

JULY 1997
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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: On July 28, 1997 a flash flood struck the city of Fort Collins, CO. The flood waters carried away mobile homes and automobiles. Some of the debris was washed underneath this bridge which crosses Spring Creek.. This photograph was taken the day after the flood waters receded. The Fort Collins Flood caused five fatalities and almost 200 million dollars in damage. See Page 5 for details. *(Photo courtesy of John Weaver, Fort Collins, CO)*

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STORM DATA

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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 Storm Prediction 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.

Maps of the National Weather Service County Warning Areas which are used in the Storm Data and Unusual Weather Phenomena section will be printed in all editions.

Except for limited editing to correct grammatical errors, materials submitted are generally published as received.

Note: "None Reported" means that no severe weather occurred and "Not Received" means that no reports were received for this region at the time of printing.

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

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Any such items received by the editor 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 28801-2733."

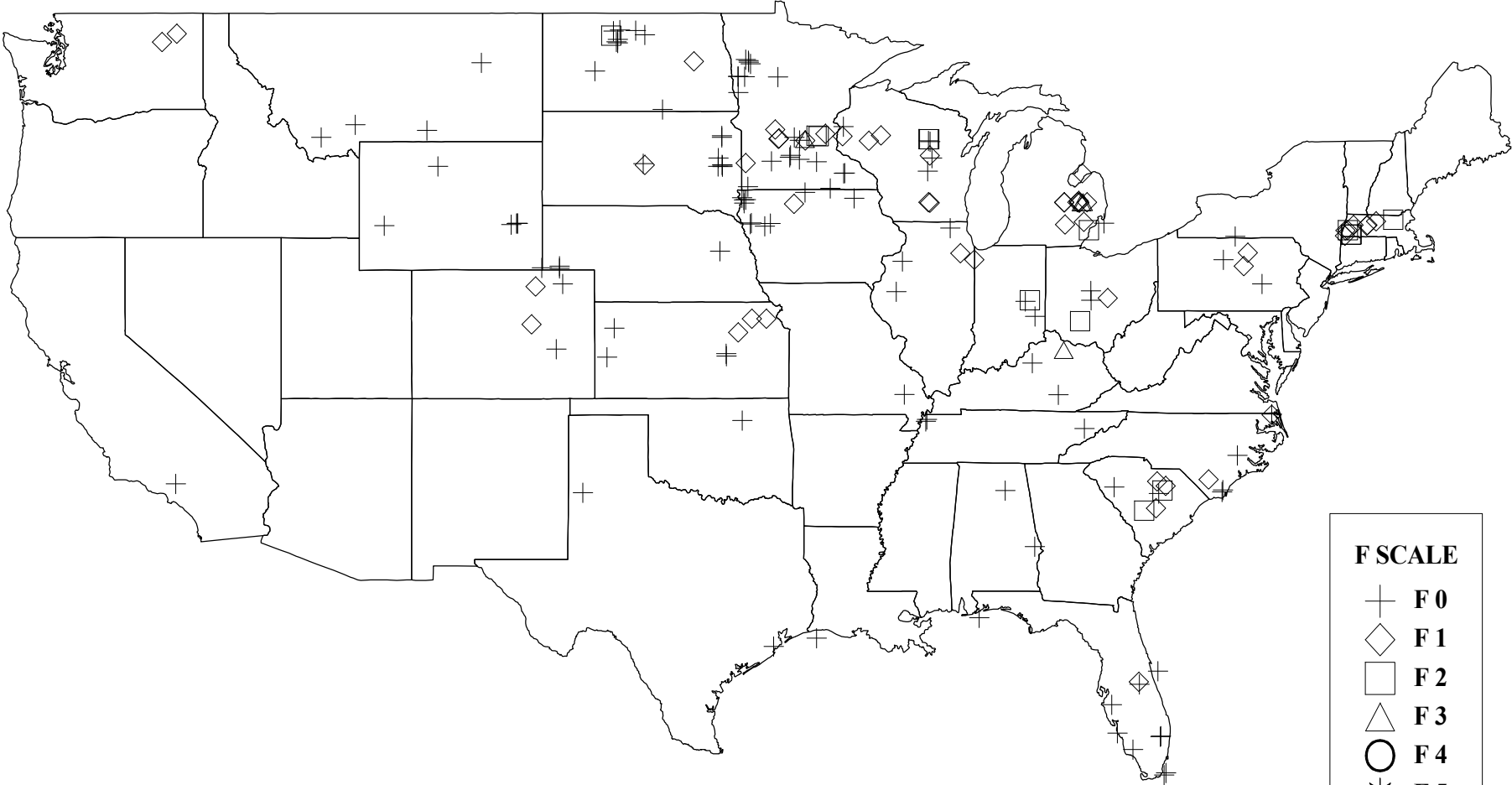


Kenneth D. Davidson
Acting Director,
National Climatic Data Center

The Cyclone Track Map which usually appears on this page is not available for July 1997.

Should the data become available in the future, a cyclone track map will be produced and printed in a subsequent issue.

July 1997 Confirmed Tornadoes



F SCALE

- + F0
- ◇ F1
- F2
- △ F3
- F4
- ★ F5

F Scale	F0	F1	F2	F3	F4	F5	Total
Number	112	50	14	4	0	0	180

OUTSTANDING STORMS OF THE MONTH

1. FLASH FLOOD CAUSES FIVE FATALITIES IN NORTHERN COLORADO

During the last week of July 1997, slow-moving thunderstorms moved west-southwest through the Northern Colorado foothills. A southward moving cold front lifted a moist airmass up the mountain slopes, causing the airmass to become unstable. On July 28 - 29, up to 10 inches of rain fell west of Fort Collins, 6.17 inches was reported in the city and 2.18 inches was recorded four miles east of the city. The localized rain fell in a small area in the foothills of Northern Colorado onto saturated ground. Runoff was restricted to two major drainage basins that merge just west of Fort Collins in an area occupied by a mobile home park. The flood waters then compromised an earthen embankment that supports railroad tracks. What was described as “a 10 foot high wall of water” swept through the mobile home park along Spring Creek, on the western edge of Fort Collins. Damage is estimated near \$200 Million with 120 mobile homes and 19 frame homes destroyed. Significant damage occurred to the Colorado State University Student Union, library, bookstore and Engineering department. Four fatalities occurred in the mobile home park and another occurred along the creek near town.



Left: A rescue worker uses a surf board to search for survivors on the evening of July 28, 1997. The fire in the background resulted from a gas main break caused by the flash flood.

(Photograph courtesy of John Weaver, Fort Collins, CO)

(Special Thanks to Bob Glancy, WCM, NWS, Denver, CO for contributing to this story)

Right: The damage caused by the rapidly moving flood waters is evident the day after the flood. Mobile homes and automobiles were swept away by the flood waters near Spring Creek and deposited along this street.

(Photo courtesy of John Weaver, Fort Collins, CO)





Left: Railroad workers inspect the damaged embankment where the force of the rapidly moving flood waters pushed the railroad cars off the track.

(Photo courtesy of John Weaver, Fort Collins, CO)

2. FLOOD IN WESTERN PENNSYLVANIA

On July 1, 1997, a nearly stationary thunderstorm formed over Eastern Allegheny County and dropped heavy amounts of rainfall in a short period of time. Localized rainfall affected the Pitcairn area while only miles away, rainfall amounts were substantially less. As much as 4 inches of rain fell within a 2-hour period during the evening. The town of Pitcairn received the most damage when a small creek flowing through an urban section of town overflowed its banks. More than 400 residential structures and 12 commercial properties were damaged or destroyed by the flood. Also, numerous roads, bridges and parks were damaged. Damage has been estimated at \$10 Million. There was one fatality when a firefighter, checking flooded vehicles for occupants, lost his footing, became wedged under a truck and drowned.

Right: Some residents of the town of Pitcairn inspect the damage caused by the flood. The strong force of the moving water lifted one car onto the hood of another.

(Photo courtesy of Patrick Murphy, Meteorologist, NWS, Pittsburgh, PA)



Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
ALABAMA, North Central									
Tuscaloosa County									
Elrod	01	0200CST			0	0	0	5K	Lightning
Lightning killed eight head of cattle in Elrod, in the western part of the county. The cows were all huddled under a tree that was apparently hit by lightning.									
Lauderdale County									
8 N Killen	04	1432CST			0	0	3K	0	Hail (0.75)
Lauderdale County									
8 N Killen	04	1432CST			0	0	15K	0	Thunderstorm Wind (G60)
Lauderdale County									
Florence	04	1510CST			0	0	3K	0	Hail (0.75)
Thunderstorms wreaked havoc across much of Lauderdale County Friday afternoon with wind damage, trees and power lines down, and hail. Three-quarter inch hail was reported at Florence and Green Hill (8N Killen). While trees and power lines were down across the county, several hundred trees according to EMA officials, the roof was blown off a building at Green Hill - a mini-mart. Power poles were down at US 43 and CR 47, six power poles down along CR 19, power poles down and a power line on a car on Helton Drive in Florence. In the area of Three Forks, a barn roof was partially blown off and damage was reported at Smith Trailer Park.									
Colbert County									
Cherokee	04	1439CST			0	0	5K	0	Tstm Wind/Hail
Colbert County									
3 N Cherokee	04	1440CST			0	0	3K	0	Hail (0.75)
Colbert County									
Sheffield	04	1515CST			0	0	5K	0	Hail (0.88)
Colbert County									
Muscle Shoals	04	1516CST			0	1	3K	0	Thunderstorm Wind (G55)
Colbert County									
Leighton	04	1520CST			0	0	8K	0	Thunderstorm Wind (G55)
Nickel size hail was reported at Sheffield along with three-quarter inch hail in the Cherokee area. Wind gusting into the range of 50 to 60 mph caused widespread damage to trees and power lines. Some of the most serious damage occurred at Leighton where 12 houses sustained damage including some with roofs off and two businesses were de-roofed. SR 20 was lined with fallen trees. One man was injured, a broken leg, when a portable building blew over on top of him and dragged him part way across the yard.									
Limestone County									
Ardmore	04	1505CST			0	0	5K	0	Thunderstorm Wind
Limestone County									
4 N Greenbrier	04	1513CST			0	0	8K	0	Thunderstorm Wind (G51)
A wind gust to 59 mph was measured at the East Limestone County High School 4 miles north of Greenbrier. Wind was also estimated at 50 to 55 mph by a storm spotter at Ardmore. Some trees and power lines were reported down across the county.									
Madison County									
Hazel Green	04	1512CST			0	0	5K	0	Thunderstorm Wind (G52)
Madison County									
1 E Hazel Green	04	1513CST			0	0	3K	0	Hail (0.75)
Three-quarter inch hail was reported at Hazel Green along with a wind gust estimated to be at 60 mph.									
Lawrence County									
Town Creek	04	1555CST 1600CST			0	0	4K	0	Hail (0.88)
Lawrence County									
Hatton	04	1600CST 1610CST			0	0	5K	0	Hail (1.00)
Lawrence County									
Hatton	04	1600CST 1610CST			0	0	5K	0	Thunderstorm Wind (G52)
Lawrence County									
Mt Hope	04	1610CST			0	0	3K	0	Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
ALABAMA, North Central									
Lawrence County									
Moulton	04	1615CST			0	0	5K	0	Thunderstorm Wind (G50)
Lawrence County									
Moulton	04	1620CST			0	0	5K	0	Hail (1.00)
Thunderstorms moving through Lawrence County caused widespread minor damage across much of the county. Hail from penny size to quarter size fell in the Town Creek-Hatton area. One inch hail was reported at Moulton along with a number of trees down and roof damage to at least one house.									
ALZ044									
Montgomery									
	04	1600CST			0	1	0	0	Excessive Heat
A 1-year-old girl was admitted to the hospital on July 5th for apparent overexposure to the sun on the 4th. The girl received second degree burns during a family outing to Lake Jackson.									
Tuscaloosa County									
Tuscaloosa	05	0100CST			0	0	5K	0	Thunderstorm Wind
A couple of trees were blown just north of the Tuscaloosa city limits.									
ALZ024									
Jefferson									
	05	0258CST			0	0	45K	0	High Wind (G39)
A meso-low, with a tight pressure gradient, moved across the Birmingham area causing damage to the Ensley and Fairfield sections. Numerous trees and power lines were knocked down, with a few trees falling on roofs and cars.									
Pickens County									
Carrollton	05	1210CST			0	0	5K	0	Thunderstorm Wind (G50)
Trees were uprooted in Carrollton in the central part of the county.									
Barbour County									
Clio	05	1315CST			0	0	4K	0	Hail (0.75)
Three-quarter inch hail was reported just east of Clio, in the southern part of the county.									
Pike County									
Brundidge	06	1630CST			0	0	3K	0	Hail (0.75)
Penny sized hail was reported in Brundidge, in the southeast part of the county.									
Morgan County									
Decatur	08	1400CST 1600CST			0	0	18K	0	Flash Flood
Heavy rains, about an inch in 15 minutes, snarled traffic and flooded many downtown roads in Decatur. Numerous cars were flooded out and water reportedly got into the city hall and courthouse buildings but not significant damage occurred.									
Morgan County									
Decatur	08	1432CST			0	0	8K	0	Lightning
A nearly direct lightning strike to an electrical substation blew out power to about 15 percent of Decatur for almost an hour.									
Walker County									
Jasper	09	1605CST			0	0	3K	0	Hail (0.75)
Dime size hail was reported in Jasper.									
Walker County									
Manchester	09	1615CST			0	0	5K	0	Thunderstorm Wind (G50)
Trees were down along CR 195 near Manchester, in the northern part of the county.									
Bibb County									
West Blocton	09	1632CST			0	0	5K	0	Thunderstorm Wind (G50)
Trees were down along CR 24 and CR 27 near West Blocton.									
Fayette County									
Fayette	09	1700CST			0	0	11K	0	Tstm Wind/Hail
Dime size hail and wind damage was reported in Fayette. Trees and power lines were knocked down including one tree on a house.									
Pickens County									
6 N Pickensville	09	1905CST			0	0	5K	0	Thunderstorm Wind (G50)
Trees and power lines were reported down 1 mile from the Mississippi state line on CR26.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
ALABAMA, North Central									
Franklin County									
4 W Russellville	13	1257CST			0	0	4K	0	Thunderstorm Wind (G50)
Trees were blown down west of Russellville.									
Limestone County									
2 E Cairo	13	1345CST			0	0	5K	0	Thunderstorm Wind
Trees were blown down near Elk Creek, in the western part of the county.									
Montgomery County									
Montgomery	15	1342CST			0	0	25K	0	Lightning
Montgomery County									
Montgomery	15	1444CST			0	0	25K	0	Lightning
Lightning was responsible for two house fires, one on Forest Park Drive and one on Eastern Oaks Court. Fires were brought under control fairly quickly though both structures sustained moderate damage according to fire officials.									
Shelby County									
Vincent	15	1344CST			0	0	5K	0	Tstm Wind/Hail
Quarter size hail and several power lines down was reported in Vincent, in the northern part of the county.									
Lee County									
6 S Opelika to Beauregard	15	1602CST			0	0	3K	0	Hail (0.75)
Dime size hail was reported in Beauregard, south of Opelika.									
Talladega County									
Sylacauga to Sylacauga	17	1400CST 1530CST			0	0	20K	0	Flash Flood
Flash flooding resulted from a heavy downpour in the Sylacauga area. Several business had several inches of water in them. The Chamber of Commerce, the local newspaper, and several business were flooded in the downtown area.									
Madison County									
Huntsville	18	1247CST			0	0	50K	0	Lightning
Madison County									
Huntsville	18	1305CST			0	0	35K	0	Lightning
Lightning was believed responsible for two house fires, one on Jamison Drive and one on Thornton Court. Both structures sustained significant damage from the fires which were confined to the attic areas and roof.									
Tuscaloosa County									
Tuscaloosa	22	0415CST			0	0	25K	0	Flash Flood
Heavy rains from the remnants of Hurricane Danny caused flash flooding and mud slides in Tuscaloosa. Eight families had to be evacuated from rising waters in a mobile home park and several roads were closed across Tuscaloosa county. The heavy rains caused a mud slide over railroad tracks, which stopped the north and south bound trains just south of Tuscaloosa. The mud moved the track about 150 feet out of alignment.									
Lee County									
Opelika	22	1348CST 1349CST	0.3	25	0	0	12K	0	Tornado (F0)
What was believed to be a weak tornado touched down briefly near the intersection of US 280 and Interstate 85 moving northerly for about 3- tenths of a mile. Damage was minimal. A fence was blown down at a motel, a couple of cars had windows broken out, and air conditioning units on a retail complex were moved.									
Tuscaloosa County									
13 NE Samantha	23	1500CST			0	3	2K	0	Lightning
Three men were struck by lightning while working outside near Whitsom, near the Walker/Tuscaloosa county line. They were putting pouring concrete when the lightning struck. They were all taken to the hospital with minor burns.									
Tuscaloosa County									
Brookwood	23	1755CST			0	0	75K	0	Lightning
A house in the Brookwood community near Tuscaloosa was struck by lightning and was a total loss.									

Storm Data and Unusual Weather Phenomena

July 1997

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

St. Clair County

Ragland	28	1305CST 1315CST			0	0	200K	0	Thunderstorm Wind (G65)
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A downburst hit the city of Ragland and caused severe damage to a church and damage to about 40 homes. None of the homes were completely destroyed, but several received severe roof damage. It also knocked down trees and power lines across the city. About 300 people in the area were without power until late into the night.

Jackson County

Scottsboro	28	1310CST			0	0	3K	0	Thunderstorm Wind (G50)
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Trees were blown down in Scottsboro.

Morgan County

12 NE Somerville	28	1428CST			0	0	4K	0	Thunderstorm Wind
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A large tree was blown across US 231 at Lacey Springs.

Marshall County

Union Grove	28	1445CST			0	0	7K	0	Thunderstorm Wind (G50)
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Marshall County

Arab	28	1450CST			0	0	4K	0	Thunderstorm Wind (G50)
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Trees and power lines were blown down in Union Grove and Arab and a metal building was destroyed in Union Grove.

Cullman County

4 NNE Holly Pond to 3.5 NE Holly Pond	28	1445CST	1	30	0	0	5K	0	Tornado (F0)
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A weak tornado occurred about 4 miles north-northeast of Holly Pond in northeast Cullman County. The weak tornado destroyed one chicken house, damaged another chicken house, tore shingles from a couple of structures, and destroyed three abandoned and decaying chicken houses. The tornado path extended from just west-northwest of the intersection of CR 71 and SR 52 southeastward for about 1 mile.

Jefferson County

Birmingham	28	1515CST			0	0	4K	0	Thunderstorm Wind (G50)
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Trees were reported down along 4th Avenue South in the Birmingham area.

Shelby County

Alabaster	28	1530CST			0	0	2K	0	Hail (1.00)
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Shelby County

Alabaster	28	1530CST			0	0	2K	0	Thunderstorm Wind
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Nickel to quarter sized hail was reported near Thompson High School and a large tree was down near Buck Creek Park.

Blount County

3 SW Snead	28	1540CST			0	0	5K	0	Thunderstorm Wind
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A large tree was down on a mobile home in the Royal Community, in the northern part of the county.

Jackson County

Pisgah	30	1945CST			0	0	80K	0	Lightning
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A house in Pisgah, in the eastern part of the county, was struck by lightning and was a total loss. No one was home at the time and there were no injuries.

ALABAMA, Southeast

NONE REPORTED.

ALABAMA, Southwest

Mobile County

Cottage Hill	05	1200CST 1205CST			0	0	3K		Thunderstorm Wind (G50)
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Several trees were blown down in the western part of Mobile county near Cottage Hill.

Covington County

2 NE Opp	06	1615CST 1617CST			0	0	2K		Thunderstorm Wind (G50)
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Several trees were blown down along US HWY 84 just northeast of Opp.

Storm Data and Unusual Weather Phenomena

July 1997

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

Baldwin County

5 W Fairhope	11	1730CST 1735CST			0	0	3K		Thunderstorm Wind (G50)
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Several trees were blown down near the Fish River at Highway 98.

Washington County

Chatom	16	1800CST 1805CST			0	0	5K		Thunderstorm Wind (G50)
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Several trees and power lines were blown down in Chatom.

ALZ051-061>064

Choctaw - Upper Mobile - Upper Baldwin - Lower Mobile - Lower Baldwin

18	1200CST				1	0	60.5M	2.5M	Hurricane
22	2200CST								

Hurricane Danny moved inland from the Gulf of Mexico at a snails pace. The center of the storm moved across Fort Morgan and into Mobile Bay during the early morning hours on Saturday. The storm remained nearly stationary over Mobile Bay for eight hours. Danny then crept east, making landfall at Mullet Point, near Weeks Bay during the afternoon. The storm continued moving slowly east across Baldwin county reaching Orange Beach during the evening. Danny then drifted north along the Alabama and Florida border, weakening to a depression near Walnut Hill Florida late Sunday morning. Danny continued to drift north and passed through and out of Clarke county during the day Monday.

Torrential rainfall fell generally along and south of I-10 in Mobile and Baldwin counties and throughout the central and south parts of Choctaw county. The heaviest convection around Danny shifted from the east to the west side of the storm while the center was over Mobile Bay. WSR-88D estimated an incredible 43 inches of storm total rain over the open water in Mobile Bay. Observing sites reported from 30 to 40 inches across the area with Dauphin Island reporting 36.71 inches with 25.98 inches of this falling between 5 PM and midnight on Saturday. Unofficial estimates of 35 to 40 inches of rainfall were reported near the center of Danny as the storm moved across Weeks Bay. As a result of the deluge, numerous roads were inundated and impassable for days. Record flooding caused major damage to homes along the Fowl River in Mobile county and the Fish river in Baldwin county. A gauge site on the Fowl river at Laurendine Road recorded a height of 12.6 feet which is 1.5 times higher than the 100 year flood. At a gauge site on the Fish River near Silverhill a height of 22.8 feet was recorded, making this a 50 year flood event. However, residents who have lived along the lower half of the Fish River for years, said this was the highest they had ever seen the river. One reason for this, was the heaviest rains fell south of the Silverhill gauging site. More than 100 people had to be evacuated from their homes on Sunday as the Fish River overflowed its banks. In Mobile county...Most of the roads on Dauphin Island were covered with more than a foot of water. A CSX railroad trestle was undermined by flooding and collapsed at US HWY 90 and Ramsey Road. In Baldwin county...numerous roads south of US HWY 98 and along roads near the Fish River were inundated and impassable for days.

It was estimated that 80 percent of the Alabama public oyster reefs in Mobile county and 60 percent of the reefs in Baldwin county were destroyed and will take approximately 2 years to rebuild.

Along the eastern shore, from Fairhope to Spanish Fort, heavy rains caused land slides and a few homes were teetering on the edge of Mobile Bay. One home had to be relocated away from the edge of the Bay to prevent loss. A 300 foot long sediment blockage, standing 6 feet high and 2 feet below the water, marooned up to 350 boats along the eastern shore marina slips. For some of the marinas, the channels had to be redredged before boats could move in and out.

On the east end of Dauphin Island, highest wind gusts were reported just over 100 mph with sustained winds of 70 to 80 mph. While inland at Mobile Regional Airport, winds gusted to 45 mph with sustained winds of 35 mph. Wind gusts from Fort Morgan to Orange Beach were estimated at 80 to 100 mph. Most homes and businesses on Dauphin Island and buildings along the western shore of Mobile Bay and homes from Fort Morgan east to Orange Beach sustained some type of roof damage. Many homes in this area, with Gabled roofs, also suffered water damage as persistent winds blew rain into the attic through the vents in the ends of the homes. A multi-story condominium under construction, near Gulf State Park in Gulf Shores, collapsed. Numerous pecan and pine trees were blown over in the coastal areas of southwest Alabama with most extensive damage being in Baldwin county from Fairhope to Weeks Bay. It was estimated that 70 percent of the Mobile pecan crop and 60 percent of the Baldwin crop for 1997 was lost. High winds caused a ferry, docked at Fort Gaines, to break away from its moorings on Saturday morning. The runaway ferry destroyed the catwalk from the Dauphin Island weather observation platform. The ferry wandered through the entrance of Mobile Bay coming to rest in a marsh near Gulf Shores.

The state docks on the Mobile River recorded a low tide of -2 feet. Most of the water was blown out by the storm Saturday morning for several hours. People observing the bay said they had never seen it so low. Except for the river channels, you could have walked across the bay. A storm surge height of 5 feet was recorded in Dauphin Island Bay. A storm surge of 2.4 feet was recorded along the south shores of Dauphin Island and also near Bayou La Batre with the highest surge being 6.5 feet in Baldwin county along HWY 182, halfway between Fort Morgan and Gulf Shores. Six feet of salt water was inside the historical 163 year old Fort Morgan. Three turn of the century homes, on Fort Morgan, only sustained roof damage.

Although Danny was downgraded to a depression Sunday morning at 1000 am, the slow northward movement caused extensive flooding across most of Choctaw county on Monday and Tuesday. Rainfall totals of around 15 inches caused most streams in the county to come out of their banks. The heavy rains also caused extensive flooding of roads, from Lisman to Butler south to near Gilbertown.

Except for some damage to the cotton crop in Escambia county Florida, Danny caused very little damage in Northwest Florida.

One 41 year old male was killed as a result of the storm. He was on his way to St. Thomas Island in a wooden sailboat with his dog. He was trying to evacuate ahead of Danny when high winds blew him overboard. He was found in the surf, near Gulf

Storm Data and Unusual Weather Phenomena

July 1997

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

ALABAMA, Southwest

Shores. His dog was found roaming the beach several days later and returned to relatives. An elderly male fell victim to the storm, indirectly, suffering a heart attack as he was going to secure his boat in Baldwin county.

M41IW

Mobile County

Alabama Port	18	1610CST 1612CST			0	0	3K		Thunderstorm Wind (G55)
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Several trees were blown down near Alabama Port.

Baldwin County

Orange Beach	18	1702CST 1703CST	0.1	30	0	0	20K		Tornado (F0)
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A tornado developed along the outer bands of hurricane Danny and moved in from the Gulf and destroyed a marina just south of Orange Beach. Several boats in the marina were damaged. The tornado was only on the ground for a short period of time. No one was injured by the tornado.

Mobile County

Tillmans Corner to Dauphin Is	19 21	1000CST 2230CST			0	0			Flood
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Torrential rains from Hurricane Danny began falling in the south part of Mobile county during Saturday morning and continued falling through the remainder of the day Saturday and through most of the day Sunday. Radar estimates of around 43 inches fell over Mobile Bay with rainfall measurements of 30 to 35 inches common in the south part of the county. This caused extensive flooding across the south part of the county generally south of I-10. The Fowl river came out of its banks Saturday afternoon and did not start receding until during the day on Monday. Numerous homes along the river were flooded and people were forced to evacuate. The highest recorded rainfall was along the east side of Dauphin Island where 36.71 inches of rain fell. Numerous roads in the south part of the county were closed from Saturday through Monday due to high water. Some were completely washed out and it took weeks before they were reopened.

Baldwin County

Fairhope to Orange Beach	19 21	2100CST 2230CST			0	0			Flood
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Torrential rains from Hurricane Danny started falling in Baldwin county Saturday evening and the Fish river came out of its banks and remained out of its banks for several days. People living along the river were forced to evacuate and numerous homes sustained major water damage. Most of the roads in the south part of the county, generally south of U. S. Highway 98, had to be closed due to high water. Many of the roads in this area were closed into Monday evening to allow the water to recede. Some roads had to be closed for several weeks before crews had time to get them in a condition to allow traffic on them again. The heaviest rainfall in this area was estimated to be 30 to 35 inches with some estimations of even higher amounts near Weeks Bay.

Choctaw County

Lisman to Gilbertown	21 22	0700CST 0130CST			0	0			Flood
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Choctaw County

Lisman to Gilbertown	22	0700CST 2000CST			0	0	500K	50K	Flood
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Heavy rains from hurricane Danny moved into Choctaw county during the early morning hours of Monday. Several streams came out of their banks by 700 am. Rainfall totals for the two days was around 15 inches. This caused extensive flooding along the Okatuppa and Bogueloosa creeks which drain through most of the central and south parts of the county. Most of the roads from Lisman to Butler to Gilbertown had to be closed until the water had drained. The flooding continued through the day on Monday and subsided during the early morning hours on Tuesday. Heavy rains again developed over the county Tuesday morning and warnings had to be reissued. The same two creeks again came out of their banks causing almost the same area that was flooded on Monday to be inundated again. Roads again had to be closed from Lisman to Butler to near Gilbertown. Some secondary dirt roads had to be closed for several days until crews could get in and fix the washouts. This was one of the worst flooding events for this area in years.

Clarke County

Grove Hill	28	1115CST 1117CST			0	0	5K		Thunderstorm Wind (G50)
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Several trees and power lines were blown down around Grove Hill.

ALASKA, Northern

AKZ007

Tanana Valley

	24 31	1500AST 0000AST			0	0	1.3M		Flood
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Several easterly waves, one around July 14th and another on July 24th, dropped a total of 4.0 to 6.60 inches over the upper Tanana Valley. Damage first occurred on July 24th in the upper Tanana Valley, where the Nabesna River flooded the hardpacked dirt road

Storm Data and Unusual Weather Phenomena

July 1997

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

connecting Northway with Northway Village. The Alaska Highway was closed for a day or so at the Yerrick Bridge (mile 1333) due to bridge abutments being washed out, as well as initial repairs also being washed out. The Tok River Campground and Moon Lake State Recreation Area were both closed, due to partial flooding from rising waters. The Gerstle River washed out portions of the New Cummings Highway, which intersects the Alaska Highway at mile 1392...this washout stranded some 50 residents who lived farther up the road. High freezing levels allowed significant glacial melt and snowmelt from the Alaska Range added to the runoff, causing the Chisana River to pass flood stage near Northway late on the 28th this closed the main road from the Alaska Highway to Northway, covering two miles of road and washing out a portion of the road. Many of the 200 residents of Northway were evacuated; little damage occurred to homes, though. The flows from the Chisana and Nabesna Rivers raised the level of the Tanana River, and the Delta State Historical Park, just above the confluence of the Delta and Tanana Rivers near the town of Delta Junction, experienced serious erosion, coming close to a riverside pathway. Between Delta Junction and Fairbanks, residents along the Tanana River reported substantial bank erosion. The Tanana River at Fairbanks rose during the entire last week of July, causing groundwater to rise and flood two basements in the Rosie Creek Subdivision, immediately downstream from Fairbanks. Event continued into August, see August entry for further information.

ALASKA, Southeast

Cstl. Southeast Alaska/Sitka

Sitka	22	2200AST			0	0		Heavy Rain
	23	0400AST						

A line of strong showers moved through Sitka and led to minor urban flooding, as storm drains were filled beyond capacity. The Sitka Airport received 1.05 inches of rain, including 0.68 inches in 1 hour.

ALASKA, Southern

AKZ022

Eastern Aleutians

	05	0000AST			0	0		High Wind (G44)
	07	1200AST						

A moderate 985 mb low 300 miles south of Attu, brought brisk easterly winds to the western Aleutians. Shemya recorded wind gusts of at least 51 mph during the period.

AKZ021>022

Western Alaska Peninsula - Eastern Aleutians

	14	1800AST			0	0		High Wind (G99)
	17	1200AST						

Southeasterly winds ahead of a moderate front gusted around 40 mph at many locations. Wind gusts reached 40 mph at Adak late Monday and ? at Cold Bay on Tuesday.

AKZ022

Eastern Aleutians

	17	1800AST			0	0		High Wind (G40)
	18	1200AST						

A moderate front, moving eastward through the western and central Aleutians, was preceded by brisk southeasterly winds. Gusts reached 46 mph at Shemya just prior to the frontal passage..

AKZ019

Central Gulf Coast

	18	0000AST			0	0		High Wind (G40)
		1600AST						

A moderate front approaching the eastern North Gulf Coast produced wind gusts of 46 mph at Middleton Island. Gusts between 40 and 50 mph were also reported by several fishing vessels just south of Cordova in the open waters of the Gulf of Alaska.

AMERICAN SAMOA

NOT RECEIVED.

ARIZONA, Central and Northeast

NONE REPORTED.

ARIZONA, Northwest

Mohave County

Temple Bar Marina	28	1142MST			0	0	3K	Thunderstorm Wind
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Thunderstorm winds estimated at 55 to 60 mph caused minor roof damage to several buildings.

Mohave County

Kingman	28	1252MST			0	0		Hail (1.00)
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A weather spotter in Kingman observed one inch diameter hail.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>ARIZONA, South</u>									
Pima County									
Tucson	07	1400MST 1410MST			0	0			Hail (0.75)
Pima County									
Tucson	07	1400MST 1410MST			0	0	1K		Thunderstorm Wind
Thunderstorm winds downed several power lines, blew a stoplight down, snapped a 30-foot Palm tree in half, and split a 15-foot high tree in two.									
Pima County									
Tucson	07	1640MST			0	0	40K		Lightning
Lightning struck a house and started a fire.									
Pima County									
San Xavier	09	1500MST 1503MST			0	0			Thunderstorm Wind (G60)
Thunderstorm winds were estimated to 60 mph.									
AZZ027									
Southeast Pinal									
	10	1335MST 1400MST			0	25	200K		Dust Storm
Downburst winds from nearby thunderstorms kicked up a thick cloud of dust as it moved across plowed fields. This cloud of dust then moved across interstate 10 between Red Rock and Picacho reducing visibilities to zero at times. This resulted in 12 collisions involving about 30 vehicles. Twenty-five people were injured, but 19 were only minor.									
Cochise County									
8 N Benson	16	1600MST 1700MST			0	0	35K		Thunderstorm Wind
Downburst winds from nearby thunderstorm knocked a mobile home off its foundation completely demolishing it. The winds also blew a cooler off the roof of another trailer, blew over a couple of sheds and torn some of the singles off the roofs of other trailers.									
Santa Cruz County									
Nogales	17	1500MST 1700MST			0	3			Flash Flood
Nogales wash overflowed its banks. Several vehicles had to be pulled out of the wash. Several minor injuries were reported									
Pima County									
Marana	28	1530MST			0	0			Hail (0.75)
Pima County									
Marana	28	1530MST			0	0	7K		Thunderstorm Wind (G55)
Thunderstorm winds blew the roof off of a market, damaged the roof of the First Baptist Church, and uprooted or snapped the limbs off of 5-8 trees.									
Graham County									
Safford	28	1600MST			0	0	20K		Thunderstorm Wind (G60)
Thunderstorm winds blew down several power poles in Safford and the nearby towns of Thatcher and Pima.									
Pima County									
Tucson	29	1725MST			0	0	1K		Thunderstorm Wind (G60)
Thunderstorm winds blew a wall down and bent some metal piping.									
<u>ARIZONA, Southwest</u>									
Pinal County									
Casa Grande Arpt	09	1715MST			0	0			Thunderstorm Wind (G51)
Maricopa County									
Phoenix	09	1857MST			0	0			Funnel Cloud
Funnel cloud sighted by a spotter 1 mile west of the intersection of 61st Street and Dynamite Boulevard.									
Maricopa County									
3 NE Buckeye	09	1909MST			0	0			Thunderstorm Wind (G50)
Shingles were blown off roofs and awnings were damaged at several homes.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>ARIZONA, Southwest</u>									
Maricopa County									
Mesa	09	1945MST			0	0			Thunderstorm Wind (G57) A weather spotter at McKellips and Mesa Drive reported a ham radio tower had blown down and his neighbours' television antennas had either blown down or buckled from the strong winds. He also reported blown-down fences in his neighbourhood.
Maricopa County									
Tempe	09	1950MST			0	0			Thunderstorm Wind (G61) A weather service employee near Broadway Road and Rural Road reported shingles ripped off his home. His neighbour reported a eucalyptus tree was sheared off at the top.
Maricopa County									
Gilbert	09	1815MST			0	0			Thunderstorm Wind (G55) Strong winds snapped several APS power poles near Neely Street and Pinon Way. Wind gust estimated from damage.
Pinal County									
Florence to Coolidge	10	1500MST			0	0			Thunderstorm Wind (G50) Strong winds knocked down fifteen power line poles on Arizona 287 between Florence and Coolidge.
Yuma County									
Yuma	22	1755MST			0	0			Hail (0.75)
Yuma County									
Yuma	22	1755MST			0	0			Thunderstorm Wind (G52)
Yuma County									
Yuma	22	1822MST			0	0			Thunderstorm Wind (G52) Reports of several downed power poles.
La Paz County									
Quartzsite	23	1545MST			0	0			Thunderstorm Wind (G56) Thunderstorm winds blew down several trees and power lines. Shingles, tar paper and sheets of tin were blown off buildings and roofs.
La Paz County									
Quartzsite	23	1555MST			0	0			Hail (1.00) The Quartzsite Marshal's Office reported quarter-sized hail in the east side of town.
La Paz County									
Quartzsite	23	1600MST			0	0			Hail (1.75)
Yuma County									
Tacna	27	1615MST			0	0			Hail (0.75)
<u>ARKANSAS, Central and North Central</u>									
Clark County									
1 S Whelen Spgs	04	1640CST			0	0			Hail (0.75)
Ouachita County									
Chidester	04	1650CST 1655CST			0	0			Hail (1.00) Hail up to quarter size damaged the roofs of several buildings and some vehicles.
Calhoun County									
Woodberry	04	1730CST			0	0			Hail (0.75)
Bradley County									
Hermitage	04	1808CST 1810CST			0	0			Hail (1.75)
Bradley County									
Hermitage	04	1810CST 1812CST			0	0			Hail (2.50)
Stone County									
Mountain View	08	1150CST			0	0			Thunderstorm Wind (G50) Thunderstorm winds downed some trees.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>ARKANSAS, Central and North Central</u>									
Yell County									
Centerville	08	1225CST			0	0			Thunderstorm Wind (G50) Thunderstorm winds knocked down some large tree limbs.
Independence County									
Batesville	08	1235CST			0	0			Hail (0.75)
Perry County									
3 SW Perryville	08	1305CST			0	0			Thunderstorm Wind (G50) Thunderstorm winds blew down several trees.
Pulaski County									
Roland	08	1330CST			0	0			Thunderstorm Wind (G50) Thunderstorm winds knocked down a few trees and large tree limbs.
White County									
Searcy	08	1330CST			0	0			Thunderstorm Wind (G50) Thunderstorm winds downed some trees and power lines.
Saline County									
3 SW Benton	08	1400CST			0	0			Thunderstorm Wind (G50) Some trees were blown down.
Pulaski County									
Jacksonville	08	1420CST			0	0			Thunderstorm Wind (G50) Thunderstorm winds damaged a home and downed several trees in Jacksonville.
Prairie County									
Des Arc	08	1425CST			0	0			Thunderstorm Wind (G50) Several trees were knocked down.
Grant County									
Ico	08	1430CST			0	0			Thunderstorm Wind (G50) A few trees were blown down.
Marion County									
7 N Flippin	08	2130CST			0	0			Thunderstorm Wind (G50) A few trees were knocked down.
Cleburne County									
Pearson	09	1415CST			0	0			Thunderstorm Wind (G50) Some trees were blown down.
Pulaski County									
North Little Rock	09	1540CST			0	0			Thunderstorm Wind (G50) Thunderstorm winds blew down some trees.
Pulaski County									
Little Rock	09	1617CST			0	0			Hail (1.00) Hail up to one inch in diameter fell in the southwest part of Little Rock.
Pulaski County									
Little Rock	09	1620CST			0	0			Hail (1.75) Hail up to golfball size occurred in the southwest part of Little Rock.
Pulaski County									
Little Rock	09	1620CST			0	0			Thunderstorm Wind (G50) Thunderstorm winds downed some trees and power lines in the southwest part of Little Rock.
Yell County									
4 NE Centerville	09	1730CST			0	0			Thunderstorm Wind (G50) Thunderstorm winds downed several trees and damaged some farm equipment.
Woodruff County									
Cotton Plant	09	1750CST			0	0			Hail (1.00)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
ARKANSAS, Central and North Central									
Saline County									
5 N Benton	09	1805CST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds knocked down some trees and power lines.									
Searcy County									
Witts Spgs	10	1330CST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds downed some large tree limbs.									
Hot Spring County									
2 SE Malvern	10	1421CST			0	0			Thunderstorm Wind (G50)
Some large tree limbs were blown down.									
Faulkner County									
Enola	10	1445CST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds blew down a few trees and some large tree limbs.									
Conway County									
Cleveland	14	1610CST			0	0			Hail (1.00)
Searcy County									
5 NW St Joe	14	1755CST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds blew down some trees.									
Marion County									
4 S Yellville	14	1800CST			0	0			Thunderstorm Wind (G50)
Several trees were blown down.									
Fulton County									
Mammoth Spg	14	1930CST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds blew down some large tree limbs.									
Newton County									
5 SE Jasper	14	1930CST			0	0			Hail (0.75)
Van Buren County									
Clinton	14	2200CST			0	0			Hail (0.75)
Woodruff County									
Cotton Plant	15	0155CST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds destroyed a storage building.									
Monroe County									
3 NW Brinkley	15	0230CST			0	0			Hail (1.00)
Monroe County									
3 NW Brinkley	15	0230CST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds blew down some trees along Highway 17.									
Monroe County									
7 W Brinkley	15	0300CST			0	0			Hail (0.88)
Prairie County									
Biscoe	15	0320CST			0	0			Hail (0.75)
Yell County									
Havana	15	1430CST			0	0			Hail (0.75)
Yell County									
10 WSW Danville	15	1445CST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds damaged the roofs of several buildings.									
Scott County									
Cedar Creek	15	1610CST			0	0			Thunderstorm Wind (G50)
Several homes sustained roof damage.									
Garland County									
5 W Mountain Pine	22	1330CST			0	0	100K		Thunderstorm Wind (G50)
Thunderstorm winds caused significant damage to parts of a marina at the Brady Mountain Resort area on Lake Ouachita. A new section of the marina was destroyed, and an older section sustained minor damage. Some trees were also blown down.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
ARKANSAS, Central and North Central									
Garland County									
Hot Spgs	22	1355CST			0	0			Thunderstorm Wind (G52)
	Thunderstorm winds gusted to 60 mph at Hot Springs.								
Boone County									
(Hro)Harrison Arpt	22	1558CST			0	0			Thunderstorm Wind (G56)
	Thunderstorm winds gusted to 64 mph at the Harrison Airport.								
Logan County									
8 W Paris	22	1715CST			0	0			Thunderstorm Wind (G50)
	Thunderstorm winds knocked down some trees and large tree limbs.								
Clark County									
Amity	23	1405CST			0	0			Hail (0.75)
Clark County									
Amity	23	1405CST 1408CST			0	0			Thunderstorm Wind (G50)
	Several trees were blown down.								
Clark County									
Alpine	23	1408CST			0	0			Thunderstorm Wind (G50)
	Thunderstorm winds downed a number of trees and power lines.								
Hot Spring County									
6 W Social Hill	23	1510CST			0	0			Thunderstorm Wind (G50)
	A few trees were blown down.								
Clark County									
Gum Spgs	23	1510CST			1	2			Lightning
	Three men were working in a landfill when lightning struck where they were standing. One man was killed instantly when he was directly struck. Two other men standing nearby sustained only minor injuries. M24OU								
Clark County									
Arkadelphia	23	1510CST			0	0			Thunderstorm Wind (G50)
	Thunderstorm winds knocked down numerous trees and power lines at several locations in Arkadelphia.								
Clark County									
2 SE Gum Spgs	23	1515CST			0	0			Thunderstorm Wind (G50)
	Thunderstorm winds downed some trees.								
Dallas County									
6 N Sparkman	23	1533CST			0	0			Hail (1.50)
Saline County									
Paron	27	0115CST			0	0			Thunderstorm Wind (G50)
	Thunderstorm winds downed some trees and damaged the roof of a building.								
Sharp County									
2 SE Hardy	27	1735CST			0	0	0.50K		Thunderstorm Wind
	Thunderstorm winds up to 50 mph downed some trees.								
Jackson County									
1 NE Newport	28	1315CST			0	0			Thunderstorm Wind (G50)
	Thunderstorm winds uprooted several trees and blew over a truck just northeast of Newport.								
White County									
Russell	28	1430CST 1530CST			0	0			Flash Flood
	Heavy rains resulted in some flash flooding in Russell. Several county roads were covered with high water for a short period of time.								
Pulaski County									
Roland	28	1555CST			0	0			Hail (0.88)
Boone County									
Bergman	28	1700CST			0	0			Thunderstorm Wind (G50)
	Some trees and power lines were blown down.								

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>ARKANSAS, Central and North Central</u>									
Pope County									
Russellville	28	1845CST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds downed numerous trees and power lines. Several businesses in downtown Russellville had windows blown out as well.									
Pope County									
London	28	1845CST			0	0			Thunderstorm Wind (G50)
A number of trees and power lines were knocked down.									
Lincoln County									
5 NW Star City	29	1310CST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds blew down some trees.									
Ouachita County									
Camden	29	1533CST			0	0			Hail (0.75)
Ouachita County									
Camden	29	1533CST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds downed some large tree limbs and power lines. Several buildings also had shingles torn off their roofs.									
Desha County									
Dumas	29	1545CST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds downed some trees and power lines.									
<u>ARKANSAS, East</u>									
Mississippi County									
Manila	07	1500CST 1700CST			0	0	1K		Flash Flood
Three inches of rain in 30 minutes produced flash flooding in Manila. Several roads were closed and water reached into a few homes.									
Mississippi County									
Manila	07	1500CST 1505CST			0	0	1K		Thunderstorm Wind
A few power lines were blown down.									
Mississippi County									
Manila	09	1515CST 1520CST			0	0	1K		Thunderstorm Wind
A few power lines were blown down.									
Mississippi County									
Manila	09	2000CST 2200CST			0	0	1K		Flash Flood
A few houses had water in them. Several roads had water over them.									
Lee County									
4 S Marianna	10	1700CST 1705CST			0	0	15K		Thunderstorm Wind
Three homes suffered minor damage. A large door on a farm shop was blown in. A small storage building overturned and rolled. Some farm equipment was moved around. Some trees and power lines were knocked down as well.									
Mississippi County									
Wilson	14	2207CST 2212CST			0	0	1K		Thunderstorm Wind
Several trees and power lines were knocked down.									
Craighead County									
Lake City	14	2210CST 2215CST			0	0	0.01K		Hail (0.75)
Poinsett County									
Greenfield	14	2215CST 2220CST			0	0	0.01K		Hail (0.75)
Phillips County									
Helena	15	0015CST 0020CST			0	0	1K		Thunderstorm Wind
A couple of trees and power poles were blown down.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>ARKANSAS, East</u>									
Crittenden County									
West Memphis	15	0030CST 0035CST			0	0	1K		Thunderstorm Wind
		A few trees were blown down.							
Randolph County									
Dalton	27	1515CST 1520CST			0	0	0.01K		Hail (0.75)
Mississippi County									
2 NE Dell	28	1615CST 1620CST			0	0	5K		Thunderstorm Wind
		Several telephone poles were blown down.							
<u>ARKANSAS, Northwest</u>									
Washington County									
6 SE Strickler	04	0115CST			0	0	0.10K		Thunderstorm Wind
		A severe thunderstorm produced strong winds which downed trees at Devils Den State Park 6 miles southeast of Strickler.							
Sebastian County									
Greenwood	08	1210CST			0	0	0.10K		Thunderstorm Wind
Sebastian County									
Greenwood	08	1215CST			0	0	0.10K		Thunderstorm Wind
		A severe thunderstorm produced strong winds which downed numerous large tree limbs in Greenwood.							
Benton County									
1 N Rogers	09	1405CST			0	0	0.10K		Thunderstorm Wind
Carroll County									
Beaver	09	1445CST			0	0	0.10K		Thunderstorm Wind
		Isolated severe thunderstorms developed in extreme northwest Arkansas during the afternoon of July 9th and produced damaging winds. Large tree limbs were blown down 1 mile north of Rogers and in Beaver.							
Benton County									
Nr War Eagle	10	1230CST 1300CST			0	0			Flash Flood
Carroll County									
Nr Busch	10	1230CST 1300CST			0	0			Flash Flood
Madison County									
Huntsville	10	1245CST 1315CST			0	0			Flash Flood
		Thunderstorms in northwest Arkansas during the morning and early afternoon of July 10th produced very heavy rainfall which resulted in flash flooding. Some county roads were covered by high water near War Eagle and near Busch, and widespread street flooding occurred in Huntsville.							
Benton County									
Monte Ne	14	1740CST			0	0			Hail (1.00)
Benton County									
Cave Spgs	14	1840CST			0	0			Hail (0.75)
		Isolated severe thunderstorms developed in Benton County of extreme northwest Arkansas during the late afternoon and early evening of July 14th and produced quarter size hail at Monte Ne and dime size hail at Cave Springs.							
Carroll County									
Urbanette	17	1500CST			0	0			Hail (0.75)
Sebastian County									
Barling	17	1640CST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>ARKANSAS, Northwest</u>									
Crawford County									
Van Buren	17	1659CST			0	0			Hail (0.75)
Crawford County									
Van Buren	17	1659CST			0	0			Thunderstorm Wind (G65)
Sebastian County									
3 NE Ft Smith	17	1700CST			0	0	0.10K		Thunderstorm Wind
Severe thunderstorms developed in northwest Arkansas during the afternoon of July 17th. Strong thunderstorm winds blew a large tree down across a road 3 miles northeast of Fort Smith, and trees were blown down by 75 mile an hour winds on the south side of Van Buren. Dime size hail fell at Urbanette, at Barling, and on the south side of Van Buren.									
Sebastian County									
Nr Lavaca	22	1725CST			0	0	1.5K		Thunderstorm Wind
Sebastian County									
Lavaca	22	1735CST			0	0	10K		Thunderstorm Wind
Sebastian County									
3 NW Greenwood	22	1845CST			0	0	0.10K		Thunderstorm Wind
Isolated severe thunderstorms developed in Sebastian County of northwest Arkansas during the late afternoon and early evening of July 22nd and produced damaging winds. Strong thunderstorm winds downed trees and power lines and damaged outbuildings in Lavaca, and 3 power poles were blown down near Lavaca. Trees were blown down 3 miles northwest of Greenwood.									
Sebastian County									
5 SE Greenwood	23	1625CST			0	0			Hail (0.75)
A severe thunderstorm produced dime size hail 5 miles southeast of Greenwood.									
Madison County									
Nr Wesley	28	1620CST			0	0	0.10K		Thunderstorm Wind
Madison County									
1 S Huntsville	28	1640CST			0	0	20K		Thunderstorm Wind
A severe thunderstorm produced strong winds which destroyed 1 barn and badly damaged 2 other barns 1 mile south of Huntsville. The winds also caused roof damage to several houses and uprooted trees 1 mile south of Huntsville. The storm also produced strong winds which blew down trees near Wesley.									
<u>ARKANSAS, Southeast</u>									
Ashley County									
Fountain Hill	04	1850CST			0	0	50K		Hail (2.75)
Baseball size hail damage a patrol car and several other vehicles.									
Chicot County									
Lake Vlg	04	1925CST			0	0	10K		Thunderstorm Wind
Numerous trees and power poles were blown down.									
Chicot County									
Eudora	04	1930CST			0	0	2K		Thunderstorm Wind
Several power lines were blown down.									
Ashley County									
Crossett	23	1730CST			0	0	2K		Thunderstorm Wind
Several trees were blown down.									
Ashley County									
2 E Crossett	23	1750CST			0	0	2K		Thunderstorm Wind
Several trees were blown down.									
<u>ARKANSAS, Southwest</u>									
Nevada County									
Prescott	04	1610CST			0	0			Thunderstorm Wind (G60)
Several large trees and power lines were toppled causing local power outages.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>ARKANSAS, Southwest</u>									
Nevada County									
Bluff City	04	1636CST			0	0			Hail (0.75)
Hempstead County									
Hope	04	1650CST			0	0			Hail (0.75)
Nevada County									
4 S Prescott Arpt	04	1612CST 1615CST			0	0			Hail (1.75)
The hail stones were semi-soft and most crushed when they hit vehicles or the gravel road. Several stones survived the fall in grassy areas and contained both small pellets and ice needles.									
Hempstead County									
3 S Spring Hill	15	0750CST			0	0			Thunderstorm Wind (G70)
Numerous trees and powerlines down.									
Hempstead County									
Hope	15	0800CST			0	0	100K		Thunderstorm Wind (G70)
Numerous trees were uprooted and snapped across the southeast portions of town. Four vehicles were crushed and several homes were damaged in the Plainview and Gunter subdivisions. Trees were also uprooted on CR50, 116, 117, 132 and Hwy 4. A moving truck was also struck by a fallen tree but no injuries resulted.									
Miller County									
2 SE Hervey	15	0810CST			0	0			Thunderstorm Wind (G60)
Medium sized trees and branches were broken.									
Miller County									
1 W Hervey	15	0815CST			0	0			Thunderstorm Wind (G60)
Reported by a crop duster.									
Miller County									
Texarkana	15	0859CST			0	1			Lightning
A Texarkana woman was struck by lightning while inside an outbuilding at her home. She was leaning against an aluminum window frame when the frame was hit. She was held overnight at a local hospital then released.									
<u>CALIFORNIA, Extreme Southeast</u>									
Riverside County									
Blythe	22	1930PST			0	0			Thunderstorm Wind (G50)
Spotter reported that thunderstorm winds blew over a large tree which fell on top of his niece's car.									
Riverside County									
Blythe	22	1941PST			0	0			Thunderstorm Wind (G50)
Winds downed several power poles and large trees. Many street signs were blown down and some roofs sustained damage.									
Riverside County									
Blythe	27	2032MST			0	0			Thunderstorm Wind (G52)
Thunderstorm wind gust was measured at the Blythe Municipal Airport. There was a report of several blown-out windows, downed trees, smashed awnings, and blown-off roof tiles in Blythe.									
<u>CALIFORNIA, North Central</u>									
Butte County									
5 NE Pulga to Pulga	05	1226PST 1700PST			0	0			Dam Break
Plumas County									
4 SW Storrie to Storrie	05	1226PST 1700PST			0	0			Dam Break
A gate failure on Cresta Dam sent a surge of water (measured as 14.5 feet high at the nearest downstream gage) through the north fork of the Feather River. Several people trapped by the sudden surge had to be rescued by helicopter. The release contributed to a four inch rise in the level of Lake Oroville.									
Shasta County									
9 E Manzanita Lake	30	1500PST			0	0	2M	10M	Wild/Forest Fire
Dry lightning started the Huffer Fire. The fire burned 2290 acres in Lassen Volcanic National Park.									

Storm Data and Unusual Weather Phenomena

July 1997

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

Lassen County

Eagle Lake Resort	26	1546PST 1547PST			0 2		Lightning
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Two people were struck by lightning while docking their boat at Eagle Lake. One individual was hospitalized.

CALIFORNIA, Northwest

Trinity County

Ruth	01	1830PST			0 0		Hail (1.00)
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CALIFORNIA, South Central

Tulare County

.5 W Silver City to 4 SE Silver City	23	1430PST 1445PST			0 0	10K	Flash Flood
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The flash flood resulted from an estimated 2 inches of rain that fell within a 45 minute time period over the small watershed comprising Silver Creek at Silver City, Tulare County, about 40 miles ENE of Visalia. Water washed over Mineral King Road at the 6900 foot elevation but only minor road erosion occurred.

CALIFORNIA, Southeast

Inyo County

8 NE Bishop	22	1700PST			0 0	10K	Flash Flood
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Flash flooding occurred in several washes on the west slopes of the White Mountains causing some damage to roads.

CALIFORNIA, Southwest

Riverside County

Desert Hot Spgs	22	0800PST 1000PST			0 0	0	Urban/Sml Stream Fld
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San Diego County

Borrego Spgs	22	1500PST 1800PST			0 0	0	Heavy Rain
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Two rounds of very heavy thunderstorm rains, one in the morning, the other late in the day, resulted in flooding problems from the Morongo Valley, to the deserts of San Diego County. The hardest hit community was Desert Hot Springs, where nearly two inches of rain was reported during the morning hours. Many roads were closed due to the high water and mud flows. Several residents reported water in their homes along with washed out driveways. Also, an apartment complex was flooded with up to one foot of water. Elsewhere, morning rains flooded roads in Palm Springs, and mud flows closed Highway 62 in the Morongo Valley, and Box Canyon Road between Mecca and Interstate 10 in the Coachella Valley. By late afternoon, intense thunderstorms developed over the deserts of San Diego County, flooding a 10 mile stretch of Yaqui Pass Road between Borrego Springs and Highway 78. Road crews were not able to reopen the road for traffic for three days due to mud and debris flows and pavement washouts. In addition to the flooding, lightning caused sporadic power and cable outages which affected thousands.

CALIFORNIA, Upper

Siskiyou County

4 S Etna	27	1600PST 1800PST			0 0		Flash Flood
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1.5 INCHES OF RAIN IN 2 HRS RESULTED IN MINOR ROAD FLOODING

Siskiyou County

8 S Etna	27	1600PST 1800PST			0 0		Hail (0.75)
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Siskiyou County

Happy Camp	28	1700PST			0 0		Flash Flood
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FOREST SERVICE REPORTED A FLASH FLOOD ON GRANITE AND ELK CREEK. THIS PRODUCED A MUDDY FLOW WHICH SHUT DOWN THE WATER TREATMENT PLANT FOR THE CITY OF HAPPY CAMP FOR 24 HRS.

Siskiyou County

2 S Ft Jones	30	1600PST			0 0		Flash Flood
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2 INCHES OF RAIN IN 30 MIN. RESULTED IN 2 FT. OF WATER ACROSS A COUNTY ROAD AND A SMALL LAKE IN PASTURE. HAIL UP TO .75 OF AN INCH AND WIND GUSTS TO 50 MPH.

Siskiyou County

Ft Jones	30	1600PST			0 0		Urban/Sml Stream Fld
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STREET FLOODING

Storm Data and Unusual Weather Phenomena

July 1997

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

Los Angeles County

Palmdale	21	1555PST 1620PST	0.1	5	0	0			Tornado (F0)
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A small and weak tornado developed about 15 miles east of the Palmdale area. No damage was reported from the tornado.

Santa Barbara County

New Cuyuma	23	1550PST 1900PST			0	0			Heavy Rain
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Strong thunderstorms developed across the mountains of northern Santa Barbara county. The thunderstorms gradually drifted northward across the Cuyuma Valley...flooding low lying spots on Highway 166 west of New Cuyuma. As a result of the flooded spots on Highway 166...one vehicle hydroplaned and rolled over. No injuries were reported.

CALIFORNIA, Western

NONE REPORTED.

COLORADO, Central and Northeast

Weld County

26 NNE Stoneham	06	1610MST	0.1	50	0	0	0		Tornado (F0)
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Logan County

13 NNE Fleming	06	1705MST 1715MST			0	0			Hail (1.75)
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Sedgwick County

3 W Julesburg	06	1747MST			0	0			Hail (1.75)
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Douglas County

4 NW Parker	08	1300MST			1	2	0		Thunderstorm Wind
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One construction worker was killed, two others injured, when a strong wind gust caused the scaffolding they were standing on to collapse. M370U

Weld County

Roggen	08	1400MST 1900MST			0	0	100K		Lightning
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The owners of a Roggen area farm suspect lightning triggered a blaze that caused an estimated \$100,000 in damage. Lightning apparently sparked the fire which was then spread by gusty winds. The fire destroyed a work shed, a semitrailer and a farm truck. The exact time of the incident was unknown.

Sedgwick County

5 SW Sedgwick	11	1444MST			0	0			Thunderstorm Wind (G50)
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Strong thunderstorm winds blew two semi-trucks over on I-76.

Sedgwick County

11 SSE Julesburg	15	1450MST			0	0			Hail (0.88)
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Adams County

16 NW Bennett	17	1645MST			0	0			Lightning
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Lightning ignited a oil well tank holding 10,000 gallons of oil. Approximately 200 acres of grassland was also burned before the fire could be extinguished.

Weld County

3 SE Greeley	19	1256MST			0	0			Hail (0.75)
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Morgan County

12 N Weldona Weldona	19	1345MST 1530MST			0	0			Flash Flood
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Heavy rainfall from thunderstorms in the area resulted in flooding and flash flooding problems over portions of Morgan County. Up to 4 feet of water reportedly covered the roadway near County Roads 14 and KK.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>COLORADO, Central and Northeast</u>									
Denver County									
Denver	19	1545MST 1745MST			0	0			Flash Flood
Torrential rain and damaging hail pummelled eastern portions of the Denver area. The Denver Weather Service Forecast Office, near the former Stapleton Airport complex, recorded 3.83 inches of rainfall in one hour from this nearly stationary storm. Numerous cars were stalled along I-70 and several homes flooded in East Denver. The roof of a building also collapsed.									
Denver County									
Denver	19	1545MST			0	0			Hail (1.25)
Boulder County									
Longmont	19	1437MST			0	0	0		Lightning
Lightning struck a fertilizer warehouse. Approximately one third of the structure was damaged.									
Weld County									
21 N New Raymer	21	1650MST			0	0			Hail (0.75)
Large hail and strong thunderstorms winds estimated to 50 mph shredded wheat fields.									
Weld County									
5.5 N Stoneham	21	2007MST			0	0			Hail (1.75)
Adams County									
7 W Brighton	23	1630MST			0	0			Thunderstorm Wind (G52)
Damaging thunderstorm winds associated with a wet microburst ripped the roof off a barn, causing the east side of the structure to collapse. The roof of a nearby utility shed was also ripped off and blown 60 feet away.									
Elbert County									
Kiowa	27	1515MST 1630MST			0	0			Flash Flood
Elbert County									
13 NE Matheson	27	1600MST 1630MST			0	1			Thunderstorm Wind (G61)
Lincoln County									
9 ENE Limon	27	1616MST			0	0			Hail (1.75)
Intense thunderstorm winds, heavy rain and golfball size hail hammered portions of eastern Elbert and northern Lincoln Counties. Microburst winds blew a semi-truck on its side and several cars were pushed to the side of the road. A 9-hr old boy was injured when he was picked up and blown into a ditch. Several utility poles were snapped and power lines downed along I-70 near Highway 86 causing scattered outages. Big Sandy Run jumped its banks and covered a portion of the interstate with 4 feet of water as up to 4 inches of rain reportedly fell in the area. As a result, I-70 was closed until the water receded and the damage was cleared. Windows were reportedly blown out or broken by strong winds and golfball size hail in Limon and the vicinity.									
Adams County									
Watkins	27	1400MST 1500MST			0	0	75K	0	Lightning
Lightning sparked a fire causing extensive damage to a home.									
Weld County									
Erie	27	1430MST 1630MST			0	0			Flash Flood
Extensive flooding occurred in the town of Erie. Basements in homes and businesses were inundated with floodwaters and several roads also damaged. Some parts of town were reportedly under 5 feet of water.									
Arapahoe County									
(Bkf)Buckley Fld Nas to 5 S (Bkf)Buckley Fld Nas	27	1500MST 1700MST			0	0			Flash Flood
Highwaters from swollen creeks and streams washed out bridges and several sections of road in southeast Aurora. A 200-300 foot section of road was washed away where Picadilly Street dipped across Coal Creek. Three youths had to be rescued when they became stranded by rapidly rising water in another normally small creek.									

Storm Data and Unusual Weather Phenomena

July 1997

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

COLORADO, Central and Northeast

Jefferson County

Golden	27	1533MST 1630MST			0	0	0		Flash Flood
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Heavy rain caused Lena Gulch to surge 2 feet over its banks. The fire department had to rescue a man when his van stalled in the highwaters.

Lincoln County

7 NE Limon	27	1730MST			0	0			Hail (1.75)
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Larimer County

Teds Place to Laporte	28	0500MST 1100MST			0	0			Urban/Sml Stream Fld
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Monsoon moisture continued to stream over the area. Nearly 6 inches of rainfall was measured at the mouth of Poudre Canyon during the morning hours. Some minor flooding occurred in some businesses in Laporte. Up to 6 inches of standing water covered portions of the roadway near Teds Place.

Douglas County

Parker	28	1400MST 1600MST	0.1	50	0	0	0		Tornado (F1)
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A weak touched tornado down damaging a greenhouse as 20 pieces of the fiberglass roof were ripped away. The exact time of the incident was unknown.

Jefferson County

Pine to Conifer	28	1540MST 1810MST			0	0			Urban/Sml Stream Fld
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Some culverts in the Pine and Conifer areas were washed out due to heavy rainfall.

Weld County

Ft Lupton to 4 W Hudson	28	1700MST 1900MST			0	0			Flash Flood
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More heavy rainfall continued to soak the region as 4 to 7 inches reportedly fell near Hudson. Several basements in the area were flooded up to the ceiling. Four county roads were closed due to rising floodwaters. Standing water, up to 3 feet deep, was reported in some backyards.

Elbert County

Kutch	28	1855MST	0.1	50	0	0	0		Tornado (F0)
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Storm Data and Unusual Weather Phenomena

July 1997

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

COLORADO, Central and Northeast

Larimer County

Ft Collins	28	2130MST 2300MST			5	40	190M		Flash Flood
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A flash flood killed 5 women and injured 40 others when a 10-15 foot wall of water surged through 2 mobile home parks. Over 8 inches of rainfall was measured in southwest Fort Collins during the evening hours as a series of storms developed, dumping heavy rain over the same area. The disaster occurred when debris apparently blocked a culvert beneath the railroad tracks adjacent to the park which flowed into Spring Creek. The normally small creek became a torrent when the dammed water jumped the railroad tracks. The highwater also derailed 4 railroad cars, compounding the catastrophe. The wall of water swept through the mobile home park destroying 108 homes and damaging 481 others, 86 severely. Four women were killed while attempting to evacuate their homes and flee the floodwaters. Another died when she tried to go back into the park to rescue her pets.

Torrential rainfall caused extensive flooding at the Colorado State University campus. The library was hardest hit as 500,000 books were damaged, nearly half beyond repair. Highwaters from the surrounding area filled the basement with 10 feet of water, destroying the medical archives. Total damage estimates throughout the Fort Collins area were approximately \$190 million. A breakdown of the estimated damages included; \$125-\$135 million to the CSU campus, \$50 million to homes, primarily mobile homes, \$2.5 million to city roads, businesses and public buildings, and \$2.0 million in automobile claims.

F47MH, F48MH, F62MH, F72MH, F32OU

Adams County

Westminster	29	0130MST 0400MST			0	0	20K	0	Urban/Sml Stream Fld
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Heavy rain caused flooding to occur in the Rancho Pecos apartment building. Several residents had to be evacuated from their apartments.

Jefferson County

Aspen Park	29	1210MST			0	1			Lightning
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A woman received minor injuries when lightning struck her when it passed through the office window. She suffered temporary blindness for approximately 15 minutes.

Elbert County

Simla to Limon	29 30	1630MST 1230MST			0	0			Flash Flood
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The active monsoon pattern continued to cause flooding and flash flooding problems as another 3 to 5 inches of rain fell on to already saturated soils. Two feet of water reportedly covered portions of roadway near Kiowa. Highwaters also forced the evacuation of several residents in Simla. Highway 86, between Simla and Limon, was closed due to highwaters. In addition, I-70 was closed west of Limon when a nearby stream overflowed its banks covering a portion of the interstate with mud and water. The floodwaters also washed out one of Limon's main water lines.

Storm Data and Unusual Weather Phenomena

July 1997

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

Morgan County

Weldona	29	1800MST			0	0	2M		Flash Flood
	30	0100MST							

Radar estimates of 5 to 6 inches of rainfall were observed over northern portions of Morgan County during the evening hours. The brunt of the flooding occurred between 10 pm and 12 am 1st when the Weldona Valley Ditch broke. The ensuing floodwaters, up to 4 feet deep, inundated the entire town. Approximately 50 families had to be evacuated, many from their rooftops. Although no dollar estimate was available, 48 homes were damaged, 13 extensively, as well as at least 30 vehicles. Several homes had to be condemned. In addition, \$2.0 million in damage was reported to roads, businesses and public buildings in town.

Weld County

5 N Stoneham	29	1900MST			0	0			Flood
	30	0000MST							

Logan County

Atwood	30	0000MST			0	0	12.9M		Flood
		0400MST							

Monsoon moisture continued over the area with thunderstorms drenching the Pawnee National Grasslands, north of Stoneham, with 6 to 8 inches of rainfall. Runoff from the storms eventually turned Pawnee Creek into a huge river. The wall of water, 12 feet high and 200 feet wide made its way downstream flooding the towns of Sterling and Atwood in western Logan County. Highway bridges were washed out, trees uprooted and a portion of Burlington Northern track ripped out. In addition, a 100-ton culvert was torn away and carried downstream approximately 50 feet.

In Logan County, 1000 homes and 200 businesses were impacted by the floodwaters as scores of families were evacuated. Some homes in the towns of Sterling and Atwood were under 8 feet of water. At least 13,700 acres of cropland was damaged. Damage estimates of at least \$12.9 million were reported to property. A breakdown of the damages included: \$10.0 million to homes in Sterling alone, \$900,000 to businesses, \$1.0 million to a junior college, and at least \$1.0 million in damage to state roads, highways and bridges.

Adams County

Strasburg	29	2225MST			0	0			Flash Flood
	30	0020MST							

Arapahoe County

18 SE (Bkf)Buckley Fld Nas	29	2225MST			0	0	30K		Flash Flood
	30	0020MST							

Heavy rain caused flooding and flash flooding problems in central portions of Adams and Arapahoe Counties. Two home were extensively damaged when water flooded their basements and adjacent pasture area in Strasburg. Highwaters, 4 to 5 feet deep, had pooled in the lower lying areas of town. In addition, Quincy Road had to be blocked off between County Roads 129 and 137 in Arapahoe County. Up to 4 feet of water reportedly covered the roadway.

Arapahoe County

9 E (Bkf)Buckley Fld Nas	30	2100MST			0	0	75K	0	Lightning
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Lightning struck a home in unincorporated Arapahoe County. The fire started in the electrical panel boxes causing extensive damage to the home.

Boulder County

Boulder	30	1425MST			0	0	100K	0	Flash Flood
		1630MST							

Heavy rain and hail triggered a flash flood which sent a wall of water through the window of the financial aid office at the University of Colorado campus. In addition, ceiling tiles, carpets and dressing rooms were damaged at the Coors Event Center when a pipe draining rainwater broke during the downpour. In all, 10 buildings at CU received water damage causing an estimate \$100,000 in damage.

Boulder County

Boulder	30	1442MST			0	0			Hail (0.75)
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Boulder County

Boulder	30	1453MST			0	0			Hail (1.25)
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Denver County

Denver	30	1545MST			1	1	0	0	Lightning
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One man was killed, his girlfriend critically injured, when they were struck by lightning at the Kennedy Golf Course. Both were struck in the head when they took refuge under a tree during a downpour. M27UT

Storm Data and Unusual Weather Phenomena

July 1997

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

Weld County

15 ESE Rockport	30	1855MST 1900MST	0.1	50	0	0			Tornado (F1)
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A tornado touched down ripping a portion of the roof and porch off a house.

Morgan County

5 N Ft Morgan to 5 N Snyder	31	1630MST 1825MST			0	0			Flash Flood
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Several county roads washed between Highways 52 and 71 in northern Morgan County. Up to 4 inches of rain reportedly fell in the area.

COLORADO, East Central

Kit Carson County

12 S Vona	05	1325MST			0	0			Funnel Cloud
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Yuma County

17 NW Wray	06	1705MST			0	0			Hail (0.75)
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Yuma County

10 N Wray	06	1720MST			0	0			Hail (1.75)
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Kit Carson County

2 W Flagler	08	1615MST			0	0			Hail (1.00)
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Cheyenne County

19 NNE Kit Carson	08	1815MST			0	0			Hail (0.88)
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Kit Carson County

Stratton	08	1830MST			0	0			Hail (0.88)
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Dime hail also reported 3ENE of Stratton at 1843 MST

Kit Carson County

4 SE Stratton	08	1900MST			0	0	10K		Hail (0.75)
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Hail and wind damaged mobile homes in Stratton at 1854 MST.

Kit Carson County

Stratton	15	1403MST			0	0			Hail (0.75)
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Cheyenne County

7 N Cheyenne Wells	15	1525MST			0	0			Hail (0.75)
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Kit Carson County

14 S Flagler	19	1645MST			0	0			Hail (1.00)
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Kit Carson County

12 S Seibert	19	1700MST			0	0			Thunderstorm Wind (G57)
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Branches up to 4 inches in diameter broken by estimated 60 to 70 mph winds.

Cheyenne County

9 W Firstview	19	1745MST			0	0			Hail (1.75)
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Cheyenne County

9 NNE Kit Carson	19	1746MST			0	0			Hail (0.75)
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Kit Carson County

6 NW Vona	27	1620MST			0	0			Hail (1.00)
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Kit Carson County

Stratton	27	1704MST			0	0	500K		Hail (1.75)
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Up to golfball size hail with 20 mph winds damaged roofs, windows, siding, and autos.

Cheyenne County

14 N Kit Carson	27	1748MST			0	0			Hail (1.00)
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Cheyenne County

8 NNW Cheyenne Wells	27	1850MST			0	0			Hail (1.75)
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Cheyenne County

5 E Arapahoe	27	1930MST			0	0			Hail (1.00)
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Hail up to 1 inch in diameter piled up to 1.5 feet along highway 40. Many roads in area became impassible.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>COLORADO, East Central</u>									
COZ090 Yuma County									
	30	0800MST			0	0			Flood
Heavy rainfall closed highway 59 north of Yuma. Later in the afternoon roads were also closed due to 3 feet of water over road 6 miles east of Yuma.									
<u>COLORADO, South Central and Southeast</u>									
Prowers County									
2 S Holly	05	1345MST 1350MST			0	0			Hail (0.75)
Baca County									
1 W Two Buttes	05	1410MST 1415MST			0	0			Hail (1.00)
Baca County									
17 NNE Walsh	05	1445MST 1450MST			0	0			Hail (1.00)
Prowers County									
30 SE Lamar	05	1456MST 1501MST			0	0			Hail (0.75)
Baca County									
3 E Bartlett	05	1532MST 1537MST			0	0			Hail (0.75)
Baca County									
5 ENE Bartlett	05	1545MST 1550MST			0	0			Hail (1.25)
Baca County									
29 ESE Springfield	05	1615MST 1620MST			0	0			Hail (0.75)
Kiowa County									
3 NW Chivington	05	1747MST 1752MST			0	0			Hail (0.75)
Baca County									
4 SE Two Buttes	05	1440MST 1442MST			0	0			Funnel Cloud
A brief funnel cloud occurred over the northern part of the county near Two Buttes.									
El Paso County									
Monument	06	1230MST			1	0			Lightning
A 39-year-old man was struck and serious burned by a lightning bolt in a small open field in Monument. He was transported to a Denver hospital for treatment, but died the next day. M39OU									
Otero County									
5 N La Junta	06	1745MST			0	0			Thunderstorm Wind (G51)
Pueblo County									
7 ENE Pueblo	07	1406MST			0	0			Thunderstorm Wind (G51)
Kiowa County									
9 N Brandon	08	2050MST 2055MST			0	0			Hail (1.00)
El Paso County									
Security to Widefield	19	1452MST 1500MST			0	0			Hail (1.00)
Prowers County									
10 SW Granada	19	1840MST 1845MST			0	0			Hail (1.25)
Prowers County									
25 S Granada	19	2055MST 2100MST			0	0			Hail (1.75)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>COLORADO, South Central and Southeast</u>									
Baca County									
6 S Pritchett	20	1400MST 1405MST			0	0			Hail (0.75)
Costilla County									
2 E Ft Garland	28	1333MST 1338MST			0	0			Hail (1.50)
Prowers County									
Wiley	29	1732MST 1737MST			0	0			Hail (1.00)
Prowers County									
Wiley	29	1742MST 2040MST			0	0			Flash Flood
Prowers County									
4 SSW Wiley	29	1820MST 1825MST			0	0			Hail (0.88)
Bent County									
Prowers	29	1930MST 2040MST			0	0			Flash Flood
Heavy rains from thunderstorms produced flooding of roads and low spots around the town of Wiley in Prowers county and flooding of county roads around the town of Prowers in Bent county.									
El Paso County									
Ellicott	29	2110MST 2245MST			0	0			Flash Flood
El Paso County									
2 E Fountain	29	2130MST 2245MST			0	0			Flash Flood
A line of strong thunderstorms produced heavy rain as it moved south. Road flooding and washouts occurred around Ellicott and east of Fountain.									
<u>COLORADO, West</u>									
Montezuma County									
8 NW Cortez	16	1400MST			0	0	150K		Lightning
Lightning caused numerous brush and forest fires in extreme southwest Colorado which spread rapidly due to high winds. One fire near Hovenweep National Monument burned 160 acres and destroyed a mobile home, a boat, and several outbuildings. It also consumed eight power poles and lines, resulting in power outages. Nearly 400 acres of vegetation was burned in Montezuma County.									
Montezuma County									
4 N Mancos to 1 N Mancos	16	1440MST 1450MST			0	0	5K		Thunderstorm Wind (G70)
Strong thunderstorm winds snapped off many large branches and blew down several trees with trunk sizes up to a foot-and-a-half in diameter. The roofs of several sheds were blown off and a new vent was broken off the roof of a house.									
Montezuma County									
2 S Dolores to Dolores	17	1730MST 1745MST			0	0	20K		Thunderstorm Wind (G75)
Strong thunderstorm outflow winds blew the roof off of a 25 foot by 75 foot boat storage building. The roof, consisting of corrugated metal on 2 by 12 ceiling beams, sheared the tops off of a dozen pine trees 50 to 100 feet away. A number of trees were blown down in Dolores causing damage to fences and other items. Several children were blown off a trampoline in Dolores.									
Pitkin County									
3 S Redstone	22	0930MST 1000MST			0	0			Flash Flood
Heavy rains resulted in a mudslide across Colorado Highway 133, 3 miles south of Redstone, closing the road for about an hour. The mud and debris was 4 to 5 feet deep along a 30 foot stretch of the highway.									
Pitkin County									
3 N Redstone to 2.5 S Redstone	22	1430MST 1500MST			0	0			Flash Flood
Heavy rains from a thunderstorm resulted in five mudslides across a five-mile stretch of Colorado Highway 133 near Redstone. 1 to 3 feet of mud and debris closed both lanes of the highway for about an hour, before state maintenance crews were able to open one lane. It took another six hours to clear the remaining debris before both lanes were open.									

Storm Data and Unusual Weather Phenomena

July 1997

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

Montezuma County

8 E Cortez 22 1945MST 0 0 60K **Lightning**
Lightning struck a house which was under construction and nearly completed. The house burned to the ground.

Garfield County

2 E Silt 23 1630MST
1800MST 1 0 150K 50K **Flash Flood**
Flood waters from swollen creeks washed across six roads, including interstate 70, resulting in closures of varying periods. A man driving a pickup tried to cross one of the flooded roads and was swept away to his death. His mangled pickup was found more than a quarter mile away. Three irrigation ditches were damaged, along with some fields of corn and hay. Six houses had minor damage, mainly from flooded basements. M50VE

Pitkin County

12 WNW Aspen 24 1815MST 1 0 **Lightning**
A man was struck by lightning and fell off a cliff while hiking up a ridge above Capitol Creek. The county coroner determined the cause of death was the lightning and not the subsequent fall. M21OU

CONNECTICUT, Northeast

Hartford County

Granby 07 2132EST
2137EST 0 0 **Hail (0.75)**

Hartford County

Suffield 07 2150EST 0 0 **Hail (0.75)**

Hartford County

Bristol 09 1503EST 0 0 **Hail (0.75)**

Hartford County

Unionville 09 1511EST 0 0 **Hail (0.75)**

Hartford County

East Hartford 09 1530EST 0 0 **Thunderstorm Wind (G52)**

Hartford County

Burlington 15 1600EST 0 0 **Hail (0.75)**

Hartford County

Burlington 15 1600EST
1615EST 0 0 10K **Thunderstorm Wind (G80)**

Tolland County

Ellington 15 1624EST
1625EST 0 0 3K **Thunderstorm Wind (G50)**

A severe thunderstorm moved across a part of Hartford and Tolland Counties. The storm produced a microburst in Burlington, in Hartford County, downing numerous trees in a three-mile wide area, some up to 6 to 18 inches in diameter. One tree fell on a parked auto with several people trapped inside. There was a report of cars being blown a couple of feet. Dime size hail fell in Burlington. Wind speeds are approximated to have been in the 90 mph range. In Tolland County, trees were reported blown down in Ellington.

CONNECTICUT, Northwest

Litchfield County

Goshen 07 1252EST 0 0 **Hail (0.75)**
An isolated severe thunderstorm, which developed well ahead of a cold front, produced three-quarter inch hail at Goshen.

Litchfield County

Salisbury 09 1415EST 0 0 4K **Thunderstorm Wind**

Litchfield County

Falls Vlg 09 1417EST 0 0 3K **Thunderstorm Wind**

Litchfield County

Thomaston 09 1510EST 0 0 5K **Thunderstorm Wind**

Litchfield County

New Milford 09 1515EST 0 0 2K **Hail (1.00)**

Litchfield County

New Milford 09 1730EST
1900EST 0 0 10K **Flash Flood**

Storm Data and Unusual Weather Phenomena

July 1997

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

During the afternoon hours of July 9, a cold front crossed Litchfield County. This front initiated severe thunderstorms in several locations across the county. Damaging winds downed trees at Falls Village and Salisbury. Thunderstorm winds downed trees and a power pole at Thomaston. In New Milford, torrential rain caused flash flooding along the Aspetuck River. Flooding occurred in several homes and along secondary roads.

Litchfield County

Torrington	15	1615EST			0	0	2K		Thunderstorm Wind
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On July 15, an extremely hot and humid airmass was situated over Connecticut. An isolated severe thunderstorm downed several trees at Torrington.

CONNECTICUT, Southern

Fairfield County

Brookfield	07	1230EST			0	0			Thunderstorm Wind (G50)
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New Haven County

Ansonia	07	1345EST			0	0			Thunderstorm Wind (G50)
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Scattered severe thunderstorms moved east across the local area. They produced high winds that downed trees and power lines in Brookfield.

Lightning struck the radio tower at Monroe Town Hall in Fairfield County. It disabled the Police Department's Communications Center and damaged at least three computers in town offices.

Fairfield County

New Fairfield	09	1600EST			0	0			Thunderstorm Wind (G50)
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Fairfield County

North Stamford to Fairfield	09	1745EST			0	0			Thunderstorm Wind (G50)
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New Haven County

Hamden to Milford	09	1815EST			0	0			Thunderstorm Wind (G50)
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A solid line of thunderstorms, a few severe, developed in a warm, moist, unstable airmass ahead of a slow moving cold front.

Thunderstorms produced high winds and heavy rain.

High winds downed numerous large trees in North Stamford and large trees in the center of the town of Fairfield. They also downed numerous trees and wires in New Fairfield.

Heavy rain caused localized street and poor-drainage flooding in Stamford along High Ridge and Long Ridge Road and in the Black Rock Section of Bridgeport.

New Haven County

Southbury to Oxford	15	1638EST			0	0			Thunderstorm Wind (G50)
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Fairfield County

Newtown to Newton	15	1645EST			0	1			Lightning
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Fairfield County

Easton to Trumbull	15	1800EST			0	0			Thunderstorm Wind (G50)
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Fairfield County

Bridgeport	15	1810EST			0	0			Hail (0.75)
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Clusters of slow moving thunderstorms, some severe, moved east-southeast over the local area.

They produced high winds, hail, and heavy rain.

In New Haven County, high winds downed trees and powerlines in Southbury and Oxford. Lightning struck one house in

Storm Data and Unusual Weather Phenomena

July 1997

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

Southbury. Lightning struck 4 hilltop houses on the east side of Naugatuck. It caused only minor damage to all four houses.

In Fairfield County, high winds downed trees in Easton and downed trees and powerlines in Trumbull. A tree fell onto and damaged a roof in Trumbull. In Newtown, a man was injured when he was struck by lightning while he was fixing a water pump in the basement of a home on White Oaks Farm Road.

New Haven County

Hamden to Guilford	18	1528EST 1535EST			0	0			Thunderstorm Wind (G52)
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New Haven County

New Haven	18	1529EST			0	0			Hail (0.75)
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A line of severe thunderstorms moved southeast across the local area. It produced high winds that downed trees and hail.

Fairfield County

Countywide	24	0200EST			0	0			Heavy Rain
	25	0800EST							

Middlesex County

Countywide	24	0300EST			0	0			Heavy Rain
	25	1000EST							

New Haven County

Countywide	24	0300EST			0	0			Heavy Rain
	25	0900EST							

New London County

Countywide	24	0400EST			0	0			Heavy Rain
	25	1100EST							

As a strong warm front moved slowly north toward the area, a long period of heavy rain occurred over the area. In addition, the area was impacted by the fringe effects from Tropical Storm Danny. Rain bands circulating around the northwest side of "Danny" provided the area with additional significant rainfall overnight.

Heavy rainfall (from 1 to 2 inches) caused localized flooding of small streams, streets, and poor drainage areas.

Here are selected total rainfall amounts for:

Fairfield County: 1.64 inches at Bridgeport.

New London County: 1.67 inches at Norwich.

DELAWARE

DEZ001>004

New Castle - Kent - Inland Sussex - Delaware Beaches

	12	1000EST			0	0			Excessive Heat
	19	1800EST							

The longest and hottest heat wave of the summer of 1997 brought up to 8 straight days of high temperatures of 90 degrees or higher to Delaware along with oppressive humidity and limited rainfall. The heat wave started to end after a strong cold front moved through the region early on the 19th. In spite of lowering humidity levels, high temperatures on the 19th still made it into the 90s across most of central and southern Delaware. The hottest day for most areas was the 15th as high temperatures were around 100 degrees. This was also the day the Pennsylvania-Jersey-Maryland Interconnection (PJM) reported a record usage of 49,822 megawatts in their regional serving area. This surpassed the previous record of 48,524 megawatts set on August 2, 1995. Highest temperatures during this heat wave included 102 degrees in Lewes, 100 degrees in Camden, 99 degrees at the New Castle County Airport and 98 degrees in Bridgeville, Pennyhill and Prices Corner. No widespread heat related injuries were reported. But, the lack of rain continued to stress crops, throughout the state especially in southern parts of New Castle County and northern parts of Kent County. Rainfall totals for July on a county weighted average were below normal throughout the state. The largest deficits were in Kent County where only 70 percent of normal rainfall fell.

Sussex County

Bethany Beach	16	1432EST			0	0	0		Hail (1.00)
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Storm Data and Unusual Weather Phenomena

July 1997

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

Sussex County

Fenwick Is	16	1432EST			0	0	0		Thunderstorm Wind
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Sussex County

Bethany Beach	16	1520EST 1620EST			0	0			Heavy Rain
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A severe thunderstorm blew the roof off a house and a catamaran was blown off Delaware State Route 1 in Fenwick Island. The same thunderstorm dropped quarter size hail in Bethany Beach. Later that afternoon thunderstorms became prolific heavy rain producers and caused some urban and poor drainage flooding. In Bethany Beach, 2.9 inches of rain fell within one hour.

Sussex County

Reliance to Millsboro	18	2040EST 2130EST			0	0			Thunderstorm Wind (G78)
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Severe thunderstorms pulled down trees and wires in the southern half of Sussex County. Some of the worst damage occurred around Millsboro when a microburst produced estimated wind gusts of around 90 mph. The thunderstorm winds pushed in the west side of one house. The porch railing on the southwest corner of the porch was blown down. All the porch furniture was blown to the east side of the porch. Elsewhere a vacant chicken was completely blown down. Another chicken house partially collapsed. Many large trees were damaged with several large trees (3 feet in diameter) snapped off and corn fields were flattened.

New Castle County

Countywide	23 24	1400EST 0700EST			0	0			Heavy Rain
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Heavy rain, associated with weak low pressure systems riding along a nearly stationary frontal boundary just to the south of the Delaware, fell across New Castle County from the afternoon of the 23rd to the morning of the 24th. For most places this was the most widespread rain in the county since the beginning of June. Storm totals included 3.3 inches in Pennyhill, 2.05 inches in Odessa, 1.97 inches at the New Castle County Airport, 1.66 inches in Newark and 1.6 inches in Prides Corner. Because of the extremely dry weather preceding this week, there was no river or creek flooding and roadway flooding was confined to the usual poor drainage and low-lying areas.

DISTRICT OF COLUMBIA

DCZ001

District Of Columbia

13	1100EST	2	150	Excessive Heat
19	1600EST			

The combination of antecedent dry weather, a persistent upper-level high pressure area, and the time of year produced a bona-fide heat wave in the District of Columbia during the middle of the month. Unlike events of previous years, the heat index was not quite as oppressive. Nonetheless, daytime high temperatures averaged in the upper 90s for the seven days, with the hottest readings occurring on the 17th (100 at Washington/National Airport) and on the 15th and 18th (99 each day).

Ground-level ozone levels became hazardous as the heat wave persisted; the city departments of health and environment declared code orange (approaching unhealthful) or red (unhealthful) conditions each day. Two persons perished from hyperthermia; both were in residences without air conditioning or fans. An estimated 150 other folks were admitted to area hospitals with heat-related disorders; one elderly woman, 94, suffered heat stroke, and had a body temperature of 105F.

F64PH, M72PH

District Of Columbia

Northwest Portion	18	1845EST			0	0	75K		Thunderstorm Wind
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A squall line, preceding a frontal system, developed just north of the city. Intensifying rapidly, the storm struck the city and produced damaging winds which felled numerous trees and/or large limbs. A small section of roof was lifted from an apartment Northwest; two apartments were flooded. An elm tree fell onto a house on 8th and Upshur Streets Northwest, causing damage to siding and a porch. Potomac Electric power Co. reported 20,000 customers were without power in Washington and the surrounding Maryland suburbs.

DCZ001

District Of Columbia

27	1100EST	0	0	Excessive Heat
28	1600EST			

Another bout of searing heat occurred in the Washington metropolitan region towards the end of July. Official maximum temperature readings at Washington/National Airport reached 99 on the 27th and 100 on the 28th. No deaths or injuries were reported.

District Of Columbia

Northwest Portion	28	1650EST			0	0	5K		Thunderstorm Wind
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Storm Data and Unusual Weather Phenomena

July 1997

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

A bow-shaped thunderstorm, racing southeast from the Maryland and Virginia piedmont, produced wind gusts strong enough to blow down large limbs and some power lines in upper Northwest.

FLORIDA, East Central

Orange County

12 SW Bithlo 01 1505EST 0 0 **Hail (0.75)**

Martin County

Stuart 01 1545EST 0 0 **Hail (0.75)**

Brevard County

Rockledge 01 1550EST 0 0 **Hail (0.75)**

Dime size hail was reported in Rockledge and Titusville. Winds damaged the roof of a fire station in Rockledge.

Orange County

Orlando 03 1500EST 1 0 **Heat**

A high temperature of 97 degrees was recorded at Orlando International Airport. This was only six degrees above normal, but the heat claimed one life. A 22 year old man was found unconscious a parking lot laying on the hot asphalt. He was taken to a hospital where his internal temperature was recorded at 106 degrees. He died later that day.

M22OU

Osceola County

Kissimmee 04 1645EST 0.5 40 0 0 200K **Tornado (F1)**

A small tornado touched down in Kissimmee at the north end of West Lake Toho. The tornado moved east severely damaging 5 homes and producing minor damage to 5 others.

Osceola County

Kissimmee 04 1715EST 0 0 **Hail (0.75)**

Osceola County

Kissimmee 04 1730EST 0 0 **Hail (0.75)**

Okeechobee County

Basinger 05 1230EST 0 0 **Thunderstorm Wind**

Thunderstorm winds blew down trees in Basinger.

Brevard County

Micco 05 1315EST 0 0 **Thunderstorm Wind**

Thunderstorm winds blew down power poles and damaged a building in Micco.

Martin County

Hobe Sound 05 1340EST 0 0 **Thunderstorm Wind**

Thunderstorm winds blew down trees and power lines in Hobe Sound.

Volusia County

Oak Hill 05 1530EST 0.2 30 0 0 30K **Tornado (F0)**

A small tornado touched down briefly in Oak Hill damaging two houses and eight mobile homes.

Osceola County

Kissimmee 05 1405EST 0.1 80 0 0 2K **Tornado (F0)**

A small F0 tornado touched down briefly in Kissimmee blowing down power lines and a few trees.

Brevard County

1 E Rockledge 06 1342EST 0 0 **Waterspout**

A waterspout was sighted over the Indian River Lagoon east of Rockledge.

Okeechobee County

Okeechobee 06 1511EST 0 0 **Hail (0.75)**

Okeechobee County

Okeechobee 06 1511EST 0 0 **Thunderstorm Wind**

Numerous trees and a few power lines were blown down by thunderstorm winds. A roof was blown off a county work barn.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
FLORIDA, East Central									
Volusia County									
Daytona Beach	07	1835EST			0	0			Thunderstorm Wind
Thunderstorm winds blew down three light poles at a baseball stadium.									
Volusia County									
Deltona	07	1850EST			0	0			Hail (1.00)
Volusia County									
Deltona	07	1920EST			0	0			Thunderstorm Wind
Thunderstorm winds blew down trees and power lines in Deltona.									
Osceola County									
Deer Park	08	1448EST			0	0			Hail (0.75)
Orange County									
2 S Bithlo	08	1535EST			0	0			Thunderstorm Wind
Thunderstorm winds blew down a large tree and many large branches.									
Osceola County									
Kissimmee	08	1630EST			0	0			Thunderstorm Wind
Thunderstorm winds damaged the roof of an apartment building and destroyed pieces of patio furniture.									
Brevard County									
Micco	09	1314EST			0	1			Lightning
A woman was struck and injured by lightning while running under an umbrella from her car to her house.									
St. Lucie County									
Port St Lucie	09	1400EST			0	0			Thunderstorm Wind
Thunderstorms winds blew down trees and damaged a screen enclosure.									
St. Lucie County									
Port St Lucie	09	1407EST			0	0			Hail (1.00)
Brevard County									
Micco	09	1424EST 1643EST			0	0			Thunderstorm Wind
Thunderstorm wind destroyed a porch attached to a mobile home in Barefoot Bay.									
Brevard County									
Merritt Is	09	1643EST			0	0			Hail (0.75)
Brevard County									
3 N Melbourne	09	1708EST			0	0			Hail (1.00)
Brevard County									
Port St John	11	1240EST			0	0			Hail (0.75)
Osceola County									
5 S Kissimmee Park	11	1258EST	0.3	30	0	0			Tornado (F0)
A waterspout/tornado came on shore on the southeast shore of West Lake Tohopekaliga and damaged a few trees.									
Brevard County									
Melbourne	11	1425EST			0	0			Hail (1.00)
Brevard County									
West Melbourne	11	1443EST			0	0			Thunderstorm Wind
Martin County									
Salerno	11	1700EST			0	1			Lightning
A 70 year old man was admitted to a local hospital after being struck and injured by lightning.									
Orange County									
Winter Garden	12	1630EST			0	0			Hail (0.75)
Orange County									
Ocoee	12	1640EST			0	0			Tstm Wind/Hail
Hail the size of half dollars fell and trees and billboards were blown down in Ocoee.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>FLORIDA, East Central</u>									
Seminole County									
Lake Mary	15	1558EST			0	0			Hail (1.75)
Volusia County									
De Land	16	1538EST			0	0			Hail (0.75)
Orange County									
Orlando Maguire Arpt	16	1705EST			0	0			Funnel Cloud
Orange County									
Winter Park	16	1728EST			0	0			Hail (1.00)
Orange County									
Bithlo	18	1545EST			0	0			Funnel Cloud
Osceola County									
Lake Kissimmee	18	1715EST			0	0			Hail
Brevard County									
4 W Titusville	23	1345EST	0.1	50	0	0	0		Tornado (F0)
An F0 tornado touched down briefly in a swamp area west of Titusville.									
Volusia County									
Deltona	25	1813EST			0	0			Thunderstorm Wind
Thunderstorm winds blew down trees and power lines around the city of Deltona.									
Volusia County									
De Bary	25	1815EST			0	0			Funnel Cloud
Volusia County									
De Bary	25	1815EST			0	0			Thunderstorm Wind
Thunderstorm winds blew down trees and power line in DeBary.									
Orange County									
3 SW Orlando	29	1624EST			0	0			Hail (1.75)
Golf ball size hail fell in the Disney area of Orange County.									
Osceola County									
Kissimmee	29	1658EST			0	0			Thunderstorm Wind
Thunderstorm winds blew down interstate highway road signs and blew cars off the road near Kissimmee.									
Seminole County									
Lake Mary	31	1535EST			0	0			Hail (0.75)
<u>FLORIDA, Northeastern</u>									
Marion County									
Dunnellon	04	1245EST			0	0			Hail (0.75)
Bradford County									
Hampton	04	1425EST			0	0	0.50K		Tstm Wind/Hail
Large trees were blown down.									
Alachua County									
Alachua	04	1450EST			0	0	0.50K		Tstm Wind/Hail
Several large trees were blown down.									
Alachua County									
Gainesville	04	1515EST			0	0	1.5K		Thunderstorm Wind
Large trees and power lines were blown down.									
Putnam County									
Georgetown	04	1620EST			0	0			Hail (1.75)
Marion County									
Dunnellon	04	1944EST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
FLORIDA, Northeastern									
Gilchrist County									
Trenton	05	0920EST			0	0	0.80K		Thunderstorm Wind
			Large trees were blown.						
Hamilton County									
Jasper	05	1120EST			0	0			Thunderstorm Wind (G75)
Suwannee County									
Wellborn	05	1140EST			0	0			Hail (0.75)
Suwannee County									
Live Oak	05	1150EST			0	0	1.5K		Thunderstorm Wind
			Large trees were blown down through out the county.						
Nassau County									
Yulee	05	1215EST			0	0	0.80K		Thunderstorm Wind
			Numerous reports of large trees and power lines blown down.						
Duval County									
Arlington	05	1231EST			0	0			Thunderstorm Wind (G60)
			Large limbs were blown down.						
Duval County									
7 E Jacksonville	05	1300EST			0	0	2.5K		Thunderstorm Wind
			Large trees were blown down on Atlantic Blvd. near San Pablo.						
Baker County									
Sanderson	05	1300EST			0	0	1K		Thunderstorm Wind
			Large tress were blown down along I-10.						
Nassau County									
Callahan	05	1300EST			0	0			Hail (1.00)
Duval County									
Jacksonville	05	1519EST			0	0	0.50K		Thunderstorm Wind
			Large trees were blown down.						
Alachua County									
Gainesville	07	1330EST			0	0	0.50K		Thunderstorm Wind
			Large trees were blown down.						
FLZ038									
Flagler									
	07	1705EST			0	0			High Wind (G50)
Flagler County									
Flagler Beach	07	1715EST			0	0	2K		Thunderstorm Wind
			Railings on top of Flagler Beach Bridge were blown loose.						
Flagler County									
Flagler Beach	07	1720EST			0	0	0.70K		Thunderstorm Wind
			Large trees and power lines were blown down.						
Duval County									
Mayport	09	1621EST 1630EST			0	0			Thunderstorm Wind (G60)
Duval County									
Jacksonville	09	1630EST			0	0			Hail (0.75)
Duval County									
Jacksonville Hgts	09	1800EST			0	0			Hail (0.75)
Nassau County									
Hilliard	11	1525EST			0	0	1K		Thunderstorm Wind
			Large trees and power lines were blown down.						
St. Johns County									
St Augustine	11	1530EST			0	0	1.5K		Thunderstorm Wind
			Large trees and power lines were blown down.						

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>FLORIDA, Northeastern</u>									
Duval County									
1 N Cecil Nas	11	1535EST			0	0			Hail (0.88)
Nassau County									
Yulee	11	1540EST			0	0	1.5K		Thunderstorm Wind
Large trees and power lines were blown down.									
Clay County									
Green Cove Spgs	11	1540EST			0	0	1.5K		Thunderstorm Wind (G65)
Duval County									
Arlington	11	1545EST			0	0	2K		Thunderstorm Wind
Large trees and power lines were blown down.									
Putnam County									
Palatka	11	1615EST			0	0	2.5K		Thunderstorm Wind
Large trees and power lines were blown down.									
Marion County									
Ocala	12	1525EST			0	0			Hail (0.88)
Marion County									
Ocala	16	1655EST			0	0			Hail (1.75)
Alachua County									
Gainesville North	17	1500EST			0	0			Hail (0.75)
Alachua County									
Newmans Lake	17	1520EST			0	0			Hail (2.75)
Duval County									
Jacksonville Beach	18	1510EST			0	2	10K		Tstm Wind/Hail
12-15 palm trees were blown down. Two campers were overturned.									
Duval County									
Mayport	18	1555EST			0	0	2K		Thunderstorm Wind
Large trees and power lines were blown down.									
Duval County									
Jacksonville Nas	25	1640EST			0	0	4K		Thunderstorm Wind
Large trees and power lines were blown down. Several mobile homes were pulled away from their tie-downs.									
Clay County									
Orange Park	25	1645EST			0	0	1.5K		Thunderstorm Wind
Large trees and power lines were blown down.									
St. Johns County									
Switzerland	25	1716EST			0	0	5K		Thunderstorm Wind
Large trees and power lines were blown down. A mobile home was damaged.									
Flagler County									
10 N Flagler Beach	31	1431EST			0	0			Hail (0.75)
Flagler County									
Flagler Beach	31	1431EST			0	0	1.5K		Thunderstorm Wind
Large trees and power lines were blown down.									
Flagler County									
Flagler Beach	31	1450EST			0	0	3K		Thunderstorm Wind
Large trees and power lines were blown down.									
<u>FLORIDA, Northwest</u>									
FLZ028	Taylor								
05	0930EST				1	1	10K		High Wind
An outflow of strong winds from thunderstorms caused 5 to 7 boats to capsize around the Steinhatchee River entrance to the Gulf of Mexico. One man received chemical burns over 80% of his body from the gasoline that poured from his capsized boat. His wife died from cardiac arrest while in the water. F53IW									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm
FLORIDA, Northwest									
Wakulla County									
St Marks	05	1140EST 1145EST			0	0	0.50K		Thunderstorm Wind (G56)
Public estimated winds 56 knots. Traffic lights and a few trees were blown down with debris on the road.									
Wakulla County									
Spring Creek	09	1655EST 1755EST			0	0	0.30K		Thunderstorm Wind
The Wakulla County sheriffs office reported a few trees and power lines reported down on Spring Creek Hwy.									
Leon County									
Tallahassee	17	1400EST 1500EST			0	0	5K		Urban/Sml Stream Fld
Heavy rainfall in the City of Tallahassee caused some localized street flooding. Several automobiles were flooded including a police car. A few streets were closed because of standing water 2 to 3 feet deep.									
Washington County									
Chipley to 7 SW Chipley	22	0545CST 1030CST			0	0	20K		Flood
Slow moving thunderstorms dropped several inches of rainfall across Washington County. Doppler precipitation estimates indicated 7 to 10 inches of rain fell over a 6 hour period. Several roads were closed and underwater. Numerous car accidents were reported due to flooded roads. Several cars were flooded.									
FLORIDA, Southern									
Dade County									
Cutler Ridge	02	1330EST 1333EST	0.2	10	0	0	2K		Tornado (F0)
sw 215 th/coral sea dr...small branches tossed about, awnings bent.									
Dade County									
South Miami	03	1220EST			0	0			Funnel Cloud
sw 60 st/ludlam rd.									
Collier County									
Immokalee	03	1535EST			0	0			Tstm Wind/Hail
Collier County									
North Naples	03	1605EST			0	0			Funnel Cloud
by collier county sheriffs office...no touchdown observed.									
Collier County									
North Naples	03	1625EST			0	0			Hail (1.75)
golf ball size hail observed by corkscrew fire dept near everglades and immokalee rd. a slow moving thunderstorm complex moved from near immokalee to the north naples area between 330 and 430 pm est.									
Collier County									
Marco	04	1400EST 1415EST			0	0			Waterspout
waterspout observed over gulf of mexico just southwest of marco island.									
Palm Beach County									
Pahokee	04	1538EST 1540EST	0.2	25	0	0			Tornado (F0)
observed over sugar cane field east of highway 715.									
Collier County									
Marco	05	0810EST 0820EST			0	0			Waterspout
waterspout sighted near marco dissipation observed.									
Collier County									
Marco	05	1009EST 1020EST			0	0			Waterspout
waterspout observed 20nm sw of marco island.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
FLORIDA, Southern									
Collier County									
Naples	05	1315EST			0	2			Lightning a seventeen year old female and a 14 year old male (brother) were parasiling just offshore northwest naples. a lightning bolt struck the parasail cable. witness reported watching the two drop 150 feet to the water .both had second and third degree burns on twenty to thirty percent of their bodies.
Monroe County									
Craig	06	1200EST			0	0			Waterspout several waterspouts were observed just east of the middle keys.
Collier County									
Corkscrew	06	1305EST 1320EST			0	0			Funnel Cloud several funnel clouds were sighted over the north end of big corkscrew swamp.
Broward County									
Davie	06	1700EST 1745EST			0	0			Thunderstorm Wind (G55) power lines down...numerous tree branches down.
Broward County									
Pembroke Pines	06	1700EST 1745EST			0	0			Funnel Cloud sighted west of florida turnpike and north of pines blvd.
Broward County									
Pembroke Pines	06	1700EST 1745EST			0	0			Thunderstorm Wind (G55)
Broward County									
Sunrise Golf Vlg	06	1700EST 1745EST			0	0			Thunderstorm Wind (G55) three eight inch diameter trees down...numerous tree limbs and branches down. line of thunderstorms move from interior south florida over the everglades to the southeast over broward county.
Collier County									
East Naples to Golden Gate	09	1710EST 1730EST	0.2	15	0	0			Tornado (F0) several funnel clouds observed under storm cell . tornado lasted about 10 seconds sucking porch carpet off ground...shattered cypress trees...pool furniture observed 200 feet in the air.
Monroe County									
Key West Intl Arpt	09	1928EST			0	0			Funnel Cloud observed just west of keyw.
Palm Beach County									
(Pbi)Palm Beach Arpt	10	0955EST 1013EST			0	0			Funnel Cloud several funnels observed under storm cells that moved southeast from the eastern palm beach county to over the coastal waters.
Dade County									
Homestead	10	1100EST	0.2	15	0	0			Tornado (F0) tornado touched down very briefly at us 1/sw 296 st. debris was observed flying about as thin dark funnel cloud approached. businesses had minor exterior damage and several vehicles were damaged in the parking lots.
Broward County									
Davie	10	1145EST			0	1			Lightning in weston...a 39 year old male was in serious condition when working on or nearby a crane a lightning bolt struck it.
Palm Beach County									
Palm Spgs	10	1230EST			0	1			Lightning 34 year old lawn maintenance male worker was struck by a lightning bolt. cpr was performed on the scene to revive him. he was in critical condition at a local hospital that evening.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
FLORIDA, Southern									
Palm Beach County									
Tequesta	10	1230EST			0	3			Lightning
three male workers (ages...54,21 and 35) were working on the roof of a townhouse in tequesta oaks when a bolt of lightning struck nearby. they were taken to nearby hospitals for observation. in suburban lake worth a tree was struck by lightning resulting in a small fire.									
Hendry County									
Devils Garden	10	1445EST 1500EST			0	0			Tstm Wind/Hail
roof blown off mobile home in montura.									
Hendry County									
Devils Garden	10	1526EST 1530EST			0	0			Thunderstorm Wind (G55)
roof blown off mobile home iin montura.									
Monroe County									
Key West Intl Arpt	10	1808EST 1815EST			0	0			Funnel Cloud
funnel observed under storm cell northwest of keyw.									
Broward County									
Ft Lauderdale	11	0635EST			0	0			Waterspout
observed several miles east of port everglades.									
Palm Beach County									
Boca Raton	11	1421EST			0	0			Funnel Cloud
a few funnels were observed under storm cells near power line rd/glades rd moving slowly east. at 1436 est one quarter to three eights inch hail was reported in boca raton.									
Broward County									
Sunrise Golf Vlg	11	1615EST 1625EST			0	0			Tstm Wind/Hail
marble to golf ball size hail reported by public via local tv 7 weather anchor.									
Monroe County									
Key West Intl Arpt	11	1651EST 1700EST			0	0			Waterspout
waterspout was observed near the marquesas keys.									
Palm Beach County									
West Palm Beach	11	1708EST			0	0			Thunderstorm Wind (G55)
large tree fell on cars along 45 st.									
Monroe County									
Key West Intl Arpt	12	0745EST			0	0			Waterspout
waterspout observed several miles northeast of keyw.									
Monroe County									
(Nqx)Key West Nas	12	1333EST			0	1			Lightning
lightning struck a male on cudjoe key. he received severe burns and was taken to the key west hospital.									
Palm Beach County									
Boca Raton	12	1421EST			0	0			Funnel Cloud
palm beach county e.m. reported funnel clouds over glades rd/power line rd.									
Palm Beach County									
Boca Raton	12	1445EST			0	1			Lightning
male struck in the hand by lightning...treated for minor injuries to arm and hand.									
Palm Beach County									
West Palm Beach	12	1615EST			1	0			Lightning
34 year old male struck by lightning shortly after getting out of his car at his residence on stoneway lane. M34PH									
Monroe County									
Key West Intl Arpt	12	1524EST			0	0			Waterspout
several waterspouts and funnel clouds were observed west of keyw.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
FLORIDA, Southern									
Monroe County									
Marathon	13	0650EST			0	0			Waterspout
several waterspouts were observed in the vicinity of marathon.									
Dade County									
Miami Lake	13	1519EST			0	0			Hail (0.75)
dime size hail reported by nws employee.									
Dade County									
Miami Lake	13	1520EST			0	0			Funnel Cloud
funnel cloud reported by metro-dade police near I75/nw 186 st.									
Broward County									
Plantation	13	1634EST			0	0			Hail (0.75)
reported by storm spotter near sawgrass mills mall. increased from one quarter to three quarter inch in diameter.									
Monroe County									
Marathon	15	0800EST 0815EST			0	0			Funnel Cloud
monroe county e.m. reported several funnel clouds just north of marathon.									
Dade County									
Miami Lake	15	1300EST			0	1			Lightning
man on roof structure seriously injured by lightning strike.									
Palm Beach County									
Pahokee Pbi Co Arpt to Pahokee	15	1431EST 1435EST	0.2	25	0	0			Tornado (F0)
pilot reported phk090005.									
Hendry County									
La Belle	15	1540EST 1635EST			0	0			Funnel Cloud
several reports of funnel clouds over hendry county. three to four inches of rain reported during event. minimal structural damage.									
Monroe County									
Key West Intl Arpt	15	1752EST 1800EST			0	0			Waterspout
observed by observer 3nm nw keyw.									
Monroe County									
Key West Intl Arpt	15	1853EST			0	0			Waterspout
waterspout reported by observer at keyw 3nm nw keyw.									
Palm Beach County									
Highland Beach	16	0912EST 0940EST			0	0			Waterspout
pilot reported...storm spotter calls.									
Collier County									
Golden Gate	17	1800EST			0	0			Funnel Cloud
Collier County									
Immokalee	17	1835EST			0	0			Hail (1.75)
a cluster of thunderstorms moved to the north northwest at 15 mph. hail was observed at big corkscrew swamp area.									
Dade County									
Miami Beach	18	1007EST			0	0			Waterspout
large waterspout 3nm se government cut seen from as far away as homestead...first reported by miami beach patrol.									
Monroe County									
Key West Intl Arpt	18	1132EST 1145EST			0	0			Waterspout
observed 2nm ne of keyw.									
Palm Beach County									
Pahokee	18	1555EST 1620EST			0	0			Waterspout
waterspout observed about 10 nm n of pahokee.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>FLORIDA, Southern</u>									
Dade County									
Homestead	18	1723EST			0	0			Waterspout
waterspout reported by pilot hst090010 also reported by nws employee.									
Monroe County									
Key West Intl Arpt	18	1726EST			0	0			Waterspout
large waterspout reported by keyw tower just se of keyw.									
Broward County									
Ft Lauderdale	18	1737EST			0	0			Waterspout
waterspout reported by pilot fill090012.									
Dade County									
Key Biscayne	18	1830EST			0	0			Waterspout
Monroe County									
Key West Intl Arpt	19	0805EST			0	0			Waterspout
reported by observer at keyw 7nm se of keyw.									
Broward County									
Plantation	19	1339EST			0	0			Thunderstorm Wind (G55)
reported by tv meteorologist.									
Dade County									
Opa Locka	19	1339EST			0	0			Thunderstorm Wind (G56)
recorded at kopf.									
Dade County									
Kendall	19	1345EST 1400EST			0	0			Thunderstorm Wind (G55)
trees and power lines down...marble sized hail.									
Dade County									
Miami Lake	19	1345EST 1400EST			0	0			Thunderstorm Wind (G55)
trees and power lines down.									
Monroe County									
Duck Key	20	0622EST			0	0			Waterspout
observed 3nm n duck key.									
Monroe County									
Key West	24	1421EST			0	0			Funnel Cloud
reported by observer ne of keyw. radar indicated storm cell about 12nm nne.									
Hendry County									
Clewiston	24	1445EST			0	0			Funnel Cloud
two funnels sighted just w of clewiston.									
Monroe County									
Key West Intl Arpt	27	0726EST			0	0			Funnel Cloud
sighted southeast of keyw.									
Palm Beach County									
Lantana	28	0730EST			0	0			Waterspout
sighted just offshore lantana.									
Palm Beach County									
Boca Raton	29	1150EST			0	0			Funnel Cloud
two funnel clouds were sighted near camino real rd/military trail by storm spotters. movement was to the northeast at 15 miles an hour.									
<u>FLORIDA, West Central</u>									
Levy County									
3 N Chiefland	04	1230EST			0	0	0	0	Lightning
A power pole was struck but undamaged by lightning. However, the charge was displaced through an underground water pipe and insulated electrical line for 200 feet until it reached a pole barn. The lightning then travelled through a wood pole which exploded and hurled fragments nearly 200 feet through the air.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
FLORIDA, West Central									
Lee County									
Ft Myers	04	1319EST 1320EST			0	0	2K	0	Thunderstorm Wind (G55)
									Thunderstorm wind gusts of up to 63 mph downed several small trees and a flag pole in Ft Myers.
Highlands County									
2 S Avon Park to Avon Park	04	1407EST			0	1	60K	0	Thunderstorm Wind
									Thunderstorm winds caused minor to moderate damage to the roofs of two mobile homes, tore off the awnings of a few homes and downed several trees in a trailer park in Avon Park. Several roadside billboards were toppled or splintered by thunderstorm winds along U.S. Highway 27 south of Avon Park.
									Two businesses in Avon Park received roof and gate damage from the thunderstorm wind. One person received minor cuts at the Bonnie Brae Estates mobile home park when the thunderstorm wind blew the roof off an extension to her mobile home.
Polk County									
18 S Lakeland	04	1610EST			0	0	0	0	Hail (0.75)
									Dime sized hail was reported in Bradley along State Road 37.
Polk County									
11 S Lakeland	04	1630EST			0	0	0	0	Hail (0.88)
									Nickel sized hail was reported in Mulberry along State Road 37.
Polk County									
Winter Haven	04	1640EST			0	0	0	0	Hail (1.75)
									Golfball to nickel sized hail was reported in Winter Haven.
Polk County									
Winter Haven	04	1645EST 1700EST			0	0	75K	0	Thunderstorm Wind
									Thunderstorm winds downed numerous power lines across Winter Haven which left nearly 15,000 residents without electrical power for up to nine hours.
Hillsborough County									
9 E Tampa to 12 E Tampa	04	1715EST 1720EST			0	0	75K	0	Thunderstorm Wind
									Thunderstorm winds caused minor damage to a few mobile homes at the Feather Rock mobile home park and downed several trees on Lithia-Pinecrest Road near State Road 60 in Valrico. In Brandon, thunderstorm winds knocked down trees, toppled signs and damaged fences. Nearly 15,000 homes lost power from downed trees and limbs on power lines.
Hillsborough County									
9 E Tampa to 14 S Tampa	04	1715EST			0	0	50K	0	Lightning
									Lightning struck several homes from Brandon south to Apollo Beach and caused minor roof and ceiling damage.
Hillsborough County									
9 E Tampa	04	1725EST			0	9	5K	0	Thunderstorm Wind
									Nine people were injured when an add-on wall partition to a home was blown over by thunderstorm winds along S. Kings Avenue in Brandon.
Hillsborough County									
14 S Tampa	05	1230EST	0.3	5	0	0	100K	0	Tornado (F0)
									A tornado touched down near U.S. Highway 41 and Flamingo Blvd. in Apollo Beach and damaged four commercial buildings, the roof of a house, destroyed a billboard, downed wooden fencing and up to eight power lines before it receded.
Hernando County									
5 E Brooksville	05	1320EST			0	0	5K	0	Thunderstorm Wind
									Several large trees were downed by thunderstorm winds near U.S. Highway 98 and Olympia Road.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
FLORIDA, West Central									
Hillsborough County									
6 NNE Tampa	05	1400EST			0	0	5K	0	Thunderstorm Wind
Thunderstorm winds downed several medium to large sized trees near LineBaugh and Bougainvillea Roads in Tampa.									
Pinellas County									
5 NNE St Petersburg	05	1632EST			0	0	0	0	Waterspout
A waterspout was observed between U.S. Highway 92 (Gandy Bridge) and the St Petersburg Pier.									
Lee County									
Cape Coral	05	2000EST			0	0	0.50K	0	Lightning
Lightning struck and exploded a large pine tree in Cape Coral.									
Polk County									
Lakeland	07	1858EST			0	0	20K	0	Lightning
Lightning struck an electrical substation and knocked out power to near 1,800 homes and businesses in Lakeland for approximately 90 minutes.									
Hillsborough County									
8 NE Tampa	08	1408EST			0	0	2K	0	Thunderstorm Wind
Thunderstorm wind downed a few large trees and power lines near 56th Street and Busch Blvd.									
Hillsborough County									
15 WNW Tampa to 8 NE Tampa	08	1408EST 1423EST			0	0	25K	0	Thunderstorm Wind
Thunderstorm winds downed several large trees and power lines over a broad area of North Tampa from Sheldon Road in the Citrus Park area east to Florida Avenue and Fletcher Blvd. near Temple Terrace.									
Hillsborough County									
14 N Tampa	08	1428EST			0	0	3K	0	Lightning
Lightning struck and caused minor damage to the roof of a home on Clearlake Drive in the Crystal Lake Manor subdivision.									
Polk County									
Ft Meade	08	1703EST			0	0	0	0	Hail (1.75)
Golfball sized hail was reported near U.S. Highway 17 by the Ft Meade fire Department.									
Polk County									
1 E Ft Meade	08	1703EST			0	0	30K	0	Thunderstorm Wind
Several trees and power lines were downed by thunderstorm winds along U.S. Highway 98 near the Peace River in Ft Meade. A few of the downed trees damaged porches, roofs and lanai's of mobile homes in the Oakview Lakes mobile home park.									
Polk County									
Lake Wales	08	1735EST			0	0	0	0	Hail (0.88)
Nickel sized hail was reported by the Lake Wales Police Department along U.S. Highway 27.									
Lee County									
12 SSE Ft Myers	10	1450EST			0	0	0	0	Lightning
Brush fires ignited by lightning caused Interstate 75 to be closed in both directions 1.5 miles north of Corkscrew Road for about 90 minutes.									
Lee County									
4 S Ft Myers	10	1515EST			0	0	1K	0	Tstm Wind (G45)
Thunderstorm winds of 40 to 50 mph downed a few tree limbs and power lines near Page Field along U.S. Highway 41.									
Lee County									
Cape Coral	10	1630EST			0	0	0	0	Hail (0.88)
Nickel to dime sized hail was observed in Cape Coral.									
Lee County									
Cape Coral	10	1630EST			0	0	20K	0	Thunderstorm Wind
Thunderstorm winds damaged a few pool enclosures on SE 33rd Terrace in Cape Coral. A few trees and power lines were also downed by the thunderstorm wind.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
FLORIDA, West Central									
Polk County									
2 SW Lakeland	11	1256EST			0	0	100K	0	Thunderstorm Wind
Thunderstorm winds caused minor to moderate wind damage to 30 mobile homes in two mobile home parks in the vicinity of Harden Blvd. and Beacon Road. Three of the mobile homes incurred minor roof damage while the majority of the damage was limited to carports and awnings. Nearly 13,000 electrical customers were without power from thunderstorm wind that downed power lines across south Lakeland.									
Polk County									
3 SW Winter Haven	11	1342EST			0	0	0	0	Hail (0.75)
Dime sized hail was reported near Lake Eloise in Central Polk county.									
Lee County									
Ft Myers	12	1226EST			0	0	0	0	Hail (0.88)
Hillsborough County									
12 N Tampa	12	1402EST			0	0	1K	0	Tstm Wind (G45)
Thunderstorm winds of up to 50 mph downed a couple of small trees near the intersection of Lutz-Lake Fern Road and Angel Lane in Lutz.									
Pinellas County									
St Petersburg	12	1435EST			0	1	0	0	Lightning
A 27 year old male was struck and injured by lightning while working outside on his truck. The injury was confined to skin burns.									
Hillsborough County									
4 WNW Tampa	12	1640EST			1	1	0	0	Lightning
Two males were struck and injured by lightning, one fatal, while at a golfing range near the intersection of Westshore Blvd. and West Columbus Drive. Eyewitnesses reported the golfers were struck by the first observed lightning bolt that emanated from the cirrus anvil of a distant thunderstorm. The sun was shining at the time of the lightning strike.									
The two men were standing ten feet apart when the lightning bolt struck. The bolt struck the graphite club of the fatally injured golfer and passed through his body to the other severely injured golfer. Witnesses stated that both golfers were thrown several feet into the air when the bolt struck. The non-fatally injured suffered chest and facial burns from the lightning strike. M47GF									
Lee County									
Cape Coral	14	1230EST 1300EST			0	0	10K	0	Lightning
Lightning ignited six brush fires and consumed nearly 25 acres in Cape Coral.									
Highlands County									
1 E Sebring	15	1637EST			0	0	10K	0	Thunderstorm Wind
Thunderstorm winds downed several trees and power lines in east Sebring.									
Lee County									
Lehigh Acres	15	1645EST 1702EST			0	0	0	0	Hail (0.75)
Polk County									
6 W Lakeland	15	1752EST			0	0	0	0	Hail (0.75)
Dime sized hail was reported by Skywarn Spotters near the intersection of Interstate 4 and County Line Road.									
Manatee County									
Bradenton	15	1800EST			0	1	0	0	Lightning
A seven year old male was slightly injured by the side-flash of lightning that struck the tree he was climbing in Bradenton.									
Hillsborough County									
6 NW Tampa	15	1845EST			0	0	0	0	Hail (0.75)
Dime sized hail was observed near the intersection of Anderson and Waters Roads.									
Citrus County									
6 SE Inverness	16	1440EST			0	0	25K	0	Thunderstorm Wind
Thunderstorm winds damaged three homes, one vehicle and downed numerous trees near U.S. Highway 41 in Floral City.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
FLORIDA, West Central									
Hillsborough County									
7 NNW Tampa	16	1501EST			0	0	0	0	Hail (0.75)
Dime sized hail was observed in Carrollwood.									
Pinellas County									
Oldsmar	16	1530EST			0	0	5K	0	Lightning
Lightning ignited and burned ten to fifteen acres of woods and brush on the Mobbly Bay peninsula.									
Pasco County									
9 W Zephyrhills	16	1610EST			0	0	0	0	Hail (0.75)
Dime sized hail was observed in Wesley Chapel.									
Hillsborough County									
8 SE Tampa	17	1615EST			0	0	0	0	Hail (0.75)
Dime sized hail was observed in Riverview.									
Pinellas County									
Oldsmar	17	1620EST			0	0	100K	0	Lightning
Lightning struck, ignited and caused significant damage to the roof and attic of a new home in Oldsmar.									
Hillsborough County									
11 E Tampa	17	1630EST			0	0	1K	0	Thunderstorm Wind
Thunderstorm winds downed a couple of trees near the intersection of Frankfurt Drive and Kennsnton Ridge Road.									
Lee County									
Lehigh Acres	18	1435EST			0	0	0	0	Hail (0.88)
Lee County									
Lehigh Acres	18	1435EST			0	0	2K	0	Tstm Wind (G45)
Thunderstorm winds of up to 50 mph tipped over or uprooted 40 to 50 potted small to medium sized trees at a nursery in Lehigh Acres.									
Manatee County									
16 E Bradenton	18	1510EST			0	0	0	0	Hail (0.75)
Dime sized hail was reported near the intersection of State Road 64 and County Road 675.									
Pinellas County									
Clearwater	20	1144EST			0	1	0	0	Lightning
A 32 year old male was injured by lightning while leaning up against his kitchen sink. The lightning struck outside his apartment, travelled through underground pipes, then up into the apartment to the sink. The 275 pound man was thrown over four feet from the electrical discharge while leaning against the steel sink. His injuries consisted of tingles and numbness on the left side of his body.									
Polk County									
4 S Lakeland	21	1930EST			0	0	20K	0	Lightning
Lightning struck and ignited a fire in an unoccupied home on North Marion Avenue in Lakeland. Lightning hit the front porch, which started a fire that spread to the living room of the single-story, wood frame home and caused \$20,000 dollars worth of damage.									
Lee County									
Bonita Spgs	22	1330EST			0	1	0	0	Lightning
A 52 year old man was injured when lightning struck an industrial trash bin approximately five feet from where he was standing at the First Baptist Church of Bonita Springs.									
Lee County									
11 SE Ft Myers	24	1515EST			0	0	0	0	Thunderstorm Wind (G50)
A 58 mph wind gust was recorded from a Regional Southwest Airport anemometer that was located 60 feet above mean sea-level.									
Charlotte County									
1 SW Punta Gorda	24	1600EST			0	1	0	0	Lightning
A 53 year old male and his dog were struck by a sideflash of lightning while walking within six feet of a wood power pole. The lightning first struck the power pole while the sideflash knocked the man and his dog to the ground. No injuries were reported to the dog.									

