	<b>Thunderstorm Winds</b>
									At 1430 CST, trees were blown down at Notasulga. At 1445 CST, a falling tree damaged a mobile home 8 miles northeast of Tuskegee.
<b>Lee County</b>	05	1450CST			0	0	?	?	<b>Thunderstorm Winds</b>
	05	1500CST			0	0	?	?	<b>Thunderstorm Winds</b>
	05	1510CST			0	0	?	?	<b>Thunderstorm Winds</b>
									At 1450 CST, trees were blown down in Opelika. At 1500 CST, several hundred trees were blown down throughout the county. At 1510 CST, a grocery store canopy was destroyed, and three houses were damaged at Beauregard.
<b>Chambers County</b>	05	1500CST			0	0	?	?	<b>Thunderstorm Winds</b>
									Trees were blown down at scattered locations in the county.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## ALABAMA Cont'd

<b>Pike County</b>	05	1500CST			0	0	?	?	<b>Thunderstorm Winds</b> Trees were blown down at Brundidge.
<b>Bullock County</b>	05	1510CST			0	0	?	?	<b>Thunderstorm Winds</b> <b>Flash Flood</b> Large trees were blown down 8 miles west of Union Springs. Street flooding occurred in Union Springs.
<b>Russell County</b>	05	1600CST			0	0	?	?	<b>Thunderstorm Winds</b> Thunderstorm winds were estimated at 80 mph in Phenix City. Trees and power lines were blown down, and a mobile home was crushed. There were no injuries.
<b>Lee County</b>	05	1630CST			0	0	6	?	<b>Thunderstorm Winds</b> Approximately 500 to 600 trees were blown down throughout the county by strong thunderstorm winds. There was damage to a few homes, a business, and two schools, mostly from falling trees. Damage was estimated as high as \$500,000.
<b>Mobile County</b>	05	1900CST			0	0	?	?	<b>Hail (1.50)</b> Quarter-size hail fell in the Citronelle vicinity.
<b>Baldwin County</b>	06	0425CST			0	0	0	0	<b>Hail (1.00)</b> In Bay Minette, dime- to quarter-size hail was reported.
<b>Escambia County</b>	06	0430CST			0	0	0	0	<b>Hail (0.75)</b> Dime-size hail fell in the Huxford vicinity.
<b>Shelby County</b>	09	0850CST			0	0	?	?	<b>Flash Flood</b> Torrential rain caused minor flooding in a few homes in Helena and at a construction site in Hoover.
<b>Autauga County</b>	09	1930CST			0	0	?	?	<b>Thunderstorm Winds</b> Several trees were blown down, one onto a mobile home at Pine Level.
<b>Morgan County</b>	10	0010CST			0	1	?	?	<b>Thunderstorm Winds</b> Strong thunderstorm winds knocked down numerous trees and power poles. A few fell on homes in the Decatur area. One child was slightly injured when a tree fell on her house.
<b>Mobile County</b>	12	0610CST			0	0	0	0	<b>Waterspout</b> A waterspout was spotted over Mobile Bay just east of the Theodore ship channel moving a short distance south.
<b>Walker County</b>	12	1000CST			0	0	?	?	<b>Flash Flood</b> Heavy rain caused water to rise into some homes in the Jasper area. Also, high water covered roads in other areas of the county.
<b>Marion County</b>	12	1100CST			0	0	?	?	<b>Flash Flood</b> At scattered locations in the county, heavy rain caused street and highway flooding.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## ALABAMA Cont'd

Dallas County	12	1230CST			0	0	?	?	Thunderstorm Winds
	12	1245CST			0	0	?	?	Thunderstorm Winds
Trees were blown down at Orrville and Sardis.									
Montgomery County	13	1345CST			0	0	?	?	Thunderstorm Winds
Trees were blown down at scattered locations in the city of Montgomery.									
Escambia County	14	0830CST			0	0	?	?	Flash Flood
Heavy rain caused flooding in Brewton and surrounding area roads.									
Jefferson County	14	1445CST			0	1	0	0	Lightning
A man was injured by lightning while working atop a building.									
Montgomery County	14	1757CST			0	0	?	?	Thunderstorm Winds
A large window was blown out of a department store in Montgomery.									
Choctaw County	15	1250CST			0	0	?	?	Thunderstorm Winds
Strong thunderstorm winds blew down trees and power lines about 20 miles southwest of Butler in extreme southwestern Choctaw County.									
Lamar County	19	0845CST			0	0	5	?	Thunderstorm Winds
Strong thunderstorm winds destroyed several garages and storage buildings, and uprooted trees in the Vernon area. Damage estimates were approximately \$200,000.									
Morgan County	19	1300CST			0	2	0	0	Lightning
Two teen-agers were injured by lightning which struck a nearby tree, while they were playing basketball. After striking the tree, it then traveled down the attached clothesline before hitting the victims.									
Colbert County	20	0620CST			0	0	?	?	Thunderstorm Winds
Trees and power lines were blown down in Sheffield. Also, heavy damage was done to an elementary school cafeteria.									
Lauderdale County	20	0620CST			0	0	?	?	Thunderstorm Winds
Trees were blown down at scattered locations throughout the county.									
Monroe County	20	1430CST			0	0	?	?	Thunderstorm Winds
Strong thunderstorm winds peeled the roof off one mobile home and slightly damaged other mobile homes at Frisco City.									

## ARIZONA

AZZ003 Northeastern Plateau	09	1315MST			0	0	0	0	High Winds
Southern winds gusted to 63 mph in Page, and blowing dust cut the visibility to 2 miles.									
AZZ003 Northeastern	10	1200MST			0	0	2	0	High Winds



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## ARIZONA Cont'd

**Plateau** Part of a roof was blown off a building in Winslow, and winds estimated at 70 mph struck Springerville.

**AZZ003** 14 1400MST 0 0 0 0 High Winds

**Northeastern Plateau**

A strong cold front moved through the state and winds gusted as high as 60 mph at the Show Low Airport.

## ARKANSAS

**Logan County Booneville**

03 0130CST 0 0 4 0 Thunderstorm Winds

Thunderstorm winds downed trees and damaged roofs in the Booneville area. At least two homes were damaged by falling trees while other homes suffered roof damage from the wind, as well as an automobile dealership.

**Montgomery County 1 N Caddo Gap**

03 0342CST 0 0 5 0 Thunderstorm Winds

Thunderstorm winds took part of the roof off Caddo Hills School and windows and doors were blown in.

**Miller County Brightstar**

03 0344CST 0 0 3 0 Thunderstorm Winds Hail (0.75)

Thunderstorm winds downed several trees and damaged the roof of a house.

**Lafayette County**

03 0430CST-0800CST 0 0 4 0 Flash Flood

Heavy rain washed out county roads and damaged bridges. Damage was estimated in excess of \$20,000.

**Miller County Fouke**

03 0430CST-0800CST 0 0 3 0 Flash Flood

Heavy rain swelled creeks and flooded some roads. A school bus was swept off a road by flood waters from Davis Creek.

**Lafayette County Bradley Stamps Lewisville**

03 0431CST 0 0 2 0 Thunderstorm Winds  
03 0435CST 0 0 3 0 Thunderstorm Winds  
03 0436CST 0 0 2 0 Thunderstorm Winds

Thunderstorm winds downed trees in Lewisville and trees and power lines in Stamps.

**Calhoun County**

03 0615CST-0730CST 0 0 2 0 Flash Flood

**Union County**

03 0615CST-0730CST 0 0 3 0 Flash Flood

Heavy rain flooded some roads across Calhoun and Union Counties. Highway 4, just west of Hampton in Calhoun County, was flooded. In El Dorado, in Union County, some streets and low-water crossings went under water.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## ARKANSAS Cont'd

<b>Bradley County Warren</b>	03	0700CST- 0830CST			0	0	2	0	Flash Flood
Heavy rain flooded streets in Warren. The water was a foot deep in some areas.									
<b>Drew County Monticello</b>	03	0700CST- 0900CST			0	0	2	0	Flash Flood
Some streets in Monticello were closed due to high water.									
<b>Ashley County</b>	03	0800CST- 1000CST			0	0	2	0	Flash Flood
<b>Chicot County</b>	03	0800CST- 1000CST			0	0	2	0	Flash Flood
<b>Desha County</b>	03	0800CST- 1000CST			0	0	2	0	Flash Flood
Heavy rain quickly flooded roads across an already rain-soaked part of Arkansas. Streets in Hamburg and Crossett in Ashley County, in McGhee in Desha County, and some county roads near Lake Village in Chicot County were also flooded.									
<b>Sevier County 4 W DeQueen</b>	04	1940CST			0	0	3	0	Thunderstorm Winds
Thunderstorm winds downed trees causing damage to one house.									
<b>Miller County Texarkana</b>	04	1940CST- 1947CST			0	0	3	0	Thunderstorm Winds (G52)
Sixty-mph wind gusts downed trees and power lines on the eastern side of Texarkana.									
<b>Little River County 2 W Ashdown</b>	04	1952CST			0	0	2	0	Thunderstorm Winds
Trees were downed along Highway 32.									
<b>Howard County Nashville</b>	04	2025CST			0	0	2	0	Thunderstorm Winds
Thunderstorm winds downed trees just southwest of Nashville on Buck Range Road.									
<b>Columbia County Taylor</b>	04	2035CST			0	0	0	0	Hail (1.00)
<b>Pike County Lake Greeson</b>	04	2050CST			0	0	2	0	Thunderstorm Winds Hail (0.75)
Trees were downed on the eastern side of Lake Greeson.									
<b>Clark County 5 SE Alpine Hollywood</b>	04	2053CST			0	0	2	0	Thunderstorm Winds (G52)
	04	2055CST			0	0	3	0	Thunderstorm Winds
SKYWARN spotters reported wind gusts of 60 mph resulting in mainly tree damage. In Hollywood, a barn was blown down by the winds.									

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## ARKANSAS Cont'd

**Pike County**  
**Delight**                      04 2055CST                      0    0    2    0    **Thunderstorm Winds**  
**Hail (0.75)**

Thunderstorm winds downed a few trees.

**Montgomery County**  
**Caddo Gap**                      04 2055CST                      0    0    2    0    **Thunderstorm Winds**  
**1 W Pencil Bluff**              04 2104CST                      0    0    2    0    **Thunderstorm Winds (G52)**

Thunderstorm winds downed trees at Caddo Gap and Pencil Bluff.

**Hempstead County**  
**5 W Guernsey**                04 2115CST                      0    0    2    0    **Thunderstorm Winds**

Thunderstorm winds downed trees and power lines.

**Clark County**  
**Arkadelphia**                04 2117CST                      0    0    3    0    **Thunderstorm Winds**

A church under construction was blown down by thunderstorm winds.

**Hot Spring County**  
**4 S Friendship**              04 2120CST                      0    0    2    0    **Thunderstorm Winds**

Trees were blown down south of Friendship resulting in some damaged fences.

**Dallas County**  
**Dalark**                        04 2120CST                      0    0    2    0    **Thunderstorm Winds**

Thunderstorm winds blew down trees around Dalark blocking a few county roads.

**Hempstead County**  
**Hope**                         04 2124CST                      0    0    3    0    **Thunderstorm Winds**

Thunderstorm winds downed trees and power lines.

**Nevada County**  
**3 SW Reda**                    04 2130CST                      0    0    0    0    **Hail (1.00)**

**Garland County**  
**Hot Springs**                04 2140CST                      0    0    3    0    **Thunderstorm Winds**

Thunderstorm winds blew down trees causing heavy damage to one carport.

**Hot Spring County**  
**Malvern**                    04 2140CST                      0    0    3    0    **Thunderstorm Winds**

Thunderstorm winds blew down some trees, one landed on a car.

**Grant County**  
**Leola**                        04 2210CST                      0    0    3    0    **Thunderstorm Winds**

Thunderstorm winds downed trees and power lines.

**Cleveland County**  
**New Edinburg**              04 2220CST                      0    0    2    0    **Thunderstorm Winds**

Thunderstorm winds blew down trees.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## ARKANSAS Cont'd

<b>Jefferson County</b>									
White Hall	04	2220CST			0	0	0	0	Hail (0.75)
Gethsemane	04	2245CST			0	0	0	0	Hail (0.75)
<b>White County</b>									
6 SE West Point	04	2355CST			0	0	2	0	Thunderstorm Winds
									Thunderstorm winds blew down trees along Highway 36.
<b>Jackson County</b>									
Newport	05	0036CST			0	0	4	0	Thunderstorm Winds
									Thunderstorm winds blew down trees, which broke power lines and caused damage to some homes. Windows were also broken by flying debris.
<b>Lawrence County</b>									
Imboden	05	0105CST			0	0	3	0	Thunderstorm Winds
									The roof of a store was damaged, and trees were downed by thunderstorm winds.
<b>Clay County</b>									
Corning	05	0200CST			0	0	3	0	Thunderstorm Winds
									Thunderstorm winds blew down trees and power lines in Corning. Some roofs, fences, and a grain bin were also damaged.
<b>Chicot County</b>									
Lake Village	05	0645CST			0	0	4	0	Thunderstorm Winds (G52)
									Winds gusting to at least 60 mph caused damage across Lake Village. Roofs and homes were damaged by falling trees. Power lines and a city tower were downed.
<b>Ashley County</b>									
Wilmot	05	0645CST			0	0	4	0	Thunderstorm Winds (G52)
									Winds gusting to 60 mph blew down trees and power lines, and damaged roofs.
<b>Bradley County</b>									
	11	0345CST-0500CST			0	0	4	0	Flash Flood
									Heavy rain fell over the northern part of Bradley County causing some flash flooding. The Arkansas State Police Department in Warren had water in the building. Highway 15, north of Warren, and some streets in Warren were flooded.
<b>Dallas County</b>									
	11	0600CST-1030CST			0	0	2	0	Flash Flood
									Heavy rain flooded roads mainly across the northern half of Dallas County. Highway 48 was flooded east of Carthage and near the intersection with Highway 9. Highway 9 near Princeton, and Highway 8 near Dalark and Manning were flooded.
<b>Lawrence County</b>									
10 NE Smithville	12	1320CST			0	0	0	0	Hail (1.00)
<b>Mississippi County</b>									
Blytheville	13	1345CST			0	0	4	0	Thunderstorm Winds
									Thunderstorm winds blew down some trees and damaged roofs. A 40-foot travel trailer was also moved about 20 feet, causing extensive damage.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## ARKANSAS Cont'd

<b>Greene County Hooker</b>	15	1500CST			0	0	4	0	<b>Thunderstorm Winds</b>
Thunderstorm winds downed several trees and power lines, and took part of the roof off homes and a barn. A few other homes also suffered minor roof damage.									
<b>Baxter County Mountain Home</b>	15	1535CST			0	0	4	0	<b>Thunderstorm Winds</b>
Thunderstorm winds downed trees and power lines mainly in the downtown area of Mountain Home. Flag poles around the town square were also blown down.									
<b>Benton County Bella Vista</b>	16	0850CST			0	0	0	0	<b>Hail (1.00)</b>
<b>Franklin County Peter Pender</b>	18	1730CST			0	0	4	0	<b>Thunderstorm Winds</b>
A roof was damaged by a falling tree, and a carport was destroyed by strong thunderstorm winds.									

## CALIFORNIA, Northern

None reported.

## CALIFORNIA, Southern

<b>CAZ013-015-019</b>	06	1520PST			0	0	?	0	<b>High Winds</b>
Strong winds hit parts of southern California with gusts to 50 mph in the Antelope Valley. A wind gust of 60 mph was reported at Mojave, in the Mojave Desert.									
<b>CAZ014-018-019</b>	30	All Day-			1	0	?	0	<b>High Winds</b>
31									
A storm system developing in Nevada and Utah produced high winds in parts of southern California. At midnight, a 47-mph gust was reported at Daggett Airport. Also, gusts in excess of 50 mph were reported at China Lake and at Bishop. The winds in the Coachella Valley knocked down power poles and whipped up sand and gravel. About 5,000 customers in Palm Springs, Cathedral City, and Desert Hot Springs, were without power for about an hour. Winds in the area were between 60 to 70 mph. A man was killed in a traffic accident, caused by the fierce winds when a wind gust toppled a tractor-semitrailer onto his pickup truck. (M42V)									

## COLORADO

<b>Grand County Winter Park</b>	01	1215MST			0	0	4	?	<b>High Winds</b>
A very localized high wind blew through the town of Winter Park. The wind removed five large sections of sheet metal roofing from a lodge that landed on some nearby power lines and caused damage.									
<b>Jefferson County 11 NW Denver</b>	01	1702MST			0	0	?	?	<b>Hail (1.00)</b>
Three-quarter-inch hail was reported at Stanley Lake.									

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## COLORADO Cont'd

**COZ003-009**      02 Afternoon      0   0   5   ?      **High Winds**  
**West Central Valleys and Sam Luis Valley**

An approaching Pacific cold front produced strong south to southwest winds with speeds of 40 to 45 mph (35 to 39 knots) and higher gusts at Alamosa. Two homes were severely damaged near Montrose when winds estimated at 70 mph (61 knots) blew through the western valleys of Colorado. At about 1600 MDT, the roof was completely stripped off a mobile home at Olathe. A second home had its roof removed by high winds at about 1830 MDT (time estimated), near Olathe on U.S. Highway 50. A sheep barn was also destroyed about the same time on Highway 50. A church in Delta received an estimated \$15,000 in damage from the high winds. No injuries were reported.

**Lincoln County**

Genoa	02 1300MST								
2 E Limon	02 1415MST	Short	Narrow	0	0	?	?		Thunderstorm Winds
Genoa	02 1430MST-								Tornado (F0)
	1440MST	0.2	25	0	0	5	?		Tornado (F1)
Karval	02 1430MST			0	1	?	?		Lightning
Karval	02 1430MST-								
	1442MST			0	0	?	?		Hail (0.75)
10 SE Limon	02 1445MST	0.1	10	0	0	?	?		Tornado (F0)
Elbert County									
15 SW Limon	02 1330	Short	Narrow	0	0	?	?		Tornado (F0)
6 SW Limon	02 1345-								
5 SW Limon	1349	1.0	25	0	0	?	?		Tornado (F0)

A thunderstorm produced strong winds in Genoa, damaging a grain elevator, roofs, and windows of homes. National Weather Service personnel spotted several small tornadoes in the Limon vicinity from 1330 MST to 1415 MST. A tornado 6 miles southwest of Limon lifted and dropped several times before finally dissipating. Lightning struck a man in Karval. The man was only slightly injured. Dime-size hail fell from the same storm. At 1430 MST, the public reported a tornado in Genoa. The tornado removed a 50-foot section of roof from a flat grain storage unit, toppled a storage tank at a local oil company, damaged a grain elevator and several roofs, blew out a few windows, and downed some power lines. A few minutes later, National Weather Service personnel at Weather Service Meteorological Observatory in Limon sighted briefly a rope-type tornado 10 miles southeast of Limon.

**Elbert County**

1 SW Kutch	02 1345MST								
El Paso County									Funnel Cloud
Rush	02 1348MST			0	0	?	?		Hail (0.75)

The public reported several short-lived funnel clouds 1 mile southwest of Kutch. The same storm produced pea- to dime-size hail at Rush.

**Yuma County**

Yuma	02 1517MST								
				0	0	?	?		Hail (1.00)

The Yuma County Sheriff's Office reported 0.75- to 1.00-inch hail near Yuma.

**COZ003**  
**West Central Valleys**

02 1530MST-	1800MST								
				0	0	?	?		High Winds

Strong winds blew across the western valleys of Colorado with gusts up to 60 mph (52 knots) reported at Montrose.

**Phillips County**  
**Holyoke**

02 1610MST									
				0	0	2	?		Hail (1.00)
9 S Holyoke to	02 1648MST-								Thunderstorm Winds (G52)
11 SSE Holyoke	1704MST	2.0	25	0	0	5	?		Tornado (F1)



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	PERSONS	

## COLORADO Cont'd

Thunderstorms produced hail to 1.00 inch in diameter and strong winds with gusts up to 60 mph (52 knots). The strong wind toppled several pivot towers on field irrigation equipment and stripped some shingles off homes. A tornado later touched down south of Holyoke and moved to the south-southeast of the town through some farmland. The tornado lifted a 30,000 bushel grain bin off its foundation and dropped it 30 yards away. A calf shed was destroyed, three outbuildings were blown off their foundations near a home, and a mobile home was rolled over. There were no injuries reported.

### Weld County Pierce

03 1610MST 0 0 ? ? Hail (0.75)

Public reported dime-size hail at Pierce.

### Arapahoe County 10 W Last Chance

03 1814MST 0 0 ? ? Hail (1.00)

Storm spotters reported 1.00-inch hail west of Last Chance.

### Lincoln County Hugo

03 2105MST 0 0 ? ? Hail (1.75)

The public reported hail up to golf ball-size in Hugo.

### Chaffee County Salida

05 1330MST Short Narrow 0 0 4 ? Tornado (F0)

Residents watched as a small tornado briefly touched down in Salida, long enough to take the roof off a home and caused considerable damage to the inside.

### COZ004-009-011 Central Mountains San Luis Valley and Front Range

10 Afternoon 0 0 4 ? High Winds

High winds estimated up to 61 mph (53 knots) blew through the San Luis Valley, picking up dust and reducing visibilities to near zero. Strong downslope winds through the eastern sections of the central mountains and along the front range produce winds up to 63 mph (55 knots). Winds estimated at 50 mph (44 knots) tore a roof off a home in the town of Lafayette at around 1315 MST. A tower at Jefferson County Stadium was also blown over. No injuries were reported.

### Chaffee County Salida

11 1430MST 0 0 3 ? Thunderstorm Winds

Thunderstorm wind gusts (speed unknown) toppled several trees, damaged the roof of a home, and a sidewalk.

### Kiowa County 10 S Eads Eads

11 1650MST 0 0 ? ? Hail (1.75)

11 1700MST 0 0 ? ? Hail (1.75)

### Cheyenne County 10 S Kit Carson

11 1715MST 0 0 ? ? Hail (1.75)

Golf ball-size hail was reported by the public 10 miles south of Eads. The storm continued moving north, dropping golf ball-size hail at Eads and near Kit Carson.

### Washington County Otis 5S Otis 5E Akron

11 1715MST 0 0 ? ? Hail (1.00)

11 1723MST 0 0 ? ? Hail (1.25)

11 1728MST 0 0 ? ? Hail (1.00)

A strong thunderstorm moved through the north-central part of Washington county producing hail 1.00 to 1.25 inches in diameter.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CRODGS	

## COLORADO Cont'd

<b>Baca County</b>		11 1805MST			0	0	?	?	Hail (1.00)
8 SE Campo	11	1815MST			0	0	?	?	Hail (1.00)
Campo									

A spotter reported 1.00-inch hail near the Colorado/Oklahoma border south of Campo. A few minutes later, 0.50- to 1.00-inch hail was reported in the town of Campo.

<b>12 S Walsh</b>		11 1910MST-			0	0	?	?	
10 S Walsh	11	1918MST	2.0	25	0	0	?	?	Tornado (F0)

County officials from Springfield reported a tornado south of Walsh.

<b>Logan County</b>		11 1900MST			0	0	?	?	Hail (1.25)
Iliff	11	1940MST			0	0	?	?	Hail (1.00)
Peetz									

Nickel- to half-dollar-size hail fell near towns of Iliff and Peetz.

<b>Jefferson County</b>		15 1114MST			0	0	?	?	Funnel Cloud
2 SW Morrison	15	1124MST			0	0	?	?	Hail
4 SW Morrison									

The Alpine Search and Rescue team spotted a funnel cloud. County officials later reported hail up to 2 inches deep on U.S. Highway 285 at South Turkey Creek Road.

<b>Arapahoe County</b>		15 1123MST			0	0	4	?	Hail (2.75)
Littleton	15								

A spotter reported baseball-size hail on the east side of Littleton.

<b>Boulder County</b>		15 1145MST			0	0	?	?	Hail (0.75)
2 W Boulder	15								

Personnel at the Forecast Systems Lab (FSL) reported dime-size hail.

<b>El Paso County</b>		15 1300MST			0	0	?	?	Hail (1.75)
9 N Yoder	15								

Off-duty National Weather Service personnel reported golf ball-size hail north of the town of Yoder.

<b>Weld County</b>		15 1345MST			0	0	?	?	Thunderstorm Winds (G51)
Keenesburg	15								

Thunderstorm gusts to 59 mph (51 knots) were reported at Keenesburg.

<b>Larimer County</b>		15 1359MST			0	0	?	?	Hail (0.75)
5 SE Loveland	15	1411MST			0	0	3	?	Hail (1.00)
Berthoud	15	1413MST			0	0	?	?	Hail (0.75)
3 SW Loveland	15	1424MST			0	0	4	?	Hail (1.50)
Loveland	15	1428MST			0	0	3	?	Hail (1.75)
Loveland	15	1431MST			0	0	?	?	Hail (1.00)
Harmony	15	1440MST			0	0	3	?	Hail (1.00)
1 S Fort Collins	15	1445MST			0	0	3	?	Hail (0.75)
1 W Fort Collins	15	1500MST			0	0	4	?	Hail (1.75)
Fort Collins	15								

A strong thunderstorm produced widespread hail ranging from nickel- to golf ball-size from Berthoud to Fort Collins. Many homes and cars sustained various amounts of damage.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## COLORADO Cont'd

<b>Morgan County</b> 3 NE Wiggins	15	1430MST			0	0	?	?	Thunderstorm Winds (G78)
A cooperative observer near Wiggins reported wind gusts estimated at 80 to 90 mph (71 to 78 knots).									
<b>Weld County</b> 21 N New Raymer	15	1508MST			0	0	0	0	Hail (1.00)
One-inch-hail was reported north of New Raymer.									
<b>Pueblo County</b> Pueblo	15	1645MST			0	0	?	?	Hail (0.75)
Hail to 0.75 inch in diameter was reported in the northern portion of Pueblo.									
<b>COZ002-004</b> Northern and Central Mountains	15	2100MST-			0	0	?	?	Heavy Snow
16	1200MST-				0	0	?	?	Heavy Snow
Heavy snow fell over areas of the northern and central mountains as a slow moving midlevel low moved across the state. Most of the heavy snow was around the Continental Divide at elevations generally above 8,500 feet. Snow totals ranged from 3 to 19 inches. Some snow reports included 19 inches at Winter Park; 16 inches at Arapahoe Basin; and 12 inches at the Eisenhower Tunnel on Interstate 70. At elevations between 7,500 and 8,500 feet, snow amounts included 3 inches at Conifer and Empire, and 2 inches at Nederland.									
<b>Logan County</b> Near Proctor	16	1238MST	Short Narrow		0	0	?	?	Tornado (F0)
A brief tornado touchdown in open country was reported by the public.									
<b>Yuma County</b> Near Yuma	16	1240MST-			0	0	?	?	Funnel Cloud
15 SW Yuma	16	1246MST	Short Narrow		0	0	?	?	Tornado (F0)
4 W Hale	16	1320MST			0	0	?	?	Funnel Cloud
Three citizens reported a brief tornado touchdown in open country. There were also reports made by the public of funnel clouds near the town of Yuma, and near the town of Hale.									
<b>Logan County</b> Atwood	16	1300MST-			0	0	2	4	Flash Flood Hail
16	1430MST				0	0	2	4	Flash Flood Hail
Strong thunderstorms dropped up to 2.50 inches of rain in about 1.5 hours in the farming community of Atwood. Fields were flooded and small hail up to 4 inches deep damaged winter wheat crops.									
<b>Kit Carson County</b> 10 NE Bethune	16	1320MST	Short Narrow		0	0	?	?	Tornado (F0)
10 S Burlington	16	1324MST-			0	0	?	?	Tornado (F0)
1 S Bethune	16	1332MST-	Short Narrow		0	0	?	?	Tornado (F0)
5 S Burlington	16	1332MST-			0	0	?	?	Funnel Cloud
16	1344MST				0	0	?	?	Hail (0.88)
Two tornadoes touched down briefly in open country.									

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## COLORADO Cont'd

<b>Weld County</b> Near New Raymer	16	1330MST			0	0	4	?	<b>Lightning Hail (1.00)</b>
A rancher near New Raymer reported that five head of cattle were killed when struck by lightning around 1330 MST (time estimated).									
<b>Yuma County</b> 15 N Laird	16	1645MST	Short	Narrow	0	0	?	?	<b>Tornado (F0) Funnel Cloud</b>
A tornado touched down briefly in open country.									
<b>Douglas County</b> Castle Rock	16	1930MST	Short	Narrow	0	0	?	?	<b>Tornado (F0)</b>
Castle Rock	16	1930MST	Short	Narrow	0	0	?	?	<b>Tornado (F0)</b>
Two tornadoes touched down briefly, but no injuries or damage were reported.									
<b>Jefferson County</b>	16	1900MST- 2040MST			0	0	?	?	<b>Flash Flood</b>
The Jefferson County Sheriff's Office reported that Lena Gulch was out of its banks at about 1900 MST. Rain gages in the area measured from 0.50 to 1.10 inches in just of couple of hours. The rain intensity decreased and flood waters receded by 2040 MST.									
<b>Weld County</b> Pierce	18	1755MST			0	0	?	?	<b>Hail (1.25)</b>
A spotter reported hail 0.50 to 1.25 inches in diameter in the town of Pierce.									
<b>Arapahoe County</b> Aurora	19	1505MST			0	0	?	?	<b>Thunderstorm Winds (G50)</b>
2 SE Aurora	19	1515MST			0	0	?	?	<b>Thunderstorm Winds (G49)</b>
Buckley NAS	19	1525MST			0	0	?	?	<b>Thunderstorm Winds (G52)</b>
1 SE Aurora	19	1545MST			0	0	2	?	<b>Thunderstorm Winds</b>
<b>Larimer County</b> Fort Collins (FOR)	19	1545MST			0	0	?	?	<b>Thunderstorm Winds (G55)</b>
<b>Weld County</b> Briggsdale	19	1545MST			0	0	?	?	<b>Thunderstorm Winds (G55)</b>
Keenesburg	19	1605MST			0	0	3	?	<b>Thunderstorm Winds (G53)</b>
<b>Larimer County</b> Fort Collins (FOR)	19	1550MST			0	0	?	?	<b>Thunderstorm Winds (G53)</b>
2 N Fort Collins	19	1610MST			0	0	2	?	<b>Thunderstorm Winds</b>
Strong thunderstorms along the foothills from west of Denver to northwest of Fort Collins. Mesonet stations at Fort Collins, Briggsdale, and Keenesburg measured wind gusts of 58 to 63 mph. Several reports indicated downed power lines, trees, and fences at several locations.									
<b>El Paso County</b> 5 S Calhan	19	1650MST			0	0	?	?	<b>Hail (1.50)</b>
A retired National Weather Service employee reported 1.50-inch hail.									
<b>Weld County</b> Keenesburg	19	1645MST			0	0	3	?	<b>Thunderstorm Winds</b>
The Weld County Sheriff's Office reported trees and several power lines downed in Keenesburg.									

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## COLORADO Cont'd

**Elbert County**  
 24 E Simla 19 1755MST 0 0 ? ? Hail (1.00)  
 Near Calhan 19 1800MST 0 0 ? ? Hail (1.00)

One-inch-diameter hail was reported by the public.

**Lincoln County**  
 15 E Rush 19 1820MST 0 0 ? ? Hail (1.00)

The public reported hail up to 1.00 inch covering Colorado Highway 94.

**Larimer County**  
 Fort Collins (FOR) 20 1355MST 0 0 ? ? Thunderstorm Winds (G50)

Mesonet station at Fort Collins recorded wind gusts to 58 mph (50 knots).

**Archuleta County**  
 Near Arboles 21 1635MST 0 0 4 ? Hail (0.88)

The public reported nickel-size hail and 1.00 inch of rain near the town of Arboles. Reports indicated that extensive damage was done to recreational vehicles, boats, and motor homes at Navajo Lake, 2 miles east of Arboles.

**Douglass County**  
 2 SW Castle Rock 22 1707MST 0 0 ? ? Funnel Cloud  
 1 SW Castle Rock 22 1722MST Short Narrow 0 0 ? ? Tornado (F0)

A tornado touched down briefly near Castle Rock.

**El Paso County**  
 Falcon 22 1725MST-1736MST 0 0 ? ? Hail (1.00)  
 Peyton 22 1726MST 0 0 ? ? Hail (1.00)  
 5 E Falcon 22 1755MST Short Narrow 0 0 ? ? Tornado (F0)  
 Near Peyton 22 1810MST 0 0 ? ? Hail (1.00)  
 4 SW Peyton 22 1820MST Short Narrow 0 0 ? ? Tornado (F0)  
 Near Calhan 22 1824MST-1826MST Short Narrow 0 0 ? ? Tornado (F0)  
 8 SW Simla to 22 1836MST-1840MST 3.0 50 0 0 ? ? Tornado (F0)  
 5 SW Simla 22 1850MST Short Narrow 0 0 ? ? Tornado (F0)  
 10 N Ellicott  
**Elbert County**  
 5 E Elbert 22 1730MST 0 0 ? ? Hail (1.00)  
 near Matheson 22 1754MST Short Narrow 0 0 ? ? Tornado (F0)  
 5 E Matheson 22 1821MST Short Narrow 0 0 ? ? Tornado (F0)  
 1 S Simla 22 1830MST Short Narrow 0 0 ? ? Tornado (F0)

Strong thunderstorms moved along U.S. Highway 24 between Limon and Colorado Springs, producing several small tornadoes and hail up to 1.00 inch in diameter. One tornado was on the ground intermittently for 3 miles before dissipating.

**Douglass County**  
 6 E Parker 23 1218MST 0 0 ? ? Hail (0.75)  
 13 S Denver 23 1433MST 0 0 6 ? Hail (1.75)  
**Jefferson County**  
 Conifer 23 1218MST 0 0 6 ? Hail (1.00)  
 6 E Aspen Park 23 1230MST-1233MST 0 0 ? ? Hail (0.75)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## COLORADO Cont'd

2 SE Morrison	23	1243MST			0	0	?	?	Hail (1.00)
14 SW Denver	23	1244MST			0	0	?	?	Hail (0.75)
10 SW Denver	23	1303MST			0	0	6	?	Hail (1.00)
13 SW Denver	23	1500MST			0	0	6	?	Hail (1.00)
Denver County									
5 SW Denver	23	1315MST			0	0	7	?	Hail (2.50)
Denver	23	1325MST			0	0	6	?	Hail (1.00)
Arapahoe County									
12 S Denver	23	1430MST			0	0	6	?	Hail (1.75)
11 S Denver	23	1435MST-							
		1440MST			0	0	6	?	Hail (1.75)
10 S Denver	23	1436MST-							
		1440MST			0	0	6	?	Hail (1.75)
16 SE Denver	23	1447MST			0	0	?	?	Funnel Cloud
10 ESE Denver	23	1450MST			0	0	4	?	Hail (0.75)
10 SE Denver	23	1452MST			0	0	6	?	Hail (1.00)
14 SE Denver	23	1459MST			0	0	6	?	Hail (1.00)
									Funnel Cloud
Littleton	23	1515MST			0	0	7	?	Hail (1.75)
2 SE Aurora	23	1516MST-							
		1600MST			0	0	4	?	Flash Flood
12 SE Aurora	23	1523MST			0	0	0	?	Funnel Cloud

Thunderstorms moving from the southwestern sections of the Denver metro area to east of Denver produced large hail up to golf ball-size. An estimated 5,000 homes and 8,000 cars received considerable damage. Early estimates placed damage costs at around \$60 million in the Denver metro area. Three funnel clouds were also reported, two by personnel at Buckley Air National Guard Base and the other by a spotter. Heavy rain produced street flooding in parts of Aurora.

Arapahoe County									
8 SW Byers	23	1328MST			0	0	?	?	Hail (0.75)
5 E Watkins	23	1339MST			0	0	?	?	Hail (0.75)
Strasburg	23	1343MST			0	0	?	?	Hail (2.75)

Thunderstorms produced golf ball- to baseball-size hail 22 to 37 miles east of Denver.

Pueblo County									
12 N Pueblo	23	1415MST			0	0	?	?	Hail (1.75)

Thunderstorms dropped golf ball-size hail along Interstate 25, 12 miles north of Pueblo (above time estimated). Hail was deep enough to require snow plows to clear road.

El Paso County									
10 N Pinon	23	1440MST			0	0	?	?	Hail (1.75)
20 S Colorado Springs	23	1450MST			0	0	?	?	Hail (0.75)

A thunderstorm moving north dropped hail to 1.75 inches in diameter along Interstate 25, between Pinon and Colorado Springs.

Lincoln County									
10 SE Limon	23	1441MST	Short Narrow		0	0	?	?	Tornado (F0)

A state patrol officer reported a tornado briefly on ground.

Arapahoe County									
1 N Aurora	23	1546MST			0	0	?	?	Hail

Thunderstorms left hail (size unknown) 6 inches deep on the ground.



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## COLORADO Cont'd

### Washington County

Lindon	23	1607MST			0	0	?	?	Hail (1.75)
Last Chance	23	1628MST			0	0	?	?	Hail (1.50)
Lindon	23	1629MST			0	0	?	?	Hail (1.75)
Anton	23	1649MST			0	0	?	?	Hail (1.75)

Golf ball-size hail fell at Lindon.

### Cheyenne County

15 S Wild Horse	23	1610MST			0	0	3	?	Thunderstorm Winds (G74)
Wild Horse and Kit Carson	23	1625MST-1630MST			0	0	?	?	Hail (1.00)
Kit Carson County 5 W Flagler	23	1710MST			0	0	?	?	Hail (0.75)
Lincoln County 1 E Arriba	23	1710MST			0	0	?	?	Hail (0.75)

Thunderstorms dropped hail up to 1.00 inch in diameter from 61 miles southeast of Limon, to 24 miles east of Limon. Thunderstorm wind gusts to 85 mph (74 knots) downed several trees near Wild Horse.

Hugo	23	1620MST			0	0	?	?	Hail (0.75)
10 N Limon	23	1630MST			0	0	?	?	Hail (0.75)
10 E Genoa	23	1650MST			0	0	?	?	Hail (0.75)

Thunderstorms produced hail to 0.75 inch in diameter in the Limon vicinity.

### Arapahoe County

1 S Bennet	24	1020MST	Short Narrow		0	0	?	?	Tornado (F0)
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A tornado briefly touched in open country.

### Washington County

6 SE Cope	24	1230MST			0	0	?	?	Funnel Cloud
5 SW Cope	24	1234MST			0	0	?	?	Funnel Cloud
13 W Cope	24	1252MST			0	0	?	?	Funnel Cloud

A thunderstorm moving through the area produced several funnel clouds near the town of Cope.

### Adams County

10 NE Byers	24	1417MST	Short Narrow		0	0	?	?	Tornado (F0)
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### Arapahoe County

1 N Peoria	24	1419MST	Short Narrow		0	0	?	?	Tornado (F0)
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The sheriff's office reported tornadoes briefly on the ground in open country.

### Larimer County

Warren Lake	25	1919MST			0	0	?	?	Hail (0.75)
Fort Collins	25	1925MST			0	0	?	?	Hail (1.00)

Strong thunderstorms moved through the Fort Collins area, producing hail up to 1.00 inch in diameter. Heavy rain accompanied the thunderstorms and caused some localized street flooding in the Fort Collins.

### Rocky Mountain National Park

National Park	26	1300MST-1310MST			0	0	?	?	Funnel Cloud
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A U.S. Park Ranger reported a funnel cloud that lasted about 10 minutes before dissipating near the Fall River entrance to the park.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## COLORADO Cont'd

### Washington County Cope

26 1525MST 0 0 ? ? Hail (1.75)

A thunderstorm produced dime- to golf ball-size hail at Cope in Washington County.

### Kit Carson County 2 NE Burlington Burlington 5 E Burlington

26 1656MST 0 0 ? ? Hail (2.75)  
26 1702MST 0.1 10 0 0 4 ? Tornado (F0)  
26 1710MST 0.1 10 0 0 ? ? Tornado (F0)  
Hail (2.00)

A brief tornado touchdown in Burlington destroyed a garage; no injuries were reported. A second tornado touched down along Interstate 70.

### Washington County Prewitt Reservoir

26 2154MST 0 0 ? ? Hail (1.75)

Golf ball-size hail fell at the lake 18 miles southwest of Sterling.

### Weld County 8 SW New Raymer

26 2250MST 0 0 ? ? Hail (1.75)

Golf ball-size hail fell 8 miles southwest of New Raymer.

### Morgan County Near Goodrich 16 N Fort Morgan Near Goodrich 13 N Fort Morgan Willard

27 1800MST 0 0 ? ? Funnel Cloud  
27 1805MST 0 0 ? ? Hail (1.75)  
27 1810MST Short Narrow 0 0 ? ? Tornado (F0)  
27 1840MST 0 0 ? ? Hail (2.25)  
27 1900MST 0 0 ? ? Hail (1.50)

A National Center of Atmospheric Research storm-chaser spotted a funnel cloud near Goodrich. A private citizen spotted a tornado briefly on the ground near Goodrich. Hail up to 2.25 inches in diameter was reported north of Fort Morgan.

### Adams County Brighton

28 1406MST 0 0 ? ? Hail (1.75)

The public reported golf ball-size hail in Brighton.

### Kiowa County 7 N Galatea

28 1430MST 0 0 ? ? Hail (1.75)

Golf ball-size hail reported north of Galatea.

### Weld County Gilcrest 3 WNW Greeley Windsor Ault

28 1448MST 0 0 ? ? Hail (1.75)  
28 1501MST 0 0 ? ? Hail (1.25)  
28 1508MST 0 0 ? ? Hail (1.75)  
28 1530MST 0 0 ? ? Hail (1.75)

Public reported golf ball-size hail at Gilcrest, near Greeley, and at Windsor.

### Cheyenne County 2 N Kit Carson 3 NW Firstview 3 N Cheyenne Wells Kit Carson

28 1449MST 0 0 ? ? Hail (2.75)  
28 1520MST 0 0 ? ? Hail (1.00)  
28 1525MST 0 0 ? ? Hail (1.00)  
28 1545MST 0 0 ? ? Hail (0.75)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL	STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## COLORADO Cont'd

The public reported up to baseball-size hail.

**Bent County**  
23 ESE La Junta 28 1515MST 0 0 3 ? Thunderstorm Winds

Thunderstorm wind gusts blew down some power lines.

**Kit Carson County**  
2 SE Stratton 28 1520MST 0 0 ? ? Hail (1.00)  
8 S Burlington 28 1535MST 0 0 ? ? Hail (0.75)  
15 S Burlington 28 1540MST 0 0 ? ? Hail (1.75)  
5 E Burlington 28 1545MST Short Narrow 0 0 4 ? Tornado (F0)  
Hail (1.00)

Strong thunderstorms moved through eastern Kit Carson County, producing a brief tornado which destroyed some grain bins on a farm 5 miles east of Burlington.

**Jefferson County**  
12 SW Denver 28 2049MST 0 0 ? ? Hail (0.75)  
13 SW Denver 28 2100MST 0 0 ? ? Hail (1.50)  
9 S Denver 28 2100MST 0 0 ? ? Hail (0.75)  
7 SW Denver 28 2117MST 0 0 ? ? Hail (1.00)  
8 SW Denver 28 2121MST 0 0 ? ? Hail (0.75)  
**Denver County**  
7 SW Denver 28 2100MST 0 0 ? ? Hail (0.75)

Hail ranging from 0.75 inch to 1.50 inches in diameter fell over the southwestern sections of the Denver metropolitan area. In some areas, hail was up to a few inches deep.

**Weld County**  
Fort Lupton 29 1545MST 0 1 ? ? Lightning

Lightning struck a 13-year-old boy in a field in Fort Lupton. The boy was in critical condition in an area hospital for 2 days before improving.

**Morgan County**  
3 NE Wiggins 29 1618MST 0 0 ? ? Hail (2.00)  
Weldona 29 1629MST 0 0 ? ? Hail (1.75)

A thunderstorm dropped hail up to 2.00 inches in diameter.

**Washington County**  
25 SW Brush 29 1740MST Short Narrow 0 0 ? ? Tornado (F0)  
5 S Akron 29 1756MST- 14.0 50 0 0 ? ? Tornado (F1)  
8 E Akron 1826MST 0 0 ? ? Hail (2.50)  
9 SE Akron 29 1823MST 0 0 ? ? Hail (1.75)  
Otis 29 1835MST 0 0 ? ?  
6 S Platner 29 1840MST- 7.0 25 0 0 4 ? Tornado (F0)  
9 S Otis 1916MST 0 0 ? ? Hail (1.75)  
Platner 29 1842MST  
**Yuma County**  
3 S Yuma 29 1913MST 0 0 ? ? Funnel Cloud  
12 SE Yuma 29 1926MST 0 0 ? ? Funnel Cloud  
Near Eckley 29 1951MST Short Narrow 0 0 ? ? Tornado (F0)

The Washington County Sheriff's Office spotted three tornadoes moving through the central part of the county and followed them through the duration. The first brief touchdown was 25 miles southwest of Brush. A second tornado touched down 5 miles southwest of Akron and continued on the ground for approximately 14 miles before lifting 8 miles east of Akron. The third tornado

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## COLORADO Cont'd

touched down 6 miles south of Platner and continued for approximately 7 miles, lifting 9 miles south of Otis. This tornado remained at the end point for about 25 minutes, causing damage to a farm in the area, but no injuries were reported. These thunderstorms also produced golf ball-to tennis-ball-size hail. The Colorado State Patrol reported several funnel clouds in the Yuma area. A private citizen reported a tornado briefly on the ground near Eckley.

### Phillips County 5 W Holyoke

29 1846MST Short Narrow 0 0 ? ? Tornado (F0)

A brief tornado was reported by a citizen.

### Weld County

3 N Pawnee Buttes 30 1808MST 0 0 ? ? Hail (2.50)  
 4 NE Pawnee Buttes 30 1845MST 0 0 ? ? Hail (1.00)  
 7 NE Pawnee Buttes 30 1855MST 0 0 ? ? Hail (1.25)

Spotters reported hail up to tennis ball-size in the north-central portion of Weld County.

### Morgan County Hillrose

30 2134MST 0 0 ? ? Hail (0.75)

Dime-size hail reported by a citizen in Hillrose.

### Denver County

3 S Denver 31 1432MST 0 0 3 ? Hail (1.75)  
 5 SE Denver 31 1450MST 0 0 3 ? Hail (0.75)  
 Arapahoe County  
 6 S Denver 31 1436MST 0 0 3 ? Hail (0.75)  
 14 SE Denver 31 1440MST-  
 1444MST 0 0 4 ? Hail (1.75)  
 10 SE Denver 31 1447MST 0 0 4 ? Hail (1.00)  
 12 SE Denver 31 1504MST 0 0 4 ? Hail (1.00)  
 12 SE Denver 31 1524MST 0 0 4 ? Hail (1.00)  
 12 SE Denver 31 1537MST 0 0 3 ? Hail (0.75)  
 Watkins 31 1545MST 0 0 4 ? Hail (1.00)

Hail fell across the southern and southeastern sections of the Denver metropolitan area, and continued east to Watkins. Several houses and cars were damaged.

### Douglass County 5 ESE Parker

31 1559MST 0 0 ? ? Hail (1.00)

One-inch hail was reported near Watkins.

### El Paso County 15 N Colorado Springs

31 1615MST 0 3 ? ? Lightning

Three teenagers were struck by lightning during a soccer game at the Air Force Academy. A 16-year-old was in critical condition from the strike, but the other two were not seriously injured.

### Elbert County

10 N Elizabeth 31 1653MST 0 0 ? ? Hail (1.00)  
 7 SE Watkins 31 1700MST-  
 1830MST 0 0 5 ? Flash Flood  
 13 N Elizabeth 31 1701MST 0 0 ? ? Hail (1.75)  
 Elizabeth 31 1749MST 0 0 ? ? Hail (1.00)  
 Byers 31 1800MST-  
 2100MST 0 0 4 ? Flash Flood

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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## COLORADO Cont'd

Hail to golf ball-size fell in the northwestern portion of Elbert County and 1.00-inch hail accumulated in Elizabeth. Very heavy rains brought Box Elder Creek out of its banks at Arapahoe County Road 30; the road near the creek received extensive damage. The same thunderstorms later produced very heavy rain in Byers that resulted in flooding streets throughout the area. Railroad underpasses in town were also flooded and some damage resulted.

<b>Morgan County</b>									
3 SE Brush	31	2048MST	Short	Narrow	0	0	?	?	Tornado (F0)
3 N Hillrose	31	2114MST-			0	0	?	?	
		2123MST			0	0	?	?	Hail (1.00)
Hillrose	31	2128MST			0	0	?	?	Hail (1.75)

Meteorologist spotted a tornado in open country near Brush and golf ball-size hail later fell at Hillrose.

<b>Douglass County</b>									
Castle Rock	31	2103MST			0	0	?	?	Hail (0.75)

A brief tornado touchdown was reported by a spotter.

<b>Denver County</b>									
3 S Denver	31	2120MST-			0	0	?	?	Flash Flood
		2200MST			0	0	3	?	
3 NNW Denver	31	2145MST-			0	0	3	?	Flash Flood
		2230MST							

Thunderstorms, producing very heavy rain moved across Denver, caused flooding in many streets from just south of the central business district, to just northwest. In the northwestern sections, water was up to 10 inches deep.

<b>Arapahoe County</b>									
14 SE Denver	31	2140MST			0	0	?	?	Hail (1.00)
14 SE Denver	31	2148MST			0	0	?	?	Hail (1.25)

Off-duty National Weather Service personnel reported hail up to 1.25 inches in diameter in a neighborhood southeast of Denver.

<b>Logan County</b>									
Merino	31	2212MST			0	0	?	?	Hail (1.75)

A spotter reported golf ball-size hail in Merino.

<b>Washington County</b>									
5 WSW Akron	31	2328MST			0	0	?	?	Hail (1.50)

Ping-Pong ball-size hail was reported near Akron.

## CONNECTICUT

<b>Litchfield, Hartford, New Haven, and Middlesex Counties</b>									
	17	1730EST-			0	0	5	0	Lightning
		2200EST							

Lightning strikes caused power outages to about 7,000 electric customers. Over 4,000 homes in Middletown, and the entire town of Burlington lost power. Thousands more lost power in parts of northern and central Connecticut. Urban street flooding occurred during heavy rain. One inch of rain fell in Danbury in a 20-minute period during the early nighttime hours.

<b>New Haven County</b>									
	27	1830EST-			0	0	4	0	Lightning
		1900EST							

A bolt of lightning ripped a hole in the roof of a house in Naugatuck. In Waterbury, lightning knocked down wires with a shower of sparks that set at least one car on fire.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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## CONNECTICUT Cont'd

<b>Fairfield County Ridgefield</b>	30	1727EST			0	0	3	0	Thunderstorm Winds
Several large trees were blown down and caused power outages.									
<b>Fairfield County Stamford</b>	30	1800EST			0	0	2	0	Thunderstorm Winds
Several trees were blown down.									
<b>Litchfield, Fairfield, Hartford, and New Haven Counties</b>	30	1800EST- 2030EST			0	0	5	0	Lightning
Lightning caused a power outage to some 19,000 electric customers. About 3,000 customers in Litchfield County, and more than 3,000 in the town of Danbury lost electric service. Lightning struck several buildings causing mostly minor damage and heavy rain resulted in urban street flooding.									

## DELAWARE

<b>New Castle County</b>	06	1710EST- 1740EST			0	0	3	0	Thunderstorm Winds
Trees and power lines were blown down, closing roads in several places.									
<b>DEZ001-003</b>	Month				0	0	6	0	Heat
State agricultural officials reported that the pea crop was devastated due to abnormal heat. Damage was calculated as follows: Kent County, \$924,000; New Castle County, \$36,000; and Sussex County, \$1,351,500. Temperatures in the mid and upper 90s were common, particularly towards the end of the month.									

## FLORIDA

<b>Flagler and St. Johns Counties and Marineland</b>	01	1415EST	Short	?	0	0	5	0	Waterspout Tornado (F0)
A waterspout moved ashore at a Quality Inn along the beach at the county line between Flagler and St. Johns Counties. Several large windows and glass doors were blown in; 13 vacant rooms suffered water and roof damage; and cars in the parking lot were damaged by flying debris. Several cars on Highway A1A were also damaged. Just north of Marineland at Crescent Beach, several power lines and cables were knocked down.									
<b>Palm Beach County West Palm Beach</b>	05	1253EST			0	0	0	0	Thunderstorm Winds (G56)
Palm Beach International Airport reported a wind gust to 65 mph during a midday thunderstorm.									
<b>Bay County Panama City</b>	06	1950EST			0	2	0	0	Lightning
Two men working on a piece of steel at a shipyard were injured when lightning struck nearby. Both men were treated at a local hospital and released. Scattered power outages were reported across the county.									
<b>Duval County Mayport</b>	06	1440EST			0	0	0	0	Thunderstorm Winds (G50)
The pilot station at Mayport reported a wind gust to 58 mph during a thunderstorm.									



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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## FLORIDA Cont'd

<b>Lake County</b> Eustis	06	1530EST			0	0	3	0	<b>Thunderstorm Winds</b> Strong thunderstorm winds tore the roof off a multi-vehicle garage on a golf course near Eustis.
<b>Manatee County</b> Bradenton	07	1831EST	0.6	40	0	0	5	0	<b>Tornado (F0)</b> A small tornado moved cars about and blew down trees and power lines. The roof and side walls of a chemical storage shed were damaged.
<b>Palmetto</b>	07	1845EST- 1905EST			0	0	3	0	<b>Thunderstorm Winds</b> Strong downburst winds ripped off garage doors in an automobile service center.
<b>Okaloosa County</b> Crestview	12	1720EST			0	0	4	0	<b>Thunderstorm Winds</b> Strong thunderstorm winds blew down a large metal canopy and damaged several automobiles at a Crestview Chevrolet dealership. Several trees were blown down at Valley and Stillwell, just east of Crestview.
<b>Broward County</b> Coral Springs	13	1505EST			0	0	3	0	<b>Lightning Thunderstorm Winds</b> Strong thunderstorm winds blew down several trees and power lines, leaving 10,000 customers temporarily without electricity. Lightning strikes caused several small fires.
<b>Monroe County</b> 8 NW Key West	14	1002EST	?	?	0	0	0	0	<b>Waterspout</b> A short-lived waterspout was observed 8 miles northwest of the Key West Airport.
<b>Volusia County</b> New Smyrna Beach	14	1330EST			1	1	0	0	<b>Lightning</b> Lightning struck two men as they walked on the beach, killing one and hospitalizing the other with serious injuries. (M290)
<b>Palm Beach County</b> 1 W Wellington	14	1710EST	Short	?	0	0	0	0	<b>Tornado (F0)</b> A small tornado was sighted by a state trooper in a field near Wellington. The tornado lifted before causing any damage.
<b>Okaloosa County</b> Crestview	14	1730EST			0	0	2	0	<b>Thunderstorm Winds</b> Strong thunderstorm winds blew down trees and power lines.
<b>Manatee County</b> 22 ESE Sarasota	16	1330EST			0	0	3	0	<b>Thunderstorm Winds</b> Strong thunderstorm winds blew down numerous trees and power lines at Myakka City. A barn door was blown off and several storage buildings were damaged.
<b>Sarasota County</b> 5 ESE Sarasota	16	1340EST			0	0	2	0	<b>Thunderstorm Winds</b>

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## FLORIDA Cont'd

Strong thunderstorm winds blew down trees and power lines at Fruitville.

**Pinellas County**  
St. Petersburg      16 1340EST      ?      ?      0      0      2      0      **Tornado (F0)**

A small tornado touched down briefly and damaged a carport and two homes.

**Hillsborough County**  
Brandon to Plant City      16 1430EST                          0      0      2      0      **Thunderstorm Winds**

Numerous trees and power lines were blown down near Brandon, Seffner, and Plant City.

**Pasco County**  
12 NNW Tampa      16 1530EST                          0      0      2      0      **Thunderstorm Winds**

Numerous trees were uprooted and power lines were blown down in Odessa.

**Pasco County**      16 1530EST-1600EST                          0      0      1      0      **Lightning**

Lightning ignited two forest fires in the eastern part of the county.

**Orange County**  
Union Point      16 1555EST                          0      0      1      0      **Hail (0.75)**

Nickel-size hail fell at the University of Central Florida.

**Pinellas County**  
St. Petersburg      16 1600EST                          0      0      1      0      **Hail (0.75)**

Nickel-size hail fell at St. Petersburg.

**Citrus County**  
Inverness      16 1620EST                          0      0      1      0      **Thunderstorm Winds**

Numerous trees were uprooted or blown over along County Road 581, south of Inverness.

**Osceola County**  
Kissimmee      16 1630EST                          0      0      2      0      **Hail (0.75)**

Nickel-size hail fell between Kissimmee and St. Cloud. Strong thunderstorm winds uprooted trees, downed power lines, and also destroyed a screened porch.

**Orange County**  
Orlando      16 1630EST-1651EST                          0      0      2      0      **Hail (1.00)**

Large hail fell in the southern part of Orlando. A 65-mph wind gust was recorded at Orlando Airport at 1651 EST.

**Pinellas County**  
Pinellas Park      16 1655EST      0.1      25      0      0      3      0      **Tornado (F0)**

A small tornado damaged a carport in Pinellas Park.

**Pasco County**  
Zephyrhills      16 1700EST                          0      0      3      0      **Thunderstorm Winds**

Strong thunderstorm winds downed several trees and power lines.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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## FLORIDA Cont'd

<b>Putnam County Johnson</b>	16	1859EST			0	0	0	0	<b>Thunderstorm Winds</b>
In western Putnam County, a large tree was uprooted on Florida Highway 21 near Johnson.									
<b>Union and Baker Counties</b>	16	2000EST			0	0	3	0	<b>Thunderstorm Winds</b>
Downburst winds struck a mobile home park causing damage to power lines and awnings. Trees were uprooted and blown across the highway near Raiford.									
<b>Sarasota County Venice</b>	17	1439EST			0	7	0	0	<b>Lightning</b>
Lightning struck near a group of seven golfers; one person sustained serious injuries and the others, minor injuries.									
<b>Charlotte County</b>	17	1620EST			0	0	0	1	<b>Lightning</b>
Lightning ignited several brush fires.									
<b>Pinellas County Boca Siega Bay</b>	17	1630EST	?	?	0	0	0	0	<b>Waterspout</b>
Two waterspouts were reported in Boca Siega Bay moving west away from shore.									
<b>Countywide</b>	17	1630EST- 1640EST			0	0	2	0	<b>Hail (0.75) Thunderstorm Winds</b>
Nickel-size hail fell across much of the county and trees and power lines were blown down.									
<b>St. Petersburg</b>	17	1640EST	0.2	25	0	0	0	0	<b>Tornado (F0)</b>
A small tornado touched down briefly causing no damage.									
<b>Manatee County</b>	17	1725EST			0	0	2	0	<b>Thunderstorm Winds</b>
Numerous trees and power lines were blown down by strong winds.									
<b>Sarasota County 25 ESE Sarasota</b>	17	1730EST			0	0	3	0	<b>Thunderstorm Winds</b>
Thunderstorm winds blew the roof off a carport in Englewood. Numerous trees and power lines were downed.									
<b>Hillsborough County 17 SSE Tampa</b>	17	1740EST			0	0	1	0	<b>Hail (0.75)</b>
Nickel-size hail fell at Wimauga in southern Hillsborough County. Several brush fires were ignited by lightning.									
<b>Monroe County 8 NE Key West</b>	18	1025EST	?	?	0	0	0	0	<b>Waterspout</b>
A waterspout was observed by the public near Mud Keys.									
<b>Lee County</b>	17	1550EST- 1615EST	0.4	30	0	0	0	0	<b>Waterspout Tornado (F0)</b>

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## FLORIDA Cont'd

A waterspout came ashore between Bonita Beach and Cape Coral. It touched down briefly in a mangrove area with little damage.

**Sarasota County**  
Siesta Key      18 1620EST      0   0   2   0      **Thunderstorm Winds**

Thunderstorm winds damaged several roofs.

**Pasco County**  
New Port Richey      18 1735EST-1745EST      0.5      50      0   0   4   0      **Waterspout Tornado (F0)**

A small waterspout moved ashore damaging the roofs of eight homes in the Gulf Harbor and Embassy Hill subdivisions.

**Pinellas County**  
Redington Beach      18 1750EST      ?      ?      0   0   0   0      **Waterspout**

A waterspout was reported off Redington Beach.

**Pasco County**  
Hudson Beach      18 1905EST      ?      ?      0   0   0   0      **Waterspout**

A waterspout was reported offshore Hudson Beach.

**Santa Rosa County**  
Berrydale      19 1300EST      2   1   0   0      **Lightning**

Three men seeking shelter under a tree were struck by lightning. All three were critically injured and placed on life support. One man died May 28 and another (his son) died on June 11. The third man (a family friend) remains in a coma. (M490)(M180)

**Dixie County**  
Shired Island      19 1445EST      1   0   0   0      **Lightning**

A young boy was struck by lightning and killed as he played outdoors at a county park. (M050)

**De Soto County**  
Brownsville      20 1943EST      0.4      50      0   0   3   0      **Tornado (F0)**

A small tornado touched down in a rural area flattening a barn on a cattle ranch.

**Monroe County**  
4 N Key West      24 1625EST      0   0   0   0      **Funnel Cloud**

A funnel cloud was observed 4 miles north of Key West.

**Collier County**  
Golden Gate      24 1500EST      0   1   0   0      **Lightning**

A 17-year-old high school student was struck by lightning and critically injured while raking leaves on his front lawn. He had to be revived by paramedics and remains hospitalized.

**Monroe County**  
5 N Key West      25 1110EST      0   0   0   0      **Funnel Cloud**

A funnel cloud was observed 5 miles north of Key West.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CRODGS	

## FLORIDA Cont'd

<b>Lee County</b> Cape Coral	25 1640EST	?	?	0	0	0	0	<b>Waterspout</b>
A waterspout was observed off Cape Coral.								
<b>Manatee County</b> Bradenton	26 1115EST			0	1	0	0	<b>Lightning</b>
Lightning struck a 40-year-old man that was working in a shop with a metal roof. He suffered burned tissue and muscle damage.								
<b>Lee County</b> Bonita Springs	27 1715EST			0	1	0	0	<b>Lightning</b>
A 29-year-old man was thrown 15 feet and partially paralyzed after being struck by lightning while washing his car.								
<b>Polk County</b>	30 1510EST- 1600EST			0	0	1	0	<b>Hail (0.88)</b>
Nickel-size hail fell at Lake Wales, Fort Meade, and Lakeland breaking off tree limbs.								
<b>Hillsborough County</b> Plant City	30 1530EST- 1550EST			0	0	1	0	<b>Hail (1.50)</b>
Golf ball-size hail broke glass and tree limbs at Plant City. Trees were uprooted and power lines downed by strong winds. A house and automobile were damaged by falling trees.								
<b>Hardee County</b> Wauchula	30 1711EST			0	0	1	0	<b>Hail (0.75)</b>
Nickel-size hail fell in Wauchula.								
<b>Pinellas County</b>	31 0950EST- 1005EST			0	0	1	0	<b>Hail (1.00)</b>
Large hail fell from Largo and Clearwater to Ozona.								
<b>Pinellas County</b> Largo	31 1000EST			0	1	0	0	<b>Lightning</b>
Lightning struck a fire fighter in Heritage Park in Largo. He was taken unconscious to the hospital for treatment, but was later released.								
<b>Putnam County</b> 36 E Gainesville	31 1310EST			0	0	3	0	<b>Hail (1.75)</b>
Golf ball-size hail fell west of Palatka, breaking glass and tree limbs.								
<b>Sumter County</b> 50 NNW Orlando	31 1320EST			0	0	4	2	<b>Thunderstorm Winds</b>
Strong thunderstorm winds destroyed a carport and blew down trees and power lines.								
<b>Citrus County</b> 49 SSW Gainesville	31 1345EST			0	0	1	0	<b>Hail (0.88)</b> <b>Thunderstorm Winds (G52)</b>
Large hail fell at Citrus Springs. Wind gusts to 60 mph damaged trees.								

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			K I L L E D	I N J U R E D	P R O P E R T Y	C R O P S	

## FLORIDA Cont'd

<b>Putnam County</b> 38 WNW Daytona Beach	31	1345EST			0	0	3	0	<b>Hail (1.75)</b>
Golf ball-size hail fell at Lake Como, shattering windows and breaking tree limbs.									
<b>Marion County</b> Ocala	31	1358EST- 1440EST			0	0	3	0	<b>Thunderstorm Winds Hail (0.75)</b>
Large hail fell in the Ocala area. Strong winds blew down trees and power lines.									
<b>Putnam County</b> 38 E Gainesville	31	1400EST			0	0	2	0	<b>Thunderstorm Winds</b>
Trees and power lines were blown down near Palatka.									
<b>Levy County</b> Chiefland	31	1430EST			0	0	3	0	<b>Thunderstorm Winds</b>
Numerous trees and power lines were downed by thunderstorm winds.									
<b>Alachua County</b> 18 N Ocala	31	1447EST			0	0	2	0	<b>Thunderstorm Winds (G52)</b>
Wind gusts to 60 mph were reported by a ham radio operator in southern Alachua County.									
<b>Brevard County</b> Titusville	31	1620EST			0	0	1	0	<b>Hail (0.75)</b>
Nickel-size hail fell at Titusville.									

## GEORGIA

<b>Quitman County</b> Southern Portion	01	1438EST			0	0	3	?	<b>Thunderstorm Winds</b>
Numerous large tree limbs and power lines were torn down by the winds, resulting in scattered power outages.									
<b>Colquitt County</b> Countywide	01	1439EST			0	0	2	?	<b>Thunderstorm Winds</b>
Numerous large tree limbs and power lines were torn down by the winds.									
<b>Clay County</b> 5 SSE Fort Gaines	01	1443EST			0	0	?	?	<b>Hail (1.00)</b>
5 SSE Fort Gaines Bluffton	01	1443EST			0	0	3	?	<b>Thunderstorm Winds</b>
Numerous large trees were uprooted in Clay County, mainly throughout the southern portion. Many utility lines were torn down which resulted in power outages.									
<b>Lee County</b> Leesburg	01	1450EST			0	0	4	?	<b>Thunderstorm Winds</b>
3 N Leesburg	01	1515EST	0.5	0	0	0	4	4	<b>Thunderstorm Winds</b>
Numerous trees were uprooted and fell onto power lines around Leesburg, resulting in isolated outages. Four homes were damaged by uprooted trees, six more homes had shingles ripped off, and the roof was ripped off one silo. North of Leesburg, about 100 fiberglass calf hutches at a dairy farm were scattered by the winds over a pasture. Several pecan trees were uprooted.									



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## GEORGIA Cont'd

### Terrell County

Bronwood	01	1507EST			0	0	2	?	Thunderstorm Winds
Bronwood	01	1507EST			0	0	?	?	Hail (1.00)

Numerous large tree limbs and power lines were torn down, resulting in scattered power outages.

### Grady County

Pine Park	01	1630EST			0	0	4	4	Thunderstorm Winds
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A strong thunderstorm produced winds that toppled a building, ripped shingles from a house, and downed large trees near U.S. Highway 84 in Pine Park. Several pecan trees were also destroyed.

### Chatham County

Savannah	01	Night			0	0	3	?	Flash Flood
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Heavy rainfall produced flash floods over the eastern side of Savannah. A few residents were evacuated after the waters rose several feet.

### Troup County

LaGrange	04	1330EST			0	0	5	?	Thunderstorm Winds
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Strong winds uprooted numerous trees in southwestern LaGrange. About 30% of LaGrange lost power after utility lines were torn down. Twenty homes and several vehicles were damaged by uprooted trees.

### Baldwin County

Countywide	04	1500EST			0	0	?	?	Hail (0.88)
Countywide	04	1500EST			0	0	4	?	Thunderstorm Winds

Several large trees were uprooted, mainly around Lake Sinclair and the Little River areas. One tree fell onto a house.

### Hall County

Oakwood	04	1500EST			0	0	4	?	Lightning
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Lightning struck a tree, moved to a barn, and then traveled underground to a house and two storage buildings. Structural and electrical damages occurred to the buildings.

### Spalding County

Griffin	04	1510EST			0	0	?	?	Funnel Cloud
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### Laurens County

East Dublin	04	1630EST			0	0	?	?	Hail (0.75)
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Rentz	04	1630EST			0	0	?	?	Hail (0.75)
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### Dade County

0.5 N to 2 NNE Trenton	05	0815EST	1.5		0	0	5	?	Thunderstorm Winds
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Strong, straight-line winds caused considerable damages from near Interstate 59 to Georgia Highway 11, north of Trenton. The winds destroyed a barn and damaged a pool house at a farm. The house on the farm was damaged by an uprooted tree. Numerous trees were downed in the area. The damage path was intermittent and about a half-mile wide.

### Dade County

Northern Portion	05	0820EST			0	0	4	?	Thunderstorm Winds
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### Walker County

Lookout Mountain	05	0830EST			0	0	4	?	Thunderstorm Winds
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Wallaceville	05	0900EST			0	0	5	?	Thunderstorm Winds
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### Chickamunga

Catoosa County	05	0900EST			0	0	4	?	Thunderstorm Winds
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### Fort Oglethorpe

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILL	INJURY	PROPERTY	CROPS	

## GEORGIA Cont'd

Strong thunderstorm winds developed over extreme northwestern Georgia. Hundreds of trees were uprooted or broken and power lines were torn down, resulting in many outages. Extensive property damage occurred from Chickamauga, north to Fort Oglethorpe. Most of the damages developed when trees fell on houses. Several vehicles were moved by the winds. In Catoosa County, one utility pole was blown down in Chickamauga National Military Park.

**Whitfield County**  
Cohutta  
Dalton  
Tilton

05 0840EST		0	0	3	?	Thunderstorm Winds
05 0850EST		0	0	3	?	Thunderstorm Winds

In Whitfield County, mainly around Dalton, Tilton, and Cohutta, trees fell into power lines resulting in power outages.

**Newton County**  
Covington

05 1425EST		0	0	3	?	Thunderstorm Winds
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Strong winds uprooted a few trees on the western side of Covington.

**Morgan County**  
Madison  
Madison

05 1447EST		0	0	4	?	Thunderstorm Winds
05 1447EST		0	0	?	?	Hail (0.88)

About 30 trees were uprooted on the western side of Madison causing damage to a few homes.

**Walton County**  
Monroe  
Social Circle

05 1500EST		0	0	?	?	Hail (1.00)
05 1500EST		0	0	2	?	Thunderstorm Winds

Tree limbs and a few power lines were torn down by strong winds across Social Circle.

**Carroll County**  
Carrollton  
**Muscogee County**  
Columbus

05 1552EST		0	0	?	?	Funnel Cloud
05 1610EST	0.3	100	0	0	5	Tornado (F1)

A tornado developed over northern Columbus around Green Island Hills. The tornado moved east leaving an intermittent and skipping path. Actual damages covered about a quarter of a mile. Dozens of large trees were broken or uprooted, and many residences were damaged by the trees. Major damages occurred to utility lines and poles, resulting in outages.

**Muscogee County**  
Columbus  
Countywide  
**Chattahoochee County**  
**Harris County**  
Pine Mountain  
Waverly Hall  
Hamilton

05 1611EST		0	0	6	?	Thunderstorm Winds (G71)
05 1615EST		0	0	5	?	Thunderstorm Winds
05 1615EST		0	0	3	?	Thunderstorm Winds
05 1615EST		0	0	4	?	Thunderstorm Winds

A large area of straight-line winds were generated by a squall line that moved over Muscogee, Chattahoochee, and Harris Counties. Numerous large trees and limbs were downed and many power lines and poles were damaged. About 30,000 customers were without power over the area, including 20,000 in Columbus. In Columbus, traffic lights, signs, homes, and vehicles were damaged during the storm. Several businesses near the airport sustained major roof damage. At the Columbus Metropolitan Airport, two airplanes were overturned. Winds tore off 20 hangar doors, including an inside door that damaged another airplane. In Harris County, a business suffered extensive roof damage at Waverly Hall. In Hamilton, one home had damages from an uprooted tree.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## GEORGIA Cont'd

<b>Troup County</b> Countywide LaGrange Hogansville	05	1615EST			0	0	3	?	<b>Thunderstorm Winds</b>  Scattered trees were uprooted over Troup County, mainly around LaGrange and Hogansville, resulting in scattered power outages.
<b>Coweta County</b> Newnan Raymond Moreland	05 05	1620EST 1625EST			0 0	0 0	4 4	? ?	<b>Thunderstorm Winds</b> <b>Thunderstorm Winds</b>  Numerous trees were uprooted over Coweta County, mainly around Newnan, Raymond, and Moreland. Utility lines were torn down and electrical facilities in Raymond and Moreland were damaged by uprooted trees. Thunderstorm winds tore the tin off the roof of a restaurant on Georgia Highway 29 in Newnan.
<b>Douglas County</b> Winston	05	1624EST			0	0	3	?	<b>Thunderstorm Winds</b>  A tree was uprooted and a few tree limbs were torn off near Winston on Georgia Highway 5.
<b>Upson County</b> Countywide The Rock Thomaston	05	1630EST			0	0	3	?	<b>Thunderstorm Winds</b>  Scattered trees were blown down over Upson County.
<b>Spalding County</b> Griffin	05	1630EST			0	0	3	?	<b>Thunderstorm Winds</b>  Scattered trees were blown down over Spalding County, mainly around Griffin. Utility services were also interrupted.
<b>Cherokee County</b> Woodstock	05	1630EST			0	0	4	?	<b>Flash Flood</b>  Heavy rainfall over Cherokee County produced flash floods at Woodstock. Several homes were evacuated. Some residents were displaced due to water damages.
<b>Fulton County</b> Union City Atlanta	05	1630EST			0	0	3	?	<b>Thunderstorm Winds</b>
<b>De Kalb County</b> N Atlanta	05	Afternoon			0	0	4	?	<b>Lightning</b>  Scattered trees were blown down in Union City and in northeastern Atlanta. Several areas of Atlanta had power outages. A tree landed on an unoccupied car after being struck by lightning.
<b>De Kalb County</b> Lithonia Stone Mountain	05	1640EST			0	0	3	?	<b>Thunderstorm Winds</b>  Scattered trees were uprooted near Lithonia and power outages developed at Stone Mountain.
<b>Stone Mountain</b>	05	1640EST			0	0	4	?	<b>Flash Flood</b>  Flash flooding occurred in a residential area of Stone Mountain as consistent, heavy rainfall developed; damages were minor.
<b>Henry County</b> Stockbridge	05	1640EST			0	0	2	?	<b>Thunderstorm Winds</b>

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## GEORGIA Cont'd

Strong winds blew down tree limbs and power lines near Stockbridge, resulting in power outages.

**Fayette County**  
Peachtree City 05 1640EST 0 0 3 ? Thunderstorm Winds  
Hail

In Peachtree City, a large tree was uprooted and one sign was damaged by strong winds and small hail was reported.

**Cobb County**  
Countywide 05 1640EST 0 0 4 ? Flash Flood  
Kennesaw 05 1650EST 0 0 5 ? Heavy Rainfall

Persistent, heavy rainfall developed over Cobb County and minor flash flooding resulted. Several roads were washed out. Water accumulated on the roof of a department store close to Interstate 75 near Kennesaw. The roof collapsed resulting in minor injuries to several customers.

**Pike County**  
Molena 05 1645EST 0 0 3 ? Thunderstorm Winds  
Zebulon

**Meriwether County**  
Manchester 05 1645EST 0 0 3 ? Thunderstorm Winds

Scattered trees were uprooted over Pike and Meriwether Counties resulting in power outages.

**Marion County** 05 1645EST 0 0 3 ? Thunderstorm Winds  
**Talbot County** 05 1645EST 0 0 4 ? Thunderstorm Winds  
**Schley County** 05 1650EST 0 0 3 ? Thunderstorm Winds

Strong winds uprooted many trees over the three-county area. Numerous limbs and power lines were torn down. Widespread outages developed. Over northern Marion County, trees blocked Georgia Highways 41, 355, and 137, along with several county roads. In Schley County, trees blocked Georgia Highway 19 and another county road.

**Upson County** 05 1655EST 0 0 4 ? Thunderstorm Winds

Scattered trees and power lines were torn down at several locations in the county. The roof was blown off a mobile home.

**Stewart County** 05 1655EST 0 0 3 ? Thunderstorm Winds

Numerous trees were blown down over Stewart County resulting in widespread power outages. Trees blocked U.S. Highway 1 and Georgia Highway 27.

**Taylor County**  
Reynolds 05 1655EST 0 0 5 ? Thunderstorm Winds  
Mauk  
Butler

Numerous trees were downed over Taylor County resulting in widespread power outages. At Reynolds, lengthy outages resulted after considerable damage occurred to utility poles. Uprooted trees damaged roofs of homes and businesses, along with several mobile homes. Many roads were blocked over the county, including Georgia Highway 137 outside of Butler. Mauk and Reynolds were the hardest hit areas with extensive damages to many properties.

**Greene County**  
Greensboro 05 1700EST 0 0 4 ? Thunderstorm Winds  
1 SE Siloam 05 1700EST 0 0 4 ? Thunderstorm Winds

Scattered trees were pushed into powerlines over Green County resulting in power outages, mainly around Greensboro and Siloam. In Greensboro, sheets of a store's metal roof were

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME		LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD	EST			KILLED	INJURED	PROPERTY	CROPS	

## GEORGIA Cont'd

blown off. On Georgia Highway 15 just outside of Siloam, an uprooted tree fell on a van and trapped the occupant.

**Clayton County**  
Ellenwood  
Rex

05	1705EST					0	0	4	?	Thunderstorm Winds
05	1705EST					0	0	2	?	Thunderstorm Winds

Several tree limbs were blown down around Ellenwood and Rex. A house lost its porch at Ellenwood.

**Cobb County**

05	1714EST					0	0	3	?	Thunderstorm Winds
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Scattered trees were uprooted over Cobb County.

**De Kalb County**  
Stone Mountain

05	1715EST					0	0	3	?	Flash Flood
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Minor flooding developed after persistent, heavy rain fell over the area.

**Sumter County**  
Countywide  
Americus

05	1715EST					0	0	3	?	Thunderstorm Winds
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Numerous trees were pushed into power lines over Sumter County and Americus. Several power poles were downed in Americus. Utility services were disrupted for over 300 customers.

**Terrell County**  
1 S Bronwood

05	1725EST					0	0	2	?	Thunderstorm Winds
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A brief outage developed after a few large limbs were blown into power lines.

**Monroe County**  
Forsyth

05	1730EST					0	0	4	?	Thunderstorm Winds
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Scattered trees were uprooted over Forsyth. Several homes and vehicles were damaged and power outages developed.

**Terrell County**  
Sasser  
**Gwinnett County**  
2 E Lawrenceville  
Suwanee  
Lawrenceville

05	1730EST					0	0	?	?	Hail (0.50)
05	1739EST					0	0	?	?	Funnel Cloud
05	1739EST					0	0	3	?	Thunderstorm Winds

Several trees were uprooted around Suwanee and Lawrenceville.

**Lee County**

05	1740EST					0	0	4	?	Thunderstorm Winds
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Many large trees were uprooted over Lee County. Utility services were disrupted. In southern Lee County, several homes in two communities were damaged by uprooted trees.

**Crawford County**  
Roberta  
5 NNW Fort  
Valley

05	1740EST					0	0	4	?	Thunderstorm Winds
05	1740EST					0	0	3	?	Thunderstorm Winds

Two mobile homes were overturned by strong winds. Trees and power lines were blown down by winds in Roberta and over southern Crawford County near U.S. Highway 341.

**Bibb County**  
Macon

05	1744EST					0	0	5	?	Thunderstorm Winds (G62)
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# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## GEORGIA Cont'd

The winds caused damage to several aircraft and automobiles at the Middle Georgia Regional Airport. The winds shattered a few large windows and damaged the roofs of several buildings. Utility lines were damaged and services were disrupted for about 14,000 customers in Macon.

**Peach County**  
Fort Valley  
Countywide

05 1745EST                    0   0   3   ?   **Thunderstorm Winds**

Scattered trees were uprooted over Peach County and around Fort Valley. Power lines were torn down resulting in outages.

**Lamar County**  
Countywide  
Barnesville

05 1745EST                    0   0   4   ?   **Thunderstorm Winds**

Many large trees and limbs were pushed into power lines over Lamar County. Outages developed, mainly around Barnesville. One house in Barnesville and another in the county were damaged by uprooted trees.

**Monroe County**  
Northern Portion

05 1745EST                    0   0   4   ?   **Thunderstorm Winds**

Numerous trees and power lines were blown down by the winds over northern Monroe County, mainly near Georgia Highways 83 and 42, and U.S. Highway 41. Two homes were damaged by uprooted trees north of Forsyth.

