

**JULY 2001
VOLUME 43
NUMBER 07**



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, NC

Cover: A van windshield and hood damaged from baseball-to-softball sized hail that fell in Broadus, MT on July 18, 2001. (Photo courtesy: Stephan Kuhl, WCM, WFO Billings, MT.)

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STORM DATA

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National Climatic Data Center

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

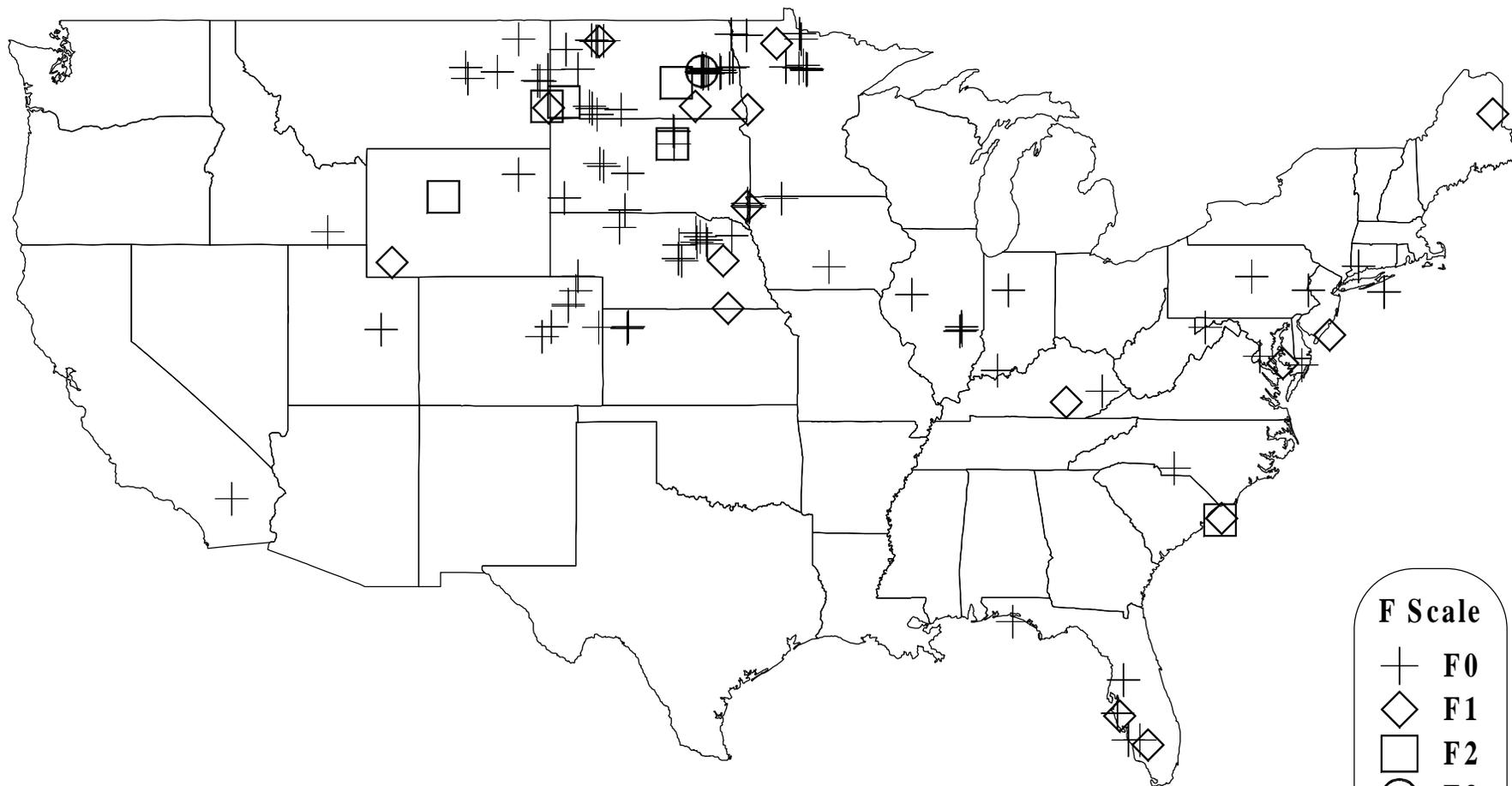
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Thomas R. Karl
Director,
National Climatic Data Center

July 2001 Confirmed Tornadoes



3

F Scale	F0	F1	F2	F3	F4	F5	Total
Number	100	16	6	1	0	0	123

F Scale

- + F0
- ◇ F1
- F2
- F3
- △ F4
- ★ F5

OUTSTANDING STORMS OF THE MONTH

Large Hail in Montana

A favorable and persistent weather pattern with wind shear and moisture combined to produce numerous severe thunderstorms over south-central and southeastern Montana during late June and July 2001. During the afternoon and evening hours of July 18, 2001, numerous supercell thunderstorms (mainly hail producers) developed over the area. One such thunderstorm produced baseball-to-softball sized hail in Broadus, MT. Numerous car windshields and house windows were smashed. Vinyl siding from houses and leaves from trees were stripped. There were no fatalities or injuries reported with this event. Property damage totals exceeded one million dollars.



Left: A teepee received damage from the hailstorm on July 18, 2001.

(Photos courtesy: Stephan Kuhl, WCM, WFO Billings, MT)

Right: Vinyl siding and windows were damaged from the hailstorm.



Left: A car windshield and hood damaged from the hailstorm in Broadus, MT.

Storm Data and Unusual Weather Phenomena

July 2001

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									
Phil Campbell	02	1300CST			0	0	2K	0	Thunderstorm Wind (G50)
Trees were blown down near Phil Campbell. A piece of roof was torn off the Fellowship Hall Church on SR 237.									
Marshall County									
Guntersville	03	1500CST			0	0	2K	0	Thunderstorm Wind (G50)
A few trees and power lines were blown down in the city of Guntersville. Lightning from the storms caused numerous locations to be without power for several hours.									
Lauderdale County									
Lexington	04	1600CST			0	1	0	0	Lightning
A man was struck by lightning near Lexington. The extent of his injuries was unknown.									
Lauderdale County									
5 SW Florence	04	1606CST			0	0	2K	0	Thunderstorm Wind (G50)
Trees were blown down west and southwest of Florence along the Tennessee River. A few trees were also blown down near Waterloo.									
Colbert County									
Muscle Shoals	04	1620CST			0	0	1K	0	Thunderstorm Wind (G50)
A few trees and power lines were knocked down in and around Muscle Shoals.									
Madison County									
Countywide	04	1640CST 1650CST			0	0	4K	0	Thunderstorm Wind (G50)
A few trees were blown down in different locations across the county.									
Jackson County									
Scottsboro	04	1710CST 1725CST			0	0	8K	0	Thunderstorm Wind (G55)
Several trees were blown down near the hospital in Scottsboro. Additional trees and some power lines were knocked down south and southwest of the city. Three boat houses and some boats were damaged at the Goose Lake Colony off SR 79. Several boats broke loose in the high wind and damaged each other and the boat houses.									
Limestone County									
Countywide	05	1120CST 1200CST			0	0	6K	0	Thunderstorm Wind (G55)
Madison County									
Countywide	05	1125CST 1140CST			0	0	3K	0	Thunderstorm Wind (G55)
Jackson County									
Countywide	05	1145CST 1215CST			0	0	2K	0	Thunderstorm Wind (G55)
Lauderdale County									
Countywide	05	1145CST 1230CST			0	0	5K	0	Thunderstorm Wind (G55)
Colbert County									
Countywide	05	1215CST 1235CST			0	0	4K	0	Thunderstorm Wind (G55)
Marshall County									
Countywide	05	1215CST 1235CST			0	0	4K	0	Thunderstorm Wind (G55)
Lawrence County									
Countywide	05	1240CST 1300CST			0	0	5K	0	Thunderstorm Wind (G55)
Morgan County									
Countywide	05	1240CST 1300CST			0	0	4K	0	Thunderstorm Wind (G55)
Winston County									
Countywide	05	1325CST 1345CST			0	0	3K	0	Thunderstorm Wind (G55)
Cullman County									
Countywide	05	1330CST 1350CST			0	0	3K	0	Thunderstorm Wind (G55)

Storm Data and Unusual Weather Phenomena

July 2001

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									
Blount County									
Countywide	05	1335CST 1350CST			0	0	6K	0	Thunderstorm Wind (G55)
Walker County									
Eldridge	05	1400CST			0	0	2K	0	Thunderstorm Wind (G55)
Jefferson County									
Countywide	05	1415CST 1435CST			0	0	15K	0	Thunderstorm Wind (G55)
Calhoun County									
Countywide	05	1430CST 1445CST			0	0	5K	0	Thunderstorm Wind (G55)
St. Clair County									
Springville	05	1430CST			0	0	3K	0	Thunderstorm Wind (G55)
Cleburne County									
Countywide	05	1435CST 1450CST			0	0	3K	0	Thunderstorm Wind (G55)
Shelby County									
Countywide	05	1445CST 1458CST			0	0	3K	0	Thunderstorm Wind (G55)
Talladega County									
Countywide	05	1445CST 1500CST			0	0	2K	0	Thunderstorm Wind (G55)
Tuscaloosa County									
Countywide	05	1450CST 1510CST			0	0	4K	0	Thunderstorm Wind (G55)
Chilton County									
Countywide	05	1455CST 1510CST			0	0	4K	0	Thunderstorm Wind (G55)
Clay County									
Countywide	05	1510CST 1525CST			0	0	2K	0	Thunderstorm Wind (G55)
Bibb County									
Countywide	05	1515CST 1530CST			0	0	2K	0	Thunderstorm Wind (G55)
Coosa County									
Countywide	05	1515CST 1530CST			0	0	2K	0	Thunderstorm Wind (G55)
Randolph County									
Woodland	05	1530CST			0	0	1K	0	Thunderstorm Wind (G50)
Chambers County									
Countywide	05	1545CST 1555CST			0	0	2K	0	Thunderstorm Wind (G55)
Tallapoosa County									
Countywide	05	1545CST 1610CST			0	0	4K	0	Thunderstorm Wind (G55)
Lee County									
Countywide	05	1625CST 1650CST			0	0	2K	0	Thunderstorm Wind (G55)

A line of severe thunderstorms entered northern Alabama just after noon CDT and moved through mainly the eastern two thirds of north and central Alabama. The storms exited southeast Alabama just after 6 pm CDT. Severe Thunderstorm Warnings were issued for 27 separate counties with a total of 31 Severe Thunderstorm Warnings issued during the event. During each of the 31 Severe Thunderstorm Warnings, damaging wind gusts occurred. Numerous trees and power lines were blown down across north and central Alabama. Several locations received more concentrated damage than others, but generally the damage occurred in a sporadic manner where varying storm intensity concentrated higher wind gusts. No injuries were reported during this event with respect to the wind damage.

Lauderdale County

Waterloo	05	1143CST			0	1	0	0	Lightning
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A man was struck by lightning near Waterloo. This man was taken to the hospital with injuries but the extent of those injuries was unknown.

Storm Data and Unusual Weather Phenomena

July 2001

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

ALABAMA, North Central

Blount County

Countywide	10	1550CST 1612CST			0	0	2K	0	Thunderstorm Wind (G50)
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A few trees were blown down throughout the entire county.

Cherokee County

Leesburg	10	1600CST			0	0	1K	0	Thunderstorm Wind (G50)
----------	----	---------	--	--	---	---	----	---	-------------------------

Trees were blown down in Leesburg.

Lee County

Loachapoka	10	1700CST			0	0	0	0	Hail (1.00)
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Quarter size hail was reported in western Lee County near Loachapoka.

Lauderdale County

Rogersville	11	1545CST 1552CST			0	0	12K	0	Thunderstorm Wind (G55)
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Numerous trees and power lines were blown down across eastern Lauderdale from Anderson to Rogersville. Some of the fallen trees landed on homes causing minor damage. Lightning from the storms struck a few structures causing minor damage. No injuries were reported with the storms.

Jefferson County

Homewood	20	1720CST			0	0	10K	0	Thunderstorm Wind (G50)
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A few trees were blown down in the city of Homewood. One large tree fell onto an automobile and severely damaged it. Other trees fell and temporarily blocked roadways.

Jefferson County

Birmingham	21	1745CST			0	0	150K	0	Lightning
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Lightning was believed the cause of a fire at St. Francis Xavier Church off Montclair Road in Birmingham. A lightning bolt apparently struck the church at 6:45 pm CDT during a wedding rehearsal starting the fire which went undetected for some minutes. One fire fighter was injured fighting the ensuing fire which did significant damage to the church building.

Lauderdale County

Florence	25	1830CST 1915CST			0	1	8K	0	Lightning
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Thunderstorms moving through Florence produced frequent to continuous cloud to ground lightning. This lightning struck several trees and power lines in the area and a few were knocked down. One woman was struck by lightning around 7:33 pm CDT but the extent of her injuries was unknown.

Greene County

Eutaw	31	1600CST			0	0	5K	0	Thunderstorm Wind (G50)
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A microburst produced damage to one-third of the roof of a house. The damaging wind also knocked several large limbs down.

ALABAMA, Southeast

Dale County

Ozark	10	1815EST			0	0	1K		Thunderstorm Wind
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Trees down in Ozark, and at the intersection of County Road 36 and Highway 105 just northeast of Ozark. Reported by the Dale County EMA.

Geneva County

Northeast Portion	11	1430EST 1445EST			0	0	10K		Thunderstorm Wind
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Roof damage to a mobile home. Numerous trees down along County Roads 16, 19 and 85. Reported by the Geneva County EMA.

Houston County

Wicksburg	11	1520EST			0	0	5K		Thunderstorm Wind
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Trees and power lines down. Reported by the Houston County EMA.

ALABAMA, Southwest

Baldwin County

Fairhope	02	1105CST 1110CST			0	0			Waterspout
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A waterspout was observed over Mobile Bay, east of Fairhope. The waterspout remained over the Bay and dissipated over the water.

Choctaw County

Butler	05	1730CST 1732CST			0	0	5K		Thunderstorm Wind (G50)
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Several trees were blown down by thunderstorm winds near Butler.

Washington County

Mc Intosh to Sunflower	08	1600CST 1610CST			0	0			Funnel Cloud
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A spotter followed a funnel cloud along US Highway 43 from near McIntosh to Sunflower. The funnel never touched down and no damage was found.

Storm Data and Unusual Weather Phenomena

July 2001

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, Southwest

Mobile County

Kushla	12	1615CST 1617CST			0	0			Hail (1.00)
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Mobile County

Central Portion	12	1700CST 1800CST			0	0			Flash Flood
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Heavy rains caused street flooding in the central parts of the county. Some secondary roads had to be closed near Lott Road and in downtown Mobile. The streets were closed for about an hour until the rain stopped and the streets drained. Radar estimated that three to five inches of rain fell in a two hour period.

Covington County

River Falls	20	2115CST 2117CST			0	0			Hail (0.75)
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Baldwin County

Orange Beach	26	0815CST 0817CST			0	0			Waterspout
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A waterspout was observed offshore south of Orange Beach. The waterspout remained offshore and dissipated over the Gulf.

Baldwin County

Ft Morgan	26	1110CST 1113CST			0	0			Waterspout
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A waterspout was observed over the Gulf of Mexico south of Fort Morgan. The waterspout remained offshore and dissipated over the water.

Baldwin County

Perdido Beach	26	1510CST 1512CST			0	0			Waterspout
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A waterspout was observed just offshore of Perdido Beach. The waterspout remained offshore and dissipated over water.

ALASKA, Northern

Upr Tanana Vly

Fortymile

Tok	01 07	0000AST 1200AST			0	0	400K		Wild/Forest Fire
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Event continued from June. A man-caused wildfire began June 29 in the Tok area and spread quickly due to the wind from a nearby thunderstorm. Approximately 150 acres was burned. Two homes, six outbuildings (sheds, greenhouses) were destroyed, along with a pick-up truck and a water well drill truck. Initially, 100 homes were evacuated; 150 people checked into a Red Cross shelter on the 29th but all returned to their homes by late that evening.

AKZ224

Upr Tanana Vly Fortymile

	24 31	0900AST 2359AST			0	0	90K		Flood
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Rainfall of 2.00 to 5.25 inches over the Upper Tanana Valley and Fortymile Area from July 23-25 resulted in flooding stages on the Tanana River and streams of the Fortymile Country. At the village of Northway, flooding began at approximately 11pm AST July 28. At the village of Tanacross, flooding began at approximately 3pm AST July 30. The first report of flood damage to the Taylor Highway was received at 8am AST July 24; at one point there were 4 mudslides and at least one washout reported. At Northway, maximum stage occurred on July 29 at 1.85 feet above the flood stage of 12.0 feet. At the village of Tanacross, maximum stage occurred August 1 at 0.96 feet above flood stage. The Taylor Highway, the only land link to the village of Eagle, was cut by mudslides and washouts in several locations. Extensive work by the State of Alaska Department of Transportation was required to reopen the highway. The Northway Road, the only road connecting Northway Village to the Alaska Highway, was closed by flood waters as well. The village cemetery at Tanacross was completely inundated by water flowing in from the swollen Tanana River. The property damage amount of \$90,000 was for road repairs, either material used by the State of Alaska Department of Transportation, or the entire restoration of a project done via contractor. These repairs included 2000 feet of the road to Northway (off the Alaska Highway), the Gardiner Creek Bridge on the Alaska Highway, and portions of the Taylor Highway.

Event continued into August.

ALASKA, Southeast

NONE REPORTED.

ALASKA, Southern

AKZ145

Susitna Valley

	01 02	0000AST 1100AST			0	0			Flood
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Storm Data and Unusual Weather Phenomena

July 2001

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

ALASKA, Southern

**Note - this is a continuation of event that began June 21.

Water levels were rising during the 2nd half of June due to an extended period of snow melt from the Alaska Range. Since the river gauge on the Yentna River was new (established late 1999), there was no bankfull or flood stage information. The warning was issued when the River Forecast Center was notified that water was surrounding several fish camps. As it turned out, these camps had been built very close to the river. By June 24th, water levels were too high for the river observer to read his slope profile gauge.

On June 25th and 27th, the Anchorage Forecast Office Service Hydrologist and an Alaska River Forecast Center hydrologist were able to conduct a high water survey on both the Skwentna and Yentna Rivers. They established a reasonable flood stage for these rivers, as well as mapped the locations of specific fish camps and lodges.

Post analysis indicates that stages were high enough during the event to allow water to flow into several of the cabins of these low-lying camps and lodges. This should be considered a minor flood event.

There is no established bankfull or flood stage for this area. It is also difficult too assess snow melt runoff. In addition, post-survey results indicate that several fish camps and lodges are built in areas that are flood prone.

AKZ181

Alaska Peninsula

02	1900AST	0	0	High Wind (G52)	M
	2130AST				

A 992 Mb low moved into the north central Bering Sea late Monday afternoon. Wind gusts peaked to 60 mph at the Cold Bay ASOS around 7 p.m. Monday.

AKZ101

Anchorage Muni To Bird Creek

19	1300AST	0	0	High Wind (G62)	M
	2100AST				

Moderate low pressure over the eastern Bering Sea and a building ridge of high pressure in the Gulf of Alaska resulted in a strong pressure gradient in the south-central region of Alaska. The wind was very localized, confined to the Upper Anchorage Hillside-. Peak gusts reached 71 mph at Glen Alps between 2 pm and 6 pm.

AKZ135

Sern P.W. Snd

21	0000AST	0	0	25K	Flood
23	2359AST				

Heavy rain occurred in the upper Copper River and Nabesna River Basins July 20 - 23. It took a number of days for water to reach the lower basin, where migrating stream channels of the Copper River washed out the road between Cordova and the Million Dollar Bridge. This is an ongoing problem. DOT plans to elevate the road bed during the 2002 construction season.

Since the only gauge on the Copper River is on the Million Dollar Bridge, it is very difficult to track water flowing into the Copper River Delta. In addition, lack of precipitation gauges in the upper reaches of the Copper River Basin means that the forecasters have very little to work with. These types of events are problematic. It is likely that the road will continue periodic washouts until permanent repairs are effected.

AMERICAN SAMOA

Tutuila

Countywide

13	1800SST	0	0	Rip Currents
17	1500SST			

A stationary ridge of high pressure which was perswistenst about 600 miles south of Samoa from July 10th to July 15th, generated moderate southerly swell that produced surf of 8 to 14 feet along south shores of Tutuila but most significantly along the central part of the island from Faganeanea to Fatumafuti. A couple of teenagers were swept beyound the reef at Matuuu and were rescued by the marine patrols a few hours later. High sur advisories were posted throughout most of the beaches along south shores of the Island.

Tutuila

Countywide

14	1400SST	0	0	Urban/Sml Stream Fld
	1800SST			

Heavy showers fell over Tutuila dumping more than 2 inchest of rainfall from 1 PM to 5PM. These heavy showers were associated with a trough of low pressure that moved over the islandsfrom the northeast. The heavy showers caused widespred flooding of low lying areas and small streams. Bonding of streets as well as heavy runofffs were noted at Nuuuli and the Bay area.

Tutuila

Central Portion

30	0600SST	0	0	Rip Currents
31	2359SST			

A strong ridge of high pressure located about 600 miles south of Samoa generating winds of 25 konts and seas of 6-10 feet couple with swell from an intense low pressure which has moved eastward off New Zealand earlier in the week brought surf of 12 to 20 feet that bounded the islands as the month ends. Thes high sur have caused some coastal flooding along low lying areas from Faganeanea to Leloalooa and Pagai in the eastern part of the island.

ARIZONA, Central and Northeast

Coconino County

Bellemont

01	1115MST	0	0	Hail (0.75)
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Storm Data and Unusual Weather Phenomena

July 2001

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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ARIZONA, Central and Northeast

An off duty NWS employee reported 3/4 inch hail on I-40 seven miles west of Flagstaff (three miles east of Bellemont).

Gila County

Young	03	1615MST 1630MST			0	0			Thunderstorm Wind (G50)
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A thunderstorm moved through Young with wind between 50 and 60 MPH. The wind blew lawn chairs around, knocked down a 40 meter antenna, blew off the roof of a house trailer, and two other buildings sustained roof damage.

Coconino County

Happy Jack	05	1230MST			0	0			Hail (1.00)
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The Happy Jack Ranger Station reported 0.75 to 1.00 inch hail at 1230 PM. They also had 0.82 inches of rain with the thunderstorm.

Gila County

Payson	05	1610MST			0	0			Hail (1.00)
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The Payson Ranger Station reported 0.75 to 1.00 inch hail at 410 PM. There were also reports of downed trees along Highway 87 near Payson.

Yavapai County

Cornville to Cottonwood	05	1711MST 1811MST			0	0	150K		Heavy Rain
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Yavapai County

Cottonwood	05	1711MST			0	0			Hail (1.00)
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Yavapai County

Cottonwood to Jerome	05	1711MST 1755MST			0	0			Thunderstorm Wind (G52) ^M
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A thunderstorm moved across the Verde Valley with strong wind, hail and torrential rain. A wind gust of 60 MPH was reported 5 miles southeast of Cottonwood. One inch hail was reported in Cottonwood. The sun porch at the historic Jerome Grand Hotel was blown off and moved 150 feet away. One and a half inches of rain fell in just 35 minutes in Cornville and over an inch fell in just 25 minutes in Cottonwood. The roof of the Sears building in Cottonwood collapsed due to the heavy rain and hail. Other buildings in the shopping center also sustained water damage. Two men were injured when part of the Sears roof fell on them as they were cleaning up the mess the next morning. The damage to the shopping center was estimated at \$150,000.

Yavapai County

Prescott	05	1755MST			0	0			Hail (0.75)
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Three-quarter inch hail covered the ground to one half inch deep in Prescott Valley.

Coconino County

Page Arpt	06	1705MST			0	0			Thunderstorm Wind (G50) ^M
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A thunderstorm caused a 58 MPH wind gust at the Page Airport.

Coconino County

Meteor City	08	1227MST			0	0			Thunderstorm Wind (G52) ^M
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A thunderstorm outflow caused a 60 MPH wind gust at the Meteor Crater visitor center.

Apache County

North Central Portion	10	1600MST 1900MST			0	0			Flash Flood
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Navajo County

North Central Portion	10	1600MST 1900MST			0	0			Flash Flood
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Strong, slow moving thunderstorms over northern Navajo and northern Apache counties caused several normally dry washes to run with water. The Dilkon Police Department reported that Highway 15 at milepost 95 was flooding with debris across the road. They also reported that the Chinle Wash was running high.