Storm Data and Unusual Weather Phenomena

July 1997

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

Lee County

Cape Coral **24** **1615EST** **0** **0** **2K** **0** **Thunderstorm Wind**
 Thunderstorm wind caused minor damage to the roof of a home in Cape Coral.

Charlotte County

4 NW Punta Gorda **24** **1625EST** **0.2** **5** **0** **0** **4K** **0** **Tornado (F0)**
 A short-lived tornado uprooted several trees, damaged a glass business sign, shattered windows in a few businesses and toppled a few billboards near the intersection of U.S. Highway 41 and Sibley Road in Charlotte Harbor.

Charlotte County

2 NE Port Charlotte **24** **1632EST** **0** **0** **0** **0** **Hail (1.75)**
 Golfball sized hail was reported at Veterans Boulevard and Atwater Street in Port Charlotte.

Hillsborough County

8 E Tampa **24** **1758EST** **0** **0** **0** **0** **Hail (1.00)**
 Quarter sized hail was reported in Sable Park and Brandon.

Hillsborough County

8 SSE Tampa **24** **1800EST** **0** **1** **0** **0** **Lightning**
 A 44 year old male was struck and injured by lightning while fishing on Riverview Drive at U.S. Highway 41 over the Alafia River in Gibsonton.

Highlands County

4 S Sebring **29** **1625EST** **0** **0** **0** **0** **Hail (1.00)**
 Quarter to dime sized hail fell near U.S. Highway 27 and State Road 66.

Highlands County

4 S Sebring to 6 SSW Sebring **29** **1625EST** **0** **0** **50K** **0** **Thunderstorm Wind**
 Five homes suffered minor to moderate roof and structural damage, along with major porch damage, on Indian Boulevard on the north side of Lake Charlotte from thunderstorm downburst winds. Thunderstorm winds also damaged trees and potted plants on Orange Blossom Boulevard near State Road 66.

Hillsborough County

8 SE Tampa **30** **1300EST** **0** **0** **25K** **0** **Tstm Wind (G45)**
 Thunderstorm downburst winds estimated at 50 to 55 mph caused major roof damage on the south side of a warehouse located on Riverview Drive west of Oak Street. The design and lightweight material used for the roof and overhang were significant contributors to the amount of damage incurred from the downburst wind.

 A worker observed straight winds, blowing from south to north at the leading edge of a gust front, impact the approximately 75 foot wide south side and fifteen foot high roof overhang of the damaged warehouse. The wind lifted the lightweight aluminum overhang upward and peeled it back along with an additional 20 feet of light-weight roofing material.

Lee County

.5 NE Ft Myers **31** **1230EST** **0** **0** **50K** **0** **Waterspout**
 A short-lived waterspout, five to ten feet wide at the base, travelled 100 yards along the Caloosahatchee River, east of the Edison Bridge (northbound U.S. Highway 41 Business). The waterspout damaged a 30 foot high aluminum shed, flipped a small boat and damaged a few piers and a couple of boats at the Mainsail Marina on Palm Beach Blvd before it dissipated.

FLORIDA, West Panhandle

Escambia County

Pensacola Beach **05** **0400CST**
0405CST **0** **0** **3K** **Thunderstorm Wind (G50)**
 Several trees were blown down on Pensacola Beach.

Santa Rosa County

Gulf Breeze **05** **0400CST**
0405CST **0** **0** **3K** **Thunderstorm Wind (G50)**
 Several trees were blown down in Gulf Breeze.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>FLORIDA, West Panhandle</u>									
Okaloosa County									
Ft Walton Beach	05	0500CST 0505CST			0	0	16K		Thunderstorm Wind (G50)
Several trees and power lines were blown down in Fort Walton Beach.									
Santa Rosa County									
Gulf Breeze	05	1005CST 1010CST			0	0	3K		Thunderstorm Wind (G50)
Several trees were blown down in Gulf Breeze. This was the second thunderstorm to move through the city during the morning hours that caused wind damage.									
Okaloosa County									
Ft Walton Beach to Shalimar	05	1030CST 1040CST			0	0	5K		Thunderstorm Wind (G50)
Several trees were blown down between Fort Walton Beach and Shalimar.									
Santa Rosa County									
Jay	15	1835CST 1837CST			0	0	2K		Thunderstorm Wind (G50)
Several trees were blown down just north of State HWY 4, northwest of Jay.									
<u>GEORGIA, East Central</u>									
Lincoln County									
10 NW Lincolnton to New Hope	16	1720EST 1730EST			0	0			Thunderstorm Wind (G60)
Sheriff reports numerous trees down throughout Lincoln county.									
Lincoln County									
Lincolnton	16	1720EST 1730EST			0	0		0	Thunderstorm Wind (G65)
Sheriff reports numerous trees down throughout the county.									
Mcduffie County									
Thomson	16	1751EST			0	1	8K	0	Lightning
Lightning struck a home and caused minor injuries to one occupant.									
Richmond County									
1 N Blythe	27	1522EST			0	0		0	Thunderstorm Wind (G50)
Georgia Power reports trees and powerlines down on highway 1 just north of Blythe.									
Burke County									
Keysville	27	1530EST			0	0			Hail (0.75)
EPD reports dime size hail.									
Burke County									
Keysville	27	1530EST			0	0	0	0	Thunderstorm Wind (G50)
EPD reports microburst took down large tree branches.									
<u>GEORGIA, Lower</u>									
Ware County									
6 SW Waycross	05	1110EST			0	0	0.60K		Thunderstorm Wind
Large trees were blown down.									
Glynn County									
2 N Brunswick	05	1230EST			0	0			Hail (1.00)
Near Pennick Road.									
Appling County									
Baxley	07	1655EST			0	0	0.60K		Thunderstorm Wind
Large trees were blown down at Orvin and Dyal School road.									
Appling County									
Baxley	07	1715EST			0	0	0.50K		Thunderstorm Wind
Large trees and power lines were blown down on US-341 and US-1.									
Ware County									
Waycross	09	1550EST			0	0	2.5K		Thunderstorm Wind
Large trees and limbs were blown down.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
GEORGIA, Lower									
Camden County									
Woodbine	11	1400EST			0	0			Thunderstorm Wind (G60)
GEORGIA, North and Central									
Dade County									
Trenton	04	1720EST			0	0	2K		Thunderstorm Wind
Thunderstorm winds knocked down trees and power lines.									
Catoosa County									
Ringgold	04	1730EST 1810EST			0	0	2K		Thunderstorm Wind
Catoosa 911 reported several trees and power lines were downed across the county by thunderstorm winds.									
Walker County									
La Fayette	04	1730EST 1745EST			0	1	40K		Thunderstorm Wind
Thunderstorm winds knocked down several trees and power lines across the northern portion of Walker county. One tree fell onto the electrical wiring running to a trailer, which ignited a fire. The sole occupant, a 74 year old woman was injured. More than 30,000 people were without power. 50 homes and 100 cars were also damaged.									
Whitfield County									
Dalton	04	1745EST 1800EST			0	0	15K		Thunderstorm Wind
Several trees were knocked down by thunderstorm winds. A tree fell across power lines and a car in Dalton.									
Fannin County									
Blue Ridge	04	1815EST			0	0	3K		Thunderstorm Wind
Fannin 911 reported several trees were knocked down. Some fell on power lines, resulting in power outages.									
Murray County									
Chatsworth	04	1825EST			0	0			Hail (0.75)
Gilmer County									
Ellijay	04	1830EST 1850EST			0	0	3K		Thunderstorm Wind
Thunderstorm winds knocked down numerous trees across the county.									
Union County									
Blairsville	04	1840EST 1850EST			0	0	2K		Thunderstorm Wind
Several trees and power lines were knocked down by thunderstorm winds.									
Dawson County									
Dawsonville	04	1845EST			0	0	2K		Thunderstorm Wind
A few trees and power lines were knocked down by thunderstorm winds.									
Lumpkin County									
8 W Dahlonega to Dahlonega	04	1845EST 1915EST			0	0	2K		Thunderstorm Wind
Several trees were knocked down and power lines snapped by thunderstorm winds along Georgia Highway 52 as well as in the Dahlonega area. Winds were estimated at 55 to 63 mph..									
Pickens County									
2 E Jasper	04	1852EST			0	0	7.5K		Thunderstorm Wind
At least six trees were knocked down by thunderstorm winds. At least one tree was down on a house, however no damage to the home was reported.									
White County									
3 E Cleveland to Helen	04	1915EST 1935EST			0	0	32K		Thunderstorm Wind
Numerous trees and power lines were knocked down in the vicinity of Helen. More than 13,000 people were without electricity for several hours. Falling trees damaged more than a dozen homes county wide.									
Towns County									
Hiawassee	04	1920EST			0	0	3K		Thunderstorm Wind
Several trees and power lines were knocked down countywide.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
GEORGIA, North and Central									
Hall County									
5 S Clermont to Lake Sidney Lanier	04	1923EST 1930EST			0	0	2K		Thunderstorm Wind
	Thunderstorm winds knocked down several trees.								
Banks County									
Alto to Lula	04	1925EST 1951EST			0	0	5K		Thunderstorm Wind
	Several trees and power lines were knocked down in and around Alto and Lula, as well as countywide.								
Hall County									
Gainesville	04	1942EST			0	0			Hail (0.75)
Jackson County									
Commerce	04	2015EST			0	0	15K		Thunderstorm Wind
	Thunderstorm winds knocked down two large trees as well as a 100 foot by 20 foot wall.								
Sumter County									
Andersonville	05	1445EST			0	0			Hail (1.75)
Houston County									
Grovania to 11 S Perry	05	1600EST			0	0			Hail (1.00)
	Dime to quarter sized hail fell between Grovania and 11 miles south of Perry.								
Treutlen County									
Lothair	05	1640EST			0	0	1K		Thunderstorm Wind
	Two trees were knocked down by thunderstorm winds.								
Upson County									
7 SW Thomaston	07	1730EST			0	0	3K		Thunderstorm Wind
	Numerous trees and power lines were knocked down by thunderstorm winds.								
Talbot County									
3 N Ypsilanti	07	1756EST			0	0	4K		Thunderstorm Wind
	Numerous trees and power lines were knocked down by thunderstorm winds.								
Putnam County									
10 SE Eatonton	08	1450EST			0	3	40K		Thunderstorm Wind
	Thunderstorm winds associated with a downburst knocked down several trees, overturned a couple of trailers, caused extensive damage to Lakeside Bait and Tackle, and caused a car to slide into Lake Sinclair. Several eyewitnesses reported hearing a roaring sound similar to a freight train. The winds first hit another bait and tackle shop on the west side of Georgia highway 441, damaging the low profile roof. Winds punched in the front doors and windows of the Lakeside Bait and Tackle shop, lifting and flipping the roof off to land some 100 yards away. The cinder block constructed building was a total loss. One lady, the co-owner, had seven stitches administered to the back of her head where she was hit by a flying cinder block. Two customers were also injured to a lesser degree.								
Emanuel County									
13 SE Swainsboro to 10 E Swainsboro	08	1710EST 1715EST			0	0	2K		Thunderstorm Wind
	Several trees and power lines were knocked down in the areas southeast and east of Swainsboro.								
Jackson County									
Commerce	09	1600EST			0	0	75K		Thunderstorm Wind
	Thunderstorm winds knocked over trees as well as the gate-ticket building at the Atlanta Dragway. A gate was also destroyed.								
Madison County									
Comer to Cedar Grove	09	1630EST			0	0	15K		Thunderstorm Wind
	Thunderstorm winds knocked over two tin chicken houses. A nearby barn also suffered roof damage. 37,000 baby chicks were left homeless.								
Twiggs County									
Tarversville	15	1520EST			0	0	3K		Thunderstorm Wind
	Four to five trees and limbs were blocking portions of Georgia Highway 96 west of Tarversville.								

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
GEORGIA, North and Central									
De Kalb County									
Tucker	15	1705EST			0	0			Hail (0.88)
De Kalb County									
Chamblee to Stone Mtn	15	1710EST 1715EST			0	0	4K		Thunderstorm Wind
The public reported that thunderstorm winds knocked down three pine trees. They were about 2 feet in diameter and 80 to 100 feet tall.									
Spalding County									
Griffin	15	1845EST			0	0			Hail (1.00)
Spalding County									
Griffin	15	1845EST			0	0	250K		Thunderstorm Wind
Several trees were knocked down on houses near the Spalding county airport. The most substantial damage was several aircraft which were parked at the airport. Five planes received irreparable damage with at least three planes flipped onto their backs, and one on its nose. As many as six other aircraft were damaged to a lesser degree due to wind stress on the ropes tying them down , or contact with the other aircraft. One airplane was lifted off the ground, and then carried approximately 70 feet over a fuel truck along the edge of the airport property, landing upside-down on the county fairgrounds.									
The terminal building at the airport also experienced significant damage to its roof. One airplane, a DC-3, awaiting restoration at the field was turned like a wind vane from facing southwest to facing west-northwest. The county fairgrounds to the east of the airport also sustained damages. A free standing ticket booth was destroyed and a storage trailer was toppled along the western edge of the fairgrounds. Further east, five small sets of aluminum bleachers were rolled by the winds and destroyed.									
Oglethorpe County									
Lexington	15	1855EST			0	0	3K		Tstm Wind/Hail
Trees and power lines were knocked down by thunderstorm winds. Marble sized hail was also reported.									
Pike County									
Concord	15	1900EST			0	0	2K		Thunderstorm Wind
Several trees were knocked down on Wood Road near Georgia Highway 18.									
De Kalb County									
Brookhaven to Chamblee	16	1640EST 1658EST			0	0			Hail (1.00)
De Kalb County									
Tucker	16	1705EST			0	0			Hail (1.25)
Gwinnett County									
2 NE Norcross	16	1715EST			0	0			Hail (0.75)
Jefferson County									
Wrens	16	1820EST			0	0	2K		Thunderstorm Wind
Several trees were knocked down on Old Cornith Road by thunderstorm winds.									
Fulton County									
5 E Alpharetta	16	1825EST			0	0	15K		Thunderstorm Wind
Six trees were knocked down and some tree limbs fell onto a home on Jonesbridge Road.									
Forsyth County									
8 S Cumming	16	1832EST			0	0			Hail (0.75)
Wheeler County									
Alamo	16	1900EST			0	0	2K		Thunderstorm Wind
Several trees were knocked down, mainly east of Alamo.									
Paulding County									
10 SW Dallas	16	2000EST			0	0			Hail (0.75)
Butts County									
Jackson	16	2230EST			0	0	3K		Thunderstorm Wind
Several trees were knocked down and power lines were snapped by thunderstorm winds.									
Henry County									
Mc Donough	16	2305EST 2320EST			0	0			Hail (1.00)
Dime to quarter sized hail was reported throughout Mc Donough.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
GEORGIA, North and Central									
Butts County									
Jackson	16	2315EST			0	0	2K		Thunderstorm Wind
			Several trees were knocked down.						
Coweta County									
Newnan	17	0400EST			0	0	1K		Thunderstorm Wind
			A couple of trees were knocked down.						
Cobb County									
Powder Spgs	17	1600EST			0	0	200K		Lightning
			Lightning struck the roof of a home on Brookton Pass. A fire began in the attic area and spread. Although most of the damage was to the roof, smoke and water filled the rest of the structure. However most of the occupants possessions were saved by neighbors.						
Bibb County									
Macon	18	1600EST			0	0	3K		Thunderstorm Wind
			Thunderstorm winds knocked down tree limbs and power lines on the east side of town.						
Henry County									
Mc Donough	22	2220EST			0	0	500K		Lightning
			Lightning struck the Walden Run Apartment complex, setting fire to the attic and third floor apartments. The lower floors suffered only water damage. The apartments, which were only 80 % completed, had no power or utilities.						
Carroll County									
Carrollton	23	0030EST 0300EST			0	0	2K		Flash Flood
			The remnants of Hurricane Danny dumped 1 to 2 inches of rainfall over parts of the county within a couple of hours. Several roads had to be closed due to low lying flooding.						
Haralson County									
Buchanan	23	0030EST 0300EST			0	0	2K		Flash Flood
			Several roads were closed due to flooding.						
Jefferson County									
Zebina to Avera	23	0033EST 0200EST			0	0	200K		Lightning
			Lightning was responsible for at least three house fires in Jefferson County. The first one was reported at approximately 1:33 am in Zebina. Lightning struck a tree and jumped to a nearby home, entering the home through electrical wiring. Several appliances were damaged and the front door was knocked off of its hinges. A second strike at 1:38 am, entered the homes attic, after having struck a nearby tree. Some of the attic's insulation caught fire. The third lightning strike occurred just before 3:00 am. The lightning struck a pecan tree at the corner of a home, then entered the house. The sole occupant was able to escape and drive for help. The house was a total loss.						
Cobb County									
Kennesaw	23	0511EST			0	0	5K		Thunderstorm Wind
			The remnants of Hurricane Danny, which made landfall in south Alabama on Saturday July 19th, moved slowly across the Atlanta metropolitan area in the early morning hours of July 23rd. As it approached north Georgia, a Flash Flood watch was issued for an area north of a line from Peachtree City in Fayette county to Athens in Clark county at 5 pm on the 22nd. This area was extended south to a line from Hamilton in Harris county to Forsyth in Monroe county to Eatonton in Putnam county to Washington in Wilkes county at 10 pm on the 22nd.						
			A severe thunderstorm associated with convective rain bands from the remnants of Danny passed over Kennesaw State University in Cobb county at approximately 6 am on the 23rd. Campus police officers reported a big boom which lasted for a couple of minutes at approximately 6:10 am. Several trees were knocked down at the Administrative building, as well as at the main entrance. Numerous trees were down on Chastain Road, at the intersection of Paulding Avenue and Dallas Drive, on Cobb Avenue, and at the intersection of Dallas Drive and Frey Lake Road. Power lines were also knocked down by falling branches on Frey Lake Road and Dallas Drive. Across the street from the campus, several trees were knocked over. Campus police reported that several pieces of equipment were either blown off of roofs or at least blown over. At least one parked vehicle sustained damage from flying debris. An air conditioning unit was pushed to the edge of a trailer as well.						
Cherokee County									
4 W Canton	23	0545EST			0	0	1K		Thunderstorm Wind
			Several trees were knocked down on Georgia Highway 140.						

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
GEORGIA, North and Central									
De Kalb County									
Decatur	23	0715EST 1000EST			0	0	2K		Flash Flood
Nancy Creek was over its banks during the early morning hours. Minor street flooding was reported.									
Cobb County									
Vinings to Kennesaw	23	0730EST 1100EST			0	0	2K		Flash Flood
Sweetwater Creek was over its banks in several areas. A car was entirely submerged by water on Barrett Parkway and Interstate 575 after the driver attempted to drive into a large puddle. Twelve people from two families had to be evacuated from their duplex apartment due to minor flooding in Kennesaw.									
Fulton County									
Atlanta	23	0730EST 1000EST			0	0	2K		Flash Flood
Flash flooding associated with the remnants of Hurricane Danny caused several roadways to be closed. Six inches of water on roadways resulted in a multi-car pileup and traffic backups.									
Dodge County									
Eastman	25	1700EST			0	0	2K		Thunderstorm Wind
Several trees were knocked down by the Post Office in Eastman as well as along Georgia Highway 117 just south of Eastman.									
Towns County									
Hiawassee	27	1626EST 1630EST			0	0	10K		Tstm Wind/Hail
Quarter sized hail was reported, and several tree limbs and power lines were knocked down. A large limb from a pine tree fell on a trailer, resulting in damage. Several substations were hit by lightning as well, knocking out power to 25,000 customers for 5-6 hours.									
Jefferson County									
3 SE Wadley	27	1730EST			0	0	1.5K		Thunderstorm Wind
Thunderstorm winds knocked down several trees southeast of Wadley.									
Greene County									
5 S Greensboro	27	1742EST			0	0	1K		Thunderstorm Wind
Several trees were knocked down on Georgia highway 44 south of town. Several large tree limbs and power lines were knocked down in the same general area.									
Hancock County									
6 E Sparta	27	1742EST			0	0	2K		Thunderstorm Wind
Several trees and limbs were knocked down by thunderstorm winds in Mayfield.									
Warren County									
Warrenton	27	1742EST			0	0	1.5K		Thunderstorm Wind
Two tree limbs were knocked down on power lines along Georgia Highway 278 in Warrenton.									
Taliaferro County									
10 N Lyneville	27	1752EST			0	0	2K		Thunderstorm Wind
Thunderstorm winds knocked down or twisted off several trees.									
Baldwin County									
Milledgeville to 4 E Milledgeville	27	1806EST			0	0	2K		Thunderstorm Wind
Numerous trees and tree limbs were knocked down by thunderstorm winds. Several power lines were also knocked down in the Eastern portion of Baldwin County.									
Putnam County									
Eatonton	27	1830EST			0	0	2K		Thunderstorm Wind
Several large trees were knocked down in Eatonton.									
Washington County									
Oconee	27	1830EST			0	0	1K		Thunderstorm Wind
Thunderstorm winds knocked down several trees near Georgia Highway 222.									
Wilkinson County									
Toombsboro	27	1835EST			0	0	3K		Thunderstorm Wind
Thunderstorm winds knocked down several trees and power lines.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
GEORGIA, North and Central									
Bibb County									
Macon	27	1850EST			0	0	2K		Thunderstorm Wind
Thunderstorm winds knocked down several trees and power lines.									
Pickens County									
Talking Rock to Ludville	27	1900EST 1915EST			0	0	2K		Tstm Wind/Hail
Several trees and power lines were knocked down in the Talking Rock area. Dime size hail was reported in Ludville.									
Jones County									
Gray	27	1915EST 1935EST			0	0	3K		Thunderstorm Wind
Thunderstorm winds knocked down trees and power lines all over the county.									
Butts County									
7 N Jackson to Jackson	27	1920EST			0	0	2K		Tstm Wind/Hail
Numerous trees and power lines were knocked down across the county by thunderstorm winds. Dime to quarter sized hail was also reported 7 miles north of Jackson.									
Jasper County									
Shady Dale to 1 S Monticello	27	1920EST			0	0	3K		Thunderstorm Wind
Thunderstorm winds knocked trees down in Shady Dale in northern Jasper county and just south of Monticello at Felton McMichael Road.									
Monroe County									
Forsyth	27	1922EST			0	0	2K		Thunderstorm Wind
Several large tree limbs and power lines were knocked down by thunderstorm winds all across the county.									
Gordon County									
Ryo	27	1930EST			0	0	4K		Thunderstorm Wind
Thunderstorm winds knocked down 30 to 40 trees and tree limbs.									
Bleckley County									
Cary	27	1945EST			0	0	1K		Thunderstorm Wind
Thunderstorm winds knocked tree limbs onto power lines on Georgia Highway 112 just south of Cary.									
Lamar County									
10 E Barnesville	27	1950EST 2020EST			0	0	2K		Thunderstorm Wind
Thunderstorm winds blew down a couple of large tree limbs.									
Upson County									
5 SW Thomaston to 10 E Thomaston	27	1955EST 2005EST			0	0	4K		Tstm Wind/Hail
Thunderstorm winds knocked down numerous trees and power lines. The area east of Thomaston to the Monroe county border also recieved dime to nickel sized hail. A mobile home sustained minor damage as well.									
Crawford County									
2 E Roberta to Roberta	27	1956EST 2000EST			0	0	2.3K		Thunderstorm Wind
Thunderstorm winds knocked down several large trees and power lines.									
Peach County									
Byron	27	2000EST			0	0	0.75K		Thunderstorm Wind
Thunderstorm winds knocked down several tree limbs.									
Houston County									
5 N Perry	27	2005EST			0	0	2K		Thunderstorm Wind
Thunderstorm winds knocked down several large tree limbs and power lines.									
Macon County									
Oglethorpe	27	2020EST			0	0	3K		Thunderstorm Wind
Thunderstorm winds knocked a tree down near Georgia Highway 26, and another tree on Head Road off of Georgia Road 49 near Oglethorpe.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
GEORGIA, North and Central									
Marion County									
10 W Buena Vista	27	2100EST			0	0	1K		Thunderstorm Wind
									Thunderstorm winds knocked down several trees.
Webster County									
7 E Preston to Preston	27	2100EST			0	0	2K		Thunderstorm Wind
									Several trees were knocked down by thunderstorm winds to the east of Preston.
Floyd County									
Cave Spg to Rome	28	1320EST 1400EST			0	0	3K		Thunderstorm Wind
									Thunderstorm winds knocked numerous large tree limbs across U. S. Road 411, closing it for several hours. Many of the tree limbs fell onto power lines, knocking out power for more than 3 hours.
White County									
Helen	28	1600EST			0	0	2K		Thunderstorm Wind
									Thunderstorm winds knocked down several trees and power lines.
Lumpkin County									
3 N Dahlonega	28	1624EST			0	0			Hail (1.00)
Newton County									
Covington	28	1721EST 1726EST			0	0			Hail (1.00)
									Dime to quarter sized hail was reported.
De Kalb County									
Tucker	28	1730EST 1735EST			0	0			Hail (0.75)
Walker County									
Chickamauga to La Fayette	28	1730EST 1745EST			0	0	50K		Lightning
									Lightning caused a barn on Glass Mill Road in Chickamauga to burn to the ground, destroying a tractor and a pickup truck parked inside. A large outbuilding on Stanfield Road in LaFayette was also struck by lightning and caught fire, causing \$3,000 in damage at that location. Times are estimated.
Newton County									
Porterdale	28	1734EST 1736EST			0	0			Hail (1.00)
									Dime to quarter sized hail was reported throughout the area.
Chattooga County									
Menlo	28	1745EST			0	0	20K		Thunderstorm Wind
									Thunderstorm winds knocked down large trees onto a church and a residence. Power lines were also downed. The time was estimated.
Newton County									
Covington	28	1745EST 1755EST			0	0			Hail (1.00)
									Dime to quarter sized hail was reported.
Newton County									
Covington	28	1745EST 1750EST			0	0	4K		Thunderstorm Wind
									Thunderstorm winds knocked down several trees.
Gwinnett County									
Lilburn	28	1750EST			0	0	6K		Thunderstorm Wind
									Thunderstorm winds knocked over a 14 year old Bradford Pear tree. Limbs from several pine trees were also snapped.
Gwinnett County									
Lawrenceville	28	1755EST			0	0	2K		Thunderstorm Wind
									Several trees and limbs were knocked down by thunderstorm winds.
Gwinnett County									
5 N Buford	28	1757EST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
GEORGIA, North and Central									
Hall County									
Flowery Branch to Buford	28	1800EST			0	0	2K		Thunderstorm Wind
									Thunderstorm winds knocked down trees and power lines.
Newton County									
7 W Covington	28	1800EST 1820EST			0	0	2K		Tstm Wind/Hail
									Several trees were knocked down by thunderstorm winds. Power and telephone lines were also snapped by falling branches. 5,500 people were without power countywide for more than 2 hours.
Rockdale County									
Conyers	28	1800EST 1820EST			0	0			Hail (0.75)
Walton County									
Walnut Grove	28	1805EST			0	0			Hail (1.00)
Forsyth County									
Cumming	28	1810EST			0	0	3K		Thunderstorm Wind
									Thunderstorm winds knocked down several large trees and power lines on Erin Sosbee Road and Bethelview Road.
Gwinnett County									
Snellville	28	1810EST 1855EST			0	0			Hail (0.75)
Gwinnett County									
Lilburn	28	1815EST 1840EST			0	0			Hail (0.75)
Gwinnett County									
Lilburn	28	1820EST 1850EST			0	0	80K		Lightning
									Within a thirty minute period, lightning struck more than 9 homes and/or businesses in Gwinnett county. Lightning also struck several transformers, leaving more than 5,000 people without power at the height of the storm. Power was restored to most people by 10 pm that evening. At least 5 transformers were damaged.
Gwinnett County									
Norcross	28	1820EST 1850EST			0	0			Hail (0.75)
Gwinnett County									
Buford	28	1830EST 1840EST			0	0	4K		Thunderstorm Wind
									Thunderstorm winds knocked over several large tree limbs, one of which crushed patio furniture.
Gwinnett County									
Stone Mtn	28	1830EST			0	0	3K		Thunderstorm Wind
									Several large tree limbs were blocking Spring Valley Lane.
Henry County									
3 E Hampton	28	1838EST			0	0			Hail (0.75)
De Kalb County									
Doraville	28	1850EST			0	0			Hail (0.75)
									Dime sized hail fell.
De Kalb County									
Doraville	28	1850EST			0	0	3K		Thunderstorm Wind
									Several trees were knocked down.
Henry County									
Stockbridge	28	1855EST 1905EST			0	0			Hail (1.25)
									Dime to half dollar sized hail was reported.
Catoosa County									
Ringgold	28	1900EST			0	0	6K		Thunderstorm Wind
									In the southern portions of the county, thunderstorm winds knocked down trees, power lines and utility poles. Winds were estimated at 60 mph, as shingles were ripped off the roof of Firestation number 2.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>GEORGIA, North and Central</u>									
Henry County									
Stockbridge	28	1900EST			0	0			Hail (1.00)
Henry County									
3 E Hampton	28	1905EST 1910EST			0	0			Hail (1.00)
Dime to quarter sized hail was reported in Ellenwood.									
Murray County									
Chatsworth	28	1915EST			0	0	10K		Thunderstorm Wind
Thunderstorm winds knocked down a couple of trees on Shield Road. A large tree was uprooted and fell on two cars in Rocky Face.									
Jasper County									
Jackson Lake	28	1920EST 1930EST			0	0	2K		Thunderstorm Wind
Thunderstorm winds knocked several trees down by Jackson Dam.									
Whitfield County									
Dalton	28	1925EST			0	0	1K		Thunderstorm Wind
Thunderstorm winds knocked several trees down countywide.									
Butts County									
Flovilla	28	1930EST			0	0	7K		Thunderstorm Wind
Several trees were knocked down, one falling on a car.									
Crawford County									
Roberta	28	2000EST			0	0	25K		Lightning
Lightning apparently struck an electrical box leading to the attic of the manufactured home. The fire which ensued was contained, and damage was confined to the attic area and a washroom and bathroom.									
Dawson County									
2 NE Juno to Juno	28	2230EST			0	0	125K	15K	Thunderstorm Wind
Thunderstorm winds associated with a downburst destroyed one chicken house, and damaged another chicken house and a mobile home. More than 37,000 baby chicks were injured. The surviving chicks were given away, since the owner would not rebuild the lost chicken houses.									
Coweta County									
Sharpsburg	30	1548EST			0	0			Hail (0.88)
Cobb County									
Austell	30	1700EST			0	0	15K		Lightning
Lightning struck a petroleum tank, causing fumes to ignite. The seven million gallon gas tank contained a little more than 6.1 million gallons when it ignited.									
<u>GEORGIA, Northeast</u>									
Rabun County									
Mountain City	04	1912EST			0	0			Thunderstorm Wind (G50)
Habersham County									
Countywide	04	1930EST			0	0			Hail (0.75)
Habersham County									
Countywide	04	1930EST			0	0			Thunderstorm Wind (G50)
Rabun County									
13 E Mountain City	04	1930EST			0	0			Thunderstorm Wind (G50)
Stephens County									
Countywide	04	2000EST			0	0			Thunderstorm Wind (G50)
Severe thunderstorms blew across far northeast Georgia on the evening of the Fourth, producing damaging winds and some large hail. Trees and power lines were downed across much of the above mentioned counties. Trees partially blocked Highway 28 east of Mountain City for a short time. A billboard was blown over along Highway 17 in Stephens county.									
Elbert County									
7 NE Elberton	15	1821EST			0	0	20K		Thunderstorm Wind (G50)
Severe thunderstorm winds blew one roof off a chicken house and caused another chicken house to cave in, resulting in a loss of 5000 chicks.									

Storm Data and Unusual Weather Phenomena

July 1997

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

Franklin County

8 W Carnesville 17 1445EST 0 0 **Hail (0.75)**
An isolated severe thunderstorm produced large hail.

Rabun County

Countywide 23 1230EST
1400EST 0 0 **Flash Flood**

The remnants of Hurricane Danny moved across northeast Georgia shortly after noon on the 23rd. Heavy rain across Rabun county caused area streams and creeks to rise out of their banks. Flood waters washed a car into the Tallulah River.

Habersham County

4 S Tallulah Falls 28 1630EST 0 0 **Hail (0.88)**

Habersham County

4 S Tallulah Falls 28 1630EST 0 0 **Thunderstorm Wind (G50)**

Stephens County

Countywide 28 1650EST 0 0 **Thunderstorm Wind (G50)**

Severe thunderstorms produced damaging winds that downed a few trees in Habersham county and quite a number of trees and power lines across Stephens county. Nickel size hail fell in Habersham county.

GEORGIA, Southeast

Bulloch County

5 N Leefield 03 2140EST
2145EST 0 0 **Thunderstorm Wind (G55)**
Numerous trees down

Bulloch County

5 N Leefield 03 2141EST
2146EST 0 0 **Hail (2.00)**

Mcintosh County

3 N Darien to
5 NE Darien 05 1330EST
1334EST 0 0 **Hail (0.75)**

Chatham County

10 S Savannah 09 1540EST
1544EST 0 0 **Hail (1.00)**

Chatham County

Thunderbolt 16 1353EST
1400EST 0 0 **Tstm Wind**
Several trees down.

Chatham County

Thunderbolt 16 1353EST
1400EST 0 0 **Hail (1.75)**

Chatham County

Savannah 17 1750EST
1800EST 0 0 **Thunderstorm Wind (G50)**
Several trees down.

Chatham County

Savannah 17 1755EST 0 0 **Lightning**
Lightning caused several house fires.

GEORGIA, Southwest

Colquitt County

Moultrie 05 0755EST
0855EST 0 0 **Hail (0.75)**

Tift County

Tifton 05 0825EST
0830EST 0 0 2K **Thunderstorm Wind**

Irwin County

Irwinville 05 0900EST 0 0 **Hail (0.75)**

Storm Data and Unusual Weather Phenomena

July 1997

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

The Tift County Sheriffs office reported 1 tree and several power lines down.

Randolph County

Cuthbert	05	1515EST			0	0	0.80K		Thunderstorm Wind
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Several trees were blown down on Howell Mills Rd. and Silver Mill Rd. in Cuthbert.

GEORGIA, West Central

Muscogee County

Columbus	23	1930EST 2030EST			0	0	0	0	Funnel Cloud
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A funnel cloud was reported by storm spotters over eastern sections of Columbus.

Muscogee County

7 S Columbus	25	2020EST			0	0	3K	0	Thunderstorm Wind (G50)
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Trees and power lines were down along Moye Road in the southern part of the county.

Chattahoochee

County

Cusseta	25	2030EST			0	0	4K	0	Thunderstorm Wind (G50)
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Trees and power lines were down in Cusseta.

GAZ089

Muscogee

31		0600EST			0	0	0	0	Extreme Cold
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A record low of 66 degrees was set at the Columbus Airport.

HAWAII

HIZ004

Island Of Hawaii

08		0900HST			0	0			High Wind (G72)
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09		0600HST							
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Easterly winds of 45 to 55 mph with gusts to 83 mph were recorded at the United Kingdom observatory atop Mauna Kea.

Hawaii County

Hilo to Naalehu	29	2130HST			0	0			Urban/Sml Stream Fld
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Rainfall rates of 1 to 2 inches per hour occurred across the Hamakua, Hilo, Puna, and Kau Districts with widespread minor street flooding and stream flooding north of Hilo where some streams were blocked by debris.

Maui County

East Portion	30	0115HST 0630HST			0	0	49K		Flash Flood
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High water washed away a culvert bridge leaving a 20 foot gap in Waha Place road leading to a cul-de-sac off of Ulumalu Road between the Hana Highway and Five Corners. 10 families living in homes around the cul-de-sac were stranded for about 9 hours. At 2:30 a.m., a house was severely flooded by a debris blocked stream in the Honopua area on the mountain side of Hana Highway just before Twin Falls. Contents of the house and a pickup truck were destroyed. The Hana Highway was blocked in several spots by landslides, and the Piilani Highway was closed due to high water and damage by erosion between Kipahulu and Kaupo.

Hawaii County

Hilo to Naalehu	30	0620HST 1115HST			0	0			Flash Flood
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Several houses in the Hilo and Puna Districts had flooded basements or ground floors. About a dozen cars were flooded out near Pauahi Street and Kamehameha Avenue in Hilo. In Puna, North Kulani Road, Hawaiian Acres and Fern Acres subdivisions were flooded. The Hawaiian Belt Road through the Kau District was flooded out in several locations between Naalehu and Pahala.

Maui County

Hana	30	0630HST 1445HST			0	0			Urban/Sml Stream Fld
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Minor flooding of the Piilani Highway south from Hana to Kipahulu.

Hawaii County

Papa to Naalehu	30	1115HST 1700HST			0	0			Urban/Sml Stream Fld
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Minor road flooding was reported in the South Kona District and the south part of the Kau District near Naalehu.

Showers and scattered thunderstorms associated with a tropical disturbance tracking to the south of the islands of Hawaii and Maui brought copious amounts of rain to parts of both islands late on the 29th and the 30th. In the 24 hour period ending at 2 p.m.

Storm Data and Unusual Weather Phenomena

July 1997

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

HAWAII

on the 30th, the following rainfall amounts were recorded: Glenwood, 12.27 inches, Mountain View, 11.98 inches, Waiakea Uka, 10.79 inches, Pahala, 8.65 inches, Piihonua, 8.01 inches, Laupahoehoe, 7.43 inches, and Hilo, 7.06 inches.

HIZ001>006

Kauai - Oahu - Maui - Island Of Hawaii - Molokai - Lanai

31	1700HST 2359HST				0	0			High Surf
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A combination of swells generated in the western Pacific and south Pacific produced surf heights of 3 to 6 feet with occasional sets to 8 feet along the south and southwest facing shores of the islands.

IDAHO, Extreme Southeast

NONE REPORTED.

IDAHO, North

Clearwater County

19	1720PST 1730PST				0	0			Thunderstorm Wind (G52)
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Numerous trees were blown over across Idaho state highway 11 between Weippe and Pierce.

IDAHO, Northwest

Latah County

10	1750PST				0	0	0	0	Tstm Wind/Hail
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Spotter reported 1/2 hail which covered the ground

Kootenai County

21	1620PST				0	0	10K	0	Tstm Wind/Hail
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Local newspaper reported 50 mph wind and trees that fell across a home

Nez Perce County

21	1634PST				0	0	0	0	Lightning
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Local paper reported 300 acre grass fire started by lightning

Shoshone County

31	1455PST				0	0	0	0	Hail (0.75)
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Spotter reported 3/4 inch hail

Shoshone County

31	1508PST				0	0	0	0	Hail (0.75)
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Spotter reported 3/4 inch hail that accumulated 3 inches.

Nez Perce County

31	1750PST				0	0	0	0	Thunderstorm Wind (G65)
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Spotter reported 65 mph wind gust

Nez Perce County

31	1836PST				0	0	0	0	Tstm Wind/Hail
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Spotter reported 55 mph gust

IDAHO, Southeast

Bannock County

02	1743MST 1745MST				0	0			Funnel Cloud
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Brief funnel cloud near Pebble Ski area.

Bingham County

09	1546MST				0	0			Dry Microburst
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Bingham County

09	1600MST 1630MST				0	0			Thunderstorm Wind (G53)
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A sudden wind storm associated with a thunderstorm blew down several trees, interrupted electrical service and knocked out a glass window in one home. Most of the damage occurred near Pioneer and Wilson Roads. Idaho Power Company spokesman said strong winds damaged a kilovolt transmission line, cutting power to 280 customers in the Pingree area. High winds also ripped through the Thomas area, collapsing two chain link baseball diamond backdrops near Snake River High school.

Bonneville County

09	1600MST				0	0			Dry Microburst
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Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property Crops	Character of Storm
IDAHO, Southeast								
Jefferson County								
3.5 E Roberts	09	1630MST			0	0		Thunderstorm Wind (G52)
								Wind blew 70 foot section of wall off shed.
Caribou County								
11 N Soda Spgs	10	1425MST 1430MST			0	0		Hail (0.75)
Cassia County								
Strevell	10	1440MST			0	0		Hail (1.00)
Bannock County								
Pocatello	11 12	1300MST 1300MST			0	0		Heavy Rain
								1.26 inches of rain along Pocatello Creek Rd.
Blaine County								
2 S Bellevue	15	1700MST			0	0		Lightning
								Lightning knocked out a power pole along Glendale Road.
Power County								
5 S Arbon	24	1500MST			0	0		Heavy Rain
								Heavy rain produced some local flooding with 3 to 4 inches across Arbon Highway.
Bannock County								
Pocatello	25	1540MST 1628MST			0	0		Heavy Rain
								0.80 inch of precipitation along Pocatello Creek.
Bannock County								
Pocatello	25	1600MST 1640MST			0	0		Urban/Sml Stream Fld
								Heavy runoff around town flooded many streets including Center Street Underpass. A home on Sherman and Harrison Streets had water in the basement. Cars stalled in the water on 7th and 8th Streets.
Bonneville County								
Idaho Falls	25	1830MST 1900MST			0	0		Urban/Sml Stream Fld
								0.50 or more rain in one hour has flooded many streets, underpasses and other low spots around Idaho Falls.
Bannock County								
Pocatello	28	1646MST 1725MST			0	0		Urban/Sml Stream Fld
								Up to 0.82 inch of rain reported in north part of Chubbuck. Several streets in Pocatello and Chubbuck flooded including North Main and North Harrison.
Bingham County								
Blackfoot	28	1715MST			0	0		Urban/Sml Stream Fld
								Heavy rains flooded a few streets in Blackfoot. Some residents in low lying areas reported water in homes.
IDAHO, Southwest								
Payette County								
Payette	17	1625MST			0	0		Thunderstorm Wind (G52)
Washington County								
Weiser	17	1645MST			0	0		Thunderstorm Wind (G52)
Washington County								
Midvale	17	1705MST			0	0		Mudslide
								During the late afternoon of July 17th, a severe thunderstorm formed over southeast Oregon and moved into southwest Idaho . In Payette County, the county sheriff reported large tree branches and power lines down. In the Washington County town of Weiser 60 mph wind gusts were reported. Also in Washington County heavy rain from the thunderstorm washed rocks over highway 97 blocking one lane of that road.
Owyhee County								
Grandview	29	1355MST			0	0		Thunderstorm Wind (G50)
Elmore County								
18 W Mountain Home	29	1415MST			0	0		Hail (0.88)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>IDAHO, Southwest</u>									
Elmore County									
12 NW Mountain Home	29	1448MST			0	0			Hail (0.75)
During the afternoon of July 29th, a severe thunderstorm formed over Owyhee County and moved to the northeast into Elmore County. The storm produced damaging winds which snapped off three inch diameter tree branches in Grandview. Nickel size hail was reported in southern Elmore County, and 3/4 inch hail and a 52 mph wind gust was reported northwest of Mountain Home, Idaho.									
Owyhee County									
25 SE Bruneau	31	1430MST 2359MST			0	0			Wild/Forest Fire
Ada County									
Boise	31	1620MST			0	0			Thunderstorm Wind (G50)
Ada County									
5 E Boise	31	1640MST			0	0			Lightning
During the afternoon of July 31st a thunderstorm formed over the Owyhee Mountains of southwest Idaho and moved into the Boise area. lightning from this storm triggered a 530 acre range fire in Owyhee County and sparked a fire which burned a house down east of Boise. Winds from this storm peeled off shingles and damaged siding on a house in southeast Boise, and short circuited an electric sign causing a fire which damaged a restaurant in Boise.									
<u>ILLINOIS, Central</u>									
Moultrie County									
Bethany	06	2020CST			0	0			Hail (1.00)
Champaign County									
Mahomet	14	1300CST			0	1	3.5K	0	Lightning
Lightning struck a television antenna on a home in Mahomet. It travelled through the roof and knocked a man out of his wheelchair. He only suffered minor injuries and was treated and released from a local hospital. The lightning strike caused approximately \$3,500 in damage to the roof.									
Champaign County									
Sidney	14	1341CST			0	0		0	Thunderstorm Wind
Thunderstorm winds blew down numerous tree limbs and power lines in Sidney.									
Shelby County									
3 SW Lakewood	14	1405CST			0	0			Hail (1.00)
Vermilion County									
Danville	14	1410CST			0	0		0	Thunderstorm Wind
Thunderstorm winds blew down two large trees in Danville. One tree fell onto a garage causing moderate damage and the other one fell onto a car. No injuries were reported and no damage estimate was available.									
Coles County									
Charleston	14	1435CST			0	0			Hail (0.75)
Effingham County									
Altamont	14	1446CST			0	0		0	Thunderstorm Wind
Thunderstorm winds blew down several large trees in Altamont.									
Jasper County									
Falmouth to Newton	14	1518CST 1520CST			0	0		0	Thunderstorm Wind
A line of thunderstorms moved through Jasper County. The storms knocked down several trees in the Falmouth and Newton areas.									
Clay County									
5 NW Flora	14	1533CST			0	0			Hail (0.75)
Crawford County									
1 W Robinson to Flat Rock	14	1538CST 1550CST			0	0		0	Thunderstorm Wind (G50)
Severe thunderstorms moved through Crawford County knocking down numerous trees, tree limbs and power lines in the Robinson, Palestine, and Flat Rock areas. In Palestine, a large tree was blown down onto a garage destroying it and caused minor damage to the house next door. No injuries were reported and no damage estimate was available.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
ILLINOIS, Central									
Richland County									
Olney	14	1605CST			0	0	0		Thunderstorm Wind
Thunderstorms blew down several trees, tree limbs, and power lines in Olney. No injuries were reported and no damage estimate was available.									
Mclean County									
2 N Heyworth	18	1610CST			0	0			Hail (1.75)
Vermilion County									
Hoopeston to Danville	18	1632CST 1707CST			0	0	0.20K	0	Thunderstorm Wind
Thunderstorm winds blew down numerous trees in Hoopeston and Danville. One tree in Hoopeston fell near a business...breaking several windows in the building. No injuries were reported and damage was estimated around \$200.									
Knox County									
Galesburg	19	1529CST 1610CST			0	0			Thunderstorm Wind
A series of severe thunderstorms moved through Galesburg over a 40 minute period. The storms blew down numerous trees, tree limbs, and power lines. One tree fell onto an unoccupied house. No injuries were reported and no damage estimate was available.									
Fulton County									
Canton to Cuba	19	1640CST 1642CST			0	0			Thunderstorm Wind
Thunderstorms winds blew down numerous trees in Canton and Cuba. One tree fell onto a garage in Cuba, causing minor damage. No injuries were reported and no damage estimate was available.									
Fulton County									
Lewistown	19	1659CST			0	0			Hail (1.00)
Fulton County									
Lewistown to Sepo	19	1700CST 1707CST			0	0			Thunderstorm Wind
Thunderstorm winds blew down numerous trees, tree limbs, and power lines in Lewistown and in Sepo. No injuries were reported and no damage estimate was available.									
Mason County									
Havana	19	1709CST 1730CST			0	0			Thunderstorm Wind
A series of severe thunderstorms moved through the Havana area. Numerous trees were blown down, one of which fell onto the roof of a house 2 miles south of Havana. Also, some minor street flooding was reported due to the heavy amounts of rain in a short period of time. No injuries were reported and no damage estimate was available.									
Menard County									
Greenview	19	1732CST			0	0			Thunderstorm Wind
Numerous trees and tree limbs were blown down in the Greenview area.									
Menard County									
Athens	19	1825CST			0	1			Thunderstorm Wind
Thunderstorm winds blew a tent over in a park in Athens resulting in a minor injury to one person. Also, numerous power lines and tree limbs were blown down. No other injuries were reported and no damage estimate was available.									
De Witt County									
2 S Farmer City	21	1258CST			0	0			Thunderstorm Wind
Thunderstorm winds blew down a large tree onto power lines 2 miles south of Farmer City. No injuries were reported and no damage estimate was available.									
Piatt County									
1 NE White Heath	21	1430CST			0	0			Thunderstorm Wind
Thunderstorm winds blew down a large tree onto some power lines 1 mile northeast of White Heath. No injuries were reported and no damage estimate was available.									
ILZ027>031-036>038-040>057-061>063-066>068-071>073									
Knox - Stark - Peoria - Marshall - Woodford - Fulton - Tazewell - Mclean - Schuyler - Mason - Logan - De Witt - Piatt - Champaign - Vermilion - Cass - Menard - Scott - Morgan - Sangamon - Christian - Macon - Moultrie - Douglas - Coles - Edgar - Shelby - Cumberland - Clark - Effingham - Jasper - Crawford - Clay - Richland - Lawrence									
	26	0900CST			2	0			Excessive Heat
	27	1900CST							

Storm Data and Unusual Weather Phenomena

July 1997

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

ILLINOIS, Central

A brief heat wave hit Central Illinois persisting for a little less than 48 hours from July 26th to July 27th. Temperatures ranged from 95 to 100 degrees both days with heat index values ranging from 105 to 115 degrees. One man died while working in farm fields near Danville (Vermilion County) and an elderly woman died in her home in Bloomington (McLean County). There were numerous reports of heat related injuries in most area hospitals. Also, there were numerous reports of roads buckling due to the high temperatures. F70PH, M64OU

ILLINOIS, Northeast

Iroquois County

Ashkum	14	1450CST			0	0			Thunderstorm Wind (G59)
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Thunderstorms produced wind gusts to 65 mph.

ILZ014

Cook

14	1830CST			5	0			Excessive Heat
18	1000CST							

From July 14th through July 18th, temperatures were in the upper 80s and middle 90s (with heat indices reaching 100 degrees) causing heat-related deaths throughout the Chicago area.
M72PH, F80PH, M54PH, F85PH, F34VE

Du Page County

Wayne to 5 ESE Wayne	18	0610CST 0625CST			0	0			Thunderstorm Wind (G55)
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A strong thunderstorm moved east from Wayne through Carol Stream, produced wind gusts to 63 mph.

Cook County

Chicago to Lincolnwood	18	1200CST 1215CST			0	0			Hail (1.00)
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A lake breeze developed late in the morning, and began firing off afternoon thunderstorms about 10 miles inland from the lake. These storms produced hail up to 1 inch in diameter, strong winds, and heavy rain.

Winnebago County

Rockford	18	1340CST			0	0			Thunderstorm Wind (G52)
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Mchenry County

Countywide	18	1350CST			0	0			Thunderstorm Wind (G50)
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Boone County

Countywide	18	1400CST			0	0			Thunderstorm Wind (G50)
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La Salle County

Countywide	18	1400CST			0	0			Thunderstorm Wind (G50)
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Lake County

Countywide	18	1410CST			0	0			Thunderstorm Wind (G50)
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De Kalb County

Countywide	18	1415CST 1430CST			0	0			Thunderstorm Wind (G50)
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Strong winds downed trees at Rt. 64 and Annie Glidden and overturned a small airplane at DeKalb Municipal Airport.

Will County

Peotone	18	1415CST			0	0			Hail (1.75)
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Hail measuring 1.75 inches in diameter, damaged a police car at I-57 and Harlem, just north of Peotone.

Du Page County

St Charles to Lisle	18	1429CST 1450CST			0	0	0		Hail (1.75)
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An area of strong to severe thunderstorms moved into north central Illinois in the early afternoon and moved southeast through the Chicago suburbs during the mid-afternoon and exited Kanakakee and Iroquois counties by late afternoon. There were numerous reports of tree limbs or trees blown down and power lines downed. Two small tornadoes or gustnadoes were embedded in the strong winds - one in Wheaton and one in Mokena (see separate narratives). Some wind gust reports were: 60 mph in Rockford, 65 mph at St. Charles, 60 mph at DuPage Airport in West Chicago and 63 mph in Joliet. Buildings and homes had some structural damage in Winfield, Glendale Heights and Carol Stream in DuPage County.

Storm Data and Unusual Weather Phenomena

July 1997

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

ILLINOIS, Northeast

Du Page County

Wheaton	18	1430CST	3	150	0	0			Tornado (F1)
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The tornado path started near Cantigny at Roosevelt Road and ended just southeast of the Danada Shopping Center at Naperville Road and Butterfield Road.

Extensive damage occurred at the Danada Square West shopping center, where windows were blown out. Many large trees were downed and a large tree was uprooted. A few houses sustained some structural damage, with one house condemned because of major structural damage. Several houses also incurred damage to fences, decks, roofs and windows. One house lost its garage door and part of the wall to the storm.

Kane County

Countywide	18	1435CST			0	0			Thunderstorm Wind (G50)
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Cook County

Lemont	18	1445CST			0	0			Thunderstorm Wind (G52)
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Kendall County

Countywide	18	1445CST			0	0			Thunderstorm Wind (G50)
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Trees and power lines were downed countywide.

Will County

Mokena	18	1450CST	2	150	0	2			Tornado (F1)
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A tornado was observed along a 2-mile path in a northwest to southeast track from about I-80 at 104th Avenue across 191st Street, across Rt 45 into the Arbury Hills Subdivision east of Mokena.

The greatest damage occurred on I-80; where a semi was blown off the road and two people were injured in the truck. Just south of I-80, a horse barn was destroyed and another lifted off of the ground. Extensive damage was observed at an RV dealership on 191st street where a 7000 lb. trailer was lifted off of the ground and piled atop two other trailers. Also, along one block of Catalpa Street in the Arbury Hill Subdivision where two houses sustained enough roof damage to be declared uninhabitable. There was also extensive tree damage in the subdivision.

Will County

Joliet	18	1500CST			0	0			Thunderstorm Wind (G58)
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Grundy County

Countywide	18	1505CST			0	0			Thunderstorm Wind (G50)
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Cook County

Midlothian	18	1510CST			0	0			Thunderstorm Wind (G52)
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Will County

Frankfort	18	1539CST			0	0			Thunderstorm Wind (G50)
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Kankakee County

Countywide	18	1540CST			0	0			Thunderstorm Wind (G50)
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Iroquois County

Countywide	18	1610CST 1645CST			0	0			Thunderstorm Wind (G50)
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Mchenry County

Woodstock	26	1740CST			0	0			Thunderstorm Wind (G50)
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Lake County

Antioch to Wauconda	26	1800CST			0	0			Thunderstorm Wind (G50)
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Kane County

Carpentersville	26	1802CST			0	0			Thunderstorm Wind (G64)
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Cook County

Schaumburg	26	1818CST			0	0	0	Thunderstorm Wind (G56)	
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Severe thunderstorms produced strong winds across the far northern suburbs. Wind gusts to 65 mph damaged trees and downed power lines. Nickel-sized hail was reported in Mt. Prospect, in northern Cook County.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
ILLINOIS, Northeast									
Cook County									
Mt Prospect	26	1825CST			0	0			Hail (0.88)
Grundy County									
Morris	27	1742CST			0	0	20K		Thunderstorm Wind (G68)
A strong thunderstorm produced heavy rain and strong winds, with gusts to 78 mph at the Grundy County Emergency Operations Center. Several rooftops were removed on the west side of Morris with the debris landing as much as a block away. Power lines were downed, causing power outages for up to 24 hours. Some trees were uprooted and numerous large tree branches were downed, causing structural and vehicle damage.									
ILZ014									
Cook									
	28	0815CST			1	0			Excessive Heat
From July 26th to July 27th, temperatures were in the middle or upper 90s (with heat indices over 100 degrees) and caused a heat-related death of an elderly man in his home. M60PH									
ILLINOIS, Northwest									
Rock Island County									
East Moline	19	1440CST			0	0			Thunderstorm Wind (G52)
Numerous reports of large tree limb damage.									
Rock Island County									
Reynolds	19	1440CST			0	0			Thunderstorm Wind (G52)
Numerous reports of large tree limb damage.									
Mercer County									
Viola	19	1445CST			0	0			Thunderstorm Wind (G60)
Three foot diameter tree downed over highway 67.									
Mercer County									
Viola	19	1445CST			0	0			Thunderstorm Wind (G60)
Building damaged.									
Mercer County									
Aledo	19	1457CST			0	0			Thunderstorm Wind (G60)
Trees and power lines down.									
Mercer County									
Gilchrist	19	1500CST			0	0			Thunderstorm Wind (G60)
Storage building missing.									
Mercer County									
Viola	19	1500CST			0	0			Thunderstorm Wind (G70)
Shed moved and car lifted off the road.									
Mercer County									
Matherville	19	1505CST			0	0	5K		Thunderstorm Wind (G60)
Cornfield flattened near highway 17. Large trees downed.									
Mercer County									
Countywide	19	1530CST			0	0			Thunderstorm Wind (G60)
Trees and power lines downed all over the county.									
Warren County									
Shanghai	19	1550CST			0	0			Thunderstorm Wind (G52)
Large tree limbs down on road.									
Mcdonough County									
Blandinsville	19	1635CST	0	0	0	0			Tornado (F0)
Tornado sighted but no damage or injuries reported.									
Mcdonough County									
Blandinsville	19	1705CST			0	0			Thunderstorm Wind (G60)
High winds reported and power lines flattened.									
Mcdonough County									
Sciota	19	1721CST			0	0			Thunderstorm Wind (G52)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>ILLINOIS, Northwest</u>									
Whiteside County									
10 W Coleta	20	2238CST			0	0			Hail (0.75)
Hail near route 78.									
ILZ001>002-007-009-015>018-024>026-034>035									
Jo Daviess - Stephenson - Carroll - Whiteside - Rock Island - Henry - Bureau - Putnam - Mercer - Henderson - Warren - Hancock - McDonough									
	25	0400CST			0	0			Excessive Heat
	27	2000CST							
Heat and high humidity teamed together produced excessive heat index values reaching 105 to 110 during the day. This came in the middle of an otherwise much cooler than normal summer and many claimed that their bodies were not properly acclimated and therefore unprepared for the sudden spike in temperatures and humidity.									
Rock Island County									
1 N Coal Vly	27	1610CST 1615CST	0.1	10	0	0			Tornado (F0)
A weak tornado spun up just southeast of the I80/I74/I280 interchange. No damage was reported.									
Warren County									
Smithshire	27	1720CST			0	0	10K		Thunderstorm Wind (G50)
Tree down on car. Numerous power lines down.									
Scattered thunderstorms produced a few severe wind gusts and one weak tornado which formed along the line of storms.									
<u>ILLINOIS, South</u>									
ILZ075>078-080>094									
Jefferson - Wayne - Edwards - Wabash - Perry - Franklin - Hamilton - White - Jackson - Williamson - Saline - Gallatin - Union - Johnson - Pope - Hardin - Alexander - Pulaski - Massac									
	02	1200CST 1700CST			1	0			Excessive Heat
Temperatures rose well into the 90s, and high humidity raised the heat index to between 105 and 110 degrees. Near Carmi, a 32-year-old male construction worker died as a result of the heat. The man's body temperature was 106 degrees. The coroner ruled that the man, who alternated between digging and operating a backhoe, was primarily a victim of the heat and humidity. The heat index at Evansville at the time of death was 105 degrees.									
M32EQ									
Alexander County									
4 S Mc Clure	04	0100CST			0	0			Thunderstorm Wind (G52)
A few trees were blown down.									
Pulaski County									
Villa Ridge	08	1840CST 1900CST			0	0			Thunderstorm Wind (G52)
A large tree was blown across railroad tracks near Villa Ridge. A couple of trees were down east of Pulaski.									
Pulaski County									
Perks	08	1910CST			0	0			Funnel Cloud
A funnel cloud was observed at Perks.									
Jefferson County									
Mt Vernon	14	1515CST 1615CST			0	0	5K		Urban/Sml Stream Fld
As many as six cars stalled in a flooded intersection. The water was up to two feet deep, causing some vehicles to float. Optimist Park was flooded, prompting the closure of a road there. Only one flooded basement was reported. An observer measured 2.11 inches of rain in a short time.									
Jefferson County									
6 W Mt Vernon to Mt Vernon	14	1546CST 1556CST			0	0	15K		Thunderstorm Wind (G52)
Numerous trees and power lines were blown down across the county, including Mt. Vernon.									
Wayne County									
2 NW Fairfield	14	1612CST			0	0	3K		Thunderstorm Wind (G52)
Reported by Illinois ESDA. A few trees were down. Food booths at the county fair were toppled. Scraps of metal from livestock barns were blown around the fairgrounds.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
ILLINOIS, South									
Hamilton County									
Dahlgren	14	1630CST			0	0	8K		Thunderstorm Wind (G52)
Eight large trees were blown down. Roads were blocked.									
Wayne County									
Wayne City to Cisne	14	1630CST 1640CST			0	0	5K		Thunderstorm Wind (G52)
Trees and power lines were blown down.									
Jackson County									
Murphysboro to De Soto	14	1636CST 1710CST			0	0	3K		Thunderstorm Wind (G50)
Tree limbs and power lines were down in Murphysboro, De Soto, and near Elkhville.									
Jackson County									
De Soto	14	1650CST			0	0			Hail (0.75)
Edwards County									
Albion to West Salem	14	1640CST			0	0	4K		Thunderstorm Wind (G50)
Trees were blown down.									
Williamson County									
Marion	14	1700CST			0	0	5K		Thunderstorm Wind (G50)
Lots of power lines were down. High winds collapsed part of a wall on a building.									
Franklin County									
Benton	14	1716CST			0	0	3K		Thunderstorm Wind (G50)
Trees were down.									
Saline County									
Harrisburg	14	1730CST			0	0	5K		Thunderstorm Wind (G50)
Power lines were down.									
Wabash County									
Allendale	14	1745CST			0	0	5K		Thunderstorm Wind (G52)
Branches and a couple of trees were blown down. Some fell on power lines.									
Union County									
Anna	14	1750CST			0	0	4K		Thunderstorm Wind (G50)
A utility pole was down.									
Pope County									
Golconda	14	1800CST			0	0	4K		Thunderstorm Wind (G50)
Power lines were down.									
Johnson County									
New Burnside	14	1810CST			0	0	7K		Thunderstorm Wind (G52)
Trees and power lines were blown down.									
Pulaski County									
Pulaski to Grand Chain	14	1815CST 1830CST			0	0	4K		Thunderstorm Wind (G50)
Trees were down at scattered locations.									
Massac County									
Metropolis	14	1842CST			0	0	5K		Thunderstorm Wind (G50)
Tree limbs and power lines were down. A gust to 57 MPH was measured.									
Alexander County									
Cairo	14	1849CST			0	0	5K		Thunderstorm Wind (G50)
Downed tree limbs blocked some side streets and may have damaged some houses. The wind knocked out power in Cairo for at least 90 minutes. Several restaurant signs were downed.									
Alexander County									
Cairo	14	1857CST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
ILLINOIS, South									
Pope County									
Bay City	14	1915CST 1945CST			0	0			Flash Flood
Radar and satellite data estimated about 2 inches of rain fell in two hours. The Bay City blacktop road was covered by water.									
Gallatin County									
Omaha	19	1600CST			0	0	5K		Thunderstorm Wind (G52)
Trees and power lines were down in northwest Gallatin County.									
White County									
Norris City	19	1630CST			0	0	4K		Thunderstorm Wind (G52)
Thunderstorm winds broke off a light pole at the high school track field.									
Saline County									
Galatia	19	1656CST			0	0	3K		Thunderstorm Wind (G50)
Power lines were downed.									
Williamson County									
Marion	19	1750CST 1915CST			0	0			Urban/Sml Stream Fld
Considerable flooding of streets occurred. Emergency management and a cooperative observer measured 2 to 2.5 inches of rain in an hour.									
ILZ075>078- 080>094									Jefferson - Wayne - Edwards - Wabash - Perry - Franklin - Hamilton - White - Jackson - Williamson - Saline - Gallatin - Union - Johnson - Pope - Hardin - Alexander - Pulaski - Massac
	25	1100CST			0	12			Excessive Heat
	28	1900CST							
High temperatures rose well into the 90s, with even a few 100 degree readings. High humidity pushed heat index values to between 105 and 115 degrees. A heat advisory was issued for the potentially hazardous conditions. Area hospitals reported at least a half dozen cases of dehydration or other heat-related illnesses. An increase in the number of disabled vehicles was reported, as well.									
ILLINOIS, Southwest									
Fayette County									
Ramsey	14	1420CST			0	0			Thunderstorm Wind (G50)
The County Sheriff reported trees down in Ramsey.									
Fayette County									
Brownstown	14	1430CST			0	0			Thunderstorm Wind (G50)
The Illinois State Police reported trees down in the Brownstown area.									
Clinton County									
Albers	14	1500CST			0	0			Thunderstorm Wind (G50)
The County Sheriff reported trees and power lines down in Albers.									
Clinton County									
Germantown	14	1510CST			0	0			Thunderstorm Wind (G50)
The County Sheriff reported trees and power lines down along Route 161 in the Germantown area.									
Pike County									
Barry	19	1310CST			0	0			Thunderstorm Wind (G50)
The County Sheriff reported trees down in Barry.									
Adams County									
Camp Pt	19	1345CST			0	0			Hail (1.00)
Skywarn spotters reported 1 inch hail and trees down in Camp Point.									
Adams County									
Camp Pt	19	1345CST			0	0			Thunderstorm Wind (G50)
Monroe County									
Ames	27	1359CST			0	0			Thunderstorm Wind (G50)
The County Sheriff reported trees down allong Ames Road.									
Monroe County									
County	27	1430CST			0	0			Urban/Sml Stream Fld
Rainfall of 3 to 4 inches in about 2 hours caused road flooding across the southern part of Monroe County. Up to 2 feet of water covered some roads for a short time between Renault and Ames.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
ILLINOIS, Southwest									
Adams County									
Quincy	27	1840CST			0	0			Thunderstorm Wind (G50)
The Adams County Sheriff reported trees large trees down in Quincy.									
INDIANA, Central									
Hamilton County									
3 E Noblesville to 3.5 NE Noblesville	02	1512EST 1514EST	0.5	75	0	0	10K	1K	Tornado (F0)
Brief touchdown of a weak tornado just east of Noblesville near Durbin damaged a barn and outbuilding and blew down several trees.									
Madison County									
Anderson Jessup Arpt	02	1527EST 1528EST			0	0			Thunderstorm Wind (G60)
Downburst winds from tornadic storm measured at 60 knots by airport anemometer.									
Madison County									
Anderson Muni Arpt	02	1527EST 1528EST			0	0			Hail (2.00)
Madison County									
Anderson	02	1540EST 1548EST	5	110	0	0	600K	10K	Tornado (F2)
The same supercell that produced the weak tornado in Hamilton county also produced this tornado. This strong tornado initially began as three funnels which merged to one tornado about when it touched down on the southwest side of Anderson near exit 22 of Interstate 69. The tornado proceeded east-southeast for 5 miles, damaging 35 homes, five with major damage, and also one business. Over 50 trees were blown down, numerous power lines were blown down, and two grain silos were tipped over before the tornado lifted near Emporia. Due to advance warning and good visibility that day, everyone in the path of the tornado were aware of its approach, and was able to seek shelter and escape injury.									
Henry County									
Middletown	02	1549EST			0	0	0.50K		Hail (1.00)
Henry County									
8 NE New Castle	02	1600EST			0	0	0.50K		Hail (1.75)
Henry County									
1.5 NE New Castle	02	1604EST	0.1	50	0	0	1K		Tornado (F0)
Same supercell thunderstorm that spawned Hamilton County and City of Anderson tornadoes also spawned this weak tornado. It was a brief touchdown near State Road 3 and the Conrail Railway on New Castle's northwest side. The tornado briefly touched down in Memorial Park knocking down some trees.									
Henry County									
1.5 N New Castle	02	1617EST			0	0	1K	0.50K	Thunderstorm Wind
Thunderstorm winds blew down trees and damaged some crops									
Madison County									
Alexandria	08	2233EST 2236EST			0	0	1K		Thunderstorm Wind
Thunderstorm winds blew down trees and power lines in Ashland or just east of New Castle.									
Johnson County									
5 NW Franklin	14	1748EST 1749EST			0	0	1K		Thunderstorm Wind
Thunderstorm winds blew down power lines northwest of Franklin.									
Lawrence County									
Bedford	14	1752EST			0	0	2K		Thunderstorm Wind
Thunderstorm winds blew down trees and power lines in Bedford.									
Owen County									
Spencer	14	1752EST			0	0	1K		Thunderstorm Wind
Thunderstorm winds blew down trees in and around Spencer.									
Miami County									
Macy	18	1536EST			0	0	1K		Thunderstorm Wind
Thunderstorm winds blew down trees in Macy.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
INDIANA, Central									
Cass County									
Lucerne	18	1625EST			0	0	0.50K		Thunderstorm Wind
Thunderstorm winds blew down large tree limbs near Lucerne.									
Fountain County									
Attica	18	1655EST			0	0	1.5K		Thunderstorm Wind
Thunderstorm winds blew down trees and power lines in Attica.									
Tippecanoe County									
Battle Ground	18	1750EST			0	0	1K		Thunderstorm Wind
Thunderstorm winds blew trees down near Battle Ground.									
Clinton County									
7 NW Frankfort	18	1800EST			0	0	15K		Thunderstorm Wind
Thunderstorm winds damaged a barn roof northwest of Frankfort.									
Marion County									
Indianapolis	18	1925EST			0	0	0.50K		Thunderstorm Wind
Thunderstorm winds blew down large trees in the 400 block of Colorado.									
Brown County									
7 NW Nashville	21	1700EST			0	0	0.50K		Thunderstorm Wind
Thunderstorm winds blew down trees in Trevelac.									
Brown County									
6 SW Nashville	21	1700EST			0	0	0.50K		Thunderstorm Wind
Thunderstorm winds blew a few trees down in Belmont.									
Brown County									
Nashville	21	1710EST			0	0	0.50K		Thunderstorm Wind
Thunderstorm winds blew down trees and power lines.									
Jackson County									
Seymour	21	1852EST			0	0	8K		Lightning
Lightning triggered a fire at the Canterbury Apartments in Seymour.									
Jackson County									
Seymour	21	1900EST			0	0	2K		Thunderstorm Wind
Thunderstorm winds blew down trees and power lines on Seymour's north side.									
INZ023									
Miami									
	23	2100EST			0	0		1K	Flood
	24	1100EST							
Heavy rains of 2 to 6 inches in the headwaters of the Eel River caused minor agricultural flooding in Miami county from mid evening of the 23rd to midday on the 24th. Some trailer park evacuations may have been necessary upstream in North Manchester of Wabash County.									
INZ021									
Carroll									
	26	1200EST			0	0			Excessive Heat
	27	2359EST							
INZ022-037									
Cass - Boone									
	26	1200EST			0	0			Excessive Heat
	27	2359EST							
INZ022-037-064									
Cass - Boone - Bartholomew									
	26	1200EST			0	0			Excessive Heat
	27	2359EST							
INZ021>023-028>031-035>049-051>057-060>065-067>072									
Carroll - Cass - Miami - Warren - Tippecanoe - Clinton - Howard - Fountain - Montgomery - Boone - Tipton - Hamilton - Madison - Delaware - Randolph - Vermillion - Parke - Putnam - Hendricks - Marion - Hancock - Henry - Vigo - Clay - Owen - Morgan - Johnson - Shelby - Rush - Sullivan - Greene - Monroe - Brown - Bartholomew - Decatur - Knox - Daviess - Martin - Lawrence - Jackson - Jennings									
	26	1200EST			0	0			Excessive Heat
	27	2359EST							

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
INDIANA, Central									
Rush County									
Rushville	27	1607EST 1610EST			0	0	2K		Thunderstorm Wind
Thunderstorm winds blew down numerous trees and power lines in Rushville.									
Marion County									
Indianapolis	27	1630EST			0	0	2K		Thunderstorm Wind
Thunderstorm winds knocked down traffic lights at 21st and Post Roads.									
Marion County									
Indianapolis	27	1630EST 1635EST			0	0	2.5K		Thunderstorm Wind
Thunderstorm winds blew down numerous tree limbs and a few trees on the NE, E, and SE sides of Indianapolis causing many power outages.									
Hamilton County									
Fishers	27	1653EST			0	0	1K	0.50K	Thunderstorm Wind
Thunderstorm winds blew down trees and limbs in the vicinity of I-69 and State Road 37.									
Hamilton County									
Sheridan	27	1710EST			0	0	0.50K	1K	Thunderstorm Wind
Thunderstorm winds blew down a two and a half foot diameter tree just west of Sheridan on the Hamilton-Boone County line. Crops in the same vicinity were also damaged by the winds.									
Decatur County									
Kingston	27	1715EST			0	0	0.20K		Thunderstorm Wind
Thunderstorm winds blew down a 10 inch diameter tree.									
INDIANA, Northeast									
Lagrange County									
2 N Ligonier	02	0750EST 0751EST			0	0			Hail (1.00)
Thunderstorm with hail occurred on county line between lagrange and noble county.									
Huntington County									
.5 SE Huntington to Huntington	02	1410EST 1420EST			0	0	20K		Hail (0.75)
Thunderstorm winds knocked down trees and power lines across the northern one half of the county.									
Adams County									
Decatur	02	1452EST 1453EST			0	0			Thunderstorm Wind (G60)
50 foot amateur radio tower folded over.									
Wells County									
10 W Decatur	02	1500EST 1501EST			0	0			Tstm Wind/Hail
Trees and power lines down near town of Tocsin in Wells County.									
Jay County									
5 NE Portland	02	1530EST 1531EST			0	0	10K		Tstm Wind/Hail
Trees and power lines down near Bryant.									
Blackford County									
Montpellier	02	1540EST 1541EST			0	0			Hail (1.75)
Lagrange County									
Lagrange	08	1801EST 1802EST			0	0			Thunderstorm Wind (G60)
trees down in city of lagrange2									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
INDIANA, Northeast									
Lagrange County									
6 S Eddy	08	1835EST 1836EST			0	0			Thunderstorm Wind (G60)
Noble County									
2 S Rome City	08	1845EST 1846EST			0	0	0.50K		Tstm Wind/Hail
		several trees down							
Steuben County									
Angola	08	1845EST 1846EST			0	0			Tstm Wind/Hail
		numerous large tree limbs down.							
De Kalb County									
2 S Ashley	08	1930EST 1931EST			0	0	0.50K		Tstm Wind/Hail
		wind damage and power lines down south of ashley and near corunna.							
Allen County									
Near Cedarville	08	2030EST 2031EST			0	0			Thunderstorm Wind (G70)
Noble County									
Near Albion	14	1740EST 1741EST			0	0			Thunderstorm Wind (G65)
Huntington County									
4 E Huntington	18	1615EST			0	0	5K		Thunderstorm Wind
		heavy wind damage-roof peeled of modular home. two trees in yard partially uprooted.							
Allen County									
Monroeville	18	1625EST			0	0			Thunderstorm Wind
		numerous trees in town of monroeville downed. brick siding blown off building.							
Steuben County									
Across County	21	1919EST 2230EST			0	0			Flash Flood
		widespread flooding across steuben county.							
Allen County									
Fort Wayne	23	0242EST 0600EST			0	0			Flash Flood
		spy run creek flooding in fort wayne.							
Whitley County									
2 W South Whitley to South Whitley	23	0456EST 0800EST			0	0			Flash Flood
		four inches rain across southern whitley county. widespread road flooding and basements flooded.							
Huntington County									
North Part County	23	0639EST 0900EST			0	0			Flash Flood
		northern huntington county roads under water from 3 to 4 inches rain.							

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>INDIANA, Northeast</u>									
Wabash County									
Nr North Manchester	23	0730EST 0900EST			0	0			Flash Flood
northeast county roads and some north manchester streets under water. 3 to 4 inches rain reported.									
Allen County									
11 E Ft Wayne	26	2150EST 2151EST			0	0	20K		Thunderstorm Wind (G65)
barn blown down near highway 30 and state route 101.									
Wabash County									
Near Wabash	26	2240EST 2241EST			0	0			Tstm Wind/Hail
wind damage-power lines down.									
Noble County									
Albion to Merriam	27	1350EST 1400EST			0	0	20K		Tstm Wind/Hail
widespread tree damage with power lines down from albion to merriam.									
Whitley County									
Columbia City	27	1415EST 1416EST			0	0			Tstm Wind/Hail
wind damage to trees and power lines.									
Allen County									
Fort Wayne	27	1430EST 1435EST			0	0	1K		Tstm Wind/Hail
Trees and power lines down at Indianapolis and winter streets also on covington road.									
Wells County									
Highway 24/Cr 400W to Highway24/Cr400W	27	1530EST 1531EST			0	0			Tstm Wind/Hail
one large tree and several large limbs and power lines down.									
<u>INDIANA, Northwest</u>									
Elkhart County									
Elkhart	02	0723EST			0	0	0		Thunderstorm Wind (G50)
A severe thunderstorm moved east across Elkhart county, producing strong winds and 1 inch diameter hail. Strong winds downed large trees and a 150 foot radio tower in Goshen.									
Elkhart County									
Goshen	02	0728EST			0	0			Hail (1.00)
Fulton County									
Rochester	02	1318EST 1328EST			0	0			Hail (1.75)
Kosciusko County									
Syracuse	02	1358EST			0	0			Hail (1.00)
Strong thunderstorms, producing downburst winds and heavy rains, developed over north central Indiana during the afternoon. Hail diameter ranging from one-inch to one and one-quarter inch was reported in Rochester and Syracuse.									
Elkhart County									
Elkhart	06	1500EST			0	0			Hail (1.00)
One inch hail was reported in the south part of Elkhart county.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
INDIANA, Northwest									
Elkhart County									
Elkhart	06	1545EST			0	0			Thunderstorm Wind (G50)
A thunderstorm produced strong winds which broke trees that were one-foot diameter.									
La Porte County									
Countywide	14	1536EST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds downed trees, power lines and produced pea to marble size hail.									
St. Joseph County									
Mishawaka	14	1605EST 1610EST			0	0			Thunderstorm Wind (G50)
Trees down in Mishawaka and throughout the northeast part of the county.									
Kosciusko County									
Countywide	14	1700EST			0	0			Thunderstorm Wind (G50)
Trees and power lines were downed throughout the county.									
Lake County									
Hammond to Munster	18	1325EST 1348EST			0	0			Hail (1.00)
Thunderstorms, which developed along a lake breeze, produced one-inch diameter hail, strong winds and heavy rain.									
St. Joseph County									
Lakeville	18	1434EST			0	0			Hail (1.75)
Marshall County									
Countywide	18	1458EST			0	0			Thunderstorm Wind (G50)
Marshall County									
Countywide	18	1510EST			0	0			Thunderstorm Wind (G50)
Trees and power lines were downed throughout the county.									
Fulton County									
Countywide	18	1515EST			0	0			Thunderstorm Wind (G50)
Kosciusko County									
Countywide	18	1530EST			0	0			Thunderstorm Wind (G50)
Severe thunderstorms produced large hail and 70 mph winds in Lakeville in southern St. Joseph county. The storms moved southeast through Marshall, Fulton and Kosciusko counties, blowing down tree limbs and power lines.									
Lake County									
Leroy	18	1615EST			0	0			Thunderstorm Wind (G50)
Porter County									
Countywide	18	1640EST			0	0			Thunderstorm Wind (G50)
Newton County									
Countywide	18	1640EST			0	0			Thunderstorm Wind (G50)
Severe thunderstorms downed tree limbs and power lines in Lake, Porter and Newton counties. Windows were broke in a house in Porter county.									
Benton County									
Countywide	18	1715EST			0	0			Thunderstorm Wind (G50)
White County									
Countywide	18	1730EST			0	0			Thunderstorm Wind (G50)
Severe thunderstorms moved through northwest Indiana, produced strong winds that downed many power lines and trees.									
St. Joseph County									
Mishawaka	27	1246EST			0	0			Thunderstorm Wind (G52)
Elkhart County									
Countywide	27	1255EST			0	0			Thunderstorm Wind (G50)
Thunderstorms produced wind gusts up to 60 mph, downed many trees and power lines. Elkhart County Sheriff reported the damage occurred in the northwest portion of the county.									

Storm Data and Unusual Weather Phenomena

July 1997

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

INDIANA, South Central

Washington County

5 N Salem	27	1830EST			0	0		Thunderstorm Wind (G50)
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County sheriff reported several trees down.

INDIANA, Southeast

Wayne County

Countywide	02	1640EST 1700EST			0	0	5K		Thunderstorm Wind (G50)
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Numerous trees and power lines downed.

Wayne County

Jacksonburg	14	1740EST 1745EST			0	0			Thunderstorm Wind (G52)
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An observer reported a 60 mph wind gust.

INDIANA, Southwest

Pike County

Winslow	14	1646CST 1705CST			0	0	70K		Thunderstorm Wind (G52)
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Trees were blown down onto a few homes. Power poles and lines were down. A porch was damaged by wind.

Gibson County

Patoka to Princeton	14	1655CST			0	0	40K		Thunderstorm Wind (G52)
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Numerous trees were down in Princeton, Patoka, and Fort Branch. Tree sizes were mostly 8 to 10 inches in diameter. Damage was reported to the roofs of houses.

Posey County

Blairsville	14	1710CST			0	0	3K		Thunderstorm Wind (G50)
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A cooperative observer reported trees down.

Warrick County

Boonville	14	1730CST 1750CST			0	0	10K		Thunderstorm Wind (G52)
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Trees and power lines were blown down throughout the county.

Vanderburgh County

Evansville	14	1730CST			0	0	50K		Thunderstorm Wind (G52)
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Large trees and power lines were down. About 10,000 Evansville homes were without power due to trees falling on power lines. At least two homes and a van were damaged by falling trees. An elderly woman was briefly trapped in her home after a tree fell on it.

Spencer County

Rockport	14	1730CST			0	0	3K		Thunderstorm Wind (G50)
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Trees and power lines were down at a few locations across the county.

INZ081>082- 085>088

Gibson - Pike - Posey - Vanderburgh - Warrick - Spencer

25	1100CST				0	0			Excessive Heat
28	1900CST								

High temperatures rose into the mid to upper 90s for three consecutive days. High humidity raised the heat index to between 105 and 115 degrees. The potentially hazardous conditions prompted the issuance of a heat advisory.

IOWA, Central

Emmet County

Estherville	01	2052CST			0	0	1K		Thunderstorm Wind (G54)
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An unusually strong system for the time of year moved across the upper midwest. Intense low pressure passed north of Iowa with a strong feed of warm and moist air. Surface dew point temperatures were in the mid to upper 70s with 850 mb dew point readings near 20 degrees C. The atmosphere was very unstable with lifted indices near -16 degrees C. and CAPE values near 5000 J/kg by afternoon. The atmosphere was "capped" however as the 700 mb temperature as reported by Omaha at 1800 UTC was 17.4 degrees C. This proved to be a deciding factor in the prevention of deep convection in spite of the presence of a strong cold front entering western Iowa by evening. A few thunderstorms developed over northwest Iowa during the evening hours. One did become severe briefly as it moved through Estherville. A wind gust of 62 MPH was recorded, however damage was quite minor.

Storm Data and Unusual Weather Phenomena

July 1997

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

IOWA, Central

Kossuth County

Lakota

07 1945CST 0 0 2K 10K Hail (1.25)

Low pressure formed over north central Nebraska during the afternoon. A warm front extended southeast from the low into Iowa, with a cold front extending southwest from the low. The low moved into southern Minnesota during the night. The air mass became unstable during the afternoon with lifted indices reaching -8 degrees C., along with CAPE values of 2500 to 3500 J/kg. Thunderstorms erupted along the cold front during the afternoon. As they moved into Iowa, they weakened and became producers of mostly small hail, gusty winds, and heavy rain. One and one quarter inch diameter hail fell from one of the storms in Kossuth County near Lakota. Other than that report, there was very little significant weather in the state from this event.

Winnebago County

2.5 W Thompson

07 2030CST 0 0 5K 200K Hail (1.00)

Thunderstorms moved into north central Iowa during the evening hours. These were part of the area of storms that formed earlier over Kossuth County. As they moved through Winnebago County, one storm produced 65 MPH winds west of Thompson. In addition, a large amount of pea to marble size hail caused serious crop damage west of town. A few of the stones were up to an inch in diameter.

Winnebago County

2.5 W Thompson

07 2030CST 0 0 10K 5K Thunderstorm Wind (G56)

Sac County

Lake View

07 2200CST 0 0 50K 20K Thunderstorm Wind (G65)

Sac County

Wall Lake

07 2210CST 0 0 70K Thunderstorm Wind (G65)

Later in the evening, thunderstorms moved into Sac County. As they moved into the Wall Lake area, high winds caused considerable damage on a nearby farm including some structural damage. Wind gusts were estimated around 75 MPH. A tractor semi-trailer truck was overturned near Wall Lake. In Lake View, part of a wall was blown off the front of a business in the downtown area.

Palo Alto County

Graettinger

11 2005CST 0 0 250K Lightning

Thunderstorms moved through Palo Alto County. As they did, lightning struck a building housing two businesses in Graettinger. A fire started which caused considerable damage to both of them.

Emmet County

Ringsted

12 2330CST 0 0 50K 5K Thunderstorm Wind (G61)

Winnebago County

Thompson

13 0230CST 0 0 30K 5K Thunderstorm Wind (G61)

Worth County

Manly

13 0300CST 0 0 5K Lightning

A weak cold front was approaching Iowa from the northwest. A squall line formed ahead of the front well after sunset. The line produced winds of up to 70 MPH, causing some spotty damage. The event was rather isolated and reports of damage were quite spotty. As the storms moved through Manly, lightning struck a school building. A large section of bricks was blown off the building by the lightning strike.

Warren County

Indianola

13 0719CST 0 0 1K 2K Hail (1.00)

Thunderstorms erupted over central Iowa along an old outflow boundary left from the previous night's convection. The air mass was very unstable with surface dew point temperatures at sunrise in the mid to upper 70s. Most of the storms only produced heavy rainfall, however one storm dropped one inch diameter hail on Indianola.

Winnebago County

Buffalo Center

13 2215CST 0 0 5K Lightning

As thunderstorms moved into the Buffalo Center area, lightning struck a tree in the town. The tree was 10 feet in circumference and was broken apart. It fell into a nearby house. Damage was done to electrical appliances in the house as well.

Palo Alto County

Emmetsburg

19 2010CST 0 0 5K Hail (0.75)

A frontal boundary remained nearly stationary east to west remained in place across southern Minnesota. The airmass was very unstable over Iowa, however wind fields were quite weak and freezing levels were above 14,000 feet. One thunderstorm produced three quarter inch diameter hail as it moved through the Five Island Lake area near Emmetsburg.

Hancock County

Corwith

19 2030CST 0 0 5K Thunderstorm Wind (G50)

The thunderstorms mentioned above continued to move east. As they did high winds were reported in Corwith in Hancock County. The caused tree damage, however it appeared they were of marginal severe level.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Property Damage	Crops	Character of Storm
IOWA, Central									
Polk County									
West Des Moines	20	1355CST			0	0	1K	5K	Hail (1.00)
Polk County									
West Des Moines	20	1355CST			0	0	20K		Thunderstorm Wind (G61)
Polk County									
Ankeny Arpt	20	1507CST			0	0	3K		Thunderstorm Wind (G54)
<p>The synoptic situation was similar to the day prior with a stationary frontal boundary located to the north of Iowa. An upper level low pressure moved out of Kansas into southwest Iowa during the afternoon and evening hours. The airmass was very unstable with CAPE values of 4000 J/kg with surface dew point temperatures in the low to mid 70s. Most of the storms were not severe, however a few did become "pulse severe". One cell dropped one inch diameter hail in West Des Moines. In what was an apparent downburst, 70 MPH winds downed large trees and caused damage in a small section of West Des Moines. There was no damage further northeast from the storm. Later another cell produced another apparent downburst over the Ankeny airport with 62 MPH winds. Little damage was reported from that event however.</p>									
Davis County									
Bloomfield	20	1530CST			0	0	30K	5K	Thunderstorm Wind (G61)
<p>As the storms mentioned above continued to develop in the very unstable airmass, one became severe briefly in Davis County. This event appeared to be a downburst event as it was very isolated and did not effect a large area. Winds of around 70 MPH caused damage on a farm near Bloomfield. Hail also accompanied the storm. Some of it up to one half inch in size. Though not severe, considerable damage was done to crops in the area due to the hail and high wind.</p>									
Kossuth County									
2 N Sexton	20	2000CST			0	0	50K	2K	Thunderstorm Wind (G65)
Kossuth County									
Wesley	20	2015CST			0	0	20K		Thunderstorm Wind (G55)
<p>Thunderstorms continued to form during the late afternoon and evening hours. The upper level low pressure area approached the northwest part of the state during the evening and strong convection formed around the center, which is fairly typical of warm core lows. As one of the storms moved through Kossuth County, it produced high winds. Two buildings were nearly destroyed north of Sexton by winds around 75 MPH. Damage was reported to another outbuilding near Wesley a short time later, however the damage was not as severe as that north of Sexton.</p>									
Palo Alto County									
Graettinger	22	0100CST 0400CST			0	0	100K	5K	Flash Flood
<p>A small cluster of thunderstorms developed in a very unstable airmass. Movement was very slow. In addition "training" occurred as the cells backdeveloped over the northern part of the county. The storms dumped 8 inches of rain on the town of Graettinger causing flash flooding. The flooding in the city was serious enough that the city sewage plant was inundated causing the sewage to spill into the river. Extensive flooding of homes in the area also occurred.</p>									
Emmet County									
Estherville	22	0200CST			0	0	5K		Lightning
<p>Thunderstorms rumbled through Emmet County. These storms produced copious amounts of rainfall and nearly continuous lightning. A lightning bolt struck a tree outside of a house in Estherville. A large branch was broken off, which fell through the roof of a house.</p>									
Crawford County									
1 E Denison	23	0656CST			0	0		5K	Hail (0.75)
Crawford County									
Denison	23	0703CST			0	0	20K	5K	Hail (1.75)
<p>Thunderstorms developed along an old outflow boundary over west central Iowa. The storms dropped southeast and intensified as they moved into moisture rich air. One storm became severe and dropped hail up to golf ball in size on the town of Denison.</p>									
Dallas County									
Granger	24	0200CST 0530CST			0	0	25K	15K	Urban/Sml Stream Fld
Polk County									
Des Moines	24	0200CST 0530CST			0	0	25K	15K	Urban/Sml Stream Fld
Warren County									
Indianola	24	0200CST 0530CST			0	0	25K	15K	Urban/Sml Stream Fld

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Property Damage	Crops	Character of Storm
IOWA, Central									
Lucas County									
Chariton	24	0200CST 0530CST			0	0	25K	15K	Urban/Sml Stream Fld
Appanoose County									
Centerville	24	0200CST 0530CST			0	0	25K	15K	Urban/Sml Stream Fld
Wayne County									
Corydon	24	0200CST 0530CST			0	0	25K	15K	Urban/Sml Stream Fld
<p>A very unstable air mass was located over Iowa as a warm front extended from southeast Nebraska into central South Dakota. A narrow line of thunderstorms formed across Iowa with intense lightning and very heavy rainfall of over 2 inches per hour for a time. A band of rainfall in the 3 to 6 inch range fell from northwest Polk County, south to Appanoose County. The ground was very dry at the time and thus most flooding was restricted to agricultural and in urban areas.</p>									
Polk County									
Des Moines	24	0430CST 0830CST			0	0	200K	20K	Flash Flood
<p>Heavy rains mentioned above in the urban and small stream flooding caused flash flooding in Polk County, specifically in Des Moines. Walnut Creek rose quickly above flood stage. Serious flooding occurred in low areas of the city with rush hour traffic snarled by closed roads that were under water. The rain stopped around sunrise, however 3 to 5 inches had fallen in a two hour period to sunrise. Conditions improved quite rapidly by the end of the rush hour.</p>									
Palo Alto County									
Emmetsburg	26	0900CST 1100CST			0	0	150K	20K	Flash Flood
<p>Thunderstorms moving into Palo Alto County not only produced severe weather, but very heavy rainfall as well. In the town of Emmetsburg, 2 1/2 to 4 inches of rain fell in a 45 minute period, causing local flash flooding in the area as well as many flooded basements. Reports of 4 to 5 feet of water in basements were received. Several roads were closed for a period of time as water over a foot deep overtopped them in places. The ground was quite wet before the rain fell as significant rainfall had been received just two to four days prior.</p>									
Palo Alto County									
Emmetsburg	26	0925CST			0	0	20K	5K	Lightning
Palo Alto County									
.5 W Emmetsburg Arprt to .5 E Emmetsburg Arprt	26	0930CST 0932CST	1	40	0	0	220K	3K	Tornado (F1)
<p>A stationary frontal boundary was located east to west across northern Iowa during the predawn hours. Thunderstorms erupted along this boundary in the very unstable air. Dew point temperatures were around 80 degrees F. with CAPE values near 5000 J/kg. A small cluster of thunderstorms developed and slid east across the area. Winds of 70 MPH swept through the town of Emmetsburg. A church steeple was taken down by the winds. A short time later a small tornado touched down at the Emmetsburg Airport. One hanger was destroyed and 4 private airplanes were overturned. Three of them were totally destroyed, one severely damaged. The aircraft damage itself was around \$140,000.</p>									
Winnebago County									
Buffalo Center	26	1000CST			0	0	5K		Thunderstorm Wind (G50)
<p>The same cluster of thunderstorms that moved through the Emmetsburg area expanded to the east with high winds leading the storms. As the moved into Winnebago County, high winds downed trees in the town of Buffalo Center.</p>									
Bremer County									
Waverly	27	1045CST			0	0	3K		Lightning
<p>As thunderstorms moved through Bremer County, lightning damage occurred in Waverly. Lightning struck the chimney on a house in town and completely blew the brick chimney off the house.</p>									
Sac County									
Schaller	27	1230CST			0	0	5K		Thunderstorm Wind (G50)
Pocahontas County									
Laurens	27	1232CST 1245CST			0	0	10K	1K	Thunderstorm Wind (G52)
Black Hawk County									
Hudson	27	1239CST			0	0	5K		Hail (0.75)
<p>A very unstable air mass remained in place over Iowa with surface dew point readings around 80 degrees F. and cape values in</p>									

Storm Data and Unusual Weather Phenomena

July 1997

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

IOWA, Central

excess of 5000 J/kg. Thunderstorms formed over southeast South Dakota and moved across northern Iowa. These were just ahead of an approaching cold front. Most of the storms were not severe, however they did produce significant rainfall. One storm dropped three quarter inch diameter hail in Black Hawk County near Hudson. Another storm brought high winds into the Laurens area downing trees in the city. It also dumped between 5 and 6 inches of rain, however no significant flooding was reported. Another report of high winds was received from Sac County. Damage occurred on a farm near Schaller as strong winds swept through the area.

Clarke County

Osceola	27	1500CST		0	0	15K	1K	Thunderstorm Wind (G52)
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During the later afternoon hours, thunderstorms erupted along a cold frontal boundary as it sank slowly south across the state. Most of the storms were just below severe criteria with winds of 40 to 50 MPH and hail up to marble size. One storm downed numerous trees in the town of Osceola in Clarke County as it passed. Winds were around 60 MPH at the time.

IOWA, East Central and Southeast

Iowa County

Williamsburg	19	1610CST		0	0			Thunderstorm Wind (G60)
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Large tree downed.

Washington County

Kalona	19	1615CST		0	0			Thunderstorm Wind (G60)
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Trees down.

Washington County

Washington	19	1625CST		0	0			Thunderstorm Wind (G52)
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Tree limbs down in town.

Des Moines County

Mediapolis	19	1630CST		0	0	10K		Lightning
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Lightning was the cause of an attic fire in a family home. The children in the home, looking out the window, reported seeing a "fireball" next door. The parents heard a terrible crash, then discovered the fire. The fire was put out quickly by the homeowner. Besides some fire and water damage in the attic, one wall outlet, a cordless phone, and an air conditioner were damaged.

Keokuk County

Keota	19	1645CST		0	0			Thunderstorm Wind (G60)
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Numerous trees down.

Keokuk County

Sigourney	19	1655CST		0	0			Thunderstorm Wind (G60)
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Numerous trees down.

Jackson County

Miles	20	2200CST		0	0			Hail (0.75)
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IAZ030-040>042-051>054-063>068-076>078-087>089-098>099 Clayton - Buchanan - Delaware - Dubuque - Benton - Linn - Jones - Jackson - Iowa - Johnson - Cedar - Clinton - Muscatine - Scott - Keokuk - Washington - Louisa - Jefferson - Henry - Des Moines - Van Buren - Lee

	25	0400CST		0	12	0.50K		Excessive Heat
	27	2000CST						

Heat and high humidity teamed together produced excessive heat index values reaching 105 to 110 during the day. This came in the middle of an otherwise much cooler than normal summer and many claimed that their bodies were not properly acclimated and therefore unprepared for the sudden spike in temperatures and humidity.

The warmest day, Saturday the 26th, saw highs in the upper 90s and record setting highest minimum temperatures near 80. The 26th was also the date of the Quad Cities Bix 7 Run. Thousands ran in the race and attended the city's celebration. Twelve persons had to be hospitalized for heat related illnesses and four persons were kept overnight. One fatality occurred during the race, due to overexertion.

Heat also played a roll in area county fairs. Attendance was down as were concession revenues. The heat caused Fair Officials to release poultry and rabbit entries early, though the animals were judged and the awards were given. Despite precautions Fair Officials took against the heat, such as running water over the tin-roofed buildings and fans, two hogs died due to the heat. The Fair director said "I believe this is the first time, in the 10 years I've been involved, that we've ever lost a hog... but we've never had weather this extreme either."

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>IOWA, East Central and Southeast</u>									
Linn County									
Cedar Rapids	27	1420CST			0	1			Lightning
									Man injured seriously when lightning struck a nearby tree.
Scott County									
Davenport	27	1525CST			0	0	10K		Thunderstorm Wind (G50)
									Large tree limb crashed down onto a mobile home.
Lee County									
Keokuk	27	1745CST			0	0			Thunderstorm Wind (G50)
									Trees down in town.
									Scattered thunderstorms produced a few severe wind gusts.
<u>IOWA, Northeast</u>									
Winneshiek County									
Decorah	01	2007CST			0	0			Hail (0.75)
Winneshiek County									
2 N Decorah	01	2012CST			0	0	2.5K		Thunderstorm Wind (G52)
Winneshiek County									
8 NE Decorah	01	2040CST			0	0		20K	Hail (1.75)
Allamakee County									
Hanover	01	2045CST			0	0		10K	Hail (1.75)
Allamakee County									
Hanover	01	2055CST			0	0		10K	Hail (1.75)
Allamakee County									
2 N Waukon	01	2100CST			0	0	3K		Thunderstorm Wind (G55)
Allamakee County									
Lansing	01	2135CST			0	0	5K		Thunderstorm Wind (G53)
Allamakee County									
Lansing	01	2140CST			0	0			Hail (0.75)
Winneshiek County									
Decorah	13	2230CST			0	0	100K		Thunderstorm Wind (G56)
									A microburst with 65 mph winds blew the roof off a building, knocked down power lines and blew a boat underneath a semi-trailer.
Mitchell County									
Stacyville	17	0346CST			0	0	5K		Thunderstorm Wind (G50)
									Winds gusting to near 60 mph blew down a shed.
Winneshiek County									
Decorah	18	1020CST			0	0	9K		Thunderstorm Wind (G52)
Clayton County									
Monona	18	1100CST			0	0	15K		Thunderstorm Wind (G52)
									60 mph winds blew down trees and power lines.
Howard County									
5 W Cresco to 2 W Cresco	20	2020CST 2030CST	3	70	0	0	35K		Tornado (F0)
Howard County									
1 N Cresco to 1 NE Cresco	20	2030CST 2035CST			0	0			Funnel Cloud
									Storm spotters sighted funnel clouds and a brief tornado touchdown occurred. A home was damaged, but there were no injuries.
<u>IOWA, Northwest</u>									
Sioux County									
Orange City to Alton	01	1925CST 1940CST			0	0			Hail (1.00)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
IOWA, Northwest									
Sioux County									
Orange City to Alton	01	1925CST 1940CST			0	0	50K		Thunderstorm Wind (G52)
Thunderstorm winds damaged trees and power lines, resulting in power outages lasting several hours.									
Lyon County									
Inwood	07	1555CST	0.1	50	0	0			Tornado (F0)
A brief tornado observed by sheriff's office personnel resulted in no reported damage.									
Lyon County									
Inwood	07	1625CST	0.1	50	0	0			Tornado (F0)
A brief tornado observed by sheriff's office personnel resulted in no reported damage.									
Sioux County									
Hawarden	07	1620CST			0	0			Thunderstorm Wind (G52)
Plymouth County									
3 E Le Mars	07	1740CST	0.1	50	0	0			Tornado (F0)
A brief tornado reported by emergency management officials moved a car off of a road otherwise no damage was reported.									
Plymouth County									
4 NE Kingsley to 5 NE Kingsley	07	1819CST 1822CST	1	50	0	0			Tornado (F0)
A tornado resulted in no reported damage.									
O'Brien County									
9 NE Sutherland to 7 E Sutherland	07	1822CST 1827CST			0	0			Hail (1.00)
Clay County									
3 E Royal	07	1844CST			0	0			Hail (1.00)
Woodbury County									
Hornick	07	1915CST			0	0			Hail (0.75)
Ida County									
5 N Holstein	07	1930CST			0	0			Hail (0.75)
Plymouth County									
2 S Remsen	23	0430CST			0	0			Hail (0.75)
Plymouth County									
5 S Remsen	23	0445CST			0	0			Hail (1.75)
Plymouth County									
Westfield to Akron	27	1005CST 1025CST			0	0	50K		Thunderstorm Wind (G52)
Thunderstorm winds caused tree and power line damage. Several vehicles were damaged by falling trees and wind blown tree debris.									
Woodbury County									
5 E Sioux City	27	1015CST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds caused an unknown amount of tree damage.									
Plymouth County									
5 S Le Mars	27	1036CST 1045CST	0.5	50	0	0			Tornado (F0)
A tornado in a rural area resulted in no reported damage.									
Plymouth County									
5 S Le Mars	27	1036CST			0	0			Thunderstorm Wind (G52)
Plymouth County									
8 S Le Mars	27	1055CST			0	0			Thunderstorm Wind (G61)
Plymouth County									
1 N Kingsley	27	1104CST			0	0			Hail (1.75)
Plymouth County									
Remsen	27	1120CST 1130CST			0	0	50K		Thunderstorm Wind (G61)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>IOWA, Northwest</u>									
Thunderstorm winds blew off roofs, blew over portable sheds, and caused an unknown amount of crop damage.									
Cherokee County									
Cherokee	27	1137CST	0.1	50	0	0			Tornado (F0)
A brief tornado blew a vehicle into a ditch but resulted in no reported damage or injuries.									
Buena Vista County									
Storm Lake	27	1206CST			0	0			Thunderstorm Wind (G52)
Thunderstorm winds caused an unknown amount of tree damage.									
Buena Vista County									
7 E Truesdale	27	1209CST			0	0			Thunderstorm Wind (G52)
<u>IOWA, Southwest</u>									
Mills County									
5 SE Glenwood	01	0415CST			0	0			Funnel Cloud
Monona County									
Mapleton	07	1946CST			0	0			Hail (0.75)
Monona County									
5 S Onawa	12	1910CST			0	0			Thunderstorm Wind (G54)
Tree downed which blocked highway K45 between Onawa and Blencoe.									
Mills County									
Malvern	13	1720CST			0	0			Hail (1.75)
Fremont County									
1 W Hamburg to Hamburg	23	0430CST 0440CST			0	0			Thunderstorm Wind (G52)
Strong winds blew two semitrucks off Interstate 29 west of Hamburg. Trees downed in Hamburg.									
Shelby County									
4 NE Defiance	23	0735CST			0	0			Hail (0.88)
<u>KANSAS, East</u>									
Nemaha County									
Seneca	01	0355CST			0	0	30K		Hail (3.00)
Very large hail damaged roofs, siding and windows of houses and dented several vehicles.									
Nemaha County									
2 NW Woodlawn	01	0400CST			0	0	40K		Hail (4.00)
Two to four inch hail stones hammered large holes into the siding on the north side of 6 houses. They also shattered the windows on and dented several vehicles and pieces of farm machinery.									
Nemaha County									
Woodlawn	01	0410CST			0	0			Thunderstorm Wind (G50)
Strong winds downed several large tree limbs.									
Nemaha County									
2 NE Woodlawn	01	0415CST			0	0	40K	750K	Hail (4.00)
Giant size hail, which covered the ground in spots, caused extensive damage to crops over a four mile long and four mile wide swath. One rural home received extensive damage to its interior when the hail penetrated the roof allowing water from heavy rain to drain into the house. The house, along with other homes in the vicinity received damage to siding and numerous shattered windows. One eye witness reported seeing numerous dead small animals killed by the hail.									
Nemaha County									
2 NE Woodlawn to 2 E Woodlawn	01	0415CST 0420CST	2	25	0	0	20K		Tornado (F1)
A tornado destroyed four barns and a machine shed. It also tossed a hay wagon 50 yards from its original spot into an adjacent wheat field.									
Nemaha County									
Woodlawn	01	0420CST			0	0			Hail (0.75)
Nemaha County									
2 S Woodlawn	01	0425CST			0	0	2K		Hail (1.75)
Wind driven hail broke out windows on several buildings.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
KANSAS, East									
Brown County									
Fairview	01	0425CST			0	0	300K		Hail (4.00)
Two to four inch hail caused extensive damage to crops.									
Brown County									
7 NW Horton	01	0440CST			0	0			Hail (1.75)
Brown County									
7 NW Horton	01	0440CST			0	0			Thunderstorm Wind (G61)
Brown County									
15 SW Hiawatha	01	0440CST			0	0			Thunderstorm Wind (G52)
Brown County									
15 SW Hiawatha	01	0440CST			0	0	100K	100K	Hail (2.75)
At the Kickapoo Indian Reservation hail up to baseball size driven by 50 to 60 mph winds broke windows out of three vehicles. The hail also shattered windows and damaged roofs and siding on two businesses and several homes. Damage to crops in the area was widespread.									
Jackson County									
3 N Whiting	01	0505CST			0	0			Hail (1.00)
Jackson County									
Whiting	01	0508CST			0	0			Hail (1.75)
Lyon County									
10 SW Emporia	03	1805CST			0	0			Hail (1.75)
Nemaha County									
7 E Seneca	08	0042CST			0	0			Hail (1.75)
Cloud County									
Glasco	08	0110CST			0	0			Hail (0.75)
Geary County									
Junction City	08	0200CST			0	0			Thunderstorm Wind (G52)
Strong winds downed several large trees and tree limbs.									
Shawnee County									
Dover	08	0215CST			0	0			Thunderstorm Wind (G65)
Strong winds broke several 8 inch tree limbs, blew a picnic table onto the front porch of a house and tossed a wooden dog house 100 yards from its original spot.									
Dickinson County									
2 S Herington	08	2047CST			0	0			Thunderstorm Wind (G52)
Morris County									
4 E Wilsey	08	2139CST			0	0			Thunderstorm Wind (G52)
Strong winds toppled a wind mill.									
Morris County									
Diamond Spgs	08	2155CST			0	0			Thunderstorm Wind (G56)
Strong winds downed several large trees.									
Ottawa County									
3 NE Bennington	09	1737CST			0	0			Hail (0.75)
Ottawa County									
1 E Bennington	09	1744CST			0	0			Hail (0.75)
Clay County									
5 SW Clay Center	09	1900CST			0	0			Hail (0.75)
Washington County									
7 E Washington	13	1750CST			0	0			Hail (0.75)
Clay County									
Clay Center	13	1755CST			0	0			Hail (1.75)
Marshall County									
Bremen	13	1810CST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>KANSAS, East</u>									
Clay County									
2 E Wakefield	13	1835CST			0	0			Hail (0.75)
Marshall County									
3 S Marysville	13	1839CST			0	0			Hail (1.00)
Marshall County									
Waterville	13	1859CST			0	0			Hail (1.00)
Marshall County									
Blue Rapids	13	1859CST			0	0			Hail (1.00)
Dickinson County									
Chapman	13	1910CST			0	0			Hail (0.75)
Geary County									
8 NW Junction City	13	1910CST			0	0			Thunderstorm Wind (G52)
Winds gusted to 60 mph near the southern end of Milford Lake.									
Geary County									
7 NW Junction City to 6 NW Junction City	13	1915CST 1935CST	2.5	50	0	3	200K		Tornado (F1)
A tornado touched down on the southwest tip of Milford Lake and travelled east across the southern end of the lake. The tornado destroyed a fish cleaning station, rolled several campers and picnic tables into the lake and tore the roof off a well built outdoor rest room. Three people were injured when they were thrown out of their camper. The tornado also removed shingles from one house and pushed two pickup trucks into each other.									
Dickinson County									
2 SE Hope to 1 W Herington	13	2011CST 2020CST	4	50	0	0			Tornado (F0)
A tornado touched down briefly at least twice along its path. It first touched down 2 miles southeast of Hope and then touched down 1 mile west of Herington. The tornado knocked down several trees and one power line. The downed power line resulted in a loss of power to both Hope and Herington.									
Morris County									
White City	13	2025CST			0	0	2K		Thunderstorm Wind (G56)
Strong winds destroyed one shed and knocked down several large trees.									
Jackson County									
1 S Holton	13	2025CST			0	0			Thunderstorm Wind (G50)
Strong winds knocked down several power lines and large tree limbs.									
Jackson County									
6 E Hoyt	13	2112CST			0	0			Thunderstorm Wind (G52)
Jefferson County									
3 SE Meriden	13	2112CST			0	0			Hail (1.00)
Jefferson County									
1 W Perry	13	2139CST			0	0			Hail (1.00)
Shawnee County									
8 SE Topeka	13	2204CST			0	0			Hail (0.75)
Douglas County									
Lawrence	13	2205CST			0	0			Thunderstorm Wind (G50)
Strong winds pushed over a construction trailer and knocked down several trees and power lines.									
Osage County									
2 NE Lyndon	13	2234CST			0	0			Hail (0.75)
Franklin County									
Pomona	13	2250CST			0	0	2K		Lightning
A hay barn was damaged by a fire ignited by lightning.									
Franklin County									
Ottawa	13	2305CST			0	0			Thunderstorm Wind (G52)
Strong winds broke several large tree limbs.									
Franklin County									
Ottawa	13	2315CST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>KANSAS, East</u>									
Franklin County									
7 SE Ottawa	13	2335CST			0	0			Thunderstorm Wind (G52)
Franklin County									
1 N Lane	14	0005CST			0	0			Thunderstorm Wind (G50)
Strong winds downed several large limbs.									
KSZ022>023-036-039-054 Riley - Pottawatomie - Geary - Shawnee - Lyon									
	23	0600CST			0	0			Excessive Heat
	27	1800CST							
Temperatures in the upper 90s to near 105 combined to produce heat indices as high as 110. Kansas State University in Manhattan reached 104 degrees on the 25th. Emporia rose to 101 on the 27th. High temperatures in the town of Onaga ranged between 100 and 105 each day from the 23rd to 27th. In Topeka, the temperatures never quite reached 100 but did reach 99 on the 24th, 25th and 27th. The heat index in Topeka soared to 110 at 2 PM CDT on the 24th. Kansas Power and Light Company which provides electricity to these areas set an electrical consumption record at 4 PM on the 24th.									
Nemaha County									
2 S Seneca	27	1645CST 1650CST	1.3	50	0	0	15K		Tornado (F1)
The tornado along its narrow west-southwest to east-northeast path damaged several out buildings, peeled the shingles off at least two houses and blew in the garage door of one of the houses. It also knocked down several utility poles and large trees. A board from one of the out buildings was driven into a downed utility pole.									
Shawnee County									
Topeka	28	1845CST			0	0	2K		Lightning
Lightning set fire to a house in the central part of town.									
<u>KANSAS, Extreme Southeast</u>									
Bourbon County									
Bronson	03	2029CST			0	0			Hail (0.75)
Bourbon County									
Ft Scott	03	2120CST			0	0			Hail (0.75)
Crawford County									
Arcadia	08	2303CST			0	0			Hail (0.75)
Bourbon County									
Hammond	08	2315CST			0	0			Hail (1.00)
Cherokee County									
4 N Columbus	09	0230CST			0	0	0		Flash Flood
Up to three inches of rain fell across the area closing sections of Highway 7.									
Crawford County									
Walnut	14	0400CST			0	0	0		Flash Flood
Two inches of rain fell in an hour causing flooding of creeks and low lying areas.									
<u>KANSAS, North Central</u>									
Jewell County									
13 N Mankato	07	2300CST			0	0	0	0	Hail (0.75)
Jewell County									
Jewell	09	1610CST			0	0	0	0	Hail (0.75)
Jewell County									
Esbon	09	1640CST			0	0	100K	300K	Hail (1.75)
Several power poles were damaged or downed by high winds.									
Osborne County									
6 NE Natoma	09	1826CST			0	0	0	0	Hail (0.75)
Osborne County									
7 NE Natoma	09	1930CST 2230CST			0	0	10K	0	Flood
Many secondary roads in southwest Osborne county were covered by water after a torrential rainstorm.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>KANSAS, North Central</u>									
Rooks County									
3 W Plainville	09	1930CST			0	0	0	0	Hail (0.75)
Rooks County									
Zurich	09	1950CST			0	0	0	0	Hail (1.75)
<u>KANSAS, Northeast</u>									
Atchison County									
Muscotah	01	0510CST			0	0			Hail (0.75)
The Atchison County Sherrif's office reported dime-size hail at Muscotah.									
Leavenworth County									
4 N Leavenworth	01	0555CST			0	0			Hail (0.88)
Leavenworth County Emergency Management reported nickel-size hail during a severe thunderstorm 4 miles north of Leavenworth.									
Atchison County									
Muscotah	01	0510CST			0	0			Thunderstorm Wind (G60)
A severe thunderstorm produced a 60 MPH wind gust in Muscotah.									
Miami County									
4 SW Paola	13	2320CST			0	0			Thunderstorm Wind (G60)
The Paola Police reported 60 MPH winds during a severe thunderstorm 4 miles southwest of Paola.									
Miami County									
Paola	13	2355CST			0	0	50K		Lightning
Lightning struck a house causing a fire during a thunderstorm. Several rooms of the house were damaged.									
<u>KANSAS, Northwest</u>									
Sherman County									
10 S Goodland	05	1330MST			0	0			Hail (1.75)
Wallace County									
7 SW Sharon Spgs	05	1352MST			0	0			Hail (1.75)
Half dollar size hail also reported 9 sw Sharon Springs at 1400 MST.									
Greeley County									
10 W Horace	05	1424MST 1427MST	0.1	30	0	0			Tornado (F0)
Off duty law enforcement officer observed brief tornado near Highway 96, two miles east of Colorado border.									
Rawlins County									
13 SE Atwood	05	1426CST			0	0			Hail (1.25)
Sheridan County									
3 W Selden	05	1450CST			0	0			Hail (0.75)
Thomas County									
15 E Colby	05	1510CST			0	0			Hail (1.00)
Sheridan County									
8 WNW Hoxie	05	1515CST			0	0			Thunderstorm Wind (G52)
Sherman County									
Goodland Arpt	05	1527MST			0	0			Thunderstorm Wind (G52)
Gustnado with winds estimated to 60 mph observed from National Weather Service Office.									
Wichita County									
7 NW Leoti	05	1550CST			0	0			Hail (0.75)
Thomas County									
6 SSE Halford	05	1630CST			0	0			Hail (1.00)
Hail coupled with 40 mph winds caused unknown amount of crop damage.									
Wallace County									
9 SW Sharon Spgs	05	1400MST			0	0			Hail (1.25)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>KANSAS, Northwest</u>									
Decatur County									
4 SW Oberlin	05	1402CST			0	0			Hail (1.75)
Sherman County									
2 SE Edson to 4 SE Edson	05	1430MST 1440MST	2	50	0	0			Tornado (F0)
Landspout type tornado observed by several people as it moved southeast over open country.									
Cheyenne County									
12 W St Francis	06	2000CST			0	0			Hail (0.75)
Gove County									
24 SW Gove	08	1700CST			0	0			Hail (1.25)
Sherman County									
Goodland	08	2106MST			0	0			Hail (1.00)
One inch hail also reported at NWS office at 2058 MST.									
Cheyenne County									
4 W St Francis	08	2114CST			0	0			Hail (0.75)
Wallace County									
2 N Sharon Spgs	08	2130MST			0	0			Hail (0.75)
Greeley County									
10 NE Tribune	14	0430MST			0	0			Hail (0.88)
Wichita County									
8 S Marienthal	14	0530CST			0	0			Hail (0.75)
Wichita County									
11 N Marienthal	14	0630CST			0	0			Hail (0.88)
Wichita County									
10 N Leoti	15	1852CST			0	0			Hail (0.88)
Rawlins County									
1.5 N Atwood	24	2012CST			0	0	12K		Thunderstorm Wind (G61)
Winds estimated to at least 70 mph brought down 12 power poles.									
Sheridan County									
3 E Seguin	27	1726CST			0	0			Hail (1.75)
Sheridan County									
3 E Seguin	27	1741CST			0	0			Hail (0.75)
Thomas County									
1 SW Halford	27	1836CST			0	0			Hail (1.75)
Thomas County									
5 ESE Brewster	27	1845CST			0	0			Hail (0.75)
Thomas County									
Levant	27	1900CST			0	0			Hail (1.00)
Wallace County									
6 E Weskan	27	2019MST			0	0			Thunderstorm Wind (G52)
Wind estimated at least 60 mph blew two large trucks and a pickup off highway 40.									
<u>KANSAS, Southeast</u>									
Wilson County									
Buxton	03	1608CST			0	0			Hail (0.75)
Labette County									
5 N Angola	03	1726CST			0	0			Hail (1.00)
Labette County									
2 NW Bartlett	03	1750CST			0	0			Hail (1.75)
Sedgwick County									
Maize	03	1905CST			0	0			Hail (1.00)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>KANSAS, Southeast</u>									
Sedgwick County									
Wichita	03	1917CST			0	0			Hail (0.75)
Reno County									
Castleton	08	1622CST			0	0			Hail (1.75)
Sedgwick County									
(Ict)Wichita Arpt	08	1703CST			0	0			Hail (0.75)
Sedgwick County									
Wichita	08	1711CST			0	0			Hail (0.75)
Reno County									
1 N Haven	08	1740CST			0	0			Hail (0.75)
Reno County									
2 S Castleton	08	1747CST			0	0			Hail (1.50)
Reno County									
Haven	08	1758CST			0	0			Hail (1.50)
Sedgwick County									
Wichita	08	1759CST NEAR S. MAC ARTHUR			0	0			Hail (1.75)
Sedgwick County									
Wichita	08	1759CST INTERSECTION I-235 & K-42.			0	0			Hail (1.75)
Sedgwick County									
Wichita	08	1811CST INTERSECTION PAWNEE & MERIDIAN.			0	0			Hail (1.00)
Reno County									
Castleton	08	1822CST			0	0			Hail (1.75)
Harvey County									
10 W Hesston	08	1840CST			0	0			Hail (1.75)
Reno County									
Yoder	08	1845CST			0	0			Hail (0.75)
Reno County									
Yoder	08	1845CST			0	0			Thunderstorm Wind (G52)
Mcperson County									
2 S Inman	08	1848CST			0	0			Hail (1.00)
Mcperson County									
Groveland	08	1855CST			0	0			Hail (1.25)
Mcperson County									
7 SW Mc Pherson to 7 W Mc Pherson	08	1905CST			0	0			Hail (1.75)
Sedgwick County									
3 N Mt Hope	08	1905CST			0	0			Thunderstorm Wind (G52)
Marion County									
Durham	08	1945CST 4-5 INCH TREE LIMBS BLOWN DOWN.			0	0			Thunderstorm Wind (G61)
Reno County									
1 S Yoder	08	1945CST			0	0			Thunderstorm Wind (G75)
Reno County									
Haven	08	1957CST			0	0			Hail (0.75)
Reno County									
3 N Haven	08	2055CST			0	0			Hail (1.00)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>KANSAS, Southeast</u>									
Reno County									
Yoder	08	2207CST			0	0			Flash Flood
			SMALL CREEK FLOODED YODER ROAD.						
Harper County									
5 SW Attica	13	1738CST			0	0			Hail (0.88)
Harper County									
4 SW Attica	13	1747CST			0	0			Hail (0.88)
Harper County									
13 W Anthony	13	1755CST			0	0			Hail (2.75)
Harper County									
5 SW Attica	13	1817CST			0	0			Hail (1.00)
Harper County									
4 SW Attica	13	1843CST			0	0			Hail (0.88)
Harvey County									
2 N Burrton	13	1859CST			0	0			Hail (1.75)
Harper County									
2 SW Attica	13	1910CST			0	0			Hail (1.75)
Reno County									
Pretty Prairie	13	1912CST			0	0			Hail (1.75)
Harvey County									
Halstead	13	1915CST			0	0			Hail (0.75)
Harvey County									
4 E Burrton	13	1940CST			0	0			Hail (1.75)
Harvey County									
4 E Burrton to 5 E Burrton	13	1950CST			0	0			Hail (1.75)
Marion County									
4 NW Lincolnville	13	2040CST	0.5	50	0	0			Tornado (F0)
Marion County									
Tampa	13	2050CST			0	0			Hail (0.75)
Sumner County									
Perth	16	1753CST			0	0			Thunderstorm Wind (G78)
Cowley County									
6 W Winfield	16	1808CST			0	0			Hail (0.88)
Sumner County									
3 N Mulvane	16	1819CST			0	0			Hail (0.75)
Sumner County									
3 E Mulvane	16	1820CST			0	0			Thunderstorm Wind (G52)
Sedgwick County									
5 S Haysville	16	1825CST			0	0			Thunderstorm Wind (G52)
Sumner County									
3 E Mulvane	16	1831CST			0	0			Hail (1.00)
Sumner County									
Caldwell	16	1835CST			0	0			Hail (1.00)
Sedgwick County									
Derby	16	1839CST			0	0			Thunderstorm Wind (G61)
Cowley County									
2 S Rock	16	1840CST			0	0			Hail (1.00)
Cowley County									
2 S Rock	16	1840CST			0	0	75K		Thunderstorm Wind (G56)
			BARN BLOWN DOWN, MOBILE HOME ROLLED OVER, NUMEROUS TREES BLOWN DOWN.						