**Houston County**  
Warner Robins  
Perry  
Countywide

05 1750EST                    0   0   4   ?   **Thunderstorm Winds**  
05 1800EST                    0   0   4   4   **Thunderstorm Winds**

Numerous trees and power lines were blown down over Houston County. Power outages developed over the area, mainly in Perry, Lake Joy, and Marshallville. The most extensive property damages occurred around Perry. Business signs were destroyed by the winds, and an automobile was destroyed by an uprooted tree. An uprooted tree fell onto one house at Warner Robins. In the county, several pecan trees were toppled and storage sheds were destroyed.

**Jones County**  
Haddock  
Countywide  
Gray

05 1800EST                    0   0   4   ?   **Thunderstorm Winds**  
05 1800EST                    0   0   3   ?   **Thunderstorm Winds**

Near Haddock, a mobile home was overturned and sustained extensive damage. Numerous large trees were uprooted across Jones County. Power lines were damaged, mainly near Gray, along U.S. Highway 129.

**Dooly County**  
Unadilla  
Pinehurst

05 1810EST                    0   0   3   ?   **Thunderstorm Winds**

Several large trees and power lines were downed by strong winds.

**Pulaski County**  
1 S Hawkinsville  
Countywide

05 1810EST                    0   0   4   ?   **Thunderstorm Winds**  
05 1810EST                    0   0   3   ?   **Thunderstorm Winds**

Scattered trees and limbs were pushed into power lines throughout the county and at Hawkinsville. Strong winds blew the roofs off three barns at a racing track and heavily damaged the walls. In Hawkinsville, a porch was destroyed by a falling tree.

**Jasper County**  
Monticello

05 1815EST                    0   0   3   ?   **Thunderstorm Winds**

Numerous large trees were blown down by the winds and utility services were disrupted.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME		LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD				KILLED	INJURED	PROPERTY	CROPS	

## GEORGIA Cont'd

<b>Bleckley County</b> Cochran Countywide	05	1815EST			0	0	3	?	<b>Thunderstorm Winds</b>
<b>Twiggs County</b> Jeffersonville Countywide	05	1815EST			0	0	3	?	<b>Thunderstorm Winds</b>
<b>Dodge County</b>	05	1820EST			0	0	4	?	<b>Thunderstorm Winds</b>

Numerous trees and power lines were blown down by the winds over the three-county area, resulting in power outages. One barn was destroyed in Dodge County, and a few buildings sustained damage from uprooted trees.

<b>Wilcox County</b> 5 ENE Rochelle 2 SE Pineview	05	1825EST			0	0	3	?	<b>Thunderstorm Winds</b>
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Between Abbeville and Rochelle, two trees fell onto power lines along U.S. Highway 280. Southeast of Pineview, a tree fell onto a power line resulting in an outage.

<b>Baldwin County</b> Milledgeville Countywide	05	1830EST			0	0	4	?	<b>Thunderstorm Winds</b>
	05	1830EST			0	0	3	?	<b>Thunderstorm Winds</b>

Numerous large trees were blown down by the winds across Baldwin County and in Milledgeville. In Milledgeville, utility services were disrupted for approximately 4,500 customers. Uprooted trees damaged a cemetery, a fence, and a warehouse, and trees caused \$20,000 in damages to several traffic lights.

<b>Crisp County</b>	05	1830EST			0	0	3	?	<b>Thunderstorm Winds</b>
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Numerous trees and power lines were blown down across the county.

<b>Wilkinson County</b> Toombsboro Countywide	05	1830EST			0	0	3	?	<b>Thunderstorm Winds</b>
<b>Laurens County</b> Dublin Countywide	05	1840EST			0	0	3	?	<b>Thunderstorm Winds</b>
<b>Treutlen County</b> Soperton	05	1845EST			0	0	3	?	<b>Thunderstorm Winds</b>

Numerous trees were uprooted or broken over the three-county area. Utility services were disrupted, mainly around Dublin in Laurens County, along Georgia Highway 112 near Toombsboro in Wilkinson County, and around Soperton in Treutlen County.

<b>Peach County</b> Fort Valley	05	1845EST			0	0	3	?	<b>Thunderstorm Winds</b>
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Isolated power outages developed when scattered trees were uprooted near Fort Valley.

<b>Colquitt County</b> 4 NE Sale City	05	1900EST			0	0	3	?	<b>Thunderstorm Winds</b>
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Power outages occurred when several trees and large limbs were blown into power lines in Colquitt County along Georgia Highway 270, between Sale City and Doerun.

<b>Cook County</b> Lenox	05	1905EST			0	0	0	?	<b>Funnel Cloud</b>
<b>Wheeler County</b> 5 SW Alamo	05	1905EST			0	0	3	?	<b>Thunderstorm Winds</b>
Alamo	05	1915EST			0	0	3	?	<b>Thunderstorm Winds</b>

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## GEORGIA Cont'd

Around Alamo and near U.S. Highway 441, southwest of Alamo, numerous trees and power lines were torn down by strong winds.

**Montgomery County  
Northern Portion**    05 1930EST                    0   0   3   ?    **Thunderstorm Winds**

Scattered large trees were uprooted and fell onto power lines, resulting in power outages.

**Grady County  
Cairo**                    05 1941EST                    0   0   3   ?    **Lightning**

Two houses in Cairo were struck by lightning. Only an appliance was damaged at the first house. A small fire developed at the other house with minimal damage.

**Pierce County  
Bristol**                    05 1945EST                    0   0   4   ?    **Thunderstorm Winds**

Near Georgia Highway 121 in Bristol, strong winds picked up a shed and moved it several feet where it landed on a pickup truck and two lawn mowers.

**Sumter County  
Americus**                09 1400EST                    0   0   4   ?    **Flash Flood**

Heavy rainfall produced flooding in Americus. Six apartments were evacuated when water reached 2 feet deep inside the building. Several vehicles and two apartments were severely damaged.

**Americus**                    09 1630EST                    0   0   4   ?    **Lightning**

Lightning set a storage shed on fire which was completely destroyed, and also sparked a kitchen fire.

**De Kalb County  
Decatur**                10 Morning                    0   0   4   ?    **Thunderstorm Winds**

Strong winds pushed a large tree onto three cars.

**Colquitt County  
Moultrie  
Hartsfield**                10 1900EST                    0   0   4   ?    **Flash Flood**

Heavy rainfall developed over Colquitt County. Low-lying areas were flooded resulting in minor damages. The utility room of a mobile home near the Ochlocknee River was flooded and several appliances sustained damage. In Hartsfield, flood water washed out a driveway and caused other damage at a residence.

**Hart County  
Reed Creek**                16 1730EST                    0   0   4   ?    **Lightning**

A summer cabin was set on fire and destroyed by lightning.

**Chatham County  
Savannah**                17 1310EST                    0   0   4   0    **Lightning**

Lightning started a fire that heavily damaged a church steeple.

**De Kalb County  
Clarkston  
Clarkston**                17 1355EST                    0   0   3   ?    **Thunderstorm Winds**  
17 1420EST                    0   0   4   ?    **Thunderstorm Winds**



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## GEORGIA Cont'd

Trees and limbs were blown down near Interstate 285 and Georgia Highway 78 near Clarkston, disrupting utility services. At 1420 EST, several vehicles were damaged by uprooted trees and minor street flooding developed.

**Cobb County  
Powder Springs**

19 0400EST 0 0 5 ? Lightning

Half of a church building was burned when lightning set the roof on fire. The remainder of the building was damaged by smoke and water.

**Fulton and De Kalb Counties**

**Atlanta  
N Atlanta**

19 0725EST-1400EST 0 0 5 ? Flash Flood

Heavy rainfall over northern Atlanta in Fulton and De Kalb Counties, pushed small streams out of their banks. Peachtree Creek rose and flooded yards and homes along the creek after cresting at 18.5 feet about 1110 EST. Three of the homes were beyond repair. Flooding also occurred in homes around Nancy Creek.

**Richmond County  
Augusta**

19 Afternoon 0 0 4 ? Flash Flood

Heavy rainfall produced flash floods over Augusta. One road was damaged when a culvert collapsed beneath the street.

**Cook County  
Adel**

19 Afternoon 0 0 4 ? Thunderstorm Winds

Several large trees and power lines were downed on the eastern side of Adel. The porch of one home was blown off and the debris caused damage to a city vehicle.

**Bulloch County  
Countywide  
Statesboro  
Countywide  
Brooklet  
Leefield**

30 Evening 0 0 3 ? Flash Flood  
31 1700EST 0 0 5 ? Flash Flood  
31 1700EST 0 0 5 ? Flash Flood

Heavy rainfall developed over Bulloch County during strong thunderstorms for two days. Nearly 5.00 inches of rain fell in some areas by the 31st. Flash floods developed in Statesboro on the 30th and nine families were temporarily evacuated; mostly minor damage occurred. On May 31st, with the ground totally saturated, flash floods developed again over Statesboro and throughout Bulloch County. Several county roads were severely damaged. The hardest hit area of road damages was around Collins Lake, Brooklet, and Leefield. In Statesboro, two apartment complexes in low-lying areas were flooded. Waters rose to about 2.5 feet inside the apartments. At a recreational center in Statesboro, roads, playgrounds, and playing fields were washed out.

**Evans County  
Claxton  
Countywide**

31 1830EST 0 0 4 ? Thunderstorm Winds  
31 1830EST 0 0 4 ? Thunderstorm Winds

Numerous trees were uprooted or broken by winds over Claxton and Evans County. Strong winds tore off portions of a school's roof and allowed heavy rainfall to flood the building. Several other buildings sustained minor damage from uprooted trees and wind. Utility services were disrupted after lines were torn down.

**Camden County  
Kingsland**

31 1830EST 0 0 3 ? Thunderstorm Winds

Strong winds uprooted about 100 trees around Kingsland. Utility lines were torn down resulting in power outages.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			K I L L E D	I N J U R E D	P R O P E R T Y	C R O S S	

## GEORGIA Cont'd

### Jeff Davis County

Hazelhurst	31	2000EST			0	0	2	?	Thunderstorm Winds
Hazelhurst	31	2015EST			0	0	4	?	Lightning
Countywide	31	2030EST			0	0	3	?	Lightning

Scattered tree limbs and power lines were torn down by the wind. Lightning struck a house and nearby tree. The resulting fire damaged half of the house. Lightning caused power outages across the county and around Denton and Hazelhurst.

## IDAHO

### Southern Idaho

01-31					0	0	0	?	Extreme Drought
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Most of southern Idaho continued in severe to extreme drought. Most southern Idaho reservoirs were well below normal levels. However, the May rainfall at Pocatello was 253 percent of normal.

### Latah County

Genesee	01	1455PST	0.1	20	0	0	0	0	Tornado (F0)
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A funnel cloud touched down briefly, stirring up the dust.

### Caribou County

Bancroft	02	1330MST			0	0	5	0	Lightning
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Lightning struck a grain elevator exploding off nine out of ten inspection hole covers and igniting a grain fire. Where the lightning grounded, it left a 3- by 1-foot crater that was 6 inches deep.

### IDZ004

Southeastern Idaho	02-03	1800MST-0600MST			0	0	0	0	Heavy Snow
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Four to six inches of snow fell.

### Gooding County

Hagerman	06	1700MST-1710MST			0	0	0	0	Funnel Cloud
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### Payette County

3 N Payette	10	1700MST			0	0	0	0	Funnel Cloud
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### Cassia County

Albion	17	1120MST			0	0	0	0	Thunderstorm Winds (G52)
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### Blaine County

Ketchum	17	1200MST			0	0	0	0	Hail (0.75)
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### Fremont County

St. Anthony	17	1310MST			0	0	0	0	Thunderstorm Winds (G52)
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### Power County

10 NW Pocatello	17	1456MST			0	0	0	0	Thunderstorm Winds (G53)
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Microburst winds from a line of thunderstorms flipped an airplane at the Pocatello Airport.

### Bingham County

Aberdeen	17	1520MST			0	0	4	0	Thunderstorm Winds
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Utility buildings were demolished and galvanized sheet metal roofing was lofted.

### Caribou County

Soda Springs	17	1532MST			0	0	0	0	Thunderstorm Winds (G53)
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### Bingham County

Blackfoot	17	1535MST			0	0	3	0	Thunderstorm Winds (G50)
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### Jefferson County

8 N Roberts	17	1640MST			0	0	0	0	Thunderstorm Winds (G61)
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# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## IDAHO Cont'd

**Minidoka County  
Rupert**

18 1436MST-1445MST 0.2 50 0 0 5 0 Tornado (F2)

A tornado moved across two residential blocks, lifting roofs, demolishing utility buildings, uprooting trees, and ripping out fences. Several funnel clouds were observed north and west of Rupert after the tornado lifted. Two persons were injured after the storm by stepping on exposed nails.

**Blaine County  
6 W Carey**

18 1525MST-1530MST 0.2 50 0 0 0 0 Tornado (F0)

**6 W Carey  
Nez Perce County  
Lewiston**

18 1527MST 0 0 0 0 Hail (1.0)  
18 1700PST-19 0800PST 0 0 4 0 Urban Flash Flood

Lewiston received 1.62 inches of rain in less than 24 hours (just short of the 24-hour record for May of 1.63 inches set in 1948). Rockslides and 1 foot of water interfered with highway travel. Three feet of water in the McDonalds parking lot on 21st Street damaged a sports car.

**IDZ003-012  
Rexburg Area**

19 0400MST-24 1800MST 0 0 0 0 Flood

Spring snowmelt and heavy rain showers caused Henrys Fork River to flood several thousand acres of agricultural land. The crest was 1 foot above flood stage on the 20th.

**Elmore County  
Atlanta**

24 1430MST 0 0 5 0 Snowmelt

Runoff from spring snowmelt was associated with so-called "minor" damage to the Kirby Dam. Increased flow from evening thundershowers weakened the dam further.

**Atlanta**

26 1915MST 0 0 6 0 Dam Failure

The Kirby Dam collapsed. An adjacent bridge was undermined stranding some 25 carloads of tourists and campers. Toxic heavy metal sediments that had collected behind the dam from decades of mining activity were washed downstream polluting the river. The Kirby Dam which was built in 1896, provided electricity to 32 families. The dam had been repaired in 1990 at a cost of \$500,000.

## ILLINOIS

**Adams County**

04 1840CST 0 0 3 0 Thunderstorm Winds

Scattered damage to trees and power lines, some in western Coatsbury.

**Coatsbury  
Morgan County**

04 1845CST 0 0 ? ? Hail (1.0)

**Meredosia**

04 1933CST 0 0 ? ? Hail (1.75)

**Pike County**

04 1940CST 0 0 ? ? Hail (1.75)

**Perry**

04 1945CST 0 0 ? ? Hail (1.75)

**Scott County**

04 1945CST 0 0 ? ? Hail (1.75)

**Naples  
Sangamon County  
Springfield**

04 2218CST 0 0 4 0 Urban Flood

Thunderstorms caused heavy rains that flooded basements and roads. In the southwestern part of Springfield, some streets in Westchester subdivision were flooded with 2 to 3 feet of water. The floods gradually abated by 0600 CST on the 5th.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## ILLINOIS Cont'd

<b>Morgan County</b>	05	0325CST			0	0	3	4	Flash Flood
Thunderstorms caused rainfall ranging from 2.00 to 6.00 inches over the central part of Morgan County in a 7-hour period. Numerous streams overflowed their banks and flooded roadways and bridges. The floods gradually abated by 0600 CST on the 5th.									
<b>Kane County</b>	05	1618CST	0.5	50	0	0	4	0	Tornado (F1)
Lily Lake	A tornado briefly touched down and caused heavy damage to one home and damaged other homes and buildings.								
<b>2 W Du Page Airport</b>	05	1628CST			0	0	0	0	Thunderstorm Winds (G56)
St. Charles Batavia	05	1630CST			0	0	3	0	Thunderstorm Winds
Trees were blown down across Illinois Route 25 just north of Batavia.									
<b>Elgin</b>	05	1635CST			0	0	?	?	Thunderstorm Winds (G52) Hail (0.75)
Winds to 60 mph were reported at Illinois State Police Post No. 2									
<b>Lake County</b>	05	1650CST			0	0	?	?	Hail (0.75)
1 N Barrington									
<b>Du Page County</b>	05	1655CST			0	0	3	0	Thunderstorm Winds
Hinsdale	Power lines were blown down by thunderstorm winds.								
<b>Cook County</b>	05	1700CST	0.5	50	0	0	0	0	Tornado (F0)
2 WSW Glenview	At Glenview Naval Air Station, the Leading Chief Weather Officer observed a brief tornado touchdown; no damage was reported.								
<b>Western Springs</b>	05	1715CST			2	2	4	0	Thunderstorm Winds
Two people were killed and two others critically injured when a tree was blown over on their car. The large solid oak tree made a direct hit over the front seat, killing two people, crushing the roof onto the back seat injuring another boy and girl. The four occupants were teenagers returning home from an outing, and apparently pulled off Ogden Avenue, just east of Interstate 294 because of the severe thunderstorm in progress. (F17V)(M18V)									
<b>ILZ009</b>	10	1120CST-1542CST			0	0	0	0	Funnel Clouds
Central Illinois	Numerous funnel cloud reports were received by the National Weather Service Office in Springfield which were associated with scattered thunderstorms. No damage or touchdowns were reported.								
<b>6 S Lebanon</b>	10	1455CST	0.1	50	0	0	0	0	Tornado (F0)
A brief tornado touch down was reported by emergency officials.									
<b>St. Clair County</b>	11	1450CST	0.5	50	0	0	0	?	Tornado (F0)
0.5 W Lebanon	A tornado touched down several times while skipping across farm fields and kicking up a lot of dust; no damage was reported								

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## ILLINOIS Cont'd

<b>Grundy County</b>									
Coal City	14	0715CST			0	0	?	?	Hail (0.75)
Mazon	14	0720CST			0	0	?	?	Hail (0.75)
ILZ007-009-010	14	0930CST							
Central Illinois		1340CST			0	0	0	0	Thunderstorms

Numerous tornados were reported from scattered thunderstorms. No touchdowns were verified.

<b>Logan County</b>									
Lathan	14	1108CST			0	0	0	0	Hail (1.00)
Moultrie County	14	1224CST			0	0	3	0	Thunderstorm Winds

In the northern part of Moultrie County, power lines and tree limbs were blown down by thunderstorm winds.

<b>Rock Island County</b>									
Moline	14	1442CST			0	0	0	0	Thunderstorm Winds (G48)
Henry County									
Woodhull	14	1442CST			0	0	3	0	Flash Flood

Almost 5.00 inches of rain fell near Woodhull, causing some basements to flood. Some streets and roads were flooded for a short time.

<b>Morgan County</b>									
Waverly	14	1542CST			0	0	3	0	Thunderstorm Winds

One tree and several power lines were knocked down.

<b>Wayne County</b>									
Fairfield	14	1645CST			0	0	2	?	Thunderstorm Winds

Thunderstorm winds caused damage to power lines and trees.

<b>Kankakee County</b>									
Mahomet	14	1700CST			0	0	4	?	Flash Flood

Afternoon and evening thunderstorms caused heavy rainfall that flooded streams and roadways in Mahomet and the surrounding area. The floods abated early on the 15th.

<b>Hancock County</b>									
Carthage	14	1810CST			0	0	0	0	Thunderstorm Winds (G56)
1 E Carthage	14	1822CST			0	0	?	?	Hail (0.75)
Jackson County									
Little Grand Canyon	15	Afternoon			0	4	0	0	Flash Flood

A flash flood threatened 16 children and 3 adults while on a field trip in Little Grand Canyon of Shawnee National Forest. While trying to escape rising waters, a teacher and three children suffered injuries after they fell into a creek and were swept downstream about 1 mile. They were rescued by a helicopter from the Illinois Department of Transportation. No one was seriously injured, but the teacher and all students, who were from Sesser-Valier Grade School, were treated at hospitals near Murphysboro.

<b>Crawford County</b>									
Hutsonville	16	0235CST			0	0	0	4	Thunderstorm Winds

Thunderstorm winds uprooted an estimated 500 trees.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## ILLINOIS Cont'd

### Piatt County

4 SE Farmer City 16 1307CST 0.2 50 0 0 0 0 Tornado (F0)

A farmer saw a tornado touch down briefly in a field and damage several trees.

### Cook County

Midlothian 16 1515CST 0 1 0 0 Lightning

A 35-year-old man was hit by lightning while standing near a tree.

Chicago Ridge 16 1525CST 0 0 4 0 Thunderstorm Winds

Thunderstorm winds damaged trees and power lines, while heavy rainfall caused flooded basements and streets.

Bedford Park 16 1530CST 0 1 0 0 Lightning

A 44-year-old man was hit by lightning while in a parking lot.

### Ford County

Near Elliott 17 1230CST 0 0 ? ? Hail (1.75)

### Vermillion County

Oakwood 17 1358CST 0 0 ? ? Hail (2.75)

### White County

Near Carmi 17 1510CST 0 0 ? ? Hail (0.75)

Norris City 17 1525CST 0 0 ? ? Hail (0.75)

### Whiteside County

Morrison 17 1645CST 0 0 ? ? Hail (0.75)

### Henry County

Cambridge 17 1650CST 0 0 ? ? Hail (1.00)

### Randolph County

17 1715CST 0 0 2 2 Thunderstorm Winds

Hail (0.75)

The Randolph County Sheriff's Office reported wind gusts to 60 mph and 0.75-inch-diameter hail, as thunderstorms moved through the county.

### Bureau County

Sheffield 17 1745CST 0 0 ? ? Hail (1.00)

Providence 17 1800CST 0 0 ? ? Hail (1.00)

### Woodford County

Minonk 17 1814CST 0 0 ? ? Hail (2.00)

### Bureau County

Bureau Junction 17 1830CST 0 0 ? ? Hail (2.00)

### McDonough County

Blandinsville 17 1845CST 0 0 ? ? Hail (0.75)

### McLean County

1 W Lexington 17 1900CST 0 0 ? ? Hail (1.00)

### McDonough County

Near Bushnell 17 1907CST 1.0 50 0 0 0 0 Tornado (F0)

A funnel cloud was sighted from Walnut Grove at 1903 CST and moved southeast where it was reported as a tornado near Bushnell at 1907 CST. It apparently crossed into Fulton County as a funnel cloud about 1910 CST, and was last seen from Marietta at 1915 CST; no known damage.

### Fulton County

Canton 17 1920CST 0 0 4 3 Thunderstorm Winds

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## ILLINOIS Cont'd

Numerous power lines and trees were downed and roads were blocked. Much of Canton was without electrical power.

**Peoria County**  
Near Brimfield      17 1930CST      0 0 3 3      **Thunderstorm Winds**

Large trees were blown down, blocking roads.

**Livingston County**  
Cornell      17 1935CST      0 0 ? ?      **Hail (1.00)**

**Mason County**  
Biggs      17 2030CST      0 0 0 2      **Thunderstorm Winds**

Trees were blown down by thunderstorm winds.

**Menard County**  
8 E Petersburg      17 2030CST      0 0 ? ?      **Thunderstorm Winds (G56)**

**Tazewell County**  
1 N Manito      17 2032CST      0 0 ? ?      **Thunderstorm Winds**

Trees were blown down by thunderstorm winds.

**Menard County**  
Greenview      17 2040CST      0 0 3 2      **Thunderstorm Winds**

Several trees and power lines were blown down.

**Tazewell County**  
Minier      17 2044CST      0 0 ? ?      **Thunderstorm Winds**

Trees were blown down by thunderstorm winds.

**Adams County**  
Plainville      17 2050CST      0 0 ? ?      **Hail (1.00)**

**Macon County**  
Harristown  
Niantic      17 2137CST      0 0 3 0      **Thunderstorm Winds**

Several power lines were blown down.

**Longcreek**      17 2142CST      0 0 0 0      **Thunderstorm Winds (G52)**

Thunderstorm winds to 60 mph.

**Decatur**      17 2143CST      0 0 4 0      **Thunderstorm Winds**

Thunderstorm winds blew down several power lines and trees in the Fairview Plaza area. Several windows in the plaza were blown out.

**Logan County**  
Elkhart      17 2145CST      0 0 4 0      **Thunderstorm Winds (G70)**

A tractor-semitrailer was blown over, and several trees were blown down. The Logan County Sheriff's Office estimated wind speeds around 80 mph.

**Moultrie County**  
Lovington      17 2202CST      0 0 3 0      **Thunderstorm Winds**

Thunderstorm winds blew a car over.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROSSL	

## ILLINOIS Cont'd

<b>Mason County</b> SE Havana	17	2235CST			0	0	?	?	Hail (1.00)
<b>Adams County</b> Near Quincy	18	1430CST	0.75	35	0	0	0	0	Tornado (F0)

A tornado touchdown was reported by the Quincy Observer and the public.

<b>Hancock County</b> Carthage	21	1530CST			0	0	5	?	Flash Flood
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Slow-moving thunderstorms caused an estimated 8.00 to 10.00 inches of rainfall in about 2 hours from 1430 CST to 1630 CST. Serious flooding in Carthage resulted in at least \$69,000 damage to city property alone. Basements and some homes were flooded and damaged.

<b>Lake County</b> Gurnee	22	1300CST			1	2	?	0	Lightning
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A 41-year-old construction worker was killed by lightning, and two other workers were thrown to the ground, but not seriously injured. (M410)

<b>Will County</b> 3 NW Shorewood	22	1730CST- 1740CST	0.2	50	0	0	0	0	Tornado (F0)
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A videotape was made at about 1730 CST of a tornado on the ground about 3 miles northwest of Shorewood. It was almost stationary and lasted about 10 minutes before dissipating. From 1649 CST through 1800 CST, possibly, several funnel clouds and tornado touchdowns occurred in a 15- to 20-mile-long stationary line of thunderstorms. This line developed along a lake breeze front from Lake Michigan, that set up and was nearly stationary from west of Joliet north-northeast to the corner of Du Page and Cook Counties. Along this line were several wall clouds, spaced roughly 5 miles apart, from which the funnels developed. The phenomena was viewed by many people and even aircraft in the vicinity.

<b>ILZ001, 002, 003, 004</b> Northern Half of Illinois	25	Early- Late			0	0	5	?	Flood Heavy Rains
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Thunderstorms repeatedly caused heavy rains over already-soaked soils and drainage systems. The rain began late Friday, the 24th, and continued overnight so that floods were occurring by daybreak in many areas. Sheffield, in Bureau County, received 6.80 inches of rain through the 25th. Saturday evening, about 4.00 inches of rain fell over most of the southern suburbs of Chicago. Frankfort, in Will County, had torrential rainfall from 1545 CST to 1745 CST that resulted in their worst flood in memory.

<b>La Salle County</b> 5 NW Mendota	25	Afternoon	0.1	50	0	0	0	0	Tornado (F0)
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A brief tornado touchdown was photographed, but no damage or time of occurrence was available.

<b>Cook County</b> Chicago Heights	25	1630CST- 1730CST			0	0	3	0	Thunderstorm Winds Flood
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Thunderstorm winds damaged business signs and blew out windows in shopping plazas. Power lines were downed, trees were snapped off and uprooted, and flooding also occurred.



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## ILLINOIS Cont'd

<b>La Salle County</b> Near Mendota	30	1837CST			0	0	3	0	<b>Thunderstorm Winds</b>
									There was scattered damage to power lines and trees in northern La Salle County.
<b>Mendota</b>	30	1936CST			0	0	?	?	<b>Hail (1.75)</b>
<b>Mendota</b>	30	2000CST			0	0	3	0	<b>Thunderstorm Winds</b>
									Damage occurred to power lines and trees.
<b>Mendota</b>	30	2050CST			0	0	4	?	<b>Flash Flood</b>
									The Illinois State Police reported severe flooding in Mendota with cars floating down streets with 6 feet of water in some areas.
<b>Rock Island County</b>	31	1400CST			0	0	4	0	<b>Thunderstorm Winds</b>
									There was scattered damage to homes and trees.
<b>2 N Port Byron</b>	31	1420CST	0.5	100	0	0	3	0	<b>Tornado (F1)</b>
									An eyewitness saw a tornado come across the Mississippi River and briefly damage some trees and buildings between Port Byron and Cordova before lifting back into a thunderstorm.
<b>Moline</b>	31	1425CST			0	0	0	0	<b>Thunderstorm Winds (G51)</b>
<b>Boone County</b>	31	1500CST			0	0	4	?	<b>Thunderstorm Winds</b>
<b>Belvidere</b>									There was damage to power lines and trees.
<b>Bureau County</b>	31	1520CST			0	0	3	0	<b>Thunderstorm Winds</b>
<b>2 W Walnut</b>									Power lines were blown down by thunderstorm winds.
<b>Cook County</b>	31	1545CST			0	0	4	0	<b>Thunderstorm Winds</b>
<b>Arlington Heights</b>									Thunderstorm winds caused major damage to the Olive Garden Restaurant.
<b>Palwaukee Airport</b>	31	1600CST			0	0	0	0	<b>Thunderstorm Winds (G51)</b>
<b>Chicago</b>	31	1600CST Estimated			1	0	?	0	<b>Thunderstorm Winds</b>
									Thunderstorm winds blew a 4- by 8-foot sheet of plywood off a building that struck and killed a 37-year-old woman. (F370)
<b>Will County</b>	31	1630CST			0	0	0	0	<b>Thunderstorm Winds (G52)</b>
<b>Lewis University</b>									Thunderstorm winds caused damage to trees and outbuildings in the vicinity of Lewis University Airport.
<b>Fulton County</b>	31	1735CST			0	0	0	0	<b>Thunderstorm Winds (G52)</b>
<b>Near Canton</b>									
<b>Peoria County</b>	31	1745CST			0	0	0	3	<b>Thunderstorm Winds</b>
<b>Yates City</b>									
<b>Elmwood</b>									Trees of 1 to 1.5 feet in diameter were downed.

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## ILLINOIS Cont'd

Peoria	31	1805CST			0	0	0	0	Thunderstorm Winds (G52)
Chillicothe	31	1810CST			0	0	3	0	Thunderstorm Winds

Power lines were blown down at Chillicothe.

Tazewell County Pekin	31	1820CST			0	0	4	0	Thunderstorm Winds
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Thunderstorm winds toppled trees and blew down power lines.

2 E Minier	31	1842CST	0.2	50	0	0	0	0	Tornado (F0)
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A tornado briefly touched down near the border between Tazewell and McLean Counties. No damage was reported.

## INDIANA

Grant County Fairmount	14	1228EST			0	0	0	0	Hail (0.75)
Madison County Anderson	14	1230EST			0	0	0	0	Thunderstorm Winds (G52)

A 60-mph gust was measured at the Anderson Airport.

Delaware County	14	1306EST			0	0	0	0	Thunderstorm Winds (G52)
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A gust of 60 mph was reported north of Muncie.

Hamilton County	16	1515EST			0	0	?	0	Thunderstorm Winds
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Trees were blown down in Carmel. There was also some minor damage to homes in the central and southern parts of the county.

Jefferson County	14	1550EST			0	0	3	0	Thunderstorm Winds
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The roof was blown off a mobile home near Madison and several trees in the area were also uprooted.

Marion County Indianapolis	16	1600EST			0	0	?	0	Thunderstorm Winds
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From 45th to 49th Streets and Haverford, several trees were blown down. There was also some roof damage to a house.

Elkhart County Elkhart	16	1718EST			0	0	?	0	Thunderstorm Winds (G58)
Fountain County 1 N Veedersburg	17	1523EST			0	0	?	?	Hail (1.75)
Covington Countywide	17	1530EST			0	0	?	0	Thunderstorm Winds

Trees were blown down in the eastern part of Fountain County.

Montgomery County Wingate	17	1550EST			0	0	?	?	Hail (1.75)
Crawfordsville	17	1603EST	0.1	40	0	0	5	0	Tornado (F1) Hail (1.50) Thunderstorm Winds (G70)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROSSL	

## INDIANA Cont'd

A tornado touched down at Mount Zion and Old Waynetown Roads. Seven homes were damaged, and a modular home and a garage were destroyed by the tornado. Eighty-mph thunderstorm winds downed trees and power lines, and caused damage to nine homes. Total damage in Crawfordsville from the tornado and thunderstorm was estimated between \$300,000 and \$350,000.

<b>Darlington</b>	17	1620EST			0	0	4	?	<b>Thunderstorm Winds Hail (1.75)</b>
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A tree was blown down and damaged a porch in Darlington. A metal corn bin was destroyed 1 mile west of Darlington.

<b>Boone County Advance</b>	17	1630EST			0	0	4	0	<b>Thunderstorm Winds</b>
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A roof was blown off one building and several other buildings were damaged.

<b>Thornton</b>	17	1630EST	Short	20	0	0	5	0	<b>Tornado (F0)</b>
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The state police reported a brief tornado touchdown near Thorntown. Utility poles were toppled and a barn was blown down just east of Thorntown.

<b>Clinton County Colfax</b>	17	1633EST			0	0	?	?	<b>Hail (1.00)</b>
<b>Marion County</b>	17	1645EST			0	0	0	0	<b>Funnel Cloud</b>

The state police reported a funnel cloud in the extreme northwestern portion of Marion County.

<b>Boone County Lebanon</b>	17	1645EST			0	0	5	?	<b>Thunderstorm Winds (G87)</b>
<b>Fayette</b>	17	1650EST			0	0	4	?	<b>Thunderstorm Winds</b>

Trees were blown down in Fayette and Lebanon. Two mobile homes were blown off their foundations. In Fayette, the roofs were blown off two houses. In Lebanon, the wall was blown out of a sandwich shop. Lines and poles were blown down on the northern side of Lebanon. Also in Lebanon, several small outbuildings and garages were severely damaged, and portions of roofs were ripped from several homes. Winds in Lebanon were estimated at 100 mph.

<b>Montgomery County</b>	17	1650EST			0	0	?	0	<b>Thunderstorm Winds</b>
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Trees and power lines were blown down.

<b>Marion County</b>	17	1650EST			0	0	0	0	<b>Thunderstorm Winds (G52)</b>
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Winds to 60 mph were reported on the northwestern side of Indianapolis at 86th Street and Zionsville Road.

<b>Hamilton County Carmel</b>	17	1659EST			0	0	4	0	<b>Thunderstorm Winds</b>
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Thunderstorm winds knocked a tree onto an electric line and charged a neutral line leading to a garage which resulted in a fire. Damage was estimated at approximately \$10,000 damage.

<b>Noblesville</b>	17	1704EST			0	0	?	0	<b>Thunderstorm Winds</b>
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Trees were blown down by thunderstorm winds.

<b>Marion County Spring Hill</b>	17	1705EST			0	0	?	0	<b>Thunderstorm Winds (G58)</b>
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# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## INDIANA Cont'd

<b>Hamilton County</b> Cicero	17	1717EST			0	0	4	0	Thunderstorm Winds (G78)
									The Indiana State Police estimated winds of 90 mph at Cicero. The roof was blown off the beach house at Morse Beach Park.
<b>Arcadia</b>	17	1723EST			0	0	?	0	Thunderstorm Winds (G63)
<b>Madison County</b> Anderson	17	1740EST			0	0	?	0	Thunderstorm Winds (G55)
									In Anderson, trees were blown down, the roof and aluminum siding of a barn were peeled away, and the siding was ripped from a house. A 63-mph gust was measured at the Anderson Airport.
<b>Henry County</b> Middletown	17	1804EST			0	0	4	0	Thunderstorm Winds Hail (0.75)
<b>2 N New Castle</b>	17	1809EST			0	0	4	0	Thunderstorm Winds (G70)
<b>Mount Summit</b>	17	1809EST			0	0	4	0	Thunderstorm Winds
									In Middletown, trees were blown down and the siding was torn from the Shenandoah Middle School Building by thunderstorm winds. The gutters, downspouts, and aluminum fascia of the Shenandoah Elementary School were damaged by hail. Two miles north of New Castle, the roof of a gas station was blown off, and the roof of a gas pump shelter was blown onto State Route 3. The wind was estimated at 80 mph. In Mount Summit, the roof was blown off a house and large limbs were blown down.
<b>Randolph County</b>	17	1815EST			0	0	0	0	Thunderstorm Winds
									Numerous large limbs were blown down, and 60-mph winds were reported.
<b>Wayne County</b>	17	1840EST			0	0	?	0	Thunderstorm Winds
<b>Decatur County</b> 1 S Waynesburg	22	1737EST	Short	20	0	0	0	0	Tornado (F0)
									A tornado touched down in a field, but there were no reports of damage.
<b>2 W Fountain City</b>									A chicken house was blown off its foundation.
<b>Jennings County</b> 2 S Scipio	22	1700EST			0	0	?	0	Thunderstorm Winds
									Trees were blown down by thunderstorm winds.
<b>Marion, Johnson, and Bartholomew Counties</b>	22	1830EST			0	0	?	?	Urban and Small Stream Flood
									Thunderstorms produced heavy rain which resulted in some urban and small stream flooding in central Indiana. A culvert was washed out in Ninevah where there was some street flooding on the southern side of Indianapolis, and a few county roads were flooded in Bartholomew County.
<b>Newton County</b> Brook	25	1212EST			0	0	0	0	Funnel Cloud
									The state police reported a funnel cloud near Brook.
<b>Delaware County</b> Yorktown	29	1530EST			1	0	0	0	Lightning
									A 7-year-old boy was struck by lightning while riding a bike in his driveway. (M070)

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## INDIANA Cont'd

<b>Noble County</b>									
Kendallville	30	1529EST			0	0	?	?	Hail (0.88)
<b>St. Joseph County</b>									
2 W South Bend	30	1540EST			0	0	?	?	Hail (1.00)
2 W South Bend	30	1545EST			0	0	?	0	Thunderstorm Winds
									A large tree that was blown down on U.S. Highway 20 caused the road to be closed.
<b>Lakeville</b>	30	1604EST			0	0	0	?	Thunderstorm Winds Hail (0.50)
									Tree limbs were blown down, and hail covered the ground.
<b>Elkhart County</b>									
Elkhart	30	1605EST			0	0	0	0	Hail (0.75)
									Hail was reported on State Route 19 on the northern side of Elkhart.
4 S Goshen	30	1644EST			0	0	0	0	Thunderstorm Winds (G60)
Nappanee	30	1648EST			0	0	4	0	Thunderstorm Winds (G60)
									One-foot-diameter trees were blown down by thunderstorm winds. A car was damaged by falling limbs, and a dairy delivery truck was crushed when a tree fell on it.
<b>Kosciusko County</b>									
3 S Nappanee	30	1702EST			0	0	0	0	Hail (0.75)
Milford	30	1715EST			0	0	4	0	Thunderstorm Winds
									A barn was blown down, as well as numerous trees and power lines.
<b>Kosciusko County</b>	30	1730EST			0	0	5	0	Thunderstorm Winds
									Six large barns and numerous outbuildings were blown off their foundations. One home was damaged and several utility poles were toppled. Damage was confined to the northwestern portion of the county, extending south to County Road 1030 North, and east to County Road 500 West.
<b>Southern Lagrange, Western De Kalb, and Noble Counties</b>	30	1730EST-2000EST			0	0	4	5	Flash Flood
									Across southern Lagrange, western De Kalb, and Noble Counties, 2.00 to 4.00 inches of rain fell. This produced widespread flooding of roads, streets, and fields. Near Kendallville, U.S. Highway 6 was closed because of the high water.
<b>Southern Elkhart, Northern Kosciusko, Marshall, and Starke Counties</b>	30	1830EST-2015EST			0	0	?	?	Flash Flood
									The sheriff's office reported flooding of low areas on numerous county, state, and U.S. highways. Numerous city streets, small streams, and ditches were also flooded.
<b>Northern Huntington Southern Allen, and Northern Adams Counties</b>	30	2030EST-2300EST			0	0	6	5	Flash Flood
									Three to five inches of rain fell across northern Huntington, southern Allen, and northern Adams Counties. As a result of the rains, flooding occurred along Fairfield Ditch in Fort Wayne, with 20 homes receiving major to minor damage. A number of people had to be evacuated along Fairfield Ditch because of the flooding. Widespread flooding of roads, streams, and fields was also reported. A number of vehicles were stalled in high water.

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## INDIANA Cont'd

<b>La Porte County</b>	30	2100EST			0	0	?	0	<b>Thunderstorm Winds</b>
									Trees and large limbs were blown down by thunderstorm winds.
<b>Hamilton and Boone Counties</b>	30	2200EST			0	0	?	?	<b>Urban and Small Stream Flood</b>
									Two inches of rain in 1.5 hours caused minor flooding of local and county roads in Boone County. Street flooding was reported in Sheridan in Hamilton County.
<b>Allen County</b>	31	0345EST-0700EST			0	0	4	4	<b>Flash Flood</b>
									Additional rains of 0.50 to 1.00 inch fell over already-saturated ground causing street, field, and stream flooding across Allen County. The additional rain resulted in evacuation of people in the Moeller Road Mobile Home Park located along Trier Ditch in New Haven. Flooding was reported along Trier Ditch in both Fort Wayne and New Haven, with some residential damage reported.
<b>Tipton County</b>	31	0400EST			0	0	5	?	<b>Flash Flood</b>
									Around 4.00 inches of rain fell across the county and produced flash flooding. Many county roads were closed and one bridge was washed out.
<b>La Porte County</b>	31	1640EST			0	0	?	?	<b>Thunderstorm Winds</b>
									Numerous trees were blown down by thunderstorm winds.
<b>St. Joseph County South Bend</b>	31	1710EST			0	0	0	0	<b>Funnel Cloud</b>
									A funnel cloud was observed by National Weather Service personnel.
<b>South Bend</b>	31	1730EST	Short	10	0	0	0	0	<b>Tornado (F0)</b>
									The sheriff's office reported a tornado 4 miles southwest of Michiana Regional Airport; no damage was observed.
<b>Mishawaka</b>	31	1735EST			0	0	?	0	<b>Thunderstorm Winds</b>
									Trees and power lines were blown down on the northern side of Mishawaka. Insulation was blown off the roof of an office building under construction near Day Road and Main Street.
<b>Elkhart County Dunlap</b>	31	1750EST			0	0	0	0	<b>Funnel Cloud</b>
									The sheriff's office reported a funnel cloud near County Road 113 North and County Road 26.
<b>St. Joseph County Mishawaka</b>	31	1800EST			0	0	?	?	<b>Small Stream Flood</b>
									Edison Road, between Hickory and Grape, was closed due to flooding.
<b>La Porte County 5 S Kingsford Heights</b>	31	1820EST			0	0	?	?	<b>Hail (1.00)</b>
<b>St. Joseph County</b>	31	1835EST			0	0	?	?	<b>Small Stream Flood</b>
									Juday Creek was reported over its banks, resulting in the closing of Adams Road.

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## INDIANA Cont'd

La Porte County 2 E LaPorte	31	1900EST			0	0	?	?	Hail (1.75)
Hamilton County Noblesville	31	2054EST			0	0	?	0	Hail (1.75)
Elkhart, La Porte, Marshall, St. Joseph and Starke Counties	31	2000EST- 2200EST			0	0	?	?	Flash Flood

Heavy rainfall associated with thunderstorms caused widespread flooding throughout the area. Heavy street flooding was reported at Michigan City, Plymouth, Knox, South Bend-Mishawaka, and Elkhart. Rainfall of over 3.00 inches was reported near Granger, which is about 5 miles northeast of South Bend.

Wabash County	31	2036EST			0	0	4	0	Thunderstorm Winds
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Numerous power lines and a number of trees were reported blown down by the Wabash County Sheriff's Office.

## IOWA

Ringgold County Benton 8 N Mt. Ayr	04	1910CST- 1930CST			0	0	4	3	Hail (0.75)
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An area of thunderstorms moved into southern Iowa. There were several reports of marble-size hail across Ringgold County. One cell dropped 0.75-inch-diameter hail in a 0.50- to 0.75-mile-wide swath extending from Benton, to 8 miles north of Mt. Ayr during a 20-minute period. The hail covered parts of U.S. Highway 169, north of Mt. Ayr.

IAZ001-002-003-005 006-007-009-010- 011-013-014-015 ILZ004 Much of Iowa	05 11	0600CST- 0000CST			0	0	6	6	Flood
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The wet weather pattern of March and April continued into May. With soils nearly saturated from the heavy rains of April, the heavy rainfall during May caused extensive minor flooding for long periods of time along many of Iowa's river basins. Flooding was more prolonged and widespread in the Mississippi Basin than in the Missouri Basin. Statewide average precipitation for May was 5.33 inches, which is 135 percent of normal. The east-central counties received the least with an average of 4.07 inches, while the north-central counties received the most with 8.05 inches which was over twice the normal amount. Rainfall was reported from some parts of the state on 28 of the 31 days of May. Widespread rains averaging around 1.00 inch fell on the 5th, with local amounts over 2.00 inches over the central third of the state. This resulted in flooding in many sections of Iowa. It was the only time during the month that the South River, Cedar Creek, portions of the Chariton River, and St. Francisville on the Des Moines River exceeded their flood stage. All of these sites are in extreme southern Iowa. Separating individual flood events was difficult during May, since many rivers were at or above flood stage during much of the month.

Woodbury County Sioux City	12	2130CST			0	0	4	2	Thunderstorm Winds (G50+)
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Thunderstorms moved into the Sioux City area during the evening hours. High winds swept into Sioux City, blowing down numerous trees on the northern side of town.

Winneshiek County Decorah	13	0325CST			0	0	3	1	Thunderstorm Winds (G50+)
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Thunderstorms moved across Iowa during the evening of the 12th and early morning of the 13th. Gusty winds and some hail were reported with them, but most of the storms were not severe. High winds did cause some damage in the Decorah area.

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## IOWA Cont'd

Lucas County Lucas	14	0725CST			0	0	4	3	Hail (1.75)
Wayne County	14	0845CST- 1300CST			0	0	5	4	Flash Flood
Marshall County St. Anthony	14	0853CST			0	0	3	3	Hail (0.88)
Wayne County Corydon	14	0915CST			0	0	3	3	Hail (0.75)
Marshall County 2 S Conrad	14	0938CST			0	0	4	3	Hail (1.50)
Grundy County Conrad	14	0938CST			0	0	4	3	Hail (1.50)
Wayne County Corydon	14	0950CST			0	0	3	3	Hail (0.75)
Grundy County 2 N Grundy Center	14	1012CST			0	0	3	3	Hail (0.75)
Appanoose County 4 W Moravia	14	1027CST			0	0	3	3	Hail (0.75)
Black Hawk County Southern Waterloo	14	1054CST			0	0	4	2	Hail (1.75)
Downtown Waterloo	14	1056CST			0	0	3	0	Hail (0.75)
Benton County 4 S LaPorte City	14	1138CST			0	0	3	3	Hail (0.75)
Black Hawk County Elk Run Heights	14	1140CST			0	0	3	2	Hail (0.75)
Benton County	14	1200CST- 1500CST			0	0	4	4	Flash Flood
Buchanan County 2 N Walker	14	1206CST			0	0	3	3	Hail (1.00)
Benton County Vinton	14	1213CST			0	0	3	3	Hail (0.75)
Delaware County 5 N Ryan	14	1231CST	0.1	15	0	0	3	1	Tornado (F0)
2.5 SE Ryan to 2 SW Dyersville	14	1235CST- 1301CST	17.0	50	0	0	4	2	Tornado (F1)

Intermittent track.

Linn County 3 NW Cedar Rapids	14	1235CST			0	0	0	0	Funnel Cloud
1.5 SW Lisbon Lisbon	14	1258CST- 1305CST	1.5	30	0	0	4	2	Tornado (F1)
Cedar County 3 SW Tipton	14	1334CST			0	0	0	0	Funnel Cloud
Bennett	14	1340CST			0	0	0	0	Funnel Cloud
Stanwood	14	1340CST			0	0	0	0	Funnel Cloud
5 N Tipton	14	1340CST			0	0	0	0	Funnel Cloud
Muscatine County 10 N Muscatine	14	1430CST			0	0	4	3	Thunderstorm Winds (G50+)
1 N Muscatine	14	1440CST			0	0	4	3	Thunderstorm Winds (G50+)

A very unstable airmass was located over Iowa. Thunderstorms developed quite randomly, firing up shortly after sunrise. The first severe storm developed over Lucas County and produced golf ball-size hail at Lucas. This slow-moving cell moved into Wayne County dropping 2.00 to 3.00 inches of rain. Flash flooding occurred with water 2 feet deep on Highway 40 near Allerton. Extensive flooding occurred along the Chariton River. Another cluster of storms formed over central Iowa and worked its way into the northeastern counties. Heavy rainfall in Benton County



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		LOCAL STANDARD			KILLED	INJURED	PROBABILITY	COSTS	

## IOWA Cont'd

caused flash flooding in the area. Highway 218 was closed for a few hours when up to 3.50 inches of rain fell in a few places. Hail measuring 1.00 to 2.00 inches in diameter was also reported at several locations. The storms became tornadic by late afternoon. There were numerous funnel cloud reports, and a few tornadoes in eastern Iowa. One tornado touched down in Linn County and two touched down in Delaware County. One of the tornadoes in Delaware County was on the ground intermittently for about 176 miles. None of the tornadoes caused very much damage because they went through open fields. There were a few reports of high winds which were responsible for blowing a car off the road, 10 miles north of Mucatine.

Wright County 5 E Clarion	14	1615CST			0	0	3	3	Hail (0.75)
Warren County 3 ESE Des Moines Airport	14	1650CST			0	0	3	3	Hail (0.75)
Polk County Des Moines Airport	14	1650CST			0	0	3	1	Hail (0.75)
2 SW Des Moines Airport	14	1757CST			0	0	0	0	Funnel Cloud
Downtown Des Moines	14	1758CST			0	0	4	0	Thunderstorm Winds (G56)
West Des Moines	14	1805CST			0	0	3	0	Hail (0.75)
West Des Moines	14	1805CST			0	0	4	0	Thunderstorm Winds (G50+)
Urbandale	14	1805CST			0	0	3	0	Hail (0.75)
2 N Des Moines Airport	14	1815CST			0	0	0	0	Funnel Cloud

During the early evening hours of the 14th, a few isolated thunderstorm cells brought more severe weather to Iowa. One of them in Wright County produced 0.75-inch-diameter hail. Another developed just south of the Des Moines Airport. Dime-size hail was reported at several points around the city. A funnel cloud was observed from southwest of the airport to just north of the airport. The storm produced 65-mph winds in downtown Des Moines, and caused wind damage at a shopping center in western Des Moines.

IAZ001-002-005- 006-007-008-009- 010-011-014-ILZ004 Northeastern Three- Quarters of Iowa	16	0000CST-			0	0	6	6	Flood
	23	1800CST							

Heavy rains of 1.50 to 3.00 inches fell on the 15th over the upper portions of the Iowa/Cedar, Skunk, and Des Moines River Basins. Near record flooding occurred on Beaver Creek at New Hartford on the 18th, and major flooding occurred in Waterloo on the Cedar River on the 21st. Moderate flooding occurred on the Shell Rock River, the West Fork of the Cedar River, Black Hawk Creek, and much of the Cedar River as well as portions of the Iowa and Skunk Rivers. On the Des Moines River, the 22.87-foot crest at Stratford was the second highest since 1967.

Pottawattamie County Council Bluffs	16	1926CST			0	0	5	2	Thunderstorm Winds (G64)
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Strong thunderstorms moved into western Iowa during the evening. Winds gusted to 73 mph at nearby Omaha Eppley Airfield, resulting in damage at Council Bluffs.

Hamilton and Wright Counties 7 E to 12 NE Webster City	17	1300CST- 1236CST	9.0	60	0	0	4	3	Tornado (F2)
Hamilton County 10 NE Webster City	17	1320CST			0	0	4	4	Hail (1.75)
Black Hawk County 2 N Hudson	17	1416CST			0	0	0	0	Funnel Cloud

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## IOWA Cont'd

Greene County									
Jefferson	17	1417CST			0	0	3	4	Hail (1.75)
Paton	17	1420CST			0	0	4	4	Hail (1.75)
Black Hawk County									
Cedar Falls	17	1418CST			0	0	4	2	Hail (1.75)
Waterloo Airport	17	1419CST			0	0	4	3	Hail (1.00)
Cedar Falls	17	1420CST			0	0	4	2	Hail (1.75)
Waterloo	17	1425CST			0	0	6	2	Hail (3.00)
Buchanan County									
2 W Independence	27	1430CST			0	0	4	2	Thunderstorm Winds (G50+)
Linn County									
Center Point	17	1435CST			0	0	4	4	Hail (1.75)
Johnson County									
Solon	17	1450CST			0	0	4	4	Hail (1.75)
Washington County									
Kalona	17	1450CST			0	0	0	0	Funnel Cloud
Muscatine County									
Muscatine	17	1505CST			0	0	0	0	Wall Cloud
2 N Muscatine	17	1510CST			0	0	0	0	Funnel Cloud
2 N Muscatine	17	1510CST			0	0	5	4	Thunderstorm Winds (G65)
Conesville	17	1510CST	0.1	15	0	0	3	0	Tornado (F1)
Hamilton County									
Stratford	17	1510CST	0.1	15	0	0	3	2	Tornado (F0)
Boone County									
Boxholm	17	1511CST			0	0	4	2	Thunderstorm Winds (G50+)
Pilot Mound	17	1514CST			0	0	0	0	Funnel Cloud
Pilot Mound	17	1515CST			0	0	4	4	Hail (1.75)
Muscatine County									
Nichols	17	1515CST			0	0	3	3	Hail (1.00)
West Liberty	17	1520CST			0	0	3	3	Hail (1.00)
Grundy County									
15 W Waterloo	17	1536CST			0	0	3	3	Hail (0.75)
Muscatine and Scott Counties									
5 NE Muscatine	17	1510CST-							
7 N Buffalo		1540CST	14.5	30	0	0	5	3	Tornado (F1)
Intermittent path.									
Poweshiek County									
Malcom	17	1545CST			0	0	3	4	Hail (1.00)
Davis County									
8 SE Bloomfield	17	1545CST			0	0	4	2	Thunderstorm Winds (G50+)
Wright County									
2 SE Clarion	17	1552CST	0.3	20	0	0	3	1	Tornado (F0)
Hamilton County									
1600CST-	17	2100CST			0	0	5	4	Flash Flood
Hardin County									
1600CST-	17	2100CST			0	0	5	4	Flash Flood
Webster County									
1600CST-	17	2100CST			0	0	5	4	Flash Flood
Humboldt County									
1600CST-	17	2100CST			0	0	5	4	Flash Flood
Wright County									
1600CST-	17	2100CST			0	0	5	4	Flash Flood
Grundy County									
1600CST-	17	2100CST			0	0	6	4	Flash Flood
Butler County									
1600CST-	17	2100CST			0	0	6	4	Flash Flood

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## IOWA Cont'd

Black Hawk County	17	1600CST-2100CST			0	0	5	4	Flash Flood
Scott County									
Davenport	17	1600CST			0	0	4	2	Hail (1.75)
2 SW Davenport	17	1600CST			0	0	0	0	Funnel Cloud
1.5 W Davenport	17	1620CST			0	0	4	3	Hail (2.12)
Betterndorf	17	1625CST			0	0	3	0	Hail (0.75)
Iowa County									
2 W Marengo	17	1620CST			0	0	3	4	Hail (1.75)
Marengo	17	1630CST			0	0	3	3	Hail (1.00)
Lee County									
Fort Madison	17	1800CST			0	0	4	2	Thunderstorm Winds (G50+)
Scott County	17	1800CST-2100CST			0	0	5	3	Flash Flood

Two weather features were affecting Iowa on the afternoon of the 17th. An Arctic cold front was moving south across the state, while at the same time a strong upper level low pressure area was moving across from the southwest. The airmass over Iowa was very unstable. Severe thunderstorms erupted along and north of the Arctic cold frontal boundary. Heavy rains of 2.00 to 4.00 inches were common between Fort Dodge and Waterloo. The heaviest rain area was about 40 miles wide. The Allison area had 5.50 inches of rain, with 4.70 inches at Bristow. A few unofficial reports around the area indicated that perhaps 6.00 to 7.00 inches of rain fell in spots. Both of these are in Butler County. Since this rain fell in about 2 hours, flash flooding occurred over an eight-county area. The water was deep enough in the farm fields that some farmers reported white caps in the fields. For the most part, severe weather from these storms came in the form of large hail. There were numerous reports of 1.00-inch, up to golf ball-size, hail. In Greene County, hail over 1.00 inch in diameter stripped the leaves off the trees and covered the ground. The largest hail reported was in the city of Waterloo, measured up to 3.00 inches in diameter. Damage was extensive in the Waterloo area. One car dealership reported losses of \$1 million as hail damaged 500 new and used cars, and there was considerable damage to roofs in the area. Winds were generally under 45 mph from most of the storms although there were a few reports of tornadoes. One fairly strong tornado touched down in Hamilton County and moved into Wright County. The track of the tornado was all over open country. As a result, damage was minimal in spite of its strength and the length of its track. Another small tornado touched down briefly in Wright County over an open field, while a third touched down briefly near Stratford, in Hamilton County. Intense thunderstorms moved into the southeastern part of Iowa from Missouri. These storms were in response to the upper level low. There were several reports of funnel clouds in this area. One-inch-diameter hail fell on Iowa County. High winds occurred in Davis County, near the Missouri state line. As the storms continued to move into southeastern and east-central Iowa, two small tornadoes touched down in Muscatine County. Little damage occurred with these tornadoes. The path of one of the Muscatine County tornadoes had a very intermittent track and ended up in western Scott County. It was said that the tornado did not touch down as much as the ground came up to meet it. Damage from the tornado was limited to hilltop areas. High winds of 70 to 80 mph occurred north of Muscatine. These were outflow, straight-line winds. Large hail was also associated with these storms. Hail from golf ball to tennis ball size fell in Scott County. In Lee County, high winds downed power lines and destroyed a machine shed in Fort Madison. Heavy rainfall in the Qaud cities area caused some flash flooding along the Duck Creek. The creek came out of its banks, but not by very much so flood damage was relatively minor.

IAZ001-002-007-010-011-014-ILZ004	18	0600CST-2100CST			0	0	6	6	Flood
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Heavy rains of around 1.00 to 2.00 inches fell on the 17th and 18th of May. This caused additional flooding across northern and central Iowa. The flood waters worked their way into parts of southeastern and east-central Iowa.

Kossuth County 2 E Bancroft	23	1715CST			0	0	4	2	Thunderstorm Winds (G50+)
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# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## IOWA Cont'd

Thunderstorms developed over Kossuth County. High winds ripped the roof off a hog shed east of Bancroft and some trees were downed in the area. The storms were in the form of a short line and did not last very long. There was also some local flooding, as 4.00 inches of rain fell in a 30-minute time period.

O'Brien County	25	2000CST- 2300CST			0	0	5	4	Urban Flood
Hamilton County	25	2035CST			0	0	0	0	Funnel Cloud
Stratford	25	2045CST			0	0	0	0	Funnel Cloud
Stanhope	25	2200CST-							
Kossuth County	26	0300CST			0	0	6	5	Flash Flood

Thunderstorms developed over many sections of Iowa, but there were no real significant reports of severe weather. Numerous reports of funnel clouds were received over southern Hamilton County. The funnels appeared to be of the cold air variety. The upper atmospheric pattern was such that cold air type funnels could form. These were not true cold air funnels as Iowa was still in the warm air at the surface. Another area of thunderstorms moved across southwestern and south-central Iowa. Pea- to marble-size hail fell with these storms, along with very heavy rains. Storms over northwestern and north-central Iowa produced very heavy rainfall. In Kossuth County, 3.50 to 6.50 inches of rain fell over the southeastern part of the county. Titonka received 3.50 inches, while Wesley recorded 6.50 inches. In Wesley, all of the rain fell during the 2.5-hour period from 1830 to 2100 CST. Eighty percent, or 160 homes, in Wesley had either water or structural damage due to the high water. Virtually the entire city was flooded. Heavy rains also fell over O'Brien County which resulted in minor flooding, mostly in towns and along farm ditches. Three to five inches of rain fell with the heaviest, 4.50 to 5.00 inches, between Paullina and Primghar.

IAZ001-002-004-	26	0000CST-			0	0	6	6	Flood
050-006-007-008-	27	2100CST							
009-010-011-014									

### ILZ004, Northern and Eastern Iowa

Once again, heavy rainfall occurred in Iowa. On the 25th through the 26th of May, 1.00 to 3.00 inches of rain fell over portions of the Little Sioux, Des Moines, and Cedar River Basins. Unofficially, 6.50 inches of rain fell in Wesley. That report was mentioned above in this report. In many cases, these rains continued the widespread flooding that had been occurring over the state. Losses continued to mount, both in property and in agriculture.

Mitchell County	27	1900CST			0	0	0	0	Funnel Cloud
2 S St. Ansgar	27	1925CST			0	0	0	0	Funnel Cloud
2 W Osage									

Thunderstorms developed rapidly over north-central Iowa during the early evening hours. Several reports of funnel clouds were received; however, no severe weather was actually reported.

Crawford County	27	2349CST			0	0	4	4	Hail (1.75)
Charter Oak									
Sac County	28	0000CST			0	0	4	2	Thunderstorm Winds (G50+)
Wall Lake									
Monona County	28	0056CST-	5.0	60	0	0	5	3	Tornado (F2)
6 E Blencoe		0108CST							
1 W Moorhead									
Webster County	28	0220CST			0	0	4	4	Hail (1.75)
Barnum	28	0253CST			0	0	4	3	Hail (1.75)
Fort Dodge	28	0253CST			0	0	3	2	Thunderstorm Winds (G50)
Fort Dodge	28	0306CST			0	0	0	0	Funnel Cloud
2 E Fort Dodge									
Butler County	28	0413CST			0	0	4	2	Thunderstorm Winds (G52)
Allison									

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## IOWA Cont'd

A small area of thunderstorms moved into west-central Iowa around midnight. A tornado touched down in Monona County. Two farmsteads were damaged, with structural damage to each of the two houses. Trees in the area were twisted off. Golf ball-size hail occurred with these storms at several locations over a 3-hour period. A picture window was broken out by hail and winds in Fort Dodge. High winds also blew down several large trees and a few power lines in the city of Fort Dodge. A short time later, a funnel cloud was reported just east of Fort Dodge. High winds were a spotty occurrence. In Sac County, Wall Lake reported numerous trees blown down by high winds. As the thunderstorms moved farther to the east, trees and power lines were downed in the Allison area of Butler County by 50-mph winds.

Osceola County Ocheyedan	28	2355CST			0	0	3	2	Thunderstorm Winds (G50+)
Woodbury County Sioux City	29	0012CST			0	0	4	3	Thunderstorm Winds (G59)
Plymouth County Akron Airport	29	0022CST			0	0	5	4	Thunderstorm Winds (G78)
Woodbury County Downtown Sioux City	29	0030CST			0	0	5	0	Thunderstorm Winds (G50+)
1 S Sergeant Bluff	29	0030CST			0	0	4	3	Thunderstorm Winds (G50+)
O'Brien County Sanborn	29	0100CST			0	0	3	2	Thunderstorm Winds (G50+)
Cherokee County Cherokee	29	0120CST			0	0	3	3	Thunderstorm Winds (G50+)

A line of severe thunderstorms moved into northwestern Iowa around midnight. Numerous trees and power lines were blown down in Sioux City by winds of nearly 70 mph. A window was blown out in downtown Sioux City, and telephone poles were snapped off. A telephone pole was blown down south of Sergeant Bluff. High winds caused extensive damage at the Akron Airport. A hanger and two planes were destroyed, and a tractor-semitrailer and bulk fuel tanks were overturned. Damage at the Akron Airport was over \$100,000. High winds also caused some minor damage farther to the east in Cherokee County. Winds blew down trees in the Sanborn area in O'Brien County, and in the Ocheyedan area of Osceola County.

Butler County Applington	29	0410CST			0	0	4	2	Thunderstorm Winds (G52)
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Thunderstorms developed and moved in from the west during the early morning hours. Winds of 60 mph struck the Butler County town of Applington, blowing down trees and power lines in the city.

IAZ006-007-008- 009-010-012-014 Central and Southeastern Iowa	29	1200CST-							
	31	2400CST			0	0	6	6	Flood

An average of 1.00 to 3.00 inches of rain fell over central Iowa on the 29th and 30th. This resulted in additional rises and flooding in the Des Moines and Skunk River Basins. These rains were also the final straw as far as Saylorville Reservoir was concerned. After several consecutive months of record or near-record rainfall, the Saylorville Reservoir was on its way to reaching capacity. At month's end, it was within a few feet of the emergency spillway level.

Story County Ames	29	1410CST			0	0	4	3	Thunderstorm Winds (G59)
Boone County	29	1530CST- 1730CST			0	0	4	4	Urban Flood
Scott County H Bettendorf	29	1550CST			0	2	4	2	Thunderstorm Winds (G50+)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## IOWA Cont'd

Chickasaw County 4 W Fred- ericksburg	29	1645CST			0	0	4	3	Thunderstorm Winds (G50+)
Fayette County Fayette	29	1715CST			0	0	4	3	Thunderstorm Winds (G50+)
Keokuk County Webster	29	1830CST			0	0	4	2	Thunderstorm Winds (G50+)
Washington County Washington	29	1925CST			0	0	4	2	Thunderstorm Winds (G50+)
Johnson County 2 NE Hills	29	1948CST	0.2	20	0	0	3	2	Tornado (F0)
Linn County Lisbon	29	2010CST			0	0	4	3	Thunderstorm Winds (G50+)

Thunderstorms developed during the afternoon hours along a nearly stationary frontal boundary. They quickly became severe and produced torrential rainfall in central Iowa. Winds were recorded at nearly 70 mph in Ames. The town of Madrid, south of Ames, recorded 4.50 inches of rainfall in a 45-minute period that resulted in considerable local flooding. Highway 17 was closed for a while by high water, with cars being washed off the highway roadside. Flooding and erosion was extensive in the nearby rural areas. Elsewhere in the area, 40- to 55-mph winds were common along with some small hail. At this time, an isolated storm developed over eastern-central Iowa. High winds in the Bettendorf area broke out car windows at a car dealership and blew off part of a motel roof. A large outdoor tent was also blown down; as a result, two people sustained injuries. As the storms from central Iowa moved east, gusty winds in the 50- to 60-mph range continued. High winds in Linn County blew down trees and power lines in Lisbon. One tornado was observed in Johnson County 2 miles northeast of Hills. The touchdown was brief and it caused little damage because it was in a rural area. The same line of storms caused some minor wind damage in the Washington area. Other reports of high winds were received from Keokuk County, where a mobile home and several grain bins were destroyed. In Webster and Chickasaw County, trees were blown down west of Fredericksburg. A house sustained damage by a large tree that fell through the roof. Trees were also blown down in Fayette by high winds.

Butler County Allison	31	0640CST			0	0	3	4	Hail (0.75)
Black Hawk County Cedar Falls	31	0753CST			0	0	3	4	Hail (0.75)
Waterloo Airport	31	0813CST			0	0	3	3	Hail (0.75)
Buchanan County 4 E Jessup	31	0835CST			0	0	4	4	Hail (1.75)
Grundy County	31	0745CST- 1030CST			0	0	4	4	Urban Flood
Bremer County	31	0745CST- 1030CST			0	0	4	4	Urban Flood
Black Hawk County	31	0745CST- 1030CST			0	0	5	4	Urban Flood
Wright County	31	0800CST- 1100CST			0	0	4	4	Urban Flood
Hamilton County	21	0800CST- 1100CST			0	0	4	4	Urban Flood
Hardin County	31	0800CST- 1100CST			0	0	4	4	Urban Flood
Franklin County	31	0915CST- 1230CST			0	0	4	4	Urban Flood
Benton County	31	1130CST- 1500CST			0	0	5	4	Flash Flood
Linn County	31	1130CST- 1500CST			0	0	5	4	Flash Flood
Marshall County	31	1230CST- 1430CST			0	0	4	4	Urban Flood

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## IOWA Cont'd

Jasper County	31	1230CST-1430CST			0	0	4	4	Urban Flood
Polk County	31	1230CST-1430CST			0	0	5	4	Urban Flood
Warren County	31	1315CST			0	0	3	4	Hail (0.75)
Carlisle	31	1330CST-1700CST			0	0	5	4	Flash Flood
Poweshiek County	31	1330CST-1700CST			0	0	5	4	Flash Flood
Iowa County	31	1330CST-1700CST			0	0	5	4	Flash Flood
Johnson County	31	1330CST-1700CST			0	0	5	4	Flash Flood
Scott County	31	1630CST			0	0	3	0	Lightning
2 S Bluegrass	31	1915CST-2100CST			0	0	4	4	Urban Flood
Keokuk County	31	1915CST-2100CST			0	0	4	4	Urban Flood

A cluster of thunderstorms moved into northwestern Iowa during the early morning hours of the 31st. As it moved across the state, it laid down a strong outflow boundary. This became the focus for additional thunderstorm development later on. Although the storms appeared to be severe on radar, very little in the way of severe weather actually occurred. Grundy and Black Hawk Counties had 0.75-inch-diameter hail, with golf ball-size hail falling in Buchanan County. Lightning struck a house south of Bluegrass, in Scott County, causing minor damage to the house. During the early afternoon hours, thunderstorms produced pea-size hail at the Des Moines Airport, with dime-size hail southeast of Des Moines in Carlisle. The major problems with the storms was with flooding. Iowa soils were saturated by recent heavy rainfall. As these storms moved through Iowa, 1.50 to 2.00 inches of rainfall in a 90-minute-or-less time period was common. Isolated spots received up to 5.00 inches of rain. There were three rounds of flooding. The first caused urban areas to flood, and small streams to overflow their banks in seven counties of north-central and northeastern Iowa. The next round of thunderstorms affected central and east-central Iowa. Much of this flooding was of the small stream and urban variety. Flash flooding was reported in Benton and Linn counties. Water was over many roadways, and some bridges were washed out. The flash flooding extended to the southwest, into Poweshiek, Iowa, and Johnson Counties. One to three inches of rain fell in a short period of time across these counties. A few areas received up to 4.00 inches of rain. The third episode was over southeastern Iowa. The cluster of storms was small, and flooding was quite localized. Rainfall was under 2.00 inches, but these rains fell on completely-saturated ground.

IAZ001-002-003-0041-005-006-007-009-010-011-012-013-014-015-SDZ018-NEZ010-ILZ004	01	All Month			0	0	0	8	Excessive Rainfall
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All of Iowa

An extremely wet spring planting season caused considerable agricultural losses due to planting delays. Many of the reporting stations around Iowa reported the wettest May, while most reported the wettest 2-month period (April and May), of the 20th century. The wet conditions in the fields resulted in planting delays, with nearly 30 percent of the state's corn crop not yet planted by month's end. The planting delays of this magnitude cause reduction in yields, and, in this case, will amount to nearly \$125 million in lost yield.

## KANSAS

Morton County	02	1550CST			0	0	3	4	Hail (1.00)
2 W Richfield									Quarter-size hail dented cars and damaged crops.
Stanton County	02	1610CST	0.3	27	0	0	0	0	Tornado (F0)
8 SW Big Bow									

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## KANSAS Cont'd

A small tornado touched down for a few minutes in an open field and then traveled east-northeast for about 0.25 mile.

Thomas County 1 W Brewster	02	1712CST			0	0	3	3	Hail (1.00)
Sherman County Goodland Airport	02	1744CST			0	0	0	0	High Winds (G50)
Rawlins County McDonald	02	1750CST			0	0	3	3	Hail (1.00)
14 S Atwood	02	1755CST			0	0	4	4	Hail (1.50)
Allen County Elsmore	03	2035CST			0	0	0	0	Hail (0.75)
Bourbon County Uniontown	03	2055CST			0	0	0	0	Thunderstorm Winds (G52)
Redfield	03	2110CST			0	0	0	0	Hail (0.75)
Johnson County Overland Park	03	2202CST			0	0	0	0	Hail (0.75)

Hail was reported over much of the greater Kansas City area.

Highways K7 and K10	03	2202CST			0	0	0	0	Hail (0.75)
Clay County 10 S Clay Center	04	1019CST			0	0	3	3	Thunderstorm Winds (G52)
7 W Clay Center	04	1043CST			0	0	3	3	Hail (0.75)
Washington County Kimeo	04	1050CST			0	0	4	4	Hail (1.75)

Severe thunderstorms developed over Clay County and moved across southern Washington County. Several farm buildings were destroyed by strong thunderstorm winds south of Clay Center.

Clay County Green	04	1100CST			0	0	3	3	Hail (0.75)
Marshall County Frankfort	04	1115CST			0	0	0	0	Hail (0.75)
Nemaha County 8 SSW Sabetha	04	1130CST			0	0	3	4	Hail (1.00)
1 NW Seneca	04	1140CST			0	0	0	4	Hail (1.25)

Hail covered the ground over eastern Marshall, much of Nemaha, and northern Pottawatomie Counties producing a layer of ice that was one or more inches thick. Road graders were used to clear U.S. Highway 36.

Brown County 3 E Sabetha	04	1155CST			0	0	0	0	Hail (1.00)
Pottawatomie County Onaga	04	1155CST			0	0	0	0	Hail (1.50)

Hail damaged wheat and small grain crops over much of northeastern Kansas. Marshall, Nemaha, Brown, Pottawatomie, and Jackson Counties were especially hard hit.

Emmett	04	1200CST			0	0	0	0	Hail (1.00)
Jackson County Circleville	04	1210CST			0	0	0	0	Hail (1.50)
Holton	04	1215CST			0	0	0	0	Hail (1.00)
Doniphan County 1 S Troy	04	1324CST			0	0	0	0	Hail (0.75)
Cowley County Atlanta	04	1535CST			0	0	0	0	Hail (0.75)



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME		LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD	TIME			KILLED	INJURED	PROPERTY	CROPS	

## KANSAS Cont'd

<b>Butler County</b>										
Beaumont	04	1556CST			0	0	0	0	Hail (0.75)	
15 SE El Dorado	04	1614CST			0	0	0	0	Hail (0.75)	
Latham	04	1615CST			0	0	3	0	Hail (3.00)	
Cassoday	04	1645CST			0	0	0	0	Hail (1.75)	
<b>Cowley County</b>										
Arkansas City	04	1649CST			0	0	0	0	Hail (0.75)	
<b>Chase County</b>										
Cottonwood Falls	04	1653CST			0	0	0	0	Hail (0.75)	
<b>Greewood County</b>										
Eureka	04	1654CST			0	0	0	0	Hail (1.75)	
<b>Lyon County</b>										
Olpe	04	1700CST			0	0	0	0	Hail (1.50)	
Neosho Rapids	04	1710CST			0	0	0	0	Hail (1.50)	
<b>Chase County</b>										
Strong City	04	1723CST			0	0	0	0	Hail (1.75)	
<b>Coffey County</b>										
6 N Burlington	04	1725CST			0	0	0	0	Hail (1.00)	
<b>Sumner County</b>										
Conway Springs	04	1729CST			0	0	0	0	Hail (1.00)	
Hail covered the ground for a time.										
<b>Greenwood County</b>										
5 SW Eureka	04	1730CST			0	0	0	0	Hail (2.00)	
<b>Sedgwick County</b>										
Viola	04	1738CST			0	0	0	0	Hail (1.00)	
Hail covered the ground as deep as 2.5 inches.										
<b>Montgomery County</b>										
Coffeyville	04	1740CST			0	0	0	0	Thunderstorm Winds (G58)	
<b>Elk County</b>										
5 N Howard	04	1745CST			0	0	0	0	Hail (1.00)	
<b>Anderson County</b>										
3 NW Ottawa	04	1745CST			0	0	0	0	Hail (1.50)	
<b>Woodson County</b>										
Yates Center	04	1752CST			0	0	0	0	Hail (1.75)	
<b>Sedgwick County</b>										
Viola	04	1755CST			0	0	0	0	Hail (1.50)	
<b>Allen County</b>										
Iola	04	1804CST			0	0	0	0	Thunderstorm Winds (G58)	
<b>Neosho County</b>										
Chanute	04	1808CST			0	0	0	0	Thunderstorm Winds (G60)	
A mobile home sustained roof damage.										
<b>Allen County</b>										
3 W Iola	04	1834CST			0	0	0	0	Hail (1.00)	
<b>Neosho County</b>										
Erie	04	1842CST			0	0	0	0	Thunderstorm Winds (G60)	
Power lines were blown down in Erie.										
<b>Bourbon County</b>										
Uniontown	04	1845CST			0	0	0	0	Hail (0.75)	
Uniontown	04	1845CST			0	0	0	0	Thunderstorm Winds (G60)	
Fulton	04	1905CST			0	0	0	0	Thunderstorm Winds (G60)	
Some trees were damaged in Fulton.										

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## KANSAS Cont'd

Seward County 1 W Liberal	10	2045CST			0	0	0	0	Hail (0.75)
Mead County 4 SW Plains	10	2225CST			0	0	0	0	Hail (0.75)
Seward County 5 NE Kismet	10	2225CST			0	0	0	0	Hail (0.75)
Stanton County Saunders	10	2040CST			0	0	0	0	Hail (1.00)
Jewell County Ionia	12	1920CST			0	0	3	3	Hail (0.75)
Lincoln County Barnard	12	2100CST			0	0	3	3	Hail (0.75)
5 S Barnard	12	2230CST			0	0	4	4	Flash Flood

Strong thunderstorms produced up to 5.00 inches of rain over eastern Lincoln County. Some county roads were flooded until 0300 CST on the 13th.

Dickinson County 2 S Abilene	13	1625CST			0	0	4	4	Hail (1.75)
Enterprise	13	1627CST			0	0	3	3	Hail (0.75)
8 SE Abilene	13	1628CST			0	0	3	3	Hail (0.75)
Saline County 3 SW Solomon	13	1708CST			0	0	3	3	Hail (0.75)
Dickinson County 4 S Enterprise	13	1715CST			0	0	3	3	Hail (0.75)
Enterprise	13	1715CST			0	0	4	4	Hail (1.75)
Saline County Solomon	13	1743CST			0	0	3	3	Hail (0.75)
Montgomery County 5 S Cherryvale	13	1805CST			0	0	0	0	Hail (0.75)
Marion County Durham	13	1859CST			0	0	0	0	Hail (1.00)
Dickinson County 2 NW Hope	13	1905CST			0	0	4	4	Hail (1.75)
2 NE Hope	13	1915CST	1.0	50	0	0	4	3	Tornado (F0)

A tornado touched down briefly while destroying several farm buildings and uprooting several large trees.

Marion County 2 N Lost Springs	13	1915CST	1.0	50	0	0	0	0	Tornado (F0)
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The sheriff's office reported that a tornado touched down briefly, but did not cause any damage.

Morris County Delevan	13	1915CST			0	0	0	0	Hail (1.00)
Enterprise	13	1915CST			0	0	0	0	Hail (1.50)
Dickinson County Herington	13	1920CST			0	0	3	3	Hail (1.00)
Morris County Delevan	13	1920CST			0	0	3	0	Thunderstorm Winds (G58)
Dickinson County 1 NW Herington	13	1940CST	1.0	50	0	0	0	0	Tornado (F0)

A tornado touched down briefly in an open field.

Marion County Lost Springs	13	2014CST			0	0	0	0	Hail (0.75)
Morris County 3 E Burdick	13	2020CST			0	0	0	0	Hail (0.75)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## KANSAS Cont'd

Hail covered the ground.

Chase County Hymer	13	2042CST			0	0	0	0	Hail (1.00)
Osage County Barclay	13	2235CST			0	0	4	0	Thunderstorm Winds (G60)

A few trees were blown down and one house sustained minor roof damage. The strong winds and damage prompted Osage City officials to turn on the tornado sirens, although no tornadoes were sighted.

Overbrook	13	2250CST			0	0	0	0	Hail (1.00)
Ellsworth County Kanopolis Lake	13	2340CST			0	0	4	4	Hail (1.75)
Dickinson County Lyons Creek	14	0245CST			0	0	3	4	Flash Flood

Over 4.00 inches of rain fell across southern Dickinson County and caused flash flooding along Lyons Creek until 0700 CST.

Ellsworth County Mulberry Creek	14	0320CST			0	0	4	3	Flash Flood
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Up to 4.00 inches of rain fell on northeastern Ellsworth and northwestern Saline counties causing flooding along Mulberry Creek until 0700 CST.

Saline County Mulberry Creek	14	0320CST			0	0	4	3	Flash Flood
Clay County 2 NNW Longford	14	1635CST			0	0	4	3	Thunderstorm Winds (G61)

A microburst destroyed a hog shed and uprooted several trees.

Wallace County 10 SE Sharon Springs	15	1658CST	1.0	20	0	0	0	0	Tornado (F0)
Finney County 1 N Garden City	15	1700CST	2.0	30	0	0	0	0	Tornado (F0)

A tornado was on the ground for about 2 miles across an open field before lifting at 1710 CST.

4 W Garden City	15	1700CST	7.0	150	0	0	0	0	Tornado (F0)
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A tornado touched down in open field and was estimated to be about a city block wide. It was on the ground until 1730 CST and dissipated 7 miles north-northwest of Garden City.