A NWS storm survey the next day revealed: 7 feet of water resulted in a breach of a small earthen dam near the confluence of Laguna Creek and Chinle Wash near the town of Dinnehusto, 2 feet of water over Highway 2 with road damage near Orabi Wash between Tolani Lakes and Kykotsomvi, and high water flow (no flooding) in Canyon de Chelly.

Yavapai County

Camp Verde	25	1630MST			0	0			Hail (1.00)
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Yavapai County

Camp Verde	25	1630MST			0	0			Tstm Wind/Hail
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A thunderstorm move through Verde Lakes (8 SE Camp Verde) with damaging wind, one inch hail and heavy rain. The strong wind split a large cottonwood tree in half and knocked large branches off other trees. Heavy rain also caused two feet deep water to flow over some roads in town.

Navajo County

Overgaard	29	1600MST 1745MST			0	0			Urban/Sml Stream Fld
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A weather spotter in Overgaard reported 3.95 inches of rain between 400 PM and 515 PM and extensive street flooding.

Storm Data and Unusual Weather Phenomena

July 2001

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

ARIZONA, South

Tucson. Also there was minor damage to cars by wind blown construction panels at the Tucson International airport. A spotter near the area recorded a peak wind gust of 60 mph on a hand held anemometer.

Cochise County

Douglas

24	1630MST 1800MST	0	0	120K	0	Flash Flood
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Cochise County

Douglas

24	1630MST 1700MST	0	0	5K	0	Thunderstorm Wind
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Strong winds from a severe thunderstorm lifted a utility shed from a backyard and dropped it on a neighboring fence. Trees and power poles were also knocked down by the damaging winds.

Severe thunderstorm moved south into the Douglas area producing damaging winds and flash flood. Downtown Douglas was flooded with water overflowing curbs and flowing into businesses. A few homes were evacuated with water up to 10 inches deep within the homes. The Port Authority was also closed for an hour due to the flooding with up to 2 inches of standing water in the check in point. Although the storm produced a total rainfall of 3.25 to 4.5 inches of rain within the downtown area, a levy and retention basin near the Municipal airport on the north side of town overflowed into the downtown area. Also, there were 4 swift water rescues on the northwest side of Douglas mostly caused by drivers cars stalling within the flooded washes.

Pima County

5 SE Komelik

24	1700MST 1730MST	0	1	50K	0	Thunderstorm Wind
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Strong winds from a severe thunderstorm in Kohatk, 20 miles west of Eloy, damage caused to 4 homes by tearing the roofs off. A reporter witnessed one roof being hurled 80 yards and injuring one person.

Cochise County

2.5 S Douglas Arpt

28	1555MST 1615MST	0	0	14K	0	Thunderstorm Wind
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A severe thunderstorm near the Douglas airport produced strong winds that downed 9 power poles.

Cochise County

Sierra Vista

28	1615MST 1800MST	0	0	10K	0	Flash Flood
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A late afternoon thunderstorm caused heavy rains in Sierra Vista which caused several streets to flood. At 1630 MST, a driver was rescued from his car when the car was swept off the road by swift rising water and carried into a wash.

Greenlee County

Hannagan Meadow

29	1615MST 1800MST	0	0	0	0	Flash Flood
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A wash near Hannagan Meadow Lodge was out of its bank.

Pima County

Tucson

31	1230MST 1250MST	0	9	0	0	Thunderstorm Wind (G50) ^M
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At 1230 MST, pima county dispatch reported a 8 inch diameter tree blown down in a residential area. A spotter reported a measured wind gust of 58 mph at 1240 MST.

Pima County

Tucson

31	1245MST 1500MST	1	0	15K	0	Flash Flood
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M14IW

Severe thunderstorms produced rainfall rates of half of an inch in 30 minutes which flooded several streets in Tucson Metro area. Spotters in the Tucson Mountains reported 1.46 inches of rain in 25 minutes. At approximately 1300 MST, two boys were playing in a wash on the corner of South Campbell and East Irvington Roads. The 14 year old boy was swept under by the rising waters through a 24 inch diameter pipe a half a mile downstream before rescued 17 minutes later. The boy was in critical condition and died 4 days after the event occurred. Also, there was a swift water rescue on Campbell and Benson Highway at 1345 MST.

ARIZONA, Southwest

Maricopa County

Surprise

03	1845MST 2000MST	0	0			Thunderstorm Wind (G50)
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Winds damaged trees tearing off branches along Bell Road from Grand Ave to McMicken Dam, and a tree downed on Parkview Place south of Grand. Electrical power disrupted to homes in Happy Trails and Arizona Traditions.

Maricopa County

50 W Phoenix

03	2016MST	0	0			Thunderstorm Wind (G63) ^M
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Winds gusted to 63 mph at the Palo Verde Nuclear Generating Station.

Maricopa County

Mesa

04	2109MST 2239MST	0	0	50K		Lightning
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Storm Data and Unusual Weather Phenomena

July 2001

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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ARIZONA, Southwest

Mesa firefighters responded to 14 fires caused by lightning during a 90 minute period. One house in the 7100 block of East Dewan sustained about \$30,000 in damage. Other lightning strikes caused fires in palm trees.

Pinal County

Apache Jct

04	2117MST			0	1				Lightning
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A man was shocked when lightning hit an electrical transformer in Apache Junction.

Maricopa County

4 SW Wittmann to Wittmann

14	1823MST			0	0	20K			Thunderstorm Wind (G65) ^M
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Winds blew sheds and trees down while damaging several homes in the area.

Maricopa County

Scottsdale

14	1905MST 1920MST			1	0	5M			Thunderstorm Wind (G80)
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A microburst hit parts of Scottsdale and Tempe with very strong winds and heavy rain. Many homes and businesses sustained damage, with at least 19 power poles blown down. One pole landed on a vehicle near Scottsdale and Indian Bend roads, killing the driver. About 6,000 residents were left without power, including the nearby Radisson Resort. Winds ripped the roofs off four homes in the McCormick Ranch area, and dumped them up to two blocks away. Numerous trees were uprooted.
M38VE

Maricopa County

Scottsdale

17	1615MST			0	0				Thunderstorm Wind (G60)
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Large tree downed power pole snapped by thunderstorm winds.

Maricopa County

Scottsdale

17	1630MST 1730MST			0	0				Urban/Sml Stream Fld
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The area near Hayden and McDowell received the most rain, as one spotter reported over an inch in only 15 minutes.

Maricopa County

Tolleson

17	1750MST			0	0	250K			Thunderstorm Wind (G60)
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As many as 8 power lines downed by high winds near 113th Avenue and Southern. High winds also blew down a large electronic information display billboard at Phoenix International Raceway.

AZZ023-028

Greater Phoenix Area - Central Deserts

24	1805MST 1900MST			0	0				Dust Storm
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Dust storm caused by thunderstorms in north central Pinal County. Extremely poor visibility, less than 100 feet, was reported in Casa Grande, Florence, Chandler and Gilbert as the dust storm moved from the southeast to the northwest.

Maricopa County

Glendale

25	2200MST 2227MST			0	1	30K			Thunderstorm Wind (G60)
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Thunderstorm winds took down numerous power lines and as many as 12 power poles in and near Glendale. The hardest hit area was 91st Avenue and Glendale Road. A 42 year old man was struck by lightning as he stood in the doorway of his west Phoenix home. With his hand on the doorknob, lightning passed through his body and exited through his right foot.

Gila County

Miami

29	1900MST 2025MST			0	0				Flash Flood
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Thunderstorms with very heavy rains caused a rock slide south of San Carlos, as well as a flash flood in the community of San Carlos between 1907 MST and 1915 MST. Pinal Creek in Miami was reported to be in flash flood at 2025 MST.

ARKANSAS, Central and North Central

Izard County

5 E Calico Rock

04	1615CST			0	0				Hail (0.88)
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Baxter County

Norfork

04	1730CST			0	0				Hail (0.88)
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Boone County

Omaha

05	1738CST			0	0				Hail (0.88)
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Polk County

Mountain Fork

11	1840CST			0	0				Hail (0.88)
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Lonoke County

5 SW Lonoke

12	2140CST			0	0				Hail (1.00)
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Conway County

4 N Plumerville

12	2140CST			0	0				Hail (0.75)
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Conway County

Morrilton

12	2144CST			0	0				Hail (0.75)
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Storm Data and Unusual Weather Phenomena

July 2001

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									
Conway County									
Oppello	12	2145CST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds downed or snapped trees and caused some roof damage in Oppello.									
Perry County									
Houston	12	2155CST			0	0			Hail (1.75)
Faulkner County									
9 W Mayflower	12	2205CST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds downed some large tree limbs.									
Lonoke County									
England	12	2240CST			0	0	2.5K		Hail (0.88)
Hail up to nickel size damaged some cotton fields near Lonoke.									
Pulaski County									
10 SW Little Rock	12	2245CST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds knocked down some trees. A 36 inch diameter tree fell onto a house and caused extensive damage.									
Saline County									
3 NE Vimy Ridge	12	2250CST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds knocked down some large tree limbs.									
Saline County									
East End	12	2255CST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds blew down some large tree limbs.									
Perry County									
Aplin	12	2315CST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds downed a few trees.									
Grant County									
5 NE Sheridan	12	2330CST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds caused some roof damage to several buildings.									
Jefferson County									
Pine Bluff	12	2340CST			0	0			Thunderstorm Wind (G50)
Several buildings sustained roof damage near Pine Bluff.									
Yell County									
5 W Dardanelle	13	0330CST			0	3			Lightning
A mother and her two children were injured by lightning while camping at the Mount Nebo State Park...or about 5 miles west of Dardanelle. It appears that the lightning hit a nearby tree and travelled through a wet ground to the campers who were sleeping.									
Sharp County									
Hardy	18	1930CST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds knocked down some trees and damaged a camper.									
Independence County									
12 NE Batesville	19	1615CST			0	0			Thunderstorm Wind (G50)
Trees down.									
Independence County									
Magness	19	1615CST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds blew down some trees.									
Independence County									
Newark	19	1615CST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds knocked down numerous trees around Newark.									
Independence County									
3 NE Oil Trough	19	1650CST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds blew down some trees and power lines.									
Independence County									
Sulphur Rock	19	1700CST			0	0			Hail (0.75)
Stone County									
Fox	26	1300CST			0	0			Hail (0.88)
Montgomery County									
5 W Black Spgs	26	1405CST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds downed some trees.									
Pike County									
Nathan	26	1440CST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds blew down some large tree limbs and power lines.									

Storm Data and Unusual Weather Phenomena

July 2001

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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ARKANSAS, Central and North Central

Ouachita County

Camden	26	1900CST			0	0			Lightning Lightning struck an oak tree in front of a business in Camden, with debris from the tree scattered for several hundred feet. Some of the debris broke windows in a few delivery trucks owned by the business.
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Cleburne County

Drasco	29	1430CST			0	0			Hail (0.75)
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Cleburne County

Drasco	29	1435CST			0	0			Thunderstorm Wind (G50) Thunderstorm winds blew down several trees.
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Faulkner County

3 W Enola	29	1533CST			0	0			Thunderstorm Wind (G50) Thunderstorm winds knocked down a number of large trees and power lines. One of the trees landed on a mobile home...causing some minor damage.
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Faulkner County

Greenbrier	29	1550CST			0	0			Thunderstorm Wind (G50) Thunderstorm winds knocked down a few trees and power lines near Greenbrier.
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Polk County

Mena	29	1610CST 1730CST			0	0			Flash Flood Heavy rains caused some flash flooding on the north side of Mena. Several streets were under water for a short period of time.
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Izard County

Pineville	30	1640CST			0	0			Thunderstorm Wind (G50) Thunderstorm winds downed some trees.
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ARKANSAS, East

Craighead County

Jonesboro	05	0755CST 0800CST			0	0	0.05K		Hail (0.88)
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Craighead County

Jonesboro	05	0800CST 0810CST			0	0	50K		Thunderstorm Wind (G53) M Some roof damage occurred on the campus of Arkansas State University. A mobile home was damaged. A radio tower was blown over. Numerous trees were blown down. Some trees fell on several homes.
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Craighead County

Jonesboro	05	0816CST 0820CST			0	0	50K		Lightning A vacant restaurant was badly damaged by a fire started by lightning.
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Poinsett County

Marked Tree	05	0840CST 0845CST			0	0	5K		Thunderstorm Wind Several trees were blown down across Highway 308.
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Mississippi County

Joiner	05	0940CST 0945CST			0	0	5K		Thunderstorm Wind Some trees were knocked down.
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Mississippi County

Frenchmans Bayou	05	0945CST 0950CST			0	0	10K		Thunderstorm Wind Trees and power lines were blown down across Highway 61.
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ARZ048

St. Francis

13	1400CST				1	0	0		Excessive Heat A man was found dead lying on a sidewalk in front of his home in Forrest City. M55OU
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ARKANSAS, Northwest

Franklin County

Cass	13	0025CST			0	0			Hail (0.75)
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Washington County

Durham	13	0335CST			0	0			Thunderstorm Wind (G61) Thunderstorm winds estimated at 70 miles an hour blew several trees down.
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Madison County

1 W Witter	13	0500CST			0	0			Flash Flood
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Storm Data and Unusual Weather Phenomena

July 2001

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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ARKANSAS, Northwest

Heavy thunderstorm rains caused water to flow over a local road just west of Witter.

Washington County

Fayetteville

13 0500CST

0 0

Flash Flood

Heavy thunderstorm rains caused widespread street flooding in Fayetteville.

Carroll County

Berryville

28 1645CST

0 0

Thunderstorm Wind (G61)

Thunderstorm winds estimated at 70 miles an hour blew several trees down.

Carroll County

Green Forest

28 1650CST

0 0

30K

Thunderstorm Wind (G61)

Thunderstorm winds estimated at 70 miles an hour blew down numerous trees and power lines. A few of the trees landed on roofs of houses.

ARKANSAS, Southeast

NONE REPORTED.

ARKANSAS, Southwest

Howard County

Umpire

26 1130CST

0 0

20K

Thunderstorm Wind (G70)

Roof was torn off a chicken house and a nearby out building. Damage to a chimney and roofing shingles on a residential dwelling.

Howard County

Umpire

26 1250CST

0 0

12K

Thunderstorm Wind

A house was damaged when strong winds removed shingles, a tree top, and part of a chimney. A shed was also unroofed on the east side of the house.

Howard County

Umpire

26 1250CST

0 0

8K

Thunderstorm Wind

Nearly 100 feet of a chicken house roof was blown off. No injuries to the chickens.

CALIFORNIA, Extreme Southeast

Riverside County

Desert Center

06 1300MST
1600MST

0 0

Flash Flood

Secondary roads closed due to very heavy rainfall. One report indicated 1.90 inches in about 2 hours.

Riverside County

Blythe

06 1510MST
1520MST

0 0

200K

Thunderstorm Wind (G60)

Winds blew down 16 power poles in Blythe and caused severe damage to a mobile home.

CALIFORNIA, North Central

Placer County

Auburn

11 1530PST

0 0

Tstm Wind/Hail

CALIFORNIA, Northeast

CAZ073

Mono

02 1930PST

0 0

0

Mud Slide

The Hanford National Weather Service Office relayed a report of heavy rain that produced a mud and rock slide that closed Highway 120 below Tioga Pass. Some hail was observed near 11,000 feet.

Mono County

Mammoth Lakes

04 1350PST

0 0

0

Hail (0.75)

Spotter report of 3/4 inch hail, very heavy rain, and some street flooding with water two inches deep in some areas.

CAZ073

Mono

05 1430PST

0 0

0

Mud Slide

Mono County Sheriffs Office reported that very heavy rain caused a rock and mud slide that closed Highway 120 near Tioga Pass for approximately 2 1/2 hours. No injuries or damage were reported.

Plumas County

Portola

10 1216PST

0 0

0

Hail (0.88)

Spotter report of 0.88 inch hail.

Nevada County

Truckee

10 1350PST

0 0

0

Hail (0.75)

Spotter report of 0.75 inch hail.

Nevada County

Truckee

10 1359PST

0 0

0

Hail (0.75)

Spotter report of 0.75 inch hail 5 miles east of Truckee.

Storm Data and Unusual Weather Phenomena

July 2001

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, Northwest

Trinity County

2 SE Burnt Ranch 11 1400PST 0 0 Hail (0.75)

Time approximate - based on relayed spotter report and radar data.

Trinity County

7 NE Salyer 11 1430PST 0 0 Hail (1.00)

CALIFORNIA, South Central

CAZ096>097

S Sierra Mtns - Tulare Cty Mtns

02 1100PST 0 0 Red Flag Criteria
1800PST

The Red Flag Fire Weather Warnings were posted due to dry lightning with several fire starts reported in Interior Central California Fire Weather Zones #533 and #534 (the higher terrain of the Southern Sierra Nevada and Tulare County Mountains).

CAZ096>097

S Sierra Mtns - Tulare Cty Mtns

03 1000PST 0 0 Red Flag Criteria
1600PST

Several dry lightning fire starts were reported thus meeting verification criteria for Red Flag Fire Weather Warnings in CWFA Fire Zones.

CAZ089>092-095

W Central Sj Valley - E Central Sj Valley - Sw Sj Valley - Se Sj Valley - Kern Cty Mtns

03 1200PST 0 0 Excessive Heat
1930PST

From the last day of June through the first 5 days in July, temperatures soared above 100 degrees F. in the Central and Southern San Joaquin Valley as well as the Kern Mountain area around Lake Isabella. The warmest day was the 3rd when Fresno and Bakersfield both climbed to 110F with 108F at Lake Isabella. This peak day occurred with the day before and after around 105F on the S.J. Valley floor. With accompanying high humidity due to an early season monsoon flow, the Bakersfield Heat Index climbed to 112F. While not meeting criteria for Heat Advisories, it was also quite warm in the Kern Deserts during this period with 112F at Inyokern. In the Southern Sierra Nevada, Yosemite Valley reached 100F!

CAZ092

Se Sj Valley

04 1330PST 0 0 Excessive Heat
1530PST

While temperatures were also relatively high elsewhere in Interior Central California on the 4th, the Heat Index at Bakersfield climbed to 106F.

Kern County

12.5 W Frazier Park

05 1229PST 0 0 Flash Flood
1545PST

The Kern County Fire Department at Pine Mountain reported 2.20" rain occurred in 15 minutes ending at 1345 PST in 15 minutes and 1.17" rain fell in less than 1 hr at Pine Mountain Club rain gauge 1.5 miles to the west. Water over 1 foot deep was reported over most town streets. Radar precipitation estimates gave 1.5-2.0" on the One-Hour-Precipitation product.

Kern County

14 N Bakersfield

06 1445PST 0 0 Flash Flood
1630PST

Spotter reports confirmed radar imagery that thunderstorm activity, from the Mexican Monsoon, brought very heavy rain to areas north of Bakersfield in the foothills on the western face of the Southern Sierra Nevada. Drainage ditches all filled on mountain roads with creeks rapidly rising to full. Rainfall rates reached 1.5-2.0"/hour in the area approximately 10 miles north of Bakersfield to 23 miles east of Delano in Kern County. In the 24 hour period ending at 5 PM PDT on the 6th, Valley floor rain amounts included 0.07" at Madera, Visalia 0.01", Porterville 0.08", with an unofficial report of up to 2" of rain between 1530-1700 PDT 10 miles north of Bakersfield to the Tulare County line.

Kern County

6 E Inyokern

06 1715PST 0 0 Flash Flood
1800PST

Kern County Fire Department responded to a stranded car at the Buttermilk Acres crossing of Inyokern Road at 1840 PDT. Locally heavy rain had occurred in desert thunderstorm activity with 0.65" reported at Inyokern on the daily report.

Kern County

1 N Cantil

07 1451PST 0 0 Flash Flood
1630PST

Roadway flooding was reported at State Highway 14 and Redrock-Randsburg Road by 1451 PST; Heavy rain and hail with the thunderstorms by 1452 PST; and residual water on the Redrock-Randsburg Road until 1705 PST.

CAZ096>097

S Sierra Mtns - Tulare Cty Mtns

08 1100PST 0 0 Thunderstorms
1900PST

Residual monsoon moisture over the higher terrain of the Southern Sierra Nevada enabled thunderstorms to develop over the higher terrain of the CWFA. This day was not unusual but rather provided what a typical, active thunderstorm day was like over the S.Sierra Nevada Mountains. One notable exception about the day was the depth of the convection where WSR-88D radar showed

Storm Data and Unusual Weather Phenomena

July 2001

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, South Central

thunderstorm tops in excess of 45,000 feet.

Mariposa County

10 S Yosemite Vlg	13	1400PST			0	0			Wild/Forest Fire
	31	2359PST							

See the Hoover Complex Fire in the August 2001 Stormdata for details.

Mariposa County

8 NE Mariposa	24	1540PST			0	0	5M		Wild/Forest Fire
	31	2359PST							

The Briceburg Fire burned 728 acres and cost \$5M to control by August 3rd. The cause of the fire is unknown but no structures were lost.

Fresno County

5 N Cedar Grove	30	1400PST			0	0			Wild/Forest Fire
	31	2359PST							

Details on the Burnt Fire can be found in the August 2001 Stormdata.

CALIFORNIA, Southeast

San Bernardino County

Twenty Nine Palms	06	1300PST			0	0			Flash Flood
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Heavy rain from thunderstorms produced just over an inch of rain in an hour. Significant flooding of area roads was noted.

San Bernardino County

38 NE Baker	07	0620PST			0	0			Flash Flood
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Strong thunderstorms produced 1.54 inches of rain in a two hour period which caused several roads to flood.

San Bernardino County

17 E Victorville	07	1045PST			0	0			Flash Flood
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Heavy rains from thunderstorms caused significant flooding of area roadways near Victorville. Water was reported to be two feet deep in places.

San Bernardino County

Joshua Tree	07	1245PST 1249PST			0	0	10K		Tornado (F0)
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A tornado touched down in Joshua Tree causing minor damage to homes and businesses. The most significant damage reports included damage to a roof of an abandoned house and a patio cover torn off another home.

San Bernardino County

Joshua Tree	07	1300PST			0	0			Flash Flood
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Heavy rain caused severe flooding of area roadways in Joshua Tree. Flooding was reported to be over one foot deep in many areas.

CALIFORNIA, Southwest

CAZ056

Riverside County Mountains

01	0000PST				0	1			Excessive Heat
02	1900PST								

One man was overcome by heat as he hiked along Lyken Trail. Heat Indices were over 115 degrees.

Riverside County

8 E Rancho California	01	1030PST 1400PST			0	0			Wild/Forest Fire
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A brush fire just north of Vail Lake Dam consumed 20 acres.

Riverside County

Quail Vly	01	1040PST 1300PST			0	0			Wild/Forest Fire
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A brush fire burned 12 acres.

CAZ061

Coachella Valley

01	1100PST 1500PST				0	2			Excessive Heat
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A female hiker and a male softball umpire suffered heat exhaustion as the temperature rose to 115 degrees over the Coachella Valley.

San Bernardino County

Fontana	01	1159PST 1211PST			0	0			Wild/Forest Fire
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A brush fire consumed one acre along a fence line and briefly threatened homes. No structures were burned.