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>KANSAS, Southeast</u>									
Cowley County									
Udall	16	1840CST			0	0			Thunderstorm Wind (G78)
Sedgwick County									
8 NE Viola	16	1844CST			0	0			Hail (1.00)
Butler County									
Douglass	16	1850CST			0	0			Thunderstorm Wind (G52) SHINGLES BLOWN OFF ROOFS, & 6 INCH TREE LIMBS BLOWN DOWN.
Butler County									
Rose Hill	16	1850CST			0	0			Thunderstorm Wind (G52) POWER LINES BLOWN DOWN.
Cowley County									
2 S Rock	16	1857CST			0	0			Hail (1.00)
Sumner County									
1 S Wellington	16	2301CST			0	0			Thunderstorm Wind (G52) TREES & POWER LINES BLOWN DOWN.
Sedgwick County									
Viola	16	2340CST			0	0			Hail (1.00)
Sedgwick County									
Viola	16	2354CST			0	0			Hail (1.75)
Sedgwick County									
Derby	17	0500CST			0	0			Hail (1.75)
Sedgwick County									
7 S Derby	17	0515CST			0	0	500K		Thunderstorm Wind (G52) NUMEROUS TREES BLOWN DOWN, METAL BARN BLOWN DOWN @ 119TH & HILLSIDE. EXTENSIVE DAMAGE TO FARM DWELLINGS, STRUCTURES & MACHINERY.
Kingman County									
Norwich	20	0012CST			0	0			Flash Flood SANDY CREEK FLOODED PARTS OF K-42.
Kingman County									
Rago	21	0400CST			0	0			Flash Flood CHIKASKIA RIVER FLOODED 2 MILES SOUTH OF RAGO CLOSING SMALL SECTION OF K14.
<u>KANSAS, Southwest</u>									
Hamilton County									
2 E Coolidge	05	1440CST			0	0			Hail (1.75)
Hamilton County									
4 N Syracuse	05	1501CST			0	0			Hail (1.50)
Stanton County									
Manter	05	1530CST			0	3			Lightning Three were injured by a lightning bolt. One was a 70 year old male, another a 8 year old male and the third, a 5 year old female. All three had to be revived by CPR and all three were burned. Witnesses said they heard thunder only a couple of times but saw no lightning.
Stanton County									
Manter	05	1545CST			0	0	1.5K		Thunderstorm Wind Windows were blown out of a van and stop signs were blown down.
Hamilton County									
19 N Syracuse	05	1600CST			0	0			Hail (1.00)
Hamilton County									
19 N Syracuse	05	1600CST			0	0			Thunderstorm Wind (G59)
Scott County									
11 N Modoc	05	1605CST			0	0			Hail (0.75)
Stanton County									
2 S Johnson	05	1630CST			0	0			Hail (1.00)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>KANSAS, Southwest</u>									
Scott County									
6 SSW Shallow Water	05	1642CST			0	0			Hail (0.75)
Stanton County									
7 SW Manter	05	1645CST			0	0			Hail (1.00)
Trego County									
2 S Voda	05	1652CST			0	0			Thunderstorm Wind (G64)
Semi and a Winnebago were blown over on Interstate 70									
Morton County									
2 W Richfield	05	1700CST			0	0			Hail (0.88)
Morton County									
2 W Richfield	05	1700CST			0	0			Thunderstorm Wind (G64)
Lane County									
Shields	05	1703CST			0	0			Thunderstorm Wind (G52)
Finney County									
16 NNE Garden City	05	1705CST			0	0			Thunderstorm Wind (G64)
Morton County									
1 NE Richfield	05	1709CST			0	0			Hail (0.75)
Trego County									
Cedar Bluff Res	05	1715CST			0	0			Thunderstorm Wind (G64)
Ness County									
2 NNW Arnold	05	1720CST			0	0	1K		Thunderstorm Wind
Three inch tree limbs blown down.									
Morton County									
7 NE Elkhart	05	1732CST			0	0			Thunderstorm Wind (G52)
Finney County									
15 WSW Kalvesta	05	1745CST			0	0			Thunderstorm Wind (G64)
Gray County									
13 NNE Cimarron	05	1745CST			0	0	1K		Thunderstorm Wind
Four inch tree limbs blown down.									
Morton County									
Rolla	05	1745CST			0	0			Thunderstorm Wind (G52)
Ness County									
2 N Ness City	05	1745CST			0	0			Hail (0.88)
Stevens County									
9 SW Hugoton	05	1758CST			0	0			Thunderstorm Wind (G52)
Hodgeman County									
1 E Jetmore	05	1810CST			0	0			Thunderstorm Wind (G64)
Tops of trees blown off.									
Scott County									
2 SE Grigston	08	1620CST			0	0			Hail (1.00)
Scott County									
3 SE Grigston	08	1623CST			0	0			Hail (1.00)
Lane County									
5 SW Amy	08	1645CST			0	0			Hail (0.88)
Ford County									
Dodge City	08	1713CST			0	0			Hail (0.75)
Ford County									
Dodge City	08	1714CST			0	0			Hail (0.88)
Ford County									
Dodge City	08	1717CST			0	0			Hail (1.50)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>KANSAS, Southwest</u>									
Ford County									
Dodge City	08	1719CST			0	0			Hail (0.75)
Ford County									
Dodge City	08	1720CST			0	0	2.5K		Thunderstorm Wind
			Four inch tree limbs blown down.						
Ford County									
Dodge City	08	1725CST			0	0			Hail (0.75)
Finney County									
22 NE Garden City	08	1726CST			0	0			Hail (1.75)
Ford County									
Dodge City	08	1734CST			0	0			Hail (0.88)
Finney County									
17 ENE Garden City	08	1745CST			0	0			Hail (0.75)
Finney County									
17 ENE Garden City	08	1755CST			0	0			Hail (0.75)
Finney County									
6 W Kalvesta	08	1810CST			0	0			Hail (0.88)
Ford County									
10 N Bucklin	08	1810CST			0	0			Hail (1.00)
Kiowa County									
13 WNW Greensburg	08	1820CST			0	0			Hail (0.75)
Edwards County									
12 S Kinsley	08	1830CST			0	0			Hail (0.75)
Finney County									
10 WSW Kalvesta	08	1830CST			0	0			Hail (1.00)
Gray County									
12 N Cimarron	08	1841CST			0	0			Hail (0.75)
Meade County									
11 S Plains	08	1910CST			0	0			Hail (0.75)
Meade County									
Plains	08	1930CST			0	0			Hail (1.00)
Clark County									
1 NW Englewood	08	2100CST			0	0			Lightning
			Two well pumps and several fence chargers destroyed by lightning.						
Meade County									
11 SW Meade	08	2243CST			0	0			Flash Flood
			Roads flooded at Meade State Park.						
Meade County									
Fowler	10	2103CST			0	0			Thunderstorm Wind (G64)
Meade County									
5 E Meade	10	2103CST			0	0			Flash Flood
			Water over highway 98.						
Meade County									
10 SE Meade	10	2200CST			0	0			Flash Flood
			Water over old highway 160.						
Edwards County									
Kinsley	11	1805CST			0	0			Hail (0.75)
Edwards County									
Kinsley	11	1805CST			0	0			Thunderstorm Wind (G52)
Gray County									
9 NW Charleston	14	1806CST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 1997

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

KANSAS, Southwest

Finney County

6 NE Garden City 14 1830CST 0 0 Hail (0.88)

Gray County

Cimarron 14 1913CST 0 0 Hail (0.75)

Gray County

6 E Cimarron 14 1926CST 0 0 Hail (0.88)

Gray County

5 E Cimarron 14 1928CST 0 0 Hail (0.88)

Ford County

5 W Dodge City 14 1945CST 0 0 Hail (0.75)

Comanche County

21 SE Coldwater 15 0250CST 0 0 Hail (1.75)
Location 14 ESE Buttermilk

Comanche County

23 SE Coldwater 15 0300CST 0 0 Hail (1.00)
Location 16 ESE Buttermilk

Barber County

9 NW Medicine Lodge 15 0415CST 0 0 Hail (1.00)

Pratt County

13 SE Pratt 15 0430CST 0 0 Hail (1.00)

Scott County

Scott City 15 1920CST 0 0 30K Thunderstorm Wind
Tree was uprooted and then fell onto a house.

Scott County

Scott City 15 1935CST 0 0 Hail (0.75)

Finney County

24 NNE Garden City 15 2008CST 0 0 Thunderstorm Wind (G52)

Ford County

16 SW Dodge City 15 2200CST 0 0 Hail (0.75)

Ford County

14 SE Dodge City 15 2230CST 0 0 1K Thunderstorm Wind
Four inch tree limbs blown down.

Barber County

22 NW Medicine Lodge 16 0045CST 0 0 Hail (1.00)

Edwards County

3 SW Trousdale 19 2040CST 0 0 Hail (0.75)

Pratt County

1 E Cullison 19 2045CST 0 0 Hail (0.75)

Pawnee County

4 NW Garfield 19 2123CST 0 0 Hail (0.75)

KSZ081

Pratt
20 0020CST 0 0 Flood
Water over roads along the river near Pratt.

Stevens County

6 SW Hugoton 20 1910CST 0 0 Hail (0.75)

Ford County

5 SE Ford 20 2205CST 0 0 0.50K Hail (0.75)
Window broken by hail of unknown size.

Ford County

2 NE Kingsdown 20 2213CST 0 0 5K Thunderstorm Wind
Pivot irrigation system overturned.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>KANSAS, Southwest</u>									
Ford County									
1 NE Kingsdown to 1.5 NE Kingsdown	20	2213CST			0	0	8K		Thunderstorm Wind
One half mile of power poles blown down.									
Ford County									
5 W Bucklin	20	2217CST			0	0	1K		Thunderstorm Wind
Four inch tree limbs blown down.									
Pawnee County									
10 N Burdett	21	1511CST			0	0			Hail (0.75)
Pawnee County									
10 N Burdett	21	1511CST			0	0			Thunderstorm Wind (G52)
<u>KENTUCKY, Central</u>									
Warren County									
Bowling Green	14	1240EST			0	0			Thunderstorm Wind (G50)
Dispatch reports several trees and power lines down on Bowling Green's east side.									
Meade County									
Brandenburg	14	1930EST			0	0			Thunderstorm Wind (G50)
Several trees down in Brandenburg and Paynesburg.									
Ohio County									
Beaver Dam	14	1930EST			0	0			Thunderstorm Wind (G50)
Trees down near Beaver Dam and Hartford.									
Breckinridge County									
Countywide	14	1945EST			0	0			Thunderstorm Wind (G50)
Trees down across various parts of the county.									
Hardin County									
Rineyville	14	1945EST			0	0			Thunderstorm Wind (G50)
County dispatch reported several trees down.									
Butler County									
Countywide	14	2000EST			0	0			Thunderstorm Wind (G50)
Trees down across several parts of the county.									
Larue County									
Hodgenville	14	2020EST			0	0			Thunderstorm Wind (G50)
Ham radio operator reported trees down between Hodgenville and Tonieville.									
Edmonson County									
Cedar Spg	14	2025EST			0	0			Thunderstorm Wind (G50)
Dispatch reports several trees down.									
Hart County									
Cash	14	2025EST			0	0			Thunderstorm Wind (G50)
DES reports several trees down.									
Warren County									
Smiths Grove	14	2025EST			0	0	0.50K		Thunderstorm Wind (G60)
A porch was blown off a home.									
Allen County									
Scottsville	14	2050EST			0	0			Thunderstorm Wind (G50)
Several trees down and some damage reported at the Fairgrounds.									
Jefferson County									
Louisville	26	1654EST 1704EST			0	0			Thunderstorm Wind (G50)
Numerous trees down across Louisville and adjacent areas.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>KENTUCKY, Central</u>									
Jefferson County									
2 SE Jeffersontown to 2.5 SE Jeffersontown	27	2005EST 2006EST	0.5	75	0	0			Tornado (F0)
The Jeffersontown police and many people witnessed a brief tornado touchdown 2 mile s southeast of Jeffersontown and just south of the Gene Snyder Freeway. Only trees were were effected as it touched down in a wooded area.									
Cumberland County									
Modoc	28	1300EST			0	0			Hail (0.75)
Dime size hail reported by a spotter.									
Clinton County									
Countywide	28	1305EST			0	0			Thunderstorm Wind (G50)
Dispatch reports several trees down across the county.									
Logan County									
Russellville	28	1506EST			0	0			Hail (1.75)
Golfball size hail reported on Highway 68.									
Simpson County									
Franklin	28	1535EST			0	0			Thunderstorm Wind (G50)
Trees and power lines down in Franklin and other various spots across the county.									
Green County									
Greensburg	28	1545EST			0	0			Thunderstorm Wind (G50)
911 operator reported trees down just south of Greensburg in sparsely populated areas.									
Allen County									
Scottsville	28	1610EST			0	0			Thunderstorm Wind (G75)
Dime size hail was reported.									
Barren County									
Hiseville	28	1530EST			0	0	50K		Thunderstorm Wind (G60)
Several house lost roofs and 5 barns were destroyed by downburst winds.									
Metcalfe County									
Sulphur Well	28	1545EST			0	1	100K		Thunderstorm Wind (G60)
One man was injured as the mobile home he just finished collapsed on him. Also, several homes received minor damage and many barns were blown down.									
Boyle County									
Perryville	28	1600EST			0	0			Thunderstorm Wind (G50)
Several trees down.									
<u>KENTUCKY, Eastern</u>									
Lee County									
3 S Beattyville	09	1450EST			0	0	0	0	Thunderstorm Wind
Numerous trees were downed.									
Rowan County									
Clearfield	21	1522EST			0	0	0	0	Hail (0.75)
Floyd County									
Prestonsburg	21	1720EST			0	0	3K	0	Thunderstorm Wind
Power lines were downed.									
Breathitt County									
Lawson	21	1720EST			0	0	0	0	Hail (0.88)
Floyd County									
Martin	21	1737EST			0	0	3K	0	Thunderstorm Wind
Trees and power lines were downed.									
Pulaski County									
1.7 N Dabney	23	2000EST	0.2	30	0	0	2K	2K	Tornado (F0)
A small tornado downed trees, damaged crops, and blew down a sign.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>KENTUCKY, Eastern</u>									
Powell County									
Clay City	27	2045EST			0	0	0	0	Thunderstorm Wind
									Trees were downed.
Wolfe County									
Pine Ridge	27	2109EST			0	0	3K	0	Thunderstorm Wind
									Numerous trees and power lines were downed in the western part of the county.
Jackson County									
1 N Mc Kee	28	1400EST			0	0	0	0	Thunderstorm Wind
									Trees were downed.
Martin County									
2 E Inez	28	1440EST			0	0	3K	0	Thunderstorm Wind
									Trees were downed, and there was some minor roof damage.
Pulaski County									
Faubush	28	1445EST			0	0	0	0	Thunderstorm Wind
									Trees were downed.
Pulaski County									
13 N Somerset	28	1445EST			0	0	0	0	Thunderstorm Wind
									Numerous trees were downed.
Johnson County									
Denver	28	1530EST			0	0	3K	0	Thunderstorm Wind
									Trees and power lines were downed.
<u>KENTUCKY, Northeast</u>									
									NONE REPORTED.
<u>KENTUCKY, Northern</u>									
Kenton County									
Ft Wright	02	1840EST 1850EST			0	0	5K		Thunderstorm Wind (G50)
									Trees downed.
Campbell County									
Alexandria	02	1912EST 1920EST			0	0			Hail (1.75)
Mason County									
Maysville	02	2045EST 2050EST			0	0	5K		Thunderstorm Wind (G50)
									Several trees down.
Lewis County									
Tollesboro	02	2100EST 2105EST			0	0	5K		Thunderstorm Wind (G50)
									Numerous trees down.
Robertson County									
Piqua	14	1705EST 1710EST			0	0	3K		Thunderstorm Wind (G50)
									Trees downed.
Kenton County									
Countywide	23	1605EST 1620EST			0	0	10K		Thunderstorm Wind (G50)
									Numerous trees and power lines.
Campbell County									
Alexandria to Mentor	23	1610EST 1630EST			0	0	10K		Thunderstorm Wind (G50)
									Trees downed.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>KENTUCKY, Northern</u>									
Campbell County									
Highland Hgts	27	1532EST 1535EST			0	0			Thunderstorm Wind (G52)
			An observer reported a 60 mph wind gust.						
Campbell County									
Countywide	27	1820EST 1830EST			0	0	5K		Thunderstorm Wind (G50)
			Trees and power lines downed.						
Owen County									
Owenton	27	1945EST 1950EST			0	0	5K		Thunderstorm Wind (G50)
			Numerous trees and power poles downed.						
<u>KENTUCKY, Southwest</u>									
Ballard County									
Wickliffe	04	0120CST			0	0			Thunderstorm Wind (G52)
			A severe thunderstorm moved east across the Mississippi River from Scott County, Missouri. A few trees were down across southern Ballard County. Trees fell across a road near Wickliffe.						
Carlisle County									
Bardwell	04	0130CST			0	0			Thunderstorm Wind (G52)
			A severe thunderstorm tracked across the Mississippi River from southeast Missouri, downing several trees across the county.						
Marshall County									
2 S Benton to Hardin	04	0222CST			0	0	50K	30K	Hail (1.75)
Marshall County									
2 S Benton to Hardin	04	0222CST			0	0	200K		Thunderstorm Wind (G78)
			A microburst with wind gusts estimated near 90 MPH blew down hundreds of trees. No injuries or deaths were reported, but a dog was found dead after the storm. A farmer lost 60 acres of soybeans to wind-driven hail. The local utility company estimated between ten and twenty utility poles were destroyed. About 5,000 homes lost power in the storm. One house lost a roof. A double wide trailer blew up against another one, and a third trailer was knocked off its foundation.						
Calloway County									
Dexter	04	0225CST			0	0			Thunderstorm Wind (G52)
			Trees were blown down between Dexter and Almo. The heaviest damage was north of Dexter in Marshall County.						
Trigg County									
Canton	04	0245CST			0	0			Thunderstorm Wind (G52)
			A couple trees were blown across a state highway near Canton.						
Christian County									
1 W Hopkinsville	04	0330CST			0	0	5K		Thunderstorm Wind (G52)
			Tree limbs and power lines were down on the west side of Hopkinsville.						
Graves County									
Farmington	13	0715CST 0815CST			0	0			Urban/Sml Stream Fld
			Thunderstorms produced very heavy rain. Radar estimated up to 3 inches of rain. Water was over roads.						
Daviess County									
Owensboro	14	1747CST 1808CST			0	0	20K		Thunderstorm Wind (G52)
			Damaging thunderstorm winds knocked down numerous trees and power lines. A large window was blown out of a store in Owensboro. A tree fell through the roof of a garage, damaging a vehicle inside. A major thoroughfare was blocked by a fallen tree.						
Henderson County									
Henderson	14	1806CST			0	0	4K		Thunderstorm Wind (G50)
			Power lines were down across the county.						
Union County									
2 SE Morganfield	14	1815CST			0	0	2K		Thunderstorm Wind (G50)
			A couple of trees were down.						

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
KENTUCKY, Southwest									
Webster County									
Dixon	14	1830CST			0	0	5K		Thunderstorm Wind (G50)
									A tree and some power lines were down.
Ballard County									
Blandville	14	1844CST			0	0	4K		Thunderstorm Wind (G52)
									Large trees were down, closing Route 286.
Carlisle County									
Bardwell	14	1853CST			0	0	3K		Thunderstorm Wind (G50)
									A few power lines were down.
Livingston County									
Smithland	14	1905CST			0	0	2K		Thunderstorm Wind (G50)
									A couple of trees were down.
Marshall County									
Benton	14	1918CST			0	0			Thunderstorm Wind (G52)
									A gust to 60 MPH was reported by DES personnel.
Calloway County									
Murray	14	1920CST			0	0	2K		Thunderstorm Wind (G50)
									Scattered trees were down across the county.
Mccracken County									
Paducah	14	1927CST			0	0	8K		Thunderstorm Wind (G50)
									Sporadic reports of downed tree limbs and power lines were received from across the county. A back porch was damaged.
Graves County									
Mayfield	14	1930CST			0	0	1K		Thunderstorm Wind (G50)
									A few large tree limbs were down.
Hickman County									
Beulah	14	1930CST			0	0	3K		Thunderstorm Wind (G50)
									Trees were down on Route 307.
Trigg County									
3 N Canton	14	1930CST			0	0	2K		Thunderstorm Wind (G50)
									Trees were blown down at Barkley Lodge.
Christian County									
Hopkinsville	14	1945CST			0	0	3K		Thunderstorm Wind (G50)
									Trees were blown down across the county.
Fulton County									
Fulton	14	1948CST			0	0	20K		Thunderstorm Wind (G52)
									In Fulton, several trees and a number of large tree limbs were blown down. One business in Fulton sustained roof damage, resulting in damaged computers and inventory.
Lyon County									
6 SW Confederate	14	2005CST			0	0	4K		Thunderstorm Wind (G50)
									Trees and power lines were down in the southwest part of Lyon County.
Webster County									
Onton	22	1030CST			0	0	25K		Thunderstorm Wind (G52)
									Two chicken houses under construction were knocked to the ground, and two others were damaged. Construction workers were inside at the time, but no one was injured.
KYZ001>022									
	25	1100CST			0	0			Excessive Heat
	28	1900CST							
									High temperatures were in the upper 90s to near 100 degrees. At the National Weather Service office in Paducah, the high reached 100 degrees, the warmest reading in a couple of years. High humidity raised the heat index to between 105 and 115 degrees. A heat advisory was issued due to the potentially hazardous conditions.

Storm Data and Unusual Weather Phenomena

July 1997

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

Mccracken County

Lone Oak	27	1500CST			0	0			Funnel Cloud A small funnel cloud was sighted over the Lone Oak area. The funnel was observed by employees at the Paducah National Weather Service office. The brief funnel cloud was very small and never extended very far toward the ground. The funnel was associated with a weak thunderstorm.
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Caldwell County

4 SW Princeton	28	1545CST			0	0	5K		Thunderstorm Wind (G52) Trees were down over power lines.
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Christian County

Hopkinsville	28	1640CST			0	0	3K		Thunderstorm Wind (G50) Trees and limbs were blown down.
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Todd County

Fairview	28	1643CST			0	0	4K		Thunderstorm Wind (G50) Trees were down.
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Livingston County

Ledbetter	28	1645CST			0	0	3K		Thunderstorm Wind (G50) Large tree limbs were down.
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Marshall County

Palma to Benton	28	1703CST			0	0	50K		Thunderstorm Wind (G52) A gust to 60 MPH was reported near Palma. About 100 feet of roofing was blown off the IGA store near Possum Trot. Telephone poles were down at Benton.
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Trigg County

Golden Pond	28	1735CST			0	0	3K		Thunderstorm Wind (G50) Trees were down.
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Calloway County

Almo to Murray	28	1805CST 1815CST			0	0	70K		Thunderstorm Wind (G52) Trees and power lines were down across the north part of the county. Trees up to 4 feet in diameter were down in Murray, blocking several city streets. High winds caused damage to several businesses along U.S. Highway 641. Three vehicles were heavily damaged by a falling tree on the campus of Murray State University. A few windows were broken and a roof was slightly damaged on the college campus.
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Graves County

Farmington	28	1855CST			0	0			Hail (0.75)
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Carlisle County

Bardwell	28	1930CST			0	0	5K		Thunderstorm Wind (G52) Trees and power lines were down at a few locations in the county.
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Calloway County

Murray	28	1930CST			0	0	4K		Thunderstorm Wind (G50) Tree limbs and power lines were down at a few locations across the county.
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Ballard County

Wickliffe to Barlow	28	2000CST			0	0	4K		Thunderstorm Wind (G52) Trees and limbs were on roads between Wickliffe and Barlow.
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LOUISIANA, Northeast

NONE REPORTED.

LOUISIANA, Northwest

Sabine Parish

10 N Many	06	1500CST			0	0			Thunderstorm Wind (G60) Few trees toppled along Hwy 175.
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Sabine Parish

10 SW Many	06	1500CST			0	0			Thunderstorm Wind (G60)
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Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>LOUISIANA, Northwest</u>									
Sabine Parish									
Zwolle	06	1505CST			0	0			Hail (0.75)
Bossier Parish									
Bossier City	06	1535CST			0	0			Thunderstorm Wind (G60)
Trees and power lines were downed along Airline Drive.									
Natchitoches Parish									
Campiti	06	1605CST			0	0			Thunderstorm Wind (G60)
Trees down along Hwy 71.									
Natchitoches Parish									
Creston	06	1615CST			0	0			Thunderstorm Wind (G60)
Trees reported down along Hwy 153.									
<u>LOUISIANA, Southeast</u>									
Lafourche Parish									
5 S Larose	05	1120CST			0	0	0		Hail (0.75)
St. Bernard Parish									
5 SE Chalmette	07	1115CST			0	0			Funnel Cloud
A funnel cloud was sighted by residents of Chalmette as well as from Lakefront Airport in New Orleans.									
St. Bernard Parish									
Violet	07	1200CST 1400CST			0	0			Urban/Sml Stream Fld
Street flooding was reported in portions of St Bernard Parish when locally heavy rainfall occurred in a short period of time.									
Ascension Parish									
Geismar	07	2100CST			0	0			Lightning
A lightning strike at a chemical plant caused a release of vinyl chloride and ammonia.									
East Baton Rouge Parish									
	08	1150CST			0	0			Funnel Cloud
A funnel cloud was observed near the airport.									
St. Tammany Parish									
Slidell	08	1210CST 1230CST			0	0			Funnel Cloud
Several funnel clouds were sighted in and around Slidell by residents as well as National Weather Service personnel.									
Plaquemines Parish									
Davant to Phoenix	08	1330CST			0	0			Urban/Sml Stream Fld
Heavy rainfall produced street flooding in the central portion of Plaquemines Parish.									
St. Tammany Parish									
Slidell	08	1330CST 1600CST			0	0			Urban/Sml Stream Fld
Heavy rainfall in a short period of time produced significant and widespread street flooding in the north portion of Slidell.									
Iberville Parish									
Plaquemine	09	1300CST 1600CST			0	0			Urban/Sml Stream Fld
Parish emergency management reported Louisiana Highway 1 was closed due to flooding caused by heavy rain. In addition, a few homes were flooded in the community of Plaquemine.									
St. Tammany Parish									
Mandeville	11	1510CST 1530CST			0	0	100K		Thunderstorm Wind (G54)
Thunderstorm wind gusts blew down approximately 25 trees in a Mandeville subdivision. An auto service station also had its service canopy blown off by wind gusts. A small truck was damaged by the downed canopy. A wind gust of 54 knots was recorded at the automated wind gage at the north approach to the Lake Pontchartrain Causeway.									

Storm Data and Unusual Weather Phenomena

July 1997

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

St. Tammany Parish

Mandeville	11	1515CST			0	0			Hail (1.00)
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Hail, up to the size of a quarter, was reported.

St. James Parish

Paulina	12	1510CST			0	0	20K		Thunderstorm Wind
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A metal building was blown down by thunderstorm wind gusts.

Jefferson Parish

Terrytown	13	1400CST			0	0	200K		Lightning
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A lightning strike caused a fire which heavily damaged a house.

Terrebonne Parish

2 N Houma	13	1535CST			0	0	0.50K		Thunderstorm Wind
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Sheriffs Office reported 60 mph wind gusts near the Terrebonne-Lafourche Parish border.

Livingston Parish

Port Vincent	13	1600CST 1615CST			0	0	1K		Thunderstorm Wind
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Several trees were reported down along Louisiana Highway 16 in southwest Livingston Parish.

St. Helena Parish

Montpelier	13	1600CST 1700CST			0	0			Urban/Sml Stream Fld
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Sheriffs Office reported heavy rainfall which resulted in flooding of Louisiana Highway 16 near Montpelier.

Pointe Coupee Parish

New Roads	13	1700CST			0	0	0.50K		Thunderstorm Wind
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Sheriffs Office reported trees were downed by thunderstorm wind gusts.

Jefferson Parish

Harahan	15	1550CST			0	0	0.30K		Thunderstorm Wind
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Television meteorologist reported large tree limbs downed by wind gusts. Wind gusts were estimated around 60 mph.

LAZ061>064-066>070

Upper Jefferson - Orleans - Upper Plaquemines - Upper St. Bernard - Lower Terrebonne - Lower Lafourche - Lower Jefferson - Lower Plaquemines - Lower St. Bernard

17	0900CST			0	0	5M		Hurricane
18	2100CST							

A tropical depression in the northwest Gulf of Mexico was classified as Tropical Storm Danny during the morning of July 17th. Danny drifted slowly north during the day and northeast during the evening hours. Danny was classified as a minimal hurricane during the early morning hours of July 18 as it approached lower Plaquemines Parish. Hurricane Danny crossed lower Plaquemines parish during the early morning hours before moving slowly northeast across Chandeleur and Breton Sounds toward Mobile Bay. Grand Isle, Louisiana and portions of lower Plaquemines Parish experienced the most damage from the hurricane. On Grand Isle, a wind gust of 83 knots and a high tide of 5.4 feet was recorded at the NOAA's automated C-Man station on the east end of the island. Approximately 160 house and 80 businesses reported some type of damage on the island. At Grand Isle, Jefferson Parish, the state of Louisiana estimated damage and clean-up efforts to public agencies around \$1.5 million. In Plaquemines Parish, the greatest damage occurred between Empire and Bootheville/Venice. Within the hurricane protection levees, wind damage occurred to trees, power lines, house roofs, and mobile homes. Approximately 10 inches of rain also caused localized flooding. Outside the hurricane protection levee, approximately 130 commercial fishing vessels suffered damage at a marina in Buras. A Corps of Engineers tide gage at Venice recorded a maximum water level of 4.85 feet. The state estimated damage to public property and cleanup efforts in Plaquemine parish at \$3.5 million. Because Danny was a minimal hurricane and small in size, the damages in the remainder of extreme southeast Louisiana was minimal. Storm tides were generally 2 to 3 ft above normal, which flooded some highways in the lower portions of Terrebonne Parishes, and a few roads in St. Bernard and Orleans Parishes outside of the hurricane protection levees.

LOUISIANA, Southwest

LAZ053

Iberia

04	1430CST			0	0	20K		Excessive Heat
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Hot weather is blamed for a house fire that damaged a roof in New Iberia. Heat from the tin roof caused a fire to start in the thin wood shingles or in an animal's nest in the attic. Heat indices were running between 112 and 115 degrees.

Vermilion Parish

Erath	05	1510CST			0	0	20K		Lightning
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Lightning struck two oil storage tanks, igniting a fire on one tank that burned for about an hour.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
LOUISIANA, Southwest									
Iberia Parish									
New Iberia	05	1520CST			0	0	20K		Thunderstorm Wind
Severe thunderstorm winds blew several trees and telephone poles down.									
Iberia Parish									
New Iberia	05	1630CST			0	0	25K		Thunderstorm Wind
Severe thunderstorm winds blew down many trees and power lines across New Iberia.									
Jefferson Davis Parish									
15 N Jennings	05	1910CST			0	0	10K		Thunderstorm Wind
Severe thunderstorm winds blew down several trees on power lines around Elton.									
Calcasieu Parish									
Sulphur	05	1920CST 2000CST			0	0	5K		Urban/Sml Stream Fld
Between two and three inches of rain fell in less than one hour, resulting in temporary flooding of roadways in and around Sulphur.									
Calcasieu Parish									
15 N Sulphur	05	1940CST			0	0	10K		Thunderstorm Wind
Severe thunderstorm winds blew several trees down near DeQuincy.									
St. Landry Parish									
Eunice	08	1100CST 1200CST			0	0	20K		Urban/Sml Stream Fld
Between three and four inches of rain fell in less than one hour, resulting in street flooding across Eunice. Several vehicles were stranded in deep water.									
Iberia Parish									
New Iberia	13	1600CST			0	0	30K		Thunderstorm Wind
Severe thunderstorm winds blew several trees down across New Iberia. One tree fell on a parked car, crushing it. No one was injured.									
Iberia Parish									
New Iberia	13	1730CST 1830CST			0	0	10K		Urban/Sml Stream Fld
Between two and three inches of rain fell in less than one hour, resulting in street flooding.									
Lafayette Parish									
Youngsville	13	1815CST			0	0			Hail (0.75)
St. Martin Parish									
Breaux Bridge	13	1830CST			0	0	10K		Thunderstorm Wind
Severe thunderstorm winds blew down trees along Interstate 10 between the Atchafalaya River and Breaux Bridge.									
Allen Parish									
Le Blanc	14	1600CST			0	0	20K		Thunderstorm Wind
Severe thunderstorm winds blew over a mobile home.									
Allen Parish									
2 N Kinder	23	1702CST			0	0			Hail (1.75)
Rapides Parish									
Cheneyville	23	1800CST			0	0	10K		Lightning
Lightning struck a reservoir tank, erupting it in flames.									
Calcasieu Parish									
Gillis	23	1825CST			0	0			Hail (1.00)
Calcasieu Parish									
Lake Charles	25	1450CST 1600CST			0	0	10K		Urban/Sml Stream Fld
Around three inches of rain fell in less than one hour, resulting in street flooding.									
Vermilion Parish									
Abbeville	29	1500CST			0	0	40K		Thunderstorm Wind
Severe thunderstorm winds blew down several trees. One tree landed on a garage with a car parked inside. The garage was demolished, while the car had minor damage.									

Storm Data and Unusual Weather Phenomena

July 1997

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

Calcasieu Parish

Sulphur	29	1900CST			0	0	150K		Thunderstorm Wind
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Severe thunderstorm winds, estimated at 70 to 80 mph, caused extensive damage in Sulphur. One mobile home lost its entire roof. Three mobile homes were flipped over and destroyed. At least another 15 homes received minor damage, ranging from lost shingles to broken windows. Several barns at the fairgrounds also received roof damage.

MAINE

Somerset County

Pittsfield	08	1600EST			0	0	5K		Lightning
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09 0700EST
Lightning travelling through electrical lines caused about \$5000. in damage to equipment at the town office in Pittsfield sometime during the night.

Cumberland County

Scarborough	09	1300EST			0	0	70K		Lightning
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Lightning from a thunderstorm struck a barn that was attached to a home causing extensive damage to the structure.

Aroostook County

3 W Ft Kent	28	1430EST	0.1	8	0	0			Tornado (F0)
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A small tornado touched down on the east side of Middle Hill about 3 miles west of Ft. Kent. The tornado uprooted tall trees in an area about 225 ft long and 25 feet wide.

MARYLAND, Central

MDZ002>007-009>010-013>014 **Allegany - Washington - Frederick - Carroll - Northern Baltimore - Harford - Montgomery - Howard - Prince Georges - Anne Arundel**

01	0000EST				0	0	43.7M		Drought
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31 2359EST
A very dry month, containing one 7-day heat wave, exacerbated drought-like conditions across much of the fertile farmland of Maryland. The weather in July proved to be the death knell for much of the crop yields, including corn, hay, alfalfa, and soybeans. Agricultural states of emergency were declared in many areas west of the Chesapeake Bay. Hardest-hit counties included Carroll (MDZ005), Frederick (MDZ004), Howard (MDZ010), Montgomery (MDZ009), and Washington (MDZ003).

Some of the more impressive damage estimates were as follows: in Frederick Co, nearly \$9 million in corn, an approximate 90 percent loss; an additional \$5.5 million in corn for silage and soybean, a 60 percent loss. In Washington Co, an estimated \$8.6 million in grain and silage corn, a 70 percent loss. In Montgomery Co, \$2.5 million in grain corn and \$2.1 million in soybeans, a 65 percent loss. Counties on the mid and upper eastern shore, known for their extensive corn production, had losses above \$10 million in grain corn alone.

Frederick County

3 NW Thurmont	07	0035EST			0	0	2K		Gusty Wind
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An isolated thunderstorm produced estimated winds as high as 55 mph. A few limbs were knocked down, and very minor structural damage was reported, as well as 1/2 inch diameter hail.

Washington County

Smithsburg	09	1530EST			0	0	8K		Thunderstorm Wind
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Anne Arundel County

Annapolis	09	1745EST			0	0	10K		Thunderstorm Wind
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Harford County

Aberdeen Proving Grn	09	1815EST			0	0	5K		Thunderstorm Wind (G56)
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A broken line of thunderstorms moved through northern Maryland during the afternoon, producing isolated severe weather. In Washington Co, the local sheriff's department reported several large limbs and power lines were down. A pickup truck cap was blown off as well. Farther east, a gust to 64 mph at Poverty Point in the Aberdeen Proving Ground knocked down numerous small to large tree limbs, and knocked down a few trees as well.

Three racing sailboats were flipped in Annapolis Harbor just east of the Naval Academy sea wall. Two boats were brought upright, but one remained overturned and allegedly sunk. No persons were injured. Approximately 8,000 Baltimore Gas and Electric customers lost power during the storm.

Storm Data and Unusual Weather Phenomena

July 1997

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

MDZ002>007-009>011-013>014-016>018 **Allegany - Washington - Frederick - Carroll - Northern Baltimore - Harford - Montgomery - Howard - Southern Baltimore - Prince Georges - Anne Arundel - Charles - St. Mary'S - Calvert**

13	1100EST			2	100				Excessive Heat
19	1500EST								

The combination of antecedent dry weather, a prolonged upper-level high pressure area, and the time of year produced a bona-fide heat wave across much of Maryland during the middle of the month. Unlike events of previous years, the apparent temperature was not quite as oppressive. Nonetheless, daytime high temperatures averaged in the upper 90s for the 7 days, with the hottest days occurring on the 17th and 18th.

Surface ozone levels became hazardous as the heat wave persisted; the Metropolitan Council of Governments declared code orange (approaching unhealthful) or red (unhealthful) conditions each day. The heat wave resulted in increased power output; Baltimore Gas and Electric reported a record 6,000 megawatts on the 15th. Water usage bans were enforced in portions of southern Washington Co (MDZ003) from the 13th through the 17th.

Three persons perished in Maryland (west of the Bay) from the heat in July. One death was indirect; on July 20th, a woman died in an automobile because the vehicle's windows were shut tight (Montgomery Co, F89VE). The other deaths were directly attributable to the heat. A woman was found dead in her Baltimore City apartment on the morning of the 18th; the unit had no air conditioning or fans and the interior temperature was measured at 90 degrees at 0600 EST. Late in the month (July 27th) a man collapsed while riding a motorcycle; he was wearing several layers of heavy clothing.

Local hospitals across the state reported dozens of persons were treated for heat-related disorders. Most were from heat exhaustion; some were from the more dangerous heat stroke. Many were in the Baltimore-Annapolis metropolitan region, including 3 Navy midshipmen.

M35OU, F62PH

Montgomery County

Bethesda	18	1845EST			0	0	5K		Thunderstorm Wind
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Prince George'S County

College Park to Brandywine	18	1900EST			0	0	20K		Thunderstorm Wind (G53)
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Charles County

Waldorf	18	1925EST			0	0	3K		Thunderstorm Wind (G61)
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A rapidly developing squall line produced scattered severe weather as it moved from the northern suburbs of Washington, DC through lower southern Maryland. In Bethesda, large limbs were knocked down. Numerous large limbs and some trees fell in Prince George's Co, namely in College Park, Riverdale, and Silver Hill. Other damage occurred between Bowie and Brandywine, including several snapped tree tops. Property damage was minimal, including minor roof damage from fallen limbs.

In Waldorf, a wind gust of 71 mph was reported. An observer in White Plains (Charles Co) recorded a 61 mph gust. In the District of Columbia and immediate Maryland suburbs, 20,000 customers were without power during the height of the storm. In Anne Arundel Co, at least 8 large limbs fell onto roads and into yards, but no direct property damage was reported. In all, 25,000 Baltimore Gas and Electric customers lost power during the storm; 18,000 of those were in Anne Arundel Co.

Allegany County

Luke	28	1416EST			0	0	2K		Thunderstorm Wind
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Allegany County

10 E Cumberland	28	1440EST			0	0	3K		Thunderstorm Wind
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Large limbs and power lines were knocked down along several roads east of Cumberland. Large limbs and a few power lines were also knocked down along the Allegany/Garrett Co line in Luke.

Anne Arundel County

Annapolis to Severna Park	28	1715EST			0	0	8K		Thunderstorm Wind
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Charles County

Port Tobacco to La Plata	28	1729EST 1740EST			0	0	10K		Thunderstorm Wind
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A bow-echo squall line produced scattered tree and wire damage in the Annapolis/Severna Park section of eastern Anne Arundel

Storm Data and Unusual Weather Phenomena

July 1997

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

MARYLAND, Central

Co. At least eight large limbs were downed in Annapolis, with additional tree damage in nearby Severna Park. The combination of lightning and wind left an estimated 18,000 customers without power immediately after the storm.

Farther south, thunderstorm winds produced a swath of scattered damage across central Charles Co. The damage occurred along a 10-mile path from Liverpool Point to just north of La Plata. Some trees, large limbs, and wires were knocked down along area roadways, including Turkey Hill, Spalding, and Hawthorne Drives. In La Plata, indirect storm damage occurred when fallen "hot" wires ignited a fire at an empty warehouse in an industrial park; the building eventually burned to the ground.

Howard County

Clarksville

30	1200EST			0	0			Dust Devil
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A dust devil developed in an open field near Clarksville during the early afternoon, picking up 5 to 6 tents up to 25 feet in the air. The tents contained camping duffel bags - the bags held up to 40 pounds of equipment. One tent was slightly damaged when it was ejected from the dust devil and struck a parked truck. The tents and equipment were part of the Cycle Across Maryland annual summer tour.

MARYLAND, Northeast

Cecil County

Bay View

09	1830EST 1840EST			0	0			Thunderstorm Wind (G50)
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A severe thunderstorm uprooted numerous trees across central parts of Cecil County and a few trees also in western sections of the county.

MDZ008-012-015-019>020

Cecil - Kent - Queen Annes - Talbot - Caroline

12 19	1000EST 1800EST			0	0			Excessive Heat
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The longest and hottest heat wave of the summer of 1997 brought up to 8 straight days of temperatures of 90 degrees or higher to the Maryland Eastern Shore along with oppressive humidity and limited rainfall. The heat wave started to end after a strong cold front moved through the region early on the 19th. In spite of lowering humidity levels, high temperatures on the 19th still made it into the 90s across most of the central and southern parts of the Eastern Shore. The hottest day for most areas was the 15th as high temperatures were near 100 degrees. This was also the day the Pennsylvania-Jersey-Maryland Interconnection (PJM) reported a record usage of 49,822 megawatts in their regional serving area. This surpassed the previous record of 48,524 megawatts set on August 2, 1995. Highest temperatures during this heat wave included 99 degrees at the Baltimore-Washington International Airport and 98 degrees at both Bridgeville (DE) and Salisbury. No widespread heat related injuries were reported. But, the lack of rain continued to stress crops, throughout the Eastern Shore, especially in Queen Anne's County. Rainfall totals for the month of July on a county weighted average were less than three inches which is about 1.0 to 1.5 inches below normal. By the end of the month, 15 of the 23 Maryland counties were suffering serious drought conditions. Governor Glendening asked the Clinton Administration to declare Maryland's drought ravaged farmland a disaster area.

Queen Anne'S County

Centreville

18	1950EST			0	0			Thunderstorm Wind (G50)
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A severe thunderstorm knocked down several trees and wires in and around Centreville. Frequent lightning also ignited a couple of small fires.

Caroline County

Denton

18	2015EST			0	0	0		Thunderstorm Wind
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A severe thunderstorm tore down large limbs from trees in and around Denton.

Cecil County

Countywide

23 24	1400EST 0700EST			0	0			Heavy Rain
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Heavy rain, associated with weak low pressure systems riding along a nearly stationary frontal boundary just to the south of the Maryland Eastern Shore, fell across Cecil County from the afternoon of the 23rd to the morning of the 24th. For most places this was the heaviest rain in the county since the start of June. Storm totals included 1.47 inches in Conowingo. Because of the extremely dry weather preceding this week, there was no stream or creek flooding and flooding was confined to the usual poor drainage and low-lying areas.

MARYLAND, South

Worcester County

Ocean Pines

16	1515EST			0	0			Hail (1.00)
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Storm Data and Unusual Weather Phenomena

July 1997

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

Wicomico County

Salisbury	16	1655EST			0	0	30K		Thunderstorm Wind (G59)
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Wind gust of 68 mph recorded at WBOC TV. Portions of a motel roof and industrial park roofs were blown off. Numerous trees and wires down.

MARYLAND, West

Garrett County

10 S Oakland	09	1345EST			0	0			Hail (0.75)
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Garrett County

Redhouse	18	2140EST			0	0	2K		Thunderstorm Wind
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Thunderstorm winds downed large trees.

Garrett County

Oakland	28	1350EST 1410EST			0	0	20K		Thunderstorm Wind
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A tree fell onto a car in Oakland. Numerous trees were downed near Deep Creek Lake and throughout the county.

MASSACHUSETTS, Central and East

Franklin County

Heath to Colrain	03	1658EST 1704EST	4.5	100	0	0	50K		Tornado (F1)
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A tornado touched down just west of Number Nine Road and then skipped along a path which ended about a mile into northwest Colrain. Many large trees were uprooted or snapped at their mid levels. A silo was destroyed and part of the roof of an attached barn was peeled back. A hay tractor was flipped over with its wheels in the air. Doors to a garage were blown in and the roof was partially ripped off. The tornado affected mostly wooded terrain and did extensive tree damage when it passed through a state forest. The path width was up to 100 yards. There were no injuries.

Hampden County

Blandford	03	1730EST			0	0			Thunderstorm Wind (G50)
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Franklin County

Charlemont to Colrain	03	1758EST 1807EST	8.5	100	0	0	50K		Tornado (F1)
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A tornado touched down in the eastern part of Charlemont and travelled east causing damage to a campground. Fifteen trailers were damaged from falling trees and flying debris. Two of the trailers were severely damaged and one was destroyed with seven trees falling on top of it. Eyewitnesses reported rotation in the clouds and debris. The tornado then moved through the higher terrain of the Catamount State Forest. The path was discontinuous and ranged in width from 50 to 100 yards. The tornado path ended in the Copeland Hills section of Colrain. There were no direct injuries reported.

Franklin County

Montague	03	1800EST			0	0			Thunderstorm Wind (G50)
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Hampshire County

Ware	03	1835EST			0	0			Thunderstorm Wind (G50)
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Franklin County

Shutesbury	03	1845EST			0	0			Thunderstorm Wind (G50)
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Worcester County

Hardwick	03	1845EST 1900EST			0	0			Thunderstorm Wind (G50)
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Middlesex County

Littleton	03	2035EST			0	0			Hail (0.75)
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Bristol County

Acushnet	03	2125EST			0	0			Hail (0.75)
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Bristol County

Acushnet	03	2140EST			0	0			Hail (0.88)
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Plymouth County

Rochester	03	2200EST			0	0			Hail (1.75)
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Barnstable County

Sandwich	03	2225EST			0	0			Hail (0.75)
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A line of severe thunderstorms swept across the state producing tornadoes and strong thunderstorm winds in the western part of the state and several reports of strong thunderstorm winds in Worcester County in central Massachusetts. As the line of storms

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
MASSACHUSETTS, Central and East									
moved east and southeast, there were many reports of large hail. Dime size hail was reported in Littleton in Middlesex County as well as in several communities in Bristol County. There even was a report of golf ball size hail from Rochester in the southern part of Plymouth County. There was dime size hail from Sandwich on the western part of Cape Cod. Lightning strikes started several small fires which resulted in only minor damage. Scattered power outages were reported.									
Hampshire County									
South Hadley	07	1126EST 1140EST			0	0			Hail (0.75)
Worcester County									
Northbridge	07	1340EST			0	0			Hail (0.75)
Worcester County									
Upton	07	1343EST			0	0			Hail (0.88)
Norfolk County									
Norfolk	07	1353EST			0	0			Hail (0.75)
Worcester County									
Northbridge	07	1358EST			0	0			Hail (0.75)
Norfolk County									
Walpole	07	1410EST			0	0			Hail (0.75)
A line of thunderstorms moved across the state beginning in the early afternoon in Hampshire County and then moving eastward through Worcester County to the eastern part of the state by mid-afternoon. The storms produced mostly dime size hail at scattered locations. Gusty winds estimated up to 50 mph accompanied some of the storms. Boston's Logan International Airport recorded a peak gust to 40 mph at 3:36 PM. A lot of pea size hail was reported in North Plymouth, in Plymouth County.									
Hampden County									
Tolland	07	1930EST			0	0			Hail (0.75)
Hampden County									
Westfield	07	2005EST			0	0			Hail (1.75)
Hampden County									
West Springfield	07	2007EST			0	0			Hail (0.75)
Thunderstorms reached severe intensity in Hampden County in western Massachusetts during the mid-evening hours. Dime size hail fell in Tolland and West Springfield while golf ball size hail was reported in Westfield. There were no reports of damage.									
Hampden County									
Blandford	09	1350EST			0	0			Hail (0.75)
Hampden County									
Chester	09	1358EST			0	0			Thunderstorm Wind (G50)
Hampshire County									
Huntington	09	1400EST			0	0			Hail (0.75)
Hampshire County									
Northampton	09	1425EST			0	0			Thunderstorm Wind (G50)
Franklin County									
Leverett	09	1430EST			0	0			Thunderstorm Wind (G50)
Hampden County									
Tolland to Granville	09	1430EST 1444EST			0	0			Thunderstorm Wind (G50)
Also affected Blandford.									
Hampshire County									
Hadley to Amherst	09	1440EST			0	0			Thunderstorm Wind (G50)
Hampden County									
West Springfield to Agawam	09	1508EST 1512EST			0	0			Hail (0.88)
Middlesex County									
Pepperell	09	1512EST			0	0	1K		Thunderstorm Wind (G50)
Hampden County									
Longmeadow	09	1513EST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 1997

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

MASSACHUSETTS, Central and East

Hampshire County

Hatfield	09	1515EST			0	0			Thunderstorm Wind (G50)
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Worcester County

Templeton	09	1525EST			0	0			Thunderstorm Wind (G50)
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Franklin County

Leverett	09	1530EST			0	0			Thunderstorm Wind (G50)
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Worcester County

Holden to Worcester	09	1530EST 1545EST			0	1	4K		Thunderstorm Wind (G70)
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Worcester County

Lunenburg	09	1543EST			0	0			Hail (0.75)
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Middlesex County

Groton	09	1600EST			0	0			Hail (0.75)
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A warm, moist airmass ahead of an approaching cold front produced a line of thunderstorms, many severe, which marched across the state from west to east. The line reached the Connecticut Valley, affecting towns in Hampden, Hampshire, and Franklin Counties starting just before 3 PM. A microburst occurred in Worcester later during the afternoon. In Hampden County, spotters reported dime size hail in Blandford and Longmeadow. Trees were reported blown down in Granville and Tolland where about 4,000 electric customers lost power. State police reported trees blown down in Chester. Nickel size hail fell in West Springfield and Agawam. In Hampshire County, dime size hail was reported in Huntington and trees and power lines were knocked down in Northampton. One tree fell on a house. Numerous trees were blown down in Amherst and road signs were reported down in Hadley at the intersection of Routes 9 and 47.

In Worcester County, wind damage was reported in Templeton, including downed power lines. Also, in Worcester County, two microbursts occurred within 15 minutes of each other. The first one struck in Holden at the Holden Reservoir and uprooted one tree and destroyed four others at 4:30 PM. At 4:45 PM, two miles farther east, another microburst hit at Indian Lake in Worcester. A National Weather Service investigation determined that a microburst occurred along the north shore of Indian Lake. Peak wind speeds were estimated up to 70 mph. There was an estimated \$3,000 to \$4,000 damage to boats at the lake. On land, one boat, about 12 to 14 feet long, was blown approximately 26 feet and the roof was ripped off a storage shed. A woman suffered a mild concussion when she was struck by a wind surfing sail. Timely warnings by the National Weather Service allowed up to 100 people to be cleared from the lake before the storm struck.

In Middlesex County, in Pepperell, there was wind damage including trees and power lines blown down. Dime size hail fell in Lunenburg and Groton.

Hampshire County

Northampton to Hatfield	17	1850EST 1902EST			0	0			Thunderstorm Wind (G52)
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Franklin County

Northfield	17	1855EST			0	0			Thunderstorm Wind (G50)
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Franklin County

Orange	17	1855EST			0	0	3K		Lightning
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Franklin County

Orange	17	1855EST			0	0			Thunderstorm Wind (G50)
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Worcester County

Hardwick to West Brookfield	17	1921EST 1923EST			0	0			Thunderstorm Wind (G50)
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Worcester County

Athol to Barre	17	1925EST 1935EST			0	0			Thunderstorm Wind (G50)
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Also affected Phillipston.

Severe thunderstorms during the evening caused scattered wind damage in parts of Franklin and Hampshire Counties...then farther to the east into Worcester County. Trees were reported blown down in Northfield and Orange. A chicken coop was struck by lightning and caught fire in Orange. Also in Orange, lightning struck the police station, resulting in damage to computers and other equipment. Several trees were downed in Hatfield and Northampton, where wind gusts were reported up to 60 mph along with pea size hail. Tree branches were downed in Amherst. In Worcester County, trees were blown down in Hardwick, West Brookfield, Athol, Barre, and Phillipston.

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

Bristol County

Taunton to Raynham	18	2030EST			0	0			Thunderstorm Wind (G50)
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Plymouth County

Middleboro	18	2040EST			0	0			Thunderstorm Wind (G50)
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Plymouth County

Halifax to Plympton	18	2045EST			0	1	10K		Lightning
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Barnstable County

Wellfleet	18	2140EST			0	0			Hail (1.75)
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Barnstable County

Harwich	18	2150EST			0	0			Hail (0.75)
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Thunderstorms developed over Bristol County during the evening hours and moved eastward across Plymouth County and then across Cape Cod Bay and onto Cape Cod (Barnstable County). These storms became severe at several locations, producing damaging winds in Taunton and Middleboro and large hail on outer Cape Cod. Power lines were reported down in the Taunton-Raynham area. Tree limbs up to 4 to 8 inches in diameter were reported blown down in Middleboro per the local police department.

One person was slightly injured when a lightning strike travelled through a house in Halifax, where two houses were struck by lightning. Damage was minimal. In neighboring Plympton, a house was set afire by a lightning strike. After the storms moved eastward across Cape Cod Bay, they produced large hail on the outer Cape. Golfball size hail was reported in Wellfleet and dime size hail was reported by a SKYWARN spotter in Harwich.

MAZ016

Eastern Norfolk

22		1328EST			0	0			Dust Devil
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A clear air funnel or dust devil moved directly over the meteorological tower at the Blue Hill Observatory in Milton, MA, with a peak wind gust to 39 mph.

MAZ019>022

Eastern Plymouth - Southern Bristol - Southern Plymouth - Barnstable

25		1000EST			0	0			Strong Wind
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MAZ022>024

Barnstable - Dukes - Nantucket

25		1000EST			0	0			Heavy Rain
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MAZ023>024

Dukes - Nantucket

25		1000EST			0	0			High Wind (G61)
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Tropical Storm Danny, which had been racing to the east-northeast over the Atlantic Ocean south of New England, suddenly turned northward toward southeastern Massachusetts when an upper level low pressure system formed in the New York City area during the early morning hours. The center passed approximately 15 miles southeast of Nantucket Island late in the afternoon.

Tropical storm conditions with high winds and heavy rain occurred over Cape Cod, Martha's Vineyard, and Nantucket with only marginal tropical storm conditions occurring along the remainder of south coastal Massachusetts. Wind gusts as high as 70 mph from the northeast were reported, mostly on east and north facing beaches on Martha's Vineyard and Nantucket Islands. Wind gusts to 30 to 50 mph occurred along coastal Plymouth County and over the Cape. There were sporadic power outages as small to medium tree limbs were blown down.

Five tents were blown down at a camp in Plymouth and another damaged. There was some minor damage to boats and several harbors during the afternoon as high tide approached. Several boats broke loose from their slips and moorings on Martha's Vineyard. Tides ran 1 to 2 feet above normal. Coastal flooding was minimal, with just some washover of waves onto immediate coastal roads. Minor to moderate beach erosion was reported on Nantucket Island and minor beach erosion on Martha's Vineyard.

A weather spotter on Nantucket Island recorded 4.52 inches of rain. More than 3 inches fell on Martha's Vineyard, and 3.25 inches was reported from Wareham. Over most of the Cape, 2.5 to 3.5 inches of rain fell. The lowest pressure on land was 999.5 millibars, or 29.52 inches, at Nantucket at 3:53 PM. Tropical Storm Danny was only the fifth tropical cyclone this century to impact southern New England during the month of July.

Storm Data and Unusual Weather Phenomena

July 1997

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					Killed	Injured	Property	Crops	

MASSACHUSETTS, West

Berkshire County

1.5 W Florida to .3 S Florida	03	1636EST 1639EST	1.3	75	0	0	15K		Tornado (F1)
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Berkshire County

Great Barrington	03	1645EST			0	2			Lightning
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Berkshire County

.8 SSW Monterey to 2 N West Otis	03	1705EST 1715EST	4.5	600	0	0	1.5M		Tornado (F2)
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Berkshire County

.8 NW West Otis to .5 SSE North Otis	03	1711EST 1722EST	3.7	600	0	0	1.5M		Tornado (F2)
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Berkshire County

West Otis	03	1714EST			0	0	4K		Hail (3.00)
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Berkshire County

2.2 NW Richmond to 1.7 NNW Richmond	03	1822EST 1824EST	0.5	100	0	0	50K		Tornado (F1)
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On July 3, a fast moving cold front crossed Berkshire County during the afternoon and evening hours. The front initiated four tornadoes. The Richmond F1 tornado is a continuation of the F2 tornado which occurred in Columbia County. This tornado downed trees and produced minor damage to one house as it diminished in the Richmond area. The tornado in the Town of Florida began at the intersection of South County Road and Savoy Road. The F1 tornado tracked eastward and terminated just south of Florida near state route 2. The tornado removed all the shingles off the roof of a residence and a prefabricated steeple was blown off a church. Many trees were also downed along its path. The F2 tornado which began in the Monterey area started at the intersection of Wellman Road and New Marlborough Road. The tornado tracked northeast across state route 23 and Lake Garfield to Hayes Pond where it merged with the second tornado. At the north end of Hayes Pond the tornado diminished. This tornado downed hundreds of trees, damaged ten to twenty homes and destroyed two vehicles. The damage was most extensive along the north shore of Lake Garfield at Elephant Rock Road, Hopi Road, Mt. Hunger Road and Norwalk Acres Road. The second F2 tornado began near the intersection of Tyringham Road and West Center Road. It then tracked across Hayes Pond where it momentarily merged with the other tornado. The tornado then proceeded northeast where it ended near the intersection of state route 8 and Merrit Road. This tornado produced extensive tree damage, destroyed one vehicle and damaged fifteen to twenty homes. The most extensive damage occurred along West Center Road near Hayes Pond. Baseball size hail was also observed at Hayes Pond with this storm. Two people were struck by lightning at the Great Barrington Fairgrounds. They were both hospitalized and released.

Berkshire County

Monterey	07	1311EST			0	0			Hail (0.75)
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Berkshire County

Dalton	07	1744EST			0	0			Hail (0.75)
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Berkshire County

Dalton	07	1750EST			0	0	4K		Thunderstorm Wind
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Berkshire County

Lee	07	1755EST			0	0			Hail (0.75)
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Berkshire County

Lenox	07	1757EST			0	0	2K		Hail (0.88)
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Berkshire County

Stockbridge	07	1805EST			0	0			Hail (0.75)
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Berkshire County

Windsor	07	1806EST			0	0	4K		Hail (1.00)
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Berkshire County

West Stockbridge	07	1938EST 2100EST			0	0	10K		Flash Flood
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On July 7, severe thunderstorms developed ahead and along a cold front which crossed Berkshire County during the early afternoon hours. Hail was observed with many of these storms. In West Stockbridge, flash flooding occurred along route 41 when the Cone Brook spilled out of its banks.

Berkshire County

Lee	09	1340EST			0	0	2K		Thunderstorm Wind
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<u>MASSACHUSETTS, West</u>									
Berkshire County									
Lee	09	1350EST			0	0	2K		Thunderstorm Wind
Berkshire County									
Lenox	09	1350EST			0	1	4K		Lightning
Berkshire County									
Stockbridge	09	1400EST 1430EST			0	0	4K		Flash Flood
Berkshire County									
Great Barrington	09	1410EST			0	0	4K		Thunderstorm Wind
Berkshire County									
Stockbridge	09	1420EST			0	0	3K		Thunderstorm Wind
During the early afternoon hours of July 9, a cold front crossed Berkshire County. This front initiated severe thunderstorms in several locations across the county. Damaging winds downed trees and wires in Lee, Stockbridge and Great Barrington. In Lenox, lightning struck a man and caused a house fire. In Stockbridge, torrential rain caused flash flooding along roads and streams.									
Berkshire County									
North Adams	17	1759EST			0	0	4K		Hail (1.75)
Berkshire County									
Pittsfield	17	1810EST			0	0	2K		Thunderstorm Wind
On July 17, a hot and humid airmass was situated over Massachusetts. An upper air disturbance crossed the area during the afternoon which produced two severe thunderstorms in Berkshire County. Thunderstorm winds downed trees at Pittsfield and hail was observed at North Adams.									
<u>MICHIGAN, East</u>									
Midland County									
Edenville	02	1421EST			0	0	10K		Thunderstorm Wind (G70)
Saginaw County									
Marion Spgs	02	1431EST			0	0			Hail (0.75)
Saginaw County									
Brant	02	1440EST			0	0	10K		Thunderstorm Wind (G70)
Saginaw County									
2 W Chesaning	02	1441EST	2	60	0	0	400K		Tornado (F1)
Saginaw County									
2 SW Chesaning	02	1450EST	0.3	45	0	0	400K		Tornado (F1)
Saginaw County									
Layton Corners	02	1510EST	2	60	0	0	200K		Tornado (F1)
Bay County									
10 SE Bay City	02	1513EST			0	0			Thunderstorm Wind (G60)
Genesee County									
Montrose	02	1520EST	2	60	0	0			Tornado (F1)
Genesee County									
2.5 S Montrose	02	1520EST	1.5	75	0	0			Tornado (F1)
Saginaw County									
1 NE Burt	02	1520EST	0.3	45	0	0	50K		Tornado (F1)
Genesee County									
1 S Clio	02	1530EST	2	1000	0	0	600K		Tornado (F3)
Livingston County									
4 NW Fowlerville to 5 NW Hartland	02	1541EST 1550EST	10	30	0	0	200K		Tornado (F1)
Genesee County									
5 E Clio	02	1545EST F38OU	1.7	1500	1	1	3.8M		Tornado (F3)
Genesee County									
Otisville	02	1550EST			0	0			Thunderstorm Wind (G50)

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July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
MICHIGAN, East									
Tuscola County									
Akron	02	1550EST			0	0			Thunderstorm Wind (G60)
Lapeer County									
4 NE Columbiaville	02	1615EST	1	1000	0	0	200K		Tornado (F1)
Lapeer County									
Columbiaville to 5 E Columbiaville	02	1615EST 1630EST			0	0			Thunderstorm Wind (G70)
Livingston County									
Brighton	02	1625EST			0	0			Hail (0.75)
Oakland County									
3 NE Holly	02	1632EST F36MH	0.3	25	1	0	2M		Tornado (F1)
Washtenaw County									
Dexter	02	1635EST			0	0			Thunderstorm Wind (G60)
Washtenaw County									
Whitmore Lake	02	1635EST			0	0	20K		Thunderstorm Wind (G60)
Livingston County									
Green Oak	02	1636EST			0	0			Thunderstorm Wind (G60)
Oakland County									
Milford	02	1640EST			0	0			Thunderstorm Wind (G60)
Macomb County									
Sterling Hgts to Mt Clemens	02	1700EST 1730EST			0	0	1M		Thunderstorm Wind (G70)
Wayne County									
4 W Highland Park to Hamtramck	02	1700EST 1710EST	5	2500	0	90	90M		Tornado (F2)
Wayne County									
Livonia	02	1700EST			0	0	2M		Thunderstorm Wind (G70)
Oakland County									
Oak Park	02	1705EST			0	0			Thunderstorm Wind (G60)
Oakland County									
Royal Oak	02	1705EST			0	0			Thunderstorm Wind (G60)
Oakland County									
Troy	02	1705EST			0	0			Thunderstorm Wind (G60)
Wayne County									
Dearborn	02	1708EST			0	0			Thunderstorm Wind (G50)
Wayne County									
Garden City	02	1710EST			0	0			Thunderstorm Wind (G60)
Wayne County									
Garden City	02	1712EST			0	0			Hail (0.75)
Macomb County									
4 SE Romeo	02	1713EST	0.7	100	0	6	30M		Tornado (F0)
Wayne County									
Westland	02	1713EST			0	0			Hail (1.00)
Wayne County									
Grosse Pt Farms	02	1725EST 1735EST			5	8	10M		Thunderstorm Wind (G80)
		F42IW, F26IW, M10IW, M1IW, F0IW							
Wayne County									
2 NW Taylor	02	1725EST			0	0			Thunderstorm Wind (G60)

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					Killed	Injured	Property	Crops	
MICHIGAN, East									
Wayne County									
Livonia to Detroit	02	1745EST 2045EST			0	0			Flash Flood
Macomb County									
Sterling Hgts to Mt Clemens	02	1800EST 2100EST			0	0			Flash Flood
MIZ070-076-076 Macomb - Wayne									
	02	2100EST			0	0			Flood
	04	0100EST							
Wayne County									
Melvindale	02	1729EST			0	0			Hail (1.00)
<p>The combination of a strong cold front and an extremely unstable airmass resulted in 13 tornado touchdowns across southeast Michigan on the 2d; the largest number for a single day since records have been kept. Three tornado-producing supercell thunderstorms developed along the front during mid-afternoon. The northern-most supercell produced 9 tornado touchdowns over southern Saginaw, northern Genesee and northern Lapeer counties, including two F-3's. A woman was killed in Thetford township when she was hit by a falling tree. Another supercell produced F-1 tornadoes in northern Livingston and northern Oakland counties. The tornado in northern Oakland county destroyed a mobile home park near Holly, resulting in one fatality. The southern-most supercell produced an F-2 tornado that passed over densely populated northern Wayne county, including the northern part of the city of Detroit. The result was nearly 100 million dollars in damage in northern Wayne county alone, as the tornado cut a swath of heavy damage from northwest Detroit through Highland Park and Hamtramack. Miraculously, no one was killed in that area, although nearly 100 injuries were reported. Meanwhile, just to the north, an F-0 tornado and strong straight-line winds did about 30 million dollars in Macomb county. Tragically, the greatest loss of life on the 2d occurred in Grosse Pointe Farms, where straight-line winds of nearly 100-mph blew a gazebo full of people into Lake Saint Clair. Five deaths and 8 injuries resulted.</p>									
<p>The severe storms also resulted in extensive flash flooding and flooding around the Detroit metro area. Several highways were flooded in northern Wayne and southern Macomb counties late on the 2d. The Middle Rouge River near Garden City went above its 7 foot flood stage at 9 pm EST on the 2d, cresting at 8.6 feet at noon EST on the 3rd. The river fell back below flood stage at 1 am EST on the 4th. The Clinton River at Fraser went above it 16 foot flood stage at 1030 EST on the 2d, cresting at 16.5 feet at midnight EST on the 3rd. The river fell back below flood stage at 3 am EST on the 3rd. The Rouge river at Detroit went above its 15 foot flood stage at 2 am EST on the 3rd, cresting at 16.4 feet at 8 am EST on the 3rd. The river went back below flood stage at 7 pm EST on the 3rd.</p>									
Tuscola County									
Vassar	06	1420EST			0	0			Hail (0.88)
Oakland County									
Farmington	06	1600EST			0	0			Thunderstorm Wind (G50)
Tuscola County									
Vassar	06	1600EST			0	0			Hail (0.75)
Sanilac County									
Marlette	06	1800EST 1900EST			0	0			Flash Flood
St. Clair County									
Goodells	06	2008EST			0	0			Hail (1.00)
<p>An unseasonably strong cold front tracked across Michigan on the 6th. The air was not as unstable as was the case on the 2d, however scattered severe thunderstorms developed. Large hail was reported at Vassar and Goodells and strong winds blew powerlines down at Farmington. Heavy downpours resulted in road flooding at Marlette.</p>									
Washtenaw County									
5 S Salem	08	1815EST			0	0			Hail (0.75)
Wayne County									
Northville	08	1820EST			0	0			Hail (0.75)
Wayne County									
Northville	08	1823EST			0	0			Hail (0.75)
Wayne County									
Livonia	08	1830EST			0	0			Hail (0.75)
Washtenaw County									
5 NE Manchester	08	1842EST			0	0			Thunderstorm Wind (G52)

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					Killed	Injured	Property	Crops	
MICHIGAN, East									
Oakland County									
Royal Oak Township	08	1844EST			0	0			Hail (0.75)
Macomb County									
Warren	08	1850EST			0	0			Hail (1.00)
Washtenaw County									
Dixboro	08	1905EST			0	0			Hail (1.00)
Wayne County									
Plymouth	08	1910EST			0	0			Hail (0.75)
<p style="text-align: center;">Low pressure tracked across southern Michigan on the 8th. The resulting thunderstorms produced large hail across parts of the area during the afternoon. Inch diameter hail was reported at Warren and Dixboro.</p>									
Midland County									
3 SW Porter	14	1830EST			0	0			Hail (0.75)
Shiawassee County									
Owosso	14	1830EST			0	0			Tstm Wind/Hail
Saginaw County									
Saginaw	14	1843EST			0	0			Thunderstorm Wind (G52)
Saginaw County									
Bridgeport	14	1845EST			0	0			Thunderstorm Wind (G52)
Wayne County									
Grosse Pt Woods	14	1849EST			0	0			Hail (0.88)
Wayne County									
Harper Woods	14	1849EST			0	0			Thunderstorm Wind (G50)
Bay County									
Auburn	14	1851EST			0	0			Thunderstorm Wind (G50)
Saginaw County									
Freeland	14	1854EST			0	0			Thunderstorm Wind (G52)
Macomb County									
East Detroit	14	1856EST			0	0			Thunderstorm Wind (G50)
Bay County									
5 SE Bay City	14	1857EST			0	0	1K		Thunderstorm Wind (G60)
Macomb County									
St Clair Shrs	14	1900EST			0	0			Thunderstorm Wind (G55)
Tuscola County									
2 SW Caro	14	1910EST 1915EST			0	0			Thunderstorm Wind (G50)
Tuscola County									
Vassar	14	1915EST			0	0			Thunderstorm Wind (G55)
Monroe County									
Newport	14	1920EST			0	0			Hail (1.75)
Monroe County									
Newport	14	1920EST			0	0			Thunderstorm Wind (G50)
Wayne County									
Flat Rock	14	1920EST			0	0			Thunderstorm Wind (G50)
Tuscola County									
4 SW Mayville	14	1928EST			0	0			Thunderstorm Wind (G50)
Huron County									
Sebewaing	14	1930EST			0	0			Thunderstorm Wind (G52)
St. Clair County									
Fargo	14	1942EST			0	0			Hail (0.88)

An approaching cold front combined with a very warm unstable airmass to trigger severe thunderstorms during the afternoon on the 14th. Unlike the event on the 2d, there was very little property damage reported. Strong winds mainly resulted in downed

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

MICHIGAN, East

trees and powerlines. Golfball-sized hail was reported at Newport, and nickle-sized hail was reported at Grosse Pointe Woods and at Fargo.

Oakland County

Farmington	26	0500EST		0	0	750K		Lightning
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Lightning started a fire that caused 750,000 dollars of damage to a two-story apartment building in Farmington Hills early on the 26th.

MIZ075

Washtenaw

	26	0530EST 0730EST		0	0			Flood
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An unannounced release of water from the Barton Dam resulted in the Huron River rising above its 15 foot flood stage at 0530 am EST on the 26th. The river crested at 15.3 feet at 6 am EST on the 26th, and fell back below flood stage at 730 am EST on the 26th.

Saginaw County

Frankenmuth	27	2126EST		0	0	50K		Thunderstorm Wind (G52)
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A violent thunderstorm swept through the town of Frankenmuth during late evening on the 2th. Strong winds demolished a large billboard, throwing some of its pieces over 80 yards. Trees were also downed. Heavy rains produced brief street flooding.

MICHIGAN, Extreme Southwest

NONE REPORTED.

MICHIGAN, North

Charlevoix County

Charlevoix	02	1305EST		0	0			Hail (0.75)
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Emmet County

Harbor Spgs	02	1325EST		0	0			Thunderstorm Wind (G52)
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Strong thunderstorm winds toppled several utility poles around Harbor Springs.

Crawford County

14 SE Grayling to 17 SE Grayling	02	1400EST	3	150	0	0		Tornado (F1)
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The tornado associated with this thunderstorm initially touched down in the far southeast corner of the county. The thunderstorm produced straight-line wind damage to trees along its entire path across the southern part of the county with tonadic damage first reported in far southeast portions of the county. The tornado briefly touched down an then lifted back up into the storm. This pattern of continuous straight line wind damage with occasional brief tornado touchdowns continued into Oscoda county as the storm tracked eastward. This was a strong F1 tornado.

Oscoda County

3 SW Luzerne to 5 S Mio	02	1410EST	10	150	0	0		Tornado (F1)
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This was a continuation of the tornadic thunderstorm that crossed Crawford county. The thunderstorm maintained its pattern of producing straight-line along its entire path with occasional brief tornado touch downs. One touch down point was around 1/4 mile south of Luzerne. Inflow into the tornado caused extensive damage to trees on the south side of Luzerne. The final touch down point was 5 miles south of Mio where a single home was destroyed. The combination of straight-line and tornadic winds severely damaged or destroyed nearly 2000 acres of timber in the Huron National Forest. This was a strong F1 tornado.

Oscoda County

Luzerne	02	1410EST		0	0			Thunderstorm Wind (G52)
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Oscoda County

Mio	02	1420EST		0	0			Hail (0.75)
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Oscoda County

1 W Luzerne	02	1422EST		0	0			Hail (0.75)
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Arenac County

.5 S Alger	02	1435EST		0	0			Hail (0.75)
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Oscoda County

5 N Mio	02	1435EST		0	0			Hail (0.75)
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Oscoda County

Mio	02	1435EST		0	0			Hail (1.00)
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Arenac County

Alger	02	1444EST		0	0			Hail (1.00)
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Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>MICHIGAN, North</u>									
Arenac County									
Alger	02	1446EST			0	0			Hail (1.25)
Arenac County									
Sterling	02	1453EST			0	0			Hail (1.50)
Iosco County									
1 N Whittemore	02	1510EST			0	0			Hail (1.00)
Arenac County									
2 S Au Gres to Au Gres	02	1515EST	3	150	0	1			Tornado (F1)
The tornado touched down several miles south of Au Gres and then tracked northward into Au Gres where it dissipated. Three homes were destroyed and several others damaged to varying degrees. This was a strong F1 tornado.									
Cheboygan County									
Tower	02	1515EST			0	0			Thunderstorm Wind (G52)
Strong thunderstorm winds toppled several trees up to 18 inches in diameter.									
Ogemaw County									
Prescott	02	1515EST			0	0			Thunderstorm Wind (G61)
Strong thunderstorm winds heavily damaged one trailer and several homes near Prescott.									
Alcona County									
Glennie	02	1520EST			0	0			Hail (0.75)
Alcona County									
1 S Mikado	02	1530EST			0	0			Thunderstorm Wind (G52)
Strong thunderstorm winds toppled numerous trees south of Mikado.									
Emmet County									
Pellston	02	1530EST			0	0			Thunderstorm Wind (G52)
Alcona County									
7 N Barton City	02	1540EST			0	0			Thunderstorm Wind (G52)
Strong thunderstorm winds downed numerous trees around Hubbard Lake.									
Arenac County									
3 N Alger	02	1540EST			0	0			Hail (1.00)
Montmorency County									
7 N Hillman	02	1710EST			0	0			Hail (0.75)
Iosco County									
Oscoda	06	1530EST			0	0			Hail (0.75)
Arenac County									
Au Gres	14	1925EST			0	0			Hail (0.75)
Wexford County									
Manton	16	1408EST			0	0			Hail (1.50)
Roscommon County									
Higgins Lake	16	1425EST			0	0			Thunderstorm Wind (G52)
Strong thunderstorm winds toppled several trees and utility poles.									
Oscoda County									
Mio	16	1442EST			0	0			Thunderstorm Wind (G52)
Strong thunderstorm winds toppled several trees of up to 18 inches in diameter.									
Ogemaw County									
Rose City	16	1500EST			0	0			Thunderstorm Wind (G52)
Strong thunderstorm winds toppled trees and utility poles across the city.									
Ogemaw County									
West Branch	16	1505EST			0	0			Thunderstorm Wind (G52)
Strong thunderstorm winds toppled trees and utility poles across the city.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>MICHIGAN, North</u>									
Arenac County									
Twining	16	1530EST			0	0			Thunderstorm Wind (G52)
Strong thunderstorm winds toppled trees and utility poles across the city.									
Montmorency County									
1 N Atlanta	16	1950EST			0	0			Hail (1.00)
Montmorency County									
4 SW Hillman	16	2000EST			0	0			Hail (0.88)
Montmorency County									
5 N Hillman	16	2000EST			0	0			Thunderstorm Wind (G52)
Strong thunderstorm winds toppled numerous trees and utility poles along M-151.									
Alpena County									
Long Rapids	16	2030EST			0	0			Thunderstorm Wind (G52)
Strong thunderstorm winds toppled numerous trees and utility poles between Bolton and Cathro.									
Alpena County									
Long Lake Lake	16	2040EST			0	0			Thunderstorm Wind (G52)
Strong thunderstorm winds toppled numerous trees and utility poles around Long Lake.									
<u>MICHIGAN, Upper</u>									
Marquette County									
5 N Gwinn	02	1006EST			0	0			Hail (1.75)
Alger County									
2 E Trenary	02	1030EST			0	0			Hail (0.75)
Keweenaw County									
3 NE Eagle River	02	1100EST 1101EST			0	0			Thunderstorm Wind (G60)
8 to 10 inch diameter trees downed									
Delta County									
Schaffer	02	1110EST			0	0			Hail (1.50)
Schoolcraft County									
Steuben	02	1130EST 1131EST			0	0			Hail (0.75)
Gogebic County									
17 NE (Iwd)Ironwood Arpt	16	0455EST 0500EST			0	0	5K		Thunderstorm Wind (G55)
Strong winds ahead of a line of thunderstorms damaged a boat dock at Black River Harbor on the Lake Superior shoreline.									
Gogebic County									
15 NE (Iwd)Ironwood Arpt	16	0515EST			0	0			Thunderstorm Wind (G60)
Several trees downed.									
Ontonagon County									
Bergland	16	0520EST 0522EST			0	0			Hail (1.00)
Ontonagon County									
Bergland	16	0536EST 0540EST			0	0			Thunderstorm Wind (G60)
10 to 16 inch trees downed.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>MICHIGAN, Upper</u>									
Ontonagon County									
4 E Paulding	16	0545EST 0550EST			0	0			Thunderstorm Wind (G60)
			12 inch diameter tree downed at Bond Falls.						
Houghton County									
6 S Kenton	16	0555EST 0600EST			0	0			Thunderstorm Wind (G60)
			16 inch diameter tree downed.						
Alger County									
3 W Grand Marais	16	0815EST			0	0			Thunderstorm Wind (G55)
Delta County									
Escanaba	16	1640EST			0	0			Hail (0.75)
Delta County									
2 SE Stonington	16	1645EST			0	0			Hail (1.75)
Delta County									
Fayette	16	1730EST			0	0			Hail (0.75)
Houghton County									
Lake Linden to Hubbell	17	0215EST 0220EST			0	0	1K		Thunderstorm Wind (G55)
			Several trees and power lines downed.						
Houghton County									
Calumet to Laurium	17	0220EST 0225EST			0	0			Thunderstorm Wind (G55)
			Several trees downed up to 12 inches in diameter.						
Baraga County									
3 NE Skanee	17	0305EST			0	0			Thunderstorm Wind (G55)
			10 inch diameter trees downed.						
Marquette County									
3 NE Big Bay	17	0325EST			0	0			Thunderstorm Wind (G55)
			12 inch diameter tree downed.						
Marquette County									
2 W Sand River	17	0405EST			0	0			Hail (0.75)
Alger County									
Sand River	17	0430EST			0	0	5K		Hail (1.50)
			Hail produced minor damage to several vehicles.						
<u>MICHIGAN, West</u>									
Berrien County									
Stevensville	02	0544EST			0	0			Hail (0.75)
Berrien County									
Hollywood	02	0600EST			0	0	100K		Hail (2.25)
			A Scottdale area farmer reported 2 1/4" diameter hail fell for about 20 minutes during a severe thunderstorm on the morning of July 2, 1997. He estimated most of his 80 acres of fruit crops were damaged.						
Berrien County									
Berrien Spgs	02	0610EST			0	0	1.2M		Hail (1.00)
			A Berrien Springs area farmer estimated agricultural losses of near \$1 million from hail during a severe thunderstorm during the early morning hours of July 2, 1997. Paul Bixby reported 200 acres of fruits and 100 acres of vegetables destroyed from 1 inch diameter hail. The hail cut, scarred or took chunks out of apples and peaches and knocked a lot of the fruit off the trees. Sweet corn stalks were reportedly shredded. A U.S. Natural Resources Conservation Service resource conservationist for Berrien County reported that an inspection on July 2nd revealed the hail storm started in the vicinity of Lakeshore High School, near Stevensville, and extended southeast to the county line. He estimated a 2 mile wide swath along this path was affected by the hail. Other area fruit growers reported severe damage to crops which included apples, peaches, grapes, plums, tart cherries, and raspberries.						

Storm Data and Unusual Weather Phenomena

July 1997

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

Berrien County

Berrien Spgs	02	0615EST			0	0	300K		Thunderstorm Wind
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Numerous 2 to 3 foot diameter trees were uprooted and several large trees were downed, damaging several Berrien Springs area homes, from straight-line winds in a severe thunderstorm. Wind gusts during the thunderstorm were estimated at 70 mph. A maple tree fell on a home at 10594 Old U.S. 31 at approximately 7:20 AM EDT. Another large tree came down on a house on Harrison Street, damaging the front and a ramp for the handicapped on the south side of the residence. A home on Rose Hill Street was damaged as 2 large trees destroyed a front porch, damaged the roof, and crushed 3 cars parked in the driveway. Other homes were damaged in the Bridlewood subdivision just south of Berrien Springs off Long Lake Road. A large tree fell through the roof of one home in this neighborhood, shattering a sun roof and sending a shower of glass through the cathedral ceiling onto the living-dining area of the two-level house. Numerous television antennas across the area were destroyed. One of the trees downed was a 300-year-old white oak along West Ferry Street, which was believed to be the oldest tree in the Berrien Springs area. It fell on a narrow lot, barely missing 2 homes. Trees blocked several area roads for hours and local flooding was reported. No injuries were reported.

Berrien County

Eau Claire	02	0625EST			0	0	25K		Thunderstorm Wind
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Numerous trees and power lines were downed across the Eau Claire area. Several homes received minor damage from falling trees and limbs.

Berrien County

Niles	02	0645EST			0	0	50K		Thunderstorm Wind
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Numerous trees were downed in the Niles area during the severe thunderstorm which produced estimated 70 mph winds across much of southeastern Berrien County. Falling trees downed power, phone, and cable lines. Minor damage was reported at several residences, including reports of patio furniture being swept away and a trampoline destroyed. Nearly 2 3/4 inches of rain fell in one hour at a Niles residence, with minor street flooding reported in the storm's aftermath.

Cass County

Dowagiac	02	0645EST			0	0	25K		Thunderstorm Wind
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Trees and power lines reported downed on the south side of Dowagiac. Lightning also damaged several power transformers.

Cass County

Pokagon	02	0645EST			0	0	25K		Thunderstorm Wind
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Trees and power lines reported downed in Pokagon Township, in western Cass County.

Cass County

Edwardsburg	02	0650EST			0	0	300K		Thunderstorm Wind
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More than six dozen large trees were uprooted with hundreds of other trees either split or missing large limbs after a severe thunderstorm with estimated 70 mph winds blew through the Edwardsburg area around 7:50 AM EDT Wednesday, July 2, 1997. Downed trees and utility poles limited travel by blocking at least 6 area roads and road crews worked through the day to clear debris. Almost all of the village's 1,200 residents were without power for most of the day. The hardest hit area of Pleasant Lake reported 16 large trees uprooted. On the south side of the lake along Washington Street, one home was destroyed. Trees were downed onto several houses. The Ontwa Township/Edwardsburg Police Department received reports of at least one boat having been thrown into trees by damaging winds. No injuries were reported.

Gratiot County

Middleton	02	1355EST			0	0	2.5K		Thunderstorm Wind
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Gratiot County Central Dispatch reported a window was blown out of a resident's home located along Garfield Road just north of Middleton.

Gratiot County

Sumner	02	1400EST			0	0	5K		Thunderstorm Wind
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Trees were downed in Sumner Township.

Gratiot County

Ithaca	02	1420EST			0	0			Hail (0.75)
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Eaton County

Grand Ledge	02	1445EST			0	0			Hail (0.75)
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Clinton County

De Witt	02	1450EST			0	0	5K		Thunderstorm Wind
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Trees were downed in De Witt.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
MICHIGAN, West									
Ingham County									
East Lansing	02	1455EST			0	0	10K		Thunderstorm Wind
Six inch diameter trees were downed in East Lansing.									
Calhoun County									
Battle Creek	02	1500EST			0	0	25K		Thunderstorm Wind
Trees and power lines were downed in a few locations across the city of Battle Creek. Power was knocked out for 2,600 Consumers Energy customers in the city. Lightweight patio furniture was blown around on the grounds of the Team U.S. National Hot-Air Balloon Championship and Air Show at Kellogg Regional Airport during 40 mph wind gusts.									
Clinton County									
2 SE De Witt	02	1500EST			0	0			Hail (0.75)
Michigan State Police reported 3/4 inch diameter hail at the intersection of State Road and U.S. Highway 27.									
Ingham County									
1.5 NE East Lansing	02	1500EST			0	0			Funnel Cloud
The Meridian Township Public Safety Department relayed a civilian report of a funnel cloud near the intersection of Hagadorn and Haslett Roads. Thirty seconds after the civilian report was received, a Meridian Township officer spotted a funnel cloud travelling southeast over Okemos Road and Gaylord C. Smith Drive. The funnel cloud did not touch the ground and no damage was reported.									
Calhoun County									
Marshall	02	1510EST			0	0			Hail (1.00)
Ingham County									
East Lansing	02	1513EST 1518EST			0	0	500K		Thunderstorm Wind
A wet microburst occurred between 4:13 and 4:18 PM EDT during a severe thunderstorm moving across East Lansing. A team of 3 scientists from Michigan State University concluded the most severe storm damage occurred between the East Lansing Library and Hagadorn Road, while the damage path extended from roughly Harrison Road and Saginaw Street in an east-southeast direction to Park Lake Road and Grand River Avenue. The MSU geology professors determined damage patterns east of Hagadorn Road suggested that another pulse of air may have come down near Hagadorn and Cahill Drive. Damage consisted of downed trees and damaged roofs. Four homes received noticeable damage, mostly by being hit by trees. Three cars were crushed by falling trees. In addition, one utility pole was snapped and power lines were downed by falling trees, cutting power to 2,000 customers of Consumers Energy. Almost all trees fell to the east. Fallen trees blocked off many East Lansing streets after the storm. No injuries were reported.									
Calhoun County									
Marshall	02	1514EST			0	0			Hail (0.75)
Ingham County									
3 N Webberville	02	1515EST			0	0	50K		Thunderstorm Wind
Ingham County Central Dispatch reported a barn in the 3900-block of Morrice Road was flattened by straight-line winds at approximately 4:15 PM EDT. Trees and power lines were downed across Locke Township between Webberville and Bell Oak.									
Clinton County									
(Lan) Cap City Arpt	02	1520EST			0	0			Funnel Cloud
A National Weather Service-trained contract observer at Capitol City Airport, just northwest of downtown Lansing, sighted a funnel cloud at 4:20 PM EDT. The funnel cloud did not touch the ground and no damage was reported.									
Eaton County									
Eaton Rapids	02	1520EST			0	0	5K		Thunderstorm Wind
Trees were downed in Eaton Rapids.									
Ingham County									
Mason	02	1530EST			0	0			Hail (0.75)
Ingham County									
Onondaga	02	1540EST			0	0			Hail (0.75)

An unusually intense storm system for July was centered over Minnesota early Wednesday morning, July 2, 1997. The low pressure center tracked east across Lake Superior Wednesday afternoon as the trailing strong cold front crossed Michigan's Lower Peninsula during the mid and late afternoon hours. The combination of a very warm, moist, and unstable air mass across the region and a favorable veering vertical wind profile fueled the development of widespread severe thunderstorms across the southern half

Storm Data and Unusual Weather Phenomena

July 1997

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

of Michigan's Lower Peninsula. Within the NWSO Grand Rapids county warning area, one cluster of thunderstorms developed well ahead of the cold front on Wednesday morning around 6:00 AM EDT over Lake Michigan, then moved onshore into Berrien County around 6:30 AM EDT. As this isolated cluster of severe thunderstorms crossed central and southeast Berrien County and western and southern Cass County, hail up to 2 1/4" in diameter fell and straight-line winds were estimated as high as 70 mph. Widespread agricultural hail damage was reported in central Berrien County and a significant amount of wind damage to homes was reported in Berrien Springs and Edwardsburg. Power outages across Berrien and Cass Counties totaled 21,500 with this cluster of severe thunderstorms. During the early afternoon hours, a line of severe thunderstorms developed in Gratiot County in central Lower Michigan, then developed southwest between 3:00 and 4:30 PM EDT and affected Calhoun, Eaton, Ingham, and Clinton Counties. A small F0 tornado touched down in southwest Gratiot County, but no damage or injuries were reported. Hail up to 1 inch in diameter and wind gusts to 70 mph were associated with this line of severe thunderstorms as it crossed south central Lower Michigan. The most significant damage occurred in East Lansing in northwest Ingham County as a wet microburst occurred between 4:13 and 4:18 PM EDT. Damage was estimated to be near half a million dollars. However, no injuries were reported.

Hillsdale County

Litchfield **06** **1532EST** **0** **0** **Hail (0.75)**

Ingham County

Mason **06** **1745EST** **0** **0** **Hail (1.00)**

Ingham County

Webberville **06** **1815EST** **0** **0** **Hail (1.50)**

Ionia County

Lake Odessa **08** **1300EST** **0** **1** **Lightning**

A 15-year-old boy was struck by lightning around 2 PM EDT Tuesday, July 8, 1997, behind the rectory of St. Edward Catholic Church in Lake Odessa. Luke Stebbins was taken to Pennock Hospital in Hastings by rescue personnel, where doctors were able to resuscitate him. Lake Odessa Police Chief John Shaw said Stebbins suffered a heart attack and some swelling of the brain when he was struck. The boy was transferred to Butterworth Hospital in Grand Rapids later that evening in critical condition. On July 23rd, he was transferred to Mary Freebed Hospital for rehabilitation.

Jackson County

Hanover **08** **1755EST** **0** **0** **Hail (0.88)**

Jackson Central Dispatch relayed reports from Hanover Township fire officials of nickel-sized hail.

Jackson County

Hanover **08** **1755EST** **0** **0** **5K** **Thunderstorm Wind**

Jackson Central Dispatch reported trees uprooted along Fowler Road in Hanover Township. Local fire officials estimated winds gusted to 50 mph in the thunderstorm.

Hillsdale County

Osseo **08** **1830EST** **0** **0** **10K** **Thunderstorm Wind**

Hillsdale County Emergency Operations reported trees and electrical wires downed 3 miles southeast of Hillsdale near Osseo and Pleasant Lake, in Jefferson Township. Power was cut for approximately 400 Consumers Energy customers.

Montcalm County

Langston **13** **2150EST** **0** **0** **Hail (1.50)**

Marble to golfball-sized hail was reported at Clifford Lake in Douglass Township, about 2 miles east of Langston or 5 miles west of Stanton.

Van Buren County

Lawrence **14** **1510EST** **0** **0** **5K** **Thunderstorm Wind**

Van Buren County Central Dispatch reported large tree limbs and power lines downed in Lawrence.

Berrien County

Buchanan **14** **1520EST** **0** **0** **30K** **Thunderstorm Wind**

Several trees and power lines were downed in Buchanan Township. Major tree damage was reported from 2 area golf courses, Orchard Hills and Brookwood. Orchard Hill was hit hardest and was closed through Tuesday, July 15, 1997, for clean up. The greens superintendent reported 25 trees downed by the winds. Brookwood Golf Course did not report as much damage, but had a significant number of trees downed, approximately 100, which ranged from 10 inches to 4 feet in diameter. No injuries were reported.

Berrien County

Niles **14** **1545EST** **0** **0** **2.5K** **Thunderstorm Wind**

Niles Police Department reported trees downed in Niles.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>MICHIGAN, West</u>									
Allegan County									
Shelbyville	14	1600EST			0	0	5K		Thunderstorm Wind
A weather spotter sent a report via internet of trees and power lines downed in Wayland Township, including the Shelbyville and Gun Lake areas. A felled tree blocked the intersection of 124th Avenue and Division Street.									
Allegan County									
2 NE Martin	14	1605EST			0	0	2.5K		Thunderstorm Wind
Allegan County Central Dispatch reported downed trees blocked the intersection of 120th Avenue East and 10th Street near Martin.									
Allegan County									
Wayland	14	1605EST			0	0	5K		Thunderstorm Wind
Trees and power lines were downed in Wayland.									
Allegan County									
Otsego	14	1610EST			0	0	15K		Thunderstorm Wind
Allegan County Central Dispatch reported downed trees and power lines in Otsego Township. High winds brought down a large branch, crushing a car, in the 400 block of Kalamazoo Street in Otsego.									
Barry County									
Delton	14	1612EST			0	0	2.5K		Thunderstorm Wind
Barry County Central Dispatch reported large limbs knocked down in Delton.									
Cass County									
Dowagiac	14	1635EST			0	0	5K		Thunderstorm Wind
Cass County Central Dispatch reported trees and power lines knocked down in the Dowagiac area.									
Cass County									
Edwardsburg	14	1635EST			0	0	5K		Thunderstorm Wind
Cass Central Dispatch reported downed trees and power lines in the Edwardsburg area.									
Barry County									
Hastings	14	1636EST			0	0	5K		Thunderstorm Wind
Barry County Central Dispatch reported trees downed in Prarieville Township and the Hastings area.									
St. Joseph County									
Centreville	14	1642EST			0	0	5K		Thunderstorm Wind
Trees were downed in Centreville, some of which fell across area roads.									
St. Joseph County									
2 N Sturgis	14	1642EST			0	0	2.5K		Thunderstorm Wind
Trees downed 2 miles north of Sturgis.									
St. Joseph County									
Three Rivers	14	1642EST			0	0	2.5K		Thunderstorm Wind
Trees downed in the Three Rivers area.									
Calhoun County									
Sunrise Hgts	14	1649EST			0	0	1K		Thunderstorm Wind
A trained National Weather Service spotter reported 3" diameter tree limbs downed near Sunrise Heights.									
Kalamazoo County									
Oshtemo	14	1709EST			0	0	2.5K		Thunderstorm Wind
Trees downed in Oshtemo Township.									
Kalamazoo County									
Vicksburg	14	1709EST			0	0	5K		Thunderstorm Wind
Kalamazoo County Sheriff's Department reported a couple of trees were downed in Vicksburg.									
Eaton County									
County-Wide	14	1710EST			0	0	5K		Thunderstorm Wind
Scattered reports of trees and power lines down across Eaton County.									
Ionia County									
Smyrna	14	1720EST			0	0			Hail (0.75)
Calhoun County									
Burlington	14	1725EST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
MICHIGAN, West									
Clinton County									
St Johns	14	1746EST			0	0	5K		Thunderstorm Wind
Downed trees and power lines in and around St. Johns.									
Branch County									
County-Wide	14	1747EST			0	0	10K		Thunderstorm Wind
Scattered reports of trees and power lines down across portions of western Branch County.									
Jackson County									
4 SE Springport	14	1750EST			0	0			Hail (0.88)
Jackson County									
4 SE Springport	14	1750EST			0	0	10K		Thunderstorm Wind (G61)
Jackson County officials reported a 70 mph wind gust and nickel-sized hail 4 miles southeast of Springport in Springport and Parma Townships. Numerous trees and power lines were knocked down in the mostly rural area.									
Montcalm County									
2 S Sheridan	14	1755EST			0	0	5K		Thunderstorm Wind
Trees downed across the intersection of Michigan Highway 57 and Michigan Highway 66 in Bushnell Township.									
Jackson County									
Rives Junction	14	1759EST			0	0	5K		Thunderstorm Wind (G52)
Jackson County officials reported a 60 mph wind gust in Rives Junction in Rives Township in north central Jackson County. Downed trees were also reported.									
Hillsdale County									
2 W Hillsdale	14	1800EST			0	0	2.5K		Thunderstorm Wind
Hillsdale County Emergency Operations reported a couple of trees downed 2 miles west of Hillsdale.									
Gratiot County									
St Louis	14	1815EST			0	0	10K		Thunderstorm Wind
Gratiot County Central Dispatch reported several trees and power lines were downed in and around St. Louis. Some city streets were closed due to felled trees and limbs.									
Ingham County									
Stockbridge	14	1815EST			0	0	5K		Thunderstorm Wind
Trees were downed in Stockbridge and one local road was temporarily blocked from downed limbs.									
A cold front moved east across Lake Michigan and Michigan's Lower Peninsula during the afternoon and evening hours of Monday, July 14, 1997. As this frontal boundary collided with the warm and unstable air mass across the state, strong to locally severe thunderstorms developed mainly across the southern two tier of counties. Isolated reports of hail to nickel-size and wind gusts to 70 mph were received. Downed trees and power lines cut power to approximately 48,000 Consumers Energy customers in southwest and south central Lower Michigan. No injuries were reported.									
Ottawa County									
Grand Haven	17	0730EST			0	0	15K		Thunderstorm Wind
Thunderstorm winds downed trees and power lines across the Tri-Cities (Grand Haven, Ferrysburg, and Spring Lake) area. A few trees were downed onto power lines in the area of Savidge and Fruitport Road in Spring Lake and lightning sparked a few minor house fires. The Grand Haven Board of Light and Power reported scattered power outages. Heavy downpours brought 2 to 4 inches of rain to much of northern Ottawa County, which resulted in minor street flooding.									
Kent County									
Walker	17	0757EST			0	0	10K		Thunderstorm Wind
The Walker Police Department reported large tree limbs and power lines downed in Walker, in the northwest quadrant of the Grand Rapids metropolitan area.									
Ottawa County									
Port Sheldon	26	0242EST			0	0			Thunderstorm Wind (G70)
A trained National Weather Service spotter measured 60-80 mph wind gusts at Port Sheldon at 3:42 AM EDT.									
Ottawa County									
Port Sheldon	26	0250EST			0	0			Thunderstorm Wind (G61)
A trained National Weather Service spotter measured a 70 mph wind gust at Port Sheldon at 3:50 AM EDT.									

Storm Data and Unusual Weather Phenomena

July 1997

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

Allegan County

Holland 26 0315EST 0 0 15K **Thunderstorm Wind**
Local media reported tree and power line damage in the city of Holland. Tree limbs to 42 inches in circumference were downed in severe thunderstorm wind gusts.

Clinton County

Bath 26 0330EST 0 0 2.5K **Thunderstorm Wind**
Clinton County Central Dispatch reported a large tree downed in Bath Township. The tree brought down power lines with it.

Cass County

Edwardsburg 27 1300EST 0 0 5K **Thunderstorm Wind**
Cass County Central Dispatch reported downed trees and power lines in Edwardsburg.

St. Joseph County

Constantine 27 1322EST 0 1 **Lightning**
An adult woman in Constantine was struck by lightning at 2:22 PM EDT at 10884 Harder Road. Michigan State Police reported she sought medical treatment at Three Rivers Area Hospital, where she was treated and released for minor injuries.

St. Joseph County

White Pigeon 27 1345EST 0 0 20K **Thunderstorm Wind**
St. Joseph County Central Dispatch reported downed trees and power lines across White Pigeon Township. One tree landed on a vehicle at 309 S. Washington Street in White Pigeon. Intermittent power outages occurred at the height of the storm.

Isabella County

Shepherd 27 1945EST 0 0 **Hail (0.75)**

Isabella County

Shepherd 27 1945EST 0 0 75K **Thunderstorm Wind**
The Isabella County Emergency Operations Coordinator reported a \$ 75,000 barn, off of North Shepherd Road between the U.S. Highway 27 overpass and Millbrook Road, was destroyed by straight-line thunderstorm winds. Most of the contents of the barn were lost.

MINNESOTA, Central and South Central

Lac Qui Parle County

2 W Louisburg 01 1435CST 0 0 **Lightning**
Fire caused by lightning strike to tree spread to small shed and tractor.

Lac Qui Parle County

4 W Providence 01 1440CST 0 0 **Hail (1.00)**

Lac Qui Parle County

5 N Madison 01 1445CST 0 0 **Lightning**
Lightning strike killed one sheep.

Lac Qui Parle County

Madison to 8 N Madison 01 1445CST 0 0 400K **Thunderstorm Wind (G55)**
Barn blown down, killing one horse. Tree and shed damage. Approximately 8 miles of wind damage. Estimated windspeed.

Lac Qui Parle County

Dawson 01 1450CST 0 0 **Hail (0.75)**
Large tree also sheared in half due to strong winds.