3.8 SW Garden City	15	1705CST	1.5	73	0	0	0	0	Tornado (F0)
3.9 SW Garden City	15	1705CST	1.5	73	0	0	0	0	Tornado (F0)
4.1 SW Garden City	15	1705CST	1.5	73	0	0	0	0	Tornado (F0)
4.2 SW Garden City	15	1705CST	1.5	73	0	0	0	0	Tornado (F0)
4 SW Garden City	15	1705CST	1.5	73	0	0	0	0	Tornado (F0)

Five small tornadoes were on the ground for a few minutes, at the same time within 100 yards of each other traveling only 1 to 1.5 miles. The tornadoes did little or no damage.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CRODS	

## KANSAS Cont'd

5 S Garden City 15 1710CST-1715CST 1.5 73 0 0 0 0 Tornado (F0)

A sixth small tornado, this one lasted only 5 minutes.

2.9 SE Garden City 15 1720CST 2.5 65 0 0 0 0 Tornado (F0)

3.1 SE Garden City 15 1720CST 2.5 50 0 0 0 0 Tornado (F0)

3 SE Garden City 15 1720CST 2.5 65 0 0 0 0 Tornado (F0)

3.2 SE Garden City 15 1720CST-1730CST 2.5 55 0 0 0 0 Tornado (F0)

Four tornadoes (land spouts), all on the ground at the same time, were sighted southeast of Garden City moving east-northeast across open fields.

### Wichita County

11 E Leoti 15 1727CST 1.0 10 0 0 0 0 Tornado (F0)

1 NE Leoti 15 1727CST 1.0 10 0 0 0 0 Tornado (F0)

20 SE Leoti 15 1727CST 1.0 10 0 0 0 0 Tornado (F0)

8 S Leoti 15 1727CST 1.0 10 0 0 0 0 Tornado (F0)

### Scott County

10 W Scott City 15 1730CST 1.0 10 0 0 0 0 Tornado (F0)

Five small tornadoes formed in Wichita and western Scott Counties within a few minutes of each other. Some of the tornadoes were on the ground at the same time but they were fairly weak with 60- to 70-mph winds.

### Finney County

8 S Garden City 15 1730CST 1.8 40 0 0 0 0 Tornado (F0)

7.9 S Garden City 15 1730CST-1740CST 1.8 40 0 0 0 0 Tornado (F0)

Two tornadoes were on the ground on the southern side of Garden City moving north-northeast. The tornadoes lasted about 10 minutes.

### Seward County

10 W Plains 15 1730CST 12.0 35 0 0 0 0 Tornado (F0)

A tornado traveled from 10 miles west of Plains at 1730 CST, across Highway 160, to 12 miles northwest of Plains with no damage being reported.

### Finney County

3.1 E Garden City 15 1745CST 3.5 55 0 0 0 0 Tornado (F0)

Two tornadoes were on the ground at the same time. Both moved north-northeast about 3.5 miles and dissipated around 1800 CST.

3 E Garden City 15 1745CST 3.5 55 0 0 0 0 Tornado (F0)

There were 16 tornadoes on the ground for short periods of time, all within 10 miles of Garden City. No damage was reported.

### Sherman County

18 SSE Goodland 15 1800CST 1.0 10 0 0 0 0 Tornado (F0)

1 S Goodland 15 1808CST 0 0 3 3 Hail (0.75)

2 E Edson 15 1820CST 0 0 3 3 Hail (1.75)

### Meade County

Plains 15 1825CST 0 0 0 0 Funnel Cloud

### Gray County

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## KANSAS Cont'd

10 S Pierceville 15 1830CST 0 0 0 5 Hail (1.00)

Golf ball-size hail destroyed two circles of wheat on one farm and damaged two other farms.

Sherman County  
12 E Goodland 15 1835CST 0 0 3 3 Hail (0.75)

Thomas County  
17 W Colby 15 1855CST 0 0 3 3 Hail (1.00)

Sherman County  
18 ENE Goodland 15 1905CST 0 0 3 3 Hail (1.00)

Scott County  
10 S Scott City 15 1905CST 0 0 3 3 Hail (0.75)

Lane County  
Dighton 15 1909CST 1.0 50 0 0 4 4 Tornado (F1)

A tornado damaged a farmstead, including a 40- by 24-foot cattle shed. The debris was thrown for up to 0.5 mile. Several trees were also destroyed.

Rawlins County  
1 E McDonald 15 1920CST 0 0 3 3 Hail (0.75)

Clark County  
Minneola 15 1921CST 0 0 0 0 Thunderstorm Winds (G75)  
Minneola 15 1921CST 0 0 3 0 Thunderstorm Winds (0.75)

Ford County  
5 W Dodge 15 1921CST 0 0 0 0 Hail (0.75)  
5 W Dodge 15 1921CST 0 0 0 0 Thunderstorm Winds (G60)

Rawlins County  
5 E McDonald 15 1925CST 0 0 3 3 Hail (0.75)

Ness County  
2 W Arnold 15 2020CST 0 0 4 4 Hail (1.00)  
Ransom 15 2030CST 0 0 4 4 Hail (1.00)

Decatur County  
1 S Seldon 15 2045CST 0 0 4 4 Hail (0.75)

Pawnee County  
Roxell 15 2109CST 0 0 0 0 Hail (0.75)

Decatur County  
5 N Oberlin 15 2114CST 0 0 4 4 Hail (1.50)

Harvey County  
Burrton 16 0340CST 0 0 0 0 High Winds (G60)

Nonconvective, straight-line winds blew tree limbs down.

Ellsworth County  
3 N Lorraine 16 1235CST 0 0 0 0 Funnel Cloud

Rooks County  
Stockton 16 1254CST 0 0 3 3 Hail (1.00)

Ellsworth County  
3 S Ellsworth 16 1303CST 0 0 0 0 Funnel Cloud

Graham County  
Bogue 16 1305CST 0 0 4 4 Hail (1.00)

Pawnee County  
1 N Rozel 16 1313CST 0 0 0 0 Funnel Cloud

Hodgeman County  
8 W Jetmore 16 1315CST 0 0 0 5 Hail (2.75)

Russell County  
Lake Wilson 16 1330CST 0 0 4 4 Hail (1.75)

Finney County  
1 E Kalvesta 16 1337CST 0 0 0 0 Hail (0.75)

Russell County

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## KANSAS Cont'd

6 NE Russell Ellis County	16	1345CST	1.0	50	0	0	3	3	Tornado (F0)
Victoria Hodgeman County	16	1345CST			0	0	4	4	Hail (1.75)
23 SW Jetmore	16	1347CST	22.0	880	0	2	5	5	Tornado (F3)

A large, multiple-vortex tornado did considerable damage to two farmsteads. Two people received minor injuries. Witnesses reported that the large-scale rotation of the tornado was weak, but the small suction vortices were the primary damage producers. A garage, barn, shed, two abandoned farm houses, and two granaries were completely destroyed. A total of 40 acres of wheat was completely destroyed by hail and the tornado.

Ellis County 5 N Victoria	16	1350CST			0	0	4	4	Hail (1.75)
Russell County 1 SW Lucas	16	1356CST	1.0	50	0	0	3	3	Tornado (F0)
Ottawa County Minneapolis	16	1405CST			0	0	3	3	Hail (1.00)
Gove County 1 S Gove	16	1415CST			0	0	0	0	Funnel Cloud
Cheyenne County 8 NE Wheeler	16	1418CST	7.0	20	0	0	0	0	Tornado (F0)

A tornado moved northeast across open country and did little or no damage, and then lifted 15 miles northeast of Wheeler at 1425 CST.

Rush County 2 E Lacrosse	16	1430CST			0	0	4	4	Hail (1.75)
Russell County 1 N Bunker Hill	16	1435CST			0	0	4	4	Hail (1.75)
Finney County 2 S Holcomb	16	1436CST			0	0	0	0	Hail (0.75)
Russell County 5 N Russell	16	1440CST			0	0	3	3	Hail (1.00)
Haskell County 5 N Sublette	16	1440CST			0	0	0	0	Funnel Cloud
Rush County 5 E Liebenthal	16	1442CST			0	0	4	4	Hail (1.75)
Wichita County 1 S Leoti	16	1444CST			0	0	4	4	Hail (1.00)
Hodgeman County 12 NW Jetmore	16	1445CST			0	0	0	4	Hail (1.00)
Wichita County Marienthal	16	1453CST			0	0	4	4	Hail (1.00)
Finney County 8 SSW Garden City	16	1454CST			0	0	0	0	Hail (1.50)
Cloud County Miltonvale	16	1456CST			0	0	4	4	Hail (1.75)
Wichita County 5 SW Leoti	16	1500CST			0	0	4	4	Hail (1.50)
Finney County 1 W Garden City	16	1502CST			0	0	0	0	Hail (1.75)
Ness County 7 SE Ness City	16	1508CST			0	0	3	3	Hail (0.75)
Bourbon County 10 N Fort Scott	16	1515CST			0	0	0	0	Hail (0.75)
Clay County 1 S Clifton	16	1518CST			0	0	3	3	Hail (0.75)
6 W Clay Center	16	1522CST			0	0	0	0	Funnel Cloud

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## KANSAS Cont'd

Harper County Danville	16	1525CST			0	0	0	0	Hail (0.75)
Clay County 7 E Longford	16	1530CST			0	0	3	3	Thunderstorm Winds (G60)
Bourbon County 10 NNE Fort Scott	16	1534CST			0	0	0	0	Hail (1.00)
Clay County 5 E Clay Center	16	1545CST			0	0	0	0	Funnel Cloud
Rush County 2 W Lacrosse	16	1550CST			0	0	4	4	Hail (0.75)
Sumner County 1 WNW Conway Springs	16	1555CST	0.5	50	0	0	0	0	Tornado (F0)
Washington County Linn	16	1601CST			0	0	3	3	Hail (0.75)
Linn	16	1601CST			0	0	3	3	Thunderstorm Winds (G52)
Sherman County 8 NW Goodland	16	1607CST	1.0	10	0	0	0	0	Tornado (F0)
Sumner County 3 NE Conway Springs	16	1609CST	9.0	100	0	0	4	0	Tornado (F1)

A tornado damaged trees, outbuildings and electric lines as it traveled from 3 miles northeast of Conway Springs to 1.5 miles south of Clearwater. The tornado lifted at 1625 CST.

Rush County 2 S Lacrosse	16	1612CST			0	0	0	0	Hail (0.75)
Sherman County 15 NW Goodland	16	1612CST	1.0	10	0	0	0	0	Tornado (F0)
Washington County 5 NE Clifton	16	1615CST			0	0	3	3	Hail (0.75)
Sherman County Ruleton	16	1615CST			0	0	4	4	Hail (1.00)
Washington County 3 E Greenleaf	16	1616CST			0	0	3	3	Hail (1.00)
Graham County 9 SE Hill City	16	1618CST			0	0	4	4	Hail (1.75)
Cloud County 2 E U.S. Highway 81 & KS Highway 24	16	1620CST			0	0	3	3	Hail (0.75)
Sedgwick County 2 E Clearwater	16	1625CST	20.0	200	0	0	6	0	Tornado (F3)

A tornado touched down in Sumner County and lifted near the county line. A second tornado touched down 2 miles east of Clearwater at 1625 CST and traveled to 9 miles southeast of Wichita. It danced across the southern sections of the Wichita metropolitan area damaging at least 20 homes and causing almost \$1 million in property damage. What is ironic about this tornado is that as it came through Sedgwick County it almost mirrored the track of the violent tornado that had occurred just three weeks earlier on April 26th.

Riley County 4 NW Leonardville	16	1626CST			0	0	0	0	Funnel Cloud
Hamilton County 2 W Syracuse	16	1627CST			0	0	0	4	Hail (0.75)
Sherman County 7 N Ruleton	16	1630CST	1.0	10	0	0	0	0	Tornado (F0)
8 N Goodland	16	1632CST			0	0	4	0	Hail (1.00)
Marshall County Waterville	16	1635CST			0	0	0	0	Thunderstorm Winds (G55)
Barton County									

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			K I L O M E T E R S	I N J U R I E S	P R O P E R T Y	S T R U C T U R E S	

## KANSAS Cont'd

1 W Great Bend	16	1638CST	2.0	100	0	0	3	3	Tornado (F1)
2 W Hoisington	16	1638CST	2.0	100	0	0	4	3	Tornado (F1)
Hamilton County									
5 W Syracuse	16	1640CST			0	0	0	0	Hail (1.75)
Marshall County									
6 S Marysville	16	1655CST			0	0	0	0	Hail (1.50)
Barton County									
Galatia	16	1700CST			0	0	4	4	Hail (1.75)
Rawlins County									
15 SW Atwood	16	1700CST			0	0	3	3	Hail (0.75)
Sedgewick County									
10 ESE Wichita	16	1701CST			0	0	4	0	Hail (4.00)

There were numerous reports of golf ball- to baseball-size hail.

Barton County	16	1706CST			0	0	3	3	Hail (1.00)
5 N Hoisington									
Russell County									
5 E Milberger	16	1711CST			0	0	4	4	Hail (1.75)
Barton County									
5 N Hoisington	16	1712CST	1.0	50	0	0	4	3	Tornado (F0)

A thunderstorm spawned three small tornadoes near Great Bend and Hoisington. Most of the damage was confined to trees and a few outbuildings.

Russell County	16	1714CST			0	0	3	3	Hail (0.75)
10 S Russell									
Barton County									
1 W Hoisington	16	1715CST			0	0	4	4	Hail (1.75)
5 W Claflin	16	1715CST			0	0	3	3	Hail (1.00)
Butler County									
1 E Andover	16	1715CST			0	0	3	0	Hail (1.75)
5 ESE Andover	16	1720CST	1.0	50	0	0	0	0	Tornado (F0)

Spotters continued to follow the parent thunderstorm after the Sedgewick County tornado lifted 9 miles southeast of Wichita.

1 S Augusta	16	1725CST	1.0	50	0	0	0	0	Tornado (F0)
Barton County									
5 NE Ellinwood	16	1728CST	1.0	50	0	0	3	3	Tornado (F0)
Russell County									
2 S Dorrance	16	1730CST			0	0	4	4	Hail (1.75)
1 W Bunker Hill	16	1735CST			0	0	3	3	Hail (0.75)
Butler County									
El Dorado	16	1742CST			0	0	5	0	Hail (4.50)

Hail, ranging from golf ball- to grapefruit-size, pounded the city causing extensive damage to buildings and vehicles.

Rice County	16	1745CST	1.0	50	0	0	3	3	Tornado (F0)
6 N Chase									
Butler County									
7 S Potwin	16	1745CST	1.0	50	0	0	0	0	Tornado (F0)
2 E Towanda	16	1749CST			0	0	3	0	Hail (1.75)
Rawlins County									
Atwood	16	1800CST			0	0	3	3	Hail (0.75)
Haskell County									
7 S Satana	16	1803CST			0	0	0	0	Funnel Cloud

Meade County



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## KANSAS Cont'd

10 N Plains	16	1817CST			0	0	0	5	Hail (1.00)
Nickel-size hail damaged wheat, milo, and alfalfa crops.									
Clay County Wakefield	16	1820CST			0	0	3	3	Hail (0.75)
Butler County 10 N El Dorado	16	1820CST	1.0	50	0	0	0	0	Tornado (F0)
Clay County Fact	16	1830CST			0	0	4	3	Thunderstorm Winds (G60)
Riley County 2 E Leonardville	16	1830CST			0	0	0	0	Thunderstorm Winds (G60)
Clay County Clay Center	16	1837CST			0	0	4	3	Thunderstorm Winds (G60)
Marshall County Blue Rapids	16	1840CST			0	0	0	4	Hail (1.00)
Frankfort	16	1845CST			0	0	0	4	Hail (1.50)
Greenwood County Teterville	16	1850CST			0	0	0	0	Hail (0.75)
Sherman County 12 SE Goodland	16	1915CST			0	0	3	3	Hail (0.75)
Ottawa County 5 E Bennington	16	1930CST			0	0	3	3	Hail (0.75)
Greenwood County Teterville	16	1930CST			0	0	0	0	Thunderstorm Winds (G58)
Dickinson County 2 NW Abilene	16	1935CST			0	0	4	3	Thunderstorm Winds (G65)
Severe thunderstorms moved across north-central and central Kansas in the late afternoon and evening. Several farm building were damaged northwest of Abilene.									
Ottawa County Bennington	16	1940CST			0	0	3	3	Thunderstorm Winds (G60)
Thomas County 4 E Brewster	16	1943CST			0	0	3	3	Hail (0.75)
Lyon County Emporia	16	1955CST			0	0	4	0	Hail (1.00)
Geary County 5 S Junction City	16	2000CST			0	0	0	0	Hail (1.50)
Lyon County Olpe	16	2000CST			0	0	0	3	Hail (1.00)
Riley County Manhattan	16	2000CST			0	0	3	0	Thunderstorm Winds (G52)
Thunderstorm winds uprooted trees and damaged homes and power lines with gusts near 60 mph.									
Lyon County Neosho Rapids	16	2005CST			0	0	0	0	Hail (0.75)
Osage County Osage City	16	2030CST			0	0	0	0	Hail (0.75)
Melvern Lake	16	2035CST			0	0	0	0	Funnel Cloud
Coffey County 4 NE Burlington	16	2040CST			0	0	0	0	Thunderstorm Winds (G60)
Large hail damaged crops near Burlington and a 63-mph gust was reported at the Wolf Creek Power Plant.									
4 NE Burlington	16	2040CST			0	0	0	3	Hail (1.00)
Pottawatomie County									

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## KANSAS Cont'd

Havensville	16	2040CST			0	0	4	0	Wind Damage
A large tree was blown down and destroyed a shed. Other outbuildings were blown down in the area and near Onaga.									
Wamego	16	2045CST			0	0	0	0	Thunderstorm Winds (G52)
Douglas County	16	2110CST			0	0	0	0	Hail (1.00)
Eudora									Small tree limbs and lawn furniture were blown around by wind gusts to near 50 mph that accompanied the hail.
Nemaha County	16	2130CST			0	0	5	0	Wind Damage
Goff									In Goff, the roofs were torn off the American Legion and the City Hall buildings. A brick wall on the northern side of the bank collapsed. Witnesses reported seeing a car lifted up and a large section of the American Legion roof slid underneath.
Douglas County	16	2145CST			0	0	0	0	Hail (1.50)
Clinton Lake									
Chase County	16	2210CST			0	0	0	0	Hail (0.75)
Clements									
Marshall County	16	2210CST			0	0	0	0	Hail (1.50)
3 SE Marysville									
Nemaha County	16	2230CST			0	0	0	3	Hail (1.00)
Centralia									
Seward County	21	1900CST			0	0	7	0	Flash Flood
Liberal									Stationary thunderstorms dumped 8.00 inches of rain in 6 hours on Liberal, causing the worst flood in 45 years. More than 35 homes were damaged and many people had to be temporarily relocated. The Red Cross provided assistance and some residents could only be reached by boat. Special pumping equipment was brought in to remove the water. Fish, mostly catfish, were being caught in the streets. The flood waters remained until 1300 CST on the 23rd.
Morton County	23	1608CST			0	0	0	0	Hail (0.75)
1 S Elkhart									
5 NNE Elkhart	23	1625CST			0	0	0	0	Funnel Cloud
1.25 S Elkhart	23	1710CST			0	0	0	0	Funnel Cloud
Hamilton County									
Syracuse	23	1730CST			0	0	4	5	Hail (0.75)
Syracuse	23	1730CST			0	0	4	5	Thunderstorm Winds (G60)
Only minor property damage was reported, however, 2000 acres of crop land suffered 90 percent loss due to the hail and strong winds.									
Grant County	23	1825CST			0	0	0	0	Thunderstorm Winds (G60)
15 NE Ulysses									
Finney County	23	1843CST			0	0	0	0	Funnel Cloud
Garden City									
Garden City	23	1845CST			0	0	4	0	Hail (1.00)
Morton County									
Elkhart	24	1510CST			0	0	3	0	Hail (1.00)
4 SSW Rolla	24	1522CST			0	0	0	0	Hail (1.00)
Stanton County									
3 WSW Johnson	24	1550CST			0	0	0	0	Hail (1.75)
Morton County									
4 SSW Rolla	24	1612CST			0	0	0	0	Hail (1.50)
Stanton County									

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## KANSAS Cont'd

7 S Johnson	24	1640CST			0	0	5	5	Hail (1.75)
Golf ball-size hail covered the road south of Johnson and in the city of Johnson.									
Morton County									
1 S Rolla	24	1755CST			0	0	0	4	Hail (1.75)
Ford County									
1 S Dodge City	24	1911CST			0	0	0	0	Thunderstorm Winds (G60)
Gray County									
Cimarron	24	1915CST			0	0	0	0	Thunderstorm Winds (G60)
Cimarron	24	1915CST			0	0	4	0	Hail (0.75)
Gusty thunderstorm winds damaged some trees and hail dented cars in Cimarron.									
Stevens County									
Hugoton	24	1925CST			0	0	0	0	Hail (1.75)
Clark County									
2 E Minneola	24	1928CST			0	0	0	0	Hail (0.75)
Hodgeman County									
14 WNW Jetmore	24	1940CST			0	0	0	0	Thunderstorm Winds (G55)
Stevens County									
Moscow	24	1945CST			0	0	0	0	Thunderstorm Winds (G55)
Haskell County									
10 N Sublette	24	2020CST			0	0	0	4	Hail (1.75)
Two fields were partially destroyed by the large hail.									
Shawnee County									
3 SW Auburn	25	1600CST			0	0	5	0	Thunderstorm Winds (G70)
A mobile home was destroyed with debris thrown from southwest to northeast. There was no one home at the time of the storm, and there were no injuries.									
Pauline	25	1600CST			0	0	0	0	Hail (0.75)
Douglas County									
Baldwin	25	1630CST			0	0	0	0	Hail (1.00)
Eudora	25	1635CST			0	0	4	0	Thunderstorm Winds (G60)
Strong winds blew fences over and knocked down some trees on the southern side of Eudora.									
Reno County									
Sylvia	26	0747CST			0	0	0	0	Hail (0.75)
Barton County									
1 N Great Bend	26	0748CST			0	0	3	3	Hail (0.75)
Clafin	26	0811CST			0	0	4	4	Hail (1.75)
Reno County									
10 WSW Nickerson	26	0815CST			0	0	0	0	Hail (0.75)
Rice County									
2 N Lyons	25	0836CST			0	0	4	4	Hail (1.75)
Ellsworth County									
Lorraine	26	0840CST			0	0	3	3	Hail (0.75)
Rice County									
10 E Lyons	26	0900CST			0	0	3	3	Hail (0.75)
McPherson County									
McPherson	26	0929CST			0	0	3	3	Hail (0.75)
Canton	26	0945CST			0	0	4	4	Hail (1.75)
Canton	26	0950CST			0	0	3	3	Hail (1.75)
Canton	26	1000CST			0	0	4	4	Flash Flood

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## KANSAS Cont'd

Severe thunderstorm produced large hail and heavy rain. Two to three inches of rain fell across Rice, southern Ellsworth, and McPherson Counties.

Marion County 4 SW Lehigh	26	1000CST			0	0	0	0	Hail (0.75)
Shawnee County 1 S Auburn	26	1135CST			0	0	0	0	Hail (1.00)
3 NE Auburn	26	1135CST			0	0	0	0	Thunderstorm Winds (G65)

Strong winds knocked down trees in southern Shawnee County.

Douglas County 10 SW Lawrence	26	1140CST			0	0	0	0	Thunderstorm Winds (G65)
Osage County Melvern Lake	26	1145CST			0	0	0	0	Thunderstorm Winds (G65)
Shawnee County 5 SE Topeka	26	1150CST			0	0	0	0	Thunderstorm Winds (G60)
Douglas County Lawrence	26	1200CST			0	0	4	0	Wind Damage

Large trees were blown down, windows broken and roofs damaged as winds over 60 mph blasted through Lawrence. One large tree crashed through the roof of a duplex, but there were no injuries.

Baldwin	26	1205CST			0	0	4	0	Thunderstorm Winds (G58)
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Trees and power lines were downed by thunderstorm winds.

Franklin County Ottawa	26	1214CST			0	0	4	0	Thunderstorm Winds (G60)
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Thunderstorm winds blew a shed over on Sand Creek Road west of Ottawa. Trees and power lines were blown down in Ottawa.

Leavenworth County Southern Portion	26	1220CST			0	0	0	0	Thunderstorm Winds (G60)
Wyandotte County	26	1220CST			0	0	4	0	Thunderstorm Winds (G70)

Strong thunderstorm winds blew trees and power lines down all over Wyandotte County.

Johnson County Gardner	26	1225CST			0	0	3	0	Thunderstorm Winds (G65)
Wyandotte County Kansas City	26	1245CST			0	0	4	0	Thunderstorm Winds (G70)

The roof was blown off a brick building with half the roof found later on an adjacent street.

Johnson County Overland Park	26	1250CST			1	0	3	0	Thunderstorm Winds (G65)
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Strong thunderstorm winds blew several trees down across Johnson County. A large tree fell on an automobile, killing the man inside. (M23V)

Leavenworth County 1 W Tonganoxie	26	1255CST			0	0	5	0	Thunderstorm Winds (G70)
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Strong winds blew the roof off two buildings and damaged some farm vehicles.

Butler County 1 E Towanda	26	1553CST			0	0	0	0	Hail (1.75)
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# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME		LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL	STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## KANSAS Cont'd

Benton	26	1553CST			0	0	0	0	Hail (1.75)
1 W El Dorado	26	1625CST			0	0	0	0	Hail (2.50)
Stanton County									
8 NE Johnson	26	1632CST			0	0	0	4	Hail (1.75)
Grant County									
3 WNW Ulysses	26	1655CST	15.0	400	0	0	4	0	Tornado (F1)

A tornado traveled east-northeast to 10 miles north-northeast of Hickok. The tornado was about 0.25-mile wide, but relatively weak. A shed, windmill and damage to the roof of a pump house. The tornado was seen from as far away as Gray County, about 50 miles east.

5 N Ulysses	26	1708CST			0	0	0	0	Hail (1.75)
Butler County									
Elbing	26	1720CST			0	0	0	0	Hail (1.75)
7 NW El Dorado	26	1805CST	3.0	50	0	0	0	0	Tornado (F0)

A tornado traveled from 7 miles northwest of El Dorado at 1805 CST, to 10 miles northwest of El Dorado at 1818 CST. This was one of two small tornadoes that developed from the same parent thunderstorm.

Sherman County									
Kanarado	26	1810CST			0	0	5	5	Hail (2.50)
Kanarado	26	1812CST			0	0	5	5	Hail (3.00)
Edwards County									
2 SE Belpre	26	1815CST			0	0	0	0	Hail (1.00)
Stafford County									
10 S St. John	26	1816CST			0	0	0	4	Hail (1.00)
Sherman County									
7 SW Goodland	26	1818CST			0	0	0	0	Funnel Cloud
Ruleton	26	1818CST			0	0	0	0	Hail (0.75)
7 SW Goodland	26	1820CST			0	0	5	5	Hail (2.00)
6 S Ruleton	26	1822CST			0	0	5	5	Hail (2.00)
6 SSW Ruleton	26	1822CST			0	0	5	5	Hail (2.50)
9 S Ruleton	26	1825CST	1.0	50	0	0	0	0	Tornado (F0)

Another small tornado touched down briefly, but caused no damage.

Stafford County									
10 S St. John	26	1827CST			0	0	0	4	Hail (1.75)
Sumner County									
Caldwell	26	1832CST			0	0	0	0	Hail (0.75)
Sherman County									
8 SSW Goodland	26	1835CST			0	0	0	0	Funnel Cloud
Sedgwick County									
Clearwater	26	1839CST			0	0	0	0	Hail (1.00)
Sherman County									
3 S Goodland	26	1840CST	1.0	50	0	0	0	0	Tornado (F0)
Goodland	26	1841CST			0	0	0	0	Hail (0.75)
Kingman County									
Cunningham	26	1845CST			0	0	0	0	Hail (3.00)
Sherman County									
Goodland	26	1851CST			0	0	0	0	Hail (1.00)
Pottawatomie County									
Westmoreland	26	1855CST			0	0	0	0	Hail (1.00)
Sumner County									
3 S Clearwater	29	1900CST			0	0	0	0	Hail (0.75)
Reno County									
Sylvia	26	1902CST			0	0	0	0	Hail (0.75)
Arlington	26	1904CST			0	0	0	0	Hail (1.75)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## KANSAS Cont'd

**Butler County**  
 El Dorado Lake    26 1905CST    4.0    50    0    0    0    0    Tornado (F0)

Witnesses counted as many as eight small tornadoes that came from the same parent thunderstorm. However, only two of the tornadoes reflected an actual beginning and ending point.

**Barton County**  
 Ellinwood    26 1910CST                0    0    3    3    Hail (0.75)

**Stafford County**  
 9 SE Macksville    26 1915CST                0    0    0    4    Hail (1.75)

**Sherman County**  
 6.5 SW Goodland    26 1923CST                0    0    0    0    Hail (1.25)

**Reno County**  
 1 W Partridge    26 1957CST                0    0    0    0    Hail (0.75)  
 2 W Willowbrook    26 2004CST                0    0    0    0    Funnel Cloud

**Gove County**  
 Grinnel    26 2015CST                0    0    4    5    Hail (3.00)

**Stafford County**  
 10 NE St. John    26 2019CST                0    0    0    4    Hail (2.50)

**Dickinson County**  
 Herington Lake    26 2020CST                0    0    3    3    Thunderstorm Winds (G52)

**Reno County**  
 1 S Hutchinson    26 2025CST                0    0    0    0    Hail (0.75)

**Butler County**  
 Chelsea    26 2030CST    0.5    50    0    0    3    0    Tornado (F0)

A small tornado took the roof off the fire department building.

**Chase County**  
 Cedar Point    26 2030CST                0    0    0    0    Hail (0.75)  
 Matfield Green    26 2033CST                0    0    0    0    Hail (0.75)

**Greenwood County**  
 11 NW Eureka    26 2055CST                0    0    0    0    Thunderstorm Winds (G60)

A sheriff's car was blown off the road.

**Reno County**  
 Nickerson    26 2125CST                0    0    0    0    Hail (0.75)

**Butler County**  
 1 E Cassoday    26 2130CST                0    0    0    0    Flash Flood

Six inches of rain fell in one hour, flooding roads and a campground.

**Rice County**  
 Sterling    26 2135CST                0    0    3    3    Hail (0.75)

**Reno County**  
 4 N Hutchinson    26 2135CST                0    0    0    0    Hail (1.75)  
 6 S Sterling    26 2135CST                0    0    0    0    Hail (0.75)

**Sheriden County**  
 5 N Parks    26 2140CST                0    0    0    3    Hail (1.00)

**Rice County**  
 3 E Sterling    26 2145CST                0    0    3    3    Hail (0.75)

**Sterling**  
 26 2145CST                0    0    3    3    Hail (1.00)

**Logan County**  
 Oakley    26 2147CST                0    0    0    0    Hail (0.75)

**Gove County**  
 4 S Grainfield    26 2148CST                0    0    4    5    Hail (1.50)  
 Quinter    26 2150CST                0    0    4    5    Hail (1.25)  
 Quinter    26 2200CST                0    0    4    5    Hail (3.00)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD				KILLED	INJURED	PROPERTY	CROPS	

## KANSAS Cont'd

Trego County Collyer	26	2201CST			0	0	3	4	Hail (1.50)
McPherson County Inman	26	2204CST			0	0	3	3	Hail (0.75)
Rice County Sterling	26	2205CST			0	0	3	3	Hail (1.00)
Reno County 6 S Inman	26	2205CST			0	0	0	0	Hail (0.75)
6 S Sterling	26	2205CST			0	0	0	0	Hail (1.00)
Trego County Voda	26	2220CST			0	0	0	0	Hail (0.75)
Osborne County Natoma	26	2225CST			0	0	4	4	Hail (1.75)
Trego County 5 S Wakeeney	26	2240CST			0	0	3	4	Hail (1.50)
Russell County Waldo	26	2302CST			0	0	3	3	Hail (0.75)
Luray	26	2305CST			0	0	4	4	Hail (1.75)
Lake Wilson	26	2324CST			0	12	5	2	Thunderstorm Winds (G61)

Severe thunderstorms produced high winds that overturned several campers at the Lake Wilson Campground. Twelve people received minor injuries during the incident.

Ellis County 8 SSE Ellis	26	2339CST			0	0	3	4	Hail (1.50)
Russell County Dorrance	26	2345CST			0	0	4	4	Hail (2.75)
Ellis County 9 S Victoria	27	0005CST			0	0	3	4	Hail (1.50)
Ellsworth County 4 SE Wilson	27	0010CST			0	0	3	3	Thunderstorm Winds (G52)
Morris County Council Grove	27	0215CST			0	0	5	0	Thunderstorm Winds (G80)

Wind gusts were recorded at the Council Grove Reservoir, but only minor damage was reported.

Osage County Overbrook	27	0345CST			0	0	0	0	Thunderstorm Winds (G60)
Douglas County Clinton Lake	27	0303CST			0	0	0	0	Thunderstorm Winds (G65)
Shawnee County Auburn	27	0235CST			0	0	0	0	Thunderstorm Winds (G58)
Sherman County 5 E Kanarado	28	1700CST			0	0	0	0	Funnel Cloud
Kanarado	28	1710CST			0	0	5	5	Hail (0.75)
Cheyenne County 8 W St. Francis	28	1720CST			0	0	0	0	Funnel Cloud
Sherman County 3 N Ruleton	28	1720CST			0	0	0	0	Funnel Cloud
12 NW Goodland	28	1730CST			0	0	5	4	Hail (0.75)
Goodland (GLD)	28	1737CST			0	0	5	4	Thunderstorm Winds (G77)

The roof of a mobile home was blown off, several trees were blown onto roofs, and power lines were blown down.

Goodland	28	1745CST			0	0	5	4	Hail (0.75)
Cheyenne County Bird City	28	1800CST			0	0	3	3	Hail (0.75)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## KANSAS Cont'd

**Wallace County**  
12 S Sharon Springs  
28 1825CST 1.0 50 0 0 0 0 Tornado (F0)  
A small tornado touched down in an open field.

**Thomas County**  
2 E Brewster  
**Hamilton County**  
6 S Syracuse  
**Stanton County**  
14 NW Johnson  
**Decatur County**  
8 SW Oberlin  
28 1830CST 0 0 0 0 Thunderstorm Winds (G58)  
28 1835CST 0 0 0 0 Thunderstorm Winds (G60)  
28 1840CST 0 0 0 0 Thunderstorm Winds (G60)  
28 1845CST 0 0 4 0 Thunderstorm Winds (G58)

Several homes sustained roof damage and broken windows in and near Oberlin.

**Oberlin**  
**Stanton County**  
Northwestern Corner  
**Hamilton County**  
Syracuse  
**Logan County**  
10 S Russell Springs  
**Stanton County**  
Manter  
**Osborne County**  
Osborne  
6 S Osborne  
5 S Osborne  
28 1845CST 0 0 4 0 Thunderstorm Winds (G58)  
28 1857CST 0 0 0 0 Thunderstorm Winds (G70)  
28 1900CST 0 0 0 0 Thunderstorm Winds (G60)  
28 1925CST 0 0 3 0 Thunderstorm Winds (G65)  
28 1955CST 0 0 0 0 Hail (1.00)  
28 2210CST 0 0 3 3 Thunderstorm Winds (G60)  
28 2228CST 0 0 4 4 Hail (2.75)  
28 2245CST 0 0 4 4 Hail (1.75)

Large hail and strong winds produced damage to homes in and near Osborne.

**Barton County**  
Galatia  
**Ellis County**  
Schoenchen  
**Meade County**  
9 SW Meade  
**Russell County**  
1 S Russell  
**Meade County**  
Fowler  
Fowler  
**Stevens County**  
Hugoton  
**Russell County**  
7 SW Russell  
Paradise  
Luray  
Waldo  
**Ford County**  
3 S Dodge City  
29 1607CST 0 0 4 4 Hail (1.25)  
29 1625CST 0 0 4 4 Hail (0.75)  
29 1634CST 0 0 0 0 Hail (1.00)  
29 1638CST 0 0 3 3 Hail (0.75)  
29 1640CST 0 0 0 5 Hail (1.00)  
29 1640CST 0 0 0 5 Thunderstorm Winds (G60)  
29 1652CST 0 0 0 0 Thunderstorm Winds (G60)  
29 1657CST 0 0 4 4 Hail (1.75)  
29 1702CST 0 0 4 4 Hail (1.75)  
29 1707CST 0 0 3 3 Hail (0.75)  
29 1707CST 0 0 4 4 Hail (1.75)  
29 1708CST 0 0 5 5 Hail (2.00)

A severe thunderstorm made its way through west-central Ford County dropping 2.00-inch-diameter hail. The first hail report was at 1708 CST of 1.00-inch hail, 3 miles south Dodge City. At 1712 CST, golf ball-size hail fell in the southern part of Dodge City. At 1714 CST, the National Weather Service Office in Dodge City reported 2.00-inch-diameter hail. The hail dented many cars and damaged farm crops.



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME		LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD				KILLED	INJURED	PROPERTY	CROPS	

## KANSAS Cont'd

Russell County										
2 S Russell	29	1715CST				0	0	4	4	Hail (1.75)
Russell Airport	29	1719CST				0	0	3	3	Hail (0.75)
1 NW Russell	29	1725CST				0	0	4	4	Hail (1.75)
3 S Russell	29	1725CST				0	0	3	3	Hail (0.75)
Osborne County										
8 S Osborne	29	1742CST				0	0	4	4	Hail (1.75)
Russell County										
Dorrance	29	1743CST				0	0	3	3	Hail (0.75)
Ford County										
Kingsdown	29	1745CST				0	0	0	0	Hail (1.50)
Osborne County										
2 E Osborne	29	1755CST				0	0	3	3	Hail (0.75)
Russell County										
Lake Wilson	29	1755CST				0	0	4	0	Thunderstorm Winds (G61)

Strong winds caused minor damage along the southern shore of Lake Wilson.

Osborne County										
Downs	29	1808CST				0	0	4	4	Hail (1.75)
Russell County										
Russell Airport	29	1808CST				0	0	4	0	Thunderstorm Winds (G80)
Finney County										
17 ENE Garden City	29	1810CST				0	0	0	0	Hail (1.00)
Hodgeman County										
8 S Jetmore	29	1811CST				0	0	0	0	Hail (0.75)
Rush County										
2 N Liehenthal	29	1815CST				0	0	0	0	Funnel Cloud
Lincoln County										
2 SE Sylvan Grove	29	1819CST				0	0	4	4	Hail (1.75)
Ellis County										
Schoenchen	29	1820CST				0	0	4	4	Hail (2.00)
Osborne County										
8 W Osborne	29	1825CST				0	0	4	4	Hail (1.75)
Russell County										
Russell	29	1825CST				0	0	3	3	Flash Flood

Flooding occurred between 1825 and 2000 CST.

Grant County										
2 W Ulysses	29	1827CST				0	0	0	4	Hail (1.75)
Ellsworth County										
5 N Ellsworth	29	1830CST				0	0	4	4	Hail (1.75)
Wilson	29	1835CST				0	0	3	3	Hail (0.75)
Smith County										
3 S Highways 9 and 281	29	1838CST				0	0	4	4	Hail (4.50)
Russell County										
6 S Russell	29	1840CST				0	0	3	3	Flash Flood

Two to three inches of rain fell across southern Russell County. A few roads were flooded for a short time in Russell, and Highway 281 was closed from 1840 CST to 0230 CST.

Ellis County										
5 SE Ellis	29	1840CST				0	0	0	0	Hail (0.75)
Lincoln County										
Denmark	29	1845CST				0	0	3	3	Hail (0.75)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## KANSAS Cont'd

Ness County									
Ness City	29	1850CST			0	0	3	3	Hail (0.75)
5 E Ness City	29	1910CST			0	0	0	0	Hail (0.75)
Ottawa County									
Delphos	29	1915CST			0	0	3	3	Thunderstorm Winds (G52)
Ness County									
5 N Bazine	29	1919CST			0	0	0	0	Hail (0.75)
Saline County									
1 N Brookville	29	1925CST			0	0	3	3	Thunderstorm Winds (G52)
Ottawa County									
Minneapolis	29	1940CST			0	0	3	3	Thunderstorm Winds (G60)
Kingman County									
Kingman	29	2143CST			0	0	0	0	Thunderstorm Winds (G60)
Reno County									
Hutchinson	29	2150CST			0	0	0	0	Hail (0.75)
Pretty Prairie	29	2210CST			0	0	3	0	Thunderstorm Winds (G60)

A milking shed was blown down.

Harvey County									
Burrton	29	2225CST			0	0	0	0	Thunderstorm Winds (G58)
Saline County									
Northwestern	30	0015CST			0	0	3	3	Flash Flood
Portion									
KSZ009-012-014									
Arlington	30	0315CST			0	0	5	0	High Winds (G80)
Hillsboro									

Nonconvective straight-line winds of 50 to 85 mph developed in a 20-mile-wide band. At 0346 CST, roofs were damaged in Hutchinson including the Quality Inn that sustained \$2,500 in damage. In Harvey County, there was extensive tree and power line damage in Burrton, Halstead, Hesston, and Newton between 0340 CST and 0420 CST. Twelve hundred homes were without power in Newton. Strong winds also caused tree and power line damage in Marion County at Burns, Peabody, and Hillsboro.

McPherson County									
McPherson	30	0420CST			0	0	3	3	Hail (0.75)
Pottawatomie County									
Wamego	31	0407CST			0	0	0	0	Hail (0.75)
Graham County									
Bogue	31	1945CST			0	0	3	3	Hail (1.75)

## KENTUCKY

Hardin County	14	1610EST			0	0	0	3	Hail (1.75)
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Tobacco crops were damaged in Hardin County.

Jefferson County	14	1715EST			1	2	0	0	Lightning
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A 37-year-old man, David Haney, was struck and killed by lightning while playing golf. Two other men were also knocked to the ground and injured. All three were standing under a tree with their umbrellas raised. (M370)

Laurel County	19	1130EST			0	0	4	3	Flash Flood
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Over 3.00 inches of rain fell in a short period of time, forcing creeks and streams out of their banks. Several homes and businesses in London were flooded, as well as many streets. One person had to be evacuated.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## KENTUCKY Cont'd

Rockcastle County	19	1130EST			0	0	4	4	Flash Flood
A storm dumped over 5.00 inches of rain around Mt. Vernon. Many homes and businesses reported damage from high water. In addition, over 200 acres of tobacco and 1,500 acres of corn were washed away.									
Clay County	19	1725EST			0	0	4	4	Flash Flood
Heavy rains flooded several homes and businesses in the Horse Creek and Big Creek areas. Tobacco crops in the area were also severely damaged.									
Bell County	19	1730EST- 1925EST			0	0	4	3	Flash Flood
Flood waters forced the closing of several streets and roads in the Middlesboro area. Many crops in the area were also flooded and one woman had to be evacuated from her house.									
Perry County	19	1830EST			0	0	3	0	Flash Flood
High water closed several roads and streets in and around Ajax and Hardburley.									
Logan County	27	0030CST			0	0	3	0	Flash Flood
Heavy thunderstorms flooded parts of Kentucky Highway 431 between Russellville and Adairville with 8 inches of water.									

## LOUISIANA

Madison Parish	01	0000CST-							
	31	2400CST			0	0	6	7	Flood
West Carroll Parish	01	0000CST-							
	31	2400CST			0	0	5	7	Flood
East Carroll Parish	01	0000CST-							
	31	2400CST			0	0	?	?	Flood
Tensas Parish	01	0000CST-							
	31	2400CST			0	0	5	7	Flood
Morehouse Parish	01	0000CST-							
	31	2400CST			0	0	6	7	Flood
Richland Parish	01	0000CST-							
	31	2400CST			0	0	6	7	Flood
Franklin Parish	01	0000CST-							
	31	2400CST			0	0	?	?	Flood
Caldwell Parish	01	0000CST-							
	31	2400CST			0	0	?	?	Flood
Quachita Parish	01	0000CST-							
	31	2400CST			0	0	7	6	Flood
Union Parish	01	0000CST-							
	31	2400CST			0	0	7	5	Flood
Webster Parish	01	0000CST-							
	31	2400CST			0	0	5	?	Flood
Winn Parish	01	0000CST-							
	31	2400CST			0	0	5	?	Flood
Natchitoches Parish	01	0000CST-							
	31	2400CST			0	0	5	?	Flood
Rapides Parish	01	0000CST-							
	31	2400CST			0	0	6	6	Flood

Torrential rains of 6.00 to 12.00 inches fell over a large area of central and northeastern Louisiana on April 27th and 28th. This deluge occurred in an area that was swamped with 15.00 to 20.00 inches of rain during April. As a consequence, major rivers, such as the Quachita in

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## LOUISIANA Cont'd

northeastern Louisiana and the Little River in central Louisiana, were already in flood. In addition, the Red, Quachita, and Black Rivers reached flood stages on May 2nd and 3rd, respectively. Considerable backwater flooding resulted as the numerous tributaries of these rivers tried to drain. Many areas of northeastern and central Louisiana remained flooded until the latter part of May. A parish-by-parish damage summary follows based on a disaster survey conducted by the Louisiana Office of Emergency Preparedness, unless otherwise stated:

**Madison Parish:** Seventy-one homes and five businesses were flooded in the towns of Tallulah, Richmond, and Waverly. Total losses to private and public (such as roads, bridges, drainage systems) property was \$1,753,000. In addition, some 122,000 acres of farmland was inundated for an additional loss of \$12 million.

**West Carroll Parish:** One hundred thirty-nine homes were flooded by backwater flooding from Bayou Boeuff, mainly near Goodwill. Total private and public losses were \$450,000. Some 54,000 acres of farmland were inundated for a further loss of \$5,400,000.

**East Carroll Parish:** Newspaper accounts indicated that about 100 homes were flooded in the Lake Providence area and in the southern part of this parish. Some 75,000 acres of farmland were inundated. No damage estimates were available.

**Tensas Parish:** Only three homes were flooded. Total private and public losses were \$83,000. Some 67,500 acres of farmland were inundated for an additional loss of \$6,750,000.

**Morehouse Parish:** Backwater flooding from Bayou Bartholomew, including the towns of Bonita and Galion, inundated 721 and 23 businesses were inundated by Total private and public losses were \$2,525,891. Some 257,800 acres of farmland were flooded in this largely agricultural parish for an additional loss of \$25,780,000.

**Richland Parish:** Backwater flooding by the Big Creek and Bayou Boeuff inundated 410 homes and 9 businesses, mainly in the towns of Rayville and Delhi. Total private and public losses were \$587,190. Some 124,000 acres of farmland were flooded for an additional loss of \$12,400,000.

**Franklin Parish:** Newspaper accounts indicate that backwater flooding inundated about 100 homes along the Big Creek, Boueff River, Turkey Creek Lake, and Bayou Madison. In addition, some 50,000 acres of farmland was flooded. No damage estimates were available.

**Caldwell Parish:** Newspaper accounts indicated flooding along the Quachita River and Bayou Lafourche inundating about 300 homes south of Columbia and near Herbert. In addition, some 24,000 acres of farmland was flooded. No damage estimates were available.

**Quachita Parish:** A record crest on the Quachita River at Monroe of 50.5 feet occurred on May 3rd and 4th. This was responsible for the severe residential flooding in Monroe where 2,123 homes were inundated. Total private and public losses were \$17,277,980. In addition, some 31,350 acres of farmland were flooded for a further loss of \$3,135,000.

**Union Parish:** In the Farmerville, Lake D'Arbonne area, 316 homes were flooded. Total private and public losses were \$18,122,562. In addition, some 3,000 acres of farmland were inundated for a further loss of \$300,000.

**Webster Parish:** In the Lake Bistineau area, 133 homes were flooded. Total private and public losses were \$446,377. In addition, some 30,000 acres of farmland were flooded.

**Winn Parish:** Forty-seven homes and one business were inundated in the Saline Lake area for a loss of \$215,000.

**Natchitoches Parish:** In the Black Lake and Clear Lake areas, in the northeastern part of the parish, 39 homes and 29 businesses were flooded for a loss of \$156,000.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## LOUISIANA Cont'd

Rapides Parish: Backwater flooding from Bayous Rapides and Rigolette inundated 257 homes. Total private and public losses were \$646,600. In addition, some 46,000 acres of farmland were inundated for a further loss of \$4 million.

<b>Asecnsion Parish Gonzales</b>	01	1705CST		0	0	3	?	<b>Severe Thunderstorm Hail (1.75)</b>
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A severe thunderstorm produced golf ball-size hail near Gonzales.

<b>East Baton Rouge Parish Zachary</b>	02	2100CST-						
<b>Baker</b>		2300CST		0	0	5	0	<b>Flash Flood</b>
<b>Zachary</b>	02	2300CST		0	0	4	0	<b>Thunderstorm Winds</b>
<b>Baker</b>	02	2300CST		0	0	4	0	<b>Thunderstorm Lightning</b>

A cluster of thunderstorms produced 3.00 to 5.00 inches of rain in the towns of Zachary and Baker, which flooded about a dozen homes and four businesses. In Zachary, strong winds blew a chimney down, tore a roof off a barn, and turned over an unoccupied mobile home. In Baker, lightning caused a \$20,000 fire.

<b>Caddo Parish 2 E Rodessa</b>	03	0450CST		0	0	0	2	<b>Thunderstorm Winds Hail (0.75)</b>
<b>Bossier Parish Bollinger</b>	03	0502CST		0	0	?	?	<b>Thunderstorm Winds Hail (1.00)</b>
<b>Caddo Parish Blanchard</b>	03	0512CST		0	0	?	3	<b>Thunderstorm Winds</b>
<b>Desoto Parish 4 NE Logansport</b>	03	0520CST		0	0	?	?	<b>Thunderstorm Winds (G50) Hail (1.75)</b>
<b>Webster Parish Cotton Valley</b>	03	0523CST		0	0	?	?	<b>Thunderstorm Winds</b>
<b>Dixie Inn</b>	03	0523CST		0	0	?	2	<b>Thunderstorm Winds Hail (1.00)</b>
<b>5 N Minden</b>	03	0552CST		0	0	?	2	<b>Thunderstorm Winds Hail (1.75)</b>
<b>DeSoto Parish Keachie</b>	03	0610CST		0	0	?	?	<b>Thunderstorm Winds Hail (0.90)</b>
<b>Caddo Parish 4 SW Shreveport Airport</b>	03	0610CST		0	2	4	0	<b>Thunderstorm Winds</b>
<b>Greenwood</b>	03	0612CST		0	0	4	0	<b>Thunderstorm Winds Hail (1.75)</b>
<b>Shreveport</b>	03	0632CST		0	0	7	0	<b>Severe Thunderstorm Winds (G76)</b>

A rapidly moving thunderstorm produced straight-line wind damage in the Shreveport area. Wind shear equipment at the Shreveport Airport recorded a 76-knot gust at 0632 CST. The strong winds destroyed four hangars and heavily damaged four others. Twelve airplanes and two helicopters were parked in the hangars at the time. In another area, strong winds tore the roof off an apartment building and overturned a mobile home.

<b>Shreveport</b>	03	0640CST		0	0	4	0	<b>Thunderstorm Winds</b>
<b>Shreveport</b>	03	0643CST		0	0	?	0	<b>Thunderstorm Winds Hail (1.00)</b>

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## LOUISIANA Cont'd

Bossier Parish									
Bossier City	03	0645CST			0	0	?	3	Thunderstorm Winds (G63)
Caspiana	03	06a46CST			0	0	3	?	Thunderstorm Winds (G52)
Caddo Parish									
Shreveport	03	0648CST			0	0	?	0	Thunderstorm Winds (G57)
Downtown Airport									
Shreveport	03	0650CST			0	0	2	0	Thunderstorm Winds Hail (0.90)
Bossier Parish									
Barksdale Air Force Base	03	0652CST			0	0	0	2	Thunderstorm Winds (G53)
Claiborne Parish									
1 S Haynesville	03	0720CST			0	0	2	0	Thunderstorm Winds
5 W Homer	03	0720CST			0	0	?	0	Thunderstorm Winds Hail (0.90)
DeSoto Parish									
Evelyn	03	0722CST			0	0	0	2	Thunderstorm Winds
Grand Cane	03	0722CST			0	0	?	2	Thunderstorm Winds
Webster Parish									
Sarepta	03	0727CST			0	0	0	2	Thunderstorm Winds
5 SW Sibley	03	0728CST			0	0	0	3	Thunderstorm Winds
Heflin	03	0728CST			0	0	?	0	Thunderstorm Winds Hail (1.75)
Red River Parish									
Armistead	03	0729CST			0	0	2	0	Thunderstorm Winds
Claiborne Parish									
Athens	03	0732CST			0	0	2	0	Thunderstorm Winds Hail (1.75)
Bienville Parish									
Bryceland	03	0740CST			0	0	3	3	Thunderstorm Winds
Liberty Hill	03	0740CST			0	0	3	3	Thunderstorm Winds
Lincoln Parish									
Dubach	03	0810CST			0	0	3	0	Thunderstorm Winds Hail (2.00)
Ruston	03	0812CST			0	0	0	?	Thunderstorm Winds (G53)
Union Parish									
Haile	03	0815CST			0	0	?	0	Thunderstorm Winds (G53)
Morehouse Parish									
Bastrop	03	0825CST			0	0	5	?	Thunderstorm Winds Hail (1.00)
Ouachita Parish									
Calhoun	03	0840CST			0	0	?	2	Thunderstorm Winds (G57)
Jackson Parish									
Chatam	03	0842CST			0	0	2	2	Thunderstorm Winds
Richland Parish									
15 WNW Alto	03	0903CST			0	0	2	3	Thunderstorm Winds

A squall line of numerous severe thunderstorms moved rapidly east across northern Louisiana producing widespread wind damage and several reports of 1.00- to 2.00-inch hail. Straight-line winds blew down numerous trees and power lines. Two people were injured in Shreveport when strong winds overturned an 80-foot mobile home; in addition, the roofs of two Shreveport apartment complexes were damaged by straight-line winds. Two mobile homes were damaged by thunderstorm winds just south of Bastrop and several barns were hit by falling trees in Bryceland and Liberty Hill.

Sabine Parish									
Zwolle	03	2037CST			0	0	?	?	Thunderstorm Winds Hail (1.75)
1 W Many	03	2040CST			0	0	0	3	Thunderstorm Winds

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## LOUISIANA Cont'd

A severe thunderstorm produced golf ball-size hail near Zwolle and blew down numerous trees and dropped 1.00-inch hail just west of Many.

**2 S Zwolle**      **03 2100CST**      **0 0 4 4**      **Severe Thunderstorm Wind**

A severe thunderstorm uprooted about 60 trees 2 miles south of Zwolle on U.S. Highway 171. A 50-foot oak tree was blown down on top of a mobile and a nearby parked car.

**Natchitoches Parish Melrose**      **03 2130CST**      **0 0 ? 3**      **Thunderstorm Winds**

A thunderstorm blew down many trees near Melrose.

**Ouachita Parish Monroe**      **03 2130CST**      **0 0 3 0**      **Thunderstorm Lightning**

Lightning struck the roof of a Monroe home causing \$800 damage.

**Madison Parish Waverly**      **03 2225CST**      **0 0 ? ?**      **Thunderstorm Winds Hail (1.00)**

A severe thunderstorm produced 1.00-inch hail in Waverly.

**Grant Parish Colfax**      **03 2300CST**      **0 0 4 ?**      **Severe Thunderstorm Winds**  
**1 N Pollack**      **03 2315CST**      **0 0 4 ?**      **Severe Thunderstorm Winds**  
**Lasalle Parish Nebo**      **03 2335CST**      **0 0 5 ?**      **Severe Thunderstorm Winds**  
**Rodgers**

A severe thunderstorm moved rapidly across southern Grant and Lasalle Parishes downing many trees and causing widespread property damage. Several homes in Colfax, north of Pollack, Nebo and Rodgers were damaged when strong winds blew large trees on top of them.

**Rapides Parish Tioga**      **03 2330CST**      **0 0 4 0**      **Thunderstorm Lightning**

Lightning struck a home and set it ablaze near Tioga.

**Morehouse Parish Mer Rouge**      **04 0020CST**      **0 0 0 2**      **Thunderstorm Winds**  
**West Carroll Parish Darnell**      **04 0020CST**      **0 0 3 2**      **Thunderstorm Winds**

A severe thunderstorm blew down several trees in Mer Rouge and damaged a mobile home in Darnell.

**Franklin Parish Wisner**      **04 0036CST**      **0 0 4 2**      **Thunderstorm Winds**

A severe thunderstorm blew down several trees which fell down on top of some homes in Wisner.

**East Carroll Parish Roosevelt**      **04 0048CST**      **0 0 3 0**      **Thunderstorm Winds**

A severe thunderstorm damaged a cotton gin and overturned two cotton trailers near Roosevelt.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CRODAS	

## LOUISIANA Cont'd

Madison Parish Waverly	04	0054CST			0	0	0	0	Thunderstorm Winds
A thunderstorm produced penny-size hail near Waverly.									
Allen Parish Elizabeth	04	0148CST	0.2	18	0	0	4	4	Tornado (F0)
Rapides Parish 5 S Glenmore	04	0200CST			0	0	4	4	Severe Thunderstorm Winds
Beauregard Parish Deridder	04	0300CST			0	0	4	4	Severe Thunderstorm Winds
5 E Deridder	04	0400CST			0	0	4	4	Severe Thunderstorm Winds
Allen Parish 2 W Kinder	04	0400CST			0	0	4	4	Severe Thunderstorm Winds

A line of numerous thunderstorms extended from just south of Alexandria in Rapides Parish to near Deridder in Beauregard Parish at 0100 CST. Thunderstorms moved rapidly east along the squall line while it drifted slowly south over the next several hours. A severe thunderstorm associated with the squall line produced a small tornado which destroyed a mobile home and took the roof off a nearby building in Elizabeth. The same thunderstorm moved into southern Rapides Parish blowing down many trees at 0200 CST. There were two more incidents of trees being blown down between 0300 and 0400 CST; the first occurred 5 miles east of Deridder and the second 2 miles west of Kinder.

Bossier Parish Bolinger	04	2025CST			0	0	0	2	Thunderstorm Winds (G54)
Caddo Parish Shreveport	04	2025CST			0	0	0	2	Thunderstorm Winds (G50)
DeSoto Parish 3 E Logansport	04	2055CST			0	0	?	0	Thunderstorm Winds Hail (1.00)
Mansfield	04	2120CST			0	0	?	0	Thunderstorm Winds Hail (0.90)
Red River Parish Lake End	04	2125CST			0	0	0	3	Thunderstorm Winds
Armistead	04	2125CST			0	0	2	0	Thunderstorm Winds Hail (0.90)
Webster Parish Shongaloo	04	2132CST			0	0	0	2	Thunderstorm Winds (G55)
Sabine Parish Converse	04	2132CST			0	0	?	2	Thunderstorm Winds Hail (0.90)
Claiborne Parish 12 SE Homer	04	2133CST			0	0	2	?	Thunderstorm Winds Hail (1.00)
Red River Parish Hall Summit	04	2215CST			0	0	4	3	Thunderstorm Winds
Natchitoches Parish 4 SW Hanna	04	2238CST			0	0	0	3	Thunderstorm Winds
Sabine Parish Converse	04	2240CST			0	0	?	0	Thunderstorm Winds Hail (1.00)
Bienville Parish 3 S Bryceland	04	2253CST			0	0	3	0	Thunderstorm Winds Hail (1.75)
Jackson Parish Clay	04	2305CST			0	0	2	0	Thunderstorm Winds Hail (1.00)



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## LOUISIANA Cont'd

A line of numerous severe thunderstorms moved east, around 30 mph, across northern Louisiana producing scattered wind damage and numerous reports of 1.00- to 2.00-inch hail. The hardest hit areas included Hall Summit, where numerous trees were blown down and a mobile home was damaged, and southwest of Hanna where strong winds damaged a barn.

Morehouse Parish Mer Rouge	05	0020CST			0	0	0	2	Thunderstorm Winds
West Carroll Parish Darnell	05	0020CST			0	0	3	2	Thunderstorm Winds

A severe thunderstorm blew down several trees in Mer Rouge and damaged a mobile home in Darnell.

Franklin Parish Wisner	05	0036CST			0	0	4	2	Thunderstorm Winds
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A severe thunderstorm blew down several trees which fell down on top of some homes in Wisner.

Calcasieu Parish Moss Bluff	05	0040CST			0	0	0	0	Severe Thunderstorm Hail (0.75)
East Carroll Parish Roosevelt	05	0048CST			0	0	3	0	Thunderstorm Winds

A severe thunderstorm damaged a cotton gin and overturned two cotton trailers near Roosevelt.

Madison Parish Waverly	05	0054CST			0	0	0	0	Thunderstorm Winds Hail (0.75)
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A thunderstorm produced penny-size hail near Waverly.

Calcasieu Parish Vinton	05	0230CST			0	0	0	0	Severe Thunderstorm Hail (0.75)
5 S Lake Charles	05	0305CST			0	0	4	0	Severe Thunderstorm Hail (1.75)
5 S Lake Charles	05	0320CST			0	0	4	0	Lightning
Iowa	05	0345CST	0.2	18	0	0	3	0	Tornado (F0)
Jefferson Davis Parish Jennings	05	0402CST			0	0	3	0	Severe Thunderstorm Hail (0.75)
Acadia Parish Crowley	05	0440CST			0	0	3	0	Severe Thunderstorm Hail (1.75)
Lafayette Parish Milton	05	0450CST			0	0	3	0	Severe Thunderstorm Hail (1.75)
Youngville	05	0515CST			0	0	3	0	Severe Thunderstorm Hail (1.75)

Clusters of severe thunderstorms moved rapidly east, across the parishes of southwestern Louisiana during the early morning producing numerous report of large hail. A lightning strike put two holes in the Lake Charles Airport runway. Finally, a small tornado downed power lines near Iowa.

East Carroll Parish Tallulah	05	1040CST			0	0	?	0	Thunderstorm Winds Hail (0.90)
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# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## LOUISIANA Cont'd

A several thunderstorm produced nickle-size hail in Tallulah.

<b>Allen Parish</b> 5 NE Kinder	05	1420CST			0	0	3	?	Severe Thunderstorm Hail (0.75)
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A severe thunderstorm produced 0.75-inch hail 5 miles northeast of Kinder on U.S. Highway 165. The hail forced a deputy sheriff from Allen Parish to pull off the road.

<b>Calcasieu Parish</b> Moss Bluff	05	1805CST			0	0	3	0	Severe Thunderstorm Hail (1.00)
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<b>Allen Parish</b> 1 SW Oakdale	05	1835CST			0	0	3	0	Severe Thunderstorm Hail (0.75)
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<b>Rapides Parish</b> Lecompte	05	1900CST			0	0	3	0	Severe Thunderstorm Hail (1.75)
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<b>Avoyelles Parish</b> Marksville	05	1950CST			0	0	3	0	Severe Thunderstorm Hail (1.75)
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<b>Catahoula Parish</b> 1 SW Jonesville	05	2015CST			0	0	3	0	Severe Thunderstorm Hail (2.00)
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<b>Tensas Parish</b> Waterproof	05	2058CST			0	0	?	0	Thunderstorm Winds Hail (1.75)
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A severe thunderstorm produced golf ball-size hail in Waterproof.

<b>St. Joseph</b>	05	2105CST			0	0	0	0	Severe Thunderstorm Hail (0.75)
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An area of scattered thunderstorms formed in southwestern and central Louisiana. As the thunderstorms moved rapidly east, there were numerous reports of large hail.

<b>St. Mary Parish</b>	08	0100CST-			0	0	5	5	Flood
	16	2400CST							

<b>St. Martin Parish</b>	08	0100CST-			0	0	6	5	Flood
	16	2400CST							

<b>Assumption Parish</b>	08	0100CST-			0	0	?	?	Flood
	16	2400CST							

<b>Ascension Parish</b>	08	0100CST-			0	0	?	?	Flood
	22	2400CST							

<b>Livingston Parish</b>	08	0100CST-			0	0	5	?	Flood
	23	2400CST							

<b>St. James Parish</b>	08	0430CST-			0	0	5	5	Flood
	23	2400CST							

<b>St. John the Baptist Parish</b>	08	0430CST-			0	0	5	4	Flood
	23	2400CST							

<b>St. Charles Parish</b>	08	0630CST-			0	0	6	?	Flood
	23	2400CST							

<b>Lafourche Parish</b>	08	0330CST-			0	0	5	?	Flood
	23	2400CST							

<b>Terrebonne Parish</b>	08	0330CST-			0	0	7	5	Flood
	23	2400CST							

Successive waves of numerous thunderstorms produced 8.00 to 14.00 inches of rain in a 48-hour period in an area bounded by the following parishes: St. Charles, Lafourche, St. Mary, and Livingston. The bulk of the rain fell during the nighttime and early morning hours of May 8th

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## LOUISIANA Cont'd

and 9th. Persistent onshore flow and swollen rivers and bayous from previous heavy rains since January kept flood waters in many areas for a week or more. A parish-by-parish damage summary based on a survey conducted by the Louisiana Office of Emergency Preparedness follows unless otherwise indicated:

**St. Mary Parish:** Sixty-nine homes were flooded, primarily in the Morgan City, Berwick, and Amelia area. Total private and public losses were \$165,000. In addition, some 2,500 acres of farmland were inundated for an additional loss of \$250,000.

**St. Martin Parish:** In the lower St. Martin near the Lake Parlourde area, 205 homes and 10 businesses were flooded. Total private and public losses were \$1,689,038. In addition, some 4,000 acres of farmland were inundated for a further loss of \$400,000.

**Assumption Parish:** Newspaper accounts indicated that about 100 homes flooded in the town of Pierre Part and along Bayou L'Ourse. No damage estimates were available.

**Ascension Parish:** Newspaper accounts indicated that about 125 homes were flooded. No damage estimates were available.

**Livingston Parish:** Thirty-three homes were flooded for a loss of \$88,500.

**St. James Parish:** Twenty-nine homes and one business were flooded in the Vacherie area. Total private and public losses were \$98,625. In addition, some 3,500 acres of farmland were inundated for a loss of \$350,000.

**St. John the Baptist Parish:** In the Reserve area, primarily, 68 homes and 2 businesses were flooded. Total private and public losses were \$185,000. In addition, some 240 acres of farmland were inundated for a loss of \$24,000.

**St. Charles Parish:** Fifty-three homes were flooded for a loss of \$804,800.

**Lafourche Parish:** Newspaper accounts indicated that 112 homes were flooded, primarily in the Raceland, Chackbay, and Thibodaux areas. Estimated private and public losses were \$455,000.

**Terrebonne Parish:** Widespread flooding in this parish, left 807 homes and 20 businesses flooded. The hardest hit areas include the towns of Houma and Gibson. Total private and public losses were \$9,404,100. In addition, some 1,000 acres of farmland were flooded for a loss of \$100,000.

**St. Mary Parish  
1 S Centerville**

08 0600CST 1.5 30 0 1 4 0 Waterspout  
Tornado (F1)

A waterspout moved ashore near Centerville and followed an intermittent path as a tornado. The tornado damaged the roofs of two buildings at the Columbia and Cabot Company near Centerville. Flying debris injured a woman as she tried to run to her car in a nearby parking lot. The tornado overturned a loaded tractor-semitrailer.

**St. James Parish  
Vacherie**

08 0700CST 0 0 4 3 Severe Thunderstorm Winds

A severe thunderstorm uprooted many trees and damaged the roofs of some homes and businesses in Vacherie.

**Lafourche Parish  
Chackbay**

08 0825CST 1.0 30 0 0 4 ? Tornado (F1)

A tornado damaged a store roof, blew away an adjacent shed, and damaged a mobile home in Chackbay.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## LOUISIANA Cont'd

**Jefferson Parish**  
6 N Metairie      08 0813CST      0   0   0   0      **Severe Thunderstorm Winds (G50)**

**St. Tammany Parish**  
3 S Mandeville      08 0813CST      0   0   0   0      **Waterspout**

A severe thunderstorm produced a 50-knot gust at the middle Lake Pontchartrain wind instrument, located on the Causeway Bridge. The Causeway police report that a waterspout moved across the bridge about 3 miles south of Mandeville. No damage was observed.

**Calcasieu Parish**  
Starks      08 1540CST      0.2      20      0   0   0   0      **Tornado (F0)**

A pilot observed a small tornado near Starks.

**Cameron**      08 1740CST      0   0   ?   ?      **Severe Thunderstorm Winds (G58)**

**Cameron**      08 1825CST      0.1      20      0   0   ?   ?      **Tornado (F0)**

**Jefferson Davis Parish**  
Jennings      08 1914CST      0.1      20      0   0   4   0      **Tornado (F0)**

An area of numerous thunderstorms moved through southwestern Louisiana. A 58-knot gust was observed at the Petroleum Helicopter Company base in Cameron. The Cameron Parish Sheriff reported that a small tornado damaged some buildings in Cameron around 1825 CST. In Jennings, a tornado destroyed a mobile home and three cars parked nearby.

**Jefferson Parish**  
6 N Metairie      09 1110CST      0   0   0   0      **Severe Thunderstorm Winds (G60)**

A severe thunderstorm produced a 50-knot wind gust at the middle Lake Pontchartrain wind instrument, on the Causeway Bridge.

**St. Tammany Parish**  
SE Slidell      10 0000CST-  
15 2400CST      0   0   6   ?      **Flood**

The Pearl River, at the town of Pearl River, crested at 18.5 feet on May 12th and 13th. This produced considerable backwater flooding in the River Gardens and Magnolia Forest subdivisions southeast of the Slidell city limits. Eighty-two homes were inundated for loss of \$768,000.

**East Baton Rouge Parish**  
Baton Rouge      10 0915CST      0   1   0   0      **Thunderstorm Lightning**

A man was struck by lightning as he was walking to his office building. Fortunately, he survived with minor injuries.

**Caddo Parish**  
Shreveport  
Airport      14 1500CST      0   0   3   0      **Severe Thunderstorm Hail (1.00)**

A severe thunderstorm produced 1.00-inch hail at the Shreveport Airport and between 1.00 and 2.00 inches of rain in less than 2 hours in the Shreveport area.

**Lafayette Parish**  
2 NW Lafayette      15 0400CST      0.2      20      0   0   5   0      **Tornado (F0)**

A small tornado damaged two mobile homes near Lafayette.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROSSLS	

## LOUISIANA Cont'd

Lafayette           15 0815CST                           0 0 5 0    Severe Thunderstorm Winds

A severe thunderstorm in Lafayette blew down many trees, damaged roofs, and blew several mobile homes off their foundations.

St. Tammany Parish	22 0000CST-								
	27 2400CST				0	0	?	?	Tidal Flood
Orleans Parish	22 0000CST-								
	26 2400CST				0	0	?	?	Tidal Flood
St. Bernard Parish	22 0000CST-								
	26 2400CST				0	0	?	?	Tidal Flood
Tangipahoa Parish	22 0000CST-								
	27 2400CST				0	0	?	?	Tidal Flood

Persistent easterly winds of 20 to 30 knots produced tidal flooding in areas outside the hurricane protection levees in Orleans and St. Bernard Parishes, and in the low-lying unprotected areas of the following parishes bordering Lake Pontchartrain: St. Tammany, St. Charles, and Tangipahoa. A parish-by-parish summary follows:

St. Tammany Parish: Tidal flooding inundated streets of the Palm Lake subdivision in southern Slidell. A few businesses were flooded along Lake Drive in Mandeville. In Madisonville, Lake Road was damaged by tidal flooding.

Orleans Parish: U.S. Highways 90 and 11 were flooded in eastern New Orleans outside of the hurricane protection levee.

St. Bernard Parish: Louisiana Highway 46 was inundated outside of the hurricane protection levee. However, only one house was flooded.

St. Charles Parish: Tidal flooding forced water over U.S. Highway 61 near St. Rose on the eastern bank of St. Charles Parish forcing police to close it to traffic at times. Two homes and four mobile homes were flooded along Bayou Gauche, and in the Des Allemandes area on the western bank of this parish.

Tangipahoa Parish: Several homes and businesses were flooded in the Manchac area.

Orleans Parish           21 0000CST-  
28 2400CST                           0 0 0 0    Flood

Fifty inches of rain fell in the New Orleans area since January. A significant portion of this rain became trapped in eastern New Orleans between the hurricane protection levee system and the Maxtent Levee on the western edge of the Bayou Sauvage Wildlife Refuge area. Persistent easterly winds of 20 to 30 knots during this period blew some of this impounded rainwater out of the refuge and onto Interstate 10. Police were forced to close three out of the six lanes to traffic for the first time since the interstate was built in 1967.

Concordia Parish  
  Ferriday           29 1615CST   1.0   25   0 0 5 0    Tornado (F1)

A tornado did \$100,000 damage to the roof of the Ferriday High School.

## MAINE

Kennebec County									
Monmouth	02 1730EST				0	0	?	0	Lightning
Piscataquis County									
Guilford	02 1800EST				0	0	?	0	Lightning
Franklin County									
Farmington	02 2230EST				0	0	?	0	Lightning

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CORPS	

## MAINE Cont'd

Lightning from a thunderstorm interrupted phone service to 500 customers in the Monmouth area at 1830 EST. Lightning struck a switch on a substation of the Central Maine Power Company and 3,000 to 5,000 people were without electrical service from 1900 to 2300 EST in the Guilford area. Lightning struck the Farmington Outdoor Power Company in Farmington at 2330 EST and started a fire on the roof. Damage was still being assessed.

MEZ010  
Southern Maine

12 1300EST-1700EST 0 0 ? 0 Winds

An intense low pressure system over the Gulf of St. Lawrence produced strong surface winds across southern Maine. Strong winds knocked down a large branch of a birch tree in Lewiston which fell over onto the electrical and telephone wires and interrupted electrical services in the area.

York County  
Lebanon

17 1720EST 0 0 ? 0 Thunderstorm Winds

Thunderstorm winds knocked trees down in the town of Lebanon.

York County  
Countywide  
York

17 1750EST 0 0 ? 0 Thunderstorm Winds  
17 1750EST 0 0 ? 0 Lightning

Thunderstorm winds blew trees down across a road in the town of York and two houses in York were also struck by lightning.

## MARYLAND and D.C.

Garrett County  
Friendsville  
Oakland

06 1325EST 0 0 4 0 Thunderstorm Winds

The county fire and rescue staff reported trees down in the Friendsville area and power outages due to the downed lines in Oakland.

Allegheny County  
Cumberland

06 1345EST-1430EST 0 0 4 0 Thunderstorm Winds

The county fire and rescue staff reported power outages due to many downed trees. In Cumberland, strong winds caused a wall of a body shop to collapse, destroying one vehicle and damaging three others. Winds were reported at 55 mph (48 knots) at Cumberland Airport (CBE).

Allegheny County  
Washington County  
Hagerstown  
Hagerstown  
2 SSW Hagerstown  
2 S Hagerstown  
7 WNW  
Hagerstown

06 1355EST 0 0 0 0 Hail (1.00)  
06 1430EST 0 0 0 0 Hail (1.75)  
06 1430EST-1515EST 0 2 5 0 Thunderstorm Winds (G50)

Trees and power lines were downed in several places within Hagerstown. A cooperative observer recorded winds to 55 mph, but estimated that winds were higher elsewhere in the area. The roof was blown off a building just south-southwest of the center of town and was tossed 100 feet causing damage to a house, three cars, and other structures. Maryland State Police reported a tractor-semitrailer driver was slightly injured when his rig was overturned by strong winds on Interstate 81 about 2 miles south of Hagerstown Airport (HGR). Some 4,000 homes lost power during the storm. About 7 miles west-northwest of Hagerstown, a resident reported damage to his house's roof, three large trees downed, and his motorcycle thrown into a fence, as a result of what he thought might have been a tornado. One of his daughters was outside and clung to a tree to avoid being blown away by strong winds.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## MARYLAND and D.C. Cont'd

<b>Allegany County</b> 1 SW Frostburg	06	1454EST			0	0	0	0	<b>Thunderstorm Winds (G67)</b>  Winds were recorded at 77 mph (67 knots) at Frostburg State College.
<b>Washington County</b> Hagerstown	06	1500EST			0	0	0	0	<b>Hail (1.00)</b>
<b>Frederick County</b> Emmitsburg	06	1520EST- 1600EST			0	1	5	0	<b>Thunderstorm Winds (G61)</b>  The Frederick County Emergency Operations Center reported trees and power lines down. Winds were reported gusting to 70 mph in the northwestern part of the county. In Emmitsburg, winds blew the roof off two buildings and damaged eight others. Many large trees were uprooted; one woman was injured by a falling tree. City officials estimated damage to buildings of at least \$100,000. Almost the entire city's water supply was interrupted for a day after a tree, whose roots were wrapped around an 8-inch line, was toppled.
<b>Carroll County</b> Millers	06	1600EST			0	0	4	0	<b>Thunderstorm Winds (G53)</b>  Many large trees and power lines were blown down in the northeastern part of the county by strong winds that were recorded to 60 mph (53 knots), at Millers.
<b>Montgomery County</b> Potomac	06	1610EST			0	0	4	0	<b>Thunderstorm Winds</b>  Trees and power lines were blown down.
<b>Hartford County</b> Jarrettsville Whiteford	06	1620EST			0	0	4	0	<b>Thunderstorm Winds (G70)</b>  Trees falling onto power lines caused outages to some 2,000 customers. At Jarrettsville, several homes suffered roof damage. Reports of a tornado could not be confirmed, although winds were estimated to be at least 80 mph. At Whiteford, several trees fell onto a pickup truck.
<b>Howard County</b> Lisbon	06	1620EST			0	0	4	0	<b>Thunderstorm Winds</b>  At Lisbon, a barn, containing several tons of hay, was destroyed by high winds. The winds also caused power outages to about 3,900 customers throughout the county.
<b>Baltimore County</b> Baltimore	06	1630EST			0	0	5	0	<b>Thunderstorm Winds</b>  More than 12,000 customers lost power overnight due to numerous trees and limbs falling onto power lines.
<b>Cecil County</b>	06	1630EST- 1930EST			0	0	3	0	<b>Thunderstorm Winds</b>  Trees and power lines were downed at many locations in the county. Fire department personnel responded to several fires caused by trees falling across power lines during a 3-hour thunderstorm. About 4,000 customers lost power for varying lengths of time.
<b>Anne Arundel County</b> South River	06	1700EST			0	0	3	0	<b>Thunderstorm Winds (G53)</b>  Winds estimated up to 60 mph (53 knots) tossed around boats that were tied down. Some 1,400 customers lost power because of the storm.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## MARYLAND and D.C. Cont'd

<b>Charles County</b>		06 1700EST			0	0	0	0	<b>Thunderstorm Winds</b> Several trees were blown down.
<b>Cecil County Elkton North East</b>		06 1725EST			0	0	0	0	<b>Funnel Cloud</b> A severe weather spotter, at Elkton, reported a funnel cloud. Other unconfirmed funnel clouds were reported around North East.
<b>Caroline County</b>		06 1730EST			0	0	0	0	<b>Thunderstorm Winds</b> County officials reported a few trees blown down.
<b>Queen Anne's County</b>		06 1730EST			0	0	4	0	<b>Thunderstorm Winds</b> State Police reported trees downed at several locations.
<b>District of Columbia 1 SW Chillum</b>		06 1830EST			0	0	0	0	<b>Thunderstorm Winds</b> Trees were blown down in the extreme northeastern part of the District.
<b>Prince Georges County Beltsville</b>		06 1830EST			0	0	0	0	<b>Thunderstorm Winds</b> Several trees were downed in Beltsville and elsewhere in the county.
<b>Kent County Fairlee</b>		13 1635EST			0	0	3	0	<b>Thunderstorm Winds (G50)</b> Winds were estimated at over 50 mph by a severe weather spotter. A large flagpole was bent almost horizontal by the winds.
<b>Cecil County Chesapeake City</b>		13 1636EST			0	0	4	0	<b>Thunderstorm Winds (G50)</b> Winds estimated in excess of 50 mph blew trees onto a mobile home.
<b>District of Columbia</b>		17 1550EST			1	10	0	0	<b>Lightning</b> Strong thunderstorms interrupted a lacrosse championship game between city prep schools. As the storms developed, many people took shelter under large trees. Eleven people were injured when lightning struck a tree. One of them, a 15-year-old boy, died the next day. Four of those struck sustained serious injuries. (M150)
<b>St. Marys County Patuxent River Naval Air Station</b>		17 1900EST			0	0	3	0	<b>Lightning</b> Lightning struck the National Weather Service radar at Patuxent River Naval Air Station, causing damage and rendering the radar inoperable for several days.
<b>Montgomery County 3 SW Potomac</b>		29 1400EST			1	0	0	0	<b>Heat</b> A man was found by police in Great Falls Park (3 miles southwest of Potomac) unconscious from heat exhaustion; he died of cardiac arrest. The temperature at Washington, DC, that day reached 97° equaling the record high for May. (M350)



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## MARYLAND and D.C. Cont'd

**Anne Arundel County**      30 1930EST-2000EST      0   0   4   0      **Lightning**  
 An electrical storm knocked out power to almost 10,000 homes. A residence was damaged by a lightning strike.