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
CALIFORNIA, Southwest									
Riverside County									
4 E (Ral)Riverside Mu	01	1200PST 1500PST			0	0			Wild/Forest Fire
A brush fire consumed 150 acres and threatened 12 homes before being brought under control by more than 100 firefighters.									
San Diego County									
Ramona	01	1325PST 1410PST			0	0			Wild/Forest Fire
A brush fire consumed 2 acres and threatened several homes on Dye Road near Highway 67.									
Orange County									
Newport Beach to Laguna Beach	01	1340PST 1800PST			0	4			Rip Currents
Over 100 surf rescues of people caught in rip currents were performed by lifeguards. The combination of the weekend, south swells with breakers of 5 feet, and inland temperatures over 100 degrees had lured many people to the beach.									
San Bernardino County									
3 W Chino	03	1300PST 1335PST			0	0			Wild/Forest Fire
A brush fire consumed 5 acres along Central and Monte vista avenues in the Chino Hills area.									
San Bernardino County									
Hesperia	03	1345PST 1347PST			0	0	30K		Thunderstorm Wind (G63)
A downdraft from a high based thunderstorm ripped off large sections of tile roofing on a house, toppled a radio tower and satellite dish, and knocked over several pine trees. Observers heard a moaning sound and a wall of sand and dust moving towards them just before the gust hit.									
San Bernardino County									
Apple Vly	05	1434PST			0	0	2K		Lightning
Lightning struck a cable line connected to a house, which then jumped to the metal roof flashing and started a fire along the roof eaves on the opposite side of the house. The resident was able to quickly douse the flames with a garden hose.									
San Bernardino County									
Montclair to Rancho Cucamonga	06	1000PST 1010PST			0	1	840K		Lightning
Two bolts of lightning struck a furniture store in Montclair, causing a fire that burnt it to the ground. In Ranch Cucamonga, lightning also struck a cement truck. A 33 year old man working next to the truck was thrown five feet backward, and complained of numbness in his arms. The truck driver sitting in the cab, was unharmed.									
San Bernardino County									
Fontana to Ontario	06	1000PST			0	0	25K		Lightning
Lightning strikes in Ontario ignited a palm tree and a utility pole, and also knocked down power lines in Fontana.									
San Bernardino County									
Lake Arrowhead to Big Bear Lake	06	1200PST 1300PST			0	0	20K		Urban/Sml Stream Fld
Heavy downpours during a 5 minute period caused flooding of roads.									
Riverside County									
Rancho Mirage	06	1213PST			0	0	10K		Lightning
A car was struck by lightning.									
San Bernardino County									
Morongo Vly to Apple Vly	06	1300PST 1354PST			0	0	25K		Urban/Sml Stream Fld
Heavy downpours from slow moving thunderstorms caused flooding along Highway 62 and Highway 247.									
San Diego County									
Borrego Spgs	06	1320PST			0	0			Tstm Wind/Hail
Wind gust to 40 mph in downdrafts lowered the visibility to near zero from blowing sand. Heavy rain, 0.75 inches in 20 minutes, was also observed.									

Storm Data and Unusual Weather Phenomena

July 2001

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

CALIFORNIA, Southwest

Riverside County

Thermal to 06 1429PST 0 0 1.2M Flash Flood
2 S (Psp)Palm Spgs 1556PST
Arprt

Heavy rain from slow moving thunderstorms caused flooding along Highway 74 at Vista Point, along Palm Canyon Wash between Palm Springs and Cathedral City, and washed out Highway 86 in Indio between Avenue 66 and Avenue 80. Several motorists were stranded but no injuries occurred. The American Canal overflowed in Thermal flooding a nearby elementary school and roads.

San Bernardino County

18 N Yucca Vly to 07 1111PST 0 0 1M Flash Flood
1 W Cajon 1238PST

Slow moving thunderstorms over the San Bernardino Mountains caused flooding of homes, businesses, and roads around Big Bear City and mud slides just west of the Cajon Pass. As the runoff came down the north slopes, flood waters two feet deep covered Highway 247 near Pony Road.

San Bernardino County

Wrightwood 07 1230PST 0 0 50K Flash Flood
1340PST

Spotters observed three inches of rain in 90 minutes. Highway 2 had mud and rock slides, and Lone Pine Canyon Road at Sheep Creek was flooded by 18 inches of water.

San Bernardino County

Hesperia to 07 1245PST 0 1 500K Flash Flood
5 N Apple Vly Arprt 1253PST

Water 2 to 3 feet deep covered roads in Lucerne Valley, damaging several vehicles. In Apple Valley, five people were rescued from an overturned vehicle and another two people from a flooded vehicle about a quarter mile away.

San Diego County

Bonsall 07 1309PST 0 0 Wild/Forest Fire
1340PST

Eight acres of dry brush were consumed before the fire was brought under control.

San Diego County

San Pasqual 07 1318PST 0 0 Wild/Forest Fire
1357PST

A tractor, picking up bales of hay, started a brush fire that consumed 5 acres of dry brush and 70 bales of hay before fire fighters brought the fire under control.

San Bernardino County

5 W Adelanto to 07 1440PST 0 0 250K Flash Flood
15 N Yucca Vly 1525PST

Flash flooding swept one car off the road in Phelan and destroyed several other roads across the Apple and Yucca valleys.

San Diego County

Oceanside 07 1515PST 0 2 Rip Currents

A 14 year old girl was swept out 30 yards by a rip current. A 16 year old boy was able to bring her back to shore, but she did not have a pulse nor was she breathing. Lifeguards were able to resuscitate her, then sent both teens to the hospital for further treatment.

San Bernardino County

18 N Yucca Vly 07 1847PST 0 0 20K Flash Flood

A thunderstorm dropped over an inch of rain on Sugar Loaf at the 7000 foot elevation and then moved down the north slope. The ground was already saturated from earlier rains during the day. The combined effect produced another flash flood on the desert floor across Highway 247 near Pony Road.

Riverside County

3 E Rancho California 09 1300PST 0 0 Wild/Forest Fire
10 1800PST

A brush fire burnt 350 acres near East Benton and Balinger roads in rough hilly terrain.

Riverside County

6 S Banning 11 1240PST 0 2 150K Wild/Forest Fire
13 1700PST

A weed cutter caused a spark that grew into a 548 acre brush fire between Poppet Flats and Twin Pines. The blaze, fueled by 10 to 15 mph winds, jumped Highway 243, forcing the closure of that road. The community of Twin Pines was evacuated. One house was damaged. Cost of fighting the blaze was estimated at \$400,000.

Storm Data and Unusual Weather Phenomena

July 2001

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, Southwest

Riverside County

3 W Perris	11	1300PST 1900PST			0	0			Wild/Forest Fire
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A 283 acre brush fire occurred in the Good Hope area of Riverside County.

San Bernardino County

Rialto	12	1230PST 1330PST			0	0	350K		Wild/Forest Fire
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A 20 acre brush fire consumed a 100 year old farmhouse and a garage. Firefighters were able to save two other homes in the path of the flames.

San Diego County

Carlsbad	17	1346PST 1406PST			0	0			Wild/Forest Fire
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A four acre brush fire alongside Interstate 5 briefly threatened some homes in Carlsbad.

San Bernardino County

Cajon	27 28	0917PST 1700PST			0	0			Wild/Forest Fire
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A spark from a passing train started a brush fire that grew to 685 acres. The blaze briefly threatened the community of Lytle Creek, power transmission lines, and a ranch where animals are trained for movies. No injuries occurred, nor were any structures burned.

CALIFORNIA, Upper

Siskiyou County

Mt Shasta	09	1742PST 1815PST			0	0			Tstm Wind/Hail
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See below.

A Severe Thunderstorm Warning was issued for central Siskiyou County for the period listed above based on radar data. Verification of the warning was attempted but was unsuccessful.

Siskiyou County

Yreka	09	1823PST 1900PST			0	0			Tstm Wind/Hail
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See below.

A Severe Thunderstorm Warning was issued for North Central Siskiyou County for the period listed above based on radar data. Verification of the warning was attempted but was unsuccessful.

Siskiyou County

Yreka	09	1917PST 1945PST			0	0			Tstm Wind/Hail
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See below.

A Severe Thunderstorm Warning was issued for North Central Siskiyou county for the period listed above based on radar data. Verification of the warning was attempted but was unsuccessful.

Siskiyou County

Greenview	09	1924PST 2015PST			0	0			Tstm Wind/Hail
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See below.

A Severe Thunderstorm Warning was issued for Central Siskiyou county for the period listed above based on radar data. Verification of the warning was attempted but was unsuccessful.

Siskiyou County

Seiad Vly	10	1556PST 1633PST			0	0			Tstm Wind/Hail
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See below

A Severe Thunderstorm warning was issued for Northwest Siskiyou county in California and Southwest Jackson county in Oregon for the period listed above based on a spotter report and radar data. A Siskiyou county spotter reported "blueberry-sized" hail with this thunderstorm. The thunderstorm strengthened significantly on the radar after the report, so the warning was issued under the assumption that the hail was now at least 3/4 inch in diameter. Verification of the warning was attempted, but was unsuccessful.

Siskiyou County

Scott Bar	13	1938PST 2046PST			0	0			Tstm Wind/Hail
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See below.

A Severe Thunderstorm Warning was issued for North Central Siskiyou county in California and Southwest Jackson county in Oregon for the period listed above, based on radar data. Verification of the warning was attempted but was unsuccessful.

Storm Data and Unusual Weather Phenomena

July 2001

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, Upper

Siskiyou County

Sawyers Bar	14	1627PST 1824PST			0	0			Flash Flood
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See below.

A Flash Flood Warning was issued for Southwest Siskiyou county for the period listed above, based on radar data. Verification of the warning was attempted, but was unsuccessful.

Siskiyou County

Yreka	14	1809PST 1957PST			0	0			Flash Flood
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See below.

A Flash Flood Warning was issued for Central Siskiyou county for the period listed above, emphasizing the Yreka area, based on radar data. Several spotters reported heavy rain and one reported that Mill Creek was at bankfull. However, no report verifying a flash flood was received.

CAZ084>085

Northeast Siskiyou And Northwest Modoc Counties - Modoc County

16	1544PST				0	0			Extreme Cold
17	0800PST								

See below.

A Frost Warning was issued for the above zones effective during the date/time listed above. Observed low temperatures in zone CAZ084 were in the upper 30s, so frost was possible there, although none was reported. Observed lows in CAZ085, however, ranged from 45 to 55. Therefore, the warning likely did not verify there.

CALIFORNIA, West South Central

Ventura County

West Central Portion	07	1315PST			0	0			Flash Flood
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Strong monsoon thunderstorms produced heavy rain and flash flooding in western Ventura county. Reyes Creek overflowed, flooding a section of Highway 33.

Los Angeles County

Northwest Portion	07	1459PST			0	0			Flash Flood
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Strong monsoon thunderstorms produced heavy rain and flash flooding across the mountains and deserts of Los Angeles county. Numerous washed overflowed, flooding sections of Highway 138.

CALIFORNIA, Western

NONE REPORTED.

COLORADO, Central and Northeast

Phillips County

1 S Haxtun	01	1540MST			0	0			Hail (1.00)
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Logan County

17 S Fleming	01	1543MST			0	0			Hail (1.75)
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Washington County

Otis	01	1640MST			0	0			Hail (1.00)
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Washington County

13 E Akron	01	1645MST			0	0			Hail (1.00)
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Washington County

3 SW Otis	01	1645MST			0	0			Hail (1.00)
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Large hail broke some windows.

Washington County

11 SE Akron	01	1720MST			0	0			Hail (1.00)
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Lincoln County

16 SW Hugo	01	1730MST			0	0			Hail (1.00)
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Elbert County

11 SW Kiowa	01	1735MST			0	0	0	0	Tornado (F0)
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A small tornado touched down briefly but did no damage.

Phillips County

4 SE Holyoke	01	1738MST			0	0			Thunderstorm Wind (G51) ^M
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Logan County

1 SW Peetz	02	1454MST			0	0	0	0	Tornado (F0)
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A small tornado touched down briefly but did no damage.

Adams County

1 N Strasburg	02	1530MST			0	0			Dry Microburst
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Storm Data and Unusual Weather Phenomena

July 2001

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

Phillips County										
4 SE Holyoke	02	1712MST			0	0			Thunderstorm Wind (G53)	M
Weld County										
7 NE Greeley	03	1245MST			0	0			Hail (1.00)	
Denver County										
7 SW Denver Intl Arpt	05	1612MST			0	0			Thunderstorm Wind (G52)	
Denver County										
Denver Intl Arpt	05	1625MST			0	0			Thunderstorm Wind (G52)	M
Denver County										
7 SW Denver Intl Arpt	05	1625MST			0	0			Thunderstorm Wind (G61)	
Weld County										
6 E Platteville	05	1710MST			0	0			Thunderstorm Wind (G52)	
Weld County										
Gill	07	1730MST 2030MST			0	0			Hail (1.00)	

Large hail and strong winds destroyed 70 acres of corn and 5 acres of pumpkins near Gill. In addition, fencing, some small sheds and a field sprinkler were either damaged or destroyed.

Adams County										
Thornton	07	1840MST			0	0			Hail (0.88)	
Weld County										
6 SE Erie	07	2000MST			0	0			Hail (1.75)	
Logan County										
15 WNW Sterling	07	2352MST			0	0			Hail (0.75)	
Sedgwick County										
5 S Sedgwick	08	0029MST			0	0			Thunderstorm Wind (G52)	M
Larimer County										
Glen Haven	08	1142MST			0	0			Hail (0.75)	
Denver County										
South Denver	08	1523MST			0	0			Hail (0.88)	
Arapahoe County										
Englewood	08	1541MST			0	0			Hail (1.25)	
Arapahoe County										
Littleton	08	1542MST			0	0			Hail (0.75)	
Arapahoe County										
Englewood	08	1545MST			0	0			Thunderstorm Wind (G54)	M
Denver County										
Denver	08	1548MST			0	0			Hail (1.00)	
Arapahoe County										
Aurora Cherry Creek	08	1600MST			0	2			Thunderstorm Wind (G50)	

Two people received minor injuries when a wet microburst blew over several tents at the Cherry Creek Arts Festival.

Denver County										
South Denver	08	1600MST			0	1			Thunderstorm Wind (G50)	
A wet microburst caused the roof of a hardware store in Tamarac Square to collapse. One employee received minor injuries when she was struck in the head by falling debris. The combination of intense rain and wind downed trees and power lines. Electrical outages affected 35,000 homes and businesses. At least 50 trees in the city parks across South Denver were damaged.										
Arapahoe County										
Englewood	08	1607MST			0	0			Hail (1.00)	
Arapahoe County										
Aurora Cherry Creek	08	1611MST 1845MST			0	0			Flash Flood	

Up to 4.5 inches of rain fell across portions of western Arapahoe County. The underpass of Interstate 25 and Parker Road was inundated with 5 feet of water. Several other streets and underpasses in Aurora were also closed due to the high water. Heavy rain caused extensive damage to several exhibits on display at the Cherry Creek Arts Festival.

Denver County										
South Denver	08	1611MST 1745MST			0	0		0	Flash Flood	

Flash flooding occurred when heavy rainfall caused Toll Gate Creek to jump its banks. Several underpasses across South Denver had to be closed due to high water.

Storm Data and Unusual Weather Phenomena

July 2001

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									
Denver County									
Denver Intl Arpt	08	1620MST			0	0			Thunderstorm Wind (G55) ^M
Denver County									
Denver	08	1630MST			0	1	0		Lightning
									A man received minor injuries when lightning struck a nearby tree at the Wellshire Golf Course.
Summit County									
5 ESE Dillon	09	1230MST			0	0		0	Lightning
									Lightning struck a home in Keystone, damaging the roof.
Morgan County									
Hoyt	09	1750MST			0	0			Hail (0.75)
Morgan County									
17 S Brush	09	1930MST			0	0			Hail (1.50)
Morgan County									
2 SE Brush	09	1944MST			0	0	0	0	Tornado (F0)
									A small tornado touched down but did no damage.
Morgan County									
6 S Brush	09	2010MST			0	0	0	0	Tornado (F0)
									A small tornado touched down but did no damage.
Morgan County									
Brush to Ft Morgan	09	2039MST 2245MST			0	0			Flash Flood
									The combination of heavy rain and hail caused flooding and flash flooding problems in the Brush and Fort Morgan areas. Several roads as well as the basements of home and businesses were flooded.
Logan County									
Sterling	09	2100MST			0	0		0	Heavy Rain
									A wet microburst caused the roof of a service garage at a Cadillac dealership to collapse. Four cadillacs being serviced at the time were damaged.
Sedgwick County									
Sedgwick	09	2100MST			0	0		0	Lightning
									Lightning ignited a fire in the basement of a home causing minor damage.
Jefferson County									
Wheat Ridge	10	1747MST			0	0			Hail (0.88)
Weld County									
Greeley	10	1920MST			0	0			Hail (0.75)
Weld County									
Greeley	10	1930MST			0	0	40K	0	Lightning
									Lightning sparked a fire to a Greeley residence.
Weld County									
Greeley	10	1930MST			0	0			Thunderstorm Wind (G52)
Weld County									
Greeley	10	1940MST			0	0			Thunderstorm Wind (G54) ^M
Weld County									
Greeley	10	2000MST			0	0	2M	1M	Hail (1.75)
									Heavy rain, large hail and intense thunderstorm winds occurred in Greeley and vicinity. At least 50 trees were knocked down damaging cars and homes. Scattered power outages affected approximately 10,000 homes and businesses. A 341-ft radio tower was also blown down, knocking a local radio station off the air. In central Greeley, 10 garden level apartments were flooded at the Brentwood apartment complex. Extensive crop damage was reported in La Salle, Greeley, Milliken and Platteville. Approximately 20-30 percent of the crops in the area were damaged.
Weld County									
5 ENE Eaton	10	2100MST			0	0			Thunderstorm Wind (G61) ^M
Elbert County									
10 E Kiowa	11	1420MST			0	0			Hail (1.00)
Elbert County									
10 S Kiowa	11	1610MST			0	1	0	0	Lightning
									A 13-yr old boy scout was knocked unconscious when lightning struck a tree near his tent.
Adams County									
Thornton	11	1615MST			0	0	200K	0	Lightning
									Lightning struck the roof of a home. Most of the damage was confined to the attic.

Storm Data and Unusual Weather Phenomena

July 2001

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

COLORADO, Central and Northeast

Adams County

Thornton	11	1620MST			0	0	15K	0	Lightning
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Lightning struck another home in Thornton. Most of the damage was confined to the attic.

Boulder County

5 SE Boulder	11	1653MST			0	0			Hail (0.75)
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Weld County

Keenesburg	11	1745MST			0	0			Hail (0.75)
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Boulder County

Longmont	11	1815MST			0	0			Hail (0.75)
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Larimer County

Berthoud	12	1430MST 1545MST			0	0			Flash Flood
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Heavy rain caused flooding and flash flooding problems in the Berthoud area. Some parts of town were under 2 to 3 feet of standing water. State Highway 287 was closed as high water covered the roadway. Some basements in the Berthoud Lake subdivision were inundated with up to 5 feet of water. Major crop damage was reported on the west side of town as 320 acres of corn, wheat and beets were flooded. The storm also caused the Burlington Northern/Santa Fe railroad to shut down tracks for 4 hours while repair crews fixed a 100-foot and 75-foot stretch of track that had been washed out.

Douglas County

4.5 W Castle Rock	13	1324MST			0	0			Hail (1.75)
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Arapahoe County

Greenwood Vlg to Aurora Cherry Creek	13	1456MST 1630MST			0	0			Flash Flood
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Three inches of rain reportedly fell near the Greenwood Village Police Department in the span of 15 minutes. Heavy rainfall caused Toll Gate Creek to jump its banks, flooding low lying areas of Parker Road.

Denver County

South Denver	13	1456MST 1630MST			0	0			Flash Flood
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Heavy rainfall caused localized flash flooding along some of the roadways near the Denver Tech Center.

Weld County

Greeley	13	1839MST 2015MST			0	0	600K		Flash Flood
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Anywhere from 3 to 5 inches of rainfall reportedly fell in the Greeley area in less than 2 hours. As a result, several roads were inundated with up to 2 feet of water and many basements of homes and businesses were flooded. In the basement of Greeley City Hall, several boxes of documents dating back to the 1800's were drenched in the floodwaters. The roof of a local business collapsed during the deluge. Approximately 2300 homes and businesses in town suffered electrical outages.

Jefferson County

10 NW Golden	14	1455MST			0	0			Hail (0.75)
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Logan County

3 E Padroni	14	1636MST 1900MST			0	0			Flash Flood
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Heavy rain caused flash flooding near the towns of Peetz and Padroni. Up to a foot of water covered County Road 48 and State Highway 113, 3 miles east of Padroni. In addition, State Highway 113 was flooded in areas between the town of Peetz and the intersection of State Highway 138.

Morgan County

Brush	14	1838MST 1950MST			0	0			Flash Flood
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Heavy rain caused flash flooding in the town of Brush. Several low lying areas were flooded as well as a few of the businesses in town.

Phillips County

4 W Amherst	23	1440MST 1510MST			0	0			Hail (1.75)
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Phillips County

5 NW Amherst	23	1445MST			0	0			Hail (2.25)
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Elbert County

9 S Simla	23	1455MST			0	0			Thunderstorm Wind (G70)
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Intense thunderstorm winds blew the roof off a shed.

Arapahoe County

Littleton	23	1500MST			0	0			Hail (1.25)
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Arapahoe County

1 S Sheridan	23	1505MST			0	0			Hail (1.25)
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Storm Data and Unusual Weather Phenomena

July 2001

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

Sedgwick County

15 S Julesburg 23 1514MST 0 0 Hail (1.75)

Arapahoe County

Littleton 23 1515MST 0 0 606K 6K Hail (1.50)

The city of Littleton suffered \$612,000 in damage to vehicles, roofs, buildings, landscaping and computers. Almost every vehicle owned by visitors and employees in the Littleton Center parking lot sustained damage.

Phillips County

Amherst 23 1516MST 0 0 Hail (1.75)

Denver County

Denver 24 1930MST 0 0 0 Lightning

A thunderstorm knocked out power to 1500 residents in Denver metropolitan area.

Douglas County

7 N Sedalia 25 1609MST 0 0 Hail (0.75)

Douglas County

7 N Castle Rock 25 1625MST 0 0 Hail (1.75)

Boulder County

Lafayette 25 1800MST 0 0 0 Lightning

Lightning struck a home damaging the roof and attic.

Boulder County

Lafayette 25 1840MST 0 0 0 Lightning

Lightning struck another residence, shorting out the electrical system.

Washington County

Akron Arpt 26 1255MST 0 0 Thunderstorm Wind (G59) M

Adams County

22 E Bennett 26 1315MST
1330MST 0 0 0 Tornado (F0)

A small tornado touched down but did no damage.

Arapahoe County

10 E Byers 26 1325MST 0 0 Hail (1.00)

Weld County

9 N New Raymer 26 1415MST 0 0 Hail (1.50)

Denver County

(Den)Denver Intl Arp 30 1322MST 0 0 Thunderstorm Wind (G61) M

A wind gust to 70 mph was recorded at a wind sensor on the northeast corner of Denver International Airport.

COLORADO, East Central

Yuma County

18 N Yuma 01 1542MST 0 0 Hail (1.00)

Yuma County

18 N Yuma 01 1625MST 0 0 Hail (1.75)

Yuma County

14 N Yuma 01 1650MST 0 0 Hail (1.75)

Yuma County

19 S Yuma 01 1810MST 0 0 Thunderstorm Wind (G52)

The strong winds blew in a wall on a shed.

Yuma County

3 N Wray 01 1840MST
1940MST 0 0 Flash Flood

Up to one foot of water was flowing across Highway 385 due to the heavy rainfall.

Yuma County

5 N Joes 01 1855MST
1900MST 0 0 Hail (1.00)

The hail was two to three inches deep.

Yuma County

Joes to 01 1855MST
2 E Joes 1901MST 0 0 Thunderstorm Wind (G65) M

The strong winds blew down two to three diameter tree limbs in Joes.

Yuma County

9.5 S Abarr 01 1924MST 0 0 Thunderstorm Wind (G65)

A tree was knocked down over highway 59.

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
COLORADO, East Central									
Kit Carson County									
11.3 NNE Bethune	01	1943MST			0	0			Thunderstorm Wind (G52)
Yuma County									
18 S Wray	02	1935MST			0	0			Thunderstorm Wind (G61)
Yuma County									
2 W Idalia to 3 SW Idalia	03	1607MST			0	0			Tornado (F0)
Tornado tracked over open country and could be seen for miles.									
Yuma County									
16 N Laird	04	2030MST			0	0			Thunderstorm Wind (G65)
Yuma County									
Hale Bonny Dam Arpt	04	2105MST			0	0			Thunderstorm Wind (G65)
The strong winds blew down a 12 inch diameter tree limb, along with destroying a picnic area shelter.									
Kit Carson County									
Seibert	11	1640MST			0	0			Hail (1.00)
Kit Carson County									
Seibert	11	1650MST			0	0			Hail (1.50)
Kit Carson County									
1 N Seibert	11	1655MST			0	0			Hail (1.00)
Kit Carson County									
4 S Vona	11	1658MST			0	0			Hail (1.75)
Kit Carson County									
Stratton	11	1712MST			0	0			Hail (0.88)
Kit Carson County									
5.5 S Stratton	11	1720MST			0	0			Hail (1.00)
Kit Carson County									
4 S Burlington	11	1810MST			0	0			Hail (1.00)
Cheyenne County									
4 E Cheyenne Wells	12	1859MST			0	0			Hail (0.88)
Cheyenne County									
1 E Arapahoe	12	1947MST 2047MST			0	0			Flash Flood
Water flowing over highway 40.									
Kit Carson County									
Burlington	12	2045MST			0	0			Flash Flood
Heavy rainfall in a short period of time caused street flooding in Burlington.									
Kit Carson County									
5 W Bethune	12	2230MST			0	0			Flash Flood
	13	0030MST							
Several cars stranded from high water and water overflowed highway 24.									
Yuma County									
2 NE Hale	14	2110MST			0	0			Hail (0.88)
Yuma County									
Hale Bonny Dam Arpt	14	2110MST 2140MST			0	0			Flash Flood
Over three inches of rainfall in a short period of time caused 6 to 8 inches of water to run over roads in and near Bonny Dam. Also, basements were flooded in Hale and water was reported ponding on fields.									
Kit Carson County									
7 NE Seibert	15	1618MST			0	0			Hail (1.00)
Cheyenne County									
13 NNW Wild Horse	23	1846MST			0	0			Thunderstorm Wind (G80) ^M
Cheyenne County									
Wild Horse	23	1851MST			0	0			Thunderstorm Wind (G52)
Kit Carson County									
15 S Flagler	23	1905MST			0	0			Thunderstorm Wind (G68) ^M
Cheyenne County									
9 NNE Kit Carson	23	1930MST			0	0			Thunderstorm Wind (G67) ^M
The strong winds blew a roof off a shed.									

