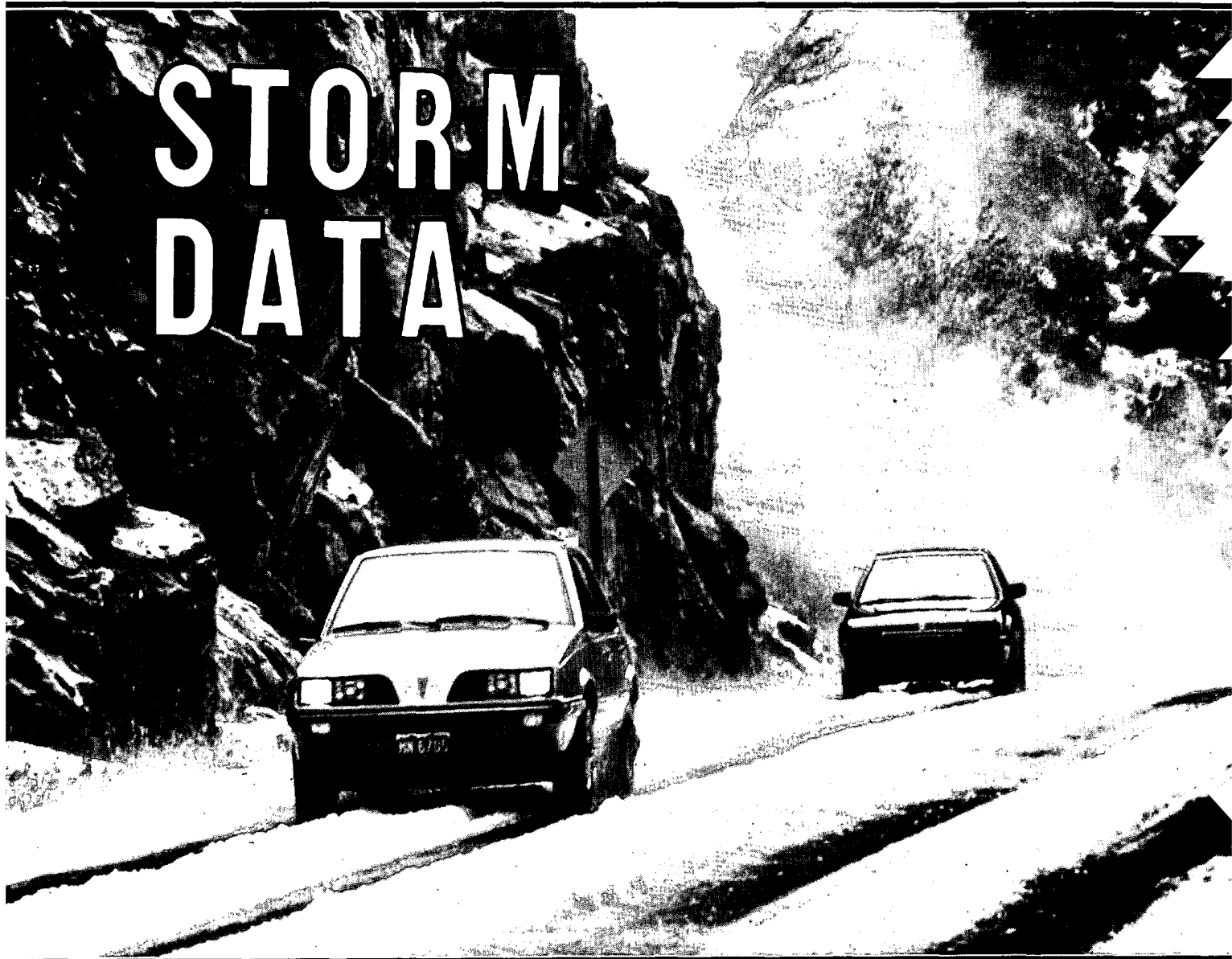


JULY 1990  
VOLUME 32  
NUMBER 7

# 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: Cars wind their way through 3 inches of hail covering Colorado 7 in South St. Vrain Canyon, 5 miles west of Lyons, Colorado. The hail, up to 0.75 inch in diameter, was dropped by the storm which later devastated parts of Denver on the afternoon of July 11th. *Photo courtesy: Vern Walker; Daily Camera; Boulder, Colorado.*

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### STORM DATA

(ISSN 0039-1972)

National Climatic Data Center

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The Storm Data and unusual Weather Phenomena Narratives and Hurricane/Tropical Storm summaries are prepared by the National Weather Service. Monthly and annual statistics and summaries of tornado and lightning events resulting in deaths, injuries, and damage are compiled by cooperative efforts between the National Climatic Data Center and the National Severe Storms Forecast Center.

**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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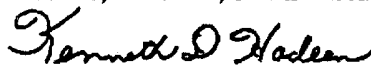
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Asheville, NC 28801-2696  
(704) 259-0682 or (704) CLIMATE

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:

Mr. Vince Miller  
1464 Wood Thrush Way  
Marietta, GA 30062

Any such items received by the editors will be for use in **STORM DATA** only. Any other use will be with the permission of the owner of said items. Materials submitted will be returned if requested in the original submission.

"I certify that this is an official publication of the National Oceanic and Atmospheric Administration and is compiled from information received at the National Climatic Data Center, Asheville, North Carolina 28801."



Director  
National Climatic Data Center

# STORM FOLKS . . .



Biographical Sketch  
**ROGER STAIRS**

Roger began his career in 1972 as an Aerographers Mate for the United States Navy at Master Jet Base Cecil Field, Florida. Following his discharge in 1976, he was employed by the National Weather Service as a Meteorological Technician, first at WSFO Albuquerque until 1979 and then at WSO Chattanooga, Tennessee. In 1982, Roger was chosen for a full time university assignment at Pennsylvania State University in order to convert from Weather Service Specialist to Meteorologist. After completing the required academic requirements for meteorologist, Roger was reassigned to WSFO Atlanta in the spring of 1983. In the fall of 1984, he was transferred to his present assignment at WSFO Pittsburgh.

Roger became the SKYWARN focal point in 1985 and assumed all of the WPM duties in 1988. During this period, Roger increased the number of SKYWARN observers by over 300 percent. He prepares and distributes an annual newsletter to all

SKYWARN observers and Ham clubs. In these newsletters, Roger blends valuable training material with interesting weather data. He obtained a Ham radio license so that he could establish the proper rapport with the local Ham clubs. Roger has worked closely with Pittsburgh officials to ensure that they incorporated the possibility of severe weather into their plans for the City of Pittsburgh Marathon. In spring 1990, he prepared and presented "Safest Places in Schools" program in 12 counties representing nearly 200,000 students. In preparation for WSFO PIT's expanded warning area under the NWS's modernization and restructuring program, he has developed a two-year plan detailing the activities and the associated time frame required.

Roger is a highly motivated, effective WPM, who is intimately involved in the warning coordination and hazard awareness program and its goals.

## **CORRECTIONS TO JUNE 1990 OUTSTANDING STORMS OF THE MONTH.**

1. The apparent F5 symbol shown in southwestern Nebraska in the map of "JUNE 1990 CONFIRMED TORNADOES" on page 4 is really the plot of an F4 tornado (June 15th) on top of the plot of an F1 tornado (June 1st).

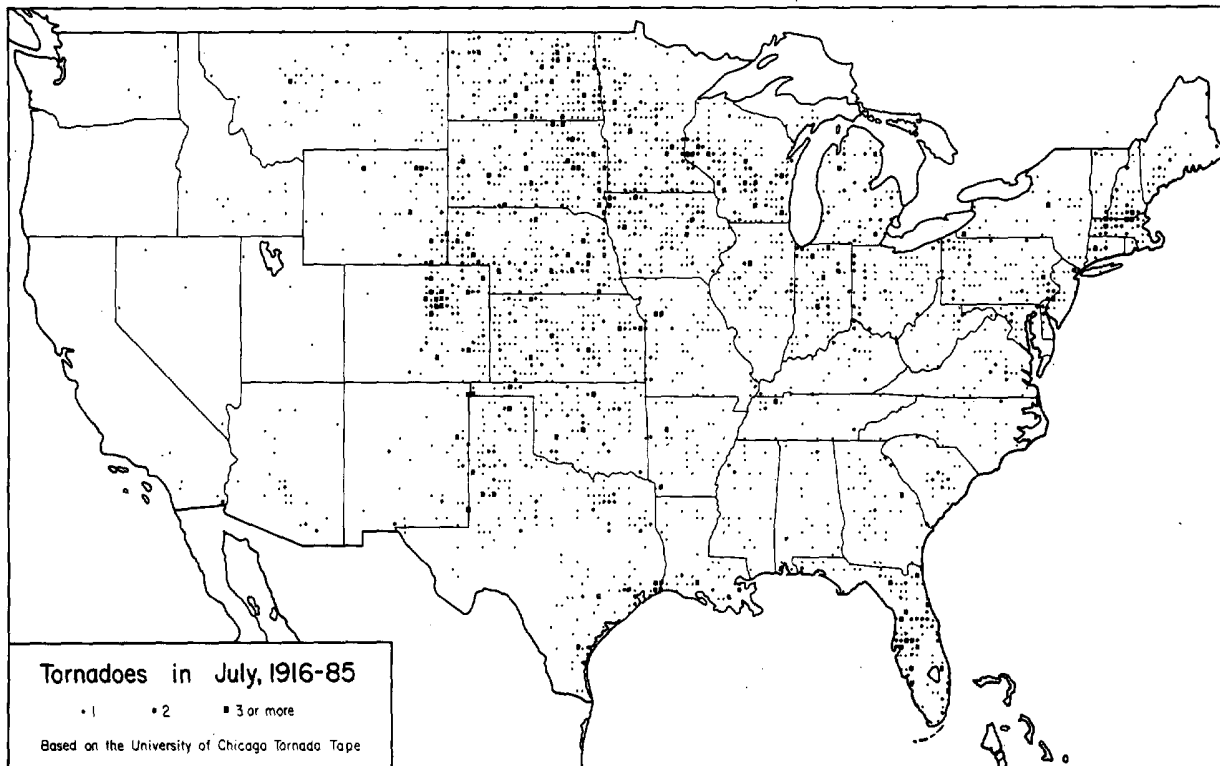
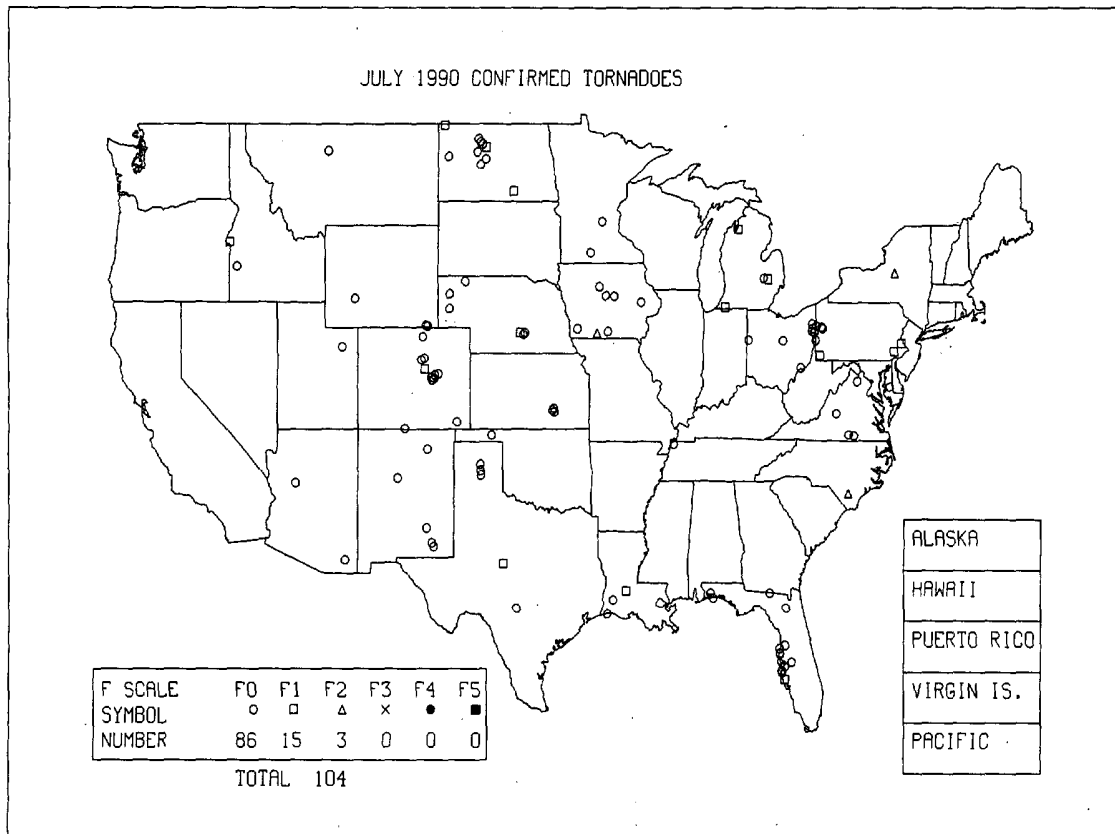
2. The text on page 15 beginning with "*Below (left)*" should read: Indianapolis (Indiana) WSR-74C radar

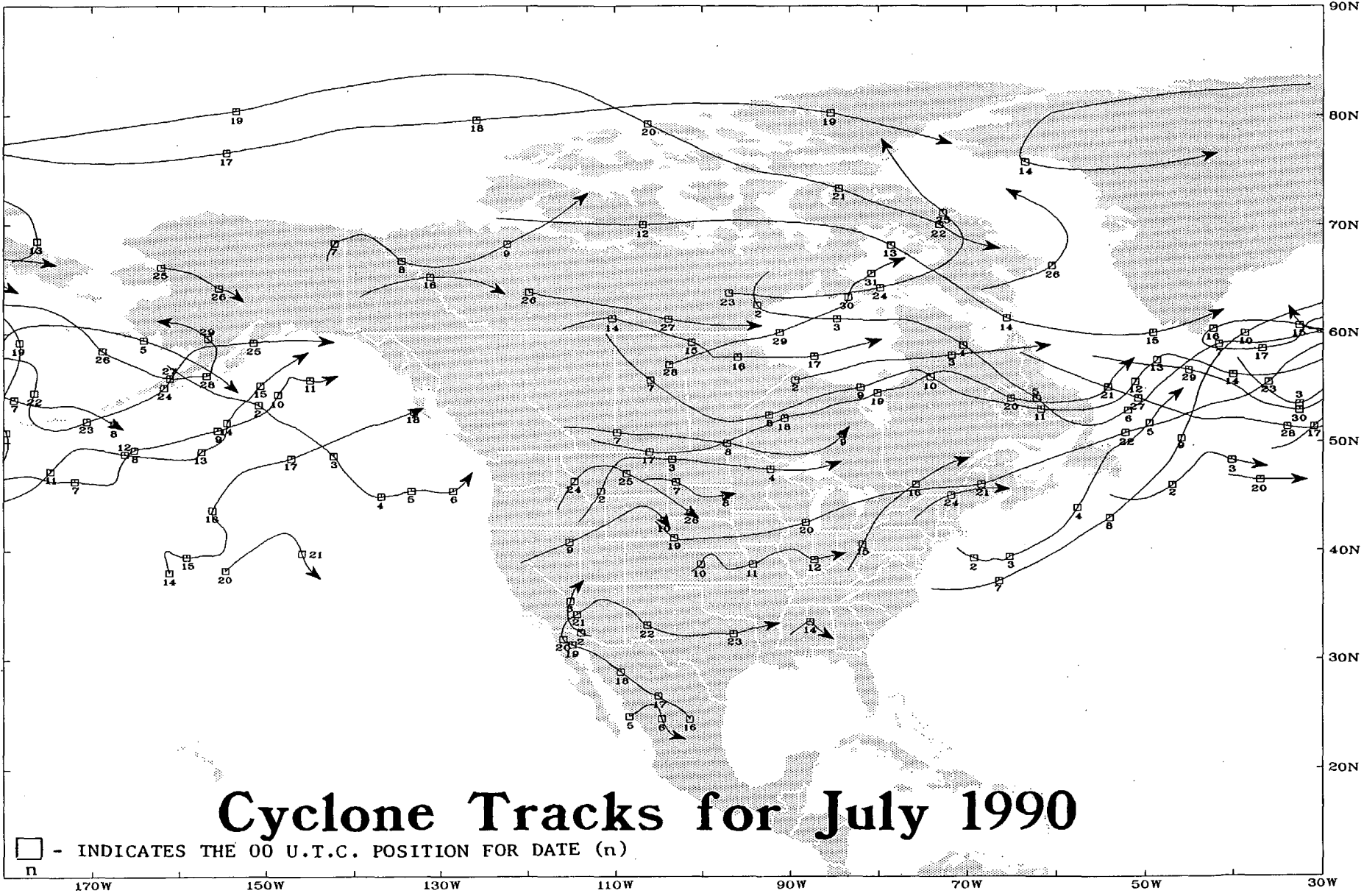
presentation at 2328 UTC (6:28 p.m. EST).

3. The reference to "90 tons" on pages 20 and 22 should be "70 tons."

4. The New Mexico location listed in the table on page 29 should be: Waste Isolta Pilot Plant. (It is located about 23 miles east of Carlsbad.)

# OUTSTANDING STORMS OF THE MONTH





# Cyclone Tracks for July 1990

# 1. PRECIPITATION AND TEMPERATURE ANOMALIES - JULY 1990

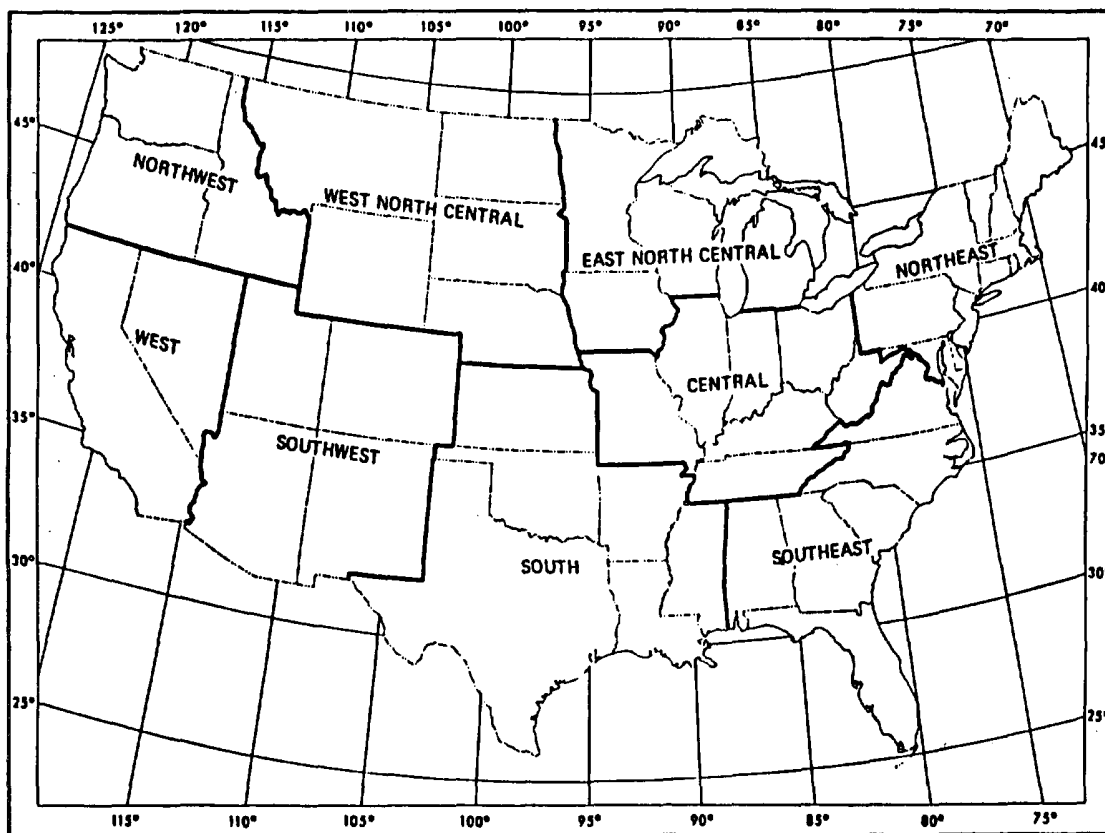
Table 1 shows the July 1990 temperature and precipitation rankings for the nine climatically homogeneous regions shown in Fig. 1. While many parts of the contiguous U.S. recorded near to above normal July rainfall, less than half the usual July rain fell on portions of the Southeast, the south-central Great Plains, the lower Mississippi and Ohio Valleys, eastern Great Basin, and North-central Rockies (Figs. 2 and 3 on the following page). Warmer than normal monthly temperatures were generally recorded west of the Rockies and from the Appalachians eastward (Fig. 4 on page 8). Regionally, July 1990 ranked as the 10th and 11th warmest July of record (since 1895) in the West and Northwest, respectively.

**TABLE 1. TEMPERATURE AND PRECIPITATION RANKINGS FOR JULY 1990, BASED ON THE PERIOD 1895-1990 (96 YEARS) WHERE 1 = DRIEST/COLDEST, 96 = WETTEST/HOTTEST.**

<u>REGION</u>	<u>PRECIPITATION</u>	<u>TEMPERATURE</u>
Northeast	55	53
East North Central	76	25
Central	75	29
Southeast	14	74
West North Central	55	40
South	50	19
Southwest	88	31
Northwest	56	86
West	60	87
National	60	42

*From National Climatic Data Center*

**Fig. 1**



*From National Climatic Data Center*

Fig. 2

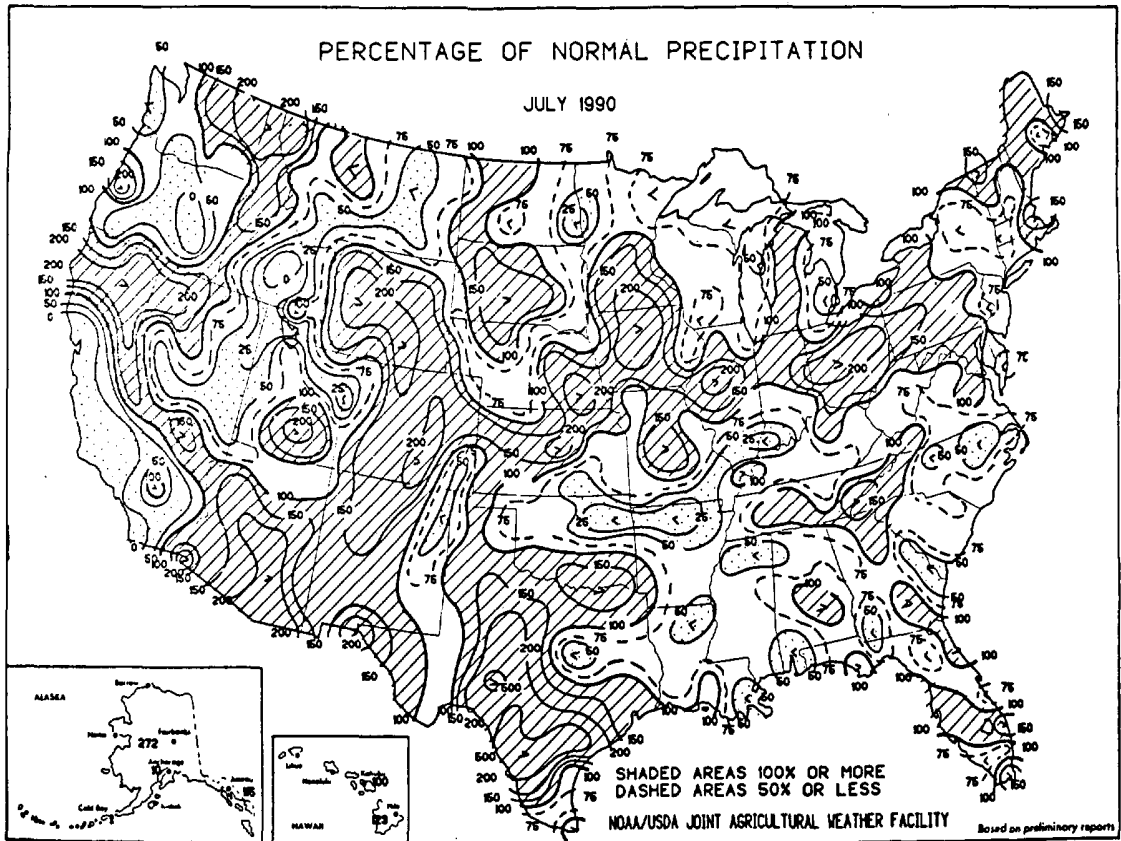
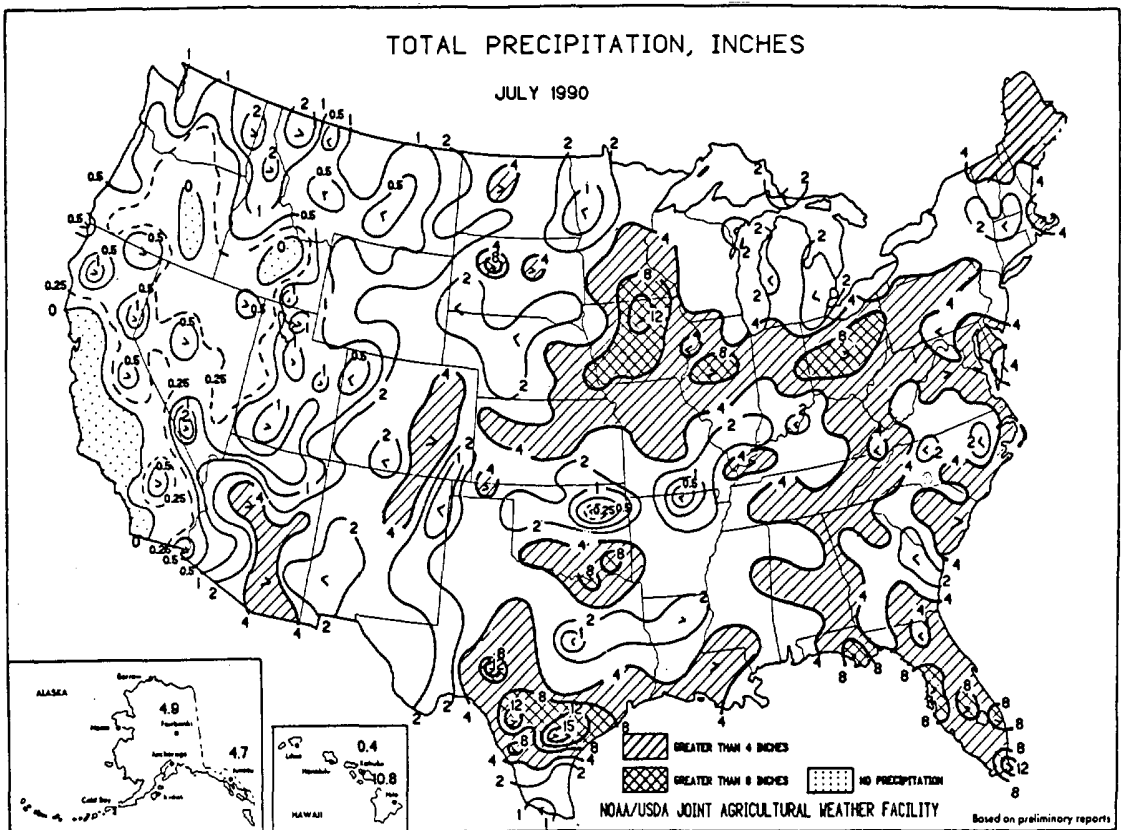
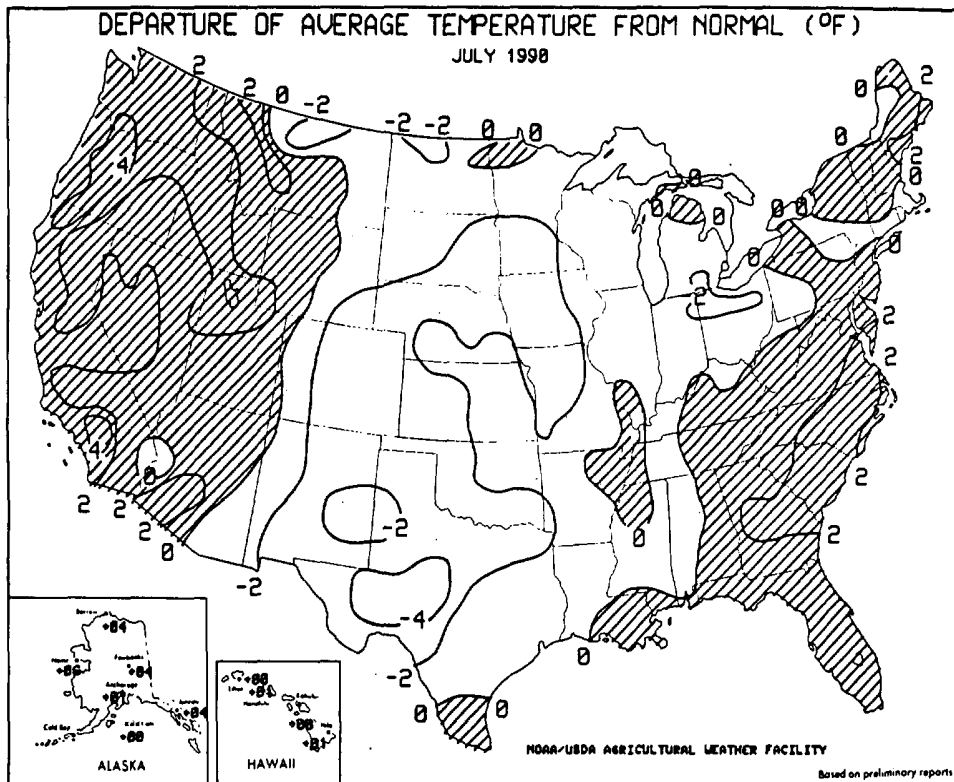


Fig. 3



Above figures reprinted from Weekly Weather and Crop Bulletin - August 7, 1990

Fig. 4



Reprinted from *Weekly Weather and Crop Bulletin* - August 7, 1990

## 2. COLORADO FRONT RANGE HAILSTORM OF JULY 11, 1990

The most costly hailstorm in U.S. history (the \$505 million estimate several weeks after the event is probably too low a figure) battered many parts of Colorado's Front Range from near Estes Park to Colorado Springs. The hailstorm, which was accompanied at times by torrential rains and high winds, produced a swath of damage generally 5 to 10 miles wide; the hardest hit area included parts of the Denver metropolitan region. Hail the size of golf balls and baseballs damaged thousands of roofs (in some cases punching holes through roofs), battered tens-of-thousands of automobiles, defoliated thousands of trees, ripped up

greens and fairways on several golf courses, and knocked out power and phone service to thousands of customers -- to name just a few effects.

Sixty injuries were reportedly caused by the storm. A number of people were trapped on rides at the Elitch's Amusement Park in northwest Denver when power failed - holding them hostage to hail, wind, and rain. Forty-seven people from the park were sent to local hospitals for treatment of bumps, cuts, and bruises.

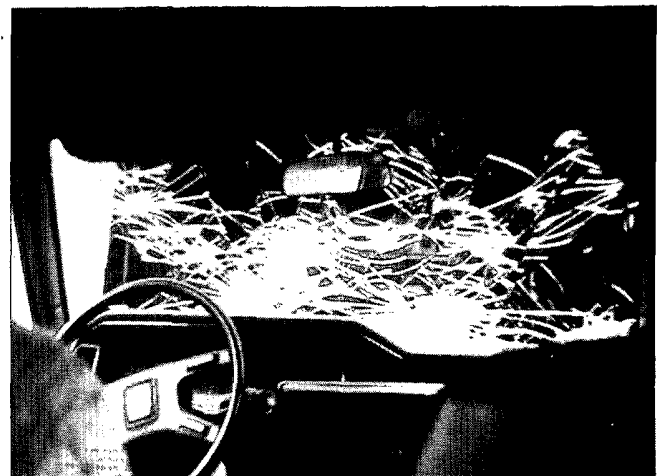


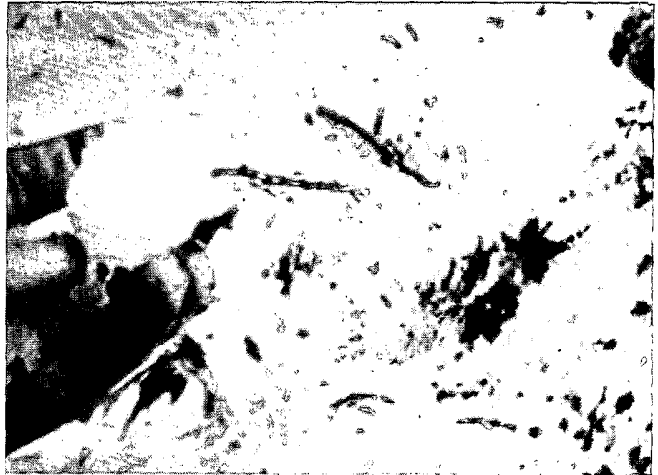


**Opposite Page:** Hailstorm approaching Denver. Photo sites near I-25. Photos courtesy: Steve Hodanish of Fort Collins, Colorado.



**Above:** Looking west (at 2:42 p.m. MDT) from I-225 near Cherry Creek Reservoir at the hailstorm which is moving south from Denver. Two minutes later, the photographer encountered hail as he was driving west—trying to get ahead of the storm. His chase car ended up with a dented roof as a result of three brief interludes with the edge of the hail. **Below (left):** Looking west from I-70 just north of the Denver WSFO; the storm is pounding downtown Denver at this time (2:31 p.m. MDT). **Below (right):** The photographer's wife was driving his Subaru on this day and was in downtown Denver; the photo shows the result of 3-inch hailstones striking the windshield. Photos courtesy: Richard Keen of Golden, Colorado.

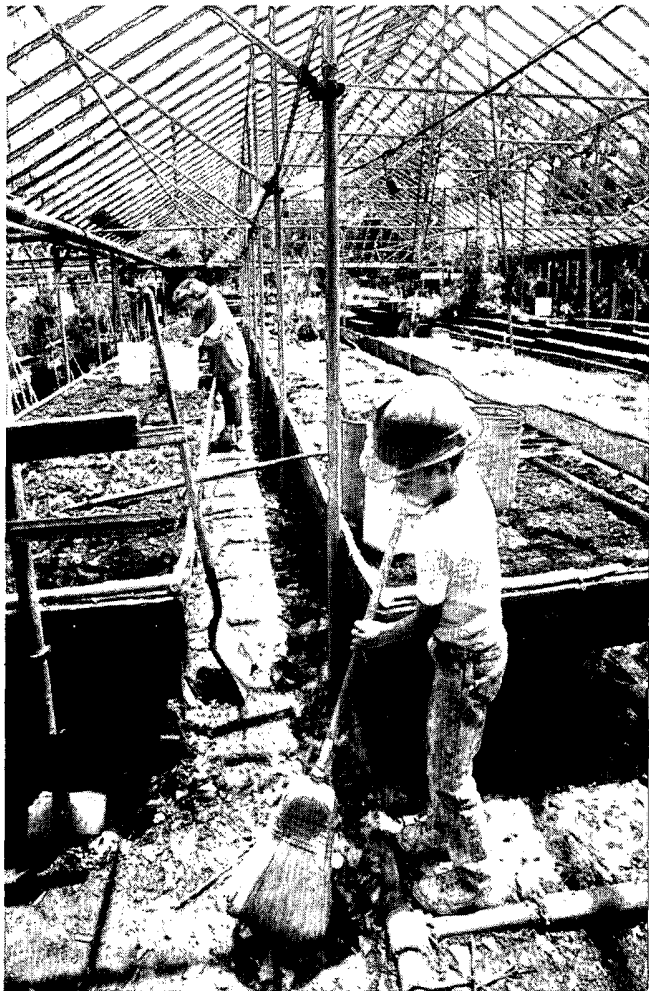




***Top two photos:*** The hailstorm left up to 4 inches of hail covering these residential lawns about 1 mile north of Lakeside Amusement Park. ***Middle (left):*** Hail removal is a lot like snow removal. ***Middle (right):*** Much of the hail was rather small, but here the hail was larger than golf balls. ***Bottom left:*** Some trees were completely defoliated; these were just partially defoliated. ***Bottom (right):*** Window damage was widespread. *Photos courtesy: Steve Hodanish of Fort Collins, Colorado.*



**Above (left):** Many Denver area cars had their windshields smashed by hailstones. **Above (right):** Winds accompanying the hailstorm downed many trees, such as this one at West Fifth Avenue and Santa Fe Drive. *Photos courtesy: Cyrus McCrimmon; Rocky Mountain News; Denver, Colorado.* **Bottom (left and right):** Hailstones as large as golf balls broke almost every pane in the five hothouse roofs of the South Logan Florist Shop; unfortunately, the business was uninsured. Scores of volunteers helped clean up the broken glass and salvaged what they could of shredded plants. *Photos courtesy: George Kochaniec, Jr.; Rocky Mountain News; Denver, Colorado.*

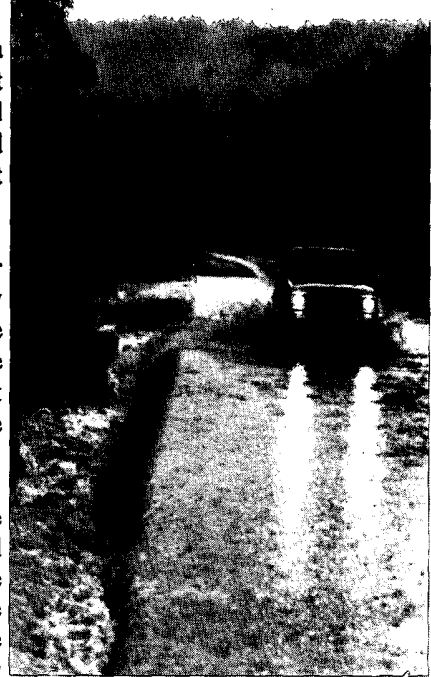


### 3. JULY 1990 WEATHER POTPOURRI

For additional details concerning the following pictures, see the appropriate date and state information in the "Storm Data and Unusual Weather Phenomena" section.



*Left:* Crews rescue a picnic table swept away from the Gold Brook Campground by the Vermont Flooding of July 4th. *Courtesy: Steve Rudd.*



*Right:* The shoulder of Nebraska Valley Road near the Barrows turn became a waterfall as a result of the rains of the 23rd. *Courtesy: Gregory Popa.*



*Middle (left):* The rains of the 23rd caused the Little River to flood the playground of the Stowe Coop Nursery School. *Courtesy: Steve Rudd.*

*Photos courtesy: Stowe (Vermont) Reporter.*

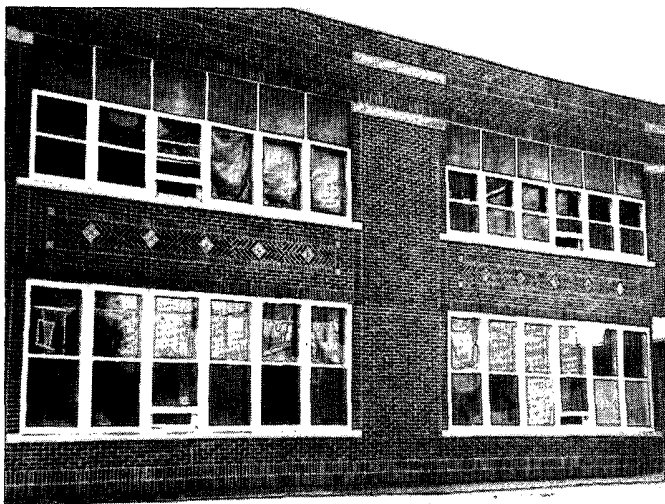
The severe thunderstorm which hit Great Falls, Montana, on July 2nd destroyed a gun shop (*right*) and toppled trees (*below left*). Underpasses (*below right*) and low-lying areas were flooded. *Photos courtesy: James E. Larcombe; Great Falls (Montana) Tribune.*





**Above:** As a result of heavy rains on the 25th-26th, 2 feet of water covered a six-block area of Thurman, Iowa, for a time. As the water receded, a muddy play area was found! *Photo courtesy: Peter Weber; Evening Sentinel; Shenandoah, Iowa.* Severe thunderstorms on the 7th caused considerable damage to parts of South Dakota's Campbell County, particularly from near Pollock to southeast of Herreid. Some lifelong Herreid residents said it was the worst storm they had ever seen. **Below (left):** Barn on the John LaFave farm which was blown from its foundation and split apart. **Below (right):** Grain bin damage on the Kenny Moser farm. *Photos courtesy: Prairie Pioneer; Pollock, South Dakota.*





**Top (left):** A wooden quonset on the Dwight Rossow farm south of Herreid was completely demolished by the storm of the 7th. Almost every building in Herreid sustained hail damage to windows, sidings, and roofs. The Herreid School (**middle left**) had 120 broken panes of glass. *Photos courtesy: Prairie Pioneer; Pollock, South Dakota.* **Top (right):** Water runoff from a severe thunderstorm on the 23rd left hail drifts to 3 feet deep 17 miles south and 10 miles west of Oberlin, Kansas. **Above (right):** "Hail fog" 18 miles south and 10.5 miles west of Oberlin. **Left:** Every window in this farmhouse 19 miles south and 11 miles west of Oberlin was broken by hail. Note the defoliated trees. *Photos courtesy: Bob Keenan; Road Supervisor; Decatur County Highway Department; Oberlin, Kansas.*

#### 4. ILLINOIS COLD AIR FUNNEL OF JULY 24, 1990

The following is an account sent to the editors by Jack R. Cooley, MIC; NWS Grand Rapids, Michigan:

On July 24, 1990, I was traveling south through Illinois on Interstate Highway 57. The area was under the influence of a large high pressure area. Skies were relatively clear but quite hazy. The temperature was about 80°, relative humidity 50% (dew point 60°), and the wind was south at 5 mph. At 1730 CST, I was in the vicinity of Manteno and noticed a towering cumulus cloud off to the west. The cloud was quite unusual since its top was shearing off and blowing downstream a considerable distance (Photo A).