**Kent County Kennedyville**      30 2030EST      0   0   4   0      **Thunderstorm Winds**  
 Kent County Civil Defense Director reported several trees downed, a large barn was destroyed, and several other farm buildings were damaged.

## MASSACHUSETTS

**Berkshire County Great Barrington**      17 1545EST-1630EST      0   0   ?   0      **Thunderstorm Winds**  
**Berkshire County North Adams**      17 1700EST-1745EST      0   0   4   0      **Thunderstorm Winds**  
 Trees and large limbs were blown down in separate storms in Berkshire County. There were also scattered power outages.

**Worcester County Athol**      17 1700EST      0   0   4   0      **Thunderstorm Winds**  
 Four trees were blown down and numerous power outages occurred.

**Hampshire County**      17 1725EST-1800EST      0   0   4   0      **Thunderstorm Winds**  
 Trees and limbs were blown down in Huntington, Granby, Ware, Russell and Belchertown with scattered power outages.

**Hampden County**      17 1725EST-1800EST      0   0   4   0      **Thunderstorm Winds**  
 In Easthampton, a tree fell on a house causing moderate damage. A number of trees were reported down in Southampton, Monson, Wilbraham, and Holyoke with scattered power outages.

**Middlesex County Countywide**      17 1725EST-1745EST      0   0   4   0      **Thunderstorm Winds**  
 Tree limbs and a few trees were knocked down in the northern Middlesex County towns of Groton and Tyngsboro with scattered power outages.

**Dracut**      17 1730EST      0   0   ?   0      **Lightning**  
 Lightning struck and damaged a chimney.

**Hampshire County Williamsburg**      17 1730EST      0   0   4   0      **Lightning**  
 A bolt of lightning hit a repair shop resulting in a fire which destroyed the building and a truck that was inside.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CRODSS	

## MASSACHUSETTS Cont'd

<b>Berkshire County Richmond</b>	30	1553EST			0	0	4	0	Thunderstorm Winds
									Trees and power lines were knocked down.
<b>Great Barrington Monterey</b>	30	1630EST- 1645EST			0	0	2	0	Thunderstorm Winds (G60)
									Hundreds of trees were either blown down or snapped off mostly in the same direction from northwest to southeast along a path that was 4 to 5 miles long and from 0.25 to 0.50 mile wide, as revealed by a National Weather Service investigation. The damage was not continuous but included skips in the damage pattern. Only very minor property damage was noted.
<b>Countywide</b>	30	1613EST- 1800EST			0	0	5	0	Thunderstorm Winds
									Many trees and wires were blown down in the towns of Mill River, New Marlboro, Sheffield, Egremont, Southfield, Hartsville, and Montville. Scattered power outages were reported.
<b>New Marlboro Sheffield</b>	30 31	1600EST- 0400EST			0	0	7	0	Flash Flood
									Three thunderstorms produced 5.65 inches of rain between 1600 and 1700 EST resulting in severe flooding. Many roads and several bridges were washed out eventually isolating the villages of New Marlboro and Sheffield. About 89 miles of roads were damaged. Typical washouts ranged up to 8 feet deep and roads that were 25 feet wide were reduced to only 10 feet. Power outages were widespread and a state of emergency was declared. The flooding was the worst since 1955 and damage was estimated between \$5 to \$10 million. Road damage was reported in adjacent towns, but was much less severe.

## MICHIGAN

<b>Macomb County Mt. Clemens</b>	12	1630EST			0	0	0	0	Thunderstorm Winds (G51)
<b>Bay County SW Bay City</b>	13	1330EST			0	0	4	0	Thunderstorm Winds
									Strong thunderstorm winds uprooted several trees and a barn was blown down.
<b>Lanawee County Near Adrian</b>	13	1515EST			0	0	0	0	Thunderstorm Winds (G52)
									Wind gusts to 50 mph were reported near Adrian.
<b>Washtenaw County Milan</b>	13	1530EST- 1615EST			0	0	4	0	Thunderstorm Winds (G52) Flash Flood
									A strong thunderstorm crossed Washtenaw County during the late afternoon. Milan, in the southeastern corner of the county, was hit hardest. Wind gusts to 60 mph downed many trees and some power lines, plunging the town into darkness. The city council meeting was held in darkness due to the storm-related power outage. Enough trees fell so that several streets in the town of Milan were blocked. Heavy rain, 2.04 inches in 45 minutes, added to the traffic problems by flooding several intersections. Ten cars were stranded at the U.S. Highway 23 underpass due to the flooding.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## MICHIGAN Cont'd

**Wayne County Southern Portion** 13 1622EST-1800EST 0 0 4 0 **Thunderstorm Winds (G52) Flash Flood**

When the thunderstorms crossed Wayne County, the cities of Taylor and Southgate were the hardest hit. Wind gusts to 60 mph and flooding rain caused problems, similar to Milan an hour earlier. Many streets were impassable due to flooding. The combination of downed trees and power lines caused most of the area to be without power for several hours. Also, the traffic lights were knocked out for a few hours. The heavy rain caused the Frank and Poet Drain to overflow. Personal property damage was relatively small, considering the number of trees and power lines down, and the street flooding that occurred.

**Romulus** 13 1705EST 0 0 0 0 **Hail (0.75)**

Nickel-size hail was reported at Detroit Metropolitan Airport.

**Calhoun County Homer** 14 1350EST 0 2 0 0 **Lightning**

Two eighth-grade students from Homer were hospitalized after lightning struck a nearby tree.

**Oakland County East-Central Portion** 24 1130EST-1200EST 0 2 4 0 **Thunderstorm Winds**

Strong winds blew down many trees and power lines in the cities of Auburn Hills and Rochester. Several homes sustained damage to roofs and walls, caused by trees falling on them. A few cars were crushed by falling trees. No major injuries were reported, although two people received minor injuries in one of the cars that was wrecked and refused medical attention. About 2,000 customers lost power across the county during the storms.

**Pontiac** 24 1134EST-1200EST 0 0 0 0 **Funnel Cloud**

A Federal Aviation Administration controller spotted a funnel cloud that came as close as 500 feet from the ground near Pontiac Airport.

**Genesee County** 24 1200EST 0 0 0 0 **Thunderstorm Winds**

Strong thunderstorm winds blew several trees down in many areas of the county.

**Sanilac County Roseburg** 25 1530EST-26 0630EST 0 0 4 ? **Flash Flood**

Heavy rain, which began late Saturday afternoon and ended during Sunday morning, caused significant flooding to farm fields in southern Sanilac County. Rainfalls of around 3.00 inches were reported. One farmer reported that his corn and soybean fields were under 2 feet of water.

**St. Clair County Northeastern Quarter of County** 25 1600EST-26 0630EST 0 0 4 0 **Flash Flood**

Very heavy rain, 2.00 to 4.00 inches, fell between Saturday afternoon and Sunday morning. This caused significant damage to many stores and a few churches. The heavy rain flooded the streets in the towns of Yale and Port Huron. Several stores reported water pouring in from the front and back of their buildings. Several churches reported flooding basements. The Yale Library had water pour in also, but no damage report was available.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## MICHIGAN Cont'd

**Monroe County**      25 1800EST-  
26 1800EST                      0   0   4   ?   Flood

Heavy rains, 2.50 to 3.50 inches, began falling around 1730 EST on the evening of the 25th, then continued intermittently until around 0300 EST on the morning of the 26th. The heavy rain was caused by a series of thunderstorms that kept developing over the same area, then dissipating as they moved east of Monroe County. This caused several small creeks to rise over their banks over the southeastern part of the county, which was where the heaviest rains fell. Water rose to 18 inches in some basements by Sunday morning. Other residents sandbagged their homes to keep the water from getting into their home. Around 0800 EST Sunday morning, two 8-year-old girls were swept down a flooded creek near the city of Monroe. An 11-year-old Boy Scout and his mother saw this event, and was able to pull the girls to safety from a bridge over the creek. Neither child was injured.

**Wayne County**  
**Middle River**  
**Rouge**                      25 2000EST-  
27 0900EST                      0   0   0   0   Flood

Heavy rains, 2.00 to 3.00 inches over a 24-hour period, on the 25th and 26th, caused the Middle Rouge River at Garden City to rise above its flood stage of 7 feet late Saturday night. It crested at 9.6 feet, 2.6 feet above flood stage, during Sunday morning. This caused the closing of Edward Hinges Parkway, a road that parallels the river. The river fell below flood stage on the morning of the 27th. No significant damage was reported.

**Berrien County**  
**Niles**                      26 1900EST-  
1925EST                      0   0   0   0   Funnel Cloud

The Michigan State Police reported sighting several funnel clouds in the Niles area, although no touchdowns were seen.

**Menominee County**    28 1415EST-  
1500EST                      0   0   4   0   Thunderstorm Winds

A line of severe thunderstorms moved eastward across the County at about 50 mph. Very strong winds blew trees and power lines down across the county as the line of thunderstorms moved through. Some of the towns with damage were Powers, Hermanville, and Menominee.

**1 W Swanson**  
**3 W Dagget**                28 1430EST-  
1455EST      10.0    150    0   0   5   ?   Tornado (F3)

The tornado touched down in an area that consisted mainly of farms. It moved northeast across a camp ground, where it continued before lifting 3 miles west of Dagget. No campers were injured. Damage was mostly to trees although several barns and a few storage sheds were destroyed. A mobile home was lifted off its foundation and moved several feet. The southern end of the roof of one home was lifted several inches and set back down. A poultry building was destroyed and a family car and garage were crushed when a large tree fell on them.

**1 NW Faithorn**  
**Hermansville**            28 1430EST-  
1440EST      12.0    80    0   0   5   0   Tornado (F2)

This tornado touched down in a main farming area, also. It traveled northeast, crossing mostly farm land. Several small buildings or storage sheds were destroyed. One barn had numerous pieces of machinery destroyed that included a one-ton truck, irrigation equipment, two farm tractors, a boat, and a hay baler. This tornado also did a small amount of damage to a mobile home and a garage when a tree fell on it. Many power lines were down.

**Otsego County**  
**Vanderbilt**                28 1615EST-  
1630EST                      0   0   4   0   Thunderstorm Winds

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## MICHIGAN Cont'd

Strong thunderstorm winds blew down trees that fell on a few homes causing roof damage. Power lines were also blown down.

**Presque Isle County**  
Onaway                    28 1630EST                    0   0   3   0   **Thunderstorm Winds**

Strong thunderstorm winds uprooted many trees near the town of Onaway.

**Wexford County**  
Cadillac                    28 1635EST                    0   0   3   0   **Thunderstorm Winds**

Strong thunderstorm winds blew several trees down, in and around the Cadillac area.

**Crawford County**                    28 1645EST-1715EST                    0   0   4   0   **Thunderstorm Winds**

Large trees and power lines were downed in many areas across the county.

**Montmorency County**                    28 1709EST                    0   0   4   0   **Thunderstorm Winds**

Strong thunderstorm winds downed numerous trees and power lines in many areas across the county.

**Cheboygan County**  
8 W Tower                    28 1715EST                    0   0   4   0   **Thunderstorm Winds**

Strong thunderstorm winds blew down many trees, destroyed a shed 8 miles west of Tower, and blew the roof off a mobile home. Marble-size hail was reported near the town of Tower during this time.

**Presque Isle County**  
Onaway                    28 1727EST                    0   0   3   0   **Thunderstorm Winds**

Another thunderstorm blew down more trees near the town.

**Ogemaw County**  
Northern Portion                    28 1740EST                    0   0   0   0   **Thunderstorm Winds (G52)**

The U.S. Forest Service reported wind gusts to 60 mph in the northern half of the county.

**Alpena County**  
Near Lachine                    28 1740EST-1750EST                    0   0   3   0   **Thunderstorm Winds**

Near the town of Lachine, strong thunderstorm winds destroyed a granary at Standen's Farm and a barn on Barry's Farm which is located west of M65 on route M32. In this area, many trees were also blown down; all of which were laying toward the southeast.

**Alpena**                    28 1750EST                    0   0   0   0   **Thunderstorm Winds**

Two trees were blown down at the Alpena Country Club.

**Roscommon County**  
Northern Shore of Houghton Lake                    28 1745EST                    0   0   0   0   **Hail (0.75)**

Large hail fell along the northern shore of Houghton Lake.

**Iosco County**  
Hale                    28 1810EST                    0   0   3   0   **Thunderstorm Winds**

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PERSONALTY	CROSSL	

## MICHIGAN Cont'd

Very strong thunderstorm winds blew down many trees and some power lines near the town of Hale. This caused a temporary loss of telephone service to the area.

**Tawas City**      28 1810EST                                      0   0   4   0      **Thunderstorm Winds**

Very strong thunderstorm winds also blew down trees and power lines in Tawas City.

**Oscoda County  
Near Comins**      28 1825EST                                      0   0   0   0      **Thunderstorm Winds**

Strong thunderstorm winds blew down many trees near the town of Comins.

**Alcona County  
Glennie**            28 1825EST                                      0   0   4   0      **Thunderstorm Winds**

Numerous trees and power lines were blown down in the town Glennie.

**Gladwin County  
12 NE Gladwin**      28 1830EST                                      0   0   0   0      **Thunderstorm Winds**

Very strong winds were reported, blowing down some branches and small trees. No damage was reported to personal property.

**Mecosta County  
Eastern Portion**      28 1845EST                                      0   0   4   0      **Thunderstorm Winds**

Strong thunderstorm winds blew several large trees and many smaller trees, branches, and power lines down across the eastern half of the county. Some damage was done to several homes, mostly to shingles and minor roof damage.

**Oceana County  
Near Hart**            28 1905EST      4.0      60      0   0   5   ?      **Tornado (F2)**

The tornado was spotted by a Hart policeman, who saw the touchdown over Gambles Orchards. The tornado moved to the north-northeast and then crossed the northwestern edge of the town where it ripped off the roof of a hardware store and destroyed a restaurant.

**Saginaw County  
Buena Vista**        28 1900EST                                      0   0   4   0      **Thunderstorm Winds**

Strong thunderstorm winds blew down trees and power lines.

**Huron County  
7 NW Bad Axe**      28 1910EST-  
1912EST      0.8      30      0   0   3   0      **Tornado (F1)**

A brief tornado touchdown was reported near Pinnebog and Richardson Road. The tornado destroyed a 10- by 50-foot mobile home and a shed. The mobile home was lifted and turned 90°, then set down 50 feet away. No one was in the mobile home at the time. However, several witnesses from nearby homes did see the tornado touch down. Shortly after that, the tornado dissipated. Some damage was also done to some large trees when the tornado first touched down.

**Tuscola County  
Northeastern  
Portion**            28 1920EST                                      0   0   4   0      **Thunderstorm Winds**

Trees and power lines were blown down by strong thunderstorm winds. A gust of 53 mph was measured at Caro.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## MICHIGAN Cont'd

<b>Huron County</b> Port Hope	28	1955EST			0	0	0	0	Hail (0.75)
<b>Tuscola County</b> Southern Quarter of County	28	2005EST			0	0	0	?	Flash Flood
Torrential rain caused about 50 percent of the farm fields to be under water. Significant damage was done to some crops, but no damage estimate was available.									
<b>Sanilac County</b> Sandusky	28	2010EST			0	0	0	0	Hail (0.75)
4 E Sandusky	28	2010EST			0	0	0	0	Thunderstorm Winds
Large trees were blown down 4 miles east of Sandusky.									
<b>Applegate</b>	28	2010EST			0	0	0	0	Thunderstorm Winds
Many trees were blown down in the town of Applegate; however, no property damage was reported.									
<b>St. Clair County</b> Near Yale	28	2115EST			0	0	3	0	Hail (0.88) Thunderstorm Winds
Strong thunderstorm winds caused large branches of trees and some power lines to be blown down. Damage was limited to repairing power lines. Nickel-size hail also fell during the thunderstorm.									
<b>Near Port Huron</b>	28	2125EST			0	0	0	0	Hail (0.88)
Nickel-size hail fell near the city of Port Huron.									
<b>Marine City</b>	28	2140EST			0	0	4	0	Thunderstorm Winds (G56)
Strong thunderstorm winds blew down five large trees and many power lines.									
<b>Wexford County</b> Near Mesick	29	0615EST			0	0	3	0	Thunderstorm Winds
Trees and some power lines were damaged by gusty thunderstorm winds.									
<b>Charlevoix County</b>	29	0630EST			0	0	3	0	Thunderstorm Winds
Very strong winds blew down many trees and power lines in many locations across the county. A waterspout was reported off the coast of Charlevoix.									
<b>Montmorency County</b>	29	0700EST			0	0	3	0	Thunderstorm Winds
Many trees were blown down in the town of Hillman which is located in the northeastern portion of the county. In the southwestern portion of the county, in Lewiston, trees, power lines and poles were blown down. Schools were closed, due to power outages from downed lines, in the city of Atlanta.									
<b>Alpena County</b>	29	0715EST			0	0	0	0	Thunderstorm Winds
Winds to 40 mph were reported near the town of Lachine. The city of Alpena reported 0.25-inch hail.									
<b>Otsego County</b> Gaylord	29	0745EST			0	0	4	0	Thunderstorm Winds (G53) Lightning

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILL	INJURY	PROPERTY	CROPS	

## MICHIGAN Cont'd

Tens of thousands of Consumers Power customers were without power. The primary cause of the power loss was lightning.

**Iosco County  
Wurtsmith Air  
Force Base**

29 0748EST								Thunderstorm Winds Funnel Cloud
------------	--	--	--	--	--	--	--	------------------------------------

A funnel cloud developed over Wurtsmith Air Force Base, then dissipated without touching down. No wind damage was reported during this event, even though wind did gust to 60 mph.

**5 N Wurtsmith Air  
Force Base**

29 0803EST								Thunderstorm Winds
------------	--	--	--	--	--	--	--	--------------------

North of the air force base, the thunderstorm caused strong winds that blew down many power lines. The sheriff's office also reported debris over the road just north of Wurtsmith Air Force Base on Interstate 41.

**Saginaw County  
Brigeport  
Bay County  
Bay City**

29 1830EST								Hail (0.75)
------------	--	--	--	--	--	--	--	-------------

29 1900EST								Thunderstorm Winds
------------	--	--	--	--	--	--	--	--------------------

Strong thunderstorm winds blew down seven trees in Bay City. One tree fell on a home and damaged the roof and part of a wall.

**Saginaw County  
Frankenmuth**

29 1945EST								Thunderstorm Winds
------------	--	--	--	--	--	--	--	--------------------

A branch, 1 foot in diameter, was blown down near the city of Frankenmuth.

**Midland County  
Midland**

29 2200EST								Thunderstorm Winds
------------	--	--	--	--	--	--	--	--------------------

A large tree was blown over at the corporate headquarters of Dow Chemical Company in Midland.

**Coleman**

29 2200EST								Thunderstorm Winds (G52)
------------	--	--	--	--	--	--	--	--------------------------

The Coleman Fire Department reported wind gust to 60 mph.

**Arenac County  
Standish**

29 2245EST								Thunderstorm Winds
------------	--	--	--	--	--	--	--	--------------------

Several large trees were blown down near the town of Standish. This resulted in power outages from downed lines.

**Gladwin County  
10 NE Gladwin**

29 2305EST								Thunderstorm Winds
------------	--	--	--	--	--	--	--	--------------------

Many trees were blown down 10 miles northeast of Gladwin. Two inches of rain fell in 20 minutes during this storm. However, no major damage was reported to personal property.

**Ogemaw County  
West Branch**

29 2355EST- 30 0400EST								Thunderstorm Winds Flash Flood
---------------------------	--	--	--	--	--	--	--	-----------------------------------

Several trees were blown down in the town of West Branch. Very heavy rain caused three roads to wash out, but no personal property damage was reported.



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## MICHIGAN Cont'd

**Berrien County**  
**Benton Harbor**  
**Coloma**      30 2025EST      0   0   2   0      **Thunderstorm Winds**

Several large trees were blown down by strong thunderstorm winds. Some power lines were blown down in the storm. This resulted in scattered power outages.

**Ottawa County**  
**Spring Lake**      30 1944EST-1945EST      4.0      30      0   0   3   0      **Tornado (F1)**

A small tornado briefly touched down in the town of Spring Lake on Woodcrest Street. Some minor damage was done to the home and a few trees near the home were destroyed.

**Countywide**      30 2000EST      0   0   3   0      **Thunderstorm Winds**  
**Lightning**

In western Michigan, 12,000 homes lost power and lightning strikes caused several fires, but only minor damage was reported. Strong thunderstorms winds causes a few large branches and small trees to be blown down.

**Berrien County**  
**St. Joseph**      31 1650EST      0   0   2   0      **Hail (1.75)**

There were many reports of 0.75- to 1.75-inch hail. Some windows were reported to have been shattered by the hail.

**Niles**      31 1650EST      0   0   2   0      **Thunderstorm Winds**

Strong thunderstorm winds blew the windows and doors off a storage shed and several large trees were uprooted.

**Cass County**  
**3 SW Cassopolis**      31 1720EST      0   0   0   0      **Funnel Cloud**

The Michigan State Police reported a funnel cloud.

**Edwardsburg**  
**Union**      31 1735EST      0   0   2   0      **Thunderstorm Winds**

The sheriff's office reported several trees blown down along U.S. Highway 12.

**Saginaw County**  
**Near Saginaw**      31 1755EST-1830EST      0   0   0   0      **Thunderstorm Winds**

Very strong thunderstorm winds caused considerable damage in many sections of the city of Saginaw. Trees up to 6 inches in diameter were blown down in many parts of the city. Significant damage was reported to many homes, cars, and businesses. Many power lines were blown down. On the northwestern side of the city, a large stack of 4- by 8-foot sections of plywood were blown up to 40 feet away. Pea-size hail was also reported in several areas of the city.

**Shields**      31 1815EST      0   0   0   0      **Thunderstorm Winds**

Trees were reported blown down in Shields, 4 miles west of Saginaw.

**Tuscola County**  
**Reese**      31 1820EST      0   0   0   0      **Flash Flood**

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			K I L L E D	I N J U R E D	P R O P E R T Y	C R O S S	
St. Clair County Southern Portion	31	1915EST- 1955EST			0	0	0	0	Hail (0.75)
Washtenaw County Salem	31	1915EST			1	0	0	0	Thunderstorm Winds (G52)
Wayne County 1 W Sheldon	31	1920EST			0	0	3	0	Thunderstorm Winds (G52)
St. Clair County Memphis	31	1925EST			0	0	0	0	Thunderstorm Winds (G52)
Marine City	31	1940EST			0	0	0	0	Thunderstorm Winds (G52)
<b>MINNESOTA</b>									
Nicollet, Blue Earth, Dodge, Steele, Olmstead, and Mower Counties	04 05	2300CST- 1400CST			0	0	?	?	Flood
Clay County Moorhead	12	2046CST			0	0	0	?	Hail (0.75)
Pope County Terrace	12	2220CST			0	0	0	?	Hail (0.75)
Morrison County North Prairie	12	2320CST			0	0	2	?	Hail (1.25)
Little Falls	12	2335CST			0	0	2	?	Thunderstorm Winds (G61) Hail (0.75)
Benton County Mathew	12	2355CST			0	0	4	?	Thunderstorm Winds
Wright County 4 E Buffalo	13	0006CST			0	0	?	?	Thunderstorm Winds

## MICHIGAN Cont'd

Very heavy rains caused several streets to look more like lakes and rivers. No significant damage was done to personal property.

### St. Clair County Southern Portion

31 1915EST-1955EST 0 0 0 0 Hail (0.75)

Many reports were received of 0.25- and 0.75-inch hail between Capac, in southwestern St. Clair County, and Marine City, in southeastern St. Clair County.

### Washtenaw County Salem

31 1915EST 1 0 0 0 Thunderstorm Winds (G52)

Strong thunderstorm winds blew down tree branches over northeastern Washtenaw County. One tree branch fell on the head of Paul J. Domen while he was golfing with his wife. He died at St. Joseph Mercy Hospital a short time later from head injuries. Wind gusts were reported to 60 mph at the time. (M??O)

### Wayne County 1 W Sheldon

31 1920EST 0 0 3 0 Thunderstorm Winds (G52)

Very strong thunderstorm winds uprooted several large trees near the town of Sheldon which is located in extreme west-central Wayne County. Winds gusted to 60 mph and one tree fell on a car causing considerable damage.

### St. Clair County Memphis

31 1925EST 0 0 0 0 Thunderstorm Winds (G52)

Two large trees were uprooted in the town of Memphis.

### Marine City

31 1940EST 0 0 0 0 Thunderstorm Winds (G52)

Four large trees were uprooted in Marine City as the thunderstorms passed overhead.

## MINNESOTA

### Nicollet, Blue Earth, Dodge, Steele, Olmstead, and Mower Counties

04 2300CST-  
05 1400CST 0 0 ? ? Flood

Persistent 1.00 to 3.00 inches of rain fell on already-saturated ground and resulted in some localized flooding in parts of south-central and southeastern Minnesota. Many small streams and rivers overflowed their banks and some roads and highways in Nicollet, Blue Earth, Dodge, Olmstead, and Mower Counties were flooded, requiring barricades. A mudslide near Mankato spread 6 to 8 inches of mud onto one lane of Highway 169, limiting traffic to a single lane for a time.

### Clay County Moorhead

12 2046CST 0 0 0 ? Hail (0.75)

### Pope County Terrace

12 2220CST 0 0 0 ? Hail (0.75)

### Morrison County North Prairie

12 2320CST 0 0 2 ? Hail (1.25)  
12 2335CST 0 0 2 ? Thunderstorm Winds (G61)  
Hail (0.75)

### Benton County Mathew

12 2355CST 0 0 4 ? Thunderstorm Winds

### Wright County 4 E Buffalo

13 0006CST 0 0 ? ? Thunderstorm Winds

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## MINNESOTA Cont'd

A squall line of thunderstorms developed over central Minnesota and gradually weakened as they approached into eastern central sections. The storms produced large hail and strong wind gusts causing sporadic damage reports. Large hail broke windows out of a farm building in North Prairie (Morrison County). As the squall line moved through Mathew (Benton County), strong winds blew the roof off a home and a garage collapsed onto a truck. About 4 miles east of Buffalo, a 30- by 48-foot pole barn was completely destroyed and 2- by 10-inch boards were forcefully driven into the ground by the strong wind. Several large trees were also uprooted or snapped in half.

Chippewa County Wegdahl	14	1854CST			0	0	0	?	Hail (0.75)
2 S Montevideo	14	1905CST			0	0	0	?	Hail (0.75)
Faribault County Wells	16	1358CST			0	0	0	0	Funnel Cloud
Stearns County St. Cloud	16	1410CST			0	0	4	0	Lightning

Lightning struck a television antenna and traveled up the lead wire into the attic of a home. The resultant fire produced damage in excess of \$10,000 dollars.

Martin County Fairmont	16	1420CST			0	0	0	0	Funnel Cloud
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A funnel cloud was reported north of the airport in Fairmont.

Hennepin County Mound	26	2345CST			0	0	?	?	Thunderstorm Winds
Spring Park	26	2350CST			0	0	?	?	Thunderstorm Winds
Orono									

Strong thunderstorm winds downed many large trees in the Mound, Spring Park, and Orono vicinities.

Olmsted County Rochester	27	1407CST			0	0	?	?	Hail (1.00)
Rochester	27	1430CST			0	0	?	?	Thunderstorm Winds
Rochester	27	1440CST			0	0	?	?	Hail (2.75)
Winona County St. Charles	27	1449CST			0	0	0	?	Hail (0.75)

Strong thunderstorms developed over western Olmsted County and produced large hail and gusty winds in the vicinity of Rochester. Between 1415 and 1445 CST, hail covered the ground in the southwestern portion of Rochester and still had not melted about 3 hours later. The combination of strong wind and large hail did significant damage to trees and automobiles.

Wright County Delano	28	0310CST			0	0	?	?	Thunderstorm Winds
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A large tree was blown down and blocked the road for a time.

Pipestone County Ihlen	28	0625CST			0	0	?	?	Thunderstorm Winds Hail
Woodstock	28	0633CST			0	0	?	?	Thunderstorm Winds Hail
Murray County Slayton	28	0700CST			0	0	?	?	Hail (1.00)
7 E Fulda	28	0725CST			0	0	?	?	Hail (0.88)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## MINNESOTA Cont'd

Nicollet County St. Peter	28	0828CST			0	0	?	?	Thunderstorm Winds (G52)
A local radio station measured a wind gust to 60 mph.									
Blue Earth County 5 N Mankato	28	0828CST			0	0	?	?	Thunderstorm Winds
Le Sueur County 1 E Kasota	28	0829CST			0	0	?	?	Thunderstorm Winds Hail (1.50)
Blue Earth and Nicollet Counties N Mankato	28	0830CST			0	0	?	?	Hail (1.75)
Sibley County 1 S Arlington	28	0830CST			0	0	?	?	Thunderstorm Winds
Waseca County Northern Portion	28	0845CST			0	0	?	?	Thunderstorm Winds
Rice County Faribault	28	0900CST			0	1	?	?	Thunderstorm Winds
3 SW Faribault	28	0904CST			0	0	?	?	Hail (1.00)
Northfield	28	0905CST			0	0	?	?	Thunderstorm Winds
Richland Township	28	0910CST			0	0	?	?	Thunderstorm Winds
Goodhue County Kenyon	28	0925CST			0	0	0	?	Hail (0.75)
Red Wing	28	0938CST			0	0	?	?	Thunderstorm Winds (G50)
Wabasha County Zumbro Falls	28	1000CST			0	0	?	?	Hail (1.75)

A small complex of thunderstorms moved into southwestern Minnesota and developed the characteristics of a "bow-echo". The thunderstorm complex continued to move rapidly across southern Minnesota, reaching forward speeds in excess of 50 mph. Large hail, in combination with high winds, did extensive damage to area crops and property.

High winds and hail pelted the Ihlen and Woodstock vicinities of Pipestone County. At least 150 acres of crops were stripped, many trees were downed, and several homes were damaged by flying debris. As the storm moved through southern Minnesota, strong winds blew 15 trees and 5 power poles down and stripped shingles from a number of homes, 5 miles north of Mankato. Thunderstorm winds blew a truck camper a few hundred feet into a nearby field and a tree fell onto a mobile home causing extensive damage, 1 mile east of Kasota (Blue Earth County). Winds downed numerous trees and power lines approximately 1 mile south of Arlington and across northern Waseca County. A spire was blown onto the roof of a cathedral causing extensive damage, and a large tree fell onto a car crushing the car and injuring the driver in Faribault (Rice County). A dozen trees were uprooted and several grain bins tipped over on a rural farmsite near Northfield/Richland Township (Rice County).

Oak Center Lincoln County	28	1005CST			0	0	?	?	Hail (1.00)
Tyler	28	1840CST			0	0	?	?	Hail (1.50)
Redwood County 3 N Walnut Grove	28	1903CST			0	0	?	?	Hail (1.75)
Lyon County 2 N Russel	28	1915CST	1.0	10	0	0	?	?	Tornado (F1)

A small tornado destroyed a shed, tore shingles from the roof of a home, uprooted several trees, and downed power lines.

Lynd	28	1920CST			0	0	?	?	Hail (3.25)
Aimret	28	1922CST			0	0	?	?	Hail (2.75)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## MINNESOTA Cont'd

Large hail fell in a 5- to 10-mile-wide path across Lyon County causing extensive damage to crops and homes. At least 10,000 acres of corn and soybeans were stripped, and 2,500 acres of small grains and alfalfa were damaged.

Redwood County Milroy	28	1929CST			0	0	?	?	Hail (1.75)
Kandiyohi County Prinsberg	28	1937CST			0	0	0	?	Hail (0.75)
Pennock	28	1937CST			0	0	?	0	Lightning

Lightning caused a fire that destroyed a barn. Several reports of 0.75-inch hail were received between 1930 and 1940 CST, throughout the county.

Redwood County Wabasso	28	1940CST			0	0	?	?	Hail (4.50) Thunderstorm Winds
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Strong winds, combined with large hail, caused extensive damage to several homes and area crops. Leaves were shredded from trees, and windows were broken on many cars and homes.

Wright County Annandale	28	1945CST			0	0	?	?	Thunderstorm Winds
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Thunderstorm winds downed several large trees that resulted in a power outage in the city.

1E to 5E Monticello	28	2000CST			0	0	?	?	Hail (1.75)
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A 4-mile-long and 2-mile-wide path of hail broke windows on cars and area homes.

Anoka County Coon Rapids Circle Pines	28	2015CST			0	0	?	?	Hail (1.75) Thunderstorm Winds
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Several large trees and power lines were downed due to strong thunderstorm winds.

Brown County Essig	28	2015CST			0	0	?	?	Hail (1.75)
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Redwood County Morgan	28	2020CST			0	0	?	?	Hail (2.75) Thunderstorm Winds
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Strong winds, combined with large hail, caused extensive damage to homes and cars.

Brown County 8 SW Sleepy Eye	28	2030CST			0	0	0	0	Funnel Cloud
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The Brown County Sheriff's Office reported a brief funnel cloud 8 miles southeast of Sleepy Eye. The funnel did not reach the ground and gradually dissipated.

Sibley County 1 S Arlington	28	2030CST			0	0	?	?	Thunderstorm Winds
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Strong winds blew several power lines down.

Anoka County 1 E Bethel	28	2031CST			0	0	?	?	Hail (1.25)
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McLeod County Hutchinson	28	2035CST			0	0	5	?	Thunderstorm Winds
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# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## MINNESOTA Cont'd

High winds tore the roof from a 24-unit apartment building, causing at least \$50,000 dollars damage. About 50 to 100 trees were blown down by strong downburst winds.

Anoka County I W Stacy	28	2041CST			0	0	?	?	Hail (2.50)
Sibley County Gibbon	28	2045CST			0	0	0	?	Hail (0.75)

Numerous reports of 0.75-inch hail, within a 10-minute span, were received in the vicinity of Gibbon.

Wright County Eastern Portion	28	2050CST			0	0	0	?	Hail (0.75)
McLeod County Silver Lake	28	2052CST			0	0	0	?	Hail (0.75)
Mille Lacs County Princeton	28	2100CST			0	0	?	?	Thunderstorm Winds

Numerous large trees and power poles were blown down due to strong winds.

Carver County Norwood	28	2110CST			0	0	?	?	Thunderstorm Winds
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Several large trees and power lines were downed due to strong winds.

Chisago County Taylors Falls	28	2110CST			0	0	?	?	Thunderstorm Winds
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A number of large trees and power lines were blown down due to strong winds.

Scott County Shakopee	28	2130CST			0	0	?	?	Thunderstorm Winds
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Several large trees and power lines were downed due to strong thunderstorm winds.

Carver County Carver	28	2135CST			0	0	?	?	Thunderstorm Winds
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Thunderstorm winds downed several large trees and power lines.

Nicollet and Le Sueur Counties Le Sueur	28	2135CST			0	0	?	?	Hail (1.75)
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Golf ball-size hail pounded northeastern Nicollet and northwestern Le Sueur Counties in and around the city of Le Sueur, between 2135 CST and 2150 CST. Strong thunderstorm winds accompanying the hail downed trees and power lines.

Anoka County Anoka	28	2139CST			0	0	?	?	Thunderstorm Winds (G54)
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Hennepin County Maple Grove	28	2140CST			0	0	0	?	Hail (0.75)
Minneapolis	28	2145CST			0	0	?	?	Thunderstorm Winds

Le Sueur County Le Sueur	28	2150CST			0	0	?	?	Hail (1.75)
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Anoka County Ham Lake	28	2159CST			0	0	?	?	Hail (1.75)
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# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## MINNESOTA Cont'd

Ramsey County St. Paul	28	2200CST- 2210CST			0	0	?	?	Thunderstorm Winds Hail (1.00)
Maplewood	28	2200CST			0	1	?	?	Thunderstorm Winds
Dakota County Inver Grove Heights	28	2210CST			0	0	?	?	Thunderstorm Winds
Hastings	28	2210CST			0	0	0	?	Hail (0.75)
Washington County Central Portion	28	2220CST- 2235CST			0	0	?	?	Thunderstorm Winds
Kandiyohi County Willmar	28	2317CST			0	0	0	?	Hail (0.75)

Another large thunderstorm complex developed over southern Minnesota during the evening and traveled rapidly east across the region. A single "super cell" moved into southwestern Minnesota (Lyon County) dropping a small tornado and extremely large hailstones. As the storm propagated east, additional development occurred and eventually resembled a "bow echo" type thunderstorm complex. Widespread wind damage reports occurred across the southern quarter of the state. As the storm moved into Minneapolis, strong winds blew down 40 to 50 trees and two area television stations were off the air for a short time. Forty trees were blown down as the storm roared through St. Paul and metal sheathing was stripped from the upper floor of a large building. Strong winds toppled a 60-foot cottonwood tree onto a home, smashed through an upstairs bedroom wall, and injured a 5-year-old boy (Maplewood). A total of 42,000 customers throughout the metropolitan area lost power as the storm blew across the area. Widespread wind damage occurred in central Washington County with wind gusts estimated in excess of 60 mph. The projection screen of a drive-in theater was damaged as the storm moved through the county and a partial roof collapse occurred at a bowling alley in Inver Grove Heights (Dakota County).

Stearns County Freeport	29	0050CST			0	0	0	?	Hail (0.75)
Jackson County Jackson	29	0210CST			0	0	?	?	Thunderstorm Winds

Strong thunderstorm winds blew a large tree on a home causing extensive damage.

Benton County Rice	29	0235CST			0	0	0	?	Hail (0.75)
McLeod County Hutchinson	29	0250CST			0	0	?	?	Thunderstorm Winds

Several large trees and power lines were downed due to strong thunderstorm winds.

Wright County Western Portion	29	0300CST			0	0	?	?	Thunderstorm Winds
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Strong thunderstorm winds downed several large trees.

Sherburne County Becker Clear Lake	29	0320CST			0	0	?	?	Thunderstorm Winds
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Numerous trees and outbuildings were damaged on two rural farmsteads by strong thunderstorm winds.

Mille Lacs County 3 W to 2 SE Princeton	29	0330CST			0	0	?	?	Thunderstorm Winds
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# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## MINNESOTA Cont'd

Two garages were moved off their foundations and a number of trees were blown down due to strong winds.

### Meeker County

Dassel	30	1345CST	Short	Narrow	0	0	0	0	Tornado (F0)
Darwin	30	1405CST	Short	Narrow	0	0	0	0	Tornado (F0)

Two small, short-lived tornadoes touched down briefly in Darwin and Dassel leaving no damage.

### Hennepin County

1 E Minneapolis	30	1410CST			0	0	0	0	Funnel Cloud
Bloomington	30	1420CST	0.4	10	0	0	?	?	Tornado (F0)
Bloomington	30	1423CST			0	0	0	0	Funnel Cloud
Richfield	30	1430CST	Short	Narrow	0	0	?	?	Tornado (F0)
1.5 to 0.5 W International Airport	30	1440CST			0	0	0	0	Funnel Cloud

A single-cell thunderstorm developed southwest of the Twin Cities International Airport and traveled northeast. A weak tornado touched down in a small subdivision in Bloomington, uprooting trees and blowing some outdoor furniture around. As the storm moved east, the tornado lifted and a funnel cloud was observed over eastern Bloomington. The funnel descended to the ground and touched down briefly in Richfield, breaking some branches and uprooting a few small trees. The thunderstorm moved toward the International Airport (MSP) and a funnel was observed for a time before it dissipated.

### Stearns County

4 S Augusta	30	1500CST	Short	Narrow	0	0	0	0	Tornado (F0)
Sherburne County Haven Township	30	1506CST	Short	Narrow	0	0	0	0	Tornado (F0)
Stearns County 1 S St. Cloud	30	1509CST	Short	Narrow	0	0	0	0	Tornado (F0)
Sherburne County 1 E St. Cloud	30	1521CST	Short	Narrow	0	0	0	0	Tornado (F0)

Several short-lived tornadoes were observed in the vicinity of St. Cloud in a span of about 20 minutes. The tornadoes touched down briefly and then dissipated causing no damage.

### Dakota County

S St. Paul	30	1523CST			0	0	?	?	Hail (1.00)
Washington County Newport	30	1528CST			0	0	0	0	Hail (0.75)

## MISSISSIPPI

### Franklin County

2 NW Roxie	02	1633CST			0	0	2	0	Thunderstorm Winds
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Several trees and two utility poles were blown down along Highway 33.

### Adams County

12 S Natchez	04	0030CST			0	0	2	0	Thunderstorm Winds
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Several trees were blown down.

### Wilkinson County

7 E Woodville	04	0050CST			0	0	2	0	Thunderstorm Winds
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Two trees were blown down along Highway 24.

### Washington County

2 S Greenville	05	0110CST			0	0	2	0	Thunderstorm Winds
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# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## MISSISSIPPI Cont'd

Several trees were blown down and several houses had roof damage.									
<b>Pontotoc County</b> Randolph	05	0300CST			0	0	2	0	<b>Thunderstorm Winds</b>
Several large trees and power lines were blown down.									
<b>Lee County</b> Guntown	05	0310CST			0	0	2	0	<b>Thunderstorm Winds</b>
Several trees and power lines were blown down in the Alpine area of western Guntown.									
<b>Leflore County</b> Minter City	05	0749CST			0	0	0	0	<b>Hail (0.80)</b>
Nickel-size hail covered the ground.									
<b>Carroll County</b> 4 NW Centerville	05	0805CST			0	0	0	0	<b>Thunderstorm Winds (G52)</b>
Greenwood Airport (GWO) recorded a 52-knot gust.									
<b>Tallahatchie County</b> Charleston	05	0830CST			0	0	3	0	<b>Flash Flood</b>
An observer, near Charleston recorded 1.80 inches of rain in 1 hour. Many streets and roads were flooded in and around Charleston.									
<b>Lafayette County</b>	05	0900CST			0	0	2	0	<b>Thunderstorm Winds</b>
Several trees and power lines were blown down in several locations throughout the county.									
<b>Pontotoc County</b> Endville	05	0900CST			0	0	2	0	<b>Thunderstorm Winds</b>
Numerous trees and power poles were blown down.									
<b>Yallobusha County</b> 6 E Coffeville	05	0915CST	2.0	100	0	0	4	0	<b>Tornado (F1)</b>
A tornado damaged five cotton trailers and the shingles on a house, and completely destroyed a mobile home and several trees.									
<b>Chickasaw County</b> 1 N Woodland 4 W Buena Vista	05	0915CST	11.0	880	0	0	5	0	<b>Tornado (F1)</b>
A tornado damaged five houses, rolled over several vehicles, blew down or snapped off numerous trees along its path, and downed many power lines.									
<b>4 S Houston</b> <b>Clay County</b>	05	0915CST			0	0	0	0	<b>Hail (0.80)</b>
	05	0926CST			0	0	2	0	<b>Thunderstorm Winds</b>
Several large limbs were blown off trees onto power lines over the western section of the county.									
<b>Lee County</b> Shannon	05	0940CST			0	0	2	0	<b>Thunderstorm Winds</b>
Several trees and power lines were blown down.									
<b>Baldwyn</b>	05	0940CST			0	0	2	0	<b>Thunderstorm Winds</b>

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## MISSISSIPPI Cont'd

A few large limbs were blown off trees.

**Tupelo**                    05 0945CST                    0   0   3   0   **Thunderstorm Winds**

Numerous trees and power lines were blown down throughout the city.

**Monroe County**        05 0945CST                    0   0   2   0   **Thunderstorm Winds**

A few large trees were blown onto power lines in the eastern section of the county.

**Lowndes County**  
3 NW Columbus        05 1005CST                    0   0   2   0   **Thunderstorm Winds**

Several large trees were uprooted.

**Oktibbeha County**    05 1010CST                    0   0   2   0   **Thunderstorm Winds**

Several trees were blown down throughout the county.

**Lowndes County**  
3 SW Caledonia        05 1015CST                    0   0   5   0   **Thunderstorm Winds**

Straight-line thunderstorm winds destroyed ten barns, sheds, and shops, four homes received major roof damage, two cars were damaged, and up to 100 trees were blown down or snapped off.

**Kemper County**  
6 S to 8 SW  
De Kalb                    05 1105CST                    0   0   3   0   **Thunderstorm Winds**

Numerous trees were blown down.

**Jones County**  
5 N Laurel                    05 1135CST                    0   0   2   0   **Thunderstorm Winds**

Several trees and power lines were blown down.

**Lauderdale County**  
6 SE Meridian        05 1142CST                    0   0   0   0   **Hail (0.80)**

**Clarke County**  
Enterprise                    05 1215CST                    0   0   4   0   **Thunderstorm Winds**

Numerous trees were blown down, and the roofs of several houses were damaged.

**Copiah County**  
Hopewell                    05 1530CST                    0   0   0   0   **Flash Flood**

Hopewell River Road was under water.

**Pike County**  
3 NE McComb        05 1600CST                    0   0   0   0   **Hail (0.80)**

**Lamar County**  
Purvis                    05 1603CST                    0   0   0   0   **Hail (1.00)**

**Forrest County**  
Hattiesburg                05 1610CST                    0   0   4   0   **Thunderstorm Winds**

Two trees were blown down, and one landed on a house.

**Sunflower County**  
3 SW Inverness        05 1910CST                    0   0   4   0   **Thunderstorm Winds**

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## MISSISSIPPI Cont'd

The wall of an airplane hanger was blown in, and one airplane was pulled loose from its tie-down. The tin from the roof of the hanger was blown over a half mile away. Pea- to marble-size hail occurred for 15 minutes and caused minor roof damage.

<b>Humphreys County</b> 7 W Isola	05	1910CST			0	0	4	0	Thunderstorm Winds
									High wind tore an asphalt roof off a shop, removed 1,500 to 2,000 square feet of tin roofing from a shed, and knocked down a fence and a satellite dish.
<b>Adams County</b> 3 NE Natchez	05	2115CST			0	0	2	0	Thunderstorm Winds
									Three trees were blown down along Pine Ridge Road.
<b>Rankin County</b> 2 SW Puckett	05	2315CST			0	0	2	0	Thunderstorm Winds
									Two trees were blown down on Shell Road.
<b>Smith County</b> 1 W Raleigh	05	2345CST			0	0	3	0	Thunderstorm Winds
									High wind damaged the roof of one house.
<b>Jasper County</b> 15 NE Bay Springs	06	0030CST			0	0	2	0	Thunderstorm Winds
									A couple of trees were blown down. One large tree broke off 4 feet above the ground.
<b>George County</b>	10	1600CST			0	0	5	0	Flash Flood
									Twenty-five homes were flooded in the southern part of the city of Lucedale, and one street was washed out exposing utility lines and pipes. Several mobile homes were washed into a creek in Shipman.
<b>Pearl River County</b> Picayune	10	2200CST			0	0	5	0	Flash Flood
									Nine homes were flooded and a dozen businesses were flooded. Many roads and streets were damaged.
<b>Bolivar County</b> Rosedale	11	0800CST- 1100CST			0	0	5	0	Flash Flood
									Three businesses and ten homes were flooded due to heavy rains.
<b>Countywide</b>	11	1942CST			0	0	4	0	Thunderstorm Winds
									Numerous trees and power lines were blown down across a portion of the county.
<b>Lauderdale County</b> 5 N to 8 E Meridian	12	1445CST			0	0	2	0	Thunderstorm Winds
									Several trees were blown down and were blocking roads at both locations.
<b>Pontotoc County</b> Algoma	13	1642CST			0	0	4	0	Thunderstorm Winds

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## MISSISSIPPI Cont'd

Strong wind blew the roof off of a barn, and blew the porch off of a mobile home, and uprooted several large trees.

Jones County 2 SE Laurel	16	1640CST			0	0	0	0	Hail (0.80)
Jasper County 7 NW Bay Springs	16	1814CST			0	0	0	0	Hail (0.80)
Noxubee County Macon	17	1609CST			0	0	0	0	Hail (0.75)
Calhoun County Calhoun City	26	1200CST			0	0	5	0	Flash Flood

Rising water damaged six homes, washed out two bridges, and damaged several roads.

Itawamba County	26	2100CST			0	0	6	0	Flash Flood
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Nearly 8.00 inches of rain fell across the county in a 24-hour period flooding roads and homes, and washing out several bridges.

Tishomingo County Iuka	26	2200CST			0	0	6	0	Flash Flood
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Up to 14.00 inches of rain fell across the county in just over 24 hours. Widespread damage was reported across the county to roads and bridges. In Iuka, 12 homes were flooded. Some of the homes had as much as 6 feet of water in them.

Lee County	27	0300CST			0	0	6	0	Flash Flood
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Flood waters caused closing of 50 to 60 percent of the roads within the county, flooded at least three homes, and damaged four bridges.

Adams County Natchez	28	1325CST			0	0	0	0	Hail (1.75)
Natchez	28	1350CST			0	0	0	0	Hail (1.75)
MSZALL		All Month			0	0	8	8	Flood

The month of May 1991 was one of the wettest months of all time across Mississippi, especially over the northeastern, east-central, southeastern, and coastal sections of the state. Normal rainfall for May ranges from 3.80 inches over east-central to 5.98 inches over southwestern Mississippi. Actual rainfall for the month ranged from 5.88 inches at Clarksdale to a record setting 23.36 inches at Guntown. The 6.00- to 9.00-inch totals over the western third of the state represented the "dry area". Widespread rainfall amounts of 12.00 to over 22.00 inches covered the northeastern and southeastern corner of the state. Rainfall in these areas represented about 300 to 500 percent of the normal May rainfall.

As was the case in April of 1991, May had a ceaseless cycle of one storm system after another. The already-high water and flooding that occurred in April was only pushed higher in the month of May. Nearly every basin in the state was flooded during the month and did not begin to fall until near the end of the month.

A total of 32 counties in the state were declared disaster areas by the Governor of the State and the Federal Emergency Management Agency. It was estimated that over two million acres of land were under water, and 1,700 homes were damaged for a total of approximately \$279 million in farmland and property losses.

## MISSOURI

Bates County N Rich Hill	03	2256CST			0	0	1	0	Hail (1.00)
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# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			K	I	P	C	

## MISSOURI Cont'd

Hail from 0.75- to 1.00-inch diameter was reported.									
Holt County Mound City	04	1350CST			0	0	2	1	Hail (1.25)
Mount City reported hail to 1.25-inch diameter.									
Buchanan County St. Joseph	04	1440CST			0	0	1	0	Hail (0.75)
Hail to 0.75-inch diameter and very heavy rain was reported.									
Andrew County Helena	04	1500CST			0	0	1	0	Hail (0.75)
In Plattaburg, hail to 0.75-inch diameter was reported.									
Clinton County Plattsburg	04	1410CST			0	0	2	1	Hail (1.25)
Hail to 1.25-inch diameter was reported.									
Harrison County E Bethany	04	1448CST			0	0	1	0	Hail (0.75)
Hail to 0.75-inch diameter was reported.									
Caldwell County Polo	04	1450CST			0	0	1	0	Hail (0.75)
Hail to 0.75-inch diameter was reported.									
Andrew County S of Savannah	04	1945CST			0	0	1	0	Hail (0.75)
Hail to 0.75-inch diameter was reported.									
Pettis County 10 NW Sedalia	04	1810CST			0	0	0	0	Funnel Cloud
A funnel cloud was reported by the public and radar indicated a possible tornado. A rotating wall cloud also reported.									
Houstonia	04	1830CST			0	0	1	0	Hail (0.75)
Buchanan County N St. Joseph	04	1836CST			0	0	2	1	Hail (1.25)
Hail up to 1.25-inch diameter was reported.									
Faucett	04	2035CST			0	0	2	0	Thunderstorm Winds
Thunderstorm winds produced light damage.									
Johnson County Holden	04	2045CST			0	0	2	1	Hail (1.25)
Hail up to 1.25-inch diameter was reported.									
Jasper County Duenweg	04	2130CST			0	0	0	0	Hail (1.00)
W Sarcoxie	04	2152CST			0	0	0	0	Hail (0.75)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## MISSOURI Cont'd

One-inch-diameter hail was reported at 2130 CST in Duenweg. Hail measuring 0.75 inch in diameter was reported just west of Sarcocie at 2152 CST.

**Newton County**  
Near Saginaw

04 2130CST                                    0   0   0   0   Hail (0.75)

Near Saginaw, 0.75-inch-diameter hail was reported.

**Lawrence County**  
Near Miller

04 2200CST                                    0   0   0   0   Hail (0.75)

Hail, measuring 0.75-inch in diameter, was reported near Miller.

**Greene County**  
N Springfield  
S Springfield

04 2243CST                                    0   0   0   0   Hail (0.75)

04 2253CST                                    0   0   0   0   Hail (1.00)

At 2243 CST, in northern Springfield, 0.75-inch-diameter and 1.00-inch-diameter hail was reported, and in southern Springfield ten minutes later.

**Camden County**  
Northwestern Portion

12 0730CST                                    0   0   3   0   Flash Flood

Campers were forced to higher ground and stranded due to flash flooding.

**Benton County**  
Near Cole Camp

12 0810CST                                    0   0   4   0   Flash Flood

U.S. Highway 65 was under water.

**Camden County**

12 0825CST                                    0   0   5   0   Flash Flood

The State Water Patrol reported that several homes were cut off by rising water.

**Pettis County**  
Lincoln  
Cole Camp

12 0840CST                                    0   0   3   0   Flash Flood

U.S. Highway 65 was impassable due to flash flooding.

**Dent County**  
Near Salem  
**Pettis County**  
Benton

12 0843CST                                    0   0   0   0   Hail (1.75)

12 0941CST                                    0   0   6   0   Flash Flood

Numerous gravel roads were washed out, damaged, and many were under water due to flash flooding. Golf ball-size hail was reported near Salem in Dent County.

**Henry County**  
Clinton  
Near Deepwater  
Near Mt. Zion

13 1335CST                                    0   0   2   0   Hail (1.00)

13 1422CST                                    0   0   1   0   Hail (1.00)

13 1345CST                                    0   0   2   1   Hail (1.25)

The county sheriff reported that thunderstorms produced 1.00-inch-diameter to golf ball-size hail across Henry County.

**St. Clair County**  
Osceola

13 1420CST-  
1430CST                                    0   0   2   0   Hail (1.25)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			K	I	D	C	

## MISSOURI Cont'd

Hail from 0.75 to 1.25 inch in diameter was reported.

**Osceola**                      13 1610CST    0   0   0   0      **Hail (1.75)**

Golf ball-size hail was reported in Osceola.

### Polk County

**Eudora**                      13 1610CST    0   0   0   0      **Hail (1.00)**  
**Eudora**                      13 1615CST    0   0   0   0      **Hail (1.75)**  
**Bolivar**                     13 1618CST    0   0   0   0      **Hail (1.00)**

Thunderstorms produced 1.00-inch-diameter to golf ball-size hail near Eudora and Bolivar in Polk County.

### Greene County Walnut Grove

13 1618CST    0   0   0   0      **Hail (1.00)**

There were reports of hail to 1.00-inch in diameter near Walnut Grove.

### Laclede County

**Lebanon**                    13 1645CST    0   0   0   0      **Hail (1.50)**  
**Lebanon**                    13 1700CST    0   0   0   0      **Hail (1.50)**  
**E Conway**                 13 1715CST    0   0   0   0      **Hail (0.75)**

One-inch-diameter hail was reported in Lebanon at 1645 CST while a cooperative observer reported 1.50-inch hail at 1700 CST, and 0.75-inch hail was later reported just east of Conway.

### Webster County 6 N Rogersville

13 1700CST    0   0   0   0      **Hail (1.00)**

One-inch-diameter hail was reported 6 miles north of Rogersville.

### Greene County Springfield S Springfield Republic

13 1720CST    0   0   0   0      **Hail (0.75)**  
13 1725CST    0   0   0   0      **Hail (0.75)**  
13 1745CST    0   0   0   0      **Hail (0.75)**

Three-quarter-inch-diameter hail was reported in, and south of, Springfield at 1720 and 1725 CST. Hail was also reported in Republic at 1745 CST.

### Christian County Sparta

13 1755CST    0   0   0   0      **Hail (0.75)**

Hail measuring 0.75-inch in diameter was reported at Sparta.

### Marion County Hannibal

15 0500CST    0   0   0   0      **Flash Flood**

The Hannibal Civil Defense Director reported that Bear Creek, in and near Hannibal, had gone over its banks from thunderstorm rains. Local evacuations were made near the creek.

### Jefferson County

**1 W De Soto**                 15 1110CST    0   0   0   0      **Funnel Cloud**  
**1 N De Soto**                 15 1121CST    0   0   0   0      **Funnel Cloud**  
**Near Festus**                15 1200CST    0   0   0   0      **Hail (0.88)**  
**Near Festus**                15 1200CST    0   0   0   0      **Thunderstorm Winds**

A spotter reported two funnel clouds near De Soto at 1110 and 1121 CST. The county sheriff reported nickel-size hail and strong winds, which broke 6- to 8-inch tree limbs off near Festus at 1200 CST.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## MISSOURI Cont'd

<b>Wright County</b> 2 SE Hartville	15 1715CST	0 0 0 0	Hail (1.00)
Hail to 1.00-inch in diameter was reported along Highway Y in Wright County at 1715 CST.			
<b>Ralls County</b>	15 1725CST	0 0 3 2	Thunderstorm Winds
The Ralls County Sheriff's Office reported downed power lines and pout outages from thunderstorm winds.			
<b>Cedar County</b> Stockton Stockton 5 NE Stockton	16 1627CST 16 1638CST 16 1656CST	0 0 0 0 0 0 0 0 0 0 0 0	Hail (1.00) Hail (0.75) Hail (1.75)
Hail to 1.75-inch in diameter was reported at 1627 and 1638 CST. Golf ball-size hail and some tree damage was later reported 5 miles northeast of Stockton at 1656 CST.			
<b>Polk County</b> 2 N Dunnegan 2 SW Humansville Flemington	16 1657CST 16 1700CST 16 1723CST	0 0 0 0 0 0 0 0 0 0 0 0	Hail (0.75) Hail (1.00) Hail (2.75)
Hail increased in size as thunderstorms moved through Polk County between 1657 and 1723 CST. Hail reached baseball-size in Flemington, but there were no reports of damage.			
<b>Hickory County</b> Elkton Pittsburgh	16 1728CST 16 1735CST	0 0 0 0 0 0 0 0	Hail (2.75) Hail (1.75)
Hail as large as baseballs fell in Elkton at 1728 CST. Golf ball-size hail was reported at 1735 CST in Pittsburgh, Missouri. There were no reports of damage.			
<b>Camden County</b> Macks Creek 2 S Montreal	16 1840CST 16 1920CST	0 0 0 0 0 0 0 0	Hail (1.75) Hail (1.00)
Golf ball-size hail was reported at 1840 CST while 1.00-inch-diameter hail fell 2 miles south of Montreal at 1920 CST.			
<b>Atchison County</b> Near Linden	16 1850CST	0 0 1 0	Hail (1.00)
Hail to 1.00 inch in diameter was reported near Linden.			
<b>Barry County</b> Purdy Purdy	17 0015CST 17 0015CST	0 0 0 0 0 0 0 0	Thunderstorm Winds Hail (1.00)
Strong winds and 1.00-inch-diameter hail were produced from thunderstorms at 0015 CST in Purdy.			
<b>Putnam County</b> N Newtown Livonia	17 1555CST 17 1515CST	0 0 3 2 0 0 0 0	Hail (1.50) Hail (1.75)
Hail to 1.50-inch in diameter was reported just north of Newtown while golf ball-size hail fell at Livonia at 1515 CST.			



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## MISSOURI Cont'd

**Schuylar County**  
2 W Glenwood

17 1515CST 0 0 0 0 Hail (1.75)

Golf ball-size hail fell 2 miles west of Glenwood at 1515 CST.

**Ste Genevieve County**  
Northern Portion

17 1624CST 0 0 2 0 Thunderstorm Winds

The Ste Genevieve County Sheriff's Office reported large trees downed by thunderstorm winds.

**Scotland County**

1 N Memphis	17 1645CST			0	0	0	0	Hail (0.75)
1 N Memphis	17 1645CST	0.5	15	0	0	0	0	Tornado (F0)
2 N Memphis	17 1710CST			0	0	4	0	Thunderstorm Winds
Arbela	17 1710CST			0	0	0	0	Hail (1.75)

At 1645 CST, radio station KMEM in Memphis reported 0.75-inch-diameter hail and a small tornado 1 mile north. The tornado touched down briefly just north of the radio station. Thunderstorm winds from the same storm completely destroyed a shed and partially destroyed a barn 2 miles north of Memphis. Golf ball-size hail was reported in Arbela at 1710 CST.

**Ste. Genevieve County**  
Near St. Mary's

17 1710CST 0 0 3 2 Thunderstorm Winds

Thunderstorm wind gusts knocked down large trees and power lines near St. Mary's. Power outages were also reported by the county sheriff.

**Clark County**  
Wyaconda  
Granger  
Anson

Wyaconda	17 1710CST			0	0	0	0	Hail (0.75)
Granger	17 1715CST			0	0	0	0	Hail (1.75)
Anson	17 1715CST			0	0	3	0	Thunderstorm Winds

Hail measuring 0.75-inch in diameter was reported in Wyaconda at 1710 CST, while golf ball-size hail fell in Grander five minutes later. Thunderstorm winds damaged buildings about 2.5 miles south of the Iowa-Missouri state line near Anson.

**Randolph County**

17 1715CST 0 0 0 0 Hail (0.75)  
Thunderstorm Winds (G52)

The county sheriff reported 0.75-inch-diameter hail and wind gusts to 60 mph at 1715 CST.

**Hickory County**  
Pittsburg

17 1730CST-1740CST 0 0 2 0 Hail (1.75)

There were reports of hail to the size of golf balls.

**Camden County**  
Macks Creek

17 1840CST 0 0 2 0 Hail (1.75)

Hail to golf ball-size was reported.

2 S Montreal

17 1920CST 0 0 1 0 Hail (1.00)

Hail to 1.00-inch-diameter was reported.

**Dent County**  
Montauc State Park

17 1925CST 0 0 0 0 Flash Flood

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## MISSOURI Cont'd

Over 3.50 inches of rain fell at Montauc State Park which brought the Pigeon Creek over its banks. Campers were evacuated due to rising water and flooding.

**Mississippi County  
Charleston**

18 1316CST 0.8 50 0 0 5 0 Tornado (F1)

The Mississippi County Sheriff's Office reported a tornado in the city of Charleston at 1316 CST. A garage with an apartment on top was destroyed while another home had minor damage. Two irrigation systems were also destroyed. There were no reports of injuries.

**Johnson County  
Warrensburg**

26 1325CST 0 0 3 0 Thunderstorm Winds

Thunderstorm wind gusts knocked down large trees.

**Clay County  
Kansas City  
Downtown Airport**

26 1357CST 0 0 1 0 Thunderstorm Winds (G55)

Thunderstorm winds gusted to 55 knots.

**Pettis County  
Sedalia**

26 1400CST 0 0 4 0 Thunderstorm Winds

The Sedalia Police Department reported several house fires caused by lightning and high winds, along with several trees down.

**Sedalia**

26 1400CST 0 0 5 0 Lightning

Several house fires were caused by lightning.

**Jackson County  
Independence**

26 1401CST 0 0 1 0 Thunderstorm Winds (G52)

Thunderstorm wind gusts to 60 mph.

**Independence  
Avenue and  
Interstate 435**

26 1401CST 0 0 4 0 Thunderstorm Winds

Large tree limbs and power lines were downed.

**Oak Grove**

26 1410CST 0 0 1 0 Thunderstorm Winds

Wind gusts, were estimated to 55 mph or greater.

**Warrensburg**

26 1425CST 0 0 3 0 Thunderstorm Winds

Thunderstorm winds downed trees.

**Cooper County  
Boonville**

26 1445CST 0 0 3 0 Thunderstorm Winds

The Boonville Police Department reported strong winds with large tree limbs and power lines down.

**Boonville**

26 1545CST 0 0 4 0 Thunderstorm Winds

Winds damaged large trees and downed power lines and large limbs.

**Platte County  
Kansas City  
International**

26 2323CST 0 0 1 0 Thunderstorm Winds (G52)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## MISSOURI Cont'd

**Airport** Thunderstorm wind gusts to 60 mph were reported.

**Clark County  
Wayland** 29 2104CST 0 0 0 0 Funnel Cloud

The Wayland Fire Department reported a funnel cloud near Wayland. No damage was reported.

## MONTANA

**MTZ004** 09 2300MST-  
10 0800MST 0 0 3 0 Heavy Snow

Heavy wet snow fell around Bozeman, especially in the Bridger Canyon. Powerlines and trees were knocked down.

**McCone County  
12 North Circle  
Vida** 10 0130MST 0.2 10 0 0 3 0 Tornado (F0)  
10 0205MST 0 0 3 0 Hail (1.75)

**Richland County  
20 North Richey  
8 SE Brockton** 10 0230MST 0 0 4 0 Thunderstorm Winds  
10 0300MST 0 0 4 0 Thunderstorm Winds

**Garfield County  
25 NE Jordan  
MTZ001** 11 0920MST 0.2 10 0 0 0 0 Tornado (F0)  
13 0800MST-  
2200MST 0 0 5 0 Flood

Craves Creek flooded near Fortine washing out Forest Service roads.

**MTZ006-007** 13 0739MST 0 0 0 0 High Winds (G58)

Wind gusts to 67 mph hit Harlowton and in the Livingston/Big Timber area.

**Beaverhead County  
12 N Wisdom** 16 1930MST 0.2 10 0 0 4 0 Tornado (F0)

A tornado tore through a ranch north of Wisdom.

**Yellowstone County  
Laurel** 18 1500MST 0 0 3 0 Lightning

Several bolts of lightning did minor damage around Laurel.

**MTZ001** 18 0500MST-  
22 0900MST 0 0 5 0 Flood

Flooding occurred in the Flathead River system including Haskill and Turnbull Creeks; a mobile home park was evacuated.

**Lewis and Clark  
County  
Helena** 18 1537MST 0 0 4 0 Thunderstorm Winds

Several trees were blown down around the city.

**Gallatin County  
Bozeman** 18 1700MST 0 0 3 0 Thunderstorm Winds

**Lewis and Clark  
County  
Near Gibson Dam** 18 1745MST 0 0 3 0 Flash Flood

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## MONTANA Cont'd

Nearly 3.00 inches of rain fell in a short time causing Beaver Creek and other small streams to flash flood.

<b>MTZ006-007</b>	18	2000MST-							
	19	2000MST			0	0	3	0	Flood

The Shields and Musselshell Rivers were flooded.

<b>MTZ003</b>	19	0200MST							Flood
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The St. Mary River flooded after nearly 2.00 inches of rain fell overnight.

<b>Yellowstone County North Billings and Shephard</b>	19	2230MST- 2310MST							Hail (3.00)
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Windows, roofs, and gardens were destroyed by large hail.

<b>MTZ003</b>	20	0400MST-							
	21	1600MST			0	0	5	0	Flood

The Teton River flooded washing out several bridges and Dupuyer Creek flooded Highway 89.

<b>Stillwater County Nye</b>	20	1400MST							Hail (1.75)
<b>Sweetgrass County 5 N Big Timber</b>	20	1400MST			0	0	3	3	Hail (1.50)
<b>Choteau County 10 SE Fort Benton</b>	20	1530MST			0	0	3	3	Hail (1.75)
<b>Golden Valley County 5 W Ryegate</b>	20	1600MST			0	0	3	3	Hail (1.75)
<b>Hill County Havre</b>	20	2000MST			0	0	4	0	Urban Flood

Two to three inches of rain fell causing street flooding.

<b>Custer County Miles City Kinsey</b>	21	2145MST							Hail (1.75)
<b>Prairie County 6 NW Fallon</b>	21	2233MST			0	0	4	5	Hail (1.75)
<b>Wheatland County 10 E Harlowton</b>	24	1930MST			0	0	3	3	Hail (1.75)
<b>Golden Valley County Barber</b>	24	1930MST			0	0	3	3	Hail (1.75)
<b>Valley County Glasgow</b>	25	0327MST			0	0	3	0	Thunderstorm Winds
<b>Lewis and Clark County Helena</b>	25	Evening			0	0	4	0	Hail (1.00)

Windows were broken and paint was chipped by hail.

<b>Sheridan County 13 W Reserve</b>	25	1850MST	0.2	10					Tornado (F0)
<b>Roosevelt County 1 SE Brockton</b>	25	1900MST	0.2	10	0	0	0	0	Tornado (F0)
<b>27 N Poplar</b>	25	1900MST	0.2	10	0	0	0	0	Tornado (F0)
<b>Powder River County 8 SW Biddle</b>	25	2212MST			0	0	0	0	Hail (1.75)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			K I L L E D	I N J U R E D	P R O P R T Y	C R O P S	

### MONTANA Cont'd

**MTZ006**                      27 0800MST-  
31 0800MST                      0   0   4   0   **Flood**

The Judith River flooded washing out several farm roads.

Powder River County  
Broadus                      29 1520MST  
MTZ007                      30 0800MST-  
2300MST                      0   0   4   0   **Flood**

Rock Creek flooded, washing out some roads.

Dawson County  
Near Glendive              31 1745MST    0.2     10    0   0   0   0    **Tornado (F0)**

### NEBRASKA

Perkins County  
Brandon                      02 1733CST-  
1753CST                      0   0   4   1    **Hail (1.75)**

Golf ball-size hail fell in, and around Brandon, for 20 minutes and damaged cars, trucks, trees, and windows.

Perkins County  
8 SW Grant  
2 NE Grant                   02 1800CST-  
1830CST                      13.0    50-  
175    0   0   6   2    **Tornado (F3)**

Spotters reported a tornado southwest of Grant, which was up and down as it moved northwest. Damage started at a farm house 2 miles southwest of Grant and continued as the tornado hit the western and northeastern sections of Grant. It then continued into open farm land northeast of Grant. A sheriff deputy's car was blown into a ditch, but he continued to monitor and report the movement of the tornado. Two mobile homes were completely destroyed, 15 cars were damaged, and several large high voltage power lines were blown down. Extensive damage occurred to at least 30 homes, the hospital roof, and football field. Over 25 center-pivot irrigation systems were destroyed or damaged. No injuries were reported.

Keith County  
Ogallala                      02 1805CST                      0   0   2   0    **Thunderstorm Winds**

Thunderstorm winds ripped a roof off a house.

Red Willow County  
Lebanon                      02 1815CST                      0   0   0   0    **Hail (1.75)**

Golf ball-size hail fell, but caused no damage.

Hayes County  
3 N Hayes Center           02 1820CST    0.1     25    0   0   0   0    **Tornado (F0)**

A tornado briefly touched down in open farmland causing no damage.

Keith County  
2 W Ogallala                02 1820CST                      0   0   0   0    **Hail (1.00)**

Quarter-size hail fell in a open field with no damage.

Hayes County  
8 N Hayes Center            02 1830CST                      0   0   0   0    **Hail (1.75)**

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## NEBRASKA Cont'd

Golf ball-size hail fell in open county with no damage reported.

**Keith County**  
3 NW Roscoe      02 1849CST                      0   0   3   0      **Thunderstorm Winds**

Thunderstorm winds blew an outbuilding off its foundation.

**Lincoln County**  
Wallace            02 1850CST                      0   0   1   0      **Hail (0.75)**  
North Platte      02 1958CST                      0   0   2   0      **Thunderstorm Winds (G52)**

Winds gusted to 60 mph at the National Weather Service Office. Broken and damaged tree limbs were reported throughout the area.

**Dawson County**  
2 S Gothenburg    02 1925CST                      0   0   3   0      **Thunderstorm Winds (G52)**

Thunderstorm winds gusting to 60 mph blew out the window of a fire department vehicle.

**Richardson County**  
5 E Falls City    04 1215CST                      0   0   1   1      **Hail (1.75)**

**Sioux County**  
Harrison            09 1620MST                      0   0   1   1      **Hail (1.00)**

**Dawes County**  
Ft. Robinson    10 1352MST-                      0   0   ?   ?      **Hail (5.00)**

5 N Crawford    10 1415MST                      0   0   ?   ?      **Hail (2.75)**

5 N Ft. Robinson  
Crawford            10 1500MST                      0   0   ?   ?      **Hail (3.75)**

5 W Crawford    10 1604MST                      0   0   ?   ?      **Hail (3.75)**

Hail up to 5.00 inches in diameter, fell around Ft. Robinson and Crawford, breaking windows and damaging cars.

**Sioux County**  
Glen                10 1645MST                      0   0   ?   ?      **Hail (3.75)**

**Sioux and Dawes Counties**  
Glen                10 1700MST-  
15 NE Chadron    11 0800MST                      1   0   7   6      **Flash Flood**

Up to 7.00 inches of rain fell around Glen in the Soldier Creek and White River basins in northeastern Sioux County. The water swept toward Crawford, where the White River crested at 16.32 feet around midnight Friday night. Many roads, bridges, 20 miles of railroad tracks, and 42 rail bridges were washed out. At Ft. Robinson State Park, the campground and several bridges were washed out. In Crawford, the city park, a recently completed golf course, state fish hatchery, and a trailer court were destroyed. Four hundred cattle were killed at the livestock market. There was one fatality: a 27-year-old male was swept away by flood waters. His body was found less than 100 yards from the mobile home where he was last seen. Preliminary damage estimates total over \$16 million. (M27M)

**Box Butte County**  
10 NW Alliance    11 1609MST                      0   0   1   1      **Hail (2.00)**

**Scotts Bluff County**  
Scottsbluff        11 1609MST                      0   0   1   1      **Hail (1.00)**

**Box Butte County**  
Hemingford        11 1635MST                      0   0   1   1      **Hail (3.75)**

**Banner County**  
20 E Harrisburg    11 1715MST                      0   0   1   1      **Hail (2.75)**

**Morrill County**  
Bayard             11 1725MST                      0   0   1   1      **Hail (0.75)**

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## NEBRASKA Cont'd

**Dixon County**  
1 N Emerson      12 2100CST      0 0      1 1      Hail (1.75)

**Dakota County**  
4 SW Dakota City      12 2105CST      0 0      1 1      Hail (1.50)  
1 S Homer      12 2138CST      0 0      1 1      Hail (1.00)

**Thayer County**  
Belvidere      14 0515CST-  
Bruning      0532CST      0 0      4 0      Hail (1.50)

Walnut-size hail damaged several vehicles.

**Scotts Bluff County**  
7 SW to 3 E      15 1730MST-  
Scottsbluff      1830MST      0 0      1 1      Hail (1.75)

**Sioux County**  
30 W Hemingford      15 1920MST      0 0      1 1      Hail (1.50)

**Buffalo County**  
8 N Amherst      15 2315CST      0 0      3 0      Thunderstorm Winds (G52)

Thunderstorm winds gusting to 60 mph blew the roof off a farrowing house.

**Pierce County**  
1 SW Osmond      16 1245CST      Short      15      0 0      0 0      Tornado (F0)

A tornado briefly touched down in a field but caused no damage.

**Lincoln County**  
2 W Sutherland      16 1305CST      0 0      0 0      Hail (1.75)

A deputy sheriff reported golf ball-size hail in open fields with no damage.

**Phelps County**  
Holdrege      16 1430CST      0 0      4 0      Thunderstorm Winds (G61)

Thunderstorm winds gusting to 70 mph downed several trees. A few trees fell on houses and damaged roofs.

**Lincoln County**  
4 S Sutherland      16 1458CST      Short      25      0 0      0 0      Tornado (F0)

A spotter reported a brief touchdown in an open field with no damage.

**Nuckolls County**  
Superior      16 1500CST      0 0      3 0      Hail (1.75)

Golf ball-size hail damaged vehicles.

**Chase County**  
5 SE Lamar      16 1510CST-  
1515CST      1.5      25-50      0 0      0 0      Tornado (F0)

A tornado was reported by a spotter and moved north. Three funnels were also reported by the spotter.

**Perkins County**  
2 E Brandon      16 1510CST      Short      25      0 0      0 0      Tornado (F0)  
2 N Grant      16 1510CST      Short      25      0 0      0 0      Tornado (F0)

The Grant Fire Department reported that two tornadoes briefly touched down in open areas along with three additional funnel clouds.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## NEBRASKA Cont'd

<b>Fillmore County</b> Grafton	16 1515CST				0	0	4	0	Hail (1.50)
									Ping-Pong ball-size hail broke several car and house windows.
<b>Gosper County</b> 12 NW Arapahoe	16 1515CST	0.5	50		0	0	0	0	Tornado (F0)
									A tornado briefly touched down in an open field with no apparent damage.
12 SE Elwood	16 1525CST	0.5	40		0	0	0	0	Tornado (F0)
									A tornado briefly touched down near a farm but caused no apparent damage.
10 N Arapahoe	16 1535CST	0.5	30		0	0	4	0	Tornado (F0)
									A tornado briefly touched down and lifted a garage roof off its foundation.
<b>Buffalo County</b> Odessa	16 1540CST				0	0	4	0	Hail (1.75)
									Golf ball-size hail damaged some vehicles.
<b>Keith County</b> 4 S Ogallala	16 1600CST	Short	25		0	0	0	0	Tornado (F0)
									A spotter reported a brief tornado touchdown in open field with no damage.
<b>Buffalo County</b> 8 NE Kearney	16 1600CST	0.8	50		0	0	0	0	Tornado (F0)
									Civil defense officials reported the brief touchdown of a tornado in an open area with no apparent damage.
1 W Pleasanton	16 1605CST	1.0	40		0	0	0	0	Tornado (F0)
									A tornado touched down in an open field with no apparent damage.
<b>Seward County</b> 8 SW Seward 5 NE Seward	16 1643CST- 1700CST	11.0	100		0	0	5	3	Tornado (F2)
									A tornado first touched down and destroyed several outbuildings and their contents on a farm southwest of Seward. It lifted as it moved northeast and touched down on another farm northeast of Seward where it destroyed a machine shed and equipment.
<b>Saunders County</b> Valparasio	16 1715CST				0	0	2	1	Thunderstorm Winds (G52)
									Thunderstorm winds gusting to 60 mph blew tree limbs down.
<b>Nemaha County</b> Johnson	16 1813CST				0	0	1	1	Hail (1.75)
2 W Auburn	16 1815CST				0	0	0	0	Funnel Cloud
Brock	16 1828CST				0	0	1	1	Hail (1.75)
<b>Dodge County</b> Fremont	16 1830CST				0	0	3	1	Thunderstorm Winds (G63)
									Thunderstorm winds gusting to 73 mph downed trees and power lines.



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## NEBRASKA Cont'd

<b>Douglas County</b> 15 SW Omaha	16	1830CST			0	0	3	1	<b>Thunderstorm Winds (G52)</b>  Sixty-mph winds blew down some trees near 190th and Harrison in southwestern Douglas County.
<b>Otoe County</b> Talmage	16	1839CST			0	0	1	1	<b>Hail (1.00)</b>
<b>Douglas County</b> 4 NE Omaha	16	1926CST			0	0	1	0	<b>Thunderstorm Winds (G63)</b>  Winds up to 73 mph were recorded at Eppley Airfield.
<b>Platte County</b> 3 W Cornlea 9 NW Columbus	17	1130CST			0	0	0	0	<b>Funnel Clouds</b>  Numerous cold air funnels were spotted, but no touchdowns were reported.
<b>Phelps County</b> 2 S Holdrege	22	1900CST			0	0	4	4	<b>Hail (1.00)</b>  Hail up to 1.00 inch in diameter accumulated in drifts. There was damage to several vehicles and wheat fields.
<b>Gosper County</b> 6 N Elwood	22	1930CST			0	0	3	0	<b>Hail (1.75)</b>  Golf ball-size hail, reported by storm spotters at Johnson Lake, damaged a few vehicles.
<b>Dawson County</b> Cozad Lexington	22 23	2100CST- 0400CST			0	0	5	5	<b>Flash Flood</b>  Thunderstorms produced very heavy rains across Dawson County, with Cozad reporting 7.00 to 8.00 inches of rain. Water ran over many county roads and flooded fields. Highway 30, 1 mile west of Cozad, was covered with water 300 to 400 yards wide. Most streets in the southeastern part of Cozad were flooded with water up to car doors. Although 700 to 800 sandbags were used to control the water, many homes had water in the basements. In Lexington 4.00 to 5.00 inches of rain caused street and basement flooding. The rain caused a mudslide on Highway 21 just north of Lexington which sent three cars into the ditch. County extension agents reported water and silt damage to 10,000 acres of crops in Dawson County.
<b>Webster County</b> Red Cloud 2 N Red Cloud	27	0512CST- 0515CST			0	0	4	0	<b>Hail (1.75)</b>  Walnut- to golf ball-size hail covered the ground and damaged several vehicles.
<b>Sioux County</b> 5 S Harrison	27	1800MST			0	0	1	1	<b>Hail (2.50)</b>
<b>Dawes County</b> 4 N to 12 N Crawford	27	1900MST			0	0	1	1	<b>Hail (0.75)</b>
<b>Chadron</b> 1 S Chadron	27	1915MST			0	0	4	5	<b>Hail (1.75)</b>
<b>Burt County</b> Lyons	27	2200MST			0	0	1	1	<b>Hail (1.75)</b>
<b>Lyons</b> 4 SW Lyons	27	2335CST			0	0	3	0	<b>Hail (1.00)</b>
	27	2344CST			0	0	4	0	<b>Lightning</b>

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROSSL	

## NEBRASKA Cont'd

Lightning struck a barn and started a fire that completely destroyed the structure; damage was estimated at \$20,000.