Storm Data and Unusual Weather Phenomena

July 2001

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, East Central

Kit Carson County

Stratton	23	2002MST			0	0			Thunderstorm Wind (G61)
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The strong winds blew off numerous shingles off a motel roof. Also a natural gas line was severed.

Cheyenne County

6 NNW Arapahoe	23	2005MST			0	0			Thunderstorm Wind (G52)
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Cheyenne County

5 E Arapahoe	23	2045MST			0	0			Thunderstorm Wind (G52)
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Cheyenne County

10 SE Cheyenne Wells	23	2045MST			0	0			Thunderstorm Wind (G52)
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Kit Carson County

3 SW Flagler	24	1950MST			0	0			Thunderstorm Wind (G61)
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Kit Carson County

Flagler	24	2020MST			0	0			Thunderstorm Wind (G52)
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Yuma County

Clarkville	26	1605MST			0	0			Thunderstorm Wind (G52)
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Yuma County

2.5 S Abarr	26	1715MST			0	0			Hail (0.75)
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Yuma County

Abarr	26	1930MST			0	0			Flash Flood
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Nearly three inches of rain in a short period of time caused several inches of water to run over county roads and put yards under water.

COLORADO, South Central and Southeast

Kiowa County

Eads	03	1725MST 1731MST			0	0			Hail (0.75)
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Custer County

11 W Wetmore	08	1625MST 1630MST			0	0			Hail (1.25)
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Teller County

1 N Woodland Park	08	1703MST 1708MST			0	0			Hail (0.75)
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Custer County

15 SE Westcliffe	09	1100MST 1130MST			0	0			Hail (1.00)
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El Paso County

7 NE Colorado Spgs	09	1600MST 1605MST			0	0			Hail (0.75)
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Pueblo County

1 S Pueblo	10	1644MST			0	0			Thunderstorm Wind (G52) ^M
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Pueblo County

Pueblo West	10	1700MST			0	0			Thunderstorm Wind (G69) ^M
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Damaging winds caused tree damage which left 1700 residences without power for under an hour, but 150 residences had no power for about 18 hours.

El Paso County

7 N Colorado Spgs	11	1850MST			0	0			Lightning
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A lightning strike to a residence caused a small attic fire.

El Paso County

11 W Colorado Spgs	12	1650MST			0	0	20K		Lightning
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A lightning strike hit the summit house atop Pikes Peak, causing a large electrical fire which caused major damage to the electrical wiring, and other equipment.

Fremont County

6 E Canon City	13	1300MST 1600MST			0	0			Flash Flood
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Sheriff's deputy reported 8 mile creek was in flood with rapid flow. Roads in the vicinity were under water.

Fremont County

Florence	13	1445MST 1450MST			0	0			Hail (0.75)
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Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property Damage	Crops	
<u>COLORADO, South Central and Southeast</u>									
Pueblo County									
10 SW Pueblo	13	1638MST 1643MST			0	0			Hail (1.50)
El Paso County									
8 NNW Colorado Spgs	13	1800MST			0	0	100K		Lightning
A lightning strike hit a residence causing a fire which was extinguished in about 30 minutes.									
Fremont County									
5 W Penrose	14	1439MST 1444MST			0	0			Hail (0.75)
Pueblo County									
Boone	14	1616MST 1621MST			0	0			Hail (1.00)
Bent County									
5 S Mc Clave	14	1947MST			0	0			Thunderstorm Wind (G52)
Saguache County									
5 NW Center	15	1506MST 1511MST			0	0			Hail (1.50)
Otero County									
3 S La Junta	21	1530MST			0	0	3K		Lightning
A lightning strike burned up a transformer and caused 4 wells to stop working for 2 days in the La Junta area.									
El Paso County									
8 SE Ramah	23	1450MST			0	0			Thunderstorm Wind (G65) ^M
Bent County									
7 S Las Animas	23	1543MST			0	0	100K		Thunderstorm Wind (G86)
Damaging thunderstorm winds downed 1 1/2 miles of power poles along Highway 101 around 7 miles south of Las Animas in Bent county. It took around 2 to 3 weeks to replace the poles.									
Kiowa County									
10 NE Eads	23	1725MST 1730MST			0	0			Hail (0.75)
El Paso County									
3 N Calhan	24	1400MST 1405MST			0	0			Hail (0.75)
El Paso County									
3 E Calhan	24	1429MST 1434MST			0	0			Hail (0.75)
El Paso County									
Colorado Spgs	25	1600MST 1605MST			0	0			Hail (0.75)
Baca County									
9 S Pritchett	25	1615MST 1620MST			0	0			Thunderstorm Wind (G52) ^M
Otero County									
La Junta	26	1344MST			0	0			Thunderstorm Wind (G54) ^M
Otero County									
15 SE La Junta	26	1400MST 1405MST			0	0			Hail (1.00)
Bent County									
14 S Las Animas	26	1500MST			0	0			Thunderstorm Wind (G52) ^M
Pueblo County									
Pueblo	26	1616MST			0	0			Thunderstorm Wind (G52) ^M
Otero County									
Fowler	26	1700MST			0	0			Thunderstorm Wind (G52) ^M
Baca County									
9 SW Stonington	27	1452MST 1457MST			0	0			Hail (1.00)
<u>COLORADO, West</u>									
Routt County									
10 N Steamboat Spgs to	04	1400MST			0	0			Wild/Forest Fire
10.5 N Steamboat Spgs	07	2000MST							

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
COLORADO, West									
Lightning ignited a wildfire which consumed 45 acres of forest in the Mount Zirkel Wilderness Area.									
Mesa County									
6 W Mack	05	2030MST 2031MST			0	0			Thunderstorm Wind (G52)
Montrose County									
4 ESE Redvale	09	1302MST 1304MST			0	0			Hail (0.88)
Ouray County									
Ridgway	09	1427MST 1428MST			0	0			Hail (0.88)
Montezuma County									
8 N Dolores to 10 N Dolores	09 31	1600MST 2359MST			0	0			Wild/Forest Fire
A lightning caused wildfire consumed up to 500 acres of oak brush and ponderosa pines. This fire continued to burn into the month of August, For more information see the August 2001 Storm Data Report.									
Routt County									
11 N Steamboat Spgs to 13 N Steamboat Spgs	09 31	1600MST 2359MST			0	0			Wild/Forest Fire
Lightning sparked a wildfire which consumed over 440 acres of timber which had been toppled by a wind storm that occurred in 1997. This fire burned into the month of August and was better known as the Mad Creek fire. For more information, please see the August 2001 Storm Data Report.									
Mesa County									
Redlands	10	1616MST 1617MST			0	0			Hail (1.00)
Mesa County									
Redlands	10	1625MST 1626MST			0	0			Hail (0.88)
Mesa County									
Glade Park	10	1645MST 1647MST			0	0			Hail (1.75)
Mesa County									
Redlands	10	1645MST 1715MST			0	0	10K		Flash Flood
A nearly stationary thunderstorm over the Colorado National Monument produced heavy rain which resulted in a 2 to 3 foot wall of water running into the lower valley. The flash flood deposited 6 to 12 inches of mud in the front yards of a residential subdivision. Irrigation ditches in the subdivision were completely filled with mud and debris. There were also reports of some basement flooding.									
Mesa County									
3 W Gateway	10	1800MST 1830MST			0	0	5K		Flash Flood
A nearly stationary thunderstorm dropped over one inch of rain within one hour in the vicinity of Gateway. Runoff from the heavy rain swept through a restaurant, store and hotel that border Highway 141. In addition, Highway 141 was temporarily closed due to excessive water spilling over the roadway. John Brown Canyon Road was also washed out in places due to the excessive runoff.									
Rio Blanco County									
13 W Meeker	10	1838MST 1900MST			0	0			Flash Flood
State Highway 64 was closed due to water and debris overspilling the highway from a recent heavy rainstorm.									
Ouray County									
1 NW Ridgway	11	1520MST 1640MST			0	0			Urban/Sml Stream Fld
Slow moving thunderstorms produced heavy rain resulting in 6 to 8 inches of water running across County Road 1. The road was closed temporarily due to the flooding.									
Ouray County									
2.5 W Ridgway	12	1600MST 1700MST			0	0			Urban/Sml Stream Fld
Slow moving thunderstorms caused flooding of small creeks after nearly 2 inches of rainfall.									
Montezuma County									
2 W Pleasant View	14	1331MST 1332MST			0	0			Hail (0.75)
Mesa County									
Grand Jct	14	1441MST 1442MST			0	0			Thunderstorm Wind (G50) ^M

Storm Data and Unusual Weather Phenomena

July 2001

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

Mesa County

Orchard Mesa	14	1505MST 1530MST			0	0			Urban/Sml Stream Fld
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Slow moving thunderstorms dropped up to 1 inch of rain in less than one hour. Runoff from the heavy rain resulted in a irrigation canal overflowing its banks.

Delta County

Cedaredge	14	1530MST 1531MST			0	0	1K		Thunderstorm Wind (G52)
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Strong outflow winds from a nearby thunderstorm toppled two large tents which were set up for a wedding reception.

Archuleta County

2.5 W Pagosa Spgs	15	1500MST			0	1	0.25K		Lightning
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A man with a fishing pole in his hand had just stepped out of his boat and onto a dock at Lake Pagosa when lightning struck him. The lightning initially struck the fishing pole and traveled through the man who suffered burns.

Montrose County

3 SW Nucla	15	1626MST 1627MST			0	0			Thunderstorm Wind (G50) ^M
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Mesa County

14 W Fruita	15	1735MST 1737MST			0	0			Hail (0.88)
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Moffat County

20 N Dinosaur to 25 N Dinosaur	17 31	1800MST 2359MST			0	0			Wild/Forest Fire
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Three lightning sparked wildfires, better known as the Ecklund Complex, consumed over 2000 acres of rangeland and forest in the vicinity of Dinosaur National Monument in extreme northwest Colorado. An abandoned cabin was also destroyed during the wildfire. This fire complex burned into the month of August. Please see the August report of Storm Data for more information.

Mesa County

4 SW Gateway to 5 SW Gateway	26	1330MST 1600MST			0	0			Urban/Sml Stream Fld
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Slow moving thunderstorms dropped locally heavy rainfall over portions of the Uncompahgre Plateau. Runoff from the thunderstorms resulted in some minor damage to John Brown Canyon Road.

Delta County

10 NW Delta	26	1423MST 1500MST			0	0			Urban/Sml Stream Fld
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Heavy rain from a series of slow moving thunderstorms left standing water in open fields and left water running through normally dry creek beds for up to 1 hour after the rain had ended.

Delta County

10 W Delta	26	1430MST 1432MST			0	0			Hail (0.88)
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Rio Blanco County

12 W Meeker	26	1700MST 1730MST			0	0			Urban/Sml Stream Fld
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A couple of mud slides closed portions of Highway 64 after a series of slow moving thunderstorms moved through the area.

Mesa County

25 ESE Grand Jct	31	1230MST 1300MST			0	0			Urban/Sml Stream Fld
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Roadside ditches were overflowing with water and agricultural fields were flooded after a series of slow moving thunderstorms with heavy rain moved through the area.

Archuleta County

Pagosa Spgs Arpt	31	1400MST 1401MST			0	0	10K		Thunderstorm Wind (G70)
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Strong thunderstorm winds pushed an airplane away from its mooring anchors, breaking off the nose gear of the plane and throwing it nearly 50 feet to the northeast of where it had been anchored. A wing on the plane was also damaged. The plane was not occupied at the time of the incident.

CONNECTICUT, Northeast

Hartford County

Bristol to Farmington	01	1530EST			0	0			Thunderstorm Wind (G50)
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Severe thunderstorms downed trees in Bristol and Farmington.

Windham County

Pomfret	10	1717EST			0	0			Hail (0.75)
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Storm Data and Unusual Weather Phenomena

July 2001

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

CONNECTICUT, Northeast

Windham County

Thompson	10	1735EST			0	0			Thunderstorm Wind (G50)
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Severe thunderstorms produced dime-sized hail in Pomfret, and downed large tree limbs in Thompson.

CONNECTICUT, Northwest

Litchfield County

New Milford to Roxbury	01	1525EST			0	0	75K		Tornado (F0)
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Litchfield County

Harwinton	01	1530EST			0	0	15K		Thunderstorm Wind
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A powerful cold front, combined with a strong upper level disturbance to produce widespread thunderstorms across Litchfield County during the afternoon of July 1. One of the storms spawned a gale (F0) Tornado, with estimated winds between 40 and 74 mph, the third to touch down in Litchfield County in less than 10 days! A discontinuous path of 10 miles began along Route 37, near the Sherman/New Milford border, and headed east to Painter Hill, in Roxbury. There were seven distinct brief touchdowns. The damage was mainly snapped trees and limbs, with one tree as thick as 14 inch inch in diameter snapped 20 feet off the ground. There were no injuries or fatalities reported to the National Weather Service with this tornado.

Thunderstorm winds also knocked down trees in the town of Harwinton.

Litchfield County

New Milford	10	1700EST			0	0	15K		Thunderstorm Wind
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A strong cold front triggered scattered showers and thunderstorms across Litchfield County during the afternoon of July 10. One of the storms became severe. Thunderstorm winds knocked large tree limbs down in the town of New Milford.

CONNECTICUT, Southern

New Haven County

Guilford	01	1610EST			0	0			Thunderstorm Wind (G52)
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Middlesex County

Clinton	01	1615EST			0	2			Lightning
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Middlesex County

Killingworth to Essex	01	1615EST 1630EST			0	0			Thunderstorm Wind (G60)
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New London County

Ledyard Center to Waterford	01	1649EST			0	0			Thunderstorm Wind (G52)
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On Sunday, July 1st, a strong cold front approached southern Connecticut from the northwest during the late afternoon hours. As this front clashed with a warm, moist and very unstable air mass already in place, strong to locally severe thunderstorms developed and moved east-southeast across portions of southern Connecticut. Damaging winds in excess of 50 mph caused numerous large trees to topple, and led to widespread power outages. Fallen trees also caused several road closures.

These thunderstorms were also accompanied by frequent cloud to ground lightning strikes. At the River Dale Campgrounds in Clinton, lightning struck a 14 year-old female from Deep River and a 17 year-old male from Clinton. Both were taken to the Middlesex Medical Center Shoreline Hospital in Essex, where their injuries were treated.

Fairfield County

Sherman	10	1648EST			0	0			Hail (0.75)
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On Tuesday, July 10th, a cold front located across the Great Lakes moved east into central New York State by Tuesday night. Well in advance of the front, scattered strong to locally severe thunderstorms developed. One thunderstorm moved east across extreme northern Fairfield County, and produced dime-size hail in Sherman.

DELAWARE

Kent County

Harrington	01	1730EST			0	0			Thunderstorm Wind (G52)
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Trees and wires were knocked down in Harrington by a severe thunderstorm.

Sussex County

Laurel	05	1900EST			0	1		0	Lightning
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Sussex County

Laurel	05	1900EST			0	0			Thunderstorm Wind (G50)
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A severe thunderstorm tore down large tree limbs in Laurel. The same storm struck a person within Laurel. The individual was not seriously injured.

Sussex County

Rehoboth Beach to Fenwick Is	19 22	0500EST 0500EST			0	20	0	0	Rip Currents
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The combination of a weak low pressure system that traveled east off the Delmarva Coastal Waters on the 18th and 19th, a high

Storm Data and Unusual Weather Phenomena

July 2001

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

pressure system that built into New England and then south toward the Delaware Coast produced rip currents along the Delaware coast. Rip currents and rough surf occurred from Thursday the 19th through Sunday the 22nd. They peaked on Friday the 20th and Saturday the 21st. Cautionary bathing flags were posted as four to six foot breakers were common along the shore. The rough surf and rip currents caused numerous injuries: minor neck injuries, dislocated shoulders and elbows, cuts and abrasions. Seven persons were hospitalized. At Rehoboth Beach alone, there were 110 rescues by lifeguards, 50 on Saturday the 21st.

Sussex County

Lewes	26	1500EST 1700EST			0	0			Heavy Rain
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Thunderstorms with heavy rain dropped about 4 inches of rain in Lewes from 4 p.m. EDT through 6 p.m. EDT. The heavy rain flooded Market Street and Savannah Road. Thunderstorms with heavy rain also fell across northeastern Sussex County between Harbeson and Milford. Rainfall totals included 4.12 inches in Lewes and 3.10 in Long Neck.

Sussex County

Rehoboth Beach to Fenwick Is	27 31	0700EST 2359EST			0	7	0	0	Rip Currents
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For the second time this month, a high pressure system built into New England and its adjacent coastal waters behind a cold frontal passage on the 27th. Just as the first high was moving farther offshore on the 29th, a low pressure system developed and moved through just southeast of the state. This prolonged the northeast flow. Then another high pressure system built into New England which prolonged the northeast flow even longer. This caused more rip currents and rough surf. Red Flag Warnings were posted along many beaches with bathing restrictions. Nevertheless, lifeguards at Rehoboth beach performed 210 rescues from July 27th through August 1st. There were already more water rescues this summer along Delaware beaches than throughout the entire 2000 summer season. There were seven reported injuries from Dewey Beach, Bethany Beach and the Delaware Seashore State Park. They included a cardiac arrest and a boy with a spinal injury.

DEZ001>004

New Castle - Kent - Inland Sussex - Delaware Beaches

31	2359EST			0	0		0	Unseasonably Cool
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July 2001 was an unseasonably cool month for the state of Delaware. The preliminary monthly state mean temperature was 73.5 degrees, the 8th coolest July on record since 1895. The monthly mean temperature of 72.6 degrees at the New Castle County Airport tied July of 1962 as the coolest July on record. Records date back in the Wilmington area to 1895.

DISTRICT OF COLUMBIA

District Of Columbia

Countywide	05	1610EST			0	0		Hail (0.75)
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Marble to dime sized hail fell.

A thunderstorm with large hail moved across the District between 4:45 and 5:30 PM EDT on the 5th. Marble to dime sized hail was reported on Capitol Hill. Marble sized hail was reported at the Navy Yard and Northeast Washington. Pea sized hail fell at the National Arboretum.

FLORIDA, East Central

Brevard County

2 N Melbourne	08	1452EST			0	0		Hail (0.75)
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Volusia County

Ponce Park	16	1630EST			1	0		Rip Currents
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A 17 year old man drowned near Ponce Inlet when he entered the water to help another person who was struggling in a rip current. M17IW

Seminole County

Winter Spgs	21	1700EST			0	0	15K	Flash Flood
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Heavy rain produced flash flooding in the Tuskawilla area of Winter Springs. Three homes were flooded.

Orange County

Winter Park	21	1805EST			0	0		Flash Flood
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About 5 inches of rain fell in the Winter Park and Maitland areas causing flooding of major roadways throughout the area.

Orange County

Orlando	31	1830EST			0	0	20M	Heavy Rain
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The roof collapsed at a flight training center when excessive water collected on the roof due to a clogged drain. Flight simulators valued at over 30 million dollars were damaged. Around 2.5 inches of rain fell in the Orlando area that day.

FLORIDA, Extreme Southern

Monroe County

(Eyw)Key West Inl Ar	11	1817EST 1824EST			0	0		Waterspout
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Waterspout reported 16 miles ESE of Key West Airport.

Monroe County

Tavernier	15	1401EST 1415EST			0	0		Waterspout
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4 waterspouts reported.

Storm Data and Unusual Weather Phenomena

July 2001

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, Extreme Southern</u>									
Monroe County									
Long Key	15	1508EST 1515EST			0	0			Waterspout
Waterspout reported 1 mile SE of Long Key.									
Monroe County									
Duck Key	15	1545EST 1615EST			0	0			Waterspout
Line of waterspouts producing 5 at one time reported 1-3 miles S of Duck Key.									
Monroe County									
(Eyw)Key West Inl Ar	18	1552EST 1558EST			0	0			Waterspout
Waterspout reported by ATCC and NWS 3 miles WNW of Key West Airport.									
Monroe County									
Key Largo	21	1820EST 1830EST			0	0			Waterspout
Waterspout reported 1 mile E of Key Largo.									
Monroe County									
Marathon	21	2200EST			0	0	0		Thunderstorm Wind
Two boats capsized; four fisherman and two had to be rescued. No injuries reported.									
Monroe County									
Islamorada	22	0200EST			0	0	0		Thunderstorm Wind
16-foot boat capsized; two fisherman rescued by coastguard; no injuries reported.									
Monroe County									
Islamorada	29	1859EST 1900EST			0	0			Thunderstorm Wind (G50)
Billboard flattened, power and telephone lines knocked down. Molasses Reef C-MAN station, about 5 miles offshore of Key Largo, measured a 42 knot wind gust at 7:59 pm EDT and a 52 knot gust at 8:59 pm EDT.									
<u>FLORIDA, Northeastern</u>									
Duval County									
Jacksonville	04	1300EST			0	2			Lightning
Two men were struck. One in the 1500 block of Sonoma Court and the other in the 3900 block of Star Leaf Road.									
Duval County									
Jacksonville	04	1400EST			0	0			Lightning
Building damaged in Brownville Industrial Park.									
Duval County									
Jacksonville	04	1400EST			0	0	4.5K		Thunderstorm Wind
Large trees and power lines were blown down.									
Duval County									
Jacksonville Beach	04	1330EST			0	2			Lightning
Men were standing in front beside a vehicle. Bolt struck two vehicles.									
Flagler County									
Bunnell	05	1545EST			0	0	3.5K		Thunderstorm Wind
Large trees and power lines were blown down.									
Marion County									
8 S Ocala	09	1615EST			0	0	2.5K		Thunderstorm Wind
Large trees and power lines were blown down.									
Columbia County									
Lake City	09	1955EST			0	0			Hail (0.75)
St. Johns County									
Palm Vly	13	1700EST			0	0	5K		Lightning
Building damaged.									
Clay County									
Green Cove Spgs	13	1706EST			0	0	40K		Thunderstorm Wind
Two homes with roof damage. Large trees and power lines were blown down.									
St. Johns County									
Ponte Vedra	13	1720EST			0	0	3.5K		Thunderstorm Wind
Large trees and power lines were blown down.									
Putnam County									
3 N Florahome	13	1736EST			0	0			Funnel Cloud

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time		Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
		Local/Standard				Killed	Injured	Property	Crops	
<u>FLORIDA, Northeastern</u>										
St. Johns County										
Palm Vly	13	1810EST				0	0	4.5K		Thunderstorm Wind
										Large trees and power lines were blown down.
St. Johns County										
1 E Vilano Beach	19	1225EST				0	0			Waterspout
Flagler County										
15 N Bunnell	19	1300EST				0	0	35K		Lightning
										Damaged a house in Palm Coast.
Baker County										
Taylor	20	1510EST				0	0	2.5K		Thunderstorm Wind
										Large trees and power lines were blown down.
Columbia County										
15 S Lake City	20	1544EST				0	0	3.5K		Thunderstorm Wind
										Large trees and power lines were blown down.
Flagler County										
Countywide	20	1550EST				0	0			Flood
										Numerous secondary roads closed.
Alachua County										
Alachua to High Spgs	20	1630EST				0	0	3.5K		Thunderstorm Wind
										Large trees and power lines were blown down.
Hamilton County										
Jasper	20	1745EST				0	0	2.5K		Thunderstorm Wind
										Large trees and power lines were blown down.
Alachua County										
Countywide	21	1745EST				0	0			Flood
										Numerous reports of secondary roads closed. Flooding in parts of University of Florida near Shands.
Duval County										
Jacksonville	27	1645EST				0	0	4.5K		Thunderstorm Wind
										Large trees and power lines were blown down.
Nassau County										
Callahan	27	1705EST				0	0	3.5K		Thunderstorm Wind
										Large trees and power lines were blown down.
<u>FLORIDA, Northwest</u>										
Gadsden County										
5 SW Quincy	03	1600EST				0	0			Hail (1.50)
										Ping pong ball size hail. Reported by an off-duty fire official.
Gadsden County										
5 SW Quincy	03	1600EST				0	0	1K		Thunderstorm Wind
										Numerous trees down. Reported by an off-duty fire official.
Calhoun County										
2 W Blountstown	12	1400EST				0	1			Lightning
										A man suffered minor injuries from a nearby lightning strike. Reported by the Bristol Journal.
<u>FLORIDA, Southern</u>										
Dade County										
.5 E Miami Beach	02	1420EST				0	0			Waterspout
										The Beach Patrol sighted a waterspout in the Atlantic about one half mile offshore 10 St.
Dade County										
Miami	08	1610EST				0	0			Funnel Cloud
										A SKYWARN spotter sighted a funnel cloud near Larry and Penny Thompson Park in south Miami-Dade. 50 mph wind gusts and numerous power outages were also reported in the Doral area.
Hendry County										
5 S La Belle	08	1620EST				0	0	20K		Tornado (F1)
										A tornado touched down on S.R. 29 damaging the roof of the Tootsie Roll Drive Thru.
Palm Beach County										
10 WSW West Palm Be	08	1912EST				0	0			Funnel Cloud
										A SKYWARN spotter sighted a funnel cloud over Wellington.
Broward County										
Coconut Creek	10	1300EST				0	2			Lightning

Storm Data and Unusual Weather Phenomena

July 2001

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

FLORIDA, Southern

Two boys, ages 13 and 11, were injured when lightning struck the tree in which they were attempting to descend. The boys had been playing in a tree house, and after hearing thunder began climbing down. The 13-year old was critically injured when he fell on his head.