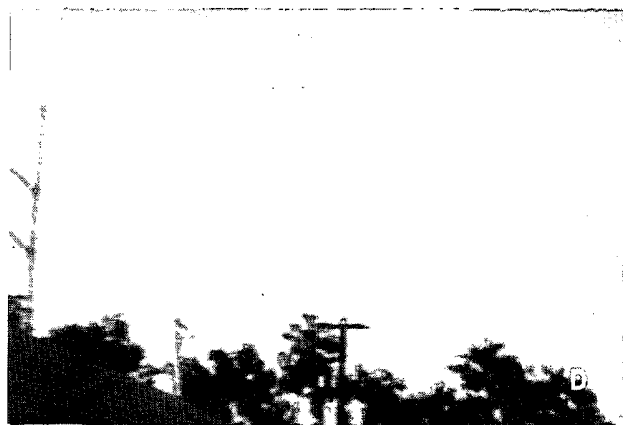
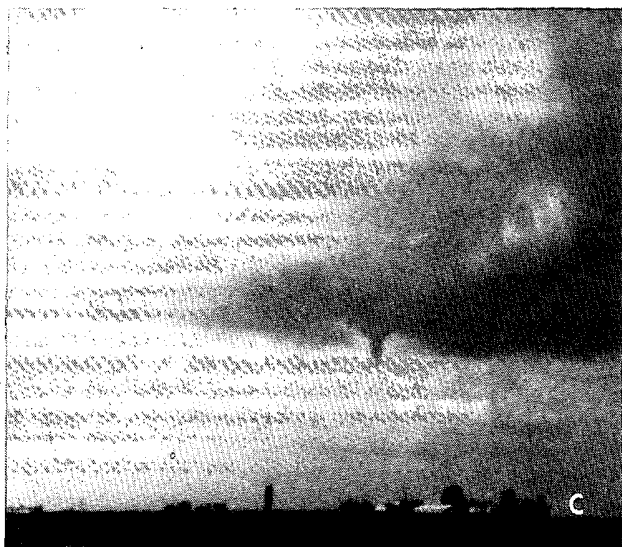
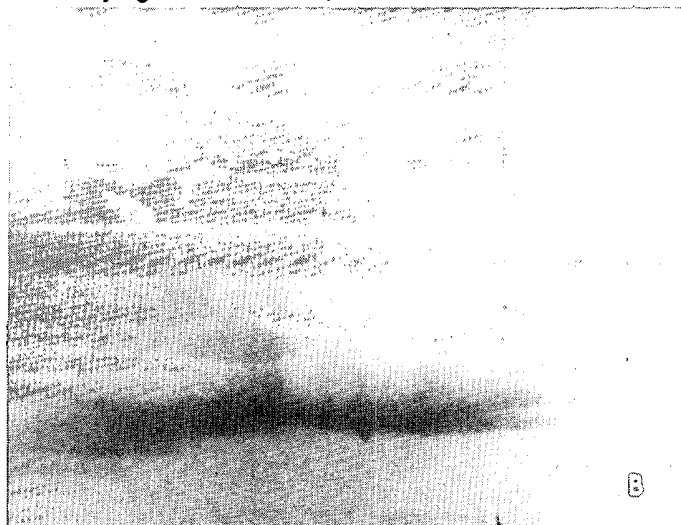
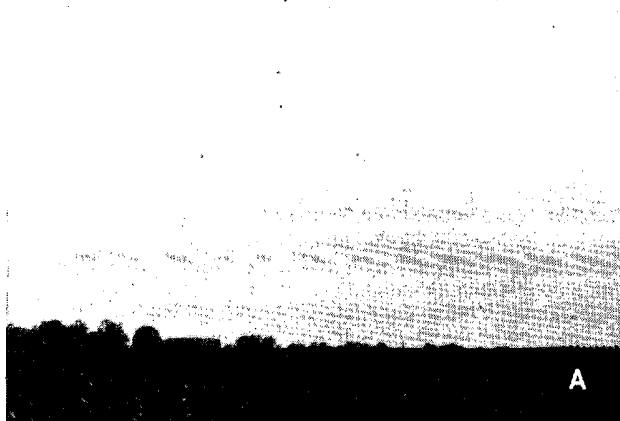
Nearly an hour later, I was near Rantoul, looking to the south at what appeared to be a rather benign cumulus cloud, possibly approaching the cumulonimbus stage (without an anvil). As I watched this cloud a small bulge began to form at the base toward the west end of the cloud. At 1830 CST I snapped the photograph shown in B.

The funnel continued to be visible for over an hour (until I reached Tuscola and evening darkness prevented further observation at 1933 CST). Before darkness, the funnel

was clearly visible for over an hour and from as far as 25 miles distant. The funnel was quite visible from most perspectives. However, when I was directly west of the funnel, the under cloud background was quite dark and the funnel was difficult to discern. When there was a blue sky background, the funnel was quite prominent and easy to distinguish.

The funnel cloud was just northeast of Champaign and did not appear to move appreciably during the hour or more that I monitored it. The maximum development that I observed from my vantage point is indicated in C (this was near Champaign). TV station WCIA (Channel 3, Champaign, IL) set up a video camera for a period of time and obtained the picture shown in D. The WCIA vantage point was much closer and shows greater development of the funnel.

This was the first time that I had observed a cold air funnel cloud. However, I feel this was a fairly typical cold air funnel scenario (based on my 23 years of experience in receiving spotter and public reports, issuing statements and studying cold air funnels).



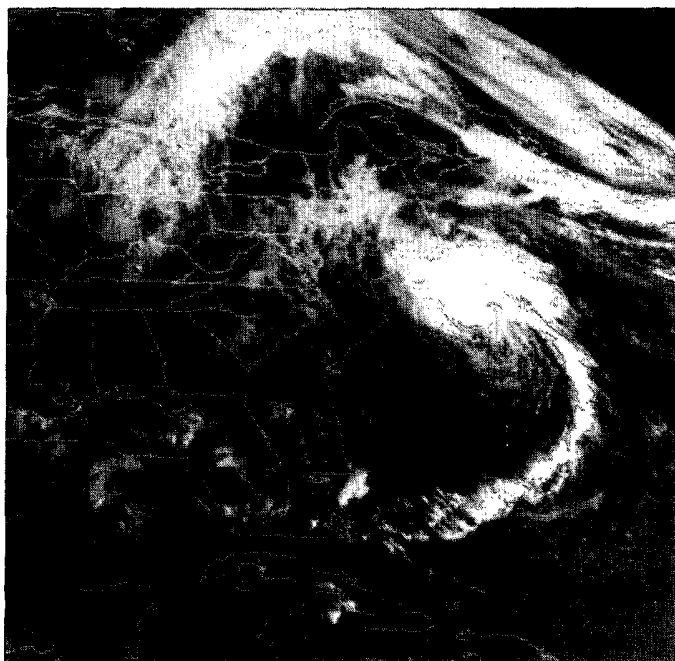
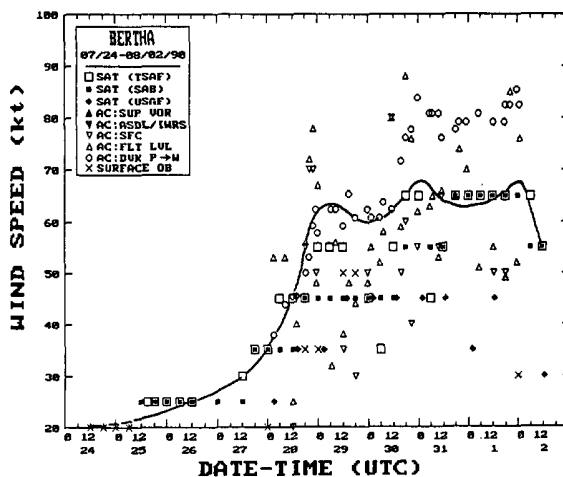
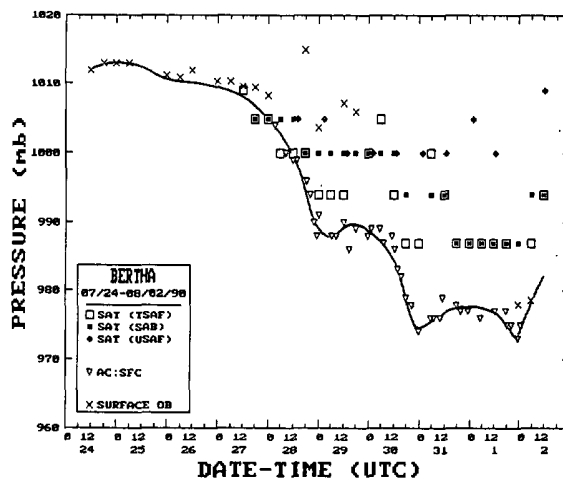
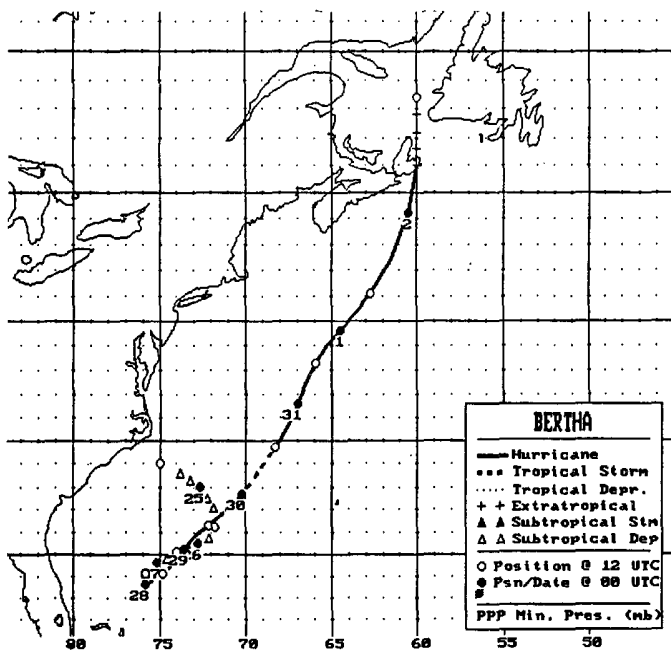
## 5. JULY 1990 TROPICAL STORMS AND HURRICANES

(Editor's Note: Atlantic and Eastern Pacific tropical systems which have little or no impact on the U.S. or its possessions will be covered in the December 1990 STORM DATA.)

### 5(a). HURRICANE BERTHA (July 24th to August 2nd, 1990)

Bertha was an Atlantic hurricane that originated from a non-tropical area of low pressure near Cape Hatteras, North Carolina. The northern portion of a tropical wave did, however, interact with the system during its tropical stage.

Bertha produced high surf from North Carolina to Nova Scotia, and caused moderate beach erosion in North Carolina and the Outer Banks. Seven seamen died as a result of Bertha. In addition, two people drowned at northern Florida beaches as a result of rip currents generated by Bertha.



Top (left): Best track positions for Hurricane Bertha. Top (right): Best track minimum pressure curve for Hurricane Bertha. Above: Best track maximum sustained wind speed curve for Hurricane Bertha. Xs denote nearby surface reports or center fixes derived from analyses of surface data. Map and plots courtesy: NHC Coral Gables, Florida. Left: Satellite photo of Hurricane Bertha at 1301 UTC (0801 EST) on July 30, 1990. Photo courtesy: Leo Grenier; NSSFC Kansas City, Missouri.

A special thank you to Gene Rhoden of NSSL, Norman, Oklahoma, for providing photos used in this issue which were made from video provided by Steve Hodanish.





## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

### ALABAMA Cont'd

<b>Coffee County</b>	08	1530CST		0	0	?	?	<b>Thunderstorm Wind</b>
Trees and power lines were blown down at Kinston.								
<b>Madison County</b>	08	1540CST		0	0	?	?	<b>Thunderstorm Wind</b>
Trees and power lines were blown down by strong thunderstorm winds at scattered locations throughout the county.								
<b>Geneva County</b>	08	1545CST		0	0	?	?	<b>Thunderstorm Wind</b>
At Samson, trees were blown down and blocked roads. A power pole was blown down 3 miles east of Samson.								
<b>Henry County</b>	08	1700CST		0	0	?	?	<b>Thunderstorm Wind</b>
Numerous trees were blown down a few miles east of Abbeville. One tree fell onto and damaged a house. Also, a roof of a barn was blown off in the same area. No one was injured.								
<b>Barbour County</b>	08	1725CST		0	0	?	?	<b>Hail (1.75)</b>
Golf ball-size hail fell at Blue Springs.								
<b>Elmore County</b>	08	1845CST		0	0	?	?	<b>Thunderstorm Wind</b>
	08	1907CST		0	0	?	?	<b>Thunderstorm Wind</b>
At 1845 CST trees were blown down and boats were damaged on Lake Jordan about 8 miles northwest of Wetumpka. At 1907 CST trees and power lines were blown down about 17 miles northeast of Wetumpka on Lake Martin.								
<b>Jefferson County</b>	10	1620CST		0	0	?	?	<b>Hail (1.75)</b>
	10	1640CST		0	0	?	?	<b>Hail (1.75)</b>
	10	1640CST		0	0	?	?	<b>Thunderstorm Wind</b>
At 1620 CST golf ball-size hail fell in downtown Birmingham. At 1640 CST golf ball-size hail fell. A permanent business sign and a few trees were blown down in eastern Birmingham.								
<b>Saint Clair County</b>	10	1805CST		0	0	?	?	<b>Thunderstorm Wind</b>
	10	1805CST		0	1	0	0	<b>Lightning</b>
Thunderstorm wind blew down a few trees in Pell City, Cropwell, and London. In Pell City, a roof was blown off a house and eight planes were damaged at the Saint Clair County Airport. Nineteen hangars were also damaged. A 46-year-old male was injured by lightning while standing outside.								
<b>Covington County</b>	10	1900CST		0	0	?	?	<b>Thunderstorm Wind</b>
Trees were blown down in Florala and in the Conecuh National forest.								
<b>Henry County</b>	11	1430CST		0	0	?	?	<b>Thunderstorm Wind</b>
Several trees were blown down, mobile homes were damaged, and shingles were blown off roofs 2 miles northeast of Abbeville.								
<b>Colbert County</b>	11	1630CST		0	0	?	?	<b>Lightning</b>
In Tuscumbia, a man received an electrical shock from lightning while working on his bathroom plumbing.								
<b>Baldwin County</b>	18	1305CST		0	0	?	?	<b>Thunderstorm Wind</b>
Thunderstorm winds destroyed a mobile home at Foley.								

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			K K K K	I I I I	P P P P	C C C C	

### ALABAMA Cont'd

Lauderdale County	22	1400CST			0	0	?	?	Thunderstorm Wind
Numerous trees and power lines were blown down at Florence.									
Limestone County	22	1545CST			0	0	?	?	Thunderstorm Wind
Trees were blown down at scattered locations in the county.									
Madison County	22	1615CST			0	0	?	?	Thunderstorm Wind
Trees and power lines were blown down at Huntsville and at other scattered locations throughout the county.									
Morgan County	22	1615CST			0	0	?	?	Thunderstorm Wind
	22	1615CST			0	0	?	?	Lightning
Trees and power lines were blown down in Decatur. Numerous house fires were started by lightning.									
Sumter County	23	1230CST			0	0	?	?	Thunderstorm Wind
Power lines were blown down at Geiger.									
Tallapoosa County	23	1615CST			0	0	?	?	Thunderstorm Wind
The roofs of a car wash and a storage building were damaged at Carrville. Also, trees were blown onto power lines in the same vicinity.									
Lee County	23	1628CST			0	0	?	?	Thunderstorm Wind (G61)
	23	1722CST			0	0	?	?	Thunderstorm Wind
At 1628 CST thunderstorm winds gusted to 69 mph at the Auburn Agricultural Center. At 1722 CST numerous trees were blown down 5 miles southeast of Pine Grove.									
Jefferson County	23	1905CST			0	0	?	?	Hail (1.75)
Golf ball-size hail fell at Kimberly and Morris.									

### ARIZONA

Apache County Cove, 40 SW 4 Corners	03	1230MST			0	1	?	0	Flash Flood
A 10-foot wall of water swept four workers away while at a diversion dam construction site. One survivor said the 950 Caterpillar front end loader rolled on top of him after the wall of water hit.									
Pima County Tucson	07	1315MST			0	0	3	0	Flash Flooding
In a 3-hour period ending about 1315 MST, up to 3.03 inches of rain fell along the Canada del Oro and Tanguie Verde watersheds. Several vehicles were reported to have stalled in washes and five motorists were rescued by the Sheriff's Department.									
Pima County Tucson	08	1800MST			0	0	3	0	Flash Flooding
Many roads were closed due to heavy rains of 1 to 2 inches.									







# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

## ARIZONA Cont'd

**Maricopa County  
East Mesa**      31 2055MST      0   0   4   0      **Hail (0.75)  
Thunderstorm Wind (G60)**

Winds damaged a hangar and several aircraft at Falcon Field.

## ARKANSAS

**Jefferson County  
Pine Bluff**      03 Unknown      1   0   0   0      **Heat**

A man was found dead in his home. The cause was apparently heat stroke. (M65P)

**Pulaski County  
Little Rock**      05 Unknown      1   0   0   0      **Heat**

A woman died in her apartment from heat stroke. (F43P)

**Garland County  
Hot Springs**      08 Unknown      2   0   0   0      **Heat**

An elderly couple died in their home from heat-related causes. (M86P, F88P)

**Pulaski County  
North Little Rock**      10 Unknown      2   0   0   0      **Heat**

A man was found dead in his apartment. Heat stroke was the suspected cause of death. (M62P)

**Faulkner County  
Conway**      10 1315CST      0   0   5   0      **Lightning**

Numerous lightning strikes from a thunderstorm caused scattered damage across Conway. The Fire Department and Radio Station KCON both had equipment damaged. Three transformers were destroyed by the storm, and several trees downed across the city. Falling branches from the trees in turn downed some power lines causing a few power outages. A few utility poles were also struck by lightning.

**Garland County  
6 N Mountain Pine**      10 1455CST      0   2   5   0      **Thunderstorm Winds**

Two people were injured by a severe thunderstorm which struck Lake Ouachita State Park. Seven boats were capsized, several campers and trailers smashed, and at least a half dozen trees uprooted. One woman suffered a broken arm when hit by an uprooted tree and a man suffered a bruised back. The storm lasted about 10 minutes.

**Jefferson County  
Pine Bluff**      10 1540CST      0   0   5   0      **Lightning**

Lightning caused a fire which destroyed a warehouse. Damage was estimated at \$175,000.

**Lawrence County  
Walnut Ridge**      10 1700CST      0   0   4   0      **Thunderstorm Winds**

Thunderstorm winds caused damage at the Walnut Ridge Industrial Park. A roof was blown off one building, lumber scattered, and power lines downed.

**Craighead County  
Jonesboro**      11 1250CST      0   0   3   0      **Lightning**

A house suffered minor damage from a lightning strike.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

## ARKANSAS Cont'd

<b>Pulaski County</b> North Little Rock	11	1350CST		0	0	3	0	<b>Lightning</b>	
A lightning strike at a substation knocked out power to about 500 residents in North Little Rock and Sherwood.									
<b>Pulaski County</b> Jacksonville	11	1358CST		0	0	4	0	<b>Lightning</b>	
Lightning struck a transformer at a sub-station knocking out power to nearly 5,000 customers.									
<b>Pulaski County</b> Jacksonville	11	1405CST		0	1	4	0	<b>Thunderstorm Wind (G52)</b>	
Thunderstorm winds blew down trees and signs. Several cars were damaged by the falling trees. A woman suffered minor injuries when shocked by a downed electric line.									
<b>Lonoke County</b> 2 S Cabot	11	1415CST		0	0	2	0	<b>Thunderstorm Winds</b>	
Thunderstorm winds downed trees along Arkansas Highway 89 south of Cabot.									
<b>Howard County</b> Nashville	11	1830CST		0	0	3	0	<b>Lightning</b>	
A lightning strike at the City-County Building damaged the facility's computer system.									
<b>Howard County</b> Nashville	12	0130CST		0	0	4	0	<b>Lightning</b>	
Lightning struck an automobile dealership, starting a fire which caused severe damage.									
<b>Boone County</b> Harrison	20	1850CST		0	0	4	0	<b>Thunderstorm Winds</b>	
A thunderstorm produced winds which blew down trees, power lines, and caused some minor structural damage. Trees were downed which blocked a couple of roads, including U.S. Highway 65. Power lines were downed by falling tree limbs and a couple of utility poles were cracked. Some metal awnings were also blown off a building and the Veteran's Memorial Monument at a city park was destroyed by a falling tree.									
<b>Pike County</b> Glenwood	22	1720CST		0	0	5	0	<b>Thunderstorm Winds</b>	
Thunderstorm winds took the roof off several buildings, broke windows, and blew down trees. A manufacturing plant and a trucking company both suffered roof and window damage. The newspaper office also suffered roof damage.									
<b>Ashley County</b> 4 W Montrose	29	1240CST		0	0	4	0	<b>Thunderstorm Winds</b>	
An apparent downburst blew over power lines west of Montrose. A tower holding the lines was also blown over. This tower was designed to withstand 100 mph winds.									
<b>White County</b> Pangburn	30	0400CST		0	0	4	0	<b>Lightning</b>	
A lightning strike eliminated all power in Pangburn and within 4 miles in all directions. Power was restored in about 1 hour.									



**STORM DATA AND UNUSUAL WEATHER PHENOMENA**

JULY 1990

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**

**Little River County  
Arkinda** 30 1535CST 0 0 2 0 **Thunderstorm Winds**  
Thunderstorm winds downed trees which blocked a county road.

**Little River County  
Foreman** 30 1540CST 0 0 4 0 **Thunderstorm Winds**  
Thunderstorm winds blew down trees and power lines in a four-block area of Foreman. Fences and some homes were also damaged by the downed trees.

**Clark County  
Arkadelphia** 30 1850CST 1 0 5 0 **Thunderstorm Winds**  
A thunderstorm struck Arkadelphia resulting in a major power outage and one death. Most of the damage resulted from the falling of four large oak trees. At least nine homes and one car were damaged by the trees or from falling branches. One tree fell on an enclosed sun porch, killing a woman sitting inside. Another tree fell at an intersection and took down the major electrical and telephone lines serving the eastern half of the city. The damage was confined to a six-block area on the northeastern side of town. At about the same time, Skywarn spotters in the southern part of town reported wind gusts of 35 mph and one-half-inch hail. Damage was estimated at \$250,000. (F65P)

**CALIFORNIA, Northern**

**Madera County** 13 1625PDT 0 0 0 0 **Flash Flood**  
**Tuolumne County** 13 1810PDT 0 0 0 0 **Flash Flood**  
**Tulare County** 13 1830PDT 1 0 0 0 **Lightning**

Thunderstorms produced heavy rains and frequent lightning. Rainfall amounts of 2.00 to 3.00 inches were common in the high Sierras with roads washed out in Kaiser Pass, Tioga Pass, and Yosemite National Park. Lightning caused one death (male, age unknown) on Mount Whitney.

**Trinity County  
Hayfork** 18 1940PDT-2015PDT 0 0 0 0 **Hail (1.00)**

Thunderstorms in the Trinity Alps produced large hail.

**Shasta County  
5 NW Redding** 25 1330PDT 0 0 3 0 **Dust Devil**

A dry cold front in the area evidently produced an area of convergence near the surface which in turn produced the dust devil. A roof was severely damaged at a market and witnesses reported a loud roaring noise associated with a compact rising column of air. The dust devil moved from northwest to southeast under clear skies.

**CALIFORNIA, Southern**

**San Bernardino County  
Daggett** 12 1010PST 0 0 ? 0 **Thunderstorm Wind (G55)**

Strong winds in association with a line of thunderstorms hit the desert areas of southern California.

**San Bernardino County  
Twentynine Palms** 16 1500PST 0 0 ? 0 **Flash Flood  
Thunderstorm Wind (G55)  
Marble-Size hail**

A 30-minute downpour in association with a severe thunderstorm flooded many homes and businesses. There were also damaged roadways. Traffic came to a standstill as water running 3-feet deep poured along city streets.

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

### CALIFORNIA, Southern Cont'd

**San Bernardino County**  
near Baker

16 1515PST                                      0   0   ?   0   **Flash Flood**

Two southbound lanes of Interstate 15 were closed after flash flooding left the highway blanketed in mud and debris. The highway was reopened about two hours later.

### COLORADO

**Summitt County**  
Near Grays Peak  
43 W Denver

01 1300MST                                      0   5   0   0   **Lightning**

Lightning hit a 36-year-old woman directly in the chest and sent four other hikers to local hospitals. The five were hiking up Grays Peak when a lightning storm came upon them suddenly. The woman suffered burns to her upper body, while the others sustained cuts, contusions, and a shoulder injury.

**Mesa County**  
Grand Junction

01 1830MST                                      0   0   3   0   **Lightning**

Lightning knocked a hole in the roof of a house located on the northwestern side of Grand Junction. The bolt passed through the roof and entered a bedroom causing only minor damage, yet knocked out the phone and electricity to the house.

**Douglas County**  
Castle Rock

05 1500MST                                      0   0   3   0   **Lightning**

Lightning caused minor damage to a house.

**Douglas County**  
Louviers

05 1500MST                                      0   0   3   0   **Lightning**

Lightning caused moderate damage to the roof of a house on the north side of Louviers.

**Douglas County**  
Littleton

05 1510MST                                      0   0   3   0   **Lightning**

Lightning caused minor roof damage on a house.

**Larimer County**  
Near Estes Park

06 Afternoon                                      0   0   0   0   **Hail**

Pea-size hail piled to 6 inches deep along a section of U.S. Highway 36 southeast of Estes Park. Larimer County authorities called out snow plows to clear the highway of hail.

**El Paso County**  
Colorado Springs

06 1900MST                                      0   0   4   0   **Lightning**

Lightning was blamed for touching off a blaze which caused \$12,000 in damage to a garage and its contents, including several riding saddles.

**Larimer County**  
5 NE Fort Collins

08 0938MST    3        15    0   0   0   0   **Tornado (F0)**

County sheriff's department reported a small tornado in a vacant field 5 miles northeast of Fort Collins just east of the new Anheuser-Busch Budweiser Brewery. The twister skipped east across open rangeland before dissipating at 1005 MST.

**El Paso County**  
Colorado Springs

09 1515MST                                      0   0   0   0   **Hail (1.50)**

Ping-Pong-size hail was reported by the El Paso County Sheriff and the public near the intersection of Airport Road and Circle Drive on the eastern side of Colorado Springs.

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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>El Paso County</b>									
Near Simla	09	1630MST	0.10	10	0	0	0	0	Tornado (F0)
Near Calhan		1630MST	0.10	10	0	0	0	0	Tornado (F0)
Colorado Springs		1640MST			0	0	4	0	Flash Flood

A small tornado touched down in open rangeland near the towns of Simla and Calhan along U.S. Highway 24 in northeast El Paso County. On the northeastern side of Colorado Springs, up to 2 inches of rain fell during an hour's time. The heavy downpour flooded a number of roads and intersections causing minor property damage.

**El Paso County**  
10 S Colorado Springs

	09	1615MST			0	1	2	0	Lightning
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Lightning injured a Montana National Guardsman training at the Fort Carson Army Installation 10 miles south of Colorado Springs. The man, age 23, suffered minor injuries after lightning hit a military vehicle and shocked him as he reached for the radio.

**El Paso County**  
Near Fountain

	09	1717MST			0	0	4	0	Flash Flood
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As much as 1.75 inches of rain fell within a very short time along Fountain Creek 12 miles south of Colorado Springs. The creek crested over its banks just inside the town of Fountain. High waters washed away a truck and portions of an adjacent highway.

**El Paso County**  
Fountain

	09	1800MST			0	1	0	0	Lightning
--	----	---------	--	--	---	---	---	---	-----------

A 41-year-old man suffered a cardiac arrest and sustained numerous burns when lightning either hit the victim or a nearby object. The man had just walked outside to inspect for water damage to the roof on his house when lightning struck.

**Adams County**  
Commerce City

	09	1800MST	0.25	20	0	0	0	0	Tornado (F0)
		1800MST			0	0	5	0	Flash Flood

A severe thunderstorm moved northeast across the Denver metropolitan area and intensified rapidly over northeastern Denver and Commerce City, where it dumped 1.34 inches of rain at Denver's Stapleton International Airport between 1700 MST and 1830 MST. The public reported as much as 4 inches of rainfall in 20 minutes near the South Platte River on the southwest side of Commerce City just after 1800 MST. The South Platte rose quickly above its banks flooding adjacent lowlands. The raging flood waters caused extensive damage to a 30-foot stretch of railroad track embankment, destroyed a railroad trestle and a nearby garage, and washed away a vintage 1960s show car near east 58th Avenue and York Street. The car was found a couple of miles downstream in a pool of deep mud and murky water.

Lightning was blamed for a number of power outages across the Denver metropolitan area that evening affecting, at one point, as many as 7,000 public service customers.

The same thunderstorm produced a brief tornado at 1800 MST in a vacant field near 64th Avenue and Tower Road, 5.5 miles northeast of Stapleton Airport just east of the Rocky Mountain Arsenal. Police reported no damage to the area.

**Front Range**

	11	1200MST-1530MST			0	60	9	0	Hail (2.75)
--	----	-----------------	--	--	---	----	---	---	-------------

The worst hailstorm ever experienced in Colorado in terms of damage battered many portions of the Front Range from Estes Park to Colorado Springs. The latest damage tally had nudged to \$625 million, making this hailstorm the most costly in American history. The hailstorm cut a 5- to 10-mile-wide swath along a south-southeast line from just southeast of Estes Park to the northeastern side of Colorado Springs. Hardest hit areas were: southeastern Boulder County, the Jefferson County Airport (13 miles northwest of Denver), Arvada, eastern Wheat Ridge,

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

southwestern and south-central Westminster, western Thornton, northwestern, west-central, and downtown Denver, northeastern and east-central Lakewood, just east of Littleton, portions of Arapahoe County west of Interstate 25, and northern and central Douglas County near Castle Rock and Franktown.

Golf ball-size to baseball-size hail severely damaged roofs on thousands of homes and buildings along the storm's path, battered tens-of-thousands of automobiles, windows, signs, street lights and traffic signals, stripped paint, awnings, and trim from buildings, punched holes in the roofs of a couple of homes in the Arvada area, knocked out power and phone service for several hours to thousands of public service customers, defoliated thousands of trees, ripped up greens and fairways on a number of local golf courses, and severely damaged several aircraft tied down at the Jefferson County Airport; to name only some of the major damage reported.

By far the worst effects of the storm were in northwestern, west-central, and downtown Denver, and in the northwestern Denver metropolitan area suburb of Arvada. Hail the size of baseballs fell for several minutes near the intersection of 53rd Avenue and Wadsworth Boulevard in old town Arvada. Minutes later, golf ball-size hail and heavy rain pummeled two northwestern Denver amusement parks for several minutes catching park officials and patrons completely off guard. Hardest hit was the Elitch Amusement Park near the intersection of 38th Avenue and Tennyson Street. The unyielding storm sent 47 people from the amusement park to local hospitals for treatment of bumps, cuts, and bruises. Many of them were caught with no shelter when power failed, holding them hostage on rides during the storm.

Hail clogged storm sewers causing rain water to back up 3- to 6-feet deep on several roads and intersections in the Arvada area. Several basements were flooded as well. In some spots hail was washed into drifts several feet deep.

### SIGNIFICANT SEVERE WEATHER REPORTS FROM THE JULY 11 FRONT RANGE HAILSTORM.

- Larimer County**                      **1150MST**  
 Dime- to quarter-size hail was reported by the public in Big Thompson Canyon 10 and 18 miles west of Loveland.
- Boulder County**                      **1230MST**  
 Dime- to quarter-size hail piled to 3 inches deep along Colorado Highway 7, 5 miles west of Lyons.
- Boulder County**                      **1240MST**  
 Dime-size hail was reported on the northeastern side of Boulder.
- Boulder County**                      **1251MST**  
 A National Weather Service employee reported 1-inch-diameter hail on Boulder's southwest side near NOAA's Environmental Research Laboratory (ERL).
- Boulder County**                      **1305MST**  
 The public reported 1-inch-diameter hail in Louisville, 8 miles southeast of Boulder.
- Jefferson County**                      **1305MST**  
 One to 1.5-inch-diameter hail was reported at the Jefferson County Airport 13 miles northwest of downtown Denver.
- Jefferson County**                      **1310MST**  
 Baseball-size hail was reported at 53rd Avenue and Wadsworth Boulevard in old town Arvada.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	COSTS	

## COLORADO Cont'd

<b>Adams County</b>		<b>1317MST</b>								
		A National Weather Service employee reported dime- to quarter-size hail in west Thornton near 97th Avenue and Pecos Street.								
<b>Denver County</b>		<b>1330MST</b>								
		Quarter- to golf ball-size hail and heavy rain was reported by police and the public at the Elitches and Lakeside amusement parks in northwest Denver.								
<b>Denver County</b>		<b>1335MST</b>								
		The police and public reported quarter- to golf ball-size hail pounding portions of west-central and downtown Denver.								
<b>Arapahoe County</b>		<b>1356MST</b>								
		Quarter-size hail was reported two miles east of Littleton in western Arapahoe County.								
<b>Elbert County</b>		<b>1415MST</b>								
		Dime-size hail was reported by the public just west of Elizabeth in western Elbert County.								
<b>Douglas County</b>		<b>1416MST</b>								
		Dime- to Ping-Pong-size hail was reported by the public 2 miles east of Castle Rock and just west of Franktown.								
<b>Douglas County</b>		<b>1422MST</b>								
		A spotter measured 1 inch of rain in Castle Rock in just 10 minutes.								
<b>El Paso County</b>		<b>1500MST</b>								
		Hailstorm moved across the northeastern corner of Colorado Springs between 1500 MST and 1530 MST, leaving behind pea-size hail and from 1.00 to around 1.34 inches of rain.								
<b>Jefferson County Lakewood</b>	11	1340MST	0.10	10	0	0	0	0	0	<b>Tornado (F0)</b>
		A small tornado touched down near the intersection of 6th Avenue Freeway and Kipling Boulevard. The twister briefly dropped down during the above-mentioned hailstorm, but reportedly caused no damage.								
<b>Douglas County Castle Rock</b>	11	1415MST	0.50	20	0	0	5	0	0	<b>Tornado (F1)</b>
		Castle Rock Police reported heavy damage to some homes and vehicles in the Founders Village housing development near Ridge Road. This twister was spawned by the same storm that bombarded the Denver metropolitan area with golf ball- to baseball-size hail.								
<b>San Juan County 35 NNW Durango</b>	14	0700MST			1	1	0	0	0	<b>Lightning</b>
		A 35-year-old man was killed and his fiancée seriously injured when struck by lightning. While camping near Molas Lake 5 miles southwest of Silverton, the couple had just set off on a hike when a thunderstorm came up suddenly. (M35CA)								
<b>Arapahoe County Aurora/Buckley Air National Guard Base</b>	14	1718MST			0	0	0	0	0	<b>Thunderstorm Wind (G50)</b>

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

**Baca County**  
5 S Pritchett      14 1740MST      0.20      15      0      0      0      0      Tornado (F0)

County sheriff's department reported a small tornado on the ground for a few minutes. No damage was observed.

**El Paso County**  
Black Forest      19 1822MST                     0      0      0      0      Hail (1.00)

**Elbert County**  
10 NE Simla      20 1140MST                     0      0      0      0      Hail (1.00)

**Conejos County**  
32 SW Alamosa  
Near Mogote      20 1150MST      1.5      15      0      0      4      0      Tornado (F0)

A small twister destroyed a row of trees just outside the town of Mogote, 32 miles southwest of Alamosa. The town sits at approximately 7,900 feet above sea level on the southern end of the San Luis Valley. The twister was reportedly on the ground for about 30 minutes according to eyewitness accounts.

**El Paso County**  
25 NE Colorado  
Springs      20 1205MST      4.0      25      0      0      0      0      Tornado (F0)

A storm spotter reported a tornado on the ground 8 miles southwest of Calhan. The small twister tracked north over open rangeland approximately 4 miles when it was again spotted just east of Peyton at 1230 MST.

**El Paso County**  
6 NNE Calhan  
1 E Payton      20 1305MST      1.0      15      0      0      0      0      Tornado (F0)  
20 1305MST      0.10      15      0      0      0      0      Tornado (F0)

No damage was reported after both twisters moved across the sparsely inhabited rangeland in northeastern El Paso County.

**El Paso County**  
N Colorado  
Springs      20 1340MST                     0      0      4      0      Hail (1.75)

**N Colorado**  
Springs      1358MST                     0      0      3      0      Hail (1.00)

**18 N Colorado**  
Springs      1400MST                     0      0      0      0      Hail (0.75)

The public reported cars and trees on the north side of Colorado Springs sustained minor damage from quarter- to golf ball-size hail. Dime-size hail was also observed in the town of Monument 18 miles north of Colorado Springs.

**Arapahoe County**  
Littleton      20 1400MST                     0      0      4      0      Flash Flood

Heavy rains fell across southern portions of the Denver metropolitan area as thunderstorms moved northeast across the city. Flash flooding hit sections of Littleton after 1.20 inches of rain fell in less than 30 minutes. The deluge caused Dry Creek to jump its banks, causing damage to residential streets, curbs, and sidewalks. Nearly 100 vehicles were stranded for a time in fender-deep water, when storm sewers and drainage ditches became choked with debris and the heavy runoff, submerging many Littleton streets and intersections.

**El Paso County**  
5 W Calhan      20 1405MST      0.10      10      0      0      0      0      Tornado (F0)

A brief tornado was reported on the ground by the public near Calhan, 22 miles northeast of Colorado Springs.

**STORM DATA AND UNUSUAL WEATHER PHENOMENA**

JULY 1990

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

**COLORADO Cont'd**

Crowley County  
Ordway                     20   1500MST                     0   0   0   0    **Thunderstorm Wind (G52)**

Las Animas County  
42 E Trinidad             20   1530MST                     0   0   0   0    **Thunderstorm Wind (G56)**

The public reported a thunderstorm wind gust to 64 mph 10 miles southeast of Pinon Canyon.

Otero County  
La Junta                   20   1532MST                     0   0   0   0    **Hail (1.50)**

El Paso County  
5 W Colorado  
Springs                   20   1540MST                     0   0   0   0    **Hail (1.75)**

Otero County  
10 W La Junta            20   1600MST                     0   0   4   7   **Hail (1.75)**  
                                  1600MST                     0   0   5   4   **Flash Flood**

Heavy rains and large hail left a wide swath of property and crop damage from Rocky Ford southeast across Otero County. The same weather system that produced the destructive hailstorm in the Denver area earlier that afternoon, produced the thunderstorm that dropped dime- to golf ball-size hail and 3.50 inches of rain in less than an hour near the town of Swink, 10 miles west of La Junta.

The torrential rainfall collapsed several irrigation dikes releasing a wall of muddy water into several fish holding ponds. The privately owned fish farm (west of the town of Swink) lost an estimated \$50,000 in property, including an estimated 250,000 fish.

Several fields of cantaloupe, corn, tomatoes, beans, melons of various types, and peppers were wiped out by the hail and heavy rains. County officials estimated that a good 25% of the Arkansas River Valley melon crop was lost. Crop losses were estimated between \$10 and \$20 million.

Baca County  
Springfield               20   1730MST                     0   0   0   0    **Heavy Rain**

A thunderstorm dropped 1.80 inches of rain and small hail in 45 minutes, causing local street flooding in the southeastern Colorado town of Springfield. No damage was reported.

Otero County  
5 SW La Junta            20   1732MST                     0   0   0   0    **Hail (1.50)**

Las Animas County  
18 NW Trinidad           21   1315MST                     0   0   2   0    **Hail (1.00)**

Quarter-size hail stones were blamed for knocking out windows on a house 1 mile southeast of the town of Aguilar.

Kiowa County  
31 NE Lamar              23   1605MST                     0   0   0   0    **Hail (1.50)**

The Colorado State Patrol reported golf ball-size hail 3 miles east of Sheridan Lake along State Highway 96.

Pueblo County  
Pueblo                    23   1810MST                     0   0   0   0    **Hail (0.75)**

Marble- to dime-size hail stones covered the ground to an inch deep on the city's south side.

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

### COLORADO Cont'd

<b>El Paso County</b>									
N Colorado Springs	27	1530MST			0	0	0	0	Hail (1.75)
2N Colorado Springs		1546MST			0	0	0	0	Hail (1.00)
NE Colorado Springs		1551MST			0	0	0	0	Hail (0.75)
Black Forest		1555MST			0	0	0	0	Hail (1.00)
18 N Colorado Springs		1620MST			0	0	0	0	Hail (1.75)
5 E Black Forest		1650MST			0	0	0	0	Hail (1.75)
<b>Elbert County</b>									
Kiowa	27	1547MST			0	0	0	0	Hail (1.75)
<b>Lincoln County</b>									
5 S Limon	27	1651MST			0	0	0	0	Hail (0.75)
10 SW Limon		1653MST			0	0	0	0	Hail (1.75)
5.5 SW Limon		1710MST			0	0	0	0	Hail (1.00)

<b>Larimer County</b>									
30 NW Fort Collins	28	1130MST			0	0	0	0	Hail (0.75)
S Fort Collins		1420MST			0	0	0	0	Hail (0.75)

Dime-size hail blanketed the ground around Red Feather Lakes 30 miles northwest of Fort Collins, and as much as 5 inches deep on the south side of Fort Collins.

<b>Weld County</b>									
5.5 NW Greeley	28	1402MST			0	0	0	0	Hail (0.75)
2.5 W Greeley		1421MST			0	0	0	0	Hail (0.75)

<b>Pueblo County</b>									
Pueblo	30	1910MST			0	0	5	0	Hail (0.75)
		1910MST			0	0	0	0	Heavy Rain

Pea- to dime-size hail caused minor damage to several cars and trees on the south side of Pueblo. Rainfall amounts ranged from 1.16 to 2.20 inches.

### CONNECTICUT

<b>Tolland County</b>	20	2000EST-2100EST			0	0	0	0	Thunderstorm Winds
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Thunderstorm winds gusting to an estimated 50 mph knocked down trees and limbs in Mansfield and Coventry. Power was disrupted to about 3,000 electric customers.

### DELAWARE

<b>Sussex County</b>									
Laurel Gumboro	01	1600EST-1630EST			0	0	0	0	Thunderstorm Winds

State police reported that high winds downed trees and power lines between Laurel and Gumboro.

<b>New Castle County</b>									
2 SE Meadowood Newark	05	1515EST			0	0	0	0	Hail (0.75)
		1525EST			0	0	0	0	Hail (0.75)

Dime-size hail was reported at both locations.



## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

### DELAWARE Cont'd

**New Castle County  
Newport**

05 1515EST 0 0 3 0 **Lightning**

Lightning caused fires that destroyed a mobile home and damaged a house.

**Kent County  
2 SW Farmington**

10 1920EST 0 0 3 0 **Thunderstorm Winds**

Four residences were damaged, a mobile home was destroyed, and another mobile home was overturned. Some tree limbs were downed. The damage pattern indicated a downburst.

**Sussex County  
North Shores**

19 1230EST 2 0 0 0 **Lightning**

One man was struck in the chest by lightning and killed while walking on the beach at North Shores. Another man walking with him was seriously injured by the same bolt of lightning and died the next day. (M620, M360)

**Sussex County  
Dewey Beach**

21 Evening 1 0 0 0 **Lightning**

A man was killed by a lightning bolt while sitting on the beach. (M290)

### FLORIDA

**Sarasota County  
Myakka St. Park**

01 1300EST 0 0 1 3 **Thunderstorm Wind**

Trees were blown down.