Chippewa County

3 N Milan 01 1455CST 0 0 **Thunderstorm Wind (G60)**
Barn collapse. Estimated windspeed.

Chippewa County

15 NE Montevideo 01 1500CST 0 0 **Hail (0.75)**

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
MINNESOTA, Central and South Central									
Swift County									
Appleton	01	1507CST			0	0			Hail (0.75)
Yellow Medicine County									
3 N Clarkfield	01	1513CST			0	0			Lightning
Barn struck by lightning.									
Pope County									
Glenwood	01	1530CST 1630CST			0	0	100K		Flash Flood
3 inches of rain in 45 minutes resulted in basement flooding. Damage estimate for entire county.									
Pope County									
2 N Sedan	01	1535CST	0.1	50	0	0			Tornado (F1)
Kandiyohi County									
1 W Pennock	01	1540CST			0	0			Thunderstorm Wind (G60)
Roof ripped off turkey barn. Estimated windspeed.									
Pope County									
Sedan	01	1540CST			0	0			Thunderstorm Wind (G61)
Large trees down.									
Meeker County									
Cosmos	01	1543CST			0	0			Hail (0.75)
Swift County									
Benson	01	1550CST			0	0			Thunderstorm Wind (G70)
Numerous trees blown down. Portion of roof ripped off Livestock Exchange.									
Swift County									
1 W Benson	01	1550CST			0	0	500K		Thunderstorm Wind (G70)
Three 50,000 bushel grain bins blown onto highway. Wall collapse at ethanol plant. Damage estimate for entire county.									
Kandiyohi County									
Willmar	01	1645CST 1647CST	1	100	0	0			Tornado (F1)
Tornado left a one mile track of damage on the south and southeast sides of Willmar. Warehouse destroyed. Roof damage to motel.									
Kandiyohi County									
4 NE Willmar to 6 NE Willmar	01	1650CST 1655CST	2	200	0	0			Tornado (F1)
Tornado touched down on Eagle Lake and moved ashore approximately one half mile. Several cabins and boat docks damaged.									
Stearns County									
3 W Melrose	01	1655CST			0	0			Thunderstorm Wind (G60)
Damage to turkey barn.									
Kandiyohi County									
Willmar Arpt	01	1656CST			0	0			Thunderstorm Wind (G68)
Numerous roofs damaged in Willmar. Semitrailer truck blown over. Power poles blown down.									
Stearns County									
5 W Sauk Centre	01	1659CST			0	0			Thunderstorm Wind (G65)
Two farmsteads damaged by downburst winds. Several sheds destroyed. Irrigation equipment ripped into pieces. Trees blown down. Estimated windspeed.									
Meeker County									
5 S Litchfield	01	1701CST			0	0			Hail (0.88)
Meeker County									
Grove City	01	1713CST			0	0			Hail (0.75)
Meeker County									
Grove City	01	1713CST			0	0			Thunderstorm Wind (G52)
Trees blown down. Mobile home shifted off foundation. Funnel cloud also sighted in town.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
MINNESOTA, Central and South Central									
Meeker County									
5 N Grove City	01	1715CST	0.5	20	0	0			Tornado (F0)
									Large trees sheared in half.
Meeker County									
Litchfield	01	1724CST			0	0			Thunderstorm Wind (G52)
Stearns County									
20 NW Paynesville	01	1730CST			0	0			Thunderstorm Wind (G50)
									Large tree limb down. Estimated windspeed.
Meeker County									
2 E Crow River	01	1735CST			0	0			Thunderstorm Wind (G52)
									Trailer tipped over. Estimated windspeed.
Meeker County									
2 SW Dassel to 1 SE Dassel	01	1735CST	3	20	0	0			Tornado (F0)
									Tree blown onto house. Barn damaged.
Meeker County									
Kingston	01	1737CST			0	0			Hail (2.00)
									Severe crop damage.
Meleod County									
4 S Hutchinson	01	1740CST			0	0			Thunderstorm Wind (G55)
									Trees down. Estimated windspeed.
Wright County									
2 S Cokato	01	1743CST			0	0			Thunderstorm Wind (G60)
									Barn collapse. Estimated windspeed.
Wright County									
2 W Cokato	01	1743CST			0	0			Thunderstorm Wind (G60)
									Eight grain bins destroyed. Estimated windspeed.
Wright County									
5 NE Howard Lake to 2 SW Buffalo	01	1743CST 1750CST	5	800	0	0			Tornado (F3)
									House completely destroyed on west side of Birch Lake.
Wright County									
Knapp	01	1743CST			0	0			Thunderstorm Wind (G70)
									Barn destroyed. Estimated windspeed.
Wright County									
3 W Rice Lake	01	1743CST			0	0			Thunderstorm Wind (G60)
									Barn collapse killing seven cows. Silo blown over. Roof damage to farmhouse. Estimated windspeed.
Stearns County									
Richmond	01	1744CST			0	0			Thunderstorm Wind (G55)
									Estimated windspeed.
Wright County									
Cokato	01	1744CST			0	0			Thunderstorm Wind (G70)
									Roof damage. Semitrailer blown over. Church steeple blown over. Township hall sustained heavy damage including roof blown off and wall collapse. Estimated windspeed.
Wright County									
3 N Cokato	01	1745CST 1800CST			0	0			Thunderstorm Wind (G70)
									Farm building blown down. Estimated windspeed.
Wright County									
1 NE Cokato	01	1746CST			0	0			Thunderstorm Wind (G70)
									Turkey barn destroyed. About 4,000 turkeys lost.
Renville County									
2 SE Lakeside	01	1748CST			0	0			Hail (1.00)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
MINNESOTA, Central and South Central									
McLeod County									
Hutchinson	01	1752CST			0	0			Thunderstorm Wind (G70) Mobile home flipped over. Trees reported down in the Belle Lake area. Windspeed reported by radio station.
Meeker County									
Greenleaf	01	1752CST			0	0			Thunderstorm Wind (G60) 15 acres of trees blown down on east side of Lake Willie. Roof torn off shed about one half mile nw of town. Barn destroyed 2 miles nw of Greenleaf.
McLeod County									
Sherman	01	1754CST			0	0			Thunderstorm Wind (G70) Trees blown down on Flower Avenue. Estimated windspeed.
McLeod County									
Glencoe	01	1755CST			0	0			Thunderstorm Wind (G60) Roof damage to high school. Building under construction toppled at garden center.
McLeod County									
Winsted	01	1755CST			0	0			Thunderstorm Wind (G80) Tree damage.
Wright County									
Annandale	01	1758CST			0	0			Thunderstorm Wind (G55) Large tree blown down. Estimated windspeed and time.
Renville County									
Buffalo Lake	01	1800CST			0	0			Hail (1.00)
Stearns County									
St Cloud	01	1800CST			0	0			Lightning Lightning struck tree next to house resulting in burst water pipe.
Stearns County									
20 S St Cloud	01	1800CST			0	0			Thunderstorm Wind (G55) 4 inch diameter branches down. Estimated windspeed.
Wright County									
Howard Lake	01	1800CST			0	0			Thunderstorm Wind (G60) Tree blown onto house. Estimated windspeed.
Wright County									
1 SW Waverly to Waverly	01	1800CST	1	100	0	0			Tornado (F1) Damage path in the town of Waverly was 1 block wide by 7 blocks long. Garages and barns blown down. Roofs ripped off.
Wright County									
Clearwater	01	1805CST			0	0			Thunderstorm Wind (G61) Windows blown in at apartment building. Trees down.
Carver County									
Watertown	01	1810CST			0	0			Thunderstorm Wind (G52) Several large trees blown onto houses.
McLeod County									
Hutchinson	01	1810CST			0	0			Hail (1.00)
Wright County									
Buffalo	01	1810CST			0	0			Thunderstorm Wind (G70) Mobile home cut in half by fallen tree. One aircraft overturned at local airport. High school gymnasium lost part of its roof. Estimated windspeed.
Wright County									
Maple Lake to 1 S Monticello	01	1810CST 1815CST			0	0			Thunderstorm Wind (G90) Three airplanes and two hangars destroyed at Maple Lake airport. Eight foot silo blown onto barn killing 18 cows and 6 steers. Farmstead damage estimated at \$150,000. Numerous trees down in town. Roof damage to senior citizen apartment building.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
MINNESOTA, Central and South Central									
Wright County									
2 S Monticello to Monticello	01	1810CST 1815CST	2	400	0	0			Tornado (F2)
Wright County									
6 W Monticello to 1 S Monticello	01	1810CST 1815CST	5	550	0	0			Tornado (F2)
Two tornadoes converged on the Prairie Acres housing development 1 south of Monticello at about the same time. Extensive damage in area.									
Sherburne County									
Big Lake	01	1815CST 1830CST			0	1			Thunderstorm Wind (G95)
Five airplanes overturned at local airport. Roof blown off lumberyard, injuring a motorist. Fire hall doors blown off. Hundreds of trees blown down. Roofs ripped off numerous structures including middle school, apartment building and hardware store. Traffic lights down. Restaurant destroyed. Police car blown off the road. Estimated windspeed.									
Wright County									
Monticello	01	1815CST 1830CST			0	0	20M		Thunderstorm Wind (G95)
While several tornadoes converged on the southern edge of town, hurricane force winds battered the northern portions. The intersection of Interstate 94 and highway 25 was hardest hit by downburst winds resulting in extensive roof damage. Every tree in Ellison Park damaged. Roof ripped off automobile dealership flung into new car area destroying 75 new cars and trucks. Numerous recreational vehicles at RV dealership totaled. Over 200 structures significantly damaged. 61 homes and apartment buildings declared uninhabitable. 30 factories closed. Northern States Power transmission towers blown down. 2500 trees lost. Air conditioning unit blown off high school roof. Parked truck blown two thirds of a block. \$100 million dollars damage estimate in Wright county. Called worst storm in 60 year history of Wright-Hennepin Cooperative Electric Association.									
Wright County									
Albertville	01	1816CST			0	0			Thunderstorm Wind (G70)
Numerous trees blown down. Scattered roof damage. In neighboring Otsego, silos toppled and a mobile home destroyed. Roof damage in Otsego and St. Michael. Several Otsego elementary schools experience roof damage. Estimated windspeed.									
Sherburne County									
Elk River	01	1820CST			0	0			Thunderstorm Wind (G60)
Roof blown off apartment building. Numerous large trees down. Estimated windspeed.									
Sherburne County									
2 SE Zimmerman	01	1820CST			0	0			Thunderstorm Wind (G60)
Hundreds of trees blown down at Girl Scout Camp. Estimated windspeed.									
Wright County									
Delano	01	1820CST			0	0			Thunderstorm Wind (G55)
Trees down. Estimated windspeed.									
Hennepin County									
Dayton	01	1835CST			0	0			Thunderstorm Wind (G73)
Numerous large trees blown down. Approximately 300 trees down.									
Hennepin County									
Maple Grove	01	1843CST			0	0			Hail (1.00)
Strong winds also blew down trees and tipped over boats and sheds.									
Anoka County									
Ramsey	01	1845CST			0	0			Thunderstorm Wind (G80)
Gas station roof damaged.									
Carver County									
New Germany	01	1845CST			0	0			Thunderstorm Wind (G56)
Anoka County									
Coon Rapids	01	1850CST			0	0	100K		Thunderstorm Wind (G80)
200 trees blown down on Bunker Hills golf course. 20 corporate tents in preparation for upcoming senior PGA event destroyed. Roof damage also reported.									
Carver County									
Hamburg	01	1850CST			0	0			Hail (1.00)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
MINNESOTA, Central and South Central									
Hennepin County									
Brooklyn Park	01	1850CST			0	0			Thunderstorm Wind (G65) Trees and power lines down. Similar damage also reported in Brooklyn Center, and Champlin. Estimated windspeed.
Sibley County									
7 SE Arlington	01	1850CST			0	0			Thunderstorm Wind (G55) Large trees blown down. Estimated windspeed.
Anoka County									
Fridley	01	1852CST			0	0			Thunderstorm Wind (G65) Large trees down. Estimated windspeed.
Anoka County									
St Francis	01	1852CST	5	400	0	0			Tornado (F1) Touchdown 3 miles west of downtown St. Francis. Barn collapse.
Carver County									
Young America	01	1852CST			0	0			Hail (1.50)
Carver County									
Young America	01	1852CST			0	1			Thunderstorm Wind (G60) Barn collapse. Trailer home moved 20 feet. Woman inside trailer received minor injuries. Numerous trees down. Estimated windspeed.
Sherburne County									
5 N Elk River	01	1854CST			0	0			Thunderstorm Wind (G55) Large tree branches down. Estimated windspeed.
Anoka County									
Anoka	01	1855CST			0	0			Thunderstorm Wind (G85) Thousands of trees uprooted and power poles blown down. Headstones blown over in cemetery. Roof ripped off apartment building. Estimated windspeed.
Isanti County									
5 SW Bradford	01	1855CST	5	400	0	0			Tornado (F1) Touchdown 3 miles west of downtown St Francis. Barn collapse.
Anoka County									
Anoka Co Blaine Arpt	01	1902CST			0	0			Thunderstorm Wind (G58) Trees uprooted. One tree fell onto a truck.
Washington County									
2 SE Forest Lake to 3 E Forest Lake	01	1915CST	1	200	0	0			Tornado (F1) Touchdown on south shore of Forest Lake.
Hennepin County									
Minneapolis	01	1916CST			0	0			Thunderstorm Wind (G52)
Scott County									
1 S Jordan	01	1916CST			0	0			Hail (0.88)
Carver County									
Chanhassen	01	1920CST			0	0			Hail (0.75)
Scott County									
3 NE Jordan	01	1920CST			0	0			Hail (0.88)
Scott County									
Lydia	01	1925CST			0	0			Hail (0.75)
Scott County									
Marystown	01	1925CST			0	0			Hail (1.00)
Scott County									
3 W Shakopee	01	1925CST			0	0			Hail (1.25)
Chisago County									
Lindstrom	01	1930CST			0	0			Thunderstorm Wind (G55) Trees and power lines down. Estimated windspeed.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
MINNESOTA, Central and South Central									
Scott County									
3 NE Jordan	01	1930CST			0	0			Hail (2.00)
Washington County									
Hugo	01	1930CST			0	0			Thunderstorm Wind (G55)
Trees and power lines down. Estimated windspeed.									
Isanti County									
Braham	01	1940CST			0	0			Thunderstorm Wind (G55)
Car blown into ditch. Trees down. Estimated windspeed.									
Scott County									
Prior Lake	01	1940CST			0	0			Hail (1.00)
Lac Qui Parle County									
Dawson	01	2030CST			0	0			Thunderstorm Wind (G70)
Tree damage.									
Goodhue County									
Vasa	01	2055CST			0	0			Hail (1.75)
Renville County									
5 N Olivia	01	2059CST	0.1	50	0	0			Tornado (F0)
Goodhue County									
Red Wing	01	2115CST			0	0			Hail (1.75)
Kandiyohi County									
5 E Blomkest	01	2115CST	0.1	50	0	0			Tornado (F0)
Blue Earth County									
Mankato	01	2211CST			0	0			Thunderstorm Wind (G60)
10 inch diameter branches down. Estimated windspeed.									
Nicollet County									
North Mankato	01	2223CST			0	0			Thunderstorm Wind (G50)
Shed blown over. Estimated windspeed.									
Carver County									
Watertown	01	1745CST 1930CST			0	0			Flash Flood
McLeod County									
Glencoe	01	1745CST 1900CST			0	0			Flash Flood
Heavy rainfall in brief period of time resulted in flash flooding causing the Crow River to overflow its banks and flood highway 22 north of Glencoe.									
Hennepin County									
Minneapolis	01	1800CST 2100CST			0	0			Flash Flood
Isanti County									
Isanti	01	1830CST 2100CST			0	0	100K		Flash Flood
Estimate of four inches of rain in less than one hour. Major damage to wastewater treatment facility under construction.									
Ramsey County									
St Paul	01	1830CST 2100CST			0	1			Flash Flood
Washington County									
Woodbury	01	1900CST 2130CST			0	0			Flash Flood
Severe thunderstorms deposited very heavy rainfall on portions of the Twin Cities metropolitan area in a short period of time resulting in severe basement and street flooding and a number of collapsed basements. Heavy rainfall amounts in less than one hour included 5.2 inches at Woodbury, 4.5 inches at Brooklyn Center, 3.5 inches at St. Louis Park, 3.4 inches at Stillwater, 3.0 inches in Lauderdale and 2.9 inches in Minneapolis. Portions of Interstates 94, 494, and 35 flooded in Minneapolis, floating cars and stranding motorists. Stores were flooded in the Mall of America. Hospital transformer shorted out due to basement flooding									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
	Date			Killed	Injured	Property	Crops	
<u>MINNESOTA, Central and South Central</u>								
in Minneapolis. Five million dollars damage done to Edison High School in Minneapolis. Water to a height of 6 feet caused basement walls to collapse, destroying classrooms, kitchen, boiler room, gymnasium and band instruments. 39 homes flooded in the Hoyt Avenue area of St. Paul. Water levels reached 8 feet in some basements. 5 homes were condemned. Several streets collapsed in St. Paul. Apartment building roof collapsed injuring one woman in St. Paul. Milton Square retail center in St. Anthony Park flooded to height of 5 feet. Foot bridges washed away at Highland Golf Course in St. Paul. Basement and street flooding also reported in St. Louis Park, Woodbury, Mound, Brooklyn Park, St. Anthony and Stillwater. Minneapolis-St. Paul International Airport closed for 90 minutes.								
Sibley County								
Winthrop	05	1450CST		0	0			Hail (1.00)
Hail covered the ground.								
Nicollet County								
2 E Bernadotte	05	1530CST		0	0			Hail (1.50)
Nicollet County								
5 SW St Peter	05	1545CST		0	0			Hail (0.75)
Blue Earth County								
3 NE Mankato	05	1605CST		0	0			Hail (0.75)
Hail fell for 10 minutes.								
Waseca County								
5 NW New Richland	05	1657CST		0	0			Hail (0.75)
Isanti County								
Isanti	12	2330CST		0	0			Thunderstorm Wind (G50)
Trees blown down. Gusts to 50 mph also reported in Cambridge.								
Yellow Medicine County								
8 W Granite Falls	13	1550CST		0	0			Thunderstorm Wind (G55)
Trees blown down. Estimated windspeed.								
Chippewa County								
Montevideo	13	1555CST		0	0			Thunderstorm Wind (G55)
Power lines down.								
Yellow Medicine County								
3 SW Hanley Falls	13	1617CST		0	0			Hail (0.75)
Redwood County								
2 SW Lamberton to 1 S Lamberton	13	1630CST		0	0	200K	1.2M	Hail (4.00)
Damage estimate for Lamberton and Morgan areas. Grapefruit size hail did considerable damage to crops in Lamberton area. Hail also stripped trees of leaves, broke off tree limbs, shattered windows and put holes in siding.								
Brown County								
1.5 NW Evan	13	1655CST		0	0			Hail (3.00)
Severe crop damage.								
Redwood County								
1 E Morgan to 2 E Morgan	13	1702CST		0	0			Hail (3.00)
Extensive crop damage. Shattered windows in barn.								
Redwood County								
Lamberton	13	1703CST		0	0			Thunderstorm Wind (G50)
Several trees blown down. Estimated windspeed.								
Brown County								
New Ulm	13	1720CST		0	0			Hail (1.75)
Brown County								
Springfield	13	1720CST		0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
MINNESOTA, Central and South Central									
Kandiyohi County									
Roseland	13	1720CST			0	0			Tstm Wind/Hail
									Large trees blown down. Windows shattered. Combination of strong winds and small hail did extensive damage to crops 1 mile east of Roseland.
Kandiyohi County									
2 N Blomkest	13	1722CST			0	0			Hail (1.00)
Kandiyohi County									
2 N Blomkest	13	1722CST			0	0			Thunderstorm Wind (G61)
Brown County									
4 E Springfield	13	1725CST			0	0	40K		Lightning
									Lightning strike destroyed a storage shed.
Kandiyohi County									
.5 S Svea	13	1725CST			0	0	4M		Hail (0.75)
									Hail accompanied by strong winds resulted in severe hail damage. Damage estimate for approximately 30,000 acres of crops lost to hail and wind damage between Roseland, Blomkest, Svea and Big Kandiyohi Lake.
Kandiyohi County									
Blomkest	13	1734CST			0	0			Hail (1.75)
Meeker County									
1 SE Cosmos	13	1735CST			0	0			Hail (0.75)
Kandiyohi County									
Lake Lillian	13	1745CST			0	0			Hail (1.75)
Nicollet County									
Klossner	13	1801CST			0	0			Hail (4.00)
									Crop damage.
Sibley County									
6 SE Green Isle	13	1820CST	0.1	50	0	0			Tornado (F0)
									Trees knocked over.
Sibley County									
.5 SW Winthrop	13	1825CST			0	0			Thunderstorm Wind (G55)
									Large trees blown down. Estimated windspeed.
Sibley County									
4 E Winthrop	13	1830CST			0	0			Thunderstorm Wind (G60)
									Roof damage to chicken barn. Estimated windspeed.
Nicollet County									
Norseland	13	1835CST			0	0			Thunderstorm Wind (G55)
									Large tree blown down across Highway 22. Estimated windspeed.
Sibley County									
Green Isle	13	1840CST			0	0			Thunderstorm Wind (G52)
Scott County									
5.5 SW Belle Plaine	13	1845CST			0	0			Thunderstorm Wind (G61)
Carver County									
6 E Assumption	13	1852CST			0	0			Thunderstorm Wind (G60)
									Top sheared off 65 foot silo. Barn damage. Estimated windspeed.
Scott County									
Belle Plaine	13	1852CST			0	0			Thunderstorm Wind (G61)
									Trees blown down.
Sibley County									
2.5 N Henderson	13	1853CST			0	0			Thunderstorm Wind (G55)
									Large tree sheared in half. Estimated windspeed.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
MINNESOTA, Central and South Central									
Faribault County									
6 NE Blue Earth to 5 SE Delavan	13	1855CST 1906CST	4	50	0	0	100K		Tornado (F0)
2 farmsteads damaged.									
Scott County									
Jordan	13	1856CST			0	0			Thunderstorm Wind (G61)
Carver County									
Young America	13	1858CST			0	0			Thunderstorm Wind (G55)
Shingles torn off roofs. Trees down. Similar damage in Norwood and Hamburg.									
Scott County									
5.5 SW Belle Plaine	13	1858CST			0	0			Thunderstorm Wind (G60)
Trees blown down. Tree damaged extended to Blakeley. Estimated windspeed.									
Carver County									
2 S Gotha	13	1900CST			0	0			Thunderstorm Wind (G65)
Garage and barn blown down. Garage roof blown 80 yards. Several large trees down. Estimated windspeed.									
Carver County									
3 SW Carver	13	1905CST			0	0			Thunderstorm Wind (G55)
Several trees blown down.									
Carver County									
1 N East Union	13	1910CST			0	0			Thunderstorm Wind (G65)
Machine shed and pole barn destroyed. 2 by 6 piece of lumber embedded in building exterior. Estimated windspeed.									
Carver County									
Chaska	13	1912CST			0	0			Hail (1.75)
Damage to vehicles.									
Carver County									
Chaska	13	1912CST			0	0			Thunderstorm Wind (G52)
Power lines and trees blown down.									
Carver County									
Chanhassen	13	1915CST			0	0			Thunderstorm Wind (G52)
Tree blown onto house.									
Scott County									
Shakopee	13	1915CST			0	0			Hail (1.75)
Scott County									
Shakopee	13	1915CST			0	0			Thunderstorm Wind (G65)
Large trees blown down. Estimated windspeed.									
Scott County									
Savage	13	1918CST			0	0			Hail (1.75)
Scott County									
Savage	13	1918CST			0	0			Thunderstorm Wind (G61)
Anoka County									
Columbia Heights	13	1920CST			0	0			Thunderstorm Wind (G55)
Trees and power lines blown down. Localized street flooding. Similar damages in neighboring Fridley.									
Hennepin County									
Eden Prairie	13	1920CST			0	0			Thunderstorm Wind (G60)
Trees blown down. Estimated windspeed.									
Dakota County									
Apple Vly	13	1925CST			0	0			Thunderstorm Wind (G60)
Sliding glass door blown in. Two large trees blown down. Estimated windspeed.									
Steele County									
9 W Owatonna	13	1931CST			0	0			Thunderstorm Wind (G58)
Large trees blown down.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
MINNESOTA, Central and South Central									
Anoka County									
St Francis	13	1940CST			0	0			Thunderstorm Wind (G60)
			Large trees blown down. Estimated windspeed.						
Freeborn County									
Albert Lea	13	1943CST			0	0			Hail (2.00)
			Large tree branches also blown down.						
Washington County									
Woodbury	13	1951CST			0	0			Thunderstorm Wind (G52)
Goodhue County									
2 NW Red Wing	13	2025CST			0	0			Thunderstorm Wind (G55)
			Several trees down. Estimated windspeed.						
Chisago County									
5 N North Branch	13	2035CST			0	0			Thunderstorm Wind (G55)
			Several trees down. Estimated windspeed.						
Chisago County									
5 E North Branch	13	2050CST			0	0			Thunderstorm Wind (G55)
			Large tree limbs down. Estimated windspeed.						
Stevens County									
6 S Morris	16	2141CST			0	0			Hail (1.00)
Swift County									
10 NE Appleton	16	2213CST			0	0			Hail (0.75)
Dakota County									
Farmington	16	2258CST			0	0			Hail (1.75)
Dakota County									
Inver Grove Heights	16	2315CST			0	0			Hail (2.75)
Dakota County									
Inver Grove Heights	16	2330CST 2345CST			0	0			Hail (0.88)
Lac Qui Parle County									
Madison	16	2340CST			0	0			Thunderstorm Wind (G52)
Chippewa County									
Clara City	16	2355CST			0	0			Thunderstorm Wind (G50)
			Trees blown down. Estimated windspeed.						
Dakota County									
Eagan	16	2355CST			0	0			Hail (0.88)
Dakota County									
Inver Grove Heights	17	0027CST			0	0			Hail (1.00)
Mcleod County									
Hutchinson	17	0035CST			0	0			Thunderstorm Wind (G55)
			Trees blown down. Estimated windspeed.						
Dakota County									
Inver Grove Heights	17	0039CST			0	0			Hail (1.00)
Hennepin County									
Minneapolis	17	0042CST			0	0			Hail (0.75)
Hennepin County									
Edina	17	0045CST			0	0			Thunderstorm Wind (G52)
			Power lines and trees blown down. Estimated windspeed.						
Renville County									
Danube	17	0045CST			0	0			Thunderstorm Wind (G50)
			Large branches down. Estimated windspeed.						

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
MINNESOTA, Central and South Central									
Hennepin County									
Minneapolis	17	0047CST			0	0			Hail (0.75)
									Hail reported near intersection of Interstate 35W and 54th st.
Wright County									
Cokato	17	0048CST			0	0			Hail (0.75)
Carver County									
Watertown	17	0050CST			0	0			Thunderstorm Wind (G55)
									Large branches down. Estimated windspeed.
Hennepin County									
Richfield	17	0051CST			0	0			Hail (1.75)
									Hail reported at intersection of Interstate 35W and highway 62. Strong winds also knocked down numerous trees.
Hennepin County									
Richfield	17	0059CST			0	0			Hail (1.00)
									Hail reported just west of MSP International Airport.
Carver County									
Norwood	17	0100CST			0	0			Lightning
									Large tree fell on garage after being struck by lightning.
Carver County									
Waconia	17	0100CST			0	0			Thunderstorm Wind (G60)
									Large branches down. Estimated windspeed.
Carver County									
5 W Watertown	17	0105CST			0	0			Thunderstorm Wind (G60)
									Two garages blown down. Estimated windspeed.
Carver County									
Cologne	17	0106CST			0	0			Thunderstorm Wind (G60)
									Large branches down. Estimated windspeed.
Carver County									
Mayer	17	0108CST			0	0			Thunderstorm Wind (G60)
									2 foot diameter trees blown down. Estimated windspeed.
Wright County									
2.5 S Delano	17	0112CST			0	0			Thunderstorm Wind (G60)
									Barn destroyed. Scattered damage across southeastern Wright county. Estimated windspeed.
Wright County									
Delano	17	0115CST			0	0			Thunderstorm Wind (G70)
									Roof damage to high school. Numerous large trees blown down onto homes and power lines. Estimated windspeed.
Hennepin County									
Maple Plain	17	0117CST			0	3			Thunderstorm Wind (G60)
									Three young girls injured at YMCA camp when tree blown over onto tent. Barn also blown down in vicinity. Estimated windspeed.
Hennepin County									
Minnetrista	17	0119CST			0	0	88K		Thunderstorm Wind (G65)
									27 homes damaged by winds or falling trees. Neighboring city of Independence also experienced scattered home damage due to down trees and power lines. Estimated windspeed.
McLeod County									
2.5 W Lester Prairie	17	0120CST			0	0			Thunderstorm Wind (G55)
									Barn blown over. Trees and power lines down. Estimated windspeed.
McLeod County									
Winsted	17	0120CST			0	0			Thunderstorm Wind (G55)
									Trees and power lines down. Estimated windspeed.
Hennepin County									
Mound	17	0123CST			0	0			Thunderstorm Wind (G72)
									Numerous trees blown down, damaging 50 homes.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property Crops	Character of Storm
MINNESOTA, Central and South Central								
Hennepin County								
Bloomington	17	0145CST			0	0		Thunderstorm Wind (G60)
			Large tree branches down. Estimated windspeed.					
Dakota County								
Farmington	17	0154CST			0	0		Thunderstorm Wind (G61)
			Estimated windspeed.					
Washington County								
Oakdale	17	0200CST			0	0		Thunderstorm Wind (G60)
			Siding ripped off house. Estimated windspeed.					
Dakota County								
3 S Hastings	17	0208CST			0	0		Thunderstorm Wind (G55)
			Tree blown down onto road. Estimated windspeed.					
Goodhue County								
Cannon Falls	17	0215CST			0	0		Thunderstorm Wind (G55)
			Trees blown down. Estimated windspeed.					
Rice County								
Northfield	17	0217CST			0	0		Lightning
Goodhue County								
Zumbrota	17	0230CST			0	0		Thunderstorm Wind (G55)
			Large tree blown over. Estimated windspeed.					
Steele County								
Blooming Prairie	17	0300CST			0	0		Thunderstorm Wind (G55)
			Repair shop toppled by high winds. Several trees uprooted. Estimated windspeed.					
Dakota County								
Inver Grove Heights	16	2300CST			0	0		Flash Flood
	17	0300CST						
Hennepin County								
Minneapolis	16	2330CST			0	0		Flash Flood
	17	0200CST						
			Slow moving thunderstorms deposited heavy rainfall on already saturated ground. Some rainfall totals included 3.7 inches in Minneapolis, 3.5 inches in Richfield and 4.0 inches 3 miles southwest of Hastings. Several major roadways were flooded including Interstate 35W at Diamond Lake Road, Interstate 494 at Penn Avenue as well as highway 100 in St. Louis Park, highway 55 in Eagan and highway 52 in Inver Grove Heights. Several motorists were stranded on highway 52.					
Blue Earth County								
Mankato	18	0650CST			0	0		Hail (1.75)
Blue Earth County								
Mankato	18	0655CST			0	0		Hail (1.75)
Blue Earth County								
Mankato	18	0702CST			0	0		Hail (0.75)
Waseca County								
3 S Janesville	18	0710CST			0	0		Hail (0.75)
Steele County								
3 E Owatonna to 4 E Owatonna	20	1700CST 1730CST			0	0		Funnel Cloud
Steele County								
2 N Blooming Prairie	20	1820CST	0.1	25	0	0		Tornado (F0)
Waseca County								
2 E New Richland	20	1830CST			0	0		Funnel Cloud
Freeborn County								
Clarks Grove	20	1930CST 2030CST			0	0		Funnel Cloud
Blue Earth County								
4 W Mankato	21	1510CST			0	0		Funnel Cloud

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
MINNESOTA, Central and South Central									
Brown County									
1 S New Ulm	21	1522CST			0	0			Funnel Cloud
Faribault County									
Walters	21	1555CST			0	0			Funnel Cloud
Freeborn County									
Mansfield	21	1555CST			0	0			Funnel Cloud
Atmospheric conditions resulted in a number of funnel clouds across south central Minnesota on July 20th and 21st. One of the funnel clouds touched down briefly north of Blooming Prairie in eastern Steele county.									
Dakota County									
Eagan	22	0100CST 0900CST			0	0			Flash Flood
Goodhue County									
Red Wing	22	0100CST 0900CST			0	0			Flash Flood
Hennepin County									
Minneapolis	22	0100CST 0900CST			0	0			Flash Flood
McLeod County									
Glencoe	22	0100CST 0900CST			0	0			Flash Flood
Scott County									
Prior Lake	22	0100CST 0900CST			0	0			Flash Flood
Sibley County									
Henderson	22	0100CST 0900CST			0	0			Flash Flood
Wright County									
Delano	22	0100CST 0900CST			0	0			Flash Flood
Slow moving thunderstorms deposited heavy rainfall on already well saturated ground. Morning rainfall amounts included 4.85 inches in Eagan, 4.05 inches in Golden Valley, 4.60 inches in Edina, 3.10 inches in Delano, 4.25 inches in Henderson, 3.13 inches in Hastings, 2.75 inches in Glencoe and 3.11 inches in Red Wing. Street flooding was reported in Minneapolis, Glencoe, Henderson, Bloomington and Eagan. The wet soil caused a small landslide on the shore of Prior Lake. A basement wall collapsed in Brooklyn Park. Interstate 494 was closed in Bloomington and Eden Prairie. Highway 13 flooded in Eagan. 2.69 inches of rain fell at the Minneapolis/St. Paul International Airport resulted in July becoming the second wettest month on record for the Twin Cities.									
Sibley County									
Henderson	22	0600CST 1000CST			0	0			Flash Flood
Excessive rainfall of 4.25 inches that began after midnight caused Mill Creek to exceed its banks. A culvert plugged by debris enhanced the flooding causing water and mud to inundate parts of Main street in Henderson. A hardware store was flooded. A bridge was also washed out over Mill Creek. Basements flooded in Henderson township.									
Yellow Medicine County									
3 E Wood Lake	25	0050CST	0.2	50	0	0			Tornado (F0)
Shed damage. Trees uprooted.									
Redwood County									
Milroy	25	0115CST			0	0			Thunderstorm Wind (G50)
Grain bin rolled over. Estimated windspeed.									
Sibley County									
Gaylord	25	0140CST			0	0			Thunderstorm Wind (G50)
Garage blown down. Garage was under construction. Estimated windspeed.									
McLeod County									
Brownton	25	0154CST			0	0			Thunderstorm Wind (G55)
Trees blown down. Estimated windspeed.									

Storm Data and Unusual Weather Phenomena

July 1997

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

McLeod County

1 NW Brownton 25 0157CST 0.1 50 0 0 **Tornado (F0)**
Tree damage.

McLeod County

4 N Glencoe 25 0200CST 0 0 **Thunderstorm Wind (G50)**
Shed damaged. Estimated windspeed.

Redwood County

Morgan 25 0100CST
0600CST 0 0 **Flash Flood**
Fields flooded causing crop damage. Over three inches of rain at Redwood Falls, 2.9 inches at Vesta.

Goodhue County

Zumbrota 25 0300CST
0800CST 0 0 **Flash Flood**

Le Sueur County

Montgomery 25 0300CST
0800CST 0 0 **Flash Flood**

McLeod County

Stewart 25 0300CST
0800CST 0 0 **Flash Flood**

Nicollet County

Lafayette 25 0300CST
0800CST 0 0 **Flash Flood**

Rice County

Lonsdale 25 0300CST
0800CST 0 0 **Flash Flood**

Scott County

Belle Plaine 25 0300CST
0800CST 0 0 **Flash Flood**

Sibley County

Henderson 25 0300CST
0800CST 0 0 **Flash Flood**

Another bout of heavy rains resulted in street and basement flooding. Some rainfall reports included 4.1 inches at Lafayette, 4.03 inches at Stewart, 3.00 inches in Henderson and Cannon Falls. Many roads closed in the southwest part of Goodhue county. Hidden Valley campgrounds evacuated in Welch township in Goodhue County. Street flooding reported in Lonsdale, LeSueur, New Prague, Montgomery, Belle Plaine, Henderson and Kenyon. Baseball fields, local golf course and a city park flooded in Pine Island. Riverside park flooded in Wanamingo. Cannon River rose to above its banks flooding nearby fields and a local golf course. The river dropped below flood stage on Saturday the 26th.

MINNESOTA, Northeast

Pine County

**6 SE Pine City to
8 SE Pine City** 01 2004CST 4 100 0 0 **Tornado (F0)**

County sheriff officials and the public reported a tornado touchdown in a rural area along State Highway 70 east of Rock Creek. No damage was reported. Path length, path width, and F-scale are estimated.

Pine County

Pine City 01 2035CST 0 0 **Thunderstorm Wind (G55)**
Strong thunderstorm winds knocked down trees and power lines at a resort near Pine City. Wind speed is estimated.

Crow Wing County

9 NW Brainerd 13 0545CST 0 0 1.5M **Lightning**
According to a deputy state fire marshall, lightning caused a fire that destroyed a landmark restaurant on Gull Lake. No one was injured.

Cass County

**Hackensack to
Backus** 13 1835CST 0 0 **Thunderstorm Wind (G70)**

Thunderstorm winds up to 70 knots (80 mph) blew down several large trees.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property Crops	Character of Storm
<u>MINNESOTA, Northeast</u>								
Cass County								
Longville	13	1835CST			0	0		Thunderstorm Wind (G55)
Several large trees were blown down. Wind speed is estimated.								
Itasca County								
Bigfork to Effie	13	1915CST			0	0		Thunderstorm Wind (G50)
Several trees were blown down. Wind speed is estimated.								
Itasca County								
Grand Rapids	13	1955CST			0	0		Thunderstorm Wind (G50)
Several trees and power lines were blown down. Wind speed is estimated.								
St. Louis County								
14 NW Virginia	14	0835CST			0	0		Thunderstorm Wind (G50)
Several trees were blown down at Little Lake Fourteen. Wind speed is estimated.								
St. Louis County								
Island Lake	16	0230CST			0	0		Thunderstorm Wind (G55)
Trees up to a foot in diameter were blown down. Wind speed is estimated.								
Carlton County								
Cloquet	16	1010CST			0	0		Hail (0.75)
<u>MINNESOTA, Northwest</u>								
Lake Of The Woods County								
Carp	01	1510CST			0	0		Hail (0.75)
Lake Of The Woods County								
3 SW Baudette	01	1540CST			0	0	0.50K	Thunderstorm Wind
Strong winds blew a tree over.								
Lake Of The Woods County								
1 S Baudette	01	1550CST			0	0		Hail (0.75)
MNZ003-027-030 Clay - West Becker - West Otter Tail								
	01	1600CST 1730CST			0	0	14K	High Wind
A wake low produced strong winds across the Moorhead area, knocking down trees and power lines. A tower set up to test the feasibility of wind generated electricity measured a gust of 138 mph at a height of 131 feet. The tower also measured an 81 mph gust at 98 feet and a 77 mph gust at 33 feet. The Fargo ASOS reported at peak wind of 51 mph. Boats were swamped and docks flipped on Pelican Lake and Lake Melissa due to the strong wind.								
Polk County								
Mentor	01	1645CST			0	0		Hail (1.00)
Polk County								
Mentor	01	1707CST	0.2	25	0	0		Tornado (F0)
Red Lake County								
7 S Red Lake Falls	01	1740CST	0.2	25	0	0		Tornado (F0)
Polk County								
3 NE Gentilly	01	1748CST			0	0	0.50K	Thunderstorm Wind
Red Lake County								
3 S Red Lake Falls	01	1805CST			0	0		Hail (0.75)
Polk County								
Gentilly	01	1834CST			0	0		Flash Flood
Red Lake County								
Huot	01	1845CST			0	0	2K	Thunderstorm Wind
Strong wind blew over a shed and several trees.								

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
MINNESOTA, Northwest									
Red Lake County									
Red Lake Falls	01	1850CST			0	0			Flash Flood
									Several roads were flooded due to the heavy rain.
Red Lake County									
1 SW Red Lake Falls	01	1850CST	0.2	25	0	0			Tornado (F0)
Red Lake County									
Dorothy	01	1913CST	0.2	25	0	0			Tornado (F0)
Red Lake County									
Dorothy	01	1915CST			0	0	0.50K		Thunderstorm Wind
Red Lake County									
Dorothy	01	1920CST			0	0			Flash Flood
									Water was reported over many roads in the Dorothy area.
Hubbard County									
7 N Park Rapids	12	1612CST	0.5	25	0	0			Tornado (F0)
									A brief touchdown produced minor tree damage.
Norman County									
Twin Vly	13	1508CST			0	0			Hail (1.00)
Norman County									
Ada	13	1515CST			0	0	2K		Thunderstorm Wind
									Several large trees were uprooted due to the strong wind.
Norman County									
Twin Vly	13	1515CST			0	0	2K		Thunderstorm Wind
									Large trees were blown over due to the strong wind.
Norman County									
Twin Vly	13	1518CST			0	0			Hail (0.75)
Polk County									
3.5 NE Erskine to 3 NE Erskine	14	0430CST			0	0	5K	50K	Hail (1.75)
									Hail fell for 45 minutes. There were still drifts of hail on the ground at 0900 CST.
Polk County									
3E 0.5N Erskine	14	0500CST			0	0	2K		Flash Flood
									4 to 5 inches of rain caused a basement to quickly fill with water.
Beltrami County									
Bemidji	16	0035CST			0	0			Hail (0.75)
Kittson County									
Caribou	16	1705CST			0	0			Hail (1.00)
Roseau County									
Wannaska	16	1810CST			0	0			Hail (0.75)
Roseau County									
4 N Roseau	25	1800CST			0	0	1K		Thunderstorm Wind
									Wind blew down trees north of Roseau.
Marshall County									
12 NW Stephen	25	1830CST			0	0	1K		Thunderstorm Wind
									Strong thunderstorm winds produced tree damage.
Roseau County									
Roseau	25	1835CST			0	0	10K		Thunderstorm Wind
									Power lines were knocked down around the Roseau area due to the high wind.
Roseau County									
6 E Roseau	25	1835CST			0	0	10K		Thunderstorm Wind
									Power lines were blown down east of Roseau.
Clay County									
Hawley	26	1510CST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>MINNESOTA, Northwest</u>									
Clay County									
5 W Felton	26	1515CST			0	0			Hail (1.00)
Clay County									
17 NE Fargo	26	1522CST	0.5	25	0	0			Tornado (F0)
Rapid convection produced a brief tornado touchdown.									
<u>MINNESOTA, Southeast</u>									
Olmsted County									
4 N Rochester Arpt	05	1756CST			0	0	15K		Hail (0.88)
Olmsted County									
Rochester	05	1758CST			0	0			Hail (0.75)
Storm spotters reported dime to nickel size hail with an isolated severe thunderstorm.									
Dodge County									
1 N West Concord	13	2010CST			0	0	10K		Hail (0.88)
Dodge County									
1 N West Concord	13	2010CST			0	0			Thunderstorm Wind (G52)
Olmsted County									
Byron	13	2037CST			0	0	12K		Thunderstorm Wind (G56)
Olmsted County									
Rochester	13	2050CST			0	0	25K		Hail (0.88)
Olmsted County									
3 W Rochester	13	2050CST			0	0			Hail (0.75)
Olmsted County									
Rochester	13	2052CST			0	0	55K		Thunderstorm Wind (G55)
Olmsted County									
Byron to Rochester	13	2100CST 2245CST			0	0			Urban/Sml Stream Fld
Olmsted County									
1 S Eyota	13	2121CST			0	0	8K		Thunderstorm Wind (G55)
A line of severe thunderstorms hit the area with dime to nickel size hail along with 60 to 65 mph winds. 1.5 inches of rain fell in 15 minutes, causing widespread urban flooding in the city of Rochester.									
Olmsted County									
Rochester	16	1620CST			0	0	3.5K		Thunderstorm Wind (G52)
Dodge County									
2 E Hayfield	16	1632CST			0	0	35K		Hail (1.50)
Dodge County									
3 E Oslo	16	1643CST			0	0			Hail (1.00)
Olmsted County									
6 W High Forest	16	1644CST			0	0			Hail (0.75)
Wabasha County									
Reads Landing	17	0040CST			0	0	10K		Hail (1.25)
Wabasha County									
Kellogg	17	0128CST			0	0			Hail (0.75)
Olmsted County									
8 NW Rochester	17	0200CST			0	0	12.5K		Thunderstorm Wind (G52)
Olmsted County									
Rochester	17	0300CST			0	0	14K		Thunderstorm Wind (G50)
Mower County									
Adams	17	0320CST			0	0			Thunderstorm Wind (G50)
Mower County									
Adams	17	0324CST			0	0	8.5K		Thunderstorm Wind (G52)

Storm Data and Unusual Weather Phenomena

July 1997

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

Mower County

Austin 17 0330CST 0 0 25K Thunderstorm Wind (G52)

Winona County

Winona Muni Arpt 17 0336CST 0 0 30K Thunderstorm Wind (G52)
Winds gusting to around 60 mph blew down several trees, tree limbs and even road signs. Spotters reported hail as big as half-dollars.

Olmsted County

Rochester 18 0930CST 0 0 4.5K Thunderstorm Wind (G50)
Storm spotters reported several trees down as winds gusted to nearly 60 mph.

Fillmore County

Rushford to
Canton 19 0900CST
1300CST 0 0 Urban/Sml Stream Fld

Winona County

Lewiston to
Stockton 19 0930CST
1330CST 0 0 Urban/Sml Stream Fld

Winona County

Lewiston to
Stockton 19 0942CST
1330CST 0 0 50K 30K Flash Flood
Torrential rains caused a 2 foot wall of water to rush down Gavin Brook. Local law enforcement officials and spotters reported mudslides and water covering portions of Highway 14.

Dodge County

8 W Byron 20 1733CST
1735CST 0.2 50 0 0 Tornado (F0)

Dodge County

Dodge Center 20 1800CST
1815CST 0 0 Funnel Cloud

Dodge County

2 SW Dodge Center 20 1845CST
1847CST 0.2 50 0 0 Tornado (F0)

Winona County

8 S Utica 20 1944CST 0 0 Hail (0.75)

Winona County

8 S Utica 20 1944CST 0 0 Thunderstorm Wind (G52)

Winona County

2 S Nodine 20 1946CST 0 0 Funnel Cloud

Fillmore County

1 N Spring Valley 20 2035CST 0 0 Funnel Cloud

Dodge County

10 W Rochester 21 1500CST
1520CST 0 0 Funnel Cloud

Mower County

Adams 21 1500CST
1520CST 0 0 Funnel Cloud

Storm spotters reported funnel clouds, none of which touched down.

MINNESOTA, Southwest

**MNZ071>072-
080>081-089>090-
097>098** Lincoln - Lyon - Murray - Cottonwood - Nobles - Jackson - Pipestone - Rock

02 0200CST
0800CST 0 0 57.1K High Wind (G35)

Prolonged sustained winds around 40 mph with gusts to 50 mph caused widespread minor tree damage.

Nobles County

Lismore 07 1640CST 0 0 Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>MINNESOTA, Southwest</u>									
Nobles County									
4 N Reading	07	1710CST			0	0			Hail (0.88)
Pipestone County									
4 S Ihlen	13	1545CST 1555CST			0	0			Hail (1.50)
Rock County									
5 SE Jasper	13	1610CST			0	0			Hail (0.75)
Rock County									
Hardwick	13	1615CST			0	0			Hail (1.75)
Rock County									
3 NE Hardwick	13	1625CST			0	0			Hail (0.75)
Jackson County									
5 NW Heron Lake	13	1718CST			0	0			Hail (0.75)
Cottonwood County									
8 W Windom	13	1741CST			0	0			Thunderstorm Wind (G52)
Lyon County									
Cottonwood	25	0025CST			0	0	100K		Thunderstorm Wind (G61)
Thunderstorm winds blew over a 70 foot mobile home and moved another mobile home off its foundation. The winds also uprooted large trees and caused other tree damage.									
Pipestone County									
1 S Pipestone	26	2010CST	0.1	50	0	0			Tornado (F0)
A spotter observed a brief tornado which resulted in no reported damage.									
<u>MINNESOTA, West</u>									
NONE REPORTED.									
<u>MINNESOTA, West Central</u>									
Big Stone County									
7 NW Ortonville	19	2038CST			0	0			Hail (1.75)
<u>MISSISSIPPI, Central</u>									
Washington County									
Hollandale	04	2000CST			0	0	3K		Thunderstorm Wind (G65)
Several trees were blown down.									
Humphreys County									
Belzoni	04	2015CST			0	0			Hail (0.75)
Yazoo County									
3 N Bentonia	04	2125CST			0	0	2K		Thunderstorm Wind
Several trees were blown down.									
Montgomery County									
Winona	04	2200CST			0	0	5K		Thunderstorm Wind (G69)
Numerous power lines and trees were blown down.									
Leake County									
Edinburg	04	2245CST			0	0	4K		Thunderstorm Wind (G61)
Several trees were blown down.									
Winston County									
Noxapater	04	2330CST			0	0	3K		Thunderstorm Wind
Several trees were blown down.									
Lamar County									
Lumberton	05	1535CST			0	0			Hail (1.00)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
MISSISSIPPI, Central									
Jones County									
4 W Ellisville	05	1700CST			0	0			Hail (0.88)
Webster County									
8 SW Eupora	07	1511CST			0	0	2K		Thunderstorm Wind
Several trees were blown down.									
Bolivar County									
Cleveland	07	1525CST			0	0	10K		Thunderstorm Wind
The roof of a mobile home was blown off and several trees were blown down.									
Marion County									
10 NE Columbia	07	1645CST			0	0			Hail (0.88)
Clarke County									
Enterprise	08	1645CST			0	0	0.50K		Tstm Wind/Hail
Two trees were blown down.									
Bolivar County									
1 W Cleveland	08	1655CST			0	0	5K		Thunderstorm Wind
Several power poles and lines were blown down.									
Copiah County									
Wesson	09	1630CST			0	0	5K		Thunderstorm Wind
Several trees were blown down on to sheds and vehicles.									
Sharkey County									
Anguilla	09	1650CST			0	0	1K		Thunderstorm Wind (G52)
Numerous large limbs were blown down.									
Grenada County									
Holcomb	09	2200CST			0	0	3K		Thunderstorm Wind
Several trees and numerous large limbs were blown down.									
Scott County									
Forest	10	1545CST			0	0	2K		Thunderstorm Wind
Several trees were blown down.									
Rankin County									
2 W Fannin	10	1620CST			0	0			Hail (0.75)
Lamar County									
7 NNW Purvis	10	1630CST			0	0	2K		Thunderstorm Wind
Several trees were blown down.									
Rankin County									
10 NNW Brandon	10	1705CST			0	0	1K		Thunderstorm Wind
A couple of trees and several large limbs were blown down.									
Montgomery County									
Duck Hill	10	1730CST			0	0	2K		Thunderstorm Wind
Several trees were blown down.									
Simpson County									
4 N Magee	11	1600CST			0	0	2K		Thunderstorm Wind
Several trees were blown down.									
Newton County									
2 N Newton	13	1425CST			0	0	3K		Thunderstorm Wind
One barn roof was damaged and several trees were blown down.									
Winston County									
Noxapater	13	1500CST 1600CST			0	0			Flash Flood
Many roads and streets were flooded.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>MISSISSIPPI, Central</u>									
Forrest County									
Brooklyn	13	1618CST			0	0	2K		Thunderstorm Wind
									Several trees were blown down.
Smith County									
Raleigh	15	1355CST			0	0			Hail (0.75)
Jasper County									
Paulding	15	1435CST			0	0	2K		Thunderstorm Wind
									Several trees were blown down.
Jasper County									
5 E Bay Spgs	15	1450CST			0	0			Hail (0.88)
Lincoln County									
Vaughn	15	1450CST			0	0			Hail (0.88)
Rankin County									
3 SE Florence	15	1500CST			0	0	2K		Thunderstorm Wind
									Several trees were blown down.
Smith County									
3 N Gunn	15	1615CST			0	0			Hail (1.00)
Washington County									
Leland	22	1845CST			0	0	5K		Thunderstorm Wind (G52)
									Several power and cable lines were blown down.
Simpson County									
5 NE D Lo	23	1705CST			0	0	2K		Thunderstorm Wind
									Several trees were blown down.
Smith County									
Burns	23	1725CST			0	0	1K		Thunderstorm Wind
									Several trees were blown down.
<u>MISSISSIPPI, North</u>									
De Soto County									
South Haven	08	1420CST			0	0	1K		Thunderstorm Wind
									Several large tree limbs were blown down.
Prentiss County									
3 NW Booneville	09	1540CST 1545CST			0	0	0.01K		Hail (0.75)
Marshall County									
Holly Spgs	09	1600CST 1830CST			0	0	1K		Flash Flood
									Several roads had water covering them as over 3 inches of rain fell in one hour.
Prentiss County									
Marietta	09	1600CST 1830CST			0	0	1K		Flash Flood
									Several roads were covered by flood waters after heavy rain fell over the area.
Marshall County									
Holly Spgs	09	1605CST 1610CST			0	0	1K		Thunderstorm Wind
									A few trees were blown down.
Prentiss County									
5 S Wheeler	09	1615CST			0	0	0.01K		Hail (0.75)
Lee County									
Baldwyn to 3 W Saltillo	09	1620CST 1642CST			0	0	0.06K		Hail (0.75)
Lee County									
Saltillo	09	1640CST			0	0	1K		Thunderstorm Wind
									A large tree was knocked down.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>MISSISSIPPI, North</u>									
Lee County									
Tupelo	09	1653CST 1658CST			0	0	0.01K		Hail (0.75)
Lee County									
Belden	09	1710CST 1715CST			0	0	10K		Thunderstorm Wind
Numerous trees nad power lines were blown down.									
Lafayette County									
Oxford	09	1815CST 1820CST			0	0	5K		Thunderstorm Wind
Several trees, power poles and power lines were knocked down.									
Lafayette County									
Oxford	09	1830CST 1835CST			0	0	50K		Lightning
Lightning struck a house causing a fire which burnt the house to the ground.									
Lafayette County									
5 S Oxford	09	1915CST 2100CST			0	0	1K		Flash Flood
Several culverts were washed out by flash flooding leaving a few roads under water.									
<u>MISSISSIPPI, South</u>									
Jackson County									
Vancleave	06	1300CST			0	0	0.50K		Thunderstorm Wind
Several trees and power lines were downed by thunderstorm wind gusts between Van Cleave and Latimer.									
Harrison County									
Gulfport	11	1309CST			0	0	25K		Thunderstorm Wind
Thunderstorm wind gusts knocked down several trees along with tree branches. One car was damaged by a fallen tree.									
Harrison County									
Gulfport Arpt	11	1322CST			0	0			Thunderstorm Wind (G50)
Wind gust of 50 knots was reported at the Gulfport Airport.									
Amite County									
Liberty	13	1630CST			0	0	0.50K		Tstm Wind/Hail
Sheriffs Office reported several large tree branches as well as power lines downed in the vicinity of Liberty.									
MSZ080>082									
Hancock - Harrison - Jackson									
	17	1800CST			0	0			Hurricane
	19	2100CST							
Hurricane Danny, a minimal Saffir Simpson scale Category 1 hurricane, moved slowly from extreme southeast Louisiana across the Chandeleur and Breton sounds and into Mobile Bay from early on July 18 until late on July 19. The area on the Mississippi Coast most affected by Hurricane Danny was eastern Jackson County. A wind gust of 30 knots was recorded at Pascagoula during the early morning hours on July 19. Due to the hurricane's slow forward speed, heavy rainfall occurred over eastern Jackson County. A three day rain total of 7.87 inches was recorded at the Pascagoula airport from July 17 thru July 19. Some flooding of streets and a few homes occurred in a few areas of poor drainage in extreme southeast Jackson County due to the heavy rain. Because Hurricane Danny was a minimal hurricane and small in size, most of the adverse affects of the hurricane were confined to near the center, primarily in Alabama. Overall, county emergency management officials in coastal Mississippi reported no significant damage from Hurricane Danny.									
Amite County									
Gillsburg	22	1635CST			0	0	0.50K		Thunderstorm Wind
Sheriffs office reported thunderstorm wind gusts downed trees along Mississippi Highway 568.									
Harrison County									
Gulfport	26	1545CST 1745CST			0	0			Urban/Sml Stream Fld
Significant street flooding was reported in several subdivisions.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
MISSISSIPPI, Southeast									
George County									
Agricola	28	1430CST			0	0	5K		Lightning
Lightning struck a pecan tree during the afternoon and killed nine cattle huddled beneath it. Eight of the nine cows were due to give birth in a month and one had a two week old calf. The calf was not injured by the lightning strike.									
MISSOURI, East									
Reynolds County									
Garwood	03	2030CST			0	0			Hail (0.75)
The Garwood Fire Department reported 3/4 inch hail across the south part of town.									
Monroe County									
Stoutsville	06	1648CST			0	0			Tstm Wind/Hail
The Missouri Highway Patrol reported "lots" of pea size hail and heavy rain in Stoutsville.									
Washington County									
Richwoods	08	1522CST 1700CST			0	0			Hail (0.75)
Skywarn spotters reported 3/4 inch hail.									
MOZ061-063>064 St. Charles - St. Louis - St. Louis (C)									
	12	1200CST			0	14			Excessive Heat
	13	1700CST							
The first real Heat Wave of the summer hit the weekend of July 12-13. High temperatures were in the mid 90s with Heat Indices around 105. Eight people were treated in the City of St. Louis and 6 in St. Louis County for heat related illnesses.									
St. Charles County									
St Peters	19	1440CST			0	0			Thunderstorm Wind (G50)
Thunderstorm wind gusts downed trees in St. Peters, near Dingleline and Old Highway 94.									
St. Charles County									
St Peters	19	1446CST			0	0			Hail (1.00)
Off duty National Weather Service employees reported hail ranging from 1/2 to 1 inch in diameter. The hail fell in southern St. Peters near Jungermann and McClay roads, and along Highway 94 from Harvester to Kisker Roads.									
Monroe County									
Paris	19	1450CST			0	0			Thunderstorm Wind (G50)
The Monroe County Sheriff reported trees down in Paris.									
MOZ064 St. Louis (C)									
	20	1100CST 2200CST			1	0			Excessive Heat
A 81 year old woman was found dead on August 3. The probable cause of death was hyperthermia. Temperatures the weekend of 7/19 - 20 had been in the mid to upper 90s. She had last been seen on 7/13/97. F81PH									
Gasconade County									
Hermann	21	1700CST			0	0			Tstm Wind/Hail
The Hermann Police Department reported tree limbs down from winds estimated around 50 mph.									
Boone County									
Centralia	27	1545CST			0	0			Thunderstorm Wind (G50)
The Boone County Sheriff reported trees and power lines down in Centralia. The frames of a new apartment complex under construction were also blown down.									
Clark County									
Kahoka	27	1720CST			0	0			Thunderstorm Wind (G50)
The Clark County Sheriff reported trees and power lines down in and around Kahoka. Eight electric power poles were also damaged 1/2 miles east of town along Route EE									
Clark County									
Wayland	27	1730CST			0	0			Thunderstorm Wind (G50)
Thunderstorm wind gusts downed trees in and around Wayland. U.S. 136 was closed for a short time due to downed trees.									
Franklin County									
Sullivan	28	1620CST			0	0			Thunderstorm Wind (G50)
Sullivan police reported power lines down from thunderstorm wind gusts.									

Storm Data and Unusual Weather Phenomena

July 1997

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

Dunklin County

Campbell	14	2200CST 2205CST			0	0	1K		Lightning
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A house was damaged by a lightning strike.

Dunklin County

1 S Senath to Senath	28	1515CST 1520CST			0	0	5K		Thunderstorm Wind
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A tractor trailer was overturned by thunderstorm winds. Several trees were also blown down.

Dunklin County

Senath	28	1600CST 1605CST			0	0	5K		Thunderstorm Wind
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Several trees were knocked down. One tree fell on a truck.

MISSOURI, Northwest

MOZ020-038

Buchanan - Lafayette

01	0000CST				0	0		Flood
12	2359CST							

Minor river flooding occurred along the Missouri River near St. Joseph, Napoleon and Waverly in Missouri. The Missouri River flooding of July 1997 was a carry over from June 1997.

Missouri River

St Joseph, MO

Flood Stage	17 ft
Above Flood Stage	7/1 to 7/12
Crest	20.84 ft back on 6/26

Napoleon, MO

Flood Stage	17 ft
Above Flood Stage	7/1 to 7/2
Crest	17.72 ft back on 6/28

Waverly, MO

Flood Stage	20 ft
Above Flood Stage	7/1 to 7/2
Crest	20.67 ft back on 6/27

Adair County

2 SW Gibbs	06	1425CST			0	0		Hail (0.88)
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A severe weather spotter reported nickel-size hail 2 miles southwest of Gibbs

Chariton County

5 E Mendon	06	1655CST			0	0		Hail (0.88)
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Severe weather spotters reported nickel-size hail 5 miles east of Mendon.

Jackson County

Lake Lotawana	06	2115CST			0	0		Urban/Sml Stream Fld
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The Lake Lotawana police reported several inches of water build up along Colbern Road and on 7 Highway between Lake Lotawana and 50 Highway. Up to 5 inches of rain fell in less than two hours resulting in the highway flooding.

Platte County

1 NW Parkville	10	1605CST			0	0		Thunderstorm Wind (G60)
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Severe weather spotter reported 60 MPH winds a mile northwest of Parkville. The same thunderstorm produced an inch of rain in 20 minutes in Parkville.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
MISSOURI, Northwest									
Johnson County									
(Szl)Whiteman Afb	10	1608CST			0	0			Thunderstorm Wind (G59)
A 59 MPH wind gust was recoded at Whiteman AFB during a severe thunderstorm.									
Jackson County									
Kansas City	11	1300CST 1315CST			0	0			Urban/Sml Stream Fld
Thunderstorms containing very heavy rain produced several reports of street flooding in Kansas City. Two and a half inches of water built up in the intersection of Southwest Blvd and Roanoke on the west side of Kansas City.									
Cooper County									
Boonville	17	1901CST 1905CST			0	0			Hail (1.25)
A severe weather spotter reported half dollar-size hail in Boonville at the intersection of Interstate 70 and Route 87.									
Adair County									
Kirksville	19	1858CST 1903CST			0	0	20K		Thunderstorm Wind
Severe thunderstorm winds knocked down a large tree limb(a foot in diamter) in Kirksville. The large limb blocked North Elson Street. The storm also knocked down a power line and blew a dog pen into the street.									
Nodaway County									
Skidmore	23	0917CST			0	0			Hail (1.00)
One inch hail was reported by a citizen in Skidmore during a severe thunderstorm.									
Nodaway County									
Skidmore to Quitman	23	0917CST			0	0	750K		Thunderstorm Wind (G80)
Severe thunderstorm winds gusted to 80 MPH in Skidmore. There were numerous reports of downed power lines, large trees blown over and roof damages to houses. Many of the large trees and limbs blocked roadways in Skidmore and fell on top of houses and cars. The entire population of Skidmore lost electrical power as a result of the storm. St Joseph Power and Light also reported power losses in Quitman and Graham.									
Holt County									
Maitland	23	0930CST			0	0	25K		Hail (1.75)
A severe thunderstorm over Maitland dropped golfball-sized hail. Gusty winds with the hail caused numerous reports of broken windows. Hail was reported to have covered the ground in parts of Maitland.									
Holt County									
Maitland	23	0930CST			0	0	250K		Thunderstorm Wind (G80)
Severe thunderstorm winds gusted to 80 MPH in Maitland. Many trees and powerlines were downed. Three outbuildings were destroyed and two grain silos were toppled. A large portion of Maitland lost power as a result of the storm.									
Atchison County									
2 S Watson to 2 N Phelps City	23	1635CST 1645CST			0	0	500K		Hail (1.75)
One inch hail was reported at the Missouri State Weigh in station 2 miles south of Watson. A severe weather spotter also reported one inch hail 2 miles north of Phelps City. An area of crop damage 2 miles wide was reported about 1.5 miles north of Watson. Golfball-size hail fell from a miles east of Phelps City to a mile and half southeast of Watson resulting in the damage to the corn.									
Holt County									
Mound City	27	1600CST 1610CST			0	0	250K		Thunderstorm Wind
Mound City Police reported 2 semi-tractor trailers blown off the road just off an Interstate 29 exit. There were also several reports of large trees and power lines blown over and the roof torn off a shed in Mound City. Mound City police estimated the damage path to be a mile wide through town.									
Andrew County									
1 SE Bolckow to Rochester	27	1700CST 1720CST			0	0	25K		Thunderstorm Wind
A Northeast Andrew County citizen reported damage to a large farm storage building from severe thunderstorms winds. The same storm also knocked over 2 large trees. A severe weather spotter in Rochester reported wind gusts to 55 MPH.									
De Kalb County									
Clarksdale	27	1815CST			0	0			Hail (0.75)
The Clarksdale Fire Department reported dime-size hail in Clarksdale.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
MISSOURI, Northwest									
Macon County									
10 NE Macon	27	1825CST			0	0			Thunderstorm Wind (G55)
An amateur radio operator measured a 55 MPH wind gust during a thunderstorm 10 miles northeast of Macon.									
MISSOURI, Southeast									
Carter County									
Ellsinore	03	2113CST			0	0			Hail (0.75)
Butler County									
3 W Hendrickson to Fisk	03	2140CST 2212CST			0	0	500K		Hail (2.50)
A severe thunderstorm tracked east-southeast across Butler County, producing hail up to baseball size from the northwest corner of the county through the Poplar Bluff area into east central parts of the county. Dents were up to 3 inches long on vehicles, and at least 15 windshields were broken. At least 3 dozen homes sustained hail damage to roofs or siding. About 50 insurance claims were filed for house damage, and close to 200 auto claims were filed. Most of the damage was on the north side of Poplar Bluff, and from Hendrickson east across the northern part of the county.									
Wayne County									
Williamsville to Wappapello	03	2140CST 2201CST			0	0	50K		Hail (1.75)
A severe thunderstorm tracked across southern Wayne County, producing nickel to golf-ball size hail near the Butler County line.									
Butler County									
Hendrickson	03	2140CST			0	0			Thunderstorm Wind (G52)
Trees were blown down.									
Butler County									
10 NE Poplar Bluff	03	2155CST			0	0			Funnel Cloud
The Butler County Emergency Management Agency reported a funnel cloud. A severe thunderstorm producing golf-ball size hail was producing the funnel cloud.									
Stoddard County									
Dudley to Dexter	03	2208CST 2215CST			0	0	50K		Hail (3.50)
A severe thunderstorm continued east from Butler County, producing a swath of large hail from Dudley to Dexter. A report of softball size hail was received from the Dudley area, where vehicles were damaged on U.S. 60. Golf ball hail occurred near Dexter.									
Wayne County									
Greenville	03	2340CST			0	0			Hail (0.75)
Bollinger County									
Zalma	04	0000CST			0	0	5K		Thunderstorm Wind (G52)
Tree limbs were blown down onto power lines.									
Stoddard County									
Advance	04	0020CST			0	0			Thunderstorm Wind (G52)
Trees were blown down.									
Mississippi County									
3 NW Dorena	04	0055CST			0	0	3K		Thunderstorm Wind (G52)
Two large hickory trees were downed at Big Oak Tree State Park.									
Scott County									
Sikeston	04	0100CST			0	0	5K		Thunderstorm Wind (G52)
Thunderstorm winds downed power lines.									
New Madrid County									
Portageville	04	0200CST			0	0	20K		Thunderstorm Wind (G55)
The roof was blown off a trailer home. Tree limbs and small trees were down.									
Wayne County									
Coldwater	08	1717CST			0	0			Hail (1.00)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
MISSOURI, Southeast									
Wayne County									
Clubb	08	1741CST	0.2	30	0	0			Tornado (F0)
A funnel cloud briefly touched down near Clubb, shearing off the tops of large trees in different directions.									
Bollinger County									
Arab	08	1810CST			0	0			Hail (0.75)
Stoddard County									
Advance	08	1820CST			0	0			Thunderstorm Wind (G52)
Tree limbs were blown down.									
Stoddard County									
Advance	08	1820CST			0	0			Hail (0.75)
Bollinger County									
6 W Marble Hill	08	1840CST			0	0			Hail (0.75)
Bollinger County									
6 W Marble Hill to 2 W Marble Hill	08	1843CST			0	0	3K		Thunderstorm Wind (G52)
High winds knocked down large trees, blocking Route B and Highway 51 near Marble Hill.									
Bollinger County									
Bessville to 2 S Marble Hill	08	1845CST 1945CST			0	0	5K		Flash Flood
Radar estimated about 2 inches of rain fell in an hour. Numerous roads were water covered. County Road 400 was impassable in spots.									
Bollinger County									
1 S Marble Hill	08	1945CST 2000CST			0	0			Urban/Sml Stream Fld
County Road 100 was impassable due to flooding. Water was over other roadways.									
Bollinger County									
Patton	14	1635CST			0	0	5K		Thunderstorm Wind (G50)
Trees and power lines were down.									
Perry County									
Biehle	14	1648CST			0	0	10K		Hail (1.75)
Perry County									
Biehle	14	1648CST			0	0	2K		Thunderstorm Wind (G53)
63 MPH wind gusts were reported.									
Cape Girardeau County									
Daisy to Millersville	14	1700CST 1716CST			0	0	3K		Hail (0.88)
Nickel size hail fell in northwest Cape Girardeau County.									
Cape Girardeau County									
Oriole	14	1738CST			0	0			Hail (0.88)
Cape Girardeau County									
Cape Girardeau	14	1738CST			0	0	5K		Thunderstorm Wind (G50)
More than 2,000 customers were without power after strong thunderstorm winds swept across the county. A utility pole was toppled by high winds. Trees were downed at scattered locations.									
Bollinger County									
3 SW Marble Hill	14	1745CST			0	0			Hail (0.75)
Bollinger County									
3 SW Marble Hill	14	1745CST			0	0	5K		Thunderstorm Wind (G52)
Trees and power lines were down.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
MISSOURI, Southeast									
Wayne County									
Greenville	14	1837CST			0	0	20K		Thunderstorm Wind (G52)
									Limbs were down. Structural damage occurred to an ambulance shed.
Bollinger County									
Marble Hill to 3 S Marble Hill	14	1845CST			0	0	8K		Thunderstorm Wind (G52)
									Large tree limbs and power lines were blown down.
Bollinger County									
Grassy	14	1906CST			0	0			Hail (0.75)
Ripley County									
Doniphan	14	1930CST			0	0	4K		Thunderstorm Wind (G52)
									Numerous trees were down across the county.
Scott County									
Sikeston	14	1930CST			0	0	3K		Thunderstorm Wind (G50)
									Large tree limbs were down.
Stoddard County									
Dexter	14	1940CST			0	0	2K		Thunderstorm Wind (G50)
									Scattered trees were down across the county. Trees were across two rural roads, and downed power lines were across three roads.
Butler County									
Poplar Bluff	14	1942CST			0	0	5K		Thunderstorm Wind (G50)
									Trees and power lines were down.
New Madrid County									
New Madrid	14	1950CST			0	0	5K		Thunderstorm Wind (G50)
									Trees and power lines were down.
Stoddard County									
2 W Dexter	15	1625CST			0	0			Funnel Cloud
									Several funnel clouds were observed. Three dozen reports of funnel clouds were received by the sheriff department or emergency management officials.
Scott County									
3 W Sikeston	15	1643CST			0	0			Funnel Cloud
									Funnel clouds were observed. No severe thunderstorms were in the area.
New Madrid County									
Matthews to Gideon	15	1737CST			0	0			Funnel Cloud
									Numerous funnel clouds occurred over western and southern New Madrid County. The funnel clouds were confirmed by police officers, emergency management personnel, and spotters. The funnels went up and down rather frequently. No touchdowns were reported. These funnel clouds were not associated with severe thunderstorms.
New Madrid County									
Howardville	16	1147CST 1151CST	0.2	30	0	0			Tornado (F0)
									A nearly stationary tornado was observed for a few minutes. Several law enforcement personnel confirmed the tornado. The brief tornado, which was not associated with any severe thunderstorms, caused no damage over open farmland.
New Madrid County									
Conran	16	1215CST	0.2	20	0	0			Tornado (F0)
									Law enforcement officials reported a brief touchdown. The tornado was not associated with a severe thunderstorm. No damage was observed.
Perry County									
Perryville	19	1725CST			0	0	5K		Thunderstorm Wind (G52)
									Numerous branches were blown down across roads in Perryville. A spotter estimated winds of 60 MPH.

Storm Data and Unusual Weather Phenomena

July 1997

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

Perry County

Perryville	21	2127CST			0	0	2K		Thunderstorm Wind (G50)
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Numerous large tree limbs were down on a couple of city streets.

MOZ076-086>087-100-107>112-114 Perry - Bollinger - Cape Girardeau - Wayne - Carter - Ripley - Butler - Stoddard - Scott - Mississippi - New Madrid

	26	1100CST			0	24			Excessive Heat
	28	1900CST							

High temperatures were in the upper 90s to around 100 degrees for three consecutive days. High humidity pushed heat index values to between 105 and 115 degrees. An air conditioning unit failed on an office building in Cape Girardeau. Four overheated female employees in the office building were taken to a local hospital as a precaution. Area hospitals treated at least a dozen people for dehydration or other heat-related problems during the heat wave. The highest temperature at Cape Girardeau was 100 degrees during this heat wave.

Carter County

Grandin	27	1445CST			0	0	3K		Thunderstorm Wind (G50)
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Trees were blown down.

Ripley County

5 W Doniphan	28	1510CST			0	0	4K		Thunderstorm Wind (G52)
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Trees were down.

Ripley County

Doniphan	28	1528CST			0	0	5K		Hail (1.75)
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Golf ball hail was reported at the intersection of Highway 21N and K.

Butler County

5 W Poplar Bluff	28	1600CST			0	0	4K		Thunderstorm Wind (G52)
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Numerous trees were down in western Butler County.

Mississippi County

1 N East Prairie to East Prairie	28	1615CST			0	0	50K		Thunderstorm Wind (G60)
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A microburst caused a small but intense damage path just north of East Prairie. Shingles were blown from roofs, a trailer was blown off its foundations, large trees were uprooted, and one camper was demolished. Some utility poles were blown over. In the city of East Prairie, the only damage was due to falling trees and limbs.

Mississippi County

East Prairie	28	1705CST			0	0	3K		Thunderstorm Wind (G50)
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A few trees were blown down.

Bollinger County

Marble Hill	28	1810CST			0	0	3K		Thunderstorm Wind (G50)
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Power lines were down.

Cape Girardeau County

Fruitland to Jackson	28	1828CST 1832CST			0	0	40K		Thunderstorm Wind (G54)
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Structural damage occurred to mobile homes near Fruitland. Trees were down in the central part of the county.

Stoddard County

Puxico	29	0745CST 0945CST			0	0	250K		Flash Flood
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Thunderstorms dumped an estimated 3 to 4 inches of rain. About 15 businesses were flooded by up to a foot of water. The sheriff department rescued a U.S. Postal Service worker who was trapped by high water. Several inches of water got into the town's bank and IGA supermarket. The flash flooding also washed out a bridge on a county road.

MISSOURI, Southwest

Shannon County

3 N Eminence	03	1950CST			0	0			Hail (1.00)
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Shannon County

12 E Eminence	03	2000CST			0	0	0		Thunderstorm Wind
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Thunderstorm winds downed a few trees near the Powder Mill Ferry Ranger Station.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
MISSOURI, Southwest									
St. Clair County									
12 W Osceola	03	2045CST			0	0			Hail (1.00)
Vernon County									
Nevada	03	2140CST			0	0			Hail (1.00)
Vernon County									
1 E Nevada	03	2201CST			0	0	0		Hail (1.75)
Barton County									
Lamar	08	2100CST			0	0			Hail (0.88)
Stone County									
Galena	08	2200CST			0	0			Hail (1.00)
Jasper County									
Galesburg	08	2205CST			0	0	0		Hail (1.75)
Jasper County									
Joplin	08	2215CST			0	0	10K		Thunderstorm Wind
Thunderstorm winds caused scattered damage around Joplin and surrounding communities. Two utility poles were damaged in Joplin and trees fell on a house and car in Carthage.									
Dade County									
Lockwood	08	2230CST			0	0			Hail (0.75)
Jasper County									
Carl Jct	08	2230CST			0	0	0		Hail (1.75)
Barton County									
Mindenmines	08	2300CST			0	0	0		Flash Flood
Heavy rainfall of up to three inches caused street flooding.									
Jasper County									
Purcell	08	2300CST			0	0	0		Flash Flood
Heavy rainfall of up to three inches caused flooding of Highways O near Purcell. Flooding was also reported along Highway 66 near Avilla.									
Stone County									
Reeds Spg	09	0045CST			0	0			Hail (0.75)
Taney County									
Rockaway Beach	09	0105CST			0	0	1K		Thunderstorm Wind
Thunderstorm winds estimated at 80 mph ripped an awning and porch off a mobile home.									
Taney County									
Forsyth	09	0130CST			0	0	0		Thunderstorm Wind
Thunderstorm winds downed trees.									
Greene County									
Springfield	09	0245CST			0	0	0		Flash Flood
Heavy rainfall falling at the rate of an inch per hour caused flooding along sections of Golden Avenue in the southwest part of the city.									
Christian County									
Ozark	09	0245CST			0	0	0		Flash Flood
Heavy rain falling at the rate of an inch per hour caused street flooding.									
Taney County									
Forsyth	09	0430CST			0	0	0		Flash Flood
Heavy rains flooded low lying areas.									
Vernon County									
Nevada	10	1530CST			0	0	0		Flash Flood
Up to three inches of rain fell caused street flooding.									
Dallas County									
Urbana	10	1530CST			0	0	0		Flash Flood
Up to three inches of rain fell causing street flooding.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured	Estimated Damage Property Crops	Character of Storm
MISSOURI, Southwest							
Polk County							
Rimby	10	1600CST			0 0	0	Flash Flood
Up to two inches of rain falling in about an hour caused flooding of low water bridges.							
Jasper County							
6 NE Joplin	11	1700CST			0 0	0.50K	Thunderstorm Wind
Thunderstorm winds damaged a barn and downed a large tree.							
Jasper County							
Joplin	11	1725CST			0 0	0	Flash Flood
Heavy rains caused flooding of low water bridges and low lying areas in and around the city.							
Howell County							
1 S Willow Spgs	14	1748CST			0 0		Hail (0.88)
Howell County							
South Fork	14	1855CST			0 0		Hail (0.75)
Howell County							
5 S West Plains	14	1855CST			0 0	30K	Thunderstorm Wind
Thunderstorm winds demolished a mobile home along Highway JJ and also damaged numerous trees.							
Oregon County							
6 W Alton	14	1855CST			0 0	0	Thunderstorm Wind
Thunderstorm winds downed trees along Highway P.							
Oregon County							
Thayer	14	1930CST			0 0	0	Thunderstorm Wind
Thunderstorm winds downed large tree limbs.							
Greene County							
Springfield	17	1554CST 1620CST			0 0	25K	Hail (1.75)
A thunderstorm developed westward across the southern and eastern sections of the city bringing a widespread and prolonged period hail event to areas south of Sunshine and east of Kansas Expressway. Most of the hail was in the the nickel to quarter size range with a few golfball size hailstones mixed in. Damage was mainly limited to small dents in vehicles and roofs.							
Polk County							
Eudora	17	1630CST			0 0	0	Hail (1.50)
Polk County							
Bolivar	17	1640CST			0 0	0	Flash Flood
Heavy rainfall caused street flooding.							
Hickory County							
Hermitage	17	1745CST			0 0	0	Thunderstorm Wind
Thunderstorm winds downed trees.							
Benton County							
10 E Warsaw	17	1824CST			0 0		Hail (0.75)
Texas County							
Raymondville	20	1602CST			0 0		Hail (0.88)
Texas County							
Cabool	20	1630CST			0 0	3K	Thunderstorm Wind
Thunderstorm winds estimated at 60 mph downed several large trees and power lines in the northern sections of town. A portable sign was blown over damaging a car windshield.							
Newton County							
3 E Neosho	21	2330CST			0 0	5K	Thunderstorm Wind
Thunderstorm winds from a microburst downed trees and damaged two outbuildings. In addition, windows on a pickup truck were broken by fallen debris.							
Ozark County							
7 SW Gainesville	22	1315CST			0 0	2K	Thunderstorm Wind
Thunderstorm winds downed a large Oak tree, which fell on a house causing minor damage. The wind damage occurred near Highway 5, along the Arkansas border.							

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>MISSOURI, Southwest</u>									
Barry County									
Washburn	28	1815CST			0	0			Hail (0.75)
<u>MONTANA, Central</u>									
Gallatin County									
20 NW Bozeman	02	1455MST	0.1	20	0	0			Tornado (F0)
PILOT REPORTED TORNADO ON THE GROUND. NO REPORTS OF DAMAGE									
Gallatin County									
20 NW Bozeman	02	1518MST	0.1	20	0	0	0	0	Tornado (F0)
HAM SPOTTER REPORTED TORNADO ON THE GROUND. NO REPORTS OF DAMAGE.									
Blaine County									
Lodgepole	06	1755MST			0	0			Tstm Wind/Hail
Judith Basin County									
15 S Utica	22	1815MST			0	0			Hail (0.75)
Judith Basin County									
Hobson to 10 E Hobson	22	1835MST 1845MST			0	0			Hail (1.00)
HAIL COVERED ROADS BETWEEN HOBSON AND MOORE (FERGUS COUNTY).									
Fergus County									
Buffalo	22	1915MST			0	0			Hail (0.75)
Judith Basin County									
Hobson	22	1950MST			0	0			Hail (1.00)
Fergus County									
Winifred	22	2045MST			0	0			Thunderstorm Wind (G65)
Fergus County									
34 N Lewistown	22	2145MST			0	0			Thunderstorm Wind (G74)
<u>MONTANA, East</u>									
Prairie County									
Terry	01	0600MST 1500MST			0	0	50K		Flash Flood
Six inches of rain in less than 4 hours caused flash flooding. The town of Terry was inundated. Both Terry and Fallon reported extensive street flooding. A section of Interstate 90 by Terry had water running across it. Several washouts were reported on gravel county roads.									
Dawson County									
Glendive	01	1000MST 1500MST			0	0			Flash Flood
Richland County									
Sidney	01 02	1700MST 0200MST			0	0	269K		Flash Flood
Six inches of rain falling in less than four hours caused flash flooding throughout much of Richland County. Five bridges in the county sustained damage. One family along Lone Tree Creek was evacuated as the normally dry creek rose four feet. Numerous county roads were closed due to washouts and flood waters over the roads. The added water put a strain on the Vaux Dam and there was some concern it would fail.									
Roosevelt County									
Bainville	01 02	2000MST 0300MST			0	0			Urban/Sml Stream Fld
Wibaux County									
Carlyle	01	2000MST			0	0			Urban/Sml Stream Fld
Phillips County									
Zortman	06	1828MST			0	0			Hail (1.00)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>MONTANA, East</u>									
Phillips County									
12 S Zortman	06	1835MST			0	0			Hail (1.00)
Valley County									
50 SW Glasgow	06	1907MST			0	0			Hail (0.75)
Phillips County									
45 S Malta	17	1702MST			0	0			Hail (0.75)
Valley County									
30 S Glasgow	17	1815MST	0.3	60	0	0			Tornado (F0)
The public reported a tornado just north of the Pines Recreation Area. Trees in that area were snapped in two or flattened to the ground.									
Valley County									
6 W Hinsdale	17	1819MST			0	0			Thunderstorm Wind (G52)
Valley County									
Hinsdale	17	1820MST			0	0	3K		Thunderstorm Wind
Damaging thunderstorms winds rolled a small mobile home.									
Garfield County									
18 N Jordan	17	1828MST			0	0			Thunderstorm Wind (G62)
Thunderstorm winds did damage to picnic ground at the Hell Creek Recreation area. Trees were snapped in two and picnic tables were damaged.									
Garfield County									
Cohagen	17	1845MST			0	0	10K		Thunderstorm Wind
Thunderstorm winds destroyed a 50' x 100' shop. Debris was carried two miles away.									
Valley County									
6 SE Hinsdale	17	1847MST			0	0			Thunderstorm Wind (G52)
Valley County									
13 S Glasgow	17	1856MST			0	0			Thunderstorm Wind (G52)
Valley County									
2 W Ft Peck	17	1858MST			0	0	2K		Hail
Garfield County									
25 ENE Jordan	17	1859MST			0	0			Thunderstorm Wind (G52)
Valley County									
Glasgow	17	1900MST 1902MST			0	0			Thunderstorm Wind (G100)
Valley County									
25 NE Glasgow	17	1930MST			0	0	20K		Thunderstorm Wind
A wind gust measured at 94 miles an hour destroyed an airplane hanger and the airplane inside.									
Garfield County									
40 NE Jordan	17	1940MST			0	0			Thunderstorm Wind (G61)
McCone County									
40 NW Vida	17	1940MST			0	0			Thunderstorm Wind (G61)
Valley County									
Glasgow	17	1945MST			0	0	10K		Thunderstorm Wind
Trees were toppled onto parked cars.									
McCone County									
12 N Circle	17	2000MST			0	0	40K		Thunderstorm Wind
An airplane hanger housing two airplanes was destroyed as its roof was lifted off and the walls caved in. The airplanes inside were significantly damaged.									
Garfield County									
3 N Cohagen	17	2003MST			0	0	25K		Thunderstorm Wind
Damaging thunderstorms winds ripped apart a 50' x 100' shop sending debris up to 2 miles away.									
Prairie County									
23 NW Terry	17	2025MST			0	0			Thunderstorm Wind (G52)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>MONTANA, East</u>									
McCone County									
2 W Circle	17	2030MST			0	0			Tstm Wind/Hail
Roosevelt County									
Poplar	17	2100MST			0	0			Thunderstorm Wind (G52)
Prairie County									
8 S Mildred	17	2135MST			0	0			Hail (0.75)
Dawson County									
Glendive	17	2200MST			0	0	30K		Thunderstorm Wind (G52)
Sixty mile an hour winds downed trees and power lines across the city of Glendive.									
Dawson County									
3 N Intake	17	2205MST			0	0	12K		Thunderstorm Wind
Dawson County									
Intake	17	2205MST			0	0	10K		Thunderstorm Wind
Dawson County									
Intake	17	2210MST			0	0		40K	Thunderstorm Wind
Richland County									
Savage	17	2210MST			0	0	20K		Thunderstorm Wind
Thunderstorm winds left a 6 mile wide path of damage with tree limbs as great as 4 inches in diameter felled by the wind.									
Richland County									
Savage	17	2210MST			0	0	5K		Thunderstorm Wind
Wibaux County									
Wibaux	17	2230MST			0	0			Thunderstorm Wind (G52)
Phillips County									
3 E Malta	22	2050MST			0	0			Hail (1.75)
Phillips County									
13 E Whitewater	22	2142MST			0	0			Thunderstorm Wind (G54)
Valley County									
5 SE Hinsdale	23	2208MST			0	0			Hail (0.75)
<u>MONTANA, South</u>									
Custer County									
Volborg	01	0030MST 0037MST			0	0			Hail (1.75)
MTZ035									
Yellowstone/Big Horn									
	08	2100MST 2300MST			0	0			Flood
Two and a half feet of water near metra park at intersection of main and first streets.									
Yellowstone County									
Billings Hgts	09	1615MST 1618MST			0	0			Thunderstorm Wind (G69)
microburst winds hit portions of the downtown and heights area of billings. a wind gust of 72 mph was recorded downtown and was estimated to 80 mph. An 18 inch power pole was snapped 10 inches below ground and was leaning. numerous reports of trees uprooted and streets blocked due to downed trees and limbs.									
Big Horn County									
8 N Hardin to 8 N Fort Smith	10	2015MST 2019MST			0	0			Hail (0.75)
Rosebud County									
7 N Forsyth	10	2040MST 2050MST			0	0			Hail (0.75)
Rosebud County									
30 N Colstrip	10	2130MST 2138MST			0	0			Hail (0.88)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property Crops	Character of Storm
<u>MONTANA, South</u>								
Rosebud County								
Colstrip	10	2152MST 2155MST			0	0		Hail (0.75)
Carter County								
18 SW Ekalaka	12	1515MST 1522MST			0	0		Hail (0.75)
Park County								
(Lvm)Livingston Arpt	17	1530MST 1535MST			0	0		Thunderstorm Wind (G51)
Park County								
Clyde Park	17	1545MST			0	0		Thunderstorm Wind (G56)
Park County								
8 ENE Wilsall	17	1547MST 1550MST			0	0		Thunderstorm Wind (G53)
winds knocked out power lines...heavy rain and pea siezed hail also fell.								
Sweet Grass County								
Big Timber	17	1600MST 1610MST			0	0		Thunderstorm Wind (G52)
Custer County								
Miles City Arpt	17	2015MST 2018MST			0	0		Thunderstorm Wind (G69)
Park County								
2 S Livingston	18	1650MST 1651MST			0	0		Thunderstorm Wind (G60)
Park County								
1 S Livingston	18	1655MST 1700MST			0	0		Thunderstorm Wind (G51)
Park County								
Livingston	18	1700MST 1710MST			0	0		Hail (1.75)
Park County								
7 NE Livingston	18	1720MST 1725MST			0	0		Hail (0.75)
Sweet Grass County								
3 NE Big Timber	18	1750MST 1754MST			0	0		Thunderstorm Wind (G52)
Stillwater County								
Molt	20	1515MST 1520MST			0	0		Hail (1.75)
Yellowstone County								
7 S Laurel	20	1550MST 1655MST	0	0	0	0		Tornado (F0)
very brief touchdown...sited by public. Length and path not know.								
Yellowstone County								
Billings	20	1600MST 1604MST			0	0		Thunderstorm Wind (G51)
Yellowstone County								
Billings	20	1600MST 1605MST			0	0		Thunderstorm Wind (G69)
Big Horn County								
Lodge Grass	20	1825MST 1828MST			0	0		Thunderstorm Wind (G56)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>MONTANA, South</u>									
Big Horn County									
Hardin	20	1825MST 1830MST			0	0			Thunderstorm Wind (G52)
Big Horn County									
Lodge Grass	20	1825MST 1830MST			0	0			Thunderstorm Wind (G56)
Golden Valley County									
Ryegate	23	2045MST 2050MST			0	0			Hail (0.75)
Big Horn County									
Wyola	25	1400MST 1405MST			0	0			Hail (0.75)
Big Horn County									
1 SW Wyola	25	1400MST 1403MST			0	0			Thunderstorm Wind (G52)
Powder River County									
Otter	25	1530MST 1532MST			0	0			Thunderstorm Wind (G51)
Powder River County									
Sayle	25	1535MST 1540MST			0	0			Tstm Wind/Hail
Stillwater County									
7 NW Rapelje	26	1955MST 2000MST			0	0			Hail (0.75)
<u>MONTANA, West</u>									
Granite County									
Philipsburg	17	1830MST 1855MST			0	0			Hail (1.00)
One inch hail was reported from a thunderstorm, 8 miles southwest of Philipsburg, then nickel sized hail reported at Georgetown Lake, 10 miles south of Philipsburg.									
Beaverhead County									
Wise River	19	0750MST 0850MST			0	0			Hail (1.00)
Thunderstorms caused nickel to quarter sized hail at Wise River, breaking windows, causing holes in roofs and satellite dish damage.									
Beaverhead County									
Argenta to Glen	19	1305MST 1330MST			0	0			Hail (1.75)
During a thunderstorm, golfball sized hail was reported with a damaged truck at Argenta, then dime sized hail fell at Glen.									
Beaverhead County									
10 W Dillon	19	1345MST	0.1	50	0	0			Tornado (F0)
A tornado touched down briefly, reported by a county sheriff.									
Beaverhead County									
20 N Dillon	19	1400MST			0	0			Funnel Cloud
A funnel cloud reported north of Dillon, MT									
Silver Bow County									
Butte	19	1520MST 1530MST			0	0			Hail (1.00)
Thunderstorm winds gusts, estimated at 80-90 mph, blew 500-1000 trees down 5 miles south of Butte. One inch hail was also reported along with street flooding.									
Powell County									
Avon	19	1640MST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 1997

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

Large grape sized hail fell 1 mile east of Avon, damaging a skylight on a house and a roof on a greenhouse.

Lincoln County

Libby	21	1815MST 1830MST			0	2	1.5M		Thunderstorm Wind (G70)
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Microburst from a thunderstorm caused widespread damage. Wind gusts estimated at least 80 mph caused 2 injuries (a broken leg and an injured head) as trees fell on houses and through to people inside. Trees were either snapped off or uprooted, including Willow, Cottonwood, and Spruce trees. Power poles were snapped off 4-5 feet above ground. Almost every street in the town was blocked by fallen trees and marble sized hail also fell. Damage to the public sector included blocked roads, loss of the chlorinator for the city water system and loss of the lift pump for the sewer system. An elementary school had a damaged roof. Loss to the private sector included damaged homes and vehicles, loss of home freezer contents, and loss of landscaping. The Red Cross estimated 20 homes with major damage and 70 with minor damage within the city limits. Four insurance companies estimated damage at \$1.5 million.

Flathead County

Kalispell	21	1930MST 1940MST			0	0			Hail (1.00)
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A thunderstorm caused nickel sized hail in Kalispell, plus wind gusts estimated to 55 mph which caused a boat to swamp and sink on Flathead Lake (14 miles southeast of Kalispell) along with overturned rafts.

Ravalli County

Hamilton	21	2150MST 2200MST			0	0			Thunderstorm Wind (G52)
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Thunderstorm wind gusts to 60 mph blew numerous trees down, blocking roads and falling on one mobile home, with minor damage to awnings on homes.

Lincoln County

10 S Libby	29	1600MST			0	0			Funnel Cloud
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Funnel cloud reported 10 miles south of Libby, and between one and one and half inches of rain was reported during the following hour.

NEBRASKA, Central

Garden County

10 NNE Oshkosh	06	1345MST			0	0			Hail (1.00)
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Keith County

19 NNW Brule	06	1410MST			0	0			Hail (0.75)
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Grant County

15 S Whitman	06	1520MST			0	0			Hail (0.88)
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Cherry County

15 SSW Valentine	08	1700CST			0	0			Hail (0.75)
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Garden County

12 SW Oshkosh	08	1830MST			0	0			Hail (1.50)
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Garden County

12 SW Oshkosh	08	1850MST			0	0			Hail (1.50)
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Deuel County

8 N Chappell	08	1930MST			0	0			Hail (1.00)
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Garden County

17 N Oshkosh	08	1930MST			0	0			Hail (1.00)
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Deuel County

10 NNW Chappell	08	2000MST			0	0			Hail (1.75)
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Garden County

12 NNE Oshkosh	08	2020MST			0	0			Hail (0.88)
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Grant County

2 N Ashby	08	2020MST			0	0			Hail (0.75)
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Cherry County

54 S Merriman	08	2050MST			0	0			Hail (0.75)
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Grant County

20 SSW Ashby	08	2100MST			0	0			Hail (1.75)
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Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
NEBRASKA, Central									
Grant County									
5 N Hyannis	08	2110MST			0	0			Hail (0.88)
Perkins County									
8 N Grant	08	2155MST			0	0			Hail (0.75)
Deuel County									
9 N Chappell	08	2159MST			0	0			Hail (1.75)
Perkins County									
9 N Grant	08	2215MST			0	0			Hail (0.75)
Keith County									
8 S Ogallala	08	2220MST			0	0			Hail (1.75)
Garden County									
13 N Oshkosh	08	2230MST			0	0			Hail (2.00)
Deuel County									
8 NNE Chappell	08	2210MST			0	0			Hail (1.25)
Perkins County									
5 SSW Grant	08	2230MST			0	0			Hail (0.75)
Chase County									
12 N Imperial	09	0030MST			0	0			Hail (0.75)
Custer County									
4 SW Comstock	09	1947CST			0	0			Hail (0.75)
Sheridan County									
4 W Lakeside	10	1920MST			0	0	2K		Thunderstorm Wind
Thunderstorm winds caused extensive damage to tree branches.									
Sheridan County									
Ellsworth	10	2000MST			0	0	12K		Thunderstorm Wind (G61)
Thunderstorm winds tore off shingles on several roofs in the Ellsworth area.									
Garden County									
40 NNE Oshkosh	10	2030MST			0	0			Hail (0.75)
Arthur County									
10 NNE Arthur	21	1910MST			0	0			Hail (1.00)
Arthur County									
5 E Arthur	21	1940MST			0	0			Hail (0.88)
Arthur County									
10 SE Arthur	21	2005MST			0	0			Hail (0.88)
Keith County									
8 N Keystone	21	2030MST			0	0			Hail (0.88)
Blaine County									
7 NNW Brewster	22	0648CST			0	0			Hail (0.88)
Holt County									
11 SSW Stuart	22	0940CST			0	0			Hail (0.88)
Wheeler County									
7 NNE Bartlett	22	1050CST			0	0			Hail (0.75)
Cherry County									
36 S Merriman	22	1613MST			0	0	100K		Hail (1.75)
Thunderstorm winds and hail broke windshields and blew large tree limbs down.									
Cherry County									
10 ENE Merriman	22	1625MST			0	0			Hail (1.75)
Rock County									
3 N Bassett	22	1715CST			0	0			Hail (1.00)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
NEBRASKA, Central									
Cherry County									
50 S Merriman	22	1725MST			0	0			Hail (1.00)
Rock County									
2 W Bassett	22	1730CST			0	0			Hail (1.85)
Grant County									
5 NE Whitman	22	1740MST			0	0			Hail (1.75)
Rock County									
9 SSE Bassett	22	1810CST			0	0			Hail (1.50)
Grant County									
Hyannis	22	1815MST			0	0			Hail (0.88)
Hooker County									
15 SW Mullen	22	1830MST			0	0	500K		Flash Flood
Flash flood waters washed out 2 miles of county road.									
Hooker County									
17 SW Mullen	22	1830MST			0	0			Hail (0.75)
Boyd County									
4 W Butte	22	1845CST			0	0			Hail (1.00)
Holt County									
23 NNE Atkinson	22	1850CST			0	0			Hail (0.75)
Cherry County									
16 SE Valentine	22	1925CST			0	0			Hail (1.50)
Rock County									
6 SW Rose	22	1930CST			0	0			Hail (1.75)
Cherry County									
13 S Wood Lake	22	2000CST			0	0			Hail (0.88)
Lincoln County									
5 NE Sutherland	22	2300CST			0	0	4K		Thunderstorm Wind
Thunderstorm winds blew down large tree limbs.									
Lincoln County									
16 NW Sutherland	23	0000CST			0	0			Hail (0.88)
Lincoln County									
6 SW Sutherland	23	0100CST			0	0			Hail (0.75)
Rock County									
6 ENE Bassett	24	1740CST			0	0			Hail (0.75)
Custer County									
25 WSW Oconto	24	1800CST			0	0			Hail (1.00)
Keya Paha County									
22 ESE Springview	24	1815CST			0	0			Hail (1.00)
Holt County									
7 SW Atkinson	24	1820CST			0	0	2K		Hail (0.88)
Thunderstorm winds blew 6 inch diameter tree limbs down.									
Boyd County									
6 WSW Naper	24	1825CST			0	0			Hail (0.88)
Holt County									
21 SW Atkinson	24	1830CST			0	0			Hail (1.00)
Thunderstorm winds blew 6 inch diameter tree limbs down.									
Holt County									
12 S Stuart	24	1930CST			0	0			Hail (1.00)
Lincoln County									
16 NE North Platte	25	1500CST			0	0			Hail (0.88)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>NEBRASKA, Central</u>									
Perkins County									
7 NNW Elsie	25	1530MST			0	0			Hail (0.75)
Hooker County									
2 S Mullen	25	1543CST			0	0			Hail (0.88)
Keith County									
6 NW Paxton	25	1545MST			0	0			Hail (0.75)
Mcperson County									
8 SSE Tryon	25	1630CST			0	0			Hail (0.75)
Lincoln County									
Sutherland	25	1650CST			0	0	1K		Thunderstorm Wind
Thunderstorm winds blew down a power pole.									
Lincoln County									
3 SE Sutherland	25	1705CST			0	0			Hail (1.00)
Lincoln County									
5 NW North Platte	25	1710CST			0	0	2K		Thunderstorm Wind
Thunderstorm winds blew down a large tree.									
Lincoln County									
10 S North Platte	25	1722CST			0	0			Thunderstorm Wind (G54)
Thunderstorm winds were recorded at 62 mph.									
Lincoln County									
North Platte Arpt	25	1730CST			0	0			Thunderstorm Wind (G52)
Thunderstorm winds were recorded at 60 mph.									
Lincoln County									
15 NE North Platte	25	1800CST			0	0	3K		Thunderstorm Wind
Thunderstorm winds blew large tree limbs down in the area.									
Custer County									
12 WNW Callaway	25	1840CST			0	0			Hail (0.75)
Custer County									
7 W Merna	25	1910CST			0	0			Hail (1.50)
Garden County									
2 S Oshkosh	31	1930MST			0	0	50K		Flash Flood
Thunderstorms moving along the same path produced in excess of 4 inches of rainfall. This resulted in water flowing over roads and causing areas of road damage.									
Hayes County									
5 W Hayes Center	31	2215CST			0	0	50K		Flash Flood
Heavy rainfall of 4 to 5 inches caused water levels to rise in Blackwood Creek 5 miles west of Hayes Center. The water covered a 60 foot wide area of the road where the water was 3 to 4 foot deep. The rushing water damaged the road with several washouts.									
<u>NEBRASKA, East</u>									
Wayne County									
3 S Randolph	01	0015CST			0	0	10K		Thunderstorm Wind (G57)
Strong winds blew down a cattle shed.									
Cedar County									
Laurel	01	0100CST			0	0			Thunderstorm Wind (G56)
Some trees downed. Numerous large tree branches downed.									
Lancaster County									
Lincoln Arpt	01	0145CST			0	0			Thunderstorm Wind (G51)
Otoe County									
3 E Unadilla	01	0223CST			0	0			Thunderstorm Wind (G52)
Otoe County									
Nebraska City	01	0244CST			0	0			Thunderstorm Wind (G50)
Tree limbs and power lines downed on the east side of the city.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
NEBRASKA, East									
Burt County									
Tekamah Arpt	01	0354CST			0	0			Thunderstorm Wind (G53)
Douglas County									
Omaha	01	0400CST			0	0			Lightning
Lightning struck a utility pole causing it to catch on fire.									
Cedar County									
6 E Randolph	05	1630CST			0	0			Funnel Cloud
Platte County									
4 N Columbus	05	2016CST			0	0			Hail (1.50)
Colfax County									
.5 NW Schuyler	05	2020CST			0	0			Hail (0.75)
Colfax County									
10.5 NNW Schuyler	05	2028CST			0	0			Hail (0.75)
Hail and high winds damaged the corn crop and shredded cedar trees.									
Colfax County									
Schuyler	05	2028CST			0	0			Thunderstorm Wind (G50)
High winds along with hail damaged the corn crop and shredded cedar trees.									
Knox County									
4 SW Crofton	07	1505CST			0	0			Hail (1.00)
Knox County									
5 SW Crofton to 5 SE Crofton	07	1531CST			0	0	80K		Hail (2.75)
Large hail destroyed a corn crop.									
Cedar County									
7 SE Crofton	07	1545CST			0	0	25K		Hail (2.75)
Large hail damaged corn crops.									
Cedar County									
8 W Hartington	07	1557CST			0	0			Hail (1.75)
Pierce County									
2 W Pierce to 6 SW Pierce	07	1640CST 1653CST			0	0	60K		Hail (1.00)
Corn crops were flattened in fields southwest of Pierce.									
Pierce County									
Pierce	07	1648CST			0	0	15K		Thunderstorm Wind (G65)
Roof blown off a trailer house. Tree branches downed in Pierce.									
Pierce County									
.5 NW Pierce	07	1648CST			0	0	15K		Lightning
Lightning struck a tree outside a home. The electrical current caused damage to the roof and garage door of the home. Some electrical problems also resulted.									
Madison County									
.5 W Norfolk	07	1709CST			0	0			Funnel Cloud
Madison County									
Norfolk	07	1716CST			0	0			Hail (0.75)
Madison County									
2.5 N Battle Creek to 4 SE Battle Creek	07	1730CST			0	0	2K	850K	Hail (2.75)
Large hail damaged 12,000 acres of corn and 6,000 acres of soybeans. Several home windows were broken out.									
Madison County									
6 S Norfolk to 4 S Norfolk	07	1749CST 1753CST			0	0			Hail (1.00)
Ground covered with hail.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
NEBRASKA, East									
Stanton County									
4 W Stanton	07	1756CST			0	0			Funnel Cloud
Madison County									
2 E Battle Creek	07	1756CST			0	0			Funnel Cloud
Cuming County									
Beemer to 3 NE Beemer	07	1825CST 1828CST			0	0	60K		Hail (1.00)
Corn crop was flattened by hail.									
Boone County									
St Edward	07	1828CST			0	0			Hail (0.88)
Boone County									
St Edward	07	1828CST			0	0			Thunderstorm Wind (G52)
Cuming County									
1 W Beemer	07	1835CST			0	0			Funnel Cloud
Stanton County									
13 NW Stanton	07	1837CST			0	0			Hail (0.75)
Stanton County									
13 NW Stanton	07	1837CST			0	0			Thunderstorm Wind (G56)
Stanton County									
3 SW Stanton to 13 SSE Stanton	07	1853CST 1912CST			0	0	150K		Hail (1.75)
Hail damaged or destroyed 2500 acres of corn, soybeans, and alfalfa.									
Colfax County									
Howells	07	1854CST			0	0			Funnel Cloud
Colfax County									
.5 N Clarkson to 16 SE Clarkson	07	1900CST 1912CST			0	0	150K		Hail (1.75)
Hail damaged or destroyed 2500 acres of corn, soybeans, and alfalfa.									
Colfax County									
.5 N Clarkson	07	1909CST			0	0			Hail (1.75)
Colfax County									
2 NE Clarkson	07	1917CST			0	0			Funnel Cloud
Dodge County									
5 W North Bend	07	1939CST			0	0			Hail (1.75)
Dodge County									
7 SW Snyder to 5 S Nickerson	07 08	2100CST 0100CST			0	0			Flash Flood
Rainfall of 2 to 3 inches in a short time flooded many county roads and forced the Maple Creek out of its banks.									
Colfax County									
Leigh to 8 SE Howells	07 08	2100CST 0100CST			0	0			Flash Flood
Rainfall of 2 to 3 inches in a short time flooded many county roads.									
Sarpy County									
3 N Gretna to Gretna	07	2112CST 2130CST			0	0	30K		Thunderstorm Wind (G63)
Numerous trees uprooted and branches downed. Power lines downed on the east side of Gretna. High winds also damaged part of the roof to the Gretna Post Office and destroyed a flower shop greenhouse.									
Lancaster County									
7 SE Lincoln	10	0600CST			0	0	25K		Lightning
Lightning struck a house causing the roof to catch on fire.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>NEBRASKA, East</u>									
Saline County									
Friend	10	0605CST			0	0	2K		Lightning
Lightning struck a building and knocked out some bricks.									
Saline County									
Crete	10	0617CST			0	0	70K		Lightning
Lightning struck a police communications antenna causing significant damage to police radio equipment.									
Gage County									
1 N Beatrice	10	0900CST			0	0	8K		Flash Flood
Heavy rains enveloped a grain elevator and washed out a section of railroad tracks next to it.									
Cedar County									
Hartington	13	0404CST			0	0			Thunderstorm Wind (G54)
Some trees and numerous tree limbs downed in the streets.									
Madison County									
(Ofk)Stefan Fld Norf	21	1830CST	0.1	10	0	0			Tornado (F0)
Brief touchdown near the Norfolk airport causing no damage.									
Cass County									
Eagle	23	0330CST			0	0	100K		Lightning
Lightning struck a radio station transmitter tower causing significant damage.									
Cass County									
Plattsmouth	23	0345CST			0	0	12K		Flash Flood
Thunderstorms produced nearly two inches of rain in a short time. This caused the side of an oil company building to collapse.									
Cass County									
Plattsmouth	23	0345CST			0	0			Thunderstorm Wind (G52)
Numerous trees and power lines downed.									
Otoe County									
Nebraska City	23	0415CST			0	0			Thunderstorm Wind (G52)
Trees downed.									
Nemaha County									
Brownville	23	0500CST			0	0			Hail (0.75)
Dodge County									
Fremont	27	0300CST 0400CST			0	0	2K		Thunderstorm Wind
Strong winds blew tree branches down onto a house.									
Knox County									
4 N Crofton	27	0845CST			0	0			Thunderstorm Wind (G52)
Cedar County									
14 NW Hartington to 8 N Hartington	27	0850CST 0852CST			0	0	10K		Thunderstorm Wind (G53)
Tree limbs downed along Highway 81.									
Richardson County									
Falls City	27	1615CST			0	0			Thunderstorm Wind (G52)
Tree limbs downed.									
Jefferson County									
5 NNW Fairbury	27	2245CST			0	0	8K		Thunderstorm Wind (G55)
Thunderstorm winds blew down a metal storage shed.									
<u>NEBRASKA, Extreme Northeast</u>									
Dixon County									
2 N Newcastle	27	0930CST			0	0			Thunderstorm Wind (G52)
Thunderstorm winds caused an unknown amount of tree damage.									
<u>NEBRASKA, Extreme Southwest</u>									

NONE REPORTED.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
NEBRASKA, South Central									
Gosper County									
Elwood	05	1930CST			0	0	0	75K	Hail (1.50)
Hamilton County									
Aurora	05	2130CST			0	0	15K	0	Lightning
Lightning struck two homes in Aurora causing minor damage to each.									
Greeley County									
6 NE Wolbach	07	1745CST			0	0	0	100K	Hail (0.75)
Nance County									
13 W Fullerton	07	1825CST 1840CST			0	0	50K	1M	Hail (0.75)
Howard County									
Boelus	07	1910CST			0	0	0	50K	Hail (1.75)
Hall County									
3 N Cairo to 8 W Cairo	07	1923CST			0	0	50K	1.5M	Hail (0.75)
Merrick County									
2 N Palmer	07	1930CST			0	0	50K	700K	Hail (0.75)
Howard County									
St Libory	07	1944CST			0	0	0	75K	Hail (0.75)
Hall County									
2 N Grand Is	07	2001CST			0	0	0	0	Thunderstorm Wind (G55)
Buffalo County									
Shelton	07	2005CST			0	0	40K	250K	Hail (1.75)
Hall County									
Grand Is	07	2005CST			0	0	150K	250K	Hail (1.00)
Adams County									
9 S Hastings	07	2025CST			0	0	20K	200K	Hail (1.00)
Adams County									
2 W Prosser	07	2036CST			0	0	20K	200K	Hail (1.75)
Adams County									
Kenesaw	07	2038CST			0	0	25K	200K	Hail (2.75)
The large hail broke the windshield of a fire truck.									
Adams County									
Juniata	07	2057CST			0	0	15K	100K	Hail (1.75)
Kearney County									
2 S Minden	07	2149CST			0	0	25K	250K	Hail (2.00)
Nuckolls County									
Nelson	07	2200CST			0	0	75K	100K	Thunderstorm Wind (G58)
Adams County									
Kenesaw	07	2316CST			0	0	0	100K	Hail (1.75)
Adams County									
7 SW Holstein	08	0000CST			0	0	25K	100K	Hail (1.25)
Kearney County									
9 SE Norman	08	0015CST			0	0	25K	250K	Hail (1.50)
Thunderstorms ripped across south central Nebraska dropping large hail, very heavy rain and producing high winds. Extensive crop damage was incurred from western Hall county into western Adams county.									
Webster County									
1 E Guide Rock	09	1705CST			0	0	35K	750K	Hail (0.75)
Franklin County									
Riverton	09	1710CST			0	0	75K	2M	Hail (1.00)

Storm Data and Unusual Weather Phenomena

July 1997

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

Webster County

4 NW Inavale	09	1730CST			0	0	35K	750K	Hail (0.75)
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Another round of thunderstorms dumped more hail and produced high winds in extreme southern Nebraska. The worst hit area was eastern Franklin and western Webster counties as millions in crops were lost.

York County

Mc Cool Jet	10	0100CST 0600CST			0	0	50K	250K	Heavy Rain
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Torrential rainfall of 5 to 9 inches fell overnight flooding fields and some roads in southeast York County. McCool Junction reported 7 inches of rain.

NEBRASKA, West

NEZ001>003-
019>021-054>055

Sioux - Dawes - Box Butte - Scotts Bluff - Banner - Morrill - Kimball - Cheyenne

01	1130MST 1900MST				0	0	20K	20K	High Wind (G57)
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Power lines, light poles and tree branches downed in Scottsbluff; Visibilities reduced due to blowing dust and sand; Minor damage to corn and bean crops.

Kimball County

2 S Kimball	06	1605MST 1607MST	0.1	7	0	0	0	0	Tornado (F0)
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Brief touchdown in open country.

Kimball County

10 S Kimball	06	1620MST 1622MST	0.1	8	0	0	0	0	Tornado (F0)
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Brief touchdown in open country.

Box Butte County

7 SW Alliance	08	1710MST 1714MST			0	0	0	0	Hail (1.00)
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Box Butte County

Alliance Arpt	10	1805MST 1806MST			0	0	0	0	Thunderstorm Wind (G52)
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Box Butte County

1.5 E Alliance to 3 E Alliance	10	1827MST 1830MST			0	0	0	0	Funnel Cloud
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3 funnel clouds reported by public.

Box Butte County

Alliance	12	1845MST 1847MST			0	0	50K	0	Thunderstorm Wind (G65)
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Roofs torn off 1 mobile home and 1 apartment complex; at least 2 cars damaged by fallen limbs; power lines downed; 1 camper flipped; trees uprooted; 3' diameter maple tree thrown onto roof of house; 6' wooden fence downed.

Box Butte County

8 N Hemingford to 1 W Hemingford	19	1450MST 1540MST			0	0	0	100K	Hail (0.75)
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One 100-acre wheat field destroyed north of Hemingford.

Kimball County

6 S Bushnell	21	1545MST 1550MST			0	0	0	0	Hail (0.75)
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Kimball County

13 S Bushnell	21	1630MST 1632MST			0	0	0	0	Thunderstorm Wind (G52)
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NEVADA, North

Elko County

Elko	29	1754PST 1756PST			0	0			Dry Microburst
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A dry microburst produced wind gusts to 58 mph at the NWS office in Northeast Elko.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>NEVADA, South</u>									
Nye County									
16 NE Ione	23	1000PST			0	0	10K		Flash Flood
Nye County									
16 NE Ione	23	1830PST			0	0			Flash Flood
Persistent thunderstorms over the Shoshone Mountains in northwest Nye County produced flash flooding of washes traversing state route 844. A culvert and part of the overlying road were washed out earlier in the day then again while repairs were being made.									
Clark County									
Las Vegas	28	1000PST 1100PST			0	0			Urban/Sml Stream Fld
Clark County									
Henderson	28	1020PST			0	0	5K		Thunderstorm Wind
Thunderstorms rolling through the Las Vegas Valley produced lightning and winds which interrupted power to approximately 4,100 people for a few hours. Also, locally heavy rain caused street flooding and water filled drainages. One car had to be pulled out of water at an underpass.									
<u>NEVADA, West</u>									
Washoe County									
4 NW Reno	28	1336PST 1337PST			0	0			Thunderstorm Wind (G51)
A weather spotter in Reno reported a wind gust to 51 kts from a severe thunderstorm.									
Lyon County									
Fernley	29	1600PST 1610PST			0	0	2K		Thunderstorm Wind (G65)
A severe thunderstorm produced an estimated wind gust to 65 kts in Fernley. Tree limbs and a phone line were reported down. Power outages also occurred in the area. Alternate Highway 50 was closed briefly due to blowing dust.									
Washoe County									
1 E Washoe City	30	1204PST 1224PST			0	0			Heavy Rain
A weather spotter reported one inch of rain in a 20 minute period on the east side of Washoe Valley. There was localized street flooding in the area.									
Churchill County									
Fallon	30	1405PST 1410PST			0	0			Thunderstorm Wind (G50)
A severe thunderstorm near Fallon produced a wind gust to 50 kts. A 50 foot cottonwood tree was reported blown down.									
Lyon County									
Dayton	30	1524PST 1525PST			0	0			Hail (1.75)
The Lyon County Sheriff's Office reported golf ball size hail in Dayton.									
<u>NEW HAMPSHIRE, North and Central</u>									
Carroll County									
Chocorua to Tamworth	03	2045EST 2115EST			0	0			Thunderstorm Wind (G50)
Strafford County									
New Durham	03	2130EST			0	0			Thunderstorm Wind (G50)
Gusty winds from strong thunderstorms downed trees and branches onto power lines causing more than 3000 customers to lose electrical service. Towns particularly hard hit included Chocorua, Tamworth, Chatham, Wakefield, New Durham, Middleton, Brookfield and Milton.									
Rockingham County									
Countywide	09	1400EST			0	0			Flood
Strafford County									
Countywide	09	1400EST			0	0			Flood
Strong thunderstorms moved through the southern part of the state producing 3 to 5 inches of rain in two hours. There were many road washouts in Rockingham and Strafford Counties.									

Storm Data and Unusual Weather Phenomena

July 1997

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

Merrimack County

Bradford	09	1500EST			0	0	3M		Lightning
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Lightning ignited a massive 21 alarm fire between 4:00 and 4:30 pm that gutted a lumber mill in Bradford. More than 200 firefighters and 50 fire trucks battled the blazed that completely destroyed the lumber yard.

Rockingham County

Nottingham	09	1530EST			0	1			Lightning
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A woman was injured when lightning struck a tree that was next to the tent she was in. Her knee and leg were slightly injured as the bolt travelled through the ground and into the tent. She was taken to a nearby hospital for evaluation.

Rockingham County

(Psm)Pease Afb	18	1537EST			0	0			Thunderstorm Wind (G62)
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Gusty winds from a severe thunderstorm knocked down trees and capsized boats in the Portsmouth area. A gust of 71 mph was reported at the Pease International Tradeport. Downed trees knocked out electrical service to about 5000 customers.

Grafton County

Hanover	18	1600EST			0	0			Thunderstorm Wind (G50)
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Carroll County

Ossipee	18	1715EST			0	0			Thunderstorm Wind (G50)
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Thunderstorms moving east across central New Hampshire downed trees in Hanover and Ossipee.

NEW HAMPSHIRE, Southern

Cheshire County

Walpole	03	1745EST			0	0			Thunderstorm Wind (G50)
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Cheshire County

Hinsdale	03	1750EST			0	0			Thunderstorm Wind (G70)
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Cheshire County

Swanzey	03	1813EST 1818EST	2	100	0	1	500K		Tornado (F1)
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Cheshire County

Marlow	03	1815EST			0	0			Thunderstorm Wind (G50)
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Cheshire County

Marlborough	03	1825EST			0	0			Thunderstorm Wind (G70)
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Cheshire County

Dublin	03	1830EST			0	0			Thunderstorm Wind (G70)
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Hillsborough County

Greenfield	03	1855EST 1900EST	2	250	0	0	250K		Tornado (F2)
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Very severe thunderstorms moved through Cheshire and Hillsborough Counties, producing two tornadoes, microbursts, damaging thunderstorm winds, and large hail.

It appears that a microburst hit Hinsdale and both a microburst and weak tornado affected the town of Swanzey, just south of Keene, in Cheshire County. A horse barn was destroyed and an ice arena damaged at the Cheshire Fairgrounds. Pieces of aluminum were wrapped around street lamps and two-by-fours were driven into the metal sides and roof of the ice arena. One person was slightly injured by flying glass fragments when her car windows were blown in. Many trees were uprooted or blown down. Damage was estimated at approximately \$500,000 at the Fairgrounds. There was evidence of both straight-line wind damage and some rotation associated with this storm.

In Hillsborough County, a tornado touched down in the western portion of the town of Greenfield just to the west of Otter Lake. It then moved to the northeast, damaging a sawmill, destroying a recycling facility, and damaging some buildings at a campground. Wood and aluminum buildings were torn apart or blown over. Many large trees were broken off near their bases and hundreds more had their tops broken off. There were no injuries reported.

Trees were reported blown down in Marlborough and a microburst may have occurred in nearby Dublin, where numerous trees and tree limbs were blown down along the shore of the Howe Reservoir.

All of the aforementioned damage was along a path cut by the same thunderstorm complex.

Storm Data and Unusual Weather Phenomena

July 1997

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

NEW HAMPSHIRE, Southern

However, trees also were reported blown down in the towns of Walpole and Marlow in northern Cheshire County from a separate cluster of thunderstorms.

About 1,700 electric customers in the Monadnock Region lost power during the storms. Most of the outages occurred in the towns of Marlborough, Marlow, Richmond, Swanzey, and Winchester. Another 100 lost power in Walpole. Statewide, about 10,000 electric customers lost power.

Cheshire County

Richmond	07	1330EST			0	1	Lightning
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Cheshire County

Rindge	07	1330EST			0	0	Hail (0.75)
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Cheshire County

Winchester	07	1415EST			0	0	Hail (1.00)
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Thunderstorms produced dime size hail in Rindge and quarter size hail in Winchester in Cheshire County. In Richmond, a bolt of lightning struck a television satellite dish and entered the basement of a home, slightly injuring a man who was in contact with a steel frame. He received an electrical shock and the jolt threw him across the room. He was treated and released at the local medical center.

Cheshire County

Fitzwilliam	09	1447EST			0	0	Hail (0.75)
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Hillsborough County

Milford to Nashua	09	2000EST 2030EST			0	0	Lightning
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Approximately 14,000 electric customers lost power in southern New Hampshire, mostly due to lightning strikes, including a total of 2,200 in Nashua and 1,700 in Milford.

Hillsborough County

Nashua	14	1645EST 1745EST			0	0	2K Urban/Sml Stream Fld
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A series of quick, heavy showers flooded streets, some cellars, and some basement floors in the city of Nashua's downtown area just before 6 PM. Storm drains and sewers just could not handle all of the runoff. A number of autos stalled out in the one to two feet of water in the streets. Extensive damage was reported in one building when sewers backed up.

NEW JERSEY, Northeast

Passaic County

Paterson	09	1725EST			0	0	Thunderstorm Wind (G50)
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Bergen County

Lyndhurst	09	1730EST			0	0	Thunderstorm Wind (G50)
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Hudson County

Kearny	09	1735EST			0	0	Thunderstorm Wind (G50)
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A solid line of thunderstorms, a few severe, developed in a warm, moist, unstable airmass ahead of a slow moving cold front.

Thunderstorms produced high winds and heavy rain.

At Lyndhurst, high winds caused a large tree to fall into a house. At Kearny, trees fell onto powerlines.