Palm Beach County

10 NE Palm Beach Intl	11	1250EST			0	0			Waterspout
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A pilot saw a waterspout in the Atlantic coastal waters.

Broward County

8 E Pompano Beach	12	1250EST			0	0			Waterspout
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A waterspout was sighted in the Atlantic.

Hendry County

La Belle	15	1907EST			0	0			Flash Flood
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Case Street and a few adjacent buildings suffered minor flooding.

Broward County

Deerfield Beach	17	1200EST			0	1			Lightning
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An air conditioning repairman was knocked down and injured by a nearby lightning strike while working on the roof of a four-story condominium. He was transported to a hospital with numbness on his right side.

Broward County

Pembroke Pines	17	1330EST			0	1			Lightning
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A firefighter was injured while closing the bay doors of Fire Station 99. The lightning struck a nearby light pole and travelled to the door. The 34-year old man was treated and released at a hospital.

Broward County

Hollywood	17	1337EST			0	0	5K		Thunderstorm Wind (G50)
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Trees and power lines were blown down at 71 Street and Buchanan.

Palm Beach County

10 WSW West Palm Be	17	1445EST			0	0	5K		Thunderstorm Wind (G50)
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Power lines were blown down.

Dade County

38 E Miami Beach	22	0650EST			0	0			Waterspout
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A pilot saw a waterspout in the Atlantic.

Collier County

Marco	23	1000EST 1600EST			0	0	150K		Flash Flood
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At least four residences and 20 vehicles were damaged by flood waters on Marco Island and in East Naples. 48-hour rainfall amounts of 4 to 10 inches of rain were measured over southwest Florida as a trough of low pressure stalled in the eastern Gulf of Mexico. Radar estimated 8-12 inches of rain fell over a 96-hour period in Marco Island. Strong onshore winds caused some minor tidal flooding of streets.

Broward County

Pompano Beach	23	1000EST 1500EST			0	0			Flash Flood
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Street flooding from 5 to 7 inches of rain affected areas of Pompano Beach.

Palm Beach County

10 WSW West Palm Be	23	1400EST 1700EST			0	0			Flash Flood
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Street flooding in Wellington was caused by four inches of rain in a two hour period.

Broward County

7 W Plantation	23	1410EST			0	0	10K		Thunderstorm Wind (G65)
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A severe thunderstorm wind blew a power line onto I-75, trapping several people in their vehicles and shutting down the highway for several hours.

Palm Beach County

Boca Raton	23	1500EST			0	0			Thunderstorm Wind (G50)
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A SKYWARN spotter reported small to medium-size trees were uprooted.

Palm Beach County

Lantana	29	1655EST			1	0			Rip Currents
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A Lantana-resident drowned in a rip current while attempting to swim back to the beach.
M43IW

FLORIDA, West Central

Manatee County

Palmetto	01	1531EST			0	0	100K	0	Tornado (F1)
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Storm Data and Unusual Weather Phenomena

July 2001

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

FLORIDA, West Central

National Weather Service damage survey concluded that a small F1 tornado briefly touched down at Jayson's Mini Storage, along the east side of U.S. Highway 41, northeast of Bayshore Road, in Palmetto, Florida.

Visual observation of the damage site indicated that the tornado initially touched down and caused minor damage to a bill board sign on the east side of U.S. Highway 41, north of Jayson's Mini Storage. On the northern side of Jayson's Mini Storage, the tornado continued its descent and briefly touched down where it lifted, tossed and demolished, a weathered travel trailer, approximately 40 yards to the south southwest from its original location. Two additional nearby weathered travel trailers were flipped over on their sides while a badly weathered storage trailer was severely damaged on its north and west facing sides by the tornadic wind at the storage facility.

The tornado then lifted and dissipated within a tenth of a mile from the initial touchdown point. However, small pieces of debris from the travel trailers, carried by the tornadic winds, were observed in a tall tree approximately 500 yards south southwest of the touchdown site.

The tornado path width was estimated at ten yards at its widest point while its path length was estimated at less than a tenth of a mile. No human fatalities or injuries were reported. However, one animal, a dog that was housed near the site of the touchdown, was killed.

Based on analysis of radar and satellite imagery at the time of the event, the tornado possibly formed as the result of sea breeze and multiple outflow boundary interaction from nearby shower and thunderstorm activity.

Pasco County

Holiday

01 1705EST 0 0 0 0 Hail (0.88)

The media reported nickel sized hail near the intersection of U.S. Highway 19 and State Road 54 near Holiday, Florida.

Polk County

7 NE Ft Meade

03 1600EST 0 0 15K 0 Thunderstorm Wind

Thunderstorm winds removed the tin roof of a home, damaged several sheds, downed a few large trees, numerous branches and power lines along Lake Buffum Road South in rural south central Polk county.

Polk County

Lakeland

04 1658EST 0 0 50K 0 Thunderstorm Wind
1708EST

A Lakeland utility company reported that thunderstorm winds downed several large branches and power lines throughout Lakeland, Florida.

Hillsborough County

1 NW Appollo Beach

04 1930EST 0 8 1K 0 Lightning

Eight people were injured, while taking cover in a tent, when lightning struck a nearby tree and the tents central metal support rod, on Beer Can Island in Hillsborough Bay. An adult, holding the center metal support rod of the tent, was seriously injured from the lightning strike.

Pinellas County

Largo

04 2030EST 0 0 50K 0 Lightning

Lightning struck and ignited the ceiling of an assisted living facility on the 700 block of Starkey Road in Largo. Clearwater fire officials determined that the lightning initially struck the power cable for the buildings central air conditioning system, traveled down the communications cables, and ignited the ceiling of the 87,000 square foot building.

Pasco County

2 W Hudson

05 0952EST 0 0 0 0 Waterspout
0955EST

The public reported, through the Pasco county emergency management, a waterspout off Hudson Beach, Florida.

Hernando County

8 WSW Brooksville

06 0949EST 0 0 150K 0 Thunderstorm Wind

National Weather Service damage survey concluded that thunderstorm winds downed sixteen utility poles, two commercial signs and a few trees along State Road 50, one half mile west of County Road 587 (Mariner Blvd). Twelve of the downed power poles on the north side of State Road 50 were also toppled northward by the straight-line thunderstorm winds west of State Road 50 and Weeping Willow Road. Four of the power poles downed on the south side of State Road 50 were also toppled in a northward direction.

Also, an electrical fire, caused by downed power lines from the straight-line winds, severely damaged a parked vehicle.

Manatee County

Myakka City

08 1630EST 0 0 15K 0 Tstm Wind/Hail

Thunderstorm winds estimated at 50 mph, caused a carport to collapse onto and severely damage an automobile in Myakka City, in extreme eastern and rural Manatee county.

Hillsborough County

Turkey Creek

10 1510EST 0 0 50K 0 Thunderstorm Wind

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

FLORIDA, West Central

National Weather Service damage survey concluded that straight-line thunderstorm winds uprooted three large trees, snapped one power pole, downed several large branches and power lines between the 3900 and 4300 block of Turkey Creek Road in rural northeast Hillsborough county.

Charlotte County

Cleveland	10	1742EST			0	0	5K	0	Tornado (F0)
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A short-lived F0 tornado peeled back the roof and damaged an awning of a mobile home in the River Forest mobile home park in Cleveland of Charlotte county.

Charlotte County

Punta Gorda	10	1800EST			0	0	10K	0	Thunderstorm Wind
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Thunderstorm winds caused minor damage to a few homes and downed several large branches on Riverside Drive in the River Forrest mobile home park in Punta Gorda.

Pinellas County

Madeira Beach to Tierra Verde	14	0815EST 0839EST			0	0	0	0	Waterspout
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Multiple sightings of waterspouts were reported by the media, emergency management and public offshore of Madeira Beach to Tierra Verde in southern Pinellas county.

Pinellas County

Tierra Verde	14	0839EST			0	0	0	0	Tornado (F0)
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A Skywarn Spotter reported that a waterspout moved onshore as a short-lived and weak tornado without damage in Tierra Verde in extreme southern Pinellas county.

Hillsborough County

Thonotosassa to Mango	14	1528EST 1540EST			0	0	50K	0	Thunderstorm Wind
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Thunderstorm winds caused minor damage to the roofs of several mobile homes, downed several large trees, numerous large branches and power lines from Thonotosassa to Valrico in northeast Hillsborough county.

Lee County

1 S Cape Coral	15	1416EST			0	0	0	0	Waterspout
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The Lee county emergency management reported a waterspout one mile south of Cape Coral over the Caloosahatchee River.

Citrus County

Lecanto	17	1611EST			0	0	0	0	Hail (0.75)
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Dime sized hail was reported by a Skywarn Spotter in Lecanto of north central Citrus county.

Hillsborough County

4 WSW Tampa	21	1245EST			0	0	25K	0	Thunderstorm Wind
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Hillsborough county emergency management reported that thunderstorm winds damaged the roof of a commercial building on the 4100 block of Henderson Boulevard in Tampa.

Manatee County

Anna Maria	23	1025EST			0	0	50K	0	Tstm Wind/Hail
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Winds, estimated at 45 to 50 mph, removed a large portion of a roof from a beachfront motel in Anna Maria, on the western barrier island of Manatee county.

FLZ050>051-055-060-062-065

Pinellas - Hillsborough - Manatee - Sarasota - Charlotte - Lee	23	1100EST 1600EST			0	0	1.6M	0	Coastal Flooding
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A slow moving and persistent low pressure system, west of the mouth of Tampa Bay, produced coastal flooding, very heavy rain, sustained winds of 20 to 30 mph with occasional higher gusts of up to 50 mph, from Tampa south to Ft. Myers, along the West coast of Florida.

Storm tide values ranged from 2.7 feet above mean sea level (MSL) along the coast in Lee county, 3 to 4 feet above MSL in Manatee, Sarasota, Pinellas and southern Pasco counties, to 4.4 feet above MSL in along the Hillsborough county side of Tampa Bay.

Near downtown Tampa, Bayshore Boulevard had water covering both the north and south lanes during the early to mid afternoon hours of July 23rd.

Barrier islands, from Siesta Key in Sarasota county, north to Anna Maria in Manatee county experienced one to two feet of water along coastal highways, homes and businesses.

Polk County

Auburndale	23	1745EST			0	0	3K	0	Tstm Wind/Hail
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Thunderstorm winds, estimated at 45 to 50 mph, downed two rotted trees, which caused minor damage to a mobile home in Auburndale.

Storm Data and Unusual Weather Phenomena

July 2001

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FLORIDA, West Central

FLZ039

Levy

	23	1800EST			0	0	100K	0	Coastal Flooding
	24	0500EST							

A persistent low pressure system off the West Florida coast, which produced southerly sustained winds of 20 to 30 mph with gusts up to 40 mph, caused coastal flooding along the Levy county coastline. Storm tide values of up to 5 feet above mean sea level and flooding of coastal roads were observed at Cedar Key during the evening of July 23rd.

Lee County

Sanibel

	25	1255EST			0	0	25K	0	Thunderstorm Wind
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Lee county emergency management reported that thunderstorm winds peeled back three quarters of a roof at the Sand Foot condominiums along the 600 block of East Gulf Drive in Sanibel. Also, roof and shingle damage was reported at the Sundial Resorts in Sanibel by thunderstorm winds.

Manatee County

6 SE Bradenton

	25	1505EST 1510EST			0	0	50K	0	Thunderstorm Wind
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Thunderstorm winds downed trees, power poles and power lines along State Roads 70 and 64, near the Interstate 75 corridor, in west central Manatee county.

Hernando County

6 ESE Brooksville to 8 ESE Brooksville

	25	1635EST			0	0	15K	0	Thunderstorm Wind
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National Weather Service damage survey concluded that straight-line thunderstorm winds caused minor roof damage, downed a few trees and several large branches over a four square mile area of rural southern Hernando county. Most of the thunderstorm wind damage occurred near the intersections of Baseball Pond and Old Trilby Roads, Powell and Olympic Roads and the Spring Lake area of rural southern Hernando county.

Pasco County

5 ENE Port Richey to 7 ENE Port Richey

	25	1706EST 1713EST			0	0	100K	0	Thunderstorm Wind
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National Weather Service damage survey concluded that straight-line thunderstorm winds, estimated between 60 and 65 mph, downed over 100 large trees, several branches, numerous power lines and caused minor roof and lanai damage along a one half mile long by two mile wide area over western Pasco county. The western boundary of the damage was near the intersection of Starkey and Oak Loop Roads while the eastern boundary was near the intersection of County Road 587 and DeCubellis Road, approximately seven miles east of Port Richey.

Most of the downed trees occurred along DeCubellis Road near the intersection of River Ridge Boulevard near the River Ridge Golf Course east of Port Richey in western Pasco county.

Pasco County

6 ENE Hudson

	25	1721EST			0	0	25K	0	Thunderstorm Wind
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National Weather Service damage survey concluded that straight-line thunderstorm winds, estimated at 55 to 60 mph, caused damage to the tin roof of a home, downed a few large trees and several large branches on Lynway Road. Survey indicated that most of the thunderstorm wind damage occurred along a one half mile wide by 100 yard long path over rural northwest Pasco county.

Hernando County

3 S Bayport

	25	1736EST			0	0	5K	0	Thunderstorm Wind
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Hernando county emergency management reported that thunderstorm winds downed several large branches and power lines along Orchard Road in Hernando Beach along the coast of western Hernando county.

Pinellas County

5 SW St Petersburg

	26	1304EST			0	0	0	0	Waterspout
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A pilot reported a waterspout over Boca Ciega Bay in extreme southern Pinellas county.

Sumter County

1 SW Oxford

	26	1605EST			0	0	5K	0	Thunderstorm Wind
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Sumter county emergency management reported that thunderstorm winds downed several large trees along County Road 209, north of County Road 216, one mile southwest of Oxford, in northern Sumter county.

Pasco County

3 WNW San Antonio

	26	1630EST			1	3	0	0	Lightning
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A 42 year old male road crew worker was struck and killed by lightning and three others injured slightly near Darby Road, two miles east of Bellamy Brothers Boulevard, in east central Pasco county. Lightning struck an aluminum rod held by the man as he walked down the middle of an unpaved road just prior to the beginning of rainfall. The three other road crew workers were knocked off their feet and briefly stunned by the lightning strike.
M42OU

Charlotte County

3 N Harbour Hgts

	26	2020EST			0	0	3K	0	Tornado (F0)
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Storm Data and Unusual Weather Phenomena

July 2001

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

FLORIDA, West Central

Damage survey conducted by Charlotte county emergency management in cooperation with the National Weather Service, concluded that a short-lived F0 tornado touched down along Guapore Drive near Deep Creek south of the Charlotte-De Soto county line.

The tornado snapped a large tree at the base and caused minor roof tile damage to a neighboring house. Residents reported hearing the sound of a large freight train at the time of the damage.

Manatee County

5 NW Bradenton 27 1347EST 0 0 0 0 **Waterspout**

Manatee county sheriffs department reported that a waterspout was observed five miles southwest of the Sunshine Skyway Bridge (I-275) near the mouth of Tampa Bay.

Pinellas County

9 NNE St Petersburg 27 1419EST 0 0 0 0 **Waterspout**

Skywarn Spotters, the media and public reported a waterspout, between the Gandy (U.S. Hwy 92) and Howard Frankland (I-275) bridges, in Old Tampa Bay.

Citrus County

**4.5 WSW Floral City to
4 WSW Floral City** 27 1735EST
1736EST 0 0 75K 0 **Tornado (F0)**

An F0 tornado touched down and toppled a few large trees, several branches and power lines in the Heatherwood subdivision, 4.5 miles west southwest of Floral City, in eastern Citrus county. Most of the damage occurred along South Hammock Avenue, South Juneau Point and County Road 581 before the small tornado lifted and dissipated.

Manatee County

**Palmetto to
Ellenton** 28 1744EST
1745EST 0 0 0 0 **Hail (1.00)**

Quarter to dime sized hail was reported by Skywarn Spotters from Palmetto to Ellenton in northern Manatee county.

Charlotte County

Port Charlotte 30 1600EST 0 0 0 0 **Hail (0.75)**

Multiple reports of dime sized hail were received from Skywarn Spotters in Port Charlotte.

FLORIDA, West Panhandle

Santa Rosa County

Gulf Breeze 10 1550CST
1552CST 0 0 **Thunderstorm Wind (G52)**

A wind gust of near 60 mph was estimated at a local market during a thunderstorm in Gulf Breeze. No damage was reported from the high winds.

Escambia County

Pensacola Beach 10 1555CST
1557CST 0 0 **Thunderstorm Wind (G55) ^M**

A wind gust of 63 mph was measured by EMA wind equipment during a thunderstorm on Pensacola Beach. No damage was found as a result of the high winds.

Okaloosa County

Crestview 20 1730CST
1732CST 0 0 5K **Thunderstorm Wind (G50)**

High winds from a thunderstorm blew down several trees around Crestview.

Okaloosa County

Ft Walton Beach 24 1430CST
1433CST 0 0 **Waterspout**

A waterspout was observed offshore, south of Fort Walton Beach. The waterspout remained offshore and dissipated over the open Gulf.

Okaloosa County

Florosa 24 1435CST
1446CST 0 0 15K **Tornado (F0)**

A waterspout moved ashore and did some minor damage near Florosa. A church and several buildings suffered minor roof damage as the spout moved north. Power lines were also blown down. Several outbuildings were also damaged. The weak tornado lifted back into the cloud and was observed as a funnel cloud for another five to ten minutes before finally dissipating around 250 PM.

Okaloosa County

Mary Esther 26 0730CST
0732CST 0 0 **Waterspout**

A waterspout was observed offshore, south of Mary Esther. The waterspout remained over open water and dissipated after a few minutes.

GEORGIA, East Central

Columbia County

2 N Pollards Corner 04 1948EST 0 0 0 **Thunderstorm Wind (G50)**

Sheriff reported trees down near the lake north of Pollards Corner.

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>GEORGIA, East Central</u>									
Columbia County									
2 SE Harlem	04	2000EST			0	0	0	0	Thunderstorm Wind (G50)
			WAGT TV reported some trees down in southwest Columbia county.						
Richmond County									
Augusta	08	1925EST			0	0		0	Thunderstorm Wind (G50)
			WATV TV and the Sheriff reported a couple of trees down on south Augusta.						
<u>GEORGIA, Lower</u>									
Glynn County									
Brunswick	01	1400EST			0	0	7K		Lightning
			Damaged Glynn County Airport equipment						
Bacon County									
2 W Alma	01	1500EST			0	0	3.5K		Thunderstorm Wind
			Large trees and power lines were blown down.						
Brantley County									
Hortense	07	1558EST			0	0			Hail (0.75)
Camden County									
Harriets Bluff	07	1559EST			0	0			Hail (0.75)
Appling County									
Baxley	10	1745EST			0	0	3.5K		Thunderstorm Wind
			Large trees and power lines were blown down.						
Ware County									
Waycross	12	1430EST			0	0			Lightning
			The 911 Center damaged.						
Camden County									
Woodbine	13	1810EST			0	0	3.5K		Thunderstorm Wind
			Large trees and power lines were blown down.						
Pierce County									
3 N Blackshear	30	1633EST			0	0	0.50K		Tstm Wind/Hail
			Trees blown down along SR-203.						
Brantley County									
Waynesville	30	1714EST			0	0	2.5K		Thunderstorm Wind
			Large trees and power lines were blown down.						
Glynn County									
Thalmann	30	1715EST			0	0	3.5K		Thunderstorm Wind
			Large trees and power lines were blown down.						
Wayne County									
Mt Pleasant	30	1720EST			0	0	2.5K		Thunderstorm Wind
			Large trees and power lines were blown down.						
Camden County									
Waverly	30	1745EST			0	0	3.5K		Thunderstorm Wind
			Large trees and power lines were blown down along HWY 17.						
<u>GEORGIA, North and Central</u>									
Coweta County									
4 E Newnan to Turin	02	1600EST			0	0			Lightning
			The Newnan Times/Herald reported that lightning struck four homes, three in the Newnan area and one in Turin. Only minor damage was reported.						
Coweta County									
2 E Newnan	02	1600EST			0	0			Urban/Sml Stream Fld
			The Coweta county 911 center reported that very heavy rain in one hour or less caused flooding of some streets and low lying areas on the northeast wide of Newnan, particularly near the intersection of Interstate 85 and Georgia Highway 34.						
Gwinnett County									
Lawrenceville	02	1915EST			0	0			Hail (0.75)
			The public reported dime size hail.						
Gwinnett County									
Lawrenceville	02	1915EST			0	0	1.5K		Thunderstorm Wind
			The public reported that four trees were blown down at a private residence. Some of the guttering on the house was damaged as the trees fell.						

Storm Data and Unusual Weather Phenomena

July 2001

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

GEORGIA, North and Central

Fulton County

1 S Alpharetta

03 1445EST **0 0** **Hail (0.75)**
A storm spotter reported dime size hail near the intersection of Georgia Highway 9 and Hembree Road.

Fulton County

1 S Alpharetta

03 1445EST **0 0** **1K** **Thunderstorm Wind**
A storm spotter reported that several trees and branches were blown down near the intersection of Georgia Highway 9 and Hembree Road.

Fulton County

1 S Alpharetta

03 1445EST **0 0** **Urban/Sml Stream Fld**
A storm spotter reported localized street flooding in the vicinity of Georgia Highway 9 and Hembree Road.

Barrow County

5 NW Bethlehem

03 1500EST **0 0** **35K** **Lightning**
The Gwinnett Daily Post newspaper reported that lightning struck and set on fire a custom cabinet shop on Carl-Bethlehem Road. The cabinet shop and its contents were completely destroyed.

Jasper County

Bethel

03 1500EST **0 0** **1.5K** **Thunderstorm Wind**
The Central Georgia Electric Management Cooperative reported that six trees were blown down along Georgia Highway 212 six miles northwest of Monticello near Bethel.

Gordon County

1 N Calhoun to
3 SW Calhoun

03 1535EST **0 0** **0.75K** **Thunderstorm Wind**
The Gordon county 911 center reported that three trees were blown down. One of the downed trees was located one mile north of Calhoun and the other three miles southwest of Calhoun.

Pickens County

Jasper

03 1550EST **0 0** **2K** **Thunderstorm Wind**
1605EST
The Pickens county 911 center reported that some trees and power lines were blown down in Jasper.

Baldwin County

Milledgeville

03 1600EST **0 0** **1K** **Thunderstorm Wind**
The Milledgeville Union Recorder reported that a large tree fell on the deck of a home and a utility pole was broken at a hotel in town.

Bartow County

Emerson

03 1738EST **0 0** **Hail (0.75)**
The Bartow county 911 center reported dime size hail.