**Sarasota County  
Venice**

01 1305EST 0 0 0 0 **Tornado (F0)**

A tornado touched down briefly.

**Marion County  
Ocala**

01 1415EST 0 0 3 0 **Thunderstorm Winds**

Trees and limbs were blown down. Two vehicles sustained damage.

**Highlands County  
Desoto  
Sebring**

01 1445EST 0 0 4 0 **Lightning**  
01 1445EST 0 0 4 0 **Thunderstorm Winds**

A mobile home in Desoto was destroyed by a lightning-initiated fire and a home in Sebring was damaged by thunderstorm winds.

**Brevard County  
Merritt Island**

01 1500EST 0 0 4 0 **Thunderstorm Winds**

Thunderstorm winds blew a tin roof off a commercial building which then collapsed.

**Hillsborough County  
Plant City**

01 1547EST 0 0 3 0 **Thunderstorm Winds**

Thunderstorm wind gusts damaged two mobile home roofs and downed trees and power lines.

**Volusia County  
New Smyrna Beach**

01 1600EST 0 0 3 0 **Thunderstorm Winds**

A beach concession was destroyed and a lifeguard stand damaged by a thunderstorm wind gust.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

## FLORIDA Cont'd

<b>Polk County</b> Lake Wales	01	1700EST			0	0	3	0	Thunderstorm Winds
									Wind gusts caused minor damage to several mobile homes and blew over large trees. Pebble-size hail was observed.
<b>Monroe County</b> Big Pine Key	01	1835EST							Waterspout
									A pilot reported a waterspout.
<b>Lee County</b> Ft. Myers Beach	02	0920EST							Waterspout
									The Coast Guard reported a waterspout.
<b>Lee County</b> Ft. Myers	02	1015EST			0	1	0	0	Lightning
									An airport luggage handler was injured by a bolt of lightning that struck a nearby ramp.
<b>Manatee County</b> Bradenton	02	1130EST	Short		0	0	0	0	Waterspout - Tornado (F0)
									A waterspout moved onshore from Manatee River downing a large tree and power lines.
<b>Alachua County</b> Gainesville	02	1200EST			0	0	0	0	Thunderstorm Winds Hail (0.75)
									Trees were blown down and three-quarter-inch hail was reported.
<b>Collier County</b> 5 SW Naples	02	1230EST							Waterspout
									The Coast Guard reported a waterspout.
<b>Monroe County</b> Big Coppitt Key	02	1336EST							Waterspout
									A waterspout was reported.
<b>Broward County</b> Ft. Lauderdale	02	1340EST			0	0	3	0	Lightning Thunderstorm Winds
									A lightning bolt destroyed the cupola of a house. Six trees were uprooted.
<b>Brevard County</b> 2 W Cape Canaveral	02	1400EST			0	1	0	0	Lightning
									A 42-year-old male was seriously injured by lightning while fishing in an open boat.
<b>Collier County</b> Golden Gate	02	1430EST			0	0	3	0	Thunderstorm Winds
									A porch was damaged and trees were blown down.
<b>Palm Beach County</b> Jupiter	02	1430EST			0	1	0	0	Lightning
West Palm Beach	02	1430EST			0	0	3	0	Lightning
									A gardener in Jupiter was injured by a lightning strike. A lightning-initiated fire in West Palm Beach caused \$1,000 damage to a house.

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

### FLORIDA Cont'd

<b>Duval County</b> <b>Jacksonville</b>	02	1435EST			0	0	0	0	Thunderstorm Wind (G60) Hail (0.75)
Peak wind gusts of 60 knots and three-quarter-inch hail were observed at the airport.									
<b>Volusia County</b> <b>Daytona Beach</b>	02	1500EST			0	0	3	0	Thunderstorm Winds
The roof of a carport was damaged by thunderstorm gusts.									
<b>Jackson County</b> <b>Marianna</b>	02	1700EST			0	0	0	0	Thunderstorm Winds
Trees were blown down.									
<b>Jefferson County</b> <b>Monticello</b>	02	1730EST			0	0	0	0	Thunderstorm Winds
Large tree branches were blown down.									
<b>Walton County</b> <b>Defuniak Springs</b>	02	1730EST			0	0	0	0	Hail (1.00)
<b>Defuniak Springs</b>	02	1750EST			0	0	0	0	Thunderstorm Winds
<b>Defuniak Springs</b>	02	1945EST			0	0	4	0	Lightning
Thunderstorm winds downed trees and power lines and quarter-size hail was observed. A lightning-initiated fire did \$10,000 damage to a 100-year-old house.									
<b>Okaloosa County</b> <b>Ft. Walton Beach</b>	02	1750EST			0	0	0	0	Thunderstorm Winds
<b>Destin</b>	02	1750EST			0	1	0	0	Lightning
Three trees were uprooted by thunderstorm gusts in Ft. Walton Beach. A Destin man was injured by lightning while entering his vehicle.									
<b>Santa Rosa County</b> <b>Navarre Beach</b>	02	1940EST	Short		0	0	3	0	Tornado (F0)
A vacant camper was damaged by a brief tornado touchdown.									
<b>Santa Rosa County</b> <b>Bagdad</b>	03	1630EST	Short		0	0	0	0	Tornado (F0)
A tornado touched down briefly with no apparent damage.									
<b>Okaloosa County</b> <b>Eglin AFB</b>	03	1520EST			0	0	0	0	Thunderstorm Wind (G50)
A wind gust to 50 knots was measured.									
<b>Okaloosa County</b> <b>Niceville</b>	03	1525EST			0	0	0	0	Hail (1.00)
Three-quarter to one-inch-size hail was reported.									
<b>Broward County</b> <b>Pompano Beach</b>	03	1700EST			0	0	3	0	Thunderstorm Winds
A concrete wall and house shutters were damaged by wind gusts.									

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

### FLORIDA Cont'd

**Madison County**  
Pinetta

03 1800EST Short 0 0 0 0 Tornado (F0)

A brief tornado touchdown twisted trees and took down tree limbs and power lines.

**Broward County**  
1 E Ft. Lauderdale

04 0800EST Waterspout

A waterspout was photographed just offshore.

**St. Lucie County**  
Ft. Pierce

04 1915EST 0 0 3 0 Thunderstorm Winds

A house roof was damaged, tree limbs blown down, and light aircraft overturned.

**Broward County**  
Sunrise  
Tamarac  
Cooper City

05 1415EST 0 1 0 0 Lightning  
05 1425EST 0 0 5 0 Lightning  
05 1520EST 0 0 0 0 Thunderstorm Winds  
Hail (0.75)

A Sunrise policeman was injured by a nearby lightning strike as he entered his vehicle. A house in Tamarac suffered \$50,000 damage from a lightning-initiated fire. Wind gusts downed tree limbs and three-quarter-inch hail was reported in Cooper City.

**Collier County**  
4 SE Immokalee

06 1615EST 0 0 2 0 Hail (1.25)

Golf ball-size hail broke a few windows.

**Hendry County**  
LaBelle

06 1920EST Funnel Cloud

Several funnel clouds were sighted.

**Pinellas County**  
Seminole

07 1400EST 0 0 4 0 Thunderstorm Winds

A roof sustained \$10,000 damage from a thunderstorm downburst.

**Polk County**  
Lakeland

07 1622EST 0 0 0 0 Hail (0.75)

**Pasco County**  
Land of Lakes

07 1650EST 0 0 0 0 Hail (0.75)

**Polk County**  
Lakeland

07 1715EST 0 0 0 0 Tornado (F0)

A tornado touched down briefly.

**Hillsborough County**  
Sun City Center

07 1715EST 0 0 1 1 Thunderstorm Wind

A tree and shed were blown down. Hail and funnel cloud.

**Pinellas County**  
Safety Harbor

07 1830EST 0 0 0 0 Thunderstorm Wind (G70)

Wind gusts to 80 mph and hail measured 0.40 inch.

**Hillsborough County**  
Tampa

07 1900EST 0 0 4 0 Thunderstorm Wind

Power lines were downed.

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

### FLORIDA Cont'd

**Pasco County**  
Port Richey      08 1530EST      0   0   0   0      **Hail (0.25)**

**Lee County**  
Cape Coral      09 1340EST      0   0   3   0      **Thunderstorm Winds**

A screened pool enclosure was blown away.

**Lee County**  
Bonita Springs      09 1345EST      0   1   0   0      **Lightning**

A 20-year-old construction worker was hit by lightning and thrown 7 feet into the air.

**Hillsborough County**  
Tampa      09 1700EST      0   1   0   0      **Lightning  
Hail (1.25)  
Funnel Cloud**

A 38-year-old paramedic was injured by a lightning strike. Golf ball-size hail and a funnel cloud were observed.

**Hillsborough County**  
Tampa      09 1717EST      0   0   0   0      **Hail (1.50)**

**Pinellas County**  
St. Petersburg      09 1730EST      0   0   0   0      **Hail (1.25)**  
Clearwater      09 1835EST      0   0   0   0      **Thunderstorm Wind (G60)**

Golf ball-size hail was reported at St. Petersburg and the Coast Guard measured 60 knot wind gusts in Clearwater.

**Hernando County**  
Brooksville      09 1740EST      0   0   3   0      **Thunderstorm Wind**

Power lines were downed.

**Collier County**  
Marco Island      10 1300EST      0   1   0   0      **Lightning**

A 34-year-old man walking on the beach was injured by lightning.

**Taylor County**  
Perry      10 1500EST      0   0   0   0      **Thunderstorm Winds**

Numerous trees were downed.

**Sarasota County**  
Sarasota      10 1620EST      0   0   3   0      **Thunderstorm Wind**

Power lines were downed.

**Manatee County**  
Bradenton      10 1624EST      0   0   2   0      **Thunderstorm Wind**

Power lines were downed.

**Hardee County**  
Wauchula Hills      10 1754EST      0   0   4   0      **Lightning**

A lightning-initiated fire destroyed a mobile home.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

## FLORIDA Cont'd

**Hillsborough County  
Tampa**

10	1800EST								Thunderstorm Winds Lightning
					0	0	4	0	
					0	0	4	0	

Thunderstorm winds damaged a house roof and screened porch. A lightning bolt toppled a church steeple causing \$12,000 damage.

**Citrus County  
Lecanto**

10	2000EST								Thunderstorm Wind
					0	0	0	3	

Trees were downed.

**Franklin County  
Carrabelle**

11	0430EST								Lightning
					0	0	4	0	

A three-bedroom frame house was completely destroyed by a lightning-initiated fire.

**Brevard County  
2 E Cape  
Canaveral**

11	1055EST								Waterspout
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A short-lived waterspout was observed offshore Cape Canaveral.

**Levy County  
Chiefland**

11	1400EST								Lightning
					0	1	2	0	

Lightning entered an office through a computer cable, damaged a desk, and injured a man sitting at it.

**Sarasota County  
Englewood**

11	1400EST								Thunderstorm Winds
					0	0	3	0	

A screened porch enclosure was heavily damaged by thunderstorm wind.

**Pinellas County  
Clearwater**

11	1630EST								Hail (0.75)
					0	0	0	0	

**Polk County  
Mulberry**

11	1639EST	Short							Tornado (F0)
					0	0	3	0	

A brief tornado touchdown took the roof off a mobile home.

**Hernando County  
Brooksville**

11	1640EST	Short							Tornado (F0)
					0	0	3	0	

A house roof was heavily damaged and two outbuildings were damaged.

**Hillsborough County  
Sefner**

11	1730EST								Hail (1.00) Thunderstorm Winds
					0	0	0	0	
					0	0	0	0	

Nickel-size hail was reported and trees and power lines were downed.

**Pasco County  
West portion**

11	1830EST								Lightning Thunderstorm Winds
					0	0	3	0	
					0	0	0	0	

Lightning damaged a house and some trees and power lines were downed.

**Volusia County  
West portion**

12	1545EST								Thunderstorm Winds
					0	0	0	0	

Numerous trees were blown down.

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

### FLORIDA Cont'd

<b>Alachua County</b> Alachua	12	1630EST			0	0	5	0	Lightning
Three townhouses were destroyed by lightning-initiated fire.									
<b>Hernando County</b> Spring Hill	12	1700EST			0	0	3	0	Lightning
Two houses suffered minor damage from lightning-initiated fires.									
<b>Polk County</b> Mulberry	12	1715EST			0	0	3	0	Thunderstorm Winds
A trailer was damaged by a large tree limb blown down by the thunderstorm.									
<b>Union County</b> Lake Butler	12	1740EST	Short		0	0	0	0	Tornado (F0)
The Civil Defense reported a brief tornado touchdown, causing some damage to trees.									
<b>Palm Beach County</b> 1 E Palm Beach	13	0800EST							Waterspout
A waterspout was reported offshore Palm Beach.									
<b>Manatee County</b> Terra Ceia Anna Maria	14	0800EST			0	0	3	0	Waterspout Tornado (F0) Thunderstorm Winds
Ten telephone poles were snapped in half near Terra Ceia and a house and roof were damaged near Anna Maria.									
<b>Pasco County</b> New Port Richey	14	0920EST	Short		0	0	5	0	Waterspout Tornado (F0)
A waterspout moved onshore from the Gulf of Mexico and ripped roofs off several houses causing \$75,000 damage.									
<b>Sarasota County</b> Venice	14	0930EST			0	0	4	0	Thunderstorm Winds
A large trailer awning was blown into several vehicles causing \$10,000 damage.									
<b>Broward County</b> Pembroke Pines Ft. Lauderdale	14 14	1300EST 1430EST			0 0	4 0	3 0	0 0	Thunderstorm Winds Thunderstorm Winds
Four people were injured when a thunderstorm wind blew down two large tents hurling the people into picnic tables at CB Smith Park in Pembroke Pines. A large tree was blown over in Ft. Lauderdale.									
<b>Palm Beach County</b> Delray Beach	14	1340EST			0	0	5	0	Lightning
A lightning-initiated fire caused \$50,000 damage to a condominium.									
<b>Palm Beach County</b> 5 E Palm Beach	16	0910EST							Waterspout
A waterspout was reported offshore Palm Beach.									

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

### FLORIDA Cont'd

Hillsborough County Sun City Center	16	1800EST	Short	0	0	4	0	Tornado (F0)	
Two houses and a drug store were damaged by a brief tornado touchdown.									
Dade County 1 E Miami Beach	17	1200EST						Waterspout	
The Beach Patrol reported a waterspout offshore Miami Beach.									
Sarasota County 10 SE Sarasota	17	1615EST	1.0	10	0	0	4	0	Tornado (F0)
Windows were blown out of houses and appliances moved up to 50 feet.									
Hillsborough County Sun City Center	17	1800EST			0	0	3	0	Thunderstorm Winds
Trees and power lines were downed and a community building roof and siding damaged.									
Escambia County Pensacola	18	1330EST			0	0	0	0	Hail (0.75)
Dime-size hail was reported.									
Hillsborough County Riverview	18	1600EST			0	0	4	0	Thunderstorm Winds
Several trees were downed including one that caused \$10,000 damage to a car and pumphouse.									
Pinellas County Safety Harbor	18	1630EST			0	0	0	0	Thunderstorm Wind (G50)
A wind gust of 60 mph was reported by the Coast Guard.									
Manatee County Long Boat Key	19	1600EST			0	0	2	1	Thunderstorm Wind
Trees and power lines were downed.									
Lake County 1 S Clermont	19	1630EST			0	0	3	0	Thunderstorm Winds
Thunderstorm winds picked up a utility shed and deposited it one block away on a swimming pool screened enclosure.									
Monroe County 6 NW Key West	19	1806EST							Waterspout
A waterspout was reported.									
Volusia County Daytona Beach	20	1215EST			1	0	0	0	Lightning
A man wading in the ocean 75 yards offshore was killed by a lightning strike. (M310)									
Hillsborough County Tampa	20	1723EST			0	0	4	0	Thunderstorm Wind
Hillsborough County Tampa	20	1815EST			0	0	2	0	Thunderstorm Wind
Broward County Coral Springs	21	1415EST			1	1	0	0	Lightning
Two roofers were injured by a lightning strike. One of the men died ten days later. (M190)									





# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## FLORIDA Cont'd

<b>Palm Beach County</b> Loxahatchee	24	1515EST			0	0	5	0	<b>Lightning</b>  Two attached mobile homes were destroyed by a lightning-initiated fire causing an estimated \$50,000 damage.
<b>St. Johns County</b> Northern Part	24	1600EST			0	0	0	0	<b>Thunderstorm Winds</b>  Trees and power lines were blown down.
<b>Charlotte County</b> Punta Gorda	24	1600EST			0	0	3	0	<b>Thunderstorm Winds</b>  A roof was ripped off a mobile home.
<b>Putnam County</b> Palatka	24	1707EST			0	0	0	0	<b>Thunderstorm Winds</b>  Tree limbs were blown off.
<b>Highlands County</b> Avon Park Lake Placid	24	1740EST			0	0	0	0	<b>Thunderstorm Winds</b>  Trees and power lines were blown down.
<b>Monroe County</b> 1 S Big Pine Key	24	1910EST							<b>Waterspout</b>  The Coast Guard reported a waterspout.
<b>Lee County</b> Ft. Myers Cape Coral Captiva Island	24	1910EST			0	0	3	1	<b>Thunderstorm Winds</b> <b>Thunderstorm Winds</b> <b>Thunderstorm Winds</b>  A building under construction in Ft. Myers collapsed from thunderstorm winds. A screened porch in Cape Coral was damaged and trees and power lines were blown down on Captiva Island.
<b>Pasco County</b> 3 S New Port Richey  4 NW Hudson	25	1000EST	Short		0	0	0	0	<b>Waterspout</b> <b>Tornado (F0)</b> <b>Waterspout</b> <b>Tornado (F0)</b>  Two waterspouts moved onshore but did no damage.
<b>Dade County</b> 10 SW Miami	25	1315EST			0	1	0	0	<b>Lightning</b>  A construction worker suffered burns on his chest when struck by lightning.
<b>Broward County</b> Deerfield Beach	25	1415EST			0	2	0	0	<b>Lightning</b>  Two roofers were injured by a lightning strike.

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

### FLORIDA Cont'd

**Sarasota County**  
Nokomis      25 1440EST      0 0 3 0      Hail (0.75)  
Thunderstorm Winds

Venice      25 1450EST      0 0 0 0      Hail (1.25)

At Nokomis trees were blown down, roof tiles were damaged, and three cars suffered minor damage. Golf ball-size hail was reported at Venice.

**Citrus County**  
Floral City      25 1530EST      0 0 2 0      Thunderstorm Winds

Trees were blown down and one fell on a house.

**Orange County**  
Orlando      25 1700EST      0 0 5 0      Thunderstorm Wind (G60)

Large trees were downed and several automobiles damaged. Several sailboats in drydock were overturned and a mobile home park received damage to 3 to 5 units. Five small aircraft were flipped at Orlando International Airport with wind gusts of 60 knots measured.

**Osceola County**  
5 ENE Kissimee      25 1735EST      0 0 0 0      Thunderstorm Wind (G50)

Wind gusts over 50 knots were recorded at the Doppler weather radar test site.

**Highlands County**  
Avon Park      25 1805EST      0 0 4 0      Thunderstorm Winds  
Sebring      25 1815EST      0 0 0 0      Hail (2.00)  
                  25 1820EST      0 0 4 0      Thunderstorm Winds

Railroad tracks were lifted slightly. Playground equipment, fences, and a barn roof were damaged at Avon Park. In Sebring wind gusts damaged a car dealership and 1.5- to 2-inch-size hail was reported.

**Nassau County**  
Fernandina Beach      26 0800EST      0 0 4 0      Thunderstorm Winds

A thunderstorm gust collapsed a portion of a roof at a shopping center.

**Monroe County**  
Grassy Key      26 1230EST                               Waterspout

The Sheriff's office reported a waterspout.

**Charlotte County**  
Port Charlotte      26 1400EST      0 0 3 0      Lightning

A house caught on fire after a lightning strike.

**Monroe County**  
2 SE Key West      28 0932EST                               Waterspout

A waterspout was reported.

**Polk County**  
Lake Wales      29 1400EST      0 0 4 0      Lightning

Four horses valued at \$6,000 were killed by a lightning strike.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

**Gilmer County**  
6 ESE Cartecay      01 1720EST      0 0 ? ?      Thunderstorm Wind

A few trees were blown down around the Big Creek community.

**Hancock County**  
Countywide      01 2010EST      0 0 ? ?      Thunderstorm Wind

**Washington County**  
Countywide      01 2010EST      0 0 ? ?      Thunderstorm Wind

Scattered trees were blown down by thunderstorm winds at several locations in Washington and Hancock counties. A few power outages resulted when utility lines were torn down by falling trees and the winds.

**Morgan County**  
Buckhead      01 2010EST      0 0 ? ?      Thunderstorm Wind  
01 2010EST      0 0 0 ?      Hail (1.75)

A building's tin roof was blown off by strong winds as a thunderstorm moved over Morgan County. Scattered trees and power lines were blown down.

**Colquitt County**  
1 N Norman Park      02 1450EST      0 0 ? ?      Thunderstorm Wind

Ellenton      02 1515EST      0 0 ? ?      Thunderstorm Wind

Several large tree limbs were blown down by winds over northeast Colquitt County near Norman Park. Near Ellenton and Berlin, scattered trees were downed.

**Mitchell County**  
3 W Hopeful      02 1525EST      0 0 ? ?      Thunderstorm Wind

Numerous trees were blown down on Georgia Highway 311.

**Baker County**  
15 NW Newton      02 1525EST      0 0 ? ?      Thunderstorm Wind  
2 SW Newton      02 1630EST      0 0 ? ?      Thunderstorm Wind

Numerous trees were blown down southwest of Newton along Georgia Highway 91. Trees were also down along Georgia Highway 216.

**Toombs County**  
Lyons      02 2020EST      0 0 0 ?      Hail (1.75)

**Houston County**  
Elko      02 2020EST      0 0 0 0      Hail (1.50)  
Perry      02 2020EST      0 0 ? ?      Thunderstorm Wind

Scattered trees were blown down around Perry.

**Dooly County**  
Pinehurst      02 2020EST      0 0 ? ?      Thunderstorm Wind  
Unadilla      02 2035EST      0 0 ? ?      Thunderstorm Wind  
Bryomville      02 2050EST      0 0 ? ?      Thunderstorm Wind

Numerous trees were uprooted by thunderstorm winds over northern and western Dooly County. Scattered power outages resulted when falling trees and winds tore down the utility lines and snapped several poles. Transformers were struck by lightning at several locations.

**Upson County**  
2 N Thomaston      07 1615EST      0 0 ? ?      Thunderstorm Wind

Numerous trees and power lines were blown down by thunderstorm winds. One mobile home was completely demolished and another was overturned by the winds.





## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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>Irwin County</b> Countywide	09	1900EST			0	0	?	?	Thunderstorm Wind
Numerous trees were blown down by thunderstorm winds across Irwin County. Scattered power outages resulted when trees and winds tore down utility lines.									
<b>Ben Hill County</b> Fitzgerald	09	1935EST			0	0	?	?	Thunderstorm Wind
Scattered trees and power lines were blown down by thunderstorm winds. A boat was damaged when a large pine fell upon it.									
<b>Catoosa County</b> Countywide	10	1700EST			0	0	?	?	Thunderstorm Wind
Trees and power lines were blown down at several locations.									
<b>Houston County</b> Warner Robins Warner Robins	10	1715EST			0	0	?	0	Thunderstorm Wind
	10	1735EST			0	0	?	0	Thunderstorm Wind
Thunderstorm winds damaged a house at 1715 EST. During the storm, several buildings and signs were damaged by the winds, including two plate glass windows in a business.									
<b>Bartow County</b> Adairsville	10	1715EST			0	0	?	?	Thunderstorm Wind
Scattered trees were blown down by thunderstorm winds, resulting in a few power outages.									
<b>Fannin County</b> Mineral Bluff	10	1740EST			0	0	?	?	Thunderstorm Wind
Scattered trees were blown down onto mobile homes and across the roads.									
<b>Polk County</b> Rockmart	10	1840EST			0	0	?	0	Thunderstorm Wind Small Hail
Winds took the roof off a building in downtown Rockmart and dropped the roof onto power lines. Scattered trees were blown down. The plate glass window of a car dealership was shattered.									
<b>Baldwin County</b> Milledgeville	10	1910EST			0	0	?	?	Thunderstorm Wind
A couple of large trees were blown down by thunderstorm winds onto power lines, resulting in isolated outages.									
<b>Crawford County</b> Roberta Eastern Crawford County	10	1945EST			0	0	?	0	Thunderstorm Wind
	10	1945EST			0	0	?	?	Thunderstorm Wind
An empty mobile home was overturned by winds near U.S. Highway 80. Scattered trees were blown down onto power lines over the eastern half of the county.									
<b>Bibb County</b> 2 N Macon	10	2110EST			0	0	?	0	Thunderstorm Wind
Scattered trees were blown down by thunderstorm winds at Macon. One tree fell onto a house and caused structural damage.									

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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>Jones County</b> 3 S Gray		10 2115EST			0	0	?	?	<b>Thunderstorm Wind</b>  Scattered trees were blown down by winds onto power lines, resulting in power outages.
<b>Houston County</b> Bonaire		11 0030EST			0	0	?	0	<b>Lightning</b>  Lightning struck a tree in Bonaire and jumped to a nearby house. The house suffered extensive fire damage to the attic area.
<b>Whitfield County</b> Countywide Tunnel Hill		11 1209EST 11 1245EST			0 0	0 0	? ?	? ?	<b>Thunderstorm Wind</b> <b>Thunderstorm Wind</b>  Power lines were blown down by thunderstorm winds at several locations in Whitfield County. One house sustained damage when a tree fell upon it. A portion of a barn roof was blown off. A few tree limbs were blown down at Tunnel Hill.
<b>Troup County</b> Whitfield		11 1209EST			0	0	?	?	<b>Thunderstorm Wind</b>  Scattered power lines were blown down by thunderstorm winds.
<b>Decatur County</b> Bainbridge		11 1445EST			0	0	?	0	<b>Thunderstorm Wind</b> <b>Small Hail</b>  Several aircraft were damaged by strong thunderstorm winds in an industrial park at Bainbridge. Power outages resulted when utility lines were torn down by the winds.
<b>Floyd County</b> 2 NE Rome		11 1800EST			0	0	?	0	<b>Thunderstorm Wind</b>  A few trees were blown down by thunderstorm winds near Rome. At separate locations, a house and an automobile were damaged. Power outages resulted when utility lines were downed by the winds and falling trees.
<b>Warren County</b> 2 E Warrenton 2 E Warrenton		11 1800EST 11 1800EST			0 0	0 0	? 0	? 0	<b>Thunderstorm Wind (G56)</b> <b>Hail (1.75)</b>  Around U.S. Highway 80, large trees fell onto power lines, resulting in power outages. Wind gusts were estimated to be near 70 mph. A storage building was destroyed when the winds wrapped it around a telephone pole.
<b>Bryan County</b> Northeastern Bryan County		11 1630EST			0	0	?	?	<b>Thunderstorm Wind</b>  Thunderstorm winds lifted the roof of a Georgia Department of Transportation weigh station located along Interstate 16. The winds carried the roof airborne before setting it down about 50 feet west of the building. A few trees were blown down along the highway.
<b>Laurens County</b> 5 S Dublin		12 1815EST			0	0	?	?	<b>Thunderstorm Wind</b>  Scattered trees were blown down onto power lines, resulting in power outages.
<b>Oconee County</b> Watkinsonville		17 1625EST			0	0	5	4	<b>Thunderstorm Wind</b>  Downburst winds destroyed several turkey houses and downed several trees at a farm in Watkinsonville. Over 2,000 turkeys were killed. Damage costs were estimated at \$180,000.



## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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>Floyd County</b> Rome	21	1700EST			0	0	?	0	Thunderstorm Wind Lightning Lightning
	21	1800EST			0	0	4	0	

Thunderstorm winds and lightning knocked several trees onto power lines, resulting in scattered power outages for nearly 1,500 residents. Lightning struck the upper story of a home and caused about \$45,000 in damages.

<b>Gwinnett County</b> Lawrenceville	22	1230EST			0	0	?	0	Lightning
<b>Southern Gwinnett County</b>	22	1300EST			0	0	?	0	Lightning

Lightning struck a home and set it ablaze at Lawrenceville. At another location in Lawrenceville, lightning struck a tree and started a gas leak, but no fire. In southern Gwinnett County, lightning knocked a hole in a structure.

<b>McDuffie County</b> Boneville	22	1415EST			0	0	?	0	Lightning
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Lightning set a cabinet shop in Boneville afire; the shop was destroyed.

<b>Columbia County</b> Martinez	22	1430EST			0	0	?	0	Lightning
<b>Richmond County</b> Blythe Hephzibah	22	1500EST			0	0	?	0	Lightning

Thunderstorms moved over Columbia and Richmond counties and caused power outages for about 400 homes. Lightning cut a telephone cable in half and struck many power lines.

<b>Troup County</b> LaGrange	22	1730EST			0	0	?	0	Lightning
---------------------------------	----	---------	--	--	---	---	---	---	-----------

Four homes on one street were damaged when a lightning bolt struck a pine tree and sent electrical currents through the area. The current moved through the roof at the first home, into the electrical appliances and then on to three other homes along the block. Along the path, the lightning damaged audio-visual equipment and televisions at three of the homes, along with one microwave oven, a telephone, an air-conditioning unit, and a washing machine.

<b>Catoosa County</b> Fort Oglethorpe	22	1745EST			0	0	?	?	Thunderstorm Wind
--	----	---------	--	--	---	---	---	---	-------------------

Power lines were blown down by thunderstorm winds over western Catoosa County near Fort Oglethorpe. Several signs sustained wind damages.

<b>Walker County</b> Rossville	22	1745EST			0	0	?	?	Thunderstorm Wind
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Power lines were blown down by thunderstorm winds over northern Walker County near Rossville.

<b>Chatham County</b> 25 SE Savannah	22	1751EST			1	1	0	0	Lightning
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Two men were struck by lightning on the northern end of the beach at Tybee Island near the Savannah River entrance. One man died; the other was seriously injured. (M220)

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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>Murray County</b> Chatsworth	22	1800EST			0	0	?	0	<b>Lightning</b>  Lightning struck a duplex, displaced 10- to 12-feet of concrete, including the doorsteps, and punctured a wading pool in several places. The bolt traveled through the house, ripped the carpet, and knocked the baseboards off the wall. Another lightning bolt destroyed a nearby tree.
<b>Lumpkin County</b> 1 N Dahlonega	22	1952EST			0	0	?	?	<b>Thunderstorm Wind</b>  Thunderstorm winds downed several trees.
<b>White County</b> Cleveland	22	2007EST			0	0	0	0	<b>Hail (0.88)</b>
<b>Habersham County</b> 4 N Batesville	22	2030EST			0	0	?	0	<b>Lightning</b>  Lightning damaged a chicken house in northern Habersham County.
<b>Stephens County</b> 4 NNE Toccoa	22	2045EST			0	0	?	?	<b>Thunderstorm Wind</b>  Winds downed several trees. Power outages developed after the trees tore down power lines over northern Stephens County.
<b>Butts County</b> Griffin	23	1500EST			0	0	?	?	<b>Thunderstorm Wind</b>  A few trees and limbs were blown down by thunderstorm winds near Griffin. Scattered power outages developed over Butts County.
<b>Henry County</b> Hampton	23	1530EST			0	0	?	?	<b>Thunderstorm Wind</b>  Thunderstorm winds blew down utility lines, resulting in scattered power outages.
<b>Cobb County</b> Smyrna Marietta	23	1550EST			0	0	?	0	<b>Thunderstorm Wind</b> <b>Small Hail</b>  Numerous power outages developed at Smyrna and Marietta after thunderstorm winds downed power lines and trees.
<b>Fayette County</b> Countywide	23	1615EST			0	0	?	0	<b>Thunderstorm Wind</b>  Thunderstorm winds blew down utility lines, resulting in scattered power outages.
<b>De Kalb County</b> North Atlanta Druid Hills Countywide Stone Mountain	23	1615EST			0	0	?	0	<b>Lightning</b> <b>Hail (1.75)</b> <b>Thunderstorm Wind (G63)</b> <b>Thunderstorm Wind</b>  Lightning struck a home in northern Atlanta and caused significant fire damage. Trees were blown down at several locations and, along with the winds, tore down power lines and caused scattered power outages over De Kalb County. A few homes had structural damages from the falling trees.

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

### GEORGIA Cont'd

**Rockdale County**  
Conyers                      23 1710EST                      0 0 ? 0                      **Thunderstorm Wind  
Small Hail**

Trees blown down by thunderstorm winds fell onto power lines, resulting in scattered outages.

**Meriwether County**  
Gay                              23 1710EST                      0 0 ? ?                      **Thunderstorm Wind**

A few trees and power lines were blown down by the winds.

**Turner County**  
5 N Ashburn  
Ashburn                      23 2025EST                      0 0 ? ?                      **Thunderstorm Wind**

Winds damaged several houses and a local plant nursery, while numerous trees were broken or uprooted. Power outages developed when utility lines were torn down during the storm.

**Irwin County**  
6 NW Irwinville  
3 W Irwinville              23 2048EST                      0 0 ? ?                      **Thunderstorm Wind**

Many trees were downed over western Irwin County, especially near Georgia Highway 107. Power outages developed when lines were torn down by the trees and winds.

**Chatham County**  
Savannah                    25 2230EST-  
26 0230EST                    0 0 ? 0                      **Flash Flooding**

Heavy rainfall over Savannah and the remainder of Chatham County caused flash flooding in low-lying areas. Rainfall amounts over the area ranged from 2 inches to around 7 inches. In the midtown and downtown sections of Savannah, flooding occurred over numerous streets, with complications caused by poor drainage. Water entered a few houses.

**Mitchell County**  
3 S Pelham                    31 1500EST                      0 0 ? ?                      **Thunderstorm Wind  
Small Hail**

A store suffered damages when the winds blew away most of the front porch roof and scattered the garage roof over a nearby field. The winds shifted the roof of the owner's nearby home.

### IDAHO

**Canyon County**  
Ada County                    01 1725MST                      0 0 4 0                      **Thunderstorm Wind**

Roofs and power lines were damaged at Melba, Kuna, and Boise.

**Washington County**  
5 N Weiser                    09 2030MST    0.1    20    0 0 4 0                      **Tornado (F1)**

Utility buildings exploded.

**Caribou County**  
Soda Springs                23 1336MST                      0 0 0 0                      **Thunderstorm Wind (G50)**

**Bear Lake County**  
Montpelier                    23 1356MST                      0 0 5 0                      **Thunderstorm Wind (G65)**

Cottonwood trees were uprooted and roofs damaged.

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

### IDAHO Cont'd

**Caribou County**  
Soda Springs      23 1700MST      0   0   0   0      **Thunderstorm Wind (G50)**

**IDZ004-006-010-011** Central and Southern Idaho      23 1700MST-24 0500MST      0   0   4   5      **Lightning**

Thousands of lightning strikes ignited dozens of forest fires under moderate to extreme drought conditions. The Little Park fire on the Shoshone BLM District blackened 3,000 acres before it was controlled on the 25th.

**Bannock County**  
Chubbock      24 1200MST      0   0   0   0      **Hail (0.75)**

**Ada County**  
Melba      30 1800MST      0.1      20      0   0   3   0      **Tornado (F0)**

**Elmore County**      30 1810MST      0   0   0   0      **Thunderstorm Wind**

Extreme turbulence 10 miles distant from a thunderstorm turned a PA34 aircraft upside down at 10,000 feet.

**Shoshone County**  
Prichard      30 1830PST      0   0   4   0      **Thunderstorm Wind (G50)**

**IDZ006-011-010** Central and Southern Idaho      30 1900MST-31 0300MST      0   0   3   5      **Lightning**

### ILLINOIS

**ILZ001-004-005**      01 1200CST      0   0   ?   6      **Flood**

Flooding occurred through July 5th because of rain that fell in late June. Along the Pecatonica River at Freeport, flood crest occurred midday July 4th. Heavy crop damage occurred in north Henry and northwest Bureau counties because of standing water on croplands for several days.

**Perry County**  
Du Quoin      05 1700CST      0   0   5   ?      **Thunderstorm Wind**

Thunderstorm winds damaged trees and power lines from Du Quoin to Dowell and scattered throughout Perry County. Du Quoin State Fairgrounds incurred extensive tree losses.

**Peoria County**  
8 NNW Peoria      09 2025CST      0   0   ?   ?      **Hail (2.75)**

**Winnebago County**  
Loves Park      18 1315CST      0   0   4   0      **Thunderstorm Wind**

There was damage to trees and power lines at Loves Park. Other scattered power outages occurred throughout the county.

**Boon County**  
Garden Prairie      18 1340CST      0   0   3   0      **Thunderstorm Wind**

There was damage to trees and power lines.

**McHenry County**  
34 ENE RFD Woodstock      18 1410CST  
18 1410CST      0   0   ?   ?      **Hail (1.75)**  
0   0   4   ?      **Thunderstorm Wind**

There was damage to trees and power lines from Marengo to Woodstock.

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

### ILLINOIS Cont'd

**McHenry County**  
McHenry      19 1400CST      0   0   4   0      **Thunderstorm Wind**

Trees and power lines were downed by thunderstorm winds.

**Kane County**  
Dundee      19 1415CST      0   0   4   0      **Thunderstorm Wind**

Trees and power lines were downed by thunderstorm winds.

**Boon County**  
Belvidere      19 1500CST  
                         Estimated      0   0   4   ?      **Flash Flood**

Flash flooding occurred after heavy thunderstorm rains fell on already full waterways. Sanitary lines and drainage systems were overloaded. Some locations had the worst flooding in memory.

**La Salle County**  
Streator      19 1530CST      0   0   4   0      **Thunderstorm Wind**

Trees, power lines, and large light poles at a ball field were downed.

**Cook County**  
                         19 1730CST  
                         Estimated      0   0   5   0      **Thunderstorm Wind**

Southern Cook County had scattered damage to trees and structures along with widespread power outages caused by lightning.

**Mount Greenwood**      19 1745CST      0   1   3   0      **Lightning**

A parked car was struck by lightning; the only occupant was a woman and she was left dazed with a massive headache. Witnesses saw a white cloud surround the car. The injured occupant saw orange balls dancing all over the car and thought the lightning first hit a tree beside the car. Lightning caused other damage to structures and power lines in southern Cook County.

**Winnebago County**  
Rockford      19 1800CST  
                         Estimated      0   0   4   ?      **Flash Flood**

Flooding occurred to streets, basements, and sewer lines. Rainfall of 2.64 inches fell in about 3.5 hours from 1500 to 1830 CST.

**Du Page, Cook Counties**  
                         20 0100CST  
                         Estimated      0   0   5   0      **Flash Flood**

Urban flooding occurred after slow-moving thunderstorms dropped more than 4 inches of rain on the evening of the 19th. Heavy flooding of streets and basements occurred, especially over the southern half of Cook County. Flooding of the Du Page River later in the day of the 20th contributed to the death of a 15-year-old boy, who drowned while canoeing with another youth in Naperville.

**St. Clair County**  
Belleville      20 1500CST  
                         Estimated      0   0   4   0      **Thunderstorm Wind**

Heavy damage occurred to church construction and there were also some power outages.

**Alexander County**  
25 W PAH      20 1515CST      0   0   ?   ?      **Hail (1.75)**

Illinois State Police reported golf ball-size hail in Cache.

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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		LOCAL STANDARD	TIME			KILLED	INJURED	PROPERTY	CROPS	

### ILLINOIS Cont'd

<b>Crawford County</b>										
Robinson	20	1757CST				0	0	?	?	Hail (2.75)
5 E Robinson	20	1807CST				0	0	?	?	Hail (2.75)
<b>Sangamon County</b>										
	21	1800CST				0	0	4	?	Flash Flood
Heavy thunderstorm rains caused widespread flooding of county highways, mostly in the northern part of Sangamon County.										
<b>Jackson County</b>										
1 NW Gorham	21	1815CST				0	0	0	3	Thunderstorm Wind
Trees were downed by thunderstorm winds.										
1 W Carbondale	21	1840CST				0	0	?	?	Hail (0.75)
<b>Williamson County</b>										
Cambria	21	1917CST				0	0	3	?	Thunderstorm Wind
A porch was torn off a house.										
1 S Herrin	21	1925CST				0	0	4	?	Thunderstorm Wind (G53)
Trees and power lines were downed 1 mile south of Herrin, and winds were estimated to 61 mph.										
<b>Franklin County</b>										
West Frankfort	21	2200CST				0	0	4	?	Flash Flood
Heavy thunderstorm rains caused urban and localized flooding from Benton to West Frankfort.										
<b>ILZ007</b>										
Peoria	31	2400CST				0	0	0	0	Record Rain
This was the wettest July in 134 years of records, with a total rainfall of 9.18 inches. Normal July rainfall is 3.99 inches.										

### INDIANA

<b>Jackson County</b>										
Brownstown	05	0828EST				0	0	5	0	Lightning
Lightning caused \$70,000 damage to a home.										
<b>Daviess County</b>										
Washington	05	1711EST				0	0	3	?	Thunderstorm Winds
Thunderstorm winds uprooted trees and overturned an automobile.										
<b>Dubois County</b>										
Jasper	05	1733EST				0	0	4	?	Thunderstorm Winds
St. Anthony	05	1745EST				0	0	3	?	Thunderstorm Winds
	05	1800EST-2015EST				0	0	?	?	Flash Flooding
Thunderstorm winds downed trees and power lines and lifted a roof off a house in Jasper. Thunderstorm winds, or possibly a tornado, uprooted several trees at St. Anthony. Over 2.50 inches of rain fell over Dubois County flooding area roads. Highway 231 and almost all secondary roads were closed due to flooding.										

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

### INDIANA Cont'd

Knox County	05	1741EST- 0245EST			0	0	?	?	Flash Flooding
Westphalia	05	1745EST			1	0	0	0	Lightning

Flooding from 3.50 inches of rain closed several county roads. Highway 67 between Vincennes and Bicknell was closed with over 2 feet of water covering parts of the road. Highway 241 was also closed.

A 39-year-old man suffered a heart attack and died after being struck by lightning. The man along with two others had been swimming in a pit when they noticed a thunderstorm approaching. They left the water but before they could reach the safety of a car the lightning bolt directly struck the man. (M390)

Jackson County Seymour	05	2000EST			0	0	?	?	Thunderstorm Winds
Scott County Hardy Lake	05	2008EST			0	0	?	?	Thunderstorm Winds
Jennings County Commiskey	05	2015EST			0	0	?	?	Thunderstorm Winds

A few large trees and tree limbs 6 to 8 inches in diameter were blown down by thunderstorm winds on the northeastern side of Seymour. Several large trees were blown down by thunderstorm winds from 5 miles northwest of Hardy Lake through Hardy Lake. Large trees were snapped and uprooted from 4 miles west of Commiskey to Commiskey.