**3 N to 8 NE Oakland**      27    2345CST-2355CST    6.0      \*1      0    2    6    4      Tornado (F3)

A tornado touched down north of Oakland and moved northeast. It completely destroyed a mobile home and injured its two occupants, one sustained a broken back and was paralyzed from the waist down. A 74-year-old man died from a heart attack in his basement after securing property before the storm hit. Nine other houses, sixteen farms, and four center-pivot irrigation systems were damaged at a total cost of \$900,000.

**4 E Lyons  
5 E Lyons**      28    0030CST-0032CST    1.0      440    0    0    5    3      Tornado (F2)

A second tornado moved northeast for a mile and caused damage at two farms. Damage was estimated at \$100,000.

**Chase County  
4 S Wauneta**      28    1809CST      0    0    0    0      Funnel Cloud

A spotter reported a funnel cloud moving northeast at 30 mph.

**Lincoln County  
Sutherland**      28    1835CST      0    0    0    0      Thunderstorm Winds (G52)  
Funnel Cloud

**12 NW North Platte**      28    1848CST      0    0    2    0      Thunderstorm Winds (G62)

**North Platte**      28    1850CST      0    0    4    0      Thunderstorm Winds (G52)

**6 S North Platte**      28    1900CST      0    0    0    0      Funnel Cloud

Funnel clouds were spotted near Sutherland and south of North Platte moving east. Thunderstorm winds gusted to 60 mph at Sutherland and at the National Weather Service Office, and up to 71 mph northwest of North Platte. In North Platte, a home under construction collapsed with five people inside, but no one was injured. Numerous trees and power lines were blown down. A power company employee was seriously injured when he touched a live line while working to restore power.

**Banner County  
3 N Harrisburg**      28    1746MST      0    0    0    0      Funnel Cloud

**Red Willow County  
McCook**      28    1950CST      0    0    3    0      Lightning

Lightning struck the transmission tower of radio station KICX. Thunderstorm winds of 50 mph blew the roof off a grain bin and knocked a storage building off its foundation. Numerous power lines were blown down.

**Custer County**      28    2000CST      0    0    3    0      Thunderstorm Winds

Strong thunderstorm winds downed trees and power lines in Anselmo, Callaway, and Broken Bow.

**Perkins County  
8 S Grant**      28    2040CST      0    0    4    0      Lightning

Lightning struck a house causing damage to the chimney and electrical system, cracked plaster walls, blew out windows, and knocked a hole in the roof that was several feet wide.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## NEBRASKA Cont'd

**Buffalo County**  
14 S Ravenna

28 2110CST 1.0 50 0 2 5 0 Tornado (F1)

A tornado touched down on a farm and destroyed a Quonset building. Inside the building, two tractors and a combine received extensive damage. Two people were caught outside when the tornado touched down and sustained minor leg bruises and scratches. A wood frame barn had one side torn off and a house sustained roof damage. The tornado lifted after moving northeast a short distance from the farm.

**Platte County**  
Columbus

28 2115CST 0 0 1 0 Thunderstorm Winds

Tree damage occurred from thunderstorm winds.

**Cuming County**  
5 N Beemer  
**Holt County**  
Atkinson

28 2120CST 0 0 0 0 Hail (0.75)

28 2120CST 0 0 4 0 Thunderstorm Winds

Strong winds scattered light planes at the Atkinson Airport and blew down an old hangar.

**Hall County**  
Grand Island

28 2130CST 0 0 3 0 Thunderstorm Winds (G52)

Thunderstorm winds gusting to 60 mph caused tree damage.

**Sherman County**  
8 NE Ravenna

28 2145CST 0.5 30 0 0 0 0 Tornado (F0)

A tornado touched down in an open field with no apparent damage.

**Holt County**  
10 NW to 15 NE  
O'Neill

28 2145CST-  
2155CST 0 0 5 1 Thunderstorm Winds

Downburst winds caused a path of damage approximately 20 miles long and 2 to 3 miles wide. Numerous outbuildings and barns were destroyed, and some roofs were blown off barns. Irrigation systems were overturned, and power poles and lines were downed. Several homes were damaged by falling trees and limbs, and windows were blown out.

**Howard County**  
2 N Dannebrog

28 2148CST 0 0 3 0 Thunderstorm Winds (G52)

Thunderstorm winds gusting to 60 mph damaged a mobile home.

**Hall County**  
2 N Grand Island

28 2150CST 0 0 3 0 Thunderstorm Winds (G52)

Thunderstorm winds gusting to 60 mph damaged four outbuildings.

**Merrick County**  
8 W Central City

28 2218CST 0.5 40 0 0 0 0 Tornado (F0)

A tornado briefly touched down with no apparent damage.

**Nance County**  
Fullerton  
Genoa

28 2230CST-  
2245CST 0 0 3 0 Thunderstorm Winds (G52)

Thunderstorm winds gusting to 60 mph damaged trees and power lines.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## NEBRASKA Cont'd

<b>Madison County</b> Norfolk	28 2305CST				0	0	1	0	Thunderstorm Winds
		Several trees and numerous branches were blown down.							
<b>Platte County</b> Columbus	28 2330CST				0	0	1	0	Thunderstorm Winds
		Strong winds downed several trees which knocked power poles and lines to the ground which resulted in a power outage. Tree branches, bark, twigs, and leaves fell throughout the city, but no other property damage was reported.							
<b>Dixon County</b> Newcastle Ponca	28 2340CST				0	0	3	0	Thunderstorm Winds
		A garage was destroyed 3 miles east of Newcastle by high winds. Numerous tree limbs and power lines were downed around Newcastle and Ponca.							
<b>Dakota County</b> South Sioux City	29 0030CST				0	0	4	1	Thunderstorm Winds
		A 1.5-foot tree limb fell on a mobile home in the northeastern section of town.							
<b>Otoe County</b> Palmyra	29 1535CST				0	0	3	3	Hail (2.75)
		Baseball-size hail fell from a thunderstorm which produced winds that uprooted trees and knocked down power lines.							
<b>Sioux County</b> 9 SW Harrison	29 1523MST				0	0	0	0	Funnel Cloud
12 S Harrison	29 1623MST				0	0	1	1	Hail (1.00)
<b>Franklin County</b> Hildreth	29 2035CST				0	0	3	0	Hail (1.75)
		Golf ball-size hail damaged a few vehicles.							
<b>Perkins County</b> 8 S Grant	29 2036CST	Short	25		0	0	0	0	Tornado (F0)
		A spotter reported a brief touchdown in an open area with no damage.							
<b>Hall County</b> 2 E Doniphan	29 2055CST				0	0	3	0	Hail (1.75)
		A storm spotter reported golf ball-size hail.							
<b>Furnas County</b> Cambridge Arapahoe Oxford	29 2100CST- 2200CST				0	0	4	4	Hail (2.75) Thunderstorm Winds (G52)
		Golf ball- to baseball-size hail, and thunderstorm winds gusting to 60 mph, broke windows, damaged homes and businesses, stripped tree limbs, broke branches, damaged vehicles, and completely flattened sections of wheat and corn fields.							
<b>Adams County</b> 2 NE Hastings	29 2110CST				0	0	0	0	Funnel Cloud
<b>Lincoln County</b> 7 SW North Platte	29 2119CST	Short	25		0	0	0	0	Tornado (F0)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## NEBRASKA Cont'd

The highway patrol reported a brief touchdown in an open field with no damage.

**Buffalo County**  
2 N Kearney

29	2130CST	0.5	30	0	0	0	0	Tornado (F0)
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The sheriff's office reported the brief touchdown of a tornado with no apparent damage.

**Polk County**  
2 S Osceola

29	2135CST	1.0	40	0	0	3	0	Tornado (F0)
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A tornado touched down and damaged several trees before lifting.

**Hall County**  
Grand Island

29	2142CST	0.3	30	0	0	0	0	Tornado (F0)
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Storm spotters reported the brief touchdown of a tornado near Fonner Park with no apparent damage.

**Sarpy County**  
Papillion  
**Lincoln County**  
North Platte

29	2150CST			0	0	1	0	Hail (0.75)
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29	2152CST			0	0	0	0	Funnel Cloud
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Funnel clouds were reported over Lake Maloney, the Union Pacific's Bailey yards, the water tower, and at 2nd Street and Alma.

**Furnas County**  
2 N Oxford

29	2155CST			0	0	0	0	Funnel Cloud
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Civil Defense officials reported a funnel cloud.

**Dundy County**  
Haigler

29	2200CST			0	0	0	0	Hail (1.75)
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Golf ball-size hail fell but caused no damage.

**Dundy County**  
Benkelman

29	2201CST			0	0	3	3	Hail (2.75)
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One inch of hail covered the ground and caused minor damage to homes, cars, trees, and crops.

**Lincoln County**  
2 NNE North Platte

29	2207CST			0	0	0	0	Thunderstorm Winds (G61)
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Gusts were estimated at 60 to 70 mph near the KNOP Television Station, but no damage was reported.

**Harlan County**  
Ragan

29	2221CST			0	0	4	0	Hail (1.50)
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Walnut-size hail damaged several vehicles.

**Franklin County**  
Upland  
Campbell

29	2305CST- 2310CST			0	0	4	0	Hail (1.75)
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Golf ball-size hail damaged several vehicles.

**Hall County**  
6 N Wood River

30	0520CST			0	0	0	0	Funnel Cloud
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# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## NEBRASKA Cont'd

A funnel cloud was sighted by a storm spotter.

<b>Custer County</b>		30 1050CST	Short	25	0	0	0	0	Tornado (F0)
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Spotters reported a brief touchdown in an open field with no damage.

<b>Scotts Bluff County</b>		30 1627MST			0	0	0	0	Funnel Cloud
1 NW Morrill		30 1650MST			0	0	1	1	Hail (2.00)
Morrill		30 1712MST			0	0	1	1	Hail (1.75)
2 N Mitchell		30 1721MST			0	0	0	0	Funnel Cloud
6 SW Mitchell									
<b>Kimball County</b>									
20 SW Kimball		30 1725MST			0	0	1	1	Hail (1.25)
<b>Scotts Bluff County</b>									
3 N Lyman		30 1750MST			0	0	?	?	Hail (2.75)
<b>Harlan County</b>									
Stamford		30 1850CST	1.0	50	0	0	5	0	Tornado (F2)

A tornado touched down in the northern part of Stamford and traveled 1 mile before lifting. In Stamford, seven houses suffered major damage. One unoccupied mobile home was moved 200 to 300 yards and destroyed. Just north of Stamford, all buildings on one farm were destroyed except the house. Another farm lost two Quonset sheds and two grain bins.

<b>Orleans</b>		30 1855CST			0	0	0	0	Funnel Cloud
5 NE Orleans		30 1911CST			0	0	0	0	Funnel Cloud
10 S Holdrege		30 1920CST	0.5	30	0	0	0	0	Tornado (F0)
8S Holdrege		30 1927CST			0	0	0	0	Funnel Cloud

Several funnel clouds were reported and a tornado briefly touched down with no apparent damage.

<b>Loop County</b>		30 2145CST	?	15	0	0	0	0	Tornado (F0)
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A tornado briefly touched down in open country.

<b>Garfield County</b>		30 2145CST	?	15	0	0	0	0	Tornado (F0)
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A tornado briefly touched down in open country.

<b>Holt County</b>		31 2100CST			0	0	0	0	Hail (2.75)
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## NEVADA

<b>NVZ001-003</b>		08 1600PST-							
Truckee and Tahoe Area, Extreme Western Nevada		09 0900PST			0	0	0	0	Heavy Snow

A cold low-pressure system dumped 8.5 inches of snow in the Lake Tahoe-Truckee area. The same system brought a late season snow to western Nevada where many areas picked up 2.00 to 6.00 inches.

<b>NVZ009</b>		08 1800PST-							
Extreme Southern Nevada		09 1500PST			0	0	0	0	High Winds

The same system brought high winds to southern Nevada. A wind gust of 52 mph was reported at McCarran Airport in Las Vegas.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CRODAS	

## NEVADA, Cont'd

NVZ006 Northeastern Nevada	13	1730PST			0	0	0	0	Funnel Cloud
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A funnel cloud was spotted 30 miles northeast of Elko at 1730 PST.

## NEW HAMPSHIRE

Cheshire County									
Fitzwilliam	17	1630EST			0	0	?	0	Lightning
Winchester	17	1633EST			0	1	?	0	Thunderstorm Winds Lightning
Merrimack County									
Hopkinton	17	1645EST			0	0	?	0	Thunderstorm Winds
Strafford County									
Dover	17	1720EST			0	0	?	0	Thunderstorm Winds Lightning
Somersworth	17	1723EST			0	0	?	0	Lightning
Rockingham County									
Nottingham	17	1725EST			0	0	5	0	Lightning
Hillborough County									
Sharon	17	1730EST			0	0	?	0	Lightning

Thunderstorms rolled across southern New Hampshire during the early evening hours on the 17th bringing with them, strong winds and lightning. Lightning started a fire at the Tomilla Brothers Lumber Company at 1630 EST destroying two storage sheds. Thunderstorm winds moved through the town of Winchester knocking down trees and power lines. A man was injured when he was struck by a falling tree. Twelve roads were closed as a result of the fallen trees. Lightning struck a substation in Winchester which left parts of the town without electricity. Large trees and power lines were knocked down in Hopkinton at 1645 EST causing some power outages and damage to a vehicle. At 1720 EST, thunderstorm winds knocked large tree limbs and power lines down in Dover. Lightning also struck two garages, setting each on fire. One garage was destroyed while the other sustained damage. At Somersworth, the Facemate Bleachery was struck by lightning at 1723 EST causing a fire and electrical damage. Lightning struck a vacant home in Nottingham at 1725 EST causing a fire. The home sustained \$200,000 damage. Lightning also struck a tree in Sharon at 1730 EST and jumped onto the roof of a home, starting a fire. Damage was reported as minimal.

Cheshire County									
Hinsdale	31	1320EST- 1330EST	0.5	33	0	0	?	0	Tornado (F0)

A tornado touched down in the town of Hinsdale at 1320 EST. The tornado tore the roof off of a store and also knocked down several power lines and poles. As the tornado moved along Route 63, it picked up a dumpster and smashed it into a car.

## NEW JERSEY, Northern

Hunterdon County									
Whitehouse Station	13	1703EST			0	0	0	0	Thunderstorm Winds (G54)
Hunterdon County									
Clinton	13	1713EST			0	0	?	0	Thunderstorm Winds
Annandale									
Somerset County									
Countywide	13	1725EST			0	0	?	0	Thunderstorm Winds Lightning

Thunderstorms, forming along a stalled frontal boundary, generated damaging winds and frequent cloud-to-ground lightning. Hunterdon and Somerset Counties were the hardest hit with numerous trees and power lines down. Several homes in Somerset County were also hit by lightning and some severely damaged.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## NEW JERSEY, Northern Cont'd

**Warren County**  
Hacketstown  
Great Meadows      25   1420EST-1450EST      0   0   ?   0      **Thunderstorm Winds**

An isolated thunderstorm moving through Warren County downed several large trees, damaging one house in the process.

**Essex County**      27   2305EST      0   0   ?   0      **Flash Flood**

A complex of thunderstorms was responsible for torrential downpours across Essex County. Nearly 2.00 inches of rain fell during a short time and produced significant urban and poor drainage flooding.

**Sussex County**  
Monroe      30   1725EST      0   0   0   0      **Hail (1.00)**

**Middlesex County**  
Sayreville      30   1730EST      0   0   ?   0      **Thunderstorm Winds**

**South Amboy**  
**East Brunswick**

An upper level disturbance moving through a very warm and unstable air mass generated large hail and locally damaging winds.

**Warren County**  
Belvidere      31   1320EST      0   0   ?   0      **Thunderstorm Winds**

**Somerset County**  
Bedminster      31   1320EST      0   0   0   0      **Hail (1.00)**

**Hunterdon County**  
Clinton      31   1345EST      0   0   ?   0      **Thunderstorm Winds**

**Pattenburg**  
**Flemington**

**Morris County**  
Morris Township      31   1400EST      0   0   ?   0      **Thunderstorm Winds**

**Chester**  
**Harding**

**Somerset County**  
Gladstone      31   1400EST      0   0   ?   0      **Thunderstorm Winds**

**Franklin**

**Hunterdon County**  
Whitehouse Station      31   1415EST      0   0   0   0      **Thunderstorm Winds (G61)**

**Monmouth County**  
Monmouth Beach      31   1430EST-1450EST      0   0   ?   0      **Thunderstorm Winds**

**Middletown**

A squall line formed over eastern Pennsylvania around midday. It raced across northern New Jersey during the early afternoon generating damaging winds. The highest gust recorded was 70 mph (61 knots) at Whitehouse Station in Hunterdon County. Elsewhere, numerous trees and power lines were reported downed. In Monmouth Beach, eight cars were damaged. The storms also produced 1.00-inch hail at Bedminster.

## NEW JERSEY, Southern

**Gloucester County**  
Swedesboro      06   1745EST      0   0   3   0      **Thunderstorm Winds**

2 NE Glassboro      06   1755EST      0   0   3   0      **Thunderstorm Winds**

Cross Keys      06   1800EST      0   1   3   0      **Thunderstorm Winds**

**Airport**

Thunderstorm wind gusts downed trees in Swedesboro and near Glassboro. In Swedesboro, one tree fell on an automobile. Near the Cross Keys Airport, wind gusts collapsed a large tent where a meeting was taking place. One woman was slightly injured by a falling tent pole.



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## NEW JERSEY, Southern Cont'd

### Cumberland County

Bridgeton	06	1755EST			0	0	?	0	Thunderstorm Winds (G64)
8 SW Millville	06	1805EST			0	0	2	0	Thunderstorm Winds (G54)

Thunderstorm wind gusts were reported at 74 mph in Bridgeton and 62 mph southwest of Millville. The wind gusts downed tree limbs southwest of Millville.

### Gloucester County

Williamstown	30	1725EST			0	0	?	0	Hail (1.00)
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A thunderstorm dropped 1.00-inch hail in Williamstown.

## NEW MEXICO

### Grant County

Early	01				0	0	0	?	Freeze
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Freezing temperatures on the first and earlier in the week caught blooming and budding trees during their most vulnerable stages, causing extensive crop damage to area orchards.

### Lea County

Lovington	10	1635MST			0	0	0	0	Hail (1.75)
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The sheriff's office reported golf ball-size hail near Lovington at 1635 MST.

Buckeye	10	1644MST			0	0	0	0	Hail (1.00)
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The civil defense director in Hobbs reported quarter-size hail east of Buckeye at 1644 MST.

20 W Hobbs	10	1722MST			0	0	0	0	Hail (1.75)
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The sheriff's office reported golf ball-size hail 20 miles west of Hobbs at 1722 MST.

### Bernalillo County

Albuquerque	11	1230MST			0	0	3	0	Dust Devil
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The Albuquerque Journal newspaper reported that strong winds blew a roof from 40-foot utility trailer at the University of New Mexico for 50 feet and wrapped it around an oak tree.

### Lea County

Monument	11	1720MST			0	0	0	0	Hail (0.75)
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Public reported dime-size hail 2.25 miles north of Monument at 1720 MST.

6 W Hobbs	11	1745MST			0	0	0	0	Hail (1.00)
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A SKYWARN spotter reported quarter-size hail 6 miles west of Hobbs at 1745 MST.

### Bernalillo County

Albuquerque	14	1342MST			0	0	0	0	Dust Devil
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Wind indicator at Albuquerque International Airport spiked for a short time to 61 knots (70 mph) with passage of dust devil.

Albuquerque	15	1515MST	0.2	10	0	0	0	0	Tornado (F0)
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A tornado was spotted east of Kirtland Air Force Base at the base of Manano Mountains and lasted 15 minutes according to a report that was received from Channel 4 News at 1650 MST.

### Sandoval County

Near Rio Rancho	20	1730MST	0.2	10	0	0	0	0	Tornado (F0)
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# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## NEW MEXICO, Cont'd

A funnel cloud formed a tornado west of Rio Rancho and lasted 2 minutes on the ground according to a report that was received from Channel 4 News at 1802 MST.

**Sierra County Hillsboro  
Dona Ana County Near Rincon**      20 1825MST      0 0 5 0      Hail (2.50)

Hail, described as being giant jawbreaker-size destroyed crops, shattered windows and skylights, downed trees, severed phone lines, and ruined convertible automobile tops in Hillsboro. A \$20,000 breeding ostrich was killed by golf ball-size hail near Rincon. The estimated hail size ranged from 1.50 to 2.50 inches in diameter and accumulated to 2 inches deep in places.

**Mora County Cleveland**      21 Morning      0 0 4 0      River Flood

Flooding occurred in the tributaries of the Mora River because of 1.00- to 1.50-inch rains that coupled with snowmelt. A motel, business, and some homes were flooded near Cleveland along the Mora River.

**Bernalillo County Albuquerque**      21 1215MST      0 0 3 0      Urban Flood

Office of Emergency Preparedness in Albuquerque reported water in homes and street flooding. Lightning created power outages for over 8,000 people for 2 hours.

**Otero County Mayhill**      21 1620MST      0 0 0 0      Hail (0.75)

A cooperative observer in Mayhill reported 0.75-inch hail.

**Eddy County Whites City**      21 1645MST      0 0 3 0      Thunderstorm Winds

One roof and power line were damaged 2 to 5 miles north of Whites City by a severe thunderstorm wind of unknown intensity.

**McKinley County Gallup**      21 1706MST      0 0 0 0      Thunderstorm Winds (G55)

Gallup Flight Service Station observed thunderstorm wind gust to 55 knots.

**Chaves County 30 NW Rosewell Airport**      21 1725MST      0 0 0 0      Funnel Cloud

A funnel cloud was reported by an aircraft pilot 30 miles northwest of Roswell Airport moving northeast at 20 to 25 mph.

**Eddy County W Carlsbad**      21 1737MST      0 0 0 0      Funnel Cloud

A contract observer reported a large funnel cloud 15 to 30 miles west of the Carlsbad Airport.

**15 W Carlsbad**      21 1759MST      0 0 0 0      Funnel Cloud

A National Weather Service spotter reported a funnel cloud 15 miles west of the Carlsbad Airport.

**10 S Carlsbad**      21 1810MST      0.2      10      0 0 3 0      Tornado (F0)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## NEW MEXICO, Cont'd

A tornado was reported by the Eddy County Sheriff's Office and Carlsbad Police Department 10 miles south of Carlsbad Airport. One roof was torn off and power lines were downed. The Waste Isolation Pilot Plant site near Carlsbad also observed this tornado just south-southeast of Carlsbad, east of U.S. Highway 285.

**Dona Ana County  
Afton**

21 Afternoon 0 0 0 0 Hail (1.75)

A cooperative observer reported in the monthly report that golf ball-size hail covered the ground.

**Eddy County  
10 S Carlsbad**

21 1836MST 0.2 100 0 0 0 0 Tornado (F0)

A Flight Service Station observer, two National Weather Service spotters, and two ham radio operators observed a tornado on the ground from 1806 to 1845 MST, 10 miles south of the Carlsbad Airport. It was estimated by the Flight Service Station observer to be 100 to 200 yards wide and in open country.

**S Lakewood**

21 1845MST 0 0 0 0 Funnel Cloud

A funnel cloud with good rotation was reported by the wife of contract observer 5 to 10 miles south of Lakewood.

**Cibola County  
Acoma Pueblo**

21 Afternoon 0 0 0 0 Hail (0.75)

Dime-size hail accumulated to 1 inch deep on the ground. The time of occurrence was unknown and was reported to National Weather Service at 1853 MST.

**Eddy County  
Artesia**

21 1930MST 0 0 0 0 Funnel Cloud

The public reported a funnel cloud south of U.S. Highway 52 a few miles west of Loco Hills.

**Santa Fe and  
Taos Counties**

22 Late-  
23 Early 0 0 6 0 River and Stream Flood

Rivers and streams were swollen by heavy rains and snow melt causing damage to bridges and other structures in the Penasco and Chimayo areas. Damage was estimated at over \$500,000.

**Eddy County  
Lakewood**

23 1215MST 0 0 0 ? Hail (1.00)

One-inch-diameter hail with some crop damage, was reported at Lakewood.

**Chaves County  
Rosewell Airport**

23 1240MST 0 0 0 0 Hail (0.75)

Three-quarter-inch hail was reported at the Roswell Airport.

**Eddy County  
Whites City**

23 1255MST 0 0 0 ? Hail (1.75)

Golf ball-size hail was reported by the public with some crop damage indicated.

**Artesia**

23 1330MST 0 0 ? ? Hail (1.75)

Golf ball-size hail was reported in Artesia with some windshied damage to automobiles and some crop damage was indicated.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## NEW MEXICO, Cont'd

<b>Chaves County</b> Rosewell Airport	23	1345MST			0	0	?	0	Hail (0.75)
At the Rosewell Airport, 0.75-inch hail was reported. A large billboard was destroyed on the western edge of Roswell on U.S. Highway 70.									
<b>Chaves County</b> Rosewell Airport	26	1239MST			0	0	0	0	Hail (0.75)
At the Rosewell Airport, 0.75-inch hail was reported.									
<b>Eddy County</b> Artesia	26	1330MST			0	0	0	0	Hail (1.75)
Golf ball-size hail was reported in Artesia.									
<b>Union County</b> SW Clayton	28	1630MST			0	0	0	0	Hail (1.75)
Golf ball-size hail was reported by the Clayton police.									
<b>Quay County</b> 1 W Nara Visa	28	1715MST			0	0	0	0	Hail (1.00)
2 E Tucumcari	28	1720MST			0	0	0	0	Hail (0.75)
Logan	28	1800MST			0	0	0	0	Hail (0.75)
A television meteorologist reported dime-size hail east of Tucumcari. Quay County deputies reported 1.00-inch hail just west of Nara Visa. The police department at Logan reported dime-size hail.									
<b>Lea County</b> 25 NW Hobbs	31	1753MST			0	0	0	0	Hail (1.75)
The Hobbs Sheriff's Office reported golf ball-size hail 25 miles northwest of Hobbs at 1753 MST.									
<b>Eddy County</b> 5 W Carlsbad	31	1915MST			0	0	0	0	Funnel Cloud
A funnel cloud was reported 5 miles west of the Carlsbad Airport by a Flight Service Station observer from 1915 to 1921 MST.									
<b>Carlsbad</b>	31	1848MST			0	0	0	0	Hail (2.00)
A Flight Service Station observer reported 1.00- and 2.00-inch hail at the Carlsbad Airport, from 1848 to 1926 MST.									
<b>SW Carlsbad</b>	31	1901MST			0	0	0	0	Hail (1.75)
The Carlsbad Police Department reported golf ball-size hail in southwestern Carlsbad.									
<b>10 SE Carlsbad</b>	31	1939MST	0.2	10	0	0	0	0	Tornado (F0)
A tornado was reported to Carlsbad Flight Service Station by the Carlsbad City Police Department 10 miles southeast of the city between Otis and Loving, moving north.									
<b>3 SE Carlsbad</b>	31	1942MST	1.0	285	0	21	6	0	Tornado (F2)
A tornado touched down 3 miles southeast of the Carlsbad Airport, traveling mile on the ground toward the northeast. Some damage occurred prior to touchdown believed to be from the funnel									

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## NEW MEXICO, Cont'd

which extended to the southwest for about 0.25 mile. The width of the tornado path was 285 yards.

Fourteen mobile homes were destroyed and 37 additional buildings were damaged. Numerous cars, trucks, campers, and boats were damaged or destroyed. Twenty-one people were injured, nine treated at a hospital, two of which were hospitalized, the others were released. The 12 remaining injured were treated at the scene.

People felt fortunate that the tornado struck when most of them were still outside and not in their homes or sleeping. One family reported their couch missing which was later found 1 to 2 miles away. Another reported that the tornado had lifted an automobile from the surface of the ground into the air.

<b>Chaves County</b> E Roswell	31 2028MST							Funnel Cloud
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Channel 10 News in Roswell reported a funnel cloud well to the east of the city of Roswell.

<b>Roosevelt County</b> 3 SW Portales	31 2115MST							Thunderstorm Winds (G61)
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A National Weather Service Cooperative Observer reported 70-mph winds which reduced the visibility to one-sixteenth of a mile in blowing dust. The thunderstorm downburst winds did not do any significant damage.

## NEW YORK, Central

<b>Tioga County</b> Barton	01 1625EST							Thunderstorm Winds
<b>Madison County</b> N Chittenango	01 1625EST							Funnel Cloud
N Chittenango	01 1633EST							Thunderstorm Winds
Durhamville	01 1640EST							Thunderstorm Winds
Smithfield	01 1645EST							Thunderstorm Winds
<b>Oneida County</b> Countywide	01 1645EST							Thunderstorm Winds
Utica	01 1651EST							Thunderstorm Winds (G55)
Rome	01 1652EST							Thunderstorm Winds (G51)
<b>Tioga County</b> Old Forge	01 1715EST							Thunderstorm Winds
<b>Herkimer County</b> Old Forge	01 1715EST							Thunderstorm Winds
<b>Hamilton County</b> Inlet	01 1720EST							Thunderstorm Winds
Raquette Lake	01 1725EST							Thunderstorm Winds
<b>Broome County</b> Union	01 1725EST							Thunderstorm Winds
Chenango Bridge	01 1725EST							Thunderstorm Winds
<b>Chenango County</b> Greene	01 1725EST							Thunderstorm Winds
Oxford	01 1732EST							Thunderstorm Winds
<b>Hamilton County</b> Blue Mountain Lake	01 1745EST							Thunderstorm Winds
<b>Montgomery County</b> St. Johnsville	01 1750EST							Thunderstorm Winds
<b>Fulton County</b> Caroga Lake	01 1800EST							Thunderstorm Winds
<b>Delaware County</b> Deposit	01 1804EST							Thunderstorm Winds

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME		LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL	STANDARD			KILLED	INJURED	PROPERTY	CROD'S	

## NEW YORK, Central Cont'd

Franklin County Southeast Portion	01	1805EST			0	0	3	0	Thunderstorm Winds
Greene County Greenville	01	1811EST			0	0	3	0	Thunderstorm Winds
Otsego County 5 N Cooperstown	01	1815EST			0	0	3	0	Thunderstorm Winds
Fulton County Caroga Lake	01	1830EST			0	0	3	0	Thunderstorm Winds
Johans town	01	1830EST			0	0	3	0	Thunderstorm Winds
Gloversville	01	1830EST			0	0	3	0	Thunderstorm Winds
Montgomery County Eastern Portion	01	1830EST			0	0	3	0	Thunderstorm Winds
Saratoga County Northwestern Portion	01	1830EST			0	0	3	0	Thunderstorm Winds
Providence	01	1830EST			0	0	4	0	Thunderstorm Winds
Essex County Bloomingdale	01	1830EST			0	0	3	0	Thunderstorm Winds
Delaware County Deposit	01	1843EST			0	0	3	0	Thunderstorm Winds
Fulton County Mayfield	01	1845EST	0.5	100	0	0	3	0	Tornado (F1)
Broadalbin	01	1850EST			0	0	3	0	Thunderstorm Winds
Fonda	01	1850EST			0	0	3	0	Thunderstorm Winds
Fultonville	01	1850EST			0	0	3	0	Thunderstorm Winds
Saratoga County Saratoga Springs	01	1855EST			0	0	3	0	Thunderstorm Winds
Warren County Lake George	01	1858EST			0	0	2	0	Thunderstorm Winds
Schoharie County	01	1900EST			0	0	3	0	Thunderstorm Winds
Schenectady County	01	1900EST			0	0	3	0	Thunderstorm Winds
Washington County Argyle	01	1900EST			0	0	3	0	Thunderstorm Winds
Sullivan County 5 N Ferndale	01	1915EST			0	0	3	0	Thunderstorm Winds
Rensselaer County Troy	01	1917EST			0	0	3	0	Thunderstorm Winds
Albany County	01	1930EST			0	0	3	0	Thunderstorm Winds
Rensselaer County Cropseyville	01	1940EST			0	0	3	0	Thunderstorm Winds
Grafton	01	1940EST			0	0	3	0	Thunderstorm Winds

The first day of May saw a squall line move through eastern New York during the late afternoon and evening hours. Numerous reports of downed trees and power lines were received from across the area. Oneida County was one of the hardest hit areas by the storms with over 10,000 people left without power. One person was killed and two others injured when the car in which they were riding in along Route 365 in Oneida Castle was struck by a large tree limb. Fulton and Saratoga Counties were also affected by the storms with an confirmed F1 tornado in the town of Mayfield near Route 123 in Fulton County, and thunderstorm downburst winds of 70 to 80 mph destroyed a building at Hagedorns Mills in the town of Providence in Saratoga County. (F29V)

NYZ013-020 Lower Hudson Valley and Greater Capital District	13 Afternoon	0	0	0	0	Record Heat
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Many communities in the Hudson Valley of New York tied or set new record high temperatures. The mercury hit 87°F at both Newburgh and Poughkeepsie breaking the previous record and Albany hit 86°F which tied the record high set in 1985.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## NEW YORK, Central Cont'd

Warren County Lake George	17	1346EST			0	0	4	0	Lightning
Fulton County Broadalbin	17	1415EST			0	0	3	0	Thunderstorm Winds
Saratoga County Milton	17	1500EST			0	0	6	0	Thunderstorm Winds
Ballston Spa	17	1500EST			0	0	5	0	Thunderstorm Winds
Malta	17	1500EST			0	0	4	0	Thunderstorm Winds
Clifton Park	17	1500EST			0	1	5	0	Thunderstorm Winds
Waterford	17	1500EST			0	0	4	0	Thunderstorm Winds
Saratoga Springs	17	1515EST			0	0	5	0	Thunderstorm Winds
Washington County Easton	17	1525EST			0	0	3	0	Thunderstorm Winds
Cambridge	17	1535EST			0	0	4	0	Thunderstorm Winds
Rensselaer County Buskirk	17	1535EST			0	0	4	0	Thunderstorm Winds
Eagle Bridge	17	1535EST			0	0	4	0	Thunderstorm Winds
Hoosick Falls	17	1535EST			0	0	4	0	Thunderstorm Winds
North Hoosick	17	1535EST			0	0	4	0	Thunderstorm Winds
Valley Falls	17	1540EST			0	0	4	0	Thunderstorm Winds
Melrose	17	1545EST			0	0	3	0	Thunderstorm Winds
Tomhannock Reservoir	17	1545EST			0	0	3	0	Thunderstorm Winds
Dutchess County Red Hook	17	1615EST			0	0	3	0	Thunderstorm Winds
Columbia County Hudson	17	1620EST			0	0	3	0	Thunderstorm Winds
Dutchess County Red Hook	17	1800EST			0	0	4	0	Thunderstorm Winds
Wappingers Falls									
Poughkeepsie	17	1810EST			0	0	4	0	Lightning
Putnam County Patterson	17	1900EST			0	1	4	0	Lightning

An intense squall line developed ahead of a cold front as it swept into eastern New York during the afternoon of May 17th. Numerous reports of trees and power lines downed by thunderstorm winds were received from across the area. The hardest hit counties were Saratoga and Rensselaer, where around 10,000 people were left without power. Several cars were damaged by downed trees in Ballston Spa and Clifton Park. A man in Clifton park also sustained a hand injury when a tree toppled onto his truck. At the Saratoga County Airport in Milton, several planes sustained heavy damage, while in the town of Saratoga one side of an abandoned church collapsed. The storms were also accompanied by frequent lightning which started house fires in Lake George, Poughkeepsie, and Patterson. In the wake of the thunderstorms, temperatures dropped from the 80s into the 50s during a 2-hour period.

Oneida County Rome	27	0130EST			0	0	2	0	Lightning
Lightning struck and damaged a pool on Coleman Mills Road.									
Broome County Windsor	30	1435EST			0	0	3	0	Thunderstorm Winds
Delaware County Sidney	30	1445EST			0	0	3	0	Thunderstorm Winds
Albany County Bethlehem	30	1500EST			0	0	0	0	Hail (0.75)
Albany	30	1512EST			0	0	0	0	Hail (1.00)
Albany	30	1512EST			0	0	3	0	Urban Flood
Rensselaer County Schodack	30	1515EST			0	0	4	0	Thunderstorm Winds

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## NEW YORK, Central Cont'd

<b>Albany County</b>									
Bethlehem	30	1520EST			0	0	6	0	Thunderstorm Winds
Guilderland	30	1520EST			0	0	5	0	Thunderstorm Winds
Guilderland	30	1520EST			0	0	3	0	Urban Flood
Guilderland	30	1520EST			0	0	2	0	Hail (2.75)
<b>Rensselaer County</b>									
Stephentown	30	1530EST			0	0	3	0	Thunderstorm Winds
<b>Columbia County</b>									
5 N Kinderhook Lake	30	1535EST			0	0	4	0	Thunderstorm Winds
North Chatham	30	1535EST			0	0	4	0	Thunderstorm Winds
Valatie	30	1540EST			0	0	3	0	Thunderstorm Winds
<b>Chenango County</b>									
Mcdonough	30	1545EST			0	0	2	0	Thunderstorm Winds
<b>Columbia County</b>									
North Chatham	30	1547EST			0	0	3	0	Thunderstorm Winds
<b>Sullivan County</b>									
Thompsonville	30	1600EST			0	0	3	0	Thunderstorm Winds
<b>Ulster County</b>									
Wallkill	30	1600EST			0	0	3	0	Thunderstorm Winds
<b>Chenango County</b>									
Greene	30	1600EST			0	0	2	0	Thunderstorm Winds
Smyrna	30	1600EST			0	0	3	0	Thunderstorm Winds
<b>Orange County</b>									
Newburgh	30	1600EST			0	0	3	0	Thunderstorm Winds
Middletown	30	1610EST			0	0	0	0	Hail (1.00)
Middletown	30	1610EST			0	0	5	0	Thunderstorm Winds
<b>Ulster County</b>									
Plattekill	30	1610EST			0	0	3	0	Thunderstorm Winds
<b>Dutchess County</b>									
Dutchess County	30	1615EST			0	0	3	0	Thunderstorm Winds
<b>Orange County</b>									
Highland Falls	30	1630EST			0	0	2	0	Lightning
<b>Putnam County</b>									
Philipstown	30	1632EST			0	0	3	0	Thunderstorm Winds
Garrison	30	1632EST			0	0	3	0	Thunderstorm Winds
Carmel	30	1700EST			0	0	3	0	Thunderstorm Winds
<b>Saratoga County</b>									
Wilton	30	1800EST			0	0	3	0	Lightning
<b>Dutchess County</b>									
Dutchess County	30	1837EST			0	0	3	0	Thunderstorm Winds
<b>Putnam County</b>									
Philipstown	30	1845EST			0	0	3	0	Thunderstorm Winds
Garrison	30	1845EST			0	0	3	0	Thunderstorm Winds
Mahopac	30	1900EST			0	0	3	0	Thunderstorm Winds
<b>Dutchess County</b>									
Lagrangeville	30	1907EST			0	0	3	0	Thunderstorm Winds
Stormville	30	1907EST			0	0	3	0	Thunderstorm Winds
Poughkeepsie	30	1910EST			0	0	3	0	Thunderstorm Winds

A squall line swept through eastern New York on the afternoon and evening of May 30th causing widespread damage and producing some flooding in the Capital District Area. Hardest hit were the Townships of Bethlehem and Guilderland in Albany County. Extensive damage was reported at the Canterbury Park and Covington Woods housing developments along with baseball-size hail. Route 20 in Guilderland was closed for 2 hours during rush hour because of waste-high flooding. In Bethlehem, numerous trees were completely uprooted and a construction trailer was destroyed. In Albany many roads were flooded with up to 3 feet of standing water as storm drains overflowed. Also affected was the Columbia County town of Chatham where many trees were uprooted by thunderstorm winds. Altogether, over 20,000 people were left without power.



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## NEW YORK, Coastal

Westchester County	30	1730EST			0	0	?	0	Thunderstorm Winds
Nassau County									
Long Beach	30	1800EST			0	0	0	0	Thunderstorm Winds
Suffolk County									
Islip	30	1834EST			0	0	0	0	Hail (1.00)
Holbrook	30	1837EST			0	0	0	0	Hail (1.50)

An upper-level disturbance, moving through a very warm and unstable air mass, generated large hail and locally-damaging winds.

## NEW YORK, Western

Erie County									
Eden	01	1340EST	0.5	10	0	0	5	0	Tornado (F0)
Niagara County									
Niagara Falls	01	1346EST			0	0	3	0	Thunderstorm Winds (G51)
Wyoming County									
Couriers	01	1415EST			0	0	4	0	Thunderstorm Winds
Java	01	1415EST	0.2	50	0	0	4	0	Tornado (F1)
Genesee County									
Elba	01	1421EST			0	0	3	0	Thunderstorm Winds
Erie County									
Holland	01	1430EST			0	0	3	0	Thunderstorm Winds
Livingston County									
Mt. Morris	01	1450EST			0	0	4	0	Thunderstorm Winds
Dansville	01	1455EST			0	0	3	0	Thunderstorm Winds
Monroe County									
Rochester	01	1455EST			0	0	4	0	Thunderstorm Winds (G56)
Pittsford	01	1500EST			0	0	5	0	Thunderstorm Winds
Henrietta	01	1500EST			0	0	4	0	Thunderstorm Winds
Allegany County									
Angelica	01	1500EST			0	0	3	0	Thunderstorm Winds
Ontario County									
Farmington	01	1510EST			0	0	4	0	Thunderstorm Winds
Steuben County									
Wayland	01	1515EST			0	0	3	0	Thunderstorm Winds
Addison	01	1521EST			0	0	4	0	Thunderstorm Winds
Schuyler County									
Tyrone	01	1523EST			0	0	3	0	Thunderstorm Winds
Ontario County									
Phelps	01	1525EST			0	0	4	0	Thunderstorm Winds
Yates County									
Dresden	01	1525EST			0	0	3	0	Thunderstorm Winds
Steuben County									
Bath	01	1527EST			0	0	3	0	Thunderstorm Winds
Wayne County									
Clyde	01	1530EST			0	0	3	0	Thunderstorm Winds
Cayuga County									
Auburn	01	1530EST			0	0	3	0	Thunderstorm Winds
Seneca County									
Waterloo	01	1535EST			0	0	4	0	Thunderstorm Winds
Jefferson County									
Ontario Point	01	1600EST			0	0	3	0	Thunderstorm Winds (G55)
Oswego County									
Fulton	01	1600EST			0	0	4	0	Thunderstorm Winds
Onondaga County									
Baldwinsville	01	1607EST			0	0	3	0	Thunderstorm Winds
Syracuse	01	1617EST			0	0	3	0	Thunderstorm Winds (G66)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## NEW YORK, Western Cont'd

Collamer	01	1620EST			0	0	4	0	Thunderstorm Winds
Ontario County									
Bristol	01	1625EST			0	0	4	0	Thunderstorm Winds
Jefferson County									
Orleans	01	1630EST			0	0	4	0	Thunderstorm Winds
Oswego County									
Caughdenoy	01	1639EST			0	0	4	0	Thunderstorm Winds
Tompkins County									
Lansing	01	1640EST			0	0	3	0	Thunderstorm Winds
Steuben County									
N Cohocton	01	1642EST			0	0	4	0	Thunderstorm Winds

A strong, cold front crossed the area producing severe thunderstorms, two of which spawned two small tornadoes. A tornado touched down in Eden, in Erie County, downing or damaging several dozen trees. The most extensive damage occurred when a large tree was uprooted and fell across the corner of a house. A barn on the property also sustained major damage as the western side of the second floor was torn off. Another tornado touched down in the town of Java in Wyoming County, and was embedded in a larger area of strong downburst wind. About 30 trees were damaged or destroyed in the mostly wooded area. The roof of a visitors center was torn off and one tree fell on a cabin and caused damage.

The thunderstorm winds uprooted trees and downed power lines across the area. Specific damage reports included: several 12-inch-diameter trees downed in Dansville; a barn was damaged in Farmington; a small plane parked at Monroe County Airport, Rochester, was overturned; the New York State Police Department in Henrietta had a portion of its roof blown away; wind removed a roof from a home in Pittsford; a 12- by 12-foot storage shed was moved 75 feet in Henrietta; a garage roof was blown off in Fulton; a roof was blown off the General Electric Complex in Collamer; and a barn was blown down in Caughdenoy and another in Orleans.

Seneca County									
Junius	17	1140EST			0	0	3	0	Thunderstorm Winds
Tyre	17	1150EST			0	0	3	0	Thunderstorm Winds

A cold front crossed the area and produced severe thunderstorms and which uprooted trees and downed power lines.

Cattaraugus County									
Otto	26	1600EST			0	0	3	0	Thunderstorm Winds

Winds from a line of thunderstorms uprooted a stand of trees and tore fascia board off a house in the town of Otto during the early evening hours.

Lewis County	27	0600EST			0	0	3	0	Flash Flood
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In the late evening of the 26th, thunderstorms produced heavy rainfall. Highmarket reported 4.80 inches of rain. Sugar River, an ungaged stream and tributary to the Black River, reportedly exceeded its banks and two cows drowned.

## NORTH CAROLINA

Lenoir County									
Northern Portion	01	1450EST			0	0	0	0	Hail (1.75)
Pitt County									
Bethel	01	1526EST			0	0	0	0	Hail (0.88)
Craven County									
Askin	01	1530EST			0	0	0	0	Hail (0.75)
Martin County									
1 N Robesonville	01	1540EST			0	0	0	0	Hail (2.00)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## NORTH CAROLINA Cont'd

<b>Craven County</b> 3 E Cove City	01	1555EST			0	0	3	0	<b>Thunderstorm Winds</b> <b>Funnel Cloud</b>
									Wind damaged a smoke house and mobile home, broke tree limbs, and downed power lines.
<b>Surry County</b> 3 S Dobson	06	1500EST			0	0	4	0	<b>Thunderstorm Winds</b>
									Wind damaged a cattle barn, and blew down several power lines and poles.
<b>Cleveland County</b> Kings Mountain	16	1845EST			0	0	3	0	<b>Lightning</b>
									Fires in three textile plants caused damaged exceeding \$2,500.
<b>Caldwell County</b> 2 S Collettsville	18	1530EST			0	0	3	0	<b>Lightning</b>
									Three riding horses, valued at \$2,500, were struck and killed by lightning.
<b>Forsyth County</b> Kernersville and Vicinity	19	0025EST			0	0	?	0	<b>Flash Flood</b>
									Slow-moving thunderstorms produced heavy rains in the late night and early-morning hours. Resultant flash flooding on creeks threatened nearby mobile homes.
<b>Pender County</b> Burgaw	28	2300EST			0	0	4	0	<b>Lightning</b>
									A middle school fuel pump was damaged, dumping 1,100 gallons of heating oil. The cleanup effort cost \$15,100.
<b>Iredell County</b>	31	Unknown			0	0	4	0	<b>Lightning</b>
									Fires destroyed one house and damaged another in the county.

## NORTH DAKOTA

NDZ004-007-008-011-013 Parts of Southern North Dakota	03	0500CST-2100CST			0	0	0	0	<b>Heavy Snow</b>
									A May snowstorm, rare even by North Dakota standards, dropped 6 to 8 inches of snow over parts of southern North Dakota. In the eastern quarter of North Dakota, the precipitation was all rain. The snow- and slush-covered roads led to vehicle accidents, including a fatality.
<b>Renville County</b> Sherwood	12	1450CST			0	0	4	3	<b>Thunderstorm Winds</b>
									Winds destroyed a large section of a roof on a high school gymnasium.
<b>Ward County</b> Minot Air Force Base	12	1455CST			0	0	0	0	<b>Hail (0.75)</b>
<b>Minot Air Force Base</b>	12	1529CST			0	0	0	0	<b>Hail (0.75)</b>
<b>Surrey</b>	12	1530CST			0	0	3	3	<b>Thunderstorm Winds</b>
									Wind destroyed trailers and damaged farm buildings in Surrey, while dime-size hail fell north of Minot.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## NORTH DAKOTA Cont'd

<b>Burleigh County</b>									
2 E Bismarck	12	1515CST			0	0	3	3	Hail (1.75)
5 SE Bismarck	12	1531CST			0	0	0	0	Hail (0.75)
<b>Benson County</b>									
Maddock	12	1625CST			0	0	3	3	Hail (1.75) Thunderstorm Winds (G52)
<b>Oberon</b>									
	12	1630CST			0	0	3	3	Hail (1.75)
<b>Minnewaukan</b>									
	12	1655CST			0	0	3	3	Hail (1.75)
<b>6 N Minnewaukan</b>									
	12	1700CST			0	0	0	0	Funnel Cloud
<b>2 E Leeds</b>									
	12	1730CST			0	0	3	3	Hail (1.75)
<b>Cass County</b>									
7 SE Alice	12	1859CST			0	0	3	3	Thunderstorm Winds (G52) Hail (0.75)
<b>Ramsey County</b>									
Devils Lake (P11)	12	1920CST			0	2	5	4	Thunderstorm Winds (G83) Funnel Cloud

Winds gusted to near 100 mph in Devils Lake, lasting 4 to 5 minutes. The winds lifted the roof off a motel and destroyed 24 of its rooms, mostly on the upper (second) floor. Fortunately the rooms were unoccupied. The winds damaged many other buildings in the town; and lifted out signs, fences and trees. Two people received minor injuries from the flying debris. Property damage was estimated at one million dollars. The high winds occurred mainly in the city of Devils Lake, with little damage to the outlying areas. A funnel cloud was sighted during the winds, and came within 15 feet of touching down.

<b>Towner County</b>									
10 SE Cando	12	1945CST			0	0	0	0	Hail (1.00)
Cando	12	1945CST			0	0	3	3	Thunderstorm Winds (G52)
<b>Cass County</b>									
Kindred	12	1950CST			0	0	0	0	Hail (1.00)
Horace	12	1955CST			0	0	0	0	Hail (1.00)
Fargo (FAR)	12	2034CST			0	0	0	0	Thunderstorm Winds (G50)
10 S Fargo	12	2105CST			0	0	0	0	Hail (0.75)
<b>Grant County</b>									
New Leipzig	14	1945CST			0	0	0	0	Hail (1.50)
<b>Dickey County</b>									
Oakes	14	2030CST			0	0	3	3	Hail (2.00)
<b>Stutsman County</b>									
8 S Jamestown	14	2115CST	**100	10	0	0	3	3	Tornado (F0)
Jamestown	14	2126CST			0	0	3	3	Thunderstorm Winds (G53)

The tornado lasted less than five minutes, and dissipated very quickly.

<b>Traill County</b>									
Mayville	14	2250CST			0	0	0	0	Hail (0.75)
<b>Sargent County</b>									
1 SW Crete	30	1220CST- 1230CST	2.0	40	0	0	4	4	Tornado (F1)
4 E Crete	30	1230CST			0	0	0	0	Funnel Cloud

A long cigarette-shaped funnel touched down and then traveled 2 miles northwest along farmland while skipping up and down in the cloud. At times, the tornado was stationary on ground. A funnel cloud was also sighted with the tornado.

<b>Dickey County</b>									
2 E Oakes	30	1227CST	**80	12	0	0	2	2	Tornado (F0)

A tornado touchdown toppled some trees.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## NORTH DAKOTA Cont'd

<b>Grand Forks County</b>									
1 SW Grand Forks	30	1340CST			0	0	0	0	Funnel Cloud
5 W Grand Forks	30	1344CST			0	0	0	0	Funnel Cloud
Merrifield	30	1405CST			0	0	0	0	Funnel Cloud
2 E Thompson	30	1428CST			0	0	0	0	Funnel Cloud

Numerous funnel clouds were sighted by Grand Forks law enforcement agencies.

<b>Benson County</b>	30	2130CST- 2330CST			0	0	4	4	Thunderstorm Winds Heavy Rains
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Six inches of rain fell in parts of extreme northern Benson County. An intense hailstorm, lasting 45 minutes, occurred with the heavy rains. The heaviest rain and hail covered a 2- to 3-mile swath north of Leeds. The rain left much of the farmland underwater.

<b>Towner County</b>	30	2133CST			0	0	0	0	Funnel Cloud
14 N Cando									

## OHIO

<b>Geauga County</b>									
Russell	01	1150EST			0	0	4	0	Hail (1.75)
3 W Burton	01	1200EST			0	0	3	0	Hail (0.75)
<b>Holmes County</b>									
Berlin	01	1220EST			0	0	4	0	Hail (1.75)
<b>Trumbull County</b>									
Southington	01	1230EST			0	0	4	0	Thunderstorm Winds
<b>Ashtabula County</b>									
Andover	01	1244EST			0	0	3	0	Hail (0.75)
<b>Columbiana County</b>									
Homeworth	01	1245EST			0	0	3	0	Hail (0.75)
<b>Stark</b>									
Alliance	01	1300EST			0	0	3	0	Hail (0.75)
<b>Trumbull County</b>									
Warren	01	1305EST			0	0	3	0	Hail (0.75)
<b>Mahoning County</b>									
Springfield	01	1309EST			0	0	4	0	Thunderstorm Winds (G51)
<b>Columbiana County</b>									
5 E Rogers	01	1330EST			0	0	4	0	Thunderstorm Winds

Thunderstorms moved through northeastern Ohio producing large hail and some wind damage. A roof was blown off a barn 5 miles east of Rogers and a small farm building was destroyed in Southington.

<b>Coshocton County</b>	05	1600EST			0	0	4	0	Thunderstorm Winds
Coshocton									

An isolated thunderstorm blew down trees in Coshocton.

<b>Hamilton County</b>									
Lunken Airport	16	1353EST			0	0	4	0	Thunderstorm Winds (G57)
Lunken Airport	16	1847EST			0	0	4	0	Thunderstorm Winds (G56)
<b>Clermont County</b>									
Goshen	16	1919EST			0	0	4	0	Thunderstorm Winds
<b>Warren County</b>									
Lebanon	16	1920EST			0	0	4	0	Thunderstorm Winds
Northeastern Portion	16	1925EST			0	1	5	0	Thunderstorm Winds

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## OHIO Cont'd

Hamilton County Milford	16	1932EST			0	0	4	0	Thunderstorm Winds
Warren County Franklin	16	1935EST			0	0	4	0	Thunderstorm Winds
Hamilton County Harris Park Newton	16	1954EST			0	0	4	0	Thunderstorm Winds
Clermont County Tate	16	2000EST			0	0	4	0	Thunderstorm Winds
Greene County Xenia	16	2012EST			0	0	4	0	Thunderstorm Winds
Spring Valley Clark County Western Portion	16	2045EST			0	0	4	0	Thunderstorm Winds

Thunderstorms moved through southwestern Ohio blowing down trees and power lines in many areas. In northeastern Warren County, one woman was injured by flying glass and five boats were overturned and sank at Caesar Creek Lake.

Darke County Southern Portion	17	1827EST			0	0	4	0	Hail (1.00)
Preble County Northeastern Portion	17	1830EST			0	0	4	0	Thunderstorm Winds
Montgomery County Brookville	17	1847EST			0	0	4	0	Hail (1.00)
Countywide	17	1847EST			0	0	4	0	Thunderstorm Winds
Butler County Oxford	17	2000EST			0	0	4	0	Thunderstorm Winds
Oxford	17	2000EST			0	0	3	0	Hail (0.75)
Hamilton	17	2020EST			0	0	4	0	Thunderstorm Winds
Greene County Eastern Portion	17	2027EST			0	0	4	0	Thunderstorm Winds
Cedarville	17	2027EST			0	0	4	0	Hail (1.75)
Hamilton County Colerain Township	17	2030EST			0	0	3	0	Hail (0.75)
Warren County Southern Portion	17	2040EST			0	0	3	0	Hail (0.75)
Clinton County Sabina	17	2120EST			0	0	4	0	Thunderstorm Winds
Clermont County	17	2121EST			0	0	4	0	Thunderstorm Winds
Fayette County Washington C.H.	17	2150EST			0	0	4	0	Hail (1.00)

Thunderstorms moved through southern Ohio blowing down trees and power lines, and producing large hail. A barn lost its roof in the town of Sabina.

Sandusky County Clyde	24	1110EST			0	0	3	0	Hail (0.88)
Lorain County Lorain	24	1240EST			0	0	4	0	Thunderstorm Winds
Cuyahoga County 1 N Bedford	24	1347EST			0	0	3	0	Hail (0.88)

Thunderstorms blew down power lines and dropped large hail in isolated areas of northern Ohio.

Stark County Minerva	28	1620EST			0	0	4	0	Thunderstorm Winds
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An isolated thunderstorm blew down trees and power lines in Minerva.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## OHIO Cont'd

Noble County Sarahsville	30	1615EST			0	0	4	0	Thunderstorm Winds
Washington County 1 N Marietta	30	1630EST			0	0	4	0	Thunderstorm Winds
Lorain County Eastern Portion	30	1820EST			0	0	4	0	Thunderstorm Winds
Cuyahoga County Lakewood	30	1827EST			0	0	4	0	Hail (1.00)
Medina County Brunswick	30	1847EST			0	0	4	0	Thunderstorm Winds
Cuyahoga County North Royalton	30	1850EST			0	0	5	0	Thunderstorm Winds (G65)
Medina County Eastern Portion	30	1904EST			0	0	4	0	Thunderstorm Winds
Seneca County 3 N Fostoria	30	1917EST			0	0	4	0	Hail (1.00)
Seneca County 4 NNE Fostoria	30	1929EST			0	0	4	0	Hail (1.00)
Hancock County McComb	30	1930EST			2	2	5	0	Thunderstorm Winds
Summit County Fairlawn	30	1930EST			0	0	4	0	Thunderstorm Winds
Summit County Richfield									
Portage County Randolph	30	1940EST			0	0	5	0	Thunderstorm Winds
Tuscarawas County Dover	30	1945EST			0	0	4	0	Thunderstorm Winds
Trumbull County Leavittsburg	30	1931EST			0	0	4	0	Thunderstorm Winds
Trumbull County Warren	30	2015EST			0	0	4	0	Thunderstorm Winds
Wyandot County Eastern Portion	30	2040EST			0	0	3	0	Hail (0.75)
Richland County Madison Township	30	2145EST			0	0	4	0	Thunderstorm Winds
Ashland County	30	2200EST			0	0	4	0	Thunderstorm Winds
Wayne County	30	2200EST			0	0	4	0	Thunderstorm Winds

Thunderstorms moved across northern Ohio blowing down trees and power lines in many areas, and producing some large hail. Numerous trees fell upon homes in North Royalton when winds reached 70 to 80 mph. Four people took refuge in an almost-completed, new home as severe thunderstorms moved into the northwestern corner of Hancock county. A mother and her son were killed, and two men were injured when the house collapsed. (F270)(MO30)

Seneca and  
Huron Counties  
3 SE Tiffin  
Willard

30	2000EST-								
	2030EST	22.0	100	0	0	5	0		Tornado (F1)

A tornado touched down about 3 miles southeast of Tiffin and traveled on a hit and skip path to the east along Route 224. It passed just north of Bloomville to Attica, then crossed into Huron County at 2020 EST and continued to the northern side of Willard before lifting for the last time. The tornado damaged trees, power lines, and some buildings with the most damage occurring in Attica.

Van Wert County

30	2100EST-								
	31 0700EST			0	0	4	0		Small Stream Flood

Rainfall of 2.00 to 4.00 inches fell over northern parts of Van Wert County flooding roads, underpasses, and fields.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CASUALTIES	

## OHIO Cont'd

Lucas County 1 N Waterville	31	2020EST			0	0	4	0	Thunderstorm Winds (G55)
Wood County 2 S Bowling Green	31	2045EST			0	0	4	0	Thunderstorm Winds (G55)
Erie County Huron	31	2145EST			0	0	4	0	Thunderstorm Winds
Lorain County Wellington	31	2208EST			0	0	4	0	Thunderstorm Winds
Darke County 1 SE Greenville	31	2240EST			0	0	4	0	Thunderstorm Winds
Ashland County Hayesville	31	2245EST			0	0	4	0	Thunderstorm Winds
Richland County Possum Run	31	2245EST			0	0	4	0	Thunderstorm Winds
Cuyahoga County Highland Heights	31	2248EST			0	0	4	0	Thunderstorm Winds
Euclid									
Miami County West Milton	31	2325EST			0	0	4	0	Thunderstorm Winds

Thunderstorms moved across northern Ohio blowing down trees and power lines in many areas.

## OKLAHOMA

Tillman County Grandfield	02	1600CST			0	0	4	?	Thunderstorm Winds
Comanche County 3 N Faxon	02	1657CST			0	0	3	?	Thunderstorm Winds
Kingfisher County 3 E Kingfisher	02	1825CST			0	0	4	?	Thunderstorm Winds (G69)
McClain County Blanchard	02	1900CST	0.3	30	0	3	4	?	Tornado (F1)
Cleveland County Moore	02	1920CST	0.5	30	0	0	5	?	Tornado (F1)

Severe thunderstorms developed across the southwestern portions of Oklahoma and spread to the central portions of the state producing two tornadoes.

In Granfield, severe thunderstorm winds destroyed a mobile home and an equipment barn, damaged the roof of a church, and downed power lines. Damage was estimated at \$40,000. North of Faxon, severe thunderstorm winds caused an estimated \$5,000 damage to a home. Three miles east of Kingfisher, winds estimated at 80 mph from a decaying thunderstorm complex, caused extensive damage to a roof of one house, and damaged a barn and several outbuildings. Damage is estimated at \$35,000, with \$28,000 of the damage done to the house. The first tornado (F1) occurred in Moore along a thunderstorm gust front. It destroyed about 200 self-storage units at a storage facility and 20 boats at a boat storage facility across the street, and damaged 5 mobile homes. The damage was estimated at \$325,000. The second (F1) tornado occurred along a gust front as it was moving through Blanchard. It destroyed two mobile homes, causing three minor injuries. The estimated damage is \$20,000.

Choctaw County Hugo	03	0210CST			0	0	4	?	Thunderstorm Winds
Pushmataha County Kiamichi	03	0215CST			0	0	?	?	Thunderstorm Winds
McCurtain County Valliant	03	0215CST			0	0	4	?	Thunderstorm Winds
Idabel	03	0230CST			0	0	6	?	Thunderstorm Winds
Wright City	03	0230CST			0	0	4	?	Thunderstorm Winds



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## OKLAHOMA Cont'd

Severe thunderstorms moved across the southeastern portion of the state. In Hugo, severe thunderstorm winds downed power lines and caused an estimated \$30,000 damage to two buildings when their roofs were ripped off by the strong winds. Severe thunderstorm winds in Kiamichi caused tree and power line damage, and in Valliant a roof was torn off a church by the winds causing an estimated \$30,000 damage. Extensive damage was done by severe thunderstorm winds at Idebel to the Kiamichi Vo-Tech Center, with damage estimated at \$3 million. A water plant was destroyed (\$50,000 damage) in Wright City by the winds.

Love County 6 W Marietta	03	1440CST			0	0	?	?	Hail (0.75)
Johnston County Mill Creek	03	1534CST			0	0	?	?	Hail (1.00)
Garvin County 1 E Pauls Valley	03	1620CST			0	0	?	?	Hail (0.88)
Pottawatomie County 15 SW Tecumseh	03	1645CST			0	0	?	?	Thunderstorm Winds (G52)
Cleveland County 7 E Noble	03	1646CST			0	0	?	?	Hail (1.75)
Pottawatomie County 3 E Pink	03	1702CST			0	0	?	?	Hail (0.75)
Pink	03	1748CST			0	0	?	?	Hail (1.00)
Osage County 4 W Okesa	03	1825CST			0	0	?	?	Hail (0.88)
3 N Okesa	03	1900CST			0	0	?	?	Hail (0.75)
Washington County 7 S Copan	03	1915CST			0	0	?	?	Hail (0.75)
Nowata County 2 S Wann	03	1950CST			0	0	?	?	Hail (0.75)
Washington County 1 NW Copan	03	2044CST			0	0	?	?	Hail (0.75)
Copan	03	2045CST			0	0	?	?	Hail (1.75)
1 N Copan	03	2055CST			0	0	?	?	Hail (0.75)

Severe thunderstorms developed over south-central Oklahoma during the afternoon and spread into northeastern Oklahoma during the evening hours producing large hail and strong winds.

Stephens County 6 S Bray	04	1530CST			0	0	?	?	Hail (1.75)
Jefferson County 3 SW Waurika	04	1545CST			0	0	?	?	Hail (0.88)
Garvin County 2 SSW Elmore City	04	1558CST	0.3	20	0	0	?	?	Tornado (F0)
Okfuskee County 5 E Welty	04	1615CST			0	0	?	?	Thunderstorm Winds
Garvin County 2 N Elmore City	04	1620CST			0	0	?	?	Hail (0.88)
Garfield County 1 SW Fairmont	04	1620CST			0	0	?	?	Hail (1.00)
Kay County 5 W Braman	04	1625CST			0	0	?	?	Hail (1.00)
Grant County 7 SE Renfrow	04	1630CST			0	0	?	?	Hail (0.75)
Creek County 2 N Mounds	04	1630CST			0	0	?	?	Hail (0.75)
Okmulgee County 6 N Beggs	04	1635CST			0	0	?	?	Hail (0.88)
Tulsa County Downtown Tulsa	04	1641CST			0	0	?	?	Hail (0.75)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## OKLAHOMA Cont'd

Osage County 12 S Skiatook	04	1644CST			0	0	?	?	Hail (0.75)
Tulsa County SE Tulsa	04	1653CST			0	0	?	?	Hail (0.75)
8 ESE Tulsa	04	1705CST			0	0	?	?	Thunderstorm Winds (G52)
Oklahoma County SE Oklahoma City	04	1710CST			0	0	?	?	Hail (0.88)
Washington County 2 E Vera	04	1715CST			0	0	?	?	Thunderstorm Winds (G52)
Nowata County Wann	04	1720CST			0	0	?	?	Thunderstorm Winds (G56)
Cleveland County SW Moore	04	1720CST			0	0	?	?	Hail (1.75)
Oklahoma County 1 SE Jones	04	1725CST			0	0	?	?	Hail (1.25)
1 SE Jones	04	1725CST			0	0	3	?	Thunderstorm Winds
Kingfisher County Kingfisher	04	1730CST			0	0	?	?	Thunderstorm Winds (G52)
2 N Okarche	04	1740CST			0	0	?	?	Hail (0.75)
Rogers County Chelsea	04	1743CST			0	0	?	?	Thunderstorm Winds (G74)
Mayes County Salina	04	1756CST			0	0	?	?	Hail (0.75)
Oklahoma County NE Oklahoma City	04	1759CST			0	0	?	?	Thunderstorm Winds
Kingfisher County Hennessey	04	1800CST			0	0	?	?	Hail (0.75)
Garfield County 3 SW Garber	04	1800CST			0	0	?	?	Hail (1.00)
Rogers County Chelsea	04	1800CST			0	0	?	?	Thunderstorm Winds (G56)
Craig County 1 N Big Cabin	04	1800CST			0	0	?	?	Thunderstorm Winds (G52)
Choctaw County 6 N Hugo	04	1810CST			0	0	?	?	Hail (1.25)
Osage County 3 N Barnsdall	04	1820CST			0	0	?	?	Hail (0.75)
Mayes County Spavinaw	04	1823CST			0	0	?	?	Hail (0.75)
Payne County 3 SE Glencoe	04	1825CST			0	0	?	?	Hail (0.75)
Tillman County Frederick	04	1826CST			0	0	?	?	Hail (0.75)
Washington County Ochelata	04	1830CST			0	0	?	?	Hail (0.75)
Delaware County 6 NW Jay	04	1840CST			0	0	?	?	Hail (1.75)
4 N Jay	04	1845CST			0	0	?	?	Hail (1.75)
5 E Grove	04	1910CST			0	0	?	?	Hail (0.75)
8 E Jay	04	1915CST			0	0	?	?	Hail (1.75)
Osage County 3 N Barnsdall	04	1940CST			0	0	?	?	Hail (0.75)
Delaware County 4 N Jay	04	2045CST			0	0	?	?	Hail (1.75)
Mayes County 9 S Pryor	04	2045CST			0	0	?	?	Hail (0.75)

Severe thunderstorms developed across the central and northeastern portions of the state. One tornado at F0 intensity touched down briefly near Elmore City with no reported damage. Thunderstorm winds ripped the roof off a front porch near Jones, and trees were reported down

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## OKLAHOMA Cont'd

in northeastern Oklahoma City. Near Big Cabin, trees and power poles were damaged by strong winds. Golf ball-size hail was reported in the southwestern portion of Moore, south of Bray, and near Jay in Delaware County. Severe thunderstorm winds uprooted trees and did extensive damage to a large barn and roof damage to a house 5 miles east of Welty. Strong winds downed trees near Chelsea and in extreme eastern Tulsa County.

### Creek County Bristow

05	1615CST			0	0	?	?	<b>Lightning</b>
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Lightning struck an oil tank battery and set it on fire. No damage estimate was available.

### Caddo County

#### Countywide

07	1420CST			0	0	?	?	<b>Hail (1.00)</b>
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#### Lookeba

07	1430CST			0	0	?	?	<b>Hail (0.75)</b>
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#### 2 E Lookeba

07	1510CST			0	0	?	?	<b>Hail (1.00)</b>
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### Canadian County

#### 1 W Scott

07	1515CST			0	0	?	?	<b>Hail (0.75)</b>
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#### Scott

07	1530CST			0	0	?	?	<b>Hail (2.00)</b>
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#### Scott

07	1530CST			0	0	?	?	<b>Thunderstorm Winds (G58)</b>
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### Caddo County

#### 9 E Binger

07	1600CST			0	0	?	?	<b>Thunderstorm Winds (G52)</b>
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### Grady County

#### Minco

07	1615CST			0	0	?	?	<b>Hail (0.75)</b>
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### Oklahoma County

#### 7 NW Oklahoma City

07	1742CST			0	0	?	?	<b>Hail (0.75)</b>
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#### Edmond

07	1900CST			0	0	?	?	<b>Hail (0.75)</b>
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### Kingfisher County

#### 3 NE Okarche

07	1900CST			0	0	?	?	<b>Lightning</b>
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Thunderstorms developed across the central portions of the state producing several reports of large hail. Near Scott, hail up to 2.00 inches in diameter was reported, covering the ground 6 to 8 inches in places. Near Okarche lightning struck a crude oil storage tank at a salt water disposal plant. The tank caught fire and exploded, with the fire spreading to a mobile home with eight residents. All escaped the mobile home except one, a 3-year-old girl, who died in the resulting fire. One man was critically injured, six others had minor injuries.

### Cimarron County

#### Felt

10	1730CST			0	0	?	?	<b>Hail (0.88)</b>
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### Texas County

#### 1 E Hooker

10	2119CST			0	0	?	?	<b>Hail (0.75)</b>
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Thunderstorms in the Oklahoma Panhandle produced isolated large hail.

### Cimarron County

#### 12 NW Boise City

11	1902CST			0	0	?	?	<b>Hail (1.75)</b>
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#### 12 NW Boise City

11	1902CST- 1915CST	0.5	70	0	0	?	?	<b>Tornado (F0)</b>
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National Weather Service employees sighted a tornado west of Oklahoma Highway 3 and just north of the Cimarron River. Even though the tornado was on the ground for 13 minutes, it only crossed open county and did no damage. Golf ball-size hail was also reported with this storm.

### Jackson County

#### 3 W Elmer

12	0200CST			0	0	?	?	<b>Hail (0.75)</b>
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#### 5 NW Elmer

12	0420CST			0	0	?	?	<b>Hail (0.75)</b>
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Morning thunderstorms in southwestern Oklahoma produced isolated large hail.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## OKLAHOMA Cont'd

Oklahoma, Cleveland, and McClain Counties      12 1335CST-1500CST      0 0 ? ?      High Winds

Morning thunderstorms in southwestern Oklahoma produced isolated large hail. A dying thunderstorm complex, during the morning hours, produced estimated 48-knot winds in northwestern Oklahoma City, measured 55-knot winds at Norman, and the Doppler radar at southeastern Oklahoma City measured 61-knot winds at Moore.

Nowata County  
5 NE Wann      13 0820CST      0 0 ? ?      Hail (0.88)

An isolated severe thunderstorm produced nickel-size hail.

1 W Nowata      14 0645CST      0 0 ? ?      Hail (0.75)

An isolated severe thunderstorm produced dime-size hail near Nowata.

Creek County  
Sapulpa      14 1408CST      0 0 3 ?      Lightning  
Kiefer      14 1605CST      0 0 ? ?      Hail (1.00)  
Cherokee County  
0.5 S Cookson      14 1755CST      0 0 ? ?      Hail (0.75)

Thunderstorms developed in Creek and Cherokee Counties during the afternoon. Quarter-size hail was reported at Kiefer, and dime-size hail at Cookson. In Sapulpa, lightning from a thunderstorm struck several buildings, causing about \$2,000 damage.

Roger Mills County  
Reydon      15 1910CST      0 0 ? ?      Hail (0.75)

Harper County  
Laverne      15 1910CST      0 0 ? ?      Hail (0.75)

Roger Mills County  
Reydon      15 1929CST      0 0 ? ?      Hail (1.75)

Harper County  
6 SW Laverne      15 1935CST-2011CST      11.5      200-900      0 3 5 ?      Tornado (F3)  
3 SW Laverne      15 1945CST      0 0 ? ?      Hail (4.00)  
4 E Laverne      15 2010CST      0 0 ? ?      Hail (2.75)

Roger Mills County  
5 E Roll      15 2125CST      0 0 ? ?      Hail (1.00)

Beckham County  
1 SE Sayre      15 2030CST      0.3      50      0 0 ? ?      Tornado (F0)

Ellis County  
17 S Harmon      15 2130CST      0 0 ? ?      Hail (0.75)  
8 S Harmon      15 2200CST      0 0 ? ?      Hail (0.75)

Dewey County  
Camargo      15 2206CST      0 0 ? ?      Hail (0.75)  
4 S Cestos      15 2223CST      0.3      30      0 0 ? ?      Tornado (F0)

Beckham County  
1 SE Sayre      15 2230CST      0.5      50      0 0 ? ?      Tornado (F0)

Woods County  
10 W Aline      15 2301CST      0 0 ? ?      Thunderstorm Winds

Major County  
10 E Chester      15 2316CST      0.3      30      0 0 ? ?      Tornado (F0)  
Fairview      15 2330CST      0 0 ? ?      Hail (0.88)

Blaine County  
Longdale      16 0001CST      0 0 ? ?      Hail (1.00)  
2 W Canton      16 0110CST      0 0 ? ?      Hail (1.00)  
Longdale      16 0220CST      0 0 ? ?      Hail (1.00)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CRODSS	

## OKLAHOMA Cont'd

Osage County									
3 E Burbank	16	0425CST			0	0	?	?	Hail (0.75)
Okesa	16	0510CST			0	0	?	?	Hail (0.75)
Washington County									
1 W Dewey	16	0530CST			0	0	?	?	Hail (0.75)
Wagoner County									
4 NW Coweta	16	0800CST			0	0	?	?	Hail (1.00)
Lake Crest	16	0900CST			0	0	?	?	Hail (0.75)
Mayes County									
8 SSE Locust Grove	16	0913CST			0	0	?	?	Hail (1.75)
Cherokee County									
Peggs	16	0915CST			0	0	?	?	Hail (1.75)

Several areas of severe thunderstorms developed across western and northwestern Oklahoma during the evening hours and spread into northeastern Oklahoma during the early morning. Five tornadoes were reported from these severe thunderstorms, as well as reports of damaging winds, and a large number of reports of hail, some as large as softballs.

The first tornado (F3) was the strongest of the evening and had a path that was 11.5 miles long. The tornado touched down in Harper County at 1935 CST, 1.5 miles east of the Beaver County line and 0.5 miles north of Oklahoma Highway 270. During the first 4 miles of its path, the tornado had a width of 200 to 300 yards and was F0 to F1 intensity. The tornado grew in strength and intensity as it moved northeast for the next 4 miles and produced F2 to F3 intensity damage as it widened to 800 to 900 yards. Hail up to 4.00 inches in diameter was reported at this time. Also, at this time, three injuries occurred, all requiring hospitalization. The injuries were sustained in a mobile home which was rolled by the tornado. At the same time the injuries were occurring, 0.50- to 1.25-inch hail was being observed at Laverne, 2 miles north-northwest of the tornado. During the last 3.5 miles of its path, the tornado shrunk to 100 yards in width, but hail up to baseball size was still being observed. The tornado lifted at 2011 CST 4.5 miles east and 0.75 miles north of Laverne. A five-room house suffered significant damage. One mobile home was destroyed, and also six outbuildings were destroyed. Significant utility damage was reported as 30 power poles were downed. Total damage is estimated at \$500,000.

The second tornado touched down at 2223 CST, 4 miles south of Cesto; the third tornado touched down at 2230 CST, 1 mile southeast of Sayre; and the fourth tornado occurred at 2316 CST, 10 miles east of Chester; and the fifth tornado occurred at 2230 CST, 1 mile east southeast of Sayre. The last four tornadoes had brief touchdowns and no reported damage.

In addition, severe thunderstorm winds downed trees 10 miles west of Aline in Woods County.

Okmulgee County									
3.5 WNW to	16	1709CST-			0	0	5	?	Tornado (F1)
6 N Beggs		1725CST	7.0	60	0	0	?	?	
Tulsa County									
3 E Kiefer	16	1718CST	0.3	30	0	0	?	?	Tornado (F0)
Okmulgee County									
1 S Mounds	16	1720CST	0.5	50	0	0	4	?	Tornado (F1)
Tulsa County									
S Tulsa	16	1724CST			0	0	?	?	Hail (0.88)
SW Tulsa	16	1740CST			0	0	?	?	Hail (1.75)
S Tulsa	16	1746CST			0	0	?	?	Hail (1.00)
S Tulsa	16	1810CST			0	0	?	?	Hail (0.88)
Wagoner County									
8 N Oneta	16	1820CST			0	0	?	?	Hail (0.75)
Tulsa County									
S Tulsa	16	1822CST			0	0	?	?	Hail (1.75)
Rogers County									
5 E Catoosa	16	1830CST			0	0	?	?	Hail (0.75)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## OKLAHOMA Cont'd

<b>Tulsa County</b>									
S Tulsa	16	1850CST			0	0	?	?	Hail (1.00)
SE Tulsa	16	1855CST			0	0	?	?	Hail (1.75)
S Tulsa	16	1856CST			0	0	?	?	Hail (1.75)
SE Tulsa	16	1901CST			0	0	?	?	Hail (1.00)
SE Tulsa	16	1903CST			0	0	?	?	Hail (1.75)
Catoosa	16	1908CST			0	0	?	?	Hail (1.00)
SE Tulsa	16	1908CST	0.3	30	0	0	?	?	Tornado (F0)
8 ESE Tulsa	16	1915CST			0	0	?	?	Hail (1.00)
<b>Rogers County</b>									
Catoosa	16	1918CST			0	0	?	?	Hail (1.75)
Catoosa	16	1919CST			0	0	?	?	Hail (1.25)
1 S Catoosa	16	1925CST			0	0	?	?	Hail (1.50)
2 NE Catoosa	16	1936CST-							
		1940CST	4.0	100	0	0	5	?	Tornado (F2)
1 N Catoosa	16	1949CST			0	0	?	?	Thunderstorm Winds
Claremore	16	1958CST			0	0	?	?	Hail (1.00)
1 S Claremore	16	2025CST	0.3	25	0	0	?	?	Tornado (F0)
4 S Foyil	16	2045CST			0	0	?	?	Hail (0.75)
<b>Mayes County</b>									
5 N Pryor	16	2055CST			0	0	?	?	Hail (0.75)
3 N Adair	16	2140CST			0	0	?	?	Hail (0.75)
<b>Craig County</b>									
10 NE Big Cabin	16	2150CST			0	0	?	?	Hail (0.75)
<b>Delaware County</b>									
3 SW Bernice	16	2203CST			0	0	?	?	Hail (0.88)
3 N Grove	16	2224CST			0	0	?	?	Hail (0.88)
<b>Ottawa County</b>									
8 SE Fairland	16	2235CST			0	0	?	?	Hail (0.88)

Two isolated severe thunderstorms developed southwest of Tulsa during the late afternoon of May 16th and followed similar paths to the northeast during the late afternoon and evening. These storms produced a total of six tornadoes in northeastern Oklahoma, and large hail also accompanied the storms.