Bartow County

Taylorsville to
Cartersville

03 1800EST **0 0** **Urban/Sml Stream Fld**
The Cartersville Daily Tribune and the Bartow county 911 center both reported that several streets were flooded in the southern part of the county. There was also some minor flooding in low lying areas. Several streets in Cartersville were flooded, five of which had to be closed in the city.

Rockdale County

3 SSW Conyers

04 1500EST **0 0** **100K** **Lightning**
The Rockdale Citizen reported that lightning struck a one-story, but rather large home, on Ebenezer Road. The resulting fire destroyed the bonus room and caused extensive damage to the remainder of the structure. The house was rendered unlivable. One firefighter suffered heat exhaustion and required medical treatment.

Floyd County

Rome to
Cave Spg

05 1530EST **0 0** **0.50K** **Thunderstorm Wind**
1545EST
The public reported a few trees down in Rome and the Floyd county 911 center reported a few trees down at Cave Spring.

Bartow County

3 SE Allatoona to
Euharlee

05 1600EST **0 0** **1.5K** **Thunderstorm Wind**
The Bartow county 911 center reported that five trees were down near Acworth in the extreme southeast part of the county and the public reported that a few trees were also down in Euharlee.

Chattooga County

Summerville

05 1600EST **0 0** **50K** **Lightning**
The Summerville News reported that the county 911 center received extensive damage to computer equipment because of a lightning strike, either to the building or the nearby tower. The entire 911 center was briefly shut down when the lightning strike occurred before backup systems could be employed. A majority of the computers, telephone lines, recording equipment, communications equipment, and other pieces of equipment were either totally destroyed or shut down during the event.

Storm Data and Unusual Weather Phenomena

July 2001

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

Paulding County

3 NE Dallas to
Dallas

05 1611EST
1615EST

0 0 2K

Thunderstorm Wind (G56)

The Paulding county 911 center reported that trees and power lines were down on East Paulding Drive. A meteorologist from the Weather Channel reported that two trees were down and estimated winds to be 65 mph at another location in Dallas.

Douglas County

Douglasville

05 1613EST

0 0

Hail (0.75)

An amateur radio operator reported dime size hail.

Rockdale County

Conyers

05 1720EST
1730EST

0 0 0.50K

Thunderstorm Wind

The Rockdale county 911 center reported that two trees were down in town and the fire station reported that there were other trees with broken limbs.

Carroll County

Carrollton

05 1600EST

0 0 1K

Tstm Wind/Hail

The public reported that a tree fell on a house. Damage was believed to be relatively minor.

Clayton County

5 NNW Riverdale

05 1627EST
1649EST

0 0 1.5K

Thunderstorm Wind (G53) ^M

The Clayton county 911 center reported that a tree had fallen down on the roof of a house in Riverdale. The ASOS at Atlanta's Hartsfield International Airport recorded 61 mph.

Fulton County

9 NNW Atlanta to
Union City

05 1639EST

0 0 10K

Thunderstorm Wind (G56)

The Union City Police Department reported that a total of 16 trees were down throughout the city. The downed trees damaged four mobile homes and one house. Some of the trees were down on Interstate 85 at the Fairburn/Peachtree City exit, Georgia Highway 74. An amateur radio operator and the Fulton county 911 center also reported that several tree limbs were down on Interstate 75 near the Chattahoochee River which were impeding the flow of traffic. In addition, another tree was blown down on Cascade Road south of Adamsville. Winds were estimated by the Union City Police Department to be between 58 and 72 mph.

Coweta County

5 N Madras

05 1710EST

0 0 1K

Thunderstorm Wind

The Coweta county 911 center reported that they had received several reports of trees down across the northern part of the county.

De Kalb County

Stone Mtn

05 1718EST

0 0 1K

Tstm Wind/Hail

The DeKalb county 911 center reported that thunderstorm winds knocked down a power line.

Henry County

Stockbridge

05 1720EST

0 0 1K

Thunderstorm Wind

The Henry county 911 center reported that four trees were blown down.

Troup County

La Grange to
6 E Andersons Corner

05 1720EST

0 0 1.5K

Thunderstorm Wind

The Troup county 911 center reported that six trees were blown down between La Grange and the extreme southeast corner of the county near Pine Mountain.

Newton County

Porterdale

05 1725EST

0 0 1K

Thunderstorm Wind

The Newton county 911 center reported that several trees were blown down in Porterdale.

Heard County

Franklin

05 1737EST

0 0 0.25K

Tstm Wind/Hail

The Heard county 911 center reported that 1 tree was blown down.

Meriwether County

3 SE Greenville

05 1815EST

0 0 0.25K

Tstm Wind/Hail

The Meriwether county 911 center reported that one tree was blown down.

Upson County

The Rock

05 1815EST

0 0

Hail (0.88)

An amateur radio operator reported nickel size hail.

Upson County

The Rock to
Thomaston

05 1815EST
1830EST

0 0 2K

Thunderstorm Wind

An amateur radio operator reported that power lines were down in Thomaston and three trees were blown down at The Rock.

Storm Data and Unusual Weather Phenomena

July 2001

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

GEORGIA, North and Central

Peach County

Byron **05** **1915EST** **0** **0** **0.50K** **Tstm Wind/Hail**

The Peach county 911 center reported that one tree was blown down on a power line.

Crawford County

Roberta **05** **1916EST** **0** **0** **1K** **Thunderstorm Wind**

The Crawford county 911 center reported that two trees and one power line were blown down.

Wilkes County

Washington to **05** **2000EST** **0** **0** **Hail (0.75)**
3 SE Washington

The Wilkes county 911 center reported dime size hail from Washington to Aonia.

Fannin County

15 E Mc Caysville **09** **1433EST** **0** **0** **Hail (0.75)**

A trained spotter reported dime size hail.

Fannin County

15 E Mc Caysville **09** **1433EST** **0** **0** **1K** **Thunderstorm Wind**

A trained spotter reported that a tree was down on and blocking Georgia Highway 60. In addition, a power line was also down in the same area.

Bartow County

White to **09** **1732EST** **0** **0** **3K** **Hail (1.75)**
Cartersville **1755EST**

The public provided numerous reports of hail ranging in size from dime to half-dollar size hail in White to dime to golf ball size hail in Cartersville. Two cars were damaged in Cartersville by the large hail.

Bartow County

White to **09** **1732EST** **0** **0** **10K** **Thunderstorm Wind**
Cartersville **1740EST**

The Bartow county 911 center, as well as the Cartersville Daily Tribune, reported that several trees were blown down. The Rome News Tribune reported that at least 20 trees were blown down across Bartow county. The Bartow county Emergency Manager reported that one tree fell on an older house in Cartersville causing extensive damage to the house. There were also some power lines blown down as well as trees blown down on power lines.

Cherokee County

Woodstock **09** **1810EST** **0** **0** **0.75K** **Thunderstorm Wind (G52)**
1815EST

The public reported that two trees were blown down on Arnold Mill Road and the Cherokee county 911 center reported that several large size tree branches were knocked down in town as well.

Paulding County

Countywide **09** **1815EST** **0** **0** **3K** **Thunderstorm Wind**

The Greystone Electric Management Cooperative reported that trees were down on power lines which caused numerous power outages throughout the county.

Cobb County

Smyrna **09** **1818EST** **0** **0** **0.50K** **Tstm Wind/Hail**

The public reported that a large tree was blown down at a private residence.

Floyd County

Countywide **09** **1830EST** **0** **0** **5K** **Thunderstorm Wind**

The Rome News Tribune, as well as the Floyd county 911 center, reported that numerous trees and tree limbs were blown down all across the county by thunderstorm winds, especially from Cave Spring to Rome. Trees were even down on some of the major thoroughfares around Cave Spring. Technology Parkway was blocked by a fallen pine tree. A few of the downed trees also took down power lines.

Polk County

Cedartown **09** **1830EST** **0** **0** **2K** **Thunderstorm Wind**

The Rome News Tribune reported that eight large trees were down in Cedartown. The public reported that these were blocking some roads in the city.

Whitfield County

Tunnel Hill **19** **1630EST** **0** **1** **Lightning**

The Dalton Daily Citizen reported that a man was injured when lightning struck a nearby tree. The lightning bolt traveled from the tree through a wooden shed, in which the man was working, then down a shovel hanging on the wall and then on to the man's foot. The shovel was splintered. The man's foot turned completely black during the incident and remained numb for four hours. The man was taken to an emergency room and remained there for four hours before recovering and being released.

Meriwether County

3 W Alvaton **20** **1533EST** **0** **0** **0.50K** **Thunderstorm Wind**

The Meriwether county sheriff reported that two trees were blown down on a road.

Storm Data and Unusual Weather Phenomena

July 2001

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

Upson County

Thunder

20 1545EST 0 2 Lightning

The Upson County ARC reported that 2 boy scouts were struck by lightning while at the Thunder Scout Reservation in the extreme northwest part of the county northwest of Hendricks near the Flint River. The victims were transported to the Upson Regional Medical Center Emergency Room, treated, and released. The injuries were not serious.

Clarke County

Athens

25 0000EST 0 0 Heavy Rain
2359EST

Extremely heavy rain, aided by moisture from a weak tropical low pressure system, fell in Athens much of the morning, with light to moderate rain continuing throughout the afternoon and evening. By the end of the day, 6.22 inches of rain had fallen in Athens, making it the wettest July day in at least 70 years and the third wettest day for the entire year in at least 70 years. This daily rainfall also helped to bring the month to one of the wettest July's on record as well. By the end of the month, 10.38 inches of rain had fallen, exceeding only July of 1964 with 10.53 inches and July 1959 with 10.39 inches. The all time monthly maximum rainfall for Athens is 14.98, which occurred in December 1948.

Bartow County

Cartersville to Pine Log

25 0415EST 0 0 20K Lightning
0615EST

The Cartersville Daily Tribune News reported that four homes were set on fire when lightning struck nearby power lines. In two of the homes, the fire was contained before the fire department arrived. In the other two, damage was classified as minor.

Bartow County

Cartersville to Pine Log

25 0515EST 0 0 450K 50K Flash Flood
0900EST

The Bartow county Emergency Manager, as well as the local Cartersville Daily Tribune News, reported that anywhere from three to six inches of rain fell in a two to four hour period across the eastern and northeastern parts of Bartow county from Cartersville to Pine Log. Extensive flash flooding resulted, some of the worst flooding in the county's history. Sixteen homes and three mobile homes were flooded and had to be evacuated. Thirty-nine people had to be rescued from homes by boat. Most of the flooding took place in the Pine Log and White areas of northeast Bartow county as the Little Pine Log Creek overflowed. On Nally Road, just west of Pine Log, near the confluence of the Little Pine Log Creek and the Gum Springs Creek, three chicken houses were inundated with water. One of the chicken houses was a total loss and resulted in the loss of 20,000 broiler chickens. Other property at the farm was also damaged by flood waters including a barn and two more houses. Several streets were flooded in White and Pine Log. U.S. Highway 411 was under water at Stamp Creek Road and had to be closed. Local residents reported that this was the first time they had seen this happen in history. In Cartersville, flooding was less severe, but two to three inch rain totals in a two to three hour period resulted in some street flooding and flooding of two businesses.

Barrow County

Countywide

25 0600EST 0 0 Urban/Sml Stream Fld
1000EST

The Barrow county 911 center reported that there was minor flooding on several roads.

Clarke County

Countywide

25 0600EST 0 0 Urban/Sml Stream Fld
1000EST

The Clarke county 911 center reported that extremely heavy rain resulted in flooding of some roads, streets and low lying areas. Over six inches of rain fell during the day, making it the third wettest day in at least 70 years.

Gwinnett County

Countywide

25 0600EST 0 0 Urban/Sml Stream Fld
1000EST

The Gwinnett county 911 center reported that there was minor flooding on several roads.

Oconee County

Countywide

25 0630EST 0 0 Urban/Sml Stream Fld
1030EST

The Oconee county 911 center reported that there was minor flooding on several roads.

Gordon County

Countywide

25 0700EST 0 0 Urban/Sml Stream Fld
1100EST

The Gordon county 911 center reported that there was minor flooding on several roads.

Murray County

Countywide

25 0730EST 0 0 300K Flash Flood
0930EST

The Dalton Daily Citizen, and other local newspapers, reported that extensive flooding was caused by up to 3 inches of rain in less than 2 hours. Flooding caused damage to businesses and residences alike. Damages to businesses were concentrated in Chatsworth, where up to twelve stores were flooded in the Murray Plaza Shopping Center. Water was reported to have been 6 inches deep in most of these businesses. Several homes were also flooded in Chatsworth, Eton, and scattered in other areas of the county, especially near the Tennessee border. Ten people had to be evacuated from a flooded mobile home park near the Tennessee border.

Storm Data and Unusual Weather Phenomena

July 2001

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, North and Central

Toombs County

Lyons	30	1645EST 1700EST			0	0			Urban/Sml Stream Fld
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The Toombs county 911 center reported that there was minor flooding of Georgia Highway 152.

White County

Cleveland	30	1820EST			0	0			Lightning
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The White county 911 center reported that lightning struck a house. No other information or damages were given.

GEORGIA, Northeast

Franklin County

Lavonia	03	1705EST			0	0			Hail (0.75)
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Dime-sized hail reported at Interstate 85 exit number 173.

Hart County

10 SW Hartwell	09	1455EST			0	0			Thunderstorm Wind (G50)
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Numerous trees and power lines downed 2 miles east of Royston.

Hart County

8 NW Hartwell	09	1455EST			0	0			Thunderstorm Wind (G50)
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Trees blown down along Shoal Creek.

Hart County

4 E Hartwell	09	1515EST			0	0			Thunderstorm Wind (G50)
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Several trees blown down at a recreation area at Lake Hartwell.

Stephens County

4 W Toccoa	09	1550EST			0	0			Hail (0.88)
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Nickel-sized hail fell in Toccoa.

Thunderstorms developed ahead of a cold front that crossed northeast Georgia on the afternoon of the 9th, with a few storms producing damaging winds.

Franklin County

Countywide	25	1100EST 2000EST			0	0			Flash Flood
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Small streams and creeks flooded across the county. Highest rainfall amount came from Franklin Springs, with 7.78 inches of rain.

GEORGIA, Southeast

Candler County

Aline	03	1635EST			0	0			Thunderstorm Wind (G50)
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Power lines down.

Chatham County

Savannah	26	1300EST 1305EST			0	0	100K		Thunderstorm Wind (G50)
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Several trees and large limbs fell on an Acura, a Jeep Cherokee, and a Toyota Camry.

GEORGIA, Southwest

Mitchell County

Camilla	03	1805EST			0	0	5K		Lightning
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Lightning struck the 911 tower and knocked out communications for several hours. Reported by the Mitchell County EMA.

HAWAII

HIZ003-005>008

Maui - Molokai - Lanai - West Hawaii Including Leeward Kohala And Kona - South Hawaii Including Kau

01	0000HST	0	0						Drought
31	2359HST								

Maui County

A wide range of totals were recorded by gages across Maui County, where rainfall amounts went from 0 percent of average at 3 locations to greater than 100 percent of average at 4 locations. Wetter than average conditions were recorded by both gages on Molokai, an area sorely in need of additional rainfall. On the island of Maui, the gage at Hana recorded the highest rainfall total of 3.96 inches (71 percent of average), while the gage at Kahakuloa showed the highest percent of average value at 117 percent (1.75 inches). Gages at Kihei, Waikapu, and Lahainaluna, on the other hand, recorded zero rainfall in July. For the Kihei site, this marked the fourth consecutive month without rain. Four gages around Maui County are now at 50 percent or higher for the year, but the other 11 sites vary from 6 percent to 38 percent of average rainfall for 2001.

Island of Hawaii

The Kau portion of the Big Island was the driest in July, where both gages in the area recorded totals at only 14 percent of average. However, for the second consecutive month, all four gages in the Kona section of the island recorded totals above 70 percent of

Storm Data and Unusual Weather Phenomena

July 2001

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

HAWAII

average. The Kainaliu Upper gage recorded a total of 9.45 inches, the highest monthly amount since 9.90 inches in March 1997. This site also had the unusual distinction of having the highest single-day total for the month (3.01 inches on 12 July) across the Big Island, and this was the second month in a row that the highest single-day total came from the leeward, rather than the windward, side of the isle. Upslope pasture lands in South Kohala also received beneficial rains, with the Waikii gage recording 3.14 inches (393 percent of average). Rainfall totals for 2001 through the end of July have slipped below 70 percent of average in the Hilo area. Puna remained near average, and the remaining areas were mainly in the range of 40 to 60 percent of average.

The following list contains rainfall statistics for selected locations from Maui County and the island of Hawaii where there have been drought conditions. The first column is the observed rainfall for July. The second column is the 30-year average for each location, while the third column lists the percent of average for the month. The fourth and fifth columns are the year-to-date totals and the year-to-date percent of average, respectively.

	July 01	Avg.	%Avg.	YTD	YTD %Avg.
Maui					
Kihei	0.00	0.10	0	0.59	6
Lahainaluna	0.00	0.30	0	1.23	10
Kula	0.17	1.40	12	6.11	32
Ulupalakua	0.72	1.60	45	8.04	37
Molokai					
Kaunakakai	0.29	0.20	145	2.26	22
Kamalo	1.63	1.30	125	10.51	50
Lanai					
Lanai City	0.79	2.00	40	9.06	38
Island of Hawaii					
Honaunau	5.18	7.30	71	19.58	50
Kamuela (Upper)	5.65	4.40	128	17.54	48
Waiaha	5.77	7.00	82	21.03	48
Kahua Ranch	1.10	6.10	18	10.35	21
Kealahou	6.67	8.70	77	23.27	52

HIZ004-008 North And East Hawaii Including Windward Kohala / Hamakua / Hilo / Puna - South Hawaii Including Kau

02 1200HST 1800HST 0 0 High Surf

A trade wind swell caused surf of 4 to 6 feet along the east-facing shores of the island of Hawaii.

HIZ004-008 North And East Hawaii Including Windward Kohala / Hamakua / Hilo / Puna - South Hawaii Including Kau

04 1100HST 2000HST 0 0 High Surf

A trade wind swell produced surf of 5 to 8 feet along the east-facing shores of the island of Hawaii.

Honolulu County 3 SE Waialua

08 1211HST 1630HST 0 0 Wild/Forest Fire

A brush fire burned 10 acres along Kaukonahua Road above Waialua, near the University of Hawaii Poamoho experimental farm. However, no structures were affected by the blaze, no homeowners were evacuated from the area, and no injuries or other significant damage were reported. Forty firefighters, along with their equipment, were needed to contain the fire.

HIZ001>008 Kauai - Oahu - Maui - North And East Hawaii Including Windward Kohala / Hamakua / Hilo / Puna - Molokai - Lanai - West Hawaii Including Leeward Kohala And Kona - South Hawaii Including Kau

10 0900HST 13 1200HST 0 0 High Surf

A storm low in the Southern Hemisphere, in combination with a trade wind swell, generated surf of 6 to 10 feet along the east- and south-facing shores of all the Hawaiian Islands.

HIZ001>008 Kauai - Oahu - Maui - North And East Hawaii Including Windward Kohala / Hamakua / Hilo / Puna - Molokai - Lanai - West Hawaii Including Leeward Kohala And Kona - South Hawaii Including Kau

16 1130HST 20 1700HST 0 0 High Surf

A storm low in the Southern Hemisphere, in combination with a trade wind swell, caused surf of 8 to 12 feet along the east-clockwise through southwest-facing shores of all the Hawaiian Islands.

HIZ004-008 North And East Hawaii Including Windward Kohala / Hamakua / Hilo / Puna - South Hawaii Including Kau

20 1700HST 23 1600HST 0 0 High Surf

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HAWAII

A trade wind swell produced surf of 4 to 6 feet along the east-facing shores of the island of Hawaii.

HIZ001>005-008	Kauai - Oahu - Maui - North And East Hawaii Including Windward Kohala / Hamakua / Hilo / Puna - Molokai - South Hawaii Including Kau								
	25	0900HST 1500HST			0	0			High Surf

A trade wind swell caused surf of 4 to 6 feet along the east-facing shores of all the islands except Lanai.

HIZ001>005-008	Kauai - Oahu - Maui - North And East Hawaii Including Windward Kohala / Hamakua / Hilo / Puna - Molokai - South Hawaii Including Kau								
	30	1100HST			0	0			High Surf
	31	2359HST							

A trade wind swell generated surf of 6 to 10 feet along the east-facing shores of all the islands except Lanai.

IDAHO, Extreme Southeast

NONE REPORTED.

IDAHO, North

Idaho County

1 S Riggins	04	1920MST			0	0			Heavy Rain
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Heavy rain caused rock and mud slide to temporarily close highway 95 south of Riggins. Spotter reported 0.50 inches rainfall in one-half hour.

Idaho County

Grangeville	12	1610MST			0	0			Tstm Wind/Hail
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Some crop damage and windows broken after a thunderstorm moved north of Grangeville. Unknown damage cost.

Idaho County

Lowell	12	1610MST			0	0			Hail (1.00)
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Idaho County

Riggins	12	2255MST			0	0			Hail (0.75)
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Lemhi County

10 NW Shoup	13	1420MST			0	0			Hail (0.75)
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Idaho County

Cottonwood	20	1705MST			0	0			Tstm Wind/Hail
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Hail between 0.75-1.0 inch and thunderstorm winds to 65 mph. Large shed was moved off its foundation, two trees blown over, and part of roof blown off. Spotter reported one inch of rain fell in 20 minutes.

Idaho County

Kooskia	20	1745MST			0	0			Tstm Wind/Hail
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Hail to 0.88 inch and thunderstorm winds to 65 mph.

Lemhi County

15 E Leadore	21	1913MST			0	0			Thunderstorm Wind (G56)
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IDAHO, Northwest

NONE REPORTED.

IDAHO, Southeast

Cassia County

Malta	05	1500MST 1530MST			0	0	70K		Thunderstorm Wind (G60) ^M
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A severe thunderstorms with measured gusts to 69 mph affected the city of Malta in Cassia County. Most of the damage occurred just northeast of the city along Sublett Road. Several small trees were downed, an attached garage was destroyed, approximately 20 power poles were downed, some trees blown across Sublett road, several residential windows and car windows blown out. the strong winds hit between 4 pm and 5 pm MDT. Damage to the electric company alone measured 40,000 dollars.

Cassia County

7 S (By)Burley Muni A	05	1720MST 1730MST			0	0			Thunderstorm Wind (G52)
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Spotters estimated wind gusts in excess of 60 mph with severe thunderstorms. Several branches blown off trees.

Power County

Rockland	06	1800MST 1900MST			0	0			Flash Flood
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One inch of rain in 45 minutes caused the rock Creek to flood. No reports of damage were received.