Wells County Bluffton	09	1143EST			0	0	0	0	Hail (1.00)
Grant County Swayzee Marion	09	1535EST			0	0	3	0	Thunderstorm Winds

Trees and power lines were blown down at Swayzee and on the northern side of Marion.

Tipton County Goldsmith	09	1534EST			0	0	?	?	Thunderstorm Winds
Miami County North Grove	09	1542EST			0	0	?	?	Thunderstorm Winds

Trees were blown down by thunderstorm winds.

Montgomery County Darlington	09	1620EST			0	0	?	?	Thunderstorm Winds
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Windows were blown out of a house by thunderstorm winds in the northeastern part of Montgomery County. Roof damage from strong thunderstorm winds was reported in Darlington.

Boone County Thorntown	09	1631EST			0	0	?	?	Thunderstorm Winds
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Trees were blown down.

Delaware County Muncie	09	1638EST			0	0	?	?	Thunderstorm Winds
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Eight-inch-diameter trees were blown down on the south side of Muncie.

Henry County Dunreith New Castle	09	1652EST			0	0	?	?	Thunderstorm Winds
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# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

## INDIANA Cont'd

Wayne County 5 N Richmond	09	1701EST			0	0	?	?	Thunderstorm Winds
Randolph County Lynn	09	1710EST			0	0	?	?	Thunderstorm Winds

Winds were estimated at 60 mph at Dunreith. Trees were blown down by thunderstorm winds 9.5 miles north and 1.5 miles east of New Castle. Minutes later a spotter 5 miles north of Richmond measured a wind gust to 65 mph. Power lines were downed 5 to 10 miles north of Richmond. Trees, lightpoles, and power lines were blown down by thunderstorm winds in Lynn. A transformer exploded when a pole fell and a falling power line set fire to a tree.

Boone County Thorntown	09	1725EST			0	0	?	?	Thunderstorm Winds
Dover	09	1808EST			0	0	?	?	Hail (1.75)
Thorntown	09	1826EST-			0	0	?	?	Flash Flooding
Lebanon		1900EST							

A 2-foot-diameter tree was blown down near Thorntown. Golf ball-size hail was reported 2 miles west of Dover and nickel-size hail was reported 2.5 miles north of Dover. Two and three-quarter inches of rain fell at Lebanon and 4 to 5 inches fell south of Thorntown on State Road 75. Water, 3 to 4 inches deep, was flowing over the road. County Line Road between Boone and Montgomery County was also flooded.

Marion County Northern side Indianapolis	09	1955EST			0	0	?	?	Thunderstorm Winds
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A tree fell on a house causing structural damage in northern Marion County. Trees were also blown down near Michigan Road.

Fountain County Hillsboro	09	2020EST			0	0	?	?	Hail (1.00)
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Montgomery County Crawfordsville	09	2030EST			0	0	?	?	Thunderstorm Winds
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Trees were blown down by thunderstorm winds 2 miles north and 4 miles west of Crawfordsville and in Crawfordsville.

Warren County	09	2130EST			0	0	?	?	Thunderstorm Winds
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Wind gusts estimated at 70 mph blew tree limbs down.

Fountain, Montgomery Counties	09	2245EST- 2310EST			0	0	0	0	Flash Flooding
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Heavy rain caused standing water on Interstate 74 in southern Fountain County. State Road 47 near Crawfordsville was closed due to high water. Standing water was reported at U.S. 41 and 136 at Veedersburg.

Daviss County Elnora	11	2255EST			0	2	0	0	Lightning
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An 18-year-old carnival worker and a fair goer were injured by lightning at the Daviss County Fair.

St. Joseph County US 31 & Auten Rd	16	1853EST			0	0	?	?	Hail (1.50)
1 NE Roseland	16	1855EST			0	0	?	?	Funnel Cloud
2 NE Mishawaka	16	1910EST			0	0	?	?	Hail (1.00)

A funnel cloud dipped about halfway to the ground and then lifted.





# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CRODUS	

## IOWA Cont'd

Mahaska County New Sharon	04	2020CST			0	0	4	3	Thunderstorm Winds (G50+)
Linn County 2 SW Martelle	04	2220CST	0.3	20	0	0	3	3	Tornado (F0)

Thunderstorms developed explosively along a cold front during the late afternoon hours. High winds downed a barn in Adair County and another in Warren County. Trees were downed in Adair, Warren, and Marion counties. There were reports of one-quarter- to one-half-inch-diameter hail in many of the thunderstorms, but only one significant hail report was received. One-inch-diameter hail fell north of Fontanelle. Later in the evening, one cell became severe in Linn County. A tornado touched down briefly in a rural area southwest of Martelle. The only damage was to some trees and power lines in that area.

Ringgold County 2 NW Mt Ayr	09	1650CST			0	0	0	0	Funnel Cloud
Tingley	09	1700CST			0	0	4	4	Thunderstorm Winds (G50+)
1/2 SE Kellerton	09	1720CST			0	0	0	0	Funnel Cloud
Decatur County Pleasanton	09	1730CST			0	0	4	3	Thunderstorm Winds (G50+)
Wayne County Allerton	09	1753CST			0	0	5	4	Thunderstorm Winds (G56)
7 W Allerton	09	1759CST			0	0	4	4	Thunderstorm Winds (G56)
Corydon	09	1815CST			0	0	3	3	Thunderstorm Winds (G50+)
Humeston	09	1815CST			0	0	3	3	Thunderstorm Winds (G50+)
Appanoose County 2 1/2 NNE Plano	09	1815CST			0	0	0	0	Funnel Cloud
Centerville	09	1840CST			0	0	5	4	Thunderstorm Winds (G63)
Davis County 5 NW Drakesville	09	1847CST			0	0	5	4	Thunderstorm Winds (G56)
Wapello County 2 S Ottumwa	09	1903CST			0	0	0	0	Funnel Cloud
Polk County West Des Moines	09	1930CST- 2030CST			0	0	5	0	Lightning
Des Moines County Burlington	09	2020CST			0	0	3	3	Thunderstorm Winds (G52)
Henry County Mt Pleasant	09	2020CST			0	0	3	3	Thunderstorm Winds (G50+)
Hillsboro	09	2038CST			0	0	3	3	Thunderstorm Winds (G50+)
Louisa County Morning Sun	09	2113CST			0	0	3	3	Thunderstorm Winds (G52)

An area of thunderstorms developed over northwestern Missouri and moved into southern Iowa. The leading edge contained severe thunderstorms. There were numerous reports of funnel clouds, high winds, and some small hail. The strongest winds were in Wayne and Appanoose counties, with gusts of 60 to 75 mph. A church was partially destroyed in Decatur County at Pleasanton. Many trees and power lines were downed in southern Iowa. Strong winds in northern Ringgold County damaged buildings on a farm there. Pea- to marble-size hail, driven by the high winds, caused considerable crop damage in the area. Thunderstorms north of this area wreaked havoc in West Des Moines. Twelve houses were struck by lightning there. Damage ranged from \$2,000 to \$30,000 to each of the houses.

Hamilton County 2 1/2 SE Jewell	11	1604CST	0.1	15	0	0	3	2	Cold Air Tornado (F0)
Story County 2 1/2 W Story City	11	1604CST			0	0	0	0	Cold Air Funnel
Hardin County 1 S Union	11	1630CST	0.1	15	0	0	3	2	Cold Air Tornado (F0)

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

### IOWA Cont'd

An area of thunderstorms moved south across Iowa. A cold-air funnel was reported in Story County. Two cold-air tornadoes were reported; one in Hamilton County, the other in Hardin County. These were brief touchdowns with little damage reported.

Story County Nevada	12	0415CST- 0515CST			0	0	5	3	Urban Flooding
Eastern Polk County	12	0515CST- 0800CST			0	0	5	4	Flash Flood

An area of showers and embedded thunderstorms was moving southeast across Iowa. The storms intensified in central Iowa as an upper air low pressure center developed over northern Iowa. Urban street flooding occurred in Nevada, as a strong thunderstorm developed and dropped 5 inches of rain there in less than 2 hours. A thunderstorm cell merger took place over northeast Polk County. Rainfall of 2 to 3 inches in a little over an hour caused flash flooding. Streets in Des Moines had as much as 4 feet or more of water in places. Numerous manhole covers were blown off by the water pressure, and a few streets were washed out.

IAZ010-014  
Central into  
Southeastern Iowa

	12	0600CST-			0	0	6	5	Flooding
	17	1800CST							

On the morning of the 12th, heavy rains fell over central Iowa. Rainfall of 3 to 6 inches fell over Story, eastern Polk, and Marshall counties. The rainfall caused renewed flooding on the Iowa and Skunk Rivers. River crests were generally 1 to a little over 3 feet over flood stage.

Palo Alto County  
Emmetsburg

	18	0630CST			0	0	4	0	Lightning
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Thunderstorms moved over Palo Alto County during the early morning hours. Lightning struck a church in Emmetsburg, causing serious roof damage.

Sioux County  
Sioux Center

	18	0820CST			0	0	4	5	Hail (1.75)
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A thunderstorm developed over southeastern South Dakota and quickly grew into a strong cluster of storms. Golf ball-size hail fell in Sioux County. There were numerous reports of pea- to marble-size hail. Three miles west of Sanborn, in O'Brien County, marble-size hail covered the ground. Later that afternoon, a cell developed along the outflow boundary in Audubon County. This cell produced 30 to 40 mph winds and marble-size hail at Exira.

Woodbury County  
Sioux City

	19	1300CST- 1430CST			1	1	5	2	Urban Flood
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Polk County  
Des Moines  
Des Moines

	19	1300CST- 1400CST			0	0	5	2	Urban Flood
	19	1530CST- 1700CST			0	0	5	2	Urban Flood

Wayne County  
1 E Humeston

	19	1629CST	0.1	15	0	0	2	2	Tornado (F0)
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Lee County  
Fort Madison

	19	1930CST			0	0	0	0	Funnel Cloud
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Des Moines County  
Danville

	19	1930CST			0	0	0	0	Funnel Cloud
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Thunderstorms erupted over Iowa during the afternoon hours. The main feature with them was heavy rain. Some pea- to marble-size hail was reported in Lucas County. A basement of a house collapsed in Sioux City as 3.60 inches of rain fell in an hour, causing flooding in the city. A 13-year-old boy was killed, and an 11-year-old girl injured in Sioux City as the flood waters

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

## IOWA Cont'd

they were playing in swept them beneath a parked car. Two flood events took place in Des Moines. The first caused minor urban flooding as 0.50 to 1 inch of rain fell in less than an hour. The second storm dumped 1 to 2 inches over the same areas in about an hour. Streets were flooded and a few were closed for a while. One storm over Wayne County dropped a small tornado east of Humeston. It touched down only briefly in an open field. As the storms moved farther east, funnel clouds were reported over the southeastern corner of the state. (M130)

**Decatur, Ringgold Counties**      20 0036CST-0530CST      0   0   6   5      **Flash Flood**

Heavy rains fell across southern Iowa. The heaviest was over Ringgold and Decatur counties. Three to 6 inches of rain fell in less than 6 hours, causing considerable flooding in both counties.

**IAZ010-013-014**  
Central, South Central, and Southeastern Iowa      20 0600CST  
24 1500CST      0   0   6   5      **Flooding**

On the night of the 19th, anywhere from 1 to 6 inches of rain fell over all of Iowa, with the heaviest over the south-central, west-central, and central parts of the state. Flooding was quite extensive on the Thompson, Skunk, Iowa, Chariton, and lower Des Moines Rivers. These rivers crested anywhere from 1 to 4 feet over flood stage.

**IAZ007-008-010-011-014**  
Central and East Central Iowa      20 1200CST-1745CST      0   0   0   0      **Numerous Cold Air Funnels**

A line of showers and thunderstorms developed over east-central Iowa. Behind a cold front, numerous cold air funnels were sighted. The most frequent sightings came from Butler, Linn, Johnson, and Appanoose counties.

**Emmet County**  
**Armstrong**      24 1950CST      0   0   3   4      **Hail (1.00)**

Isolated thunderstorms developed over central and north-central Iowa. During the late afternoon, pea-size hail turned the ground white 7 miles north of Jefferson, in Greene County. Later in the evening, one cell dumped hail in Armstrong. A few of the stones were up to an inch in diameter.

**Webster County**  
**1 NE Vincent**      25 1740CST      0.1   15   0   0   2   2      **Tornado (F0)**

Thunderstorms moved over Webster County. One of them dropped a small tornado northeast of Vincent. The tornado touched down briefly in a corn field and caused very little damage.

**Ringgold County**  
**2 SW Ellston**  
**2 NE Ellston**      25 1850CST-1905CST      4.0   75   0   0   5   4      **Tornado (F2)**

An isolated thunderstorm moved across Ringgold County. A tornado touched down in the Ellston area. Two farmsteads were damaged considerably; one southwest, and one northeast of Ellston. A few houses were damaged in Ellston. One was twisted from its foundation, causing considerable damage to the house.

**Page County**  
**4 N Shenandoah**      25 1830CST      0   0   4   2      **Thunderstorm Winds (G50+)**  
**Shenandoah**      25 1835CST      0   0   4   1      **Thunderstorm Winds (G50+)**

**Montgomery County**  
**12 N Shenandoah**      25 1930CST      0.3   30   0   0   5   3      **Tornado (F0)**

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

**Climax**                      25 1930CST                                      0   0   4   3      **Thunderstorm Winds (G50+)**

Thunderstorms moved over southwestern Iowa. During the early stages of thunderstorm development, severe weather occurred over Page County. High winds occurred in and north of Shenandoah. Trees were uprooted, and a barn roof was taken off north of Shenandoah; shingles and trees were also damaged. In Montgomery County, a tornado touched down briefly 12 miles north of Shenandoah. Several farm buildings were destroyed there. High winds in the Climax area also damaged several farm buildings.

**Fremont, Mills, Montgomery, Page, Pottawattamie Counties**

25 1830CST-  
26 0200CST                                      0   0   6   6      **Flash Flood**

A thunderstorm complex moved into southwestern Iowa. Very heavy rains occurred, with 5 to nearly 10 inches falling on the area in about 6 hours time. Flooding was extensive, with creeks and rivers in the area reaching near-record high stages. The heaviest rains fell in Fremont County, with 12.08 inches reported at Imogene, 8.93 at Randolph, and 7.10 at Sidney. Some additional rainfall occurred after the flash flood event. Dozens of roads were closed by high water and field erosion was extensive. Some mud slides were reported, and a few bridges were washed out on county roads. Three dozen people were evacuated at Thurman, and one family at Riverton. Two feet of water covered a six-block area in Thurman for a time. Similar conditions were reported in Mills County, as 10.20 inches of rain fell in the southwestern corner of the county, and 11.30 inches in the southeastern corner. In Page County, Highway 59 was closed for a time 1 mile south of Shenandoah, as 6.05 inches of rain fell there. In Pottawattamie County, the heavy rainfall was mainly over the eastern half. The heaviest total was in Oakland, where 7.37 inches fell.

**IAZ012-009-NEZ010 Southwestern Iowa**    25 2100CST-  
31 2400CST                                      0   0   7   6      **Flooding**

On the night of the 25th, heavy rain fell over southwestern Iowa. Six to 9 inch rainfall amounts were common over the southwest corner, with 2 to 6 inch amounts extending into west-central Iowa. The heaviest amounts were in the Imogene and Randolph areas. Randolph recorded 11 inches of rain from the storms, while unofficially, 13 inches fell in Imogene. This caused a near-record flood on the Nishnabotna River, 12 feet over flood stge, and significant rises on other streams in western Iowa. Damage was in the millions of dollars. There was also considerable agricultural flooding.

**IAZ002-006-007-010-011-012-014 North Central and much of Eastern Iowa**

26 1800CST-  
31 2400CST                                      0   0   7   6      **Flooding**

On the night of the 26th, heavy rain affected central and north-central Iowa, where anywhere from 2 to 6 inches of rain fell. The heaviest rains fell in the Rockwell and Sheffield areas, where between 6 and 8 inches was recorded. This caused record flooding on the West Fork of the Cedar River, and major flooding on the Cedar, Iowa, Shell Rock, and Skunk Rivers as well as Beaver and Black Hawk Creeks.

**Polk County Des Moines**

27 0330CST-  
0800CST                                      0   0   4   2      **Urban Flooding**

One to 2 inches of rain fell over the city within a 2-hour-period. Flooding resulted on several streets during the morning rush hour. On some streets, the water was 3 to 4 feet deep. Creeks in the city rose to near bank full.

**Hamilton, Hardin Counties**

27 1045CST-  
1500CST                                      0   0   6   5      **Flash Flood**



## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

### KANSAS Cont'd

Logan County Oakley	23	1733CST			0	0	4	4	Hail (1.00)
Logan County Oakley	23	1733CST			0	0	4	4	Thunderstorm Wind (G60)
Kearney County 18 W Lakin	24	1815CST			0	0	3	3	Hail (1.00)
Kearney County 4 E Kendall	24	1820CST			0	0	3	3	Hail (0.75)
Hamilton County 10 S Kendall	24	1859CST			0	0	4	4	Hail (0.75)
Kearney County 10 SSE Kendall	24	1907CST			0	0	4	4	Hail (0.75)
Stanton County Big Bow	24	1920CST			0	0	0	0	Thunderstorm Wind (G50)
Grant County 12 NW Ulysses	24	1925CST			0	0	0	3	Hail (1.00)
Grant County 10 NW Ulysses	24	1930CST			0	0	0	3	Hail (1.00)
Grant County 4 W Ulysses	24	1955CST			0	0	0	3	Hail (1.00)
Grant County 8 S Ulysses	24	2010CST			0	0	0	3	Hail (1.00)
Stevens County Moscow	24	2050CST			0	0	0	3	Thunderstorm Wind (G50)

Thunderstorms moved into southwestern Kansas from eastern Colorado and northwestern Kansas. The thunderstorms became severe in an area from Kendall to Moscow dropping large hail and producing winds with speeds up to 60 mph. Damage was minimal.

Rooks County Webster Lake	25	1442CST			0	0	4	4	Hail (0.75)
Rooks County Damar	25	1530CST			0	0	0	0	Hail (0.75)
Rooks County Damar	25	1600CST			0	0	4	4	Hail (1.75)

Three- and four-tenths inches of rain fell in 2 hours in addition to the hail.

Rooks County Webster Dam	25	1730CST			0	0	0	0	Hail (0.75)
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Thunderstorms developed in the Hill City area and moved east into Rooks and northern Ellis counties, where the storms remained for 2 to 4 hours, with 3- to 5-inch rainfall amounts.

Russell County Russell Airport	25	1913CST			0	0	3	3	Hail (1.00)
Russell County Bunker Hill	25	1935CST			0	0	3	3	Hail (1.00)
Russell County 1 S Russell	25	1949CST			0	0	3	3	Hail (0.75)

Russell County Lucas	25	2020CST			0	0	4	4	Flash Flood
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Heavy rain caused flash flooding from 2020 CST to 2240 CST.

Russell County 1 W Russell	25	2031CST			0	0	3	3	Hail (1.75)
Ellsworth County Black Wolf	25	2040CST			0	0	3	3	Thunderstorm Wind (G52)

Severe thunderstorms moved across Russell and northern Ellsworth counties. Hail up to golf ball-size fell near Russell and 60 mph winds were reported northwest of Ellsworth at Black Wolf. Heavy rain fell across northeastern Russell County. Luray reported 4.50 inches in one hour. This heavy rain caused some flash flooding in the Lucas area.

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

### KANSAS Cont'd

<b>Ellsworth County</b> Ellsworth	26	0015CST			0	0	4	4	Flash Flood
Heavy rains of over 5 inches caused some flash flooding along the Smoky Hill River near Ellsworth between 0015 CST and 0230 CST.									
<b>Geary County</b> Milford Lake	26	0253CST			0	0	4	0	Thunderstorm Wind (G60)
Trees were blown down and a boat dock was damaged on the northern end of Milford Lake.									
<b>Shawnee County</b> Topeka	26	0255CST			0	0	0	0	Thunderstorm Wind (G50)
<b>Thomas County</b> Brewster	26	1832CST			0	0	4	4	Hail (0.75)
<b>Graham County</b> Hill City	26	1840CST			0	0	3	3	Hail (0.75)
<b>Thomas County</b> Brewster	26	1930CST			0	0	0	0	Hail (0.75)
Over 6 inches of rain fell in 4 hours causing minor flooding in addition to the hail.									
<b>Ellsworth County</b> Ellsworth	27	0730CST			0	0	6	4	Flash Flood
Flash flooding occurred along the Smoky Hill River from 0730 CST to 1100 CST due to heavy rains of up to 7 inches. Officials evacuated 15 families along the Smoky Hill River at Ellsworth.									
<b>Ottawa County</b> Tescott	27	0730CST			0	0	6	4	Flash Flood
Runoff from rains of up to 10 inches across southern Lincoln County caused flash flooding in the Tescott area between 0730 CST and 1100 CST.									
<b>Dickinson County</b> Northwest corner	27	1710CST			0	0	3	3	Hail (0.75)
<b>Ottawa County</b> Tescott	27	1710CST			0	0	5	3	Flash Flood
Thunderstorms dropped nearly 3 inches of rain in the Tescott area in a little over 1 hour. This heavy rain on top of a flooded Saline River at Tescott caused additional flooding from 1710 CST to 1915 CST.									
<b>Saline County</b> 2 N Salina	27	1711CST			0	0	3	3	Thunderstorm Wind (G52)
<b>Lincoln County</b> 2 E Beverly	27	1720CST			0	0	3	3	Thunderstorm Wind (G56)
<b>Lincoln County</b> 2 S Beverly	27	1720CST			0	0	3	3	Thunderstorm Wind (G50)
<b>Clay County</b> Longford	27	1755CST			0	0	3	3	Hail (0.75)
<b>Dickinson County</b> 7 N Elmo	27	1820CST			0	0	3	3	Thunderstorm Winds (G60)



## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

### KANSAS Cont'd

Clay County Clay Center	27	1824CST			0	0	3	3	Hail (0.75)
Clay County Clay Center	27	1824CST			0	0	3	3	Thunderstorm Winds (G52)
Severe thunderstorms moved across a part of central and north-central Kansas. The storms dropped three-quarter-inch hail and caused wind gusts up to 70 mph that uprooted trees and damaged some farm buildings.									
Geary County Milford Lake	27	1840CST			0	0	3	0	Thunderstorm Winds (G50)
Morris County Council Grove	27	1845CST			0	0	0	0	Thunderstorm Winds (G60)
The southern end of a cluster of thunderstorms produced some tree and power line damage at the Council Grove Reservoir.									
Ford County Dodge City	27	1900CST			0	1	0	0	Lightning
A lightning strike injured one man.									
Marshall County 1 SE Blue Springs	27	1920CST			0	0	0	0	Hail (0.75)
Waubaussee County Alma	27	1935CST			0	0	0	0	Hail (0.75)
Pottawattomie County Wamego	27	1940CST			0	0	0	0	Thunderstorm Winds (G55)
Minor tree damage occurred on the northeastern side of Wamego with reports of one-half-inch hail.									
Sherman County Goodland Airport	27	2228CST			0	0	3	0	Thunderstorm Winds (G52)
Thunderstorm winds caused damage to trees.									

### KENTUCKY

Letcher County	01	1435EST			0	0	3	2	Thunderstorm Wind
Several large trees were blown down in the western part of the county.									
Harlan County	01	1553EST			0	0	3	2	Thunderstorm Wind
Several large trees were blown down near the Harlan and Bell county line.									
Bell County	01	1630EST- 1650EST			0	0	3	3	Hail (2.00)
					0	0	4	3	Thunderstorm Wind
Twenty-five streets in the city of Middlesboro were blocked by falling trees. Several of the trees damaged houses and vehicles as they fell and several houses were damaged by the large hail. Most of the city was without power for several hours.									
Elliot County	01	1735EST			0	0	3	2	Thunderstorm Wind Hail (1.00)
Several trees were blown down throughout the county.									

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

<b>Lawrence County</b>	01	1750EST			0	0	0	3	Hail (1.00)
									Large hail damaged several corn and tobacco crops.
<b>Pike County</b>	06	0035EST			0	0	2	2	Thunderstorm Wind
									Several trees were blown down across the southeastern portion of the county near Shelby.
<b>Hart County</b>	09	1650CST			0	0	4	2	Thunderstorm Wind
									Several trees and power lines were blown down. One mobile home and a barn were damaged in Horse Cave.
<b>Clark County</b>	10	1700EST			0	0	3	2	Thunderstorm Wind
									Strong winds downed about 15 trees and many power lines which blocked roads and caused several power outages near the Kentucky River.
<b>Bath County</b>	10	1715EST			0	0	3	2	Thunderstorm Wind
									Several trees were blown down in the small community of Salt Lick.
<b>Whitley County</b>	10	1730EST			0	0	3	2	Thunderstorm Wind
									Several large trees were blown down in Tallersall Trails. One tree damaged a house.
<b>Laurel County</b>	10	1740EST			0	0	3	2	Thunderstorm Wind Hail (1.50)
									Strong winds blew the siding from a house and downed several large trees.
<b>Menifee County</b>	10	1745EST			0	0	3	2	Thunderstorm Wind Hail (0.75)
									Trees were blown down in the eastern portion of the county.
<b>Green County</b>	10	2015EST			0	0	3	2	Thunderstorm Wind
									Winds gusting to 60 mph downed trees and power lines in Greensburg.
<b>Morgan County</b>	11	1630EST			0	0	3	2	Thunderstorm Wind
									Strong thunderstorm winds uprooted trees over a wide area of West Liberty which blocked streets and downed power lines.
<b>Adair County</b>	11	1735EST			0	0	3	2	Thunderstorm Wind
									Trees were blown down throughout the county.
<b>Pulaski County</b>	11	1800EST			0	0	3	2	Thunderstorm Wind
									Several large trees were blown down near Somerset.
<b>Kenton County</b>	20	1635EST			0	0	3	0	Thunderstorm Wind
									Trees were uprooted by strong thunderstorm winds in the small community of Independence.
<b>Pendelton County</b>	20	1650EST			0	0	3	2	Thunderstorm Wind
									Several trees were blown down throughout the county.
<b>Campbell County</b>	20	1700EST			0	0	3	0	Thunderstorm Wind
									Several large trees were blown down in the city of Fort Thomas.





## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

### MAINE Cont'd

<b>Cumberland County</b>	20	1445EST			0	0	4	0	<b>Thunderstorm Winds</b>
									High winds brought trees down, demolished one camper, and damaged another in Steep Falls.
	20	1510EST			0	0	?	0	<b>Hail (1.75)</b>
									Golf ball-size hail fell in Windham and near Sebago Lake.
<b>Aroostook County</b>	24	1030EST			0	1	0	0	<b>Lightning</b>
									A 34-year-old man was injured when lightning struck a nearby tree and traveled underground to the picnic table where he was eating.
<b>Cumberland County</b>	24	1245EST			0	0	4	0	<b>Lightning</b>
									Part of a roof, the side of a house, and wiring were damaged on Lunt Drive in Westbrook. The lightning struck a metal dryer vent on the second floor and traveled through the house.

### MARYLAND and DC

<b>Montgomery County</b>	01	1345EST			0	0	0	0	<b>Hail (0.75)</b>
1 S Rockville									
<b>District of Columbia</b>	01	1350EST			0	0	0	0	<b>Thunderstorm Winds</b>
									Winds to 65 mph were recorded at a television station in the northwestern part of the District. A large tree was downed.
<b>Prince Georges County</b>	01	1400EST-1415EST			0	0	0	0	<b>Thunderstorm Winds</b>
Fort Washington									Several trees were downed. A damage survey noted the trees were large diameter (up to 2 feet) locust trees. Estimated winds were from the north at 60 mph, blowing down-river, therefore local channeling of winds added to their strength.
<b>Anne Arundel County</b>	01	1430EST-1600EST			0	0	3	0	<b>Thunderstorm Winds Lightning</b>
									See details below.
<b>Anne Arundel County</b>	01	1430EST			0	0	3	0	<b>Thunderstorm Winds Lightning</b>
3 S Annapolis Selby Bay Chesapeake Beach									Four sailboats capsized in the South River (3 miles south of Annapolis) but none of the occupants were injured. Lightning struck a house in Selby Bay causing about \$7,000 damage. Trees fell onto power lines in the Chesapeake Beach area causing power losses to some 1,000 residents.
<b>Chesapeake Davidsonville</b>	01	1600EST			0	0	3	0	<b>Thunderstorm Winds</b>
									Trees were downed causing power outages to 1,100.
<b>Prince Georges County</b>	01	1430EST-1445EST			0	0	0	0	<b>Thunderstorm Winds</b>
2 S Clinton									Several trees were reported down.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

**Charles County  
Waldorf**

01	1445EST-1500EST				0	0	4	0	Thunderstorm Winds
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The Civil Defense Director reported power lines down due to trees falling on them; also, trees were down on several houses. All damage appeared to be from straight-line winds.

**Prince Georges County**

**Clinton**

01	1435EST				0	0	0	0	Hail (1.00)
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**Calvert County**

**St. Leonards**

01	1500EST-1530EST				0	0	0	0	Thunderstorm Winds
----	-----------------	--	--	--	---	---	---	---	--------------------

The Civil Defense Director reported winds estimated at 50 to 60 mph with trees down.

**Worcester County**

**Ocean City**

01	1630EST				0	0	0	0	Thunderstorm Winds
----	---------	--	--	--	---	---	---	---	--------------------

Fire company reported winds estimated at up to 60 mph.

**Washington County**

**Hagerstown**

05	1430EST-1435EST				0	0	0	0	Hail (1.00)
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There were several reports of dime- to 1-inch-size hail around Hagerstown.

**Harford, Cecil,  
Baltimore, Carroll  
Counties**

05	1500EST-1530EST				0	0	4	0	Thunderstorm Winds Hail
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There were numerous reports of damaging winds in the four counties. Details follow.

**Harford County**

05	1500EST				0	0	3	0	Thunderstorm Winds
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Many large trees and numerous power lines were downed in the northeastern part of the county.

**Cecil County**

**Rising Sun**

05	1515EST				0	0	3	0	Thunderstorm Winds Hail (1.00)
----	---------	--	--	--	---	---	---	---	-----------------------------------

Many large trees were down due to winds estimated at 60 mph. Three-quarter- to 1-inch-size hail was reported at Rising Sun.

**Baltimore County**

**Sparks**

**Towson**

05	1530EST-1550EST				0	2	4	0	Thunderstorm Winds
----	-----------------	--	--	--	---	---	---	---	--------------------

In the northern part of the county, large trees fell onto about 45 houses, damaging five severely. Numerous power lines were downed. In Sparks, several silos were blown down and several large trees uprooted. In Towson, a woman was slightly injured as she ducked between two cars when the garage they were in collapsed during high winds; another woman was slightly injured as a large tree fell onto her house.

**Carroll County**

**Eldersburg**

05	1530EST-1534EST				0	0	4	0	Thunderstorm Winds Lightning
----	-----------------	--	--	--	---	---	---	---	---------------------------------

A spotter reported winds in excess of 50 mph at Eldersburg. In the northern part of the county, many large trees were downed. Numerous power lines were downed. Several house and barn fires were caused by lightning. Winds were estimated at 55 to 60 mph.







# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## MARYLAND and D.C. Cont'd

Trees were uprooted, blocking a major roadway 1 mile northwest of Bowie. Spotters in the Glenn Dale area reported a microburst that downed trees and damaged several homes.

Washington County  
Hancock  
Hagerstown  
1-2 S Hagerstown  
Allegany County  
Westernport,  
Luke

15	1400EST- 1830EST			0	0	4	0	Flooding
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Flooding of roads and basements occurred at Hancock, Hagerstown, and 1 to 2 miles south of Hagerstown, in Washington County; also in Westernport and Luke in Alleghany County. The same parts of Westernport that were affected by the flooding of July 12th were hit again.

Kent County  
Chestertown

17	Evening			0	0	0	0	Thunderstorm Winds
----	---------	--	--	---	---	---	---	--------------------

Trees and power lines were downed.

Howard County  
Anne Arundel  
County

21	1400EST- 1430EST			0	0	3	0	Thunderstorm Winds
----	---------------------	--	--	---	---	---	---	--------------------

Power company officials reported winds and lightning from a thunderstorm knocked out power to about 8,700 customers in Annapolis and Glen Burnie in Anne Arundel County. A small part of Howard County was also affected.

Harford County  
Bel Air

22	1330EST			0	0	4	0	Lightning
----	---------	--	--	---	---	---	---	-----------

Lightning caused about \$50,000 damage to an apartment complex.

## MASSACHUSETTS

Berkshire County	05 0225EST			0	0	3	0	Thunderstorm Winds (G50KTS)
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Thunderstorm winds gusted to an estimated 60 mph in Adams. A few trees were reported down in Williamstown and North Adams. Scattered power outages occurred.

Franklin County  
Heath

05	0230EST			0	0	3	0	Lightning
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A barn was struck by lightning and totally destroyed by the resulting fire.

Franklin County  
Shelbourne

20	1706EST			0	0	?	0	Thunderstorm Winds
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Worcester County  
Templeton

20	1740EST			0	0	?	0	Thunderstorm Winds
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A severe thunderstorm skipped through portions of Franklin and Worcester counties knocking down some trees, causing power outages, and an unknown amount of property damage.

Bristol, Plymouth  
Counties

24	0700EST- 1400EST			0	0	5	0	Flash Flood
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An area of very slow-moving thunderstorms dropped torrential rain in an area stretching from near Fall River northward to Taunton, Middleboro, and Bridgewater and then east-northeastward







## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

<p><b>McLeod County</b> Winsted</p>	<p>07 0430CST</p>	<p>0 0 6 0</p>	<p>Lightning</p>
<p>Fire resulting from a lightning strike caused damage in excess of \$750,000 to a horse stable.</p>			
<p><b>Hennepin County</b> Orono</p>	<p>07 0500CST</p>	<p>0 0 4 0</p>	<p>Lightning</p>
<p>Lightning-initiated fire caused home property damage.</p>			
<p><b>Dakota County</b> Burnsville</p>	<p>07 0557CST</p>	<p>0 0 4 0</p>	<p>Lightning</p>
<p>Lightning-initiated fire caused home property damage.</p>			
<p><b>Becker County</b> Cormorant</p>	<p>07 1600CST</p>	<p>0 0 ? ?</p>	<p>Hail (1.75)</p>
<p><b>Central Cass County</b></p>	<p>07 1740CST</p>	<p>0 0 ? ?</p>	<p>Hail (1.75)</p>
<p><b>Hubbard County</b> Park Rapids</p>	<p>07 1748CST</p>	<p>0 0 ? ?</p>	<p>Hail (1.75)</p>
<p><b>Douglas County</b> Alexandria</p>	<p>08 0050CST</p>	<p>0 0 5 ?</p>	<p>Thunderstorm Winds (G52)</p>
<p>There were numerous reports of downed trees and property damage.</p>			
<p><b>Lincoln County</b> Tyler</p>	<p>08 0115CST</p>	<p>0 0 4 ?</p>	<p>Thunderstorm Winds</p>
<p>There were scattered reports of downed trees.</p>			
<p><b>Pipestone County</b> Pipestone</p>	<p>08 0125CST</p>	<p>0 0 5 ?</p>	<p>Thunderstorm Winds</p>
<p>There were scattered reports of downed trees and a few reports of isolated property damage. There was roof and facade damage to homes and businesses.</p>			
<p><b>Lyon County</b> Balaton</p>	<p>08 0130CST</p>	<p>0 0 4 ?</p>	<p>Thunderstorm Winds</p>
<p>There were scattered reports of tree and property damage.</p>			
<p><b>Mille Lac County</b> 3 SE Milaca</p>	<p>08 0145CST</p>	<p>0 0 4 ?</p>	<p>Thunderstorm Winds</p>
<p>There were 22 trees uprooted in a narrow path (width of 50 yards and 0.50 to 0.75 mile long) extending in a northeastern direction. All trees were downed in the same general direction. A nearby steel shed was twisted off its support. The steel roof of a corn crib was torn off. Several other small farm structures suffered some damage.</p>			
<p><b>Northern Murray County</b></p>	<p>08 0200CST</p>	<p>0 0 ? ?</p>	<p>Thunderstorm Winds (G52)</p>
<p>Scattered trees were downed with reports of minor property damage to several farm structures. Some damage was reported by farmers to their cash crops, mainly corn. Most of this crop and property damage occurred in the Slayton and Lake Wilson areas.</p>			



## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

Watonwan County Darfur	16	1721CST			0	0	0	0	Funnel
East Darfur	16	1725CST			0	0	?	?	Hail (1.75)
Two-hundred acres of corn and soybeans were severely damaged.									
Steele County Blooming Prairie	16	2329CST			0	0	?	0	Lightning
A barn was struck by lightning and destroyed by the resulting fire.									
Brown County New Ulm	17	0045CST			0	0	?	?	Thunderstorm Winds
There were scattered reports of downed trees and some wind damage to homes and outbuildings.									
Olmsted County Rochester	17	0130CST			0	0	4	0	Lightning
A house fire was started by lightning.									
McLeod County Glenco	17	0250CST			0	0	5	4	Thunderstorm Winds Hail (1.75)
There was considerable damage to corn and soybean crops by the wind-driven hail. Winds also downed trees and power lines in the area.									
Benton County Rice	17	0250CST			0	0	?	?	Hail (1.00)
15 NE St. Cloud	17	0255CST			0	0	?	?	Hail (0.75)
Crow Wing County 4 SW Brainerd	17	0305CST			0	0	?	?	Thunderstorm Winds (G56)
Hennepin County Minneapolis	17	0320CST			0	0	?	?	Thunderstorm Winds (G52) Hail (1.00)
Anoka County Fridley	17	0325CST			0	0	?	?	Hail (0.75)
Elk River	17	0325CST			0	0	4	0	Lightning
A barn struck by lightning resulted in considerable fire damage.									
Aitkin County Aitkin	17	0330CST			0	0	?	?	Hail (0.75)
Ramsey County Falcon Heights	17	0335CST			0	0	?	?	Thunderstorm Winds
Trees and power lines were downed.									
Crow Wing County Bay Lake	17	0355CST			0	0	?	?	Hail (1.00)
Lincoln County 6 N Ivanhoe	18	0430CST			0	0	?	?	Thunderstorm Winds Hail
A combination of strong thunderstorm winds and hail devastated several farms. Several trees were uprooted. Some farms in the area suffered up to 85% damage to the small grain crops. The damage swath was about 2 miles wide and 7 miles long.									

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

## MINNESOTA Cont'd

<b>Western Lincoln County</b>	18	1537CST			0	0	?	?	<b>Thunderstorm Winds</b>
There were reports of large trees downed 35 miles west-southwest of Marshall.									
<b>Watonwan County 5-10 NW St. James</b>	18	1758CST			0	0	?	?	<b>Thunderstorm Winds (G52)</b>
The highway patrol reported winds to 60 mph.									
<b>Martin County Fairmont</b>	18	2000CST			0	0	?	?	<b>Flash Flood</b>
Slow-moving thunderstorms deposited rainfall amounts of 2.50 to 3.50 inches causing street and low-land flooding in and around Fairmont. Many basements were flooded, including the local hospital which had to be partially evacuated.									
<b>Lincoln County Ivanhoe</b>	18	2115CST			0	0	?	0	<b>Lightning</b>
A lake home was destroyed by fire after being struck by lightning.									
<b>Lincoln County Ivanhoe</b>	18	2130CST			0	0	?	?	<b>Thunderstorm Winds Hail</b>
Thunderstorm winds caused heavy damage to several farms north of Ivanhoe. Several farm buildings were damaged and a barn was completely destroyed. Hail caused scattered damage to corn and soybean crops.									
<b>Rice County Faribault</b>	18	2345CST			0	0	?	?	<b>Lightning</b>
Lightning knocked out power to about one-half of the city.									
<b>Brown County New Ulm</b>	24	2340CST			0	2	3	0	<b>Thunderstorm Winds (G56) Lightning</b>
Winds toppled trees and lightning caused fire damage to a home. A father and his 10-year-old son were struck by lightning while standing in their garage. Both were knocked out by the electrical shock but suffered only minor injuries.									
<b>Winona County Altura</b>	25	0215CST			0	0	?	?	<b>Thunderstorm Winds</b>
Several downed trees and numerous snapped tree limbs littered many yards.									
<b>Pipestone County Pipestone</b>	25	1100CST			0	0	3	?	<b>Thunderstorm Winds</b>
Two to 3 inches of rain fell in about 20 minutes causing flash flood conditions along Minnesota Highway 30. At one such point a 17-year-old driver had to crawl out of a car window to escape the rapidly rising waters when his vehicle became stalled.									
<b>Wright County 5 NW Rockford</b>	25	1429CST	0.1	10	0	0	0	0	<b>Tornado (F0)</b>
Storms produced a small tornado which briefly touched down in an open field. Two funnel clouds were also reported northwest of Rockford.									









## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

### MINNESOTA Cont'd

<b>Lawrence County</b> Monticello and Silver Creek	02	1830CST			0	0	0	0	Hail (0.75)
<b>Lincoln County</b> Brookhaven	02	1930CST			0	0	?	0	Thunderstorm Winds Lightning
Numerous trees and power lines were blown down. Several fires were started by lightning. Amount of damage from the lightning was unknown.									
<b>Pike County</b> 5 NW Mccomb	02	2030CST			0	0	?	0	Thunderstorm Winds
Several trees were blown down across Highway 98.									
<b>Claiborne County</b> 2 W Port Gibson	02	2110CST			0	0	?	0	Hail (1.75)
<b>Neshoba County</b> Philadelphia	08	1930CST			0	0	?	0	Thunderstorm Winds
Several trees and power lines were blown down.									
<b>Lauderdale County</b> 12 N Meridian	11	1755CST			0	0	?	0	Thunderstorm Winds
Several trees were blown down onto power lines which knocked out electrical service to parts of the county.									
<b>Sunflower County</b> Ruleville	13	1310CST			0	0	4	0	Thunderstorm Winds
The roof was blown off the Head Start building.									
<b>Sunflower County</b> Drew	20	1515CST			0	1	0	0	Lightning
A girl was struck by lightning while putting up a chain link fence. She was burned badly.									
<b>Marshall County</b> Mt. Pleasant	22	1915CST			0	0	?	0	Thunderstorm Winds
A few trees were blown down.									
<b>Benton County</b> Lamar	22	1915CST			0	0	?	0	Thunderstorm Winds
A few trees were blown down.									
<b>Grenada County</b>	22	1937CST			0	0	?	0	Thunderstorm Winds
Numerous trees were down across southern Grenada County.									
<b>Madison County</b> Canton	23	1110CST			0	0	?	0	Thunderstorm Winds
Numerous power lines were blown down.									
<b>Kemper County</b> Scooba	23	1215CST			0	0	?	0	Thunderstorm Winds
Several trees were blown down onto power lines.									