The first tornado (F1) touched down 3.5 miles west northwest of Beggs, at 1709 CST and trailed for 7 miles. The tornado moved north-northeast, hitting power line poles 3 miles north of Beggs, and destroying a barn 4 miles north of Beggs. The tornado continued north-northeast and blew out windows of a two-story house, and hit an oil tank 5 miles north of Beggs before lifting 6 miles north of Beggs.

The second tornado (F0) touched down briefly 3 miles west of Keifer, at 1718 CST; no damage was reported.

The third tornado (F1) was another brief touchdown in Okmulgee County just south of the Creek County border, 1 mile south of Mounds, at 1720 CST. This tornado destroyed a barn, killed two cows, and knocked down trees and power lines.

The fourth tornado (F0) touched down briefly in southeastern Tulsa near the intersection of 51st Street and the Broken Arrow Expressway (Highway 51); no damage was reported.

The fifth tornado (F2) was the most destructive of the day. It touched down at the Port of Catoosa which is 2 miles northeast of the city of Catoosa, at 1936 CST. The tornado moved northeast destroying a house, a mobile home, and a recreational vehicle repair shop along Highway 66 just south of the Verdigris River 4 miles northeast of Catoosa. The tornado lifted just east of the river, at 1946 CST. The tornado traveled 4 miles, did \$130,000 damage (mostly to the recreational vehicle shop).

The sixth tornado (F0) touched down briefly near the Will Rogers Turnpike (Interstate 44) just south of Claremore at 2025 CST; no damage was reported.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## OKLAHOMA Cont'd

**Payne County**  
Stillwater

20 0300CST-0800CST                      0   0   ?   ?   **Flash Flood**

Rainfall in excess of 3.00 inches, in 5 hours, caused flooded roads, and resulted in some stalled cars in Stillwater.

**Tulsa County**  
Western Portion

20 1800CST                                      0   0   3   ?   **Flash Flood**

A stationary thunderstorm developed in western Tulsa County during the late afternoon of May 20th, and produced over 3.00 inches of rain, between 1630 and 1830 CST. Many roadways were flooded, with water up to 18 inches deep across some roads. Cherry Creek overflowed its banks at 1840 CST. Some homes received minor damage due to the high water. Cherry Creek began receding at 1915 CST as the rain tapered off.

**Sequoyah County**  
Gore

22 2255CST                                      0   0   ?   ?   **Thunderstorm Winds (G51)**

A severe thunderstorm produced strong winds at Gore.

**Woodward County**

20 N Mooreland 23 1350CST                      0   0   ?   ?   **Hail (0.75)**

**Harper County**  
7 NNE Buffalo 23 1420CST                      0   0   ?   ?   **Hail (0.75)**

**Woodward County**  
15 NE Mooreland 23 1425CST                      0   0   ?   ?   **Hail (0.75)**

6 N Mooreland 23 1525CST                      0   0   ?   ?   **Hail (0.75)**

**Woods County**  
5 E Waynoka 23 1600CST                      0   0   ?   ?   **Hail (0.75)**

**Woodward County**  
Mooreland 23 1720CST                      0   0   4   ?   **Lightning**

**Texas County**  
1 S Elkhart, KS 23 1720CST    0.1   70   0   0   ?   5   **Tornado (F0)**

**Dewey County**  
5 NW Putnam 23 2020CST                      0   0   ?   ?   **Hail (0.75)**

**Roger Mills County**  
1 S Dempsey 23 2050CST                      0   0   ?   ?   **Hail (0.75)**

**Greer County**  
5 SE Mangum 23 2050CST                      0   0   ?   ?   **Thunderstorm Winds (G61)**

**Washita County**  
Sentinel 23 2145CST                      0   0   ?   ?   **Thunderstorm Winds (G52)**

**Kiowa County**  
Lone Wolf 23 2147CST                      0   0   ?   ?   **Thunderstorm Winds (G52)**

**Caddo County**  
Carnegie 23 2245CST                      0   0   ?   ?   **Thunderstorm Winds (G52)**

**Comanche County**  
3 E Cache 23 2250CST                      0   0   ?   ?   **Thunderstorm Winds**

**Caddo County**  
Ft. Cobb 23 2315CST                      0   0   ?   ?   **Thunderstorm Winds (G52)**

Anadarko 23 2340CST                      0   0   ?   ?   **Thunderstorm Winds (G52)**

Severe thunderstorms developed across portions of western Oklahoma and the Oklahoma Panhandle. A tornado (F0) touched down briefly in Texas County, just south of Elkhart, Kansas. This tornado produced no reports of property damage, but a National Weather Service cooperative observer reported that corn fields were stripped. East of Cache, in Comanche County, severe thunderstorm winds downed trees.

**Marshall County**  
5 N Little City

24 1545CST                                      0   0   ?   ?   **Thunderstorm Winds (G59)**

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## OKLAHOMA Cont'd

Kingston Bryan County	24	1545CST			0	0	?	?	Thunderstorm Winds (G61)
Colbert	24	1615CST			0	0	?	?	Thunderstorm Winds (G52)
Colbert	24	1618CST			0	0	?	?	Thunderstorm Winds
Roberta	24	1630CST			0	0	?	?	Thunderstorm Winds
Kemp	24	1630CST			0	0	?	?	Thunderstorm Winds (G52)
Marshall County									
Kingston	24	1630CST			0	0	?	?	Thunderstorm Winds
Harmon County									
1 W Hollis	24	1655CST			0	0	?	?	Thunderstorm Winds (G61)
Countywide	24	1655CST			0	0	?	?	Hail (0.75)
Jackson County									
Altus Air Force Base (LTS)	24	1720CST			0	0	?	?	Thunderstorm Winds (G51)
Harmon County									
Gould	24	1734CST			0	0	?	?	Hail (0.75)
Choctaw County									
1 NNE Hugo	24	1746CST			0	0	?	?	Thunderstorm Winds (G50)
Greer County									
6 N Duke	24	1756CST			0	0	?	?	Thunderstorm Winds (G52)
Jackson County									
Duke	24	1757CST			0	0	?	?	Hail (0.75)
Harper County									
Rosston	24	1810CST			0	0	?	?	Hail (0.75)
Jackson County									
Blair	24	1815CST			0	0	?	?	Hail (1.25)
Altus Air Force Base	24	1820CST			0	0	?	?	Thunderstorm Winds (G52)
Kiowa County									
2 N Mt. Park	24	1830CST			0	0	?	?	Thunderstorm Winds (G55)
Choctaw County									
4 S Hugo	24	1845CST			0	0	?	?	Hail (0.88)
Kiowa County									
2 SE Cooperton	24	1913CST			0	0	?	?	Hail (1.00)
Tillman County									
Grandfield	24	1915CST			0	0	?	?	Hail (1.75)
Blaine County									
1 S Canton	24	1916CST			0	0	?	?	Hail (0.75)
Kiowa County									
Gotebo	24	1930CST			0	0	?	?	Hail (0.75)
Washita County									
2 NE Cowden	24	2010CST			0	0	?	?	Hail (0.75)
Caddo County									
6 N Carnegie	24	2025CST			0	0	?	?	Hail (1.75)
Comanche County									
1 W Lawton	24	2029CST			0	0	?	?	Hail (0.88)
Woods County									
8 W Alva	24	2100CST			0	0	3	?	Thunderstorm Winds

Severe thunderstorms developed across portions of southern and western Oklahoma. Numerous reports of tree and power line damage were received across Marshall and Bryan County. West of Alva, severe thunderstorm winds tipped over and damaged a bale loader.

Ellis County									
Fargo	26	1630CST			0	0	?	?	Hail (1.25)
Woodward County									
Tangier	26	1650CST			0	0	?	?	Hail (2.75)
Woods County									
Lookout	26	1700CST			0	0	?	?	Hail (0.75)



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	STRUCTURES	

## OKLAHOMA Cont'd

Woodward County									
8 S to	26	1737CST			0	0	?	?	Hail (2.75)
2.5 E to 4.5 E	26	1735CST	2.0	75	0	0	4	?	Tornado (F1)
Woodward									
3 E to 12.5 E	26	1758CST-		800-					
Woodward		1818CST	9.5	1000	0	0	5	?	Tornado (F3)
3.5 ESE to 4.5 SE	26	1759CST	1.0	50	0	0	3	?	Tornado (F1)
Woodward									
Mooreland	26	1806CST			0	0	?	?	Hail (4.00)
Harper Conty									
10 SE Selman	26	1810CST			0	0	?	?	Hail (0.75)
Garfield County									
2 W Hillsdale	26	1822CST			0	0	?	?	Hail (1.00)
Woodward County									
3 S Freedom	26	1855CST			0	0	?	?	Hail (1.50)
Woods County									
1 E Freedom	26	1900CST			0	0	?	?	Hail (0.75)
Kay County									
7 W Tonkawa	26	1955CST			0	0	?	?	Hail (0.75)
Major County									
3 SE Cleo Springs	26	2001CST	0.01	30	0	0	?	?	Tornado (F0)
Woods County									
Alva	26	2010CST			0	0	?	?	Hail (2.75)
Kay County									
8 SE Tonkawa	26	2020CST			0	0	?	?	Hail (0.88)
Alfalfa County									
Goltry	26	2030CST			0	0	?	?	Hail (0.88)
Garfield County									
Hillsdale	26	2045CST			0	0	?	?	Hail (1.75)
Osage County									
10 E Foraker	26	2220CST			0	0	4	?	Thunderstorm Winds

Thunderstorms developed across northwestern Oklahoma during the late afternoon hours and quickly became severe. During the night, the storms spread to north-central and northeastern Oklahoma. Four tornadoes developed from these storms; three tornadoes in the vicinity of Woodward all developed from the same storm.

The first tornado (F1) developed 2.5 miles east of Woodward and moved east along a 2-mile path causing damage.

The second tornado (F3) was the longest and most destructive, it developed less than 0.5 mile south of the first tornado and moved almost due east along a 9.5-mile path, sometimes in excess of 0.5 mile in width. Even though it moved through mostly farm country, it did cause areas of F3 damage 8 miles east of Woodward along the North Canadian River.

The third tornado (F1) developed about 0.5 mile south of the second tornado and moved southeast along a 1-mile path length doing damage consistent with a F1 tornado. It was described as rope-like in appearance. Total damage from the three tornadoes is estimated at \$80,000, mostly from the second tornado. In total, three mobile homes were destroyed, one had minor damage; six barns or large outbuilding were destroyed, four were damaged; at least five small sheds or outbuildings were destroyed; ten homes damaged (mostly minor); and in addition damage was done to 36 power poles, fences, and trees along the path.

A fourth tornado (F0) made a brief touchdown southeast of Cleo Springs and caused no reported damage. Near Foraker strong winds from a severe thunderstorm blew the roof off a house.

Texas County									
2 Sw Guymon	29	1630CST			0	0	?	?	Hail (1.00)
Hardesty	29	1645CST			0	0	?	?	Hail (1.75)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	STOCKS	

## OKLAHOMA Cont'd

Beaver County  
3 SW Gray

29 1720CST 0 0 ? ? Hail (1.75)

A severe thunderstorm developed over Texas County and moved east into Beaver County, with several reports of large hail.

Roger Mills County  
3 E Cheyenne

30 1420CST 0 0 ? ? Hail (0.75)

Woodward County  
8 SW Woodward

30 1510CST 0 0 ? ? Hail (1.75)

Isolated severe thunderstorms developed during the afternoon hours over northwestern Oklahoma.

## OREGON

Umatilla County  
10 NE Pendleton

01 1740PST-1745PST 5.0 40-70 0 0 0 ? Tornado (F0)

In northeastern Oregon, air mass thunderstorms spawned a tornado that was visible from the Pendleton National Weather Service Office. The tornado traveled west-southwest over wheat fields.

Lane County  
Springfield

16 1400PST-1600PST 0 0 4 0 Lightning

Widespread cloud-to-ground lightning associated with a cold, upper-atmosphere low, struck and killed a horse near Woodburn, and started a house fire in Springfield.

Marion County  
Woodburn

16 1600PST 0 0 3 0 Lightning

Lake County  
Lakeview

17 2300PST-18 1100PST 0 0 0 0 Heavy Snow

In Lakeview, late spring storm dumped as much as 15 inches of snow in 12 hours.

Umatilla County  
Pilot Rock

19 1200PST-20 1800PST 0 0 6 6 Flood

Pendleton  
Nolin

Mission  
Union County

19 1200PST-20 1800PST 0 0 5 6 Flood

Union  
LaGrande

Hilgard  
Baker County

19 1200PST 0 0 4 ? Flood

Between 2.00 to 4.00 inches of rain fell in 2 days in this normally dry region of northeastern Oregon. The heaviest amount of rain fell in the mountain canyons and sent large volumes of water down the Umatilla and Grande Ronde river systems. Rivers and creeks rose as much as 3.5 foot above flood stage which swamped the lowland farms and highways. In Umatilla County, at least 14 bridges were lost along with 14 miles of fencing. The water washed away a section of rural highway 35 feet wide by 35 feet long and 20 feet deep. In Union County, 15,000 acres of wheat farms were under water. Baker County sustained damage to 20 irrigation dams.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME		LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL	STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## PENNSYLVANIA, Eastern

### Clinton County

North Bend	01	1605EST	0	0	3	0	Thunderstorm Winds
Lamar	01	1650EST	0	0	3	0	Thunderstorm Winds

Thunderstorm wind gusts downed trees and utility lines in North Bend, and trees in Lamar.

### Centre County

5 NW Unionville	01	1610EST	0	0	3	0	Thunderstorm Winds
Howard	01	1622EST	0	0	3	0	Thunderstorm Winds

Thunderstorm wind gusts downed trees.

### Susquehanna County

2 ESE Middletown Center	01	1815EST	0	0	3	0	Thunderstorm Winds
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Thunderstorm wind gusts downed trees at Irish Hill near the border of Middletown and Forest Lake Townships.

### Wayne County

Milanville	01	1900EST	0	0	3	0	Thunderstorm Winds
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Thunderstorm wind gusts downed trees and utility lines.

### Fulton County

McConnellsburg	06	1440EST	0	0	3	0	Thunderstorm Winds
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About 12 trees were downed by thunderstorm wind gusts between 1430 EST and 1445 EST.

### Huntingdon County

2 SE Three Springs	06	1445EST	0	0	?	?	Hail (0.75)
Neffs Mills	06	1605EST	0	0	3	0	Thunderstorm Winds

Thunderstorm wind gusts downed trees near Neffs Mills and across the northern part of the county. Dime-size hail fell in the southern part of the county near Three Springs. Marble-size hail also was reported around 1520 EST at Mount Union.

### Centre County

State College	06	1450EST	0	0	?	0	Thunderstorm Winds (G52)
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A thunderstorm wind gust was measured at 60 mph.

### Franklin County

Waynesboro	06	1502EST	0	0	0	?	Hail (0.75)
Chambersburg	06	1515EST	0	0	?	0	Thunderstorm Winds (G57)
Waynesboro	06	1520EST	0	0	?	0	Thunderstorm Winds (G61)

Thunderstorm wind gusts, measured at 65 mph, downed trees in the Chambersburg area. Gusts to 70 mph were reported in Waynesboro, along with thumb-size hail.

### Cumberland County

Oakville	06	1520EST	0	0	?	0	Thunderstorm Winds (G52)
2 E Allen	06	1545EST	0	0	4	0	Thunderstorm Winds
Shepardstown	06	1550EST	0	0	4	0	Thunderstorm Winds
Camp Hill	06	1555EST	0	0	?	0	Thunderstorm Winds (G57)

Thunderstorm wind gusts were estimated at 55 to 60 mph in the western part of the county center around Oakville. Gusts to 65 mph were reported in Camp Hill. Thunderstorm wind gusts destroyed the top half of a barn near Allen, and tore the roof off a commercial building near Shepardstown.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CRODSS	

## PENNSYLVANIA, Eastern Cont'd

### Adams County

Gettysburg	06	1521EST			0	0	4	0	Thunderstorm Winds (G61)
Littlestown	06	1530EST			0	0	4	0	Thunderstorm Winds
Gettysburg	06	1600EST			0	0	3	0	Thunderstorm Winds

In Gettysburg, thunderstorm wind gusts of 70 mph tore the roof off a house and downed utility lines. Later, gusts downed numerous trees and tore the roof off a shed. In Littlestown, wind gusts destroyed the top half of a barn and damaged a second barn.

### Clinton County

Lock Haven	06	1525EST			0	0	?	0	Funnel Cloud
Lock Haven	06	1528EST			0	0	3	0	Thunderstorm Winds
Flemington	06	1533EST			0	0	3	0	Thunderstorm Winds
Dunnstown	06	1547EST			0	0	3	0	Thunderstorm Winds
Lock Haven	06	1603EST			0	0	4	0	Thunderstorm Winds

In Lock Haven, a funnel cloud was observed. Thunderstorm wind gusts downed tree limbs and utility lines from 1528 EST to 1546 EST, with one tree falling on a house. Tree limbs and utility lines were downed in Flemington, with some power lines across vehicles. In Dunnstown, trees and utility lines were downed.

### Dauphin County

Harrisburg	06	1555EST			0	0	?	0	Thunderstorm Winds (G50)
Harrisburg	06	1602EST			0	0	3	0	Thunderstorm Winds

A thunderstorm wind gust to 58 mph was measured at the Federal Building in downtown Harrisburg. In another part of the city, a large tree was broken in half.

### York County

2 W Shrewsbury	06	1600EST			0	0	5	0	Thunderstorm Winds
Hanover	06	1625EST			0	0	3	0	Thunderstorm Winds
Strinestown	06	1630EST			0	0	5	0	Thunderstorm Winds
York	06	1631EST			0	0	4	0	Thunderstorm Winds
Capital City Airport	06	1648EST			0	0	3	0	Thunderstorm Winds (G55)

Thunderstorm wind gusts downed numerous trees throughout the county. A historic house and barn were damaged near Shrewsbury, and a flag pole was blown over. Trees were downed in Hanover. Trees and utility lines were blown down in Strinestown, and five houses were destroyed. In York, the roofs were blown off three row houses, a plastic-covered greenhouse was blown down, and numerous trees were downed, some on automobiles. Wind gusts were measured at 63 mph at Capital City Airport, and trees were downed in the surrounding area.

### North York

06	1610EST	0.3	50	0	0	3	0	Tornado (F0)
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A tornado touched down briefly downing trees and tree limbs in a cemetery.

### Perry County

Landisburg	06	1615EST			0	0	3	0	Thunderstorm Winds
New Bloomfield	06	1615EST			0	0	3	0	Thunderstorm Winds

Thunderstorm wind gusts downed numerous trees and utility lines.

### Lancaster County

Manheim	06	1620EST			0	0	3	0	Thunderstorm Winds
Millersville	06	1630EST			0	0	3	0	Thunderstorm Winds
Ephrata	06	1630EST			0	0	3	0	Thunderstorm Winds
Elizabethtown	06	1635EST			0	0	4	0	Thunderstorm Winds
Mount Joy	06	1635EST			0	0	4	0	Thunderstorm Winds

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## PENNSYLVANIA, Eastern Cont'd

Thunderstorm wind gusts downed trees and utility lines. One tree fell on an automobile in Elizabethtown, and another fell large tree fell on a church in Mount Joy. Trees and utility lines were downed in other parts of the county. Wind gusts to 62 mph were measured at Millersville University.

<b>Lebanon County</b>									
Mt. Gretna	06	1630EST			0	0	4	0	Thunderstorm Winds
Richland	06	1630EST			0	0	3	0	Thunderstorm Winds
Lebanon	06	1630EST			0	0	4	0	Thunderstorm Winds

Thunderstorm wind gusts downed trees, some of which fell on vehicles, and utility lines throughout the county. In Mt. Gretna, trees came down on a house. Trees were downed in Richland. A portion of a house roof was torn loose in Lebanon and trees were downed.

<b>Northumberland County</b>									
Sunbury	06	1630EST			0	0	3	0	Thunderstorm Winds

Thunderstorm wind gusts downed a tree.

<b>Lancaster County</b>									
Bainbridge	06	1640EST	1.0	100	0	3	5	0	Tornado (F2)

A tornado was first sighted over Susquehanna River drawing up water. The tornado came on shore and hit a mobile home park, destroying one mobile home and severely damaging six others. It then uprooted or snapped off dozens of trees, damaged the roofs on numerous homes, lifted the roof off a barn, and demolished a storage building in Bainbridge. After this, it damaged the side and roof on a cafe, and blew the glass out of the sign. It then hit three mobile homes across the highway, completely tearing apart two of them, and heavily damaging the third. Three people in the mobile homes sustained minor injuries. The tornado continued a bit farther east across farmland and damaged a barn before lifting off.

<b>Columbia County</b>									
Bloomsburg	06	1640EST			0	0	3	0	Thunderstorm Winds
Benton	06	1645EST			0	0	4	0	Thunderstorm Winds
1 E Benton	06	1645EST			0	0	3	0	Thunderstorm Winds

Thunderstorm wind gusts downed trees in Columbia. In Benton, part of the roof was peeled off a church roof, the roofs of two barns a machine shop were damaged, a corn crib was also damaged, and trees were downed. In Ravens Creek, just east of Benton, a number of trees were damaged or uprooted.

<b>Luzerne County</b>									
Cambra	06	1645EST			0	0	3	0	Thunderstorm Winds
Huntington Mills	06	1700EST			0	0	3	0	Thunderstorm Winds
Yatesville	06	1730EST			0	0	3	0	Thunderstorm Winds

Thunderstorm wind gusts damaged or uprooted trees from Cambra to Huntington Mills and damaged a dilapidated barn just west of Huntington Mills. Trees and branches were downed at Yatesville.

<b>Schuylkill County</b>									
Pine Grove	06	1705EST			0	0	3	0	Thunderstorm Winds
Tremont	06	1705EST			0	0	3	0	Thunderstorm Winds
Mechanicsville	06	1720EST			0	0	3	0	Thunderstorm Winds
Pottsville	06	1725EST			0	1	4	0	Thunderstorm Winds
Seltzer	06	1725EST			0	0	3	0	Thunderstorm Winds

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROD'S	

## PENNSYLVANIA, Eastern Cont'd

Thunderstorm wind gusts downed trees and utility lines. In Pottsville, at least one tree came down on a truck, and another fell through the side of a house. A woman in the house received minor injuries from flying debris.

<b>Berks County</b>									
1 SW Wernersville	06	1820EST			0	0	3	0	Thunderstorm Winds (G80)
Reading	06	1825EST			0	0	3	0	Thunderstorm Winds
Shillington	06	1825EST			0	0	4	0	Thunderstorm Winds

Thunderstorm wind gusts downed trees and utility lines. Near Wernersville trees were uprooted by a 92-mph wind gust. In Shillington, two trees fell on automobiles.

<b>Franklin County</b>									
Waynesboro	13	1330EST			0	0	3	0	Thunderstorm Winds

Thunderstorm wind gusts downed trees and utility lines.

<b>Adams County</b>									
10 E Gettysburg	13	1407EST			0	0	?	?	Hail (1.75)

Golf ball-size hail was reported.

<b>Union County</b>									
Weikert	13	1505EST			0	0	3	0	Thunderstorm Winds
West Milton	13	1515EST			0	0	3	0	Thunderstorm Winds

Thunderstorm wind gusts downed trees across the county.

<b>Northumberland County</b>									
Herndon	13	1510EST			0	0	3	0	Thunderstorm Winds

Thunderstorm wind gusts downed trees and power lines in Herndon.

<b>Snyder County</b>									
Selingsgrove	13	1515EST			0	0	3	0	Thunderstorm Winds

Thunderstorm wind gusts downed about 14 trees between 1515 EST and 1530 EST.

<b>Schuylkill County</b>									
5 E Tremont	13	1610EST			0	0	3	0	Thunderstorm Winds
10 E Pine Grove	13	1610EST			0	0	?	?	Hail (0.75)

Thunderstorm wind gusts downed trees and power lines east of Tremont. Dime-size hail was reported east of Pine Grove.

<b>Berks County</b>									
Seisholtzville	14	1025EST			0	0	3	0	Thunderstorm Winds

Thunderstorm wind gusts uprooted trees and brought down large tree limbs.

<b>Lycoming County</b>									
3 E Williamsport	29	1347EST			0	0	3	0	Thunderstorm Winds
Williamsport	29	1349EST			0	0	3	0	Thunderstorm Winds
Williamsport	29	1411EST			0	0	4	0	Thunderstorm Winds

Thunderstorm wind gusts downed trees and power lines. In Williamsport, two trees fell; one on a house and one on a garage.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## PENNSYLVANIA, Eastern Cont'd

### Clinton County

Lock Haven	29	1431EST			0	0	?	?	Hail (1.0)
Salona	29	1431EST			0	0	?	?	Hail (1.0)
Mill Hall	29	1429EST			0	0	3	0	Thunderstorm Winds
Beech Creek	29	1454EST			0	0	3	0	Thunderstorm Winds
2 N Dunnstown	29	1455EST			0	0	3	0	Thunderstorm Winds
Beach Creek	29	1510EST			0	0	3	0	Thunderstorm Winds
Mill Hall	29	1524EST			0	0	3	0	Thunderstorm Winds
Flemington	29	1526EST			0	0	3	0	Thunderstorm Winds

Thunderstorm wind gusts downed trees and utility lines. Nickel-size hail was reported in Lock Haven and Salona.

### Perry County

Green Park	29	1600EST			0	0	3	0	Thunderstorm Winds
3 SW Landisburg	29	1600EST			0	0	3	0	Thunderstorm Winds

Thunderstorm wind gusts downed trees and utility lines between 1600 EST and 1630 EST.

### Juniata County McAlisterville

	29	1615EST			0	0	3	0	Thunderstorm Winds
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Thunderstorm wind gusts downed trees and utility lines between 1615 EST and 1635 EST.

### Dauphin County Harrisburg International Airport (MDT)

	29	1650EST			0	0	?	0	Thunderstorm Winds (G50)
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A thunderstorm wind gust was measured at 58 mph.

### Lebanon County

1 NE MT. ZION	30	1442EST			0	0	4	0	Thunderstorm Winds
1 E Fredricksburg	30	1442EST			0	0	3	0	Thunderstorm Winds
Lebanon	30	1444EST			0	0	3	0	Thunderstorm Winds
2 NW Myerstown	30	1452EST			0	0	3	0	Thunderstorm Winds
Myerstown	30	1459EST			0	0	3	0	Thunderstorm Winds
Richland	30	1502EST			0	0	3	0	Thunderstorm Winds
2 SW Newmans-town	30	1506EST			0	0	3	0	Thunderstorm Winds
3 NW Myerstown	30	1523EST			0	0	3	0	Thunderstorm Winds
1 E Jonestown	30	1601EST			0	0	4	0	Thunderstorm Winds
2 S Annville	30	1623EST			0	0	3	0	Thunderstorm Winds

Thunderstorm wind gusts downed trees and utility lines. Utility poles were downed near Lebanon. Trees fell on vehicles in Jackson township, northwest of Myerstown, and in Richland. A tree fell on a house in Swatara township, east of Jonestown. Lightning struck a utility pole in Cleona and caused it to burn down.

### Schuylkill County Tamaqua

	30	1445EST			0	0	5	0	Thunderstorm Winds
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Thunderstorm wind gusts brought down many trees and utility lines. The roof, or portions of the roof, were blown off several houses. Some houses, and at least one street light, were damaged by flying debris. Much of the roof was blown off a large commercial building. A number of automobiles were damaged by debris from the roof. Some of the cars were inside the building and some were in the parking lot outside.

### Berks County Kempton

	30	1445EST			0	0	3	0	Thunderstorm Winds
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Thunderstorm wind gusts downed several large trees and large tree limbs.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## PENNSYLVANIA, Eastern Cont'd

### Lebanon County

2 S Newmanstown 30 1500EST \*\*220 20 0 0 3 0 Tornado (F0)

The tornado touched down very briefly at several locations along the path, which varied from 10 to 20 yards wide. Numerous large trees were uprooted and snapped or twisted off. High grass in a field was twisted and flattened. The tornado moved from northwest to southeast.

To the right of the tornado path was a path of damage which appeared to be straight line wind damage. The damage occurred between 1500 EST and 1530 EST.

### Berks County

Wernersville 30 1520EST 0 0 3 0 Thunderstorm Winds  
2 W Wernersville 30 1520EST 0 0 ? ? Hail (1.75)

Thunderstorm wind gusts downed trees and utility lines near Wernersville. Golf ball-size hail was reported at Wernersville State Hospital, which is west of Wernersville.

### Chester County

West Chester 30 1625EST 0 0 ? 0 Hail (1.00)

A thunderstorm dropped 1.00-inch hail in West Chester.

1 SE Exton 30 1630EST 0 0 0 0 Hail (0.75)

A thunderstorm dropped 0.75-inch hail southeast of Exton.

### Delaware County

Lima 30 1654EST 0 0 ? 0 Hail (0.75)  
Media 30 1706EST 0 0 ? 0 Hail (0.75)

Thunderstorms dropped 0.75-inch hail.

### Lehigh County

Neffs 31 1421EST 0 0 3 0 Thunderstorm Winds

Thunderstorm wind gusts downed trees and utility lines in the northeastern part of the county.

### Northampton County

Northampton 31 1421EST 0 0 3 0 Thunderstorm Winds

Thunderstorm wind gusts downed trees and utility lines in the western part of the county.

## PENNSYLVANIA, Western

### Lawrence County

2 SE New Castle 01 1347EST 0 0 0 0 Thunderstorm Winds

A fig tree was downed on Gardner Road in Shenago Township.

### Washington County

6 NE Washington 01 1350EST 0 0 0 0 Thunderstorm Winds

Large trees were downed in Canonsburg.

### Beaver County

8 SE Beaver 01 1350EST 0 0 0 0 Thunderstorm Winds

Power lines were downed in Harmony, Monaca, and Brighton.



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CRODSS	

## PENNSYLVANIA, Western Cont'd

<b>Mercer County</b> 4 E Mercer	01 1352EST	0 0 0 0	<b>Thunderstorm Winds</b>
A medium-size tree was downed on Route 158, 1 mile north of Interstate 80.			
<b>Allegheny County</b> 6 N Pit 9 S Pittsburgh	01 1400EST	0 0 0 0	<b>Thunderstorm Winds</b>
Large trees were downed in Sewickley Heights, and gusts to 60 mph were reported. Downed trees blocked roads in South Park. Trees were downed in Greentree. There were power outages in Oakland, Haxelwood, Squirrel Hill, and North Hills.			
<b>Butler County</b> 4 NE Butler	01 1415EST	0 0 0 ?	<b>Thunderstorm Winds</b>
Sixty-mph gusts were reported near Butler.			
16 NW Butler	01 1420EST	0 0 0 0	<b>Thunderstorm Winds</b>
Gusts were reported to 60 mph at Slippery Rock.			
<b>Venago County</b> 7 E Franklin	01 1430EST	0 0 2 0	<b>Thunderstorm Winds</b>
Damage was reported to the roof of a mobile home in Cranberry Township.			
<b>McKean County</b> Bradford	01 1431EST	0 0 0 0	<b>Thunderstorm Winds</b>
A gust to 62 mph was reported at Bradford Flight Service Station.			
<b>Clarion County</b> 5 NE to 7 SE Clarion	01 1500EST	0 0 2 0	<b>Thunderstorm Winds</b>
The roof was blown off a storage shed in Highland Township, and trees and power lines were downed in Crates and Reidsburg.			
<b>Jefferson County</b> 12 SE Brookville	01 1515EST	0 0 0 0	<b>Thunderstorm Winds</b>
Trees were downed and uprooted in Reynoldsville.			
<b>Clearfield County</b> Clearfield	01 1540EST	0 0 3 0	<b>Thunderstorm Winds</b>
Power lines and large trees were downed. Parts of the roof of two buildings were blown off.			
<b>Cambria County</b> Johnston	01 1600EST	0 0 0 0	<b>Thunderstorm Winds</b>
Large trees were downed in Johnstown.			
<b>Clearfield County</b> 18 NE Clearfield	01 1605EST	0 0 0 0	<b>Thunderstorm Winds</b>
Large trees and power lines were downed in Karthaus.			
<b>Blair County</b> 11 S Hollidaysburg	01 1620EST	0 0 0 0	<b>Thunderstorm Winds</b>

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## PENNSYLVANIA, Western Cont'd

Gusts to 60 mph, were reported at Claysburg.

**Somerset County**  
17 SE Somerset      01 1630EST                      0   0   0   0      **Thunderstorm Winds**

Large trees were downed in Fairhope.

**Bedford County**  
Bedford                      01 1630EST                      0   0   0   0      **Thunderstorm Winds**  
20 W Bedford

Power lines were downed in Hyndman and Bedford.

**Washington County**    06 1220EST                      0   0   0   0      **Thunderstorm Winds**

Trees, road signs, and power lines were downed in Canonsburg.

**Green County**  
Waynesburg                06 1230EST                      0   0   0   0      **Thunderstorm Winds**

In Waynesburg, large trees were downed.

**Washington County**  
13 SE Washington        06 1238EST                      0   0   0   0      **Thunderstorm Winds**

Gusts to 58 mph were reported at Marianna.

**Washington**                06 1300EST                      0   0   0   0      **Thunderstorm Winds**

Large trees and power lines were downed in Washington.

**Allegheny County**  
6 S Pittsburgh            06 1301EST                      0   0   4   0      **Thunderstorm Winds**  
10 NE Pittsburgh  
13 E Pittsburgh

A tree fell on the trolley tracks in Library; large trees were downed in Mt. Lebanon; an abandoned house in Wilksburg collapsed; trees were downed in Harmarville and Fox Chapel; a masonic hall roof was partly peeled off in Monroeville; and telephone lines were downed across the Parkway East.

**Armstrong County**  
15 S Kittanning            06 1309EST                      0   0   0   0      **Funnel Cloud**

A funnel cloud was sighted at Apollo.

**Westmoreland County**  
3 N Greensburg            06 1309EST                      0   0   0   0      **Funnel Cloud**

At Beaver Run Dam, a funnel cloud was sighted north of Route 22 heading northeast.

**Westmoreland County**  
22 W Greensburg        06 1310EST                      0   1   0   0      **Thunderstorm Winds**

A tree fell on a man in the cemetery in Arnold, and large trees were downed in New Kensington.

**Cambria County**  
Johnstown                    06 1310EST                      0   0   0   0      **Thunderstorm Winds**

Large trees and power lines were downed in Johnstown.

**Allegheny County**  
7 E Pittsburgh            06 1315EST                      0   0   0   0      **Thunderstorm Winds**

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## PENNSYLVANIA, Western Cont'd

In Braddock Hills, large trees and power lines were downed.

**Armstrong County**  
13 SW Kittanning 06 1318EST 0 0 0 0 **Thunderstorm Winds**

Near Schenley, 114 trees and 71 power lines were downed.

**Somerset County**  
Somerset 06 1330EST 0 0 0 0 **Thunderstorm Winds**

Gusts to 66 mph were reported at Somerset.

9 NW Somerset 06 1338EST 0 0 4 0 **Thunderstorm Winds**

13 S Somerset  
16 N Somerset

Large trees and power lines were downed at Bakersville and Rockwood. In Meyersdale, large trees and power lines were downed, and a chimney fell onto an addition of a house and through the roof. Trees were downed in the Ideal Park section of Conemaugh Township.

**Indiana County**  
11 N Indiana 06 1343EST 0 0 0 0 **Funnel Cloud**

A funnel cloud was sighted over Plumville.

**Somerset County**  
10 N Somerset 06 1345EST 0 0 0 0 **Thunderstorm Winds**

Gusts to 70 mph were reported 2 miles south of Boswell.

**Indiana County**  
Indiana 06 1348EST 0 0 4 0 **Thunderstorm Winds**

8 SE Indiana  
3 E Indiana  
15 SW Indiana  
17 NE Indiana

Large trees and power lines were downed in Indiana, Boro, and Brush Valley Townships. Gusts to 87 mph were reported at Jimmy Stewart Airport. Trees were uprooted in Blairsville. Poles were snapped and large trees were downed in Rochester Mills, and a tree fell into a church east of Mahoning township.

**Westmoreland County**  
14 NW Greensburg 06 1348EST 0 0 4 0 **Thunderstorm Winds**

In Murrys ville, 20 to 30 trees were uprooted; some cut off halfway up. All debris was lying in the same direction. A shed and a car were also damaged. A Washington township house was destroyed by fire that was started by downed power lines.

22 NW Greensburg 06 1348EST 0 0 0 0 **Thunderstorm Winds**

Trees and power lines were downed in New Kensington

**Jefferson County**  
16 SE Brookville 06 1412EST 0 0 0 0 **Thunderstorm Winds**

Large trees and power lines were downed in Punxsutawney blocking roads.

**Clearfield County**  
Clearfield 06 1415EST 1 0 3 0 **Thunderstorm Winds**

18 S Clearfield

Gusts to 60 mph were reported at Clearfield. Large trees were downed; some fell on cars and some blocked roads. A garage roof collapsed, and a man was injured when his leg was cut. Trees, utility poles, and signs were downed in the Blain City section of Beccaria, near Coalport.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## PENNSYLVANIA, Western Cont'd

A chimney collapsed spilling bricks onto a car.

<b>Bedford County</b> 11 S Bedford		06 1417EST			0	0	0	0	Thunderstorm Winds
									Large trees were downed south of Bedford.
15 N Bedford		06 1419EST			0	0	0	0	Thunderstorm Winds
									Large trees and power lines were downed by gusts to 75 mph, 2 miles north of Woodbury.
<b>Clearfield County</b> Clearfield 15 SW Clearfield		06 1426EST			0	0	0	0	Thunderstorm Winds
									Large trees and power lines were downed in Clearfield, Glen Hope, and Mahaffey.
<b>Cambria County</b> Ebensburg		06 1430EST			0	0	3	0	Thunderstorm Winds
									A tree fell through an apartment roof.
<b>Bedford County</b> 11 S Bedford		06 1434EST			0	0	0	0	Thunderstorm Winds
									Many large trees and power lines were downed south of Bedford.
<b>Blair County</b> 15 SE Altoona Altoona 12 S Altoona		06 1440EST			0	0	3	0	Thunderstorm Winds
									Many large trees were downed in Martinsburg, Claysburg, Altoona, and Freedom. Power lines fell on a bus. A mobile home was tipped over and destroyed in Martinsburg, and a tree fell into a car in Royer.
<b>Bedford County</b> Bedford 7 N Bedford 10 E Bedford 12 N Bedford		06 1440EST			0	0	4	0	Thunderstorm Winds
									Large trees and power lines were downed at Bedford, Everett, and Reynoldsville. A wood silo collapsed in Everett; half a roof was torn off a house; a tree fell onto a car; and a barn roof was partly torn off in Osterburg.
<b>Cambria County</b> 7 SE Ebensburg 3 SW Johnstown		06 1444EST			0	0	3	0	Thunderstorm Winds
									Trees were downed in Portage. The roof of a care facility in upper Yoder township was damaged; trees were downed, and a roof was torn off a gas station.
<b>Blair County</b> Altoona		13 1714EST			0	0	0	0	Thunderstorm Winds
									Wind gusts to 63 mph were reported at Altoona Flight Service Station.
<b>Crawford County</b> 12 NE Meadville		24 1450EST			0	0	0	0	Thunderstorm Winds
									Numerous trees and tree limbs were downed northwest of Cambridge Springs.
<b>Erie County</b> 16 SE Erie		24 1515EST			0	0	0	0	Thunderstorm Winds

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## PENNSYLVANIA, Western Cont'd

Numerous trees and tree limbs, and power lines were snapped off or downed in Waterford.									
26 SE Erie	25	1625EST			0	0	0	0	Hail (1.75) Thunderstorm Winds
At Corry, strong wind and 0.75-inch hail was reported.									
Warren County 9 W Warren	25	1700EST			0	0	0	0	Hail (1.75)
At Youngsville, 1.75-inch hail was reported.									
Armstrong County Kittanning	30	1235EST			0	0	0	0	Thunderstorm Winds
Trees were downed in Kittanning.									
Indiana County 14 S Indiana 12 SE Indiana 12 NE Indiana	30	1330EST			0	0	0	0	Thunderstorm Winds
Trees were downed in Blairsville, Blacklick, and Marion Center.									
Westmoreland County 23 NE Greensburg	30	1330EST			0	0	0	0	Thunderstorm Winds
Trees were downed in Bolivar.									
Cambria County Johnstown	30	1330EST			0	0	0	0	Thunderstorm Winds
A large oak tree was downed in the Hornerstown section of Johnstown.									

## RHODE ISLAND

Providence County N Smithfield	31	1540EST			0	1	0	0	Lightning
Lightning struck either a 13-year-old girl, or the dog she was walking. The dog was killed instantly and the girl suffered burns to her arm when the current traveled through the metal leash. She was treated at a local hospital and released.									

## SOUTH CAROLINA

Aiken County Warrenville Clearwater	05	PM			0	0	5	0	Thunderstorm Winds
Thunderstorm winds snapped power poles in half and whipped lines away from their moorings.									
Lexington County Cayce and Vicinity	05	1945EST- 2035EST			0	0	?	?	Flash Flood
Richland County Columbia Area	05	1945EST- 2035EST			0	0	?	0	Flash Flood

A thunderstorm caused flash flooding in the Columbia metropolitan area. In Columbia, a warehouse roof failed, causing \$350,000 in damage to the inventory and structure. In Lexington County, one earthen dam failed. In southern Richland County, 50 roads were washed out, but only 10 were impassable.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## SOUTH CAROLINA Cont'd

Abbeville County 5 E Abbeville	05	1620EST			0	0	0	0	Thunderstorm Winds Lightning
Greenwood County 3 N Greenwood	05	1645EST			0	0	4	?	Thunderstorm Winds Lightning
Laurens County Cross Hill	05	1708EST			0	0	1	0	Thunderstorm Winds Hail (0.75)
Abbeville County Eastern Portion	05	1715EST			0	0	?	?	Flash Flood
Newberry County	05	1800EST			0	0	0	?	Thunderstorm Winds

A severe thunderstorm developed east of Abbeville and moved across the lower part of the Piedmont. In eastern Abbeville County, a few trees were blown down and extremely heavy rain fell, causing flooding of small streams. Some roads were still closed the next morning. Lightning caused damage to power lines, telephone lines, and several homes and businesses. North of Greenwood, trees and power lines were blown down. A large tree fell on an automobile, destroying it. The storm continued across southern Laurens County and produced large hail, and caused similar types of wind damage near Cross Hill. In Newberry County, some trees were downed in a rural area.

Sumter County Dalzell	05	2035EST			1	1	4	0	Thunderstorm Winds
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Thunderstorm winds flipped over a mobile home, killing one occupant, and injuring another. (F57M)

Calhoun County Northwestern Portion	05	2100EST- 2230EST			0	0	4	0	Flash Flood
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A stream washed away a portion of a secondary road during a flash flood.

Clarendon County Turbeville	05	2230EST	0.3	70	0	0	?	0	Tornado (F0)
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A tornado touched down briefly and tossed a 30-foot trailer onto a house. No one was injured.

Georgetown County Andrews	06	1815EST			0	0	?	0	Thunderstorm Winds
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Georgetown County Emergency Preparedness Office reported high winds in the town of Andrews. Several trees were blown down, and marble-size hail was reported. Marble-size hail was also reported in Pleasant Hill.

Charleston County N Charleston	16	1230EST			0	0	?	0	Lightning
Charleston Air Force Base	16	1230EST			0	2	0	0	Lightning
Ladson	16	1230EST			0	0	?	0	Urban Flood

Stationary thunderstorms dumped nearly 5.00 inches of rain in the Ladson-Oakbrook area, forcing police to close parts of Trolley and Ladson Roads. These same thunderstorms were responsible for two lightning incidents in addition to the urban flooding. In one incident, two aircraft mechanics were momentarily stunned when lightning struck near an aircraft they were working on. They were not seriously injured. In a separate incident, lightning struck a mobile home, setting it ablaze. The fire truck that was dispatched to the mobile home fire overturned, injuring three firefighters.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## SOUTH CAROLINA Cont'd

**Richland County**  
Columbia

16 1528EST 0 0 3 0 **Lightning**

Lightning started a house fire causing \$4,500 in damage.

**Greenwood County**  
Ware Shoals  
2 N Greenwood

16 1730EST 0 0 ? ? **Hail (1.75)**  
16 1730EST 0 0 4 0 **Lightning**

Lightning started a fire causing approximately \$20,000 in damage to a house on S.C. Highway 221, 2 miles north of Greenwood. Golf ball-size hail was reported in Ware Shoals.

**Union County**  
Buffalo

16 1930EST 0 0 3 0 **Lightning**

Lightning struck the eave of a house, just above a bedroom. The bolt blew a hole in the gable of the roof, scattering boards onto the ground. The force of the stroke shook loose the stucco in the room next to where the lightning struck. An electrical outlet also caught fire after the lightning struck. The occupant of the house reported that his left eardrum was damaged by the thunder. In 1990, lightning struck two trees on the same property.

**Clarendon County**  
0.5 NE Sardinia

18 1430EST 0 0 ? ? **Thunderstorm Winds**

A mobile home was blown over and the roof was taken off another mobile home.

**Pickens County**  
Pickens  
**Berkeley County**  
St. Stephens  
**Greenwood County**  
Greenwood

18 1730EST 0 0 ? 0 **Thunderstorm Winds**  
18 1740EST 0 0 ? ? **Hail (0.75)**  
18 1800EST 0 0 ? 0 **Thunderstorm Winds**

**Greenwood County**  
Greenwood  
**Greenville County**  
Simpsonville  
Mauldin  
Greenville

18 1810EST 0 0 4 0 **Lightning**  
18 1830EST 0 0 ? ? **Hail (0.75)**  
18 1930EST-  
19 0100EST 0 0 4 0 **Flash Flood**

**Spartanburg County**  
Northern Portion

18 2000EST 0 0 4 ? **Flash Flood**  
19 0100EST 0 0 ? ? **Flash Flood**

Powerful, nearly stationary thunderstorms developed early in the evening. A classic flash flood event occurred in and around Greenville. The Reedy River rose several feet in 0.5 hour and crested at 11 feet, nearly 3 feet above flood stage. Most damage in Greenville, however, was caused by severe urban flooding not associated with the river. Some people required rescue from vehicles in the downtown area. Water entered some homes in Berea. There were several places where roadbeds were scoured. Near Mauldin, at least one bridge was washed out and remained closed for several days until repairs could be made. Rainfall reports up to 4.75 inches were received from the west side of Greenville and a spotter in Mauldin reported 4.25 inches of rainfall. Most fell in a 2-hour period in the early evening. Several bridges were still under water early the next morning in northern Spartanburg County. There was an unofficial report of 6.00 inches of rain along the Greenville - Spartanburg County border, near Gowensville.

In a separate thunderstorm in Greenwood County, lightning struck a bed inside an upstairs bedroom of a home and caused \$15,000 in damage from the ensuing fire. Also, in the Canterbury Subdivision of Greenwood, urban flood water reached the hoods of several cars. In some places the water was waist deep. Some trees and limbs were felled by thunderstorm winds.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROSSL	

## SOUTH CAROLINA Cont'd

In a separate thunderstorm, in the Low Country, 0.75-inch hail reported by the Berkeley County Sheriff's Office.

<b>Beaufort County</b> Hilton Head Island	21	Unknown			0	0	?	0	Urban Flood
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Water overflowed roadside ditches and stood in pools along South Forest Beach Drive and Coligny Circle.

<b>Beaufort County</b> Beaufort	29	1630EST- 1700EST			0	0	?	0	Urban Flood Lightning
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Very heavy rain of 3.37 inches in 2 hours caused some urban flooding. No wind damage or hail reported. Lightning caused power outages throughout Beaufort and vicinity.

<b>Anderson County</b> Anderson Belton	30	1712EST			0	0	?	?	Hail (1.75)
	30	1730EST			0	0	?	?	Thunderstorm Winds Hail (0.88)

A single severe thunderstorm produced golf-ball-size hail in Anderson, and blew large limbs out of trees at Belton. Nickel-size hail was observed at Belton.

## SOUTH DAKOTA

<b>Fall River County</b> 2 N Ardmore	09	1940CST			0	0	?	0	Hail (0.75)
30 S Hot Springs	10	1630CST			0	0	?	0	Hail (0.75)
<b>Pennington County</b> Quinn	10	1630EST			0	0	4	?	Hail (1.75)

Golf ball-size hail pelted Quinn for about 15 minutes. One car was totaled and four more suffered broken windows. Several houses incurred siding and roof damage, and broken windows.

<b>Fall River County</b> Ardmore	10	1700EST			0	0	?	0	Hail (0.75)
<b>Haakon County</b> W of Milesville	10	1815CST- 1900CST			0	0	0	4	Hail (?)

Hail of unknown size destroyed 1,000 acres of wheat.

<b>Fall River, Custer, and Shannon Counties</b>	10	2030CST- 12 0500CST			0	0	6	?	Flood
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Very heavy rainfall over the southern Black Hills and southwestern South Dakota caused extensive flooding from late evening on the 10th through early morning of the 12th. Total rainfall reports ranged from 4.00 to 10.00 inches in the area during the period. Afternoon and evening thunderstorms developed the 10th through the 12th dropping the heavy rain. Over \$1 million in flood damage occurred as a result of the copious amount of water. Oral was hardest hit as flood waters carried houses a few hundred feet from where they originally stood. Many highways, roads, culverts, and bridges were completely washed out by the heavy rains, and a few towns along the Cheyenne and White Rivers had to be evacuated due to high water levels.

<b>Fall River County</b> Provo	11	1813CST	0.5	50	0	0	?	0	Torando (F0)
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# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## SOUTH DAKOTA Cont'd

2 S Edgemont 11 1820CST-1900CST 1.0 75 0 0 0 0 Tornado (F1)

A tornado moved from 6 miles southwest of Edgemont to 7 miles north of Edgemont. The tornado destroyed a ranch home and outbuildings about 7 miles north of Edgemont. The tornado also removed roofs from several garages, barns and outbuildings.

Custer County Pringle 11 1826CST 0 0 4 0 Hail (1.75)  
 Custer 11 1835CST 0 0 3 0 Hail (1.75)  
 Fall River County Near Edgemont 11 1838CST 0.8 50 0 0 0 ? Tornado (F0)

At least seven tornadoes were spotted in open fields.

Custer County 5 E Custer 11 1840CST 0 0 5 ? Hail (2.75)  
 Thunderstorm Winds (G60)

Up to 2,500 acres of trees and some Forest Service equipment were damaged as strong winds and hail swept through the Custer National Forest.

Meade County Piedmont 11 1900CST 0 0 ? 0 Hail (0.75)  
 Pennington County Keystone 11 1915CST 0 0 3 0 Hail (0.75)

There were numerous reports of automobile and home damage due to hail.

Rapid City Area 11 1930CST 0 0 3 0 Hail (0.75)

There were many reports of home and automobile damage caused by hail.

4 SW Rapid City 11 1935CST 0 0 3 0 Hail (1.75)  
 6 S Rapid City 11 1935CST 0 0 1 0 Thunderstorm Winds (G53)  
 Meade County 4 NW Rapid City 11 1955CST 0 0 4 0 Thunderstorm Winds (G60)

Strong winds associated with thunderstorms tore the roof off a mobile home and damaged a nearby house.

Ellsworth Air Force Base 11 2005CST 0.5 50 0 0 ? 0 Tornado (F0)

A small tornado touched down briefly on the northwestern corner of the airbase.

Pennington County 11 NW Rapid City 11 2009CST 0 0 ? 0 Hail (1.75)  
 Meade County 20 NW Rapid City 11 2010CST 0 0 ? 0 Hail (0.75)  
 Pennington County 2 N Rapid City 11 2010CST 0.5 50 0 0 5 0 Tornado (F1)

A small tornado touched down briefly damaging several mobile homes and outbuildings. Two power poles were also snapped off.

Meade County 5 N Rapid City 11 2010CST 1.0 300 0 5 5 0 Tornado (F2)

A tornado moved through Weston Heights subdivision, damaging several homes and injuring five people. Nine mobile homes were destroyed along with several sheds and garages.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## SOUTH DAKOTA Cont'd

6 N to 8 N Rapid City 11 2010CST-2050CST 2.0 500 0 20 6 0 Tornado (F3)

A tornado destroyed 9 homes and damaged 150 others as it moved north of Rapid City. Four mobile homes were also destroyed by the tornado. Twenty people were injured, and 33 power poles were knocked down as the tornado moved through.

Corson City  
 3 E Walker 12 1343CST 0 0 0 0 Hail (0.75)  
 3 McLaughlin 12 1425CST 0 0 0 0 Hail (0.75)  
 Hughes County  
 6 S Harrold 12 1454CST 0 0 0 0 Hail (1.75)  
 Harrold 12 1500CST 0 0 0 0 Hail (0.75)  
 Brule County  
 Kimball 12 1552CST 0 0 0 0 Hail (0.75)  
 Hanson County  
 Fulton 12 1600CST 0.1 50 0 0 0 0 Tornado (F0)

A small tornado touched down briefly near Fulton. No damage was reported.

Charles Mix County  
 6 SW Platte 12 1630CST 0.5 100 0 0 2 0 Tornado (F0)

A tornado damaged the roof on an old barn and demolished a metal grain bin.

Sanborn County  
 5 N Letcher 12 1641CST 0 0 0 0 Hail (1.75)  
 Aurora County  
 6 S Stickney 12 1705CST 0.1 50 0 0 0 0 Tornado (F0)

A tornado touched down briefly causing no damage.

Davison County  
 1 N Vernon 12 1720CST 0 0 ? 0 Thunderstorm Winds (G55)

Strong thunderstorm winds moved some heavy farm equipment about 20 feet from where it originally stood.

1 N Mitchell 12 1745CST 0 0 0 0 Hail (1.75)  
 Brown County  
 3 W Aberdeen 12 1745CST 0 0 0 0 Hail (0.75)  
 Davison County  
 10 SE Mitchell 12 1753CST 0.5 100 0 0 0 ? Tornado (F0)

A tornado was observed in an open field causing little damage.

Miner County  
 Howard 12 1838CST 0 0 0 0 Hail (1.75)

The ground was covered with hail up to golf ball-size.

McCook County  
 2 S Canistota 12 1855CST 0 0 0 0 Hail (0.75)  
 10 S Salem 12 1905CST 0 0 0 0 Hail (0.75)  
 Canistota 12 1958CST 0 0 0 0 Hail (0.75)  
 Minnehaha County  
 Humboldt 12 1925CST 0 0 0 0 Hail (0.75)  
 Sioux Falls 12 1940CST 0 0 0 0 Hail (0.75)  
 Baltic 12 1945CST 0 0 0 0 Hail (0.75)  
 Crooks 12 2000CST 0 0 0 0 Hail (0.75)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## SOUTH DAKOTA Cont'd

Dewey County 4 E Eagle Butte	14	1652CST			0	0	0	0	Hail (1.75)
Ziebach County 2 E Cherry Creek	14	1659CST			0	0	?	0	Hail (1.75)
Grant County Milbank	14	1709CST			0	0	0	0	Hail (1.00)
Dewey County 4 W Eagle Butte	14	1710CST			0	0	0	0	Hail (1.75)
Roberts County Summit	14	1722CST			0	0	0	0	Hail (0.75)
Lawrence County Near Deadwood	14	1725CST			0	0	0	0	Hail (1.75)
Walworth County Mobridge	14	1728CST			0	0	0	0	Thunderstorm Winds (G50)
Perkins County 10 NW Faith	14	1740CST	0.5	300	0	0	5	0	Tornado (F1)

A tornado damaged a ranch near Faith. Two storage sheds (40 by 60 feet and 60 by 100 feet) were destroyed, and the equipment and vehicles inside them were also either destroyed or damaged. Damage was estimated at \$150,000.

Corson County 1 NW McIntosh	14	1750CST			0	0	0	0	Hail (2.00)
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Hail as big as chicken eggs piled up to 3 inches deep.

Roberts County Peever	14	1751CST			0	0	0	0	Hail (0.75)
Lawrence County 2 W Spearfish 2 E St. Onge	14	1759CST- 1820CST	4.0	150	0	0	0	0	Tornado (F0)

A weak tornado moved from 2 miles west of Spearfish to 2 miles east of St. Onge before dissipating. No damage was reported.

Walworth County Mobridge	14	1800CST			0	0	0	0	Thunderstorm Winds (G52)
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Tree limbs up to 6 inches in diameter, were blown off trees.

Roberts County Summit	14	1813CST			0	0	0	0	Hail (0.75)
Grant County 6 NNE Twin Brook	14	1816CST			0	0	0	0	Hail (1.75)
Roberts County Sisseton	14	1845CST			0	0	0	0	Hail (1.75)
Corson County 5 W Walker	14	1859CST			0	0	0	0	Hail (1.75)
Day County Waubay	14	1902CST			0	0	0	0	Hail (0.75)
Marshall County Eden	14	1902CST			0	0	0	0	Hail (1.75)
5 Lake City	14	1903CST			0	0	0	0	Hail (0.75)
Roy Lake	14	1915CST			0	0	0	0	Hail (1.25)
Grenville	14	1953CST			0	0	0	0	Hail (0.75)
Lawrence County Spearfish	14	1915CST			0	0	0	0	Hail (1.75)
Marshall County 4 SE Veblen	14	2010CST			0	0	0	0	Hail (1.75)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## SOUTH DAKOTA Cont'd

Day County Enemy Swim Pickeral	14	2020CST			0	0	0	0	Hail (0.75)
McPherson County Bowdle	14	2229CST			0	0	0	0	Thunderstorm Winds (G52)
Leola	14	2315CST			0	0	0	0	Thunderstorm Winds (G52)
Todd County Mission	15	1350CST			0	0	0	0	Hail (1.00)
Bennett County Martin	15	1410CST- 1500CST			0	0	5	4	Hail (1.75)
8 NE Marrison	15	1540CST			0	0	?	?	Hail (0.75)
Bennett County Tuthill	15	1630CST			0	0	?	?	Hail (1.00)

A series of slow-moving thunderstorms moved over most of Bennett County from 1400 CST to approximately 1700 CST. Six-foot drifts of hail between Martin and Tuthill wiped out over 1,000 acres of wheat in the southeastern part of the county. Five to six inches of rain caused widespread flooding and flash flooding washing out many roads and bridges. Four calves drowned due to fast-rising water.

Jackson County 20 SW Philip	15	1708CST- 1759CST			0	0	3	?	Flood
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Flash flooding due to heavy rainfall from slow-moving thunderstorms caused damage to fences, stock dams, and outbuildings.

Codington County 3 S Henry	15	1710CST			0	0	0	0	Hail (1.75)
Butte County Belle Fourche	19	2130CST			0	0	3	0	Thunderstorm Winds (G61)

Winds from a thunderstorm, estimated near 70 mph, demolished a pickup truck topper that was being stored near a house. The winds rolled the topper against a nearby house.

Edmunds County 5 S Roscoe	21	1950CST			0	0	0	0	Hail (0.75)
2 W Roscoe	21	1955CST			0	0	3	0	Thunderstorm Winds (G55)

Two grains bins were destroyed and the roofs of a house and a barn were damaged by thunderstorm winds.

Deuel County 10 S Gary	23	1930CST			0	0	3	0	Lightning
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Lightning struck a cabin near Lake Cochrane and set it on fire. The interior of the cabin was damaged severely.

Faulk County 10 W Faulkton	26	1615CST			0	0	0	3	Hail (1.75)
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Several farmers lost crops due to hail. Up to 500 acres of wheat and alfalfa were lost.

Spink County Redfield	26	1701CST			0	0	0	0	Thunderstorm Winds (G54)
Mellette	26	1705CST			0	0	4	0	Thunderstorm Winds (G60)
9 W Turton	26	1725CST			0	0	0	0	Thunderstorm Winds (G52)
1 S Turton	26	1733CST			0	0	1	0	Thunderstorm Winds (G57)
Conde	26	1735CST			0	0	0	0	Thunderstorm Winds (G57)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## SOUTH DAKOTA Cont'd

Thunderstorm winds were clocked at 62 mph on a gust recorder at Redfield. As the thunderstorm moved through the rest of Spink County, several screens were ripped off houses, a 33,00 bushel grain bin was destroyed, and tree limbs up to 6 inches in diameter were blown off

<b>Southern South Dakota</b>	27 2100CST- 28 0800CST								<b>Thunderstorm Winds</b>
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A cluster of thunderstorms over southwestern South Dakota in the late evening of May 27th moved east across southern-central into southeastern South Dakota through the morning of the 28th. Widespread hail and wind damage occurred with these storms. Damage to buildings, homes, vehicles, and crops occurred. In southwestern South Dakota, already-saturated ground and swollen creeks were drenched with 4.00 to 6.00 inches of new rain. The rains, which fell in a short period of time, produced flash flooding that damaged roads, bridges, and some private property.

<b>Shannon County 8 E Pine Ridge</b>	27 2115CST								Hail (0.75)
<b>Bennett County Tuthill and La Creek Refuge</b>	27 2230CST								Hail (1.75) Thunderstorm Winds (G60)

Golf ball-size hail broke windows in buildings, homes, and vehicles. Strong thunderstorm winds damaged several buildings and grain bins. Almost 1,000 wild birds nesting in La Creek Refuge were killed by falling hail.

<b>Tripp County Winner</b>	28 0100CST								Hail (1.00)
<b>Shannon County 30 SE Rapid City</b>	28 0105CST								Flood

Thunderstorms dumping heavy rainfall caused flash flooding. On Highway 12, a bridge and a section of the road were washed out.

<b>Aurora County Stickney</b>	28 0300CST								Hail (2.50)
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Tennis ball-size hail did substantial property and crop damage. Bean crops were destroyed and many homes and buildings sustained damage due to the hail.

<b>Beadle County Wessington</b>	28 0330CST								Thunderstorm Winds (G75)
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Strong winds blew an old tree into a house destroying the roof and leaving the tree lodged in the bedroom. There were no injuries. Elsewhere in town, the strong winds also destroyed a shed and moved a garage off its foundation.

<b>McCook County Salem</b>	28 0425CST								Hail (1.75)
<b>Beadle County 2 SE Wolsey</b>	28 0445CST								Thunderstorm Winds (G65)

Winds picked up the corner of a mobile home and knocked out the blocks. An old refrigerator was blown 30 feet, and several tree limbs measuring 8 to 12 inches in diameter, were torn from healthy trees.

<b>Kingsbury County Bancroft</b>	28 0500CST								Thunderstorm Winds (G65)
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# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## SOUTH DAKOTA Cont'd

Winds damaged two large grain bins, and a metal shed was destroyed when it was blown into a tree.

Minnehaha County Lyons	28	0505CST			0	0	0	0	Hail (1.25)
Colton	28	0506CST			0	0	0	0	Hail (0.75)
McCook County Montrose	28	0530CST			0	0	2	0	Hail (1.00)
Minnehaha County 1 S Dell Rapids	28	0542CST			0	0	0	0	Hail (0.75)
Beadle County 5 NE Broadland	28	0550CST			0	0	0	0	Hail (1.00)
McCook County Near Montrose	28	0600CST			0	0	3	4	Hail (1.00)

Extensive crop damage and widespread damage to vehicles and buildings was caused by hail.

Lincoln County 8 E Lennox	28	0643CST			0	0	0	0	Hail (0.75)
Stanley County 13 SSW Hayes	28	0730CST			0	0	0	0	Hail (0.75)
East-Central South Dakota	28	1600CST-			0	0	0	0	Hail
	28	1800CST			0	0	0	0	Hail

A large hail-producing thunderstorm complex moved across east-central South Dakota during the late afternoon hours of May 28th. Hail over 2.00 inches in diameter was common, and fell in large quantities. Falling hail stones injured two people and caused severe damage to many buildings, vehicles, and crops. Damage estimates in Woonsocket alone were around \$1 million.

Jerard County 5 W Woonsocket	28	1600CST			0	0	4	4	Hail (2.75)
Kingsbury County 10 S DeSmet	28	1600CST			0	0	3	4	Hail (2.75)
Sanborn County Woonsocket	28	1610CST-			0	1	6	4	Hail (4.00)
	28	1625CST			0	1	6	4	Hail (4.00)

A woman was struck in the head as she tried to retrieve a hail stone to show her insurance agent. The injury, the only one she sustained, required a few stitches. The western side windows on almost every building in town were broken. Cars were totaled due to hail damage and crops were destroyed.

Miner County 6 W Carthage	28	1615CST			0	0	3	4	Hail (3.00)
Beadle County 14 SE Huron	28	1630CST			0	0	0	0	Hail (1.75)
Sanborn County 8 N Artesian	28	1645CST			0	1	4	4	Hail (5.00)

A girl received cuts that required stitches when she was struck by hail. Hail the size of softballs, and some even larger, did extensive damage. Vehicles, windows, roofs of buildings, and crops were all damaged. Seventy-five feeder pigs and two calves were killed by the large hail.

Kingsbury County 16 SW DeSmet	28	1650CST			0	0	3	3	Hail (1.75)
Beadle County 11 SE Cavour	28	1700CST			0	0	2	0	Hail (1.75)
Kingsbury County 4 W Oldham	28	1712CST			0	0	0	4	Hail (2.75)
Lake Preston	28	1717CST			0	0	0	2	Hail (1.75)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## SOUTH DAKOTA Cont'd

5 NW Arlington	28	1730CST			0	0	0	2	Hail (2.75)
1 W Arlington	28	1743CST			0	0	4	4	Hail (4.50)

Hail as large as softballs destroyed a grain bin near Arlington. Widespread crop damage was reported with these storms.

Brookings County	28	1745CST			0	0	2	2	Hail (2.75)
SE Arlington	28	1755CST			0	0	0	0	Hail (0.75)
White	28	2200CST-			0	0	0	0	Thunderstorm Winds
SE South Dakota	29	0200CST			0	0	0	0	

Thunderstorms producing very strong winds and a few weak tornadoes moved across the southeast late on the 28th. Many houses and outbuildings were damaged. Some livestock was also killed during the storms.

Charles Mix County	28	2218CST			0	0	2	0	Thunderstorm Winds (G52)
Lake Andes									

Tree limbs from 1 to 4 inches in diameter were torn from healthy trees. There was some minor damage to houses in town.

Wagner	28	2220CST			0	0	6	0	Thunderstorm Winds (G80)
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Strong winds blew several buildings down and took roofs off others. Trees up to 10 inches in diameter were snapped off. The top 30 feet of a 100-foot metal tower was bent, and a 70-foot tower was blown onto a house. Many roofs in town were partially torn off, some down to the framework.

Bon Homme County	28	2225CST			0	0	6	0	Thunderstorm Winds (G80)
Tyndall									

Wind damaged roofs and blew trees over.

Hutchinson County	28	2230CST	0.5	150	0	0	4	0	Tornado (F1)
Near Tripp									

A small tornado destroyed some sheds and damaged farm equipment.

Tripp	28	2235CST			0	0	3	0	Thunderstorm Winds (G53)
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Homes sustained roof and window damage due to strong winds.

Near Parkston	28	2245CST	0.5	100	0	0	0	0	Tornado (F0)
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Two tornadoes were spotted, but no damage was reported.

Parkston	28	2246CST			0	0	3	0	Thunderstorm Winds (G70)
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Windows were broken in many houses by flying debris caused by the strong winds.

Freeman	28	2250CST	0.5	150	0	0	5	0	Tornado (F1)
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A small tornado damaged two silos, each 90-feet tall. The tornado also took the roof of a barn off and destroyed two sheds.

Bon Homme County	28	2255CST			0	0	4	0	Thunderstorm Winds (G65)
Scotland									

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## SOUTH DAKOTA Cont'd

A large tree was blown over into a garage causing major damage. Other minor damage was reported.

**Sanborn County**  
Woonsocket      28 2300CST      0 0 5 0      Lightning

A house was completely destroyed after a lightning strike set it on fire.

**McCook County**  
Cannistota      28 2310CST      0 2 5 3      Thunderstorm Winds (G60)

A couple received minor injuries when they were cut by glass from a window that was shattered due to wind and hail. Some roofs were blown off buildings, and a barn was destroyed due to strong winds.

**Hanson County**  
Alexandria      28 2310CST      0 0 3 0      Thunderstorm Winds (G60)  
Near Emory      28 2320CST      0 0 3 0      Hail (0.75)

A sheep was killed and minor damage to houses and buildings was reported.

**Yankton County**  
Yankton      28 2320CST      0 0 4 0      Thunderstorm Winds (G80)

Very strong winds blew over healthy trees up to 8 inches in diameter. Numerous reports of house damage were received throughout the city.

**Union County**  
2 W Elk Point      29 0015CST      0 0 3 0      Thunderstorm Winds (G55)  
North Sioux City      29 0020CST      0 0 4 0      Thunderstorm Winds (G65)  
1 N Elk Point      29 0030CST      0 0 4 0      Thunderstorm Winds (G60)

Several farm buildings were blown down by high winds, and a mobile home blown over. A restaurant under construction was also destroyed and several vehicles were totaled.

**Minnehaha County**  
Brandon      29 0047CST      0 0 4 0      Lightning

A house was damaged severely when lightning struck, resulting in a fire.

**Hamlin County**  
Esteline      29 0200CST      0 0 4 0      Lightning

Lightning struck a garage setting it on fire.

**Meade County**  
10 S Union Center      29 1545CST      0 0 3 3      Hail (1.75)  
Elm Spring      29 1620CST      0 0 0 0      Hail (1.75)

**Pennington County**  
2 N Wall      29 1700CST      0 0 0 4      Hail (1.00)

**Haakon County**  
22 N Philip      29 1720CST      0 0 3 3      Hail (2.75)  
20 NE Philip      29 1815CST      0 0 3 3      Hail (2.75)  
25 NE Philip      29 1825CST      0 0 3 3      Hail (2.75)

Hail wiped out many fields of wheat and alfalfa as well as damaging windows, roofs, and vehicles.

**Stanley County**  
55 WSW Pierre      29 2030CST      0 0 0 0      Hail (2.75)



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## SOUTH DAKOTA Cont'd

Jones County 10 N Draper	29	2120CST	0.5	50	0	0	0	0	Tornado (F0)
A small tornado touched down briefly before dissipating. No damage was reported.									
Stanley County 10 W Pierre	29	2120CST			0	0	0	0	Hail (2.75)
Brown County Aberdeen	30	0030CST			0	0	4	0	Thunderstorm Winds (G55)
Hamilin County Hayti	30	0315CST			0	0	4	0	Thunderstorm Winds (G52)
Hughes County 4 E Blunt	30	0830CST			0	0	4	4	Hail (1.75)
Perkins County 30 SW Lemmon	30	1945CST			0	0	0	3	Hail (1.75)
Stanley County 10 W Pierre	30	2020CST			0	0	0	0	Hail (1.75)
10 WNW Pierre	30	2029CST			0	0	0	0	Hail (1.75)
8 W Pierre	30	2030CST			0	0	0	0	Hail (2.75)
Jackson County 14 WSW Philip	30	2055CST			0	0	0	2	Hail (0.75)
Turner County Marion	31	0125CST			0	0	3	0	Thunderstorm Winds (G55)
Minnehah County 4 ESE Hartford	31	0150CST			0	0	0	0	Hail (0.75)
Miner County 4 NW Canova	31	0230CST			0	0	0	1	Hail (0.80)
Clark County 1 N Elrod	31	0255CST			0	0	0	0	Hail (0.75)
Codington County Watertown	31	0330CST			0	0	0	0	Thunderstorm Winds (G55)
Grant County Milbank	31	0415CST			0	0	3	0	Thunderstorm Winds (G50)

## TENNESSEE

Hamilton County Red Bank	05	1800CST			0	3	5	0	Flood
Heavy rains (between 2.50 and 4.00 inches) caused an apartment complex to collapse. Some power lines were knocked down as well.									
Tipton County Covington	11	0900CST			0	0	2	0	Flood
Portions of Highway 51 were under water.									
Haywood County Brownsville	11	0900CST			0	0	2	0	Flood
Minor flooding was reported in Brownsville.									
Lewis County Hohenwald	11	1430CST			0	0	5	0	Flood
Several bridges were washed out.									
Sumner County Countywide	12	1400CST			0	0	2	0	Thunderstorm Winds
Gallatin	12	1400CST			0	0	2	0	Flood

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## TENNESSEE Cont'd

Some telephone lines were knocked down by the wind. Urban flooding produced water which was as high as truck doors.

Fayette County  
Moscow  
Rossville

12 1400CST 0 0 4 0 Flood

Nineteen homes and five businesses in the Rossville area were damaged. Twenty cars were stalled on Route 57 between Moscow and Rossville. Flooding produced holes in the railroad bed which stalled four trains.

Shelby County  
Bartlett  
Cordova  
Collierville  
Millington

12 1500CST 0 0 3 0 Flood

Reports of urban flooding with water as high as hub caps in some spots. Some cars were found off the road and water reached a few houses.

Washington County  
Johnson City

12 1900CST 0 1 2 0 Flood

A man was knocked off an inner tube on the Watuga river because of rising water due to heavy rain.

Carter County  
Biltmore  
Gap Creek  
Laurels

12 1900CST 0 0 2 0 Flood

Minor flooding was reported in the Biltmore, Gap Creek, and Laurels communities.

Blount County  
Maryville

16 1400CST 0 0 3 0 Lightning

Lightning produced damage to the First Federal Bank.

Bradley County  
Cleveland

16 1930CST 0 0 3 0 Lightning

Lightning produced extensive damage to one house.

Campbell County  
Duff and  
Westbourne

19 1500CST 0 0 3 0 Flood

Some houses were damaged by flood waters and several trees were knocked down.

Lawrence County  
Loretto  
Lawrenceburg

25 1700CST 0 1 3 0 Flood

Wayne County

25 2000CST 0 0 4 0 Flood

Lewis County

25 2030CST 0 0 3 0 Flood

Fayette County

Moscow

26 0330CST 0 0 3 0 Flood

Maury County

26 1100CST 0 0 3 0 Flood

Hardin County

26 1700CST 0 0 5 0 Flood

Humphreys County

26 2145CST 0 0 6 6 Flood

Hickman County

26 2200CST 0 0 4 0 Flood

Dickson County

26 2230CST 0 0 4 0 Flood

Montgomery County

26 2345CST 0 0 3 0 Flood

Cheatham County

27 0400CST 0 0 3 0 Flood

Heavy rain moved through parts of western and middle Tennessee during the Memorial Day weekend. Eight to twelve inches of rain fell across the southern part of middle Tennessee. This

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## TENNESSEE Cont'd

produced quite a bit of flooding. One person was injured in Lawrence County as their camper was washed away. In Hickman County, a Tennessee Valley Authority substation was knocked down due to the high water. In Hardin County, 16 bridges were washed out because of the flood waters.

Washington County  
Johnson City 27 1730CST 0 0 2 0 Flood

Minor urban flooding was reported.

Sullivan County  
Bristol  
Abingdon 27 1900CST 0 2 3 0 Flood

Minor flood damage was reported. Two automobile accidents occurred due to the flood waters, injuring two people.

Washington County  
Johnson City 30 1815CST 0 0 3 0 Flood

Several roads were flooded.

## TEXAS, Northern

Northern Texas 02-04

Strong thunderstorms developed across portions of northern Texas, from May 2nd through May 4th, as a series of upper level disturbances rotated across the area from an upper-level low-pressure system centered over the western Rocky Mountain states. The most intense thunderstorms spawned isolated tornadoes, produced damaging downbursts of wind and large hail, and dumped heavy rainfall which resulted in several flash flood events.

McCulloch County  
5 NW Brady  
2 N Brady 02 1255CST 0 0 3 ? Hail (1.75)  
02 1315CST 0 0 3 ? Thunderstorm Winds

Golf ball-size hail broke the windshield of an automobile 5 miles northwest of Brady. Strong winds lifted the tin roof off a building and blew down large tree branches 2 miles north of Brady.

Foard County  
1 SE Thalia 02 1300CST 0 0 3 ? Thunderstorm Winds

Strong winds blew down several trees.

Jones County  
2 S Hawley  
Hamlin 02 1357CST 0 0 ? ? Hail (0.75)  
02 1418CST-  
1419CST Short Narrow 0 0 4 ? Tornado (F2)

A tornado touched down briefly at Hamlin and lifted the roof off a home, destroyed a storage building, and blew down power lines.

Haskell County  
6 NW Haskell 02 1450CST-  
1451CST Short Narrow 0 0 4 ? Tornado (F1)

A tornado touched down briefly in open country near Farm-to-Market Road 2407 (6 miles northwest of Haskell), and snapped numerous utility poles and blew trees onto power lines.

Wichita County  
Wichita Falls 02 1720CST 0 0 ? ? Thunderstorm Winds (G56)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## TEXAS, Northern Cont'd

<b>Cooke County</b>									
11 NW Gainesville	02	22320CST			0	0	4	?	Thunderstorm Winds
4 W Gainesville	02	2230CST			0	0	4	?	Thunderstorm Winds
<p>At Moss Lake (11 miles northwest of Gainesville), strong winds lifted the roof off a boathouse and a home, damaged two boats, a porch, a patio, a radio tower, and snapped several trees. At the airport in Gainesville (4 miles west of Gainesville), strong winds blew the windows in, damaged the doors of an aircraft hangar, and blew down power lines.</p>									
<b>Tarrant County</b>									
Haslett	02	2334CST			0	0	3	?	Thunderstorm Winds
Carswell Air Force Base	02	2356CST			0	0	?	?	Thunderstorm Winds (G56)
Saginaw	03	0020CST			0	0	3	?	Thunderstorm Winds
Saginaw	03	0040CST			0	0	?	?	Thunderstorm Winds (G52)
<p>Strong winds blew down power lines at both Haslett and Saginaw.</p>									
<b>Fannin County</b>									
Leonard	03	0050CST			0	0	3	?	Thunderstorm Winds
<p>Strong winds blew down large tree branches.</p>									
<b>Lamar County</b>									
Paris	03	0130CST			0	1	5	?	Thunderstorm Winds
3 NW Blossom	03	0152CST			0	0	5	?	Thunderstorm Winds
1 E Blossom	03	0200CST			0	0	4	?	Thunderstorm Winds
<p>Strong winds lifted the roof off a motel, blew down a greenhouse, several power lines and trees, and damaged the roof of several homes in Paris. Strong winds destroyed two barns, damaged a business, blew down several power lines and approximately 300 trees, 3 miles northwest of Blossom. A downburst overturned a tractor-semitrailer 1 mile east of Blossom.</p>									
<b>Red River County</b>									
Woodland	03	0208CST			0	0	3	?	Thunderstorm Winds
Negley	03	0208CST			0	0	4	?	Thunderstorm Winds
3 W Bagwell	03	0210CST			0	0	4	?	Thunderstorm Winds
<p>Strong winds blew down numerous trees and power lines at Woodland, Negley, and in an area 3 miles west of Bagwell. The roof of several homes were also damaged 3 miles west of Bagwell.</p>									
<b>Morris County</b>									
Jenkins	03	0215CST			0	0	4	?	Thunderstorm Winds
Daingerfield	03	0215CST			0	0	3	?	Thunderstorm Winds
<p>Strong winds uprooted trees, damaged two automobiles, the roof of a home in Jenkins, and blew trees down onto power lines in Daingerfield.</p>									
<b>Cass County</b>									
Hughes Springs	03	0300CST			0	0	3	?	Thunderstorm Winds
Avinger	03	0300CST			0	0	3	?	Thunderstorm Winds
<p>Strong winds blew several trees onto power lines at both Hughes Springs and Avinger.</p>									
<b>Bowie County</b>									
Beaverdams	03	0310CST			0	0	3	?	Thunderstorm Winds
DeKalb	03	0310CST			0	0	?	?	Thunderstorm Winds (G52)
Sims	03	0315CST			0	0	3	?	Thunderstorm Winds
Hooks	03	0315CST			0	0	3	?	Thunderstorm Winds

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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## TEXAS, Northern Cont'd

<b>4 N Redwater</b>	03	0315CST			0	0	3	?	<b>Thunderstorm Winds</b>
Strong winds blew down numerous trees at Beavercams, Sims, and Hooks, and damaged signs at the Lone Star Army Ammunition Plant (4 miles north of Redwater).									
<b>Wood County Winnsboro</b>	03	0315CST			0	0	3	?	<b>Thunderstorm Winds</b>
Strong winds blew down several trees.									
<b>Cass County Hughes Springs</b>	03	0320CST			0	0	?	?	<b>Hail (1.00)</b>
<b>1 E Linden</b>	03	0322CST			0	0	3	?	<b>Thunderstorm Winds</b>
<b>4 NE Linden</b>	03	0322CST			0	0	4	?	<b>Thunderstorm Winds</b>
Strong winds blew several trees down 1 mile east of Linden, and damaged the roof of a chicken barn 4 miles northeast of Linden.									
<b>Camp County Center Point</b>	03	0340CST			0	0	3	?	<b>Thunderstorm Winds (G52)</b>
Strong winds measured at 60 mph blew down several trees.									
<b>Upshur County 3 N Ore City</b>	03	0340CST			0	0	3	?	<b>Thunderstorm Winds (G52)</b>
<b>Gilmer</b>	03	0400CST			0	0	3	?	<b>Thunderstorm Winds</b>
<b>Diana</b>	03	0420CST			0	0	3	?	<b>Thunderstorm Winds</b>
Strong winds blew down several trees at Lake of the Pines (3 miles north of Ore City), Gilmer, and Diana.									
<b>Smith County Chapel Hill</b>	03	0345CST			0	0	3	?	<b>Thunderstorm Winds</b>
<b>Lindale</b>	03	0410CST			0	0	?	?	<b>Funnel Cloud</b>
<b>Big Sandy</b>	03	0410CST			0	0	?	?	<b>Funnel Cloud</b>
<b>Winona</b>	03	0425CST			0	0	?	?	<b>Funnel Cloud</b>
Strong winds blew down several trees at Chapel Hill.									
<b>Marion County 5 N Kellyville</b>	03	0415CST			0	0	4	?	<b>Thunderstorm Winds</b>
<b>Jefferson</b>	03	0420CST			0	0	?	?	<b>Thunderstorm Winds (G54)</b>
Strong winds blew down several trees and the roof off an outdoor building at a campsite on the Hurricane Creek (5 miles north of Kellyville).									
<b>Gregg County Greggton</b>	03	0421CST			0	0	?	?	<b>Hail (1.00)</b>
<b>Rusk County 3 E Overton</b>	03	0441CST			0	0	?	?	<b>Hail (1.00)</b>
<b>Harrison County Harleton</b>	03	0443CST			0	0	3	?	<b>Thunderstorm Winds Hail (0.88)</b>
<b>Scottsville</b>	03	0520CST			0	0	?	?	<b>Thunderstorm Winds (G59)</b>
<b>1 W Marshall</b>	03	0520CST			0	0	3	?	<b>Thunderstorm Winds</b>
<b>Marshall</b>	03	0540CST			0	0	3	?	<b>Thunderstorm Winds</b>
<b>3 NW Waskom</b>	03	0540CST			0	0	3	?	<b>Thunderstorm Winds</b>
Strong winds blew down large tree limbs at Harleton, and several trees 1 mile west of Marshall, at Marshall, and 3 miles northwest of Waskom.									