Bergen County

Paramus	18	1236EST M20OU			1	0	Thunderstorm Wind (G50)
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Union County

Union to Roselle	18	1830EST 1840EST			0	0	Thunderstorm Wind (G63)
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Essex County

Irvington to Newark Airport	18	1840EST 1853EST			0	2	Thunderstorm Wind (G51)
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Storm Data and Unusual Weather Phenomena

July 1997

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

NEW JERSEY, Northeast

Bergen County

Hillsdale	18	1854EST			0	0			Lightning
Bergen County									
Mahwah	18	1900EST			1	0			Thunderstorm Wind (G50)
		??OU							
Hudson County									
Jersey City to Harrison	18	1905EST			0	0			Thunderstorm Wind (G50)

A severe thunderstorm moved southeast over Bergen County. It produced high winds. A 20 year old male parking attendant at Ridgfield Country Club in Paramus was crushed (and killed) by a large wind-blown tree branch.

A line of severe thunderstorms swept southeast across the area during the evening. Severe thunderstorms produced high winds that downed numerous trees and power lines across the area. Some trees fell onto and through houses, while others fell onto and through cars.

Severe weather caused 1 additional death and 2 injuries: A person was killed by a tree that fell in Mahwah and two people (an adult and child) were injured by a tree that fell in Newark.

Here are selected peak wind gusts for Union County:

- o 60 mph at Kenilworth
- o 66 mph at Mountainside
- o 72 mph at Garwood
- o 70 mph at Roselle.

In addition, lightning struck and set a house on fire in Hillsdale.

Hudson County

Countywide	24	0000EST			0	0			Heavy Rain
	25	1200EST							

Passaic County

Countywide	24	0000EST			0	0			Heavy Rain
	25	1100EST							

Essex County

Countywide	24	1115EST			0	0	3M		Flood
	25	2359EST							

Union County

Countywide	24	1115EST			0	0			Flood
	25	1500EST							

Bergen County

Countywide	24	1315EST			0	0			Flood
	25	1200EST							

As a strong warm front moved slowly north toward the area, a long period of heavy rain occurred over the area. In addition, the area was impacted by the fringe effects from Tropical Storm Danny. Rain bands circulating around the northwest side of "Danny" provided the area with additional significant rainfall overnight.

Heavy rainfall (from 4 to 7 inches with isolated higher amounts) caused widespread serious flooding of homes, streets, rivers, streams, and poor drainage areas in Essex, Union, and Bergen Counties. In other areas, heavy rain caused localized and less serious flooding of streets, rivers, streams, and poor drainage areas.

In Essex County, Millburn was the hardest hit area. Property damage estimates were at least \$3 million. A State of Emergency was declared at 4 am on Friday, July 25th. South Mountain and Wyoming were the sections hardest hit. More than 75 homes received major damage with flood waters rising to the second floors and at least 18 cars were classified as total losses. Basements and first floors, yards, and parked autos were inundated by water as were businesses along Millburn Ave. between Cypress Street and Vaux Hall Road. Areas hard hit were on Greenwood Drive, Millburn Ave. and Ridgewood Road.

In Union County, the river gage in Springfield on the Rahway River rose to 9.6 feet, 4.1 feet above its' flood stage of 5.5 feet.

Storm Data and Unusual Weather Phenomena

July 1997

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

NEW JERSEY, Northeast

Flooding closed many roads, including Routes 1, 9, 27, 35, 22 West, 78 (both directions), Route 124 (Springfield Ave. in both directions), Riverside Drive, and Meisel Avenue. In Rahway, up to 5 feet of water covered parts of Allen and Union Streets as well as West Grand Avenue. In Union, up to 4 feet of water covered a stretch of Rte. 78 at the Springfield-Union Border. Many homes were flooded in Union Township.

In Bergen County, many roads were forced to close including Rtes. 1 and 9 from 61st to 69th Streets in Northern Bergen County, parts of Rte. 17 in Hasbrouck Hgts and Rutherford, River Road in Bogota, and Lodi and South Streets in Hackensack. In Hackensack, a new 3foot-deep lake submerged at least 15 businesses on South Newman Street. One business, Liberty Contracting Corp., estimated \$20 thousand in damages.

Here are selected total rainfall amounts for:

Union County: from 5.40 inches at Plainfield to 6.14 inches at Canoe Brook.

Passaic County: from 1.34 inches at Greenwood Lake to 3.31 inches at Little Falls.

Bergen County: from 1.90 inches at Saddle River to 6.97 inches at Carlstadt. (At Lodi, 5.50 inches was measured.)

Essex County: from 2.48 inches at Essex Falls to 5.23 inches at West Orange. (At Newark Airport, 4.94 inches was measured.) An isolated report of 9 inches was received at Millburn.

Hudson County: from 5.52 inches at Harrison to 5.82 inches at Jersey City.

NEW JERSEY, South and Northwest

Ocean County

Lakewood	07	1722EST							
			0	0		0			Thunderstorm Wind

A severe thunderstorm pulled down large tree limbs in the Lakewood area. Frequent lightning also caused power outages in Lakewood and nearby Howell Township in Monmouth County.

Sussex County

Newton	09	1520EST							
			0	0		0			Thunderstorm Wind

A severe thunderstorm uprooted a few trees in and around Newton.

Sussex County

Newton to Stockholm	09	1606EST 1630EST							
			0	0					Thunderstorm Wind (G50)

Sussex County

Andover	09	1615EST							
			0	0					Hail (1.75)

A severe thunderstorm pulled down trees and power lines in the eastern half of Sussex County. It also dropped golf ball size hail in Andover. Downed trees closed U.S. Route 206 between Newton and County Route 618 in Andover for two hours. Frequent lightning as well as the downed trees and power lines caused about 5,000 homes to lose power in Sussex and Warren Counties.

Morris County

Mendham to Pequanock	09	1655EST 1705EST							
			0	0		0			Thunderstorm Wind

A severe thunderstorm downed trees and power lines across central and eastern Morris County. About 2,500 homes and businesses lost power. Downed trees were reported in Boonton, Mendham, Long Hill and Riverdale. The downed trees forced the closure of several roads in Boonton.

Mercer County

Hopewell	09	1740EST							
			0	0					Thunderstorm Wind (G50)

Mercer County

Lawrenceville	09	1745EST							
			0	0		0			Hail (0.75)

Mercer County

Trenton	09	1745EST							
			0	0		0			Thunderstorm Wind

A severe thunderstorm tore the tops from and uprooted several 50 to 100 foot trees in Hopewell Township mainly around Featherbed Lane and Van Dyke Road. One uprooted tree sent a doghouse underneath it airborne during the thunderstorm. Other thunderstorms ripped a small portion of a roof from a home on Calhoun Street in Trenton and dropped dime size hail in Lawrenceville.

Monmouth County

Long Branch	09	2035EST							
			0	0		0			Thunderstorm Wind

Storm Data and Unusual Weather Phenomena

July 1997

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

A couple of trees and wires were knocked down by a severe thunderstorm in Long Branch.

NJZ001-007>010-012>026 **Sussex - Warren - Morris - Hunterdon - Somerset - Middlesex - Western Monmouth - Eastern Monmouth - Mercer - Salem - Gloucester - Camden - Burlington - Western Ocean - Cumberland - Western Atlantic - Western Cape May - Eastern Cape May - Eastern Atlantic - Eastern Ocean**

12	1000EST	0	25	Excessive Heat
19	1800EST			

The longest and hottest heat wave of the summer of 1997 brought up to 8 straight days of high temperatures of 90 degrees or higher to interior sections of New Jersey and 6 straight days at and near the shore. It was the longest heat wave for central New Jersey since 1993. Along with the oppressive heat came high humidity levels and limited rainfall. The heat wave started to end after a strong cold front moved through the region early on the 19th. In spite of lowering humidity levels, high temperatures on the 19th still made it into the lower 90s across the far southern and southeastern part of the state. There were heat related illnesses reported in Camden and Morris Counties, and probably other heat related problems throughout the state. The most serious heat related illnesses occurred in Camden where three elderly men were hospitalized because of heat exhaustion.

The hottest day for most areas was the 15th as high temperatures were in the mid 90s in the northwest and coastal parts of the state and around 100 degrees elsewhere. This was also the day that many utilities set new usage records. The Pennsylvania-Jersey-Maryland Interconnection (PJM) reported a record usage of 49,822 megawatts in their regional serving area. This surpassed the previous record of 48,524 megawatts set on August 2, 1995. Other utility setting records included Public Service Electric and Gas (PSE&G) with 9,612 megawatts (old record 9,470 megawatts set on 8/2/95) and GPU with 4,880 megawatts (old record 4,880 megawatts set on 8/9/95).

The highest temperatures during this heat wave included 101 degrees in Belle Mead (Somerset County) and Wrightstown (Burlington County), 100 degrees in Freehold (Monmouth County) and Millville (Cumberland County), 99 degrees in Toms River (Ocean County), Iselin (Middlesex County) and Glassboro (Gloucester County), 98 degrees in Chatham (Morris County), Long Branch (Monmouth County), the Atlantic City International Airport and Flemington (Hunterdon County), 97 degrees in Somerdale (Camden County), 96 degrees at the Cape May Courthouse, 95 degrees in Stewartville (Warren County) and 94 degrees in Sussex and the Atlantic City Marina. The lack of rain continued to stress crops and water supplies. It also put the New Jersey Forest Fire Service on a higher state of alert, especially between the Raritan and Mullica Rivers. In Morris County, 21 communities had mandatory or voluntary water restrictions in effect. The New Jersey American Water Company had mandatory restrictions in effect to all their customers in Morris, Somerset and Warren Counties. Water restrictions were also in effect in a few communities in Burlington and Middlesex Counties.

Atlantic County

Pomona 16 1310EST 0 0 0 **Hail (0.75)**

Ocean County

Manahawkin 16 1325EST 0 0 0 **Hail (0.75)**

Ocean County

Barnegat 16 1330EST 0 1 100K 0 **Lightning**

A severe thunderstorm dropped penny size hail and produced frequent lightning in southern Ocean County. A 22-year-old-woman was injured when she was struck by lightning while using a pay telephone next to a Warren Grove restaurant. In Barnegat Township, lightning caused extensive damage to one home, struck and split a tree onto another home and punched a hole in the steeple of the United Methodist Church. Penny size hail fell in Manahawkin.

Ocean County

Waretown to Mayetta 16 1405EST
1505EST 0 0 **Flood**

Thunderstorms dropped torrential rains within about 90 minutes over southern parts of Ocean County in Barnegat, Ocean and Stafford Townships. Four inches of rain fell in Barnegat. This caused considerable urban flooding as well as flooding of some of the creeks in Southern Ocean County. Lower Shore Road had considerable flooding in Barnegat Township.

Atlantic County

Laureldale 16 1545EST 0 0 **Thunderstorm Wind (G52)**

A severe thunderstorm produced wind gusts of around 60 mph near Interchange 17 of the Atlantic City Expressway in Hamilton Township.

Warren County

Columbia to Blairstown 18 1730EST 0 0 **Thunderstorm Wind (G57)**

Storm Data and Unusual Weather Phenomena

July 1997

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

Warren County

Phillipsburg to Hackettstown	18	1740EST			0	3			Thunderstorm Wind (G57)
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Two powerful severe thunderstorms caused considerable wind damage across the southwestern and northern parts of Warren County and injured three persons. Two persons were injured in Mansfield Township when a tree came crashing down on the hood of their vehicle. The other person, the son of a carnival worker, was injured by a flying limb in Hackettstown. Numerous trees were uprooted. Peak wind gusts averaged around 65 mph. One thunderstorm caused wind damage in the southwestern part of the county in Harmony Township and Phillipsburg. The other thunderstorm caused a swath of damage in the northern half of the county in Allamuchy, Blairstown, Hackettstown, Hope, Independence, Knowlton and Mansfield Townships.

Most of the structural damage to homes and vehicles were caused by fallen trees. In Harmony Township, the damage was described as a disaster area. Fallen trees closed three major roadways. In Knowlton Township, the Clover Rest Home was evacuated because of downed wires. In Hope Township, it was nearly impossible to find a piece of property that did not have wind damage. Hardest hit were the Locust Lake Road and Mount Hermon Road areas. One resident in that area had 17 uprooted trees on their property. Most of the township also lost power. The large cross on the roof of St John's Methodist Church was torn from the steeple and thrust into the church's roof. At the Triple Brook Mobile Home Park, campers were overturned and tents were ripped. The area was nearly evacuated. In Phillipsburg, downed power lines started a house fire. In Hackettstown alone hundreds of trees were uprooted. The steeple of the St. James Episcopal Church was damaged and a house on Grand Avenue suffered extensive wind damage.

Throughout central and northwest New Jersey about 78,000 GPU customers lost power. About 50,000 customers still had no power the morning of the 19th (Saturday). The number was down to 16,000 the (Sunday) evening of the 20th (6,000 in Warren County), 1,000 the afternoon of the 21st (Monday) and the final 94 in Phillipsburg were back on line on the 22nd (Tuesday).

Morris County

Schooleys Mtn to Green Vlg	18	1755EST 1835EST			0	3			Thunderstorm Wind (G57)
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Severe thunderstorms produced considerable wind damage across most of Morris County. The northeast quarter of the county suffered the least damage. Three persons were injured. A 20-year-old man was seriously injured when he was buried by falling limbs at the Flanders Valley Golf Course in Mount Olive. The damaging wind gusts injured a teenager by making her lose control of the vehicle she was driving and slammed it into a utility pole. A 43-year-old woman was injured in Long Hill Township when a tree fell on her vehicle near the intersection of Mountain and Basking Ridge Roads. One person was also injured in Flanders during the clean-up on Saturday. Peak wind gusts were estimated at around 65 mph. Most of the damage to homes and vehicles were caused by the fallen trees. Several homes had trees come crashing through their roofs. The downed trees and wires closed many roads. The downed wires also ignited several fires.

In Roxbury Township, over 100 trees were uprooted with Succasunna and Kenvil hit very hard. Emergency personnel responded to 37 calls and there were about 30 small wire fires throughout the township. A female driver and her passenger narrowly escaped injury after a tree fell on her vehicle. One home in Succasunna lost its roof. In Mount Olive Township, U.S. Route 206 was closed for 18 hours. 100 year old/50 foot high trees were uprooted throughout most of the township. At least half of Mount Olive lost power. According to published reports no areas within the township were "spared". The wind was so strong it blew a 13 inch bass out of Budd Lake. Most of the power was also out in Rockaway Township. Downed trees closed four major roads in Mendham Township, 10 roads in Washington Township and 6 roads in Harding Township. Emergency personnel responded to 175 calls in Long Hill Township. The Morris County Municipal Utilities Authority issued mandatory water use restrictions to its 10,000 customers after the storms knocked out power to their wells.

Throughout central and northwest New Jersey 78,000 of the 490,000 GPU customers lost power. About 50,000 customers still had no power the morning of the 19th (Saturday). The number was down to 16,000 the (Sunday) evening of the 20th and 1,000 the afternoon of the 21st (Monday). The final 94 (in Warren County) were not back on line until the 22nd (Tuesday).

Hunterdon County

Clinton to Readington	18	1800EST			0	1			Thunderstorm Wind (G70)
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Hunterdon County

Whitehouse	18	1800EST			0	0			Hail (0.88)
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Storm Data and Unusual Weather Phenomena

July 1997

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

NEW JERSEY, South and Northwest

Very powerful severe thunderstorms caused considerable wind damage across east central and northeast Hunterdon County and injured one person. Wind gusts were estimated in excess of 80 mph in Readington Township. Downed trees caused most of the damage to homes and vehicles. In Flemington, a driver suffered spine and head injuries after a tree landed on its vehicle. In Readington Township, portions of the Interstate Iron Works building collapsed. High winds damaged the roof and several sections fell inside the plant. Eight main roads within the township were closed because of fallen trees. An uprooted walnut tree pulled up a tombstone from 1863. Trees came down on two occupied vehicles, but no one was hurt. At least nine vehicles within the township were damaged by fallen trees. In Clinton Township, there was considerable utility pole damage on U.S. Route 22. Three occupied vehicles were hit by fallen trees, but there were no injuries. The hardest hit streets in Clinton included Halsted, Lehigh and West Main.

Throughout central and northwest New Jersey about 78,000 (out of a possible 490,000) GPU customers lost power. About 50,000 customers still had no power the morning of the 19th (Saturday). The number was down to 16,000 the (Sunday) evening of the 20th (9,000 in Hunterdon County), 1,000 the afternoon of the 21st (Monday) and the final 94 (in Warren County) were back on line on the 22nd (Tuesday).

Somerset County

Neshanic to Lyons	18	1805EST 1828EST		0	0			Thunderstorm Wind (G59)
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Somerset County

Middle Bush to 5 E Mt Bethel	18	1835EST		0	2			Thunderstorm Wind (G52)
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A couple of very powerful severe thunderstorms caused considerable tree damage throughout central and northern Somerset County and injured two persons. The strongest wind gusts measured by SKYWARN spotters reached close to 70 mph. The fallen trees consequently damaged numerous homes and vehicles, caused power outages and forced road closures.

In Bound Brook, a woman driver and her 10-year-old son were injured when a tree fell on their vehicle's windshield. Her 6-year-old son was not injured. Emergency personnel responded to 65 calls of downed trees and power lines throughout the borough as over 40 trees were uprooted. In Bridgewater Township, a wind gust was measured at 68 mph by a SKYWARN Spotter. Siding was reported ripped from houses and mail boxes were knocked down. A bus company's roof was blown off. Somerville Borough was particularly hard hit. There were eight reports of property damage that included the roofs being blown off the borough's middle school and a downtown boutique. Garages, fences and swimming pools were also damaged. Fallen trees damaged several vehicles and five roads were still closed the next day. Other municipalities that reported wind damage to vehicles and homes included Bernards Township, Branchburg Township, Franklin Township, Hillsborough Township, Manville Borough, North Plainfield Borough and Raritan Borough. Numerous trees and wires were reported down in Bernardsville and Green Brook Township.

Public Service Electric and Gas reported 20,000 customers lost power in Middlesex, Somerset and Union Counties. All power was restored by the afternoon of the 20th. Throughout central and northwest New Jersey about 78,000 (out of a possible 490,000) GPU customers lost power. About 50,000 customers still had no power the morning of the 19th (Saturday). The number was down to 16,000 the (Sunday) evening of the 20th, 1,000 the afternoon of the 21st (Monday) with all power restored by that point to Somerset County homes.

Mercer County

Princeton	18	1830EST		0	0			Thunderstorm Wind (G52)
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Mercer County

Lawrenceville	18	1850EST		0	0	0		Thunderstorm Wind
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The severe thunderstorms that caused extensive damage across Warren, Hunterdon, Morris and Somerset Counties pushed a gust front of damaging winds well ahead of them. The gust front moved through Mercer County and knocked down trees and power lines in Princeton where the wind gusts were estimated at 60 mph. Farther south the gust front winds also knocked down wires in Lawrenceville. Public Service Electric and Gas reported 18,000 customers lost power because of the downed wires from this gust front throughout central New Jersey.

Middlesex County

North Brunswick to Woodbridge	18	1835EST		0	0			Thunderstorm Wind (G50)
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Middlesex County

Woodbridge	18	1835EST		0	0	100K		Lightning
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Severe thunderstorms caused wind damage in sections of northwestern Middlesex County from North Brunswick to Woodbridge. In North Brunswick, a Modell's store lost part of its roof. But the worst damage in the county occurred in Piscataway where

Storm Data and Unusual Weather Phenomena

July 1997

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

NEW JERSEY, South and Northwest

emergency personnel responded to around 60 calls of downed trees and wires. Downed trees and wires were also reported in Middlesex Borough, South Plainfield, Dunellen, Highland Park, Metuchen and Edison. Lightning struck a home in Woodbridge and the subsequent fire that took one hour to bring under control rendered the house uninhabitable. The downed trees and power lines caused 20,000 Public Service Electric and Gas customers to lose power in Middlesex, Somerset and Union Counties.

Burlington County

**3 NE Jacksonville to
Cinnaminson**

18	1855EST 1900EST			0	0			Thunderstorm Wind (G50)
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The severe thunderstorms that caused extensive damage across Warren, Hunterdon, Morris and Somerset Counties pushed a gust front of damaging winds well ahead of them. The gust front moved through northwestern Burlington County and knocked down power lines in Burlington City, Cinnaminson, Delran, Mansfield, Medford, Moorestown, Mount Holly, Southampton and Westampton Townships. In Moorestown, downed wires on Kings Highway (New Jersey State Route 41) closed the road for one hour. Public Service Electric and Gas reported 18,000 customers lost power because of the downed wires from this gust front throughout central New Jersey.

Camden County

Cherry Hill

18	1900EST			0	0	0	Thunderstorm Wind
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The severe thunderstorms that caused extensive damage across Warren, Hunterdon, Morris and Somerset Counties pushed a gust front of damaging winds well ahead of them. The gust front knocked down trees and power lines in Mercer and Burlington Counties, but weakened as it entered Camden County. Nevertheless, the winds were strong enough to pull down power lines in Cherry Hill. Public Service Electric and Gas reported 18,000 customers lost power because of the downed wires from this gust front throughout central New Jersey.

Burlington County

Pemberton

18	1915EST			0	0	0	Thunderstorm Wind
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The severe thunderstorms that caused extensive damage across Warren, Hunterdon, Morris and Somerset Counties pushed a gust front of damaging winds well ahead of them. The gust front moved through Burlington County and knocked down trees in Pemberton and some power lines in New Lisbon. Public Service Electric and Gas reported 18,000 customers lost power because of the downed wires from this gust front throughout central New Jersey.

Burlington County

Chatsworth

18	2000EST			0	0		Thunderstorm Wind (G50)
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A severe thunderstorm pulled down wires in Woodland Township.

Cumberland County

**Greenwich to
Carmel**

18	2030EST 2050EST			0	0		Thunderstorm Wind (G50)
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Cumberland County

**Millville to
Cumberland**

18	2055EST 2100EST			0	0		Thunderstorm Wind (G50)
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Severe thunderstorms took down trees and wires in western and northern Cumberland County. Emergency personnel responded to about two dozen calls of downed trees and wires throughout the county.

Cape May County

Cape May Court House

18	2105EST			0	0	0	Thunderstorm Wind
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Severe thunderstorms caused some widely scattered wind damage throughout Cape May County. A couple of large trees were knocked down. Most of the wind damage was fallen limbs and downed wires.

Ocean County

Cedar Crest

19	1217EST			0	4		Wild/Forest Fire
20	1800EST						

The hot and unseasonably dry weather in July helped exacerbate wild fires throughout the state of New Jersey. To date the largest wild fire of the month started in the Wrangle Brook area of Manchester and Berkeley Townships in Ocean County around Noon EDT on the 19th. The fire burned into the Holiday City Retirement Village directly threatening 300 homes and damaged 20. About 800 residents were evacuated during the height of the blaze. The fire was contained at 700 p.m. EDT on the 20th. About 702 acres of forest was burned and four Forest Fire Service Firefighters were injured fighting the fire. This fire was the largest, but since July 1st 354 separate wild fires had burned 1,313.5 acres of New Jersey's forests.

Burlington County

Countywide

23	2100EST			0	0		Heavy Rain
24	1300EST						

Storm Data and Unusual Weather Phenomena

July 1997

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

NEW JERSEY, South and Northwest

Camden County

Countywide	23	2100EST			0	0			Heavy Rain
	24	1300EST							

Cumberland County

Countywide	23	2100EST			0	0			Heavy Rain
	24	1300EST							

Gloucester County

Countywide	23	2100EST			0	0			Heavy Rain
	24	1300EST							

Salem County

Countywide	23	2100EST			0	0			Heavy Rain
	24	1300EST							

Heavy rain, associated with weak low pressure systems riding along a nearly stationary frontal boundary in the southern Delmarva Peninsula, fell across southwestern New Jersey from the evening of the 23rd to mid-day on the 24th. This was the most widespread rain since the beginning of June. Storm totals averaged between 2.0 and 3.0 inches across much of the area. Due to the extremely dry weather preceding this week, there were significant, but within bankfull rises on the major rivers and creeks. Roadway flooding occurred in the usual poor drainage and low-lying areas. Storm totals included 3.94 inches in New Lisbon, 3.58 inches at the McGuire AFB, 3.05 inches in Seabrook, 2.84 inches in Mount Laurel, 2.63 inches in Somerdale, 2.06 inches in Atsion and 1.04 inches in Verga.

Atlantic County

Countywide	24	0200EST 1400EST			0	0			Urban/Sml Stream Fld
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Cape May County

Countywide	24	0200EST 1400EST			0	0			Urban/Sml Stream Fld
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Ocean County

Countywide	24	0200EST 1400EST			0	0			Urban/Sml Stream Fld
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Heavy rain, associated with weak low pressure systems riding along a nearly stationary frontal boundary in the southern Delmarva Peninsula, caused urban flooding, especially on the back bay sides of the barrier islands of Atlantic, Cape May and Ocean Counties. Although it was southeast of this frontal boundary, some of the moisture from Tropical Storm Danny was ingested into this boundary and exacerbated the heavy rain. Periods of heavy rain started during the early morning of the 24th. The heaviest rain occurred around noon and coincided with the high tide on the back bay side. This slowed the drainage of the rain into the bays. In Atlantic County flooding and high water blocked cars off roads in Absecon, Atlantic City (where some sewers backed up), Brigantine, Northfield and Somers Point. In Brigantine, 30 cars were flooded. In Ocean County, on Long Beach Island around three feet of water accumulated on many roadways. Numerous vehicles were disabled, in Long Beach Township there were 20 alone. Roads were closed due to flooding in Beach Haven, Brant Beach and Ship Bottom. In Cape May County, flooding was reported in low lying streets along the back bays from Ocean City to Cape May. Storm totals included 6.09 inches at the Marina in Atlantic City (a new daily record), 5.08 inches in Toms River and 3.97 inches at the Atlantic City International Airport in Pomona.

Warren County

Countywide	24	0700EST			0	0			Heavy Rain
	25	0700EST							

Heavy rain, associated with weak low pressure systems riding along a nearly stationary frontal boundary in the southern Delmarva Peninsula, fell across Warren County. The heavier rain came in two shots, during the early morning of the 24th and again during the evening of the 24th. Storm totals averaged between 2 and 3 inches. The county avoided heavier rain that fell both to the west in the Lehigh Valley and to the south and east in the Passaic and Raritan Basins. While there was some urban and poor drainage flooding, there were no reports of flooding along the major streams. Storm totals included 2.68 inches at the Easton Bridge.

Monmouth County

Countywide	24	1100EST			0	0			Flood
	25	0200EST							

Middlesex County

Countywide	24	1300EST			0	0			Flood
	25	0400EST							

Heavy rain, associated with weak low pressure systems riding along a nearly stationary frontal boundary in the southern Delmarva Peninsula, caused urban flooding as well as flooding of some of the streams and rivers in Middlesex and Monmouth Counties. A steady rain started early during the day on the 24th. The heaviest rain fell during the afternoon and early evening on the 24th. The heavy rain nearly coincided with the high tide around noon EDT on the 24th along coastal Monmouth County and this exacerbated

Storm Data and Unusual Weather Phenomena

July 1997

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

the drainage flooding by slowing the runoff into the bays and ocean.

In Middlesex County, dozens of roads were closed countywide. Hardest hit during the afternoon of the 24th were roadways in East Brunswick, North Brunswick, Piscataway, South Amboy and Woodbridge. Most were reopened during that evening. About 3 p.m. EDT, 100 employees were evacuated from a building in Dunellen after a 20 by 20 foot section of its roof collapsed. The heavy rain forced a road collapse in Perth Amboy. In New Brunswick, a giant sign truss collapsed and forced the closure of New Jersey State Route 18. In Monmouth County, significant street flooding was reported in both Neptune and Sea Girt. The heavy rain also caused a partial home collapse in Neptune. Flooding along the Poplar Creek in Monmouth County nearly caused the evacuation of the Poplar Village apartments.

The 24 hour precipitation total ending 7 a.m. EDT on the 25th in New Brunswick was 6.24 inches. This was the second highest 24 hour storm total on record only surpassed by the 7.66 inches of rain that fell because of Tropical Storm Doria on August 28, 1971. Storm totals (rain started falling earlier on the 24th) included 8.32 inches in Iselin, 7.90 inches in Woodbridge, 7.50 inches in New Brunswick, 6.55 inches in Sandy Hook, 6.42 inches in South Plainfield, 4.63 inches in Freehold and 4.26 inches in Matawan.

Hunterdon County

Countywide	24	1600EST			0	3			
	25	0400EST							Flood

Somerset County

Countywide	24	1600EST			0	0			
	26	0300EST							Flood

Mercer County

Countywide	24	1700EST			0	0			
		2000EST							Flood

Morris County

Countywide	24	1700EST			0	0			
	25	0600EST							Flood

Heavy rain, associated with weak low pressure systems riding along a nearly stationary frontal boundary in the southern Delmarva Peninsula, caused flooding on some of the river and streams in Morris and Somerset Counties and flooding of some of the smaller creeks and streams in Mercer and Hunterdon Counties. Although it was southeast of this frontal boundary, some of the moisture from Tropical Storm Danny was ingested into this boundary and exacerbated the heavy rain. The recent unseasonably dry weather prevented much damage from flooding to occur in spite of storm totals that in some locations exceeded eight inches.

The heaviest rain fell during the afternoon and evening of the 24th. The rain started early on the 24th. Three injuries occurred at 610 a.m. EDT in Hunterdon County when a passenger train was hit by a fallen oak tree near Old Mountain Road north of the Round Valley Recreational Area. Another tree came down about half a mile farther down on the tracks. Three crew members were injured. The recent severe weather and the rain apparently loosened the dirt enough to cause the trees to fall. Later that day in Hunterdon County, significant road flooding was reported along New Jersey State Route 29. The route was closed as were many adjacent side streets. Flooding was also reported around the Lambertville School. In Somerset County, the heavy rain caused a roof to collapse in Franklin Township. The heavy rain also forced the Stony and Green Brooks from their banks just after midnight EDT on the 25th. In Mercer County, most of the urban and stream flooding occurred in the northern half of the county. A SKYWARN spotter reported over 5 inches of rain fell by 6 p.m. EDT in Hopewell Township.

Storm totals included 8.34 inches in West Amwell, 8.28 inches in Chatham, 8.19 inches in Franklin Township, 7.62 inches in Wertsville, 7.29 inches in Lambertville, 6.82 inches in Blackwell Mills, 4.43 inches in Somerville, 4.09 inches in Pottersville and 4.04 inches in Princeton.

The heavy rain did cause some minor flooding along sections of the Passaic River in Morris County and the Millstone and Raritan Rivers in Somerset County. In Morris County, the Passaic River at Chatham exceeded its 6 foot flood stage from 1 a.m. EDT to 7 a.m. EDT on the 25th. It crested at 6.6 feet at 4 a.m. EDT on the 25th. In Somerset County, the Millstone River at Blackwell Mills was above its 9 foot flood stage from 3 a.m. EDT on the 25th to 3 a.m. EDT on the 26th. It crested at 11.1 feet at 1 p.m. EDT on the 25th. The Raritan River at Bound Brook also was above flood stage (26 feet) from 10 a.m. EDT to 3 p.m. EDT on the 25th. It crested at 26.5 feet at 130 pm. EDT on the 25th.

Atlantic County

3 N Nesco to Nesco	29	1430EST			0	1			
	30	1700EST							Wild/Forest Fire

Storm Data and Unusual Weather Phenomena

July 1997

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

The largest forest fire of the month blackened about 1,920 acres of the Wharton State Forest in Mullica and Hammonton Townships. One fire fighter suffered heat exhaustion. The fire started about 2.5 miles from the Totem Village in Mullica Township. About 100 persons (75 homes) were evacuated for about a day from that development and placed in the Mullica Township firehouse. The fire was declared contained at 6 p.m. EDT on the 30th. The unseasonably hot and dry weather contributed to a larger than normal number of wild and forest fires in the state of New Jersey. In all 381 wildfires blackened 3,095 acres of forest throughout New Jersey during the month of July.

NEW MEXICO, Central and North

Mora County

Rainsville	03	1455MST			0	0	Hail (0.88)
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San Miguel County

7 SW Las Vegas	03	1623MST			0	0	Hail (1.50)
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De Baca County

10 S Ft Sumner	03	1810MST			0	0	1K Thunderstorm Wind
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De Baca County

2 S Ft Sumner	03	1813MST			0	0	Funnel Cloud
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De Baca County

9 SE Ft Sumner	03	1815MST			0	0	Hail (1.00)
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A severe thunderstorm just south of Ft Sumner damaged large tree limbs, produced a brief funnel cloud and dumped 1 inch hail.

Roosevelt County

Elida	03	2020MST			0	0	Hail (1.00)
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De Baca County

2 E Ft Sumner	04	2300MST			0	0	20K Tstm Wind/Hail
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A severe thunderstorm overturned a mobile home just east of Ft Sumner and produced several bursts of small but damaging hail across the county. Details on exact size of hail and damage locations were not available for this late night event.

Guadalupe County

5 N Santa Rosa	05	1450MST			0	0	Hail (1.75)
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De Baca County

10 NW Ft Sumner	05	1600MST			0	0	Hail (0.88)
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De Baca County

Ft Sumner	05	1610MST 1620MST			0	0	Hail (0.88)
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De Baca County

Ft Sumner	05	1615MST			0	0	2K Thunderstorm Wind
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De Baca County

Ft Sumner	05	1635MST			0	0	Thunderstorm Wind (G50)
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A severe thunderstorm moved south across Guadalupe and De Baca counties producing a swath of large hail including golfball hail at Santa Rosa Lake State Park and quarter size hail at Sumner Lake State Park and also in Ft Sumner. Large tree limbs of 8 inches in diameter were broken and power lines were downed during winds in Ft Sumner.

Quay County

14 E San Jon	05	1615MST			0	0	Hail (0.75)
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Curry County

Broadview	05	1625MST			0	0	Funnel Cloud
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Curry County

Clovis	05	1726MST			0	0	10K Thunderstorm Wind (G50)
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Roosevelt County

Portales	05	1730MST 1745MST			0	0	Thunderstorm Wind (G50)
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Roosevelt County

Floyd	05	1800MST			0	0	Thunderstorm Wind (G50)
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Severe thunderstorms developed east into Quay, Curry and Roosevelt counties producing hail and high winds and at least one funnel cloud. Winds downed power lines across Curry and Roosevelt counties.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
NEW MEXICO, Central and North									
Bernalillo County									
Albuquerque	10	1830MST			0	1			Heavy Rain
A 41 year old man was rescued by the fire department from the Tramway Flood Channel in the Fourhills section of Albuquerque. The channel filled quickly from heavy rain of near 1 inch. It was unknown how the man, who was treated at hospital for hypothermia, became trapped in the arroyo channel.									
Sandoval County									
Rio Rancho	11	1430MST			0	1			Lightning
A Rio Rancho man, age unknown, was struck and injured by lightning.									
Rio Arriba County									
Chimayo	17	1355MST			0	0	2.5K		Dry Microburst
Several porch coverings were torn off and trees damaged in Chimayo.									
Taos County									
Taos	21	1430MST			0	0	30K		Dry Microburst
High winds ripped away a portion of the roof from the Hacienda Inn. No injuries were reported. The area of the hotel damaged had been closed for months.									
Chaves County									
Hagerman	24	1450MST 1500MST			0	0			Thunderstorm Wind (G52)
Hagerman Police reported about 10 minutes of 60 mph gusts from city HAZMET equipment.									
Lincoln County									
Alto	25	1220MST			0	2			Lightning
Two golf course employees were dazed by a near-miss lightning strike. Both suffered temporary hearing lose and sonic shock.									
De Baca County									
Ft Sumner	25	1925MST			0	0	10K		Thunderstorm Wind
High winds, which downed power lines, and heavy rain were reported by Ft Sumner police.									
Santa Fe County									
5 S Stanley	27	1350MST			0	0			Funnel Cloud
Moriarty SKYWARN spotters reported a funnel cloud north of the city.									
Bernalillo County									
Albuquerque	28	1230MST 1315MST			0	0	100K		Flash Flood
Bernalillo County									
Albuquerque	28	1230MST			0	0			Hail (0.75)
A thunderstorm moving north along the west slope of the Sandia mountains produced a brief funnel cloud over Kirkland Airforce Base. The storm intensified over eastern Albuquerque dropping dime size hail and 1 to 2 inches of rain. One city street intersection was closed for about 5 days after the pavement was undercut by flood waters which burst through the city drain.									
Torrance County									
3 SE Moriarty	28	1330MST			0	0			Hail (0.75)
Dime size hail was reported by a Ham Radio SKYWARN spotter.									
San Juan County									
Farmington to Bloomfield	28	1400MST 1600MST			0	0			Flash Flood
Heavy rain of 1/2 to 3/4 inch in about an hour produced considerable street and road flooding in the area of Farmington, Aztec and Bloomfield, with several homes flooded after mud and debris clogged drainage systems. Arroyos ran strong elsewhere across San Juan County with several areas of mud and rock slides which briefly blocked roads.									
Bernalillo County									
Albuquerque	29	1515MST			0	3			Lightning
A propane truck exploded when struck by lightning, burning three men, two of them critically.									
San Juan County									
15 S Farmington	30	1430MST			0	0			Funnel Cloud
A brief funnel cloud was reported by sheriff deputies.									
Valencia County									
Tome	30	1500MST			0	0	5K		Thunderstorm Wind
Several roofs were damaged and sheds were ripped apart during a late afternoon storm moving across Tome.									

Storm Data and Unusual Weather Phenomena

July 1997

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

Torrance County

5 S Moriarty Arpt	30	1735MST			0	0			Funnel Cloud
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A SKYWARN spotter reported a brief funnel cloud.

Socorro County

Socorro	30	1745MST			0	0	60K		Thunderstorm Wind
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A mobile home overturned and landed on a car, and power lines were downed as a brief, but strong storm moved over Socorro.

Santa Fe County

Santa Fe	30	2200MST			0	0			Flood
	31	0500MST							

Santa Fe County

5 SW Santa Fe Muni Arpt	31	0200MST 0500MST			0	0			Flash Flood
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Overnight rains of 1 to 2 inches in Santa Fe littered city streets with mud and debris and caused some minor flooding of several homes and businesses along the Santa Fe River in town. Additional sections of County Road 56 south of the airport were washed out. The road had already been reduced to one-lane traffic during heavy rain nearly a month earlier.

Chaves County

Roswell	30	2320MST 2351MST			0	0	10K		Thunderstorm Wind (G50)
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A late night storm over Roswell damaged sheds and downed power lines. Gusts of 55 to 60 mph were recorded at the airport and across the city.

Socorro County

Lemitar to Polvadera	31	1800MST 2000MST			0	0			Flash Flood
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Heavy rains washed out county roads in the area from Lemitar to Polvadera.

NEW MEXICO, South Central and Southwest

Sierra County

Hillsboro	04	1515MST 1600MST			0	0			Hail (1.00)
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Severe thunderstorm with large hail was accompanied by heavy rain and minor flooding to about one foot in depth along main street.

Otero County

Alamogordo	27	1505MST 1525MST			0	0			Hail (1.00)
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NEW MEXICO, Southeast

Eddy County

3 E Carlsbad	03	1718MST			0	0			Hail (1.00)
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Eddy County

Black River	03	1820MST			0	0	3K		Thunderstorm Wind
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A downburst knocked down 4 utility poles in Black River Village. The poles were left lying to the SSE. A person with a hand-held anemometer measured a peak gust of 71 mph near the location of the poles.

Eddy County

Loving	03	1830MST			0	0	10K		Thunderstorm Wind (G62)
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An open-ended 30x40 foot barn made of poles and corrugated metal was destroyed by microburst winds. The owner of the barn said that the roof was first lifted and then the walls collapsed. The east side of the barn had no wall and with the winds coming in from the east, the air was caught and began the lifting process. A survey of the site found a strongly divergent pattern to damage in the local area.

Storms developed in the mountains of central and south-central New Mexico. As the storms moved off the mountains a continuous line developed that extended N-S through Eddy County. Good southeast inflow kept the storms going through evening. Damaging outflow winds occurred in the southern half of the county. The maximum temperature at the Carlsbad Airport was 104 degrees with dew points near 50 degrees. During the evening dew points rose into the middle and upper 50s in the region, but was still conducive to downbursting storms.

Lea County

3 N Tatum	05	1920MST			0	0			Hail (1.00)
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Storm Data and Unusual Weather Phenomena

July 1997

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

Lea County

Tatum	05	1925MST			0	0	30K		Thunderstorm Wind
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Outflow winds from the forward flank of an HP supercell uprooted trees, blew over or removed roofs from sheds, and downed power poles.

Lea County

5 E Mc Donald	05	1950MST			0	0	10K		Hail (1.75)
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Golfball hail destroyed corn on a dairy farm.

Thunderstorms formed in northern Lea County along a synoptic scale outflow boundary that extended from NW-SE. The southern end of a multicell complex became organized and formed into an HP supercell. The mesocyclone passed directly over the McDonald community. At maximum heating temperatures were near 90 degrees with dew points in the upper 50s.

Eddy County

Carlsbad Arpt	06	2006MST			0	0			Thunderstorm Wind (G51)
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Outflow winds from a collapsing cell west of the airport gusted to 51 kt (59 mph).

Lea County

6 E Jal	08	1845MST 2030MST			0	0			Flash Flood
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Slow moving storms near Jal produced heavy rains and caused flooding on State Highway 128 east of Jal. The Highway Dept. posted "High Water" signs, but did not close the highway.

The air mass for this day was not one that necessarily suggested flash flooding with surface temperatures in the mid to upper 90s and dew points in the lower 50s, but light and variable winds in the mid levels moved the storms very little.

Lea County

1 S Jal	31	1520MST			0	0	5K		Thunderstorm Wind
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Downbursting winds from a thunderstorm knocked down 2 utility poles just south of the Jal city limit.

Eddy County

16 E Otis	31	1900MST 2100MST			0	0			Flash Flood
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Slow-moving thunderstorms dropped flooding rains in eastern Eddy County on State Highway 128. Water was running across the roadway near the 6 mile marker.

NEW YORK, Central

Seneca County

Ovid	03	0940EST			0	0	10K		Thunderstorm Wind
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A thunderstorm quickly became severe over southern portions of Seneca county. Downed trees and wires were reported in the town of Ovid. The cell weakened below severe limits a short time later.

Chenango County

Sherburne to New Berlin	03	1205EST 1215EST			0	0	25K		Thunderstorm Wind
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A persistent thunderstorm cell that had produced wind damage earlier in the day across southern Seneca county intensified to severe levels once again over northeastern portions of Chenango county. Shortly after 100 pm, wind damage in the form of numerous downed trees and power lines occurred in Sherburne. Further to the east in the towns of Lathams Corners and New Berlin, many additional large trees were toppled. Route 8 in the town of Lathams Corners was closed for a time due to impassable conditions from felled debris.

Otsego County

Hartwick to South Worcester	03	1250EST 1320EST			0	0	15K		Thunderstorm Wind
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The severe thunderstorm that produced wind damage earlier in Seneca and Chenango counties continued to plow eastward through Otsego county. The cell maintained its severe intensity as it did so. Shortly before and around 200 pm, numerous trees and utility poles were downed in the towns of Hartwick and Hyde Park. The storm then turned towards the southeast and inflicted more damage in South Worcester where large trees were uprooted and a roof was partially torn off.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
NEW YORK, Central									
Steuben County									
Addison to 4 SE Lindley	07	1315EST 1320EST			0	0			Hail (1.00)
									A severe thunderstorm developed over southeastern portions of Steuben county and produced large hail. Dime sized hail was reported in Addison and one inch diameter hail covered roadways in the town of Tuscarora.
Steuben County									
Bath	07	1445EST			0	0			Hail (1.75)
									A thunderstorm briefly intensified to severe levels over central portions of Steuben county. The storm produced hail the size of golf balls in Bath.
Cayuga County									
Genoa	07	1446EST			0	0	10K		Thunderstorm Wind
									A thunderstorm pulsed to severe levels over extreme southern Cayuga county. A few trees and power lines were blown down in the town of Genoa before the cell weakened.
Broome County									
Triangle to Castle Creek	09	1255EST 1300EST			0	0	90K		Thunderstorm Wind
									A bow echo type severe thunderstorm developed across northern sections of Broome county. The storm inflicted widespread wind damage in an area bounded by Whitney Point, Itaska, and Castle Creek shortly before 200 pm. The majority of the damage occurred in the town of Triangle. Numerous large trees were uprooted and utility poles were downed. Also, a small garage was blown down and an idled tractor trailer on Interstate 81 was toppled over.
Chenango County									
Greene to Mt Upton	09	1305EST 1330EST			0	0	100K		Thunderstorm Wind
									The same storm that produced wind damage in northern Broome county moved across the southern tier of Chenango county and remained severe. Numerous large trees and power lines were downed in the town of Greene just after 100 pm. A spotter also reported wind gusts close to 55 mph. The storm continued east and blew aluminum siding off two buildings just outside of Greene and forced the closure of Route 12 due to downed trees in Brisben. In Coventry, a large tree was blown onto a house causing minor structural damage. In Oxford township, numerous trees were felled, one heavily damaging a parked vehicle. Finally, in Mount Upton in the southeastern portion of the county, Route 8 was closed as many trees were toppled onto the roadway.
Sullivan County									
4 SW Wurtsboro	09	1310EST			0	0	10K		Thunderstorm Wind
									A thunderstorm briefly reached severe limits over southeastern Sullivan county. A few trees and wires were downed in the town of Lumberland.
Otsego County									
6 SW Gilbertsville to Oneonta	09	1335EST			0	0	50K		Thunderstorm Wind
									The same severe thunderstorm that produced widespread wind damage in northern Broome and southern Chenango counties ripped through southern Otsego county. Again, wind damage was the main story. To the southwest of Gilbertsville, trees and wires were blown down across Route 18. Further to the east, many additional trees and utility poles were toppled in both Otego and Oneonta.
Delaware County									
Meredith to Davenport	09	1410EST 1425EST			0	0	25K		Thunderstorm Wind
									The persistent bow echo moved into northern Delaware county and caused a bit more in the way of wind damage before finally weakening. Numerous large trees and wires were blown down across roadways both in Meredith and Davenport.
Onondaga County									
Liverpool	15	1520EST			0	0	10K		Thunderstorm Wind
									A thunderstorm briefly reached severe limits across northern Onondaga county. Downburst winds blew down severe large trees in Liverpool.

Storm Data and Unusual Weather Phenomena

July 1997

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

Onondaga County

Baldwinsville	15	1555EST			0	0	20K		Thunderstorm Wind
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A severe thunderstorm crossed into northwestern Onondaga county and produced widespread wind damage in the town of Baldwinsville. Several large trees were uprooted and utility poles were knocked down across numerous roadways.

Madison County

Canastota to Oneida	15	1630EST 1635EST			0	0	35K		Thunderstorm Wind
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A thunderstorm rapidly became severe over northern portions of the county. Widespread wind damage was reported in Canastota, with the damage reports crossing into the town of Oneida shortly thereafter.

Numerous trees and wires were downed in both localities. Two storage sheds were also damaged in Oneida with both a parked vehicle and camper heavily damaged from falling tree limbs.

Oneida County

Verona to Utica	15	1640EST 1725EST			0	0	100K		Thunderstorm Wind
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The same severe storm that caused damage in Madison county ripped through central Oneida county, producing additional and widespread wind damage.

The storm first affected the towns of Verona and Camden, downing numerous large trees which blocked many roads. Around and shortly after 600 pm, more trees and wires were felled in Westmoreland and Whitesboro. In Westmoreland, two homes sustained damage from falling trees and also had a portion of their aluminum siding torn off. Further east, more fallen trees and wires affected Maynard and the greater Utica area before the storm exited the county.

Delaware County

Meridale to Hobart	15	1650EST 1715EST			0	0	30K		Tstm Wind/Hail
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A thunderstorm grew to severe limits across northern sections of the county. Trees and wires were blown down by strong winds in Meridale. Further east, the storm continued to produce wind damage as additional trees were felled in the town of Hobart. Golf ball sized hail also occurred in Hobart.

Cortland County

Cortland	17	1400EST			0	0	10K		Tstm Wind/Hail
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A thunderstorm briefly intensified to severe levels over western sections of the county. In Cortland, several trees were knocked down and dime sized hail fell.

Cortland County

Solon to Cincinnatus	17	1440EST 1450EST			0	0	15K		Tstm Wind/Hail
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A separate thunderstorm cell became severe over eastern sections of the county. One inch diameter hail fell in the town of Solon. A short time later, numerous trees and wires were felled in Cincinnatus.

Oneida County

Rome to Oriskany	17	1440EST 1450EST			0	0	20K		Thunderstorm Wind
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A thunderstorm reached severe levels across central and eastern sections of the county. Numerous trees and wires were blown over in and around Rome. Further east, more trees came down in the town of Oriskany.

Broome County

Triangle	17	1500EST			0	0	10K		Thunderstorm Wind
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A thunderstorm briefly became severe over northern portions of the county. Downburst winds downed several trees and power lines in the Triangle area.

Storm Data and Unusual Weather Phenomena

July 1997

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

Chenango County

Greene to Bainbridge	17	1505EST 1530EST			0	0	65K		Thunderstorm Wind
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The same severe storm that produced large hail and damaging winds in Cortland county developed into a short line of severe thunderstorms upon entering Chenango county. The storms produced widespread wind damage as they ripped through southern Chenango county.

The storms first affected Greene and areas just to the north. Numerous trees were downed in these localities. The storms then continued rapidly eastward and inflicted more damage from South Oxford to Bainbridge. Many trees, some with diameters as large as two feet, were blown down along this path.

Otsego County

Richfield Spgs to Unadilla	17	1515EST 1530EST			0	0	15K		Thunderstorm Wind
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A short lived severe thunderstorm developed over southeastern portions of the county. Numerous trees and wires were downed in the Richfield Springs area. Then as the storm moved into Unadilla, it knocked down a few more large trees prior to weakening.

Delaware County

Sidney to Stamford	17	1550EST 1640EST			0	0	45K		Thunderstorm Wind
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The same storm that produced wind damage earlier in the afternoon in northern Broome county re-intensified to severe levels across the northern tier of Delaware county.

The storm first affected the Sidney area, downing many large trees and wires. As the storm moved eastward, it continued to knock down trees in the towns of South Kortright, Franklin, and Hobart. Large trees were blown across several streets in Stamford. Shortly thereafter, the storm exited the county.

Seneca County

Fayette	27	1000EST			0	0	40K		Thunderstorm Wind
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An isolated thunderstorm reached severe levels briefly along Cayuga Lake in eastern portions of the county. Strong winds downed many trees and power lines. Falling tree limbs caused minor damage to some boats anchored near the docks.

NEW YORK, Coastal

Putnam County

Putnam Valley	03	1740EST			0	0			Thunderstorm Wind (G50)
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Westchester County

Putnam Valley	03	1740EST			0	0			Thunderstorm Wind (G50)
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A severe thunderstorm moved east across Putnam Valley. It straddled the Southern Putnam and Northern Westchester County Border. It produced high winds that downed trees.

Orange County

Unionville to New Windsor	07	1110EST			0	0			Thunderstorm Wind (G50)
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Putnam County

Carmel	07	1245EST			0	7			Thunderstorm Wind (G50)
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Queens County

Jfk Airport to Springfield Gardens	07	1705EST 1715EST			0	0			Thunderstorm Wind (G57)
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Nassau County

Woodmere	07	1745EST			0	0			Thunderstorm Wind (G50)
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Scattered severe thunderstorms produced high winds and heavy rain.

High winds downed trees and power lines in Unionville, Goshen, and New Windsor of Orange County and in Carmel of Putnam County. Car accidents caused by slippery pavement resulted in 7 injuries near Lake Carmel of Putnam County.

High winds also downed a tree that fell on a multi-family house in Springfield Gardens. Numerous families were displaced from the destroyed house. Trees and powerlines were also downed in Woodmere.

Storm Data and Unusual Weather Phenomena

July 1997

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

NEW YORK, Coastal

Orange County

Fostertown to Stewart Airport	09	1330EST 1350EST			0	0			Thunderstorm Wind (G50)
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Orange County

Middletown	09	1440EST			0	0			Thunderstorm Wind (G50)
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Putnam County

Lake Carmel to Brewster	09	1440EST			0	0	30K		Thunderstorm Wind (G50)
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Putnam County

Lake Carmel	09	1545EST			0	0			Thunderstorm Wind (G50)
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Westchester County

Ossining to Yorktown	09	1710EST 1720EST			1	0			Thunderstorm Wind (G76)
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M43VE

Westchester County

Scarsdale	09	1740EST			0	0			Flash Flood
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Richmond County

Richmond	09	1802EST			0	0			Thunderstorm Wind (G50)
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A solid line of thunderstorms, some severe, developed in a warm, moist, unstable airmass ahead of a slow moving cold front.

Thunderstorms produced high winds and heavy rains.

High winds downed wires in Fostertown and trees fell on and downed powerlines in Middletown of Orange County. A 58 mph peak wind gust was measured at Stewart Airport.

Numerous trees fell on powerlines in Lake Carmel and Brewster of Putnam County. A funnel cloud was also sighted in Putnam County. Patterson and Putnam Lake were also hit hard. The school, "Green Chimneys Children's Services," on Putnam Lake Road in Brewster suffered about \$30,000 in damages.

In Westchester County, a spotter's wind equipment in Ossining measured an 88 mph gust. Damage was severe as trees were downed and uprooted. Along the Hudson River, masts were bent and docks were smashed. High winds caused a tree to fall on and crush a car moving south on the Taconic State Parkway in Yorktown. The tree crushed the roof and killed the driver. Torrential rain caused widespread flash flooding of streets and small streams in Scarsdale.

In Richmond County, high winds caused trees to fall on powerlines.

Westchester County

Yonkers	15	1620EST			0	0			Thunderstorm Wind (G50)
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Queens County

Laguardia Airport	15	1743EST			0	0			Thunderstorm Wind (G53)
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Queens County

Laguardia Airport	15	1756EST 1818EST			0	0			Thunderstorm Wind (G70)
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Bronx County

Bronx	15	1815EST			0	0			Thunderstorm Wind (G50)
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Bronx County

195 And Pelham Pkwy	15	1845EST			0	0			Thunderstorm Wind (G50)
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Queens County

Laguardia Airport	15	1900EST			0	0			Flash Flood
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Westchester County

Pleasantville to Mt Vernon	15	1923EST			0	0			Thunderstorm Wind (G50)
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Clusters of slow moving thunderstorms, some severe, moved slowly east-southeast over the local area.

Storm Data and Unusual Weather Phenomena

July 1997

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

NEW YORK, Coastal

They produced high winds and torrential rain.

In Westchester County, a microburst occurred. Trees were downed in a circular pattern, about 1/4 mile in diameter around Corley Street. High winds also caused a tree to fall through a skylight in Pleasantville.

In Queens County, several wind gusts above 57 mph was measured at LaGuardia Airport. The peak gust was 81 mph, recorded at 718pm. A roof was blown off a house in East Queens at 19-32 43rd Street. In addition, torrential rain caused widespread flash flooding. At LaGuardia Airport, 2.44 inches of rain was measured in 1 hour with a total of 3.40 inches in less than 3 hours. The airport was forced to close due to widespread flooding of its' runways.

In Bronx County, high winds downed trees and powerlines at I-95 and Pelham Parkway. Lightning struck Con Edison Transformers in East Tremont and at the intersection of Pennyfield and Harding Avenues.

Nassau County

Sea Cliff	18	1330EST		0	0			Thunderstorm Wind (G50)
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Suffolk County

Babylon to Bohemia	18	1335EST 1408EST		0	5			Thunderstorm Wind (G52)
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Suffolk County

Babylon to Deer Park	18	1350EST 1352EST		0	0			Hail (1.00)
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Richmond County

Countywide	18	1845EST		0	0			Thunderstorm Wind (G50)
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Kings County

Brooklyn	18	1855EST		0	0			Lightning
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Kings County

Brooklyn	18	1855EST		0	3			Thunderstorm Wind (G50)
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Queens County

Queens Village	18	1910EST M45OU, M41OU		2	16			Thunderstorm Wind (G50)
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Nassau County

Mineola to Merrick	18	1920EST 2005EST		0	0			Thunderstorm Wind (G50)
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Suffolk County

Brookhaven	18	2020EST		0	0			Thunderstorm Wind (G52)
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Suffolk County

Nws Upton	18	2045EST		0	0			Thunderstorm Wind (G50)
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Two "waves" of severe thunderstorms moved southeast across the area: The first line of thunderstorms moved across Nassau and Western Suffolk Counties during the early afternoon. The second line of thunderstorms moved over the area during the evening. For the day, these thunderstorms caused two deaths and 24 injuries.

Both lines of severe thunderstorms produced high winds. In addition, the first line produced large hail.

Here are selected wind gusts from Western Suffolk County with the passage of the first line:

- o 60 mph at both Babylon and Farmingdale Airport.
- o 58 mph at Bohemia.

Significant structural damage (several roofs were blown off businesses) resulted in five injuries in Deer Park. A NWS Meteorologist investigated this damage and concluded that it was caused by a microburst. At least 3 roofs were blown off: the K-Lombardi Repair Shop and 2 businesses on Price Parkway.

In addition to the 1 inch diameter hail observed at Babylon, 3/4-inch diameter hail occurred at Deer Park.

With the passage of the second line, two male workers were hurled off a scaffold at Aviation High School in Sunnyside Queens. Two other men that were on the scaffold were injured, as the scaffold collapsed.

Storm Data and Unusual Weather Phenomena

July 1997

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

NEW YORK, Coastal

High winds caused two tents to collapse: one in Queens causing 16 injuries and one in Brooklyn causing 3 injuries.

Lightning struck a two-story facility at 188 Sullivan Place in Brooklyn. It ignited a significant fire, that caused 1 death and 2 injuries.

Orange County

Countywide	24	0000EST			0	0			Heavy Rain
	25	0900EST							

Bronx County

Countywide	24	0100EST			0	0			Heavy Rain
	25	1100EST							

Kings County

Countywide	24	0100EST			0	0			Heavy Rain
	25	1100EST							

New York County

Countywide	24	0100EST			0	0			Heavy Rain
	25	1100EST							

Putnam County

Countywide	24	0100EST			0	0			Heavy Rain
	25	1000EST							

Queens County

Countywide	24	0100EST			0	0			Heavy Rain
	25	1100EST							

Richmond County

Countywide	24	0100EST			0	0			Heavy Rain
	25	1100EST							

Rockland County

Countywide	24	0100EST			0	0			Heavy Rain
	25	1000EST							

Westchester County

Countywide	24	0100EST			0	0			Heavy Rain
	25	1000EST							

Nassau County

Countywide	24	0200EST			0	3			Heavy Rain
	25	1000EST							

Suffolk County

Countywide	24	0300EST			0	0			Heavy Rain
	25	0900EST							

As a strong warm front moved slowly north toward the area, a long period of heavy rain occurred over the area. In addition, the area was impacted by the fringe effects from Tropical Storm Danny. Rain bands circulating around the northwest side of "Danny" provided the area with additional significant rainfall overnight.

Heavy rainfall (from 3 to 5 inches) in New York City caused flooding of streets and poor drainage areas. Lighter rainfall amounts elsewhere caused localized flooding of small rivers and streams, streets, and poor drainage areas. Slippery road conditions resulted in 3 car accidents and 3 injuries in the vicinity of Woodmere in Nassau County.

Here are selected total rainfall amounts for:

New York City: from 3.42 inches at Kennedy Airport to 4.63 inches at Central Park.

Westchester County: 2.76 inches at Westchester County Airport.

Rockland County: 1.53 inches at Suffern.

Orange County: 1.51 inches at Sterling Forest.

Storm Data and Unusual Weather Phenomena

July 1997

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

Nassau County: 1.20 inches at Levittown.

Suffolk County: 1.32 inches at Rocky Point.

NEW YORK, East

Fulton County

Northville	03	1109EST			0	1			Lightning
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Warren County

Chestertown	03	1130EST			0	0	2K		Thunderstorm Wind
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Schoharie County

Middleburg	03	1330EST			0	0			Hail (0.75)
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Schoharie County

Charlotteville	03	1335EST			0	5	100K		Thunderstorm Wind
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Schoharie County

Middleburg	03	1352EST			0	0	4K		Thunderstorm Wind
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Washington County

Kingsbury	03	1405EST			0	0	1K		Hail (1.50)
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Albany County

Berne	03	1410EST			0	0			Hail (0.75)
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Albany County

Selkirk	03	1500EST			0	0	45K		Thunderstorm Wind
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Rensselaer County

Stephentown	03	1605EST			0	0	30K		Thunderstorm Wind
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Columbia County

4 W Copake Falls to 2.5 NE Copake Falls	03	1623EST 1636EST	5.3	100	0	0	60K		Tornado (F1)
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Columbia County

Hillsdale	03	1646EST			0	0	2K		Hail (1.75)
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Columbia County

1.8 SSE Canaan to 2.1 ESE Canaan	03	1817EST 1820EST	1.2	200	0	0	150K		Tornado (F1)
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Columbia County

2.1 ESE Canaan to 3.2 ESE Canaan	03	1820EST 1822EST	1	100	0	0	550K	20K	Tornado (F2)
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On July 3, a fast moving cold front crossed eastern New York during the afternoon and evening hours. The front initiated many severe thunderstorms and three tornadoes in Columbia County. In Columbia County near Copake Lake, an F1 tornado produced minor damage to two houses, scattered parts of a barn across county highway 7A and downed many trees and wires. In Columbia County near Canaan, two tornadoes produced extensive damage. The F1 tornado formed just southwest of Beebe Pond, moved northeast and terminated near the intersection of state routes 295 and 22. The tornado damaged several residences and moved a car port. The F2 tornado initiated near the intersection of state routes 295 and 22 and moved eastward across the New York border into Berkshire County Massachusetts where it ended as an F1 tornado. At the County Caretaker Lawn and Garden Center, four large greenhouses incurred structural damage. On Shaker Ridge Road, a newly constructed three story home had the roof completely blown off along with the rear exterior wall. The detached garage was blown off the foundation and destroyed. Since this area is forested, many trees and wires were downed by the tornadoes resulting in power outages. At the South Albany Airport near Selkirk, thunderstorm winds destroyed a Cessna 172 and a vintage 1940's Luscombe 8E. The winds also ripped a roof off a garage and downed several trees. In Schoharie County at Charlotteville, straight line winds rolled over a mobile home with five people inside. A second mobile home which was unoccupied was lifted on top of the rolled over mobile home. The five people sustained injuries. In Rensselaer County at Stephenstown, thunderstorm winds lifted a barn and dropped it on East Road. Many trees and power lines were also downed by the wind. The thunderstorms also produced hail in parts of Schoharie, Washington, Albany and Columbia Counties. A combination of damaging winds and lightning, left fifteen to twenty thousand people without power across eastern New York. A lifeguard at the Northampton Beach State Campsite in Northville was struck by lightning. The individual was hospitalized and released with no serious injuries.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
NEW YORK, East									
Dutchess County									
Fishkill	07	1153EST			0	0	4K		Thunderstorm Wind
An isolated severe thunderstorm, which developed well ahead of a cold front downed trees and wires in Fishkill.									
Ulster County									
New Paltz	09	1315EST			0	0	2K		Thunderstorm Wind
Ulster County									
Ulster Lndg	09	1315EST			0	0	2K		Thunderstorm Wind
Columbia County									
Ancram	09	1330EST			0	0	4K		Thunderstorm Wind
Dutchess County									
Poughkeepsie	09	1350EST			0	0	3K		Thunderstorm Wind
Dutchess County									
Hyde Park	09	1355EST			0	0	2K		Thunderstorm Wind
During the afternoon of July 9, a cold front crossed the mid Hudson Valley. This front initiated severe thunderstorms across Columbia, Dutchess and Ulster Counties. Due to damaging winds and lightning approximately 12,000 customers lost power in Dutchess and Ulster Counties.									
Ulster County									
Accord	15	1324EST			0	0	2K		Thunderstorm Wind
Schoharie County									
Middleburg	15	1345EST			0	0	2K		Thunderstorm Wind
Ulster County									
Accord	15	1358EST			0	0	2K		Hail (1.00)
Warren County									
Lake Luzerne	15	1410EST			0	0	1K		Thunderstorm Wind
Saratoga County									
Corinth	15	1412EST			0	0	4K		Thunderstorm Wind
Saratoga County									
Gurn Spg	15	1415EST			0	0	100K		Hail (1.00)
Saratoga County									
Gurn Spg	15	1415EST			0	0	120K		Thunderstorm Wind
Saratoga County									
South Glens Falls	15	1420EST			0	0	6K		Thunderstorm Wind
Ulster County									
Ulster Hgts	15	1420EST			0	0	4K		Thunderstorm Wind
Albany County									
Albany	15	1435EST			0	0	2K		Thunderstorm Wind
Albany County									
Cohoes	15	1435EST			0	0	0.50K		Thunderstorm Wind
Saratoga County									
Schuylerville	15	1435EST			0	0	4K	30K	Thunderstorm Wind
Saratoga County									
Quaker Spgs	15	1440EST			0	0	40K		Lightning
Washington County									
Cambridge	15	1510EST			0	0	2K		Thunderstorm Wind
Washington County									
Easton	15	1513EST			0	0	12K		Thunderstorm Wind
Dutchess County									
Pleasant Vly	15	1519EST			0	0	2K		Thunderstorm Wind
Ulster County									
Highland	15	1519EST			0	0	250K		Lightning

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
NEW YORK, East									
Washington County									
Cambridge	15	1520EST			0	0	15K		Lightning
Warren County									
North Creek	15	1534EST			0	0	2K		Thunderstorm Wind
Warren County									
Chestertown	15	1540EST			0	0	2K		Thunderstorm Wind
Herkimer County									
Frankfort	15	1700EST			0	0	0.50K		Thunderstorm Wind
Herkimer County									
Herkimer	15	1705EST			0	0	70K		Lightning
Herkimer County									
Middleville	15	1717EST			0	0	2K		Thunderstorm Wind
Herkimer County									
Herkimer	15	1730EST 1900EST			0	0	15K		Flash Flood
Saratoga County									
South Glens Falls	15	1940EST			0	1			Lightning
Saratoga County									
Fortsville	15	1951EST			0	0	3K		Thunderstorm Wind
<p>During July 15, an extremely hot and humid airmass was situated over eastern New York. Scattered severe thunderstorms developed over the region through the afternoon and early evening hours. In Saratoga County near Gurn Springs, a seventy foot steel Citgo sign crashed to the ground, three trailers were overturned at the Whispering Pines Trailer Park and a RV was flipped over at the Freedom RV Outlet. There was also extensive hail damage at the Freedom RV Outlet. Camp Saratoga had 2,000 trees uprooted, the galvanized roofing ripped off the mess hall, utility lines downed and minor damage done to the medical lodge. In this same area along Ballard Road, many trees were downed by the wind with several landing on houses. At Moreau State Park near Fortsville, many trees were downed by thunderstorm winds. In Herkimer County across the northern portion of the Town of Herkimer, torrential rain caused flash flooding of several streams along with some road washouts. These storms were accompanied by frequent lightning which resulted in several fires. In Ulster County at Highland, a 180 foot by 120 foot storage facility was burned to the ground. In South Glens Falls, a male was struck by lightning while on the phone. The individual was hospitalized and released.</p>									
Herkimer County									
Frankfort	17	1520EST			0	0	1K		Thunderstorm Wind
Saratoga County									
Greenfield	17	1539EST			0	0	2K		Thunderstorm Wind
Saratoga County									
Charlton	17	1545EST			0	0	5K		Thunderstorm Wind
Saratoga County									
Ballston Spa	17	1550EST			0	0	4K		Thunderstorm Wind
Washington County									
Argyle	17	1550EST			0	0	3K		Thunderstorm Wind
Washington County									
Ft Edward	17	1550EST			0	0	4K		Thunderstorm Wind
Saratoga County									
Round Lake	17	1551EST			0	0	20K		Thunderstorm Wind
Montgomery County									
Canajoharie	17	1600EST			0	0	2K		Thunderstorm Wind
Saratoga County									
Malta	17	1600EST			0	0	2K		Thunderstorm Wind
Saratoga County									
Stillwater	17	1600EST			0	0	10K		Thunderstorm Wind

On July 17, a hot and humid airmass was situated over eastern New York. An upper air disturbance crossed the area during the afternoon which produced severe thunderstorms in Herkimer, Saratoga, Washington and Montgomery Counties. In Saratoga

Storm Data and Unusual Weather Phenomena

July 1997

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

County at Round Lake, a vintage 1955 Chevy station wagon was totalled by a fallen tree. At Stillwater, thunderstorm winds downed trees onto a trailer.

Herkimer County

Big Moose 18 1455EST 0 0 6K **Thunderstorm Wind**

Herkimer County

Old Forge 18 1455EST 0 0 8K **Thunderstorm Wind**

Hamilton County

Lake Pleasant 18 1600EST 0 0 6K **Thunderstorm Wind**

Hamilton County

Piseco 18 1600EST 0 0 6K **Thunderstorm Wind**

Hamilton County

Speculator 18 1600EST 0 0 4K **Thunderstorm Wind**

Hamilton County

Wells 18 1600EST 0 0 4K **Thunderstorm Wind**

Fulton County

Northville 18 1620EST 0 0 4K **Thunderstorm Wind**

Warren County

Chestertown 18 1620EST 0 0 3K **Thunderstorm Wind**

Warren County

Thurman 18 1620EST 0 0 3K **Thunderstorm Wind**

Warren County

Lake Luzerne 18 1630EST 0 0 2K **Thunderstorm Wind**

Saratoga County

Wilton 18 1650EST 0 0 10K **Thunderstorm Wind**

Washington County

Argyle 18 1658EST 0 0 3K **Thunderstorm Wind**

On July 18, a cold front crossed eastern New York during the afternoon. With a hot and very humid airmass in place the front initiated severe thunderstorms across Herkimer, Hamilton, Warren, Fulton, Saratoga and Washington Counties. Thunderstorm winds downed numerous trees and wires across northern Herkimer County and Hamilton County. At Wilton in Saratoga County, an eighty foot pine tree fell on the corner of a house.

NEW YORK, North

Clinton County

Peru 03 1045EST
1050EST 0 0 5K **Thunderstorm Wind (G50)**

An area of low pressure moved into southern Canada during July 3, 1997. The associated cold front moved across northern New York during the late morning and afternoon hours. Showers and thunderstorms preceded and accompanied these storms and some resulted in locally heavy rain and strong winds. Small hail...generally 1/2 inch or smaller was also reported with a few of the storms.

Essex County

Ticonderoga 07 1200EST
1205EST 0 0 **Hail (0.75)**

A cold front moved across northern New York during the late morning and afternoon hours of Monday, July 7, 1997. Showers and thunderstorms accompanied this front with locally heavy rain and some large hail.

St. Lawrence County

Massena Arpt 17 1520EST
1530EST 0 0 5K **Thunderstorm Wind (G50)**

St. Lawrence County

Madrid 17 1615EST 0 0 **Hail (0.75)**

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>NEW YORK, North</u>									
St. Lawrence County									
Madrid	17	1615EST 1625EST			0	0	5K		Thunderstorm Wind
St. Lawrence County									
South Colton	17	1737EST 1740EST			0	0			Hail (0.75)
Thunderstorms developed during the afternoon and evening hours in an unstable airmass.									
St. Lawrence County									
Fowler	18	1440EST 1445EST			0	0	5K		Thunderstorm Wind
Large trees blown down.									
Franklin County									
Bangor	28	1500EST 1505EST			0	0	5K		Thunderstorm Wind
Trees blown down on Route 11.									
St. Lawrence County									
Madrid	28	1503EST			0	0	5K		Thunderstorm Wind
Trees blown down.									
Clinton County									
Mooers	28	1520EST 1525EST			0	0	5K		Thunderstorm Wind
Trees blown down on roads.									
<u>NEW YORK, West</u>									
Allegany County									
Stannards	08	1518EST 1522EST	0.2	15	0	0	35K	15K	Tornado (F0)
A weak tornado touched down during the afternoon. Trees, up to 2 feet wide, were snapped off, twisted and a few were uprooted. One power line was downed by a falling tree. A parked car was destroyed when a large tree fell on it. Witnesses reported torrential rain, followed by one inch hail, a quick period of calm and then the appearance of the tornado.									
Chautauqua County									
Panama	08	1555EST			0	0	6K		Thunderstorm Wind
Chautauqua County									
Fluvanna	08	1558EST			0	0	15K		Thunderstorm Wind
Cattaraugus County									
Allegany	08	1600EST			0	0	5K		Thunderstorm Wind
Cattaraugus County									
Salamanca	08	1630EST			0	0	11K		Hail (1.00)
Severe thunderstorms crossed the area during the afternoon hours. The strong winds downed trees and power lines. A party tent was blown over. Scattered power outages were reported.									
Chautauqua County									
Ellery Center	15	1415EST			0	0	10K		Hail (0.88)
Monroe County									
Henrietta	15	1415EST			0	0	75K		Thunderstorm Wind (G62)
Cayuga County									
Cato	15	1545EST			0	0	10K		Thunderstorm Wind

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
NEW YORK, West									
Chautauqua County									
Jamestown	15	1600EST 1900EST			0	0	10K		Flash Flood
Oswego County									
Phoenix	15	1610EST			0	0	5K		Thunderstorm Wind
Cattaraugus County									
Ellicottville	15	1620EST 2000EST			0	0	15K		Flash Flood
<p>Strong thunderstorms crossed the region during the afternoon hours. The thunderstorm winds downed trees and power lines. Scattered power outages lasting several hours were reported. In Henrietta, a dozen utility poles were downed by the thunderstorm winds leaving nearly 24000 customers in the Rochester area without power for several hours. The thunderstorms dropped several inches of rain over the western southern tier resulting in flooded roads and basements in Jamestown and Ellicottville. Localized poor drainage flooding was reported in the other affected areas also.</p>									
Chautauqua County									
Portland	18	1330EST			0	0	10K		Thunderstorm Wind
Cattaraugus County									
Dayton	18	1350EST			0	0	15K		Thunderstorm Wind
Cattaraugus County									
Otto	18	1355EST			0	0	8K		Thunderstorm Wind
Jefferson County									
Watertown	18	1410EST			0	0	10K		Thunderstorm Wind
Allegany County									
Bolivar	18	1440EST			0	0	12K		Thunderstorm Wind
Lewis County									
Croghan	18	1515EST			0	0	8K		Thunderstorm Wind
Niagara County									
North Tonawanda	18	1545EST			0	0	35K	250K	Hail (1.00)
Erie County									
Kenmore	18	1555EST			0	0	8K		Hail (0.75)
Erie County									
Clarence	18	1610EST			0	0	15K		Hail (1.75)
Orleans County									
Medina	18	1615EST			0	0	15K	250K	Hail (0.75)
Chautauqua County									
Portland	18	1617EST			0	0	25K		Thunderstorm Wind
Cattaraugus County									
Dayton	18	1619EST			0	0	10K		Thunderstorm Wind
Genesee County									
Corfu	18	1620EST			0	0	13K		Hail (0.75)
Genesee County									
Pembroke	18	1630EST			0	0	8K		Thunderstorm Wind
Erie County									
Orchard Park	18	1650EST			0	0	20K		Thunderstorm Wind (G64)
Genesee County									
Batavia	18	1650EST			0	0	15K		Thunderstorm Wind

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>NEW YORK, West</u>									
Cattaraugus County									
Franklinville	18	1740EST			0	0	10K		Hail (1.00)
Cattaraugus County									
Franklinville	18	1900EST			0	0	7K		Hail (0.75)
Thunderstorms developed ahead of a strong cold front and brought high winds and large hail to the region. The high winds downed trees and power lines and caused minor structural damage. Hail, as large as golfballs, damaged crops in Niagara and Orleans counties. Crops affected included apples, peaches, pears and cherries. Several fires were reported as a result of lightning strikes. The heavy rains that accompanied the storms resulted in minor urban flooding.									
Chautauqua County									
Dunkirk	28	0710EST			0	0	35K		Thunderstorm Wind
An early morning thunderstorm brought high winds to the county. The thunderstorm winds downed trees and power lines. In Cassadaga, a large uprooted tree crushed a pickup truck.									
<u>NORTH CAROLINA, Central</u>									
Davidson County									
Thomasville	04	2105EST			0	0			Thunderstorm Wind (G50)
TREES WERE BLOWN DOWN IN THOMASVILLE AT THE INTERSECTION OF FAIRGROVE AND OLD HIGHWAY 109.									
Randolph County									
Asheboro	04	2130EST			0	0	25K		Thunderstorm Wind (G50)
A LARGE TREE FELL ON A RESIDENCE IN ASHEBORO. CONSIDERABLE DAMAGE WAS DONE TO THE ROOF AND WALLS.									
Durham County									
5 SE Durham	04	2223EST			0	0			Hail (1.00)
QUARTER SIZE HAIL FELL 5 MILES SOUTHEAST OF DURHAM NEAR THE AIRPORT.									
Wake County									
5 NE Raleigh Durham Arpt	04	2235EST			0	0			Hail (1.00)
QUARTER SIZE HAIL FELL ALONG LUMLEY ROAD AND INTERSTATE 540.									
Franklin County									
Youngsville	04	2300EST			0	0			Hail (1.00)
FRANKLIN COUNTY 911 CENTER REPORTED QUARTER SIZE HAIL IN YOUNGSVILLE.									
Johnston County									
Smithfield	04	2310EST			0	0			Thunderstorm Wind (G50)
TREES WERE UPROOTED IN SMITHFIELD WITH NUMEROUS POWER OUTAGES REPORTED.									
Nash County									
Red Oak	04	2317EST			0	0			Hail (0.75)
Halifax County									
Enfield	04	2331EST			0	0			Hail (1.75)
GOLFBALL SIZE HAIL FELL IN ENFIELD.									
Wilson County									
Elm City	04	2345EST			0	0			Thunderstorm Wind (G50)
TREES WERE BLOWN DOWN ALONG HIGHWAY 301 IN ELM CITY.									
Richmond County									
Rockingham	05	1600EST			0	0			Hail (1.75)
GOLFBALL SIZE HAIL FELL IN ROCKINGHAM.									
Richmond County									
Hamlet	05	1610EST			0	0			Hail (1.50)
PING-PONG SIZE HAIL FELL IN HAMLET.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>NORTH CAROLINA, Central</u>									
Hoke County									
Antioch	05	1710EST			0	0			Hail (0.75)
DIIIME SIZE HAIL FELL NEAR ANTIOCK.									
Scotland County									
Gibson	05	1710EST			0	0			Hail (1.50)
PING-PONG SIZE HAIL FELL IN GIBSON.									
Cumberland County									
Hope Mills	05	1800EST			0	0			Hail (0.75)
DIME SIZE HAIL FELL NEAR HOPE MILLS.									
Wayne County									
Seven Spgs	05	1840EST			0	0			Hail (1.75)
GOLFBALL SIZE HAIL FELL IN SEVEN SPRINGS.									
Wayne County									
5 NW Goldsboro	05	2050EST			0	0	2M		Hail (1.75)
GOLFBALL SIZE HAIL FELL ON OAKLAND CHURCH ROAD. CONSIDERABLE CROP DAMAGE OCCURRED OVER WESTERN AND NORTHERN WAYNE COUNTIES DURING THE HAIL STORMS.									
Johnston County									
10 SE Smithfield	05	2130EST			0	0			Hail (1.00)
QUARTER SIZE HAIL WAS REPORTED ON US HWY 70 SOUTHEAST OF SMITHFIELD.									
Cumberland County									
2 NW Godwin	05	2145EST			0	0	15K		Thunderstorm Wind (G50)
A MOBILE HOME WAS BLOWN OFF ITS FOUNDATION AND INTO HIGHWAY 301 IN EXTREME NORTHERN CUMBERLAND COUNTY NEAR THE HARNETT COUNTY LINE.									
Harnett County									
5 SW Dunn	05	2154EST			0	0			Hail (0.75)
DIME SIZE HAIL FELL NEAR DUNN.									
Moore County									
Robbins	05	2310EST			0	0			Hail (0.75)
DIME SIZE HAIL FELL IN ROBBINS.									
Wayne County									
Goldsboro	10	1251EST			0	0			Lightning
LIGHTNING HIT TWO HOMES IN THE GOLDSBORO AREA. NO DAMAGE FIGURES WERE AVAILABLE.									
Davidson County									
Denton	16	1345EST			0	0	15K		Thunderstorm Wind (G50)
A SMALL MICROBURST BLEW DOWN SEVERAL TREES ONTO A HOME. A MANUFACTURED HOME WAS ALSO BLOWN OFF ITS FOUNDATION.									
Durham County									
Durham	16	1600EST			0	0			Lightning
A LIGHTNING STRIKE CAUSED A FIRE AT A HOME IN DURHAM.									
Durham County									
Durham	16	1605EST			0	0			Thunderstorm Wind (G50)
TREES AND POWER LINES WERE DOWNED IN SEVERAL LOCATIONS IN DURHAM COUNTY INCLUDING CROWDALE DRIVE AND INTERSTATE 85 AND GUESS ROAD.									
Randolph County									
Randleman	16	1625EST			0	0			Thunderstorm Wind (G50)
TREES AND POWER LINES WERE DOWNED IN THE RANDLEMAN AREA.									
Guilford County									
Climax	16	1630EST			0	0			Thunderstorm Wind (G50)
THE CLIMAX POLICE DEPARTMENT REPORTED 6 TO 7 LARGE TREES BLOWN DOWN IN TOWN. SEVERAL WERE MORE THAN TWO FEET IN DIAMETER.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>NORTH CAROLINA, Central</u>									
Wake County									
Raleigh	16	1635EST 1655EST			0	0			Hail (0.75)
DIME SIZE HAIL WAS REPORTED AT SEVERAL LOCATIONS IN NORTH CENTRAL AND NORTHEAST RALEIGH AS A SEVERE THUNDERSTORM DEVELOPED OVER THE CITY AND MOVED NORTH. THE FIRST REPORT CAME FROM CAPITAL BLVD AT HIGHWOODS AND A FEW MINUTES LATER FROM THE NBC-17 STATION OFF SIX FORKS ROAD.									
Johnston County									
Archers Lodge	16	1655EST			0	0			Hail (0.75)
DIME SIZE HAIL WAS REPORTED AT ARCHERS LODGE.									
Harnett County									
Erwin	16	1716EST			0	0			Thunderstorm Wind (G50)
TREES AND POWER LINES WERE BLOWN DOWN IN ERWIN.									
Vance County									
Middleburg	16	1718EST			0	0	5K		Thunderstorm Wind (G50)
SEVERAL TREES WERE DOWNED IN MIDDLEBURG. A BARN ALSO LOST A PORTION OF ITS ROOF.									
Alamance County									
Elon College	17	1420EST			0	0			Hail (0.75)
AN ISOLATED STORM PRODUCED BRIEF DIME SIZE HAIL IN ELON COLLEGE.									
Halifax County									
Scotland Neck	18	1655EST			0	0			Thunderstorm Wind (G50)
THE COUNTY SHERIFF REPORTED NUMEROUS TREES DOWN IN THE SCOTLAND NECK AREA. SOME TREES UP TO TWO FEET IN DIAMETER.									
Edgecombe County									
Rocky Mt	18	1707EST			0	0			Hail (0.75)
Wilson County									
Elm City	18	1807EST			0	0			Thunderstorm Wind (G50)
SEVERAL LARGE DIAMETER TREES WERE BLOWN DOWN NEAR THE INTERSECTION OF CATTAIL ROAD AND ROSEBUD RD IN NORTHEAST WILSON COUNTY.									
Halifax County									
Roanoke Rapids	19	1825EST			0	0			Thunderstorm Wind (G50)
TREES AND POWER LINES WERE DOWNED WITH THE PASSAGE OF THIS STORM. A CONSIDERABLE AMOUNT OF URBAN FLOODING ALSO OCCURRED.									
Cumberland County									
Fayetteville	20	1255EST			0	0			Thunderstorm Wind (G56)
POPE AIR FORCE BASE RECORDED A 64 MPH WIND GUST.									
Anson County									
3 SW Wadesboro	20	1320EST			0	0			Thunderstorm Wind (G75)
LARGE HAIL WAS REPORTED ON HWY 109 BETWEEN WADESBORO AND LOWRYS.									
Stanly County									
Countywide	22	2333EST			0	0			Flash Flood
	23	1200EST							
Harnett County									
Countywide	23	0122EST 0545EST			0	0			Flash Flood
Moore County									
Countywide	23	0122EST 1200EST			0	0			Flash Flood
Lee County									
Countywide	23	0136EST 0545EST			0	0			Flash Flood

Storm Data and Unusual Weather Phenomena

July 1997

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

NORTH CAROLINA, Central

Davidson County

Countywide	23	0221EST 1200EST			0	0			Flash Flood
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Montgomery County

Countywide	23	0221EST 1200EST			0	0			Flash Flood
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Randolph County

Countywide	23	0812EST 1200EST			0	0			Flash Flood
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STRONG THUNDERSTORMS DEVELOPED OVER THE SOUTHERN PIEDMONT JUST BEFORE MIDNIGHT ON THE 22ND AND CONTINUED UNTIL AROUND SUNRISE ON THE 23 RD. THE THUNDERSTORMS MOVED LITTLE AFTER THEY DEVELOPED AND TRAINED OVER THE SAME LOCATIONS. THE HARDEST HIT AREAS WERE EXTREME SOUTHERN DAVIDSON, SOUTHWEST RANDOLPH , STANLY, MONTGOMERY, MOORE, AND INTO WESTERN HARNETT AND LEE COUNTIES. THESE STORMS DUMPED BETWEEN 5 AND 10 INCHES OF RAIN CENTERED OVER STANLY COUNTY AND MONTGOMERY COUNTIES.

WIDESPREAD FLOODING CAUSED NUMEROUS ROAD CLOSURES THROUGHOUT THESE AREAS. SEVERAL BRIDGES WERE OVERCOME BY THE WATER FOR SEVERAL HOURS AND HAD TO BE CLOSED. CROP DAMAGE WAS SEVERE IN STANLY, MONTGOMERY, MOORE, AND SOUTHWEST RANDOLPH COUNTIES. BUSINESSES WERE FLOODED IN ALBEMARLE AND RICHFIELD.

THESE STORMS DEVELOPED AHEAD OF THE REMNANTS OF ONCE HURRICANE DANNY THAT WAS STILL OVER GEORGIA AT THE TIME. A WEAK COLD FRONT MOVED INTO SOUTHERN NORTH CAROLINA FROM THE NORTH OVERNIGHT AND BECAME STATIONARY. THIS HELPED TO FOCUS THE STORMS IN THE SAME AREAS AND DUE TO A VERY WEAK WIND ALOFT, TRAINING OF STORMS AIDED IN THE WIDESPREAD FLOODING.

Anson County

Countywide	24	0100EST 0700EST			0	0			Flash Flood
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Hoke County

Countywide	24	0100EST 0700EST			0	0			Flash Flood
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Montgomery County

Countywide	24	0100EST 0700EST			0	0			Flash Flood
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Moore County

Countywide	24	0100EST 0700EST			0	0			Flash Flood
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Richmond County

Countywide	24	0100EST 0700EST			0	0			Flash Flood
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Scotland County

Countywide	24	0100EST 0700EST			0	0			Flash Flood
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Stanly County

Countywide	24	0100EST 0700EST			0	0			Flash Flood
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Harnett County

Countywide	24	0540EST 0800EST			0	0			Flash Flood
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Lee County

Countywide	24	0551EST 0700EST			0	0			Flash Flood
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Wake County

Countywide	24	0630EST 0800EST			0	0			Flash Flood
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Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>NORTH CAROLINA, Central</u>									
Franklin County									
Countywide	24	0705EST 1000EST			0	0			Flash Flood
Granville County									
Countywide	24	0705EST 1000EST			0	0			Flash Flood
Vance County									
Countywide	24	0705EST 1000EST			0	0			Flash Flood
Warren County									
Countywide	24	0705EST 1000EST			0	0			Flash Flood
Durham County									
Countywide	24	0740EST 1000EST			0	0			Flash Flood
Edgecombe County									
Countywide	24	0830EST 1300EST			0	0			Flash Flood
Halifax County									
Countywide	24	0830EST 1300EST			0	0			Flash Flood
Nash County									
Countywide	24	0830EST 1300EST			0	0			Flash Flood
Wilson County									
Countywide	24	0830EST 1300EST			0	0			Flash Flood
<p>THE REMNANTS OF ONCE HURRICANE DANNY MOVED SLOWLY NORTHEAST FROM THE UPSTATE OF SOUTH CAROLINA AND INTO EXTREME SOUTHERN NORTH CAROLINA SHORTLY AFTER MIDNIGHT ON THE 24TH. DANNY ENTERED ANSON COUNTY AND THE N PASSED OVER RICHMOND, MOORE, HOKE, AND HARNETT COUNTIES FROM 0100 THROUGH 0700. DANNY MOVED NORTHEAST OVER HARNETT, WAKE, AND JOHNSTON COUNTIES BETWEEN 0700 AND 0900. IT THEN ACCELERATED NORTHEAST INTO NASH,FRANKLIN, WILSON, EDGECOMBE, HALIFAX, AND WARREN COUNTIES BETWEEN 0900 AND 1300.</p> <p>DANNY PRODUCED TORRENTIAL RAINFALL OF 2 TO 4 INCHES PER HOUR AS IT PASSED OVER THESE COUNTIES. NUMEROUS ROADS WERE FLOODED AND SEVERAL BRIDGES WERE COVERED WITH WATER. VIDEO OF STRANDED CARS AND ACCIDENTS WERE THE MAINSTAY OF THE EVENING NEWS .</p>									
NCZ011-027>028-041-043									
Halifax - Nash - Edgecombe - Wake - Wilson									
	24	0620EST 1300EST			0	0			High Wind (G50)
<p>THE REMNANTS OF HURRICANE DANNY INTENSIFIED EXPLOSIVELY AS IT ENTERED WAKE COUNTY. IT ALSO PICKED UP SPEED AND WAS MOVING 40 TO 50 MPH WHEN IT MOVED OFF THE COAST OF NORTH CAROLINA. TREES AND POWER LINES WERE DOWNED THROUGHOUT THE WARNED AREA AS THE STORM ACCELERATED NORTHEAST.</p>									
Guilford County									
Stokesdale	24	1551EST			0	0			Hail (1.00)
Alamance County									
Snow Camp	24	1635EST			0	0			Thunderstorm Wind (G50)
SEVERAL TREES WERE BLOWN DOWN ON HUNTERS CREEK ROAD IN SNOW CAMP AREA.									

Storm Data and Unusual Weather Phenomena

July 1997

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

Sampson County

Clinton	24	1730EST 1930EST			0	0			Flash Flood
HEAVY RAIN FROM SEVERAL THUNDERSTORMS PRODUCED FLOODING OF STREETS AND LOW LYING AREAS IN AND AROUND CLINTON.									

Guilford County

Oak Ridge	28	1715EST			0	0			Lightning
LIGHTNING HIT A HOME IN OAK RIDGE. NO DAMAGE DETAILS WERE AVAILABLE.									

Forsyth County

Kernersville	28	1720EST			0	0			Thunderstorm Wind (G50)
TREES WERE DOWNED NEAR THE GUILFORD COUNTY LINE JUST EAST OF KERNERSVILLE. ALSO, THE WIND LAID OVER CORN AND TOBACCO ACROSS MANY FARMS IN NORTHEAST FORSYTH COUNTY.									

Guilford County

Summerfield	28	1725EST			0	0			Thunderstorm Wind (G50)
TREES WERE DOWNED.									

Davidson County

Denton	28	1745EST			0	0			Hail (0.75)
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Guilford County

Greensboro	28	1805EST			0	0	10K		Thunderstorm Wind (G50)
TREES WERE DOWNED AND ONE HOME WAS DAMAGED AT THE INTERSECTION OF ALAMANCE AND NELSON FARM ROADS.									

NORTH CAROLINA, Central Coastal

Dare County

.5 W Manteo	02	1235EST			0	0			Waterspout
Just west of Roanoke Island over the Croatan Sound.									

Pamlico County

Oriental	05	1550EST			0	0			Hail (0.75)
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Onslow County

5 E Jacksonville	05	1620EST			0	0			Hail (0.75)
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Craven County

Vanceboro	05	1745EST			0	0			Hail (1.75)
Golf ball size hail reported by 9-1-1.									

Lenoir County

La Grange	05	1850EST			0	0			Hail (1.75)
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Pitt County

Grimesland	05	1905EST			0	0			Hail (1.00)
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Greene County

Jason	05	1910EST			0	0			Hail (0.75)
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Greene County

Jason	05	1910EST	0.5	100	0	0			Tornado (F0)
Spotter reported tornado on ground.									

Greene County

Snow Hill	05	1910EST			0	0			Hail (1.75)
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Greene County

Shines Xrds	05	1915EST			0	0			Thunderstorm Wind (G50)
Trees and power lines down on Highways 1135 and 1132.									

Pitt County

Falkland	05	1915EST			0	0			Thunderstorm Wind (G50)
Large trees down along Route 43.									

Martin County

Robersonville	05	1935EST			0	0			Hail (1.00)
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Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>NORTH CAROLINA, Central Coastal</u>									
Jones County									
5 NE Trenton	06	1545EST			0	0			Hail (0.88)
Craven County									
Tuscarora	06	1605EST			0	0			Hail (0.75)
Tyrrell County									
2 NE Ft Lndg to Ft Lndg	06	1828EST			0	0			Waterspout
Reported by Alligator River Bridge tender.									
Dare County									
.3 SW Manteo	10	1205EST			0	0			Waterspout
Emergency management reported a waterspout southwest of Roanoke Island.									
Hyde County									
1 S Ocracoke Village	23	0838EST			0	0			Waterspouts
A cooperative observer and Coast Guard personnel reported several waterspouts over the Pamlico Sound between Ocracoke Village and Portsmouth.									
Dare County									
Kill Devil Hills	24	1300EST			0	1	40K		Waterspout
Waterspout came ashore at Baum Bay damaging two homes then moved to the Wright Brothers National Memorial where one person was injured and nine vehicles damaged.									
Dare County									
Duck	24	1420EST			0	1	50K		Thunderstorm Wind (G50)
A section of roof blown off waterfront shops. One minor injury from flying debris.									
Lenoir County									
Graingers	28	1745EST			0	0			Thunderstorm Wind (G50)
Trees down on Sharon Church Road.									
Lenoir County									
3 W Grifton	28	1750EST			0	0			Hail (0.75)
Craven County									
10 N Vanceboro	28	1800EST			0	0			Thunderstorm Wind (G50)
Trees down on Highway 43.									
Pitt County									
Grifton	28	1800EST			0	0			Hail (0.75)
Pitt County									
Grifton	28	1810EST			0	0			Thunderstorm Wind (G50)
Trees down blocking Beaver Dam Road and Route 118.									
<u>NORTH CAROLINA, Extreme Southwest</u>									
Cherokee County									
Andrews	04	1835EST			0	0	20K	17K	Thunderstorm Wind
Large trees and powerlines blown down.									
Clay County									
Hayesville	04	1900EST			0	0	25K	16K	Thunderstorm Wind
Large trees and powerlines down.									
<u>NORTH CAROLINA, North Coastal</u>									
Bertie County									
Lewiston	05	0000EST			0	0	1K		Thunderstorm Wind
Large tree down.									
Chowan County									
Rockyhock	05	0050EST			0	0	2K		Thunderstorm Wind
Several trees down.									
Bertie County									
Woodville	05	2015EST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>NORTH CAROLINA, North Coastal</u>									
Hertford County									
5 E Ahoskie	05	2050EST			0	0			Hail (1.75)
Northampton County									
Jackson	18	1335EST			0	0			Hail (0.75)
Northampton County									
Seaboard	18	1406EST			0	0			Hail (0.75)
Gates County									
Willeyton	18	1430EST			0	2			Lightning
Two women injured by lightning strike.									
Gates County									
3 E Sunbury	18	1442EST			0	0	2K		Thunderstorm Wind
Trees down on Route 158.									
Currituck County									
2 SW Maple	18	1540EST			0	0	1K		Thunderstorm Wind
Large tree down, partially blocked one lane of Route 158.									
Hertford County									
4 S Murfreesboro	19	1510EST			0	0	2K		Thunderstorm Wind
Several trees down.									
Northampton County									
Conway	19	1510EST			0	0	3K		Thunderstorm Wind
Numerous trees and power lines down.									
Northampton County									
Jackson to Rich Square	19	1645EST 1650EST			0	0	2K		Thunderstorm Wind
Several trees and power lines down. Twenty-four inch diameter pine tree snapped off.									
Northampton County									
Rich Square to Woodland	19	1755EST			0	0	2K		Thunderstorm Wind
Several trees and power lines down.									
NCZ012>015-015>017-030>032	Northampton - Hertford - Gates - Pasquotank - Camden - Western Currituck - Bertie - Chowan - Perquimans								
	24	1030EST 1600EST			0	0	33K		High Wind (G50)
Trees and power lines down throughout the county. Power outages were mostly across southern and eastern sections of county.									
Bertie County									
Windsor	28	1600EST			0	0			Hail (0.75)
Bertie County									
Edenhouse	30	1200EST 1700EST			0	0			Waterspout
Several waterspouts were reported just east of Edenhouse on the Chowan River.									
Chowan County									
Edenton	30	1200EST 1700EST			0	0			Waterspout
Several waterspouts were reported just west of Edenton on the Chowan River.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>NORTH CAROLINA, Northwest and North Central</u>									
Ashe County									
Lansing to Jefferson	03	0125EST			0	0	0		Thunderstorm Wind
Thunderstorm winds during the early morning hours on the 3rd knocked down trees from Lansing to Jefferson.									
Rockingham County									
Eden	04	1945EST			0	0	1.5M		Lightning
A lightning strike during the evening hours on the 4th started a fire that caused about 1.5 million dollars to the Eden Yarns.									
Stokes County									
Walnut Cove	04	2015EST			0	0	0		Thunderstorm Wind
A thunderstorm during the evening hours on the 4th knocked down trees in Walnut Cove.									
Ashe County									
Idlewood	09	1300EST			0	0	2K		Hail (1.75)
An isolated severe thunderstorm on the 9th produced hail up to golf ball size which damaged a mobile home in Idlewood.									
Watauga County									
Blowing Rock	16	1210EST			0	1			Lightning
A lightning strike during the early afternoon hours on the 16th injured a golfer in Blowing Rock.									
Surry County									
Mt Airy	16	1245EST			0	0			Hail (0.75)
Surry County									
Mt Airy	16	1245EST			0	0	0		Thunderstorm Wind
Stokes County									
3.5 WSW Danbury	16	1330EST			0	0	0		Lightning
Rockingham County									
Eden	16	1420EST			0	0			Hail (1.00)
Rockingham County									
Eden	16	1420EST			0	0	0		Thunderstorm Wind
A thunderstorm during the afternoon hours on the 16th produced damaging winds, hail up to quarter size, and damaging lightning.									
Thunderstorm winds knocked down trees and power lines in Eden and Mount Airy.									
A lightning strike started a fire 3.5 miles west-southwest of Danbury in Hanging Rock State Park. The fire burned about one acre before it was contained.									
Ashe County									
Glendale Spgs	21	1257EST 1530EST			0	0	20K		Flash Flood
Heavy rainfall from thunderstorms during the afternoon hours on the 21st washed a 3 foot culvert which closed a road near Glendale Springs.									
Ashe County									
1 S Nella	22	1300EST 1530EST			0	0	70K		Flash Flood
Thunderstorms during the afternoon hours on the 22nd produced heavy rain which damaged a road, flooded a home and resulted in evacuations 1 mile south of Nella.									
Wilkes County									
Wilkesboro	28	1500EST			0	0	0		Thunderstorm Wind
Yadkin County									
4 NNW Yadkinville	28	1600EST			0	0	0		Thunderstorm Wind
Yadkin County									
6 NW Yadkinville to Yadkinville	28	1603EST 1613EST			0	0	100K		Thunderstorm Wind
Yadkin County									
Lone Hickory	28	1607EST			0	0	0		Thunderstorm Wind

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
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NORTH CAROLINA, Northwest and North Central

Surry County

3 NW Mt Airy 28 1705EST 0 0 425K **Lightning**

Rockingham County

Eden 28 1740EST 0 0 13K **Thunderstorm Wind**

Rockingham County

2 N Reidsville 28 1800EST 0 0 0 **Thunderstorm Wind**

Thunderstorms during the evening hours on the 28th produced damaging winds and damaging lightning.

Thunderstorms winds knocked down trees in Lone Hickory and 2 miles north of Reidsville and knocked down trees and power lines 4 miles north-northwest of Yadkinville and in Wilkesboro. In Eden, a large tree crushed a minivan. Thunderstorm winds damaged tobacco crops from 6 miles northwest of Yadkinville to Yadkinville.

Lightning started a fire to a trucking company 3 miles northwest of Mount Airy. The building was nearly destroyed with damaged estimated at \$425,000.

NORTH CAROLINA, South Coastal

New Hanover County

Carolina Beach 01 0800EST
1300EST 0 1 **Rip Currents**

STRONG RIP CURRENTS ASSOCIATED WITH TROPICAL STORM ANA RESULTED IN 14 RESCUES AT CAROLINA BEACH ON JULY 1. ONE WOMAN SUFFERED A SEVERE LEG INJURY. AT KURE BEACH 5 RESCUES WERE MADE AND ONE MALE WAS TAKEN TO A LOCAL HOSPITAL AS A PRECAUTION

Columbus County

Lake Waccamaw 05 1538EST 0 0 **Hail (1.00)**

Pender County

Burgaw 05 1607EST
1609EST 0 0 **Hail (0.75)**

REPORTED 5E BURGAW

Columbus County

Tabor City 05 1725EST
1730EST 0 0 **Hail (0.75)**

3/4 INCH HAIL COVERED THE GROUND AT VINEGAR HILL, 3N TABOR CITY

Robeson County

Red Spgs 05 1725EST
1730EST 0 0 **Thunderstorm Wind (G60)**

SEVERAL ROOFS DAMAGED BY FALLEN TREES, NUMEROUS POWER LINES DOWN. ALSO A HOUSE FIRE BETWEEN PEMBROKE AND RED SPRINGS WHICH CLAIMED THE LIVES OF THREE (AN ADULT MALE AND TWO CHILDREN) MAY HAVE BEEN CAUSED BY LIGHTNING.

Robeson County

St Pauls 05 1750EST 1 40 0 0 20K **Tornado (F1)**

TORNADO REPORTD BY SKYWARN SPOTTER AS WELL AS ROBESON COUNTY SHERIFFS OFFICE. NUMEROUS TREES AND POWER LINES DOWN AND 1 MOBILE HOME WAS OVERTURNED

Bladen County

Tar Heel 05 1800EST 0 0 **Thunderstorm Wind (G50)**

NUMEROUS TREES AND POWER LINES DOWN

Robeson County

Lumberton 05 1819EST
1823EST 0 0 **Hail (0.88)**

Bladen County

Duart 05 1900EST 0 0 **Thunderstorm Wind (G50)**

SEVERAL HOMES HAD ROOF DAMAGE IN THE BRISSON SANDS SUBDIVISION

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>NORTH CAROLINA, South Coastal</u>									
Columbus County									
Nakina	05	1645EST			0	0			Hail (0.75)
REPORTED BY NAKINA FIRE DEPARTMENT									
Bladen County									
Tobemory	05	1730EST			0	0			Hail (0.75)
REPORTED BY LOCK MASTER AT W.O. HUSKE LOCK AND DAM									
New Hanover County									
Wilmington	05	2059EST			0	0			Thunderstorm Wind (G50)
50 KT WIND GUST MEASURED AT THE STATE PORT, JUST SOUTH OF WILMINGTON.									
Brunswick County									
Leland	05	2100EST			0	0			Hail (0.75)
Brunswick County									
Leland	05	2110EST			0	0			Thunderstorm Wind (G50)
WIND DAMAGED ROOF									
New Hanover County									
Castle Hayne	07	1630EST			0	0			Thunderstorm Wind (G50)
LARGE TREE LIMBS DOWN									
New Hanover County									
(Ilm)Wilmington Arprt	07	1650EST			0	0			Hail (1.00)
1 INCH HAIL ON INTERSTATE 40 JUST SOUTH OF THE NORTHEAST CAPE FEAR RIVER									
Pender County									
Rocky Pt	07	1655EST			0	0			Hail (0.75)
REPORTED 2S ROCKY POINT									
New Hanover County									
Wrightsville Beach	07	1710EST			0	0			Thunderstorm Wind (G50)
TREES DOWN IN THE LANDFALL COMMUNITY NEAR WRIGHTSVILLE BEACH									
New Hanover County									
Murrayville	07	1715EST			0	0			Thunderstorm Wind (G50)
TREES DOWN ON MURRAYVILLE ROAD									
New Hanover County									
Wilmington	07	1720EST 1945EST			0	0			Flash Flood
WATER OVER HIGHWAY 17 NEAR PORTERS NECK AND 20 INCHES OF WATER OVER OLD MILL ROAD IN RUNNYMEADE									
New Hanover County									
Carolina Beach to Wrightsville Beach	14	0800EST 1800EST			0	0			Rip Currents
MANY RESCUES WERE MADE AS A RESULT OF RIP CURRENTS CAUSED BY TROPICAL STORM CLAUDETTE. NO INJURIES WERE REPORTED.									
Pender County									
Topsail to Surf City	14	0800EST 1800EST			0	1			Rip Currents
MANY RESCUES WERE MADE AS A RESULT OF RIP CURRENTS CAUSED BY TROPICAL STORM CLAUDETTE. AT SURF CITY AN 8 YEAR OLD GIRL WAS HOSPITALIZED IN STABLE CONDITION.									