Clark County

Spencer	07	1600MST 1700MST			0	0			Flash Flood
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		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property Damage	Crops	
IDAHO, Southeast									
Localized flooding occurred from 1.5 to 2.0 inches of rain in 2 hours in the northern portions of the town of Spencer.									
Caribou County									
Chesterfield	08	1500MST 1600MST			0	0			Flash Flood
Flash flooding occurred in the town of Chesterfield. Water ran across a road and lift debris on the west side of twenty-four mile reservoir.									
Cassia County									
South Central Portion	11	1300MST 1500MST			0	0			Flash Flood
Heavy rains from thunderstorms brought flash flooding to rural roads in the City of Rocks area									
Oneida County									
East Central Portion	11	1330MST 1430MST			0	0			Flash Flood
Flash flooding occurred in rural portions of central Oneida county.									
Bannock County									
Chubbuck	13	1300MST 1325MST			0	0			Hail (1.00)
Power County									
Rockland	13	1500MST 1530MST			0	0			Hail (0.75)
Cassia County									
14 S Oakley	14	1230MST 1430MST			0	0			Flash Flood
Radar indicated 1.5 inches of rain in less than an hour fell in southern Cassia county causing flooding on Birch Creek Road.									
Bannock County									
Arimo	15	1230MST 1250MST			0	0			Hail (1.50)
Caribou County									
Soda Spgs	15	1330MST 1350MST			0	0			Hail (1.00)
Cassia County									
15 E Burley	15	1345MST 1400MST			0	0			Hail (0.75)
Cassia County									
12 S Oakley	15	1400MST 1420MST			0	0			Hail (1.00)
Cassia County									
20 E Burley	15	1415MST 1430MST			0	0			Hail (0.75)
Power County									
8 N Rockland	15	1425MST 1450MST			0	0			Tornado (F0)
A weak tornado touched down near Massacre Rocks in the Rock Creek Road area between 3:25 PM and 3:50 PM MDT. The tornado was witnessed by many of the public and was also visible from the Pocatello NWS office to the southwest. The tornado occurred over open land and produced no damage. A survey by NWS personnel classified it as a low end F0 tornado. No personal or monetary losses occurred from this weak tornado.									
Power County									
Arbon	15	1535MST 1555MST			0	0			Thunderstorm Wind (G56)
Weather spotters in the town of Arbon reported damage with a thunderstorm wind estimated at 65 mph. Several large trees blown over and tin roofs blown off buildings and sheds.									
Custer County									
Challis Arpt	22	1704MST			0	0			Thunderstorm Wind (G54) ^M
IDAHO, Southwest									
Elmore County									
Mountain Home Afb	10	1710MST 1715MST			0	0			Funnel Cloud
A funnel cloud was observed by a trained spotter along a thunderstorm gust front near Mountain Home Air Force Base.									
IDZ015									
Southwest Highlands	14	1815MST 1855MST			0	0			Dust Storm

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		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property Damage	Crops	
IDAHO, Southwest									
IDZ012									
Lower Treasure Valley									
	14	1830MST 1925MST			0	0			Dust Storm
Thunderstorm outflow winds gusting to 50 mph picked up dust, reducing visibility to less than a quarter mile and locally to less than 100 yards. Shingles were blown off a roof near Givens Hot Springs in Owyhee County. The dust storm moved into Canyon County where visibility was reduced to 1/8 mile in Nampa near Interstate 84.									
ILLINOIS, Central									
Menard County									
7 S Petersburg	04	2058CST			0	0	0		Thunderstorm Wind (G50)
A large tree was blown down over Illinois Route 97 seven miles south of Petersburg.									
Champaign County									
Champaign to 1 E Broadlands	04	2128CST 2203CST			0	0			Thunderstorm Wind (G50)
Numerous power lines and trees were blown down, but no structural damage was reported.									
Sangamon County									
2 E Springfield Arpt to 5 SE Springfield Arpt	04	2130CST 2140CST			0	0			Thunderstorm Wind (G50)
Numerous power lines and trees were blown down on the north and east sides of Springfield.									
Christian County									
Grove City	04	2157CST			0	0			Thunderstorm Wind (G50)
A large tree was blown down in Grove City.									
Macon County									
Niantic to Warrensburg	04	2203CST 2215CST			0	0			Thunderstorm Wind (G50)
Several trees and large tree limbs were blown down in Niantic, Warrensburg and Harristown.									
Douglas County									
Tuscola to Camargo	04	2226CST 2232CST			0	0			Thunderstorm Wind (G50)
Several trees, large tree limbs, and power lines were blown down.									
Christian County									
Owaneco	04	2240CST			0	0			Thunderstorm Wind (G50)
Two large trees were blown over.									
Shelby County									
Tower Hill to 1 S Cowden	04	2256CST 2320CST			0	0			Thunderstorm Wind (G50)
Numerous trees were blown down, as well as, power lines and several power poles. In Tower Hill, one tree fell onto an unoccupied car, damaging it.									
Effingham County									
Beecher City to Edgewood	04 05	2332CST 0012CST			0	0			Thunderstorm Wind (G50)
Several trees and power lines were blown down in the Beecher City, Altamont, and Edgewood areas.									
Clay County									
4 E Flora	05	0040CST			0	0			Thunderstorm Wind (G50)
Two large trees were blown over onto a county road between Flora and Clay City.									
Stark County									
1 S Bradford	08	1300CST			0	0			Thunderstorm Wind (G56)
Thunderstorm winds blew down a one and a half foot diameter tree one mile south of Bradford.									
Marshall County									
Henry	08	1315CST 1316CST			0	0			Thunderstorm Wind (G52)
Thunderstorm winds blew down a large tent at the county fairgrounds. No injuries were reported.									
Woodford County									
Woodford	08	1345CST			0	0			Thunderstorm Wind (G50)
A downburst flattened a large cornfield near Woodford. No crop damage estimate was available.									
McLean County									
Gridley to Chenoa	08	1400CST 1405CST			0	0			Thunderstorm Wind (G52)
A large tree was blown over onto Illinois Route 24 in Chenoa, blocking it. Also, several cornfields were flattened southwest of Chenoa.									

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ILLINOIS, Central

Vermilion County

Hoopeston to
1 E Rossville

08 1450CST
1505CST 0 0 8.5M Thunderstorm Wind (G74)

Downburst winds caused considerable damage on the west side of Hoopeston. Three businesses were destroyed, one hundred homes sustained minor to moderate damage, and the EMS building was destroyed. Also, the sewer department suffered major damage and a church suffered minor damage. Numerous trees, tree limbs, power poles, and power lines were blown down in Hoopeston and areas to the southeast, east of Rossville. No injuries or deaths were reported. Damage was estimated around 8.5 million dollars.

Moultrie County

1 NW Lovington to
.4 S Lovington

08 1524CST
1527CST 0 0 Tornado (F0)

A tornado briefly touched down northwest of town flattening a cornfield, then caused minor roof damage to seven homes. Also, a garage suffered major damage with several trees and power lines blown down. No injuries were reported.

Moultrie County

2.5 SSE Sullivan

08 1549CST 0 0 0 0 Tornado (F0)

A tornado briefly touched down in a field. No damage or injuries were reported.

Coles County

Mattoon to
Charleston

08 1609CST
1626CST 0 0 Thunderstorm Wind (G50)

Numerous trees were blown down in the Mattoon, Fairgrange, and Charleston areas. Also, one mile south of Mattoon a 25 foot ham radio tower was blown down.

Edgar County

1 E Kansas

08 1614CST 0 0 Thunderstorm Wind (G50)

Numerous large tree limbs and several power lines were blown down.

Shelby County

2 E Findlay

08 1614CST 0 0 0 0 Tornado (F0)

A waterspout briefly touched down on the north end of Lake Shelbyville, east of Findlay. No injuries or damage were reported.

Cumberland County

Toledo

08 1655CST 0 0 Thunderstorm Wind (G50)

Another Ham radio tower was blown down in Toledo.

Crawford County

Countywide

08 1719CST
1735CST 0 0 Thunderstorm Wind (G50)

Numerous trees, tree limbs, power lines, and power poles were blown down countywide.

Clark County

Countywide

08 2257CST
09 0900CST 0 0 Flash Flood

Radar estimated over 5 inches of rainfall across the county overnight, with the heaviest rain falling between Marshall and Casey. A cooperative observer in Marshall reported 4 inches of rain during the period, with the Casey observer reporting 3.2 inches. Numerous county roads were reported to be flooded as well as streets in both Casey and Marshall. A portion of Cork Road at 1950th (4 miles northeast of Marshall) was reported to have been washed out. The Little Creek in Martinsville was reported to be out of its banks and water covering many of the bridges going over the creek. No injuries were reported and no damage figures were available.

Edgar County

Countywide

08 2320CST
09 0430CST 0 0 Flash Flood

Over 6 inches of rain fell in portions of the county during the period, especially in and around Kansas, where local residents reported nearly 8 inches of rain falling in the east part of the city. Radar was estimating anywhere from 8 to 10 inches of rain. Numerous roads were reported flooded for several hours. This included the intersections of Routes 133 and 49, between Paris and Kansas, and Route 133 west of Redmon. No roads were closed, but high water signs were posted for local motorists. Damage from the flooding was reported on the top of a concrete bridge south of Grandville, where a hole was created by the water. Several culverts were also washed away, including a 7 by 40 foot culvert in rural Edgar county. A school and a church were affected by the flooding in Kansas. No injuries were reported with any of the flooding and no damage figures are available at this time.

Coles County

Oakland

08 2345CST
09 0445CST 0 0 Flash Flood

Roads were reported flooded in Oakland, with a local resident reporting over 8 inches of new rainfall.

Crawford County

Countywide

09 0030CST
0630CST 0 0 Flash Flood

At 1240 am CST, several streets were reported to be flooded in Robinson, as well as many outlying county roads. A cooperative observer in Hutsonville reported 3.7 inches of rain for the 24 hour period. State Route 1A, as well as Route 33, west of Robinson, and the intersection of Route 1 and County Road 1300N were reported flooded in spots.

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ILLINOIS, Central									
Douglas County									
Tuscola	09	0155CST 0500CST			0	0			Flash Flood
At 155 am, flooding was reported under a viaduct 1mile west of Tuscola. A vehicle was caught in the water and stalled out. The driver escaped unharmed. By 220 am CST, several streets were reported flooded in Tuscola.									
Lawrence County									
Lawrenceville to Bridgeport	09	0400CST 0700CST			0	0			Flash Flood
Water was reported over the road on Route 250, between Lawrenceville and Bridgeport at 405 am CST. Several roads were also reported flooded in the towns of Lawrenceville and Bridgeport.									
ILZ056									
Coles									
	09	0445CST 1130CST			1	0			Flood
A fatality occurred after the flash flooding had ended. Around 1230 pm, an 87 year old man drove through an area where water was over the roadway, near Oakland. The water resulted from the runoff of the heavy rainfall earlier in the day into the nearby the headwaters of the Embarras River and a local creek (East Donica Creek). Eyewitness reports indicate the vehicle was lifted off the ground and was carried off the road, into a field. There was a drop of 8 to 10 feet from the edge of the road into the field. The flood waters spilled into the vehicle. By the time rescue units got to the scene, the vehicle was nearly covered in water. Rescuers managed to remove the gentleman, who was then transported to the hospital, where he was pronounced dead. M87VE									
Effingham County									
Altamont	09	0500CST 0815CST			0	0			Flash Flood
At 525 am CST, a street was reported flooded in the town of Altamont. By 650 am CST, numerous streets were reported flooded in the town.									
Lawrence County									
Bridgeport	09	0048CST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds blew down several large trees and tree limbs. One large tree limb fell onto a house causing minor damage.									
Schuyler County									
1 W Littleton	17	1420CST			0	0			Thunderstorm Wind (G61)
Fulton County									
8.5 ESE Astoria	17	1448CST			0	0			Thunderstorm Wind (G52)
Thunderstorm winds blew down numerous trees, including some that were over two feet in diameter at the Anderson Lake State Fish and Wildlife Area. Some buildings sustained minor damage due to the fallen trees.									
Mason County									
2 SE Bath	17	1458CST			0	0			Thunderstorm Wind (G50)
Six to eight power poles were blown down .									
Cass County									
Beardstown to Bluff Spgs	17	1517CST 1526CST			0	0			Thunderstorm Wind (G50)
Several trees and power lines were blown down.									
Cass County									
Beardstown	17	1520CST			0	0			Hail (0.75)
Menard County									
Petersburg	17	1536CST			0	0			Thunderstorm Wind (G50)
A large tree was blown over onto a delivery truck causing minor damage. Also, numerous other trees, tree limbs and power lines were blown down.									
Sangamon County									
Springfield Arpt to 2 E Divernon	17	1602CST 1647CST			0	0			Thunderstorm Wind (G54) ^M
Widespread damage was reported in Sangamon county. Numerous trees, tree limbs, power poles and power lines were blown down in Springfield, Dawson, Chatham and Divernon.									
Morgan County									
Concord to Murrayville	17	1622CST 1700CST			0	0			Thunderstorm Wind (G50)
Several trees, tree limbs, and power lines were blown down in Concord, Chapin and Murrayville.									
Christian County									
1 W Taylorville	17	1657CST			0	0			Thunderstorm Wind (G50)
Several power lines were blown down.									
Scott County									
Winchester to Glasgow	17	1705CST 1725CST			0	0			Thunderstorm Wind (G50)

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ILLINOIS, Northeast

ILZ014

Cook

04 2000CST 1 0 Excessive Heat
A 41 year old man died of heat stroke in his Chicago home. The high temperature on July 4th was 88 with dewpoints in the middle 50s. M41PH

La Salle County

5 W Streator to Lostant 08 1320CST 0 0 Thunderstorm Wind (G55)
1335CST

La Salle County

Streator 08 1330CST 0 0 Hail (0.88)

Livingston County

Countywide 08 1340CST 0 0 5K Thunderstorm Wind (G55)
1415CST

Grundy County

Coal City 08 1425CST 0 0 Thunderstorm Wind (G55)

Will County

Wilmington 08 1430CST 0 0 Thunderstorm Wind (G55)

Iroquois County

Countywide 08 1440CST 0 0 40K Thunderstorm Wind (G65)
1510CST

Kankakee County

St Anne 08 1450CST 0 0 250K Thunderstorm Wind (G65)

Ford County

Paxton 08 1455CST 0 0 Thunderstorm Wind (G52) ^M

A large bow echo moved across central Illinois during the afternoon hours of Sunday, July 8th. Most of the damage was in the form of trees and limbs blown down and power lines blown down. These locations include: five miles west of Streator in La Salle county; across all of Livingston county; across all of Iroquois county; and Paxton in Ford county.

In addition to trees and power lines blown down, a corn field was flattened by 60 mph winds four miles west of Streator in Livingston County. A one foot diameter tree limb fell onto a new pick-up truck and destroyed the topper over the bed in Dwight in Livingston county at 1415 CST. One hundred lineal feet of a 36 foot high concrete block wall was toppled at a construction site in Clifton in Iroquois county at 1440 CST. A storage building was heavily damaged in St. Anne in Kankakee county at 1450 CST. The roof was blown off, garage doors were bent and siding was ripped from the building. A large tree also fell onto a car in St. Anne. A large tree fell onto a semi trailer in Claytonville in Iroquois county at 1505 CST. Power outages were widespread across these counties. No injuries were reported.

ILZ014

Cook

17 2000CST 2 0 Excessive Heat
18 1200CST

A 62 year old man died of heat stress in Wilmette on July 17th. The high temperature was 86 degrees with dewpoints in the lower to middle 70s and heat indices in the lower to middle 90s. A 66 year old woman died of heat stress in Chicago on July 18th. The high temperature reached 85 degrees, with dewpoints in the lower 70s and heat indices around 90 degrees. M62PH, F66PH

Will County

Monee 21 1710CST 0 0 Thunderstorm Wind (G50)

Cook County

Tinley Park 21 1715CST 0 0 20K Lightning

Cook County

Southwest Portion 21 1730CST 0 0 500K Flash Flood
1915CST

Cook County

Orland Park to Tinley Park 21 1740CST 0 0 Thunderstorm Wind (G52) ^M
1745CST

Iroquois County

3 E Beaverville to 7 E Ashkum 21 1900CST 0 0 Thunderstorm Wind (G50)
1917CST

Du Page County

Wheaton 21 1935CST 0 0 Urban/Sml Stream Fld
2035CST

Thunderstorms formed along a lake breeze in northeast Illinois during the late afternoon and evening of Saturday, July 21st. Trees were blown down in Monee in Will county at 1710 CST. One 12 inch diameter tree was blown down in Orland Park in Cook county at 1740 CST and numerous trees were blown down in Tinley Park at 1745 CST. Trees were also blown down east of Beaverville and east of Ashkum in Iroquois county. Approximately 30,000 customers lost power from the storms. Lightning struck a house in Tinley

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ILLINOIS, Northeast

Park and ignited the roof on fire, causing significant damage to the roof.

But the main damage from these thunderstorms was torrential rainfall. The heaviest rain fell across southwest Cook county, extreme northeast Will county and central Dupage county. Water burst through a basement foundation in Tinley Park in Cook county. Water filled the basement and topped out at 6 feet, 11 inches deep. Several homes in Orland Park and Tinley Park had 2 to 4 feet of water in basements. Streets were also flooded in these areas. In Dupage county, one foot of water was reported across Main Street in Wheaton and the road was closed. Other roads had standing water. Some rainfall totals from this event include 3.08 inches in Olympia Fields, 2.79 inches in Park Forest, 2.30 inches in Winfield, and 2.03 inches in Glenwood. There were no reports of injuries.

ILZ014

Cook

21	2000CST	10	0	Excessive Heat
24	2000CST			

An excessive heat watch was issued on Friday, July 20th and an excessive heat warning was issued on Saturday, July 21st. The high temperature at Ohare Airport was 93 on both July 20th and 21st, 95 on July 22nd, 92 on July 23rd and 90 on July 24th. Daytime heat indices ranged between 100 and 107 degrees on July 20th through July 23rd. Midway Airport recorded the warmest temperature during this heat wave, 97 degrees during the afternoon of Sunday, July 22nd. On July 21st, a 58 year old man drowned after suffering a heat stroke along the Lake Michigan shore in Chicago. M44PH, M58IW, M58PH, F73PH, F79PH, M56PH, M43PH, F76PH, M75PH, M71PH

Boone County

Belvidere to Capron	22	1425CST 1440CST	0	0	Thunderstorm Wind (G50)
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Mchenry County

Richmond	22	1445CST 1450CST	0	0	Thunderstorm Wind (G50)
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Du Page County

Aurora	22	1455CST	0	0	Hail (1.25)
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Cook County

Barrington	22	1500CST	0	0	Thunderstorm Wind (G50)
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Cook County

Maywood	22	1500CST	1	0	Lightning
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F49OU

Lake County

Grayslake	22	1520CST 1530CST	0	0	Thunderstorm Wind (G50)
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Lake County

1 E Winthrop Harbor	22	1525CST 1530CST	0	0	Waterspout
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Cook County

Elk Grove	22	1545CST	0	0	Thunderstorm Wind (G50)
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Cook County

Winnetka	22	1545CST	0	0	Hail (1.00)
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Du Page County

Elmhurst to Lombard	22	1545CST	0	0	Thunderstorm Wind (G55)
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Kendall County

Yorkville	22	1620CST	0	0	Thunderstorm Wind (G50)
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Kane County

Aurora	22	1625CST	0	0	Thunderstorm Wind (G50)
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Kankakee County

Bradley	22	1730CST	0	0	Thunderstorm Wind (G50)
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La Salle County

Streator	22	1745CST	0	0	Thunderstorm Wind (G50)
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A line of thunderstorms moved southeast from southern Wisconsin into northern Illinois during the late afternoon of Sunday July 22nd. The line of thunderstorms interacted with a lake breeze moving west through Cook county from Lake Michigan. Most of the damage from these storms was in the form of trees and limbs down and power lines down which were received from: Belvidere and Capron in Boone county; Richmond, Crystal Lake and McHenry in McHenry county; Barrington and Elk Grove Village in Cook county; Wauconda and Grayslake in Lake county; Lombard in Dupage county; Yorkville in Kendall county; Aurora in Kane county; Bradley in Kankakee county and Streator in La Salle county. Trees were reported down on a car in Elmhurst in Dupage county at 1545 CST. A waterspout developed on the leading edge of this line of thunderstorms as it moved southeast across Lake county in Illinois one mile east of Winthrop Harbor. No injuries or damage were reported from this waterspout. 50,000 people lost power across the Chicago area during the storms. A 49 year old woman was struck by lightning around 1500 CST while walking through

Storm Data and Unusual Weather Phenomena

July 2001

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

ILLINOIS, Northeast

Du Page County

Aurora

Miller Meadow in Maywood. The woman died from extensive burns the next day.

23 1500CST **0 0** **3.5K** **Lightning**

Lightning struck a chimney of a house, went down the flue and damaged electrical equipment on the second floor.

Cook County

Calumet City

23 1530CST **0 1** **Lightning**

A 26 year old man was struck by lightning while sitting on his front porch. The lightning entered his body through his mouth and exited through his calf, throwing him against the front wall of the house. After a series of tests, he was released from the hospital the next day with only minor burns and bruises.

ILZ014

Cook

29 1600CST **6 0** **Excessive Heat**
31 2200CST

An excessive heat watch was issued on Monday, July 30th and an excessive heat warning was issued on Wednesday, August 1st. The high temperature at Ohare Airport was 90 on both July 29th and July 30th and 94 degrees on July 31st. Daytime heat indices were in the middle 90s on July 30th and between 100 and 105 on July 31st. This heat wave continued into August 2001. (See StormData, August 2001, Illinois Northeast) F85PH, F76PH, M63PH, M56PH, M54PH, M67PH

ILLINOIS, Northwest

Rock Island County

Andalusia

08 1145CST **0 0** **Thunderstorm Wind (G61)**

Dock ripped loose from the shore and boats damaged. Reported by Media.

Rock Island County

Countywide

08 1150CST **0 0** **Thunderstorm Wind (G61)**

Large limbs down throughout the county. Reported by law enforcement.

Henry County

Kewanee

08 1244CST **0 0** **Thunderstorm Wind (G50)** ^M

Tree limbs and power lines downed. Reported by trained storm spotter.

Putnam County

Countywide

08 1245CST **0 0** **Thunderstorm Wind (G61)**

Limbs down throughout the county, some blocking roads. Reported by law enforcement.

Bureau County

Manlius

08 1315CST **0 0** **Thunderstorm Wind (G52)**

4 to 6 inch tree limbs downed. Reported by emergency management.

Event Summary for 7/8/01:

Hot and humid conditions were found over the region with temperatures generally in the 90s and heat indices ranging from 100 to 110 degrees. A stationary boundary extended along the Interstate 80 corridor. This boundary was the focus for a narrow line of thunderstorms during the morning, which moved through the Quad Cities producing heavy rain of 1 to 2 inches per hour. This convection produced an outflow boundary which served as the focus for additional thunderstorm development by early afternoon. Also, thunderstorms re-developed over Central Iowa by early afternoon and moved east along the stationary front. Enough solar insolation resulted in very unstable conditions with CAPE in excess of 2500 J/KG. Cell mergers resulted in thunderstorms utilizing the pre-existing cold pool and accelerating southeast forming several small scale bow echoes. Several reports of strong to severe winds were received with wind gusts as high as 70 mph.

McDonough County

5 S Macomb

17 1354CST **0 0** **Hail (0.75)**

Warren County

11 E Roseville

17 1415CST **0 0** **Tornado (F0)**

An F0 tornado touched down one half mile west of the Knox/Warren County line on Route 116, or approximately 11 miles east of Roseville. This was a brief touch down with no damage. WQAD TV-8 provided The Quad Cities National Weather Service with footage of this tornado.

Bureau County

Princeton

18 0800CST **0 0** **Urban/Sml Stream Fld**
1000CST

Strong thunderstorms brought torrential rainfall, with 2.25 inches falling in Princeton as reported by a trained storm spotter. A spokesman for the Princeton Street Department was quoted as saying it was the first time in 18 years that he could remember most of Main Street flooding during a storm. The storm drains could not keep up, which was mostly attributed to grass clippings being blown into the street gutters. A car stalled in high water at the intersection of South Main Street and Boyd Avenue. The occupants pushed the car to higher pavement and then called for help. Nobody was injured. The water level was described by one of the occupants as "up to the truck bumpers deep".

Whiteside County

1 N Sterling

21 0300CST **0 0** **Heavy Rain**
0500CST

2.92 inches of rain fell in 2 hours, filling ditches and ponding on streets. Reported by a trained storm spotter.

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
ILLINOIS, Northwest									
Rock Island County									
Rock Is	21	0545CST			0	0			Urban/Sml Stream Fld
			11th street flooded. Reported by law enforcement.						
Hancock County									
Hamilton	24	2104CST			0	0			Thunderstorm Wind (G52)
			Power lines down. Reported by law enforcement.						
ILLINOIS, South									
Franklin County									
1 N West Frankfort to West Frankfort	03	1708CST 1720CST			0	0	25K		Thunderstorm Wind (G50)
			Numerous trees were blown down in and near West Frankfort. Just north of West Frankfort, a few trees were down across Highway 37. In West Frankfort, a two-foot diameter tree knocked down power lines. A large tree limb fell on a car and damaged a roof. A tree fell on the side of a house and damaged the siding. Four power lines were down in the area.						
Franklin County									
4 E West Frankfort	03	1710CST			0	0			Hail (1.75)
Williamson County									
3 N Johnston City	03	1740CST			0	0			Hail (0.75)
Jackson County									
Carbondale	03	1740CST			0	0			Hail (1.00)
Jackson County									
3 E Carbondale	03	1815CST			0	0			Thunderstorm Wind (G50)
			Five trees were down on Old Route 13.						
Williamson County									
10 W Marion	03	1835CST			0	0			Thunderstorm Wind (G50)
			Four trees were down over western parts of the county.						
Jackson County									
2 NW Carbondale	03	1835CST			0	0			Hail (0.75)
Jackson County									
Carbondale	03	1905CST 2145CST			0	0			Flash Flood
			Slow-moving thunderstorms caused extensive street flooding in Carbondale, with one to two feet of water at some intersections. Some streets were closed. Manhole covers were reportedly "blown" 12 to 18 inches above the road surface.						
ILZ075>078-080>094									
			Jefferson - Wayne - Edwards - Wabash - Perry - Franklin - Hamilton - White - Jackson - Williamson - Saline - Gallatin - Union - Johnson - Pope - Hardin - Alexander - Pulaski - Massac						
	07	1500CST			0	0			Excessive Heat
	09	1400CST							
			Daytime high temperatures in the mid to upper 90's, combined with dew points in the mid 70's, resulted in heat indices from 105 to 112 degrees. Nighttime heat indices only fell to around 80.						
Perry County									
Countywide	18	1300CST			0	0	10K		Thunderstorm Wind (G50)
			Numerous trees were blown down, some of which landed on power lines. In DuQuoin, a house roof's aluminum border was blown off.						
Perry County									
Du Quoin	18	1300CST 1400CST			0	0			Urban/Sml Stream Fld
			Thunderstorms produced 1.2 inches of rain in about an hour, causing street flooding. Up to a foot of water was standing on South Oak Street.						
Franklin County									
Rend Lake South to Benton	18	1330CST 1345CST			0	0			Thunderstorm Wind (G50)
			Damaging wind gusts associated with a cluster of severe thunderstorms spread southeast across Franklin County. Tree and power line damage was reported in many sections of the county. The first report of damage in the county was at Rend Lake, where trees were blown down. In Benton, large limbs and trees were down, and a third floor window was blown out of a building. A couple of trees were downed in Zeigler.						
Franklin County									
Benton to West Frankfort	18	1345CST 1400CST			0	0	10K		Thunderstorm Wind (G50)
			Thunderstorms producing damaging winds moved slowly south across Franklin County. Numerous trees and large limbs were blown down in West Frankfort.						