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

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## TEXAS, Northern Cont'd

### Angelina County

Lufkin	03	0524CST			0	0	?	?	Hail (0.75)
3 NE Zavalla	03	0600CST			0	0	3	?	Thunderstorm Winds
9 E Lufkin	03	0650CST			0	0	3	?	Thunderstorm Winds
Diboll	03	0650CST			0	0	?	?	Hail (1.00)
Huntington	03	0650CST			0	0	?	?	Hail (1.00)

Strong winds uprooted several trees 3 miles northeast of Zavalla, and at Rocky Hill, 9 miles east of Lufkin.

### Harrison and Marion Counties

	03	0600CST- 1245CST			0	0	4	?	Flash Flood
	03	1600CST- 2000CST			0	0	4	?	Flash Flood

Heavy rains in excess of 5 inches in a 24-hour period produced flash flooding of several homes, vehicles, and roadways in both Harrison and Marion Counties (specifically, in Harrison County). In Marshall, a mobile home was flooded and several cars were washed off roadways. Several bridges were washed out along the Sabine River and parts of U.S. Highway 59, while Farm-to-Market Road 2625 was closed for several hours.

### Gregg County

Liberty City	03	0400CST			0	0	4	?	Thunderstorm Winds
Longview	03	0430CST			0	0	4	?	Thunderstorm Winds Hail (1.75)
Kilgore	03	0430CST			0	0	4	?	Thunderstorm Winds
Countywide	03	0530CST- 1230CST			0	0	6	?	Flash Flood
	03	1600CST- 2000CST			0	0	6	?	Flash Flood

Strong winds uprooted trees at Liberty City, Longview, and Kilgore. In addition, both Longview and Kilgore had windows blown in, the roof lifted off several homes, and utility poles and power lines blown down. In Kilgore, a little league ballpark was damaged. Heavy rains of 9.00 inches in a 7-hour period produced widespread flash flooding of homes, businesses, roadways, and public facilities in Gregg County. In Longview, approximately 200 homes and 50 businesses were flooded by high water up to 5 feet deep. High water was observed up to the roof line of homes in other locations. Flash flood damage was estimated at \$2.5 million.

### Rusk County

5 SW Kilgore	03	0405CST			0	0	4	?	Thunderstorm Winds
Henderson	03	0415CST			0	0	3	?	Thunderstorm Winds

Strong winds destroyed a barn and blew down large tree limbs 5 miles southwest of Kilgore, and blew down several trees at Henderson.

### Harrison County

Marshall	03	0430CST			0	0	3	?	Thunderstorm Winds
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Strong winds blew down several trees and power lines.

### Bowie and Cass Counties

Bowie and Cass Counties	03	0430CST- 0830CST			0	0	?	?	Flash Flood
Bowie and Cass Counties	03	1600CST- 2000CST			0	0	?	?	Flash Flood

Heavy rains resulted in the flash flooding of several creeks, low-lying areas, and numerous roadways.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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## TEXAS, Northern Cont'd

<b>Panola County</b> Beckville	03 0510CST		0	0	3	?	Thunderstorm Winds Hail (1.00)
6 NE DeBerry	03 0601CST		0	0	3	?	Thunderstorm Winds

Strong winds blew down several trees at Beckville, and 6 miles northeast of DeBerry.

<b>Panola and Rusk Counties</b>	03 1000CST- 1245CST		0	0	?	?	Flash Flood
	03 1600CST- 2000CST		0	0	?	?	Flash Flood

Heavy rains washed out numerous culverts in Panola and Rusk Counties. In Rusk County, Farm-to-Market Road 3053 was closed due to high water over the roadway.

<b>Bell County</b> 1 E Killeen Countywide	03 1225CST 03 1330CST- 1700CST		0	0	?	?	Hail (0.75) Flash Flood
Temple 3 S Youngsport	03 1343CST 03 1505CST		0	0	5	?	Thunderstorm Winds Thunderstorm Winds

Heavy rains of 3.00 inches in a 45-minute period flooded numerous roadways in Bell County. Several homes were flooded in Youngsport while Farm-to-Market Road 13 south of Killeen, was closed. Strong winds destroyed two mobile homes and damaged another in Temple. Three miles south of Youngsport, a 70-foot two-way radio tower was snapped, while 10 storage buildings and a greenhouse were destroyed, and several homes were uprooted.

<b>Jack County</b> 3 S Jacksboro	03 1315CST		0	0	?	?	Hail (0.75)
<b>Taylor County</b> Buffalo Gap	03 1340CST		0	0	?	?	Hail (1.00)
<b>McCulloch County</b> 2 N Doole	03 1349CST- 1405CST	Short Narrow	0	0	?	?	Tornado (F0)

A tornado touched down in open country 2 miles north of Doole and damaged a fence.

<b>Falls County</b> Marlin	03 1400CST		0	0	5	?	Thunderstorm Winds
2 W Westphalia	03 1425CST		0	0	4	?	Thunderstorm Winds

Strong winds destroyed a barn and a combine shed at Marlin, and damaged a home 2 miles west of Westphalia.

<b>Young County</b> Newcastle	03 1415CST		0	0	?	?	Hail (1.75)
Graham	03 1515CST		0	0	?	?	Hail (1.75)
Farmer	03 1442CST		0	0	?	?	Hail (0.75)
Countywide	03 1600CST- 2100CST		0	0	?	?	Flash Flood

Heavy rains produced flash flooding of several roadways, low-lying areas, and low-water crossings over scattered sections of Young County.

<b>Callahan County</b> 1 W Eula	03 1435CST		0	0	?	?	Hail (2.75)
2 S Baird	03 1450CST		0	0	?	?	Hail (1.75)
<b>Hopkins County</b> Como	03 1500CST		0	0	?	?	Hail (1.00)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## TEXAS, Northern Cont'd

### McCulloch County

Calf Creek 03 1515CST 0 0 ? ? Hail (0.75)  
 Brady 03 1532CST 0 0 ? ? Funnel Cloud

### Stephens County

5 N Breckenridge 03 1535CST 0 0 ? ? Hail (0.75)  
 Countywide 03 1700CST-1930CST 0 0 ? ? Flash Flood

Heavy rains of 4.56 inches fell in a 6-hour period at Ivan. High water resulted in the closing of Farm-to-Market Roads 1148, 701, 1287, and State Highway 67.

### Leon County

4 NE Marquez 03 1540CST 0 0 ? ? Hail (1.75)  
 Oakwood 03 1625CST 0 0 ? ? Hail (1.75)  
 Oakwood 03 1725CST 0 0 ? ? Hail (1.75)

### Camp County

3 NE Pittsburh 03 1545CST 0 0 5 ? Thunderstorm Winds

A downburst destroyed an outdoor building, lifted the shingles off the roofs of homes, and blew down several trees.

### Shelby County

03 1600CST-2300CST 0 0 ? ? Flash Flood

Heavy rains resulted in the flash flooding of roadways, low water crossings, and low-lying areas.

### Freestone County

Oakwood 03 1625CST 0 0 ? ? Hail (1.75)

### Camp, Morris and Titus Counties

03 1630CST-1900CST 0 0 ? ? Flash Flood

Heavy rains of 4.00 inches in 12 hours, resulted in the flash flooding of several creeks, low-lying areas, and roadways.

### Anderson County

Elkhart 03 1730CST 0 0 ? ? Hail (1.75)

### Houston County

Grapeland 03 1730CST-1731CST Short Narrow 0 0 ? ? Tornado (F1)

A tornado touched down briefly near Grapeland and blew down several trees.

### Nacogdoches County

03 1830CST-2030CST 0 0 ? ? Flash Flood  
 Nacogdoches 03 1957CST 0 0 5 ? Thunderstorm Winds  
 Appleby 03 2000CST 0 0 3 ? Thunderstorm Winds  
 Cushing 03 2000CST 0 0 3 ? Thunderstorm Winds

Heavy rains, up to 4.23 inches measured at Cushing in a 6-hour period, produced widespread flash flooding of several residences, roadways, and vehicles where high water was observed up to 3 feet deep at various locations in Nacogdoches County. Several roads were closed including Farm-to-Market Roads 307, 818, 789, 818, 438, and 706. Strong winds destroyed a barn, uprooted several trees, and blew down trees and large limbs onto power lines and homes in Nacogdoches. Several utility poles and trees were snapped at both Appleby and Cushing.

### San Augustine County

1 W San Augustine 03 2010CST-2011CST Short Narrow 0 0 3 ? Tornado (F1)



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## TEXAS, Northern Cont'd

A tornado was observed 1 mile west of San Augustine where numerous trees and power lines were blown down.

<b>Shelby County</b>									
Neuville	03	2010CST			0	0	?	?	Hail (1.75)
Huxley Bay	03	2020CST			0	0	?	?	Thunderstorm Winds

Strong winds blew a few trees and street signs down at Huxley Bay.

<b>Eastland County</b>									
Cisco	04	1220CST			0	0	3	?	Thunderstorm Winds
Ranger	04	1220CST			0	0	3	?	Thunderstorm Winds
Eastland	04	1220CST			0	0	3	?	Thunderstorm Winds

Strong winds blew down trees and power lines at Cisco, Ranger, and Eastland.

<b>Throckmorton County</b>									
Woodson	04	1230CST			0	0	?	?	Hail (1.75)
<b>Stephens County</b>									
7 W Breckenridge	04	1240CST			0	0	?	?	Hail (0.75)
Breckenridge	04	1306CST			0	0	?	?	Hail (0.75)
<b>Comanche County</b>									
10 SE Comanche	04	1315CST			0	0	?	?	Thunderstorm Winds (G50)
<b>Erath County</b>									
Alexander	04	1351CST			0	0	?	?	Thunderstorm Winds (G56)
8 E Stephenville	04	1410CST			0	0	4	?	Thunderstorm Winds

A downburst blew the roof off a barn 8 miles east of Stephenville.

<b>Somervell County</b>									
8 SW Glen Rose	04	1415CST			0	0	?	?	Thunderstorm Winds (G52)
<b>Hood County</b>									
Granbury	04	1434CST			0	0	?	?	Thunderstorm Winds (G52)
Cresson	04	1434CST			0	0	?	?	Thunderstorm Winds (G52)
<b>Palo Pinto County</b>									
Mineral Wells	04	1455CST			0	0	?	?	Thunderstorm Winds (G50)
Airport									
Mineral Wells	04	1455CST			0	0	3	?	Thunderstorm Winds (G61)

Strong winds measured at 70 mph, blew down several trees at Mineral Wells.

<b>Parker County</b>									
5 S Weatherford	04	1500CST			0	0	?	?	Thunderstorm Winds (G52)
Peaster	04	1500CST			0	0	?	?	Thunderstorm Winds (G52)
<b>Tarrant County</b>									
Fort Worth	04	1500CST			0	0	3	?	Thunderstorm Winds
Fort Worth	04	1530CST			0	0	3	?	Thunderstorm Winds
Arlington	04	1530CST			0	0	3	?	Thunderstorm Winds

Strong winds blew down a circus tent in Fort Worth at 1500 CST, and several trees were blown onto power lines in Arlington and Fort Worth at 1530 CST.

<b>Johnson County</b>									
Cresson	04	1505CST			0	0	?	?	Thunderstorm Winds (G57)
<b>Wise County</b>									
4 N Rhome	04	1530CST			0	0	?	?	Hail (0.75)
Roanoke	04	1600CST			0	0	3	?	Thunderstorm Winds (G52)
Newark	04	1600CST			0	0	?	?	Thunderstorm Winds (G52)

Strong winds of 60 mph, blew down several trees at Roanoke.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## TEXAS, Northern Cont'd

<b>McLennan County</b> Waco	04	1600CST			0	0	3	?	Thunderstorm Winds
									Strong winds blew down large tree limbs onto power lines.
<b>Dallas County</b> Seagoville	04	1600CST			0	0	?	?	Hail (0.75) Thunderstorm Winds (G52)
<b>Navarro County</b> Blooming Grove	04	1610CST			0	0	3	?	Thunderstorm Winds
Angus	04	1615CST			0	0	3	?	Thunderstorm Winds
Corsicana	04	1630CST			0	0	3	?	Thunderstorm Winds
									Strong winds blew down several trees and power lines at Blooming Grove, Argus, and Corsicana.
<b>Collin County</b> McKinney	04	1615CST			0	0	?	?	Hail (0.75)
McKinney	04	1620CST			0	0	?	?	Thunderstorm Winds
									Strong winds blew down several trees and power lines.
<b>Rockwall County</b> Rockwall	04	1620CST			0	0	3	?	Thunderstorm Winds
Chisolm	04	1630CST			0	0	3	?	Thunderstorm Winds
									A downburst blew down several trees and power lines.
<b>Ellis County</b> Ennis	04	1625CST			0	0	3	?	Thunderstorm Winds
									In Ennis, a downburst blew down power lines and several trees.
<b>Bell County</b> Gray AAF	04	1632CST			0	0	?	?	Thunderstorm Winds (G59)
<b>Hunt County</b> Quinlan	04	1650CST			0	0	3	?	Thunderstorm Winds
									Strong winds blew down several trees.
<b>Fannin County</b> 1 N Bonham	04	1650CST			0	0	5	?	Thunderstorm Winds
									A downburst destroyed a couple of barns, damaged the roof of several homes, uprooted trees, and blew down highway signs.
<b>Van Zandt County</b> Jackson	04	1718CST			0	0	?	?	Funnel Cloud
7 SW Canton	04	1719CST			0	0	3	?	Thunderstorm Winds
Canton	04	1725CST			0	0	3	?	Thunderstorm Winds
Colfax	04	1739CST			0	0	?	?	Funnel Cloud
Grand Saline	04	1745CST			0	0	3	?	Thunderstorm Winds
									Strong winds blew down power lines 7 miles southwest of Canton, and blew down several trees onto power lines at Canton and Grand Saline.
<b>Delta County</b> 5 W Cooper	04	1720CST			0	0	?	?	Thunderstorm Winds (G61)
Cooper	04	1730CST			0	0	3	?	Thunderstorm Winds
4 NE Cooper	04	1734CST			0	0	?	?	Funnel Cloud

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## TEXAS, Northern Cont'd

<b>Enloe</b>	04	1745CST			0	0	3	?	Thunderstorm Winds
A downburst blew down power lines in Cooper. Strong winds destroyed the porch of a home and blew down several trees at Enloe.									
<b>Henderson County</b>									
Athens	04	1735CST			0	0	3	?	Thunderstorm Winds
Malakoff	04	1745CST			0	0	4	?	Thunderstorm Winds
6 E Athens	04	1745CST			0	0	3	?	Thunderstorm Winds
Strong winds blew down trees in Athens and at Lake Athens (6 miles east of Athens) and a radio tower in Malakoff.									
<b>Rains County</b>									
Emory	04	1737CST			0	0	3	?	Thunderstorm Winds
Strong winds blew down several trees.									
<b>Lamar County</b>									
5 E Paris	04	1740CST			0	0	?	?	Hail (0.75)
Paris	04	1750CST			0	0	3	?	Thunderstorm Winds
Strong winds blew down several trees and power lines at Paris.									
<b>Hopkins County</b>									
Sulphur Springs	04	1740CST			0	0	4	?	Thunderstorm Winds (G79)
Strong 90-mph winds destroyed an outbuilding and blew down several large trees.									
<b>Smith County</b>									
Dogwood City	04	1750CST- 1751CST	Short	Narrow	0	0	4	?	Tornado (F1)
5 S Tyler	04	1804CST			0	0	?	?	Thunderstorm Winds (G52)
Lindale	04	1810CST			0	0	3	?	Thunderstorm Winds
A tornado touched down briefly at Dogwood City damaging several homes. Strong winds blew down several trees at Lindale.									
<b>Franklin County</b>									
Mount Vernon	04	1758CST			0	0	?	?	Thunderstorm Winds (G52)
<b>Wood County</b>									
5 NW Mineola	04	1758CST			0	0	?	?	Hail (0.75)
<b>Anderson County</b>									
Palestine	04	1810CST			0	0	3	?	Thunderstorm Winds
Palestine	03	1900CST- 2100CST			0	0	?	?	Flash Flood
Strong winds downed several trees onto power lines. Flash flooding was observed across several streets, low-water crossings, and low-lying areas.									
<b>Camp County</b>									
Pittsburg	04	1810CST			0	0	3	?	Thunderstorm Winds
Strong winds blew down several trees in Pittsburg.									
<b>Red River County</b>									
5 N Clarksville	04	1810CST			0	0	3	?	Thunderstorm Winds
Annona	04	1815CST			0	0	3	?	Thunderstorm Winds
Box Elder	04	1820CST			0	0	3	?	Thunderstorm Winds
Avery	04	1820CST			0	0	3	?	Thunderstorm Winds

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CRODLS	

## TEXAS, Northern Cont'd

Strong winds downed several trees onto power lines 5 miles north of Clarksville, Annora, Box Elder and Avery.

### Upsher County

Gilmer	04	1812CST			0	0	4	?	Thunderstorm Winds
Colfax	04	1812CST			0	0	?	?	Funnel Cloud
Diana	04	1815CST			0	0	4	?	Thunderstorm Winds

Strong winds downed several trees onto power lines and residences at both Gilmer and Diana.

### Cherokee County Jacksonville

	04	1825CST			0	0	3	?	Thunderstorm Winds
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In Jacksonville, strong winds blew down several trees.

### Morris County

Lone Star	04	1830CST			0	0	3	?	Thunderstorm Winds
Daingerfield	04	1830CST			0	0	3	?	Thunderstorm Winds
Omaha	04	1830CST			0	0	3	?	Thunderstorm Winds
Naples	04	1830CST			0	0	3	?	Thunderstorm Winds

A downburst blew down several trees onto power lines at Lone Star, Daingerfield, Omaha, and Naples.

### Gregg County

Longview	04	1840CST			0	0	?	?	Thunderstorm Winds (G52)
1 S East Mountain	04	1855CST			0	0	3	?	Thunderstorm Winds
4 N Longview	04	1859CST			0	0	3	?	Thunderstorm Winds Hail (1.75)
Longview	04	1900CST			0	0	3	?	Thunderstorm Winds
10 N Longview	04	1921CST			0	0	3	?	Thunderstorm Winds

Strong winds uprooted several trees 1 mile south of East Mountain, 4 miles north of Longview, at Longview, and 10 miles north of Longview.

### Cass County

Avenger	04	1849CST			0	0	3	?	Thunderstorm Winds
Hughes Springs	04	1849CST			0	0	3	?	Thunderstorm Winds
Hughes Springs	04	1903CST			0	0	?	?	Hail (1.00)
Hughes Springs	04	1914CST			0	0	3	?	Thunderstorm Winds (G62)
7 S Maud	04	1915CST			0	0	?	?	Hail (1.00)
5 N Lassater	04	1921CST			0	0	3	?	Thunderstorm Winds
7 SE Redwater	04	1955CST			0	0	4	?	Thunderstorm Winds

Strong winds blew down several trees at Avenger, at Hughes Springs at 1849 CST and 1914 CST, and 5 miles north of Lassater. One-inch hail was observed at Lake Wright Patman (7 miles south of Maud), while a downburst damaged several boat houses and trees at Lake Wright Patman Dam (7 miles southeast of Redwater).

### Bowie County

DeKalb	04	1850CST			0	0	3	?	Thunderstorm Winds (G65)
4 S Maud	04	1915CST			0	0	?	?	Hail (1.00)
7 SE Redwater	04	1955CST			0	0	4	?	Thunderstorm Winds

Strong 75-mph winds blew down trees and street signs, and blew the windows out of several businesses.

### Upshur County East Mountain

	04	1855CST			0	0	3	?	Thunderstorm Winds
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# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## TEXAS, Northern Cont'd

Strong winds blew down several trees.

### Harrison County

Harleton	04	1910CST			0	0	3	?	Thunderstorm Winds
2 N Harleton	04	1917CST			0	0	3	?	Thunderstorm Winds
Harleton	04	1957CST			0	0	?	?	Hail (1.00)
6 NW Elysian Flds	04	2010CST			0	0	3	?	Thunderstorm Winds Hail (1.75)

Strong winds blew down several trees at Harleton, 2 miles north of Harleton, and at Crossroads (6 miles northwest of Elysian Fields)

### Rusk County

8 NW Henderson	04	1912CST			0	0	3	?	Thunderstorm Winds
Henderson	04	1920CST			0	0	4	?	Thunderstorm Winds

Strong winds blew down numerous trees 8 miles northwest of Henderson and damaged the roof of a business at Henderson.

### Marion County

3 NW Lassater	04	1921CST			0	0	3	?	Thunderstorm Winds
5 NE Jefferson	04	2000CST			0	0	3	?	Thunderstorm Winds

Strong winds blew down several trees 3 miles northwest of Lassater, and 5 miles northeast of Jefferson.

### Cass County

Linden	04	1900CST			0	0	4	?	Thunderstorm Winds
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Strong winds blew down several trees, utility poles, and power lines.

### Rusk County

Henderson	04	1900CST			0	0	3	?	Thunderstorm Winds
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Strong winds blew down several trees.

### Bowie and Cass Counties

04	2130CST-				0	0	?	?	Flash Flood
05	0030CST								

Heavy rains resulted in the flash flooding of several creeks, low-lying areas, and roadways.

### Panola County

2 S DeBerry	05	1955CST			0	0	?	?	Thunderstorm Winds
Panola	05	1955CST			0	0	?	?	Hail (1.00)

A downburst downed numerous trees 2 miles south of DeBerry.

### Bell County

Temple	07	1930CST			0	0	?	?	Hail (0.75)
Salado	07	1930CST			0	0	5	?	Thunderstorm Winds
Countywide	07	1930CST-			0	0	?	?	Flash Flood
		2330CST							

Strong winds overturned a tractor-semitrailer, destroyed a storage shed, and blew down fences and street signs. Heavy rains of approximately 5.00 inches, in less than 1 hour, produced flash flooding of several roadways in Bell County. Interstate 35 from Salado to the Bell County line was closed for several hours as numerous automobiles were washed off the roadway. Several feet of water overflowed from the Mill Creek onto low-lying areas and low-water crossings.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## TEXAS, Northern Cont'd

### Eastland County

Cisco	07	2238CST			0	0	?	?	Hail (0.75)
Eastland	07	2250CST			0	0	?	?	Thunderstorm Winds (G50)
Cherokee County	08	1825CST- 2100CST			0	0	?	?	Flash Flood

High water produced flash flooding over several secondary roadways and resulted in the closing of State Highway 69.

### McLennan County

Waco	13	1806CST			0	0	?	?	Hail (1.50)
Waco	13	1809CST			0	0	?	?	Hail (1.75)
Countywide	14	1430CST- 1700CST			0	0	?	?	Flash Flood

Several creeks and streams overflowed their banks onto roadways where several cars were flooded by 2 feet of water. Farm-to-Market Roads 442 and 3047 were closed when high water, up to 3 feet in depth, was observed over several bridges.

### Tarrant County

	14	1530CST- 1800CST			0	0	?	?	Flash Flood
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Heavy rains produced high water, up to 1 foot deep, across isolated roadways.

### Coleman County

Coleman	16	0615CST			0	0	5	?	Thunderstorm Winds
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Strong winds destroyed a carport, overturned a small airplane, lifted the roof off a building, damaged several businesses, and blew down large tree limbs and utility poles.

### Comanche County

Comanche	16	0720CST			0	0	?	?	Hail (1.00)
2 S Comanche	16	0730CST			0	1	4	?	Thunderstorm Winds

Strong winds blew down a cinder block wall at a construction site and lifted the roof off a building.

### Brown County

Brownwood	16	1017CST			0	0	3	?	Thunderstorm Winds
Bangs	16	1030CST			0	0	3	?	Thunderstorm Winds
Early	16	1030CST			0	0	3	?	Thunderstorm Winds

Strong winds blew down several trees, a flag pole, and doors of buildings in Brownwood. A downburst uprooted trees in Bangs, and blew down power lines in Early.

### Angelina County

5 W Lufkin	16	1700CST			0	0	?	?	Hail (1.75)
Lufkin	16	1700CST			0	0	3	?	Thunderstorm Winds

A downburst blew down several trees.

### Cherokee County

Rusk	17	0815CST- 1000CST			0	0	?	?	Flash Flood
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High water was observed over State Highway 69 in Rusk.

### Anderson County

	17	1000CST- 1400CST			0	0	?	?	Flash Flood
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# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## TEXAS, Northern Cont'd

High water was observed over several roadways and low-lying areas.

Jones County 2 W Hamlin	17	1645CST			0	0	?	?	Hail (1.75)
Boys Chapel	17	1655CST			0	0	?	?	Hail (1.75)
Hood County 8 N Granbury	22	1215CST			0	0	?	?	Funnel Cloud
Wise County Bridgport	24	1445CST- 1530CST			0	0	?	?	Flash Flood

Heavy rains resulted in the flash flooding of several roadways and automobile.

Denton County Denton	24	1615CST- 1900CST			0	0	?	?	Flash Flood
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Heavy rains resulted in the flash flooding of several roadways, low-water crossings, and creeks.

Tarrant County Eagle Mountain Lake	24	1645CST			0	0	?	?	Hail (0.75)
Countywide	24	1745CST- 1930CST			0	0	?	?	Flash Flood

High water was observed over several roadways, low-water crossings, and creeks.

Young County 1 N Graham	24	1700CST			0	0	?	?	Hail (0.75)
Hill County Hillsboro	24	1707CST			0	0	?	?	Hail (0.75)
Archer County 5 NE Archer City	24	1830CST			0	0	?	?	Hail (0.75)
1 E Holliday	24	1847CST			0	0	?	?	Hail (0.75)
Wichita County Wichita Falls	24	1850CST			0	0	?	?	Hail (1.00)
6 W Burkburnett	24	1932CST			0	0	?	?	Hail (1.75)
Dallas County Mesquite	24	1911CST			0	0	?	?	Thunderstorm Winds (G52)
Garland	24	1920CST			0	0	3	?	Thunderstorm Winds

Strong winds blew down large tree limbs onto power lines in Garland.

Rockwall County 10 NE Rockwell	24	1930CST			0	0	3	?	Thunderstorm Winds
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Strong winds blew down several trees and power lines.

Hopkins County Sulphur Springs	24	2034CST			0	0	3	?	Thunderstorm Winds
Sulphur Springs	24	2040CST			0	0	?	?	Thunderstorm Winds (G50)
Sulphur Springs	24	2055CST			0	0	?	?	Thunderstorm Winds (G52)

A downburst blew down a few trees in Sulphur Springs at 2034 CST.

Franklin County 5 N Mount Vernon	24	2105CST			0	0	3	?	Thunderstorm Winds
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A downburst blew down several trees.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			K I L L E D	I N J U R E D	P R O P E R T Y	C R O P P S	

## TEXAS, Southern

### Bexar and Wilson Counties Graytown

01 2240CST 0 0 ? ? Hail (2.75)

Baseball-size hail was reported in Graytown, on the Bexar-Wilson County line but no damage was reported.

### Uvalde County Concan

02 1313CST 0 0 3 ? Hail (1.75)

Golf ball-size hail was reported in the town of Concan where several cars were damaged.

### Bandera County Southern Portion

02 1510CST 0 0 ? ? Hail (1.75)

The county sheriff's office reported up to golf ball-size hail in the southern portion of the county.

### Kendall County 5 SE Boerne

02 1620CST 0 0 4 ? Hail (1.75)

The Kendall County Sheriff's Office reported golf ball-size hail on Interstate 10, near the Bexar County line. Hail damaged a number of vehicles at the Ancir GMC Trucks and Motor Home parking lot.

### Bandera County 5 SW Pipe Creek

02 1645CST 0 0 3 ? Hail (2.75)

A ham radio operator reported baseball-size hail near Pipe Creek that broke the living room windows out of his house, and destroyed his plastic rain gauge.

### Angelina County 8 E Lufkin Southern Portion

03 0650CST 0 0 3 ? Thunderstorm Winds  
03 0650CST 0 0 ? ? Hail (1.00)

The Angelina County Sheriff's Office reported trees downed on county roads 8 miles east of Lufkin, and on Highway 103. One-inch hail was reported in Diboll, east of Lufkin, and in Huntington.

### Medina County Lake Medina

03 0925CST 0 0 ? ? Hail (1.75)

Golf ball-size hail was reported by the county sheriff near Lake Medina.

### Bexar County Western Portion

03 1009CST 0 0 ? ? Hail (0.75)

A severe thunderstorm moved from Medina to Bexar County, and produced dime-size hail near the county line.

### Bexar County San Antonio Helotes

03 1100CST 0 0 5 ? Hail (1.75)

03 1108CST 0 0 4 ? Flash Flood

03 1118CST 0 0 4 ? Thunderstorm Winds (G66)

03 1130CST 0 0 4 ? Hail (1.00)

03 1130CST 0 0 5 ? Hail (2.50)

### Guadalupe County

03 1145CST 0 0 ? ? Hail (4.50)

03 1154CST 0 0 ? ? Hail (0.75)

### Gonzales County Gonzales

03 1215CST 0 0 4 ? Thunderstorm Winds (G60)



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLINGS	INJURIES	PROPERTY	CROPS	

## TEXAS, Southern Cont'd

A severe thunderstorm moved into western Bexar County just before noon and rapidly intensified. Golf ball-size hail was reported in the Hollywood Park area as the storm passed over. Up to 2.00 inches of rain fell over northwestern Bexar County in less than 1 hour. Flooding was reported in the Helotes area for several hours. As the storm continued to move across the county, wind speeds over 58 mph were estimated. One gust to 66 mph, was recorded at the San Antonio International Airport. Several windows were blown out of apartments in a complex on Patricia Street in San Antonio, and trees were downed in the northern area of the Colonies. Several roofs were damaged, and windows broken by hail, as the storm moved through the High Country subdivision in northeastern San Antonio. The storm continued to move to the east while producing large hail. Up to softball-size hail was reported in Marion. The storm began to die out over Gonzales County but still produced wind gusts to 60 mph, which damaged several trees in the town of Gonzales.

**Webb County**  
Laredo

03 1612CST                              0   0   ?   ?   Hail (1.00)

Quarter-size hail was reported over the southern side of Laredo.

**Nacogdoches County**  
Countywide  
Countywide

03 1957CST                              0   0   4   ?   Thunderstorm Winds  
03 1957CST                              0   0   ?   ?   Flash Flood

The Nacogdoches County Sheriff's Office reported several roads closed across the county because of fallen trees. Highway 21, east and west through the county, was closed due to flooding.

**San Augustine County**  
San Augustine

03 2055CST                              0   0   4   ?   Thunderstorm Winds

San Augustine County Sheriff's Office reported several trees and power lines down in the town of San Augustine.

**Blanco County**  
Blanco  
**Bexar County**  
Helotes  
Grey Forest

04 1415CST                              0   0   ?   ?   Hail (0.75)  
04 1516CST                              0   0   ?   ?   Hail (2.50)  
04 1518CST                              0   0   ?   ?   Hail (1.50)

A severe thunderstorm moved into northwestern Bexar County and produced up to tennis ball-size hail in Helotes. At Grey Forest, walnut-size hail was reported.

**Travis County**  
S Austin

04 1625CST                              0   0   4   ?   Thunderstorm Winds

A part of a roof was blown off a house, and trees were uprooted in southern Austin.

**Guadalupe County**  
McQueeney  
Seguin

04 1640CST                              0   0   ?   ?   Hail (1.75)  
04 1650CST                              0   0   ?   ?   Hail (2.50)

As the severe thunderstorm moved into Guadalupe County from Bexar County, it produced golf ball-size hail in McQueeney, and tennis ball-size hail in Seguin.

**Gonzales County**  
Belmont

04 1725CST                              0   0   ?   ?   Hail (1.25)

The Gonzales County Sheriff's Office reported half dollar-size hail in Belmont.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## TEXAS, Southern Cont'd

<b>Bastrop County</b>									
Southern Portion	04	1730CST			0	0	4	?	Thunderstorm Winds
Alum Creek	04	1735CST			0	0	4	?	Thunderstorm Winds

Several trees and power lines were downed across southern Bastrop County. In the town of Alum Creek, several trees were uprooted.

<b>Lavaca County</b>									
Eastern Portion	04	1818CST	5.0	30	0	0	5	?	Tornado (F1)
9 SW Shiner	04	1818CST			0	0	?	?	Hail (1.75)

A rainfall observer reported a tornado and golf ball-size hail south of Shiner. The tornado dropped down, and lifted again, several times as it moved across the county, resulting in only spotty damage. The tornado first touched down 1 mile north of Yoakum, and extended to 1 mile south of Sweet Home, which was the last damage area. The path length was estimated to be about 5 miles long. The tornado was only 30 yards wide at its maximum. The most extensive damage was 2 miles northeast of Yoakum. A mobile home and travel trailer were completely destroyed, and several trees were uprooted. One house south of the town of Sweet Home had its roof torn away.

<b>Washington County</b>									
2 N Burton	04	1831CST			0	0	?	?	Tornado (F0)
10 W Brenham	04	1834CST			0	0	?	?	Tornado (F0)
Brenham	04	1903CST			0	0	?	?	Tornado (F0)

The Washington County Sheriff's Office reported a tornado 4 miles south of Lake Someville. About 3 minutes later, the Sheriff's office reported a tornado west of Brenham. These tornadoes touched down and lifted back up without doing any damage. A half hour later, the Brenham Police Department reported a tornado in town. The tornado lifted off the ground without doing any damage.

<b>Waller County</b>									
Northern Portion	04	1952CST			0	0	?	?	Hail (0.75)

Dime-size hail was reported over northern Waller County, about 6 miles north of Prairie View.

<b>Angelina County</b>									
Angelina County Airport	04	2000CST			0	0	?	?	Tornado (F0)

The Angelina County Sheriff's Office reported a tornado touching down at the county airport and lifting back into the clouds.

<b>Wharton County</b>									
Countywide	04	2030CST			0	0	?	?	Hail (1.75)
Pierce	04	2030CST			0	0	6	?	Thunderstorm Winds (G91)
El Campo	04	2030CST			0	0	5	?	Tornado (F1)

A severe thunderstorm moved across Wharton County, producing golf ball-size hail, and at least one tornado. The major damage was in the town of El Campo, where three mobile homes were completely destroyed. The hospital and adjacent clinic received heavy damage, several windows were blown out, and the roof was removed from the clinic. Several homes had roof and fence damage, and scores of trees were uprooted. Power lines were downed across the county. At the Department of Public Safety Office in Pierce, wind speeds of 90 mph, and gust to 105 mph were reported. The total damage estimate was over \$1.5 million.

<b>Montgomery County</b>									
5 SE Conroe	04	2200CST			0	0	?	?	Tornado (F0)
5 SE Conroe	04	2205CST			0	0	?	?	Tornado (F0)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## TEXAS, Southern Cont'd

Two tornados were reported near Farm-to-Market Road 1314, southeast of Conroe; no damage was reported.

### Brazoria County

W Columbia	04	2205CST			0	0	3	?	Tornado (F0)
W Columbia	04	2205CST			0	0	3	?	Tornado (F0)

Two tornadoes were reported in the town of West Columbia. Several trees were uprooted, and a mobile home had its roof ripped off.

### Montgomery County

Magnolia	04	2250CST			0	0	?	?	Hail (0.75)
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### Galveston County

Galveston	04	2315CST			0	0	?	?	Hail (1.75)
Galveston	04	2330CST			0	0	5	?	Thunderstorm Winds (G69)

Dime- to golf ball-size hail was reported on the western end of Galveston Island. Thunderstorm winds were estimated to be gusting near 80 mph. These winds caused several trees to be uprooted, and broke 38 wooden power poles, and then left a part of the island without power for 2 hours.

### Orange County

Bridge City	05	0215CST			0	0	?	?	Hail (1.75)
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The Orange County Sheriff's Office reported golf ball-size hail in the town of Bridge City.

### Starr County

Rio Grande City	05	0230CST			0	0	4	?	Thunderstorm Winds
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Thunderstorm winds destroyed a mobile home, and a few homes sustained roof damage.

### Starr County

Roma	05	0303CST			0	0	?	?	Hail (1.75)
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### Starr County

Rio Grande City	05	0330CST			0	0	?	?	Hail (1.75)
La Grulla	05	0340CST			0	0	4	?	Thunderstorm Winds

Thunderstorm winds severely damaged a home in La Grulla; no injuries were reported.

### Hidalgo County

McCook	05	0650CST			0	0	?	?	Hail (1.75)
McCook	05	0655CST			0	0	?	?	Thunderstorm Winds (G58)

Golf ball-size hail was reported in the town of McCook, with wind gusts to 67 mph.

### Starr County

La Victoria	05	0700CST	1.0	200	0	0	5	?	Tornado (F2)
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A tornado cut a mile-long path through the village of La Victoria. The path was 200 yards wide at its maximum. Over 40 mobile homes, houses, and barns were damaged, or destroyed. Power lines were downed for several hours and numerous trees were uprooted.

### Hidalgo County

Mission	05	0840CST			0	0	?	?	Hail (1.75)
6 N Mission	05	0852CST			0	0	5	?	Tornado (F1)

The Mission Police Department reported a tornado 6 miles north of Mission. Roofs were torn off several buildings, and power lines were knocked down. Golf ball-size hail was also reported in the town of Mission.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## TEXAS, Southern Cont'd

<b>Willacy County</b> Port Mansfield	05	1210CST			0	0	?	?	Thunderstorm Winds (G53)
A 61-mph wind gust was recorded at Port Mansfield.									
<b>Cameron County</b> Harlingen	05	1345CST			0	0	?	?	Thunderstorm Winds (G59)
A wind gust to 69 mph was recorded in Harlingen.									
<b>San Patricio County</b> 5 SE Mathis	05	1400CST			0	0	?	?	Tornado (F0)
The county sheriff's office reported a tornado touching down five miles southeast of the town of Mathis. No damage was reported from this storm.									
<b>Galveston County</b> Clear Lake Shores Galveston Bay	07	1320CST			0	0	4	?	Thunderstorm Winds
	07	1330CST	?	?	0	0	?	?	Waterspout
Severe thunderstorm winds damaged 5 homes in the Clear Lake area. Parts of roofs were removed, a few chimneys collapsed, and several windows were broken. This storm produced a waterspout about 10 minutes later, off the San Leon point.									
<b>Harris County</b> SW Houston	08	1100CST- 1400CST			0	0	?	?	Flash Flood
Heavy rains from thunderstorms caused flash flooding in the southwestern part of Houston. The flooding subsided about 3 hours later.									
<b>Jim Wells County</b> Orange Grove	08	1110CST			0	0	?	?	Thunderstorm Winds (G56)
The Navy landing field at Orange Grove recorded a wind gust to 65 mph.									
<b>Harris County</b> Houston	08	1115CST	0.1	4	0	0	3	?	Tornado (F0)
A tornado was sighted in the southwestern part of the city of Houston. Several tree limbs were broken off, and some signs were damaged. Tornado wind speeds were estimated to be near 60 mph.									
<b>Nueces County</b> Corpus Christi Naval Air Station	08	1150CST			0	0	3	?	Thunderstorm Winds
	08	1200CST			0	0	?	?	Thunderstorm Winds (G54)
The Corpus Christi Police Department reported several trees uprooted and large limbs down in the midtown area of Corpus Christi. A wind gust to 62 mph was recorded at the Corpus Christi Naval Air Station.									
<b>Nueces County</b> Corpus Christi	08	1225CST			0	0	4	?	Thunderstorm Winds
<b>Kleberg County</b> Padre Island	08	1232CST			0	0	?	?	Thunderstorm Winds (G60)
The police department in Corpus Christi reported power lines downed, and several trees uprooted in the southern part of town. A lightning strike at a refinery storage tank caused a fire. In Kleberg County, a wind gust to 69 mph was recorded at the Padre Island National Seashore.									

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILL	INJURED	PROPERTY	CROPS	

## TEXAS, Southern Cont'd

**Val Verde County**  
Comstock      11 1855CST      0 0 4 ?      **Thunderstorm Winds (G52)**  
Hail (0.75)

The Val Verde County Sheriff's Office reported dime-size hail and estimated the wind speed to be 60 mph. One house had its roof blown off, and one wall blown out.

**Val Verde County**  
9 SSW Juno      12 2315CST      0 0 3 ?      **Thunderstorm Winds (G69)**

Tree limbs up to 12 inches in diameter were broken off, and wind speeds were estimated to be near 80 mph.

**Hidalgo County**  
Edinburg      14 0300CST      0 0 4 ?      **Thunderstorm Winds**

A line of severe thunderstorms passed through Hidalgo County in the early morning hours. The storms destroyed two mobile homes, and knocked down several trees and utility poles in the Edinburg area.

**Orange County**  
Bridge City      14 2255CST      0 0 ? ?      **Flash Flood**  
**Jefferson County**  
Port Arthur      14 2257CST-  
15 0200CST      0 0 ? ?      **Flash Flood**

Over 4.00 inches of rain fell in Jefferson and Orange Counties during the evening. The Texas Highway Department reported water over Highway 87, near Bridge City, and several other roads flooded within Bridge City. The Port Arthur Police Department reported 6 feet of water in the Gulfway Drive underpass, and several streets flooded in Port Arthur. Most of this flooding subsided by 0300 CDT on the 15th.

**Jefferson County**  
Southeastern  
Portion      15 1340CST      0 0 ? ?      **Flash Flood**

Park rangers from Sea Rim State Park, reported Highway 87 from Sabine Pass to High Island, under 10 inches of water. The flooding continued for several hours.

**Harris County**  
Baytown      15 1520CST      0 0 3 ?      **Thunderstorm Winds**

Power lines were knocked down along Interstate 10 near Baytown. Small hail was also reported with this storm.

**Bexar County**  
13 SW San Antonio      16 1255CST      0 0 ? ?      **Hail (0.88)**  
13 W San Antonio      16 1300CST      0 0 ? ?      **Hail (1.75)**  
12 SE San Antonio      16 1310CST      0 0 ? ?      **Hail (1.75)**  
15 SW San Antonio      16 1320CST      0 0 ? ?      **Hail (1.75)**  
10 S San Antonio      16 1325CST      0 0 ? ?      **Hail (1.75)**

Numerous reports of large hail were received at the Weather Service Office in San Antonio, between 1300 CST and 1330 CST. No damage was reported from this storm.

**Guadalupe County**  
10 E Seguin      16 1325CST      0 0 ? ?      **Hail (1.75)**  
**Montgomery County**  
Conroe      16 1450CST      0 0 ? ?      **Hail (0.75)**

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## TEXAS, Southern Cont'd

Dime-size hail was reported in the southern part of Conroe.

Austin County	16	1513CST			0	0	?	?	Hail (0.75)
Dewitt County Cuero	16	1515CST			0	0	3	?	Thunderstorm Winds

The Dewitt County Sheriff's Office reported large trees uprooted and large limbs down on the eastern and western sides of Cuero.

Harris County Tomball	16	1530CST			0	0	3	?	Thunderstorm Winds
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Thunderstorm winds blew down a church steeple and toppled several trees in the town of Tomball.

Angelina County 5 W Lufkin	16	1700CST			0	0	?	?	Hail (1.75)
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Golf ball-size hail was reported at Peavey Switch, 5 miles west of Lufkin.

Tyler County Chester	16	1810CST			0	0	3	?	Thunderstorm Winds
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The Tyler County Sheriff's Office reported trees downed near Chester.

Starr County Rio Grande City	16	2039CST			0	0	?	?	Thunderstorm Winds (G55)
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The Aerostat site north of Rio Grande City, reported a wind gust to 63 mph.

Bexar County San Antonio	18	1825CST			0	0	?	?	Hail (0.88)
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Nickel-size hail was reported in the western part of San Antonio.

Aransas County Aransas Bay	25	1145CST	?	?	0	0	?	?	Waterspout
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Several waterspouts were reported in Aransas Bay east of Rockport, by the Department of Public Safety.

## TEXAS, Western

Concho County 4 N Paint Rock	02	1255CST			0	0	2	1	Hail (1.75)
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A spotter reported golf ball-size hail near the community of Concho at 1255 CST. No significant damage was noted.

Fisher County Longworth	02	1325CST	0.7	75	0	0	2	2	Tornado (F0)
McCaulley	02	1338CST	0.6	50	0	1	4	2	Tornado (F1)
Roby	02	1338CST			0	0	2	2	Hail (1.75)

A tornado was reported near Longworth at 1325 CST, with no significant damage noted. The Texas Department of Public Safety reported a tornado near McCaulley at 1338 CST. This tornado damaged two buildings, downed two power poles and one person received minor injuries. Golf ball-size hail was reported near Roby by the Department of Public Safety.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## TEXAS, Western Cont'd

**Scurry County**  
Snyder

02 1430CST 0 0 1 1 Hail (1.75)

Golf ball-size hail fell at Snyder with no significant damage observed.

**Lubbock County**  
Reese Air  
Force Base  
**Lubbock WSFO**  
Lubbock

02 1508CST 0 0 1 1 Thunderstorm Winds (G52)

02 1553CST 0 0 1 1 Hail (1.00)  
02 1555CST 0 0 2 1 Hail (0.75)

The weather observer at Reese Air Force Base, reported wind gusts to 61 mph at 1508 CST. Quarter-size hail fell at Lubbock International Airport at 1553 CST. Two minutes later, the public reported dime-size hail in Lubbock. No significant damage resulted.

**Fisher County**  
Roby

02 1515CST 0 0 1 1 Hail (1.75)

Golf ball-size hail fell near Roby. No significant damage resulted.

**Hartley County**  
Hartley  
**Sherman County**  
Stratford  
Stratford

02 1515CST 0 0 0 0 Hail (0.75)

02 1526CST 0 0 0 0 Hail (1.00)  
02 1546CST 0 0 0 0 Hail (0.88)

The public reported dime-size hail in Hartley at 1515 CST. Law enforcement officials observed quarter-size hail in Stratford at 1526 CST. Twenty minutes later, nickel-size hail fell in Stratford. No damage resulted from the hail.

**Sutton County**  
8 W Sonora  
8 W Sonora  
2 W Sonora

02 1728CST 0 0 0 0 Hail (0.75)  
02 1750CST 0.8 75 0 0 2 1 Tornado (F1)  
02 1800CST 0 0 2 1 Hail (1.75)

The Sutton County Sheriff's Office observed dime-size hail west of Sonora at 1728 CST. At 1750 CST, a tornado was reported by the supervisor at Sonora Caverns. At 1800 CST, golf ball-size hail fell 2 miles west of Sonora. No significant damage resulted from the tornado or the hail.

**Hartley County**  
4 ESE Hartley

02 1740CST 0 0 0 0 Hail (0.88)

A SKYWARN spotter reported nickel-size hail near Hartley at 1740 CST. No damage was observed.

**Runnels County**  
7 SE Ballinger

03 1215CST 0.7 70 0 0 0 0 Tornado (F0)

The Runnels County Sheriff's Office reported a tornado in the southeastern part of the county. No damage resulted.

**Runnels County**  
Winters  
Winters

04 1155CST 0 0 3 2 Hail (4.50)  
04 1209CST 0.8 80 0 0 0 0 Tornado (F0)

The Winters Police Department reported up to softball-size hail in Winters at 1155 CST. Minor damage to windows and automobiles was noted. A tornado was reported east of Lake Winters at 1209 CST. The tornado was over open country and no damage resulted.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## TEXAS, Western Cont'd

**Castro County**  
Dimmitt  
Dimmitt

07	1543CST								Hail (1.75)
07	1549CST								Hail (0.75)

Golf ball-size hail fell in Dimmitt at 1543 CST and dime-size hail was reported 6 minutes later. No significant damage was observed.

**Lubbock County**  
4 W Shallowater

07	1604CST-								
	1612CST	3.5	80	0	0	1	1		Tornado (F0)

**Lubbock and Hale Counties**  
7 E Anton

07	1608CST-								
	1614CST	2.6	60	0	0	0	0		Tornado (F0)

The Department of Public Safety observed a tornado in northwestern Lubbock County. The tornado touched down at 1604 CST, 4 miles west of Shallowater. The tornado moved slowly northeastward, lifting 3 miles north of Shallowater at 1612 CST. A spotter observed a second tornado 7 miles east of Anton, just south of the community of County Line. The second tornado moved into southwestern Hale County before dissipating at 1614 CST. Both tornadoes were low-energy, "landspout" type tornadoes, and no significant damage was reported.

**Dawson County**  
3 S Lamesa  
7 S Lamesa  
12 SE Lamesa  
8 S Lamesa  
14 S Lamesa  
2 N Ackerly

07	1705CST								Hail (1.00)
07	1713CST								Hail (1.00)
07	1714CST	2.2	100	0	0	3	2		Tornado (F0)
07	1721CST					3	3		Hail (1.75)
07	1721CST	1.2	8.0	0	0	0	0		Tornado (F0)
07	1738CST	1.5	100	0	0	2	2		Tornado (F0)

A supercell developed over Dawson County and moved slowly southeastward. As the storm moved south of Lamesa, several reports were received from SKYWARN spotters and the Dawson County Sheriff's Office, of hail up to golf ball-size. The storm produced three tornadoes in Dawson County. Damage from these tornadoes consisted of uprooted trees, damaged irrigation equipment, and snapped power poles.

**Lubbock County**  
Idalou  
**Crosby County**  
Lorenzo

07	1738CST								Hail (1.75)
07	1749CST								Hail (2.50)

A SKYWARN spotter observed golf ball-size hail near Idalou at 1738 CST. Eleven minutes later, the Crosby County Sheriff's Office reported tennis ball-size hail in Lorenzo. Only minor damage was noted.

**Floyd County**  
3 S Floydada  
Dougherty

07	1800CST								Hail (0.75)
07	1815CST								Hail (0.75)

The Floyd County Sheriff's Office reported dime-size hail south of Floydada and near Dougherty with no damage observed.

**Martin County**  
Ackerly  
7 WSW Ackerly

07	1811CST								Hail (1.00)
07	1825CST	3.5	120	0	0	5	4		Tornado (F2)

The Martin County Sheriff's Office reported quarter-size hail near Ackerly at 1811 CST. At 1825 CST, a tornado touched down 2 miles east-northeast of the Flower Grove Community. As the tornado moved eastward, 32 power poles were snapped, and a cotton gin, farm equipment,



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## TEXAS, Western Cont'd

and other buildings were damaged. The tornado lifted at 1840 CST, 3 miles west-southwest of Ackerly.

**Borden County**  
4 NE Ackerly      07 1821CST      0.5      40      0      0      0      0      Tornado (F0)

The Martin County Sheriff's Office observed a tornado in extreme southwestern Borden County, but no damage was reported.

**Crosby County**  
Ralls      07 1818CST      0      0      3      2      Hail (4.50)

The Ralls Fire Department reported tennis ball- to softball-size hail in Ralls. Minor damage was done to automobiles and windows in Ralls.

**Howard County**  
Knott      07 1820CST      0.3      40      0      0      0      0      Tornado (F0)  
Knott      07 1846CST      0      0      2      1      Hail (1.25)  
Vealmoor      07 1853CST      0      0      3      2      Hail (2.50)

A SKYWARN spotter reported a tornado just west of Knott at 1820 CST. Half dollar-size hail fell near Knott at 1846 CST. Tennis ball-size hail fell near Vealmoor at 1853 CST. The hail caused minor damage to windshields and roofs.

**Lubbock County**  
Lubbock WSFO      07 1912CST      0      0      4      2      Hail (1.50)  
4 E Lubbock      07 1938CST      0.4      50      0      0      2      2      Tornado (F0)  
Ransom County      07 2000CST      0      0      2      2      Hail (1.75)

Hail, slightly smaller than golf balls, fell across the northern side of Lubbock. Moderate damage was done to automobiles and roofs in the area. The Lubbock County Sheriff's Office observed a tornado just east of Lubbock at 1938 CST. At 2000 CST, golf ball-size hail fell at Ransom Canyon in eastern Lubbock County.

**Howard County**  
6 N Coahoma      07 1925CST      0      0      0      0      Hail (1.75)  
3 E Coahoma      07 2030CST      0      0      2      2      Hail (1.75)

The Howard County Sheriff's Office reported golf ball-size hail north of Coahoma at 1925 CST. A SKYWARN spotter observed golf ball-size hail covering the ground to 3 inches in extreme eastern Howard County. Only minor damage was reported.

**Childress County**  
Tell      07 1930CST      0      0      3      0      Thunderstorm Winds

Downburst winds damaged tree limbs, windows, and destroyed a small building.

**Mitchell County**  
Westbrook      07 2018CST      0      0      3      2      Hail (2.75)  
6 E Westbrook      07 2051CST      0      0      2      2      Hail (1.75)

The Department of Public Safety reported baseball-size hail near Westbrook at 2018 CST. At 2051 CST, golf ball-size hail fell near Lake Colorado City. Scattered, minor damage was reported from the hail.

**Ward County**  
Pyote      10 1520CST      0      0      2      1      Hail (1.75)  
Pyote      10 1528CST      0      0      1      1      Hail (1.75)  
Pyote      10 1613CST      0      0      2      2      Hail (2.00)  
Pyote      10 1628CST      0      0      5      2      Hail (6.00)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## TEXAS, Western Cont'd

2 N Monahans	10	1652CST			0	0	1	1	Hail (0.75)
3 E Monahans	10	1711CST			0	0	3	2	Hail (4.50)
Monahans	10	1724CST			0	0	5	3	Hail (2.75)
Wickett	10	1746CST			0	0	3	1	Thunderstorm Winds
Monahans	10	1819CST			0	0	2	1	Hail (1.75)
Monahans	10	1830CST			0	0	1	1	Hail (1.75)

Recurrent supercell thunderstorms over Ward County produced a swath of very large hail from Pyote to Monahans. Hail, up to cantaloupe size, was reported by SKYWARN spotters, the Ward County Sheriff's Office, and the public. Damage to roofs, windows, and windshields was extensive. Downburst winds damaged the roof of a grocery store in Wickett, according to the public.

<b>Cochran County</b>									
Lehman	10	1640CST			0	0	1	1	Hail (0.88)
Morton	10	1648CST			0	0	1	1	Hail (0.75)

The public observed nickel-size hail near Lehman at 1640 CST. At 1648 CST, the Cochran County Sheriff's Office reported dime-size hail in Morton. No significant damage was noted.

<b>Oldham County</b>									
Adrian	10	1655CST			0	0	0	0	Hail (0.75)

The Oldham County Sheriff's Office reported dime-size hail near Adrian. No damage was observed.

<b>Hartley County</b>									
Channing	10	1701CST			0	0	0	0	Hail (1.75)

The Hartley County Sheriff's Office observed golf ball-size hail near Channing with no damage noted.

<b>Parmer County</b>									
2 E Lazbuddie	10	1735CST-							
		1745CST	0.6	30	0	0	0	0	Tornado (F0)
2 NW Lazbuddie	10	1745CST			0	0	2	2	Hail (2.75)
Hub	10	1812CST			0	0	2	1	Hail (2.75)
<b>Parmer County</b>									
3 E Lazbuddie	10	1740CST			0	0	0	0	Hail (2.00)

Thunderstorms developed rapidly in the southwestern Panhandle along the same dryline which allowed thunderstorms to develop in the northwestern Panhandle earlier. SKYWARN spotters reported hen egg-size hail, in association with a storm, in southeastern Parmer County. No damage resulted.

<b>Castro County</b>									
2 W Flagg	10	1740CST			0	0	1	1	Hail (1.00)
Flagg	10	1745CST			0	0	0	0	Hail (0.88)

A supercell, over eastern Parmer County, produced a weak tornado and baseball-size hail near Lazbuddie, according to SKYWARN spotters, the Department of Public Safety, and the Parmer County Sheriff's Office. As the storm moved into western Castro County, up to quarter-size hail was observed by a SKYWARN spotter west of Flagg. No significant damage resulted from the tornado or the hail.

<b>Dallam County</b>									
Dalhart	10	1743CST			0	0	0	0	Hail (1.00)
<b>Hartley County</b>									
5 S Dalhart	10	1743CST			0	0	0	0	Hail (1.00)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLINGS	INJURIES	PROPERTY	CROPS	

## TEXAS, Western Cont'd

The Dalhart Police Department reported quarter-size hail near and south of Dalhart. No damage resulted.

**Bailey County**  
4 S Needmore      10 1805CST                      0   0   0   0      Hail (0.88)

The public reported nickel-size hail at the Muleshoe Wildlife Refuge with no resulting damage.

**Hockley, Lamb, and Bailey Counties**  
Pep                      10 1810CST                      0   0   2   1      Hail (0.88)  
1 N Pep to Bula      10 1822CST-1856CST      8.5      450   0   0   5   3      Tornado (F3)  
**Lamb County**  
8 SW Amherst      10 1912CST      1.5      80   0   0   2   1      Tornado (F0)  
5 SW Amherst      10 1915CST      2.8      120   0   0   2   2      Tornado (F1)  
3 E Earth            10 2019CST                      0   0   0   0      Hail (0.88)  
7 W Olton            10 2028CST      0.4      70   0   0   0   0      Tornado (F0)

A supercell developed over northern Hockley County, producing nickel-size hail in Pep at 1810 CST. At 1822 CST, SKYWARN spotters reported a tornado 1 mile north of Pep, in southwestern Lamb County. The tornado quickly evolved into a large, multiple-vortex tornado which was over 0.5 mile wide at its widest. Moving northwest, the tornado entered southeastern Bailey County southeast of Bula at 1845 CST. The tornado lifted just northwest of Bula at 1856 CST. Nearly 20 homes suffered damage; many of these experienced heavy damage. Two cotton gins in Bula were damaged but miraculously, no casualties were reported.

As the storm turned northeast and moved through Lamb County, spotters observed two tornadoes southwest of Amherst. The Lamb County Sheriff's Office reported nickel-size hail east of Earth and the Olton Fire Department observed a brief tornado west of Olton. The storm then weakened as it moved into Castro County.

**Oldham County**  
4 W Adrian            10 1820CST                      0   0   2   2      Hail (2.25)  
**Hartley County**  
5 S Dalhart            10 1833CST                      0   0   1   1      Hail (1.75)  
**Dallam County**  
Dalhart                10 1835CST                      0   0   2   1      Hail (1.75)  
Dalhart                10 1838CST                      0   0   1   1      Hail (1.25)

Thunderstorms in the northwestern Panhandle produced hail larger than hen eggs, west of Adrian. Golf ball-size hail fell near, and south of Dalhart. No significant damage was reported.

**Parmer County**  
4 N Lazbuddie      10 1838CST      1.0      30   0   0   4   0      Tornado (F0)

A weak tornado (F0) was part of a family of tornadoes associated with a low precipitation supercell in southern Parmer County. The tornado damaged irrigation equipment as it moved across farmland.

**Parmer County**  
4 N Lazbuddie      10 1838CST-1841CST      1.0      30   0   0   4   3      Tornado (F0)  
Lazbuddie            10 1840CST                      0   0   2   0      Hail (2.75)  
3 NW Lazbuddie      10 1842CST-1852CST      3.0      100   0   1   5   4      Tornado (F2)  
4 N Lazbuddie      10 1843CST      0.1      20   0   0   3   3      Tornado (F0)  
4 N Lazbuddie      10 1848CST-1852CST      0.5      60   0   0   4   3      Tornado (F1)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## TEXAS, Western Cont'd

<b>Castro County</b>									
6 W Flagg	10	1848CST	0.1	20	0	0	0	0	Tornado (F0)
2 SE Summerfield	10	1910CST			0	0	0	0	Hail (1.00)

<b>Parmer County</b>									
Lazbuddie	10	1918CST			0	0	0	0	Hail (1.75)
Bovina	10	1935CST			0	0	0	0	Hail (0.88)

Another supercell developed in Parmer County. This storm produced a strong tornado which touched down at 1842 CST, 3 miles northwest of Lazbuddie. The tornado moved northeast then curved southwestward, lifting 4 miles north of Lazbuddie at 1852 CST. The tornado damaged two residences (one demolished), numerous fences, and field irrigation systems, and resulted in one injury. Several small (F0 to F1) tornadoes were observed rotating around the larger vortex at a distance of 0.25 mile. These smaller tornadoes also damaged fencing and irrigation systems. Nickel- to baseball-size hail accompanied the tornadoes.

<b>Bailey County</b>									
7 S Muleshoe	10	1840CST-1850CST	1.2	100	0	0	2	1	Tornado (F1)
7 SE Muleshoe	10	1900CST-1904CST	0.7	60	0	0	1	1	Tornado (F0)

The Bailey County Sheriff's Office reported that a storm over northern Bailey County, between the Pep/Bula storm and the Parmer County storm, produced two tornadoes south and southeast of Muleshoe. The tornadoes were over open country and no significant damage was observed.

<b>Dallam County</b>									
2 W Chamberlain	10	1920CST-1940CST	5.0	160	0	0	3	3	Tornado (F1)
1 E Chamberlain	10	1925CST-1928CST	0.2	40	0	0	2	0	Tornado (F0)

The Dalhart Police Department reported two tornadoes near the community of Chamberlain, which is 8 miles northeast of Dalhart. The first tornado touched down 2 miles west of Chamberlain at 1920 CST before moving northeast and lifting 7 miles north of Chamberlain at 1940 CST. The second tornado briefly touched down east of Chamberlain. The tornadoes damaged irrigation systems, outbuildings, power lines, and a tractor cab.

<b>Ector County</b>									
6 S Goldsmith	10	1928CST			0	0	0	0	Hail (0.75)

A SKYWARN spotter reported dime-size hail at Highways 302 and 866 with no noted damage.

<b>Randall County</b>									
15 NE Canyon	10	2015CST			0	0	0	0	Hail (1.75)
5 S Amarillo	10	2143CST			0	0	0	0	Hail (0.75)
<b>Armstrong County</b>									
10 SE Washburn	10	2200CST			0	0	0	0	Hail (0.75)
<b>Randall County</b>									
S Amarillo	10	2215CST			0	0	0	0	Hail (0.75)
<b>Carson County</b>									
Panhandle	10	2221CST			0	0	0	0	Hail (0.88)
White Deer	10	2250CST			0	0	0	0	Hail (0.88)

A thunderstorm complex, which was tracked across the central Panhandle, produced several reports of nickel- to dime-size hail. Golf ball-size hail fell in northeastern Randall County. No damage was noted with any of the hail events.

<b>Ward County</b>									
2 W Pyote	11	1607CST			0	0	0	0	Hail (1.25)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## TEXAS, Western Cont'd

**4 W Pyote**                      11 1608CST                                      0   0   0   0   **Hail (1.75)**  
 The public reported half dollar- to golf ball-size hail west of Pyote. No damage was observed.

**Lamb County  
Olton**                                      11 1720CST                                      0   0   0   0   **Hail (0.88)**  
 The Olton Fire Department reported nickel-size hail in Olton; no damage was noted.

**Hale County  
12 W Plainview**                      11 1754CST                                      0   0   0   0   **Hail (0.88)**  
**Edmondson**                                      11 1810CST                                      0   0   2   1   **Hail (1.75)**  
**Lamb County  
6 N Olton**                                      11 1810CST                                      0   0   2   3   **Hail (2.50)**  
 An off-duty National Weather Service employee observed nickel-size hail west of Plainview. A SKYWARN spotter reported golf ball-size hail near Edmondson. A National Weather Service employee reported tennis ball-size hail north of Olton. No significant damage resulted.

**Castro County**  
**Nazareth**                                      11 1800CST                                      0   0   2   2   **Hail (1.75)**  
**Hart**    11 1801CST                                      0   0   2   1   **Hail (1.00)**  
**Nazareth**                                      11 1820CST                                      0   0   1   1   **Hail (1.75)**  
**Hart**    11 1830CST                                      0   0   3   2   **Hail (2.50)**  
**5 SE Hart**                                      11 1847CST                                      0   0   0   0   **Tornado (F0)**  
**Hart**    11 1857CST                                      0   0   0   0   **Hail (1.00)**  
 A strong multicell storm moved over Castro County producing up to tennis ball-size hail, with minor damage noted to automobiles and roofs. SKYWARN spotters observed a tornado southeast of Hart over open country, and no damage was noted.

**Hockley County**  
**4 S Levelland**                                      11 1831CST                                      0   0   2   1   **Hail (1.75)**  
**Levelland**                                      11 1850CST                                      0   0   3   2   **Hail (1.75)**  
 SKYWARN spotters reported golf ball-size hail in and south of Levelland. The hail caused minor damage to automobiles in the area.

**Randall County  
SW Amarillo**                                      11 1900CST                                      0   0   0   0   **Hail (0.75)**  
**Potter County  
W Amarillo**                                      11 1906CST                                      0   0   0   0   **Hail (0.75)**  
**Randall County  
SW Amarillo**                                      11 1910CST                                      0   0   0   0   **Hail (0.75)**  
 A severe thunderstorm over Amarillo produced dime-size hail, but no damage was reported.

**Swisher County  
Kress**                                      11 1917CST                                      0.2   30   0   0   0   0   **Tornado (F0)**  
**Castro County  
3 SE Hart**                                      11 1930CST                                      0   0   0   0   **Hail (2.50)**  
 The Kress Emergency Operations Center reported a tornado near Kress. A cooperative observer reported tennis ball-size hail southeast of Hart. No damage resulted from the tornado or the hail.

**Randall County  
15 SE Amarillo**                                      11 1930CST                                      0.1   30   0   0   0   0   **Tornado (F0)**  
**15 SE Amarillo**                                      11 1945CST                                      0.2   30   0   0   0   0   **Tornado (F0)**

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	COSTS	

## TEXAS, Western Cont'd

A SKYWARN spotter observed two weak tornadoes over open country north of Palo Duro Canyon; no damage resulted.

Hockley County  
Oklahoma Flat      11 1935CST      0   0   3   2   Hail (1.75)

A SKYWARN spotter reported golf ball-size hail near the Oklahoma Flat community. Damage occurred to several automobile windshields in the area.

Lamb County  
Olton      11 1940CST      0   0   2   1   Hail (2.00)  
9 N Littlefield      11 1940CST      0   0   1   1   Hail (1.75)  
Littlefield      11 2000CST      0   0   3   2   Hail (1.75)  
3 W Littlefield      11 2005CST      0.3   30   0   0   0   0   Tornado (F0)

A severe multicell storm over Lamb County produced golf ball- to hen egg-size hail across the county. A SKYWARN spotter observed a brief tornado west of Littlefield at 2005 CST. The hail caused minor damage while no damage was reported with the tornado.

Swisher County  
8 W Kress      11 1950CST      0   0   0   0   Hail (0.88)  
10 W Kress      11 1950CST      0   0   3   0   Thunderstorm Winds

Castro County  
Hart      11 2000CST      0   0   2   1   Flash Flood

Swisher County  
3 W Kress      11 2005CST      0.1   30   0   0   0   0   Tornado (F0)  
Tulia      11 2016CST      0   0   1   1   Flash Flood

Castro County  
3 SE Hart      11 2030CST      0   0   0   0   Hail (0.88)  
Hart      11 2040CST      0   0   2   1   Flash Flood

Swisher County  
Kress      11 2100CST      0   0   0   0   Hail (0.88)

Briscoe County  
3 E Silverton      11 2140CST      0   0   1   1   Flash Flood

A large multicell storm moved across Castro, Swisher, and Briscoe Counties. Several of the cells produced nickel-size hail and flash flooding as they tracked across the area. Downburst winds damaged a barn west of Kress. The Kress Emergency Management Office reported a brief tornado west of Kress. No significant damage resulted from the tornado, the hail, or the flash flooding.

Hale County  
4 W Edmondson      11 2005CST      0   0   0   0   Hail (1.00)  
Plainview      11 2045CST      0   0   2   2   Hail (1.00)  
Plainview      11 2052CST      3.5   80   0   2   5   2   Tornado (F1)

Lamb County  
6 S Olton      11 2110CST      0   0   1   0   Hail (1.75)

Hale County  
3 N Hale Center      11 2150CST      1.2   70   0   0   3   1   Tornado (F1)  
Edmondson      11 2155CST      0   0   2   1   Hail (2.00)  
Plainview      11 2210CST      0   0   0   0   Hail (0.75)

Another strong multicell complex moved across Lamb and Hale Counties. The first cell produced quarter-size hail and a tornado that struck the southern portion of Plainview. The tornado touched down at 2052 CST, 3 miles south of the city limits. It lifted at 2101 CST, just inside the southern edge of the city. The Plainview Emergency Operations Center reported that four mobile homes and two other buildings were damaged by the tornado. Two people (in the mobile homes) were injured. The second cell produced a brief tornado just north of Hale Center which damaged a house and outbuildings. Dime- to hen egg-size hail fell from this cell as it passed near and northwest of Plainview.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## TEXAS, Western Cont'd

**Midland County**  
8 S Midland  
5 S Midland

12	1813CST	0	0	2	1	Hail (1.75)
12	1832CST	0	0	0	0	Hail (0.75)

Golf ball-size hail fell in southern Midland County at 1813 CST, according to the public. The public reported dime-size hail at 1832 CST. No significant damage was noted.

**Scurry County**  
8 W Snyder

12	2020CST	0	0	2	1	Hail (1.75)
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Golf ball-size hail was reported by an off-duty National Weather Service employee west of Snyder. No significant damage resulted.

**Crockett County**  
Ozona  
Ozona

12	2030CST	0	0	0	0	Hail (0.75)
12	2050CST	0	0	0	0	Hail (0.75)

The Crockett County Sheriff's Office reported dime-size hail in Ozona but no damage was noted.

**Dickens County**  
Spur

12	2120CST	0	0	0	0	Hail (0.75)
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The Spur Police Department reported dime-size hail in Spur; no damage was noted.

**Coke County**  
12 NE Robert Lee  
Bronte

12	2300CST	0	0	1	1	Hail (1.75)
12	2330CST	0	0	2	1	Thunderstorm Winds (G51)

The Coke County Sheriff's Office observed golf ball-size hail near the Oak Creek Reservoir. Downburst winds, estimated to 60 mph, moved through Bronte. No significant damage was noted.

**Runnels County**  
Ballinger

12	2330CST	0	0	3	1	Thunderstorm Winds
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Downburst winds damaged a building in Ballinger, according to the Runnels County Sheriff's Office.

**Concho County**  
Paint Rock

13	0045CST	0	0	2	1	Thunderstorm Winds (G51)
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A spotter reported downburst winds, to 60 mph, in Paint Rock; no significant damage resulted.

**Briscoe County**  
Silverton  
Silverton

13	1528CST	0	0	0	0	Hail (1.00)
13	1532CST	0	0	0	0	Hail (0.88)

Amateur radio spotters reported quarter-size hail in Silverton, while the Briscoe County Sheriff's Office observed nickel-size hail a few minutes later; no damage was reported.

**Hale County**  
Plainview  
4 W Plainview

13	1545CST	0	0	2	1	Flash Flood
13	1606CST- 1612CST	0	0	0	0	Tornado (F0)

The Plainview Emergency Operations Center reported flash flooding in Plainview at 1545 CST. A weak tornado briefly touched down west of Plainview and remained over open country, but no damage resulted.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## TEXAS, Western Cont'd

### Hutchinson County

7 ESE Borger	13	1648CST	0.2	30	0	0	0	0	Tornado (F0)
Borger	13	1715CST			0	0	0	0	Hail (0.75)
2 SE Fritch	13	1750CST	0.1	20	0	0	0	0	Tornado (F0)
2 SE Fritch	13	1810CST			0	0	0	0	Funnel Cloud

The Hutchinson County Sheriff's Office and the Department of Public Safety reported a small tornado near Fritch. The tornado was over open country and no damage resulted. Twenty minutes later, the Borger Fire Department reported a brief funnel near Fritch.

### Floyd County

4 N Aiken	13	1709CST			0	0	1	1	Flash Flood
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The Floyd County Sheriff's Office reported flash flooding in northwestern Floyd County, north of Aiken. Since motorists avoided the area, no significant damage resulted.

### Pecos County

3 N Bakersfield	13	1925CST			0	0	0	0	Hail (0.75)
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The public reported dime-size hail north of Bakersfield; no damage was observed.

### Upton County

McCamey	13	1943CST			0	0	1	0	Hail (1.75)
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SKYWARN spotters observed quarter- to golf ball-size hail in McCamey. No significant damage resulted.

### Midland County

Greenwood	13	2103CST			0	0	0	0	Hail (0.75)
2 NE Midland	13	2130CST			0	0	0	0	Hail (0.75)

The public reported dime-size hail near Greenwood, and north of Midland. No damage resulted.

### Ector County

Odessa	13	2130CST			0	0	0	0	Hail (0.75)
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An amateur radio operator observed dime-size hail near Odessa. No damage was observed.

### Howard, Midland, and Martin Counties

	13	2145CST			0	0	5	1	Lightning
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Lightning struck oil tank batteries in eastern Howard County, northeastern Midland County, and northwestern Martin County. Damage to the tanks was extensive, but no injuries were reported.

### Lipscomb County

Darrrouzett	15	1815CST			0	0	0	0	Hail (0.75)
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Darrrouzett City Officials observed dime-size hail; no damage was noted.

### Collingsworth and Wheeler Counties

9 S Shamrock	15	2017CST- 2110CST	15.0	450	0	0	5	3	Tornado (F3)
Texola	15	2110CST			0	0	2	1	Hail (1.75)

A supercell developed over Collingsworth County and moved slowly northeast. SKYWARN spotters observed the beginning of a strong tornado 9 miles south of Shamrock. The tornado demolished a frame home, three vehicles, two barns, and an oil pump jack in northern Collingsworth County. The tornado crossed into Wheeler County at 2050 CST, southeast of Shamrock. The Shamrock Police Department reported no significant damage in Wheeler County.



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## TEXAS, Western Cont'd

from the tornado, which lifted at 2110 CST, 1 mile west of Texola. Golf ball-size hail was reported in Texola at 2110 CST.

### Reagan County Big Lake

16	0415CST	0	0	0	0	Hail (0.75)
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The Reagan County Sheriff's Office reported dime-size hail in Big Lake with no resulting damage.

### Tom Green County Grape Creek Carlsbad

16	0430CST	0	0	2	1	Hail (1.75)
16	0433CST	0	0	2	2	Hail (2.50)

An off-duty National Weather Service employee reported golf ball-size hail near Grape Creek at 0430 CST. The public reported golf ball- to tennis ball-size hail near Carlsbad at 0433 CST. No significant damage resulted.

### Fisher County 3 W Hamlin 10 E Roby

17	1640CST	0	0	2	1	Hail (1.75)
17	1738CST	0	0	1	0	Hail (0.75)

A severe thunderstorm produced dime- to golf ball-size hail in central and eastern Fisher County. No significant damage was reported.

### El Paso County El Paso NE El Paso

21	1408CST	0	0	4	1	Hail (1.00)
21	1427CST	0	0	1	1	Hail (0.75)

A severe thunderstorm moved across central and northeastern El Paso. Up to quarter-size hail was reported with the storm. The hail damaged cars and homes in the area.

### E El Paso

21	1500CST	0	0	7	5	Hail (1.50)
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A second, severe thunderstorm moved across eastern El Paso. Hail almost as large as golf balls was reported from this storm. Cars and buildings were heavily damaged by the hail. In the lower valley, 400 acres of cotton and an onion crop were severely damaged. Total storm damage is estimated at \$5 to \$7 million.

### Culberson County Guadalupe Park Guadalupe Park Guadalupe Park Guadalupe Park

21	1845CST	0	0	3	2	Thunderstorm Winds (G76)
21	1920CST	0	0	2	1	Hail (0.75)
21	1930CST	0	0	4	2	Thunderstorm Winds (G82)
21	1930CST	0	0	2	2	Flash Flood

Downburst winds were measured in Guadalupe Pass at 87 mph. Park staff estimated peak winds at 95 to 100 mph about half an hour later. Dime-size hail and nearly 3.00 inches of rain accompanied the strong winds. Several of the dry washes near the park overflowed their banks.

### Reeves County 10 NNW Pecos

21	2151CST	0	0	0	0	Hail (1.00)
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The Department of Public Safety reported quarter-size hail in northern Reeves County, but no damage was observed.

### Potter County Amarillo

22	1408CST	0	0	0	0	Hail (0.75)
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Dime-size hail fell at the National Weather Service Office at Amarillo International Airport. No damage was noted.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## TEXAS, Western Cont'd

<b>Reeves County</b>	22	1701CST	0.5	50	0	0	0	0	Tornado (F0)
12 E Saragosa	22	1720CST			0	0	2	0	Hail (1.75)
7 W Coyanosa									

The public reported a brief tornado and golf ball-size hail in eastern Reeves County with no significant damage resulting.

<b>Hall County</b>	22	1705CST			0	0	2	1	Hail (1.25)
Brice	22	1745CST			0	0	1	0	Hail (0.88)
<b>Briscoe County</b>									
Silverton	22	1700CST			0	0	1	0	Flash Flood
<b>Hall County</b>									
Memphis	22	1811CST			0	0	0	0	Hail (0.75)

A multicell cluster storm moved through Briscoe and Hall Counties. Nickel- to half dollar-size hail fell, along with very heavy rain resulting in flash flooding in Silverton.

<b>Ward County</b>	22	1742CST			0	0	2	1	Hail (2.50)
Pyote	22	1745CST			0	0	2	0	Thunderstorm Winds (G60)
Pyote									

The Ward County Sheriff's Office reported tennis ball-size hail in Pyote. A SKYWARN spotter observed downburst winds to 70 mph. Minor roof damage resulted from the hail and wind.

<b>Lynn County</b>	22	2038CST			0	0	1	1	Thunderstorm Winds (G51)
6 W Tahoka	22	2133CST			0	0	2	1	Hail (1.75)
Tahoka									

The Lynn County Sheriff's Office reported downburst winds to 60 mph west of Tahoka and golf ball-size hail in Tahoka, but no significant damage was noted.

<b>Potter County</b>	22	2326CST			0	0	2	1	Hail (1.75)
2 W Amarillo									
<b>Randall County</b>									
S Amarillo	22	2329CST			0	0	0	0	Hail (0.75)
<b>Potter County</b>									
N Amarillo	23	0015CST			0	0	0	0	Hail (0.88)
<b>Randall County</b>									
S Amarillo	23	0016CST			0	0	1	1	Hail (1.00)

Severe thunderstorms over Amarillo produced dime- to nickel-size hail over much of the city. Golf ball-size hail was reported by a SKYWARN spotter. Quarter-size hail was reported by an off-duty National Weather Service employee.

<b>Potter County</b>	23	0115CST			0	0	0	0	Hail (0.75)
2 NE Amarillo									

Strong thunderstorm winds moved through the Amarillo area. The public reported dime-size hail at 0115 CST, and no damage was observed.

<b>Hansford County</b>	23	1410CST			0	0	2	0	Hail (1.75)
6 W Gruver	23	1515CST			0	0	0	0	Hail (1.75)
5 SW Gruver									

Severe thunderstorms over Hansford County produced golf ball-size hail west of Gruver which damaged a car windshield. Golf ball-size hail also fell southwest of Gruver.