Storm Data and Unusual Weather Phenomena

July 1997

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

Robeson County

Lumberton to Orrum	16	1740EST 1800EST			0	0			Hail (0.88) .75 INCH HAIL REPORTED BY WEATHER SPOTTERS IN LUMBERTON AND .88 INCH HAIL REPORTED BY SPOTTERS IN ORRUM
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New Hanover County

East Wilmington	18	1407EST 1410EST			0	0			Hail (0.88)
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Brunswick County

Winnabow	19	1431EST 1432EST	0.1	10	0	0			Tornado (F0) TORNADO TOUCH DOWN JUST BRIEFLY, DID NO DAMAGE
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Brunswick County

Leland	19	1440EST 1442EST	0.1	10	0	0	2K		Tornado (F0) TORNADO PICKED UP A SHED AND THREW IT SEVERAL FEET, DESTROYING THE UNIT
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NCZ087

Robeson

28	1400EST				1	0			Excessive Heat A 56 YEAR OLD MALE COLLAPSED WHILE WORKING ON THE ROOF OF LAKEWOOD ELEMENTARY SCHOOL. HE SUFFERED A HEART ATTACK WHICH OFFICIALS BELIEVE WAS CAUSED BY THE SWELTERING HEAT. TEMPERATURES WERE IN THE MID 90S WITH HEAT INDICES EXCEEDING 100 DEGREES M56LS
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New Hanover County

Wilmington	29	1200EST			0	1			Lightning EMERGENCY PERSONNEL WERE CALLED TO GREENLAWN/OLEANDER MEMORIAL GARDENS WHERE A MAN WAS STRUCK BY LIGHTNING. HE WAS TAKEN TO NEW HANOVER REG. MED. CENTER WHERE HE WAS TREATED AND RELEASED. AT LEAST THREE HOUSEFIRES WERE BLAMED ON LIGHTNING IN BRUNSWICK COUNTY DURING THIS EPISODE.
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NORTH CAROLINA, Southwest

Haywood County

1 N Mt Sterling	01	0230EST 1230EST			0	3	4M		Heavy Rain Repeated heavy rain over the past couple of days caused a major rock slide that blocked and subsequently closed Interstate 40 at the North Carolina/Tennessee border. Three people were injured when their cars were hit by the tumbling rocks. The highway remains closed at the time of this writing while construction crews repair the damage.
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Caldwell County

Lenoir	03	0215EST			0	0			Thunderstorm Wind (G50) Wind from a severe thunderstorm downed power lines.
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Madison County

Big Laurel	04	1806EST			0	0			Thunderstorm Wind (G50)
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Graham County

Tapoco	04	1820EST			0	0			Hail (1.25)
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Graham County

Tapoco	04	1820EST			0	0			Thunderstorm Wind (G50)
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Madison County

Marshall	04	1820EST			0	0			Thunderstorm Wind (G50)
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Swain County

Bryson City	04	1830EST			0	1			Thunderstorm Wind (G50) One person was injured when a tree fell on a camper. The Smoky Mountain Railroad train became trapped when trees fell across the tracks ahead of and behind it. The train and its passengers were not found until 10 pm EST.
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Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>NORTH CAROLINA, Southwest</u>									
Buncombe County									
Woodfin to Weaверville	04	1831EST			0	3			Thunderstorm Wind (G50)
									Shingles were blown off houses and three people injured from trees falling on campers.
Graham County									
Robbinsville	04	1835EST			0	0			Hail (1.25)
Graham County									
Robbinsville	04	1835EST			0	3			Thunderstorm Wind (G50)
Graham County									
10 E Robbinsville	04	1845EST			0	0			Thunderstorm Wind (G50)
									Graham county officials reported 500 to 1000 trees downed, some on houses, and two thirds of the city of Robbinsville was without power. Three people were injured from trees falling on their trailers and campers.
Macon County									
Beechertown	04	1845EST			0	0			Thunderstorm Wind (G50)
Buncombe County									
Montreat to Black Mtn	04	1846EST			0	0			Thunderstorm Wind (G50)
Mcdowell County									
Old Ft	04	1852EST			0	0			Thunderstorm Wind (G50)
Burke County									
Valdese	04	1900EST			0	0			Thunderstorm Wind (G50)
Macon County									
6 NW Franklin	04	1900EST			0	0	250K		Thunderstorm Wind (G50)
									Extensive damage occurred near Burningtown due to trees falling on homes and vehicles. Power was out for much of the night.
Caldwell County									
Countywide	04	1905EST 1930EST			0	0			Thunderstorm Wind (G50)
Avery County									
Ingalls to Pineola	04	1915EST			0	0			Thunderstorm Wind (G50)
Macon County									
Highlands	04	1915EST			0	0			Thunderstorm Wind (G50)
Mcdowell County									
Marion	04	1915EST			0	0			Hail (0.88)
Mcdowell County									
Marion	04	1915EST			0	0			Thunderstorm Wind (G50)
Jackson County									
Cashiers	04	1920EST			0	1			Thunderstorm Wind (G50)
									A person was injured when a tree fell on his/her home.
Transylvania County									
Countywide	04	1925EST			0	0			Hail (1.25)
Transylvania County									
Countywide	04	1925EST			0	0			Thunderstorm Wind (G50)
Rutherford County									
3 N Rutherfordton	04	1930EST			0	0			Thunderstorm Wind (G50)
Henderson County									
Etowah	04	1945EST			0	0			Thunderstorm Wind (G50)
Henderson County									
5 W Hendersonville	04	1945EST			0	1			Thunderstorm Wind (G50)
									A man suffered a head injury when a tree fell on him.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>NORTH CAROLINA, Southwest</u>									
Rowan County									
Salisbury to 6 E Salisbury	04	2000EST			0	3			Thunderstorm Wind (G50)
Siding was ripped off a house in Salisbury. Several trees fell onto vehicles. A couple people were injured when the cars they travelled in hit fallen trees. Boats were capsized on High Rock Lake.									
Henderson County									
5 E Flat Rock	04	2007EST			0	0			Hail (1.75)
Large hail occurred on the Henderson/Polk county line.									
Polk County									
5 E Columbus	04	2007EST			0	0			Hail (1.75)
Polk County									
5 E Columbus	04	2007EST			0	2			Thunderstorm Wind (G50)
Two people were injured by tent poles that were sent hurtling through the air by severe thunderstorm winds. Power loss to 35,000 customers also occurred.									
Polk County									
1 N Saluda	04	2007EST			0	0			Hail (1.75)
Catawba County									
Claremont	04	2030EST			0	0			Thunderstorm Wind (G50)
Rutherford County									
Rutherfordton to Forest City	04	2035EST			0	0			Thunderstorm Wind (G50)
Davie County									
Countywide	04	2040EST			0	0			Thunderstorm Wind (G50)
Numerous trees fell on homes causing extensive damage. A museum in Mocksville sustained damage when winds sucked 3 attic windows and framework out the attic and into the air, eventually landing on the ground. Several trees fell across roads and numerous power outages lasted into the following morning.									
Iredell County									
3 SW Statesville to Statesville	04	2040EST			0	0	85K		Thunderstorm Wind (G50)
A roof and steeple were blown off a church in Kyles Crossroads.									
Rowan County									
5 N Cleveland to Mt Ulla	04	2045EST			0	0			Thunderstorm Wind (G50)
Cleveland County									
Boiling Spgs	04	2050EST			0	0			Thunderstorm Wind (G50)
Iredell County									
Harmony to Elmwood	04	2055EST			0	0			Thunderstorm Wind (G50)
Cleveland County									
Shelby	04	2100EST			0	0			Thunderstorm Wind (G50)
Gaston County									
5 SW Gastonia	04	2130EST			0	0			Thunderstorm Wind (G50)
Severe thunderstorms moved into the mountains from Tennessee in the early evening on the Fourth, before moving into or redeveloping in the foothills and western piedmont later in the evening. Damaging winds raked much of western North Carolina, downing trees and power lines, and a few reports of hail as large a golf balls were reported. Several counties reported trees and power lines down countywide, often blocking roads and damaging homes and/or vehicles. Outflow from the storms propagated southeast into the Charlotte metro area before midnight, producing gusty winds between 35 and 45 mph for a short period of time. Dollar amounts for much of the damage were not available at the time of this writing.									
Union County									
Mineral Spg	05	2029EST			0	0			Hail (1.75)
Union County									
Monroe	05	2049EST			0	0			Hail (2.00)
A cluster of severe thunderstorms developed in the evening southeast of Charlotte. Large hail caused extensive damage to cars in Monroe.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>NORTH CAROLINA, Southwest</u>									
Henderson County									
Mills River	09	1335EST			0	0			Hail (1.75)
Henderson County									
Mills River	09	1400EST			0	0			Flash Flood
Burke County									
Rutherford College	09	1600EST			0	0			Hail (2.50)
Burke County									
Rutherford College	09	1600EST			0	0	25K		Thunderstorm Wind (G75)
Isolated severe thunderstorms produced large hail ranging from golf ball to tennis ball size. A house was flooded in Mills River. A microburst in Rutherford College blew 12 to 14 roofs of f of flea market buildings.									
Cleveland County									
Casar	10	1948EST			0	0			Hail (0.75)
An isolated severe thunderstorm produced large hail.									
Rowan County									
Liberty	15	1400EST			0	0			Thunderstorm Wind (G50)
Cabarrus County									
Countywide	15	1500EST 1900EST			0	0			Lightning
Catawba County									
Hickory	15	1825EST			0	0			Hail (0.88)
Thunderstorms developed in the foothills and western piedmont of North Carolina during the afternoon. A couple became severe producing damaging winds which downed trees in Rowan county and large hail on the east side of Hickory. Persistent lightning in Cabarrus county resulted in countywide power outages for 4 hours.									
Caldwell County									
Globe	16	1150EST			0	0			Hail (0.75)
Catawba County									
Hickory	16	1300EST			0	0	50K		Lightning
Lightning struck a house, sparking a fire which caused significant damage.									
Alexander County									
5 NW Taylorsville	16	1325EST			0	0			Thunderstorm Wind (G50)
Catawba County									
Hickory	16	1340EST			0	0			Hail (0.75)
Henderson County									
Bat Cave	16	1350EST			0	0			Thunderstorm Wind (G50)
Rutherford County									
Chimney Rock to 3 NE Lake Lure	16	1400EST 1410EST			0	0			Thunderstorm Wind (G50)
Catawba County									
Hickory	16	1415EST			0	0	5K		Lightning
Lightning struck the roof of an apartment building and travelled into a bathroom.									
Cleveland County									
Earl	16	1441EST			0	0			Hail (0.75)
Cleveland County									
1.5 E Shelby	16	1455EST			0	0			Hail (0.75)
Cleveland County									
1.5 E Shelby	16	1455EST			0	0	10K		Thunderstorm Wind (G50)
Cleveland County									
Grover	16	1510EST			0	0			Thunderstorm Wind (G50)
Madison County									
6 N Mars Hill	16	1530EST			0	0			Hail (0.75)
Gaston County									
6 S Gastonia	16	1540EST			0	0			Thunderstorm Wind (G50)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>NORTH CAROLINA, Southwest</u>									
Rutherford County									
Union Mills	16	1600EST			0	0			Lightning
Rutherford County									
Ellenboro	16	1615EST			0	0			Lightning
A mobile home was destroyed by lightning in Union Mills and a home severely damaged by lightning in Ellenboro. Damage estimates are unknown.									
Union County									
3 N Indian Trail	16	1639EST			0	0			Hail (0.75)
Union County									
3 N Indian Trail	16	1639EST			0	0	35K		Thunderstorm Wind (G75)
Severe thunderstorms developed mainly in the foothills of North Carolina during the afternoon. Damaging winds up to 75 mph downed trees and power lines. U.S. Highway 74 in Henderson county was blocked for 2 hours due to a large oak tree that fell across the road. Another large tree in Cleveland county fell onto 2 pickup trucks, totalling them. Three houses were damaged by fallen trees, a car was damaged by a collapsed convenience store canopy and trees blocked roads near Indian Trail. Power outages were scattered across the region, some due to lightning. Up to 4300 people were without power in Union county.									
Buncombe County									
Alexander	21	1530EST			0	0	50K		Lightning
Lightning sparked a house fire.									
Mecklenburg County									
Countywide	23	0130EST 1000EST			3	0	8.5M		Flash Flood
F59VE, F27VE, F5OU									
Cabarrus County									
Countywide	23	0140EST 1000EST			0	4	3M	2M	Flash Flood
Gaston County									
Gastonia	23	0140EST			0	0	20K		Lightning
Lightning started a fire in the attic of a house.									
Mecklenburg County									
Charlotte	23	0300EST			0	0	100K		Lightning
Lightning struck a home in north Charlotte.									
Rowan County									
Spencer to Salisbury	23	0700EST 1100EST			0	0			Flash Flood
A cluster of thunderstorms producing very heavy rain sank south in the Charlotte metro area shortly before midnight of the 23rd and continued to redevelop over the area through mid-morning. Severe flash flooding resulted as nearly 10 inches of rain fell in some spots. Mecklenburg county officials requested that people not try to go to work or drive around. Numerous roads and bridges were washed out or damaged. A railroad trestle collapsed, dropping a locomotive 100 feet into a raging creek. Two women died after their vehicles became trapped in flood waters around 2 AM EST. A young girl perished around 9 AM EST when she went to play in the waters and was swept away. In Cabarrus county, 3 of the 4 injuries occurred when a plant roof collapsed due to the weight of the rain water. The fourth injury occurred in Mount Pleasant when a person drove into a wash-out.									
Jackson County									
5 E Cashiers	23	1230EST 1400EST			0	0			Flash Flood
A private dam overflowed in response to heavy rain as the remnants of Hurricane Danny moved across.									
Mecklenburg County									
Charlotte to Pineville	24	0130EST 0300EST			0	0			Flash Flood
Union County									
Monroe	24	0145EST 0400EST			0	0			Flash Flood
The remnants of Hurricane Danny moved across the flood-ravaged Charlotte metro area during the early morning hours of the 24th. Additional rainfall of 2 to 3 inches aggravated the flooding problems mainly south and east of downtown Charlotte. This									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>NORTH CAROLINA, Southwest</u>									
round of rain prompted the evacuation of some apartments near Pineville. Area roads were covered in 2 to 3 feet of water. In Monroe, bridges were covered by water and there was a partial dam failure.									
Haywood County									
Maggie Vly	28	1241EST			0	0			Hail (1.00)
Haywood County									
Maggie Vly	28	1241EST			0	0			Thunderstorm Wind (G50)
Buncombe County									
Asheville	28	1300EST			0	0			Thunderstorm Wind (G50)
Mcdowell County									
Sugar Hill	28	1330EST			0	0			Thunderstorm Wind (G50)
Haywood County									
Maggie Vly	28	1400EST 1500EST			0	0			Flash Flood
Heavy rain caused a landslide and Jonathan Creek flooded a campground.									
Burke County									
(Hky)Hickory Muni Ar	28	1418EST			0	0			Thunderstorm Wind (G50)
Catawba County									
Hickory	28	1420EST			0	0			Thunderstorm Wind (G50)
Rutherford County									
5 NW Rutherfordton	28	1430EST			0	0	3K		Thunderstorm Wind (G50)
Catawba County									
Newton	28	1449EST			0	0			Thunderstorm Wind (G50)
Polk County									
Mill Spg	28	1450EST			0	0			Thunderstorm Wind (G50)
Rutherford County									
9 S Forest City	28	1500EST			0	0			Thunderstorm Wind (G50)
Catawba County									
Hickory	28	1532EST			0	0			Thunderstorm Wind (G52)
Lincoln County									
3 NW Lincolnton	28	1532EST			0	0			Hail (1.50)
Lincoln County									
Lincolnton	28	1538EST			0	1	50K		Thunderstorm Wind (G50)
A roof was blown off a building and landed on a car. Trees and power lines were blown down across the city, some onto cars. A man was injured when a plate glass window was blown out, sending shards of glass cutting across his face. Numerous power outages were also reported.									
Jackson County									
Cashiers to 2 SE Cashiers	28	1545EST			0	0			Thunderstorm Wind (G50)
Gaston County									
5 N Gastonia	28	1600EST			0	0			Thunderstorm Wind (G50)
Mecklenburg County									
10 NW (Cl)Charlotte/Dougl	28	1600EST			0	0			Thunderstorm Wind (G50)
Gaston County									
1 E Gastonia	28	1615EST			0	0			Thunderstorm Wind (G50)
Gaston County									
Mt Holly	28	1630EST			0	0			Thunderstorm Wind (G50)
Madison County									
Marshall	28	1730EST			0	0			Hail (0.75)

Thunderstorms developed in a very warm and unstable atmosphere during the afternoon. Several storms became severe and produced damaging straight line winds for the most part. A few reports of large hail were also received. Most of the damage took the form of downed trees and power lines. However, roofs were partially blown off a mobile home in Rutherford county and a

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>NORTH CAROLINA, Southwest</u>									
building in Mt. Holly in Gaston county. A tree fell on a trailer in Haywood county and dime size hail fell for 10 minutes in Marshall.									
Cleveland County									
Shelby	29	1530EST			0	0	2K		Thunderstorm Wind (G50)
Severe thunderstorm winds uprooted some trees and damaged a barn roof.									
Burke County									
Morganton	29	2355EST			0	0	4.3K		Flash Flood
	30	0200EST							
A nearly stationary thunderstorm developed over Morganton resulting in some flash flooding. A car was washed away and several streets were closed. The local library sustained \$4300 worth of damage.									
<u>NORTH DAKOTA, Central and West</u>									
Hettinger County									
Regent	01	0000MST			0	0	25K		Lightning
lightning struck a barn causing it to catch fire. A nearby farm caught fire as well. Both barns were destroyed.									
Burleigh County									
5 E Bismarck	01	0250CST			0	0			Hail (1.00)
Hail fell 5 E of Bismarck									
NDZ019									
Mercer									
	02	1200CST			0	0			High Wind (G45)
		2000CST							
With the extremely high water level behind Garrison Dam, 40 mph winds on the 2nd caused water to wash over the main spillway. This was the first time since 1975 that this occurred.									
Golden Valley County									
9 E Beach	10	1509MST			0	0			Hail (1.00)
Hail fell 9 E Beach									
Billings County									
Medora	10	1538MST			0	0			Hail (2.00)
Slope County									
9 W Amidon	10	1620MST			0	0			Hail (0.75)
Hail fell 9 W of Amidon									
Billings County									
Fairfield	10	1630MST			0	0	15K		Thunderstorm Wind (G59)
Strong winds tore the roof off of a cattle barn. Damage amounts estimated.									
Dunn County									
4 NE Dodge	10	1740MST			0	0	10K		Thunderstorm Wind (G52)
Strong winds occurred 4 NE of Dodge. The wind tore the tin off of a pole barn, then blew the tin 400 yds away.									
Mercer County									
7 S Beulah	10	1838CST			0	0			Thunderstorm Wind (G60)
occurred 7 S of Beulah									
McLean County									
Falkirk	10	1845CST			0	0			Thunderstorm Wind (G60)
Strong winds toppled numerous trees in the city.									
Mercer County									
Zap	10	1855CST			0	0			Hail (0.75)
Mercer County									
2 N Golden Vly to 2.2 NE Golden Vly	10	1900CST 1902CST	0.2	10	0	0	35K		Tornado (F0)
Tornado touched down 2 N of Golden Valley and moved to the north before dissipating. Tornado destroyed a pole barn and an airplane hanger. Strangely the airplane in the hanger only received a few scratches.									
Mercer County									
7 S Beulah	10	1902CST			0	0			Thunderstorm Wind (G75)
Wind occurred 7 S Beulah									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>NORTH DAKOTA, Central and West</u>									
Ward County (Mib)Minot Afb	10	1945CST			0	0			Hail (1.00)
Morton County 5 NE Hebron	10	1955CST			0	0			Thunderstorm Wind (G52)
Wind occurred at ranch 5 NE Hebron. Numerous trees downed at ranch.									
Ward County 5 N Minot to 4.8 N Minot	10	2010CST	0.2	10	0	0			Tornado (F0)
Brief touchdown 5 N Minot									
Ward County 9 NE Foxholm	10	2020CST 2030CST			0	0	10K		Tstm Wind/Hail
75 mph winds combined with 1 inch hail did considerable damage to a barn and house 9 NE of Foxholm									
Morton County Mandan	10	2025CST			0	0	20K		Thunderstorm Wind (G60)
Tree fell on house, causing considerable roof and siding damage.									
Renville County Glenburn	10	2030CST			0	0	50K		Thunderstorm Wind (G70)
Numerous trees and outbuilding toppled. Also a grain bin was knocked over.									
Bottineau County Lansford	10	2035CST			0	0			Thunderstorm Wind (G52)
Ward County (Mib)Minot Afb	10	2035CST			0	0			Thunderstorm Wind (G60)
Renville County Tolley	10	2045CST			0	0	700K		Thunderstorm Wind (G85)
Strong winds toppled 85 thousand bushel grain bin. The bin had 4 thousand bushel in it at the time. Another grain bin with more grain in it was severely dented toward the top of the bin.									
McLean County 5 N Turtle Lake	10	2130CST			0	0	30K		Thunderstorm Wind (G70)
Strong winds destroyed a pole barn and garage 5 N Turtle Lake									
Mchenry County Anamoose	10	2140CST			0	0	25K		Thunderstorm Wind (G65)
20 foot tree crashed through a house									
Pierce County Rugby	10	2222CST			0	0			Thunderstorm Wind (G52)
Ward County Foxholm	11	1540CST			0	0			Hail (0.75)
Renville County Loraine	11	1850CST			0	0			Hail (0.75)
Mchenry County Deering	11	1937CST			0	0			Hail (0.75)
Mchenry County 6 NW Upham	11	1947CST			0	0			Thunderstorm Wind (G52)
Strong winds occurred 6 NW of Upham									
Bottineau County Gardena	11	2005CST			0	0			Thunderstorm Wind (G52)
Bottineau County Bottineau	11	2010CST			0	0			Thunderstorm Wind (G52)
Bottineau County 6 NW Kramer to 6.5 NW Kramer	11	2030CST 2035CST	0.5	15	0	0	10K		Tornado (F0)
brief tornado touchdown 6 NW of Kramer. a few power poles and trees were snapped.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property Crops	Character of Storm
<u>NORTH DAKOTA, Central and West</u>								
Rolette County								
9 NE Dunseith	11	2100CST			0	0		Thunderstorm Wind (G60)
Winds occurred 9 N of Dunseith near the port of entry. Numerous trees downed.								
Dunn County								
1 W Halliday	13	1215MST 1230MST			0	0	40K	Thunderstorm Wind (G100)
report came from a woman that had a digital wind recorder on her farm 1 W of Halliday. Numerous trees downed as fell as extensive damage to farm and out buildings. A tractor-trailer was blown through a fence.								
Mclean County								
2 NE Riverdale	13	1255CST			0	0		Hail (0.75)
hail occurred 2 NE of Riverdale								
Golden Valley County								
Beach	17	2235MST			0	0		Hail (0.75)
60 mph winds also occurred								
Billings County								
3 E Medora	17	2305MST			0	0		Thunderstorm Wind (G52)
winds occurred 3 E Medora								
Hettinger County								
New England	18	0045MST			0	0		Hail (1.00)
Hettinger County								
Mott	18	0110MST			0	0	20K	Thunderstorm Wind (G65)
tree blown down on top of house								
Stark County								
2 NW Gladstone	18	0115MST			0	0	3K	Thunderstorm Wind (G55)
strong winds blew a pickup camper shell through a garage door. winds occurred 2 NW Gladstone.								
Morton County								
Glen Ullin	18	0335CST			0	0		Thunderstorm Wind (G52)
trees toppled in Glen Ullin								
Burleigh County								
Bismarck	18	0400CST			0	0	10K	Thunderstorm Wind (G65)
strong winds blew a 10" diameter branch down onto a Jeep. Power was also lost to 500 homes.								
La Moure County								
La Moure	18	1630CST			0	0		Thunderstorm Wind (G55)
numerous trees down in the city								
Logan County								
Gackle	19	1150CST			0	0	50K	Lightning
lightning struck the house at 1150 in the morning...causing the insulation to smolder until 1130 pm in the evening when the fire finally broke out. The house and all contents inside were completely destroyed.								
Mcintosh County								
4 NE Zeeland to 7 NE Zeeland	19	1350CST 1355CST	3	20	0	0		Tornado (F0)
tornado touched down 4 NE of Zeeland and then moved northeast								
Renville County								
Sherwood	23	1805CST			0	0		Hail (0.75)
Renville County								
12 S Greene	23	1826CST	0.2	30	1	2	46K	Tornado (F2)
A tornado touched down 12 miles south of Greene or 7 N of Carpio. The tornado touched down directly on a farmhouse. The house was blown off of the foundation, then blown apart. A 70 yr. old man was blown out of the house, while a 1 month old infant was trapped in the debris. A 73 yr old woman was also trapped under the debris. She was alive when found but passed away at the hospital from her injuries. F73OU								
Renville County								
Glenburn	23	1910CST			0	0		Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>NORTH DAKOTA, Central and West</u>									
Ward County									
Minot Afb	23	1915CST			0	0			Thunderstorm Wind (G103)
Ward County									
Burlington	23	1924CST 1926CST			0	0			Hail (0.75)
			hail also accompanied by 60 mph winds						
Mountrail County									
New Town	23	1933CST			0	0			Hail (1.75)
			hail occurred 3 E New Town						
Mchenry County									
Deering	23	1945CST			0	0			Hail (0.75)
			hail also accompanied by 60 mph winds.						
Mountrail County									
Parshall	23	1955CST			0	0			Hail (1.00)
Mchenry County									
Granville	23	2000CST 2033CST			0	0			Hail (0.88)
			hail also accompanied by 70-90 mph winds						
Pierce County									
5 W Rugby	23	2125CST			0	0			Hail (1.75)
			hail fell 5 W Rugby						
Mckenzie County									
Watford City	24	0320CST			0	0	5K		Thunderstorm Wind (G72)
			tree fell on car						
Bottineau County									
Souris	24	1715CST			0	0			Hail (0.75)
Stark County									
5 NW Dickinson	24	1730MST			0	0			Hail (2.00)
			hail fell 5 NW Dickinson						
Bottineau County									
Lansford	24	1745CST			0	0	30K		Thunderstorm Wind (G70)
			thunderstorm winds tore roof off of dairy barn. The winds also moved a trailer house 3 feet off of its foundation.						
Stark County									
South Heart	24	1753MST 1953MST			0	0			Hail (1.75)
Stark County									
5 NE Dickinson to 5 NW Dickinson	24	1815MST			0	0			Thunderstorm Wind (G61)
			wind occurred 5 NW Dickinson						
Bottineau County									
2 E Newburg	24	1900CST			0	0	15K		Lightning
			lightning struck an oil tank 2 E of Newburg. The tank burned to the ground						
Rolette County									
10 N Dunseith	24	1900CST			0	0			Hail (0.75)
			hail fell 10 N Dunsieith						
Pierce County									
3 NW Barton to 3.1 NW Barton	24	1910CST	0.1	10	0	0			Tornado (F0)
			brief tornado touchdown 3 nw Barton						
Bottineau County									
Willow City	24	1912CST			0	0			Hail (1.75)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>NORTH DAKOTA, Central and West</u>									
Pierce County									
5 N Rugby	24	1930CST			0	0	12K		Lightning
lightning struck 5 N of Rugby. 19 head of cattle took shelter from the storm under a tree. The tree got struck by lightning, killing all cattle huddled under the tree									
Mchenry County									
Towner	24	1957CST			0	0			Hail (1.75)
Mclean County									
12 N Garrison	24	1957CST			0	0			Hail (1.75)
hail fell 12 N Garrison along with 60 mph winds.									
Pierce County									
7 NW Rugby	24	1957CST			0	0			Hail (1.75)
hail fell 7 NW Rugby									
Pierce County									
3 W Rugby	24	2030CST			0	0			Hail (0.75)
hail fell 3 W of Rugby									
Kidder County									
Dawson	25	1353CST			0	0			Hail (1.00)
Ward County									
5 SW Minot to 5.5 SW Minot	25	1355CST 1406CST	0.5	10	0	0			Tornado (F0)
brief tornado touchdown 5 SW of Minot									
Renville County									
4 SW Mohall to 5 SE Mohall	25	1402CST 1418CST	9	15	0	0			Tornado (F0)
tornado moved from 4 SW of Mohall to 5 SE of Mohall									
Ward County									
8 S Minot to 20 SE Minot	25	1408CST 1441CST	12	15	0	0			Tornado (F0)
tornado moved from 8 S of Minot to 20 SE of Minot									
Bottineau County									
14 NE Lansford	25	1418CST	0.2	10	0	0			Tornado (F0)
brief tornado touchdown 14 ne of Lansford near Mohall									
<u>NORTH DAKOTA, East</u>									
Ransom County									
Mc Leod	01	0125CST			0	0			Hail (1.00)
Richland County									
2 S Kindred	01	0155CST			0	0			Hail (0.75)
Cass County									
Davenport	01	1330CST			1	2			Lightning
Lightning struck 3 workers in a sugarbeet field near Davenport. M23OU									
Cass County									
Casselton	01	1345CST			0	0	20K		Thunderstorm Wind
Power lines were blown down.									
Cass County									
Prosper	01	1400CST			0	0	0.50K		Thunderstorm Wind
Grand Forks County									
1 N Grand Forks	01	1450CST			0	0	10K		Thunderstorm Wind
Strong wind blew down 12 trees, ripped apart a garage roof, and damaged a truck. A survey of the damage pattern indicated a gustnado may have formed along the thunderstorm downburst.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>NORTH DAKOTA, East</u>									
Grand Forks County									
Grand Forks	01	1500CST			0	0			Flash Flood
3.5 inches of rain flooded numerous roads.									
NDZ039 Cass									
	01	1651CST			0	0	10K		High Wind
A wake low generated strong winds across the Fargo and West Fargo areas, knocking down trees and power lines. 6,000 customers were without power. A fireworks stand was blown down in south Fargo.									
Walsh County									
Minto	02	0000CST			0	0			Flash Flood
8.2 inches of rain caused flooding in low-lying areas.									
Cavalier County									
Wales	12	0500CST			0	0	10K	250K	Flash Flood
Over 11 inches of rain fell in north central Cavalier county, near the town of Wales. Rainfall had to be estimated, as 11-inch rain gauges ran over. Seven inches fell 2 miles south of Hannah and 5.6 inches fell 12 miles west of Langdon. One to five feet of water covered some fields and 30,000 to 50,000 acres of cropland was estimated to be flooded. Several homes reported sewer backup.									
Benson County									
3 SW Harlow	13	1623CST			0	0			Hail (0.75)
Benson County									
10 N Maddock	13	1625CST			0	0			Hail (1.75)
Benson County									
3 SW Harlow	13	1628CST			0	0			Hail (1.25)
Benson County									
3 SE Esmond	13	1630CST			0	0			Hail (1.75)
Benson County									
10 N Maddock	13	1630CST			0	0			Hail (1.75)
The ground was white with hail.									
Ramsey County									
Devils Lake	13	1645CST			0	0			Hail (0.75)
Ramsey County									
6 W Devils Lake	13	1645CST			0	0			Hail (0.75)
Ramsey County									
1 W Devils Lake to 1 SW Devils Lake	13	1656CST			0	0			Hail (0.75)
Ramsey County									
Devils Lake	13	1702CST			0	0			Hail (0.75)
Benson County									
7 S Leeds	13	1715CST			0	0			Hail (0.75)
Numerous grain fields were shredded.									
Benson County									
Harlow	13	1800CST			0	0			Flash Flood
Several roads were quickly flooded with water and ditches were full.									
Benson County									
Warwick	13	1830CST			0	0			Hail (1.00)
Nelson County									
Tolna	13	1834CST	1	50	0	0			Tornado (F1)
Benson County									
7 S Leeds	13	1900CST			0	0			Flash Flood
Many roads were under water because of the heavy rain.									
Ramsey County									
Devils Lake	13	1900CST			0	0			Hail (1.25)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>NORTH DAKOTA, East</u>									
Benson County									
Leeds	13	1915CST			0	0			Flash Flood
Heavy rain caused city streets to quickly flood.									
Steele County									
3 SE Finley	13	1925CST			0	0			Hail (0.75)
A 4 mile swath of hail damage was reported along with broken windows.									
Ramsey County									
Edmore	13	1930CST			0	0	10K		Thunderstorm Wind
Many large trees in Edmore were blown down, snapping power lines and damaging one vehicle.									
Ramsey County									
1 SW Edmore	13	1930CST			0	0	2K		Thunderstorm Wind
20 large trees were blown over in the strong wind.									
Ramsey County									
Edmore	13	1945CST			0	0			Thunderstorm Wind (G55)
Ramsey County									
10 SW Edmore	13	2000CST			0	0			Flash Flood
3.15 inches of rain caused several roads to wash out.									
Walsh County									
Voss	15	2345CST			0	0	5K		Thunderstorm Wind
A metal shed was blown down in Voss.									
NDZ014>015									
Benson - Ramsey									
	23	0000CST			0	0	4M	4M	Flood
Devils Lake reached an elevation of 1442.8 feet MSL, continuing its record high levels. High water continued to close portions of Highways 57 and 20 south of the city of Devils Lake. Forestry officials estimated that 900,000 trees had been killed in the past 5 years due to high water levels, 200,000 of those trees just in the past 2 years. Homes and businesses close to the rising lake were moved to higher ground.									
Walsh County									
1.5 SE Park River to 1 SE Park River	25	1638CST			0	0			Hail (1.00)
Walsh County									
Pisek	25	1710CST			0	0			Hail (1.50)
Walsh County									
Pisek	25	1710CST			0	0	1K		Thunderstorm Wind
Trees were blown down in Pisek.									
Sargent County									
Cogswell	25	1732CST			0	0	5K		Thunderstorm Wind
Tree damage was reported in Cogswell and a barn was destroyed.									
Sargent County									
2 NE Forman	25	1745CST			0	0	2K		Thunderstorm Wind
Many trees were blown down just northeast of Forman.									
Sargent County									
Forman	25	1800CST			0	0			Hail (1.00)
Sargent County									
Forman	25	1800CST			0	0	1K		Thunderstorm Wind
Strong wind knocked down trees in Forman.									
Sargent County									
1 W Havana	25	1838CST			0	0	10K		Thunderstorm Wind
A grain bin was damaged in the strong wind.									
Cass County									
1 W Argusville	26	1426CST	0.2	25	0	0			Tornado (F0)
Cass County									
2 W West Fargo	26	1445CST	0.2	25	0	0			Tornado (F0)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>NORTH DAKOTA, East</u>									
Cass County									
Argusville	26	1510CST	0.2	25	0	0			Tornado (F0)
Rapid convection produced several brief tornado touchdowns north of Fargo. First reports came before any echoes appeared on radar.									
<u>OHIO, East</u>									
Columbiana County									
Highlandtown	18	1830EST			0	0	3K		Thunderstorm Wind
Trees and power lines were downed by thunderstorm winds.									
Jefferson County									
Stratton	18	1845EST			0	0			Thunderstorm Wind (G65)
A wind gust to 75 mph was reported at the New Cumberland Lock and Dam.									
Columbiana County									
Wellsville	18	1850EST			0	0	30K		Thunderstorm Wind
Thunderstorm winds downed numerous trees. A house was severely damaged by a falling tree. Route 39 was blocked by downed trees.									
Columbiana County									
East Liverpool	18	1850EST			0	0	2K		Thunderstorm Wind
Thunderstorm winds downed large trees and branches onto River Road.									
Jefferson County									
Brilliant	18	1900EST			0	0	4K		Thunderstorm Wind
Thunderstorm winds downed power lines and large trees.									
Muskingum County									
Hopewell	27	1940EST			0	0	2K		Thunderstorm Wind
Thunderstorm winds downed trees.									
Muskingum County									
Darlington	27	1940EST			0	0	2K		Thunderstorm Wind
Thunderstorm winds downed trees.									
Guernsey County									
Cambridge	27	2003EST			0	0	3K		Thunderstorm Wind
Thunderstorm winds downed several trees.									
Noble County									
Caldwell	27	2057EST			0	0	3K		Thunderstorm Wind
Several trees and branches were downed by thunderstorm winds. A tree fell across County Road 28B.									
Coshocton County									
Coshocton	28	1050EST			0	0	1K		Thunderstorm Wind
Thunderstorm winds downed large branches.									
Guernsey County									
4 E Cambridge	28	1130EST			0	0	1K		Thunderstorm Wind
Thunderstorm winds downed two trees and some large limbs.									
Belmont County									
Barnesville	28	1149EST			0	0	5K		Thunderstorm Wind
A barn was blown down by thunderstorm winds.									
Belmont County									
St Clairsville	28	1150EST			0	0	5K		Thunderstorm Wind
Power lines and trees were downed by thunderstorm winds throughout the county.									
Jefferson County									
Smithfield	28	1150EST			0	0	20K		Thunderstorm Wind
Thunderstorm winds ripped a roof off of a house.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
OHIO, East									
Belmont County									
Yorkville	28	1200EST			0	0	2K		Thunderstorm Wind
Thunderstorm winds destroyed a metal shed.									
OHIO, North									
OHZ010-014-023-032>033									
Lorain - Ashtabula - Trumbull - Stark - Mahoning									
	01	0000EST			0	0			Drought
	31	2359EST							
Lower than normal precipitation will diminish crop yields (dollar amounts unknown) in Northeast Ohio by amounts ranging from approximately 25 percent in Lorain County to 50 to 60 percent in Ashtabula and Mahoning Counties. Youngstown Airport (Mahoning County) reported .65 inches of precipitation for the month of July, which broke the previous record of 1.57 inches set in 1957. Akron Canton Airport (Stark) reported 1.19 inches of precipitation, which made it the third driest July on record.									
Marion County									
New Bloomington	02	1650EST			0	0	2K		Thunderstorm Wind
Trees were downed.									
Ashland County									
Countywide	02	1715EST			0	0	10K		Thunderstorm Wind
Trees, large limbs and power lines were downed, with one tree falling on a house.									
Richland County									
Shelby	02	1815EST			0	0	15K		Thunderstorm Wind
Trees and power lines were downed, with one tree falling on a house.									
Stark County									
Canton	02	1830EST			0	0	50K		Thunderstorm Wind
Numerous trees and power lines were downed, some on cars. The surrounding townships of Perry, Jackson and Plain also reported trees down.									
Wayne County									
Orrville	02	1835EST			0	0	5K		Thunderstorm Wind
A shed was blown apart.									
Ashtabula County									
Countywide	02	2145EST			0	0	60K		Thunderstorm Wind
Trees were downed and some barns were severely damaged.									
Holmes County									
Walnut Creek	07	1422EST			0	0			Hail (0.75)
Henry County									
Ridgeville Corners	08	2015EST			0	0	2K		Thunderstorm Wind
Trees and limbs were downed.									
Henry County									
Countywide	08	2055EST			0	0			Flood
Heavy rain caused flooding of underpasses and low lying areas.									
Henry County									
Hamler	08	2055EST			0	0	2K		Thunderstorm Wind
Trees and limbs were downed and a 61 mile per hour wind gust was reported.									
Wyandot County									
Carey	08	2100EST			0	0	25K		Flood
	09	1500EST							
Heavy rain caused Spring Run to overflow its banks, flooding several roads and basements. Flooding continued into the 9th.									
Wood County									
Tontogany	08	2130EST			0	0	2K		Thunderstorm Wind
Trees were downed in Washington Township.									
Wood County									
Countywide	08	2157EST			0	0			Flood
Heavy rain caused flooding of roads. There was two feet of water in places on Route 23.									
Wyandot County									
Carey	08	2200EST			0	0	2K		Thunderstorm Wind

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons	Estimated Damage	Character of Storm
					Killed	Injured	Property Crops
OHIO, North							
Several trees were downed.							
Hancock County							
Countywide	08	2230EST			0	0	2K Thunderstorm Wind
Large limbs and utility lines were downed.							
Crawford County							
New Washington	08	2250EST			0	0	1K Thunderstorm Wind
Many large limbs were downed.							
Hancock County							
Countywide	08	2320EST			0	0	Flood
Heavy rain caused flooding of many roads.							
OHZ017							
Hancock							
	09	1200EST			0	0	100K Flood
	10	2100EST					
The Blanchard River at Findlay exceeded its flood stage of 11 feet and crested at 13.9 feet at 0600 EST on 07/10/97. Flooding occurred around the sewage plant, the downtown area and residences near Eagle and Lyle Creeks.							
Marion County							
La Rue	14	1430EST			0	0	Thunderstorm Wind (G52)
Trees were downed.							
Seneca County							
Fostoria	14	1730EST			0	0	5K Thunderstorm Wind
Trees were downed, one on a pickup truck.							
Ottawa County							
Countywide	14	1905EST			0	0	3K Thunderstorm Wind
Trees and branches were downed.							
Lucas County							
Maumee	14	1935EST			0	0	2K Thunderstorm Wind
Trees and limbs were downed.							
Lucas County							
Holland	14	1956EST			0	0	2K Thunderstorm Wind
Trees and large limbs were downed.							
Wayne County							
Orrville	17	1300EST			0	0	3K Thunderstorm Wind
Tree tops were snapped off and power lines were downed.							
Lucas County							
Toledo	17	2220EST			0	0	5K Thunderstorm Wind (G52)
Many large branches and power lines were downed. A 60 mile per hour wind gust was reported at Point Place.							
Wyandot County							
Marseilles	18	1415EST			0	0	3K Thunderstorm Wind
Large trees were downed.							
Marion County							
Meeker	18	1440EST			0	0	3K Thunderstorm Wind (G52)
Numerous trees were downed and a 60 mile per hour wind gust was reported.							
Wyandot County							
Upper Sandusky	18	1740EST			0	0	2K Thunderstorm Wind
Trees were downed.							
Marion County							
Marion	18	1800EST			0	3	3K Thunderstorm Wind
Trees and large limbs were downed. A mother and daughter were struck by the limb of a falling tree in Lincoln Park. A second daughter was stung by bees that were disturbed in their nest in the tree. All three were treated and released from the hospital.							
Marion County							
Marion	18	1830EST			0	0	Hail (1.00)
Sandusky County							
Kingsway	18	1830EST			0	0	10K Thunderstorm Wind
Trees were downed in Rice Township. The roof was blown off a barn, taking down power lines with it.							

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>OHIO, North</u>									
Morrow County									
Countywide	18	1850EST			0	0	2K		Thunderstorm Wind
Trees and power lines were downed.									
Sandusky County									
Bellevue	18	1930EST			0	0	3K		Lightning
Lightning struck and damaged a house.									
Portage County									
Suffield	24	0647EST			0	0	30K		Flood
Heavy thunderstorm rain caused flooding of streets, basements and yards.									
Portage County									
Randolph	24	0650EST			0	0	5K		Flood
Heavy thunderstorm rain caused flooding of basements.									
Sandusky County									
Fremont	26	0650EST			0	0	75K		Thunderstorm Wind
Several trees and power lines were downed. At least three houses and two cars were struck by falling trees.									
Erie County									
Sandusky	26	0700EST			0	0	5K		Thunderstorm Wind
Large limbs were downed, taking power lines with them and damaging property.									
Erie County									
Milan	26	0700EST			0	0	3K		Thunderstorm Wind
Several trees and power lines were downed.									
Sandusky County									
Bellevue	26	0700EST			0	0	2K		Thunderstorm Wind
Trees and power lines were downed.									
Huron County									
Willard	26	0720EST			0	0	2K		Thunderstorm Wind
Trees and power lines were downed.									
Huron County									
Norwalk	26	0720EST			0	0	2K		Thunderstorm Wind
Trees and power lines were downed.									
Richland County									
Countywide	26	0830EST			0	0	5K		Thunderstorm Wind
Trees were downed, especially in Mansfield, Plymouth and Lucas.									
Crawford County									
North Auburn	26	0854EST			0	0	50K		Lightning
In Auburn Township, lightning struck a barn and set it on fire. The barn was destroyed, but there was no equipment or livestock in the barn.									
Morrow County									
Marengo	26	1720EST			0	0			Hail (0.75)
Knox County									
Howard	26	1940EST			0	0			Hail (1.75)
Richland County									
Mansfield	26	1948EST			0	0	3K		Thunderstorm Wind (G62)
Trees and branches were downed. A measured wind gust of 71 miles per hour was reported.									
Knox County									
Countywide	26	2015EST			0	0	2K		Thunderstorm Wind
Trees were downed.									
Ashland County									
Mohicanville	26	2044EST			0	0			Hail (0.75)
Knox County									
Mt Vernon	26	2115EST			0	0	5K		Flood
Heavy rain caused flooding of streets, drainage systems and storm sewers.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>OHIO, North</u>									
Marion County									
Marion	26	2126EST			0	0	2K		Thunderstorm Wind
									Large limbs were downed, blocking some roads.
Morrow County									
Cardington	26	2130EST			0	0	2K		Thunderstorm Wind
									Trees were downed.
Marion County									
Marion	26	2140EST	0.5	33	0	0	75K		Tornado (F0)
									A tornado touched down near State Route 98 five miles south of Marion. It remained on the ground for only a short time, but did considerable damage to a house and nearby barn. One window was broken, and half of the house roof was blown off, along with a TV antenna and siding. The roof was almost blown off of the barn and trees were downed and twisted.
Wyandot County									
Carey	27	1747EST			0	0	5K		Thunderstorm Wind
									Several trees were downed, one on a house.
Knox County									
Centerburg	27	1834EST			0	0	2K		Thunderstorm Wind
									Trees were downed.
Knox County									
Countywide	28	1000EST			0	0	5K		Thunderstorm Wind
									Trees and power lines were downed, especially at Gambier and Mount Vernon.
<u>OHIO, Northwest</u>									
Williams County									
Near Bryan	08	1920EST 1921EST			0	0	0.50K		Tstm Wind/Hail
									several large trees down.
Defiance County									
Near Defiance	08	2012EST 2013EST			0	0			Thunderstorm Wind (G60)
Defiance County									
Near Hicksville	08	2045EST 2046EST			0	0			Thunderstorm Wind (G65)
Defiance County									
Across County	08	2135EST 2335EST			0	0	5K	5K	Flash Flood
									four inches rain over parts of county. widespread flooding throughout the county.
Williams County									
Across County	21	1919EST 2230EST			0	0			Flash Flood
									widespread flooding cross county.
<u>OHIO, Southeast</u>									
Jackson County									
Jackson	02	1930EST			0	0	2K		Thunderstorm Wind
Jackson County									
Coalton	02	1950EST			0	0	2K		Thunderstorm Wind
Jackson County									
Blackfork Jct	02	2015EST			0	0	2K		Thunderstorm Wind
Gallia County									
Gallipolis	02	2016EST			0	0	15K		Thunderstorm Wind
									Several trees were blown down in the city. One damaged a parked car.
Vinton County									
Mc Arthur	02	2020EST			0	0	3K		Thunderstorm Wind

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>OHIO, Southeast</u>									
Meigs County									
Middleport	02	2025EST			0	0	5K		Thunderstorm Wind
Lawrence County									
Pedro	02	2026EST			0	0	2K		Thunderstorm Wind
Minor damage occurred as trees or large branches were blown down. Power lines came down in Lawrence County.									
Morgan County									
Ringgold	27	2005EST			0	0	2K		Thunderstorm Wind
Trees fell across Route 78 and several county and township roads.									
Washington County									
Barlow to Marietta	27	2025EST 2030EST			0	0	5K		Thunderstorm Wind
Trees fell across roads. One tree damaged a parked car in downtown Marietta.									
Washington County									
Marietta	28	1410EST			0	0	5K		Thunderstorm Wind
Washington County									
Marietta	28	1415EST			0	0	25K		Lightning
The chimney and roof to the Headstart Center was damaged. The fallen bricks heavily damaged a car parked below.									
Washington County									
Lowell	28	1425EST			0	0	2K		Thunderstorm Wind
Gallia County									
Vinton	28	1540EST			0	0	2K		Thunderstorm Wind
Lawrence County									
Ironton	28	1630EST			0	0	3K		Thunderstorm Wind
<u>OHIO, Southwest</u>									
Mercer County									
Countywide	02	1523EST 1555EST			0	0	10K		Thunderstorm Wind (G50)
Numerous trees downed. One tree fell across a house trailer causing damage.									
Van Wert County									
Van Wert	02	1530EST 1535EST			0	0	5K		Thunderstorm Wind (G50)
Numerous trees downed.									
Shelby County									
Botkins to Sidney	02	1550EST 1615EST			0	0	20K		Thunderstorm Wind (G50)
Roof blown off a barn and numerous trees downed.									
Auglaize County									
New Bremen	02	1600EST 1605EST			0	0	5K		Thunderstorm Wind (G50)
Numerous trees downed.									
Logan County									
Countywide	02	1615EST 1645EST			0	0	10K		Thunderstorm Wind (G50)
Trees downed across the entire county.									
Darke County									
New Madison	02	1630EST 1640EST			0	0	5K		Thunderstorm Wind (G50)
Trees and power lines downed.									
Hardin County									
Kenton	02	1640EST 1645EST			0	0	5K		Thunderstorm Wind (G50)
Trees downed.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>OHIO, Southwest</u>									
Champaign County									
Urbana to Mechanicsburg	02	1652EST 1700EST			0	0	5K		Thunderstorm Wind (G50)
									Several trees knocked down.
Clark County									
Springfield	02	1700EST 1705EST			0	0	5K		Thunderstorm Wind (G50)
									Numerous trees downed.
Preble County									
Countywide	02	1700EST 1745EST			0	0	10K		Thunderstorm Wind (G50)
									Numerous trees downed.
Union County									
Milford Center to New Dover	02	1700EST 1715EST			0	0	5K		Thunderstorm Wind (G50)
									Trees and power lines downed.
Delaware County									
3 S Delaware to Sunbury	02	1730EST 1740EST			0	0	20K		Thunderstorm Wind (G60)
									Roof peeled off a barn and numerous trees downed.
Franklin County									
Dublin	02	1730EST 1745EST	0.2	100	0	0	30K		Tornado (F0)
									A tornado made a brief touchdown in an area where downbursts were also occurring. Several homes received minor damage and numerous trees were downed.
Madison County									
Plain City	02	1730EST 1735EST			0	0	15K		Thunderstorm Wind (G60)
									Roof blown off a barn. Several trees and power lines downed.
Montgomery County									
Countywide	02	1730EST 1800EST			0	0	100K		Thunderstorm Wind (G60)
									Roof blown off an area church and numerous trees downed. Some trees fell across houses.
Greene County									
Countywide	02	1735EST 1800EST			0	0	20K		Thunderstorm Wind (G60)
									Numerous trees downed.
Butler County									
Rockdale to Astoria	02	1740EST 1750EST			0	0	25K		Thunderstorm Wind (G60)
									Many trees downed. Several fell across homes and cars.
Licking County									
Pataskala	02	1740EST 1750EST			0	0	5K		Thunderstorm Wind (G50)
									Many large trees knocked down.
Fairfield County									
Lancaster	02	1800EST 1810EST			0	0	5K		Thunderstorm Wind (G50)
									Numerous trees and power lines downed.
Greene County									
2 N New Jasper	02	1800EST 1805EST	0.2	300	0	0	50K		Tornado (F2)
									A brief tornado developed in the apex of a bow echo that moved across the county. A house was blown off its foundation and moved 35 feet away.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
OHIO, Southwest									
Clinton County									
Countywide	02	1802EST 1830EST			0	0	10K		Thunderstorm Wind (G50)
									Numerous trees downed.
Hamilton County									
Delhi to Cincinnati	02	1804EST 1825EST			0	0	100K		Hail (2.75)
									Hail as large as baseballs fell across the southwestern part of the county. Windows and roofs were destroyed on numerous cars. Several buildings were damaged including an area greenhouse which had its roof destroyed.
Warren County									
Waynesville	02	1805EST 1810EST			0	0	15K		Thunderstorm Wind (G50)
									Roof blown off a building and numerous trees downed.
Fayette County									
Countywide	02	1830EST 1850EST			0	0	20K		Thunderstorm Wind (G50)
									Numerous trees and power lines downed. Several trees fell across cars and trailers.
Warren County									
Lebanon	02	1830EST 1835EST			0	0			Hail (1.00)
Highland County									
Countywide	02	1835EST 1900EST			0	0	20K		Thunderstorm Wind (G50)
									Numerous trees downed and a barn destroyed.
Hocking County									
Logan	02	1840EST 1850EST			0	0	5K		Thunderstorm Wind (G50)
									Several trees downed.
Ross County									
Chillicothe	02	1900EST 1915EST			0	0	10K		Thunderstorm Wind (G50)
									Several trees knocked down across the county.
Warren County									
Lebanon	02	1902EST 1910EST			0	0	5K		Thunderstorm Wind (G50)
									Trees and power lines downed.
Clinton County									
New Vienna	02	1920EST 1930EST			0	0	100K		Thunderstorm Wind (G70)
									A roof was blown off an antique store, over another building, and into a parking lot. Numerous trees were downed of which several fell on vehicles.
Adams County									
Locust Grove	02	1930EST 1940EST			0	0	5K		Thunderstorm Wind (G50)
									Several trees downed.
Clermont County									
2 E Moscow to 2 SE Felicity	02	1930EST 1950EST	12	500	0	0	2M		Tornado (F3)
									A multiple vortex tornado tracked across the southern part of the county. The tornado damaged or destroyed 56 mobile homes and 27 single family homes. Several barns and sheds were destroyed and numerous trees were downed. No serious injuries or deaths occurred with this tornado.
Highland County									
Highland to Leesburg	02	1930EST 1940EST			0	0	5K		Thunderstorm Wind (G50)
									Several trees downed.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
OHIO, Southwest									
Brown County									
Higginsport	02	1940EST 1950EST			0	0	5K		Thunderstorm Wind (G50)
									Numerous trees downed.
Pike County									
Latham to Idaho	02	1945EST 2000EST			0	0	15K		Thunderstorm Wind (G50)
									A trailer was overturned and numerous trees were knocked down.
Scioto County									
Portsmouth	02	2015EST 2020EST			0	0	5K		Thunderstorm Wind (G50)
									Several trees downed.
<p>A low pressure system with an unusually strong mid and upper level jet streak was moving across the Great Lakes with an associated cold front moving across the upper Ohio valley. Thunderstorms developed across Indiana and moved into West-Central Ohio around mid-afternoon with a distinct bow echo causing wind damage from near to Lima to southeast of Columbus. On the southern edge of the first line of storms, a supercell developed over Central Indiana. This storm evolved into a bow echo and swept across the Dayton metro area causing extensive wind damage and a brief tornado in Greene county. Another supercell developed near Cincinnati and moved southeastward along the Ohio River. This storm produced the F3 tornado in Clermont county.</p>									
Putnam County									
Leipsic	08	2110EST			0	0			Thunderstorm Wind (G52)
									An observer reported a wind gust to 60 mph.
Putnam County									
Ottawa to Columbus Grove	08	2238EST 2330EST			0	0	10K		Flood
									Heavy rainfall caused streets to flood. Also, Cranberry creek flooded a few homes.
Putnam County									
Columbus Grove	08	2307EST			0	0			Thunderstorm Wind (G53)
									An observer reported a wind gust to 62 mph.
Allen County									
Bluffton	08	2330EST			0	0			Thunderstorm Wind (G52)
									An observer reported a wind gust to 60 mph.
OHZ016									
Putnam									
	09	1600EST			0	0			Flood
	12	0000EST							Heavy rainfall caused the Blanchard River at Ottawa to rise out of its banks. The river crested at 26.4 feet around 100 pm est on the 10th.
Warren County									
Mason	14	1353EST 1355EST			0	0			Hail (0.75)
Warren County									
Mason	14	1415EST 1420EST			0	0	3K		Thunderstorm Wind (G50)
									Trees downed.
Hamilton County									
Norwood	14	1420EST 1425EST			0	0			Hail (0.75)
Warren County									
Mason	14	1428EST 1600EST			0	0	100K		Flood
									A thunderstorm dropped around 5 inches of rain in just over 2 hours over parts of the county. Several houses were flooded, several roads were flooded including Interstate 71 around Kings Mills, and 135 cars were damaged due to flooding in the parking lot of the King's Island Amusement park.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
OHIO, Southwest									
Clinton County									
New Antioch	14	1440EST 1445EST			0	0			Hail (0.75)
Clinton County									
Burtonville	14	1505EST 1510EST			0	0	3K		Thunderstorm Wind (G50)
Several trees knocked down.									
Auglaize County									
New Hampshire	14	1632EST 1635EST			0	0	3K		Thunderstorm Wind (G50)
Trees downed.									
Franklin County									
Columbus	14	2210EST 2215EST			0	0	5K		Thunderstorm Wind (G50)
Tree and power lines downed.									
Franklin County									
Dublin to Columbus	18	1610EST 1700EST			0	0	30K		Thunderstorm Wind (G60)
A storm left a long narrow path of damage across the county. Numerous trees and power lines were downed and an office trailer was overturned.									
Van Wert County									
2 SE Dixon to 2 SE Van Wert	18	1615EST 1630EST			0	0	75K		Thunderstorm Wind (G80)
Two barns were severely damaged, a grain bin was destroyed, and a three car garage was moved one foot off its foundation just east of Dixon. Also, numerous trees were downed. This storm also produced up to golf ball size hail near Van Wert.									
Delaware County									
Ashley	18	1700EST 1705EST			0	0	5K		Thunderstorm Wind (G50)
Numerous trees downed.									
Allen County									
Countywide	18	1715EST 1730EST			0	0	40K		Thunderstorm Wind (G60)
Two campers were overturned, a barn was damaged, and numerous trees and power lines were downed.									
Hardin County									
Ada	18	1736EST 1740EST			0	0	5K		Thunderstorm Wind (G50)
Trees and power lines downed.									
Union County									
2 NW Magnetic Spgs	18	1830EST 1835EST			0	0	25K		Thunderstorm Wind (G50)
Barn damaged and numerous trees downed. Two of the trees fell across homes causing considerable damage.									
Delaware County									
Ashley to Delaware	18	1853EST 1900EST			0	0	5K		Thunderstorm Wind (G52)
Numerous trees downed. An observer reported a 60 mph wind gust.									
Clermont County									
Clermontville	22	1030EST 1035EST			0	0	5K		Thunderstorm Wind (G50)
Numerous trees downed.									
Warren County									
2 W Loveland Park	22	1953EST 2130EST			0	0	500K		Flash Flood
Five inches of rain fell in only a few hours in a highly urbanized area. Water flooded roads and swept a few cars away. The local Holiday Inn had 30 rooms flooded.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
OHIO, Southwest									
Hamilton County									
Sixteen Mile Stand	22	2030EST 2130EST			0	0	25K		Flood
									Nearly five inches of rain fell in only a few hours causing numerous roads to be flooded.
Pike County									
3 W Waverly	23	1520EST 1525EST			0	0	3K		Thunderstorm Wind (G50)
									Trees downed.
Scioto County									
Rushtown	23	1700EST 1705EST			0	0	3K		Thunderstorm Wind (G50)
									Numerous trees downed.
Butler County									
West Chester	23	1950EST 1955EST			0	0	3K		Thunderstorm Wind (G52)
									An observer reported a wind gust to 60 mph. Several power lines were downed.
Licking County									
3 SW Croton to 2.7 SW Croton	26	1815EST 1820EST	0.3	25	0	0	5K	10K	Tornado (F1)
									A tornado touched down briefly downing a few trees and damaging corn crops.
Delaware County									
Delaware	26	1825EST 1830EST			0	0	5K		Thunderstorm Wind (G50)
									Several trees downed.
Licking County									
Kirkersville	26	1827EST 1830EST			0	0			Hail (1.50)
Fairfield County									
Pickerington	26	1930EST 1945EST			0	0	50K		Thunderstorm Wind (G60)
									A grocery store roof was damaged and numerous trees were downed.
Licking County									
Pataskala	26	1930EST 1940EST			0	0	5K		Thunderstorm Wind (G50)
									Numerous trees downed.
Hocking County									
Logan	26	1945EST 1955EST			0	0	5K		Thunderstorm Wind (G50)
									Numerous trees knocked down.
Putnam County									
Cloverdale	26	2008EST 2015EST			0	0	3K		Thunderstorm Wind (G50)
									Trees downed.
Fairfield County									
Millersport	26	2010EST 2020EST			0	0	5K		Thunderstorm Wind (G50)
									Numerous trees downed.
Licking County									
Granville	26	2010EST 2020EST			0	0	5K		Thunderstorm Wind (G50)
									Numerous trees downed.
Delaware County									
Sunbury	26	2108EST			0	0			Thunderstorm Wind (G54)
									An observer reported a wind gust to 63 mph.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
OHIO, Southwest									
Hocking County									
Laurelville	26	2130EST 2145EST			0	0	50K		Thunderstorm Wind (G70)
									Hundreds of trees were downed of which many fell across power lines. Sixteen telephone poles were broken during the storm.
Licking County									
Countywide	26 27	2130EST 0230EST			0	0	2M		Flash Flood
									An estimated 8 inches of rain fell across the county in less than 6 hours. Numerous roads were closed, including Interstate 71, and many houses and businesses were flooded. The county was declared a disaster area by the state of Ohio.
Licking County									
Newark	26	2138EST			0	0	20K		Lightning
									Lightning struck the Modern financing building sparking a fire the caused substantial damage.
Delaware County									
Olive Green	26	2145EST 2155EST			0	0	5K		Thunderstorm Wind (G50)
									Trees and power lines downed.
Fairfield County									
Countywide	26	2150EST 2215EST			0	0	10K		Thunderstorm Wind (G60)
									Numerous trees downed.
Licking County									
Wagram	26	2230EST 2240EST			0	0	5K		Thunderstorm Wind (G50)
									Many trees downed.
Mercer County									
Celina	26	2325EST 2330EST			0	0	5K		Thunderstorm Wind (G50)
									Trees and power poles downed.
Franklin County									
Reynoldsburg	26	2355EST 2359EST			0	0	5K		Thunderstorm Wind (G50)
									Trees and power lines downed.
Pickaway County									
Ashville	27	0025EST 0030EST			0	0	5K		Thunderstorm Wind (G50)
									Several trees downed.
Pickaway County									
3 NW Whisler	27	0042EST 0050EST			0	0	200K		Thunderstorm Wind (G70)
									Several barns destroyed, roof blown off a garage, and numerous trees downed. Some of the trees fell across some of which fell across homes and barns.
Fairfield County									
Countywide	27	0113EST 0215EST			0	0	10K		Flood
									Persistent heavy rainfall caused roads to be flooded across the county.
Hocking County									
Countywide	27	0115EST 0215EST			0	0	10K		Flood
									Several hours of thunderstorms with heavy rainfall caused several roads to be flooded across the county.

A warm front which was across central Ohio at peak heating on the 26th became the focus for a Mesoscale Convective System that lasted well into the early morning hours on the 27th. Severe thunderstorms moved repeatedly over the same areas causing substantial damage. The continuous rainfall also caused flash flooding in Licking county. Over 400 homes received damage from the combined severe thunderstorm and flooding event.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
OHIO, Southwest									
Darke County									
Ansonia	27	1558EST 1600EST			0	0			Hail (0.75)
Mercer County									
1 N Montezuma	27	1600EST 1605EST			0	0	3K		Thunderstorm Wind (G50)
Numerous trees downed.									
Miami County									
Troy	27	1600EST 1605EST			0	0	3K		Thunderstorm Wind (G50)
Several trees downed.									
Clark County									
New Carlisle	27	1620EST 1625EST			0	0	3K		Thunderstorm Wind (G50)
Trees downed.									
Hardin County									
Mc Guffey	27	1645EST 1650EST			0	0	3K		Thunderstorm Wind (G50)
Trees knocked down.									
Montgomery County									
Huber Hgts	27	1657EST 1700EST			0	0	5K		Thunderstorm Wind (G50)
Numerous large limbs and power lines downed.									
Warren County									
2 W Lebanon to 2 W Mason	27	1700EST 1724EST			0	0	5K		Thunderstorm Wind (G50)
Trees and power lines downed.									
Butler County									
Hamilton	27	1710EST			0	0			Thunderstorm Wind (G52)
An observer reported a wind gust to 60 mph.									
Champaign County									
Urbana	27	1718EST 1725EST			0	0	5K		Thunderstorm Wind (G50)
Numerous trees downed.									
Hamilton County									
Cincinnati	27	1740EST 1745EST			0	0	3K		Thunderstorm Wind (G50)
Trees downed.									
Delaware County									
Lewis Center	27	1800EST 1805EST			0	0	5K		Thunderstorm Wind (G50)
Trees and power lines.									
Fairfield County									
Pickerington	27	1800EST 1805EST			0	0	3K		Thunderstorm Wind (G50)
Several trees downed.									
Fayette County									
Buena Vista	27	1800EST 1805EST			0	0	3K		Thunderstorm Wind (G50)
Many trees downed.									
Licking County									
Countywide	27	1845EST 1900EST			0	0	10K		Thunderstorm Wind (G50)
Numerous trees downed.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>OHIO, Southwest</u>									
Ross County									
Chillicothe	27	1855EST 1900EST			0	0	5K		Thunderstorm Wind (G50)
			Trees and power lines downed.						
Clermont County									
Countywide	27	1924EST 1935EST			0	0	10K		Thunderstorm Wind (G50)
			Numerous trees and power lines downed.						
Clinton County									
Countywide	27	1930EST 1945EST			0	0	10K		Thunderstorm Wind (G50)
			Many trees downed.						
Licking County									
Countywide	27	2000EST 2145EST			0	0	5K		Flood
			Heavy rainfall on already saturated ground caused creeks and streams to rise out of their banks, mainly in the eastern half of the county.						
Fairfield County									
Millersport	27	2030EST 2145EST			0	0	5K		Flood
			Several roads were closed across the county due to heavy rainfall.						
			The second Mesoscale Convective System in less than 24 hours affected much of central Ohio with strong winds and heavy rainfall. This area of storms also affected much of southern Ohio.						
Clinton County									
Clarksville	28	0655EST 0700EST			0	0	25K		Thunderstorm Wind (G50)
			A barn roof was damaged and several trees and limbs were downed.						
Clinton County									
4 SE Martinsville	28	0725EST			0	0			Thunderstorm Wind (G52)
			An observer reported a gust to 60 mph.						
Warren County									
Morrow	28	1430EST 1435EST			0	0	25K		Thunderstorm Wind (G70)
			A microburst caused significant damage to a barn.						
Ross County									
Chillicothe	28	1445EST 1450EST			0	0	3K		Thunderstorm Wind (G50)
			Several trees downed.						
<u>OKLAHOMA, Eastern</u>									
Craig County									
2 N Welch	03	1828CST			0	0			Hail (0.75)
Nowata County									
Wann	03	1831CST			0	0			Hail (0.88)
Nowata County									
Wann	03	1831CST			0	0			Thunderstorm Wind (G52)
Washington County									
2 N Wann	03	1834CST			0	0			Hail (0.88)
Osage County									
5 W Bartlesville	03	1849CST			0	0			Hail (1.00)
Osage County									
3 W Bartlesville	03	1857CST			0	0			Hail (1.00)
Washington County									
Bartlesville	03	1857CST			0	0			Hail (1.00)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
OKLAHOMA, Eastern									
Washington County									
1 S Dewey	03	1858CST			0	0			Hail (1.00)
Washington County									
Bartlesville	03	1900CST			0	0			Hail (1.00)
Washington County									
Bartlesville	03	1907CST			0	0	5K		Thunderstorm Wind
Nowata County									
5 NW Nowata	03	1925CST			0	0			Hail (0.75)
Osage County									
Pawhuska	03	1927CST			0	0			Hail (1.00)
Osage County									
1 N Pawhuska	03	1927CST			0	0			Hail (1.00)
Nowata County									
Nowata	03	1930CST			0	0			Hail (1.00)
Craig County									
12 NW Vinita	03	1933CST			0	0			Hail (1.75)
Craig County									
12 NW Vinita	03	1935CST			0	0			Hail (1.75)
Nowata County									
5 NW Nowata	03	1938CST			0	0			Hail (0.75)
Osage County									
Pawhuska	03	1939CST			0	0			Hail (1.00)
Craig County									
Ketchum	03	2010CST			0	0			Thunderstorm Wind (G52)
Delaware County									
2 W Bernice	03	2012CST			0	0			Thunderstorm Wind (G59)
Delaware County									
Cleora	03	2014CST			0	0			Thunderstorm Wind (G56)
Delaware County									
Bernice	03	2015CST			0	0			Thunderstorm Wind (G52)
Delaware County									
3 N Grove	03	2015CST			0	0	10K		Thunderstorm Wind
Delaware County									
3 SE Bernice	03	2020CST			0	0	0.10K		Thunderstorm Wind
Delaware County									
2 SW Cleora	03	2023CST			0	0			Thunderstorm Wind (G65)
Delaware County									
5 N Grove	03	2030CST			0	0	0.10K		Thunderstorm Wind
Delaware County									
2 E Grove	03	2035CST			0	0			Hail (0.75)
Craig County									
1 N Ketchum	03	2037CST			0	0			Thunderstorm Wind (G65)
Delaware County									
4 N Grove	03	2037CST			0	0			Hail (0.75)
Delaware County									
Grove	03	2045CST			0	0			Hail (0.75)
Ottawa County									
2 NE Afton	03	2050CST			0	0			Thunderstorm Wind (G52)
Osage County									
6 SE New Prue	03	2145CST			0	0			Thunderstorm Wind (G52)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
OKLAHOMA, Eastern									
Tulsa County									
5 S Sperry	03	2145CST			0	0			Hail (0.75)
Tulsa County									
Tulsa	03	2212CST			0	0			Hail (0.88)
Creek County									
1 SE Depew	03	2215CST			0	0			Thunderstorm Wind (G52)
Tulsa County									
Tulsa	03	2221CST			0	0			Thunderstorm Wind (G54)
<p>Severe thunderstorms moved across northeast Oklahoma during the evening of July 3rd. Strong thunderstorm winds downed large trees and numerous street signs in the south part of the city of Bartlesville, and strong winds broke a 2 foot diameter tree and capsized a cabin cruiser 3 miles north of Grove. A 20 inch tree was blown down 3 miles southeast of Bernice, and 6 inch diameter tree limbs were broken off 5 miles north of Grove. Thunderstorm winds gusted to 70 to 80 miles an hour 2 miles southwest of Cleora and 1 mile north of Ketchum and to 65 to 70 miles an hour 2 miles west of Bernice. Thunderstorm winds gusted to 60 to 65 miles an hour at several other locations in northeast Oklahoma. Hail up to golfball size fell 12 miles northwest of Vinita, and dime to quarter size hail fell at numerous other locations in northeast Oklahoma.</p>									
Ottawa County									
Miami	09	0115CST			0	0	0.10K		Thunderstorm Wind
A severe thunderstorm produced strong winds which downed several large tree limbs in Miami.									
Muskogee County									
Muskogee	10	1115CST 1215CST			0	0			Flash Flood
Muskogee County									
Ft Gibson	10	1130CST 1230CST			0	0			Flash Flood
<p>Thunderstorms in Muskogee County of northeast Oklahoma produced up to 5 inches of rain which resulted in flash flooding. Widespread street flooding occurred in Muskogee, and Sams Creek overflowed its banks resulting in minor flooding in the Meadows subdivision on the south side of Muskogee. However, no homes were flooded in Muskogee. State Highway 10 was impassable in the town of Fort Gibson due to high water over the roadway.</p>									
Mayes County									
7 N Pryor	15	0230CST			0	0	2K		Thunderstorm Wind
A severe thunderstorm produced strong winds which tore the roof off a 28 foot by 30 foot barn, uprooted a few trees, snapped 1 tree in half, and took the tops out of a few trees 7 miles north of Pryor.									
Cherokee County									
Park Hill	15	0530CST			0	0			Hail (1.00)
Cherokee County									
3 S Tahlequah	15	0535CST			0	0			Hail (0.75)
A severe thunderstorm produced quarter size hail at Park Hill and dime size hail 3 miles south of Tahlequah.									
Haskell County									
1 SE Stigler	15	1320CST			0	0			Hail (0.75)
Pittsburg County									
Mc Alester	15	1416CST			0	0			Hail (1.00)
Pittsburg County									
5 SW Mc Alester	15	1420CST			0	0			Hail (1.00)
Mcintosh County									
2 SW Hitchita	15	1615CST			0	0			Thunderstorm Wind (G52)
Okfuskee County									
Okemah	15	1630CST			0	0			Hail (1.00)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>OKLAHOMA, Eastern</u>									
Tulsa County									
Tulsa	15	1725CST			0	0			Thunderstorm Wind (G53)
Okfuskee County									
4 W Okemah	15	1730CST			0	0	50K		Thunderstorm Wind
Tulsa County									
Tulsa	15	1740CST			0	0			Hail (0.75)
Tulsa County									
Tulsa	15	1758CST			0	0			Hail (0.88)
Tulsa County									
3 S Tulsa	15	1803CST			0	0			Hail (1.00)
Rogers County									
3 W Claremore	15	1825CST			0	0			Hail (0.88)
Rogers County									
Claremore	15	1830CST			0	0			Hail (1.75)
Tulsa County									
Tulsa	15	1840CST 1930CST			0	0			Flash Flood
Rogers County									
Inola	15	1900CST 1930CST			0	0			Flash Flood
Tulsa County									
5 SW Tulsa	15	1907CST			0	0			Hail (0.75)
Osage County									
6 E New Prue	15	1925CST			0	0			Hail (0.75)
Osage County									
Hominy	15	2015CST			0	0			Hail (0.88)
Osage County									
Hominy	15	2025CST			0	0			Hail (1.00)
Severe thunderstorms developed in eastern Oklahoma during the afternoon and evening of July 15th. Strong thunderstorm winds damaged 1 building and 1 house and downed several trees and power poles 4 miles west of Okemah. Thunderstorm winds gusted to 61 miles an hour at 61st Street South and Yale Avenue in the city of Tulsa and to 60 miles an hour 2 miles southwest of Hitchita. Golfball size hail broke windshields on the west side of Claremore, and dime to quarter size hail fell at numerous other locations in eastern Oklahoma. The storms also produced very heavy rainfall which resulted in flash flooding in Tulsa and Rogers Counties. Street flooding occurred in the west part of the city of Tulsa near and south of downtown, with as much as 6 inches of water over the roadway at 21st Street South and Southwest Boulevard. Street flooding also occurred in Inola.									
Osage County									
5 SE Ponca City	17	0530CST 0600CST			0	0			Flash Flood
Osage County									
South Of Shidler	17	0600CST			0	0			Flash Flood
Thunderstorms in western Osage County during the early morning of July 17th produced very heavy rainfall which resulted in flash flooding. High water covered a county road 5 miles southeast of Ponca City, and State Highway 18 was flooded south of Shidler.									
Okfuskee County									
7 W Welty	17	1400CST			0	0			Hail (1.00)
Okmulgee County									
Okmulgee	17	1435CST			0	0			Thunderstorm Wind (G56)
Okmulgee County									
Okmulgee	17	1448CST			0	0			Thunderstorm Wind (G65)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
OKLAHOMA, Eastern									
Okmulgee County									
Okmulgee	17	1500CST 1700CST			0	0	5K		Flash Flood
Mcintosh County									
Hitchita	17	1515CST			0	0			Thunderstorm Wind (G52)
Pittsburg County									
8 SW Mc Alester	17	1548CST			0	0			Hail (0.75)
Osage County									
W. Osage County	17 18	1606CST 0900CST			0	0	140K		Flash Flood
Osage County									
Shidler	17	1643CST			0	0			Hail (0.75)
Osage County									
1 S Shidler	17	1712CST			0	0			Hail (1.00)
Osage County									
Shidler	17	1712CST			0	0			Hail (1.00)
Osage County									
Burbank	17	1800CST			0	0			Thunderstorm Wind (G52)
Osage County									
2 SSE Fairfax	17	1805CST	0.1	30	0	0			Tornado (F0)
Osage County									
Fairfax	17	1829CST			0	0			Thunderstorm Wind (G70)
Pawnee County									
3 NE Pawnee	17	1830CST			0	0			Thunderstorm Wind (G62)
Pawnee County									
3 NE Pawnee	17	1835CST			0	0			Thunderstorm Wind (G72)
Pawnee County									
3 NE Pawnee	17	1840CST			0	0			Thunderstorm Wind (G51)
Osage County									
1 S Fairfax	17	1845CST			0	0	0.10K		Thunderstorm Wind
Pawnee County									
Jennings	17	1915CST			0	0			Thunderstorm Wind (G70)
Pawnee County									
10 NW Pawnee	17	1930CST			0	0			Hail (1.75)
Pawnee County									
8 NW Pawnee	17	1935CST			0	0			Hail (1.75)
Creek County									
Drumright	17	1950CST			0	0			Thunderstorm Wind (G52)
Pawnee County									
W. Pawnee County	17 18	2000CST 0800CST			0	0			Flash Flood
Creek County									
Shamrock	17	2015CST			0	0			Hail (0.88)
Pawnee County									
Ralston	17	2015CST			0	0	0.10K		Thunderstorm Wind
Creek County									
Milfay	17	2020CST			0	0	0.10K		Thunderstorm Wind
Pawnee County									
5 N Pawnee	17	2020CST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 1997

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

OKLAHOMA, Eastern

Creek County

In+Nr Shamrock	17	2250CST 2330CST			0	0			Flash Flood
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Okfuskee County

7 W Welty	18	0100CST 0645CST			0	0			Flash Flood
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Severe thunderstorms developed in eastern Oklahoma during the afternoon and evening of July 17th. The storms spawned one brief tornado 2 miles south southeast of Fairfax at 1805CST. No structural damage occurred with this tornado which was rated F0 in intensity. Damaging straight-line winds, large hail, and flash flooding were the main features associated with the storms.

Thunderstorm winds estimated at 80 miles an hour downed trees in Fairfax, and trees were also blown down in Milfay. Large tree limbs were blown down 1 mile south of Fairfax and in Ralston. Thunderstorm winds gusted up to 83 miles an hour at an automated observing site 3 miles northeast of Pawnee, to 80 miles an hour in Jennings, up to 75 miles an hour in Okmulgee, and to 60 miles an hour in Hitchita, in Burbank, and in Drumright. Golfball size hail fell 10 miles northwest of Pawnee and 8 miles northwest of Pawnee, and dime to quarter size hail fell at several other locations in eastern Oklahoma.

Thunderstorms during the afternoon and evening of July 17th and early morning of July 18th also produced very heavy rainfall which resulted in flash flooding. The worst flooding was in western Osage County, where up to 12 inches of rain fell. 4 houses in and near Burbank were damaged by high water from Salt Creek, and some of the homes were damaged beyond repair. State Highway 18 was washed out south of Fairfax and was closed north of Fairfax due to high water. Most roads in and out of Fairfax were closed, and water topped a bridge 7 miles north of Fairfax for the first time since 1986. 6 houses were evacuated near Fairfax when Salt Creek rose out of its banks, and some evacuations also took place in Grey Horse. State Highway 11 was closed west of Shidler and east of Ponca City due to flooding, and State Highway 18 south of Shidler was also closed due to flooding. Up to 2 feet of standing water covered some roads in Shidler.

In Pawnee County, most roads in Ralston were impassable due to high water, and many creeks were flooded in the Ralston area. State Highway 20 was partially flooded west of Ralston, and numerous county roads were flooded between Pawnee and Ralston and also west of Pawnee. Most low-lying areas in western Pawnee County were flooded. In Creek County, many roads were flooded in and near Shamrock. In Okfuskee County, many county roads were flooded 7 miles west of Welty, and some of the roads were impassable. In Okmulgee County, street flooding occurred in Okmulgee, and several cars were stalled by high water on U.S. Highway 75. Part of a road was washed away near 15th and Delaware in Okmulgee.

Osage County

West Of Burbank	19	0800CST 0835CST			0	0			Flash Flood
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Creek County

Drumright	19	0900CST 1000CST			0	0			Flash Flood
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Thunderstorms during the morning of July 19th produced very heavy rainfall which resulted in flash flooding in western Osage and western Creek Counties of northeast Oklahoma. 2 feet of water covered U.S. Highway 60 west of Burbank, and street flooding occurred in Drumright.

Tulsa County

Broken Arrow	20	1650CST			0	0			Thunderstorm Wind (G52)
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Tulsa County

Broken Arrow	20	1655CST			0	0			Hail (0.75)
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Tulsa County

Broken Arrow	20	1655CST			0	0			Thunderstorm Wind (G61)
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Tulsa County

Tulsa	20	1705CST			0	0			Hail (0.75)
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Tulsa County

Broken Arrow	20	1715CST			0	0	2K		Thunderstorm Wind
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Tulsa County

Tulsa	20	1719CST			0	0			Hail (1.00)
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Tulsa County

Tulsa	20	1725CST			0	0			Hail (1.25)
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Storm Data and Unusual Weather Phenomena

July 1997

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

OKLAHOMA, Eastern

Tulsa County

Tulsa	20	1728CST			0	0			Hail (0.88)
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Tulsa County

Tulsa	20	1740CST 1845CST			0	0			Flash Flood
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Tulsa County

Owasso	20	1805CST			0	0			Thunderstorm Wind (G52)
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A severe thunderstorm moved slowly north northwest through Tulsa County and produced large hail and damaging winds. Thunderstorm winds up to 70 miles an hour downed trees, power lines, and fences in Broken Arrow, mainly between 71st and 101st Streets South and between 145th and 161st East Avenue, and thunderstorm winds gusted to 60 miles an hour in Owasso. Dime to half dollar size hail fell at various locations in the city of Tulsa, and dime size hail fell in Broken Arrow. Very heavy rainfall produced by the storm also resulted in flash flooding in the city of Tulsa. A creek flooded onto Memorial Drive between 11th and 15th Streets South, and street flooding occurred at 51st Street South and 129th East Avenue.

Pawnee County

Cleveland	21	1830CST 1900CST			0	0			Flash Flood
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Pawnee County

Cleveland	21	1830CST			0	0	0.10K		Thunderstorm Wind
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Osage County

Osage	21	1835CST			0	0	0.10K		Thunderstorm Wind
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Osage County

Hominy	21	1837CST			0	0			Thunderstorm Wind (G54)
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Osage County

5 SE Ponca City	21	1840CST			0	0	0.10K		Thunderstorm Wind
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Osage County

5 E Hominy	21	1900CST			0	0			Hail (0.88)
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Osage County

Hominy	21	1900CST			0	0			Hail (0.88)
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Osage County

6 NNW Skiatook	21	1925CST			0	0	0.10K		Thunderstorm Wind
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Mcintosh County

5 WNW Eufaula	21	2000CST			0	0			Thunderstorm Wind (G50)
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Haskell County

6 WNW Hoyt	21	2005CST			0	0			Hail (0.75)
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Muskogee County

Porum	21	2010CST			0	0	0.10K		Thunderstorm Wind
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Isolated severe thunderstorms developed in eastern Oklahoma during the evening of July 21st. Strong thunderstorm winds downed trees and power lines in Cleveland and 5 miles southeast of Ponca City, and trees were blown down in Osage and 6 miles north northwest of Skiatook. Thunderstorm winds gusted to 60 to 65 miles an hour in Hominy and to 58 miles an hour at an automated observing site 5 miles west northwest of Eufaula, and several large tree limbs were blown down in Porum. Nickel size hail fell at Hominy and 5 miles east of Hominy, and dime size hail fell at Eufaula Dam 6 miles west northwest of Hoyt. The storms also produced very heavy rainfall which resulted in street flooding in Cleveland.

Rogers County

Claremore	21	2030CST			1	0			Lightning
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A 42 year old man was struck and killed by lightning when he went outdoors to roll up his car windows.
M42OU

Pittsburg County

Krebs	22	1700CST			0	0	40K		Thunderstorm Wind
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A severe thunderstorm produced strong winds which destroyed a concrete outbuilding and damaged another building in the northwest part of the town of Krebs.

Storm Data and Unusual Weather Phenomena

July 1997

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

Tulsa County

Tulsa	23	1338CST			0	0			Thunderstorm Wind (G56)
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Tulsa County

1 N Broken Arrow	23	1347CST			0	0			Hail (1.25)
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Tulsa County

1 N Broken Arrow	23	1347CST			0	0			Thunderstorm Wind (G52)
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Tulsa County

Tulsa	23	1350CST			0	0			Thunderstorm Wind (G56)
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A severe thunderstorm produced 65 mile an hour winds in the city of Tulsa at 71st Street South and Sheridan Road and also at 43rd Street South and Sheridan Road. The storm also produced 60 mile an hour winds and half dollar size hail 1 mile north of Broken Arrow.

OKLAHOMA, Extreme Southeast

NONE REPORTED.

OKLAHOMA, Panhandle

Texas County

1 W Hooker	05	1820CST			0	0			Thunderstorm Wind (G53)
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Reported by Oklahoma Mesonet.
Severe thunderstorm over the central Oklahoma Panhandle produced high winds.

Texas County

3 SE Hardesty	14	1530CST			0	0			Hail (1.00)
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Severe thunderstorm over the central Oklahoma Panhandle produced large hail during the late afternoon hours.

Cimarron County

5 SE Kenton	28	2030CST			0	0			Thunderstorm Wind (G52)
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Reported by Oklahoma Mesonet.
Severe thunderstorm over the western Oklahoma Panhandle produced high winds during the evening hours.

Cimarron County

2 NE Kenton	29	0230CST 1115CST			0	0			Flash Flood
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The Cimarron River crested at 16.11 feet at 05:15 am CST. Flood stage is 11.0 feet.
The Cimarron River, just northeast of Kenton in the western Oklahoma Panhandle, rose above flood stage during the early morning hours.

OKLAHOMA, Western, Central and Southeast

Kay County

Tonkawa	10	1255CST			0	0			Hail (0.75)
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Kay County

5 W Ponca City	10	1305CST			0	0	5K		Thunderstorm Wind
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A 15x75-foot wooden horse barn was destroyed, and debris was blown into several other horse trailers.

Kay County

1 SW Ponca City	10	1310CST			0	0	0.50K		Thunderstorm Wind
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Trees and power lines were blown down.

Kay County

Countywide	10	1430CST			0	0			Flash Flood
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Several roads in Kay County were closed due to high water.

Woods County

16 N Freedom	10	1735CST			0	0			Thunderstorm Wind (G50)
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measured at the Oklahoma Mesonet site.

Storm Data and Unusual Weather Phenomena

July 1997

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

Comanche County

Fletcher to Elgin	10	1800CST 2030CST			0	0			Flash Flood
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Flash flooding of Tony Creek resulted in the flooding of one home and the emergency rescues of a total of 7 teenagers. Water in the creek, normally only a few inches deep, rose to an estimated 8-feet deep, cutting off one residence. Four teenagers in this house were rescued as the water rose to near the foundation. Three other teens were stranded in their car at the intersection of Hwy 277 and Tony Creek Rd and also had to be rescued.

Comanche County

5 E Lawton	10	1800CST			0	0			Thunderstorm Wind (G52)
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Caddo County

2 S Cogar	10	1815CST			0	0	20K		Thunderstorm Wind
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Severe thunderstorm winds, probably associated with a thunderstorm downburst, blew the roof and patio off a trailer house. A light pole was also blown over onto a house and tin an 2x4 boards were forced into the ground.

Comanche County

1 W Elgin	10	1830CST			0	0			Flash Flood
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Up to 2.5 feet of water covered U.S. Highway 277.

Caddo County

Cyril	10	1900CST			0	0			Flash Flood
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Water up to a foot deep covered roads in the business district.

Caddo County

2 W Cyril	10	1915CST			0	0			Flash Flood
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A bridge was partially washed out by high water.

Comanche County

Fletcher	10	2100CST			0	0			Flash Flood
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Water rose curb-deep across town and covered sidewalks in some places.

Comanche County

1 W Elgin	10	2145CST			0	0			Flash Flood
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U.S. Highway 277 was closed due to high water.

Summary of events of July 10, 1997:

Two areas of severe and heavy thunderstorms in northern and southwestern Oklahoma caused serious flash flooding and isolated wind damage during the afternoon and evening of the 10th.

In northern Oklahoma, severe thunderstorms caused damage west and southwest of Ponca City in Kay County and flash flooding was reported countywide across Kay County.

In southwestern Oklahoma, northeastern portions of Comanche County were particularly hard-hit. Localized heavy rain resulted in the flash flooding of Tony Creek and its tributaries, stranding several motorists and residents in the Fletcher and Elgin areas.

See preceding individual Storm Data entries for further details and additional reports.

Washita County

Canute	11	1555CST			0	0	20K		Thunderstorm Wind
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Two tractor trailer trucks were blown over on Interstate 40, and numerous limbs were broken, trees were snapped, and power lines were downed.

Harmon County

Hollis	11	1820CST			0	0	25K		Thunderstorm Wind
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Severe thunderstorm winds damaged fences and roofs, blew windows out, split or uprooted several trees, and destroyed one carport.

Harmon County

3 W Gould	11	1830CST			0	0			Thunderstorm Wind (G55)
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measured at the Oklahoma Mesonet site.

Jackson County

3 E Eldorado	11	1845CST			0	0	0.40K		Thunderstorm Wind
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Power poles were blown down.

Storm Data and Unusual Weather Phenomena

July 1997

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

Washita County

10 NE Willow	11	1935CST			0	0			Thunderstorm Wind (G56)
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measured at the Oklahoma Mesonet site.

Greer County

Countywide	11	2200CST			0	0			Flash Flood
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Water covered Highway 6 south of Granite and Highway 283 east of Mangum. Many rural roads were flooded.

Jackson County

6 W Blair	11	2230CST			0	0			Flash Flood
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Rural roads were closed due to high water.

Kiowa County

6 S Lone Wolf	11	2230CST			0	0			Flash Flood
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A farm road was closed due to high water.

Summary of events of July 11, 1997:

Afternoon and evening severe thunderstorms moved across portions of southwestern Oklahoma, bringing strong winds and significant damage. By late evening, extended periods of heavy rain also began to cause flash flooding.

The strongest winds were measured near Willow in Greer County, where thunderstorm winds reached 64 mph. Damage was reported in Canute in Washita County, in Hollis in Harmon County, and east of Eldorado in Jackson County.

The most extensive flash flooding occurred in Greer County, with other reports of flash flooding near Lone Wolf in Kiowa and near Blair in Jackson County.

See preceding individual Storm Data entries for further information and additional reports.

Blaine County

2 E Southard	15	0755CST			0	0			Hail (1.25)
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Blaine County

2 E Southard	15	0755CST			0	0	0.01K		Thunderstorm Wind
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Four-inch diameter tree limbs were blown down.

Blaine County

7 N Watonga	15	0900CST			0	0			Hail (0.88)
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Comanche County

Lake Lawtonka	15	1315CST			0	0			Hail (0.88)
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Garvin County

Lindsay	15	1335CST			0	0			Hail (0.75)
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McClain County

Wayne	15	1348CST			0	0			Hail (1.00)
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McClain County

Wayne	15	1348CST			0	0	2K		Thunderstorm Wind (G61)
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A roof was blown off a wellhouse, several trees were blown over, and several awnings were blown off buildings by winds estimated at 70 mph.

Coal County

5 N Cairo	15	1435CST			0	0			Hail (0.88)
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Marshall County

Madill	15	1515CST			0	0	0.40K		Thunderstorm Wind
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Power poles were blown down.

Seminole County

Cromwell	15	1625CST			0	0			Hail (1.00)
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Summary of events of July 15, 1997:

Daytime severe thunderstorms moved across portions of central and southern Oklahoma, bringing strong winds and large hail.

The largest reported hail fell east of Southard in Blaine County, where hail as large as half-dollars was observed. Significant wind

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
OKLAHOMA, Western, Central and Southeast									
damage occurred in Wayne in McClain County, where severe thunderstorm winds estimated at 70 mph damaged awnings, a wellhouse, and several trees. Other more minor damage was reported near Southard in Blaine County and in Madill in Marshall County.									
See preceding individual Storm Data entries for further information and additional reports.									
Kay County 3 N Braman	16	1810CST			0	0			Hail (0.88)
Kay County Nardin	16	1930CST			0	0			Hail (1.75)
Kay County Nardin	16	1935CST			0	0			Hail (1.75)
Kay County Tonkawa	16	2020CST			0	0			Flash Flood
Water to a depth of up to three feet covered parts of town.									
Kay County Countywide	16	2100CST			0	0			Flash Flood
Braman-Bender Road was closed east of Braman and numerous roads near Blackwell were also closed due to flash flooding.									
Kay County Ponca City	17	0200CST			0	2	35K		Lightning
Lightning struck and set fire to a house, destroying the den and living areas. Two occupants of the house were injured in the fire.									
Kay County Ponca City	17	0815CST			0	0			Flash Flood
Hubbard Road west of Waverly, State Highway and Hubbard Road at Highway 60, and Highland Extension just west of Ponca City were all closed.									
Kay County 2 N Ponca City	17	0815CST			0	0			Flash Flood
Radio Tower Road was closed due to flooding.									
Kay County Braman	17	0830CST			0	0			Flash Flood
Bender Road was closed due to high water.									
Kay County 1 N Tonkawa	17	0830CST			0	0			Flash Flood
Due to high water, 13th Street was closed near Stink Creek.									
Payne County 3 SE Glencoe	17	1925CST			0	0			Hail (1.75)
Payne County Yale	17	1933CST			0	0	80K		Lightning
Lightning struck and set fire to a house, destroying the home and its contents.									
Payne County Cushing	17	2100CST			0	0	0.01K		Thunderstorm Wind
Severe thunderstorm winds downed numerous tree limbs.									
Garfield County 4 E Garber	18	0020CST			0	0			Hail (1.00)
Garfield County 4 E Garber	18	0020CST			0	0	0.01K		Thunderstorm Wind
Limbs up to eight inches in diameter were blown down.									
Garfield County Waukomis	18	0030CST			0	0	5K		Thunderstorm Wind
Severe thunderstorm winds downed large trees, broke plate glass windows, damaged signs, and snapped numerous tree limbs.									
Grant County 3 E Renfrow	18	0100CST			0	0			Hail (1.75)

Storm Data and Unusual Weather Phenomena

July 1997

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

Grant County

3 E Renfrow	18	0100CST			0	0	0.01K		Thunderstorm Wind
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Limbs up to four inches in diameter were blown down.

Grant County

Medford	18	0130CST			0	0	0.10K		Thunderstorm Wind
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Severe thunderstorm winds downed a large tree at a church.

Lincoln County

1 S Chandler	18	0203CST			0	0			Flash Flood
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The southbound lane of Highway 18 was blocked due to high water.

Kingfisher County

Hennessey	18	0300CST			0	0	50K		Lightning
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Lightning struck and set fire to a lawnmower repair shop, completely destroying the shop and two vehicles.

Hughes County

Holdenville	18	0715CST			0	0	100K		Lightning
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Lightning struck and set fire to a brick home, destroying the house and its contents.

Summary of events of evening of July 17, 1997 through the morning of July 18, 1997:

Nighttime thunderstorms moved through northern and central Oklahoma, producing large hail, severe winds, and flash flooding. The largest hail was reported southeast of Glencoe in Payne County, where hail reached the size of golf balls. Severe thunderstorm winds caused damage in Cushing in Payne County, in Waukomis and east of Garber in Garfield County, in Medford and east of Renfrow in Grant County. Flash flooding occurred in Lincoln County near Chandler.

See preceding individual Storm Data entries for further details and additional reports.

Kay County

Blackwell	18	2058CST			0	0			Flash Flood
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Water covered Hwy 177 just south of town.

Alfalfa County

Goltry	19	0300CST			0	0			Flash Flood
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Water covered Highway 45 including the towns of Goltry, Helena, and Carrier.

Garfield County

Countywide	19	0300CST			0	0	1M		Flash Flood
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Numerous roads across the county were closed as water rose to depths of up to four feet. In all, nine bridges were destroyed or severely damaged and eight roads were indefinitely closed due to this bridge damage. County officials estimated total losses to the county (due to road and bridge damage) at \$1,000,000.

Grant County

2 W Nash	19	0300CST			0	0			Flash Flood
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Water washed over a small bridge on Highway 64.

Kay County

Ponca City	19	0310CST			0	0			Flash Flood
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Roads in and near town were completely flooded.

Noble County

Countywide	19	0347CST			0	0			Flash Flood
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Water was curb-deep in towns throughout the county.

Garfield County

Lahoma	19	0500CST 1030CST			0	0			Flash Flood
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Turkey Creek flooded north and east of town and resulted in the closing of Highway 412. One farmer lost 31 head of cattle in the floodwaters. Numerous other animals were injured as Turkey Creek and its tributaries rose to near-record flood levels.

Major County

Eastern Half	19	0600CST 0800CST			0	0	50K		Flash Flood
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The eastern half of Major County suffered extensive damage to roads and bridges due to flash flooding. County officials estimated the county's losses at \$50,000.

Storm Data and Unusual Weather Phenomena

July 1997

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

Alfalfa County

Cherokee 19 0700CST
1030CST 0 0 **Flash Flood**

Highway 64 from Jett to Cherokee was closed.

Garfield County

Enid 19 1000CST 0 0 5K **Flash Flood**

A major flash flood on Turkey Creek resulted in the flooding of a house and a nearby mobile home trailer and necessitated the swift-water rescue of a family of four from this flooded home.

Oklahoma County

Harrah 19 1100CST 0 0 **Flash Flood**

Several cars stalled on roads that were nearly impassable due to the high water.

Summary of events of July 19, 1997:

Slow-moving nighttime thunderstorms containing torrential rain moved across northern and central Oklahoma. With the ground already at or near saturation across much of the area, these thunderstorms triggered widespread flash flooding, particularly in north-central Oklahoma. Primarily in Garfield and eastern Major Counties, Turkey Creek, Indian Creek, and Sand Creek and their tributaries that normally only contain a scant foot of water swelled to 8 to 10 feet deep in less than 3 hours. Long time area residents could not recall a time when these creeks had ever been higher or risen as fast. Flood damage to county roads and bridges in these two counties was extensive, topping the million dollar mark.

See preceding individual Storm Data entries for further details and additional reports.

Kiowa County

Mountain View 21 1350CST 0 0 0.30K **Thunderstorm Wind**

Severe thunderstorm winds blew down several trees and highway signs. A cotton warehouse and a barn also suffered roof damage.

Washita County

Cowden 21 1410CST 0 0 **Hail (0.88)**

Greer County

5 SE Mangum 21 1455CST 0 0 **Thunderstorm Wind (G62)**

measured at the Oklahoma Mesonet site

Logan County

Crescent 21 1500CST
1523CST 0 0 25K **Thunderstorm Wind**

The east side of town was hardest hit by severe thunderstorm winds. Several homes and businesses were damaged by falling trees, a railroad crossing light was blown down, a gas pump was blown over, and a carwash canopy was destroyed by the severe thunderstorm winds. Numerous trees and power lines were also blown down.

Logan County

Crescent 21 1510CST 0 0 **Hail (0.75)**

Oklahoma County

Oklahoma City 21 1557CST 0 0 1K **Thunderstorm Wind**

A large tree was blown by severe winds onto a house at the 1500 block of NW 15th Street.

Kingfisher County

3 SE Kingfisher 21 1610CST 0 0 **Hail (1.00)**

Oklahoma County

Oklahoma City 21 1611CST 0 1 0.75K **Thunderstorm Wind**

A person was injured when a large tree fell on a mobile home at the intersection of NW 14th Street and Classen Boulevard.

Oklahoma County

Oklahoma City 21 1613CST 0 0 **Flash Flood**

People had to be rescued from their stranded vehicle at the intersection of NW 23rd and Cross Street.

Oklahoma County

Oklahoma City 21 1623CST 0 0 0.50K **Thunderstorm Wind**

Trees and power poles were blown over on the 1400 block of NW 100th Street.

Storm Data and Unusual Weather Phenomena

July 1997

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

Oklahoma County

Oklahoma City	21	1630CST			0	1	1K		Lightning
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Lightning struck and split a tree at NW 15th Street and Classen Blvd. The falling tree hit the windshield of a minivan as it was passing by, injuring the driver of the van.

Oklahoma County

Oklahoma City	21	1651CST			0	0			Flash Flood
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People had to be rescued from their stranded vehicle at the intersection of Kentucky and Linwood Streets.

Payne County

Perkins	21	1710CST			0	0			Hail (0.88)
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Noble County

7 SE Red Rock	21	1740CST			0	0			Thunderstorm Wind (G50)
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measured at the Oklahoma Mesonet site

Noble County

7 SE Red Rock	21	1745CST			0	0			Thunderstorm Wind (G50)
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measured at the Oklahoma Mesonet site

Summary of events of July 21, 1997:

Afternoon severe thunderstorms moved from southwestern Oklahoma into central and north-central Oklahoma, producing large hail and damaging thunderstorm winds. The largest hail was reported southeast of Kingfisher in Kingfisher County, where hail as large as quarters fell. The strongest measured wind speeds reached 71 mph at the Oklahoma Mesonet site southeast of Mangum in Greer County. Wind damage occurred in Mountain View in Kiowa County, in Crescent in Logan County, and in Oklahoma City in Oklahoma County.

See preceding individual Storm Data entries for further details and additional reports.

Johnston County

Bromide	22	1345CST			0	0			Thunderstorm Wind (G56)
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Garvin County

Paoli	22	1407CST			0	0			Hail (0.88)
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Garvin County

Paoli	22	1407CST			0	0			Thunderstorm Wind (G61)
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Pontotoc County

6 SW Fittstown	22	1500CST			0	0			Hail (0.75)
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Pontotoc County

6 SW Fittstown	22	1500CST			0	0			Thunderstorm Wind (G61)
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Cotton County

Walters	22	1548CST			0	0			Hail (1.00)
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Cotton County

Temple	22	1600CST			0	0			Hail (0.88)
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Summary of events of July 22, 1997:

Afternoon severe thunderstorms produced large hail and severe winds as they moved across portions of central and southern Oklahoma. Hail as large as quarters fell in Walters in Cotton County, and wind speeds reached an estimated 70 mph in Paoli in Garvin County and near Fittstown in Pontotoc County.

See preceding individual Storm Data entries for further details and additional reports.

Johnston County

Tishomingo	29	1200CST			0	0	5.1K		Thunderstorm Wind
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Severe thunderstorm winds blew a tree onto a gas meter, destroyed a dugout at the Tishomingo ballpark, and blew the roof off a mobile home north of town.

Cotton County

Walters	29	1620CST			0	0			Hail (1.00)
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Storm Data and Unusual Weather Phenomena

July 1997

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

Cotton County

Walters	29	1620CST			0	0	0.02K		Thunderstorm Wind
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A section of a six-foot wood fence was blown over at a private residence.

OREGON, Central and East

Union County

La Grande to Union	16 17	2315PST 0035PST			0	0			Thunderstorm Wind (G50)
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A tree limb blown into a power substation tripped a breaker leaving 1,950 customers without power for just over an hour.

Union County

Elgin	21	1430PST 1500PST			0	0			Lightning
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Lightning struck electrical equipment near an Elgin substation knocking out power to 1,100 customers. Lightning also hit a pole north of Elgin splitting it in half and blew fuses on the line.

ORZ019

Northeast Oregon

	21	1515PST			0	0			High Wind (G50)
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Wind from a thunderstorm blew down several trees in the Enterprise and Joseph areas. In Joseph a tree fell on power lines and caused a 45-minute power outage. In Enterprise, a tree fell onto a car and another one fell in the city park. No one was injured.

Deschutes County

Bend to Terrebonne	29	1330PST 1730PST			0	0			Heavy Rain
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Heavy rain from a thunderstorm filled underpasses in Bend up to the windows of stuck cars. Lightning strikes knocked out power to at least 1,000 customers from Bend to Terrebonne. Some phone service was also down for a while.

Jefferson County

Opal City to Madras	29	1430PST 1800PST			0	0			Heavy Rain
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Heavy rain and lightning strikes knocked out power from Opal City to Madras. Some phone service was also down for a while.

Deschutes County

Lava to Milton Freewater	30	1427PST 2100PST			0	0			Hail (1.25)
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Hail from .5 to 1.25 inches was reported between Lava Lake and Ferndale. Wind gusts to 60 mph blew down numerous trees between Madras and Hermiston. Two-thirds of an inch of rain was reported in Heppner in 20 minutes. Power outage in Echo when lightning started a fire on transformer and power pole. Power outage also occurred in Pendleton.

Umatilla County

Hermiston	30	1930PST 2030PST			0	0			Lightning
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Lightning strikes and interference from trees caused more than 6,500 customers to lose power.

Deschutes County

Bend	31	1340PST 1355PST			0	0			Hail (1.75)
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Hail from 0.75 to 1.75 inches fell in Bend.

Deschutes County

Elk Lake to Bend Sunriver Arpt	27	1300PST 1400PST			0	0			Hail (1.00)
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Hail up to one inch damaged some recreational vehicles around Crane Prairie Reservoir. The hail put holes in some awnings and broke a few skylights out.

Crook County

Prineville	28	1730PST			0	0			Lightning
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A lightning strike touched off a one and a half acre fire on a residential hillside in Prineville. Homeowners were able to fight the fire with garden hoses. No homes were damaged.

Deschutes County

Sisters to Black Crater	28 30	1500PST 1500PST			0	0			Wild/Forest Fire
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A lightning strike started a 25 acre fire on Black Crater about seven miles west of Sisters. No structures were threatened.

Storm Data and Unusual Weather Phenomena

July 1997

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

Jefferson County

Madras	29	1500PST 1900PST			0	0			Heavy Rain
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Heavy rain in Madras caused flooding of some streets and businesses.

Deschutes County

Sisters	29	1800PST			0	0			Lightning
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A lightning strike knocked out a pump at a wastewater treatment plant causing between 50,000 and 70,000 gallons of wastewater to spill into Indian Ford Creek.

OREGON, Northwest

NONE REPORTED.

OREGON, Southeast

Malheur County

Vale	17	1534MST			0	0			Thunderstorm Wind (G64)
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Malheur County

2 NW Ontario	17	1608MST			0	0			Thunderstorm Wind (G61)
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During the afternoon of July 17th, a severe thunderstorm formed over southeast Oregon. This storm produced wind gusts of 70 to 80 mph in Malheur County before it moved into southwest Idaho and continued to produce severe weather.

Malheur County

10 SW Juntura	21	1730MST			0	0			Wild/Forest Fire
	22	1700MST							

Baker County

Keating	21	1830MST			0	0			Thunderstorm Wind (G50)
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During the evening of July 21st a dry thunderstorm produced wind damage in the Baker County town of Keating. Spotter reports indicated trees and power lines down along highway 203 and a tree down on a trailer. Dry lightning from this storm started 4 wildfires in Harney and Malheur Counties. The largest fire burned 1200 acres near the town of Juntura before being brought under control on the evening of the 22nd.. Little damage was reported from these range fires.

Harney County

Crane	28	1710PST 1800PST			0	0			Flash Flood
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A thunderstorm with heavy rain produced flash flooding near Crane, Oregon. A spotter reported 1.8 inches of rain fell in 35 minutes, causing dry creek beds to flow with 2 1/2 feet of water. No damage was reported.

Malheur County

20 SW Nyssa	30	1526MST			0	0			Hail (0.88)
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A thunderstorm produced 7/8 inch hail at Owyhee Dam in Malheur County.

OREGON, Southwest

Lake County

Silver Lake	17	1035PST			0	0			Funnel Cloud
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FOREST SERVICE PERSONNEL REPORTED TWO FUNNEL CLOUDS NEAR SILVER LAKE.

Klamath County

Crescent Lake	27	1540PST			0	0			Hail (1.00)
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REPORTED BY SPOTTER TRAVELLING ON HWY 58.

Klamath County

Ft Klamath to 4 N Ft Klamath	27	2130PST			0	0			Tstm Wind/Hail
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WIND GUSTS TO 50 MPH.

Klamath County

Crescent	27	1900PST 2000PST			0	0			Hail (1.00)
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REPORTED BY FOREST SERVICE PERSONNEL

PACIFIC

NOT RECEIVED.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
PENNSYLVANIA, Central									
Fulton County									
Mc Connellsburg	02	0200EST 0500EST			0	0			Flash Flood
Heavy rains flooded roads and small streams in McConnellsburg. A car dealer moved cars to prevent damage.									
Huntingdon County									
Mill Creek	05	1720EST			0	0			Thunderstorm Wind (G51)
Winds blew down a tree near Mill Creek on Route 22.									
Mckean County									
Myrtle	07	1230EST			0	0			Thunderstorm Wind (G51)
A couple of trees were blown down a mile west of Myrtle and hail fell.									
Potter County									
Shinglehouse	07	1240EST			0	0			Hail (0.88)
Hail the size of a thumb was reported in the Shinglehouse area.									
Tioga County									
Lawrenceville	07	1325EST			0	0			Hail (0.75)
Tioga County									
Blossburg	07	1450EST			0	0			Hail (0.88)
Two separate thunderstorms crossed Tioga County with dime size hail in Lawrenceville followed by half-inch hail in Wellsboro and nickel size hail in Blossburg.									
Lycoming County									
Hepburnville	07	1630EST			0	0			Hail (0.75)
Dime size hail fell in Hepburn Township near Hepburnville.									
Mckean County									
Port Allegany	08	1515EST			0	0			Hail (0.75)
Tioga County									
Tioga	08	1700EST 1715EST	8	100	0	0			Tornado (F1)
41/53/50N, 77/16/47W to 41/54N, 77/07/37W. The Elkhorn Creek tornado touched down in Tioga County around 6:00 p.m. EDT Tuesday, July 8th, about 8 miles west of the town of Tioga, just southwest of Elbridge. The storm tracked east following Elkhorn Creek for nearly 8 miles into the town of Tioga.									
The storm took part of a roof off of a barn and destroyed a metal farm equipment building at the Keith Hamblin farm close to the initial touchdown. Width at that point was probably 50 yards. The storm continued east, taking down hundreds of trees along the track west of Tioga. Winds probably peaked at less than 90 mph, enough to take down trees and destroy the metal building, but stronger-built parts of the barn remained intact.									
At several points along the path, there was good indication of rotation in the direction trees fell. Parts of the barn roof of the Hamblin farm were actually blown westward by the storm, while debris from the farm equipment building was spread eastward. East of the Hamblin farm, rotational debris may have been as wide as 100 yards with tree damage north and south of the main path, extending out in excess of 1/2-mile.									
Tioga County									
Mansfield	08	1815EST			0	0			Hail (1.25)
Golf ball size hail fell near Mansfield.									
Bedford County									
Riddlesburg	09	1215EST			0	0			Hail (0.75)
Huntingdon County									
Three Spgs	09	1300EST			0	0			Hail (0.75)
Franklin County									
Waynesboro	09	1522EST			0	0			Thunderstorm Wind (G54)
Thunderstorm winds gusted to 62 mph and took down trees in Waynesboro.									
Lancaster County									
Lancaster to Manheim	09	1528EST			0	0			Thunderstorm Wind (G51)
Lancaster County									
Eden	09	1545EST			0	0			Thunderstorm Wind (G51)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
PENNSYLVANIA, Central									
York County									
Newberrytown	09	1545EST			0	0			Thunderstorm Wind (G51)
Lancaster County									
Churchtown	09	1630EST			0	2			Thunderstorm Wind (G51)
Thunderstorms crossed the southern tier taking down trees in several locations. Two workers were injured near Manheim while constructing a chicken farm building when the structure collapsed.									
Lancaster County									
Paradise	09	1732EST			0	0			Thunderstorm Wind (G51)
Thunderstorm winds took down trees in Paradise.									
Bedford County									
Bakers Summit	12	1600EST 1830EST			0	0			Flash Flood
Thunderstorms dropped heavy rain that caused rapid flooding of roads and small streams in northern Bedford County.									
Warren County									
North Warren	15	1335EST			0	0			Thunderstorm Wind (G51)
Mckean County									
Bradford	15	1345EST			0	0			Thunderstorm Wind (G51)
Warren County									
Youngsville	15	1400EST			0	0			Hail (1.00)
Mckean County									
Bradford	15	1455EST			0	0			Thunderstorm Wind (G51)
Warren and McKean counties were hit by a double set of storms that took down trees in North Warren and Bradford and dropped one-inch hail in Youngsville.									
Elk County									
St Marys	15	1540EST			0	0	5K		Thunderstorm Wind (G51)
A thunderstorm downburst caused damage to trees along a 3-mile wide, 6-mile long path near the towns of Belltown and Millstone.									
Cameron County									
Emporium	15	1645EST			0	0			Thunderstorm Wind (G51)
Winds took down power lines.									
Clearfield County									
Curwensville	15	1733EST			0	0			Thunderstorm Wind (G51)
A number of trees were downed in Curwensville and Bigler Township.									
Mckean County									
Kane	15	1800EST 2100EST			0	0			Flash Flood
Basements and streets were flooded by torrential downpours as thunderstorms moved across the area.									
Clearfield County									
Du Bois	15	1842EST			0	0			Thunderstorm Wind (G51)
Trees were blown down just northeast of Dubois.									
Clinton County									
Salona	15	1910EST			0	0			Thunderstorm Wind (G51)
Thunderstorms took down powerlines in Salona just south of Lock Haven.									
Huntingdon County									
Orbisonia	15	1930EST			0	0			Thunderstorm Wind (G51)
A tree was reported down on Route 994 near Orbisonia.									
Potter County									
Wharton	18	1435EST 1440EST	2	100	0	0			Tornado (F0)
41/30/25N, 77/57/53W to 41/28/55N, 77/55/55W. An F0 tornado touched down in the extreme southwest corner of Potter County southeast of Wharton shortly after 3:30 p.m. EDT. The storm moved southeast, damaging trees along a narrow 2-mile path between Montour and Trout Run Roads.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
PENNSYLVANIA, Central									
Mckean County									
Crosby	18	1451EST			0	0			Thunderstorm Wind (G51)
Mckean County									
Port Allegany	18	1451EST			0	0			Hail (0.75)
Thunderstorms blew down trees in Crosby and dropped dime size hail in Port Allegany.									
Potter County									
Roulette	18	1457EST			0	0			Thunderstorm Wind (G51)
Trees and wires were blown down.									
Cameron County									
Emporium	18	1500EST			0	0			Thunderstorm Wind (G51)
Trees were blown down in Emporium.									
Clinton County									
North Bend	18	1524EST			0	0			Thunderstorm Wind (G51)
Trees were blown down around North Bend.									
Clinton County									
Woolrich to Mc Elhattan	18	1535EST 1540EST	3.5	880	0	0			Tornado (F1)
41/12/07N, 77/24/14W to 41/10N, 77/22W. An F1 tornado touched down about 1 mile west of Woolrich on Friday, July 18th. The storm moved southeast along a 3-1/2 mile path crossing Crestmont into McElhattan. At the initial touchdown, just west of Woolrich, most of a roof was blown off a home. A nursery barn and a greenhouse were partially destroyed at Hillcrest Farms just west of Crestmont. Twelve homes were listed as having some damage related to winds or fallen trees and one barn was completely destroyed. Thousands of trees were downed by a combination of tornadic and downburst winds that extended southeast across the Susquehanna River into McElhattan and Pine Station. Hail also damaged some of the corn crop in the area.									
Cameron County									
Emporium	18	1545EST			0	0			Thunderstorm Wind (G51)
Trees were blown down.									
Union County									
Lewisburg	18	1545EST 1550EST	1	440	0	0			Tornado (F0)
41/03/46N, 77/08/05W to 41/02/52N, 77/07/33W. An F0 tornado touched down in a remote part of the northwest corner of Union County, 3 NE of Carrol to 4E of Carrol. The storm moved southeast taking down a number of trees along Zimmerman Rd.									
Clinton County									
Rauchtown	18	1550EST			0	0			Thunderstorm Wind (G51)
Trees were down along Route 880 near Rauchtown.									
Lycoming County									
Williamsport	18	1552EST			0	0			Thunderstorm Wind (G51)
Trees and wires down.									
Columbia County									
Millville	18	1615EST			0	0			Thunderstorm Wind (G51)
Union County									
Lewisburg	18	1615EST 1617EST	2.3	100	0	0			Tornado (F0)
40/57/53N, 76/53/31W to 40/57/43N, 76/51/14W. An F0 tornado touched down and crossed Route 15 just a mile north of Lewisburg in Union County. The storm moved southeast across the Susquehanna River crossing Route 45 before lifting a mile south of East Lewisburg in Northumberland County. A number of trees were blown down along the path. A branch from a tree was blown and embedded into the side of a mobile home. Law enforcement officials in Montandon reported sighting a funnel cloud to the west that was obscured by trees. Part of a roof was blown off a house and trees were damaged on the west side of Lewisburg from downburst winds related to the storm.									
Northumberland County									
Northumberland	18	1617EST 1618EST	2.3	100	0	0			Tornado (F0)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
PENNSYLVANIA, Central									
Columbia County									
Berwick	18	1620EST			0	0			Thunderstorm Wind (G51)
Thunderstorm winds took down trees in Millville and Berwick.									
Montour County									
Danville	18	1620EST			0	0			Thunderstorm Wind (G51)
Limbs and wires were blown down in Danville.									
Northumberland County									
Milton to Sunbury	18	1630EST			0	0			Thunderstorm Wind (G51)
Winds took down trees in Milton and Sunbury.									
Schuylkill County									
Cressona	18	1730EST			0	0			Thunderstorm Wind (G51)
Trees were down in Cressona.									
Mifflin County									
Lewistown	18	1750EST			0	0			Thunderstorm Wind (G51)
Juniata County									
Denholm	18	1755EST			0	0			Thunderstorm Wind (G51)
Thunderstorm winds blew down trees and limbs in Mifflin and Juniata Counties.									
Cambria County									
Johnstown	18	1819EST			0	0			Thunderstorm Wind (G51)
Trees and wires were down in Culver.									
Perry County									
New Bloomfield	18	1820EST			0	0			Thunderstorm Wind (G51)
Trees were down in New Bloomfield and Millerstown.									
Cumberland County									
Camp Hill	18	1851EST			0	0			Thunderstorm Wind (G51)
Wires were down in Camp Hill and trees were blown down in Hampden and in North Middleton and East Pennsboro Townships.									
Somerset County									
Stoystown	18	2000EST			0	0			Thunderstorm Wind (G51)
Thunderstorm winds took down trees in Stoystown.									
Franklin County									
Green Vlg	21	2135EST			0	0			Thunderstorm Wind (G51)
Trees were blown down in Green Village north of Chambersburg.									
Lebanon County									
Lebanon	21	2250EST			0	0			Hail (0.75)
Dauphin County									
Carsonville	21	2305EST			0	0			Thunderstorm Wind (G51)
A tree was blown on a wire.									
Dauphin County									
Carsonville	22	2305EST			0	0			Thunderstorm Wind (G51)
A tree was blown down on a wire.									
Schuylkill County									
Pottsville	24	0500EST 0800EST			0	0			Flash Flood
Rains in excess of 3.5 inches fell across western parts of the county flooding basements, streams and roads county-wide.									
Franklin County									
Waynesboro	28	1530EST			0	0			Thunderstorm Wind (G51)
Thunderstorms moved southeast across Waynesboro taking down powerlines.									
Adams County									
York Spgs	28	1600EST			0	0			Thunderstorm Wind (G51)
Thunderstorms blew down 8 to 10 trees in the York Springs area.									

Storm Data and Unusual Weather Phenomena

July 1997

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

PENNSYLVANIA, Central

York County

Dillsburg	28	1600EST			0	0			Thunderstorm Wind (G51)
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Thunderstorms took down trees in Franklin Township southwest of Dillsburg.

PENNSYLVANIA, East

Monroe County

Brodheads ville	09	1420EST			0	0		0	Thunderstorm Wind
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Monroe County

Stroudsburg	09	1436EST			0	0			Hail (0.75)
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Trees and power lines were knocked down in Brodheads ville by a severe thunderstorm. Another severe thunderstorm dropped dime size hail in Stroudsburg.

Berks County

3 N Hamburg	09	1520EST			0	5	0	0	Lightning
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Berks County

Kempton to Leesport	09	1520EST			0	0			Thunderstorm Wind (G50)
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Severe thunderstorms took down power lines and large limbs in north central Berks County. The same thunderstorm complex produced frequent lightning. Five Civil Air Patrol cadets were injured after being struck by lightning in the Weiser State Forest near the Port Clinton Fire Tower in Windsor Township. The cadets were trying to erect a tarp for shelter during the thunderstorm. A 13-year-old cadet was standing under a tree as lightning struck it. The lightning bounced off the tree, struck and gave him serious burns. Four cadets came to his rescue and were struck by a second strike; a 12-year-old was also seriously burned. Two other cadets suffered injuries during the rescue effort. Elsewhere in northern Berks County, downed limbs and power lines were reported in Centerport, Dauberville, Kempton and Leesport and Windsor Township. About 2200 of the 5500 Berks County customers to lose power were around the Hamburg area.

Berks County

Bechtelsville	09	1547EST			0	0		0	Thunderstorm Wind
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Trees were knocked down across the northern half of Bechtelsville by a severe thunderstorm.

Lehigh County

Breinigsville to Coopersburg	09	1551EST 1621EST			0	0			Thunderstorm Wind (G50)
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A severe thunderstorm pulled down wires across southern parts of Lehigh County.

Berks County

3 SW Mohnnton to Boyertown	09	1600EST			0	0			Thunderstorm Wind (G55)
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A severe thunderstorm pulled down whole trees in Douglas and Robeson Townships. Limbs and power lines were also pulled down in Amity, Brechnock, Exeter and Muhlenberg Townships and in Adamstown and Birdsboro. The thunderstorms were also prolific lightning producers and about 5,500 homes and businesses lost power throughout Berks County on the 9th.

Chester County

Oxford to Spring City	09	1739EST			0	0		0	Thunderstorm Wind
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Chester County

London Grove	09	1800EST			0	2			Lightning
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Chester County

5 SW Phoenixville to Phoenixville	09	1814EST			0	0		0	Thunderstorm Wind
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Severe thunderstorms uprooted several trees in the northern and western parts of Chester County. A few large trees were knocked down in Charlestown Township. Frequent lightning also accompanied the thunderstorms. Two farmers were injured, one seriously, when they were struck by lightning in London Grove. They were hauling hay when the bolt struck the ground near them. Lightning struck a tree, knocked it down and blocked U.S. Route 30 in Sadsbury.

PAZ054>055-060>062-067>071

Carbon - Monroe - Berks - Lehigh - Northampton - Chester - Montgomery - Bucks - Delaware - Philadelphia

	12	1000EST			24	60			Excessive Heat
	18	1800EST							

The longest and hottest heat wave of the summer of 1997 brought around 6 consecutive days of high temperatures of 90 degrees or higher to Eastern Pennsylvania. Along with the oppressive heat came high humidity levels and limited rainfall. There were twenty-four heat related deaths caused by the heat wave, twenty-three persons within Philadelphia and one person in Darby in Delaware County. All of the deaths occurred indoors. Most of the people that died had underlying health problems that were

Storm Data and Unusual Weather Phenomena

July 1997

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

PENNSYLVANIA, East

exacerbated by the heat. They often were found in homes that had the windows shut, no air conditioning and sometimes just fans blowing. Heat related illnesses occurred as far north as the Lehigh Valley and Berks County during the heat wave. The heat wave ended after a strong cold front moved through the region early on the 19th.

The hottest day for most areas was the 15th as high temperatures were in the mid 90s in the Poconos and Lehigh Valley and near 100 degrees around Philadelphia. This was also the day that many utilities set new usage records. The Pennsylvania-Jersey-Maryland Interconnection (PJM) reported a record usage of 49,822 megawatts in their regional serving area. This surpassed the previous record of 48,524 megawatts set on August 2, 1995. Other utility setting records included PECO Energy with 7300 megawatts (old record 7,244 megawatts), Pennsylvania Power and Light with 6,051 megawatts (old record 6,021 megawatts) and GPU with 2,288 megawatts (previous record 2,228 megawatts). A Philadelphia suburban water company also reported a record water usage for the day.

The highest temperatures during this heat wave included 100 degrees at the Franklin Institute in Philadelphia and Levittown (Bucks County), 99 degrees at the Northeast Philadelphia Airport, 98 degrees at the Philadelphia International Airport and New Hope (Bucks County), 97 degrees in Reading (Berks County) and King of Prussia (Montgomery County), 95 degrees at the Lehigh Valley International Airport and 94 degrees in East Stroudsburg (Monroe County). The lack of rain continued to stress crops and water supplies. Leesport in Berks County asked for voluntary water conservation. The fear of fires led to the banning of outside burning in Cumru (Berks County) and East Vincent (Chester County) Townships. The excessive heat also led to the buckling of Interstate 95 in both Philadelphia and Ridley Township in Delaware County. The heat also caused buckling on the southbound lanes of U.S. Route 1 in Upper Providence Township.

M55PH, F90PH, M81PH, F81PH, M66PH, M58PH, F79PH, M84PH, F83PH, M60PH, F77PH, F72PH, F89PH, M77PH, M84PH, M62PH, F70PH, F37PH, M83PH, M45PH, F77PH, M56PH, F50PH, F68PH

Delaware County

Wayne	17	2100EST	0	0	0	Thunderstorm Wind
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A severe thunderstorm tore down several trees on Kirkland Avenue in Wayne which included a 100 foot oak tree. Wires were also torn away from one home.

Carbon County

Parryville	18	1645EST	0	1	0	Lightning
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A 19-year-old Nesquehoning man was struck and injured by lightning while setting up a tarp in Franklin Township.

Carbon County

Trachsville	18	1700EST	0	0	0	Thunderstorm Wind
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A severe thunderstorm knocked down numerous trees in and around Trachsville. Throughout Carbon County about 20 roads were closed due to downed trees.

Monroe County

Kresgeville to Stroudsburg	18	1715EST 1725EST	0	0	0	Thunderstorm Wind
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Monroe County

Snydersville	18	1720EST	0	0	0	Funnel Cloud
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A severe thunderstorm pulled down trees and power lines along the southern tier of Monroe County from Kresgeville and Kunkletown east through Stroudsburg. SKYWARN spotters detected a funnel cloud over Snydersville, but it apparently did not touch down. Even so, about 10,000 Metropolitan Edison customers lost power in Northampton and Monroe Counties because of downed trees and power lines. In Polk Township, a farmhouse suffered structural damage. The storm was so intense in Polk Township that some properties had wind damage to over half their trees.

Northampton County

Hellertown to Portland	18	1726EST 1731EST	0	0		Thunderstorm Wind (G52)
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Northampton County

Nazareth	18	1726EST	0	0	0	Funnel Cloud
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Northampton County

3 SE Wind Gap	18	1726EST	0	0		Hail (1.00)
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Severe thunderstorms caused considerable wind damage throughout the southeast half of Northampton County. Wind gusts during the strongest thunderstorms were estimated at around 60 mph. About 10,000 homes and businesses in the county lost power. Power was not restored to everyone until the afternoon of the 20th. Hardest hit was Plainfield Township. At the Plainfield Farmers Fair, about a dozen and a half trees were uprooted, two roofs and two picnic tables were damaged and a tent was ripped. The roof

Storm Data and Unusual Weather Phenomena

July 1997

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

PENNSYLVANIA, East

of one township home was completely ripped off with its second floor contents strewn across the yard. A lean-to was blown over another home and landed in the front yard. Several other cars and roofs were crushed by fallen trees. Large hail also damaged corn fields.

Other townships which reported trees on homes and/or crushed vehicles included Lower and Upper Mount Bethel Townships, Lower Saucon Township and Palmer Township. Within Bethlehem very large trees were uprooted and in Easton several trees were uprooted including a few on the College Hill Campus. Sections of Pennsylvania State Routes 191, 512, 611 and the Sullivan Trail were all closed because of downed trees. U.S. Route 22 was backed up for a mile because of downed trees in Lehigh County.

Monroe County

East Stroudsburg

18	1730EST				0	0	0		Thunderstorm Wind
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The same severe thunderstorm that caused wind damage farther west in Monroe County also pulled down trees and power lines in East Stroudsburg.

Berks County

Robesonia to Hamburg

18	1745EST				0	0			Thunderstorm Wind (G50)
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A severe thunderstorm uprooted several trees in the northwest part of the county from Robesonia through Lower Heidelberg Township into Hamburg. Within Hamburg trees were reported down over several smaller roads and a tree blocked at least one roadway in Lower Heidelberg Township.

Lehigh County

Macungie to Bethlehem

18	1745EST				0	0			Thunderstorm Wind (G50)
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Severe thunderstorms knocked down trees throughout the southeast half of Lehigh County including the city of Allentown. Within Allentown streets were blocked and power lines torn down north to U.S. Route 22. About 10,000 Metropolitan Edison customers lost power in Lehigh, Monroe and Northampton Counties, although most of the outages did occur in the latter two counties.

Montgomery County

Lansdale

18	1810EST				0	0			Thunderstorm Wind (G56)
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The gust front responsible for severe weather and damaging winds earlier this evening in the Lehigh Valley intensified as it moved through Lansdale. A SKYWARN spotter reported a wind gust of 65 mph with the passage of the gust front.

Berks County

3 W Bernville

21	2300EST				0	0	50K		Lightning
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Berks County

3 W Bernville

22	0200EST				0	0	50K		Lightning
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Lightning from thunderstorms caused two large fires that destroyed a wood frame home and a boarding home for pets. Both were in Jefferson Township. The fire that destroyed the boarding home for pets on Pennsylvania State Route 183 occurred around midnight on the 22nd. Twenty-six dogs and two cats were rescued. The second fire occurred about three hours later during the morning of the 22nd on Summerhill Road. No one was injured, but the house was destroyed.

Berks County

Countywide

23	1400EST				0	0			Heavy Rain
24	0600EST								

Chester County

Countywide

23	1400EST				0	0			Heavy Rain
24	0600EST								

Heavy rain, associated with weak low pressure systems riding along a nearly stationary frontal boundary in the southern Delmarva Peninsula, fell across Berks and Chester Counties from the afternoon of the 23rd to the morning of the 24th. For most places this was the most widespread and heaviest rain since the beginning of June. Storm totals included 1.85 inches in Hamburg, 1.66 inches in Glenmoore, 1.49 inches in Honey Brook and 1.05 inches in Reading. Because of the extremely dry weather preceding this week, there was no river or creek flooding and roadway flooding was confined to the usual poor drainage and low-lying areas.