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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		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	

### MINNESOTA Cont'd

<b>Warren County</b>	<b>23</b>	<b>1625CST</b>			<b>0</b>	<b>0</b>	<b>?</b>	<b>0</b>	<b>Thunderstorm Winds</b>
Dozens of trees were reported down across southern Warren County. Six of the trees fell onto power lines and numerous trees were reported down in yards.									
<b>Jasper County</b>	<b>23</b>	<b>1715CST</b>			<b>0</b>	<b>0</b>	<b>?</b>	<b>0</b>	<b>Thunderstorm Winds</b>
Numerous trees were blown down in southern Jasper County.									
<b>Clarke County 2 S Pachuta</b>	<b>23</b>	<b>1735CST</b>			<b>0</b>	<b>0</b>	<b>?</b>	<b>0</b>	<b>Thunderstorm Winds</b>
Several trees were blown down.									
<b>Clarke County 3 S Stonewall</b>	<b>23</b>	<b>1825CST</b>			<b>0</b>	<b>0</b>	<b>?</b>	<b>0</b>	<b>Thunderstorm Winds</b>
Several trees were blown down. One tree was blocking a state road.									
<b>Lee County Nettleton</b>	<b>30</b>	<b>1330CST</b>			<b>0</b>	<b>0</b>	<b>?</b>	<b>0</b>	<b>Thunderstorm Winds</b>
Several power lines and large limbs were blown down.									
<b>Winston County 5 NW Louisville</b>	<b>30</b>	<b>1518CST</b>			<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>Hail (0.75)</b>
<b>Lee County 4 N Tupelo</b>	<b>31</b>	<b>1320CST</b>			<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>Thunderstorm Winds (G52)</b>
A carport was destroyed and a mall had minor structural damage.									
<b>Rankin County Star</b>	<b>31</b>	<b>1500CST</b>			<b>0</b>	<b>0</b>	<b>?</b>	<b>0</b>	<b>Hail (1.75)</b>
<b>Yallobusha County 2 E Enid</b>	<b>31</b>	<b>1515CST</b>			<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>Lightning</b>
A 63-year-old man had his foot on a tree when lightning struck the tree and traveled into his body. He was killed instantly. (M630)									
<b>Hinds County 3 W Jackson</b>	<b>31</b>	<b>1528CST</b>			<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>Hail (0.75)</b>
<b>Hinds County 3 SW Jackson</b>	<b>31</b>	<b>1610CST</b>			<b>0</b>	<b>0</b>	<b>?</b>	<b>0</b>	<b>Thunderstorm Winds (G60)</b>
Two trees were blown down.									

### MISSOURI

<b>Andrew County 17 W King City</b>	<b>10</b>	<b>0650CST</b>			<b>0</b>	<b>0</b>	<b>3</b>	<b>2</b>	<b>Thunderstorm Winds</b>
Limbs and power lines were blown down.									
<b>Boone County 12 S Columbia</b>	<b>11</b>	<b>2338CST</b>			<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>Thunderstorm Winds</b>
Wind to 58 mph.									

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

<b>Boone County</b> 12 S Columbia	21	1815CST			0	0	0	0	<b>Heavy Rain</b>
									One inch of rain fell in 15 minutes.
<b>Clay County</b> 1 E Liberty	25	2030CST			0	0	3	0	<b>Thunderstorm Winds</b>
									Large tree limbs were blown down.
<b>Platte County</b> MCI WSO	28	0447CST			0	0	0	0	<b>Thunderstorm Winds</b>
									Wind gusted to 59 mph at the National Weather Service Office.
<b>Benton County</b> 3 E Warsaw	28	1900CST			0	0	4	3	<b>Thunderstorm Winds</b>
									Trees were uprooted.
<b>Dunklin County</b> Kennett	29	1700CST			1	0	0	0	<b>Lightning</b>
									A 19-year-old man was killed when struck by lightning. Lightning evidently hit a nearby oak tree. (M19?)

### MONTANA

<b>Garfield County</b> Jordan	01	2040MDT			0	0	2	0	<b>Thunderstorm Winds (G61)</b>
<b>McCone County</b> 10 NE Vida	01	2240MDT			0	0	0	0	<b>Thunderstorm Winds (G52)</b>
<b>Yellowstone County</b> Billings	02	1500MDT			0	0	3	4	<b>Thunderstorm Winds</b>
<b>Powell County</b> Deer Lodge	02	1515MDT			0	0	3	0	<b>Urban Flooding</b>
									Nearly three-quarters of an inch of rain fell in 15 minutes, overloading the storm drains.
<b>Lewis and Clark County</b> Helena	02	1545MDT			0	0	5	5	<b>Thunderstorm Winds (G57)</b>
									Trees and power poles were blown down. A trailer home was destroyed.
<b>Lincoln</b>	02	1600MDT			0	0	3	0	<b>Thunderstorm Winds</b>
<b>Silver Bow County</b> Butte	02	1600MDT			0	0	3	0	<b>Thunderstorm Winds</b>
<b>Cascade County</b> Cascade	02	1550MDT			0	0	4	5	<b>Thunderstorm Winds</b>
<b>Great Falls</b>	02	1630MDT			0	1	7	6	<b>Hail (1.25)</b> <b>Thunderstorm Winds (G75)</b>
									Widespread damage occurred across Cascade County from a severe thunderstorm. The city of Great Falls and the surrounding area was hard hit with many roofs blown off and windows broken by wind-driven hail. Most crops in the area were destroyed. When the roof came off the Plush Pillow, boards and roofing fell on the owner resulting in an injury. Lots of power poles were blown down.

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

### MONTANA Cont'd

**Chouteau County**  
Highwood      02 1700MDT      0 0 4 5      Thunderstorm Winds

Geraldine to  
Virgelle to Warrick  
to Big Sandy      02 1730MDT      0 0 5 7      Thunderstorm Winds (G70)  
Hail (1.25)

There was widespread crop loss from wind-driven hail. Power poles and trees were downed. Several small tornados were reported but not confirmed. Many buildings were destroyed.

**Carter County**  
Ekalaka      02 2000MDT      0 0 4 4      Thunderstorm Winds

**Flathead County**  
7 miles west of AP      05 1915MDT      0 0 0 0      Hail (1.25)  
Kalispell      05 2105MDT      0 0 4 4      Urban Flooding

Over 2 inches of rain fell in 45 minutes.

Columbia Falls      05 2110MDT      0 0 4 0      Lightning

**Cascade County**  
Great Falls      05 2107MDT      0 0 4 4      Thunderstorm Winds (G59)

Power lines and a few trees were knocked down.

**Chouteau County**  
10 mi NW Ft.      05 2110MDT      ?      ?      0 0 0 0      Tornado (F0)  
Benton      06 1500MDT      0 0 0 0      Hail (1.25)  
Big Sandy

**Rosebud County**  
East of Colstrip      06 2210MDT      0 0 0 0      Hail (1.00)  
(7 miles)

**Roosevelt County**  
Wolf Point      10 1700MDT      0 0 4 4      Hail (1.25)  
Culbertson      10 1730MDT      0 0 4 4      Hail (1.25)

**Yellowstone County**  
3 West of Billings      13 1800MDT      0 0 3 0      Lightning

Lightning struck a house.

**Cascade County**  
5 West of      13 1112MDT      0 0 3 0      Lightning  
Great Falls

Lightning struck a house.

**Hill County**  
10 South Havre      25 1000MDT      0 0 0 0      Hail (1.00)

**Roosevelt County**  
Poplar      25 1000MDT      0 0 4 5      Flash Flood

Four inches of rain fell in 15 minutes just west of Poplar.

**Garfield County**  
Jordan and      25 1800MDT      0 0 4 5      Thunderstorm Winds  
surrounding area      Hail (1.00)

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

### MONTANA Cont'd

**Phillips County**  
Malta                    26 0905MDT                    0 0 4 4      **Flash Flood**

Urban flooding occurred with water over Highway 242 north of Malta.

**Fallon County**  
4 mi North Baker      26 1445MDT                    0 0 4 5      **Hail (1.75)**

**Wibaux County**  
6 East of Wibaux      26 1530MDT                    0 0 4 5      **Hail (1.75)**

**Richland County**  
Northeastern part  
of County                26 1600MDT                    0 0 4 6      **Hail (2.00)**  
**Heavy Rains**

There was extensive crop damage.

**Madison County**  
Silver Star to  
Twin Bridges            31 1710MDT                    0 0 5 6      **Flash Flood**

A 90-minute storm produced nearly 3 inches of rain near Silver Star causing flash flooding. Highway 41 was washed out and there was extensive damage to crops, homes, and irrigation ditches.

### NEBRASKA

**Sarpy County**  
Bellevue                    04 1800CST                    0 3 0 0      **Lightning**

A lightning strike slightly injured three people in their back yard.

**Sarpy County**  
Papillion                    06 1700CST                    0 0 4 0      **Lightning**

A lightning strike damaged the roof and side of a house.

**Sheridan County**  
Lakeside                    07 2014CST                    0 0 ? ?      **Hail (0.75)**

Hail completely covered the ground.

**Cheyenne County**  
Sidney                    09 2008CST                    0 0 ? ?      **Thunderstorm Winds (G56)**

**Sioux County**  
12 N Harrison            09 Evening                    0 0 ? ?      **Flash Flood**

Up to 5 inches of rain fell in Monroe Canyon and Hat Creek Valley in northern Sioux County. Roads and fields were covered with water and a culvert was washed out.

**Scotts Bluff County**  
3 SE Scottsbluff        10 2208CST                    0 0 0 0      **Funnel Cloud**

**Morrill County**  
5 SW Bridgeport        10 2240CST                    0 0 0 0      **Funnel Cloud**

**Morrill County**  
1 W Bayard                11 2245CST      ?      ?      0 0 ? ?      **Tornado (F0)**

A tornado briefly touched down near a sugar factory just west of Bayard.



## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

### NEBRASKA Cont'd

**Sheridan County**  
Rushville      16 1930CST      0 0 ? ?      **Thunderstorm Winds (G70)**

**Blaine County**  
8 E Brewster      17 1730CST      0 0 ? ?      **Hail (1.75)**

**Hayes County**  
6 N Hamlet      17 2100CST      0 2 ? ?      **Lightning**

Lightning sparked a grass fire. Gusty winds fanned the fire and caused it to spread quickly. Six thousand acres were burned before the fire was contained. Two fire fighters were treated for smoke inhalation.

**Lincoln County**  
10 S Brady      18 Early Morning      0 0 ? ?      **Lightning**

Lightning started a grass fire which burned an area 2 miles long and 3 miles wide.

**Sioux County**  
20 N Scottsbluff      18 1600CST      0 0 0 0      **Funnel Cloud**

**Box Butte County**  
8 NW Alliance      18 1600CST      0 0 0 0      **Funnel Cloud**  
12 W Hemingford      18 1603CST      ? ? 0 0 3 2      **Tornado (F0)**

A tornado was reported on the ground for approximately 10 to 15 minutes. It moved two plastic water tanks 600 yards and smashed a combine reel into a junked car.

**Clay County**  
Harvard to Sutton      19 1030CST-1800CST      0 0 6 5      **Flash Flood**

Thunderstorms produced very heavy rain across northern Clay County. Six inches of rain was reported at Harvard and 9 inches of rain fell around Sutton. The rain flooded streets and houses in Harvard and Sutton. Twelve homes were evacuated in Sutton. School Creek overflowed its banks and flooded the Sutton City Park. Civil defense officials evaluated the damage in Clay County to total over \$700,000. Harvard reported damages of \$255,500 which included \$62,700 to private dwellings, \$147,500 to businesses, and \$45,300 to public property. Sutton reported damages of \$176,950 which included \$62,500 to private dwellings, \$18,450 to businesses, and \$96,000 to public property. Rural damages across northern Clay County included \$60,000 to farm buildings and dwellings, \$20,000 to grain bins, and \$100,000 to county roads. There was also \$100,000 in damage to crops, fencing, and cattle.

**Cass County**  
Plattsmouth      19 1850CST      0 0 3 0      **Thunderstorm Winds**

Strong winds felled trees, which knocked out power lines and damaged some outbuildings.

**Sheridan County**  
2 N Clinton      20 1345CST      ? ? 0 0 ? ?      **Tornado (F0)**

A tornado briefly touched down.

**Scotts Bluff County**  
Scottsbluff to Mitchell      20 1430CST      0 0 0 0      **Funnel Clouds**  
2 S Morrill      20 1522CST      0 0 0 0      **Funnel Clouds**

Numerous funnel cloud sightings in the Scottsbluff, Mitchell, and Morrill areas were also observed by National Weather Service personnel.

**Box Butte County**  
3 SE Alliance      20 1600CST      0 0 0 0      **Funnel Cloud**

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

Morrill County 10 S Alliance	20	1622CST			0	0	0	0	Funnel Cloud
Scotts Bluff County 8 SE Minatare	20	1622CST			0	0	0	0	Funnel Cloud

Dodge County Scribner	25	0730CST			0	0	2	3	Hail (1.00)
Fremont	25	0740CST			0	0	4	1	Thunderstorm Winds

Thunderstorm winds at Fremont broke tree limbs and caused power outages. Heavy rain flooded streets during the morning.

Saunders County Ashland	25	1110CST			0	0	4	0	Lightning
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Lightning struck a house, starting a fire in the attic. Damage was \$6,000.

Buffalo County 10 NE Kearney to 5 NNE Shelton	25	1540CST- 1615CST	8	50	0	0	5	0	Tornado (F1)
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A tornado touched down just northeast of Gibbon and moved slowly northeast before lifting 5 miles north-northeast of Shelton. Three farms sustained damage along its path. One farm had a machine shed blown apart, a sheep shed destroyed, and two sections of a center pivot irrigation system damaged. Another farm had half a barn roof blown off and five trees destroyed. The third farm had windows broken on the house and trees damaged.

Buffalo County 2 S Shelton	25	1615CST	2	30	0	0	0	0	Tornado (F0)
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A tornado briefly touched down with no apparent damage.

Hall County 2 W Wood River	25	1625CST	1	20	0	0	0	0	Tornado (F0)
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A tornado briefly touched down with no apparent damage.

Hamilton County Aurora	25	1630CST- 1930CST			0	0	5	0	Flash Flood
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Thunderstorms produced very heavy rain across a portion of Hamilton County near Aurora. Rainfall reports ranged from 4.50 to 7 inches. Flooding of Lincoln Creek at Aurora caused the evacuation of between 50 and 60 residents from two trailer courts, an elderly housing project, and some lowland homes. Twenty-two of the 38 apartment units at the housing project were damaged by water.

York County 4 SW Gresham to 5 SSE Gresham	25	1630CST- 2100CST			0	0	4	0	Flash Flood
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Over 4 inches of rain fell in the Gresham area flooding roads, bridges, and fields.

Cass County	25	1630CST- 26 0200CST			0	0	6	7	Flash Flood
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Very heavy rain fell over Cass County. Rainfall amounts ranged from 7.90 inches at Plattsmouth, 7.50 inches at Weeping Water, 5.81 inches at Union, to 5.58 inches at Greenwood. Roads were flooded and a number of roads, bridges, and small earthen dams were washed out. Crops were heavily damaged and fields were eroded and silted. Weeping Water Creek crested



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

## NEBRASKA Cont'd

**Polk County**  
3 NE Shelby      28 1400CST      0 0 3 0      **Thunderstorm Winds (G60)**  
Flight Service Station personnel reported several trees knocked down from winds gusting up to 70 mph.

**Cheyenne County**  
Potter      28 2010CST      0 0 ? ?      **Hail (1.75)  
Flash Flood**  
Hail up to golf ball-size covered roads up to 6 inches deep and had to be removed by road graders. Some stones were still on the ground Sunday afternoon. The hail damaged wheat, bean, and corn crops. Heavy rain from thunderstorms covered Interstate 80 near the Cheyenne-Kimball County line, caused Lodgepole Creek to overflow its banks, and flooded basements.

## NEVADA

**Clark County**      08 0130PST-0630PST      0 0 2 0      **Flash Flood**  
A large area of slow-moving thunderstorms dropped heavy rain on the Lake Meade area. Flash flooding was reported in the Overton area and, on the Arizona side of the lake, at Temple Bar. An observer at Logandale measured 2.48 inches of rainfall in a little over 3 hours.

**Lyon County**      09 1600PST-1700PST      0 0 0 0      **High winds**  
Outflow winds from the afternoon thunderstorm activity produced very strong winds in the Dayton area. Gusts to 70 mph were reported.

**Lyon County**      13 1315PST      0 0 0 0      **Hail (1.00)**  
A severe thunderstorm produced 1-inch hail stones near Dayton.

**Douglas County**      13 1600PST-1800PST      0 0 2 0      **Flash Flood**  
Slow-moving thunderstorms produced flash flooding. Seven miles south of Gardnerville, the north bound lanes of U.S. Highway 395 were closed for a while with water running across the roadway. Street flooding was reported in Gardnerville.

**Clark County**      13 1930PST-2130PST      0 0 0 0      **High Winds**  
13 1930PST-2130PST      0 0 2 0      **Flash Flood**  
Thunderstorms produced heavy rain in the Lake Meade area. Flash flooding was reported in the Valley of Fire State Park. Two- to 3-feet of water flowed over roadways. Outflow from the storms produced steady winds in excess of 50 mph in the Echo Bay area.

**Clark County**      14 0900PST-1145PST      0 0 2 0      **Flash Flood**  
Rainfall from a thunderstorm of 1.80 inches in about an hour and a half resulted in flash flooding in the Mount Charleston Recreation Area. Mud, rocks, and water rushed over the Mount Charleston Highway.

**Clark County**      15 2215PST-2345PST      0 0 3 0      **Flash Flood**

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

## NEVADA Cont'd

Slow-moving thunderstorms produced heavy rain over the Las Vegas area. Las Vegas Police and Fire Departments reported flash flooding on the west side of the city. More than 3 feet of water flowed down the west end of Sahara Avenue. Over 6 feet of water flowed down normally dry Flamingo Wash. Rainfall totals for this area ranged from 0.83 inch in the Angel Park area to 1.65 inches in Blue Diamond.

**Elko County**      29 1656PST                                      0   0   2   0      **High winds**

A downburst from convective activity produced strong winds in the Elko area. A gust to nearly 60 mph was reported at the Elko Airport. Elko Police reported one tree blown down and considerable blowing dust.

## NEW HAMPSHIRE

**Belknap County**      20 1240EST                                      0   0   6   0      **Thunderstorm Winds**

A microburst caused extensive damage in the Lake Winnepesaukee area. Strong winds caused boats to overturn, knocked out power, tossed docks, and blew huge trees down in Centre Harbor. Trees landed on several houses, sheds, and cars near the lake shore in the same area. A 15-foot Boston Whaler boat was smashed to pieces when a 70-foot tree fell on it in Centre Harbor. Power outages occurred in Antrim, Laconia, Tuftonborough, Centre Harbor, and Moultonborough.

**Carroll County**      20 1305EST                                      0   0   5   0      **Thunderstorm Winds**

Trees and power lines were blown down in Moultonborough.

**Merrimack County**      23 1754EST                                      0   0   ?   0      **Thunderstorm Winds**

Thunderstorm winds brought trees down in New London.

**Cheshire County**      23 Night    0   0   ?   0      **Thunderstorm Winds**

High winds downed power lines and trees in Keene.

**Sullivan County  
Merrimack County**      23 Night    0   0   ?   0      **Flooding**

Heavy rains caused flooding of roads in Newport, New London, Cornish, Flat, and Claremont. Nine roads were washed out in Newport.

**Rockingham County**      24 Afternoon                                      0   1   0   0      **Lightning**

A 12-year-old boy was struck by lightning in Newton. The bolt hit in his backyard, passed through several objects, blew up a water pump and circuit panel, and entered the boy's face. He was treated for minor burns on his cheek.

## NEW JERSEY, Northern

Warren County Washington	01	1315EST	0	0	?	0	Hail (1.75)
Warren County Washington	01	1315EST	0	0	?	0	Thunderstorm Winds (G52)
Hunterdon County Lebanon	01	1330EST	0	0	?	0	Thunderstorm Winds
Bergen County Old Tappan	01	1358EST	0	0	?	0	Thunderstorm Winds
Somerset County Franklin Twp.	01	1400EST	0	0	?	0	Thunderstorm Winds
Essex County Newark	01	1410EST	0	0	?	0	Thunderstorm Winds

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

A cold front moved rapidly across northern New Jersey replacing very warm air near the surface. This produced several damaging thunderstorms and hail. Washington, in Warren County, was by far the hardest hit. Numerous trees and power lines were downed. Golf ball-size hail was also reported. Elsewhere, Hunterdon, Somerset, and Essex counties reported various degrees of damage due mainly to fallen trees and power lines.

Hunterdon County Lambertville	05	1400EST			0	0	?	0	Hail (0.75)
Hunterdon County Lambertville	05	1400EST			0	0	?	0	Thunderstorm Winds
Middlesex County Monroe Twp.	05	1425EST			0	0	?	0	Hail (1.75)
Monmouth County Englishtown	05	1445EST			0	0	?	0	Hail (1.75)

A hot and humid air mass over the area was replaced by cooler air moving in behind a cold front. Along this boundary, thunderstorms developed which produced damaging winds and hail. Golf ball-size hail was reported at Monroe township and Englishtown. In Monroe township the hail completely covered the ground.

Warren County Phillipsburg	09	1500EST			0	0	?	0	Thunderstorm Winds
Hunterdon County	09	1505EST			0	0	?	0	Thunderstorm Winds
Somerset County Franklin Park	09	1530EST			0	0	?	0	Thunderstorm Winds
Middlesex County 5 mi South of New Brunswick	09	1530EST			0	0	?	0	Thunderstorm Winds
Middlesex County Near Islen	09	1545EST			0	0	?	0	Thunderstorm Winds
Monmouth County Colts Neck Monmouth Beach Red Bank	09	1600EST			0	0	?	0	Thunderstorm Winds
Somerset County Montgomery	09	1630EST			0	0	?	0	Thunderstorm Winds

A squall line developed in a very warm and unstable air mass ahead of a cold front moving southeastward across New England. Many damaging thunderstorms formed along this squall line during the midafternoon hours downing numerous trees and power lines across sections of northern New Jersey. These storms also produced some locally heavy rains which caused some brief flooding of streets and highways.

## NEW JERSEY, Southern

Ocean County 3 NE Toms River	01	1552EST			0	0	0	0	Funnel Cloud
2 N Breton Woods	01	1555EST			0	0	3	0	Thunderstorm Winds
Point Pleasant	01	1600EST			0	0	?	?	Hail (1.50)

Thunderstorm wind gusts downed trees in Dover Township north of Breton Woods. A funnel cloud was reported in Brick Township northeast of Toms River. Hail slightly smaller than golf ball-size was reported in Point Pleasant.

Mercer County 2.5 SW Pennington	05	1415EST			0	0	3	?	Thunderstorm Winds
West Trenton	05	1420EST			0	0	3	0	Thunderstorm Winds
					0	0	?	0	Hail (1.00)
Hamilton Square	05	1422EST			0	0	3	0	Thunderstorm Winds (G52)
Lawrenceville	05	1422EST			0	3	4	0	Thunderstorm Winds (G57)

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

<b>Mercer County</b>									
Arpt (TTN)	05	1423EST			0	0	?	0	Thunderstorm Winds (G50)
					0	0	?	0	Hail (0.75)
White Horse	05	1423EST			0	0	3	0	Thunderstorm Winds (G52)
Titusville	05	1425EST			0	0	3	0	Thunderstorm Winds (G52)
1 NW Edinburg	05	1427EST			0	0	5	0	Thunderstorm Winds
1 NW Dutch Neck	05	1427EST			0	0	3	?	Thunderstorm Winds
2 NE Robbinsville	05	1430EST			0	0	3	?	Thunderstorm Winds
Trenton	05	1437EST			0	0	3	0	Thunderstorm Winds

Thunderstorm wind gusts downed trees, tree limbs, and utility lines in many locations throughout the county. Wind gusts were estimated at 40 to 60 mph in White Horse and Titusville, at 50 to 60 mph in Hamilton Square, at 65 mph in Lawrenceville, and measured at 58 mph at Mercer County Airport. Hundreds of trees were downed in Mercer County Park in West Windsor Township. Also, roofs were blown off buildings, boat docks were blown away, and falling trees damaged tennis courts at the park with total damage about \$100,000. Three girls were injured by a falling tree at a tennis camp near Lawrenceville. Portions of the roof were blown off a house in Trenton. Falling trees damaged a number of houses throughout the county. One-inch-size hail was reported in West Trenton and three-quarter-inch hail fell at the Mercer County Airport.

<b>Ocean County</b>									
Lakehurst NAS (NEL)	05	1456EST			0	0	?	0	Thunderstorm Winds (G52)
Manahawkin	05	1625EST			0	0	3	0	Thunderstorm Winds

Thunderstorm wind gusts downed utility lines and poles in Manahawkin and were measured at 60 mph at Lakehurst Naval Air Station.

<b>Atlantic County</b>									
Hammonton	05	1545EST			0	0	?	0	Thunderstorm Winds (G53)
					0	0	?	?	Hail (1.00)
Mays Landing	05	1600EST			0	0	3	0	Thunderstorm Winds

Thunderstorm wind gusts downed trees and utility lines in Mays Landing and were measured at 61 mph in Hammonton. One-inch hail also fell in Hammonton. Heavy downpours dropped 1.38 inches of rain in Hammonton and caused some street flooding in Mays Landing.

<b>Cumberland County</b>									
Millville Municipal Airport (MIV)	05	1605EST			0	0	?	0	Thunderstorm Winds (G50)

Thunderstorm wind gusts were measured at 58 mph.

<b>Cape May County</b>									
3 N Cape May Court House	05	1705EST			0	0	3	0	Thunderstorm Winds
Ocean City	05	1720EST			0	0	3	0	Thunderstorm Winds

Thunderstorm wind gusts downed trees and utility lines.

<b>Ocean County</b>									
2 S Van Hiseville	09	1730EST			0	0	3	0	Thunderstorm Winds
Point Pleasant	09	1730EST			0	0	3	0	Thunderstorm Winds

Thunderstorm wind gusts downed trees and utility lines.

<b>Atlantic County</b>									
Atlantic Intl Arpt (ACY)	09	1818EST			0	0	?	0	Thunderstorm Winds (G90)

A thunderstorm wind gust of 81 mph was measured at the National Weather Service Office.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

## NEW JERSEY, Southern Cont'd

Ocean County Avalon	12	1735EST			0	0	?	0	Thunderstorm Winds (G52)
Stone Harbor	12	1735EST			0	0	?	0	Thunderstorm Winds (G52)

Thunderstorm wind gusts were reported at 60 mph.

## NEW MEXICO

Santa Fe County Edgewood	09	1700MST- 1730MST			0	0	3	0	Flash Flood
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One and eight-tenths of an inch of rain in a fifty-minute period caused flooding and washing out of roads around and in the town of Edgewood.

Eddy County 5 SW Lakewood	12	1148MST	0.2	10	0	0	0	0	Tornado (F0)
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Small rope-like funnel touched down briefly in open country.

McKinley County Gallup	13	1530MST- 1700MST			1	0	3	0	Flash Flood
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Torrential thunderstorm rains coupled with a large volume of generally small hail, 3- to 4-feet deep, caused flooding of roads, canals, arroyos, and streams. One person drowned when trying to cross a flooded canal. His pickup truck overturned, trapping him underwater which resulted in hypothermia death from cold water drowning. Another body was found in the Rio Puerco 12 miles south of Gallup, but preliminary indications are that he died on the 10th or 11th and the body washed out into the Rio Puerco by flood waters. (M16V)

Sandoval County Jemez Springs	13	1615MST			0	0	0	0	Hail (0.75)
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Three-quarter-inch hail was reported by a cooperative observer.

San Miguel County Las Vegas	13	1615MST			0	0	3	0	Flash Flood
	13	1800MST			0	0	0	0	Hail (0.75)

Two inches of rain in a 90-minute period, coupled with marble- to dime-size hail, caused damage to vinyl car tops, collapsed ceilings, and produced widespread flooding.

Los Alamos County White Rock	13	1630MST			0	0	3	0	Hail (1.75)
	13	1730MST			0	0	0	0	Thunderstorm Wind (G50)

Golf ball-size hail and wind gusts to 50 knots caused damage to solar panels, skylights, and car windshields.

Sandoval County Rio Rancho	13	1630MST			0	0	0	0	Hail (1.00)
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One-inch-size hail was reported by a National Weather Service meteorologist.

Bernalillo County Albuquerque	13	1647MST			0	0	0	0	Hail (1.00)
	13	1650MST			0	0	0	0	Hail (0.75)

One-inch-size hail was reported at Coronado Airport and at the ARTCC. One-inch rains in Albuquerque caused runoff water in the arroyos in which a young boy was swept downstream for 5 miles. He was rescued and did not suffer any physical injuries.









# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

**Lea County**  
5-10 N Hobbs      28 1030MST-1345MST      0 0 ? 0      Flash Flood

Heavy rains from this thunderstorm and from the previous night totaled 3.50 inches and caused damage to 75 to 100 homes, contaminated water wells, and produced road damage.

**Bernalillo County**  
Albuquerque      28 1352MST      Funnel

The public reported a funnel to the Albuquerque Police Department.

**Quay County**  
Logan      28 1920MST      0 0 0 0      Hail (1.75)

Golf ball-size hail in Logan lasted 10 minutes. A report was received by the Logan Police Department through the Sheriff's Office.

**Eddy County**  
Carlsbad      29 1330MST      Funnel

A funnel north of Carlsbad was reported by a cooperative observer.

## NEW YORK, Central

Franklin County	04	2045EST			0	0	3	3	Thunderstorm Wind
Malone	04	2051EST			0	0	5	0	Lightning
Ft. Covington									
Clinton County	04	2230EST			2	1	5	0	Lightning
Cadyville									
Cortland County	04	2315EST-2340EST			0	0	2	2	Thunderstorm Wind
Cortlandville									
Freetown	04	2315EST-2340EST			0	0	2	0	Thunderstorm Wind
Homer	04	2315EST-2340EST			0	0	2	0	Thunderstorm Wind
Oneida County	05	0001EST			0	0	3	0	Thunderstorm Wind
Lee Center	05	0001EST			0	0	2	2	Thunderstorm Wind
Lee	05	0001EST			0	0	2	1	Thunderstorm Wind
Deansboro	05	0001EST			0	0	4	2	Thunderstorm Wind
Rome	05	0001EST			0	0	3	3	Thunderstorm Wind
Yorkville									
Saratoga County	05	0045EST			0	0	3	2	Thunderstorm Wind
Clifton Park									
Montgomery County	05	0217EST			0	0	2	2	Thunderstorm Wind
St. Johnsville									
Saratoga County	05	0222EST			0	0	5	0	Lightning
Galway Lake									
Albany County	05	0230EST			0	0	1	1	Thunderstorm Wind
Coeymans									

Lightning killed two persons when a bolt struck a house starting a fire. Trees, tree limbs, and power lines were downed by strong gusty winds. Rain, which accompanied the thunderstorms, also penetrated a major telephone trunk line and knocked out phone service to nearly 500 phones in the city of Albany. (M580, F470)

**Ulster County**  
Cornwall      12 0725EST      0 5 4 0      Fog

Dense morning fog reduced visibility on Storm King Mountain. This reduction in visibility was listed by local police as the cause of a three-vehicle accident.

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

### NEW YORK, Central Cont'd

Saratoga County Saratoga Springs	17	1619EST			0	0	4	0	Lightning
Lightning hit a power transformer resulting in power being knocked out to 1,300 city homes.									
Otsego county Pittsfield	20	1410EST- 1420EST			0	1	4	2	Thunderstorm Wind
Cooperstown	20	1410EST- 1420EST			0	0	2	0	Thunderstorm Wind
New Lisbon	20	1410EST- 1420EST			0	0	1	2	Thunderstorm Wind
Dutchess County North Section	20	1752EST			0	0	2	0	Thunderstorm Wind
Ulster County Newburgh	20	1800EST			0	0	4	3	Thunderstorm Wind

In Pittsfield, a tree fell in front of a car on County Route 80. As the tree fell it took down several (live) power lines which trapped a male driver in the car. While attempting to rescue the driver a second male received a slight shock. The injured male was treated and released from a local hospital. Elsewhere, thunderstorm winds blew down trees, large tree limbs, and power lines.

Oneida County  
Verona to  
Rome AFB to  
Holland Patent

23	1015EST- 1023EST	17	75	0	0	4	2	Tornado (F2)
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A tornado struck Oneida County. The tornado was intermittent with a total path length of 17 miles. The initial touchdown in Verona was rated as an F0. The tornado next touched down near Griffiss AFB. Again the tornado was rated an F0. The final segment of the tornado occurred near the community of Holland Patent; here the tornado destroyed a school garage and a private home. Damage along this segment was rated as an F2. Path width remained fairly constant during the tornado's life, at between 50 and 75 yards.

Ulster County  
Phoenicia

31	1319EST			0	0	4	0	Lightning
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A lightning strike hit a power line near the Mt. Pleasant Lodge in Phoenicia. The resulting surge started a fire in the lodge.

### NEW YORK, Coastal

Kings County	09	1600EST			0	0	?	0	Thunderstorm Wind
Nassau County	09	1608EST			0	0	?	0	Thunderstorm Wind
Kings County	09	1630EST			0	0	?	0	Thunderstorm Wind
Suffolk County North Fork Area	09	1730EST			0	0	?	0	Thunderstorm Wind

A squall line developed in a very warm and unstable air mass ahead of a cold front moving southeastward across New England. Many damaging thunderstorms formed along this squall line during the mid- and late-afternoon hours downing numerous trees and power lines across sections of Brooklyn and Long Island. These storms also produced some locally heavy rains that caused some brief flooding of streets and highways.

### NEW YORK, Western

Orleans County Albion	04	2100EST			0	0	3	0	Thunderstorm Wind
Monroe County East Pittsford	04	2115EST			0	0	3	0	Thunderstorm Wind

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

### NEW YORK, Western Cont'd

Wayne County									
Wolcott	04	2120EST			0	0	3	0	Thunderstorm Wind
Sodus	04	2120EST			0	0	3	0	Thunderstorm Wind
Ontario County									
Canandaigua	04	2145EST			0	0	3	0	Thunderstorm Wind
Monroe County									
East Pittsford	04	2220EST			0	0	3	0	Thunderstorm Wind
Wayne County									
Ontario	04	2225EST			0	0	3	0	Thunderstorm Wind
Red Creek	04	2225EST			0	0	3	0	Thunderstorm Wind
Ontario County									
Canandaigua	04	2230EST			0	0	3	0	Thunderstorm Wind
Seneca County									
Seneca Falls	04	2230EST			0	0	3	0	Thunderstorm Wind
Wyoming County									
Middlebury	04	2239EST			0	0	3	0	Thunderstorm Wind
Cayuga County									
Weedsport	04	2245EST			0	0	3	0	Thunderstorm Wind
Wyoming County									
Warsaw	04	2255EST			0	0	3	0	Thunderstorm Wind
Livingston County									
Geneseo	04	2255EST			0	0	3	0	Thunderstorm Wind
Tompkins County									
Groton	04	2310EST			0	0	3	0	Thunderstorm Wind
Onondaga County									
Skaneateles	04	2315EST			0	0	3	0	Thunderstorm Wind
Chautauqua County									
N. Harmony	05	0000EST			0	0	3	0	Thunderstorm Wind
Lakewood	05	0015EST			0	0	3	0	Thunderstorm Wind
Busti	05	0020EST			0	0	3	0	Thunderstorm Wind

A strong cold front moved quickly across western and central New York during the late evening and early morning hours of the 4th and 5th. The front was accompanied by severe thunderstorms which downed trees and power lines. Falling trees and limbs damaged several homes and automobiles. Lightning reportedly started a few house fires.

Steuben County									
Coopers Plains	19	1510EST			0	0	3	0	Thunderstorm Wind
Chemung County									
Erin	19	1537EST			0	0	3	0	Thunderstorm Wind
Catlin	19	1537EST			0	0	3	0	Thunderstorm Wind

Thunderstorms developed in warm, unstable air during the afternoon over portions of the central-southern tier. The thunderstorms downed trees and wires resulting in scattered power outages.

Cayuga County									
Montezuma	20	1105EST			0	0	2	0	Hail (1.75)
Port Byron	20	1058EST			0	0	3	0	Thunderstorm Wind
Chemung County									
Elmira	20	1415EST			0	0	3	0	Thunderstorm Wind
Big Flats	20	1415EST			0	0	3	0	Thunderstorm Wind
Coombs	20	1415EST			0	0	3	0	Thunderstorm Wind

Thunderstorms developed in warm, unstable air ahead of a cold front. The thunderstorms downed trees and power lines. Golf ball-size hail fell in Montezuma.

Niagara County									
Lockport	29	1615EST			0	0	3	0	Thunderstorm Wind
Lockport	29	1635EST			0	0	3	0	Thunderstorm Wind

Thunderstorms developed during the afternoon hours. The thunderstorms downed trees and power lines. Some localized drainage flooding was reported from the heavy downpours.

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

### NORTH CAROLINA

Gaston County Dallas	01	1445EST			0	0	0	0	Hail (1.75)
Guilford County Greensboro	01	1458EST			0	0	0	0	Hail (1.75)
Gaston County Mt. Holly	01	1500EST			0	0	0	0	Thunderstorm Wind
Mecklenburg County Charlotte	01	1510EST			0	0	0	0	Hail (0.75)
Guilford County Southern	01	1515EST			0	0	0	0	Thunderstorm Wind
Chatham County Pittsboro	01	1525EST			0	0	4	0	Hail (1.75)
Harnett County Northern	01	1540EST			0	0	0	0	Hail (0.75)
Wake County Southern	01	1540EST			0	0	0	0	Hail
Lee County Northeast	01	1555EST			0	0	0	0	Hail (0.75)
Harnett County Lillington	01	1620EST			0	0	0	0	Thunderstorm Wind
Union County New Salem	01	1642EST			0	0	0	0	Thunderstorm Wind
Wake County Wake Forest	01	1645EST			0	0	0	0	Hail (2.50)
Granville County Butner	01	1700EST			0	0	4	?	Hail (2.25)

July 1st was the most active weather day of the month. During the early afternoon severe thunderstorms produced widespread large hail over the piedmont. Tennis ball-size hail fell near Wake Forest and at Butner damaging cars and destroying crops. Golf ball-size hail fell in Gaston, Guilford, and Chatham counties. Thunderstorm winds blew down trees and power lines in Mount Holly and Cramerton in Gaston County, southern Chatham County, in Lillington, and in New Salem in Union County.

Sampson County Clinton	01	1745EST			0	0	5	6	Thunderstorm Wind Hail (0.75)
Columbus County Evergreen	01	1755EST			0	0	0	0	Thunderstorm Wind
Pender County Rocky Point	01	1830EST			0	0	5	0	Thunderstorm Wind
Brunswick County Phoenix	01	1900EST			0	0	5	0	Thunderstorm Wind
Pender County Topsail Beach	01	1901EST			0	0	0	0	Thunderstorm Wind (G63)
New Hanover County Castle Hayne	01	1909EST			0	0	0	0	Thunderstorm Wind
New Hanover County Wrightsville Beach	01	1929EST			0	0	3	0	Thunderstorm Wind
Carteret County I W Morehead City	01	1938EST			0	0	0	0	Thunderstorm Wind
Beaufort County S NE Bath	01	1948EST			0	0	0	0	Thunderstorm Wind

Severe thundestorms continued over the southeastern part of the state into the evening hours. The thunderstorms changed characteristics and began producing more wind damage instead of large hail. In Sampson County near Clinton and Garland, thunderstorm winds blew down trees and damaged farm buildings. One grain elevator was destroyed. Dime-size hail fell in the area destroying \$750,000 in crops. In Pender County buildings were damaged in Rocky Point. Sixty-three mph winds were reported at Topsail Beach. At Wrightsville Beach the roof was blown off

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

an old house. In the town of Phoenix in Brunswick County thunderstorm winds destroyed 12 mobile homes and damaged 4 others. Elsewhere across the area trees and power lines were blown down near Morehead City, Bath, and Evergreen.

**Bladen County**  
3 E Lisbon

01 1815EST 0.2 30 0 0 5 ? Tornado (F2)

A small but powerful tornado touched down about 3 miles east of Lisbon in Bladen County. The tornado was moving to the southeast and remained on the ground for about a half-mile. Trees were snapped off and uprooted along the path. The roof was blown off a house and a mobile home was damaged. Bricks from the house were carried about a quarter mile and smashed through the mobile home.

**Gates County**

Sunbury and  
White Oak

01 1530EST 0 0 0 ? Hail (1.75)

**Hertford County**

Near Union

01 1545EST 0 0 ? ? Hail (1.75)

**Gates County**

3 NW Gatesville

01 1702EST 0 0 0 0 Thunderstorm Wind

**Nash County**

Rocky Mount

01 1730EST 0 0 0 0 Thunderstorm Wind

**Eddgecombe County**

Near Rocky Mount

01 1806EST 0 0 0 0 Thunderstorm Wind

**Dare County**

Hatteras Village

01 2000EST 0 0 0 0 Hail (1.00)

**Wilson County**

5 SW Wilson

01 2000EST 0 0 0 0 Funnel Cloud

**Wilson County**

SW of Wilson

01 2000EST 0 0 0 0 Thunderstorm Wind

**Dare County**

Hatteras Inlet

01 2015EST 0 0 0 0 Thunderstorm Wind (G63)

**Northampton County**

Northeast

01 2030EST 0 0 0 0 Hail (1.75)

**Nash County**

Middlesex

01 2040EST 0 0 0 0 Thunderstorm Wind

**Wilson County**

Wilson

01 2050EST 0 0 0 0 Thunderstorm Wind

**Nash County**

Southern

01 2050EST 0 0 4 0 Thunderstorm Wind

**Hyde County**

West of

Swan Quarter

01 2100EST 0 0 0 0 Thunderstorm Wind

In northeastern North Carolina midafternoon thunderstorms began producing large hail. Golf ball-size hail fell in Gates, Northampton, and Hertford counties. By late afternoon the thunderstorms were producing more wind than hail. Widespread damage to trees and power lines occurred in Wilson and in Rocky Mount. Trees were also blown down in Middlesex, Swan Quarter, and Gatesville. The Coast Guard at Hatteras Inlet reported a gust to 63 knots.

**Tyrrell County**

Northern

01 1600EST 4 0 0 0 Thunderstorm Wind

A large thunderstorm crossed the Albemarle Sound moving to the southeast at about 30 mph. As the storm approached the south shore of the sound in northern Tyrrell County the winds produced a strong current and a surge of high water. Twenty to 30 people were swimming in the shallow water of the area. Most people made it to safety but four young men who were about 100 yards from shore (still in shallow water) were drowned.