<b>Reeves County</b>	23	1428CST	0.5	50	0	0	0	0	Tornado (F0)
5 W Balmorhea									

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME		LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD				KILLED	INJURED	PROPERTY	CROPS	

## TEXAS, Western Cont'd

<b>Saragosa</b>	23	1429CST			0	0	2	1	Hail (1.75)
<b>Saragosa</b>	23	1450CST			0	0	5	5	Hail (1.75)

SKYWARN spotters observed a tornado west of Balmorhea with no resulting damage. Golf ball-size hail in Saragosa caused extensive damage to roofs, windows, automobiles, and crops in the area.

<b>Hall County</b>	23	1525CST			0	0	2	1	Hail (1.75)
15 N Turkey	23	1530CST			0	0	1	1	Hail (1.75)
Memphis	23	1551CST			0	0	0	0	Hail (0.75)

A slow-moving storm developed over western Hall County. The Memphis Police Department reported dime- to golf ball-size hail. No significant damage resulted.

<b>Presidio County</b>	23	1548CST			0	0	1	0	Thunderstorm Winds (G50)
3 N Marfa									

Fifty-eight mph downburst winds were measured at the Marfa Airport, but no significant damage was observed.

<b>Ochiltree County</b>	23	1600CST			0	0	0	0	Hail (0.75)
3 S Perryton	23	1612CST			0	0	0	0	Hail (1.75)

As the Hansford County storms moved into Ochiltree County, dime- to golf ball-size hail was reported in, and south of Perryton. No damage was noted.

<b>Castro County</b>	23	1650CST			0	0	3	0	Thunderstorm Winds (G70)
8 S Dimmitt									
<b>Moore County</b>	23	1712CST			0	0	1	1	Hail (1.00)
Dumas									
<b>Hansford County</b>	23	1810CST			0	0	2	2	Hail (1.75)
2 S Spearman									
<b>Randall County</b>	23	1815CST			0	0	0	0	Hail (0.75)
S Amarillo									
<b>Potter County</b>	23	1821CST			0	0	0	0	Hail (1.00)
2 N Amarillo									
<b>Ochiltree County</b>	23	1830CST			0	0	2	1	Hail (1.75)
Perryton									
<b>Lipscomb County</b>	23	1900CST			0	0	0	0	Hail (0.88)
Follett									
<b>Gray County</b>	23	1905CST	0.1	20	0	0	0	0	Tornado (F0)
Lefors									

A line of thunderstorms moved east out of New Mexico across the Panhandle, producing dime- to golf ball-size hail. Downburst winds estimated to 80 mph, snapped power lines south of Dimmitt. A spotter reported a strong thunderstorm outflow in central Gray County.

<b>Midland County</b>	23	1652CST			0	0	2	0	Hail (1.00)
4 S Midland	23	1702CST			0	0	0	0	Thunderstorm Winds (G50)
3 SW Midland									

A SKYWARN spotter reported quarter-size hail 4 miles south of Midland. Downburst winds gusted to 58 mph at the National Weather Service Office at Midland International Airport. No significant damage resulted.

<b>Lubbock County</b>	23	1755CST			0	0	0	0	Hail (0.75)
Reese Air Force Base									

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILL	INJURED	PROPERTY	CROPS	

## TEXAS, Western Cont'd

**Slide**                    23 1800CST                                    0 0 3 0     **Thunderstorm Winds**

The weather observer at Reese Air Force Base reported dime-size hail. Downburst winds downed power lines near the community of Slide in southwestern Lubbock County, according to spotters.

**Potter County**  
**2 N Amarillo**                    23 1821CST                                    0 0 0 0     **Hail (1.00)**

A SKYWARN spotter reported quarter-size hail in Potter County, but no damage resulted.

**Brewster County**  
**Marathon**                    23 1950CST                                    0 0 3 0     **Hail (1.00)**

Quarter-size hail fell in Marathon breaking some of the windows at the local school.

**Hall County**  
Brice                    24 1453CST                                    0 0 1 0     **Hail (1.00)**  
Brice                    24 1520CST                                    0 0 2 2     **Hail (1.75)**  
Lakeview                24 1520CST                                    0 0 1 1     **Hail (1.75)**  
**Donley County**  
Clarendon                24 1520CST                                    0 0 2 1     **Hail (1.75)**  
**Hall County**  
Estelline                24 1530CST                                    0 0 2 2     **Hail (2.75)**  
Estelline                23 1550CST                                    0 0 1 1     **Hail (1.75)**  
Turkey                    24 1600CST                                    0 0 0 0     **Flash Flood**  
Estelline                24 1756CST                                    0 0 0 0     **Flash Flood**

A multicell severe storm over Hall and Donley Counties produced quarter- to baseball-size hail. No significant damage was reported. The resulting heavy rains flooded secondary highways in southern and eastern Hall County.

**Hemphill County**  
**Canadian**                    24 1530CST                                    0 0 0 0     **Hail (0.75)**

The public reported dime-size hail in Canadian, but no damage resulted.

**Carson County**  
**4 S White Deer**                    24 1615CST                                    0 0 0 0     **Hail (1.00)**  
**Gray County**  
**2 N Pampa**                    24 1617CST                                    0 0 0 0     **Hail (0.75)**

A multicell storm over Carson and Gray Counties produced dime- to quarter-size hail. No damage was observed.

**Dallam County**  
**4 S Texline**                    24 1645CST                                    0 0 0 0     **Hail (1.00)**

Thunderstorms moving east out of New Mexico produced quarter-size hail at Texline, and no damage was observed.

**Midland County**  
**6 SW Midland**                    24 1704CST                                    0 0 0 0     **Hail (1.00)**

The public reported quarter-size hail 4 miles south of Midland International Airport, but no damage resulted.

**Roberts County**  
**Miami**                    24 1707CST                                    0 0 0 0     **Hail (0.75)**

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## TEXAS, Western Cont'd

As the storm from Carson and Gray Counties drifted north, dime-size hail fell at Miami, according to the Roberts County Sheriff's Office. No damage resulted.

Randall County 5 E Canyon	24	1818CST			0	0	0	0	Hail (1.75)
Armstrong County 6 W Claude	24	1820CST			0	0	0	0	Hail (0.75)
Hutchinson County Borger	24	1840CST			0	0	0	0	Hail (1.00)
Randall County 5 E Canyon	24	1853CST			0	0	1	0	Flash Flood
Hutchinson County Stinnett	24	1858CST			0	0	0	0	Hail (0.75)
Armstrong County 15 SW Claude	24	1940CST			0	0	0	0	Flash Flood
Hutchinson County 5 W Borger	24	2008CST			0	0	0	0	Hail (0.75)

A large multicell storm moved over the central Panhandle. Several instances of dime- to golf ball-size hail were reported. Heavy rainfall associated with the storms, resulted in some flash flooding in the Palo Duro Canyon.

Lubbock County Reese Air Force Base	24	1750CST			0	0	1	0	Hail (1.75)
4 S Wolfforth	24	1812CST			0	0	1	1	Hail (1.50)

The public reported golf ball-size hail near Reese Air Force Base. SKYWARN spotters and the public observed hail slightly smaller than golf ball-size, south of Wolfforth. No significant damage was reported.

Briscoe County 6 NW Silverton	24	2026CST			0	0	0	0	Hail (1.00)
10 NE Silverton	24	2101CST			0	0	0	0	Hail (0.88)

The central Panhandle, multicell cluster drifted southeast. As it moved over Briscoe County, nickel- to quarter-size hail was reported by the Briscoe County Sheriff's Office.

Motley County 5 S Matador	24	2240CST			0	0	0	0	Hail (1.00)
Roaring Springs	24	2255CST			0	0	2	1	Thunderstorm Winds (G54)

The Matador Fire Department reported quarter-size hail south of Matador. The public reported downburst winds to 65 mph in Roaring Springs. No significant damage resulted.

Reeves County 2 NE Balmorhea	28	1702CST			0	0	0	0	Hail (1.00)
Balmorhea	28	1727CST			0	0	2	0	Hail (1.00)

The public reported quarter-size hail at Balmorhea State Park. The Reeves County Sheriff's Office observed quarter-size hail in Balmorhea, from 1727 CST to 1747 CST. Only minor damage resulted.

Hartley County 8 SW Dalhart	28	1750CST			0	0	0	0	Hail (1.00)
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The public reported quarter-size hail southwest of Dalhart, but no damage was noted.

Dallam County Dalhart	28	1841CST			0	0	0	0	Thunderstorm Winds (G55)
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# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTIES	CROPS	

## TEXAS, Western Cont'd

<b>Dalhart</b>	28	1925CST			0	0	1	3	Thunderstorm Winds (G52)
<b>Kerrick</b>	28	1926CST			0	0	2	1	Thunderstorm Winds

A short line of thunderstorms moved through Dallam County. The storms produced downburst winds to 63 mph at the Dalhart weather station. A cooperative observer reported 60-mph winds and uprooted trees in Dalhart. Minor wind damage to buildings and trees was reported in Kerrick, in northeastern Dallam County.

<b>Reeves County</b>	28	2010CST			0	0	0	0	Hail (1.00)
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The public reported quarter-size hail northwest of Pecos. No damage resulted.

<b>Hartley County</b>	28	2101CST-			0	0	0	0	Tornado (F0)
3 N Channing		2110CST	0.5	40	0	0	0	0	Tornado (F0)
6 S Dalhart	28	2110CST-			0	0	0	0	Tornado (F0)
		2115CST	0.1	30	0	0	0	0	Tornado (F0)

As the thunderstorm line moved from Dallam County through Hartley County, two weak tornadoes were observed by the Department of Public Safety. The tornadoes remained over open country and no damage resulted.

<b>Ector County</b>	28	2126CST			0	0	0	0	Hail (0.75)
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The public reported dime-size hail in Goldsmith and no damage was noted.

<b>Ward County</b>	28	2345CST			0	0	2	0	Thunderstorm Winds (G61)
<b>Monahans</b>	28	2354CST			0	0	2	0	Thunderstorm Winds (G70)

Downburst winds gusted up to 80 mph, according to the public and spotters. Only minor damage resulted.

<b>Pecos County</b>	29	0035CST			0	0	0	0	Hail (1.00)
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The Pecos County Sheriff's Office reported quarter-size hail northwest of Iraan. No damage was observed.

<b>Sherman County</b>	29	1520CST			0	0	2	1	Hail (2.00)
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A SKYWARN spotter reported hen egg-size hail near Texhoma. Only minor damage resulted.

<b>Potter County</b>	29	1612CST			0	0	0	0	Hail (0.75)
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The public reported dime-size hail in Amarillo and no damage resulted.

<b>Carson County</b>	29	1618CST			0	0	1	1	Hail (1.00)
<b>Panhandle</b>	29	1633CST			0	0	2	1	Hail (1.50)

A thunderstorm over Carson County produced quarter- to Ping-Pong ball-size hail, according to the Carson County Sheriff's Office, and the public. Only minor damage was observed.

<b>Hansford County</b>	29	1642CST			0	0	2	1	Hail (1.75)
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# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## TEXAS, Western Cont'd

4 N Spearman	29 1650CST				0	0	1	0	Hail (1.00)
The Hansford County Sheriff's Office reported golf ball-size hail in northwestern Hansford County. The public reported quarter-size hail just north of Spearman. No significant damage was noted.									
Armstrong County 10 SW Claude	29 1654CST				0	0	0	0	Hail (0.88)
A SKYWARN spotter observed nickel-size hail in western Armstrong County. No damage resulted.									
Randall County 2 SW Amarillo	29 1710CST				0	0	0	0	Hail (0.75)
SKYWARN spotters reported dime-size hail just southwest of Amarillo. No damage resulted.									
Ochiltree County 3 W Booker Perryton	29 1712CST 29 1712CST		0.5	60	0	0	4	0	Tornado (F0) Hail (1.75)
The Perryton Police Department reported a tornado in extreme northeastern Ochiltree County. The tornado downed several power poles along Highway 15, and golf ball-size hail fell in Perryton, according to the Police.									
Randall County 2 S Bushland SW Amarillo 5 SE Umbarger	29 1729CST 29 1745CST 29 1747CST- 1752CST				0	0	1	0	Hail (1.75) Hail (0.75) Tornado (F0)
Dime- to golf ball-size hail was reported by SKYWARN spotters and off-duty National Weather Service personnel. A storm chaser reported a weak tornado near Buffalo Lake. The tornado touched down over open country and produced no apparent damage.									
Potter County 15 NW Amarillo	29 1751CST- 1808CST	2.8		60	0	0	0	0	Tornado (F0)
Numerous spotters and National Weather Service personnel observed a tornado northwest of Amarillo. The tornado remained over open country and no damage resulted.									
Hutchinson County 5 E Borger	29 1808CST- 1810CST	0.1		20	0	0	0	0	Tornado (F0)
Spotters observed a small tornado just east of Borger. No significant damage was noted.									
Randall County SW Amarillo	29 1810CST				0	0	0	0	Hail (1.00)
An off-duty National Weather Service employee reported dime- to quarter-size hail in southwestern Amarillo. No damage was observed.									
Moore County 8 E Dumas	29 1810CST- 1816CST	2.0		60	0	0	0	0	Tornado (F0)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## TEXAS, Western Cont'd

As the Potter County tornadic storm moved north, SKYWARN spotters reported a tornado in eastern Moore County, north of Lake Meredith. The tornado remained over open country and no damage resulted.

**Ochiltree County**  
Farnsworth 29 1811CST 0 0 2 1 Hail (2.50)

The Department of Public Safety reported tennis ball-size hail in Farnsworth, with only minor damage reported.

**Randall County**  
SW Amarillo 29 1813CST 0 0 1 1 Hail (1.75)  
2 S Amarillo 29 1815CST 0 0 5 1 Thunderstorm Winds

An off-duty National Weather Service employee reported golf ball-size hail in southwestern Amarillo. A strong downburst damaged 30 mobile homes in a park just south of Amarillo. No injuries were reported.

**Hutchinson County**  
Borger 29 1815CST 0 0 5 1 Thunderstorm Winds

Downburst winds blew down a radio tower in Borger, cutting off power and communications. No injuries were reported as the strong winds blew through the eastern part of the county until 1900 CST.

**Randall County**  
Canyon 29 1825CST 0 0 0 0 Hail (1.00)

A SKYWARN spotter reported quarter-size hail in Canyon, but no damage was observed.

**Ward County**  
Monahans 29 1825CST 0 0 2 0 Hail (1.00)  
Monahans 29 1832CST 0 0 1 0 Hail (1.00)

A severe thunderstorm dropped quarter-size hail on Monahans at 1825 CST and 1832 CST, according to spotters and the Monahans Police Department. Only minor damage resulted.

**Briscoe County**  
10 NE Silverton 29 1825CST 0 0 2 2 Hail (2.75)

The Briscoe County Sheriff's Office reported baseball-size hail in northeastern Briscoe County. Only minor damage was observed.

**Potter County**  
17 N Amarillo 29 1825CST 0 0 0 0 Hail (1.00)  
Amarillo 29 1827CST 0 0 0 0 Hail (0.88)  
14 N Amarillo 29 1829CST 0 0 1 0 Hail (1.75)

SKYWARN spotters and the Department of Public Safety reported nickel- to golf ball-size hail in, and north of Amarillo. No significant damage resulted.

**Roberts County**  
18 N Pampa 29 1838CST 0 0 1 1 Hail (1.75)

A SKYWARN spotter observed golf ball-size hail in western Roberts County. No significant damage was reported.

**Randall County**  
Southern Amarillo 29 1844CST 0 0 2 1 Hail (1.75)  
10 SE Amarillo 29 1848CST 0.2 30 0 0 0 0 Tornado (F0)



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## TEXAS, Western Cont'd

The public reported golf ball-size hail in southern Amarillo. SKYWARN spotters observed a small tornado east of Lake Tanglewood, but no significant damage resulted.

**Briscoe County**  
10 NW Silverton 29 1845CST 0 0 2 2 Hail (2.75)

The public reported baseball-size hail near Lake MacKenzie, and only minor damage was noted.

**Armstrong County**  
11 S Washburn 29 1901CST 0 0 1 1 Thunderstorm Winds  
1 W Washburn 29 1902CST 0 0 0 0 Hail (0.88)

SKYWARN spotters reported a downburst south of Washburn, and nickel-size hail near Washburn. No significant damage was observed.

**Carson County**  
1 SW Conway 29 1930CST 0.1 20 0 0 0 0 Tornado (F0)

A brief tornado was reported by a television meteorologist near Conway. The tornado was over open country and no damage resulted.

**Hall County**  
Memphis 29 1930CST 0 0 0 0 Hail (0.75)

A SKYWARN spotter observed dime-size hail in Memphis, but no damage resulted.

**Armstrong County**  
Washburn 29 1937CST 0 0 0 0 Hail (0.88)

**Carson County**  
Conway 29 1938CST 0 0 1 1 Hail (1.00)

SKYWARN spotters reported nickel- to quarter-size hail in northern Armstrong and southern Carson Counties. No significant damage was observed.

**Donley County**  
10 WNW Clarendon 29 1940CST 0 0 4 1 Thunderstorm Winds

10 WNW Clarendon 29 2000CST 0 0 2 2 Hail (2.75)

The Donley County Sheriff's Office reported a downburst and baseball-size hail near the Ashtola community. The downburst damaged a barn, a mobile home, and an outbuilding. No significant damage resulted from the hail.

**Hutchinson County**  
Borger 29 1941CST 0 0 6 0 Thunderstorm Winds (G85)  
Borger 29 2000CST 0 0 2 1 Hail (1.75)

An intense downburst, with peak gusts to 98 mph, damaged equipment and burlings at the Phillips refinery near Borger. The Borger Police Department reported golf ball-size hail with the storm. Fortunately, there were no injuries.

**Carson County**  
2 S Conway 29 2005CST 0.2 30 0 0 0 0 Tornado (F0)

1 S Conway 29 2012CST 0 0 3 1 Hail (1.75)

2 N Pantex 29 2030CST-2100CST 0 0 1 0 Hail (1.00)

**Armstrong County**  
2 S Claude 29 2032CST 0 0 2 1 Hail (1.25)

A severe, multicell storm was tracked across Carson and northern Armstrong Counties. A television meteorologist reported a brief tornado near Conway. SKYWARN spotters reported

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## TEXAS, Western Cont'd

golf ball-size hail near Conway, which cracked automobile windshields. Spotters also observed quarter- to half dollar-size hail with the storm.

**Hall County  
Memphis**

29 2130CST 0 0 2 2 Hail (1.75)

The Memphis Police Department reported golf ball-size hail in Memphis. No significant damage was observed.

**Armstrong County  
Claude**

29 2133CST 0 0 0 0 Hail (0.75)

The Claude Police Department reported dime-size hail, but no damage resulted.

**Hall County  
Memphis**

29 2150CST 0 0 1 1 Hail (1.75)

**Donley County  
Clarendon**

29 2200CST 0 0 1 0 Hail (1.00)

**Collingsworth County  
6 W Wellington**

29 2228CST 0 0 2 1 Hail (1.75)

**Quail**

29 2330CST 0 0 0 0 Hail (0.75)

**10 WSW**

29 2339CST 0 0 0 0 Hail (0.75)

**Wellington**

A short line of thunderstorms produced dime- to golf ball-size hail across the southeastern Panhandle. No significant damage was reported by law enforcement officials in the area.

## UTAH

**UTZ003**

**Northwestern Valleys  
Salt Lake County**

08 0200MST-  
0500MST

0 0 5 0 High Winds  
Thunderstorm Winds (G75)

A cold front, associated with a strong Pacific-storm system, caused very strong and gusty southerly winds ahead of it. Several wind gusts near 60 mph were reported. The high winds caused a widespread power outage in West Valley City, and scattered power outages elsewhere in the Salt Lake Valley as trees were blown over onto power lines. The winds diminished after the front passed late in the afternoon.

As the vigorous cold front moved through the Wasatch Front, it also ushered in thunderstorms that produced microburst winds. However, no damage was reported.

**UTZ006-011**

**Southwestern Valleys  
Southern Mountains**

09 0300MST-  
1500MST

0 0 3 0 High Winds

The cold front that caused the high winds in the northwestern portion of the state did the same to most of the southwestern, and the southern mountains. Several gusts of 59 or 60 mph were reported. Travel along Interstate 15 was hampered because of the strong winds and poor visibility due to blowing dust. In Cedar City, the wind tore part of a roof off a mobile home.

**Davis County**

**Bountiful  
Salt Lake County  
Cottonwood**

14 1115MST 0 1 0 0 Lightning

14 1138MST 0 0 5 0 Lightning

An upper-level low that moved into central Utah, created a very moist and unstable environment over the northern and western portions of the state. Thunderstorms developed rapidly, and before noon several reports of heavy rain and small hail were received. Also, frequent lightning was produced by these storms. Scott Shumway, of Bountiful, was fixing a patio door when lightning hit very near his location. The electric shock sent through him caused him to be lightheaded. He was treated and released from a local hospital. Lightning from these same

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## UTAH Cont'd

storms also struck the roof a condo, and set it on fire. Before the fire was put out, \$52,000 of damage had been done. Until late afternoon, several more reports of up to 0.50-inch hail were received. The heavy rain, in a short period of time, created minor to locally moderate areas of flooding along the Wasatch Front. Light to moderate rain continued until the early morning hours.

**UTZ002-006**  
Great Salt Lake  
Desert and South-  
western Valleys

17 1100MST-  
1400MST 0 0 0 0 High Winds

As a strong cold front moved in, it caused strong and gusty, southerly winds and thunderstorms. The microburst winds that came from the thunderstorms added to the already-high gradient winds. Several gusts occurred from 58 to 62 mph. No damage was reported from these areas, but where wind was less than high wind criteria (in much of northern and western Utah), large trees were blown over, damage was done in several buildings and cars, power poles and lines were blown down resulting in many outages and reduced visibility on Interstate 15 due to blowing dust.

**UTZ004-006-007-  
008-011**, Uinta  
Basin, Sevier and  
Southwestern Valleys,  
Southwestern Portion,  
and Southern  
Mountains

18 1045CST-  
1700MST 0 0 4 0 High Winds

The same strong front that had roared through the northwestern portion of the state became stationary and extended from the northeast to the west-central portion. Sustained winds of 40 to 45 mph, with gusts ranging from 60 to 67, were common throughout the area. A recreational trailer was blown over on Interstate 70 east of Richfield; a roof blown off a mobile home in Monticello, and trees were uprooted in Rossevelt.

## VERMONT

**Chittendon County**  
Colchester

01 1915EST 0 0 2 0 Thunderstorm Winds

Several large tree limbs were downed along Route 7.

**VTZ003**  
Northeastern Vermont

12 Afternoon 0 3 4 0 High Winds

A pickup truck was totaled when strong winds caused a large tree to snap at its base and land on the moving vehicle along Pleasant Street in South Ryegate in Caledonia County. The driver and two passengers suffered multiple abrasions.

**Bennington County**  
Pownal  
**Windham County**  
Braftleboro

17 1535EST 0 0 3 0 Thunderstorm Winds

17 1610EST 0 0 3 0 Thunderstorm Winds

Large tree limbs and power outages were reported in Pownal with trees downed across roads in Braftleboro.

## VIRGINIA

**Isle of Wight  
County**  
Raynor

01 1855EST 0 0 0 0 Hail (1.75)

Golf ball-size hail covered the ground.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

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## VIRGINIA Cont'd

Sussex County Wakefield Airport	01	1990EST- 1905EST			0	0	0	0	Hail (2.00)  Hail the size of hen's eggs was reported.
James City County 1 W Toano	01	1920EST			0	0	0	0	Thunderstorm Winds  Trees were downed 1 mile west of Toano.
City of Suffolk Chuckatuck	01	1920EST			0	0	0	0	Funnel Cloud  The public reported a funnel cloud.
City of Chesapeake 3 W Fentress	01	1920EST			0	0	0	0	Thunderstorm Winds  The police reported trees downed.
3 S City of Portsmouth	01	1925EST- 1930EST			0	0	0	0	Funnel Cloud  The police and public reported a funnel cloud close to the ground in the Deep Creek Boulevard area. Two telephone poles were knocked down in the same area.
York County Yorktown	01	1925EST			0	0	0	0	Thunderstorm Winds  The park service reported trees downed in Yorktown.
Isle of Wight County 5 S Carrollton	01	1927EST			0	0	0	0	Thunderstorm Winds  The police reported trees downed.
City of Portsmouth Churchland	01	1930EST- 1940EST			0	0	0	0	Hail (1.50)  Numerous reports of hail 1.00 to 1.50 inches in diameter.
City of Suffolk Driver	01	1930EST- 1945EST			0	0	0	0	Hail (2.00)  There were several reports of 1.00- to 2.00-inch diameter hail.
City of Virginia Beach Chesapeake Beach	01	1940EST			0	0	0	0	Thunderstorm Winds  Two oak trees were downed.
2 SE City of Chesapeake	01	2000EST			0	0	3	0	Thunderstorm Winds Hail (1.25)  Falling trees knocked over a telephone pole.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

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## VIRGINIA Cont'd

City of Norfolk City of Virginia Beach	01	2005EST			0	0	0	0	Hail (0.75)
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Kempsville	01	2010EST- 2020EST			0	0	0	0	Hail (1.00)
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Police and hand radio operators reported hail 0.75 to 1.00 inch in diameter.

City of Virginia Beach 2 WSW Oceana	01	2035EST			0	0	0	0	Hail (1.00)
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Frederick County Clear Brook	06	1450EST			0	0	3	0	Thunderstorm Winds
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High winds downed trees in Clear Brook.

3 N Winchester 1 S NW Winchester	06	1450EST			0	0	0	0	Hail (1.00)
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Loudoun County Leesburg	06	1450EST			0	0	0	0	Hail (1.00)
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Loudoun County Leesburg	06	1535EST			0	0	0	0	Thunderstorm Winds
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Numerous trees were downed in Leesburg.

Fauquier County Midland	06	1540EST			0	0	0	0	Thunderstorm Winds
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Trees were reported downed in Midland.

Fairfax County Pender	06	1635EST- 1640EST			0	0	0	0	Funnel Cloud
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Warren County	06	1743EST			0	0	0	0	Thunderstorm Winds
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Trees were downed by thunderstorm winds.

Carroll County Cana	12	1400EST			0	1	0	0	Lightning
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A teenage boy received a severe shock and burns when he was struck by lightning, as he sat at a desk in the local fire department building.

Prince William County Woodbridge	14	1700EST			0	0	5	0	Lightning
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Several houses were set afire by lightning strikes.

Fauquier County Warrenton	14	1700EST			0	0	4	0	Thunderstorm Winds
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A large tree fell onto a house.

City of Charlottesville	17	1435EST			0	0	0	0	Thunderstorm Winds
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A large tree was downed in the city of Charlottesville.

Albemarle County	17	1438EST			0	0	3	0	Thunderstorm Winds
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There were several reports of downed power lines.

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## VIRGINIA Cont'd

### Rockingham County Grottoes

18 1700EST-1720EST 0 0 5 0 Thunderstorm Winds

A 20-minute thunderstorm caused widespread damage to trees and power lines in Grottoes. A house was heavily damaged when wind partially unroofed it and a ceiling collapsed, with incoming water ruining the interior of the house.

### Buchanan County

18 1700EST 0 0 5 0 Flash Flood

Flash flooding washed a home off its foundation and damaged three other houses. Water was reported up to 10 feet deep from flooding on Harm Fork.

### Buckingham County Buckingham Sheppards

18 1900EST 0 0 5 0 Thunderstorm Winds

In Buckingham, a house and several outbuildings on a farm were damaged, and the house was partially unroofed. In Sheppards, trees and power lines were downed, causing outages to some 800 residents. Downed trees were reported at several other areas in the county.

### City of Roanoke

27 1600EST-1630EST 0 0 5 0 Thunderstorm Winds

Strong thunderstorm winds partially unroofed an elementary school 1 mile north of the center of Roanoke. A large ventilation unit on the roof was also ripped off and thrown against another building. Nearby, a dumpster was flipped over and the top halves of trees were snapped off. Reports of a tornado were not confirmed. The cost of replacing the school roof and the water damage to school supplies was placed at about \$100,000 by school board officials.

## WASHINGTON

### WAZ010 Southeast

18 1700PDT-19 1100PDT 2 0 0 0 Heavy Rain

A nearly-stationary, upper-level weather disturbance, over southern Oregon, circulated abundant moisture over southeastern Washington. Just over 2.00 inches of rain was reported at Walla Walla during the time frame. Around 1400 PDT on the 19th, two people died when their car was buried by a mudslide on a county road between Waitsburg and Prescott. (M27V)(F35V)

### WAZ007 Okanogan County

20 1700PDT-27 0500PDT 0 0 4 ? Flood

A strong spring runoff caused by snowpack amounts of 170% of normal in southern British Columbia brought the Okanogan River above flood stage at Tonasket for 7 days. The river went above flood stage at 1700 PDT on the 20th and went below flood stage at 0500 PDT, on the 27th. Some minor crop damage occurred during the flood, and one residence was damaged in Ellisberg.

## WEST VIRGINIA

### Hancock County 3 N New Cumberland

01 1355EST 0 0 0 0 Thunderstorm Winds

Several trees were blown down between Chester and New Cumberland.

### Kanawha County Sissonville London Montgomery

06 1102EST 0 0 0 0 Hail (1.00)  
06 1130EST 0 0 0 0 Thunderstorm Winds  
06 1145EST 0 0 0 0 Thunderstorm Winds

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

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## WEST VIRGINIA Cont'd

										Trees were blown down and power lines snapped in the upper Kanawha Valley.
<b>Braxton County</b>										
<b>Little Birch</b>	06		1130EST			0	0	0	0	Hail (0.75)
										Dime-size hail fell during a passage of a north/south line of thunderstorms.
<b>Little Birch</b>	06		1200EST			0	0	2	0	Thunderstorm Winds
										Power lines were blown down.
<b>Herold</b>	06		1210EST			0	0	0	0	Thunderstorm Winds
										Large tree limbs were broken off by the wind.
<b>Harrison County</b>										
<b>West Milford</b>	06		1215EST			0	0	0	0	Thunderstorm Winds
<b>Clarksburg</b>										Several trees fell around West Milford, while large tree limbs were broken off in Clarksburg.
<b>Randolph County</b>										
<b>Elkins</b>	06		1249EST			0	0	3	0	Thunderstorm Winds (G52)
<b>Harman</b>	06		1300EST			0	1	4	0	Thunderstorm Winds
										Winds gusted to 60 mph in Elkins, blowing out a large window of a clothing store. Two mobile homes were blown off their foundations in Harman, one of which had the roof ripped off. A female resident of one mobile home received minor injuries. Electrical power was out to about a 1,000 homes in the county.
<b>Preston County</b>										
<b>Kingwood</b>	06		1300EST			0	0	3	?	Thunderstorm Winds (G57)
										Gusts of 66 mph were measured in Kingwood. Six trees fell, one landed on a mobile home.
<b>Grant County</b>										
<b>I S Bayard</b>	06		1320EST			0	0	0	0	Thunderstorm Winds
										Numerous large tree limbs were snapped off.
<b>Mineral County</b>	06		1340EST			0	0	?	?	Thunderstorm Winds
										Several trees were blown down.
<b>Hardy County</b>	06		1400EST			0	0	?	?	Thunderstorm Winds
										Numerous trees were uprooted, resulting in power outages.
<b>Hampshire County</b>										
<b>Romney</b>	06		1400EST			0	0	?	?	Thunderstorm Winds
										Several large tree limbs were snapped and power outages were common.
<b>Morgan County</b>										
<b>Berkeley Springs</b>	06		1430EST			0	0	4	0	Thunderstorm Winds
										Trees and power lines were downed. A tree fell into a car, causing serious damage.
<b>Inwood</b>	06		1440EST			0	0	0	0	Thunderstorm Winds (G52)
										A severe weather spotter reported winds of 60 mph.

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## WEST VIRGINIA Cont'd

Jefferson County  
Shepherdstown      06 1540EST-1550EST      0 0 0 0      **Funnel Cloud**

An eyewitness photographed a funnel cloud.

Pendleton County  
Brandywine      13 1600EST      0 0 0 0      **Hail (0.75)**

Dime-size hail occurred in Brandywine.

Mercer County  
Ingleside  
Oakvale      18 1800EST-2300EST      0 0 4 0      **Flash Flood**

An east/west line of thunderstorms dumped 1.50 to 2.50 inches of rain on wet ground. The East River flooded sections of Route 112 with 3 to 4 feet of water. Thirty people were evacuated from about a dozen homes when water began to surround their houses. Basement flooding was common. One private bridge serving three families in Hoot Owl Hollow was washed away.

Statewide      26-31      0 0 0 0      **Heat**

Record heat combined with high humidity created an uncomfortable late spring environment. Several schools were closed for 1 or 2 days.

## WISCONSIN

Rock County  
Janesville      22 1533CDT      4.0      75      0 0 5 0      **Tornado (F1)**

Dane County  
1 NE Cottage Grove      22 1625CDT      0.1      25      0 0 0 0      **Tornado (F0)**

Marshall      22 1630CDT      0 0 0 0      **Funnel Cloud**

Waukesha County  
Oconomowoc      22 1710CST      0 0 0 0      **Funnel Cloud**

North Lake      22 1721CDT      0 0 0 0      **Funnel Cloud**

A tornado touched down just south of the Janesville (Rock County) city limits and moved north for about 4 miles. A roof was blown off a 150- by 250-foot pheasant pen, several homes sustained roof and siding damage, trees and power lines were knocked down, and 400 cars were damaged at the Janesville auto transport company. Another tornado briefly set down in an open field near Cottage Grove (Dane County).

Dodge County  
Fox Lake      26 1100CDT      0 0 4 0      **Thunderstorm Winds**

Marinette County  
Marinette      26 1515CDT      0 0 3 0      **Thunderstorm Winds**

Severe thunderstorm winds knocked down trees which smashed a boathouse near Fox Lake. Other violent winds took the tops off 100-year-old oak trees and uprooted others in a cemetery in Marinette.

Pierce County  
Elmwood      27 1500CDT      0 0 ? 0      **Hail (1.00)**

Dunn County  
Eau Galle      27 1515CDT      0 0 ? 0      **Hail (1.75)**

Eau Claire County  
Eau Claire      27 1611CDT      0 0 ? 0      **Thunderstorm Winds**



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## WISCONSIN Cont'd

Douglas County 13 S Superior	27	1630CDT			0	0	?	0	Thunderstorm Winds (G52)
Bayfield County 6 S Iron River	27	1705CST			0	0	?	0	Thunderstorm Winds
Clark County Willard	27	1710CDT			0	0	5	0	Thunderstorm Winds
Wood County Marshfield	27	1810CDT			0	0	?	0	Thunderstorm Winds
Auburndale	27	1820CDT			0	0	?	0	Thunderstorm Winds
Babcock	27	2125CDT			0	0	?	0	Thunderstorm Winds
Ashland County 0.25 E Marengo	27	1810CDT			0	0	?	0	Hail (1.75)
Highland	27	1814CDT			0	0	?	0	Hail (1.75)
Iron County 10 NW Manitowish	27	1840CDT			0	0	?	0	Thunderstorm Winds
Oneida County Three Lakes	27	2000CDT			0	0	?	0	Hail (0.75)
Three Lakes	27	2000CDT			0	0	5	0	Thunderstorm Winds
Forest County Argonne	27	2030CDT			0	0	4	0	Thunderstorm Winds
Crandon	27	2035CDT			0	0	5	0	Thunderstorm Winds
Jackson County 8 NE Melrose	27	2058CDT			0	0	0	0	Funnel Cloud
Marinette County Wausaukee	27	2215CDT			0	0	?	0	Hail (1.75)

Severe thunderstorms hit northern and central portions of Wisconsin with hail up to golf ball-size, and violent winds. The hardest hit areas included Three Lakes (Oneida County) where a 5-mile swath of destruction occurred. Power lines were downed and thousands of trees, which were snapped off or uprooted, fell onto residences and vehicles. The intense winds also rolled a mobile home near Willard in Clark County. After the home rolled, a short in electrical wiring ignited a propane tank which caused an explosion and destroyed the home.

Wood County Marshfield	28	0510CDT			0	0	?	0	Thunderstorm Winds
Washburn County Spooner	28	1030CDT			0	0	?	0	Hail (1.00)
20 SE Spooner	28	1115CDT			0	0	?	0	Thunderstorm Winds
Shell Lake	28	1115CDT			0	0	?	0	Thunderstorm Winds
Sawyer County Stone Lake	28	1130CDT			0	0	?	0	Hail (0.75)
Taylor County Medford	28	1210CDT			0	0	?	0	Thunderstorm Winds (G52)
Marathon County 10 Athens	28	1225CDT			0	0	?	0	Thunderstorm Winds
Wausau	28	1230CDT			0	0	5	0	Thunderstorm Winds
Price County Wausau	28	1245CDT			0	0	4	0	Thunderstorm Winds
Ogema	28	1215CDT			0	0	?	0	Thunderstorm Winds
Prentice	28	1215CDT			0	0	?	0	Thunderstorm Winds
Lincoln County Tomahawk	28	1250CDT			0	0	4	0	Thunderstorm Winds
Merrill	28	1250CDT			0	0	4	0	Thunderstorm Winds
Langlade County Elcho	28	1315CDT			0	0	?	0	Thunderstorm Winds
Antigo	28	1325CDT			0	0	5	0	Thunderstorm Winds
Antigo	28	1325CDT			0	0	4	0	Lightning
Phlox	28	1335CDT			0	0	4	0	Thunderstorm Winds
Portage County Junction City	28	1315CDT			0	0	?	0	Thunderstorm Winds

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

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## WISCONSIN Cont'd

Forest County									
Crandon	28	1330CDT			0	0	5	0	Thunderstorm Winds
Menominee County									
9 N Neopit	28	1340CDT			0	0	?	0	Thunderstorm Winds
10 NE Neopit	28	1350CDT			0	0	?	0	Thunderstorm Winds
5 E Keshena	28	1415CDT			0	0	0	0	Funnel Cloud
Florence County									
Fence	28	1345CDT			0	0	?	0	Thunderstorm Winds
Shawano County									
Birnamwood	28	1325CDT			0	0	4	0	Thunderstorm Winds
Split rock	28	1345CDT			0	0	?	0	Hail (1.75)
4 E Briarton	28	1445CDT			0	0	?	0	Hail (1.00)
Waupaca County									
Big Falls	28	1400CDT			0	0	?	0	Hail (1.75)
Symco	28	1410CDT			0	0	?	0	Hail (1.75)
Marinette County									
Wausaukee	28	1400CDT			0	0	3	0	Thunderstorm Winds
Pound	28	1400CDT			0	0	5	0	Thunderstorm Winds
Middle Inlet	28	1420CST			0	0	4	0	Thunderstorm Winds
Oconto County									
Gillette	28	1410CDT			0	0	?	0	Thunderstorm Winds
Florence County									
Aurora	28	1415CDT			0	0	?	0	Thunderstorm Winds
Brown County									
Green Bay	28	1500CDT			0	0	?	0	Hail (0.75)
Green Bay	28	1510CDT			0	0	?	0	Hail (0.75)
Green Bay	28	1515CDT			0	0	?	0	Hail (1.00)
Green Bay	28	1515CDT			0	0	4	0	Hail (2.38)
Door County									
Sturgeon Bay	28	1500CDT			0	0	0	0	Funnel Cloud
Sturgeon Bay	28	1500CDT			0	0	?	0	Hail (1.00)
Carlsville	28	1510CDT			0	0	?	0	Thunderstorm Winds
Kewaunee County									
1 W Algoma	28	1545CDT			0	0	?	0	Hail (1.75)
Algoma	28	1550CDT			0	0	?	0	Hail (1.75)
Manitowoc County									
1 N Two Rivers	28	1650CDT			0	0	?	0	Hail (1.50)
Two Rivers	28	1700CDT			0	0	5	0	Hail (1.75)

Numerous severe thunderstorms crossed the northern half of Wisconsin generating intense winds and hail up to 2.38-inch in diameter. In Forest County, over half a million dollars in damage took place to 14 homes and numerous trees and power lines. Another half million dollars in damage was recorded at several locations in Marinette County. In Two Rivers (Manitowoc County), about \$400,000 in damage occurred when golf ball-size hail destroyed 70% of the windows at a florist shop and dented numerous vehicles, many on automobile dealership lots. Around the Tomahawk area of Lincoln County, violent winds toppled hundreds of trees, power lines and wrecked homes, barns and vehicles. Other significant property damage took place north of Athens (Marathon County) where a couple of barns were destroyed.

Polk County									
Osceola	28	2210CDT			0	0	?	0	Hail (0.75)
Washburn County									
Shell Lake	28	2230CDT			0	0	4	0	Thunderstorm Winds
Barron County									
Cumberland	28	2315CDT			0	0	?	0	Hail (1.75)
3 W Chetek	28	2330CDT			0	0	5	4	Thunderstorm Winds (G52)
Prairie Farm	29	0020CDT			0	0	5	0	Thunderstorm Winds
St. Croix County									
River Falls	28	2330CDT			1	0	5	0	Thunderstorm Winds
Hudson	28	2330CDT			0	0	5	0	Thunderstorm Winds

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## WISCONSIN Cont'd

4 E Hudson	28	2333CDT			0	0	?	0	Hail (1.00)
4 E Hudson	28	2335CDT			0	0	?	0	Thunderstorm Winds (G52)
3.5 S Baldwin	28	2345CDT			0	0	5	0	Thunderstorm Winds
Glenwood City	29	0005CDT			0	0	5	0	Thunderstorm Winds
<b>Pierce County</b>									
River Falls	28	2345CDT			0	0	?	0	Thunderstorm Winds
Ellsworth	29	0000CDT			0	0	?	0	Thunderstorm Winds
<b>Chippewa County</b>									
New Auburn	28	2345CDT			0	0	6	0	Thunderstorm Winds
Bloomer	28	2355CDT			0	0	4	0	Thunderstorm Winds
Tilden	29	0000CDT			0	0	4	0	Thunderstorm Winds
1 N Holcombe	29	0030CDT			0	0	6	0	Thunderstorm Winds
<b>Rusk County</b>									
Island Lake	29	0010CDT			0	0	5	0	Thunderstorm Winds
5 W Conrath	29	0030CDT			0	0	6	4	Thunderstorm Winds
Sheldon	29	0040CDT			0	0	6	4	Thunderstorm Winds
<b>Price County</b>									
Park Falls	29	0035CDT			0	0	?	0	Hail (0.75)
Kennan	29	0115CDT			0	0	5	0	Thunderstorm Winds (G52)
<b>Taylor County</b>									
Rib Lake	29	0125CDT			0	0	?	0	Thunderstorm Winds
Medford	29	0126CDT			0	0	?	0	Thunderstorm Winds
Jump River	29	0100CST			0	0	?	0	Thunderstorm Winds
Hannibal	29	0110CDT			0	0	?	0	Thunderstorm Winds
<b>Oneida County</b>									
Minocqua	29	0201CDT			0	0	?	0	Hail (0.75)
<b>Lincoln County</b>									
Tomahawk	29	0210CDT			0	0	?	0	Thunderstorm Winds (G50)
Merrill	29	0215CDT			0	0	?	0	Thunderstorm Winds
<b>Marathon County</b>									
Marathon	29	0224CDT			0	0	?	0	Thunderstorm Winds
<b>Langlade County</b>									
Deerbrook	29	0230CDT			0	0	?	0	Thunderstorm Winds
<b>Forest County</b>									
Crandon	29	0300CDT			0	0	?	0	Thunderstorm Winds
<b>Oconto County</b>									
2 S Mountain	29	0315CDT			0	0	?	0	Thunderstorm Winds
<b>Door County</b>									
Jacksonport	29	0515CDT			0	0	?	0	Thunderstorm Winds
Bailey Harbor	29	0517CDT			0	0	?	0	Thunderstorm Winds
Ellison Bay	29	0520CDT			0	0	?	0	Thunderstorm Winds
Sister Bay	29	0530CST			0	0	?	0	Thunderstorm Winds

Scattered, severe thunderstorms swept across northern and central Wisconsin with strong winds and hail up to golf ball-size. Over \$8.1 million in damage occurred in the counties of Barron, Chippewa, Price, and Rusk, mainly to over 63,000 acres of woodlands in a damage path 5 miles wide and 35 miles long. The severe winds moved a mobile home 60 feet from its foundation near Chetek (Barron County). At a campground near Holcombe (Chippewa County), five mobile homes were tipped on their sides and over 300 trees were knocked over, damaging homes and resorts. Other damage was mainly confined with trees and power lines. A River Falls farmer was killed when he was hit by an empty fuel storage tank that was blown by intense severe thunderstorm winds. (M440)

<b>Marathon County</b>									
Edgar	29	1545CDT			0	0	?	0	Hail (1.75)
<b>Jackson County</b>									
Taylor	29	1635CST			0	0	4	0	Hail (0.88)
<b>Lacrosse County</b>									
West Salem	29	1700CDT			0	0	4	0	Thunderstorm Winds

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## WISCONSIN Cont'd

Wood County Pittsville	29	1845CDT			0	0	?	0	Thunderstorm Winds
Saratoga	29	1900CDT			0	0	?	0	Thunderstorm Winds
Portage County Stevens Point	29	1920CDT			0	0	?	0	Hail (1.00)
Stevens Point	29	1920CDT			0	0	?	0	Thunderstorm Winds
Forest County Armstrong Creek	29	1930CDT			0	0	?	0	Thunderstorm Winds

Widely scattered, severe thunderstorms dropped hail up to golf ball-size hail and caused tree and power line damage over portions of Wisconsin.

Green County 5 S Brodhead	30	1600CDT			0	0	5	0	Thunderstorm Winds
Rock County Milton	30	1615CDT			0	0	?	0	Thunderstorm Winds
Milwaukee County S Milwaukee	30	1700CDT			0	2	0	0	Lightning
Trempealeau County 1 W Whitehall	30	1730CDT	0.1	25	0	0	4	0	Tornado (F0)

Severe thunderstorm winds blew down a barn near Brodhead (Green County). A small tornado caused minor tree damage to a golf course near Whitehall (Trempealeau County). Two teenage boys were playing basketball when lightning struck the metal backboard. The boys were injured when the bolt knocked them back 12 feet.

Green Lake County Berlin	31	1150CDT			0	0	?	0	Hail (1.00)
Winnebago County Rush Lake	31	1210CDT			0	0	?	0	Hail (0.75)

An isolated, severe thunderstorm deposited hail up to 1.00 inch in diameter.

## WYOMING

Sublette County 2 W Fontenelle	02	1536MST- 1537MST	0.1	20	0	0	0	0	Tornado (F0)
20 N LaBarge	02	1605MST- 1606MST	0.1	20	0	0	0	0	Tornado (F0)

A band of early spring thunderstorms spawned two weak tornadoes in open country, in southwestern Wyoming. A tornado was reported 2 miles west of Fontenelle at 1536 MST, and 20 miles north of LaBarge at 1605 MST.

Goshen County Near Veteran	10	1515MST			0	0	0	0	Hail (1.25)
5 W Torrington	10	1531MST			0	0	0	0	Hail (1.00)
Platte County Near Chugwater	10	1804MST			0	0	0	0	Hail (1.75)

A series of thunderstorms in southeastern Wyoming produced hail in Goshen and Platte Counties.

Natrona County Casper Airport	11	1552MST			0	0	0	0	Hail (0.75)
Converse County 5 South Bill	11	1654MST- 1655MST	0.1	20	0	0	0	0	Tornado (F0)
Weston County Near Upton	11	1839MST- 1840MST	0.1	20	0	0	0	0	Tornado (F0)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## WYOMING Cont'd

**Newcastle Airport** 11 2222MST-2223MST 0.2 80 0 0 5 0 Tornado (F1)

A series of severe thunderstorms moved through east-central and northeastern Wyoming the afternoon and evening of the 11th. Hail up to 0.75 inch in diameter was at the Casper Airport at 1552 MST. Five miles south of Bill in Converse County, a tornado touched down briefly at 1654 MST. Another tornado was reported near Upton at 1839 MST. Funnel clouds were noted 30 miles northeast of Wheatland at 1940 MST. A tornado at the Newcastle Airport was reported at 2222 MST.

**Sheridan County Near Dayton** 12 1045MST 0 0 0 0 Hail (1.00)

A late morning thunderstorm produced hail at the foot of the eastern face of the Big Horn Mountains.

**Converse Glenrock** 14 1410MST 0 0 0 0 Hail (1.75)

A thunderstorm developed over Laramie Range and moved over the eastern plains.

**Laramie County**  
**Cheyenne Airport** 15 1432MST 0 0 0 0 Hail (1.00)  
**3 NE Chey** 15 1502MST 0 0 0 0 Hail (0.75)  
**8 E Chey** 15 1505MST 0.1 80 0 0 5 5 Tornado (F1)  
**7 E Chey** 15 1530MST 0 0 4 4 Hail (3.50)  
**5 NE Chey** 15 1530MST 0 0 0 0 Hail (1.75)  
**Countywide** 15 1615MST 0 0 0 0 Hail (0.75)

A series of thunderstorms developed in southwestern Wyoming the afternoon of the 15th. A funnel cloud was noted 5 miles northwest of Guernsey at 1230 MST. At 1432 MST and at 1502 MST, hail was reported at the Cheyenne Airport. A tornado touched down 8 miles east of Cheyenne at 1505 MST. Hail was reported 7 miles east of Cheyenne and 5 miles northeast of Cheyenne at 1530 MST. At 1600 MST, wind gusts to 77 mph were logged 29 miles northeast of Cheyenne. Hail was reported just northeast of the Cheyenne Airport at 1615 MST.

**Park County**  
**Cody** 18 1620MST 0 0 5 0 Hail (1.75)  
**7 W Powell** 18 1707MST-1708MST 0.2 60 0 0 0 5 Tornado (F1)

A late afternoon thunderstorm spawned a hail storm and a tornado in Park County on the 18th. Golf ball-size hail in Cody caused damage to cars, and a tornado caused damage to local crops 7 miles west of Powell.

**11 SW Cody** 18 1700MST-2200MST 0 0 4 0 Flood

Thunderstorms dropped 1.00 to 2.00 inches of rain on parts of the South Fork River Basin, west of Cody, the evening of the 18th. A county road was washed out in places and covered with water in other places along Carter Creek.

**Laramie County**  
**5 E Chey** 18 1815MST 0 0 0 0 Hail (0.75)  
**10 SE Chey** 18 1900MST 0 0 0 0 Hail (1.00)  
**Cheyenne** 18 1915MST 0 0 0 0 Funnel Cloud  
**10 W Chey** 18 1950MST 0 0 0 0 Hail (1.00)  
**12 W Chey** 18 1957MST 0 0 0 0 Hail (1.25)  
**10 SE Chey** 18 2008MST 0 0 0 0 Thunderstorm Winds

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## WYOMING Cont'd

Several thunderstorms developed in southeastern Wyoming the evening of the 18th. Hail up to 0.75 inch in diameter was noted 5 miles east of Cheyenne at 1815 MST. A funnel cloud was reported over Cheyenne at 1915 MST. At 1950 MST, hail up to 1.00 inch in diameter was reported 10 miles west of Cheyenne. Twelve miles west of Cheyenne, 1.25-inch hail was reported at 1957 MST. Thunderstorm winds of 55 mph were noted 10 miles southeast of Cheyenne at 2008 MST.

Goshen County 2 W Veteran	19	1400MST- 1441MST	0.1	20- 40	0	0	0	0	Tornado (F0)
Laramie County 5 S Chey	19	1610MST- 1640MST			0	0	0	0	Funnel Cloud
25 N Chey	19	1645MST			0	0	0	0	Thunderstorm Winds
Cheyenne	19	1711MST			0	0	0	0	Thunderstorm Winds

A series of thunderstorms developed in southeastern Wyoming the afternoon of the 19th. A tornado touched down briefly 2 miles west of Veteran at 1400 MST. Five miles south of Cheyenne, a funnel cloud was observed at 1610 MST. At 1645 MST, wind gusts to 66 mph were reported 25 miles north of Cheyenne. At 1711 MST, wind gusts of 55 mph were noted at the Cheyenne Airport.

Carbon County 50 N Sinclair	23	1346MST			0	0	0	0	Funnel Cloud
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Thunderstorms in the early afternoon produced a funnel cloud 50 miles north of Sinclair at 1346 MST.

10 SW Hanna	24	1357MST			0	0	0	0	Funnel Cloud
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Thunderstorms in south-central Wyoming spawned a funnel cloud at 1357 MST, 10 miles southwest of Hanna.

Sweetwater County 5 W Greenriver	26	1050MST			0	0	0	0	Funnel Cloud
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An early morning thunderstorm produced a funnel cloud 5 miles west of Greenriver at 1050 MST, on the 26th.

Laramie County 10 NW Cheyenne	26	1419MST- 1422MST			0	0	0	0	Funnel Cloud
5 N Cheyenne	26	1440MST			0	0	0	0	Funnel Cloud
3 E Cheyenne	26	1514MST			0	0	0	0	Hail (0.75)
Hillsdale	26	1559MST- 1601MST			0	0	0	0	Hail (0.75)
2 S Burns	26	1618MST- 1621MST			0	0	0	0	Hail (0.75)
Burns	26	1627MST			0	0	0	0	Hail (0.75)
Egbert	26	1633MST			0	0	0	0	Hail (1.00)
Pine Bluffs	26	1658MST			0	0	0	0	Hail (0.75)
8 N Cheyenne	26	1827MST- 1837MST			0	0	0	0	Hail (1.00)
Cheyenne	26	1837MST- 1850MST			0	0	0	0	Hail (0.75)
5 S Chey	26	1845MST			0	0	0	0	Hail (1.00)

Several thunderstorms in southeastern Wyoming the afternoon and evening of the 26th produced hail. A funnel cloud was observed 10 miles north of Cheyenne at 1419 MST, and again at 1440 MST 5 miles north of Cheyenne. Hail was reported at Hillsdale at 1559 MST. Hail collected

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## WYOMING Cont'd

2 miles south of Burns at 1618 MST, and at Burns at 1627 MST. Hail was reported at Egbert at 1633 MST, at Pine Bluffs at 1658 MST, and 8 miles north of Cheyenne at 1827 MST. Hail also was reported 5 miles south of Cheyenne at 1845 MST.

### Fremont County Riverton

27 1045MST-1105MST 0 0 0 0 Hail (0.75)

A late morning thunderstorm produced 0.75-inch hail at the Riverton Airport at 1045 MST.

### Goshen County La Grange

28 1610MST-1625MST 0 0 0 0 Hail (2.00)

### La Grange

28 1625MST-1800MST 0 0 0 0 Flood

Late afternoon thunderstorms on the 28th in southern Goshen County brought large hail to LaGrange at 1610 MST. Rainfall of 1.21 inches brought local flooding to some basements in LaGrange before 1800 MST.

### Laramie County Cheyenne

28 1653MST-1712MST 0 0 0 0 Hail (0.75)

A late afternoon thunderstorm brought 0.75-inch hail to Cheyenne at 1653 MST.

### Cheyenne

30 1741MST-1756MST 0 0 0 0 Hail (1.00)

A late afternoon thunderstorm over southeastern Wyoming brought 1.00-inch hail to Cheyenne at 1741 MST.

## ALASKA, Southeastern

None reported.

## HAWAII

Lanai 20 1730 0 0 0 0 Funnel Cloud

A funnel cloud was reported near Lanai Airport.

Oahu 21 1620-1630 0 0 0 0 Funnel Cloud

A funnel aloft was reported over H1 Freeway near Makakilo.

Oahu 22 1400 0 0 0 0 Funnel Cloud

A funnel aloft was briefly observed over Kaneohe Bay.

Oahu 22 1435-1445 0 0 0 0 Funnel Cloud

A funnel cloud was observed near Waipio and Mililani.

Oahu 22 1515-1530 0 0 0 0 Funnel Cloud

A funnel cloud was observed near Wheeler Field.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## PACIFIC

Guam 09 Unknown 0 0 5 5 Typhoon Walt

Typhoon Walt moved just south of Guam causing minor wind and flooding damage, mainly in the southern sections. Walt was the northern tropical cyclone from a pair of twins that formed near the equator, southeast of Guam, a couple of days earlier. The southern twin was named Lisa.

## PUERTO RICO

PRZ005 20 Afternoon 0 0 4 0 Mudslide

A weak tropical wave brought thunderstorms with heavy rains over the Western Interior section of Puerto Rico. The municipalities of Utuado, Jayuya, Lares, and Adjuntas received rainfall amounts of 1.00 to 3.50 inches in 2 hours. There were several reports of impassable roads due to localized flooding and fallen trees in this area. In Utuado, there was a total of five houses affected by a mudslide.

## VIRGIN ISLANDS

None reported.

## CORRECTIONS

AUGUST 1990 - Pages 95, 96, and 97 read September but should read August.

## JANUARY 1991

UTAH - Page 51

UTZ001-003 02 0500MST-  
Northwestern 1200MTS 4 18 5 0 Dense Fog  
Valleys

High pressure over the area created a strong inversion which in turn caused areas of dense fog. One area of dense fog formed in a low-lying area of Interstate 215 just south of the Great Salt Lake during the morning of the 2nd. This caused four multi-vehicle accidents involving 52 vehicles; the accident resulted in 4 fatalities and 18 injuries.

## FEBRUARY 1991

CONNECTICUT - Page 15

CTZ001-004-005 26 All Day-  
27 Early Morning 0 0 0 0 Heavy Snow

Heavy snow accumulated across the southwestern portion of the state with amounts of 8 to 10 inches reported from Fairfield County. Ridgefield received 10 inches; New Fairfield received 8.5 inches; and both New Canaan and Redding received 8 inches. The immediate coastal section of southwestern Connecticut received 4 to 5 inches.

APRIL 1991 - Page 18 - Aurora Borealis - March 24, 1991

March 13, 1991 should read March 13, 1989.



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

MAY 1991

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## ADDITIONS

### APRIL 1991

#### OKLAHOMA - Page 156

Kingfisher and Canadian Counties Okarche	02	0000CST			0	0	?	?	Hail (0.75)
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#### Page 157

Cotton County 8 SSW Temple	02	1815CST			0	0	?	?	Hail (0.75)
5 S Randlett	02	1905CST			0	0	?	?	Hail (0.75)
Marshall County 7 E Kingston	02	2244CST			0	0	?	?	Hail (1.25)
Blaine County 2 N Okeene	12	1307CST			0	0	?	?	Hail (1.00)
Geary	12	1510CST			0	0	?	?	Hail (2.75)
Alfalfa County Goltry	12	1545CST			0	0	?	?	Hail (1.00)
Caddo County Carnegie	12	1600CST			0	0	?	?	Hail (1.00)
Carter County Lone Grove	12	1705CST			0	0	?	?	Thunderstorm Winds

Strong winds from a severe thunderstorm downed trees in Lone Grove.

Kingfisher County 7 WNW Okaarche	14	1633CST			0	0	?	?	Hail (0.75)
1 NW Okarche	14	1633CST			0	0	?	?	Hail (0.75)
1 E Okarche	14	1651CST			0	0	?	?	Hail (0.75)
Kay County Ponca City	17	1445CST			0	0	?	?	Hail (0.75)
Jefferson County 4 N Grady	17	1545CST			0	0	?	?	Hail (0.75)
Comanche County 9 NW Meers	17	2230CST			0	0	?	?	Hail (0.75)
Garfield County Enid	26	0427CST			0	0	?	?	Hail (1.25)
Kay County Blackwell	26	0542CST			0	0	?	?	Hail (0.88)
McCurtain County Idabel	26	2200CST			0	0	?	?	Hail (1.25)

# STORM SUMMARY

MAY 1991

TYPE	ALABAMA	ARIZONA	ARKANSAS	CALIFORNIA	COLORADO	CONNECTICUT	DELAWARE	FLORIDA	GEORGIA	IDAHO	ILLINOIS	INDIANA	IOWA	KANSAS	KENTUCKY	LOUISIANA	MAINE	MARYLAND & DC	MASSACHUSETTS	MICHIGAN	MINNESOTA	MISSISSIPPI	MISSOURI	MONTANA	NEBRASKA	NEVADA	NEW HAMPSHIRE
<b>TORNADOES</b>					38			2	1	3	13	4	10	5		9				5	2	2	7	29		0	1
Number					12			7	1	2	6	3	4	4		1				2	1	1	2	6			1
Days					2			1	0	0	0	0	0	0		0				0	0	0	0	0			0
Deaths					0			0	0	0	0	0	0	0		0				0	0	0	0	0			0
Injuries					0			0	0	0	0	0	0	0		0				0	0	0	0	0			0
Property Damage					0			0	0	0	0	0	0	0		0				0	0	0	0	0			0
Crop Damage					0			0	0	0	0	0	0	0		0				0	0	0	0	0			0
<b>HAIL</b>																											
Deaths	0				0			0			0	0	0	0	0	0				0	0	0	0	0	0		
Injuries	0				0			0			0	0	0	0	0	0				0	0	0	0	0	0		
Property Damage	0				0			0			0	0	0	0	0	0				0	0	0	0	0	0		
Crop Damage	0				0			0			0	0	0	0	0	0				0	0	0	0	0	0		
<b>THUNDERSTORM WINDS</b>																											
Deaths	0		0		0	0	0	0	0	0	2	0	0	1		0	0	0	0	1	0	0	0	0	0		0
Injuries	0		0		0	0	0	0	0	0	2	0	0	1		0	0	0	0	2	0	0	0	0	0		0
Property Damage	0		0		0	0	0	0	0	0	4	0	0	5		0	0	0	0	0	0	0	0	0	0		0
Crop Damage	0		0		0	0	0	0	0	0	4	0	0	5		0	0	0	0	0	0	0	0	0	0		0
<b>HIGH WINDS</b>																											
Deaths				0	0																						
Injuries				0	0																						
Property Damage				0	0																						
Crop Damage				0	0																						
<b>LIGHTNING</b>																											
Deaths	0				0						1	0	0	0	1	0	0	0	0	0	0	0	0	0	0		0
Injuries	0				0						1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
Property Damage	0				0						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
Crop Damage	0				0						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
<b>FLASH FLOODS</b>																											
Deaths	0				0						0	0	0	0	0	0											
Injuries	0				0						0	0	0	0	0	0											
Property Damage	0				0						0	0	0	0	0	0											
Crop Damage	0				0						0	0	0	0	0	0											
<b>FLOODS</b>																											
Deaths																											
Injuries																											
Property Damage																											
Crop Damage																											
<b>HEAVY SNOWSTORMS AND BLIZZARDS a</b>																											
Deaths																											
Injuries																											
Property Damage																											
Crop Damage																											
<b>ICE STORMS #</b>																											
Deaths																											
Injuries																											
Property Damage																											
Crop Damage																											
<b>HURRICANES AND TROPICAL STORMS</b>																											
Deaths																											
Injuries																											
Property Damage																											
Crop Damage																											
<b>ALL OTHERS</b>																											
Deaths																											
Injuries																											
Property Damage																											
Crop Damage																											

# STORM SUMMARY

MAY 1991

TYPE	ALASKA	ARIZONA	CALIFORNIA	FLORIDA	GEORGIA	ILLINOIS	INDIANA	IOWA	KANSAS	MICHIGAN	MINNESOTA	MISSISSIPPI	MONTANA	NEBRASKA	NEVADA	NEW YORK	NORTH CAROLINA	NORTH DAKOTA	OHIO	OKLAHOMA	OREGON	PENNSYLVANIA	RHODE ISLAND	SOUTH CAROLINA	SOUTH DAKOTA	TENNESSEE	TEXAS	UTAH	VERMONT	VIRGINIA	WASHINGTON	WEST VIRGINIA	WISCONSIN	WYOMING	ALASKA	HAWAII	PACIFIC ISLANDS	PUERTO RICO	VIRGIN ISLANDS	& NATIONAL DEATHS	INJURY TOTALS	
<b>TORNADOES</b>																																										
Number																																										21
Days		6																			20																				37	
Deaths		2																			1																					
Injuries		1																			2																					
Property Damage		1																			2																					
Crop Damage		0																			3																					
<b>HAIL</b>																																										
Deaths		0																			0																					2
Injuries		0																			0																					
Property Damage		0																			0																					
Crop Damage		0																			0																					
<b>THUNDERSTORM WINDS</b>																																										
Deaths		0																			0																					10
Injuries		0																			0																					47
Property Damage		0																			0																					
Crop Damage		0																			0																					
<b>HIGH WINDS</b>																																										
Deaths																					0																					1
Injuries																					0																					3
Property Damage																					0																					
Crop Damage																					0																					
<b>LIGHTNING</b>																																										
Deaths																					0																					48
Injuries																					0																					
Property Damage																					0																					
Crop Damage																					0																					
<b>FLASH FLOODS</b>																																										
Deaths																					0																					11
Injuries																					0																					
Property Damage																					0																					
Crop Damage																					0																					
<b>FLOODS</b>																																										
Deaths																					0																					
Injuries																					0																					
Property Damage																					0																					
Crop Damage																					0																					
<b>HEAVY SNOWSTORMS AND BLIZZARDS @</b>																																										
Deaths																					0																					
Injuries																					0																					
Property Damage																					0																					
Crop Damage																					0																					
<b>ICE STORMS #</b>																																										
Deaths																					0																					
Injuries																					0																					
Property Damage																					0																					
Crop Damage																					0																					
<b>HURRICANES AND TROPICAL STORMS</b>																																										
Deaths																					0																					
Injuries																					0																					
Property Damage																					0																					
Crop Damage																					0																					
<b>ALL OTHERS</b>																																										
Deaths																					0																				3	
Injuries																					0																					
Property Damage																					0																					
Crop Damage																					0																					

**STORM DAMAGE CATAGORIES**

**REFERENCE NOTES**

1	Less than \$50	0/Blank	None reported.
2	\$50 to \$500	*	Miles instead of yards.
3	\$500 to \$5,000	**	Yards instead of miles.
4	\$5,000 to \$50,000	@	Includes heavy sleet storm.
5	\$50,000 to \$500,000	#	Freezing drizzle and freezing rain, commonly known as glaze.
6	\$500,000 to \$5 Million	≠	Report incomplete.
7	\$5 Million to \$50 Million	≠≠	Report not received.
8	\$50 Million to \$500 Million	o/c	Indicates Crop Damage amount is included in the value given for property damage.
9	\$500 Million to \$5 Billion		

When reports are not received or are incomplete, the Storm Summary National Death and Injury totals may also be incomplete.

**Definition of Fujita Tornado Scale (F scale)**

(F0) Gale tornado (40-72 mph): Light damage  
Some damage to chimneys; break branches off trees; push over shallow-rooted trees; damage sign boards.

(F1) Moderate tornado (73-112 mph): Moderate damage  
The lower limit (73 mph) is the beginning of hurricane wind speed; peel surface off roofs; mobile homes pushed off foundations or overturned; moving autos pushed off the roads.

(F2) Significant tornado (113-157 mph): Considerable damage  
Roofs torn off frame houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light-object missiles generated.

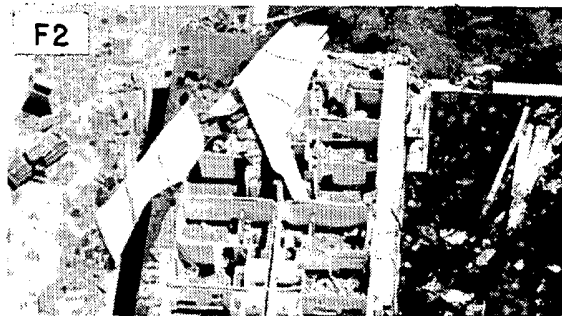
(F3) Severe tornado (158-206 mph): Severe damage  
Roofs and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted; heavy cars lifted off ground and thrown.

(F4) Devastating tornado (207-260 mph): Devastating damage  
Well-constructed houses leveled; structure with weak foundation blown off some distance; cars thrown and large missiles generated.

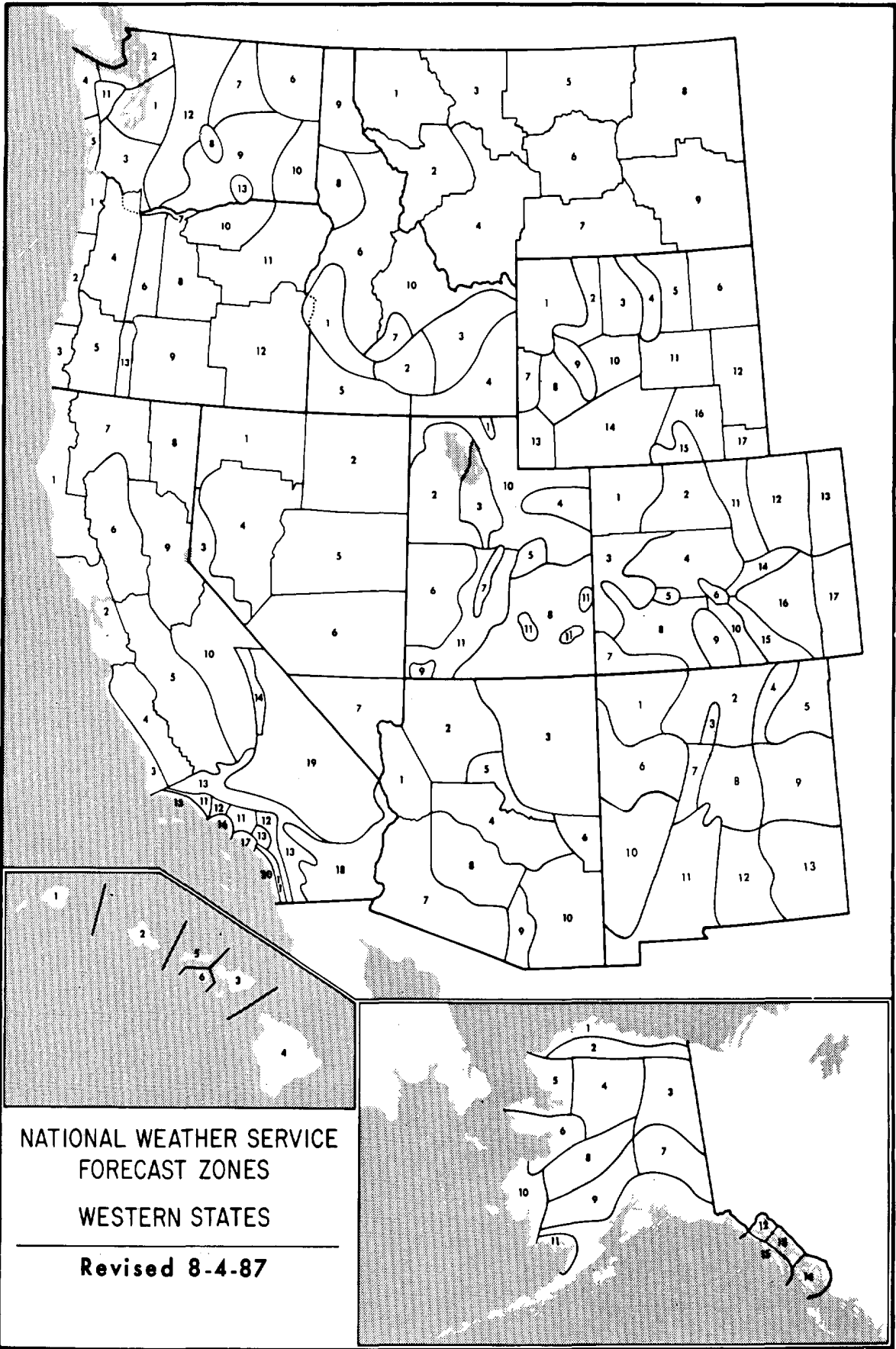
(F5) Incredible tornado (261-318 mph): Incredible damage  
Strong frame houses lifted off foundations and carried considerable distance to disintegrate; automobile-sized missiles fly through the air in excess of 100 m; trees debarked; incredible phenomena will occur.

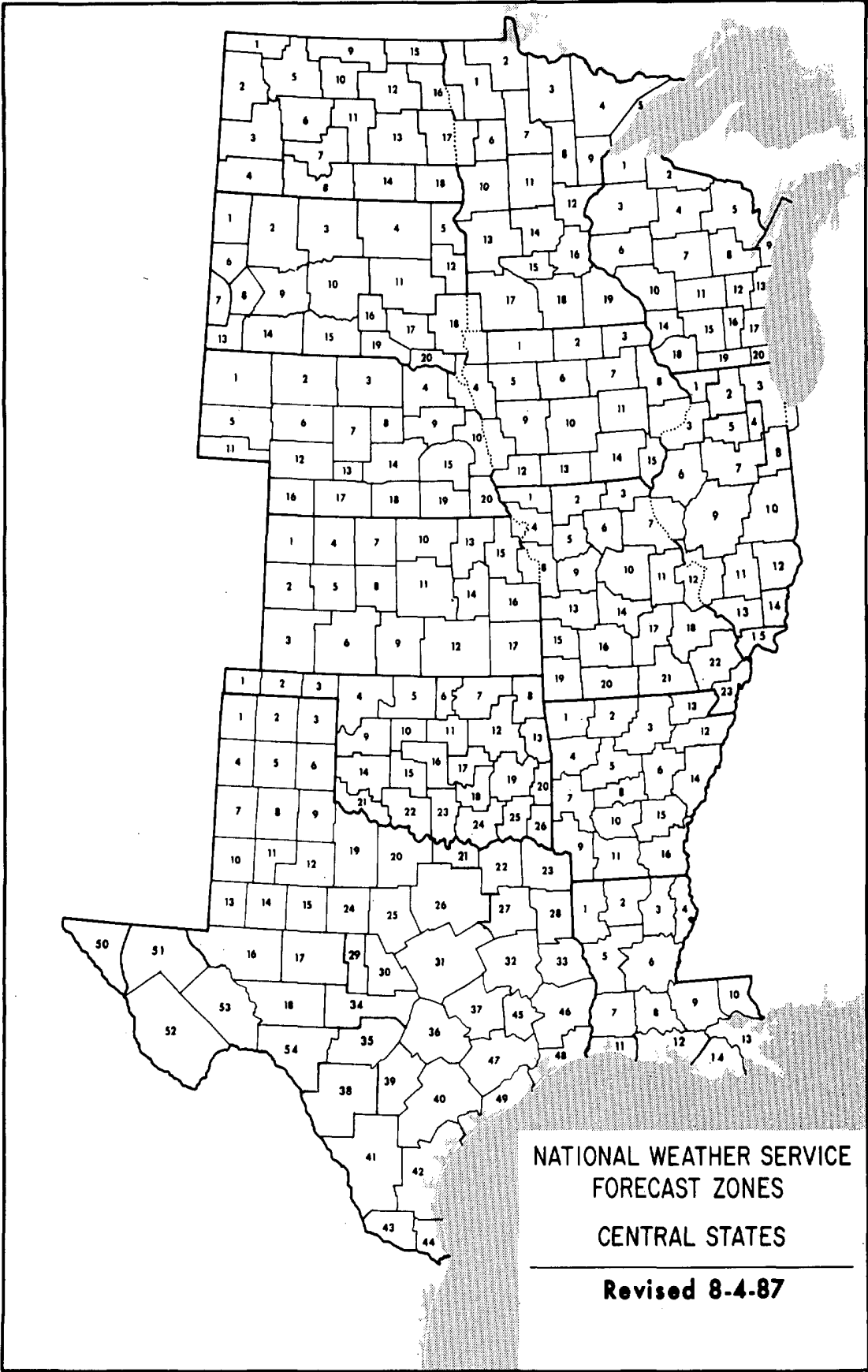
(F6-F12) (319 mph to Mach 1, the speed of sound):  
The maximum wind speeds of tornadoes are not expected to reach the F6 wind speeds.

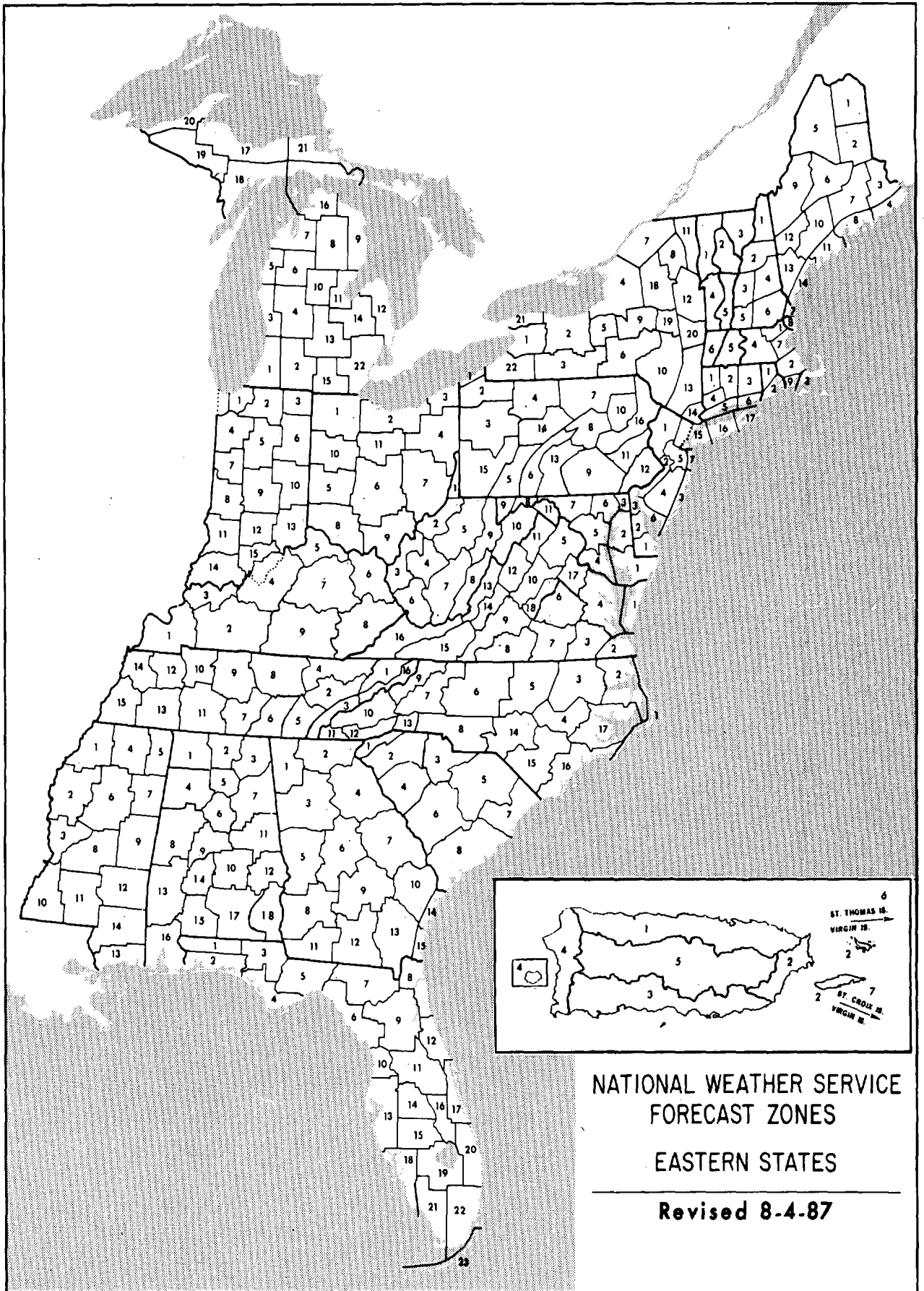
(F0+F1) *Weak Tornado*  
(F2+F3) *Strong Tornado*  
(F4+F5) *Violent Tornado*



From J. Atmos. Sci., August 1981, p. 1517-1519

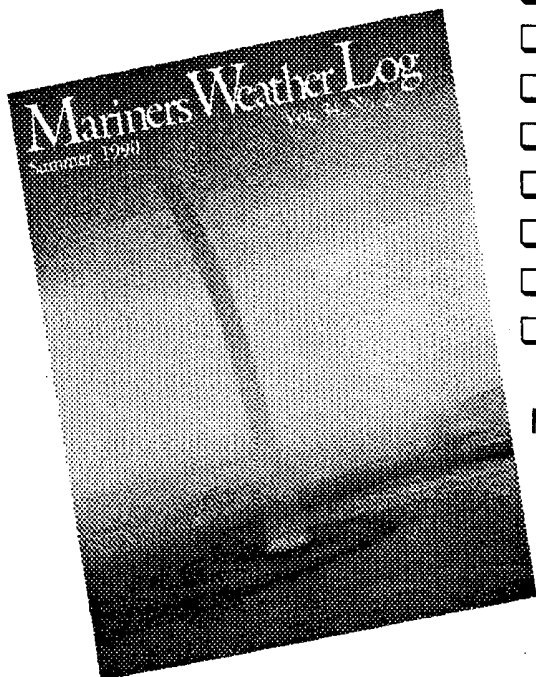






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