Bucks County

Countywide

23	2100EST				0	0			Heavy Rain
24	1300EST								

Delaware County

Countywide

23	2100EST				0	0			Heavy Rain
24	1300EST								

Storm Data and Unusual Weather Phenomena

July 1997

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

PENNSYLVANIA, East

Montgomery

County

Countywide	23	2100EST			0	0			Heavy Rain
	24	1300EST							

Philadelphia

County

Countywide	23	2100EST			0	0			Heavy Rain
	24	1300EST							

Heavy rain, associated with weak low pressure systems riding along a nearly stationary frontal boundary in the southern Delmarva Peninsula, fell across southeastern Pennsylvania from the evening of the 23rd to mid-day on the 24th. This was the most widespread rain since the beginning of June. Storm totals averaged between 1.5 and 3.0 inches in Delaware, and Philadelphia Counties. Moisture associated with Tropical Storm Danny began to be absorbed into this frontal system on the 24th. Consequently storm totals were higher in Bucks and Montgomery Counties: between 2 and 5 inches in most places. Due to the extremely dry weather preceding this week, there were significant, but within bankfull rises on the major rivers and creeks. Roadway flooding occurred in the usual poor drainage and low-lying areas. Storm totals included 7.29 inches in New Hope, 5.25 inches in Doylestown, 4.15 inches in Norristown, 3.99 inches in Valley Forge, 3.71 inches in Springtown, 1.99 inches at the Northeast Philadelphia Airport, 1.85 inches in Crum Creek, 1.64 inches in Palm and 1.63 inches at the Philadelphia International Airport.

Lehigh County

Countywide	24	0700EST			0	0			Flood
		1200EST							

Northampton County

Countywide	24	0700EST			0	0			Flood
		1200EST							

Heavy rain, associated with weak low pressure systems riding along a nearly stationary frontal boundary in the southern Delmarva Peninsula, caused flash flooding of some of the streams in Northampton and Lehigh Counties during the morning and mid-day on the 24th. Some of the worst flooding occurred in Bethlehem along Industrial Drive. Cars were almost totally submerged and several trapped motorists had to be rescued during the morning rush hour commute. Four other roads within the city were closed. Pennsylvania State Route 512 was closed at the Bethlehem border due to flooding of the Monocacy Creek. Mudslides forced the closure of Pine Top Trail. In Lehigh County, flooding was reported along the Cedar and Little Lehigh Creeks. Flooding forced the closure of one roadway in Whitehall Township. Storm totals included 6.05 inches in Williams Township, 3.74 at the Lehigh Valley International Airport and 2.68 inches at the Easton Bridge.

PAZ068-071

Montgomery - Philadelphia

	27	0900EST			5	0			Excessive Heat
	28	1800EST							

A brief two day hot spell claimed the lives of 5 more persons in the Philadelphia Metropolitan Area. Four persons died within Philadelphia. The 5th death occurred in Pottstown in Montgomery County where a 61-year-old woman was found dead in a home with all the windows closed. Similar circumstances occurred with the deaths within Philadelphia. A 67-year-old man was found dead in the 90 degree bedroom of his house. There was no fans, air conditioning or electricity on. The highest temperatures during this hot spell included 94 degrees at the Philadelphia International Airport, 93 in Green Lane and Valley Forge. F61PH, M67PH, F34PH, F89PH, M67PH

PENNSYLVANIA, Northeast

Bradford County

East Smithfield to Athens	08	1810EST			0	0	60K		Tstm Wind/Hail
		1820EST							

An intense severe thunderstorm produced widespread wind damage and large hail across northern portions of Bradford county. The storm struck the towns of East Smithfield, Ulster, and Greens Landing at about 710 pm. Numerous large trees were uprooted and nickel sized hail fell. The roof was also torn off of a metal equipment shed. A short time later, downed large trees and power lines resulted in roof damage in Athens township.

Pike County

Lackawaxen	09	1400EST			0	0	10K		Thunderstorm Wind
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A thunderstorm briefly pulsed to severe levels across northern Pike county. Trees and wires were blown down in the town of Lackawaxen before the cell weakened.

Storm Data and Unusual Weather Phenomena

July 1997

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

Luzerne County

East Berwick to Hazleton	18	1635EST 1700EST			0	0	125K		Thunderstorm Wind (G55)
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A severe thunderstorm crossed into southern sections of the county. Numerous trees and wires were downed along the storm's path.

In the towns of East Berwick and Conyngham, many trees and wires were felled. As the storm moved into Hazleton, more trees and wires were knocked down and a few signs were blown off the front of buildings. A wind gust of 64 mph was recorded at the Hazleton municipal airport.

Luzerne County

3 W Hazleton	18	1700EST			1	0		Lightning
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Vivid lightning associated with a severe thunderstorm in the vicinity struck a utility pole near the side of a roadway. A man standing nearby was electrocuted fatally as he came in contact with falling wires.

M35EQ

PENNSYLVANIA, Northwest

Erie County

Edinboro	02	2145EST			0	0	15K	Thunderstorm Wind
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Trees were downed and a barn was heavily damaged.

PENNSYLVANIA, West

Allegheny County

Pitcairn	01	1800EST 2300EST			1	0	10M	Flash Flood
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A nearly stationary thunderstorm formed over the eastern part of Allegheny County during the evening of July 1. The storm dropped near 4 inches of rain in about 90 minutes over a 4 square-mile area. The resulting flash flood was centered in a small watershed in and near Pitcairn. Radar estimated rainfall rates greater than 2 inches per hour for almost 40 minutes. A rain gage at the Gateway Middle School indicated 3.30 inches storm total. Most of the damage was along Dirty Camp Run and Abers Creek.

The town of Pitcairn was particularly hard hit. The streambed of Dirty Camp Run, a tributary of Turtle Creek, flows through the heart of the urbanized area of Pitcairn, where the channel is made of stoneblock and mortar. The channel flows directly under an elementary school. During the height of the flood, water was flowing through the lower level windows of the school and several walls were destroyed. The basement of a church was also completely flooded.

The ferocious flood waters shoved homes from their foundations and floated and overturned numerous vehicles in the flood water's path. Approximately 429 homes, 12 businesses, 2 sewer systems, 1 park and 13 roads and bridges were affected in Pitcairn, Monroeville, Turtle Creek and Wilkins Township. Thirteen structures in Pitcairn were moved from their foundations. There were some indications of possible debris damming upstream of the greatest damage in the 5 to 6 square city block area near the lowest part of the town.

A mudslide was reported along Route 22 at a gas station near the Pennsylvania Turnpike entrance.

At the intersections of Routes 130 and 48, a 15 foot bridge across a Turtle Creek Tributary was washed out. Nearby, a 21 year-old male firefighter was leading a team of firefighters checking cars for occupants during the flood and became lodged under a truck in several feet of water. The firefighter died on the evening of Thursday July 3.

M21IW

Westmoreland County

Level Green	01	1830EST 2100EST			0	0	10K	Flash Flood
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A few basements were flooded in Penn Township.

Jefferson County

4 NE Sigel	15	1600EST			0	0	5K	Thunderstorm Wind
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Thunderstorm winds downed numerous trees in Clear Creek State Forest.

Jefferson County

4 NE Sigel	15	1600EST			0	0	1K	Lightning
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Lightning damaged the base radio at the Manager's office at Clear Creek State Park.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
PENNSYLVANIA, West									
Washington County									
Claysville to Washington	18	1400EST 1410EST			0	0	5K		Thunderstorm Wind
Thunderstorm winds downed a few billboards and numerous pine trees between Claysville and Washington.									
Washington County									
3 SW Washington	18	1403EST			0	0			Hail (0.88)
Washington County									
Claysville	18	1410EST			0	0	15K		Thunderstorm Wind
Thunderstorm winds blew a roof off of a house.									
Allegheny County									
3 SW Pittsburgh Intl Arpt	18	1413EST			0	0			Hail (0.88)
One-half inch to nickel size hail was reported.									
Allegheny County									
Pittsburgh	18	1413EST			0	0			Hail (1.00)
One inch diameter hail was reported in the southern section of Pittsburgh.									
Westmoreland County									
Murrysville	18	1430EST			0	0	2K		Thunderstorm Wind
Thunderstorm winds downed trees in Murrysville.									
Westmoreland County									
1 W New Stanton	18	1430EST			0	0	10K		Lightning
Lightning sparked a fire that destroyed a barn and its contents.									
Westmoreland County									
4 S Greensburg	18	1445EST			0	0	2K		Thunderstorm Wind
Thunderstorm winds downed trees.									
Allegheny County									
Pittsburgh Intl Arpt	18	1829EST			0	0			Thunderstorm Wind (G53)
Armstrong County									
North Vandergrift	18	1830EST			0	0	3K		Thunderstorm Wind
Thunderstorm winds fell large trees.									
Westmoreland County									
Saltsburg	18	1830EST			0	0	4K		Thunderstorm Wind
Thunderstorm winds downed large trees and power lines.									
Allegheny County									
Baldwin	18	1845EST			0	0	4K		Thunderstorm Wind
Thunderstorm winds downed power lines and large trees.									
Westmoreland County									
1 N Superior	18	1850EST			0	0	2K		Thunderstorm Wind
About 6 large trees were downed by thunderstorm winds.									
Allegheny County									
Dormont	18	1900EST			0	0	4K		Thunderstorm Wind
Thunderstorm winds downed power lines and large trees.									
Allegheny County									
Pittsburgh Intl Arpt	18	1900EST			0	0	1K		Thunderstorm Wind
Two plate glass windows were blown out at the Air National Guard Base at the Pittsburgh International Airport.									
Allegheny County									
Pittsburgh Intl Arpt	18	1900EST			0	0			Hail (0.88)
Nickel-size hail was reported at the Air National Guard Base at the Pittsburgh International Airport.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
PENNSYLVANIA, West									
Westmoreland County									
Derry	18	1905EST			0	0	20K		Lightning
									Lightning sparked a fire that destroyed a mobile home.
Westmoreland County									
Derry	18	1905EST			0	0	2K		Thunderstorm Wind
									Thunderstorm winds downed trees.
Allegheny County									
Brentwood	18	1905EST			0	0	4K		Thunderstorm Wind
									Thunderstorm winds downed power lines and large trees.
Allegheny County									
Mc Keesport	18	1910EST			0	0	4K		Thunderstorm Wind
									Power lines and large trees were downed by thunderstorm winds.
Westmoreland County									
Mt Pleasant	18	1920EST			0	0	5K		Thunderstorm Wind
									Many trees were reported downed by thunderstorm winds in Mt. Pleasant.
Allegheny County									
Greentree	18	1925EST			0	0	1K		Thunderstorm Wind
									Thunderstorm winds downed large limbs.
Allegheny County									
Dravosburg	18	1930EST			0	0			Lightning
									Lightning struck a power substation. Power was lost to about 20,000 area homes.
Allegheny County									
Pleasant Hills	18	1940EST			0	0	5K		Thunderstorm Wind
									Thunderstorm winds downed power lines and tree limbs.
Westmoreland County									
New Derry to Bradenville	18	1948EST			0	0	4K		Thunderstorm Wind
									Large trees and power lines were downed by thunderstorm winds. Fallen trees blocked Route 982.
Washington County									
Beallsville	18	2010EST			0	0	2K		Thunderstorm Wind
									Thunderstorm winds downed trees.
Washington County									
Beallsville	18	2010EST			0	0	2K		Thunderstorm Wind
									Thunderstorm winds downed trees.
Washington County									
Prosperity	18	2025EST			0	0	4K		Thunderstorm Wind
									Power lines and large trees were downed by thunderstorm winds.
Greene County									
1 S Waynesburg	28	1300EST			0	0	1K		Thunderstorm Wind
									Thunderstorm winds downed a tree on the south edge of Waynesburg.
Washington County									
Scenery Hill	28	1300EST 1330EST			0	0	3K		Thunderstorm Wind
									Trees were downed across Route 40. Other trees were also downed in the western and central parts of the county.
Fayette County									
Uniontown	28	1310EST 1320EST			0	0	3K		Thunderstorm Wind
									Trees were downed in Uniontown and throughout the county.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>PENNSYLVANIA, West</u>									
Washington County									
Washington	28	1310EST			0	1			Lightning
A woman was treated and released for numbness and shock, following a lightning strike near a second floor office window. Her sweater was singed, but she did not reportedly suffer any burns.									
Washington County									
Richeyville	28	1315EST			0	0	25K		Thunderstorm Wind
Thunderstorm winds toppled a large branch of an oak tree onto a mobile home, causing considerable structural damage to the home.									
Butler County									
Mars	28	1315EST			0	0			Lightning
The roof of the Adams Elementary School Library caught fire following a lightning strike. About 40 day-care students and staff were evacuated. Books, computers and other library materials suffered an unknown amount of smoke and water damage.									
<u>PUERTO RICO</u>									
Mayaguez Anasco									
Mayaguez	07	1430AST 1630AST			0	0			Heavy Rain
Civil Defense reported heavy rains in the municipalities of Mayaguez, Maricao, San German and Yauco. Doppler radar rainfall accumulation estimates indicated over two inches in Maricao, and about one inch in San German.									
Mayaguez Anasco									
Mayaguez	08	1430AST			0	0			Hail (0.75)
A resident of Barrio Naranjales in Mayaguez reported hail. Strong thunderstorms and heavy rains extended from Jayuya to Mayaguez.									
Vega Baja Manati									
Manati	13	1500AST 1700AST			0	0			Heavy Rain
Civil Defense reported that highway 2 in Manati was flooded. Intersection between highway 2 and road 604 was impassable.									
Mayaguez Anasco									
Rincon	15	1407AST			0	0	1K		Thunderstorm Wind
The zinc roof of a house at Barrio Atalaya was detached by strong winds.									
Mayaguez Anasco									
Aguada	15	1425AST			0	0	1K		Thunderstorm Wind
Thunderstorm winds downed a power pole.									
Guayama Salinas									
Cayey	16	1735AST 1935AST			0	0			Heavy Rain
Civil Defense reported very heavy rains near Cayey.									
Bayamon									
San Juan	20	1500AST			0	0			Urban/Sml Stream Fld
Heavy rains produced by the passage of a tropical wave, former tropical depression number five, caused flooding in Guaynabo, Bayamon, Toa Baja, Toa Alta, Dorado and Rio Piedras. Rainfall of two to three inches was recorded in parts of the metro area Sunday. Carraizo's water reservoir increased 19 centimeters in 72 hours.									
Humacao									
Naguabo	20 21	1500AST 2359AST			0	0			Flood
A tropical wave moved across Puerto Rico and produced heavy rains which caused roads to flood and landslides mainly along the east and northeast sections. The most affected area extended from Rio Grande to Guayama. Many roads were reported impassable like road 906 in Yabucoa, road 3 in front of Palmas del Mar in Humacao, road 198 which leads from Humacao to Las Piedras, road 906, 31, and 191 in Naguabo.									
Aguadilla									
Moca	22	1400AST			0	0	10K		Thunderstorm Wind
Civil Defense reported gusty damaging winds, heavy rain, and a funnel cloud in Moca. Downed power lines and trees in the Moca-Aceituna area. Some of the downed trees damaged some cars.									
Fajardo Rio Grande									
Fajardo	25	1400AST			0	0			Heavy Rain
A few thunderstorms produced heavy rain over the municipalities of Rio Grande westward to Loiza and Carolina.									

Storm Data and Unusual Weather Phenomena

July 1997

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

Culebra

Culebra	30	1016AST 1030AST			0	0			Waterspout
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A pilot reported a waterspout 7 miles southwest of Culebra.

Vega Baja Manati

Ciales	31	1340AST 1800AST			0	0			Heavy Rain
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Thunderstorms that extended from west interior Puerto Rico and from Rincon to Barceloneta produced heavy rains over the municipalities of Ciales, Jayuya, and Orocovis. Around 5.50 inches of rain were reported for Ciales by the rain spotters.

Bayamon

San Juan	31	1400AST 1800AST			0	0			Urban/Sml Stream Fld
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Thunderstorms with very heavy rain produced urban flooding in Puerto Nuevo. Streets 52 and 54 in Reparto Metropolitano were reported flooded as well as parts of the De Diego Avenue.

RHODE ISLAND

RIZ004>007

Eastern Kent - Bristol - Washington - Newport

25		1200EST 1900EST			0	0			Gusty Winds
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Tropical Storm Danny, which had been racing east-northeastward over the Atlantic Ocean south of New England, suddenly turned northward toward southeastern Massachusetts in response to the development of an upper level low pressure system near New York City during the early morning hours. The center passed approximately 15 miles southeast of Nantucket Island late in the afternoon. The storm produced some wind gusts to tropical storm strength along the southeast Rhode Island coast, with gusts mainly in the range of 30 to 45 mph from the northeast. A gust to 50 mph was measured at Warwick at 6 PM and 41 mph was reported from Tiverton at 4:20 PM along with 0.8 inches of rain. There were no reports of damage.

SOUTH CAROLINA, Central

Aiken County

5 SW Windsor	03	1850EST			0	0	0		Thunderstorm Wind (G50)
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Barnwell County

Williston	03	1910EST			0	0	0		Thunderstorm Wind (G50)
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Aiken Electric Cooperative reported powerlines blown down near Windsor and Williston.

Calhoun County

4 SE Ft Motte to 4 SE Fort Motte	05	1550EST			0	0	0		Thunderstorm Wind (G50)
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Barnwell County

Elko	05	1605EST			0	0	0		Thunderstorm Wind (G50)
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Sumter County

3 WNW Pinewood	05	1615EST			0	0	0		Thunderstorm Wind (G50)
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Calhoun County

2 SW Ft Motte	05	1620EST			0	0	0		Thunderstorm Wind (G50)
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Barnwell County

5 N Blackville	05	1650EST			0	0	0		Thunderstorm Wind (G50)
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Bamberg County

Bamberg	05	1740EST			0	0	0		Thunderstorm Wind (G50)
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Bamberg County

2 S Bamberg	05	1830EST			0	0	0		Thunderstorm Wind (G50)
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A cluster of thunderstorms produced several downed trees in Bamberg, Barnwell, Calhoun, and Sumter counties.

Lexington County

Dixiana	06	1940EST			0	0	0		Thunderstorm Wind (G50)
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A severe thunderstorm downed trees in Dixiana.

Lexington County

Lexington	09	1840EST			0	0	0		Thunderstorm Wind (G50)
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Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>SOUTH CAROLINA, Central</u>									
Richland County									
15 N Columbia	09	1845EST			0	0	0	0	Thunderstorm Wind (G50)
Kershaw County									
Elgin	09	1910EST			0	0	0	0	Thunderstorm Wind (G50)
Kershaw County									
Lugoff	09	1940EST			0	0	0	0	Thunderstorm Wind (G50)
Kershaw County									
Camden	09	1953EST			0	0	0	0	Thunderstorm Wind (G50)
Kershaw County									
Cassatt	09	2015EST			0	0	0	0	Thunderstorm Wind (G50)
A line of severe thunderstorms associated with a cold front downed numerous trees in Lexington, Richland, and Kershaw counties.									
Richland County									
2 N Blythewood	14	1925EST			0	0			Hail (1.00)
Public spotter reports quarter size hail.									
Lexington County									
Cayce	15	1700EST			0	0	0	0	Thunderstorm Wind (G50)
Weather observer reports power outage due to trees taking down powerlines.									
Richland County									
5 NE Columbia	15	1715EST			0	0			Hail (1.00)
Sheriff reports quarter size hail and strong wind gusts.									
Sumter County									
8 W Sumter to 4 W Sumter	15	1820EST 1830EST			0	0	0	0	Thunderstorm Wind (G50)
Sheriff and Electric Coop report trees and powerlines down in Wedgefield and along highway 76/378.									
Clarendon County									
Summerton	15	1930EST			0	0			Hail (1.00)
Police report quarter size hail along I-95.									
Clarendon County									
Summerton	15	1930EST			0	0	0	0	Thunderstorm Wind (G50)
Police report trees down along route 102.									
Saluda County									
Ridge Spring to Ridge Spg	16	1630EST			0	0	0	0	Thunderstorm Wind (G50)
County Highway Dept. reports trees and powerlines down.									
Lexington County									
West Columbia	16	1638EST			0	0	0	0	Thunderstorm Wind (G50)
Sheriff reports trees down.									
Chesterfield County									
Patrick	16	1647EST			0	0			Hail (0.75)
Post Office reports 3/4 inch hail near Plainview High School.									
Richland County									
Columbia	16	1648EST			0	0	0	0	Hail (0.75)
Ham spotters report 3/4 inch hail in Columbia.									
Richland County									
Columbia	16	1648EST			0	0	0	0	Thunderstorm Wind (G60)
Ham spotters report trees down around Columbia.									
Lexington County									
Batesburg to Lexington	16	1700EST 1720EST			0	0	0	0	Thunderstorm Wind (G60)
Sheriff reports trees down along U.S.1.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
SOUTH CAROLINA, Central									
Richland County									
Columbia	16	1730EST			0	0		0	Thunderstorm Wind (G50)
									City police report trees down.
Aiken County									
18 NE Aiken	16	1732EST			0	0	0	0	Thunderstorm Wind (G50)
									Storm survey found several trees down on highway 39 one to three miles east of I-20.
Lexington County									
Pelion to Swansea	16	1738EST 1750EST			0	0	5K	50K	Thunderstorm Wind (G70)
									Storm survey found many trees down and extensive crop damage on a couple of farms. Over 50 acres of corn crops were flattened by several downbursts. One mobile home had a tree fall on it.
Lancaster County									
5 NE Lancaster	16	1800EST			0	0		0	Thunderstorm Wind (G50)
									Sheriff reports trees down and unknown size hail.
Lexington County									
2 W Irmo	16	1800EST			0	0		0	Thunderstorm Wind (G50)
									Sheriff reports trees down along Lake Murray Blvd.
Calhoun County									
14 NW St Matthews	16	1805EST			0	0	0	0	Hail (0.75)
									WCM reports dime size hail.
Fairfield County									
Woodward	16	1809EST			0	0		0	Thunderstorm Wind (G50)
									State Law Enforcement reports trees and powerlines down.
Orangeburg County									
Santee	05	1725EST			0	3	12K	0	Thunderstorm Wind (G50)
									A tree fell on a Ford Escort traveling along U.S. Highway 15 at Santee. Three people were injured.
Orangeburg County									
Cope	05	1730EST			0	0	300K	0	Lightning
									A lightning strike at the Cope Baptist Church caused the educational building to catch fire and burn down.
Orangeburg County									
Elloree	05	1750EST			0	1	18K	0	Thunderstorm Wind (G50)
									A tree fell on a Pontiac Grand Am traveling along SC Highway 267 injuring a 36 year old Elloree woman.
Calhoun County									
5 SE St Matthews	05	1914EST			0	0			Hail (1.25)
									TV 10 showed home video of pingpong-ball-size hail near St. Matthews.
Sumter County									
Sumter	14	1745EST			0	0		0	Thunderstorm Wind (G60)
									Sheriff reports numerous trees down throughout city.
Sumter County									
Sumter	14	1745EST			0	0		0	Thunderstorm Wind (G65)
									Sheriff reports numerous trees down throughout city.
Richland County									
Columbia	15	1712EST			0	0		0	Thunderstorm Wind (G50)
									SCE&G reports trees down on powerlines causing numerous power outages.
Sumter County									
Sumter	15	1840EST			0	0	225K	0	Lightning
									Lightning destroyed half of a Longleaf Drive home.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>SOUTH CAROLINA, Central</u>									
Aiken County									
Aiken	16	1630EST			0	0	8K	0	Lightning
Lightning struck a home and caused some damage. there were no injuries.									
Richland County									
Columbia	29	1907EST			0	0	22K	0	Thunderstorm Wind (G50)
A severe thunderstorm blew down a couple of trees on homes on Murray Street causing some damage.									
Saluda County									
7 W Saluda	23	1630EST			0	0		0	Thunderstorm Wind (G50)
Electric Company reports powerlines down, blown transformers, and power outages.									
Richland County									
3 NE (Mmt)Mc Entire Ang	23	1822EST			0	0		0	Thunderstorm Wind (G50)
McEntire ANG Base personnel report large tree branches down northeast of the base.									
Orangeburg County									
North	23	1950EST			0	0		0	Thunderstorm Wind (G50)
TV meteorologist reports tree tops broken off and damage to a roof on a home.									
Lexington County									
3.7 NE Gaston to 7.3 NE Gaston	23	2253EST 2306EST	3.5	200	1	6	917K	25K	Tornado (F2)
An F2 tornado producing winds to 150 mph killed a 32 year old female and injured 6 others. Two homes were destroyed and 9 others had major damage. Two apartments were destroyed (duplex). Seven mobile homes were destroyed and 94 had minor damage. Numerous trees were down and two crop fields had areas of destroyed crops. F32PH									
Richland County									
3 SE Columbia to 5 E Columbia	23	2314EST 2323EST	3	100	0	1	205K	0	Tornado (F1)
An F1 tornado produced winds to 100 mph. Numerous trees were down and 35 homes had minor damage. Seventeen businesses also had minor damage. One person was injured.									
Richland County									
13 ENE Columbia to 14.5 ENE Columbia	23	2332EST 2336EST	1.5	75	0	0	0	0	Tornado (F0)
An F0 tornado touched down on the north side of Ft. Jackson and took down some trees in the training area.									
Kershaw County									
3 SE Camden to 4.5 NE Camden	23 24	2348EST 0004EST	6	125	0	1	225K		Tornado (F2)
An F2 tornado produced winds to 135 mph. Numerous trees were down. Two homes had major damage and three had minor damage. One mobile home was destroyed and three others had minor damage. One person was injured.									
Kershaw County									
3.5 N Bethune to 5 NNE Bethune	24	0020EST 0024EST	1.5	85	0	0	25K	0	Tornado (F1)
An F1 tornado produced winds to 90 mph and damaged a home north of Bethune before crossing the county and and diminishing to an F0 which took down many trees in the Carolina Sand Hills National Wildlife Refuge just north of Mc Bee.									
Chesterfield County									
4.5 WNW Mc Bee to 4.2 NW Mc Bee	24	0024EST 0029EST	1.5	75	0	0	0	0	Tornado (F0)
The F1 tornado that crossed over from Kershaw county diminished to an F0 tornado and only took down some trees.									
Clarendon County									
1 S Manning	24	1815EST			0	0		0	Thunderstorm Wind (G50)
County sheriff reported some trees and transformers down on highway 301 along with many traffic accidents.									
Lexington County									
Gaston	27	1528EST			0	0		0	Thunderstorm Wind (G50)
Electric company reports powerlines down from thunderstorm winds.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>SOUTH CAROLINA, Central</u>									
Richland County									
4 SE Columbia	29	1915EST 1930EST			0	0		0	Hail (1.25)
State Newspaper editor reported 1.25 inch hail for 15 minutes.									
Richland County									
5 SE Columbia	29	1930EST 1940EST			0	0		0	Hail (1.75)
Sheriff reports golf ball size hail near Hopkins.									
<u>SOUTH CAROLINA, North Coastal</u>									
Georgetown County									
Plantersville	05	1607EST 1610EST			0	0			Thunderstorm Wind (G50)
WIND GUST TO 50 KTS DOWNED TREES IN THE YAUHANNAH COMMUNITY (ABOUT 5N OF PLANTERSVILLE)									
Horry County									
Bucksport	05	1610EST			0	0			Hail (0.75)
Georgetown County									
Murrells Inlet	05	1620EST 1625EST			0	0			Hail (0.75)
Horry County									
Loris	05	1940EST			0	0			Hail (0.75)
Georgetown County									
Hobcaw Plantation	09	1000EST 1010EST			0	0			Waterspout
WATERSPOUT REPORTED BY U.S. COAST GUARD, JUST SOUTH OF HOBCAW PLANTATION, NEAR THE MOUTH OF WINYAH BAY									
Florence County									
Pamplico	14	1635EST			0	0			Hail (0.75)
REPORTED BY PAMPLICO POLICE									
Marlboro County									
Wallace	16	1500EST			0	0	3K		Thunderstorm Wind (G50)
ROOF DAMAGE TO HOME									
Darlington County									
Hartsville	16	1710EST			0	0			Thunderstorm Wind (G50)
A FEW TREES DOWN ON US 15, EAST OF HARTSVILLE, NEAR SOCIETY HILL. SMALL HAIL ALSO ACCOMPANIED THIS STORM									
Darlington County									
Hartsville	18	1754EST 1757EST			0	0			Thunderstorm Wind (G50)
WIND GUST ESTIMATED AT 50 KNOTS CAUSED NUMEROUS POWER OUTAGES DUE TO TREE LIMBS AND POWER LINES DOWN. SMALL HAIL ALSO REPORTED WITH THIS STORM ABOUT 10 W HARTSVILLE									
Darlington County									
Hartsville	18	1755EST			0	0	13K		Lightning
LIGHTNING STRUCK A STORAGE BUILDING AND A RESIDENCE ON WHITE HALL LANE IN HARTSVILLE CAUSING APPROXIMATELY 13,000 DOLLARS DAMAGE.									
Darlington County									
Darlington	24	0235EST			0	0			Thunderstorm Wind (G50)
TREE DOWN 1 N DARLINGTON									
Horry County									
Myrtle Beach	24	1755EST			0	0			Waterspout
WATERSPOUT REPORTED OVER THE OCEAN JUST OFF MYRTLE BEACH									

Storm Data and Unusual Weather Phenomena

July 1997

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

Georgetown County

Brookgreen	24	1800EST			0	0			Funnel Cloud
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FUNNEL CLOUD REPORTED NEAR N. LITCHFIELD (1 E BROOKGREEN)

Horry County

Myrtle Beach	24	1850EST 1855EST			0	0			Funnel Cloud
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Funnel cloud reported by Myrtle Beach Police Officer in the restaurant row section. Moving northeast.

SOUTH CAROLINA, Northwest

Laurens County

Laurens	03	1915EST			0	0			Thunderstorm Wind (G50)
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Severe thunderstorm winds caused a tree to fall across power lines, resulting in some power outages on the west side of Laurens.

Oconee County

Mountain Rest	04	1933EST			0	0			Thunderstorm Wind (G50)
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Oconee County

Westminster	04	1940EST			0	0			Thunderstorm Wind (G50)
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Oconee County

Walhalla	04	1950EST			0	0			Thunderstorm Wind (G50)
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Pickens County

8 W Pickens	04	1950EST			0	1			Thunderstorm Wind (G50)
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Greenville County

Marietta	04	2000EST			0	0			Thunderstorm Wind (G50)
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Oconee County

Seneca	04	2003EST			0	0			Thunderstorm Wind (G50)
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Anderson County

Pendleton to Piedmont	04	2025EST 2035EST			0	0			Thunderstorm Wind (G50)
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Spartanburg County

5 WNW Chesnee	04	2030EST			0	0			Thunderstorm Wind (G50)
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Severe thunderstorms moved across northern Georgia and into upstate South Carolina on the evening of the Fourth, producing winds that toppled trees in several locations across the northern half of the Upstate. Trees fell across Highways 183 and 133 west of Pickens, injuring one person and blocking the road for a short time. Trees also fell across the Asheville Highway near Marietta.

Spartanburg County

Reidville	09	1515EST			0	0			Thunderstorm Wind (G50)
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Spartanburg County

Pauline	09	1542EST			0	0			Hail (1.75)
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A severe thunderstorm produced damaging winds that downed trees and power lines in Reidville and large hail near Pauline.

Spartanburg County

Duncan to Woodruff	10	2200EST 2300EST			0	0			Flash Flood
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Spartanburg County

Woodruff	10	2215EST			0	0			Lightning
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Greenville County

Simpsonville	10	2230EST			0	0			Thunderstorm Wind (G50)
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Spartanburg County

Spartanburg	10	2345EST			0	0	100K		Lightning
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A thunderstorm moved very slowly across Spartanburg county, dumping an estimated 7 inches of rain in a short period of time.

Storm Data and Unusual Weather Phenomena

July 1997

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

Lightning caused extensive damage to a building in Woodruff. Lightning also struck a home in Spartanburg, burning it to the ground. A man perished in the fire (indirect fatality). A severe thunderstorm produced damaging winds that downed trees onto homes in Simpsonville.

Cherokee County

2 W Gaffney	14	1645EST			0	0			Thunderstorm Wind (G50)
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An isolated severe thunderstorm blew down a tree and other large tree limbs.

Cherokee County

4 S Gaffney	16	1625EST			0	0			Thunderstorm Wind (G50)
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Spartanburg County

Spartanburg	16	1625EST			0	0			Thunderstorm Wind (G50)
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Greenwood County

Ninety Six	16	1847EST			0	0			Thunderstorm Wind (G50)
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Greenwood County

Countywide	16	1910EST			0	0			Thunderstorm Wind (G50)
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Severe thunderstorms produced damaging winds that downed trees and power lines. Greenwood county received the most damage, where trees were downed countywide, resulting in power loss to at least 3000 people.

Oconee County

Mountain Rest	22	1500EST			0	0			Lightning
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Lightning struck a church, sparking a small fire and causing minimal damage.

Union County

Union	23	1441EST			0	0	10K		Lightning
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Abbeville County

6 NE Due West	23	1555EST	3	50	0	0	2K		Tornado (F0)
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Pickens County

Clemson	23	1602EST			0	0			Heavy Rain
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Greenwood County

Greenwood	23	1644EST			0	0			Thunderstorm Wind (G50)
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Anderson County

8 W Piedmont	23	1702EST			0	1	8K		Thunderstorm Wind (G50)
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Laurens County

5 W Gray Court to 4 NE Hickory Tavern	23	2130EST 2300EST			0	0	150K		Flash Flood
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Spartanburg County

Enoree	23	2200EST			0	0	200K		Flash Flood
	24	0000EST							

Chester County

Ft Lawn	23	2300EST			0	1	43K		Flash Flood
	24	0300EST							

York County

1 E Ft Mill to 1 E Catawba	23	2300EST			0	0	207K		Flash Flood
	24	0300EST							

Chester County

Ft Lawn	24	0000EST	0.1	25	0	0	15K		Tornado (F1)
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The remnants of Hurricane Danny moved out of northeast Georgia and across the Upstate from the late afternoon on the 23rd through the early morning of the 24th. Two weak, short-lived tornadoes were spawned. One in Abbeville county downed trees and power lines. Another tornado, this one a little stronger, moved across a garbage truck transfer station in Chester county, lifting a trailer off the ground and turning it over. One mobile home was destroyed, injuring an occupant, and others damaged in Anderson county when straight line winds associated with a spiral rain band/squall moved through. Heavy rain collapsed part of a small strip mall in Clemson. Lightning struck a home in Union.

Flash flooding from the heavy tropical rain caused most of the damage, however. In Laurens county, North Rabun Creek came out of its banks, covering a few bridges and flooding some homes. Bridges and roads were washed out or inundated by water in Chester county and one woman was injured when she drove across a washed out road. Underpinning and plumbing were washed

Storm Data and Unusual Weather Phenomena

July 1997

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

SOUTH CAROLINA, Northwest

out in a trailer park in Fort Lawn. At least 7 roads were washed out in the eastern part of York county when the Catawba River and several creeks flowed out of their banks.

Spartanburg County

Inman	24	1440EST			0	0			Thunderstorm Wind (G50)
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Greenville County

Taylors	24	1545EST			0	0	25K		Thunderstorm Wind (G50)
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Greenville County

Greenville	24	1600EST			0	0			Thunderstorm Wind (G50)
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Greenville County

3 E Greenville	24	1610EST			0	0			Thunderstorm Wind (G50)
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Spartanburg County

Glenn Spgs	24	1645EST			0	0			Thunderstorm Wind (G50)
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Greenville County

Greenville	24	1700EST			0	0	100K		Flash Flood
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A cluster of thunderstorms developed near the North Carolina/South Carolina border and quickly became severe as they moved slowly south. Damaging winds downed numerous trees and power lines. Some roads were blocked by fallen trees and power lines as the evening rush hour began. Several power outages lasted into the night. A tree fell onto a home in Taylors. Severe urban flooding occurred along Pleasantburg, East North and Haywood Roads as storm drains were overwhelmed. Water entered a number of homes along these streets. Many cars stalled in the flood waters that were as high as 3 feet. A 2 to 3 foot wall of water rushed through a lot of parked trailers near the Palmetto Expo Center.

Spartanburg County

Fingerville to Chesnee	28	1455EST			0	0			Thunderstorm Wind (G50)
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Cherokee County

12 NW Gaffney to 7 W Gaffney	28	1510EST			0	0			Thunderstorm Wind (G50)
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Spartanburg County

Pacolet	28	1545EST			0	0			Thunderstorm Wind (G50)
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Spartanburg County

Spartanburg	28	1545EST			0	0			Thunderstorm Wind (G50)
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Union County

Jonesville	28	1545EST			0	0			Thunderstorm Wind (G50)
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Spartanburg County

Reidville	28	1600EST			0	0			Thunderstorm Wind (G50)
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Greenville County

5 N Simpsonville	28	1605EST			0	0	5K		Thunderstorm Wind (G50)
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Scattered thunderstorms developed in a very warm and unstable atmosphere during the afternoon. Several became severe and produced a considerable amount of wind damage. Most damage reports were of trees and power lines downed. However, outbuildings were destroyed in northern Spartanburg county, a tin roof was blown off a barn near Pacolet and underpinning was blown off mobile homes north of Simpsonville.

SOUTH CAROLINA, South Coastal

Dorchester County

Ridgeville	08	1608EST 1612EST			0	0			Hail (1.00)
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Dorchester County

Summerville to 5 E Summerville	08	1620EST 1630EST			0	0			Lightning
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Lightning struck several residences.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>SOUTH CAROLINA, South Coastal</u>									
Dorchester County									
Summerville	08	1620EST 1625EST			0	0			Thunderstorm Wind (G50)
Several trees down and aluminum siding blown off of several houses.									
Jasper County									
Ridgeland	08	1915EST 1919EST			0	0			Thunderstorm Wind (G50)
Several trees down.									
Charleston County									
North Charleston	16	1400EST 1410EST			0	0	10K		Thunderstorm Wind (G60)
A 40x80 foot section of the roof at the ABF Freight System, Inc was blown off .									
Charleston County									
North Charleston	17	1735EST 1740EST			0	0			Thunderstorm Wind (G60)
Trees and powerlines down.									
Dorchester County									
9 SE Summerville to 11 SE Summerville	17	1745EST 1750EST			0	0			Thunderstorm Wind (G60)
Numerous trees down. Also window and roof damage.									
Dorchester County									
Harleyville	18	1900EST 1905EST			0	0			Hail (1.75)
Dorchester County									
St George	18	1915EST			0	1			Lightning
A woman was struck by lightning.									
Dorchester County									
St George	18	1915EST 1921EST			0	0			Thunderstorm Wind (G50)
Several trees down.									
Charleston County									
North Charleston	24	0200EST			0	0			Thunderstorm Wind (G50)
Powerlines down									
<u>SOUTH DAKOTA, Central and North</u>									
SDZ006-018 Brown - Spink									
	01	0000CST			0	0			Flood
	31	2359CST							
The James River continued to flood through most of July from Columbia to Ashton falling below flood stage at Ashton on the 29th. The James River began the month at 1 to 3 feet above flood stage and fell to around 2 feet above flood stage from Columbia to Stratford by the end of the month. Some farmland, pastureland, and some roads continued to be flooded by the river through July.									
Jones County									
6 E Van Metre	01	0704CST			0	0			Hail (1.75)
Hughes County									
Pierre	01	0850CST			0	0			Hail (0.75)
Hughes County									
Harrold	01	1110CST			0	0			Hail (0.75)
Hyde County									
Highmore	01	1140CST			0	0			Hail (0.75)
Hand County									
13 NW Miller	01	1210CST			0	0			Hail (0.75)
Hamlin County									
Lake Norden	01	1430CST			0	0			Thunderstorm Wind (G52)
Strong thunderstorm winds uprooted some trees.									

Storm Data and Unusual Weather Phenomena

July 1997

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

Hughes County

Pierre	01	1650CST			0	0			Thunderstorm Wind (G52)
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SDZ023

Deuel

	02	0300CST			0	0			High Wind
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High winds from a strong cold front knocked down a large cottonwood tree.

Potter County

2 N Hoven	07	0245CST			0	0			Hail (1.00)
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Day County

8 S Waubay	07	1650CST 1651CST	0.3	20	0	0			Tornado (F0)
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The tornado touched down briefly. Path length and width were estimated.

Corson County

10 S Wakpala	11	1900CST 2300CST			0	0			Flash Flood
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Dewey County

Promise	11	1900CST 2300CST			0	0			Flash Flood
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Walworth County

Mobridge	11	1900CST 2300CST			0	0			Flash Flood
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Northeastern Dewey county, southeastern Corson county and northwestern Walworth county received between 3 to 4 inches of rainfall. This caused the Grand River and Moreau River to go out of their banks. Water covered some of Highway 12 near Mobridge and some of Highway 15 north of Mobridge. Many basements were flooded in Mobridge.

Sully County

7 SW Onida	16	1813CST			0	0			Hail (1.75)
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Hughes County

6 N Pierre	16	1820CST			0	0			Hail (2.75)
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Hughes County

10 N Pierre	16	1825CST 1826CST	0.5	30	0	0			Tornado (F0)
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The tornado, spotted by a pilot, struck an airport and ripped the roof off of an air carrier, smashing five airplanes. Path length and width were estimated.

Hughes County

5 N Pierre	16	1844CST			0	0			Hail (2.75)
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Hughes County

Pierre	16	1844CST			0	0			Hail (1.75)
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Hughes County

8 NE Pierre to 9 ENE Pierre	16	1845CST	2	75	0	0			Tornado (F1)
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The tornado swept up dust and debris as it tracked steadily southeast across 2 miles of open country. Path and length were estimated.

Hughes County

8 NE Pierre	16	1845CST			0	0			Thunderstorm Wind (G61)
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Sully County

20 SE Onida	16	1900CST			0	0			Thunderstorm Wind (G52)
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Thunderstorm winds tore some shingles off a house and barn and also knocked down some very large branches.

Hughes County

Pierre	16	1907CST			0	0			Thunderstorm Wind (G50)
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Potter County

2 E Lebanon	16	1945CST			0	0			Hail (3.00)
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Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>SOUTH DAKOTA, Central and North</u>									
Faulk County									
4 SE Faulkton	16	2030CST			0	0			Thunderstorm Wind (G51)
Day County									
Bristol	16	2035CST			0	0			Hail (0.75)
Day County									
Bristol	16	2100CST			0	0			Hail (0.75)
Faulk County									
4 SE Faulkton	16	2130CST			0	0			Thunderstorm Wind (G70)
Day County									
10 S Bristol	16	2135CST			0	0			Hail (0.75)
Day County									
10 S Bristol	16	2135CST			0	0			Thunderstorm Wind (G52) Thunderstorm winds blew some large limbs down.
Clark County									
1 N Crocker	16	2155CST			0	0			Hail (1.00) The hail destroyed a wheat crop.
Clark County									
1 N Crocker	16	2155CST			0	0			Thunderstorm Wind (G70) Damaging thunderstorm winds and hail destroyed a wheat crop and knocked down an apple tree along with many large branches.
Day County									
6 S Webster	16	2220CST			0	0			Thunderstorm Wind (G52) Thunderstorm winds knocked down some poles and some powerlines.
Day County									
Waubay	16	2235CST			0	0			Thunderstorm Wind (G52) Damaging thunderstorm winds blew some buildings down and some trees were uprooted.
Day County									
5 SE Webster	16	2235CST			0	0			Thunderstorm Wind (G52)
Codington County									
4 N Florence	16	2246CST			0	0			Thunderstorm Wind (G61)
Codington County									
South Shore	16	2305CST			0	0			Thunderstorm Wind (G70) Damaging thunderstorm winds downed two cottonwood trees and destroyed a fishing dock.
Grant County									
Twin Brooks	16	2306CST			0	0			Thunderstorm Wind (G57)
Hand County									
Miller	18	0010CST			0	0			Hail (0.75)
Hyde County									
Highmore	18	0030CST			0	0			Thunderstorm Wind (G65)
Spink County									
2 W Turton	18	0149CST			0	0			Hail (0.75)
Clark County									
Crocker	18	0215CST			0	0			Hail (0.75)
Clark County									
4 NW Bradley	18	0230CST			0	0			Hail (0.75)
Day County									
1 S Lily	18	0230CST			0	0			Hail (0.75)
Codington County									
Florence	18	0248CST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>SOUTH DAKOTA, Central and North</u>									
Day County									
2 S Waubay	18	0302CST 0303CST	0.3	25	0	0			Tornado (F0)
The tornado touched down briefly. Path length and width were estimated.									
Roberts County									
9 E Wilmot	19	2038CST			0	0			Hail (1.75)
Roberts County									
9.5 E Wilmot	19	2038CST			0	0			Hail (4.00)
The four inch size hail busted a few windshields.									
Spink County									
Tulare	20	0215CST			0	0			Thunderstorm Wind (G52)
Day County									
Webster	20	0410CST			0	0			Thunderstorm Wind (G52)
Stanley County									
Hayes	23	1948CST			0	0			Hail (0.75)
Hughes County									
Pierre	23	2258CST			0	0			Thunderstorm Wind (G55)
Hyde County									
Highmore	23	2347CST			0	0			Thunderstorm Wind (G62)
Hughes County									
Harrold	23	2350CST			0	0			Thunderstorm Wind (G61)
Clark County									
Naples	24	2100CST			0	0			Thunderstorm Wind (G57)
Spink County									
Conde	24 25	2100CST 0100CST			0	0			Flash Flood
Over 6 inches of rain fell in the Conde area in far northeast Spink County. Water was over Highway 37 and many town basements were flooded. One basement filled with 5 feet of water.									
Hamlin County									
Estelline	24 25	2200CST 0200CST			0	0			Flash Flood
Nearly 7 inches of rain was received at Lake Poinset and over 6 inches of rain was received in Estelline. Hidewood creek overflowed its banks. Water got into many residences and some were evacuated. A small bridge was taken out by high water and Highway 28 was closed for an hour.									
Deuel County									
3 E Astoria to 4 E Astoria	24	2230CST	1	120	0	0	20K		Tornado (F1)
A tornado touched down on a farm, uprooting and snapping trees. Every tree on the property was damaged in some way. The tornadic winds drove 2 inch branches underneath the tires of a goose neck trailer with a load of culverts aboard. The wind also drove 2 inch thick tree branches through a metal 40" by 72" quonset, leaving a hole three feet long. Also, 3 walls of a machine shed were blown down, 2 pickups were damaged and metal culverts were thrown about and twisted. A wheelbarrow was pushed for 15 feet, tipping over a motorcycle. Two overhead doors were blown out and one was bashed, damaging a camper. Path length and width were estimated.									
Corson County									
15 S Keldron to 16 SSE Keldron	25	1722CST			0	0			Hail (1.75)
The storm left a 5 mile long path of hail damage destroying many acres of crops.									
Edmunds County									
5 S Mina	25	1753CST			0	0			Thunderstorm Wind (G57)
Thunderstorm winds broke off several tree branches.									
Brown County									
10 SW Aberdeen	25	1812CST			0	0			Thunderstorm Wind (G69)
Thunderstorm winds and small hail damaged about 3 to 4 acres of sunflowers.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>SOUTH DAKOTA, Central and North</u>									
Brown County									
Warner	25	1833CST			0	0			Hail (1.75)
Spink County									
4 NE Brentford	25	1850CST			0	0			Hail (2.50)
Spink County									
.5 E Brentford	25	1905CST			0	0			Thunderstorm Wind (G57)
Spink County									
Turton	25	1930CST			0	0			Thunderstorm Wind (G61)
Clark County									
2 SW Raymond	25	1956CST			0	0			Thunderstorm Wind (G52)
A barn was pushed off it's foundation by thunderstorm winds.									
Potter County									
4 N Gettysburg to 13 NE Gettysburg	25	2000CST			0	0			Hail (1.75)
Potter County									
4 NE Gettysburg	25	2000CST			0	0			Thunderstorm Wind (G52)
Thunderstorm winds and golfball size hail destroyed a twelve mile long and a 3 mile wide area crops including beans, wheat, corn and sunflowers.									
Clark County									
10 N Carpenter	25	2004CST			0	0			Thunderstorm Wind (G52)
Potter County									
Gettysburg	26	0453CST			0	0			Hail (0.75)
Hail covered the ground in Gettysburg.									
Codington County									
6 SW Henry	27	1700CST 1701CST	0.2	15	0	0			Tornado (F0)
This weak tornado was a cold air funnel which touched down in a field, damaging crops and downing some trees. Path length and width were estimated.									
<u>SOUTH DAKOTA, Southeast</u>									
Kingsbury County									
Iroquois	01	1315CST			0	0			Hail (0.75)
SDZ038>040-052>056-058>062-065>067									
Beadle - Kingsbury - Brookings - Jerauld - Sanborn - Miner - Lake - Moody - Aurora - Davison - Hanson - Mccook - Minnehaha - Hutchinson - Turner - Lincoln									
	02	0100CST 0700CST			0	0	106.7K		High Wind (G44)
Prolonged sustained winds around 40 mph with gusts around 50 mph caused widespread minor tree damage and spotty power line damage. A few trees were blown over, including one in Volga which destroyed a mobile home when it fell.									
Turner County									
8 N Chancellor	07	1510CST			0	0			Hail (0.75)
Minnehaha County									
Sioux Falls	07	1530CST			0	0			Hail (1.00)
Lincoln County									
Sioux Falls	07	1542CST			0	0			Hail (0.75)
Lincoln County									
1 E Canton	07	1553CST	0.1	50	0	0			Tornado (F0)
A brief tornado observed by a local spotter resulted in no reported damage.									
Lincoln County									
1 S Harrisburg	07	1600CST	0.1	50	0	0			Tornado (F0)
A brief tornado observed by a local spotter resulted in no reported damage.									
Lincoln County									
5 W Hudson	07	1617CST	0.1	50	0	0			Tornado (F0)
A brief tornado observed by a local spotter resulted in no reported damage.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
SOUTH DAKOTA, Southeast									
Minnehaha County									
3 SW Brandon	07	1558CST			0	0			Thunderstorm Wind (G61)
Minnehaha County									
6 S Hartford to 6 N Garretson	13	1445CST 1525CST			0	0	2M	2M	Hail (4.50)
									Large hail fell in an area about 5 miles wide and at least 15 miles long from west to northeast of Sioux Falls. Severe damage to vehicles occurred, including several which sustained total damage. homes and other buildings had windows broken and siding and roofs severely damaged. At least one satellite dish was damaged at the EROS Data Center and the building sustained other damage as well. Crops were severely damaged with many acres totally destroyed.
Turner County									
Parker	13	1505CST			0	0			Hail (1.75)
Moody County									
5 SE Trent to 10 E Trent	13	1540CST 1550CST			0	0	50K	100K	Hail (1.75)
									Large hail, which whitened the ground, damaged crops and trees, and injured cattle.
Davison County									
Mitchell	16	2300CST			0	0	1K		Lightning
									Lightning struck a house, blowing a fuse box and destroying a freezer compressor.
Beadle County									
8 SE Huron	20	1210CST 1230CST			0	0	5K		Heavy Rain
									Heavy rainfall of 6 inches over a small area temporarily flooded lowlands, ditches, and at least one road.
Beadle County									
8 SE Huron	20	1210CST 1310CST			0	0		5K	Tstm Wind/Hail
									Strong winds and small hail combined to damage crops in a small area.
Yankton County									
Yankton	21	1930CST			0	0	50K		Thunderstorm Wind (G61)
									Thunderstorm winds caused tree and power line damage with resulting power outages of about two hours. The winds also destroyed a storage shed, blew the roof off another large storage shed, and caused minor structural damage to buildings. Most of the damage occurred in the southeast part of the city of Yankton.
Mccook County									
3 E Canistota	23	0300CST			0	0			Hail (0.75)
Mccook County									
4 NE Canistota	23	0335CST			0	0			Hail (0.88)
									Hail caused an undetermined amount of crop damage.
Beadle County									
4 W Wolsey	24	0030CST			0	0			Thunderstorm Wind (G52)
Davison County									
Mitchell	24	1310CST			0	0	4K		Lightning
									Lightning struck a house which had been struck eight days earlier. This strike started a small garage fire, destroyed at least two television sets and a telephone cord, and damaged VCRs, a video game, a video rewinder, two telephones, and two lamps.
Beadle County									
2 NW Broadland to 8 NE Broadland	24	1905CST 1935CST			0	0			Hail (1.75)
									Hail severely damaged crops, but the amount of damage was undetermined.
Beadle County									
2 NW Broadland	24	1905CST			0	0	5K		Thunderstorm Wind (G61)
									Thunderstorm winds damaged a grain bin.
Davison County									
Mitchell	24	2015CST 2019CST			0	0			Hail (1.75)
Davison County									
Mitchell	24	2019CST			0	0			Thunderstorm Wind (G52)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
SOUTH DAKOTA, Southeast									
Kingsbury County									
De Smet	24	2046CST	0.1	50	0	0			Tornado (F0)
A brief tornado in an open area resulted in no reported damage.									
Kingsbury County									
Erwin	24	2110CST	0.1	50	0	0			Tornado (F0)
A brief tornado in an open area resulted in no reported damage.									
Kingsbury County									
4 E Lake Preston	24	2230CST	0.1	50	0	0	2K		Tornado (F0)
A brief tornado caused minor damage to a home.									
Kingsbury County									
6 NE Lake Preston to 2 SW Badger	24	2245CST 2255CST	2	100	0	0			Tornado (F0)
A tornado in an open area resulted in no reported damage.									
Brookings County									
12 N Brookings	24	2255CST			0	0	10K		Thunderstorm Wind (G61)
Thunderstorm winds blew down power lines for over a mile and caused tree damage.									
Kingsbury County									
2 E Badger	24	2305CST			0	0			Thunderstorm Wind (G52)
Thunderstorm winds caused an unknown amount of structural damage.									
Minnehaha County									
Sioux Falls	25	0035CST			0	0	5K		Thunderstorm Wind (G61)
Thunderstorm winds in a small area of Sioux falls blew trees down.									
Kingsbury County									
Arlington	25	2110CST 2140CST			0	0	200K		Thunderstorm Wind (G61)
Thunderstorm winds caused widespread tree, power line, and pole damage. The winds also damaged a car wash under construction, blew down road signs, and broke windows. Some vehicles were damaged, mainly by trees or tree debris.									
Kingsbury County									
Lake Preston	25	2110CST			0	0	10K		Thunderstorm Wind (G52)
Thunderstorm winds blew down power lines and caused tree damage.									
Brookings County									
3 W Volga	25	2200CST			0	0	5K		Thunderstorm Wind (G52)
Thunderstorm winds caused tree damage.									
Kingsbury County									
7 N Oldham	25	2205CST			0	0	5K		Thunderstorm Wind (G52)
Thunderstorm winds caused tree damage.									
Lake County									
2 N Nunda to 3 SW Nunda	25	2220CST 2225CST			0	0	5K		Thunderstorm Wind (G52)
Thunderstorm winds caused tree damage.									
Lake County									
3 SW Nunda	25	2225CST			0	0			Hail (0.75)
Gregory County									
5 N Lucas	27	0700CST			0	0	10K	10K	Thunderstorm Wind (G61)
Thunderstorm winds caused damage to trees and wheat fields. The winds also blew 22 large bales of hay weighing one thousand pounds each across fields.									
Charles Mix County									
10 SW Platte	27	0705CST			0	0	1K		Tstm Wind/Hail
A heavy fall of small hail combined with strong winds broke windows at the Platte Creek Recreation Area.									
Charles Mix County									
2 NE Ravinia	27	0715CST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>SOUTH DAKOTA, Southeast</u>									
Aurora County									
Aurora Center	27	0720CST			0	0	5K		Hail (0.75)
Hail damaged crops, some of which had been replanted after a hailstorm earlier in the summer.									
Hutchinson County									
Parkston to 8 NE Tripp	27	0740CST 0810CST			0	0	100K		Hail (1.00)
Wind blown hail caused crop damage with some crops totally destroyed.									
Hutchinson County									
6 S Parkston to Menno	27	0740CST 0810CST			0	0	100K		Thunderstorm Wind (G61)
Thunderstorm winds caused tree and power line damages, and destroyed a fertilizer building and a barn near Menno.									
Bon Homme County									
Scotland	27	0800CST 0825CST			0	0	100K		Thunderstorm Wind (G61)
Thunderstorm winds caused tree and power line damage, and blew out a large window. Minor damage occurred to homes, mainly from wind blown tree debris.									
Bon Homme County									
3 N Tyndall	27	0821CST			0	0			Hail (0.75)
Bon Homme County									
Tabor	27	0840CST			0	0			Hail (0.75)
Yankton County									
9 N Lesterville to Gayville	27	0825CST 0900CST			0	0	200K	100K	Thunderstorm Wind (G57)
Thunderstorm winds caused widespread tree and power line damage in Yankton County. The winds also tore the roof off a building and damaged a grain elevator at Utica.									
Yankton County									
4 W Mayfield	27	0840CST 0850CST			0	0			Hail (2.00)
Large hail covered the ground and caused an unknown amount of crop damage.									
Clay County									
5 NW Meckling to 6 E Vermillion	27	0850CST 0950CST			0	0	200K	50K	Thunderstorm Wind (G61)
Thunderstorm winds caused widespread tree and power line damage, resulting in several power outages. The worst damage was in Vermillion including the University of South Dakota Campus.									
Clay County									
Vermillion	27	0945CST			0	0	20K		Lightning
Lightning struck a radio station, knocking the station off the air for several hours and severely damaging electronic equipment.									
Union County									
4 W Elk Pt to Elk Pt	27	1000CST 1010CST			0	0			Hail (0.75)
Union County									
4 W Elk Pt to Elk Pt	27	1000CST 1010CST			0	0			Thunderstorm Wind (G52)
Thunderstorm winds caused an unknown amount of tree and crop damage.									
<u>SOUTH DAKOTA, West</u>									
Perkins County									
5 N Bison	01	0045MST			0	0			Hail (1.75)
Haakon County									
2 NW Hilland	01	0240MST			0	0			Hail (0.75)
Meade County									
4 SW Plainview to 4 W Plainview	01	0330MST			0	0			Hail (2.00)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
SOUTH DAKOTA, West									
Haakon County									
Philip	01	0410MST			0	0			Thunderstorm Wind (G60)
Strong winds and 1/2 inch diameter hail struck the Philip area. Numerous tree limbs were downed.									
SDZ001>002-012>014-024>032-041>044-047-049									
Harding - Perkins - Butte - Meade Co. Plains - Ziebach - Northern Black Hills - Northern Foot Hills - Central Foot Hills - Southern Foot Hills - Central Black Hills - Southern Black Hills - Custer Plains - Pennington Plains - Haakon - Fall River Co. - Shannon - Jackson - Bennett - Todd - Tripp									
	01	0900MST 2100MST			0	2			High Wind (G70)
Winds were sustained over 40 mph much of the day across western and south central South Dakota, and higher gusts were frequent. Damage included downed trees, power outages, and structural damage. Most damage occurred in the central Black Hills where numerous large trees were blown down, localized major structural damage occurred, and numerous small wildfires were sparked.									
Ziebach County									
Dupree	01	1330MST 1345MST			0	0			Thunderstorm Wind (G60)
Thunderstorms combined with already gusty winds produced wind damage in the Dupree area. Winds ripped shingles from roofs and damaged trees and gardens. Several power outages were reported.									
Butte County									
Belle Fourche Arpt	06	2150MST			0	0			Thunderstorm Wind (G63)
Meade County									
Sturgis	06	2210MST			0	0	3K		Thunderstorm Wind
A tree fell and damaged a trailer home.									
Meade County									
Ellsworth Afb	06	2259MST			0	0			Thunderstorm Wind (G79)
Pennington County									
Rapid City	10	1540MST 1555MST			0	0	12K		Thunderstorm Wind (G60)
Numerous tree limbs were blown down including some that were 12 inches in diameter. A building supply store received roof damage. Also, scattered power outages occurred.									
Bennett County									
Harrington	10	2215MST			0	0			Thunderstorm Wind (G52)
Lawrence County									
8 W Spearfish	12	1433MST			0	0			Hail (1.00)
Meade County									
1 SW Sturgis	12	1545MST			0	0			Hail (1.75)
Fall River County									
7 SE Hot Spgs	12	1545MST			0	0			Thunderstorm Wind (G52)
A 60 mph wind gust was reported from Angostura Reservoir Dam.									
Shannon County									
Kyle	12	1725MST			0	0			Thunderstorm Wind (G61)
Custer County									
Custer	18	1825MST			0	0			Thunderstorm Wind (G60)
Fall River County									
6 E Edgemont	18	1840MST			0	0			Hail (0.75)
Pennington County									
7 W Rapid City	18	1847MST			0	0			Thunderstorm Wind (G61)
Fall River County									
Ardmore	18	1855MST			0	0	2K		Hail (0.75)
Hail broke several windows and piled one to two feet deep.									
Fall River County									
Hot Spgs	18	1855MST			0	0			Thunderstorm Wind (G52)
Power lines were downed.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
SOUTH DAKOTA, West									
Pennington County									
8 SW Rapid City	18	1924MST			0	0			Thunderstorm Wind (G52)
Pennington County									
Wasta	18	1958MST			0	0			Thunderstorm Wind (G52)
Pennington County									
3 NE Creighton	18	2030MST			0	0			Thunderstorm Wind (G55)
Meade County									
15 S Plainview	18	2033MST			0	0			Thunderstorm Wind (G52)
Harding County									
Ladner	18	1830MST			0	0			Thunderstorm Wind (G52)
									Large hay bales rolled across fields jumping ditches and fences. Several people who were baling hay quit when large bales began to pass the tractors. Tree damage was also reported.
Meade County									
12 SW Maurine	19	1408MST			0	0			Hail (2.00)
Meade County									
12 SW Maurine	19	1408MST			0	0			Thunderstorm Wind (G52)
									60 mph winds combined with large hail to damage trees along Sulphur Creek.
Meade County									
10 SW Maurine	19	1410MST			0	0			Hail (1.00)
Meade County									
13 S Faith	19	1535MST			0	0			Hail (1.00)
									Hail covered the ground.
Meade County									
13 S Faith	19	1541MST			0	0			Hail (1.75)
Custer County									
15 SW Custer	19	1630MST			0	0			Hail (2.00)
Bennett County									
15 NE Martin	19	1710MST			0	0			Hail (0.75)
									Hail was two inches deep on ground.
Bennett County									
Martin to Vetal	19	1745MST 2230MST			0	0			Flash Flood
									Slow moving thunderstorms produced three to six inches of rainfall within a two hour period in the Martin area. Water up to 1/2 foot deep covered portions of Highway 18 and Highway 73, especially north and east of Martin. Small streams rose out of their banks, and widespread flooding of wheat fields was reported.
Haakon County									
10 W Philip	22	0435MST			0	0			Hail (0.75)
Todd County									
Lakeview	22	1615MST 1630MST			0	0	20K	50K	Hail (2.00)
									Hail pounded the Lakeview area wiping out corn and oat fields. Several homes had broken windows, and minor structural damage. Hail piled up three to four inches deep.
Pennington County									
Hill City	23	1455MST			0	0			Hail (1.75)
Fall River County									
Edgemont	23	1915MST			0	0	5K		Lightning
									Lightning struck a business, destroying a computer and damaging the phone and electrical system.
Pennington County									
Wasta	23	2055MST			0	0			Thunderstorm Wind (G52)
Pennington County									
25 SW Rapid City	24	1310MST			0	0			Hail (0.75)
									3/4 inch hail was reported at Mt. Rushmore.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>SOUTH DAKOTA, West</u>									
Lawrence County									
5 W Lead	24	1425MST 1430MST			0	0			Hail (1.75)
Golfball size hail was reported at Deer Mountain.									
Custer County									
10 E Hermosa	24	1600MST			0	0			Hail (1.75)
Harding County									
Buffalo	24	1700MST			0	0			Thunderstorm Wind (G53)
Jackson County									
Interior	24	1720MST 1740MST			0	0			Hail (0.75)
Jackson County									
20 NE Kadoka	24	1845MST			0	0			Hail (0.75)
3/4 inch hail was reported along Highway 63 in northeast Jackson County.									
Mellette County									
10 NE White River	24	1945MST			0	0			Hail (1.75)
Lawrence County									
Lead	24	1400MST 2000MST			0	0			Flash Flood
Pennington County									
Deerfield to Rochford	24	1400MST 2000MST			0	0			Urban/Sml Stream Fld
Stationary thunderstorms produced over five inches of rain in the Lead and Deadwood area. Rock and mud slides partially blocked Highway 14A west of Lead. Flooding occurred near the intersection of Highway 85 and Highway 385. Several secondary roads were washed out around Lead. Whitewood Creek and Yellow Creek were over their banks. In northwest Pennington County, four to five inches of rain caused the south fork of Rapid Creek to rise over its banks five miles west of Rochford. Minor flooding also occurred along the north fork and along the tributaries of Rapid Creek.									
Perkins County									
20 S White Butte	25	1600MST			0	0	20K		Thunderstorm Wind (G60)
A 150 foot pole barn was destroyed.									
Harding County									
1.5 E Redig	25	2245MST			0	0			Thunderstorm Wind (G65)
Butte County									
1 N Belle Fourche	26	0000MST 0010MST			0	0	1K		Hail (1.00)
Large hail damaged several cars.									
<u>TENNESSEE, Central</u>									
Stewart County									
Indian Mound	04	0250CST			0	0	1K		Thunderstorm Wind
Public reported trees down in the Indian Mound vicinity. The report was relayed by the Stewart county sheriff's office.									
Montgomery County									
5 W Clarksville	04	0300CST			0	0	15K		Thunderstorm Wind
Amateur radio operator reported one home loss a roof in the Liberty Church area.									
Robertson County									
Stroudsville	04	0320CST			0	0	10K		Thunderstorm Wind
Strong thunderstorm winds blew down an oak tree. The tree fell on top of a house located at 3610 Turnersville Road.									
Montgomery County									
Clarksville	04	0325CST			0	0	1K		Thunderstorm Wind
Power lines were down over the road on Kraft Street in Clarksville.									
Cheatham County									
Pleasant View	04	0345CST			0	0	1K		Thunderstorm Wind
Local electric company reported several trees and power lines down.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
TENNESSEE, Central									
Robertson County									
Greenbrier	04	0350CST			0	0			Hail (0.75) Sheriff's office reported dime size hail.
Davidson County									
Goodlettsville	04	0410CST			0	0	0.50K		Thunderstorm Wind Trees down over the road.
Sumner County									
Gallatin	04	0420CST			0	0			Hail (0.75) Dime size hail was reported by SKYWARN Spotter.
Robertson County									
Sandy Spgs to Ridge Top	04	0431CST 0450CST			0	0	400K		Hail (0.75) A swath of hail, from marble size to dime size, struck between the towns of Sandy Springs and Ridge Top. The hail storm damaged 100 acres of tobacco. Damage estimate to the tobacco crop by the Robertson County Department of Agricultural was at \$440,000.
Wayne County									
Collinwood	04	1350CST			0	0			Thunderstorm Wind (G50) Local law enforcement reported several trees were blown down at Collinwood and also around the county.
Wayne County									
Woodlawn	04	1355CST			0	0			Hail (1.75) EMA reported nickel to golf ball size hail.
Rutherford County									
Christiana	04	1410CST			0	0			Hail (1.00) Hail the size of quarters was reported by local law enforcement.
Lawrence County									
Henryville	04	1418CST			0	0			Hail (1.75) Local law enforcement reported golf ball size hail.
Cannon County									
Hollow Spgs	04	1430CST			0	0			Hail (0.75) Local law enforcement reported dime size hail.
Cannon County									
Hollow Spgs	04	1430CST			0	0			Thunderstorm Wind (G50) Local law enforcement reported a couple of trees were blown down.
Lawrence County									
Countywide	04	1430CST			0	0			Thunderstorm Wind (G50) Local law enforcement reported trees and power lines were down across the county.
Warren County									
Centertown	04	1430CST			0	0			Hail (0.75) Spotter reported dime size hail.
Giles County									
Eastern Sections	04	1440CST			0	0			Thunderstorm Wind (G50) Local law enforcement reported a couple of trees blown down along I-65 across the eastern part of the county.
Marshall County									
Lewisburg	04	1442CST			0	0			Hail (0.75) Local law enforcement reported dime size hail.
Bedford County									
Shelbyville	04	1455CST			0	0			Hail (0.75) Local law enforcement reported dime size hail.
Marshall County									
Cornersville	04	1500CST			0	0			Hail (0.75) Dime size hail reported by local law enforcement.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
TENNESSEE, Central									
Bedford County									
Normandy	04	1505CST			0	0			Hail (0.75)
									Local law enforcement reported dime size hail.
Coffee County									
Manchester	04	1510CST			0	0			Hail (0.75)
									Local law enforcement reported dime size hail.
Coffee County									
Shady Grove	04	1510CST			0	0			Thunderstorm Wind (G50)
									Several trees were blown down at Shady Grove.
Lincoln County									
Countywide	04	1510CST 1535CST			0	0			Thunderstorm Wind (G50)
									Widespread trees were blown down around the county.
Moore County									
5 NE Lynchburg to 5 E Lynchburg	04	1515CST			0	0	50K		Thunderstorm Wind
									Local law enforcement reported several trees were blown down from 5 miles northeast of Lynchburg to 5 miles east of Lynchburg. Trees fell on several homes and on 2 cars.
Van Buren County									
6 SE Spencer	04	1520CST			0	0			Hail (0.75)
									Dime size hail near Fall Creek Falls State Park.
Franklin County									
7 SW Estill Spgs	04	1530CST			0	0	1K		Thunderstorm Wind
									Strong thunderstorm winds damaged a large boat storage building at Brownington..
Lincoln County									
Eastern Sections	04	1535CST			0	0			Hail (1.75)
									Golf ball size hail reported in the eastern part of the county.
Bledsoe County									
8 W Pikeville	04	1540CST			0	0			Hail (0.75)
									Local law enforcement reported dime size hail near Fall Creek Falls state Park.
Franklin County									
Cowan	04	1540CST			0	0			Thunderstorm Wind (G50)
									Local law enforcement reported several trees were blown down.
Franklin County									
Decherd	04	1540CST			0	0	10K		Thunderstorm Wind
									Strong thunderstorm winds blew the roof off a commercial building that houses Movie World, Donut Palace and Paul's Pizza.
Franklin County									
Estill Spgs	04	1540CST			0	0	10K		Thunderstorm Wind (G50)
									Local law enforcement reported several trees were blown down. There was damage to a concrete block building at a ball field and to a scoreboard.
Grundy County									
Monteagle	04	1600CST			0	0			Thunderstorm Wind (G50)
									Local law enforcement reported several trees were blown down.
Grundy County									
Tracy City	04	1600CST			0	0			Thunderstorm Wind (G50)
									Local law enforcement reported several trees were blown down.
Grundy County									
White City	04	1600CST			0	0			Thunderstorm Wind (G50)
									Local law enforcement reported several trees were blown down.
Marion County									
Whitwell	04	1600CST			0	0			Thunderstorm Wind (G50)
									Local law enforcement reported several trees were blown down.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
TENNESSEE, Central									
Sequatchie County									
Dunlap	04	1615CST			0	0	1K		Thunderstorm Wind
Local law enforcement reported several trees and power lines were blown down by high winds from the city of Dunlap to 5 miles west of Dunlap.									
Dickson County									
Sylvia	08	1525CST			0	0			Thunderstorm Wind (G50)
Local electric company reported several power lines were downed by strong thunderstorm winds.									
Dickson County									
Vanleer	08	1525CST			0	0			Thunderstorm Wind (G50)
Local electric company reported several power lines were downed by strong thunderstorm winds.									
Lincoln County									
Mulberry	08	1710CST			0	0	5K		Thunderstorm Wind
Local law enforcement reported a barn was damaged by strong thunderstorm winds.									
Moore County									
Lynchburg	08	1715CST			0	0	10K		Thunderstorm Wind (G50)
Local law enforcement reported 3 trees were blown down. One of those trees fell on top of the "Off The Beaten Path" building in downtown Lewisburg.									
Grundy County									
Monteagle	14	1920CST			0	0			Hail (0.75)
Local law enforcement reported dime size hail.									
Grundy County									
Monteagle	14	1920CST			0	0			Thunderstorm Wind (G50)
Several trees and power lines were blown down.									
Marion County									
7.2 NW Comfort	14	1920CST			0	0			Hail (0.75)
Dime size hail was reported in the town of Monteagle which borders Marion county and Grundy county.									
Marion County									
7.2 NW Comfort	14	1920CST			0	0			Thunderstorm Wind (G50)
Several trees and power lines were down in the town of Monteagle. Monteagle is on the border of Grundy and Marion counties.									
Stewart County									
Bumpus Mills	14	2000CST			0	0			Thunderstorm Wind (G50)
2 trees were blown down.									
Stewart County									
5 S Dover	14	2000CST			0	0			Thunderstorm Wind (G50)
A couple of trees were blown down.									
Robertson County									
Adams	14	2010CST			0	0			Thunderstorm Wind (G50)
A few trees were blown down.									
Montgomery County									
Clarksville	14	2015CST			0	0			Thunderstorm Wind (G50)
A few trees were blown down.									
Montgomery County									
Port Royal	14	2015CST			0	0			Thunderstorm Wind (G50)
Local law enforcement reported a couple of trees were blown down.									
Houston County									
Erin	14	2025CST			0	0			Thunderstorm Wind (G50)
Local law enforcement reported several trees were blown down.									
Cheatham County									
Henrietta	14	2040CST			0	0			Thunderstorm Wind (G50)
Local law enforcement reported several trees and power lines were blown down.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
TENNESSEE, Central									
Cheatham County									
Pleasant View	14	2040CST			0	0			Thunderstorm Wind (G50)
Several trees and power lines were down.									
Cheatham County									
Thomasville	14	2040CST			0	0			Thunderstorm Wind (G50)
Several trees and power lines were down.									
Benton County									
Camden	14	2045CST			0	0	100K		Thunderstorm Wind
Local law enforcement reported 2 or 3 trees were blown down on an electrical transformer and one tree fell on a house.									
Dickson County									
Charlotte	14	2045CST			0	0			Thunderstorm Wind (G50)
Local law enforcement reported a couple of trees were blown down.									
Humphreys County									
Countywide	14	2050CST			0	0			Thunderstorm Wind (G50)
Local law enforcement reported numerous trees and power lines were blown down across the county.									
Davidson County									
5 S Nashville	14	2130CST			0	0			Thunderstorm Wind (G50)
Local law enforcement reported several trees and power lines were down.									
Decatur County									
Countywide	14	2135CST			0	0			Thunderstorm Wind (G50)
Local law enforcement reported widespread trees and power lines were down around the county.									
Wilson County									
Mt Juliet	14	2135CST			0	0	5K		Thunderstorm Wind
Strong thunderstorm winds tore off several shingles from a roof.									
Clay County									
Celina	14	2140CST			0	0			Thunderstorm Wind (G50)
A few power lines were blown down.									
Hickman County									
Centerville	14	2145CST			0	0			Thunderstorm Wind (G50)
Local law enforcement reported several trees and power lines were blown down.									
Perry County									
5 N Linden	14	2145CST			0	0			Thunderstorm Wind (G50)
Local law enforcement reported 2 large trees were blown down.									
Williamson County									
Franklin	14	2145CST			0	0			Thunderstorm Wind (G50)
A few trees were blown down.									
Jackson County									
Center Grove	14	2200CST			0	0			Thunderstorm Wind (G50)
Local law enforcement reported a few power lines were blown down.									
Maury County									
Santa Fe	14	2203CST			0	0			Thunderstorm Wind (G60)
SKYWARN Spotter reported wind gusts to be 60 mph.									
Overton County									
Hilham	14	2210CST			0	0			Thunderstorm Wind (G50)
Local law enforcement reported a trees was down over a few power lines.									
Lewis County									
Oak Grove	14	2215CST			0	0			Thunderstorm Wind (G50)
Local law enforcement reported a couple of trees were blown down.									
Wayne County									
Clifton	14	2220CST			0	0			Thunderstorm Wind (G50)
A few trees were blown down.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property Crops	Character of Storm
TENNESSEE, Central								
Dickson County								
Sylvia	13	1525CST			0	0		Thunderstorm Wind (G50)
The local electric company reported several power lines were down.								
Dickson County								
Vanleer	13	1525CST			0	0		Thunderstorm Wind (G50)
The local electric company reported several power lines were down.								
Rutherford County								
La Vergne	21	1610CST			0	0		Thunderstorm Wind (G50)
Numerous trees were blown down. One tree was blown down over I-24 at intersection with Waldron Road.								
Rutherford County								
4 NNE Murfreesboro	21	1610CST			0	0	0.50K	Thunderstorm Wind
A tree fell on a fence at the Paradise Stables.								
Pickett County								
2 SE Byrdstown	28	1227CST			0	0		Thunderstorm Wind (G50)
Sheriff's office reported a tree was blown down.								
Putnam County								
3.5 S Cookeville	28	1410CST			0	0		Thunderstorm Wind (G50)
County sheriff's office reported a tree was blown down.								
Putnam County								
Ditty	28	1415CST			0	0	5K	Thunderstorm Wind
Putnam County Emergency Management Agency reported many trees and power lines were down. Also, a side of a house was damaged by the strong winds.								
White County								
8 N Sparta	28	1415CST			0	0		Thunderstorm Wind (G50)
Electric company reported a tree was blown down.								
White County								
4.5 E Sparta	28	1430CST			0	0	0.50K	Thunderstorm Wind
One tree and one power line were downed by strong thunderstorm winds in the community of BonDeCroft.								
Robertson County								
White House	28	1520CST			0	0		Thunderstorm Wind (G50)
Trees were blown down.								
Wayne County								
Waynesboro	28	1520CST			0	0		Thunderstorm Wind (G50)
Power lines and large tree limbs down around the county.								
Lawrence County								
Lawrenceburg	28	1535CST			0	0		Thunderstorm Wind (G50)
Sheriff's office reported a couple of trees were blown down.								
Marion County								
Jasper	28	1540CST			0	0		Thunderstorm Wind (G50)
Trees and power lines were down.								
Sumner County								
Countywide	28	1555CST			0	0		Thunderstorm Wind (G50)
Sheriff's office reported widespread wind damage.								
Trousdale County								
Hartsville	28	1605CST			0	0		Thunderstorm Wind (G50)
Sheriff's office reported trees and power lines were down around the county.								
Cheatham County								
Ashland City	28	1610CST			0	0		Thunderstorm Wind (G50)
Trees were blown down in Ashland City.								

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
TENNESSEE, Central									
Maury County									
Columbia	28	1610CST			0	0			Thunderstorm Wind (G50)
Duck River Electric reported trees and power lines were down around the county.									
Wilson County									
Lebanon	28	1610CST			0	0	10K		Thunderstorm Wind
Middle Tennessee Electric Company reported power lines were down in eastern Wilson county along Shop Springs Road and Trousdale Ferry Road.									
Williamson County									
Fairview	28	1620CST			0	0			Thunderstorm Wind (G50)
Local electric company reported trees and power lines were down.									
Williamson County									
Franklin	28	1620CST			0	0			Thunderstorm Wind (G50)
Middle Tennessee Electric reported trees and power lines were blown down.									
Williamson County									
8 N Franklin	28	1620CST			0	0			Thunderstorm Wind (G50)
Local electric company reported trees and power lines were down.									
Davidson County									
Nashville	28	1625CST			0	0	10K		Thunderstorm Wind
Power poles were down along River Road in west Nashville.									
Davidson County									
Nashville	28	1640CST			0	0			Flash Flood
Street flooding citywide. Murfreesboro Road underpass was under water. Riverside Drive also had a lot of standing water.									
Dekalb County									
Smithville	28	1640CST			0	0			Thunderstorm Wind (G50)
Caney Fork Electric reported power lines were down across the county.									
Williamson County									
Nolensville	28	1655CST			0	0			Thunderstorm Wind (G50)
Middle Tennessee Electric reported trees and power lines were down.									
Montgomery County									
Clarksville	28	1740CST			0	0			Thunderstorm Wind (G50)
Cumberland Electric reported power lines were down across the county.									
Putnam County									
Cookeville	28	1500CST			0	0	35K		Lightning
Lightning struck a house while under construction and set fire to the attic.									
Marion County									
Sequatchie	28	1520CST			0	0	100K		Thunderstorm Wind
A huge tree was uprooted. It fell on a fence and 6 cars. The tree also pulled off part of a roof. Several homes sustained roof damage when the storm moved through Sequatchie.									
Macon County									
Lafayette Arpt	28	1530CST			0	0	40K		Thunderstorm Wind
Strong thunderstorm winds flipped over an airplane at the airport. The airplane was a 1946 Ercoupe. Damage also occurred to the wing of a Cessna 172. 3 large hangar doors were damaged and were broken off their tracks. Near the airport, a tree fell on top of a house.									
Rutherford County									
Lascassas	28	1655CST			0	0	0.50K		Lightning
Lightning scorched the walls of a garage.									
Rutherford County									
Murfreesboro	28	1655CST			0	0	1K		Thunderstorm Wind
Several trees were blown down. A tree fell on a fence at the Paradise Rise Stables.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
TENNESSEE, East									
Grainger County									
Buffalo Spgs	01	0500EST			1	0			Flash Flood
Male, age 40, killed in flash flood on Buffalo Creek. County Sheriff reports that the man's car had apparently become stalled in deep running water and he was swept into the creek while attempting to abandon his car. A woman in a car behind him was rescued by a second man as she was swept by the current under her car while attempting to abandon it. M40IW									
Knox County									
6 NE Knoxville	01	1530EST			0	0			Flash Flood
Flash flooding in the Shipetown area resulted in a tractor trailer and several cars stalling in flooding from Flat Creek along Mine Road. Several individuals including the tractor trailer driver, had to be rescued from their vehicles.									
Cumberland County									
S Part Of County	04	1445CST			0	0	1K		Thunderstorm Wind
Metal roof blown off building by thunderstorm winds.									
Loudon County									
Loudon	04	1630EST			0	0			Hail (0.75)
Knox County									
Countywide	04	1630EST			0	0	50K	25K	Thunderstorm Wind
Numerous trees down from the Concord area to Chapman Highway. A section of roof was blown off a building at Baptist Hospital. Also at the hospital, a large tree was blown down onto several cars.									
Jefferson County									
New Market to Jefferson City	04	1650EST	1	50	0	0	25K		Tornado (F0)
Small tornado between New Market and Jefferson City twisted and knocked down telephone poles as well as many trees.									
Jefferson County									
Countywide	04	1650EST			0	0	100K	30K	Tstm Wind/Hail
The thunderstorm that spawned the F0 tornado dropped 3/4" hail. Ten percent of the power poles in the county were broken. 23 homes in the county sustained structural damage, mainly in the Laurel Hills community, north of Jefferson City, and the area between New Market and Jefferson City. Walls were blown down at the ASD computer building, which was under construction at the time.									
Hamblen County									
Lowland	04	1655EST			0	0		2K	Thunderstorm Wind
Large tree down on I-81 at Lowland exit.									
Loudon County									
Lenoir City	04	1700EST			0	0		7K	Tstm Wind/Hail
Large trees down as well as 1" hail.									
Blount County									
Countywide	04	1700EST			0	0	1M		Tstm Wind/Hail
Golfball sized hail reported near Wilkinson Pike in Maryville. 3/4" hail reported in Friendsville. A 68 mph wind gust was recorded by the ASOS at the McGhee-Tyson airport. At the Cherokee Aviation terminal at the airport, 4 aircraft and 21 cars were damaged.									
Mcminn County									
Countywide	04	1700EST			0	0	20K	15K	Thunderstorm Wind
Numerous trees and powerlines down throughout county. About 800 to 900 customers were without power just after the storm. Most had power restored by early afternoon of July 5th.									
Sevier County									
Countywide	04	1715EST			0	0	25K	20K	Thunderstorm Wind
Numerous trees and powerlines down throughout the county. At Patriot Park in Pigeon Forge, a lighting tress and several tents set up for 4th of July events were blown over.									
Claiborne County									
Tazewell	04	1715EST			0	0	75K	30K	Tstm Wind/Hail
Six houses sustained damage from high winds. Numerous trees down across roads and powerlines.									
Cocke County									
Countywide	04	1735EST			0	0	50K	25K	Thunderstorm Wind
Numerous trees and powerlines down throughout the county. Nearly 4000 people were without power following the storm. Most									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
TENNESSEE, East									
had power restored by the next evening.									
Hamilton County									
Countywide	04	1750EST			0	0	300K	50K	Tstm Wind/Hail
2 inch hail reported between Chattanooga and Collegedale. 1 inch hail reported in East Brainerd. Trees down countywide. As many as 50000 people were without power just after the storm. Most power had been restored by the following afternoon.									
Greene County									
Mosheim	04	1750EST			0	0	15K	10K	Thunderstorm Wind
Trees and powerlines down.									
Claiborne County									
Tazewell	04	1755EST			0	0		10K	Thunderstorm Wind
Trees down in Tazewell and vicinity.									
Monroe County									
Countywide	04	1800EST			0	0	30K	20K	Thunderstorm Wind
Trees and powerlines down throughout the county. Public also reported a funnel cloud and pea-sized hail.									
Bradley County									
Countywide	04	1815EST			0	0	25K	19K	Thunderstorm Wind
Numerous trees and powerlines down throughout the county. Most significant damage was in the western part of the county near I-75.									
Hamblen County									
Countywide	04	1830EST			0	0			Hail (1.00)
Hail size reports from around the county varied from 1/2" to 1".									
Grainger County									
N Part Of County	04	1840EST			0	0		2K	Thunderstorm Wind
One tree down near the border with Claiborne county.									
Blount County									
S Part Of County	09	1305EST			0	0		19K	Thunderstorm Wind
Large limbs blown off trees in southern part of county.									
Claiborne County									
Speedwell	09	1835EST			0	0			Hail (0.75)
3/4" hail reported by a spotter in Speedwell.									
Knox County									
Countywide	15	1755EST			0	0	16K	20K	Thunderstorm Wind
Trees down on Tazewell and Thorn Grove Pikes as well as Beverly Road. Powerlines down throughout county.									
Sullivan County									
E Half Of County	16	1400EST			0	0		30K	Thunderstorm Wind
Numerous trees down across east half of county, mostly around Highway 421.									
Carter County									
N Half Of County	16	1430EST			0	0		25K	Thunderstorm Wind
Numerous trees down across the northern half of the county. Most damage was along Coal Chute Road and along Edgewater Drive.									
Washington County									
Sulphur Spgs	16	1430EST			0	0	25K	40K	Thunderstorm Wind
Strong winds flattened one barn and damaged the roof on another. Winds also moved a trailer home 5 feet off its blocks, knocked down some trees and knocked out two large heavy garage doors.									
Washington County									
Countywide	21	2010EST			0	0	15K	12K	Thunderstorm Wind
Trees and powerlines down throughout the county.									
Greene County									
Greeneville	22	1545EST			0	0		7K	Thunderstorm Wind
Trees down just east of Greeneville on Horton Highway.									
Washington County									
Telford	22	1645EST			0	0		12K	Thunderstorm Wind
Numerous trees down near Telford community.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>TENNESSEE, East</u>									
Greene County									
Afton	22	1715EST			0	0	50K	8K	Thunderstorm Wind
County dispatch and WJHL TV station reported roof damage at West Pine Elementary School just off I-81 exit 44. Several trees down.									
Sullivan County									
Kingsport	22	1815EST			0	0			Urban/Sml Stream Fld
Widespread street flooding in downtown Kingsport.									
Campbell County									
3 E La Follette	23	1945EST			0	0		10K	Thunderstorm Wind
Trees down between La Follette and Alder Springs.									
Anderson County									
5 S Andersonville	23	2025EST			0	0	14K		Thunderstorm Wind
Powerlines down in Brushy Valley area.									
Roane County									
Kingston	28	1220EST			0	0			Hail (0.75)
Anderson County									
Oak Ridge	28	1300EST			0	0		5K	Thunderstorm Wind
Trees down.									
Mcminn County									
Countywide	28	1400EST			0	0		20K	Thunderstorm Wind
Trees down in north part of the county.									
Claiborne County									
Countywide	28	1430EST			0	0		19K	Tstm Wind/Hail
3/4" hail reported. Large trees blown over blocking roads.									
Union County									
Maynardville	28	1445EST			0	0	17K	10K	Thunderstorm Wind
Trees and powerlines down along Pinecrest Drive, Hickory Valley Road and Headsgrove Road.									
Cumberland County									
E Part Of County	28	1600EST			0	0		14K	Thunderstorm Wind
Trees down along Highway 70 in eastern part of county.									
Hamilton County									
East Brainerd	28	1600EST			0	0	10K	15K	Thunderstorm Wind
A few trees and powerlines down.									
Greene County									
Midway to Warrensburg	28	1635EST			0	0	15K	16K	Thunderstorm Wind
Trees and powerlines down in Midway and Warrensburg.									
Grainger County									
Central Portion	31	1500EST			0	0	150K		Lightning
Grainger County									
Central Portion	31	1500EST			0	0		15K	Thunderstorm Wind
A shop near the home of Judy R. Mayes on Spoon Hollow Road and Kidwell Road was set ablaze when struck by lightning and was reported as a total loss. A barn at the intersection of Helton and Lakshore Roads burned to the ground after it was struck by lightning. The storm also knocked down numerous trees.									
<u>TENNESSEE, West</u>									
Tipton County									
Covington	01	0030CST 0035CST			0	0	50K		Lightning
A home was destroyed by a fire started by lightning.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
TENNESSEE, West									
Shelby County									
Memphis	08	1400CST 1405CST			0	0	0.15K		Hail (1.00)
			Dime to quarter size hail fell along the Mississippi River near downtown Memphis.						
Madison County									
Bemis	13	1000CST 1005CST			0	0	0.05K		Hail (0.75)
Madison County									
Bemis	13	1010CST 1015CST			0	0	1K		Thunderstorm Wind
			Several trees were knocked down.						
Henry County									
3 W Puryear to 10 E Puryear	14	2005CST 2025CST			0	0	10K		Thunderstorm Wind
			Numerous trees and power lines were knocked down.						
Lauderdale County									
Ripley	14	2130CST 2135CST			0	0	5K		Thunderstorm Wind
			Several trees were blown down.						
Haywood County									
Brownsville	14	2200CST 2205CST			0	0	5K		Thunderstorm Wind
			One large tree was knocked down and fell on a house. Other trees and power lines were also blown down.						
Fayette County									
Williston	14	2255CST 2300CST			0	0	1K		Thunderstorm Wind
			A few trees were blown down.						
Shelby County									
Eads	14	2255CST 2300CST			0	0	0.01K		Hail (0.75)
Gibson County									
Trenton	14	2315CST 2320CST			0	0	5K		Thunderstorm Wind
			A tractor shed was damaged. Ten trees were also uprooted.						
Dyer County									
5 E Dyersburg	28	1230CST 1235CST			0	0	2K		Thunderstorm Wind
			Some minor structural damage occurred. Some trees were also knocked down.						
Dyer County									
10 SE Dyersburg	28	1425CST 1430CST			0	0	0.01K		Hail (0.75)
Haywood County									
Nutbush	28	1615CST 1620CST			0	0	5K		Thunderstorm Wind
			A storage building used to house several trucks and combines was destroyed. A few trees were also knocked down.						
Dyer County									
Newbern	28	1700CST 1705CST			0	0	10K		Thunderstorm Wind
			A recently constructed dugout at the Dyer County High School's baseball field that was destroyed by a tornado on March 1 was damaged. The roof to the school gymnasium was damaged. Several trees were also knocked down.						
Tipton County									
Munford to Tabernacle	28	1715CST 1740CST			0	0	5K		Thunderstorm Wind
			Several trees were knocked down in the Munford area. An auto parts store located on Highway 14 near Tabernacle lost part of its roof.						

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>TENNESSEE, West</u>									
Fayette County									
La Grange	28	1745CST 1750CST			0	0	5K		Thunderstorm Wind
Numerous trees were blown down.									
Haywood County									
Brownsville	28	1745CST 1750CST			0	0	1K		Thunderstorm Wind
Several trees and power lines were blown down.									
Mcnairy County									
Selmer	28	1830CST 1835CST			0	0	1K		Lightning
A house was damaged by a lightning strike.									
<u>TEXAS, Central</u>									
Tom Green County									
6 SW San Angelo Mathis Fl	04	1745CST			0	0	50K		Thunderstorm Wind (G66)
Strong winds broke six-inch tree branches and tore off metal roofs.									
<u>TEXAS, Central Southeast</u>									
Brazoria County									
Brazoria	05	1430CST 1445CST			0	0	50K		Hail (0.75)
15 minutes of dime size hail and high wind in Brazoria. 5 houses with roof damage and many downtown businesses had broken windows from hail and flying debris. At least 1 car totalled because tree fell on it.									
Brazos County									
College Station	06	0121CST			0	0	10K		Hail (1.25)
Quarter size hail at University & HWY 6.									
Brazos County									
College Station	06	0140CST			0	0	15K		Hail (1.50)
Golfball hail between College Station and Bryan.									
Liberty County									
Dayton	06	1220CST			0	0	5K		Thunderstorm Wind
Trees blown down in Dayton.									
Liberty County									
Luce Bayou	06	1220CST			0	0	5K		Hail (0.75)
Hail on HWY 321 just north of Luce Bayou.									
San Jacinto County									
5 N Point Blank	06	1350CST 1615CST			0	0	5K		Flash Flood
FM 980 had high water.									
Polk County									
Corrigan	06	1425CST			0	0	5K		Flash Flood
Street flooding.									
Harris County									
Humble	06	1800CST			0	1	125K		Lightning
Lightning induced fire burned Deerbrook Church of Christ down.									
Trinity County									
Groveton	07	1950CST			0	0	5K		Thunderstorm Wind
Trees blown down 3 miles west of the HWY 287/94 intersection.									
Trinity County									
Landing	07	1950CST			0	0	25K		Thunderstorm Wind
Large tree snapped at the base and fell on a 2 story house. Numerous other trees snapped off at the base in the area. Satellite dish also damaged.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
TEXAS, Central Southeast									
Trinity County									
Trinity	07	1950CST			0	0	5K		Thunderstorm Wind
16 pines down along a 1/4 mile stretch of HWY 19 from Trinity to FM 1817.									
Trinity County									
Trinity	07	2135CST 2300CST			0	0	25K		Flash Flood
HWY 19 flooded in the Trinity area. Water several feet deep over FM 3188 for over 1/4 mile near Skains Community Cemetery Rd and road appeared to sustain damage. Water over HWY 94 east of Glendale.									
Galveston County									
Galveston	14	0503CST			0	0			Thunderstorm Wind (G50)
50 kt gusts at the Falgship Pier.									
Galveston County									
Dickinson	14	0510CST			0	0	5K		Thunderstorm Wind
Large trees uprooted just east of FM 1266.									
Chambers County									
Winnie	14	1557CST			0	0	5K		Thunderstorm Wind
Trees and power poles snapped at the base in the Winnie and Stowell areas.									
Harris County									
Houston	14	1716CST			0	0	5K		Thunderstorm Wind
7 trees blown down in the downtown area.									
Brazoria County									
Angleton	14	1800CST			0	0	5K		Thunderstorm Wind
Wind from outflow boundary snapped a tree tat crushed patio roof.									
Liberty County									
Liberty	14	1810CST			0	0	2K		Thunderstorm Wind
KSHM radio had trees blown down.									
Brazoria County									
Manvel	16	1815CST 1817CST	0.5	20	0	0	50K		Tornado (F0)
Trailer home destroyed and a roof was blown off a house in Manvel. Many trees blown down between CR 48-CR 58-HWY 6.									
Harris County									
Deer Park	17	1255CST			0	10	100K		Lightning
Lightning caused a chemical tank to ignite at the Shell plant. 10 injuries due to eye irritation.									
Harris County									
10 E Houston	20	1351CST			0	0			Hail (0.75)
Hail between Houston IAH and Cypress.									
Harris County									
Tomball	21	1440CST			0	1	10K		Thunderstorm Wind
Possible microburst caused an untied trailer to overturn at the 12000 block of Tomball Pkwy & Old Fulton Rd. Billboard also down in the area.									
Brazoria County									
Freeport	28	1100CST			0	11	100K		Lightning
Lightning struck HCl tank at Dow Chemical causing it to rupture. 11 people treated for contact of the HCl.									
Harris County									
Baytown	28	1800CST			0	0	5M		Lightning
Lightning struck Exxon plant causing electrical problems at the facility. Millions of dollars lost because they had to temporarily shut the plant down.									
Brazos County									
College Station	30	1400CST			0	0	25K		Thunderstorm Wind
High wind tore the roof off some businesses in a strip shopping center on South College Ave. Satellite dish and refrigeration compressor also damaged at Hurricane Harry's Bar.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>TEXAS, Extreme West</u>									
El Paso County									
El Paso	14	1800MST 1815MST			0	0	150K		Thunderstorm Wind (G50)
An apparent wet microburst partially removed the roofs on three buildings in an apartment complex located in southeastern El Paso. There were no injuries, partly due to rain preceding the wind, forcing most people inside where they were not subject to being struck by flying roofing material.									
El Paso County									
El Paso	24	1430MST 1600MST			0	0			Flash Flood
A strong thunderstorm over West El Paso produced an estimated 2 inches of rain. Several roads were temporarily closed in the area.									
Hudspeth County									
Dell City	28	1600MST 1620MST			0	0			Hail (0.75)
Report hail location 3 miles southeast of Dell City									
<u>TEXAS, Mid - South</u>									
Victoria County									
Victoria	20	0850CST			0	0			Funnel Cloud
Local law enforcement agencies and spotter reports of numerous funnel clouds.									
<u>TEXAS, North</u>									
Tarrant County									
Arlington	05	0900CST			0	2			Lightning
Lightning struck a pole and injured two men that were walking near it.									
Bell County									
Bartlett	06	1945CST			0	0	4K		Thunderstorm Wind
Strong winds blew down trees and power lines.									
Milam County									
Davilla	06	2000CST			0	0	0		Thunderstorm Wind
Strong winds blew down trees.									
Milam County									
Thorndale	06	2000CST			0	0	0		Thunderstorm Wind
A large tree was blown down by strong winds.									
Milam County									
Rockdale	06	2030CST 2200CST			0	0			Flash Flood
Locally heavy rain that fell in the area resulted in a bridge being flooded.									
Grayson County									
Howe	09	1634CST			0	0			Thunderstorm Wind (G52)
Delta County									
3 NE Cooper	15	1230CST			0	0	2K		Thunderstorm Wind
A barn was blown over by strong winds.									
Hopkins County									
Cumby	15	1230CST			0	0	0		Thunderstorm Wind
Strong winds blew down a large tree.									
Fannin County									
Bonham	15	1249CST			0	0			Hail (0.75)
Fannin County									
Trenton	15	1300CST			0	0	0		Thunderstorm Wind
Strong winds blew down trees.									
Hunt County									
5 SE Greenville	15	1250CST			0	0	4K		Thunderstorm Wind
Strong winds blew down power lines and a large tree.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
TEXAS, North									
Hunt County									
3 NW Lone Oak	15	1250CST			0	0	0		Thunderstorm Wind
									Strong winds blew down a large tree.
Hunt County									
Greenville	15	1255CST			0	0	4K		Thunderstorm Wind (G75)
									Strong winds blew down trees and power lines. The air traffic control tower at the municipal airport was evacuated due to 75 knot wind gusts that were measured by airport equipment.
Collin County									
Mc Kinney	15	1320CST			0	0	0		Thunderstorm Wind
									Strong winds blew down a large tree.
Collin County									
Melissa	15	1330CST			0	0	4K		Thunderstorm Wind
									Strong winds destroyed an outbuilding.
Grayson County									
Sherman	15	1330CST			0	0	4K		Thunderstorm Wind
									Strong winds blew down trees and power lines.
Grayson County									
Whiteright	15	1400CST			0	0	0		Thunderstorm Wind
									Strong winds blew down trees.
Kaufman County									
3 NE Elmo	15	1333CST			0	0	15K		Thunderstorm Wind
									Strong winds resulted in roof damage and blew down trees.
Anderson County									
8 E Palestine	15	1453CST			0	0	0		Thunderstorm Wind
									A tree was blown down onto County Road 396.
Tarrant County									
1 SE Arlington	15	1458CST			0	0			Hail (0.75)
Tarrant County									
1 SE Arlington	15	1508CST			0	0	3K		Thunderstorm Wind
									Strong winds blew down trees and fences.
Cooke County									
5 S Myra	15	1500CST			0	0			Hail (0.75)
Dallas County									
Grand Prairie	15	1507CST			0	0	4K		Thunderstorm Wind
									Strong winds blew down trees and power lines.
Montague County									
Nocona	15	1633CST			0	0	2K		Thunderstorm Wind
									Strong winds blew down a power pole.
Bosque County									
8 E Morgan	15	1636CST			0	0	0		Thunderstorm Wind
									Strong winds blew down a tree.
Hill County									
Whitney	15	1643CST			0	0			Thunderstorm Wind (G52)
McLennan County									
Waco	15	1647CST			0	0	4K		Thunderstorm Wind (G52)
									Strong winds blew down trees and power lines.
McLennan County									
Moody	15	1730CST			0	0	75K		Thunderstorm Wind
									Strong winds destroyed a mobile home and two barns.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>TEXAS, North</u>									
TXZ103>104- 118>119 Denton - Collin - Tarrant - Dallas									
	19	1800CST			2	0			Excessive Heat
	30	0000CST							
	A high pressure system remained anchored over the Southern Plains for much of the latter half of the month. Abundant sunshine and light southwesterly winds that prevailed across North Texas during this period, resulted in daily high temperatures in the upper 90s to lower 100s. This heat, combined with the typical summertime humidity, produced daytime heat index values of 105 to 115 degrees for a prolonged period. Little relief was realized during the night as temperatures only cooled into the mid 70s to lower 80s. These effects were most pronounced in the urban areas of the Dallas/Fort Worth Metroplex. The prolonged heat resulted in at least two deaths, both of which occurred in Dallas County (one on the 26th and the other on the 29th). F63PH, F83PH								
Grayson County									
Whitesboro	24	1720CST			0	0	20K		Thunderstorm Wind
	Strong winds resulted in severe damage to a mobile home.								
Haskell County									
Rochester	29	1758CST			0	0	50K		Thunderstorm Wind
	A downburst destroyed barns, blew down trees and power lines, and damaged homes.								
McLennan County									
Waco	30	1400CST			0	0	4K		Thunderstorm Wind
	Strong winds blew down trees and power lines.								
Falls County									
Rosebud	30	1600CST			0	0	15K		Lightning
	Lightning struck a house and caused a fire that resulted in minor damage.								
<u>TEXAS, North Panhandle</u>									
Dallam County									
Dalhart	05	1646CST			0	0			Hail (0.75)
TXZ012 Potter									
	05	1910CST			0	0	10K		High Wind (G44)
	Home sustained damage by high winds in North Amarillo.								
Ochiltree County									
Perryton	05	1930CST 1940CST			0	0			Thunderstorm Wind (G57)
	Ochiltree County Sheriff's Office reported power line blown down and tree uprooted.								
Ochiltree County									
15 SE Perryton	05	1950CST			0	0			Thunderstorm Wind (G57)
	Winds estimated by campers at Lake Fryer. Severe thunderstorms raked across the northern Texas Panhandle during the evening hours producing hail and damaging high winds.								
Carson County									
Groom	11	1653CST			0	0	100K		Thunderstorm Wind (G69)
	Carson County Sheriff's Office reported tree and roof damage.								
Carson County									
Groom	11	1701CST			0	0			Hail (0.75)
Carson County									
Groom	11	1701CST			0	0			Thunderstorm Wind (G52)
Gray County									
2 S Kings Mill	11	1725CST			0	0			Thunderstorm Wind (G57)
	Severe thunderstorms over the central and eastern Texas Panhandle produced hail and damaging winds.								
Ochiltree County									
7 W Perryton	14	1603CST			0	0			Hail (0.88)
Ochiltree County									
21 SSE Perryton	14	1615CST			0	0			Hail (1.75)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>TEXAS, North Panhandle</u>									
Hansford County									
7 SE Spearman to 2 S Spearman	14	1640CST			0	0	25K		Tstm Wind/Hail
One inch hail and utility pole poles blown down by damaging winds as reported by Hansford County Sheriff's Office.									
Hutchinson County									
5 NE Borger	14	1815CST			0	0			Hail (0.88)
Carson County									
3 NW Skellytown	14	1844CST			0	0			Hail (0.88)
Hutchinson County									
6 SE Borger	14	1844CST			0	0			Hail (0.88)
Severe thunderstorms over the north central and central Texas Panhandle produced hail and damaging high winds during the late afternoon and early evening hours.									
Randall County									
5 NNE Canyon	29	1711CST 1718CST			0	0	25K		Thunderstorm Wind (G65)
Wind damage at Bell Street and Rockwell Road with power lines down and damage to trailers, cars, and sheds.									
Randall County									
5 SW Amarillo	29	1713CST			0	0			Flash Flood
Street flooding on Soncy Road in southwest Amarillo.									
Potter County									
Amarillo Intl Arpt	29	1714CST			0	0			Hail (0.75)
Potter County									
Amarillo	29	1720CST			0	0			Flash Flood
The intersection of Interstate 40 and Washington Street closed by flooding.									
Potter County									
Amarillo Intl Arpt	29	1725CST			0	0			Hail (1.00)
Potter County									
Amarillo	29	1835CST			0	0			Flash Flood
Vehicle stalled by water in southbound lane of Lakeside Drive and U.S. Highway 60. The northbound lanes of Lakeside Drive closed by water at U.S. Highway 60.									
Severe thunderstorms raked the central Texas Panhandle with very heavy rainfall which resulted in localized flooding as well as hail and damaging winds during the evening hours.									
<u>TEXAS, Northeast</u>									
Gregg County									
Kilgore	06	1139CST			0	0	2K		Lightning
Lightning struck the side of a house causing a small house fire on Monroe Street. Damage was minor and no injuries occurred.									
Gregg County									
Kilgore	06	1142CST			0	0			Thunderstorm Wind (G60)
Several trees and power lines were toppled leaving many in town without electricity for several hours. Trees fell along Hwy 135 and in the Woodlawn and Chandler subdivisions.									
Gregg County									
Kilgore	06	1220CST			0	0	1K		Lightning
Lightning struck a church sparking a small fire with was quickly extinguished by the fire department.									
Gregg County									
Kilgore	06	1252CST			0	0			Lightning
Lightning stuck and set a tree on fire off of White Street.									
Rusk County									
15 S Henderson	06	1245CST			0	0			Hail (0.88)
Reported by NWS Storm Spotters along Hwy 259.									
Angelina County									
10 NW Lufkin	06	1300CST			0	0			Thunderstorm Wind (G60)
Several reports of trees and power lines down along Hwy 103 and Hwy 7.									

Storm Data and Unusual Weather Phenomena

July 1997

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<u>TEXAS, Northeast</u>									
Angelina County									
10 NW Lufkin	06	1305CST			0	0			Hail (1.75)
Nacogdoches County									
Garrison	06	1305CST			0	0			Thunderstorm Wind (G60) Several trees and powerlines were toppled by high winds leading to power outages. Accidents were caused during the event including one car which hit a downed tree and a hay truck which jack-knifed trying to avoid hitting the car. No injuries were reported.
Sabine County									
4 N Milam	06	1430CST			0	0			Thunderstorm Wind (G60) Trees and power lines were downed along Hwy 276 leading to numerous electrical outages.
Harrison County									
Hallsville	07	0655CST			0	0			Urban/Sml Stream Fld Flooding was reported along Hwy 450 in several locations.
Upshur County									
Big Sandy to Gladewater	07	0700CST 1100CST			0	0	15K		Flash Flood Hwy 80 was closed from Big Sandy to Gladewater due to heavy flooding throughout the area. Minor damage also occurred to the road.
Smith County									
Red Spgs	07	0900CST 1200CST			0	0	10K		Flash Flood A home was flooded on FM16 suffering moderate damage while CR32,CR2710, and CR317 were closed due to flooding.
Wood County									
Hawkins	07	0900CST 1200CST			0	0	1K		Flash Flood CR14 was damaged and partially washed out from flood waters.
Gregg County									
Longview	07	1000CST 1200CST			0	0			Flash Flood A total of 5 inches of rain occurred in 90 minutes flooding and closing streets and roads throughout the city.
Gregg County									
Kilgore	07	1239CST			0	0	7K		Thunderstorm Wind (G60) A couple of homes suffered roof damage when trees fell on them.
Smith County									
3 W Winona	07	0830CST 1230CST			0	0	9K		Flash Flood Very heavy rains (nearly 8 inches in four hours) caused flooding across northern portions of the county. The heaviest flooding occurred near Winona in the Red Springs community. Several homes were flooded and numerous roads leading into and out of the community were impassable including CR 32, 2710, and 317. FM 16 and FM 2015 were also underwater and closed.
Wood County									
Hawkins	07	0930CST 1330CST			0	0			Flash Flood Heavy rains resulted in flooding in and around Hawkins. Many roads were flooded and impassable. Cumby road was washed out and many cars were stalled in the high water in town.
Angelina County									
1 S Lufkin	09	1920CST			0	0			Hail (1.25) Hail was described as jagged with spikes.
<u>TEXAS, South</u>									
NONE REPORTED.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
TEXAS, South Central									
Burnet County									
Briggs	06	1725CST 1730CST			0	0	0	0	Thunderstorm Wind (G52)
		Observer reports wind gusts in excess of 52 knots.							
Williamson County									
Andice	06	1745CST 1750CST			0	0	20K	0	Thunderstorm Wind
		Public reports high winds causing damage to outbuildings.							
Williamson County									
Granger	06	1915CST 1920CST			0	0	3K	0	Thunderstorm Wind
		Corps of Engineers reports very strong winds causing damage to trees in the Granger Dam area.							
De Witt County									
Countywide	08	1430CST 1600CST			0	0	20K	0	Flash Flood
Lavaca County									
Countywide	08	1430CST 1700CST			0	0	20K	0	Flash Flood
		Heavy rainfall from the previous day left county soils completely saturated. As additional showers formed over the county, roads were quickly flooded again. Additional rainfall on the 8th was generally around 3 inches with isolated totals of up to 5 inches.							
Hays County									
Buda	22	2100CST 2105CST			0	0	5K	0	Thunderstorm Wind
		Severe winds blew over trees and sheds.							
Williamson County									
Liberty Hill	30	1630CST 1635CST			0	0	0	0	Hail (1.00)
Williamson County									
Liberty Hill	30	1630CST 1635CST			0	0	3K	0	Thunderstorm Wind
		Public reports high winds causing damage to trees.							
Travis County									
Austin	30	1800CST 1830CST			0	0	50K	0	Flash Flood
		Up to 2.5 inches of rain in less than 30 minutes produced brief flash flooding that trapped cars and vehicles along Shoal Creek in Austin.							
Lavaca County									
7 W Hallettsville	31	1500CST			1	0	0	0	Lightning
		A woman was working with her husband and three daughters in a field on her farm near Wied, just west of Hallettsville, as thunderstorms moved into the area. All five headed indoors quickly, but the mother was struck by lightning and killed. None of the others were injured. F38OU							
TEXAS, South Panhandle									
Bailey County									
Progress	05	1750CST			0	0	0	100K	Hail (1.00)
Bailey County									
9 W Progress	05	1801CST			0	0	0	100K	Hail (1.00)
Bailey County									
11 W Muleshoe	05	1806CST			0	0	0	500K	Hail (1.75)
Bailey County									
10 SW Muleshoe	05	1833CST	0.1	10	0	0	0	0	Tornado (F0)
Bailey County									
5 NW Needmore	05	1840CST			0	0	1K	0	Thunderstorm Wind

Storm Data and Unusual Weather Phenomena

July 1997

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

Bailey County

11 W Muleshoe	05	1845CST 2030CST			0	0	0	0	Flash Flood
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Bailey County

2 W Baileyboro	05	1850CST			0	0	0	200K	Hail (1.75)
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On July 5, a squall line developed from the Texas Panhandle to eastern New Mexico and moved southeast into the South Plains and the western portions of the Rolling Plains. In advance of this line of thunderstorms, a supercell thunderstorm developed over Bailey County. The Bailey County Sheriff's Office reported quarter- to golfball-sized hail from this severe thunderstorm in various locations in the northern part of Bailey County. West of the city of Muleshoe, large hail damaged in excess of 4000 acres of corn and cotton. A brief, weak tornado was also reported by the Bailey County Sheriff's Office ten miles southwest of Muleshoe over rural areas. Two cars were reportedly washed off FM road 1760 in Bailey County at 1855 CST.

Lynn County

6 WSW New Home	29	1900CST			0	0	25K	0	Thunderstorm Wind (G65)
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Strong wind from a possible downburst in Lynn County destroyed a metal barn and cause minor damage to a house roof. The wind also knocked down four trees which damaged the windows and tops of a suburban and car.

TEXAS, Southeast

Jefferson County

Port Arthur	14	1505CST	1.5	20	0	3	50K		Tornado (F0)
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A small tornado formed along a thunderstorm outflow, tearing through the Chevron Oil Plant. Three men received minor bumps and scrapes when hit by debris from the tornado. The tornado move east to west, and dissipated in the bayous behind the plant. Severe thunderstorm winds that preceded the tornado also blew throughout the city of Port Arthur, resulting in numerous trees and power lines down.

Jasper County

Jasper	30	0830CST 0930CST			0	0	20K		Urban/Sml Stream Fld
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Between two and three inches of rain fell in less than one hour, resulting in flooded roads around Jasper.

Jefferson County

Port Arthur	30	1500CST 1600CST			0	0	20K		Urban/Sml Stream Fld
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Around three inches of rain fell in less than one hour, resulting in street flooding in Port Arthur and Groves.

TEXAS, West

TXZ051>052-061>062

Martin - Howard - Ector - Midland

05	2200CST 2245CST				0	0	40K		High Wind (G67)
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Thunderstorms fired in the central New Mexico mountains and were taken into Texas in a northwesterly flow aloft. As the storms travelled through the Texas South Plains a strong meso-high formed and sent an outflow boundary accelerating ahead of the storms. The boundary arched in such a fashion that the cities of Big Spring, Midland, Odessa, and Kermit were being hit simultaneously just after 11pm CDT. This event is being recorded as a "high wind" meso-high event rather than a "thunderstorm wind" event because the storms were so far to the north, away from where the damage occurred. No thunder was reported in these locations.

North of Odessa the wood and sheet metal roof of a church was blown off by the strong winds. Winds at nearby Schlemeyer Airport were clocked at 54 mph. In the city of Odessa a few trees and utility lines were downed as well. Seven miles southeast of Midland winds estimated at 70 mph broke 4-inch diameter tree limbs. Two roofs were blown off trailers near the Fairview community of Howard County and a 77 mph gust was recorded east of Stanton in Martin County.

Dawson County

6 W Lamesa	07	0430CST 0530CST			0	0			Flash Flood
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Slow-moving, merging thunderstorm cells dumped 2+ inches over a large portion of western Dawson County. Brief flooding of U.S. Highway 180 occurred west of Lamesa.

Andrews County

Andrews	08	1815CST 1930CST			0	0			Flash Flood
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Thunderstorms developed over the city of Andrews and moved very little for over two hours. Three inch rain totals were common across the city. City personnel blocked off some flooded streets in town. After the rains stopped the waters receded very quickly.

Storm Data and Unusual Weather Phenomena

July 1997

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

TEXAS, West

The air mass for this day was not one that necessarily suggested flash flooding with surface temperatures in the mid to upper 90s and dew points in the lower 50s, but light and variable winds in the mid levels moved the storms very little.

Ector County

7 W Odessa

09	1835CST 1848CST				0	0			Hail (0.75)
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Winkler County

Wink

09	1937CST 2100CST				0	0			Flash Flood
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Ector County

Odessa

09	1943CST 2115CST				0	0			Flash Flood
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Slowly moving and training thunderstorms dropped hail and caused flooding in and near Odessa and in Wink.

Midland County

Midland Arpt

09	2035CST				0	0	7K		Thunderstorm Wind
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A collapsing thunderstorm near Midland International Airport knocked a large metal storage building located about 1 mile east of the airport off its foundation and peeled back part of the roof. At the airport a 12x3 foot picture window was broken by the wind or debris in the wind. The ASOS at the airport (located between the two damage sites, recorded a 45 knot peak gust.

It was thought that the wind was certainly greater than 45 knots where the building was damaged, but the wind speed at the window was more difficult to assess. The window was in an area amongst buildings that could have made a local channel for the wind or the window could have been structurally weak. The window was the northern-most in a series of eight vertical windows that face east.

Ector County

3 N Odessa

10	2120CST 2215CST				0	0			Flash Flood
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Heavy rains from slow-moving thunderstorms caused brief flooding in parts of Odessa.

Jeff Davis County

5 W Ft Davis

14	1257CST				0	0			Hail (0.75)
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A multicell storm over the Davis Mountains dropped dime size hail on a ranch. Dew points near 60 degrees supplied above average low-level moisture for the area to intensify the storms.

Presidio County

Presidio

23	1540CST				0	0	10K		Thunderstorm Wind
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A thunderstorm with only light to moderate rain had damaging downbursting winds that blew over two carport tops and a utility pole.

Brewster County

Alpine

28	1330CST 1500CST				0	0	10K		Flash Flood
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Training cells in the Alpine area caused heavy rains and flooding in the city. About 3.5 inches of rain fell over the western half of the city. A van stalled in an underpass and eventually was almost submerged with the roof extending only 18" above the water. Two other vehicles were stranded in water as well.

Reeves County

2 SW Pecos

28	1610CST				0	0	70K		Thunderstorm Wind
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A thunderstorm cluster moving over the city of Pecos had a cell that produced a wet microburst causing widespread minor wind damage. Damaged were an airport hangar, 8 utility poles and 2 transformers, an animal shelter, fences, and roofs of a few businesses.

Ector County

7 ENE Penwell

28	1820CST				0	0	60K		Thunderstorm Wind (G57)
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A pulse microburst destroyed 5 trailer homes in a rural development in southwestern Ector County. Three other units received major damage. Most of the trailers were not tied down. Winds in the local area was blowing from SE to NW; the same direction as the storm movement. Since there was minimal damage to some more-substantial structures in the area, wind speeds were only estimated at 60-70 mph. In areas farther east it became evident that there was a downburst pattern, as winds were from the south or southwest.

Storm Data and Unusual Weather Phenomena

July 1997

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

Presidio County

Redford	28	1925CST			0	0			Thunderstorm Wind (G52)
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Microburst winds measured by an anemometer.

Downbursting potential was high with inverted-V soundings at 00z that evening, but storms were rather limited over the area. Most storms were of a pulse variety with a very short cell life.