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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>Mecklenburg County</b> Charlotte	02	1530EST			0	0	4	0	<b>Thunderstorm Wind</b>
Thunderstorm winds blew down trees and power lines in Charlotte. One house was damaged by a falling tree.									
<b>Craven County</b> Cove City	06	1920EST			0	0	0	0	<b>Hail (1.75)</b>
<b>Bertie County</b> Roxobel	06	2220EST			0	0	0	0	<b>Thunderstorm Wind</b>
Golf ball-size hail fell in Cove City. Trees were blown down near Roxobel.									
<b>Cabarrus County</b> Mount Pleasant	08	1838EST			0	0	0	0	<b>Hail (1.00)</b>
<b>Scotland County</b> Laurinburg	08	1920EST			0	0	0	0	<b>Thunderstorm Wind</b>
<b>Robeson County</b> I S Maxton	08	1950EST			0	0	0	0	<b>Thunderstorm Wind</b>
Trees and power lines were blown down by strong thunderstorms in Laurinburg and near Maxton. One-inch-size hail fell in Mount Pleasant.									
<b>Mecklenburg County</b> Charlotte	10	1710EST			0	0	0	0	<b>Hail (1.00)</b>
<b>Durham County</b> Northern	10	1730EST			0	0	0	0	<b>Thunderstorm Wind</b>
<b>Alamance County</b> Rockingham County	10	1800EST			0	0	0	0	<b>Thunderstorm Wind</b>
<b>Rockingham County</b> Madison	10	1815EST			0	0	0	0	<b>Thunderstorm Wind</b>
Thunderstorm winds blew down trees and power lines in northern Durham and northern Alamance counties, and in Madison. One-inch-size hail fell in Charlotte.									
<b>Orange County</b> Chapel Hill	11	1700EST			0	0	0	0	<b>Thunderstorm Wind</b>
<b>Durham County</b> Durham	11	1700EST			0	0	0	0	<b>Thunderstorm Wind</b>
<b>Granville County</b> Creedmore	11	1743EST			0	0	4	0	<b>Thunderstorm Wind</b>
<b>Johnston County</b> 4 E Smithfield	11	1820EST			0	0	0	0	<b>Thunderstorm Wind</b>
<b>Franklin County</b> Kerney & Ingleside	11	1845EST			0	0	0	0	<b>Thunderstorm Wind</b>
<b>Granville County</b> N of Creedmore	11	1850EST			0	0	0	0	<b>Thunderstorm Wind</b>
<b>Guilford County</b> Western	11	1930EST			0	0	0	0	<b>Thunderstorm Wind</b>
<b>Edgecombe County</b> Pine Tops	11	2000EST			0	0	0	0	<b>Thunderstorm Wind</b>
Thunderstorm winds blew down trees and power lines in Chapel Hill, Durham, and near Smithfield, in western Guilford County; also Pine Tops and between Kerney and Ingleside in Franklin County. The greatest damage seemed to be in Granville County near Creedmore where numerous farm buildings were destroyed, trees were blown down, and a plate glass window was blown out of a storefront.									
<b>Wilson County</b> Wilson	12	1945EST			0	0	0	0	<b>Hail (1.25)</b>
Half-dollar-size hail fell in Wilson.									



## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

A tornado uprooted trees and destroyed farm buildings in Colgan. Heavy rains and hail also occurred with this tornadic storm.

Two funnel clouds were sighted 8 miles west of Wildrose.

The supercell storm then moved southeastward into Ward County.

Ward County	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED	INJURED	PROPERTY	CROPS	CHARACTER OF STORM
5 W Kenaston	02	1710CST			0	0	5	5	Hail (1.75)
Coulee	02	1735CST			0	0	5	5	Hail (2.75)
8 S Kenmare	02	1810CST			0	0	5	5	Hail (1.75)
15 NW Minot	02	1825CST **50	10		0	0	4	0	Tornado (F0)
Foxholm	02	1829CST			0	0	4	4	Hail (1.00)
Foxholm	02	1846CST			0	0	5	0	Thunderstorm Wind
Minot	02	1851CST			0	0	5	4	Hail (1.75)
Burlington	02	1853CST **50	10		0	0	4	0	Tornado (F0)
2 S Minot	02	1900CST **50	10		0	0	4	0	Tornado (F0)
Berthold	02	1915CST			0	0	5	5	Hail (2.75)
15 NE Ryder	02	1954CST							Funnel Cloud
3 E Ryder	02	1955CST **50	10		0	0	4	0	Tornado (F0)
Ryder	02	1959CST			0	0	5	5	Hail (2.75)
8 N Max	02	2006CST							Funnel Cloud

Funnel clouds and small tornadoes were sighted throughout Ward County the evening of July 2nd. Hail, high winds, and heavy rains up to 3 inches, also occurred with this supercell storm.

The winds downed trees and power lines, snapped utility poles, destroyed trailers, grain elevators, and other outbuildings.

The rains flooded streets and underpasses in the city of Minot. Hail was widespread over Ward County, especially the northwestern tip of the county and caused considerable crop damage.

McLean County	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED	INJURED	PROPERTY	CROPS	CHARACTER OF STORM
5 NE Garrison	02	2030CST			0	0	5	5	Thunderstorm Wind
Max	02	2050CST			0	0	5	5	Hail (1.75)
10 NW Turtle Lake	02	2144CST **50	10		0	0	0	0	Tornado (F0)

Winds upended power poles and downed lines northeast of Garrison. Meanwhile, a brief tornado touchdown was reported 10 miles northwest of Turtle Lake. Hail damaged crops and buildings in the Max area.

Divide County Fortuna	02	2145CST			0	0	0	0	Thunderstorm Wind (G52)
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Adams County 10 NE Reeder	02	2305CST			0	0	4	4	Hail (1.75)
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McKenzie County	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED	INJURED	PROPERTY	CROPS	CHARACTER OF STORM
5 NNW Alexander	02	2310CST			0	0	4	4	Thunderstorm Wind (G70)
6 SW Watford City		2315CST **80	10		0	1	4	0	Tornado (F0)

A tornado 6 miles southwest of Watford City lifted the roof off a home and exploded its windows. One man inside the home was injured by the broken glass.

Five miles north-northwest of Alexander, winds to 81 mph uprooted trees and blew down barns and campers.

Mountrail County Parhshall	03	0030CST							Funnel Cloud
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McLean County 5 SE Max	03	0100CST			0	0	4	4	Thunderstorm Wind
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# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

**Mountrail County**  
Stanley      10 1540CST      0 0 4 4      Hail (1.75)

**McLean County**  
Garrison      16 2000CST      0 0 5 5      Hail (1.00)

Hail pelted a 30-mile-long and one- and one-half mile area from 30 miles west of Garrison to Garrison. The hail lasted 30 minutes in some locations. It caused extensive crop damage and dented structures and vehicles.

**Burleigh County**  
Wilton      16 2030CST      0 0 0 0      Hail (1.00)  
Driscoll      16 2100CST      0 0 4 4      Hail (1.75)

**Logan County**  
3 N Lehr      16 2330CST      1.0      50      0 2 5 5      Tornado (F1)

A tornado destroyed a barn, relocated a grain bin, and uprooted trees. Wind damage occurred on several farms in the area.

Two people were slightly injured when they were sprayed with glass by a breaking window.

**McKenzie County**  
5 W Watford City      26 0430CST      0 0 3 0      Thunderstorm Wind

Winds peeled off roofing.

**Golden Valley County**  
Golva      26 1555CST      0 0 4 4      Hail (1.75)

**Billings County**  
Medora      26 1630CST      0 0 4 4      Hail (1.75)

**Slope County**  
Amidon      26 1640CST      0 0 4 4      Hail (1.75)

**Williams County**  
Williston      26 1730CST      0 0 4 0      Thunderstorm Wind

Winds blew down numerous trees in the city of Williston. The falling trees knocked down a few power lines.

**Grant County**  
Elgin      26 1800CST      0 0 4 0      Thunderstorm Wind

Strong winds knocked out windows, damaged outbuildings, and broke large trees in the town of Elgin.

**Mountrail County**  
6 W Parshall      26 1830CST      0 0 4 0      Thunderstorm Wind

High winds at Parshall Bay overturned boats and trailers and damaged cabins.

**Renville County**  
3 E Sherwood      26 1930CST      0 0 4 0      Thunderstorm Wind

Winds lifted roofs and caused other damage to farm buildings.

## OHIO

**Fairfield County**  
Lancaster      05 1143EST      0 0 4 0      Thunderstorm Wind

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

Guernsey County 5 SW Cambridge	05	1250EST			0	0	4	0	Thunderstorm Wind
Noble County Batesville	05	1300EST			0	0	4	0	Thunderstorm Wind

Thunderstorms blew down trees and power lines.

Hocking County Logan	05	1730EST			0	0	4	0	Thunderstorm Wind
Clermont County Goshen Township	05	1730EST-			0	0	4	0	Thunderstorm Wind
Miami Township		1820EST			0	0	4	0	Thunderstorm Wind
Highland County Dodsonville	05	1820EST			0	0	?	0	Hail (0.75)
Athens County 2 S Athens	05	1835EST			0	0	4	0	Thunderstorm Wind
Brown County Mt. Orab	05	1844EST			0	0	4	0	Thunderstorm Wind
Meigs County Countywide	05	1855EST			0	0	4	0	Thunderstorm Wind
Hocking County Geiger Road	05	1914EST			0	0	4	0	Thunderstorm Wind
Jackson County Jackson Township	05	1915EST			0	0	5	0	Thunderstorm Wind
Washington Township		1915EST			0	0	4	?	Hail (1.50)
Ross County Possum Hollow Road	05	1930EST			0	0	4	0	Thunderstorm Wind
Adams County Countywide	05	2000EST			0	0	4	0	Thunderstorm Wind
					0	0	?	0	Hail (0.75)
Highland County Mowrystown	05	2036EST			1	0	0	0	Lightning

Thunderstorms moved across southern Ohio blowing down trees and power lines and dropping large hail. A barn lost its roof and outbuildings were destroyed in Adams County. One man was killed by lightning while standing under a tree in his front yard. (M390) Lightning.

Vinton County Harrison Township	05	1930EST-					5	4	Flash Flood
Richland Township	06	0100EST			0	?	5	4	Flash Flood
McArthur	05	2000EST-			0	0	4	4	Urban and Small Stream Flooding
	06	0100EST			0	0	4	4	Urban and Small Stream Flooding
Jackson County Jackson	05	2000EST-			0	0	4	4	Urban & Small Stream Flooding
Wellston	06	0100EST			0	0	4	4	Urban & Small Stream Flooding
Gallia County Rio Grande	05	2000EST-			0	0	4	4	Urban & Small Stream Flooding
	06	0100EST			0	0	4	4	Urban & Small Stream Flooding

Flash floods washed out parts of Routes 671, 349, and 50, and many county roads and bridges in western Vinton County as an estimated 5 to 8 inches of rain fell between 1900 and 2200 EST. Route 671 was so severely damaged that it could not be reopened until July 12th. Many homes were damaged along Salt and Racoon Creeks in Harrison and Richland Townships. One mobile home was swept nearly a mile downstream. The family of four in the mobile home spent the night in trees as the water rose. The cities of Jackson, Wellston, Rio Grande, and McArthur experienced small stream and urban flooding. Many homes were damaged in these towns due to basement flooding.

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

Richland County Mansfield Airport	09	1133EST			0	0	5	0	Thunderstorm Wind
Ashland County Loudonville	09	1205EST			0	0	4	0	Thunderstorm Wind
Holmes County Mt. Hope	09	1225EST			0	0	4	0	Thunderstorm Wind
Mercer County 2 SE Celina	09	1245EST			0	0	5	0	Thunderstorm Wind
Coshocton County Tiverton Center	09	1315EST			0	0	4	0	Thunderstorm Wind
Darke County 1 E Greenville	09	1341EST			0	0	4	0	Thunderstorm Wind
Licking County Summit Station	09	1425EST			0	0	4	0	Thunderstorm Wind
Delaware County Delaware	09	1430EST			0	0	4	0	Thunderstorm Wind
Union County Plain City	09	1430EST			0	0	4	0	Thunderstorm Wind
Madison County Summerford	09	1436EST							
London					0	0	4	0	Thunderstorm Wind
Licking County Pataskala	09	1440EST			0	0	5	0	Thunderstorm Wind
Granville									
Newark									
Muskingum County 1 SW Zanesville	09	1440EST			0	0	4	0	Thunderstorm Wind
Franklin County Columbus	09	1500EST			0	0	4	0	Thunderstorm Wind
Montgomery County Englewood	09	1500EST			0	0	4	0	Thunderstorm Wind
Greene County Countywide	09	1530EST			0	0	4	0	Thunderstorm Wind
Franklin County Westerville	09	1540EST			0	0	4	0	Thunderstorm Wind
Fairfield County Baltimore	09	1600EST			0	0	4	0	Thunderstorm Wind
Pickaway County Ashville	09	1615EST			0	0	4	0	Thunderstorm Wind
Hocking County Lauralville	09	1630EST			0	0	5	0	Thunderstorm Wind
Washington County Beverly	09	1700EST			0	0	4	0	Thunderstorm Wind
Greene County 5 E Xenia	09	1720EST			0	4	0		Thunderstorm Wind
Crawford County 1 W Crestline	09	1725EST			0	0	4	0	Thunderstorm Wind
Harrison County Jewett	09	1730EST			1	0	0	0	Lightning
Richland County Clearfork Lake	09	1730EST			0	0	4	0	Thunderstorm Wind
Clark County Springfield	09	1720EST							Urban and Small Stream Flooding
Springfield		1740EST			0	0	4	0	Thunderstorm Wind
Preble County Gratis	09	1755EST			0	0	4	0	Thunderstorm Wind
Lewisburg									
Montgomery County Dayton	09	1815EST			0	0	4	0	Urban and Small Stream Flooding

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

Morrow County Northern Part of County	09	1815EST			0	0	4	0	Thunderstorm Wind
Warren County 2 N Franklin	09	1815EST			0	0	4	0	Thunderstorm Wind
Greene County Cedarville	09	1825EST			0	0	4	0	Urban and Small Stream Flooding
4 NW Jamestown		1835EST			0	0	4	0	Thunderstorm Wind
Athens County 3 SW Athens	09	1845EST			0	0	4	0	Thunderstorm Wind
Clinton County Wilmington	09	1900EST			0	0	4	0	Thunderstorm Wind
Warren County 2 SE Lebanon	09	1900EST			0	0	4	0	Thunderstorm Wind
Clermont County 2 W Batavia	09	1950EST			0	0	4	0	Thunderstorm Wind
Goshen									
Montgomery County Ketering	09	2000EST			0	0	4	0	Thunderstorm Wind

Thunderstorms moved across central and southern Ohio blowing down trees and power lines in many areas. Winds gusted to 64 mph at the Mansfield-Lahm Airport which damaged 5 airplanes and took the roof off the firehouse. Winds in excess of 70 mph destroyed a hangar and damaged 4 aircraft at the Lakefield Airport on Route 219 southeast of Celina. Winds gusted to 60 mph in Summit Station, Summerford, and the Sharon Woods subdivision of Columbus. High tension power lines were blown down along Route 72 north of Jamestown and a barn was destroyed along Route 50 southwest of Athens. Lightning killed a man while riding a tractor near Jewett. Lightning (M380).

Knox County 3 N Fredericktown	09	1830EST	1.0	50	0	0	4	0	Tornado (F0)
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A tornado touched down briefly 3 miles north of Fredericktown and blew down trees and power lines.

Adams County Winchester	10	1530EST			0	0	5	0	Thunderstorm Wind
Locus Grove	10	1530EST			0	0	4	?	Hail (1.50)
Pickaway County Circleville	10	1720EST			0	0	4	0	Thunderstorm Wind
Hocking County Laurelville	10	1730EST			0	0	5	0	Thunderstorm Wind
Ross County Adelphi	10	1730EST			0	0	4	0	Thunderstorm Wind

Thunderstorms moved through central Ohio blowing down trees and power lines in many areas. A hen house was destroyed and a house lost its roof in Winchester. Golf ball-size hail fell in Locus Grove and a grain silo was damaged in Circleville. Buildings were also damaged in Laurelville and Adelphi.

Washington County Marietta	10	2235EST			0	0	4	0	Thunderstorm Wind
					0	0	6	0	Lightning

Thunderstorms blew down trees and power lines in Marietta. Lightning struck the telephone company and destroyed numerous high technological circuits which were valued at nearly \$1 million.

Clermont County Williamsburg	11	1520EST			0	0	4	0	Thunderstorm Wind
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## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

Warren County Morrow	11	1525EST			0	0	4	0	Thunderstorm Wind
Brown County Aberdeen	11	1540EST			0	0	4	0	Thunderstorm Wind
Meigs County 5 E Burlingham	11	1550EST			0	0	4	0	Thunderstorm Wind Hail (2.00)

Thunderstorms blew down trees and power lines in many areas. Large hail fell along Route 681 east of Burlingham.

### OHZ004-007-011

Central Highlands	11	2300EST- 1200EST			0	0	5	4	Urban and Small Stream Flooding
Miami Valley	12	0500EST- 1200EST			0	0	5	4	Urban and Small Stream Flooding
Northeast Inland	12	0730EST- 2300EST			0	0	6	5	Urban and Small Stream Flooding
Central	12	0900EST- 2200EST			0	0	6	5	Urban and Small Stream Flooding
East Central	12	0900EST- 2300EST			0	0	6	5	Urban and Small Stream Flooding

Flooding that began during the evening of the 11th continued through the 12th across much of central Ohio. Rainfall totals were from 3 to nearly 6 inches in many areas. Dayton set the 24-hour rainfall record for the month of July with 4.54 inches of rain. This was only two one-hundredths of an inch short of the all-time 24-hour rainfall record. Streams, creeks, and sewer systems flooded thousands of homes and businesses, and large expanses of farmland were covered with water. Over 1,000 people were evacuated in Dillonville, Newtown, and Adena, in Jefferson County due to streams and creeks overflowing in those areas.

### Licking County Newark

Licking County Newark	12	1500EST- 2200EST			0	0	4	0	Flood
Pickaway County Circleville	13	1300EST- 1500EST			0	0	4	0	Flood
Pike County Piketon	14	1000EST- 1700EST			0	0	4	4	Flood

The Licking River at Newark went into flood and crested at 18.40 feet at 1900 EST on the 12th. This was nearly 1.50 feet above flood stage. The Scioto River at Piketon went into flood and crested at 17.60 feet at 2000 EST on the 14th. This was 1.60 feet above flood stage. Also, at Circleville, the Scioto River went into flood and crested at 16.70 feet at 2030 EST on the 15th. This was almost 3 feet above the 14-foot flood stage.

### Jefferson County Mahoning County Trumbull County Columbiana County

Jefferson County Mahoning County Trumbull County Columbiana County	14	2000EST- 1500EST			0	?	6	5	Urban and Small Stream Flooding
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Rainfall of 3 to 5 inches fell onto already saturated soils over extreme eastern Ohio causing many streams, rivers, and creeks to flood. Thousands of homes and businesses, and many acres of farmland were flooded. Evacuations took place along Wills Creek near Steubenville, in Brilliant and New Alexandria in Jefferson County, and in Lisbon in Columbiana County. Many roads were flooded and some washouts occurred in these areas. A mud slide closed Route 289 in Lowelville in Mahoning County. Estimates of damage were in the millions, with Jefferson County leading the way with nearly \$3 million in damage.

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

<b>Mahoning County Youngstown</b>	15	0245EST- 0700EST			0	0	4	0	Flood
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The Mahoning River at Youngstown went into flood and crested at 10.50 feet at 0500 EST. This was half a foot above flood stage.

<b>Cuyahoga County Warrensville Hghts</b>	19	1300EST			1	0	0	0	Lightning
<b>Eastern One-Third</b>	19	1330EST- 1700EST			1	?	5	0	Flash Flood

A thunderstorm moved very slowly through eastern Cuyahoga County dropping nearly 4 inches of rain in less than 2 hours. Flash flooding trapped vehicles in many areas and flooded basements. People had to be rescued from stranded and flooded cars. Shaker Lakes overflowed into Shaker Heights. A nine-year-old boy drowned in East Cleveland when Doan Creek flooded and swept him downstream into Lake Erie. A man was killed by lightning while working outdoors in Warrensville Heights. Lightning (M57O) Flash Flood (M09O).

<b>Licking County Buckeye Lake</b>	20	1335EST			0	0	4	0	Thunderstorm Wind
<b>Perry County Thornville</b>	20	1400EST			0	0	4	0	Thunderstorm Wind
<b>Fairfield County Lancaster</b>	20	1445EST			0	0	4	0	Thunderstorm Wind
<b>Miami County Charleston</b>	20	1530EST			0	0	4	0	Thunderstorm Wind
<b>Montgomery County Dayton Airport</b>	20	1530EST			0	5	5	0	Thunderstorm Wind
<b>Clark County Crystal Lake</b>	20	1543EST			0	0	?	?	Hail (0.75)
<b>Clermont County 1 E Milford</b>	20	1545EST			0	0	4	0	Thunderstorm Wind
<b>Greene County 5 N Zenia</b>	20	1600EST			0	0	4	0	Thunderstorm Wind

Thunderstorms moved through southern Ohio blowing down trees and power lines in many areas and dropping large hail. Winds gusted to 68 mph at the Dayton Airport which blew over 20 air show tents and injured five people.

<b>Cuyahoga County Brookpark</b>	20	2315EST- 0100EST			0	0	4	0	Urban and Small Stream Flooding
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Rainfall of over an inch per hour fell, causing roads to flood and trapping some vehicles.

<b>Guernsey County Quaker City</b>	21	1500EST- 1700EST			0	0	4	0	Urban and Small Stream Flooding
<b>Belmont County Flushing</b>	21	1500EST- 1715EST			0	0	4	0	Urban and Small Stream Flooding

Heavy rain fell causing streets, sewer systems, and creeks in these areas to flood.

<b>OHZ001-Northwest</b>	22	0000EST- 2000EST			0	0	6	5	Urban and Small Stream Flooding
<b>Madison County Countywide</b>	22	0000EST- 0400EST			0	0	4	4	Urban and Small Stream Flooding

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

Franklin County Northern Sections OHZ010-West Central	22	0100EST- 0400EST			0	0	4	0	Urban and Small Stream Flooding
	22	0200EST- 2200EST			0	0	5	0	Urban and Small Stream Flooding
OHZ004-Northeast Inland	22 23	1200EST- 0200EST			0	0	5	4	Urban and Small Stream Flooding

Three to over 7 inches of rain fell over parts of Ohio from the 22nd into the 23rd. Northwestern Ohio received the heaviest rain with five to seven inches common in many areas. The City of Ottawa, in Putnam County recorded 7.15 inches of rain for the most in the state. This rain caused widespread flooding of streams, creeks, and rivers. Thousands of homes and businesses and many acres of farmland were flooded, especially in northwestern Ohio.

Trumbull County Niles to Hubbard	22	1517EST- 1530EST	10.0	50	0	0	5	0	Tornado (F0)
Mahoning County 2 SE Canfield	22	1530EST	0.5	50	0	0	4	0	Tornado (F0)
Washington County 1 N Marietta to Duecher	22	1710EST- 1735EST	13.0	50	0	0	5	0	Tornado (F0)
Columbiana County New Waterford	22	1830EST	0.5	50	0	0	4	0	Tornado (F0)
Mahoning County Washingtonville	22	1900EST	2.0	50	0	0	4	0	Tornado (F0)
Columbiana County Fairfield Township	22	1910EST- 2000EST	0.5	50	0	0	4	0	Tornado (F0)

Six small tornadoes touched down in northeastern and southeastern Ohio. These tornadoes were generated from weak rain showers and thunderstorms and only lasted a few minutes or less. The tornado which crossed Washington County was strongest, but damage was still minor. Damage occurred mainly to trees and some outbuildings. Minor structural damage occurred to some buildings in Washington and Mahoning counties.

Lucas County Waterville	23 28	0500EST- 0500EST			0	0	?	0	Flood
Pickaway County Circleville	23	1500EST- 1900EST			0	0	0	0	Flood
Sandusky County Woodville	24 25	0000EST- 0900EST			0	0	4	0	Flood

The Maumee River at Waterville went into flood and crested at 9.40 feet at 1300 EST on the 24th. This was 0.4 foot above the flood stage of 9 feet. The Scioto River at Circleville rose to the flood stage of 14 feet for a short time. The Portage River at Woodville went into flood and crested at 9.90 feet at 1500 EST on the 24th. This was nearly one foot above flood stage.

Mercer County 6 W Celina	24	1830EST	0.5	25	0	0	4	0	Tornado (F0)
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A tornado touched down briefly west of Celina damaging a barn.

### OKLAHOMA

Cherokee County Peggs	05	1600CST			0	0	?	?	Thunderstorm Wind (G65)
Muskogee County Muskogee	08	Unknown			1	0	0	0	Excessive Heat



## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

### PENNSYLVANIA, Eastern

#### Schuylkill County

5 S Pottsville	05	1210EST			0	0	3	?	Thunderstorm Wind (G52)
Freidensburg	05	1210EST			0	0	4	3	Hail (1.75)
Summit Station	05	1210EST			0	0	?	3	Hail (1.75)
Donaldson	05	1210EST			0	0	3	?	Thunderstorm Wind

Thunderstorm wind gusts downed trees and utility lines in Donaldson and were reported at 60 mph south of Pottsville. Golf ball-size hail fell in Wayne Township in the Freidensburg and Summit Station areas. The hail smashed a wheat field, shredded corn, and damaged fruit crops. In Freidensburg the hail broke windows in one house, dented aluminum siding, and broke vinyl siding.

#### Juniata County Thompsontown

05	1230EST			0	0	4	?	Thunderstorm Wind
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Thunderstorm wind gusts downed trees. The falling trees blocked roads and damaged at least one house. Two transformers and their supporting poles were blown, cutting electrical power to 2,000 residents.

#### Perry County Newport

05	1240EST			0	0	3	?	Thunderstorm Wind
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Thunderstorm wind gusts downed trees and utility lines in the Newport area.

#### Lehigh County 1 N Macungie

05	1245EST			0	0	?	?	Hail (0.75)
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Three-quarter-inch hail was reported near Macungie.

#### Cumberland County

Carlisle	05	1335EST			0	0	3	?	Thunderstorm Wind (G52)
Boiling Springs	05	1340EST			0	0	3	?	Thunderstorm Wind
Allen	05	1345EST			0	0	3	?	Thunderstorm Wind

Thunderstorm wind gusts downed hundreds of trees and also utility lines. Falling trees damaged automobiles, utility lines, and houses. Wind gusts were estimated at 50 to 60 mph in Carlisle.

#### Bucks County

Bedminster	05	1345EST			0	0	3	?	Thunderstorm Wind
					0	0	3	?	Hail (1.75)
Pipersville	05	1347EST			0	0	4	?	Thunderstorm Wind
					0	0	3	?	Hail (1.75)
Point Pleasant	05	1357EST			0	0	4	?	Thunderstorm Wind
1 E Plumsteadville	05	1357EST			0	0	4	?	Thunderstorm Wind
					0	0	3	?	Hail (0.75)
Carversville	05	1403EST			0	0	4	?	Thunderstorm Wind
Solebury	05	1405EST			0	0	5	0	Lightning
New Hope	05	1410EST			0	0	5	?	Thunderstorm Wind
					0	0	3	?	Hail (1.75)

Thunderstorm wind gusts downed hundreds of trees and tree limbs from Bedminster in Bedminster Township through Plumstead and Solebury Townships to New Hope. The trees came down on houses and other buildings, roads, automobiles, and utility lines. Over 40,000 customers in the area lost electrical power. The wind gusts also took off siding and portions of roofs. Hail ranging up to golf ball-size broke many windows and dented or broke siding. A lightning-caused fire resulted in extensive damage to a \$500,000 house in Solebury.

#### Bucks County

1 SE Bedminster to New Hope	05	1345EST- 1405EST	10	300	0	0	5	?	Tornado (F1)
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## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

### PENNSYLVANIA, Eastern Cont'd

**Carbon County**  
2 E Aquashicola  
Little Gap

09	1415EST								
09	1415EST	0	0	4	0	Lightning			
		0	0	?	?	Hail (0.75)			

Three-quarter-inch hail fell at Little Gap. A lightning-caused fire destroyed a barn east of Aquashicola.

**Monroe County**  
Saylorsburg  
Kunkletown

09	1418EST								
09	1425EST	0	0	?	?	Thunderstorm Wind (G53)			
		0	0	?	?	Hail (0.75)			

Thunderstorm wind gusts were estimated at over 60 mph in Saylorsburg and three-quarter-inch hail fell in Kunkletown.

**Northampton County**  
1 NW Wind Gap

09	1430EST								
		0	0	?	?	Thunderstorm Wind (G53)			
		0	0	?	?	Hail (1.75)			

Point Philips

09	1430EST								
		0	0	3	?	Thunderstorm Wind			
		0	0	?	?	Hail (0.75)			

Easton

09	1430EST								
		0	0	?	?	Hail (0.75)			

3 SE Nazareth

09	1411EST								
		0	0	3	?	Thunderstorm Wind (G53)			

Nazareth

09	1455EST								
		0	0	?	?	Hail (0.75)			

Tatamy

09	1455EST								
		0	0	3	?	Thunderstorm Wind			
		0	0	?	?	(Hail 0.75)			

Thunderstorm wind gusts were estimated at over 60 mph at Wind Gap and southeast of Nazareth. Large limbs and utility lines were down in Point Philips and large trees were down southeast of Nazareth, in Nazareth and in Tatamy. Golf ball-size hail was reported in Wind Gap, three-quarter-inch hail was reported in Point Phillips, Easton and Tatamy, and large hail was reported southeast of Nazareth.

**Adams County**  
2 NW Wenksville

09	1525EST								
		0	0	3	?	Thunderstorm Wind			

Thunderstorm wind gusts downed trees along Route 223 near the Cumberland County line.

**York County**  
2 E Abbottstown  
Delta  
Red Lion

09	1525EST								
		0	0	3	?	Thunderstorm Wind			
		0	0	3	?	Thunderstorm Wind			
		0	0	3	?	Thunderstorm Wind			

Thunderstorm wind gusts downed trees that blocked roadways in Paradise Township just across the county line from Abbottstown, Adams County. Trees and utility lines were downed in the Delta and Red Lion areas, between 1545 and 1605 EST.

**Lancaster County**

Holtwood

09	1545EST								
		0	0	3	?	Thunderstorm Wind			

Lancaster

09	1550EST								
		0	0	3	?	Thunderstorm Wind			

4 S Lancaster

09	1550EST								
		0	0	3	?	Thunderstorm Wind (G56)			

Lititz

09	1550EST								
		0	1	0	0	Lightning			

White Horse

09	1600EST								
		0	0	3	?	Thunderstorm Wind			

2 SW Cedar Lane

09	1600EST								
		0	0	3	?	Thunderstorm Wind			

Thunderstorm wind gusts downed many trees and utility lines in Conestoga, Strasburg, Leacock, Paradise, Martic, West Lampeter, Sadsbury, Salisbury, Providence, East Earl, and Eden Townships. The communities in the headers above fairly well outline the area. In the area near Cedar Lane at least 12 trees, many of them huge, were blown down. Some of the trees blocked roads and at least two traffic lights were down. In Lititz a man received minor injuries when he was struck by lightning, blacked out, and fell off the roof he was repairing.

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

<b>Chester County</b>										
1 S Conestoga	09	1620EST			0	0	3	?	Thunderstorm Wind	
1 NW Lyndell	09	1625EST			0	0	4	3	Thunderstorm Wind (G61)	

Thunderstorm wind gusts downed trees and utility lines. Many trees were down on historic Springton Manor Farm near Lyndell. One of the trees damaged a carriage house. A portion of one corn field was flattened and an apple orchard was nearly destroyed. The damage path in Wallace and Upper Uwchlan Townships near Lyndell was 5 to 6 miles long and 0.5-mile wide. Winds were estimated at 70 mph.

<b>Montgomery County</b>										
Pottstown	09	1625EST			0	0	4	?	Thunderstorm Wind	
Norristown	09	1635EST			0	0	3	?	Thunderstorm Wind	
Conshohocken	09	1638EST			0	0	3	0	Thunderstorm Wind	
Penllyn	09	1640EST			0	0	3	?	Thunderstorm Wind	
Maple Glen	09	1645EST			0	0	4	0	Thunderstorm Wind	

Thunderstorm wind gusts downed trees and utility lines. In Pottstown, besides the downed trees, large limbs and utility lines, roofing material was torn off the roof of an industrial plant. Some of the roofing material landed on automobiles in the parking lot causing damage. In Conshohocken a tree fell on two houses. In the Penllyn area the downed trees blocked all or portions of roads. In Maple Glen, at just one residence 14 trees were down, two fences and a deck were destroyed, and an umbrella and table were thrown into a swimming pool.

<b>Chester County</b>										
2 E Eagle to 1.5 S Chester Springs	09	1630	5.0	50	0	0	5	?	Tornado (F1)	

A tornado uprooted or broke off many trees and downed many utility lines as it moved eastward across the county. A few of the trees came down on houses causing minor damage.

<b>Centre County</b>										
Phillipsburg	10	1230EST			0	0	3	?	Thunderstorm Wind	
1 N State College	10	1310EST			0	0	?	?	Thunderstorm Wind (G60)	

Thunderstorm wind gusts uprooted, snapped off or broke off portions of 12 to 14 trees in Phillipsburg. Also a screened backstop was blown 100 feet or so at a local baseball field. Wind gusts were measured at 69 mph just to the north of State College.

<b>Lancaster County</b>										
2 SW Elizabethtown	10	1430EST			0	0	5	0	Lightning	
1 S New Danville	10	1430EST			0	0	4	0	Lightning	

Lightning caused fires in a mower shop and in a house. The mower shop near Elizabethtown sustained \$250,000 damage and a house near New Danville had \$85,000 damage.

<b>York County</b>										
3 S Wrightsville	10	1522EST			0	0	5	?	Thunderstorm Wind	
					0	0	3	?	Hail (1.00)	

Thunderstorm wind gusts in lower Windsor Township south of Wrightsville downed more than 80 trees. Many trees were 16- to 24- and up to 48-inches in diameter. Ice-cube-size hail also fell. Four automobiles were damaged by falling trees or limbs or by hail. Trees came down on garages and houses with some of them sustaining severe damage. The damaged area was about 0.5 mile and stretched for about 2 miles right along the Susquehanna River. Seven houseboats were completely capsized in marinas along the river. Eight other boats were damaged. Six sailboats on trailers were blown over at a yacht club. Total damage was estimated at \$250,000. The damage occurred between 1515 and 1530 EST.





## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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, Western Cont'd

<b>Washington County</b> Washington	05	1115EST			0	0	0	0	<b>Thunderstorm Wind</b> Several big trees were blown down in Washington.
<b>Indiana County</b> 20 NE Indiana	05	1138EST			0	0	0	0	<b>Thunderstorm Wind</b> Numerous big trees were blown down in Cherry Tree.
13 SW Indiana	05	1207EST			0	0	0	0	<b>Thunderstorm Wind</b> Large trees were blown down in Blairsville.
<b>Cambria County</b> 9 W Ebensburg	05	1252EST			0	0	0	0	<b>Thunderstorm Wind</b> Power lines were downed near Route 422 in Belsano.
<b>Fayette County</b> 13 NW Uniontown	05	1430EST			0	0	0	0	<b>Thunderstorm Wind</b> Power lines and numerous large trees were downed in Brownsville.
17 NW Uniontown 13 NW Uniontown	05	1435EST			0	0	0	0	<b>Flash Flood</b> Road and basement flooding occurred in Fayette City and Brownsville.
<b>Washington County</b> 13 SE Washington	05	1915EST			0	0	0	0	<b>Hail (0.75)</b> Three-quarter-inch-size hail was reported at Marianna
<b>Venango County</b> 2 N Franklin	09	1210EST			0	0	0	0	<b>Thunderstorm Wind</b> Power lines and large trees were downed near Route 208 and Patchell Run.
Franklin	09	1223EST			0	0	0	0	<b>Flash Flood</b> <b>Thunderstorm Wind</b> There was street flooding in Franklin. Trees and power lines were also down. There were some landslides in the western part of Franklin.
<b>Clarion County</b> Clarion	09	1230EST			0	0	0	0	<b>Flash Flood</b> Storm sewer and poor drainage caused flooding in Clarion.
<b>Clearfield County</b> Clearfield	09	1230EST			0	0	0	0	<b>Thunderstorm Wind</b> Trees were downed in Clearfield.
<b>Venango County</b> Franklin	09	1240EST			0	0	0	0	<b>Thunderstorm Wind</b> More large trees were downed in Franklin.
<b>Jefferson County</b> Brookville	09	1255EST			0	0	0	0	<b>Thunderstorm Wind</b> Trees were downed in Brookville.

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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, Western Cont'd

**Venango County**  
**7 E Franklin**      09 1310EST      0   0   0   0      **Thunderstorm Wind**  
 Power lines were blown down near Oil City.

**Forest County**  
**3 E Tionesta**      09 1330EST      0   2   0   0      **Lightning**  
 Two people were hit by lightning.

**Venango County**  
**7 E Franklin**      09 1330EST      0   0   0   0      **Thunderstorm Wind**  
**Flash Flood**  
 Power lines and trees were downed in Oil City and Franklin. Also small stream flooding occurred in central Venango County. There was street flooding in Franklin.

**Armstrong County**  
**5 NE Kittanning**  
**8 N Kittanning**      09 1330EST      0   0   5   0      **Flash Flood**  
 Serious flooding occurred at Mosgrove and Templeton. A bridge was washed out at Mosgrove.

**Clearfield County**      09 1342EST      0   0   0   0      **Thunderstorm Wind**  
 There were downed trees and power lines throughout the county.

**Beaver County**  
**4 S Beaver**      09 1415EST      0   0   0   0      **Thunderstorm Wind**  
 Trees were downed by thunderstorm wind.

**Allegheny County**  
**2 E Pittsburgh**      09 1430EST      0   0   0   0      **Thunderstorm Wind**  
 Trees were downed in East Liberty.

**Westmoreland County**  
**9 SW Greensburg**  
**15 SW Greensburg**      09 1505EST      0   0   0   0      **Thunderstorm Wind**  
 Trees were downed 4 miles south of Irwin and 3 miles east of Monessen.

**Beaver County**  
**Beaver**      09 1518EST      0   0   0   0      **Flash Flood**  
 There was street flooding in Beaver and stream flooding in Rochester and Bridgewater.

**Allegheny County**  
**22 E Pittsburgh**      09 1515EST      0   0   0   0      **Flash Flood**  
 Street flooding occurred in Monroeville.

**Washington County**  
**8 N Washington**      09 1545EST      0   0   0   0      **Thunderstorm Wind**  
 Trees were blown down in Canonsburg.

**Allegheny County**  
**3 E Pittsburgh**      09 1545EST      0   0   0   0      **Flash Flood**  
 There was flooding of South Fork of Montour Run near Imperial.

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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, Western Cont'd

Beaver County Beaver	09	1545EST			0	0	0	0	Flash Flood  Flooding continued in Bridgewater.
Westmoreland County Greensburg	09	1600EST			0	0	0	0	Thunderstorm Wind  Trees and power lines were down in Greensburg.
Armstrong County Kittanning 6 N Kittanning	09	1600EST			0	0	5	0	Flash Flood  Road flooding occurred in Kittanning. The Sherret Bridge on Huling Run was washed away. Water was up to the second railing on Mosgrove Bridge. Twenty four homes were flooded.
Somerset County 14 S Somerset	09	1610EST			0	0	0	0	Thunderstorm Wind  Tree damage occurred in Meyersdale.
Butler County 4 NE Butler	09	1620EST			0	0	0	0	Flash Flood  Basements were flooded 4 miles northeast of Butler.
Armstrong County Indiana County Clearfield County	10	1425EST			0	0	0	0	Flash Flood  Roadway, basement, and stream flooding occurred in Armstrong, Butler, and southern Clearfield counties.
Butler County 9 NE Butler 6 SW Butler	12	0900EST			0	0	0	0	Flood  The roads were closed in the southwestern quarter of the county due to flooding. Evacuations occurred in Fairview. Flooding occurred on Thorn Creek near Renfrew.
Beaver County 8 N Beaver	12	1015EST			0	0	0	0	Flood  Wallace Run in the northern part of the county was out of banks.
Jefferson County Armstrong County	12	1015EST			0	0	0	0	Flood  Basement and street flooding occurred in Jefferson and Armstrong counties.
Clarion County 12 S Clarion	12	1040EST			0	0	0	0	Flood  Town Run in southern Clarion County flooded.
Butler County 12 W Butler 6 SW Butler	12	1045EST			0	0	0	0	Flood  Connoquenessing Creek flooded in Lancaster. One-hundred twenty -five to 150 people evacuated Renfrew.

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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, Western Cont'd

<b>Armstrong County</b>	12	1105EST			0	0	0	0	Flood
There was flooding in Armstrong County.									
<b>Beaver County</b> 4 NE Beaver	12	1110EST			0	0	0	0	Flood
Flooding occurred at New Brighton Street.									
<b>Jefferson County</b> 17 SE Brookville	12	1110EST			0	0	0	0	Flood
Street and basement flooding occurred in Punxsutawney. Big Run Creek flooded.									
<b>Beaver County</b> 8 SW Beaver	12	1145EST			0	0	0	0	Flood
Street and basement flooding occurred in Industry. Four Mile Run flooded.									
<b>Westmoreland County</b> 8 W Greensburg	12	1230EST			0	0	0	0	Flood
There was flooding on Meadowbrook Run in North Huntingdon.									
<b>Indiana County</b> 2 NE Indiana	12	1300EST			0	0	0	0	Flood
Road flooding intersection of Route 286 and 119. Basement flooding in the northern part of county.									
<b>Clearfield County</b>	12	1300EST			0	0	0	0	Flood
Road and basement flooding throughout county.									
<b>Cambria County</b> 19 NE Ebensburg	12	1330EST			0	0	0	0	Flood
Flooding in Reade Township.									
<b>Westmoreland County</b> 12 E Greensburg	12	1400EST			0	0	0	0	Flood
Basement flooding in Derry.									
<b>Washington County</b> Washington	12	1415EST			0	0	0	0	Flood
Road flooding in Washington.									
<b>Allegheny County</b> 12 SE Pittsburgh	12	1430EST			0	0	0	0	Flood
Chartiers Creek at Bridgeville out of banks.									
7 S Pittsburgh	12	1430EST			0	0	0	0	Flood
A portion of Route 978 was closed due to flooding in Oakdale.									
<b>Westmoreland County</b>	12	1440EST			0	0	0	0	Flood
Road and stream flooding occurred throughout the county.									

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

### PENNSYLVANIA, Western Cont'd

<b>Cambria County</b> 6 E Ebensburg	12	1500EST			0	0	0	0	Flood
Road flooding occurred in Cresson.									
<b>Allegheny County</b> 16 E Pittsburgh	12	1500EST			0	0	0	0	Flood
Route 28 was flooded.									
<b>Washington County</b> 18 E Washington	12	1500EST			0	0	0	0	Flood
Road flooding occurred in Charleroi.									
<b>Westmoreland County</b> 8 E Greensburg	12	1500EST			0	0	0	0	Flood
Basement and road flooding were reported in Latrobe.									
12 NW Greensburg	12	1520EST			0	0	0	0	Flood
Stream flooding Murraysville.									
<b>Allegheny County</b> 17 NE Pittsburgh	12	1520EST			0	0	0	0	Flood
Stream flooding in Dorseyville.									
17 SE Pittsburgh	12	1520EST			0	0	0	0	Flood
Route 88 was closed in South Park with 6 inches of water on Brownsville Road. Roads were blocked in West Mifflin.									
27 E Pittsburgh	12	1520EST			0	0	0	0	Flood
Route 30 was closed near Monroeville due to landslide.									
<b>Washington County</b> 10 N Washington	12	1522EST			0	0	0	0	Flood
Millers Run out of banks in Cecil Township near Route 50.									
<b>Allegheny County</b> 3 S Pittsburgh	12	1525EST			0	0	0	0	Flood
Montour Run was out of its banks at Imperial, with basement flooding reported.									
<b>Fayette County</b> 10 NW Uniontown	12	1545EST			0	0	0	0	Flood
A landslide occurred on Route 906 between Belle Vernon and Fayette City.									
<b>Indiana County</b>	12	1600EST			0	0	0	0	Flood
Basement flooding occurred in parts of Indiana County.									
<b>Beaver County</b> 10 SW Beaver	15	0237EST			0	0	0	0	Flash Flood
Flooding on Route 68 near Midland.									

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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, Western Cont'd

<b>Beaver</b>		15 0456EST			0	0	0	0	<b>Flash Flood</b>
Road flooding near Beaver.									
<b>Butler County</b>									
17 NW Butler		15 0530EST			0	0	0	0	<b>Flash Flood</b>
Route 173 flooded in Slippery Rock.									
<b>Westmoreland County</b>									
2 SW Greensburg									
12 W Greensburg		15 1300EST			0	0	0	0	<b>Flood</b>
Roads were covered by streams and basement flooding occurred in Hempfield and South Huntingdon Townships.									
<b>Somerset County</b>									
18 NE Somerset		15 1330EST			0	0	0	0	<b>Flood</b>
Streams were over roads in Tire Hill.									
<b>Fayette County</b>									
15 NW Uniontown		15 1330EST			0	0	0	0	<b>Flood</b>
Streams were over roads in Brownsville and Isabella. Basement flooding occurred in Brownsville.									
<b>Beaver County</b>									
11 NW Beaver		15 1500EST			0	0	5	0	<b>Flood</b>
North Fork of Little Beaver Creek out of banks in Darlington and New Galilee. Thirty-five homes were affected. Some had major damage.									
13 NE Beaver		15 1500EST			0	0	0	0	<b>Flood</b>
Connoquenessing Creek was over its banks in Franklin Township closing two roads.									
<b>Clearfield County</b>									
15 SE Clearfield									
Clearfield		15 1530EST			0	0	0	0	<b>Flood</b>
Flooded basements in Osceola Mills. Street flooding in Clearfield.									
<b>Butler County</b>									
14 SW Butler		20 1323EST			0	0	0	0	<b>Thunderstorm Wind</b>
Trees were down in Sarver and Middlesex Townships.									
<b>Greene County</b>									
Waynesburg		20 1326EST			0	0	0	0	<b>Thunderstorm Wind</b>
A large tree was downed 2 miles west of Waynesburg near Rt. 18.									
<b>Butler County</b>									
18 SW Butler		20 1345EST			0	0	0	0	<b>Thunderstorm Wind</b>
Wires were down in Cranberry and Harmony.									
<b>Armstrong County</b>									
19 S Kittanning		20 1401EST			0	0	0	0	<b>Thunderstorm Wind</b>
Lines were down in Apollo.									

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROSSL	

## PENNSYLVANIA, Western Cont'd

Somerset County 12 W Somerset	20	1530EST			0	0	0	0	Thunderstorm Wind  Trees and power lines were down in Seven Springs.
7 W Somerset	20	1615EST			0	0	0	0	Thunderstorm Wind  Trees were down between Bakersville and Rockwood.
Allegheny County 4 NE PIT	21	1430EST			0	0	0	0	Flash Flood  Roads were flooded on Ohio River Boulevard near I-79, with water a half foot deep.
Butler County Butler	21	1530EST			0	0	0	0	Flash Flood  Streets were flooded in Butler.
Washington County 2 N Washington	21	1530EST			0	0	0	0	Flash Flood  Several creeks were out of banks in South Strabane.
Fayette County Uniontown	21	1948EST			0	0	0	0	Flash Flood  Street flooding in Uniontown. Redstone Creek and Coal Lick Run flooded.
Washington County 2 N Washington	22	1325EST			0	0	0	0	Flash Flood  Several creeks out of banks. Flooding of Rt. 19 in Washington and South Strabane Townships.
Butler County Butler	22	1530EST			0	0	0	0	Flash Flood  Streets were flooded in Butler.
Beaver County 12 SW Beaver	22	1628EST- 1653EST	3.0	50	0	0	4	0	Funnel Cloud Tornado (F1)  A funnel cloud was sighted in Raccoon and Center Townships. Windows were blown out in Hookstown and a barn roof off in Green Township. Dissipated over Big Knob.
Lawrence County 8 NW New Castle	22	1658EST- 1715EST	?	?	0	0	0	0	Tornado (F0)  A weak tornado briefly touched down near New Bedford.
Butler County 15 NW Butler	22	1745EST- 1750EST	0.5	?	0	0	0	0	Tornado (F0)  A tornado touched down briefly at intersection of Rt. 442 and 19 west of Lake Arthur.



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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, Western Cont'd

**Butler County**  
18 NW Butler      22 1803EST-1856EST      3.5      ?      0      0      0      0      Tornado (F0)

A weak tornado skipped and lifted in a path from Coopers Lake in Worth Township to Portersville.

**Beaver County**  
18 SW Beaver      22 1905EST      0      0      0      0      Thunderstorm Wind

Trees were downed in Raccoon State Park by thunderstorm wind.

**Butler County**  
14 NW Butler      22 1915EST      ?      ?      0      0      0      0      Tornado (F0)

Weak tornado briefly touched down around Slippery Rock Township south of Dougherty's Mill.

## RHODE ISLAND

**Kent County**      24 2200EST-2400EST      0      0      0      0      Lightning

Lightning struck power lines knocking out power to several thousand electric customers in Warwick, West Warwick, and East Greenwich.

## SOUTH CAROLINA

**Spartanburg County**  
Boiling Springs      01 1448EST      0      0      ?      ?      Hail (0.75)

**York County**  
Fort Mill      01 1530EST      0      1      0      0      Lightning  
Lake Wylie area      01 1530EST      0      0      ?      0      Thunderstorm Winds  
York      01 1530EST      0      0      ?      0      Thunderstorm Winds  
Rock Hill      01 1530EST      0      0      ?      0      Thunderstorm Winds

A 40-year-old man was standing near a tree which was struck by lightning. He received first- and second-degree burns over parts of his body.

**Chester County**  
Great Falls      01 1530EST      0      0      ?      ?      Hail (1.00)

**Greenville County**  
2 N Pelham      01 1600EST      0      0      3      0      Thunderstorm Winds Hail (0.75)

**Spartanburg County**  
3 SE Greer Jetport      01 1620EST      0      0      5      ?      Thunderstorm Winds  
Hail (1.75)

2 N Cross Anchor      01 1622EST      0      0      ?      ?      Hail (1.25)

**Greenville County**  
7 ENE Simpsonville      01 1630EST      0      0      5      5      Thunderstorm Winds  
Hail (1.75)

5 E Simpsonville      01 1635EST      0      1      3      0      Lightning

Lightning struck a mobile home, injuring one person.

**Laurens County**  
7 ESE Simpsonville      01 1642EST      0      0      ?      ?      Thunderstorm Winds  
Hail (1.75)

Nr Clinton      01 1705EST      0      0      ?      ?      Thunderstorm Winds

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

Joanna	01	1715EST			0	0	?	?	Thunderstorm Winds
Marlboro County									
Lester	01	1715EST			0	0	?	0	Thunderstorm Winds
Dillon County									
Countywide	01	1730EST			0	0	?	0	Thunderstorm Winds
Dillon	01	1730EST			0	0	?	?	Hail (1.00)
Sumter County									
E portions	01	1730EST			0	0	?	?	Thunderstorm Winds
Clarendon County									
Wyboo	01	1730EST			0	0	?	0	Thunderstorm Winds
Chesterfield County									
Cheraw State Park	01	1735EST			0	0	?	0	Thunderstorm Winds
Kershaw County									
Lugoff	01	1740EST			0	0	5	0	Lightning
Newberry County									
Whitmire	01	1800EST			0	0	?	0	Thunderstorm Winds
Newberry	01	1800EST			0	0	?	0	Thunderstorm Winds
Prosperity	01	1800EST			0	0	?	0	Thunderstorm Winds
Calhoun County									
Cameron	01	1830EST			0	0	?	0	Thunderstorm Winds
Clarendon County									
Turbeville	01	1830EST			0	0	?	0	Thunderstorm Winds
Barrineau	01	1830EST			0	0	?	0	Thunderstorm Winds
Lexington County									
Lexington	01	1830EST			0	0	?	0	Thunderstorm Winds
Richland County									
Columbia	01	1840EST			0	0	?	0	Thunderstorm Winds
Calhoun County									
Ft. Motte	01	1915EST			0	0	?	0	Thunderstorm Winds
St. Matthews	01	1915EST			0	0	?	0	Thunderstorm Winds
Orangeburg County									
Orangeburg	01	1920EST			0	0	?	0	Thunderstorm Winds
Vance	01	1920EST			0	0	?	0	Thunderstorm Winds
Orangeburg County									
Eutawville	01	1945EST			0	0	?	0	Thunderstorm Wind
Holly Hill	01	1945EST			0	0	?	0	Thunderstorm Winds
Orangeburg	01	1950EST			0	0	?	0	Thunderstorm Winds
Berkeley County									
Moncks Corner	01	2005EST			0	0	?	0	Thunderstorm Winds
Dorchester County									
Givhans	01	2030EST			0	0	?	?	Hail (0.75)
Clarendon County									
Lake Marion	01	1930EST			0	0	?	0	Thunderstorm Winds
Charleston County									
James Island	01	2100EST			0	0	?	0	Thunderstorm Winds
Johns Island	01	2100EST			0	0	?	0	Thunderstorm Winds

Severe thunderstorms occurred over a large portion of South Carolina in the late afternoon and early evening hours. A severe thunderstorm developed in the area of the Greer Jetport and then moved southeast along the Enoree River to northern Laurens County. It then moved south to Clinton and Joanna, and into Newberry County. Large hail fell for 30 minutes from south of Pelham, along the Enoree River, to about 7 miles east of Simpsonville. Hail severely damaged automobiles and roofs of homes. Thunderstorm winds blew down many trees and caused minor property damage over a large area. The worst wind damage resulted when a microburst on the northern side of the storm destroyed a mobile home and caused considerable damage to other mobile homes and houses 3 miles southeast of the Greer Jetport. According to witnesses, the hail storm had just about stopped, and the sun began to shine, when the microburst struck. During the passage of the storms, more than 10,000 customers were without electricity, as thunderstorm winds and microbursts blew trees and limbs into power lines. Many counties reported localized damage to mobile homes and trees across roads. There were at least two automobile accidents in the state involving cars running into trees which had fallen across roads. In Lugoff, lightning struck an automobile dealership building.



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

## SOUTH CAROLINA Cont'd

SCZ001-002

Mountains & Foothills

12 Unknown 1 0 0 0 Heat

Extreme heat possibly contributed to the death of a 67-year-old man in Spartanburg County. (M67?)

Florence County  
Florence

12 Unknown 1 0 0 0 Heat

A 70-year-old man died of complications of heat stroke at a woodyard. (M700)

Greenwood County  
Ware Shoals

13 PM 0 0 4 0 Lightning

Lightning killed 17 cows, valued at \$10,200, after striking two cedar trees about 20-feet tall and 75-feet apart in the middle of a pasture. The cows were laying between the trees.

Dorchester County  
Ridgeville

18 1200EST 0 0 5 0 Lightning

Charleston County  
Charleston

18 1500EST 0 0 ? 0 Flooding

Heavy rain caused flooding in downtown Charleston. In Ridgeville, lightning struck a radio station broadcasting tower.

Barnwell County  
Williston

18 1330EST 0 0 ? 0 Heavy Rain

A 20-by 70-foot section of the roof collapsed at the new Dixie-Narco, Inc. plant after becoming water-logged.

Anderson County  
Anderson

21 1500EST 0 0 0 ? Thunderstorm Winds

Thunderstorm winds blew down a few trees and power lines during a briefly severe thunderstorm.

Horry County  
Pee Dee  
Crossroads

21 1915EST 0 0 ? ? Hail (0.75)

Very heavy rain, strong gusty winds, and one-half to three-quarter-inch hail was reported by a spotter on U.S. 378.

Dorchester County  
Ridgeville

21 1950EST 0 0 ? 0 Thunderstorm Winds

The Sheriff's office reported several large trees downed.

Pickens County  
Clemson

22 PM 0 0 ? 0 Thunderstorm Winds

Thunderstorm winds blew a few trees down during a briefly severe thunderstorm.

Barnwell County  
Barnwell

22 1430EST 0 0 4 0 Lightning

Lightning started a house fire, after traveling through television wires.

Horry County  
Garden City

24 PM 0 0 ? 0 Lightning

Lightning knocked a hole in a condominium unit on the fourth floor at the Sea Banks condominiums.



## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

### SOUTH DAKOTA Cont'd

Minnehaha County Sioux Falls	18	0440CST			0	0	0	0	Hail (1.00)
Dewey County Timber Lake	18	0630CST			0	0	3	0	Lightning
Lightning set a home on fire causing damage to the kitchen and a wall before it was extinguished.									
Potter County Lebanon	18	1740CST			0	0	0	0	Thunderstorm Wind (G57)
Spink County Athol	18	1820CST			0	0	4	0	Thunderstorm Wind
Strong thunderstorm winds destroyed a barn and a camper along with several trees.									
Sully County Agar	18	0913CST			0	0	0	0	Hail (0.75)
Stanley County 2 E Hayes	18	1712CST			0	0	0	0	Hail (1.75)
Sanborn County 2 W Letcher	18	1721CST			0	0	0	0	Hail (0.75)
Miner County 2 N Epiphany	18	1740CST			0	0	0	0	Hail (0.75)
Stanley County 7 SE Hayes	18	1747CST			0	0	0	0	Hail (1.75)
Stanley County 2 E Hayes	18	1748CST			0	0	0	0	Hail (1.75)
Minnehaha County 3 E Baltic	18	1809CST			0	0	0	0	Hail (1.50)
Valley Springs	18	1837CST			0	0	0	0	Hail (2.00)
Dewey County Glencross	24	1545CST			0	0	0	0	Hail (1.75)
2 S Timber Lake	24	1816CST			0	0	0	0	Thunderstorm Wind (G52)
4 E Timber Lake	24	1925CST			0	0	0	0	Thunderstorm Wind (G52)
Spink County Redfield	27	0503CST			0	0	0	0	Hail (1.50)
Kingsbury County 6 S Willow Lake	27	1500CST			0	0	?	?	Hail (2.75)

Baseball-size hail fell in an area 1- to 1.5-miles wide and 10 miles long from 6 miles south of Willow Lake and then to the southeast. Crop damage was extensive with some crops totally wiped out. Numerous trees were stripped bare of leaves. There was also significant damage to homes and vehicles from broken windows. A farmer reported two of his sheep killed by the hail.

### TENNESSEE

Loudon County	01	1233CST			0	0	0	0	Hail (0.75)
Blount County	01	1235CST			0	0	0	0	Hail (1.50)
Cumberland County	01	1300CST			0	0	2	0	Thunderstorm Wind
		1335CST			0	0	0	0	Hail (0.75)
Loudon County	01	1350CST			0	0	0	0	Hail (1.50)
Roane County	01	1400CST			0	0	3	0	Thunderstorm Wind
Monroe County	01	1403CST			0	0	2	0	Thunderstorm Wind
		1403CST			0	0	0	0	Hail (1.50)
Loudon County	01	1425CST			0	0	2	0	Thunderstorm Wind
McMinn County	01	1440CST			0	0	2	0	Thunderstorm Wind
Polk County	01	1530CST			0	0	0	0	Hail (0.88)
		1530CST			0	0	3	0	Thunderstorm Wind

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

### TENNESSEE Cont'd

Claiborne County	01	1620CST			0	0	2	0	Thunderstorm Wind
McMinn County	01	1630CST			0	0	0	0	Hail (1.75)
		1630CST			0	0	2	0	Thunderstorm Wind
Polk County	01	1645CST			0	0	2	0	Thunderstorm Wind
Anderson County	01	1650CST			0	0	0	0	Hail (1.00)
Sevier County	01	1700CST			0	0	3	0	Thunderstorm Wind
		1700CST			0	0	3	0	Hail (0.75)
Grainger County	01	1710CST			0	0	0	0	Hail (1.00)
Loudon County	01	1745CST			0	0	0	0	Hail (0.75)
		1800CST			0	0	0	0	Thunderstorm Wind
Monroe County	01	1815CST			0	0	2	0	Thunderstorm Wind

Severe thunderstorms moved across eastern Tennessee in the afternoon and evening dumping heavy rain and producing numerous reports of hail and wind damage across mainly rural areas. In Roane County, the roof of an antique shop building in Harriman was blown off, causing major damage to power lines. In Polk, McMinn, Loudon, Claiborne, and Monroe counties, several trees were knocked down causing power line outages. In Sevier County, a trailer was flipped over and a nearby barn was leveled.

Roane County	06	1800CST			0	0	2	0	Thunderstorm Wind
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Several trees were downed by a thunderstorm at Roane County Park.

Lawrence County	09	1230CST			0	0	4	0	Lightning
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A lightning strike caused a fire which destroyed a home near Lawrenceburg. Also, five cows were killed by a bolt of lightning 4 miles west of town.

Monroe County	09	1300CST			0	0	2	0	Thunderstorm Wind
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A farm building was smashed and trees were downed by a thunderstorm near Monroe County Airport.

Rutherford County	10	1300CST			0	1	4	0	Thunderstorm Wind
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Thunderstorm winds overturned a mobile home injuring a man inside. It also took the roof off a barn and toppled several trees in the Rockvale area.

Franklin County	10	1530CST			0	0	2	0	Thunderstorm Wind
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High winds resulted in electrical lines being downed by falling trees in Decherd.

Hamilton County	10	1600CST			0	0	0	0	Thunderstorm Wind
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Power lines and trees were felled by thunderstorm winds at east Brainerd.

Obion County Samburg	10	1600CST 1605CST	0.5	20	0	0	3	0	Tornado (F0)
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A large thunderstorm produced a small, but intense tornado that damaged roofs and broke windows out of rental house trailers near Reelfoot Lake. Several eyewitnesses observed the tornado, which touched down only briefly. The storm blew down antennas and snapped utility poles. It also toppled several large trees, one of which fell directly onto a trailer destroying it.

Bedford County	11	1620CST			0	0	0	0	Thunderstorm Wind
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Numerous trees were downed by thunderstorm winds in Shelbyville and also in the northern part of the county.

Marshall County	11	1625CST			0	0	2	0	Thunderstorm Wind
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Several trees were blown down and a small outbuilding was destroyed.

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

### TENNESSEE Cont'd

<b>Cannon County</b>	11	1630CST			0	0	2	0	<b>Thunderstorm Wind Flash Flood</b>
					0	0	0	0	
					In Woodbury, electrical lines were knocked out due to trees falling across them. Also, some minor flooding was reported in the downtown section from heavy rains.				
<b>Warren County</b>	11	1710CST			0	0	3	0	<b>Thunderstorm Wind</b>
					Thunderstorms blew down trees in the northern part of the county north of McMinnville. In addition, a shed was knocked down and a trailer home was pushed off its blocks.				
<b>Hamilton County</b>	11	1730CST 1800CST			0	0	0	0	<b>Thunderstorm Wind Flash Flood</b>
					0	0	0	0	
					High winds toppled trees and flash flooding produced water that covered roads in the southeastern part of the county near Apison and Ooltewah. Also, roads were reported under water about 0.5 mile south of the Chattanooga Airport.				
<b>Knox County</b>	11	1800CST			0	0	2	0	<b>Thunderstorm Wind</b>
					A felled tree from thunderstorm winds damaged a home in eastern Knox County.				
<b>Hamilton County Soddy Daisy</b>	12	1410CST			0	0	0	0	<b>Hail (0.75)</b>
					A severe thunderstorm produced three-quarter-inch hail for a brief time in the Soddy Daisy community of Hamilton County.				
<b>Tipton County</b>	12	1900CST			0	0	2	0	<b>Thunderstorm Wind</b>
					A farm shed was demolished by strong winds near Covington.				
<b>Bradley County</b>	21	2000CST			0	0	3	0	<b>Flash Flood</b>
					Four inches of rain fell in a 2.5-hour period causing Mouse Creek to overflow. Ten houses were flooded in Cleveland with one person evacuated from his home.				
<b>Hamilton County</b>	22	1540CST			0	0	1	0	<b>Thunderstorm Wind</b>
					On Lookout Mountain in Chattanooga, the awning and some furniture of a house was blown away by thunderstorm winds.				
<b>Coffee County</b>	22	1600CST			0	0	4	0	<b>Thunderstorm Wind</b>
					Thunderstorm wind toppled a large tree, which smashed the front porch of a house and wrecked a pickup truck in Tullahoma.				
<b>Lake County</b>	29	1830CST			0	0	4	0	<b>Thunderstorm Wind</b>
					A violent thunderstorm struck the Reelfoot Lake area for the third time in three months. As many as two dozen trailers and rental homes were damaged from falling trees. The area hardest hit was along the west shore near Ray's Camp, which is just east of Tiptonville. One trailer was completely demolished by a downed cypress tree.				

### TEXAS, Northern

<b>Parker County Weatherford</b>	02				1	10	0	0	<b>Excessive Heat</b>
					Excessive heat was attributed to one fatality by heat stroke in a residence and ten heat-related injuries in Weatherford. (M59P)				



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### TEXAS, Northern Cont'd

<b>Tarrant County</b> <b>Fort Worth</b>	03				1	0	0	0	<b>Excessive Heat</b>
Excessive heat was attributed to one fatality by heat exhaustion to a man who was working outdoors for a local garbage collection company in Fort Worth. (M390)									
<b>Panola County</b> <b>Panola</b>	03	2150CST			0	0	0	0	<b>Thunderstorm Wind</b>
<b>5 E Beckville</b>	03	2220CST			0	0	0	0	<b>Hail (1.75)</b> <b>Thunderstorm Wind</b>
A downburst blew down several trees and power lines in Panola and numerous trees along U.S. Highway 79 located 5 miles east of Beckville.									
<b>Dallas County</b> <b>Richardson</b>	05	1425CST			0	0	0	0	<b>Thunderstorm Wind</b>
A downburst blew down several signs and street lights, damaged one automobile, and the roof of two metal buildings.									
<b>Tarrant County</b> <b>Fort Worth</b>	05				0	1	?	0	<b>Excessive Heat</b>
Excessive heat was attributed to one injury in Fort Worth.									
<b>Lamar County</b> <b>Paris</b>	22	1435CST			0	0	?	0	<b>Thunderstorm Wind</b>
A downburst blew down street signs, power lines, and several trees in Paris.									
<b>Dallas County</b> <b>Carrollton</b>	29	1950CST			0	0	?	?	<b>Thunderstorm Wind</b>
A downburst blew the roof off a portion of a hotel in Carrollton.									
<b>Palo Pinto County</b> <b>Possum Kingdom Res</b>	29	2130CST			0	0	?	?	<b>Thunderstorm Wind</b>
A downburst damaged the roof of a building at Possum Kingdom Reservoir.									
<b>McLennan County</b> <b>4 N Axtell</b>	30	1400CST			0	0	?	?	<b>Thunderstorm Wind</b>
A downburst turned over a storage barn 4 miles north of Axtell.									
<b>Cherokee County</b> <b>2 SW Jacksonville</b>	30	1500CST			0	0	?	?	<b>Thunderstorm Wind</b>
<b>Jacksonville</b>	30	1500CST			0	0	?	?	<b>Hail (1.75)</b>
<b>Jacksonville</b>	30	1530CST			0	0	?	?	<b>Hail (0.75)</b>
A downburst blew down several trees 2 miles southwest of Jacksonville.									
<b>Shelby County</b> <b>Center</b>	30	1605CST			0	0	?	?	<b>Thunderstorm Wind</b>
A downburst blew down power lines and large tree limbs in Center.									
<b>Angelina County</b> <b>Lufkin</b>	30	1845CST			0	0	?	?	<b>Thunderstorm Wind</b>
A downburst blew down several trees in Lufkin.									

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JULY 1990

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### TEXAS, Northern Cont'd

Gregg County Longview	31	1732CST			0	0	?	?	Thunderstorm Wind (G55)
Smith County Tyler	31	1805CST			0	0	?	?	Thunderstorm Wind (G63)

Strong wind measured at 73 mph blew down trees and power lines in Tyler.

### TEXAS, Southern

Orange County E of Vidor	03	1735CST			0	0	0	0	Thunderstorm Wind (?)
High winds from a thunderstorm blew over trees that downed power lines east of Vidor.									
Tyler County Woodville	03	1910CST			0	0	0	?	Thunderstorm Wind (?)
High winds from a thunderstorm blew over trees that blocked U.S. 190 near Woodville.									
Newton County N of Deweyville	03	2006CST			0	0	0	?	Thunderstorm Wind (?)
High winds from a thunderstorm blew trees down across Highway 87 north of Deweyville.									
Orange County Bridge City	04	1755CST			0	0	?	?	Thunderstorm Wind (?)
High winds from a thunderstorm blew over large trees and downed power lines in Bridge City. The high winds blew over a fireworks stand and trapped some people inside.									
Jefferson County 2 NW Beaumont	04	1805CST			0	0	0	0	Hail (1.75)
Golf ball-size hail was reported 2 miles northwest and 1 mile east of Beaumont.									
Grimes County Navasota	09	1900CST			0	0	0	0	Thunderstorm Wind (?)
High winds from a thunderstorm damaged a home and uprooted trees in Navasota.									
Goliad County Fannin	12	1740CST			0	0	0	0	Hail (1.75)
Kerr County	15	1430CST	Short Narrow		0	6	?	?	Tornado (F0)
A tornado touched down briefly 4 miles south of Kerrville just off Highway 16. Six persons sustained minor injuries. They were treated for minor cuts and bruises at a local hospital and released. Three mobile homes and one frame house were destroyed. Some 30 other homes in the area had roof damage. A nearby clubhouse was heavily damaged.									
Atascosa County	15	2030CST			0	0	?	0	Thunderstorm Wind (?)
High winds from a thunderstorm severely damaged five mobile homes at Leming.									
Menard and Kimble Counties	15	Evening			0	0	?	?	Flash Flooding
Heavy rains sent many small streams out of their banks and flooded roads and low-water crossings over the two-county-area. The San Saba River in Menard County and the Llano River in Kimble County rose out of their banks due to the run-off. One mobile home was washed into the San Saba River at Menard. At least a half dozen persons had to be evacuated, and 100 sheep were drowned.									



## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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		LOCAL STANDARD			KILLED	INJURED	PROPERTY	CROPS	

### TEXAS, Southern Cont'd

flood stage. These rivers included the Nueces, Atascosa, Frio, Leona, and San Miguel Creek. A few persons had to be rescued from cars that had been driven into flooded areas. There were some evacuations from flooded homes. Flooding continued in the area through the 18th. The Choke Canyon and Corpus Christi reservoirs caught valuable run-off water and rose several feet.

**Val Verde County** 18-19 Noon 18th 0 0 ? ? **Flash Flooding**

Six inches of rain fell around Comstock on the morning of the 18th which flooded many roads in and around the Comstock area. Heavy rains continued to fall and on the 19th up to 11 inches had fallen in some areas that drain into the Pecos River. The Pecos River was up 19 feet on the 19th. Many ranch roads were closed due to high water.

**Bandera County** 18-19 0 0 ? ? **Flash Flooding**

Heavy rains fell over the western portion of the county and flooded low-water crossings. Vanderpool reported around 5 inches of rain for a 24-hour amount ending the morning of the 19th; however, serious flooding was not reported. Vanderpool's rainfall total for the 4-day period was near 15 inches. The Sabinal River rose 6 to 8 feet but did little damage.

**Val Verde County** 22-23 Evening 0 0 0 0 **Flash Flooding**

Heavy rains fell over the northern half of the county on the evening of the 22nd and the early morning hours of the 23rd. Five inches was reported at Loma Alta. The heavy rains extended northwest to the Juno area. Many roads were closed due to high water. The Devils and Dry Devils Rivers were up 10- to 15-feet. Streets were flooded in the city of Del Rio.

**Val Verde County** 23-24 1700CST 0 0 ? ? **Flash Flooding**

Heavy rains fell in the extreme northern part of the county. Local rain coupled with the run-off from heavy rains to the north closed main roads and highways in the area. Johnson Draw, and other tributaries of the Devils River rose out of their banks. The Pecos River rose several feet.

**Menard County** 23 ? 0 0 0 0 **Flash Flooding**

Heavy rains and run-off closed many roads and highways across the county. Roads were opened the next day on the 24th.

**Edwards, Kinney, Real Counties** 23 Morning 0 0 ? ? **Flash Flooding**

Widespread heavy rains of up to 5-inches produced flash flooding and closed many roads over the three-county area. State Highway 55 at Barksdale was closed due to high water. Moody Ranch, 8 miles west of Rocksprings, reported 16 inches of rain from the 15th through the 23rd.

**Orange County**  
Vidor 30 1510CST 0 0 0 0 **Hail (0.90)**

**Jefferson County**  
5 NW Port Arthur 30 1540CST 0 0 0 0 **Thunderstorm Wind (G51)**

Thunderstorm wind gusted to 59 mph at the National Weather Service office at the Jefferson County Airport.

### TEXAS, Western

**Carson County**  
15 N Panhandle 15 1512CST 1.2 60 0 0 0 0 **Tornado (F0)**

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

PLACE	D O Y E	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	

## TEXAS, Western Cont'd

5 N Panhandle	15	1520CST			0	0	0	0	Hail (1.75)
1 N Panhandle	15	1530CST	1.5	75	0	0	0	0	Tornado (F0)
1 E Conway	15	1534CST	1.9	100	0	0	0	0	Tornado (F0)

A SKYWARN spotter observed a tornado 15 miles north of Panhandle at 1512 CST. The Panhandle Fire Department reported golf ball-size hail 5 miles north of Panhandle at 1520 CST. Ten minutes later, a SKYWARN spotter reported a tornado just north of Panhandle. At 1534 CST, the Carson County Sheriff's Office reported a tornado 1 mile east of Conway. All of the events were over open country and no damage resulted.

### Schleicher County 20 E Eldorado

15	0700CST			0	0	2	2	Flash Flood
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Over 12 inches of rain in Schleicher County sent rivers in the eastern part of the county out of their banks. Many secondary highways were closed until the early morning of the 16th. Fortunately, no injuries or significant damage resulted.

### Hudspeth County 32 ENE El Paso

21	2010CST			0	0	0	0	Thunderstorm Wind (G54)
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Thunderstorm winds gusted to 62 mph in northwest Hudspeth County, according to a cooperative observer. No damage was observed.

### Winkler County Wink

21	2100CST			0	0	0	2	Thunderstorm Wind (G51)
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A television weatherman reported wind gusts to 60 mph in Wink. Minor damage to trees was observed.

### Deaf Smith County Hereford

21	2219CST			0	0	4	2	Flash Flood
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The Hereford Police Department observed flash flooding in Hereford. The floodwaters caused minor damage to homes in northwestern Hereford.

### Irion County Tom Green County Concho County

23	0030CST			0	0	0	0	Flash Flood
23	0040CST			0	0	2	2	Flash Flood
23	0045CST			0	0	2	0	Flash Flood

Recurrent thunderstorms produced over 7 inches of rain in the central Concho Valley, resulting in flash flooding. Only minor damage resulted from the floodwaters.

### Dallam County Dalhart Hartley County 8 SE Dalhart

26	1635CST			0	0	2	2	Hail (1.75)
26	1650CST			0	0	2	1	Hail (0.75)

A severe thunderstorm produced golf ball-size hail in Dalhart at 1635 CST, according to the Texas Department of Public Safety. The Dallam County Sheriff's Office reported dime-size hail 8 miles southeast of Dalhart at 1650 CST. No significant damage resulted.

### Sherman County 4 W Stratford

26	1736CST			0	0	0	0	Hail (0.75)
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The Sherman County Sheriff's Office reported dime-size hail in extreme western Sherman County. No damage was observed.

### Oldham County Boys Ranch

26	1904CST			0	0	0	0	Hail (0.75)
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The Oldham County Sheriff's Office observed dime-size hail at Boys Ranch. No damage resulted.

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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 S	I N J U R I E S	P R O P E R T Y	C A R S	

### TEXAS, Western Cont'd

<b>Moore County</b> Four Way	26	1915CST				0	0	0	0	Hail (0.75)
<b>Potter County</b> 15 NW Amarillo	26	1930CST				0	0	0	0	Hail (0.75)

The Moore County Sheriff's Office observed dime-size hail at Four Way, 15 miles south of Dumas, at 1915 CST. Fifteen minutes later, dime-size hail fell in northwestern Potter County. No damage was reported.

<b>Potter County</b> 5 SSW Fritch	26	2055CST				0	0	0	0	Hail (1.00)
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SKYWARN spotters reported quarter-size hail near Lake Meredith, 5 miles south-southwest of Fritch, at 2055 CST. No damage was observed.

<b>Lubbock County</b> Lubbock	27	1502CST				0	0	2	1	Thunderstorm Wind (G63)
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Downburst winds gusted to 72 mph at Lubbock International Airport at 1502 CST. No significant damage resulted.

<b>Lubbock County</b> Lubbock	27	1710CST				0	0	3	1	Flash Flood
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Slow-moving thunderstorms dropped over 1.50 inches of rain on Lubbock in an hour, resulting in flash flooding in the city. The Lubbock Police Department reported minor damage to three vehicles which were stranded in the floodwaters.

<b>El Paso County</b> El Paso	27	1917CST				0	0	2	0	Thunderstorm Wind (G62)
El Paso	27	2000CST				0	0	5	2	Flash Flood

Downburst winds estimated over 70 mph blew through west El Paso at 1917 CST. Two inches of rain fell as the thunderstorm passed over the city, resulting in flash flooding. One home was destroyed and a business was heavily damaged by the flood, which stranded 50 cars. Fortunately, no one was injured.

<b>Lubbock County</b> Lubbock	27	2050CST				0	0	2	2	Flash Flood
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Another slow-moving thunderstorm passed over Lubbock, resulting in additional flash flooding. The Lubbock EOC reported no significant damage with this event.

<b>Midland County</b> 1 S Midland	28	1515CST				0	0	2	2	Flash Flood
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The public and the Texas Department of Public Safety reported flash flooding from a thunderstorm just south of Midland. The flood, which lasted until 1815 CST, resulted in only minor damage.

<b>Lipscomb County</b> 8 SW Lipscomb	28	2055CST				0	0	0	0	Flash Flood
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Flash flooding occurred in southwestern Lipscomb County. No damage resulted.

<b>Lubbock County</b> 3 SE Slaton	29	1524CST				0	0	3	1	Thunderstorm Wind (G54)
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Downburst winds at 1524 CST caused minor damage to outbuildings southeast of Slaton, according to the Slaton Police Department.







## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

### VERMONT Cont'd

Washington County Lamoille County Chittenden County Addison County	23	1320EST			0	0	6	5	Flash Flooding
	23	2118EST							

Thunderstorms with heavy rain again racked northern Vermont. Flooding occurred along many of the small mountain streams.

### VIRGINIA

Spotsylvania County	01	0040EST			0	0	0	0	Thunderstorm Winds
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Trees were downed.

Washington County Damascus	01	1300EST			0	0	3	0	Lightning
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Lightning struck an electrical power station in Damascus causing \$21,000 damage and knocking out power to 1,770 customers.

Arlington County Fairfax County	01	1300EST- 1445EST			0	0	3	0	Thunderstorm Winds Hail
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See details below.

Fairfax County Tysons Corner Arlington County Fairfax County Rosslyn Mount Vernon Vienna Dunn Loring	01	1335EST			0	0	0	0	Hail (0.75)
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In Arlington County, trees were downed on portions of George Washington Memorial Parkway at the Key Bridge (Rosslyn), National Airport (DCA), and Mount Vernon. In Fairfax County, trees fell onto houses in Vienna and Dunn Loring. Some 45,000 were affected by power outages.

Fairfax County	01	1445EST			0	0	3	0	Thunderstorm Winds
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Trees were blown down onto houses in the eastern part of the county.

Brunswick County Dolphin	01	1500EST			0	0	0	3	Hail
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An isolated, small thunderstorm caused about 50% loss to tobacco crops in the Dolphin area.

Hanover County Henrico County Charles City County City of Richmond	01	1530EST- 1600EST			0	0	4	0	Thunderstorm Winds Hail
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See details below.

Henrico County Lakeside	01	1530EST- 1545EST			0	0	0	0	Thunderstorm Winds
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Trees were reported down.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

## VIRGINIA Cont'd

Henrico County City of Richmond	01	1530EST- 1600EST			0	0	4	0	Thunderstorm
Numerous trees were downed. Twenty-five thousand homes were left without power, most of which were in eastern sections of Richmond and Henrico County.									
Henrico County 4 NW RIC	01	1600EST			0	0	0	0	Hail (1.00)
Hanover County	01	1600EST			0	0	0	0	Thunderstorm Winds
Winds estimated at 60 mph in the western part of the county.									
Charles City County	01	1555EST- 1600EST			0	0	3	0	Thunderstorm Winds Hail (0.75)
Three-quarter-inch hail was reported in the county along with numerous downed trees. Power outages resulted from trees falling across lines.									
Buckingham County	01	1615EST			0	0	0	0	Thunderstorm Winds
Sheriff's department reported strong winds estimated to 60 mph blew down several trees in the county.									
Stafford County	01	1410EST- 1425EST			0	0	0	0	Hail (1.75) Thunderstorm Winds
There were several reports of 1-inch to golf ball-size hail within the county. Trees and power lines were reported down in the west-central part of the county.									
Spotsylvania County City of Fredericksburg 4 N Fredericksburg	01	1444EST			0	0	4	0	Thunderstorm
Trees and power lines were downed by winds estimated over 50 mph. Some 15,000 lost power in the Fredericksburg area. Trees toppled onto at least two cars in Fredericksburg.									
Stafford County 1 SW Quantico	01	1446EST			0	0	0	0	Hail (0.75)
Three-quarter-inch hail was reported at the U.S. Marine Corps Airport (NYG).									
King George County	01	1440EST			0	0	0	0	Thunderstorm Winds
Trees were reported downed.									
Cities of Suffolk and Chesapeake	01	1445EST- 1530EST			0	0	0	0	Hail
See details below.									
4 W Suffolk	01	1445EST			0	0	0	0	Hail (1.00)
8 NW Suffolk	01	1450EST			0	0	0	0	Hail (2.50)
9 SW Chesapeake	01	1450EST			0	0	0	0	Hail (1.00)
4 S Chesapeake	01	1515EST- 1530EST			0	0	0	0	Hail (2.00)
Middlesex County	01	1625EST			0	0	4	0	Hail (1.25) Thunderstorm Winds Lightning
The Sheriff reported numerous trees down and half-dollar-size hail, with fires caused by lightning. A 100-year-old pecan tree with a trunk diameter of 8 feet was toppled onto a van in Syringa.									

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

PLACE	D O I E	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	

### VIRGINIA Cont'd

<b>Isle of Wight County Rescue</b>	01	1715EST			0	0	3	0	<b>Thunderstorm Winds</b>
Winds attributed to a microburst flattened about 25 trees in the Rescue area, some of which fell onto houses causing considerable damage. Power outages affected some 2,000 in the county.									
<b>Northampton County</b>	01	1730EST			0	0	3	0	<b>Thunderstorm Winds</b>
A few trees and power lines were downed.									
<b>City of Newport News</b>	01	1710EST			0	0	0	0	<b>Funnel Cloud</b>
An observer at Fort Eustis (6 miles northwest of Newport News) reported a funnel cloud 2 miles west of the site which moved 2 miles south and east of the station. No damage was reported.									
<b>City of Virginia Beach</b>	01	1735EST- 1750EST			0	0	0	4	<b>Thunderstorm Winds Hail</b>
See details below.									
<b>12 N Virginia Beach</b>	01	1735EST			0	0	0	0	<b>Thunderstorm Winds</b>
Gusts to 63 mph were reported at South Island of the Chesapeake Bay Bridge Tunnel.									
<b>6 NE Virginia Beach</b>	01	1750EST			0	0	0	0	<b>Thunderstorm Winds</b>
Gusts to 69 mph reported from Cape Henry.									
<b>15 S Virginia Beach</b>	01	1735EST			0	0	0	4	<b>Hail (2.50)</b>
Some 600 acres of corn and soybeans in the southern part of the city were destroyed by a hailstorm. Hailstones were reported as marble to tennis ball-size.									
<b>City of Portsmouth</b>	01	1745EST			0	0	3	0	<b>Thunderstorm Winds</b>
Trees limbs were down with power outages.									
<b>City of Suffolk</b>	01	1750EST			0	0	3	0	<b>Thunderstorm Winds Lightning</b>
Many power outages occurred and lightning struck a house.									
<b>Culpeper County Culpeper</b>	05	1329EST- 1340EST			0	0	0	0	<b>Thunderstorm Winds Hail (0.75)</b>
Trees were downed at several places within the county. Dime-size hail fell at Culpeper. About 1,400 customers were affected by power outages.									
<b>Fairfax County Arlington County City of Manassas City of Alexandria Prince William County</b>	05	1545EST- 1715EST			0	1	4	0	<b>Thunderstorm Winds</b>
See details below. About 90,000 were affected by power outages as a result of the storm.									
<b>1 NE Burke</b>	05	1545EST			0	0	0	0	<b>Thunderstorm Winds</b>
Strong winds blew trees down near Lake Braddock.									







## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

### VIRGINIA Cont'd

Greene County  
Albemarle County  
1 W Stanardsville  
2 NW Advance  
Mills

11	1500EST- 1700EST					0	0	3	0	Thunderstorm Winds Flooding
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Nearly 6 inches of rain fell at Stanardsville in Greene County between 1500 and 1700 EST. Resultant flooding washed out a bridge in nearby Albemarle County about 2 miles northwest of Advance Mills. Trees and power lines were downed 1 mile west of Stanardsville.

11	1510EST					0	0	0	0	Thunderstorm Winds
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High winds downed numerous trees in the eastern half of the county.

Spotsylvania County  
8 W  
Fredericksburg

11	1533EST- 1545EST					0	0	3	0	Thunderstorm Winds
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Numerous trees and power lines were reported down. Winds were estimated at 60 mph.

Westmoreland County  
Colonial Beach

11	1650EST					0	0	?	0	Lightning
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Lightning-caused fires were reported.

City of  
Fredericksburg

11	1600EST					0	0	0	0	Hail (0.88)
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Caroline County

11	1700EST- 1800EST					0	0	3	0	Thunderstorm Winds
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Large numbers of trees were down along with power outages throughout the county.

Cities of Hopewell  
Petersburg  
Colonial Heights

11	1700EST					0	0	3	0	Thunderstorm Winds
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Trees fell onto power lines, downing them and causing outages to some 10,000 homes in the three cities.

Prince George  
County

11	1730EST- 1745EST					0	0	3	0	Thunderstorm Winds
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Winds estimated at 60 mph blew down a few trees.

Lunenburg County  
1 N South Hill

11	1800EST	0.1	10			0	0	3	0	Tornado (F0)
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A possible tornado flipped a mobile home over destroying it; several trees were also snapped off in the vicinity.

Brunswick County

11	1825EST- 1830EST					0	0	3	0	Thunderstorm Winds
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Numerous trees and power lines were downed by winds estimated at more than 60 mph.

Prince George  
County

11	1830EST- 1835EST					0	0	0	0	Thunderstorm Winds
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Several trees were downed.

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

### VIRGINIA Cont'd

<b>Southeastern Virginia</b>	11	1600EST 2300EST							<b>Hail, Flooding Thunderstorm Winds Lightning</b>
Widespread severe weather occurred on the evening of the 11th. Details follow.									
<b>Essex County Tappahannock</b>	11	1640EST			0	0	0	0	<b>Hail (1.50) Thunderstorm Winds</b>
Trees downed and Ping-Pong ball-size hail was reported.									
<b>Westmoreland County</b>	11	1735EST			0	0	0	0	<b>Hail (1.50)</b>
Numerous reports of walnut-size to 1 and 1.5-inch-size hail.									
<b>Richmond County Warsaw</b>	11	1720EST			0	0	0	0	<b>Hail (1.50)</b>
<b>Middlesex County</b>	11	1740EST			0	0	0	0	<b>Hail (1.00)</b>
One-inch size hail covered the ground in the northern part of the county.									
<b>City of Newport News</b>	11	1750EST			0	0	0	0	<b>Thunderstorm Winds</b>
There were gusts to 67 mph at Patrick Henry Field (3 miles north of Newport News).									
<b>Surry and James City Counties City of Williamsburg</b>	11	1640EST- 1715EST			0	0	0	0	<b>Hail (1.00) Thunderstorm Winds</b>
See details below.									
<b>Surry County Carsely</b>	11	1640EST			0	0	0	0	<b>Thunderstorm Winds</b>
Trees were reported downed.									
<b>James City County 2 W Williamsburg</b>	11	1700EST- 1715EST			0	0	0	0	<b>Hail (1.00)</b>
<b>City of Williamsburg</b>	11	1700EST- 1715EST			0	0	0	0	<b>Hail (1.00)</b>
<b>Surry County 5 W Surry</b>	11	1715EST			0	0	0	0	<b>Hail (1.00)</b>
<b>Middlesex County Saluda</b>	11	1720EST			0	0	3	0	<b>Lightning</b>
A house was struck by lightning and the Sheriff's Office was damaged by lightning.									
<b>City of Newport News</b>	11	1730EST			0	0	0	0	<b>Thunderstorm Winds</b>
Trees were downed in northern Newport News.									
<b>Isle of Wight County 5 N Raynor</b>	11	1735EST			0	0	0	0	<b>Thunderstorm Winds</b>
Large trees were downed.									





## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

### VIRGINIA Cont'd

Fairfax County	12	1637EST- 1800EST			0	0	0	0	Thunderstorm Winds Flooding
									See details below.
2 NE Arcola	12	1637EST			0	0	0	0	Thunderstorm Winds Winds to 66 mph 2 miles northeast of Arcola (WSFO WBC).
Reston, Herndon, Great Falls	12	1700EST			0	0	0	0	Flooding Street flooding was reported, with trees blocking a road in the Great Falls area.
Frederick County Winchester	12	1600EST- 1630EST			0	0	3	0	Lightning Four houses were struck by lightning and damaged.
Fauquier County 2 SE Delaplane	12	1558EST	?	?	?	?	?	?	Tornado (F?) A severe weather spotter reported a tornado.
Brunswick Mecklenburg Lunenburg Essex Counties	12	1620EST- 1750EST			0	0	0	0	Thunderstorm Winds See details below.
Essex County Tappahannock	12	1620EST			0	0	0	0	Thunderstorm Winds Trees were downed.
Mecklenburg County Boydton	12	1710EST- 1730EST			0	0	0	0	Thunderstorm Winds Trees were reported down.
Brunswick County 1 N Meredithville	12	1720EST- 1750EST			0	0	0	0	Thunderstorm Winds Numerous trees were downed.
Lunenburg County Kenbridge	12	1730EST			0	0	3	0	Thunderstorm Winds Several large trees were downed, one of which fell onto a house.
City of Petersburg	12	1800EST			0	0	3	0	Thunderstorm Winds Trees toppled onto power lines causing outages to several hundred residences.
Prince George County	12	1800EST			0	0	3	0	Thunderstorm Winds Eleven trees were reported knocked down across roads and power lines.

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

### VIRGINIA Cont'd

Sussex, Surry,  
Southampton  
Greensville  
Isle of Wight  
Counties

12 1713EST-1800EST  
0 0 0 0 Thunderstorm Winds  
Hail

See details below.

Sussex County

12 1713EST 0 0 0 0 Thunderstorm Winds

Trees were down in the western part of the county.

Surry County  
Cabin Point

12 1730EST-1740EST 0 0 0 0 Thunderstorm Winds

Trees downed at Cabin Point (northwest part of the county) also southeast part of the county.

Southampton County  
Courtland

12 1750EST-1755EST 0 0 0 0 Hail (1.00)  
Thunderstorm Winds

Trees were downed.

Isle of Wight County  
Walters

12 1800EST 0 0 0 0 Thunderstorm Winds

Trees were downed.

Greensville County

12 1800EST 0 0 0 0 Thunderstorm Winds

Two reports of downed trees in the western part of the county.

City of Virginia Beach  
12 N Virginia  
Beach

12 1747EST 0 0 0 0 Thunderstorm Winds

Fifty-five-knot winds were reported at the South Island of the Chesapeake Bay Bridge Tunnel.

Northumberland County  
1 W Reedville

12 1815EST 0 0 0 0 Thunderstorm Winds

Trees were downed.

Fairfax County  
Herndon

12 1840EST 0 0 4 0 Lightning

A lightning-initiated fire destroyed a house in Herndon, with damage estimated at \$250,000.

City of Williamsburg

12 1900EST 0 0 3 0 Lightning

Lightning strikes caused power outages to 3,000 residences.

City of Virginia  
Beach

12 1900EST-2000EST 0 0 4 0 Lightning

Many lightning strikes in northern Virginia Beach caused extensive damage.

City of Virginia Beach  
12 N Virginia  
Beach

12 1940EST 0 0 0 0 Thunderstorm Winds

South Island of the Chesapeake Bay Bridge Tunnel recorded 50 knot winds.







# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

## WEST VIRGINIA Cont'd

### Randolph County

Beverly	01	1335EST			0	0	0	0	Hail (0.75)
Dailey	01	1340EST			0	0	0	0	Hail (0.75)

### Upshur County

Hinkleville	01	1345EST			0	0	0	0	Thunderstorm Winds
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Thunderstorms blew down several trees in Mannington. Fallen trees blocked Route 20 at Hinkleville. Golf ball-size hail was observed at Anmoore. Numerous sightings of dime-size hail from Barbour, Harrison, Lewis, and Randolph counties.

### Nicholas County

Canvas	01	1445EST			0	0	0	0	Thunderstorm Winds
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Several large trees limbs were broken.

### Summers County

Hinton	01	1630EST			0	0	0	0	Hail (0.75)
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### Raleigh County

Beckley	01	1710EST			0	0	0	0	Hail (0.75)
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### Monongalia County

Wadestown	05	1337EST			0	0	?	0	Thunderstorm Winds Hail (1.00)
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Several trees were down and quarter-size hail fell.

### Putnam County

Eleanor	05	2055EST			0	0	6	0	Thunderstorm Winds
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### Kanawha County

Dunbar	05	2100EST			0	0	0	0	Thunderstorm Winds
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Thunderstorm winds caused numerous large trees and branches to be blown over in Eleanor. Elementary, middle, and vocational schools sustained roof damage. At least a 60-foot-square section was blown off the middle school gym. Runoff caused water damage to the gym floor and classrooms. A church steeple was blown off. Minor damage to porches, patios, and roofing to homes. Sweet corn in gardens was blown down. One car was damaged by falling trees and large limbs were broken off. Putnam County officials estimated \$750,000 damage, over half of which would be roof repairs to schools.

### Webster County

1 S Cleveland	06	0130EST- 0400EST			0	0	3	3	Flash Flood
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Stationary thunderstorms dumped over 2 inches of rain on portions of northern Webster County. Jerry Run had flooded basements, washed 2 private bridges away and flooded several gardens.

### Preston County

Albright	09	1730EST			0	0	0	0	Hail (0.88)
5 S Brandonville	09	1745EST			0	0	0	0	Hail (0.88)

### Harrison County

Lumberport	09	1840EST			0	0	0	0	Thunderstorm Winds
Shinnston	09	1850EST			0	0	0	0	Thunderstorm Winds

Several trees were blown down.

### Wood County

Williamstown	10	2220EST			0	0	3	0	Thunderstorm Winds
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Ten big poplar and maple trees were blown down in town. One tree fell through the side of a house. Damage estimated at \$4,000.

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

### WEST VIRGINIA Cont'd

Preston County Etam		11 0215EST			0	0	0	0	Thunderstorm Winds  Three to five trees were blown down.
Tucker County Parsons		11 1430EST			0	0	0	0	Thunderstorm Winds  Large limbs and trees were blown down.
Wood County Rockport		11 1710EST			0	0	0	0	Hail (0.88)
Jackson County Sherman		11 1815EST			0	0	3	0	Thunderstorm Winds Hail (1.75)  Several trees uprooted and marble- to golf ball-size hail fell. Large tree branches were blown onto houses. Gutters ripped off houses.
Harrison County Lost Creek		11 2220EST- 2300EST			0	0	0	0	Flash Flood  Lost Creek overflowed and caused minor flooding to low-lying areas.
Barbour County Nestorville		12 0200EST- 0400EST			0	0	3	0	Flash Flood  Salt Lick, Vandy Mill, and Teter Creek overflowed. Roads under 18 inches of water. One private bridge washed out.
Hancock County Weirton		12 1200EST			0	0	?	0	Flash Flood  Kings Creek flooded.
Ohio County Wheeling		12 1415EST							Flash Flood  Walds Run and Carmel Run flooded.
Hancock County Weirton		12 1430EST			0	0	?	0	Flash Flood  Kings Creek flooded again and street flooding was widespread.
Brooke County		12 1430EST			0	0	4	0	Flash Flood  Streams overflowed with basement and sewer flooding throughout the county. Follansbee had 50 dwellings with basement flooding. County animal shelter flooded from water pouring off hillside. Damage estimated \$10,000.
Gilmer County Troy-Baldwin		13 0400EST- 0600EST			0	0	3	2	Flash Flood  Water from Ellis Run damaged gardens and washed out a road.





# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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	

## WEST VIRGINIA Cont'd

**Pleasants County**  
Arvilla                    22 1750EST                    0 0 3 0                    **Thunderstorm Winds**

**Tyler County**  
Bens Run                    22 1750EST                    0 0 0 0                    **Thunderstorm Winds**

Numerous trees were blown down from Arvilla to Bens Run. Large branches thrown 100 to 200 feet with winds estimated at 80 mph at Arvilla.

**Roane County**  
4 NW Spencer                    22 1330EST                    0 0 4 0                    **Lightning**

Lightning struck an 80-by-70 foot barn near Billings. The barn was completely destroyed by fire. The fire destroyed the barn's contents, including 1,500 bales of hay and a new bailer. Damage was estimated at \$30,000.

**Wayne County**  
2 N Lavelette                    22 1640EST                    0 0 3 0                    **Flash Flood**

Mud slide and flooding along Route 152.

**Cabell County**  
Huntington                    22 1650EST-1800EST                    0 0 3 0                    **Flash Flood**

Basement flooding occurred in the Ritter Park region. Viaducts along 1st and 8th streets were flooded. Flooding also occurred along 3rd Avenue north to Ohio River.

## WISCONSIN

**LaFayette County**  
South Wayne                    04 1852CDT                    0 0 ? ?                    **Hail (1.25)**

**Green County**  
Browntown                    04 1852CDT                    0 0 ? ?                    **Hail (1.25)**

A severe thunderstorm dropped hail up to one and one-quarter-inch in diameter around South Wayne and Browntown.

**Sheboygan County**  
2 W Sheboygan                    08 1755CST                    0 0 ? ?                    **Hail (1.75)**  
2 W Sheboygan                    08 1755CDT                    0 0 ? ?                    **Thunderstorm Winds (G52)**

A severe thunderstorm packing winds up to 60 mph deposited hail up to golf ball-size 2 miles west of Sheboygan.

**Lincoln County**  
Irma                    16 1415CDT                    0 0 ? ?                    **Hail (0.75)**  
4 S Irma                    16 1425CDT                    0 0 ? ?                    **Thunderstorm Winds**

A severe thunderstorm generated hail up to three-quarter-inch in diameter and downed several trees in the Irma area.

**Dane County**  
Mt. Horeb                    18 1251CDT                    0 0 ? ?                    **Hail (1.00)**

One-inch-diameter hail from a severe thunderstorm near Mt. Horeb.

**Washington County**  
West Bend                    22 1450CDT                    0 0 ? ?                    **Thunderstorm Winds**

Several trees were knocked down by severe thunderstorm winds near West Bend.



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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

<b>Johnson County</b> 20-25 S Buffalo	15	1600MST			0	0	4	4	Hail (1.75)
A severe hail storm struck the area about 20 to 25 miles south of Buffalo around 1600 MST with hail up to the size of golf balls. Damage occurred to cars, roofs, and windows on several ranches in the area. Pasture land and some fields of hay were also heavily damaged.									
<b>Fremont County</b> N of Lander	15	1730MST			0	0	3	0	Lightning
Lightning struck a house just north of Lander around 1730 MST, causing extensive electrical damage.									
<b>Fremont County</b> 10 NW Lander	20	1445MST			0	0	0	0	Funnel Cloud
Some brief funnel clouds were sighted about 10 miles northwest of Lander around 1445 MST.									
<b>Goshen County</b> 10-15 WSW Torrington	20	1445MST- 1500MST			0	0	0	0	Funnel Cloud
A funnel cloud was observed about 10 to 15 miles west and southwest of Torrington around 1445 to 1500 MST.									
<b>Sheridan County</b> 10 W Sheridan	20	1500MST			0	0	0	0	Funnel Cloud
A brief funnel cloud was sighted about 10 miles west of Sheridan around 1500 MST.									
<b>Platte County</b> 10-20 SSE Wheatland	20	1500MST- 1600MST			0	0	0	0	Funnel Cloud
A few brief funnel clouds were sighted south and southeast of Wheatland between 1500 and 1600 MST.									
<b>Laramie County</b> S Part Cheyenne	20	1627MST- 1635MST			0	0	2	0	Hail (1.00)
<b>Laramie County</b> Near Carpenter	20	1715MST- 1730MST			0	0	2	0	Hail (0.75)
A severe thunderstorm developed near Cheyenne around 1625 MST, dropping hail up to 1-inch until 1635 MST. The storm continued east, producing one-half- to three-quarter-inch hail at Carpenter between 1715 and 1730 MST.									
<b>Lincoln County</b> Near Cokeville	23	1330MST			0	0	0	0	Funnel Cloud
A brief funnel cloud was observed around 1330 MST.									
<b>Lincoln County</b> Near Afton	23	1450MST- 1510MST			0	0	0	0	Thunderstorm Winds (G50)
Thunderstorms with winds up to 60 mph blew through the Afton-Bedford area around 1450 to 1510 MST. Some minor damage occurred to trees and outside structures.									

## STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1990

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 O S T	

### WYOMING Cont'd

#### Laramie County

2-4 NNE Cheyenne 23 1558MST-1605MST 0 0 0 0 Hail (2.00)

A severe thunderstorm produced hail up to 1 inch around 1558 to 1605 MST about 2 to 4 miles north and northeast of Cheyenne. A few stones up to 2 inches also occurred. The hail was generally rather soft.

#### Fremont County

40-50 SE Lander 24 1430MST-1440MST 0 0 0 0 Hail (1.00)

Hail up to 1-inch fell from a thunderstorm about 40 to 50 miles southeast of Lander between 1430 and 1440 MST.

#### Laramie County

24 1435MST-1445MST 0 0 0 0 Thunderstorm Winds (G50)  
Hail (0.75)

A thunderstorm produced gusts up to 60 mph and three-quarter-inch hail 7 miles north-northeast of Cheyenne between 1435 and 1445 MST.

#### Sweetwater County

33 N Rock Springs 24 1503MST-1505MST 0.1 10 0 0 0 0 Tornado (F0)

A weak tornado briefly touched down over open range about 33 miles north of Rock Springs around 1503 MST.

#### Sweetwater County Near Green River

24 1630MST 0 0 0 0 Funnel Cloud

A few short-lived funnel clouds were spotted in the Green River area around 1630 MST.

#### Laramie County 5 S Cheyenne

25 1500MST-1515MST 0 0 0 0 Funnel Cloud

A few short-lived funnel clouds were sighted about 5 miles south of Cheyenne between 1500 and 1515 MST.

#### Albany County Near Rock River

28 1425MST 0 0 0 0 Funnel Cloud

Two brief funnel clouds were sighted in the Rock River area around 1425 MST.

#### Laramie County Pine Bluffs

29 1500MST-1600MST 0 0 3 0 Flash Flood

A thunderstorm produced 3 to 4 inches of rain in the Pine Bluffs area between 1500 and 1600 MST. Minor flooding of streets occurred in the city, with some basements flooded.

#### Fremont County 17 SE Riverton

29 1500MST-2000MST 0 0 4 0 Flash Flood

A slow-moving thunderstorm produced over 2 inches of rain about 17 miles southeast of Riverton between 1500 and 2000 MST. Flash flooding occurred along State Highway 135, covering the road to a depth of around 4 feet and washing out two sections of the road.





# STORM SUMMARY

July 1990

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>																											
Number		2		12		0		13		2			7	3		3		1		4	2			1	6		
Days		2						8		2			7	3		3		1		4	2			1	6		
Deaths		0						0		0			0	0		0		0		0	0			0	0		
Injuries		0						0		0			0	0		0		0		0	0			0	0		
Property Damage		0						0		0			0	0		0		0		0	0			0	0		
Crop Damage		0						0		0			0	0		0		0		0	0			0	0		
<b>HAIL</b>																											
Deaths	0	0		0	0																						
Injuries	0	0		0	0																						
Property Damage	0	0		0	0																						
Crop Damage	0	0		0	0																						
<b>THUNDERSTORM WINDS</b>																											
Deaths	0	0	1	0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Injuries	10	2	3	0			0	0	0	0	0	0	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	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	0	0	0	0	0	0	0
<b>HIGH WINDS</b>																											
Deaths																											
Injuries																											
Property Damage																											
Crop Damage																											
<b>LIGHTNING</b>																											
Deaths	0	0	0	1	1		0	2	2	0	0	2	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0
Injuries	0	0	0	0	0		0	0	0	0	0	0	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	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	0	0	0	0	0	0	0	0
<b>FLASH FLOODS</b>																											
Deaths		2		0									1	0						3	1				0		
Injuries		0		0									0	0						0	0				0		
Property Damage		0		0									0	0						0	0				0		
Crop Damage		0		0									0	0						0	0				0		
<b>FLOODS</b>																											
Deaths											0		0														0
Injuries											0		0														0
Property Damage											0		0														0
Crop Damage											0		0														0
<b>HEAVY SNOWSTORMS AND BLIZZARDS @</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

July 1990

TYPE	NEW MEXICO	NEW YORK	NORTH CAROLINA	NORTH DAKOTA	OHIO	OKLAHOMA	KANSAS	PENNSYLVANIA	RHODE ISLAND	SOUTH CAROLINA	SOUTH DAKOTA	TENNESSEE	TEXAS	UTAH	VERMONT	VIRGINIA	WASHINGTON	WEST VIRGINIA	WISCONSIN	WYOMING	ALASKA	HAWAII	PACIFIC	PUERTO RICO	VIRGIN ISLANDS	NATIONAL DEATHS	& INJURY TOTALS
<b>TORNADOES</b>																											
Number	5	1	1	10	8	1	8	0	0	0	1	5	1	4	0	0	0	0	0	0	0	0	0	0	0	9	
Days	00000	00002	00000	00005	00000	00002	00002	00000	00000	00000	00000	00001	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	
Deaths	0	0	0	0	0	0	0	0	0	0	0	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	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	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	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	0	0	0	0	0	0	0	0	0	0	61	
Injuries	0	0	0	0	0	0	0	0	0	0	0	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	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	0	0	0	0	0	0	0	0	
<b>THUNDERSTORM WINDS</b>																											
Deaths	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52	
Injuries	0	0	0	0	0	0	0	0	0	0	0	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	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	0	0	0	0	0	0	0	0	
<b>HIGH WINDS</b>																											
Deaths	0	0	0	0	0	0	0	0	0	0	0	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	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	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	0	0	0	0	0	0	0	0	
<b>LIGHTNING</b>																											
Deaths	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	
Injuries	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	87	
Property Damage	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	
<b>FLASH FLOODS</b>																											
Deaths	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	
Injuries	0	0	0	0	0	0	0	0	0	0	0	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	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	0	0	0	0	0	0	0	0	
<b>FLOODS</b>																											
Deaths	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Injuries	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
Property Damage	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	
<b>HEAVY SNOWSTORMS AND BLIZZARDS @</b>																											
Deaths	0	0	0	0	0	0	0	0	0	0	0	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	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	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	0	0	0	0	0	0	0	0	
<b>ICE STORMS #</b>																											
Deaths	0	0	0	0	0	0	0	0	0	0	0	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	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	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	0	0	0	0	0	0	0	0	
<b>HURRICANES AND TROPICAL STORMS</b>																											
Deaths	0	0	0	0	0	0	0	0	0	0	0	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	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	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	0	0	0	0	0	0	0	0	
<b>ALL OTHERS</b>																											
Deaths	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	
Injuries	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	
Property Damage	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	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.

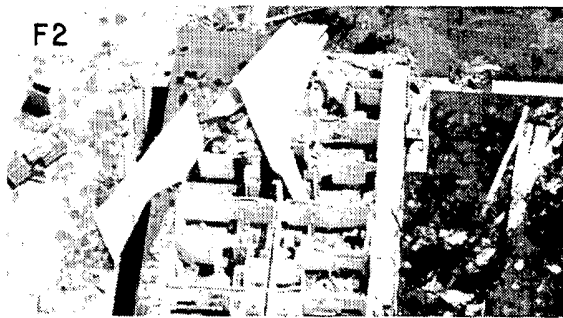
(F3) Severe tornado (158-206 mph): Severe damage  
Roofs and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted; heavy cars lifted off ground and thrown.

(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.

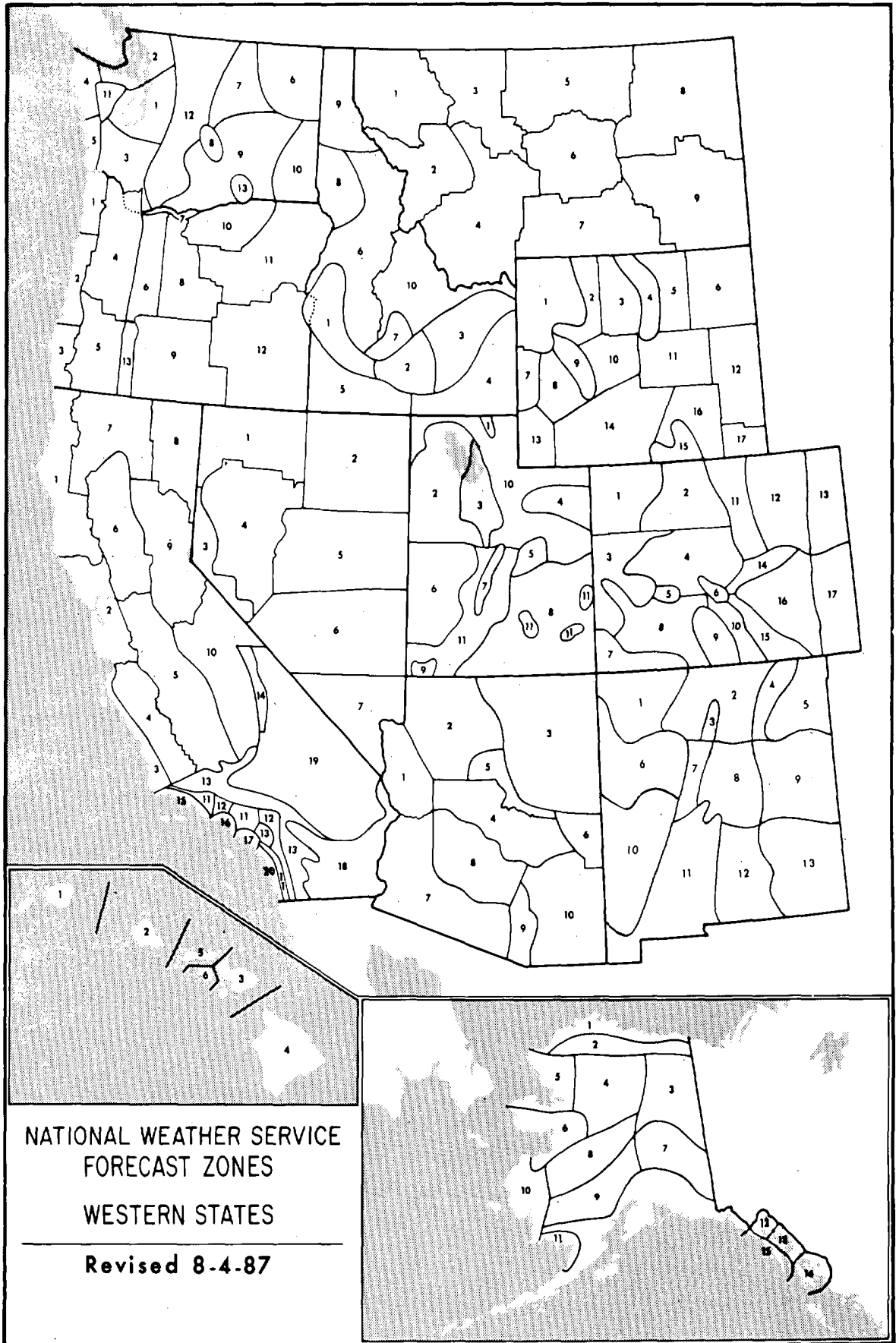
(F6-F12) (319 mph to Mach 1, the speed of sound):  
The maximum wind speeds of tornadoes are not expected to reach the F6 wind speeds.

(F0+F1) *Weak Tornado*  
(F2+F3) *Strong Tornado*  
(F4+F5) *Violent Tornado*

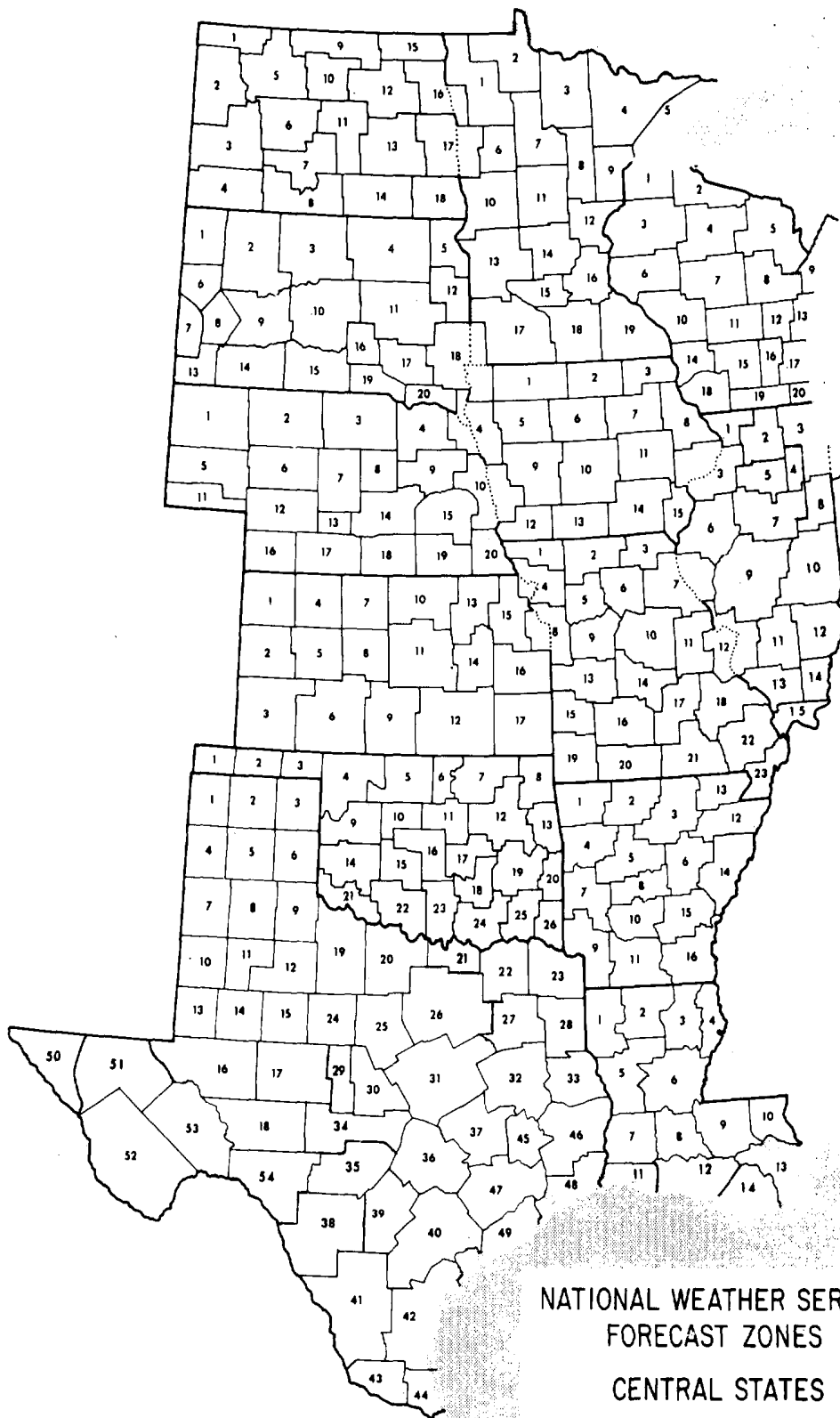


From J. Atmos. Sci., August 1981, p. 1517-1519

USCOMM-NOAA-ASHEVILLE, N.C. 1990-1800

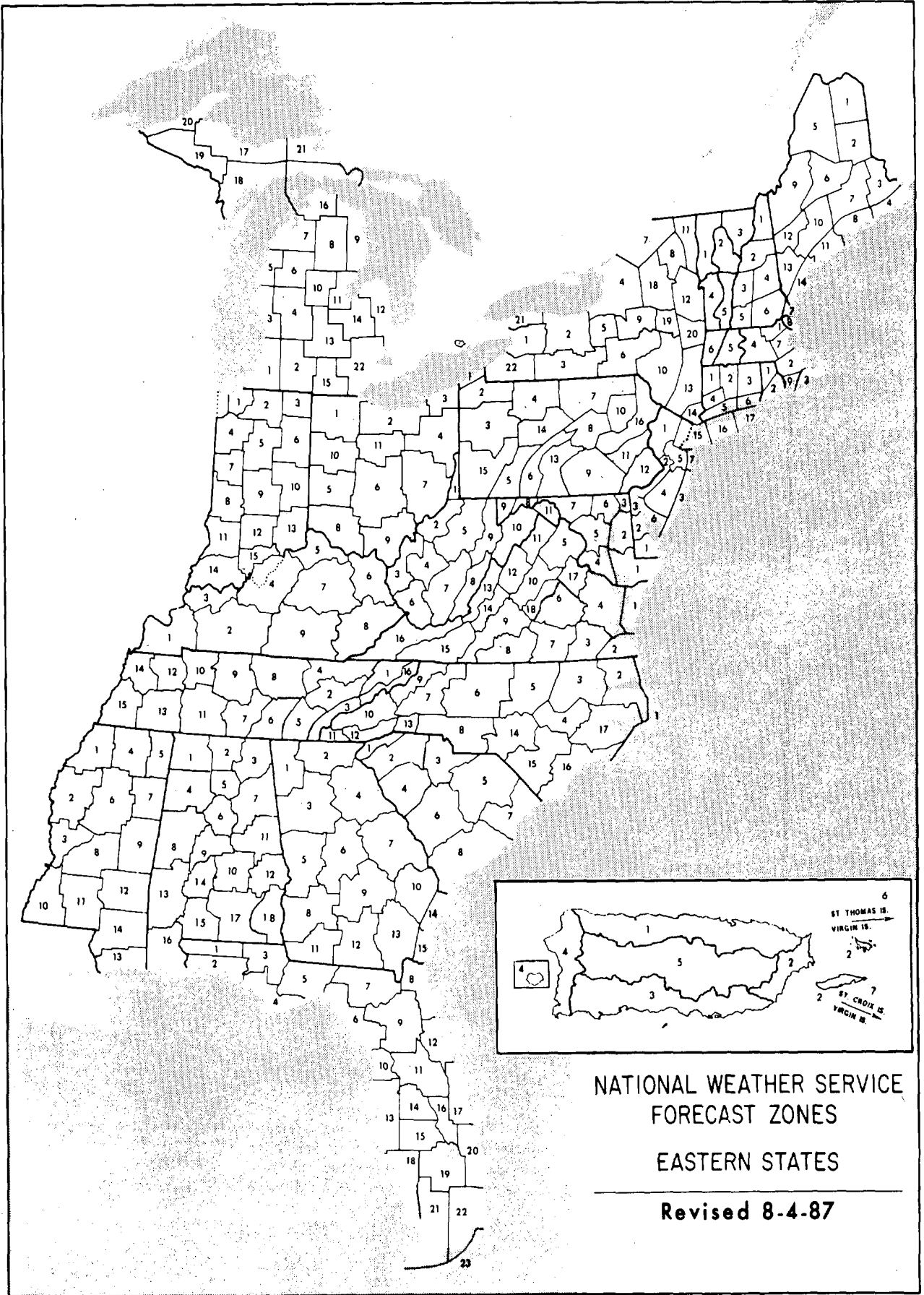


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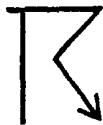
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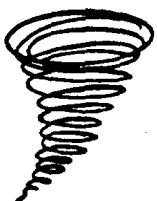
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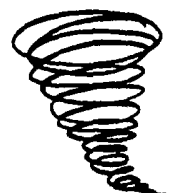
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### STORM DATA

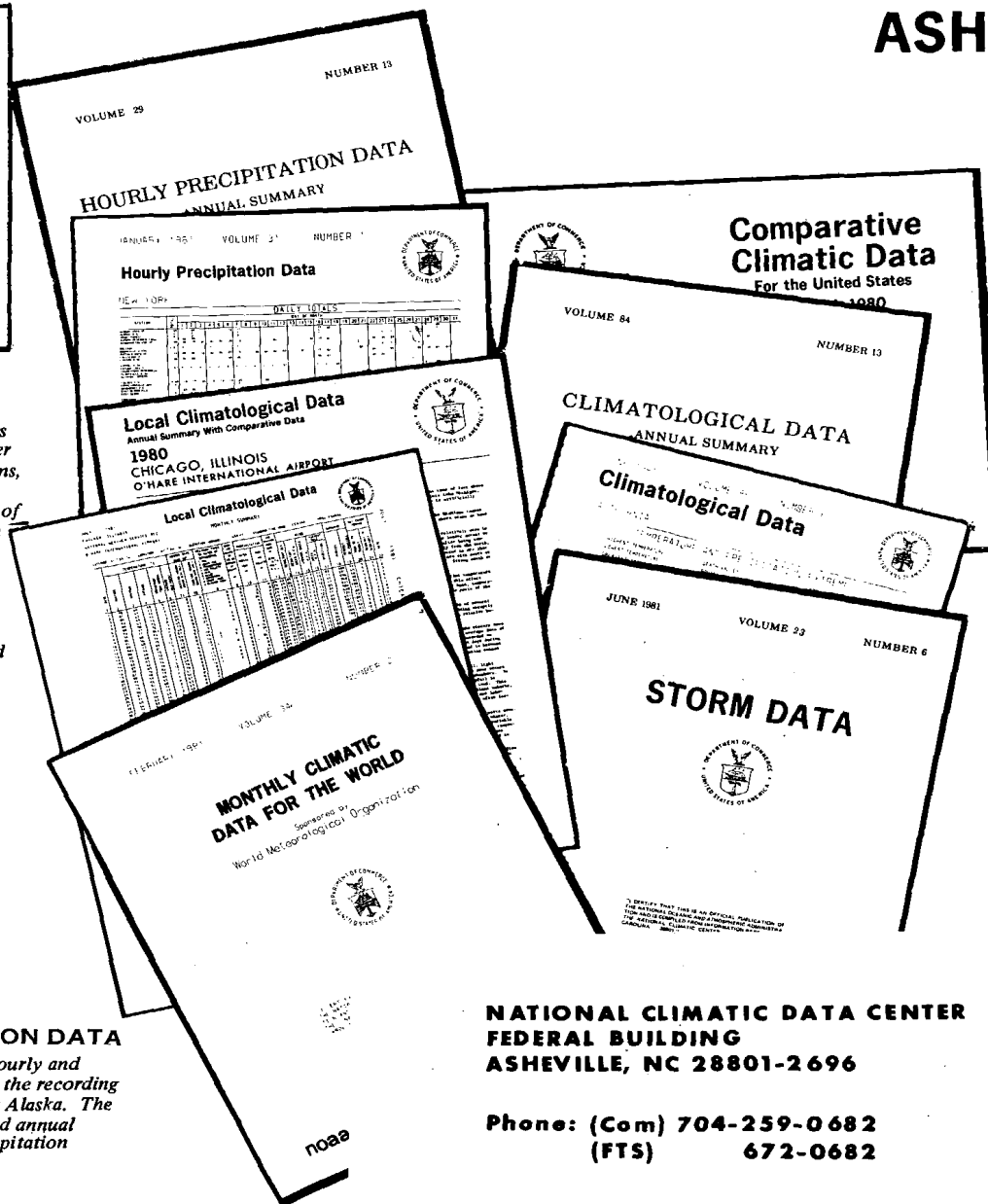
Monthly issue presents a chronological listing, by states, of occurrences of storms and unusual weather phenomena, together with data on the paths of individual storms, deaths, injuries, and estimated property damage, and a brief narrative description of each event. A new section in the bulletin entitled "OUTSTANDING STORMS OF THE MONTH" highlights severe weather and includes descriptive photographs of storms, their tracks, and analyzed maps. The December issue includes annual summaries of tornadoes and lightning and North Atlantic tropical cyclones.

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Published monthly for each first-order station. Presents daily maximum and minimum temperatures, degree day data, precipitation, station pressures, wind statistics, sunshine and sky cover data, as well as 3-hourly data for certain parameters. An annual issue is available summarizing monthly data and including up to 40 years record, and featuring a narrative climatological summary and history of the station.

### HOURLY PRECIPITATION DATA

Monthly issue presents daily, hourly and maximum short duration data for the recording gage stations for each state except Alaska. The annual issue tabulates monthly and annual totals, and annual maximum precipitation data by selected time categories.



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Published monthly for each state. Gives daily temperature and precipitation records, and monthly averages and totals, with departures from normal when available. Also derived statistics such as heating and cooling degree days, counts of days equaling or exceeding given temperature and precipitation thresholds, extremes, etc., are published for cooperative and first-order stations. Evaporation and soil temperature data are given for reporting stations. Seasonal snowfall, heating and cooling degree day tables included in selected tables. Annual summary also available.

### COMPARATIVE CLIMATIC DATA

Presents tables of monthly and annual averages, totals or extreme climate conditions for approximately 300 major population centers. This publication is particularly helpful for comparing temperature, rainfall, snowfall, wind velocities, sunshine, cloudiness and relative humidities for the principal cities. The cities are listed alphabetically by state in two sections: observed data and climatological normals. This is an annual publication.

### MONTHLY CLIMATIC DATA FOR THE WORLD

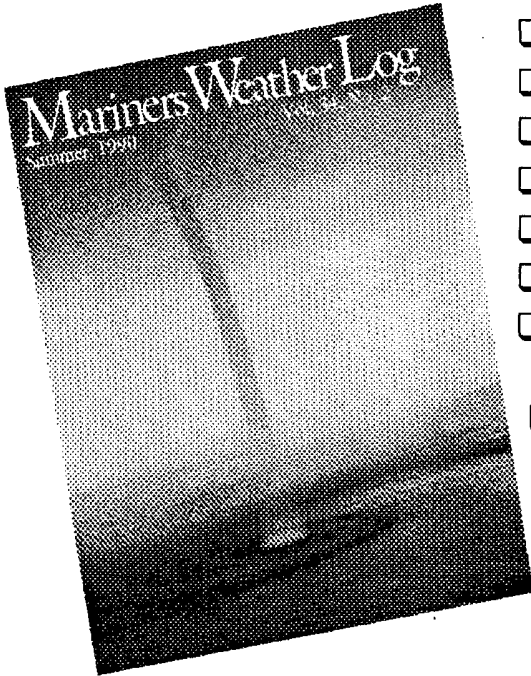
Contains monthly means of temperature, pressure, precipitation, vapor pressure and sunshine for about 2,500 surface data stations worldwide. Also contains monthly mean upper air temperatures, dew point depressions and wind velocities for ten standard levels.

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