TEXAS, Western North

Wilbarger County

Vernon	10	1600CST			0	0	7K		Thunderstorm Wind
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Severe thunderstorm winds downed trees, blew plate glass windows out of a hotel, and blew the roof off the bathrooms at the city park. Power lines were blown down, and several large tree limbs were broken. One large limb landed on a car, breaking out all of the car's windows.

Clay County

2 NW Bellevue	15	1650CST			0	0	10K		Thunderstorm Wind
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An 18-wheeler was overturned on US Hwy 287 by severe thunderstorm winds.

Clay County

2 N Bellevue	15	1655CST			0	0	30K		Thunderstorm Wind
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Severe thunderstorm winds destroyed one mobile home and two barns and blew siding off of several other mobile homes. A 40x40 foot sign on high beams was blown down, and the tops of eight utility poles were blown off.

Clay County

1 SE Joy	15	1727CST			0	0			Hail (0.75)
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Wichita County

Wichita Falls	22	1435CST			0	0	75K		Lightning
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Lightning struck and set fire to a house, completely destroying the home and its contents.

Wichita County

3 E Iowa Park	22	1445CST			0	0	4K		Thunderstorm Wind
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Severe thunderstorm winds blew the roof off a barn and blew a boat and camper over.

Wichita County

Wichita Falls	22	1445CST			0	0	25K		Lightning
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According to witnesses, lightning struck an antenna on a house, sending a fireball into the air which landed on a nearby apartment and set the apartment building on fire.

UTAH, North, Central and South

Tooele County

(Dpg)Michael Aaf Dug	09	1450MST 1453MST			0	0	0		Thunderstorm Wind (G55)
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Davis County

Kaysville	09	1455MST 1500MST			0	0	0		Thunderstorm Wind (G56)
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Two severe thunderstorms developed in northern Utah on this date. The first was over the Dugway Proving Grounds. An automated observing platform measured a wind gust of 63 mph (55 knots) from this storm. The second severe storm occurred in eastern Davis county. A microburst wind gust of 65 mph (56 knots) occurred in Kaysville from this storm. No damage or injuries were reported.

Box Elder County

Yost	10	1422MST 1432MST			0	0	30K	30K	Hail (1.75)
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A severe thunderstorm moved through the town of Yost in extreme northwest Box Elder county. Hailstones as large as 1 3/4" in diameter pelted the area. Damage occurred to vehicles as well as to the roofs and siding of several homes. Grain fields and strawberry patches in the area were completely destroyed.

Sevier County

3 S Monroe to 4 SE Monroe	15 20	1600MST 0700MST			1	0	20K	40K	Wild/Forest Fire
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Lightning started a wildfire (the Flat Fire) on Poverty Flat about 3 miles south of Monroe late in the afternoon on the 15th. The fire spread rapidly across 6000 acres that evening in very dry sage and pinyon/juniper due to strong thunderstorm winds. A young man was killed when trying to outrun the fire on Poverty Flat. A Type 1 Incident Team (Birch) had the fire controlled about 4 days later. M210U

Storm Data and Unusual Weather Phenomena

July 1997

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

Duchesne County

12 N Neola	18	1400MST			1	2			Lightning
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Lightning struck a group of Scouts camping in the Uinta mountains on this date. 1 young Boy Scout and 2 Scout leaders were hit by the lightning. 1 of the Scout leaders died. The group was hiking at the time from Cliff Lake to Henry's Fork Lake at an approximate elevation of 11,000 feet asl when the thunderstorm hit. M52CA

Duchesne County

Fruitland	19	1200MST 1205MST			0	0			Hail (0.75)
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A spotter in Fruitland measured hailstones as large as 3/4" in diameter from a midday thunderstorm.

Washington County

Zion National Park	20	1520MST 1540MST			0	0	0		Urban/Sml Stream Fld
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Minor flooding occurred in the Kolob Terrace area of Zion National Park. Park officials reported the flood was less than a foot in depth and that no damage nor injuries occurred.

Kane County

Glen Canyon	22	1618MST 1622MST			0	0			Funnel Cloud
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A funnel cloud was spotted over Lake Powell on this date.

Wayne County

2 SE Fruita	28	1500MST 1600MST			0	0	0		Urban/Sml Stream Fld
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Capitol Reef National Park officials reported some minor flooding in both the Grand Wash and Capitol Gorge areas. At the Park Headquarters .95" of rain was measured on this afternoon. No injuries nor damage occurred.

Emery County

Emery	28	2100MST			0	0	40K		Flash Flood
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Thunderstorms trained over the town of Emery this night. The Emery county sheriff reported flooding across SR10 about 5 miles south of town. A few homes and businesses in Emery experienced flood damage. Sand bagging efforts apparently prevented worse flooding in the area. The spotter in Emery measured 1.27" of rain from 2200 MST until 2320 MST. A spotter in the nearby town of Ferron reported 1.08".

UTAH, Northeast

NONE REPORTED.

VERMONT, North and Central

Addison County

Middlebury	07	1240EST 1245EST			0	0	10K		Hail (1.25)
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Rutland County

Brandon	07	1305EST 1310EST			0	0			Hail (0.75)
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Washington County

Waitsfield	07	1320EST 1325EST			0	0	10K		Hail (1.25)
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Caledonia County

Burke Hollow	07	1345EST 1350EST			0	0			Hail (0.88)
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Essex County

East Haven	07	1400EST 1405EST			0	0			Tstm Wind/Hail
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Orleans County

Coventry	07	1510EST 1515EST			0	0	5K		Hail (1.00)
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A cold front moved across Vermont during the afternoon and evening of Monday, July 7, 1997. Thunderstorms preceded and accompanied this front with heavy rain and many reports of hail. There were reports of large hail, and damage was reported to cars in Middlebury, VT (Addison County) due to the hail (1 1/4 inch diameter). There were reports of small hail in Essex County VT near East Haven (1/2 inch diameter).

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
VERMONT, North and Central									
Rutland County									
Shrewsbury	14	1805EST 1815EST			0	0	5K		Thunderstorm Wind
Rutland County									
Mt Holly	14	1814EST 1820EST			0	0	5K		Thunderstorm Wind
Windsor County									
Tyson	14	1820EST 1830EST			0	0	5K		Thunderstorm Wind
Late afternoon and evening thunderstorms moved across central portions of Vermont. Some of the storms were accompanied by strong winds with some tree limbs blown down. Brief very heavy rain was reported with a few of the storms in Rutland county where a weather spotter in Shrewsbury, VT reported 1.40 inches of rain in about 15 minutes.									
Franklin County									
Countywide	15 16	0200EST 0400EST			0	0	8M		Flash Flood
A cold front stalled across northern Vermont during the morning hours of July 15, 1997 and focused heavy convective rain during the morning of July 15. This resulted in numerous road and bridge washouts, especially in eastern Franklin county. Extensive flooding of tributary rivers was followed by flooding of larger rivers. Flooding of the Trout River was especially severe and resulted in major road and bridge washouts in Montgomery Center.									
Orleans County									
West Portion	15 16	0200EST 0400EST			0	0	2M		Flash Flood
A cold front stalled across northern Vermont during the morning of July 15, 1997. This front focused heavy convective rain in this area. Extensive flooding with a number of road washouts resulted. Rises on area rivers were quite rapid. The Albany and Hardwick areas were especially hard hit with road washouts.									
Lamoille County									
Countywide	15 16	0400EST 0400EST			0	0	500K		Flash Flood
A cold front stalled across northern Vermont and focused heavy convective rain in this area the morning of July 15. Many roads were washed out.									
Essex County									
Southwest Portion	15 16	0400EST 0400EST			0	0	500K		Flash Flood
A cold front stalled across northern Vermont and acted to focus heavy convective rain during the morning of July 15. There were a number of road washouts in the southwest portion of the county where there were rapid rises on area rivers.									
Caledonia County									
Countywide	15 16	0800EST 0400EST			0	0	500K		Flash Flood
A cold front stalled across northern Vermont during the morning hours of July 15, 1997. Road washouts resulted with rapid rises on area rivers.									
Orange County									
North Portion	15 16	1000EST 0400EST			0	0	500K		Flash Flood
A cold front stalled across northern Vermont and focused heavy convective rain in this area the morning of July 15. Road washouts were reported, especially in the northern portion of the county with rapid rises on area rivers.									
Washington County									
Countywide	15 16	1100EST 0400EST			0	0	500K		Flash Flood
A cold front stalled across northern Vermont and focused heavy convective rain in this area during the morning of July 15. There were a number of road washouts with rapid rises on area rivers.									
Chittenden County									
Milton	17	1635EST 1645EST			0	0	50K		Thunderstorm Wind
Large tree blown down on house. Porch roof blown off.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>VERMONT, North and Central</u>									
Windsor County									
Windsor	17	1710EST 1720EST			0	0	10K		Thunderstorm Wind (G52)
			Numerous large trees blown down.						
Addison County									
Bristol	17	1830EST 1840EST			0	0	5K		Thunderstorm Wind
			Trees and power lines blown down.						
Chittenden County									
Shelburne	17	1915EST 1920EST			0	0	10K		Thunderstorm Wind
			Trees and power lines blown down.						
Washington County									
Northfield	17	1920EST 1925EST			0	0	5K		Thunderstorm Wind
			Trees blown down on Route 12.						
Orange County									
Bradford	17	1930EST 1935EST			0	0	5K		Thunderstorm Wind
			Large trees blown down.						
Washington County									
Waitsfield	18	0120EST 0130EST			0	0	10K		Thunderstorm Wind
			Numerous large trees uprooted or snapped.						
Grand Isle County									
Grand Isle	28	1530EST			0	0	5K		Thunderstorm Wind
			Trees and tree limbs blown down.						
Essex County									
Norton	28	1550EST 1600EST			0	0	5K		Thunderstorm Wind
			Trees blown down.						
Orleans County									
Holland	28	1550EST 1555EST			0	0	5K		Thunderstorm Wind
			Trees and power lines blown down.						
<u>VERMONT, South</u>									
Windham County									
Rockingham	03	1705EST			0	0	20K		Thunderstorm Wind
Windham County									
Westminster	03	1705EST			0	0	120K		Thunderstorm Wind
Windham County									
Bellows Falls	03	1715EST			0	0	40K		Thunderstorm Wind
			On July 3, a fast moving cold front crossed southern Vermont during the late afternoon and evening hours. In Windham County at Westminster, thunderstorm winds downed hundreds of trees and several cars were crushed under trees along Alden Street. Trees were also downed by the wind at Rockingham and Bellows Falls. In Bellows Falls fallen trees destroyed a garage and a vehicle.						
Bennington County									
Shaftsbury	15	1550EST			0	0	2K		Thunderstorm Wind
			During July 15, an extremely hot and humid airmass was situated over Vermont. An isolated severe thunderstorm downed several trees at Shaftsbury in Bennington County.						
Bennington County									
Manchester	17	1650EST			0	0	2K		Thunderstorm Wind
Bennington County									
Dorset	17	1710EST			0	0	2K		Thunderstorm Wind
			On July 17, a hot and humid airmass was situated over Vermont. An upper air disturbance crossed the area during the afternoon which produced two severe thunderstorms in Bennington County. Thunderstorm winds downed trees at Manchester and Dorset.						

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>VERMONT, South</u>									
Bennington County									
Dorset	18	1735EST			0	0	3K		Thunderstorm Wind
Bennington County									
Manchester	18	1735EST			0	0	2K		Thunderstorm Wind
Windham County									
Londonderry	18	1753EST			0	0	2K		Thunderstorm Wind
On July 18, a cold front crossed southern Vermont during the afternoon. With a hot and very humid airmass in place the front initiated a few severe thunderstorms. Thunderstorm winds downed trees at Manchester and Dorset in Bennington County and at Londonderry in Windham County.									
<u>VIRGIN ISLANDS</u>									
St. Croix County									
St. Croix	20	1600AST 1800AST			0	0			Urban/Sml Stream Fld
Tropical wave, former tropical depression number 5, crossed the U.S. Virgin Islands and produced heavy rains. Urban flooding was reported along the north shore road to Estate Le Grande Princess and at Sunny Isle. Urban flooding was also reported in Western St. Croix at Mon Bijou and Estate Calhoun. These rains represented a relief to the dry spell that prevailed during the previous part of July, when the drought stress hurted vegetation, plant and livestock farmers. Bruh fires in St. Croix consumed many acres of grazing land.									
<u>VIRGINIA, East</u>									
Prince Edward County									
Meherrin	04	2015EST			0	0	2K		Thunderstorm Wind
Several trees down.									
Chesterfield County									
Winterpock	04	2030EST			0	0	3K		Thunderstorm Wind
Several trees uprooted.									
Nottoway County									
Burkeville	04	2030EST			0	0			Hail (0.75)
Amelia County									
Amelia to Chula	04	2055EST			0	0	3K		Thunderstorm Wind
Several trees down.									
Suffolk (C)									
5 NE Whaleyville	06	1811EST			0	0	10K		Thunderstorm Wind
Several trees blown onto power lines. Also, an old two story farm building collapsed.									
Mecklenburg County									
Buffalo Spgs	15	1615EST			0	0	10K		Thunderstorm Wind
Apparent microburst from decaying thunderstorm downed 2 trees and blew the roof off of a barn.									
Surry County									
Claremont	16	1400EST			0	0	2K		Thunderstorm Wind
Few trees down.									
Suffolk (C)									
Holland	16	1410EST			0	0	2K		Thunderstorm Wind
Several trees down.									
Norfolk (C)									
Ocean View	16	1435EST			0	0			Hail (0.88)
Richmond (C)									
Richmond	16	1440EST			0	0	15K		Thunderstorm Wind
Warehouse blown down.									
Lancaster County									
3 N Irvington	16	1445EST			0	0	4K		Thunderstorm Wind
Numerous trees blown down along Route 200.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>VIRGINIA, East</u>									
Norfolk (C)									
Norfolk	16	1445EST			0	0	5K		Thunderstorm Wind
			Numerous trees blown down.						
Richmond (C)									
Richmond	16	1500EST 1505EST			0	0	7K		Thunderstorm Wind
			Several trees down and retaining wall blown down.						
Middlesex County									
Saluda	16	1506EST			0	0			Hail (1.75)
Henrico County									
Lakeside	16	1517EST			0	0			Hail (0.75)
Brunswick County									
Alberta	16	1524EST			0	0	4K		Thunderstorm Wind
			Numerous trees down.						
Hanover County									
Atlee	16	1530EST			0	0	4K		Thunderstorm Wind
			Numerous trees down on wires and roadways.						
Richmond (C)									
Richmond	16	1545EST			0	0	20K		Thunderstorm Wind
			Damage to a building and a home.						
Franklin (C)									
Franklin	16	1655EST			0	0			Hail (0.75)
Southampton County									
4 NW Hunterdale	16	1700EST			0	0	2K		Thunderstorm Wind
			Trees down between Sedley and Route 35.						
Westmoreland County									
Montross to Oldhams	18	1610EST 1625EST			0	0	3K		Thunderstorm Wind
			Several trees down on Routes 644, 202, and 600 from just northwest of Montross eastward to Templeman and Oldhams.						
Brunswick County									
Dolphin	19	1335EST			0	0			Hail (1.75)
Suffolk (C)									
Nansemond Shrs	19	1900EST			0	0	5K		Thunderstorm Wind
			Metal furniture blown off porch into river. Shingles blown off of house.						
Mecklenburg County									
Clarksville	21	1430EST			0	0			Hail (1.00)
Chesapeake (C)									
Great Bridge	21	1720EST			0	0	5K		Lightning
			Lightning struck nine houses in Chesapeake, causing fires in two of the homes.						
Chesterfield County									
Chesterfield	22	1415EST			0	0	2K		Thunderstorm Wind
			Several trees down.						
Goochland County									
Manakin	22	1600EST			0	0	2K		Thunderstorm Wind
			Several trees down.						
Hanover County									
Hanover	22	1610EST			0	0	2K		Thunderstorm Wind
			Several trees down.						

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>VIRGINIA, East</u>									
Richmond (C)									
Richmond	22	1610EST 1615EST			0	0	3K		Thunderstorm Wind
									Several trees down.
Chesapeake (C)									
2 N Chesapeake	24	1215EST 1216EST	1	50	0	0	400K		Tornado (F1)
Norfolk (C)									
1 S Norfolk	24	1216EST 1217EST	1	50	0	0	400K		Tornado (F1)
									Tornado path started in south Norfolk just south of Poindexter Street on Guerriere Street. The tornado then continued north-northeast into the Berkley Avenue Industrial Park before crossing into the southern portion of Norfolk and lifting after causing damage on Roseclair and Joyce Streets. One business, a car wash was destroyed, and six sustained major roof damage. One home was damaged in Chesapeake, with damage to a couple of additional structures in the Roseclair and Joyce Street areas of Norfolk.
Norfolk (C)									
Norfolk	24	1220EST	1	50	0	0	100K		Tornado (F0)
									Tornado first touched down west of Route 460 between Liberty Street and Indian River Road. The tornado tracked north-northeast across Indian River Road and across the eastern branch of the Elizabeth River before lifting east of Harbor Park and south of I-264. Minor damage to several structures, mostly residential.
VAZ095									
Norfolk									
	24	1400EST			0	0			High Wind (G53)
									Langley Air Force Base (LFI) in Hampton recorded a wind gust of 61 mph. The Chesapeake Bay Bridge Tunnel and Cape Henry also recorded wind gusts of 61 mph. The Norfolk Naval Air Station (NGU) recorded a wind gust of 59 mph. Trees and power lines down throughout the area and some power outages.
Westmoreland County									
Colonial Beach	28	1910EST			0	0	2K		Thunderstorm Wind
									Several trees and power lines down.
Hampton (C)									
Hampton	30	1200EST 1730EST			0	0			Waterspout
									Several waterspouts were reported near Langley Air Force Base over the southern Chesapeake Bay.
Isle Of Wight County									
Smithfield	30	1200EST 1400EST			0	0			Waterspout
									Several waterspouts were reported over the James River.
Newport News (C)									
Newport News	30	1200EST 1400EST			0	0			Waterspout
									Several waterspouts were reported over the James River.
Norfolk (C)									
Norfolk	30	1200EST 1730EST			0	0			Waterspout
									Several waterspouts were reported just north of Norfolk over the southern Chesapeake Bay.
Portsmouth (C)									
Portsmouth	30	1200EST 1400EST			0	0			Waterspout
									Several waterspouts were reported just north of Portsmouth at the intersection of the southern Chesapeake Bay and the James River.
Suffolk (C)									
Huntersville	30	1200EST 1400EST			0	0			Waterspout
									Several waterspouts were reported over the James River.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>VIRGINIA, East</u>									
Virginia Beach (C)									
Virginia Beach	30	1200EST 1730EST			0	0			Waterspout
Several waterspouts were reported just north of Virginia Beach over the southern Chesapeake Bay.									
<u>VIRGINIA, Extreme Southwest</u>									
Washington County									
Damascus	03	0115EST			0	0	2K		Thunderstorm Wind
Tree down across Highway 91 near Damascus.									
Washington County									
Abingdon	03	0140EST			0	0			Urban/Sml Stream Fld
Street flooding in Abingdon.									
Scott County									
Srn Part Of County to Weber City	04	1815EST			0	0	10K		Thunderstorm Wind
Trees down in the southern part of the county.									
Russell County									
E Part Of County	04	1845EST			0	0	10K		Thunderstorm Wind
Trees down in eastern part of county near border with Tazewell county.									
Wise County									
Pound	21	1645EST			0	0	5K		Thunderstorm Wind
Trees down.									
Scott County									
3 N Gate City	21	2135EST			0	0	10K	6K	Thunderstorm Wind
A few trees and powerlines down.									
Lee County									
Jonesville	22	1528EST			0	0	5K		Thunderstorm Wind
A few trees down on private property near Jonesville.									
Washington County									
Abingdon	22	1530EST			0	0	6K		Thunderstorm Wind
Trees down on Highway 75 near Abingdon.									
Russell County									
10 W Lebanon	27	0345EST			0	0	5K		Thunderstorm Wind
Several trees down across the western part of the county.									
Wise County									
Countywide	27	0400EST			0	0	16K		Thunderstorm Wind
Numerous trees down throughout the county.									
Scott County									
2 W Dungannon	27	0415EST			0	0	15K	7K	Thunderstorm Wind
Several trees and powerlines down across the northern part of the county.									
Russell County									
Countywide	28	1900EST			0	0	26K		Thunderstorm Wind
Trees down across roads in several parts of the county.									
<u>VIRGINIA, North</u>									
VAZ027>028- 030>031-040>042- 052									
Shenandoah - Frederick - Warren - Clarke - Rappahannock - Fauquier - Loudoun - Prince William									
	01 31	0000EST 2359EST			0	0	10M		Drought
A very dry month, containing one 7 day heat wave, exacerbated drought-like conditions across much of the fertile farmland of northern Virginia. The weather in July proved to be the death knell for much of the crop yields, including corn, hay, alfalfa, and soybeans. Clarke Co (VAZ031) alone reported \$2 million in crop damage. Other counties in the northern Virginia piedmont reported damage via local farms; dollar estimates were similar to those in Clarke Co, though no formal declarations of federal emergency were received from them.									

Storm Data and Unusual Weather Phenomena

July 1997

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

The dry, hot weather resulted in a temporary water restriction to be enacted in Spotsylvania Co on the 19th and 20th.

Greene County

Countywide	01	2100EST			0	0	5K		Flash Flood
	02	0030EST							

Madison County

South Portion	01	2100EST			0	0			Flash Flood
	02	0030EST							

Orange County

West Portion	01	2200EST			0	0	5K		Flash Flood
	02	0200EST							

Back-building, nearly stationary showers and thunderstorms developed over a portion of the central Shenandoah Valley during the evening of the 1st and persisted through the early morning hours of the 2nd. The cells contained ample tropical moisture, and incredible rain totals of up to 12 inches were reported. A rain gage along the Rapidan River between Madison and Greene Cos reported 8 1/2 inches of rain; other spotters reported general totals between 4 and 5 1/2 inches.

Recent dry weather enabled the ground to absorb more water than usual, hence the flooding was nowhere near catastrophic, as had been the case during events of 1995 and 1996. Nonetheless, numerous creeks over spilled their banks in Greene Co, and several roads were closed. The same story was noted in western Orange Co, particularly near the town of Somerset. Madison Co escaped the brunt of this event, but still had brief creek rises which closed a few roads in the south portion.

**VAZ025>031-
036>042-050>057**

Augusta - Rockingham - Shenandoah - Frederick - Page - Warren - Clarke - Nelson - Albemarle - Greene - Madison - Rappahannock - Fauquier - Loudoun - Orange - Culpeper - Prince William - Fairfax - Arlington - Stafford - Spotsylvania - King George

13	1200EST				0	0			
19	1600EST								Excessive Heat

The combination of antecedent dry weather, a prolonged upper-level high pressure area, and the time of year produced a bona-fide heat wave across much of Virginia during the middle of the month. Unlike events of previous years, the apparent temperature was not quite as oppressive. Nonetheless, daytime high temperatures averaged in the middle or upper 90s for the 7 days, with the hottest readings occurring on the 17th and 18th. Intense media coverage of the heat and associated pollution parameters may have saved lives; no direct heat-related deaths were reported during the period in Virginia.

Arlington County

Arlington	18	1845EST			0	0	10K		Thunderstorm Wind
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A small area of strong to severe thunderstorms raced through the Washington DC metropolitan area during the evening. In Arlington Co, there were numerous reports of wires and large limbs that were felled, and at least one small tree fell onto the George Washington Parkway. Virginia Power reported 12,000 customers were without power in the northern Virginia suburbs.

Rockingham County

South Portion	21	1610EST 1625EST			0	0	50K		Lightning
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Rockingham County

South Portion	21	1610EST 1625EST			0	0	10K		Thunderstorm Wind
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Albemarle County

(Cho)Charlottesville	21	1730EST 1745EST			0	0	40K		Thunderstorm Wind
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Albemarle County

Charlottesville Arpt	21	1745EST			0	0	10K		Thunderstorm Wind (G50)
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Isolated severe thunderstorms struck a portion of the Shenandoah Valley during the late afternoon. Effects were felt most in Harrisonburg, Charlottesville, and Earlysville, where several large limbs, trees, and wires fell.

In Charlottesville, the bell tower of Buck Mountain Church was destroyed, and a nearby fallen tree broke a window and caused minor roof damage. Farther north, in and near Earlysville, several trees and large limbs fell, most onto power lines and some blocking local routes 743 and 660. At nearby Charlottesville/Albemarle Co Airport, winds were measured at 58 mph.

In Harrisonburg (Rockingham Co), several trees were snapped and a few uprooted, including an 80 foot tall walnut tree. An

Storm Data and Unusual Weather Phenomena

July 1997

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

outbuilding's roof was tossed into a moving vehicle, causing minor damage to the car but no injury to the driver. Hail driven by the winds shattered a window at a downtown accounting firm. Lightning struck the roof of a county public library, rupturing it slightly. Water leakage caused minor damage to books inside. Hundreds of residents were without power during the storm.

Orange County

Countywide	24	0030EST 0700EST			0	0	10K		Flood
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Madison County

Countywide	24	0430EST 0600EST			0	0	5K		Flash Flood
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Nelson County

East Portion	24	0530EST 0700EST			0	0			Flash Flood
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A stationary front across south central Virginia lifted abundant tropical moisture into an area of moderate to heavy rain. In a small portion of the central Shenandoah Valley, rain totals exceeded 6 inches, causing flash flooding of area streams and creeks. Orange Co received the most rain; at least 10 roads were closed for several hours due to high water levels. Other flooding likely occurred in Madison and Nelson Cos.

Frederick County

East Portion	28	1507EST 1515EST			0	1	100K		Thunderstorm Wind
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Clarke County

Berryville	28	1538EST 1542EST			0	0	20K		Thunderstorm Wind
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Clarke County

Boyce	28	1538EST 1542EST			0	0	0		Hail (0.75)
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Loudoun County

West Portion	28	1543EST			0	0	40K		Thunderstorm Wind
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Fauquier County

North Portion	28	1600EST			0	0	15K		Thunderstorm Wind
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Arlington County

Arlington	28	1635EST 1650EST			0	0	3K		Thunderstorm Wind
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Arlington County

South Washington	28	1635EST 1650EST			0	2			Lightning
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A squall line, which originated from an individual thunderstorm in southwest Pennsylvania, produced scattered wind damage across northern Virginia during the late afternoon as it raced across the region. The most impacting damage occurred in Frederick Co, where numerous trees and wires were blown down in the Winchester area. One of those trees became an airborne missile, crashing through an automobile windshield and slightly injuring the 30-year old female driver. In Clarke Co, several trees and large limbs were felled in the Berryville area, including one onto the historic home of George Washington's adopted daughter. Numerous wires were reported down as well.

Dozens of other trees and large limbs fell in western Loudoun co, northern Fauquier Co, and Arlington Co. In western Loudoun Co, a large limb just missed striking a country inn; a picnic table was tossed from one yard to another. The Northern Virginia Electric Cooperative reported 3800 customers were without power during the peak of the storm. Some of the limbs that fell blocked roads; most notably federal route 340 near Berryville.

In Arlington Co, a man and woman were struck by lightning in the Pentagon's parking lot; the man remained in serious condition that evening. Large limbs fell onto the George Washington Parkway at Spout Run. At least 14,000 customers were without power during the peak of the storm in the northern Virginia suburbs.

VIRGINIA, Northwest

Buchanan County

Hurley	02	2320EST			0	0	8K		Thunderstorm Wind
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Trees and power lines were blown down in the vicinity. Minor roof damage occurred to at least one home.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>VIRGINIA, Northwest</u>									
Dickenson County									
Isom to Birchleaf	04	1625EST 1655EST			0	0	20K		Thunderstorm Wind
Estimated wind gusts of 70 to 90 mph roared across the mountain ridges. A gust to 55 mph was measured in the valley near Birchleaf. Tree damage was most extensive on Backbone Mountain, just southwest of Haysi. Outbuildings, a few roofs, and windows were damaged. When one local resident looked out his window, he saw a picnic table being tossed by the wind.									
Buchanan County									
Keen Mtn	04	1700EST			0	0	10K		Thunderstorm Wind
Numerous trees were blown down. Route 460 was blocked at the mouth of Contrary Creek by fallen trees. Two homes received minor damage.									
Buchanan County									
Davenport	09	1740EST			0	0			Hail (0.88)
Buchanan County									
Grundy	28	1820EST			0	0	2K		Thunderstorm Wind
Trees fell and blocked roads.									
Dickenson County									
Counts to Duty	28 29	2100EST 0100EST			0	0	250K		Flash Flood
Rainfall of 2 to 3 inches in 1 to 2 hours on the western slopes of the Ohio-Tennessee River divide, flooded Lick Fork, Fryingpan Creek and Indian Creek. Sullivan Branch washed out sections of Route 688 near Duty. Around 40 families were either flooded or isolated by the flood waters. County officials reported 14 small private bridges were destroyed.									
<u>VIRGINIA, Southwest</u>									
Tazewell County									
Richlands	02	2345EST			0	0			Hail (0.80)
Tazewell County									
Richlands	02	2350EST			0	0	0		Thunderstorm Wind
Smyth County									
Chilhowie	03	0030EST			0	0			Hail (0.75)
Smyth County									
Chilhowie	03	0030EST			0	0	0		Thunderstorm Wind
Smyth County									
Marion	03	0030EST			0	0			Hail (0.75)
Smyth County									
Marion	03	0030EST			0	0	0		Thunderstorm Wind
Severe thunderstorms during the late evening hours on the second and early morning hours on the 3rd produced hail up to dime size and damaging winds.									
Thunderstorm winds knocked down trees and power lines in Chilhowie, Richlands, and Marion.									
Tazewell County									
1 W Richlands to Cedar Bluff	04	1707EST 1714EST			0	5	770K		Thunderstorm Wind
Tazewell County									
3 WSW Tazewell	04	1724EST			0	0	0		Thunderstorm Wind
Tazewell County									
3 SSW Tazewell	04	1726EST			0	0	0		Thunderstorm Wind
Bland County									
3 SW Ceres to 1 SW Ceres	04	1740EST 1745EST			0	0	0		Thunderstorm Wind
Wythe County									
7 NW Wytheville	04	1751EST			0	0	0		Thunderstorm Wind
Wythe County									
2 N Wytheville	04	1758EST			0	0	0		Thunderstorm Wind

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>VIRGINIA, Southwest</u>									
Wythe County									
1 ENE Wytheville	04	1801EST			0	0	20K		Hail (1.25)
Wythe County									
Wytheville	04	1801EST			0	0	10K		Hail (1.00)
Wythe County									
Wytheville	04	1801EST			0	0	0		Thunderstorm Wind
Wythe County									
2 NE Wytheville	04	1802EST			0	0	2K		Thunderstorm Wind
Wythe County									
3 NE Wytheville to 5 ENE Wytheville	04	1803EST 1807EST			0	0	500K		Hail (1.75)
Wythe County									
3 NE Wytheville to 5 ENE Wytheville	04	1803EST 1807EST			0	0	300K		Thunderstorm Wind
Pulaski County									
Hiwassee	04	1829EST			0	0			Hail (0.75)
Floyd County									
1 WSW Indian Vly	04	1838EST			0	0			Hail (1.00)
Floyd County									
4 S Floyd	04	1853EST 1854EST			0	0	0		Thunderstorm Wind
Patrick County									
3.5 NW Woolwine to Woolwine	04	1854EST 1903EST			0	0	0		Thunderstorm Wind
Franklin County									
3.5 SW Henry	04	1919EST			0	0	1K		Hail (1.00)
Franklin County									
3.5 SW Henry	04	1919EST			0	0	20K		Thunderstorm Wind
Henry County									
2.5 NW Bassett	04	1921EST			0	0	0		Thunderstorm Wind
Henry County									
North Portion	04	1921EST 1955EST			0	0		300K	Hail (1.00)
Henry County									
North Portion	04	1921EST 1955EST			0	0		300K	Thunderstorm Wind
Henry County									
Collinsville	04	1930EST			0	0			Hail (0.75)
Henry County									
Collinsville	04	1930EST			0	0	0		Thunderstorm Wind
Pittsylvania County									
South Portion	04	1945EST 2025EST			0	0		150K	Hail (0.75)
Pittsylvania County									
South Portion	04	1945EST 2025EST			0	0		150K	Thunderstorm Wind
Pittsylvania County									
1 S Gretna	04	1950EST			0	0	0		Thunderstorm Wind
Pittsylvania County									
Whitmell	04	1955EST			0	0	0		Thunderstorm Wind
Pittsylvania County									
Riceville	04	2002EST			0	0		50K	Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
VIRGINIA, Southwest									
Pittsylvania County									
3 W Blairs	04	2005EST			0	0	5K		Thunderstorm Wind
Danville (C)									
Danville	04	2012EST			0	0	0		Thunderstorm Wind
Pittsylvania County									
Keeling	04	2015EST			0	0	5K		Thunderstorm Wind
<p>A supercell thunderstorm that travelled from Tazewell County to southern Pittsylvania County during the evening hours on the 4th produced damaging winds and hail up to golf ball size and slightly injured 5 people. Another severe thunderstorms traveled across northern Pittsylvania during the evening hours on the 4th.</p> <p>A series of downbursts from one mile west of Richlands to Cedar Bluff slightly injured five people, damaged or destroyed three mobile homes, tore the roof off a house, damaged 45 homes and 29 businesses, uprooted hundreds of trees, broke off tree limbs, knocked down utility poles and utility wires, and damaged signs.</p> <p>The combination of hail up to golf ball size and winds estimated from 60 to 80 mph damaged at least 29 homes, 16 mobile homes, 5 out buildings, 4 businesses, and a church and stripped some leaves off of vegetation in a 2 mile path from 3 miles northeast of Wytheville to 5 miles east-northeast of Wytheville. The siding on the west side of nearly every structure was either severely dented or had holes punched in it. Most vehicles and roofs were damaged and nearly all west facing windows were broken out. At least three satellite dishes were destroyed. Hail drifts were 6 to 8 inches deep in several locations.</p> <p>Thunderstorm winds damaged or knocked down trees 3 miles west-southwest of Tazewell, 3 miles south-southwest of Tazewell, from 1 mile southwest to 3 miles southwest of Ceres, 7 miles northwest of Wytheville, 2 miles north of Wytheville, 4 miles south of Floyd, from 3.5 miles northwest of Woolwine to Woolwine, and in Wytheville, Danville, Whitmell, and Collinsville. Thunderstorm winds damaged trees and knocked down a large sign 2 miles northeast of Wytheville, severely damaged a barn in Keeling, toppled a tree on top of a truck 3 miles west of Blairs, knocked a large tree down across route 29 one mile south of Gretna,</p> <p>Thunderstorm winds knocked down telephone poles and wires and around 100 trees three and half miles southwest of Henry at Goose Point Campground. Some of trees fell on and damaged tents and trailers. The road into the campground was blocked by fallen trees until the following morning.</p> <p>In the northern portion of Henry County, the combination of hail up to quarter size and strong thunderstorm winds damaged 25 percent of the county tobacco crop. Hail up to dime size and strong thunderstorm winds damaged the tobacco crop in the southern portion of Pittsylvania County. Hail damaged the tobacco crop near Riceville, broke out 100 windows at Wytheville Community College and damaged vehicles one mile east-northeast of Wytheville. In Wytheville, hail broke windows and damaged signs and cars. Hail damaged tents, trailers, and vehicles 3.5 miles southwest of Henry at Goose Point Campground.</p>									
Bedford County									
2 SSW Sedalia	16	1230EST			0	0	8K		Lightning
Pittsylvania County									
Brights	16	1230EST			0	0	5K		Lightning
Pittsylvania County									
3 SSW Hurt	16	1240EST			0	0	40K		Lightning
Bedford (C)									
Bedford	16	1245EST			0	0	30K		Lightning
Henry County									
Fieldale	16	1300EST			1	0			Lightning
M42OU									
Lynchburg (C)									
Lynchburg	16	1315EST			0	0			Lightning
Pittsylvania County									
Gretna	16	1315EST			0	0	20K		Thunderstorm Wind
Pittsylvania County									
Gretna	16	1320EST			0	0	10K		Lightning
Pittsylvania County									
Chatham	16	1400EST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 1997

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

Carroll County

Hillsville	16	1440EST			0	0	5K		Lightning
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Thunderstorms during the afternoon hours on the 16th resulted in damaging winds, damaging lightning, and a lightning fatality.

A man was struck by lightning while in his yard in Fieldale. He was in critical condition in a hospital for about two weeks before passing away.

Thunderstorm wind knocked down trees in Gretna.

A lightning strike started a house fire in Gretna, started four house fires on the west side of Lynchburg, started a fire which destroyed a house 3 miles south-southwest of Hurt, started a fire which damaged a mobile home in Brights, and started a fire in a barn in Hillsville. Lightning started a house fire in Bedford City which severely damaged the roof and attic. Lightning killed 19 cattle at a farm 2 miles south-southwest of Sedalia.

Roanoke County

Hollins	21	1410EST 1415EST			0	0			Hail (1.10)
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Roanoke County

Hollins	21	1410EST 1415EST			0	0	0		Thunderstorm Wind
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Montgomery County

Prices Fork	21	1415EST			0	0	0		Thunderstorm Wind
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Roanoke County

Hollins	21	1420EST			0	0			Hail (0.75)
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Montgomery County

Shawsville	21	1425EST			0	0	0		Thunderstorm Wind
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Thunderstorms during the afternoon hours of the 21st produced damaging winds and hail in excess of quarter size.

Thunderstorm winds broke off up to 3 inch diameter tree limbs in Hollins, knocked down trees in Shawsville and knocked branches and power lines down in Prices Fork.

Franklin County

Boones Mill	22	1150EST			0	0			Hail (0.75)
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Montgomery County

Christiansburg	22	1210EST			0	0	0		Thunderstorm Wind
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Montgomery County

2 E Christiansburg	22	1215EST			0	0	0		Thunderstorm Wind
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Thunderstorm winds during the afternoon hours on the 22nd produced damaging winds.

Thunderstorm winds knocked down trees 2 miles east of Christiansburg and in Christiansburg.

Bath County

Millboro Spgs to 10 SW Millboro Spgs	23	2055EST 2300EST			0	0	15K		Flash Flood
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Bath County

3 S Yost	23	2130EST 2235EST			0	0			Flash Flood
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Alleghany County

2 NW Griffith to .5 W Griffith	23	2235EST 2315EST			0	0			Flash Flood
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Heavy rainfall during the evening hours on the 23rd resulted in flash flooding.

In Millboro Springs, the Cowpasture river flooded a residence and a church. Flooding on the Cowpasture River continue downstream to near Griffith in Alleghany County. Flash flooding resulted in the closing of route 39, three miles south of Yost.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>VIRGINIA, Southwest</u>									
Campbell County									
Timberlake	25	1300EST			0	1			Lightning
A lightning strike from a thunderstorm on the 25th injured a man in Timberlake.									
Franklin County									
Rocky Mt	28	2130EST			0	0	2K		Thunderstorm Wind
A severe thunderstorm during the late evening hours on the 28th downed trees in Rocky Mount. One of the trees fell on and severely damaged a vehicle.									
<u>WASHINGTON, Northeast</u>									
Okanogan County									
15 SW Tonasket	05	1630PST			0	0	40K	0	Hail (1.25)
1 1/4 inch hail and 70 mph wind from newspaper reports. Boats damaged and vehicles overturned at Lake Conconully									
Ferry County									
Republic	05	1740PST			0	0	0	0	Hail (0.75)
Newspaper reported 3/4 inch hail. Power outages on west side of town									
Ferry County									
Republic	05	1755PST			0	0	5K	0	Thunderstorm Wind (G80)
Newspaper reported 80 mph wind. Trees down (aprox. 20) and power outages									
Ferry County									
Curlew	05	1800PST			0	0	5K	0	Tstm Wind/Hail
Wind damage...Trees down and power outages									
Stevens County									
Kettle Falls	05	1900PST			0	0	0	0	Lightning
Lightning damage to a power transformer. All power to town is out									
Stevens County									
Northport	05	1900PST			0	0	20K	0	Tstm Wind/Hail
Numerous trees down.									
Whitman County									
Pullman	21	1420PST			0	0	0	0	Hail (0.75)
3/4 inch hail reported by sheriff's office									
Spokane County									
Spokane	21	1445PST			0	0	0	0	Hail (0.75)
3/4 inch hail reported by a spotter									
Spokane County									
Deer Park	21	1450PST			0	0	0	0	Hail (1.00)
1 inch hail reported by a radio station									
Okanogan County									
Nespelem to 5 NE Nespelem	21	1515PST 1525PST	5	100	0	0	10K	0	Tornado (F1)
NWS Storm survey confirmed second tornado in Nespelem area. Path was not continuous									
Okanogan County									
Nespelem to 5 NE Nespelem	21	1515PST 1525PST	5	100	0	0	10K	0	Tornado (F1)
NWS Storm survey confirmed tornado in Nespelem area. Path of tornado was not continuous									
Stevens County									
Kettle Falls	21	1555PST 1600PST	1	100	0	0	20K	0	Tornado (F1)
NWS Storm survey confirmed tornado in Kettle Falls. Path was not continuous									
Stevens County									
Kettle Falls	21	1555PST 1600PST	1	100	0	0	20K	0	Tornado (F1)
NWS Storm survey confirmed second tornado in Kettle Falls									

Storm Data and Unusual Weather Phenomena

July 1997

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

WASHINGTON, Northeast

Stevens County

Marcus **21** **1600PST** **0** **0** **15K** **0** **Thunderstorm Wind (G70)**
Roof lifted off house. Numerous telephone poles down

Spokane County

Cheney **21** **1830PST** **0** **0** **0** **0** **Hail (1.00)**
1 inch hail reported by a spotter

Spokane County

Spokane **31** **1405PST** **0** **0** **0** **0** **Tstm Wind/Hail**
Spotter reported pea size hail

Spokane County

Spokane **31** **1420PST** **0** **0** **0** **0** **Tstm Wind/Hail**
Spotter reported pea size hail and heavy rain

WASHINGTON, Northwest

Mason County

Belfair **05** **0930PST** **0** **0** **70K** **Lightning**
Lightning started a fire which destroyed a garage.

King County

Kent **05** **1230PST** **0** **2** **Lightning**
Two people, a 30 year old woman and a 24 year old man, suffered minor injuries after being struck by lightning. Both were indirect hits, with one of the strikes travelling through a chain link fence before zapping the woman.

WAZ017

West Slopes Northern Cascades And Passes

09 **0000PST** **0** **0** **Flood**
1000PST

The Skagit at Concrete crested at 32.4 ft, about 4 ft over flood stage, at 11 am pdt. It crested at 29.2 ft at Mount Vernon 10 hours earlier. Flood stage for both gages is 28.0 ft. Damage estimates strawberry crop at 20 to 30 percent loss and about the same for raspberries. Peas and corn also suffered damage.

WASHINGTON, Southeast

WAZ028

Lower Columbia Basin

30 **2020PST** **0** **0** **High Wind (G50)**
Amateur radio operators report trees blown down.

WASHINGTON, Southwest

NONE REPORTED.

WEST VIRGINIA, East

WVZ048>053-055

Grant - Mineral - Hampshire - Morgan - Berkeley - Jefferson - Hardy

01 **0000EST** **0** **0** **12.4M** **Drought**
31 **2359EST**

A very dry month, containing one 7-day heat wave, exacerbated drought-like conditions across much of the fertile farmland of eastern West Virginia. The weather in July proved to be the death knell for much of the crop yields, including corn, hay, and pasture. The West Virginia Farm Service Agency reported the following damage statistics: Corn, hay, and pasture yields were 40 to 50 percent of normal. Estimated damage to the corn crop included 2500 to 3000 acres per county in the Potomac Highlands (WVZ048>051, 055) but as much as 10,000 acres in the eastern panhandle (WVZ052>053). Hay damage was estimated to be 40,000 acres per county; pasture land an additional 80,000 acres per county. No significant damage to alfalfa was noted. Though some summer fruit was damaged by the drought, most of what survived was excellent.

Pendleton County

East Portion **23** **1850EST** **0** **0** **Flash Flood**
2000EST

Rainfall in excess of 3 1/2 inches at higher elevations caused minor flash flooding along some roadways in the area. At the Navy Reservation between Brandywine and Sugar Grove, 9 inches of water covered state route 21.

Mineral County

Keyser **28** **1430EST** **0** **0** **5K** **Thunderstorm Wind**
1435EST

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
WEST VIRGINIA, East									
Berkeley County									
Shanghai	28	1515EST			0	0	10K		Thunderstorm Wind
Jefferson County									
Charles Town	28	1538EST			0	0	3K		Thunderstorm Wind
A rapidly moving squall line, from southwest Pennsylvania into the eastern panhandle of West Virginia, blew down large limbs and a few power lines in northern Mineral Co. As the line moved east, more large limbs were knocked down in western Berkeley Co near Shanghai. An outbuilding was also tossed across nearby railroad tracks, and a power pole was severed. Other trees and large limbs fell near Charles Town, blocking a portion of state route 9. Wires were felled between Shannondale and Keys Gap.									
WEST VIRGINIA, North									
Preston County									
7 N Kingwood	09	1305EST			0	0			Hail (0.75)
Preston County									
10 S Kingwood	16	1930EST			0	0	4K		Thunderstorm Wind
Several trees were downed by thunderstorm winds.									
Preston County									
Aurora	16	1940EST			0	0	40K		Lightning
A house burned to the ground. The structure fire was caused by a lightning strike.									
Ohio County									
West Liberty	18	1400EST			0	0	2K		Thunderstorm Wind
Thunderstorm winds downed trees in West Liberty.									
Preston County									
Masontown	18	1633EST			0	0	2K		Thunderstorm Wind
Thunderstorm winds downed trees.									
Hancock County									
5 N New Cumberland	18	1850EST 1900EST			0	0			Hail (1.00)
A Skywarn spotter reported nickel to quarter-size hail.									
Hancock County									
5 N New Cumberland	18	1850EST 1900EST			0	0	2K		Thunderstorm Wind
A Skywarn spotter reported several trees downed by thunderstorm winds.									
Marion County									
Fairmont	24	0800EST			0	0	70K		Flash Flood
Radar estimated near 1.6 inches of rain fell in about 90 minutes. This led to flash flooding in the city of Fairmont. A house was knocked off of its foundation due to the flood waters. Several roads were flooded. Several vehicles were flooded in a parking lot.									
Ohio County									
Wheeling	28	1200EST			0	0	20K		Lightning
Lightning sparked a house fire.									
Ohio County									
Wheeling	28	1200EST			0	0	8K		Thunderstorm Wind
Thunderstorm winds downed numerous trees, branches, and power lines.									
Marshall County									
Moundsville	28	1220EST			0	0	1K		Thunderstorm Wind
A tree and some large branches were downed by thunderstorm winds.									
Wetzel County									
Proctor	28	1315EST			0	0	3K		Thunderstorm Wind
Trees and power lines were downed by thunderstorm winds.									
Marion County									
Mannington	28	1340EST			0	0	2K		Thunderstorm Wind
Trees were downed by thunderstorm winds.									
Monongalia County									
Morgantown	28	1345EST			0	0	2K		Thunderstorm Wind
Power lines were downed by thunderstorm winds.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>WEST VIRGINIA, North</u>									
Preston County									
Masontown	28	1402EST			0	0	2K		Thunderstorm Wind
Preston County									
Valley Pt	28	1408EST			0	0	1K		Thunderstorm Wind
Preston County									
Bruceton Mills	28	1415EST			0	0	1K		Thunderstorm Wind
Thunderstorm winds downed trees throughout parts of Preston County.									
<u>WEST VIRGINIA, Southeast</u>									
Greenbrier County									
2 SW Renick	23	2000EST 2115EST			0	0			Flash Flood
Runoff from heavy rainfall resulted in gravel, rocks and mud across route 219 two miles southwest of Renick.									
Mercer County									
1.5 S Bluefield	28	2125EST			0	0	0		Thunderstorm Wind
Severe thunderstorms during the evening hours on the 28th knocked down trees and power lines 1.5 miles south of Bluefield.									
<u>WEST VIRGINIA, West</u>									
Wirt County									
Cherry to Burning Spgs	01	1930EST 2230EST			0	0	45K	5K	Flash Flood
A second round of thunderstorms in less than 12 hours flooded the small creeks called Chestnut Run, Spring Run, and Deavers Fork. Two vehicles and some farm equipment were flooded. Bales of hay were washed into the streams. Small private bridges were damaged.									
Jackson County									
Evans to Given	01 02	2130EST 0100EST			0	0	30K		Flash Flood
Rains of 2 to 2.5 inches fell in less than 2 hours. Isaacs Run, Parchment Creek, Johns Run, and Big Horse Run flooded roads. County officials reported 15 to 30 houses with minor flooding, mostly garages.									
Mason County									
Hallwood	02	2035EST			0	0	20K		Thunderstorm Wind
A church had its steeple and roof damaged. Numerous trees were downed in the vicinity.									
Putnam County									
Hurricane to Winfield	02	2045EST			0	0	15K		Thunderstorm Wind
Several trees were blown down in scattered locations. Transformers were blown due to the associated lightning.									
Kanawha County									
Sissonville to St Albans	02	2100EST 2115EST			0	0	5K		Thunderstorm Wind
Jackson County									
Kenna	02	2115EST			0	0	2K		Thunderstorm Wind
Lincoln County									
Branchland	02	2203EST			0	0	2K		Thunderstorm Wind
Lincoln County									
Alum Creek	02	2208EST			0	0	5K		Thunderstorm Wind
Fallen trees and power lines blocked roads.									
Logan County									
Lyburn	02	2218EST			0	0	2K		Thunderstorm Wind
Logan County									
Shegon	02	2220EST			0	0			Hail (0.75)
Mingo County									
Matewan	02	2239EST			0	0	1K		Thunderstorm Wind
Mingo County									
Baisden	02	2240EST			0	0			Hail (1.25)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
WEST VIRGINIA, West									
Mcdowell County									
Coalwood to Raysal	02	2300EST			0	0	75K		Thunderstorm Wind
Nineteen structures, including homes and mobile homes were damaged. In one location, trees were fallen coming down one side of a mountain, then again going up the other side, with little damage in the valley.									
Mcdowell County									
Jaeger	02	2300EST			0	0	1K		Thunderstorm Wind
Mingo County									
Baisden	02	2300EST			0	0	250K		Flash Flood
	03	0215EST							
Gilbert Creek, including its right fork, washed out about 30 private driveway and walk bridges. Route 13 was heavily damaged. Minor flooding occurred into several homes. One vehicle was washed down the creek. During the flooding, one family had to abandon their vehicle when it became surrounded by rising water.									
Wyoming County									
Hanover	02	2315EST			0	0	5K		Thunderstorm Wind
Mcdowell County									
Isaban	02	2330EST			0	0	20K		Flash Flood
	03	0200EST							
Fourpole Creek flooded along the Mingo County line. Two private bridges were washed-out.									
Ritchie County									
6 NW Harrisville	09	1105EST			0	0	1K		Thunderstorm Wind
Ritchie County									
Pennsboro	09	1120EST			0	0	85K		Thunderstorm Wind
Trees were either snapped off or uprooted. A couple of tin roofs were damaged, including the skating rink. A porch roof was blown off. The wind was channelled from the northwest. Estimated gust from a follow-up National Weather Service survey was 70 mph.									
Doddridge County									
West Union to Blandville	09	1130EST			0	0	20K		Thunderstorm Wind
		1135EST							
Trees were blown down. A church in Blandville sustained roof damage.									
Harrison County									
Clarksburg to Stonewood	09	1210EST			0	0	20K		Thunderstorm Wind
		1215EST							
Several large trees were fallen in the Clarksburg, Nutter Fork, and Stonewood vicinity. Some backyard sheds were picked up by the wind and destroyed.									
Jackson County									
8 NW Kenna	09	1210EST			0	0	2K		Thunderstorm Wind
Taylor County									
3 S Grafton	09	1240EST			0	0			Hail (0.75)
Taylor County									
3 S Grafton	09	1240EST			0	0	3K		Thunderstorm Wind
Trees and power lines were blown down around Tygart Lake.									
Cabell County									
3 S Huntington	09	1630EST			0	0	3K		Thunderstorm Wind
Wayne County									
Lavalette	09	1635EST			0	0	2K		Thunderstorm Wind
Cabell County									
Barboursville	09	1650EST			1	0			Heavy Rain
A 12 year old boy was sucked into a 14 inch diameter drain pipe and drowned. He was playing in a neighbor's yard with 2 other boys, after a heavy downpour. The pipe was normally covered, but had been left opened during the construction of a nearby home. Apparently, the 5 foot 4 inch, 110 pound boy slipped and fell into the ditch. Firefighters recovered the boy's body about 2 hours later, some 60 feet into the pipe. The Cabell County Sheriff said, " I've seen a lot of things, but this was the toughest". M12OU									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
WEST VIRGINIA, West									
Wayne County									
Crockett to Lavalette	22	1330EST			0	0	3K		Thunderstorm Wind
			Trees were knocked down along Routes 17 and 75.						
Lincoln County									
West Hamlin	22	1345EST			0	0			Hail (0.75)
Pocahontas County									
Edray	23	1930EST 2100EST			0	0	5K		Flash Flood
			Stony Creek and Indian Draft flooded roads and fields after a 2 to 3 inch downpour fell in less than 2 hours. No damage to structures was reported. There was minor road damage.						
Gilmer County									
Letter Gap	23	2000EST 2200EST			0	0	35K		Flash Flood
			Rains of 2 to 3 inches fell in less than 2 hours. Campgrounds and picnic areas were flooded in Cedar Creek State Park. Two walkway bridges were destroyed and one road bridge was damaged. One private bridge along Grass Run was damaged. Water surrounded a few homes and caused some basement flooding.						
Wood County									
Mineral Wells	27	1730EST			0	2	2K		Wind
			A 45 to 50 mph wind gust lifted a 10 foot scaffold stand at a motor speedway. Some of the debris slightly injured two nearby spectators.						
Wood County									
Chesterville	27	1830EST			0	0	3K		Thunderstorm Wind
Wood County									
Mineral Wells	27	1845EST			0	0	3K		Thunderstorm Wind
Wood County									
Wadeville	27	1930EST 2130EST			0	0	8K		Flash Flood
			An estimated 3 inches of rain fell in less than 2 hours. Several roads were blocked by the various forks of Lee Creek. No damage to homes was reported.						
Wood County									
Blennerhassett	27	2000EST			0	0	50K		Lightning
			A fire, ignited by lightning, extensively damaged a home.						
Jackson County									
5 N Le Roy	27	2005EST			0	0			Hail (0.75)
Kanawha County									
(Crw) Yeager Arpt	27	2111EST			0	0			Thunderstorm Wind (G57)
			The airport tower reported a gust to 66 mph from one of their anemometers.						
Kanawha County									
Charleston	27	2120EST 2130EST			0	0	20K		Thunderstorm Wind
			Numerous trees or large branches were downed.						
Jackson County									
Ripley	27	2130EST			0	0	20K		Lightning
			A transformer near the emergency communication center was hit. The electrical surge travelled into the building, destroying some of the phone lines, televisions, and computers.						
Lewis County									
Weston	27	2145EST			0	0	10K		Lightning
			A school's roof and fire alarm system was damaged.						
Webster County									
3 E Bolair	27	2215EST			0	0	2K		Thunderstorm Wind
			Fallen trees cut power lines on Miller Mountain.						

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
WEST VIRGINIA, West									
Webster County									
Cowen	27	2220EST			0	0	10K		Thunderstorm Wind
									Minor roof damage occurred to residents in town.
Tyler County									
1 E Sistersville	28	1430EST			0	0	5K		Thunderstorm Wind
									Several trees fell down on Route 18. Some of the trees trunks were 12 to 14 inches in diameter.
Pleasants County									
Willow Is	28	1435EST			0	0	2K		Thunderstorm Wind
Wood County									
Rockport	28	1435EST			0	0	1K		Thunderstorm Wind
									Trees fell across Route 2.
Wood County									
Waverly	28	1500EST			0	0	2K		Thunderstorm Wind
Harrison County									
2 N Wilsonburg	28	1525EST			0	0	35K		Lightning
									A barn, filled with hay, burnt to the ground.
Harrison County									
Bridgeport	28	1530EST			0	0	10K		Thunderstorm Wind
									Two homes were damaged by fallen trees.
Mason County									
Hartford City	28	1540EST			0	0	2K		Thunderstorm Wind
Ritchie County									
Pullman	28	1540EST			0	0	2K		Thunderstorm Wind
Wirt County									
Elizabeth	28	1541EST			0	0	2K		Thunderstorm Wind
Mason County									
New Haven to Point Pleasant	28	1600EST			0	0	5K		Thunderstorm Wind
Gilmer County									
Letter Gap	28	1615EST			0	0	2K		Thunderstorm Wind
Jackson County									
Cottageville to Goldtown	28	1630EST 1640EST			0	0	15K		Thunderstorm Wind
Cabell County									
Gwinn	28	1700EST			0	0	5K		Thunderstorm Wind
Cabell County									
Milton	28	1700EST			0	0	5K		Thunderstorm Wind
Cabell County									
Union Ridge	28	1700EST			0	0	5K		Thunderstorm Wind
Kanawha County									
Charleston	28	1700EST 1900EST			0	0	15K		Heavy Rain
									The third consecutive day with thunderstorms produced urban and poor drainage flooding along Garrison Ave in Magazine Hollow.
Putnam County									
Hurricane	28	1700EST			0	0	10K		Thunderstorm Wind
Kanawha County									
Tornado	28	1725EST			0	0	2K		Thunderstorm Wind
Raleigh County									
Beckley to Daniels	28	1830EST			0	0	5K		Thunderstorm Wind

Storm Data and Unusual Weather Phenomena

July 1997

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

NONE REPORTED.

WISCONSIN, Northeast

Marathon County									
Spencer	01	2320CST 2326CST			0	0			Hail (1.75)
Wood County									
Bakerville	01	2335CST			0	0			Thunderstorm Wind (G65)
Marathon County									
Spencer	01	2337CST			0	0	1K	1K	Thunderstorm Wind (G70)
Marathon County									
7 S Abbotsford	01	2340CST			0	0			Hail (1.75)
Wood County									
Marshfield	01	2345CST			0	0	3K		Thunderstorm Wind (G52)
Marathon County									
Stratford	02	0000CST			0	0			Hail (0.75)
Wood County									
Auburndale	02	0020CST			0	0			Hail (0.75)
Portage County									
Junction City	02	0045CST			0	0			Hail (0.75)
Wood County									
Milladore	02	0045CST			0	0			Hail (0.75)
Marathon County									
Bevent	02	0055CST			0	0			Hail (1.75)
Marathon County									
2 N Bevent	02	0101CST			0	0			Hail (0.88)
Portage County									
3 W Rosholt	02	0105CST			0	0		2K	Thunderstorm Wind
Marathon County									
Hatley	02	0115CST			0	0			Hail (0.88)
Portage County									
Stevens Pt	02	0115CST			0	0	2K		Thunderstorm Wind
Shawano County									
Wittenberg	02	0115CST			0	0	1K		Thunderstorm Wind
Marathon County									
5 SE Rothschild	02	0127CST			0	0	3K		Thunderstorm Wind
Shawano County									
Tigerton	02	0130CST			0	0	3K		Thunderstorm Wind
Waupaca County									
Marion	02	0140CST			0	0	1K		Thunderstorm Wind
Waupaca County									
Waupaca	02	0310CST			0	0	1K		Thunderstorm Wind
Severe thunderstorms raced across much of central Wisconsin during the late night hours of July 1-2. Hail and wind gusts to 80 mph damaged crops and property. In Marshfield (Wood co.) a tree fell onto a house, damaging the roof. Heavy rain in Marshfield caused manhole covers to pop off, resulting in minor street flooding. One-half inch hail, driven by strong winds, damaged crops west of Rosholt (Portage co.). Thunderstorm winds blew a tree onto a house, damaging the corner of the house's roof, and the truck parked beside it. Two mobile homes were damaged in the Kronenwetter township (Marathon co.) when gusty winds blew down trees. A barn and shed were destroyed in Tigerton (Shawano co.) when thunderstorm winds blew through.									
Vilas County									
Lac Du Flambeau	13	2334CST			0	0	1K		Thunderstorm Wind

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
WISCONSIN, Northeast									
Lincoln County									
2 N Tomahawk	14	0000CST			0	0	1K		Thunderstorm Wind (G52)
Oneida County									
5 NNW Rhinelander	14	0015CST			0	2	2K		Thunderstorm Wind
Oneida County									
2 SE Rhinelander	14	0020CST			0	0	1K		Thunderstorm Wind
Waushara County									
Wautoma	14	0020CST			0	0	1K		Thunderstorm Wind
Winnebago County									
Winchester to Neenah	14	0058CST 0115CST			0	0	2K		Thunderstorm Wind (G59)
<p>During the late night hours of July 13-14, several severe thunderstorms developed across northern and central Wisconsin. Trees and power lines were blown down by the strong thunderstorm winds. In addition to knocking several trees down around Rhinelander (Oneida co.), thunderstorm winds tipped over a camper at the Hodag Country Festival grounds, sending two people to the hospital. Numerous trees and power lines were blown down in Winnebago county, where a 68 mph wind gust was measured (city of Neenah). A tree fell onto a house in Neenah, damaging the roof. Nearly 20,000 customers lost power in Winnebago county.</p>									
Vilas County									
St Germain	16	0606CST			0	0	1K		Thunderstorm Wind
Oneida County									
Three Lakes	16	0640CST			0	0			Hail (0.88)
<p>A severe thunderstorm produced strong winds which blew trees down near St Germain (Vilas co.). The storm moved southeast into Oneida county and produced nickel-size hail in Three Lakes.</p>									
Vilas County									
Lac Du Flambeau	16	1155CST			0	0			Hail (1.75)
Vilas County									
Lac Du Flambeau	16	1200CST			0	0	3K		Thunderstorm Wind
Vilas County									
St Germain	16	1220CST			0	0			Hail (0.88)
Oneida County									
1 N Minocqua	16	1230CST			0	0	300K		Hail (2.75)
Oneida County									
3 N Rhinelander	16	1250CST			0	0			Hail (1.75)
Oneida County									
Lake Tomahawk	16	1300CST			0	0			Hail (1.50)
Oneida County									
1 E Rhinelander	16	1315CST			0	0			Hail (1.00)
Lincoln County									
Tomahawk	16	1330CST			0	0			Thunderstorm Wind (G52)
Lincoln County									
4 W Tomahawk	16	1340CST			0	0			Hail (1.50)
Lincoln County									
Gleason	16	1405CST			0	0			Hail (0.75)
Langlade County									
Pickerel	16	1410CST			0	0	1K		Thunderstorm Wind
Lincoln County									
8 NE Merrill	16	1415CST			0	0	2K		Hail (4.50)
Langlade County									
Pearson	16	1425CST			0	0	2K		Thunderstorm Wind
Lincoln County									
11.5 ESE Merrill to 12 SE Merrill	16	1438CST 1440CST	1.4	100	0	0	500K	25K	Tornado (F2)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
WISCONSIN, Northeast									
Langlade County									
2 SSW Elton	16	1440CST			0	0	1K		Thunderstorm Wind
Marathon County									
8.5 NNE Nutterville to 6.9 NE Nutterville	16	1440CST 1445CST	2	100	0	0	1M	3M	Tornado (F2)
Menominee (C)									
10 NNW Neopit to 2 S Neopit	16	1446CST 1520CST			0	0	10K	500K	Thunderstorm Wind (G85)
Marathon County									
4 SW Hogarty to 4.2 SW Hogarty	16	1500CST 1502CST	0.2	75	0	0	200K		Tornado (F0)
Marathon County									
3 N Sunset	16	1500CST 1501CST	0.1	15	0	0	5K		Tornado (F0)
Marathon County									
2 NNE Ringle to 1.8 NE Ringle	16	1509CST 1511CST	0.2	50	0	0	100K	10K	Tornado (F1)
Marathon County									
Pike Lake	16	1515CST			0	0	250K	3M	Thunderstorm Wind
Marathon County									
2 N Elderon to 1.8 N Elderon	16	1520CST 1522CST	0.2	75	0	0	1K	1K	Tornado (F0)
Marathon County									
Marathon	16	1520CST			0	0			Hail (1.75)
Lincoln County									
Irma	16	1522CST			0	0	1K		Thunderstorm Wind
Lincoln County									
3 NE Merrill	16	1522CST			0	0	2K		Lightning
Shawano County									
3 W Morgan	16	1530CST			0	0	10K		Thunderstorm Wind (G61)
Shawano County									
Wittenberg	16	1530CST			0	1	300K	1K	Thunderstorm Wind
Shawano County									
5 S Wittenberg	16	1535CST			0	0	1K		Lightning
Lincoln County									
2 SE Merrill	16	1540CST			0	0	10K	2K	Thunderstorm Wind
Wood County									
Wisconsin Rapids	16	1604CST			0	0			Hail (1.75)
Portage County									
Stevens Pt	16	1605CST			0	0			Hail (1.75)
Waupaca County									
New London	16	1605CST			0	1	20K		Thunderstorm Wind
Portage County									
4 SW Amherst Jct	16	1610CST			0	0	2K		Thunderstorm Wind
Waupaca County									
4 W Waupaca	16	1610CST			0	0			Hail (0.88)
Waupaca County									
Weyauwega	16	1615CST			0	0	10K		Thunderstorm Wind
Outagamie County									
Hortonville	16	1630CST			0	0			Thunderstorm Wind (G55)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
WISCONSIN, Northeast									
Outagamie County									
Shiocton	16	1633CST			0	0	2K		Thunderstorm Wind
Outagamie County									
Greenville	16	1635CST			0	0			Thunderstorm Wind (G61)
Outagamie County									
Appleton	16	1637CST			0	0	100K		Thunderstorm Wind (G71)
Waushara County									
Hancock	16	1641CST 1642CST	0.1	10	0	0			Tornado (F0)
Waushara County									
Plainfield	16	1645CST			0	0			Hail (0.75)
Winnebago County									
Neenah	16	1647CST			0	0	50K		Thunderstorm Wind (G61)
Winnebago County									
Oshkosh	16	1648CST M36VE			1	0	150K		Thunderstorm Wind (G58)
Waushara County									
4 N Wautoma	16	1652CST			0	0			Hail (0.75)
Calumet County									
10 WSW Sherwood	16	1700CST			0	0	5K		Thunderstorm Wind
Calumet County									
2 SE New Holstein	16	1705CST			0	0	2K		Thunderstorm Wind
Manitowoc County									
Kiel	16	1710CST			0	0	1K		Thunderstorm Wind
Waushara County									
Wautoma	16	1710CST			0	0	25K		Thunderstorm Wind
Waushara County									
Redgranite	16	1713CST			0	0			Hail (0.75)
Manitowoc County									
Cleveland	16	1715CST			0	0	150K		Thunderstorm Wind
Waushara County									
West Bloomfield	16	1730CST			0	0			Hail (1.00)
Waushara County									
Hancock to Wautoma	16	1900CST 2030CST			0	0	50K		Flash Flood

Severe thunderstorms affected much of northern, central and east-central Wisconsin during the afternoon and evening of July 16 with tornadoes, downburst winds and large hail. Millions of dollars in damage resulted from the biggest severe weather outbreak to affect the region in years.

The storms began to develop early in the afternoon across north-central Wisconsin. Hail the size of baseballs fell in Minocqua (Oneida co.), damaging nearly 200 vehicles. As those storms moved southeast and weakened, a new supercell thunderstorm developed over Lincoln county. This new storm produced wind damage in Tomahawk and softball size hail northeast of Merrill. About 20 minutes later, a tornado developed in southeast Lincoln county and moved southeastward into Marathon county. This tornado, rated F2, was on the ground for more than three miles. It damaged several homes, vehicles and silos, and destroyed numerous barns, sheds and crops. Twenty head of dairy cattle were killed or had to be destroyed. As the tornadic supercell moved southeast, it produced two other weak tornadoes. Total damage to crops and property from five tornadoes, hail and straight-line winds in Marathon county alone topped \$10 million.

Another supercell thunderstorm produced a downburst swath of damage over three miles wide and 14 miles long from southeast Langlade county, through western Menominee county, into extreme north-central Shawano county. Menominee county was especially hard hit, as tens of thousands of trees were felled in the heavily forested county. Authorities estimated that nearly 25 million board feet of lumber was on the ground; it was hoped that much of it was going to be salvaged. At the height of the storm, winds were estimated to be near 100 mph. As the storm weakened and moved into north-central Shawano county, a 70 mph wind gust was measured near Morgan. Another storm in western Shawano county produced a downburst which downed trees across the city of Wittenberg. Part of a roof was blown off an apartment building in the downtown area, and several houses and businesses

Storm Data and Unusual Weather Phenomena

July 1997

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

WISCONSIN, Northeast

sustained damage from the fallen trees. A Wittenberg man was injured by flying glass. Lightning set a house on fire, destroying the second story, in the township of Germania.

Another storm struck Waupaca county, producing high winds. A power pole fell and hit a car in New London, injuring the driver.

Shortly after 530 pm, a supercell thunderstorm produced numerous wind gusts over 65 mph across the Fox Valley, blowing over many trees, damaging buildings and causing a fatality. A 36 year-old male was killed when a tree fell on his minivan in Oshkosh (Winnebago co.). His young daughter was uninjured in the accident. A wind gust to 82 mph was measured in Appleton (Outagamie co.), and a gust to 67 mph was recorded in Oshkosh.

Thunderstorms over Waushara county produced flooding rains, a brief tornado, strong winds and hail. Over five inches of rain fell in only three hours near Hancock, producing some basement and street flooding. A brief tornado also touched down in an open field in Hancock. Numerous trees and powerlines were blown down in Wautoma.

A thunderstorm knocked trees and power lines down in Kiel (Calumet/Manitowoc co.), and damaged seven tents at a fair in Cleveland (Manitowoc co.).

Oconto County

Suring 27 1523CST 0 0 **Hail (1.00)**

Oconto County

Gillett 27 1550CST 0 0 **1K** **Thunderstorm Wind**

Oconto County

Pensaukee 27 1615CST 0 0 **1K** **Thunderstorm Wind**

Outagamie County

Medina 27 1633CST 0 0 **Thunderstorm Wind (G50)**

Isolated severe thunderstorms produced hail and gusty winds in northeast Wisconsin on July 27. Several trees were blown down in Gillett and Pensaukee (Oconto co.). A second storm produced a wind gust estimated to be near 60 mph in Medina (Outagamie co.), where a 50 foot tree was snapped 12 feet above the ground.

WISCONSIN, Northwest

Burnett County

Siren 01 2110CST 0 0 **Thunderstorm Wind (G55)**

Strong thunderstorm winds blew down several trees. Wind speed is estimated.

Burnett County

Grantsburg 13 2120CST 0 0 **Thunderstorm Wind (G56)**

Thunderstorm winds to 56 knots (65 mph) blew down trees and power lines in and around the city.

Sawyer County

**12 S Hayward to
22 E Hayward** 13 2224CST
2258CST 0 0 **Thunderstorm Wind (G50)**

Strong thunderstorm winds blew down trees and power lines across a mostly rural portion of the county. Wind speed is estimated.

Ashland County

Mellen 13 2330CST 0 0 **Thunderstorm Wind (G50)**

Ashland County

Odanah 13 2330CST 0 0 **Thunderstorm Wind (G50)**

Ashland County

**Glidden to
Butternut** 13 2338CST 0 0 **Thunderstorm Wind (G50)**

Strong thunderstorm winds blew down trees and power lines across much of the eastern half of Ashland County. Wind speeds are estimated.

Price County

Catawba 13 2330CST 0 0 **Thunderstorm Wind (G50)**

Large trees were blown down. Wind speed is estimated.

Douglas County

5 S Gordon 16 0723CST 0 0 **Hail (1.50)**

Ashland County

Glidden 16 1015CST 0 0 **Hail (0.75)**

A car windshield was smashed by the hail.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
WISCONSIN, Northwest									
Iron County									
25 S Hurley	16	1115CST			0	0			Hail (0.75)
Price County									
Phillips	16	1428CST 1440CST			0	0			Hail (1.00)
Sawyer County									
Raddison	16	1440CST			0	0			Thunderstorm Wind (G50)
Large trees were blown down. Wind speed is estimated.									
Price County									
5 SW Phillips	16	1445CST			0	0			Thunderstorm Wind (G50)
Trees up to eight inches in diameter were blown down. Wind speed is estimated.									
WISCONSIN, Southeast									
Sauk County									
Reedsburg	01	2315CST			0	0	10K		Thunderstorm Wind
Sauk County									
4 NE Reedsburg	01	2320CST			0	0	6K		Lightning
Lafayette County									
Belmont	02	0000CST			0	0	1K		Hail (2.00)
Iowa County									
3 E Rewey to 6 E Rewey	02	0010CST 0015CST			0	0	10K	200K	Hail (1.75)
Waukesha County									
Brookfield	02	0215CST			0	0	105K		Lightning
Racine County									
Racine	02	0245CST			0	0	0.10K		Lightning
Large hail, high winds, and lightning let loose over south-central Wisconsin causing damage to trees and power lines with 45 minute power outages in Reedsburg (Sauk Co) and a lightning induced home fire just northeast of Reedsburg. Hail pummeled the area east of Rewey (Iowa Co) destroying crops and damaging property. As the storms moved east lightning struck a home in Brookfield (Waukesha Co) burning the attic, garage, and breezeway. The Main Street bridge in the city of Racine(Racine Co) was also struck by lightning, shorting out the motor that operated the lift and thereby disabling the draw bridge.									
Milwaukee County									
Shorewood	02	1800CST			0	0	25K		Lightning
Lightning induced fire destroyed a garage and parked car.									
Sauk County									
6 SE Reedsburg	08	0100CST			0	0	8K		Lightning
Lightning bounced off a large tree and struck a home, blowing a hole in the wall and causing smoke damage to home.									
Dane County									
Madison	08	0420CST			0	0	6K		Lightning
A Madison Gas & Electric substation sustained a direct lightning hit leaving 2800 patrons without power for 3 hours.									
Washington County									
2 S Kewaskum	13	1223CST			0	0			Hail (1.00)
Ozaukee County									
Grafton	13	1317CST			0	0	0.20K		Lightning
Lightning struck a fuse box at a Wisconsin Electric power company, leaving 150 homes without power for 5 hours.									
Columbia County									
3 E Portage	16	2125CST			0	0	80K		Lightning
Much of a barn and most of it's contents were destroyed in a lightning induced fire.									
Dane County									
Madison	16	2200CST			0	0	15K		Lightning
A lightning bolt struck a home and started an attic fire.									

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
WISCONSIN, Southeast									
Jefferson County									
2 NNE Ixonia	16	2200CST			0	0	250K		Lightning
Lightning struck a machine shed. The ensuing fire destroyed the half-dozen pieces of farm equipment inside.									
Dane County									
Madison	16	2205CST			0	0	0.20K		Lightning
Lightning struck and damaged a home 's chimney.									
Dane County									
Madison	16	2245CST			0	6			Lightning
An off-shoot branch of lightning struck 6 people, knocking them off their feet and causing headaches & numb fingers.									
Fond Du Lac County									
Fond Du Lac	16	1658CST			0	0	20K		Thunderstorm Wind
Green Lake County									
Green Lake	16	1713CST			0	0	0.20K		Thunderstorm Wind
Fond Du Lac County									
Fond Du Lac	16	1716CST			0	0			Thunderstorm Wind (G57)
Marquette County									
Neshkoro	16	1720CST			0	0			Hail (0.75)
Sheboygan County									
Elkhart Lake	16	1725CST			0	0	4K		Thunderstorm Wind (G61)
Green Lake County									
Princeton to 3 SW Berlin	16	1730CST			0	0	1K		Thunderstorm Wind
Marquette County									
2 SSE Neshkoro	16	1735CST			0	0	0.40K		Thunderstorm Wind
Green Lake County									
Princeton	16	1740CST			0	0			Hail (1.75)
Fond Du Lac County									
2 NW Waupun	16	1800CST			0	0	2K		Thunderstorm Wind
Dodge County									
Waupun to 4 WSW Waupun	16	1810CST			0	0	1.5K		Thunderstorm Wind
Green Lake County									
Princeton	16	1830CST			0	0			Hail (1.00)
Marquette County									
6 NNE Westfield	16	1835CST			0	0	0.50K		Thunderstorm Wind
Dane County									
Marshall	16	1900CST			0	0	1.1K		Thunderstorm Wind
Jefferson County									
Waterloo	16	1900CST			0	0	0.70K		Thunderstorm Wind
Marquette County									
4 N Westfield	16	1912CST			0	0			Hail (0.75)
Washington County									
West Bend	16	1920CST			0	0	10K		Lightning
Milwaukee County									
Milwaukee	16	1942CST			0	0	0.80K		Thunderstorm Wind
Columbia County									
3 NE Pardeeville	16	2015CST			0	0	35K		Thunderstorm Wind
A hot summer afternoon spawned a series of severe thunderstorms which swept across south-central and southeast Wisconsin dropping large hail and causing wide scattered tree and power line damage. In the city of Fond du Lac a tree fell on a home causing									

Storm Data and Unusual Weather Phenomena

July 1997

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

significant damage to the roof and second story rooms. In the Elkhart Lake region of Sheboygan county, 70 mph winds were reported with numerous trees downed. High winds and tree damage were reported all across the northern half of Sheboygan county. Lightning played a destructive role when two homes were hit in West Bend, (Washington Co) starting a fire that damaged walls and roofs. Thunderstorm winds were responsible for pushing trees on a home and a parked pickup truck just northeast of Pardeville (Columbia Co).

WIZ052-066

Sheboygan - Milwaukee

16	1700CST				1	0			Excessive Heat
	2300CST								

Hot, muggy air settled over southeast Wisconsin. A new daily maximum temperature of 98 was set in Sheboygan, breaking the old record of 97 set back in 1931. Although Milwaukee recorded a maximum temperature of 92 (not a daily record), the daytime heat indices reached 110 and stayed above 80 in the evening. This led to a heat-related death of an elderly gentleman living in an apartment on the south side of Milwaukee. M91PH

Dane County

Oregon

18	1300CST				0	0			Urban/Sml Stream fld
	1400CST								

Walworth County

2.5 NE Delavan

18	1311CST				0	0	3K		Lightning
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Lightning struck a car on I-43, disabling vehicle completely.

Dane County

Stoughton

18	1315CST				0	0	1K		Thunderstorm Wind
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Walworth County

Delavan

18	1320CST				0	0	1K		Thunderstorm Wind
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Kenosha County

Twin Lakes

18	1330CST				0	9	1M		Thunderstorm Wind
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Nine thousand people were evacuated moments before wet-microrburst winds estimated to 80 mph blew down a stage at the Country Thunder Music Festival. The stage was lifted up and twisted by the winds. Flying debris damaged parked vehicles, and many chairs were scrambled. Interestingly, the stage was anchored with steel cable. However, the local terrain aided in funneling the powerful winds toward the stage. A boat in a nearby yard was lifted up by the same winds and the cover torn off. 9 people were injured, 3 needed to go to the hospital.

Walworth County

Pell Lake

18	1340CST				0	0	1K		Thunderstorm Wind
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Kenosha County

Wilmot

18	1343CST				0	0			Funnel Cloud
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Walworth County

2.3 NW Sharon

18	1347CST	0.1	50		0	0	0.10K		Tornado (F0)
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A brief tornado touchdown between Highway B and County Line road caused minor damage to a corn field, destroying a 20 by 40 foot swath of produce.

Walworth County

3 SW Lake Geneva

18	1411CST				0	0			Funnel Cloud
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Racine County

Waterford

18	1415CST				0	0	0.40K		Thunderstorm Wind
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Racine County

Waterford

18	1422CST				0	0			Funnel Cloud
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Jefferson County

Waterloo

18	1430CST				0	0	50K		Lightning
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Lightning struck a home causing significant damage to the second story.

Kenosha County

Twin Lakes

18	1450CST				0	0			Funnel Cloud
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Jefferson County

Waterloo

20	0130CST				0	0	50K		Lightning
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A bolt of lightning struck a home, starting a fire that made the upper story unlivable until repair.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
WISCONSIN, Southeast									
Kenosha County									
Kenosha	21	0150CST 0350CST			0	0	10K		Heavy Rain
									Heavy rains in excess of two inches over two hours caused partial collapse of a warehouse roof.
Waukesha County									
Pewaukee	21	0205CST			0	0	12K		Lightning
									Lightning struck two homes . One sustained a 2' by 2' hole in the roof, followed by burned holes in the ceiling and floors and damage to personal property. The second home had a burned wall, fan burned, and T.V. blew out.
Washington County									
West Bend	21	0545CST			0	0	150K		Lightning
									Lightning struck a business building and ignited an attic fire. Walls needed to reinforced and much of the business equipment was ruined.
Milwaukee County									
Milwaukee	21	0300CST			0	0	1M		Lightning
									Lightning caused a massive fire at a towing business on the south side of Milwaukee. The building and its contents were a total loss.
Jefferson County									
1 SE Cambridge	25	1824CST			0	0	2K		Thunderstorm Wind
Dane County									
2 W Waunakee to .5 W Waunakee	25	1838CST 1841CST	1	100	0	0	130K	1K	Tornado (F1)
Jefferson County									
1 WSW Busseyville	25	1850CST			0	0	0.40K		Thunderstorm Wind
Dane County									
De Forest	25	1905CST			0	0			Funnel Cloud
Dane County									
Madison	25	1905CST			0	0	0.50K		Thunderstorm Wind
Jefferson County									
Lake Mills	25	1918CST			0	0			Funnel Cloud
Dane County									
3 SE Waunakee to 1.8 NW Madison Truax Arpt	25	1922CST 1933CST	2.7	175	0	1	388.5K	1K	Tornado (F1)
Jefferson County									
2.3 NE Concord	25	1930CST			0	0	0.50K		Thunderstorm Wind
Jefferson County									
.5 N Hebron	25	1945CST			0	0	0.30K		Thunderstorm Wind
Dane County									
Sun Prairie to Marshall	25	2000CST 2130CST			0	0			Urban/Sml Stream Fld
Sheboygan County									
Plymouth	25	2000CST 2300CST			0	0	0.70K		Urban/Sml Stream Fld
Dane County									
Marshall	25	2002CST			0	0	0.40K		Thunderstorm Wind (G52)
Jefferson County									
2 NE Cold Spg	25	2006CST			0	0	0.20K		Thunderstorm Wind
Sheboygan County									
Sheboygan	25	2200CST			0	0	0.50K		Lightning
									Severe thunderstorms caused scattered tree and power line damage before becoming explosive and dropping two tornadoes in Dane County near Waunakee. Two funnel clouds were also reported. The first tornado moved east-northeast along Highway 19 just west of Waunakee, damaging 3 homes and 2 outbuildings and destroying a barn and a garage. The second, larger tornado, touched down just west of Highway 113 southeast of Waunakee, and then moved east-southeast across a housing development along and near River Road. It eventually crossed the Yahara River swamp area, hopped and skipped across the Cherokee

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
WISCONSIN, Southeast									
development, and lifted east of W. Sherman Ave in the northern part of Maple Bluff. This second tornado injured 1 person, damaged 17 homes, and 3 farm buildings. One home sustained major damage, and a pole barn was destroyed. After nightfall the storm's forces took the form of damaging lightning, heavy rains and additional destructive winds. The Jefferson County fair closed early due to the storms. Six inches of rain in 3 hours caused urban street flooding in Dane County with standing water 6 to 8 inches deep in roads around Sun Prairie. Later, heavy rain measuring 1.93 inches caused street flooding in Sheboygan (Sheboygan Co) and flooded the basement of the public High School. Also in Sheboygan, lightning struck a home's TV antenna and shorted out an amplifier.									
Sauk County									
La Valle to Reedsburg	26	1455CST 1500CST			0	0	50K		Thunderstorm Wind
Columbia County									
Okee to Arlington	26	1512CST 1518CST			0	0	20K	5K	Thunderstorm Wind
Sauk County									
Lake Delton to Merrimac	26	1515CST 1530CST			0	0	50K		Thunderstorm Wind
Columbia County									
Portage	26	1520CST			0	0	2K		Thunderstorm Wind
Columbia County									
Columbus	26	1532CST			0	0	0.40K		Thunderstorm Wind
Dane County									
2 NW Waunakee to Marshall	26	1540CST			0	0	151.4K		Thunderstorm Wind (G61)
Jefferson County									
Lake Mills	26	1600CST			0	0	3K		Thunderstorm Wind (G52)
Dodge County									
Watertown	26	1615CST			0	0	0.60K		Thunderstorm Wind
Jefferson County									
Lake Mills	26	1615CST			0	0	10K		Lightning
Jefferson County									
Watertown	26	1622CST			0	0	15K		Lightning
Jefferson County									
Jefferson to Ft Atkinson	26	1625CST			0	0	159K		Thunderstorm Wind
Jefferson County									
Watertown	26	1627CST			0	0	5K		Lightning
Jefferson County									
3.8 SE Sullivan to Sullivan	26	1634CST			0	0			Thunderstorm Wind (G51)
Jefferson County									
Palmyra	26	1645CST			0	0	0.70K		Thunderstorm Wind
Walworth County									
Darien	26	1645CST			0	0	0.90K		Thunderstorm Wind
Waukesha County									
Oconomowoc to Eagle	26	1645CST 1648CST			0	0	15K		Thunderstorm Wind
Walworth County									
East Troy	26	1705CST			0	0	0.60K		Thunderstorm Wind
Racine County									
Waterford	26	1710CST			0	0	1K		Thunderstorm Wind
Walworth County									
Lake Geneva	26	1715CST			0	0	1K		Thunderstorm Wind

Storm Data and Unusual Weather Phenomena

July 1997

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

WISCONSIN, Southeast

Milwaukee County

Milwaukee to Shorewood	26	1718CST 1720CST			0	0	1K	Thunderstorm Wind
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Kenosha County

Slades Corners to Paddock Lake	26	1722CST 1725CST			0	0	2K	Thunderstorm Wind
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Late afternoon thunderstorms reached severe limits with numerous reports of wind damage to trees and power lines. Hardest hit was Dane County where wires were down in 500 places and 15,000 customers experienced power outages. Eleven homes were damaged in Sun Prairie and a barn was levelled just north of town. Nine farm buildings were reported to be destroyed. A total of 26 homes and 2 businesses sustained minor damage from this storm event in Dane County. A gustnado was also reported in Sun Prairie. Next hardest hit was Jefferson County where a new High School in Ft. Atkinson still under construction suffered major damage to two walls, and a lightning strike started an attic fire in a nearby residential home. In Sauk County a total of 8000 customers experienced power outages with at least 3 homes and a truck and trailer damaged by trees and/or tree limbs felled by severe winds. About 4000 Columbia County residents lost electrical services due to trees and large limbs damaging power lines. Along the south shore of Lake Wisconsin in Columbia County, the powerful winds damaged 4 boats and destroyed a pier. Further east, tobacco and corn crops were damaged. Waukesha County also experienced widespread tree and power line damage as the storms pushed through with 12,000 customers experiencing power outages in western Waukesha County due to felled trees and power lines. A new pickup was damaged and 4 tents and an amusement ride was damaged in Dousman. (Waukesha Co). Hail up to 3/4 inch in diameter was reported in Lake Mills (Jefferson Co), and 0.88 inch hail was reported in western Kenosha county. Also in Kenosha County, powerful winds stripped roof shingles off of several homes near Highway 50. More lightning joined the weather havoc in Jefferson County with an attic fire in one Watertown home and damage to appliances in another.

Dane County

Fitchburg	27	0655CST			0	0	2.1K	Thunderstorm Wind
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Jefferson County

2 E Lake Mills	27	0720CST			0	0	0.90K	Thunderstorm Wind
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Jefferson County

2.4 S Ft Atkinson	27	0735CST			0	0	0.70K	Thunderstorm Wind
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Walworth County

2 SE Allen Grove	27	0800CST			0	0	10K	Lightning
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Early morning thunderstorms caused scattered tree and power line damage. A lightning bolt struck a tree just southeast of Allen Grove (Walworth Co) and tragically killed 8 dairy cows standing under the tree.

WISCONSIN, Southwest

Crawford County

5 SE Ferryville	01	2155CST			0	0	2.5K	Thunderstorm Wind (G52)
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Buffalo County

Mondovi	01	2210CST			0	0		Hail (0.75)
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Crawford County

Gays Mills	01	2225CST			0	0	20K	Hail (0.75)
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Clark County

Willard	01	2235CST			0	0	15K	Hail (0.75)
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Clark County

Loyal	01	2250CST			0	0	12.5K	Hail (0.75)
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Grant County

Kieler	01	2253CST			0	0	14K	Hail (0.75)
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Clark County

Mead Lake	01	2300CST			0	0	5K	Hail (1.75)
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Richland County

Richland Center	01	2300CST			0	0	8K	Thunderstorm Wind (G50)
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Buffalo County

10 S Mondovi	01	2325CST			0	0	10K	Hail (0.75)
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Clark County

Granton	01	2328CST			0	0	25K	Thunderstorm Wind (G56)
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Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
WISCONSIN, Southwest									
Clark County									
6 N Loyal	01	2330CST			0	0	15K		Thunderstorm Wind (G61)
Clark County									
5 E Loyal	01	2333CST			0	0	40K		Thunderstorm Wind (G78)
Clark County									
Chili	01	2343CST			0	0	18K		Thunderstorm Wind (G61)
Clark County									
9 E Loyal	01	2345CST			0	0	18K		Thunderstorm Wind (G61)
Clark County									
Curtiss	02	0020CST			0	0	50K		Thunderstorm Wind (G65)
Clark County									
Loyal	02	0033CST			0	0	25K		Thunderstorm Wind (G61)
Winds gusted up to 90 mph, blowing down numerous trees and damaging a couple barns. Spotters and law enforcement officials also reported dime to golf ball size hail.									
Jackson County									
Hixton	05	1715CST			0	0	30K	18K	Thunderstorm Wind (G52)
La Crosse County									
5 SE Mindoro	05	1912CST			0	0			Hail (0.75)
Vernon County									
10 W Viroqua	05	1914CST			0	0		8K	Hail (0.75)
60 mph wind gusts and dime size hail occurred as scattered severe thunderstorms affected west central Wisconsin. Hardest hit was the Hixton area where 2 mobile homes and 1800 acres of crops were damaged.									
Trempealeau County									
Trempealeau	13	2152CST			0	0	10K		Thunderstorm Wind (G52)
La Crosse County									
2 N Bangor	13	2210CST			0	0	2K		Thunderstorm Wind (G52)
Jackson County									
Hatfield	13	2215CST			0	0	5K		Thunderstorm Wind (G52)
A line of severe thunderstorms produced wind gusts to 60 mph, which blew down several trees and large limbs.									
Taylor County									
Rib Lake	16	1520CST			0	0	13K		Thunderstorm Wind (G53)
Taylor County									
6 N Chelsea	16	1545CST			0	0	20K		Hail (1.75)
Monroe County									
Kendall	16	1730CST			0	0			Hail (0.75)
Juneau County									
3 S Elroy	16	1745CST			0	0	15K	20K	Hail (1.00)
Juneau County									
5 N Elroy	16	1745CST			0	0			Hail (0.75)
Juneau County									
5 W Mauston	16	1750CST			0	0		35K	Hail (1.75)
Adams County									
Big Flats	16	1852CST			0	0			Thunderstorm Wind (G52)
Adams County									
3 W Rome	16	1900CST			0	0		15K	Hail (1.00)
Adams County									
3 E Colburn	16	1905CST			0	0	45K		Thunderstorm Wind (G54)
Adams County									
5 E Adams	16	2100CST			0	0		10K	Hail (1.00)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
WISCONSIN, Southwest									
Buffalo County									
Nelson	17	0035CST			0	0	10K		Hail (1.25)
Buffalo County									
Alma	17	0129CST			0	0			Hail (0.75)
Clark County									
Granton	17	0200CST			0	0	10K	15K	Thunderstorm Wind (G52)
Trempealeau County									
Arcadia	17	0215CST			0	0	17K		Thunderstorm Wind (G52)
La Crosse County									
Holmen	17	0230CST			0	0			Thunderstorm Wind (G50)
60 to 65 mph winds knocked down power lines and even twisted irrigation piping. Hail up to the size of golfballs was reported by storm spotters.									
Adams County									
3 W Grand Marsh to Friendship	16	2045CST 2245CST			0	0	30K		Flash Flood
Excessive rains flooded highways and parking lots with as much as 2 feet of water.									
Adams County									
Springville	18	0400CST			0	0	8K		Lightning
Adams County									
The Dells	18	0415CST			0	0	4K		Lightning
Lightning caused minor damage to a home during an early morning thunderstorm. However, a shed was completely burned to the ground. There were no injuries in either incident.									
La Crosse County									
1.5 N Holmen to 2 NE Holmen	20	2025CST 2028CST			0	0			Funnel Cloud
La Crosse County									
5 NE La Crosse to 5 E La Crosse	20	2055CST 2100CST			0	0			Funnel Cloud
Vernon County									
1 NW Westby	20	2117CST 2118CST			0	0			Funnel Cloud
Several funnel clouds were observed by spotters, but no touchdowns were reported.									
Vernon County									
Viroqua	26	1425CST			0	0	10K		Thunderstorm Wind (G52)
Vernon County									
Ontario	26	1437CST			0	0	7K		Thunderstorm Wind (G52)
Vernon County									
Ontario	26	1440CST			0	0	15K		Thunderstorm Wind (G61)
Juneau County									
Elroy	26	1450CST			0	0	12K		Thunderstorm Wind (G61)
Juneau County									
Lyndon Station	26	1455CST			0	0	15K		Thunderstorm Wind (G55)
Adams County									
4 S Plainville	26	1500CST			0	0	8K	10K	Thunderstorm Wind (G54)
Adams County									
2 NE Wisconsin Dells	26	1508CST			0	0	2.5K		Thunderstorm Wind (G52)
60 to 70 mph winds blew down several trees, large branches and some power lines.									
WISCONSIN, West									
St. Croix County									
Hudson	01	1942CST			0	0			Thunderstorm Wind (G52)

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
WISCONSIN, West									
Polk County									
2 S Balsam Lake	01	2005CST			0	0			Thunderstorm Wind (G55) Barn blown down. Estimated windspeed.
Dunn County									
1 W Menomonie	01	2020CST			0	0			Funnel Cloud
Barron County									
Turtle Lake	01	2035CST			0	0			Thunderstorm Wind (G61)
Chippewa County									
Eau Claire Arpt	01	2130CST			0	0			Thunderstorm Wind (G58)
Eau Claire County									
Eau Claire	01	2136CST			0	0			Thunderstorm Wind (G55) Trees blown down. Estimated windspeed.
Pepin County									
Ella	01	2153CST			0	0			Thunderstorm Wind (G55) Power lines down. Estimated windspeed.
Chippewa County									
Chippewa Falls	01	2155CST			0	0			Thunderstorm Wind (G55) Trees blown down. Estimated windspeed.
Pepin County									
Arkansaw	01	2200CST			0	0			Thunderstorm Wind (G55) Power lines down. Estimated windspeed.
Chippewa County									
5 N Cadott	01	2210CST			0	0	80K	250K	Thunderstorm Wind (G60) Roof of dairy barn torn off, killing two cows and injuring a dozen other cows. Crops also damaged.
Chippewa County									
8 N Cadott	01	2215CST			0	0			Thunderstorm Wind (G60) Semitrailer truck blown off highway. Estimated windspeed.
Chippewa County									
Cadott	01	2215CST			0	0			Thunderstorm Wind (G60) Trees blown down. Garage damaged. Estimated windspeed.
Eau Claire County									
Ludington	01	2230CST			0	0			Thunderstorm Wind (G55) Trees blown over. Estimated windspeed.
Rusk County									
10 W Sheldon	01	2244CST	1	100	0	1			Tornado (F1) Tornado touched down just south of a northern branch of Holcomb Flowage near the entrance to Deer Tail Creek. The tornado proceeded to cross the flowage and strike a farmstead, ripping the roof off a farmhouse and causing one injury.
Dunn County									
1 SW Wheeler to 4 SE Wheeler	05	1727CST 1735CST	5	440	0	0			Tornado (F1) Sheds destroyed. Trees blown down blocking roads. Power lines blown down at Tainter Lake.
Dunn County									
Colfax	05	1745CST			0	0			Thunderstorm Wind (G55) Shingles torn off roof. Few trees down. Estimated windspeed.
Dunn County									
Elk Mound	05	1755CST			0	0			Thunderstorm Wind (G60) Large branches down.
Eau Claire County									
Eau Claire	05	1820CST			0	0			Hail (0.88)
Eau Claire County									
Eau Claire	05	1825CST			0	0			Thunderstorm Wind (G55) Large branches down at intersection of Interstate 94 and highway 93. Estimated windspeed. Funnel clouds also sighted.

Storm Data and Unusual Weather Phenomena

July 1997

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

WIZ016

Rusk

09	0600CST 1000CST				0	0			Fog
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Dense fog contributed to automobile accident which killed one person 3 miles south of Ladysmith.

Pierce County

5 N Ellsworth

13	2030CST				0	0			Thunderstorm Wind (G55)
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Trees blown down. Estimated windspeed.

Chippewa County

2 E Chippewa Falls

13	2340CST				0	0			Lightning
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House destroyed by lightning induced fire.

WYOMING, Central and West

Natrona County

Midwest

05	1435MST				0	0			Hail (1.00)
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Natrona County

12 SE Casper

05	1615MST				0	0			Funnel Cloud
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Park County

Meeteetse

18	1800MST				0	0			Hail (2.00)
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Hail up to 2 inches in diameter reported over a small part of Meeteetse.

Fremont County

Dubois

19	1125MST				0	0			Hail (1.00)
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Fremont County

2 W Dubois

19	1320MST 1335MST				0	0			Funnel Cloud
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Funnel cloud moved slowly northwest to southeast.

Sublette County

8 NNW Big Piney to
18 NNE Big Piney

19	1333MST 1345MST	3	100		0	0			Tornado (F0)
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Tornado remained over open country, but did cross Highway 189. Moved southwest to northeast. Locations, path length and width are estimated.

Sublette County

3 S Pinedale

19	1400MST				0	0			Funnel Cloud
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Lincoln County

3 SE Bedford

19	1400MST 1415MST				0	0			Hail (1.00)
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Big Horn County

12 S Basin to
15 S Basin

19	1600MST 1615MST				0	0			Hail (1.25)
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Hail fell in the Orchard Bench area. Exact locations are estimates. Crop damage occurred, but no estimates available.

Big Horn County

Manderson

19	1620MST				0	0			Hail (0.75)
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Big Horn County

2 W Basin

24	1509MST	0	50		0	0			Tornado (F0)
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Brief touch down. Path length and width are estimates.

WYOMING, Extreme Southwest

NONE REPORTED.

WYOMING, North Central

Sheridan County

5 SW Sheridan

27	1803MST 1806MST				0	0			Hail (0.75)
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Sheridan County

6 NE Sheridan

27	1840MST 1846MST				0	0			Hail (0.88)
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Storm Data and Unusual Weather Phenomena

July 1997

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

WYZ054>058

Gillette - South Campbell - Moorcroft - Wyoming Black Hills - Weston

01	0700MST 1900MST				0	0			High Wind (G50)
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Winds downed trees and caused power outages. One tree fell on a house in Gillette causing only minor damage. Most damage occurred along the west slopes of the Black Hills where several large trees were uprooted. Several homes in Sundance received roof damage.

Campbell County

Gillette

06	1928MST 1940MST				0	0			Thunderstorm Wind (G53)
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Numerous tree limbs and power lines were down.

Campbell County

15 SE Gillette

06	1957MST				0	0			Thunderstorm Wind (G52)
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Weston County

Upton

06	2049MST				0	0			Thunderstorm Wind (G52)
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Weston County

Newcastle

08	2020MST				0	0			Hail (0.75)
----	---------	--	--	--	---	---	--	--	-------------

Weston County

Newcastle

18	1743MST				0	0			Hail (0.75)
----	---------	--	--	--	---	---	--	--	-------------

Campbell County

20 N Gillette

18	1900MST 1920MST				0	0	25K		Thunderstorm Wind (G65)
----	--------------------	--	--	--	---	---	-----	--	-------------------------

Winds ripped off part of the roof of a mobile home and damaged the interior. A garage under construction was heavily damaged, and windows were broken by the wind. Hail piled up to 1 1/2 feet deep.

Campbell County

Recluse to
Weston

18	2030MST 2300MST				0	0			Urban/Sml Stream Fld
----	--------------------	--	--	--	---	---	--	--	----------------------

Low land flooding was reported along Horse Creek and the Little Powder River.

WYOMING, Southeast

WYZ059>060-

063>064-066>070

Converse - Niobrara - Snowy Range - North Laramie Range - Laramie Range - Platte - Goshen - Cheyenne Foothills - Pine Bluffs

01	0700MST 1900MST				0	0	9.9K	9.9K	High Wind (G61)
----	--------------------	--	--	--	---	---	------	------	-----------------

Power lines, light poles and tree branches downed in Torrington; Visibilities reduced due to blowing dust and sand; minor damage to corn and bean crops.

Laramie County

Cheyenne

05	1435MST 1439MST				0	0	10K	0	Hail (1.00)
----	--------------------	--	--	--	---	---	-----	---	-------------

Laramie County

4 W Burns

05	1500MST 1515MST				0	0	10K	5K	Hail (1.75)
----	--------------------	--	--	--	---	---	-----	----	-------------

Laramie County

2 S Burns

05	1520MST 1534MST				0	0	0	0	Hail (1.00)
----	--------------------	--	--	--	---	---	---	---	-------------

Laramie County

5 SW Pine Bluffs

06	1602MST 1615MST	0.1	8		0	0	0	0	Tornado (F0)
----	--------------------	-----	---	--	---	---	---	---	--------------

Brief touchdown in open country reported by public.

Platte County

8 SE Wheatland

10	1131MST 1132MST				0	0	0	0	Thunderstorm Wind (G69)
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At Tango Missile Site; reported by Air Force personnel.

Niobrara County

12 N Lance Creek

11	1730MST 1731MST				0	0	0	0	Funnel Cloud
----	--------------------	--	--	--	---	---	---	---	--------------

Time approximate; several funnel clouds reported by public.

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
WYOMING, Southeast									
WYZ067		Platte							
	12	1822MST 2152MST			0	0	0	0	High Wind (G44)
Laramie County									
10 NE Cheyenne	19	1220MST 1222MST			0	0	0	0	Hail (1.00)
Platte County									
Guernsey	19	1300MST 1400MST			0	0	5K	0	Urban/Sml Stream Fld
									Time approximate; road washed out near Platte River.
Platte County									
Guernsey	19	1330MST 1332MST			0	0	1K	0	Thunderstorm Wind (G50)
									Time approximate; residential storm window blown out, large tree split.
Converse County									
2 N Orin	21	1530MST 1800MST			0	0	0	5K	Lightning
									Fire caused by lightning burned 500 acres of grass on a ranch near Orin.
Niobrara County									
Northern	24 26	2000MST 1100MST			0	0	5K	3K	Lightning
									Fire started in northern Niobrara County evening of 7/24 put out 7/26 after firefighters logged 28 hrs of duty and used 50000-60000 gallons of water; grass and cottonwood trees were consumed; no livestock lost.
Platte County									
10 SW Glendo	24 26	2000MST 1100MST			0	0	0	1K	Lightning
									Fire burned 50 acres of timber on a ranch south of Horseshoe Creek and west of I-25; same fire started up again 7/26 and burned additional 150 acres of timber before containment.
Carbon County									
5 N Shirley Basin	27	1755MST 1800MST			0	0	0	0	Funnel Cloud
Converse County									
15 E Douglas	29	1450MST 1451MST	0.1	7	0	0	0	0	Tornado (F0)
									Brief touchdown in open country.
Converse County									
1 N Shawnee	29	1454MST 1455MST	0.1	8	0	0	0	0	Tornado (F0)
									Brief touchdown in open country reported by spotter.
Converse County									
19 E Douglas	29	1500MST 1501MST	0.1	9	0	0	0	0	Tornado (F0)
									Brief touchdown in open country reported by pilot.
Converse County									
4 SSW Douglas	29	1558MST 1559MST	0.1	6	0	0	0	0	Tornado (F0)
									Brief touchdown in open country.
Goshen County									
30 NW Torrington to 5 NW Torrington	29 30	2020MST 1000MST			0	0	30K	5K	Flood
									Residential basements flooded and a county road washed out after about 6" of rain; Cameron Creek, Rawhide Creek and Torrington Ditch overflowed just N of Hwy 26.

STORM DAMAGE CATEGORIES

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		
9	\$500 Million to \$5 Billion	o/c	Indicates Crop Damage amount is included in the value give for property damage.

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; signs and billboards damaged.

(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 from 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 from 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 foundations blown off some distance; cars thrown and large missiles generated.

(F5) Incredible tornado (261-318 mph): Incredible damage; Strong frame houses lifted from foundation and carried considerable distance to disintegrate; automobile-sized missiles fly through the air in excess of 100 meters; 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.

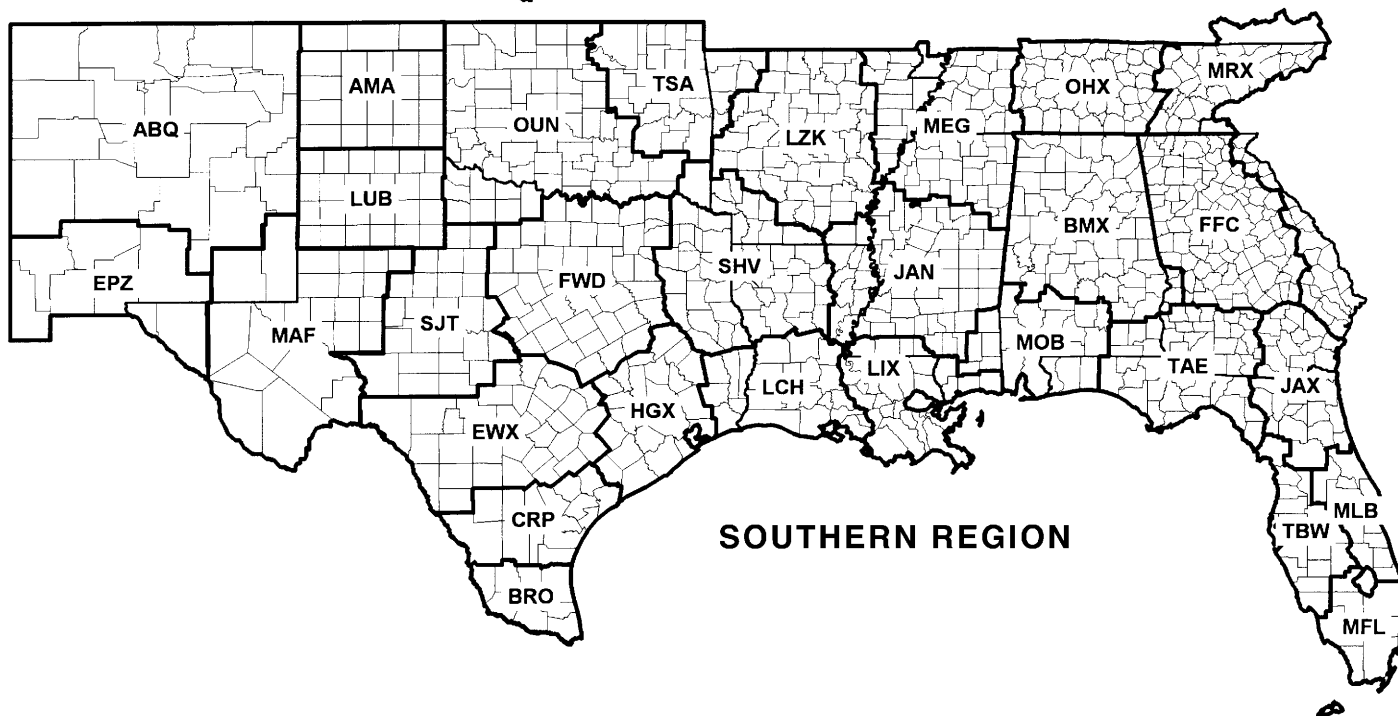
(F0+F1) Weak Tornado
(F2+F3) Strong Tornado
(F4+F5) Violent Tornado



COUNTY WARNING & FORECAST AREAS - MODERNIZED NWS

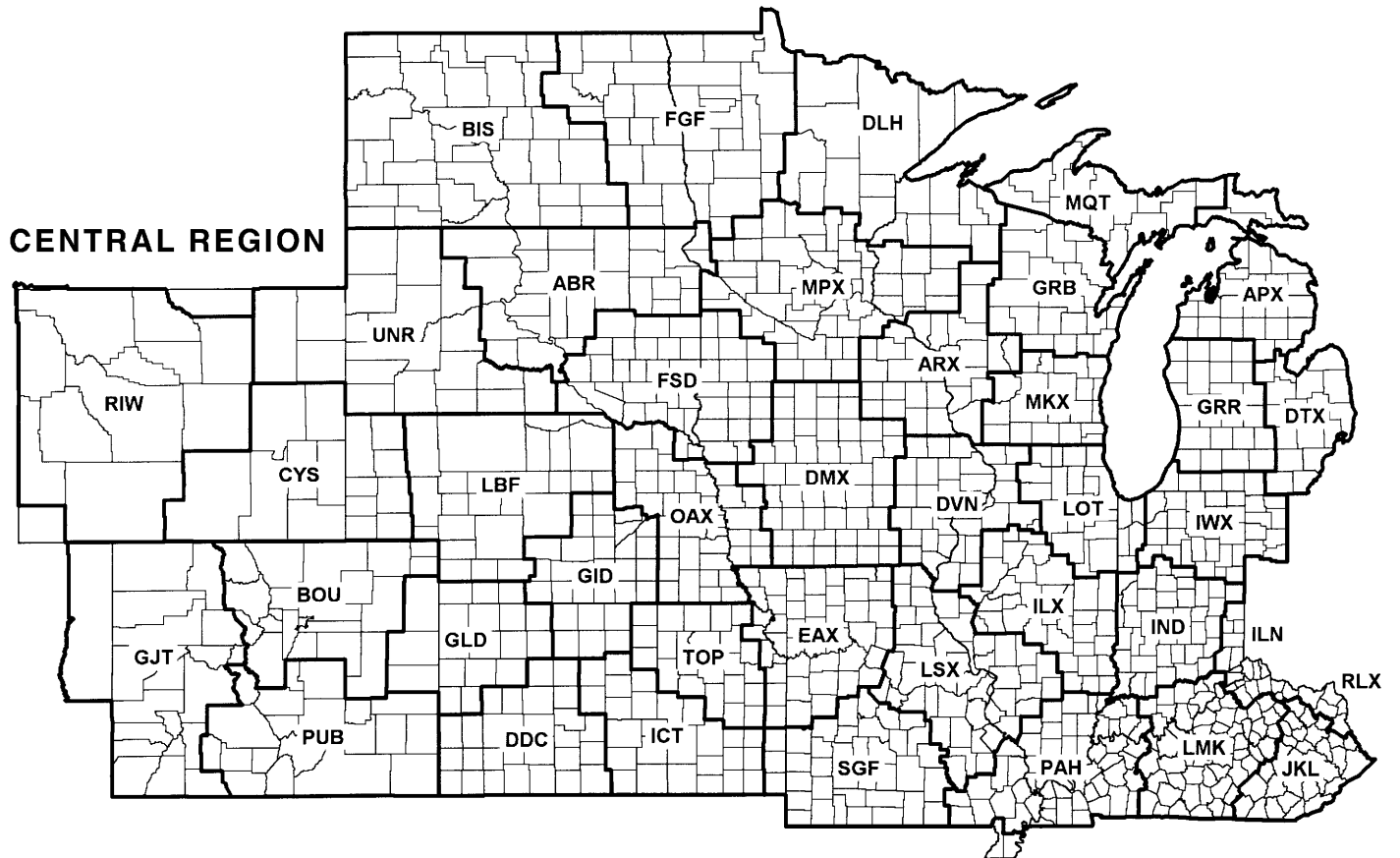
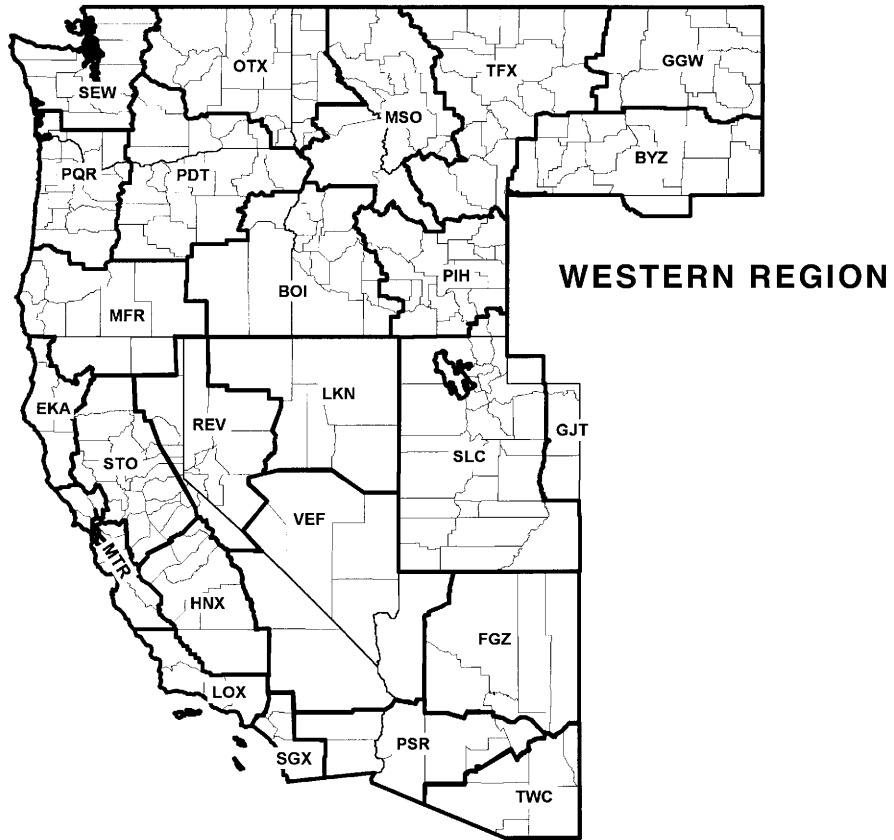


EASTERN REGION

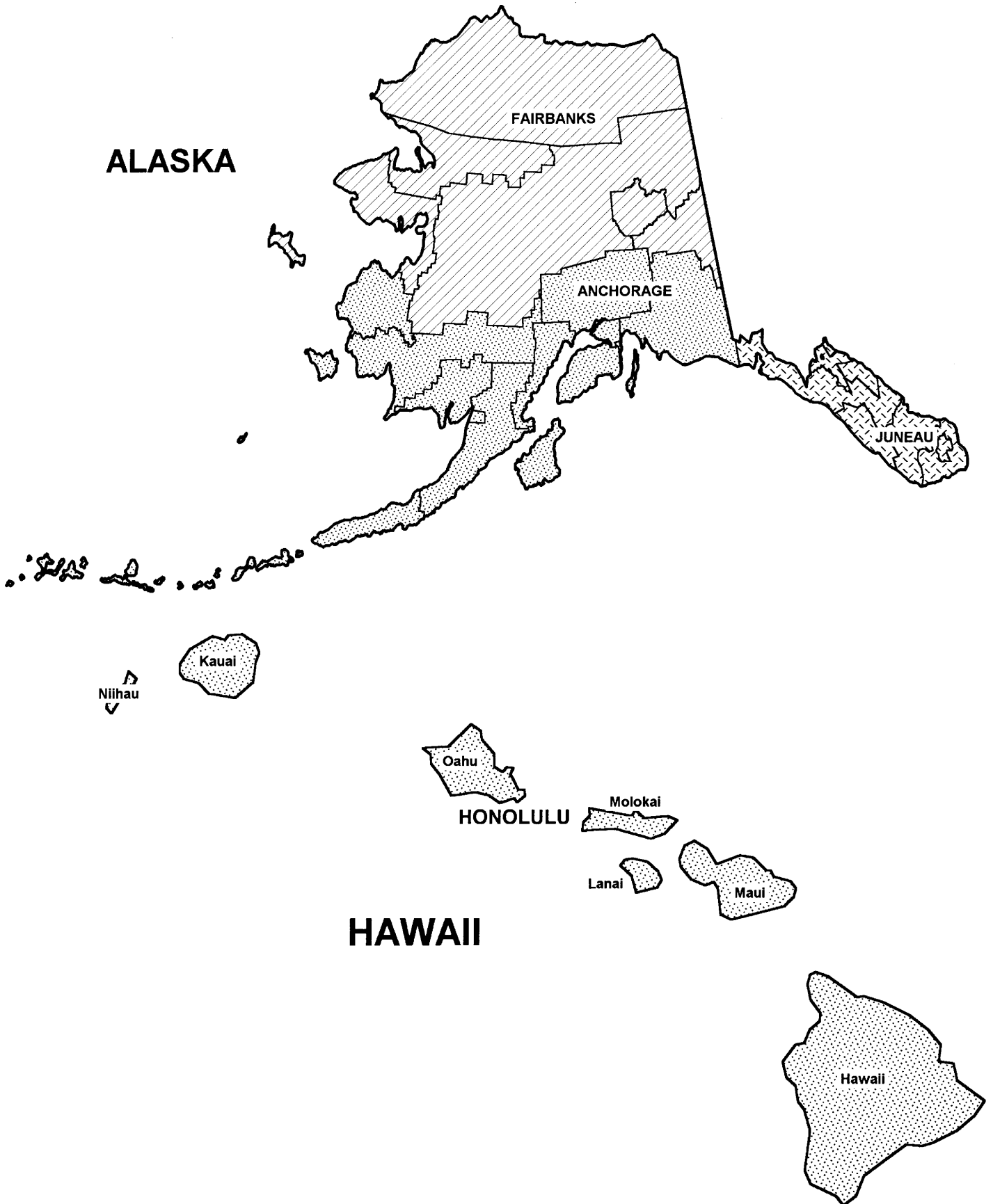


SOUTHERN REGION

COUNTY WARNING & FORECAST AREAS - MODERNIZED NWS



MODERNIZED COUNTY WARNING AREAS



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