Storm Data and Unusual Weather Phenomena

July 2001

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									
Jackson County									
Carbondale	18	1352CST			0	0			Thunderstorm Wind (G50)
			Two trees and one power line were down.						
Williamson County									
Johnston City	18	1400CST			0	0			Thunderstorm Wind (G52)
			Numerous trees were blown down, some of which were up to 2 feet in diameter. Winds were estimated up to 65 MPH. The worst damage occurred east of Interstate 57. In Marion, police reported trees down in several locations. Several trees and power lines were blown down in Herrin.						
Johnson County									
New Burnside to 3 E Goreville	18	1409CST 1420CST			0	0			Thunderstorm Wind (G50)
			Trees were down, mainly in northeast Johnson County around New Burnside.						
Saline County									
Countywide	18	1410CST 1425CST			0	0	10K		Thunderstorm Wind (G52)
			Thunderstorm winds blew down numerous trees across Saline County. The brunt of the damage extended from 4 or 5 miles west of Harrisburg through Stonefort to the Pope County border. This included Carrier Mills and Ledford. Some of the trees landed on houses, but no exact count was available.						
Saline County									
Harrisburg	18	1415CST 1515CST			0	0			Urban/Sml Stream Fld
			Thunderstorms dropped 1.5 inches of rain in about an hour at the Harrisburg water plant. Some street flooding occurred, with one to two feet of water at one intersection.						
Hardin County									
Rosiclare	18	1445CST			0	0			Thunderstorm Wind (G50)
			Thunderstorm winds downed numerous trees across Hardin County, including a few in Rosiclare.						
Pope County									
Countywide	18	1445CST			0	0			Thunderstorm Wind (G50)
			Numerous trees were blown down across the county. One man was killed when his truck struck a fallen tree on Route 146, then overturned into a roadside creek.						
Alexander County									
Cairo	18	1545CST			0	0			Thunderstorm Wind (G50)
			Large tree limbs were blown down.						
Alexander County									
Olive Branch	19	1045CST 1140CST			0	0			Flash Flood
			Slow-moving thunderstorms persisted for several hours in a narrow band along the Mississippi River. On the Illinois side of the river, the heaviest rain was north of Cairo in Alexander County. Radar estimated rainfall amounts from 4 to 6 inches in this band. The automated observing system at the Cape Girardeau, Missouri airport measured about 5 inches of rain in six hours. Sections of Route 3 in Olive Branch were under water. Several smaller roads were closed.						
Johnson County									
2 SW Simpson	23	1830CST			0	0			Thunderstorm Wind (G50)
			Three trees were blown down across county roads.						
White County									
Crossville	24	0500CST 0700CST			0	0			Urban/Sml Stream Fld
			Thunderstorms dumped very heavy rain over the county, with the highest amounts near Crossville. Authorities closed a section of Route 1 near Crossville for a short time.						
Pulaski County									
Olmsted	26	0200CST 0500CST			0	0	25K		Flash Flood
			Slow-moving thunderstorms dumped torrential rains over Pulaski County. An engineer with the county highway department measured 3.5 inches of rain during the early morning hours. Rushing floodwater blocked Illinois Route 37 in two places for more than 4 hours near Olmsted and just south of America Road. An Olmsted convenience store was flooded by 5 inches of water. More than 20 county roads were closed. Four culverts were washed away by erosion and fast-moving debris. The hardest hit areas were in the central parts of the county, between New Grand Chain and America. Heavy rain damaged the roof of the Olmsted library and leaked into the building, damaging books.						
ILLINOIS, Southwest									
Fayette County									
Wrights Corner	04	2345CST			0	0			Hail (0.88)

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
ILLINOIS, Southwest									
Fayette County									
Wrights Corner	04	2345CST			0	0			Thunderstorm Wind (G52)
Storm spotters reported damaging wind gusts and nickel size hail in the Wright's Corner area. Some trees were downed and the headlights on a car were broken by the hail.									
Marion County									
Alma	05	0030CST			0	0	5K		Thunderstorm Wind (G55)
Emergency management officials reported numerous trees and power lines down in the Alma area. One tree fell on a house and another on a car.									
ILZ058>060-064>065-069>070-074-079-095>102									
Greene - Macoupin - Montgomery - Bond - Fayette - Clinton - Marion - Washington - Randolph - Adams - Brown - Pike - Calhoun - Jersey - Madison - St. Clair - Monroe									
	07	1100CST			0	0			Excessive Heat
	10	2100CST							
The first real heat wave of the summer hit the area July 7 through July 10. Temperatures peaked in the middle to upper 90s with the Heat index ranging from 105 to 110.									
ILZ058>060-064>065-069>070-074-079-095>102									
Greene - Macoupin - Montgomery - Bond - Fayette - Clinton - Marion - Washington - Randolph - Adams - Brown - Pike - Calhoun - Jersey - Madison - St. Clair - Monroe									
	17	1100CST			0	0			Excessive Heat
		2100CST							
A one day heat wave hit on July 17 as the temperature climbed into the lower to middle 90s. The very humid conditions pushed the Heat Index into the 110 to 115 range.									
Montgomery County									
Irving	17	1740CST			0	0			Thunderstorm Wind (G51)
The Irving Police reported 60 mph wind gusts.									
Greene County									
Wrights	17	1740CST			0	0			Thunderstorm Wind (G55)
Greene County									
Greenfield	17	1745CST			0	0			Hail (0.88)
Greene County									
Greenfield	17	1745CST			0	0			Thunderstorm Wind (G55)
Greene County									
2 S Greenfield	17	1750CST			0	0			Thunderstorm Wind (G55)
A severe thunderstorm caused scattered damage across Greene County. At Wrights, trees were down and a machine shed was severely damaged by wind gusts. In the Greenfield area, trees and power lines were down and a 2 car garage lost its door and part of the roof.									
Macoupin County									
Atwater	17	1759CST			0	0			Hail (1.25)
Storm spotters reported 1.25 inch hail at Atwater.									
Montgomery County									
Hillsboro	17	1808CST			0	0			Thunderstorm Wind (G55)
The County Sheriff reported trees and power lines down.									
Jersey County									
3 W Kemper	17	1810CST			0	0			Thunderstorm Wind (G55)
Jersey County									
Jerseyville	17	1820CST			0	0			Thunderstorm Wind (G55)
Jersey County									
2.5 E Jerseyville	17	1820CST			0	0			Thunderstorm Wind (G55)
Severe storms caused scattered wind damage across Jersey County. Large trees were reported down in the Kemper and Jerseyville areas. Power lines were also down.									
Montgomery County									
Panama	17	1815CST			0	0			Thunderstorm Wind (G52)
Local law enforcement reported trees and power lines down.									
Macoupin County									
Brighton	17	1825CST			0	0			Hail (0.75)
Storm spotters reported 3/4 inch hail.									
Bond County									
Greenville	17	1845CST			0	0	5K		Thunderstorm Wind (G55)
The Greenville Police reported 4 foot diameter trees down. One tree fell on and damaged a house.									

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Injured	Estimated Damage Property	Crops	Character of Storm
<u>ILLINOIS, Southwest</u>									
Madison County									
Godfrey	17	1849CST			0	0			Hail (0.75)
Madison County									
Alton	17	1855CST			0	0			Hail (1.00)
Madison County									
Alton	17	1900CST			0	0			Hail (1.75)
Hail up to golf ball size was reported across northeast Madison County.									
Madison County									
Collinsville	17	1930CST			0	0			Thunderstorm Wind (G55)
Local law enforcement reported numerous trees and power lines down.									
St. Clair County									
O Fallon	17	1940CST			0	0			Thunderstorm Wind (G55)
St. Clair County									
Belleville	17	1945CST			0	0			Thunderstorm Wind (G55)
Local law enforcement reported numerous trees and power lines down in the O'Fallon and Belleville areas.									
Washington County									
Nashville	18	1250CST			0	0			Thunderstorm Wind (G52)
Washington County									
Okawville	18	1255CST			0	0			Thunderstorm Wind (G52)
The County Sheriff reported trees and power lines down in the Nashville and Okawville areas.									
Madison County									
Fosterburg	19	0530CST			0	0			Thunderstorm Wind (G52)
Thunderstorm wind gusts downed trees in the Fosterburg area.									
Madison County									
Alton	19	1200CST 1400CST			0	0			Flash Flood
Randolph County									
Red Bud	19	1200CST 1400CST			0	0			Flash Flood
St. Clair County									
Belleville	19	1200CST 1400CST			0	0			Flash Flood
Rainfall of 3 to 4 inches caused flooding across parts of Madison, St. Clair and Randolph counties, particularly in the Alton, Belleville and Red Bud areas. Numerous roads had to be temporarily closed due to high water.									
Macoupin County									
Chesterfield	23	1630CST			0	0	100K		Lightning
A lightning strike caused an estimated \$100,000.00 damage to grain bins at a grain elevator business in Chesterfield.									
ILZ058>060-064>065-069>070-074-079-095>102									
	29	1100CST			0	0			Excessive Heat
	31	2100CST							
The 3rd mini heat wave of the month hit on July 29 through 31 and continued into early August. High temperatures hit the lower to middle 90s with the humidity pushing the Heat Index to the 105 to 110 range.									
<u>INDIANA, Central</u>									
Morgan County									
Morgantown	01	1430EST 1432EST			0	0			Hail (1.00)
Quarter size hail reported.									
Clay County									
Countywide	04	0430EST 1000EST			0	0			Urban/Sml Stream Fld
Parke County									
Countywide	04	0430EST 1000EST			0	0			Urban/Sml Stream Fld
Vermillion County									
Countywide	04	0430EST 1000EST			0	0			Urban/Sml Stream Fld

Storm Data and Unusual Weather Phenomena

July 2001

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									
Vigo County									
Countywide	04	0430EST 1000EST			0	0			Urban/Sml Stream Fld
									Around 4 inches of rain fell over about an 8 hour period causing many streets and low lying areas to become water covered.
Madison County									
Markleville	04	2205EST 2207EST			0	0			Thunderstorm Wind (G50)
Morgan County									
Morgantown	04	2230EST 2232EST			0	0			Thunderstorm Wind (G50)
Johnson County									
Franklin	04	2300EST			0	0	20K		Lightning
									A tree was hit by lightning and fell down on a house causing \$20,000 worth of damage. Meanwhile, thunderstorm winds knocked trees down in Morgantown and Markleville.
Marion County									
5 SE Camby	08	1050EST 1055EST			0	0	20K		Thunderstorm Wind (G50)
Shelby County									
Shelbyville	08	1130EST 1132EST			0	0			Thunderstorm Wind (G50)
Johnson County									
Rocklane	08	1135EST 1137EST			0	0			Thunderstorm Wind (G50)
Rush County									
Arlington	08	1136EST 1138EST			0	0			Thunderstorm Wind (G50)
Marion County									
Acton to Southport	08	1140EST 1145EST			0	0			Thunderstorm Wind (G50)
Decatur County									
Greensburg	08	1142EST 1144EST			0	0	10K		Thunderstorm Wind (G50)
									Numerous trees downed due to thunderstorm winds. In addition, a home in Decatur county sustained roof damage.
Marion County									
Speedway	08	1130EST			1	0			Lightning
									A golfer at the Eagle Creek Golf Course was struck by lightning and killed. M30GF
Hamilton County									
Fishers	08	1230EST			0	0	10K		Lightning
Hamilton County									
Carmel	08	1750EST			0	0	50K		Lightning
Hamilton County									
Carmel	08	1815EST			0	0	350K		Lightning
									3 different fires caused 410K worth of damage. A law firm in Carmel received the most damage with estimates at 350K.
Fountain County									
Covington	08	1627EST 1629EST			0	0			Thunderstorm Wind (G50)
Warren County									
Williamsport	08	1627EST 1629EST			0	0			Thunderstorm Wind (G50)
Vermillion County									
2 N Eugene	08	1635EST 1637EST			0	0			Thunderstorm Wind (G50)
Fountain County									
Mellott	08	1643EST 1644EST			0	0			Thunderstorm Wind (G50)
Tippecanoe County									
Lafayette	08	1650EST 1652EST			0	1	20K		Thunderstorm Wind (G50)

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
INDIANA, Central									
Carroll County									
Burlington	08	1700EST 1702EST			0	0			Thunderstorm Wind (G50)
Montgomery County									
Wingate to New Ross	08	1700EST 1715EST			0	0			Thunderstorm Wind (G50)
Parke County									
Rockville	08	1700EST 1702EST			0	0			Thunderstorm Wind (G50)
Clinton County									
Mulberry to Frankfort	08	1705EST 1710EST			0	0	10K		Thunderstorm Wind (G50)
Hendricks County									
Pittsboro	08	1714EST 1715EST			0	0			Thunderstorm Wind (G50) M
Howard County									
Greentown to Kokomo	08	1715EST 1720EST			0	0			Thunderstorm Wind (G56) M
Tipton County									
Groomville to New Lancaster	08	1720EST 1730EST			0	0			Thunderstorm Wind (G50)
Putnam County									
Russellville	08	1725EST 1745EST			0	0			Thunderstorm Wind (G50)
Hendricks County									
2 N Brownsburg	08	1728EST 1730EST			0	0			Thunderstorm Wind (G50)
Boone County									
Lebanon to Zionsville	08	1730EST 1740EST			0	0			Thunderstorm Wind (G50)
Marion County									
(Ind)Indnpls Intl Ar to Southport	08	1732EST 1740EST			0	0			Thunderstorm Wind (G52) M
Madison County									
Summitville to Elwood	08	1735EST 1741EST			0	0	20K		Thunderstorm Wind (G50)
Hamilton County									
Carmel	08	1750EST 1752EST			0	0			Thunderstorm Wind (G50)
Johnson County									
Franklin to Greenwood	08	1759EST 1807EST			0	0			Thunderstorm Wind (G50)
Delaware County									
Muncie	08	1800EST 1802EST			0	0			Thunderstorm Wind (G50)
Morgan County									
Morgantown	08	1800EST 1802EST			0	0			Thunderstorm Wind (G50)
Hancock County									
Greenfield to Finly	08	1807EST 1810EST			0	0	20K		Thunderstorm Wind (G50)
Henry County									
New Castle	08	1810EST 1812EST			0	0			Thunderstorm Wind (G50)
Rush County									
Gings	08	1817EST 1819EST			0	0			Thunderstorm Wind (G50)
Randolph County									
Losantville	08	1820EST 1822EST			0	0			Thunderstorm Wind (G50)

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
INDIANA, Central									
Bartholomew County									
7 NW Columbus	08	1829EST 1831EST			0	0			Thunderstorm Wind (G50)
Monroe County									
Bloomington	08	1840EST 1842EST			0	0			Thunderstorm Wind (G50)
Greene County									
Worthington	08	1842EST 1844EST			0	0	20K		Thunderstorm Wind (G60)
Decatur County									
Westport	08	1845EST 1847EST			0	0	20K		Thunderstorm Wind (G50)
Martin County									
Loogootee	08	1900EST 1902EST			0	0			Thunderstorm Wind (G50)
Jackson County									
Freetown to Kurtz	08	1905EST 1911EST			0	0			Thunderstorm Wind (G50)
Daviess County									
Washington	08	1915EST 1917EST			0	0			Thunderstorm Wind (G50)
Lawrence County									
Bedford	08	1915EST 1917EST			0	0			Thunderstorm Wind (G50)
<p>Early in the afternoon of July 8, an squall line developed over northwest Illinois and accelerate southeastward across the IND CWA . Dew points in the mid 70s were pooled south of a stationary front that was located across Northern Indiana and the upper dynamics were strong for July with strong uni-directional shear present. These ingredients resulted in a derecho event during the late afternoon and evening across Central Indiana. Trees were down across most of the counties in the IND CWA. Structural damage was not widespread, however as it was limited to trees falling on cars and houses and broken windows at the Kokomo Courthouse. An 18 year old girl had her neck broken as a tree fell on her car.</p>									
Marion County									
Southport	08	1735EST			0	0	7.5K		Lightning
Lightning struck a house causing minor damage.									
Clay County									
Clay City	09	0001EST			0	0	20K		Flash Flood
Sullivan County									
Sullivan	09	0100EST 0400EST			0	0			Flash Flood
<p>Slow moving thunderstorms dumped over 2 inches of rain across Clay and Sullivan counties during the late night of July 8 and the early morning of July. Several county roads were closed and a car was submerged in water near Clay City.</p>									
Marion County									
Speedway	09	0900EST			0	0			Lightning
A man was killed indirectly as he attempted to move a power line outside his apartment. The power line was downed the previous day by a lightning strike.									
Daviess County									
Alfordsville	20	0930EST 1230EST			0	0			Flash Flood
Martin County									
10 S Loogootee	20	0930EST 1100EST			0	0			Flash Flood
<p>3 to 4 inches of rain fell across Daviess and Martin counties in the early morning of July 20. Numerous roads were closed south of Loogootee, while most of the streets in Alfordsville were closed.</p>									
Clinton County									
4 W Rossville to 5 W Sedalia	21	1800EST 1810EST			0	0			Thunderstorm Wind (G50)
Hamilton County									
Carmel	21	1900EST 1904EST			0	0			Thunderstorm Wind (G50)

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property Damage	Crops	
<u>INDIANA, Central</u>									
Tipton County									
Tipton	21	1900EST 1902EST			0	0			Thunderstorm Wind (G50)
Hamilton County									
3 S Noblesville	21	1936EST 1938EST			0	0			Thunderstorm Wind (G50)
A line of thunderstorms downed several trees across the northern IND CWA.									
Vermillion County									
Clinton	28	1115EST			0	0	20K		Lightning
A lightning strike caused damage to equipment at a police station.									
Parke County									
1 S Bellmore to West Union	28	1912EST 1914EST			0	0			Thunderstorm Wind (G50)
Putnam County									
Cloverdale	28	1940EST 1942EST			0	0	20K		Thunderstorm Wind (G50)
Putnam County									
5 SW Greencastle	28	1945EST 1950EST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds downed a few trees across West Central Indiana. One of these trees fell on a house causing structural damage.									
Vigo County									
3 S Terre Haute	29	0330EST 0400EST			0	0			Flash Flood
Heavy rain caused a culvert to wash out.									
<u>INDIANA, Northeast</u>									
Starke County									
1 S Knox	04	0511EST			0	0			Hail (1.00)
Starke County									
5 E Knox	04	0514EST			0	0			Hail (1.00)
Marshall County									
3 NNE Bourbon	04	0530EST			0	0	0		Thunderstorm Wind
Tree down on Cedar Rd. and CR 9B. Large limbs down.									
St. Joseph County									
Sbn Michiana Arpt	04	0708EST			0	0			Hail (0.88)
Elkhart County									
1 SW Elkhart	04	0715EST			0	0	0		Thunderstorm Wind
Tree down across CR 16 west of SR 19.									
Starke County									
Toto	04	1407EST			0	0			Hail (0.88)
Starke County									
North Judson	04	1509EST			0	0			Hail (0.75)
Fulton County									
2 SSE Kewanna	04	1520EST			0	0			Hail (1.00)
Cass County									
2 N Logansport	04	1555EST			0	0	0		Thunderstorm Wind
Trees down on power lines.									
La Porte County									
Michigan City	07	0645EST			0	0			Urban/Sml Stream Fld
Roads flooded in Michigan City with a few stalled vehicles.									
Fulton County									
Rochester	07	0737EST			0	1			Lightning
One person hit by lightning.									
Wabash County									
La Fontaine	07	0745EST			0	0	50K		Lightning
A two story wood frame house was destroyed by fire after being struck by lightning. No injuries.									
Fulton County									
Akron	07	0819EST			0	0			Hail (1.00)
Grant County									
Marion	07	0850EST			0	0	0		Thunderstorm Wind

Storm Data and Unusual Weather Phenomena

July 2001

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

INDIANA, Northeast

A large tree was uprooted on the east side of the Grant county fairgrounds. The tree blocked the entrance to the grounds and hit power lines cutting power to the fairgrounds into early afternoon.

Wabash County

Countywide

07	0900EST			0	0				Urban/Sml Stream Fld
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Water over roads throughout the county.

Fulton County

Countywide

07	1000EST			0	0				Urban/Sml Stream Fld
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Water over roads and some basements flooded especially in the Rochester and Akron areas. Mill Creek in Rochester out of its' banks but did not affect any structures. Many reports of more than 5 inches of rain in 2 to 3 hours.

White County

3 S Wolcott

08	1628EST			0	0				Thunderstorm Wind (G58) ^M
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White County

Wolcott

08	1630EST			0	0	0			Thunderstorm Wind
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Several trees down in Wolcott.

Miami County

1 SW Bunker Hill

08	1709EST			0	0	0			Thunderstorm Wind
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Several trees down blocking road.

Cass County

Clymers

08	1710EST			0	0	5K			Thunderstorm Wind
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Five homes slightly damaged and garage moved off foundation. Trees down throughout town.

Cass County

Logansport

08	1710EST			0	0	1K			Thunderstorm Wind
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Large tree blown onto garage.

Miami County

Bunker Hill

08	1710EST			0	0	0			Thunderstorm Wind
----	---------	--	--	---	---	---	--	--	-------------------

Numerous trees and power lines down.

Pulaski County

7 SW Francesville to 8 S Francesville

10	1509EST			0	0	0			Tornado (F0)
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Tornado crossed into Pulaski county from Jasper county and traveled for about one mile before lifting. Funnel cloud was visible for another 15 minutes before dissipating near the Pulaski and White county line. Tornado was down in corn field.

Huntington County

Warren

10	1611EST			0	0	0			Thunderstorm Wind
----	---------	--	--	---	---	---	--	--	-------------------

Large tree limb down.

Adams County

Berne

21	1630EST			0	0	0			Thunderstorm Wind
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Power lines down.

Adams County

Berne

21	1700EST			0	0	0			Urban/Sml Stream Fld
----	---------	--	--	---	---	---	--	--	----------------------

Up to 4 inches of rain fell in about 1 and 1/2 hours causing most streets to flood and water in some basements.

Steuben County

Fremont

21	1700EST			0	0	9K			Urban/Sml Stream Fld
----	---------	--	--	---	---	----	--	--	----------------------

Store located in "a small gully" as described by owner experienced water up to the owners knee after rainfall of around 2 inches in 3 hours. No injuries.

Wells County

4 W Uniondale

23	2330EST			0	0	25K			Lightning
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Fire caused by lightning strike gutted 2nd story of wood frame house.

Grant County

Swayzee

29	0900EST 1100EST			0	0				Urban/Sml Stream Fld
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Stalled cars due to high water on SR 13 north of Swayzee and at intersection of SR 26.

INDIANA, Northwest

Porter County

2 NE Chesterton

07	0245CST			0	0	2K			Thunderstorm Wind (G50)
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A garage door was blown into the garage, windows of the garage were blown out and tree limbs were blown down north of the garage.

Storm Data and Unusual Weather Phenomena

July 2001

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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INDIANA, Northwest

Porter County

1 S Burdick

07 0454CST 0 0 12K Lightning
Lightning struck a garage at 452E and 1000N in Jackson Township at 0454 CST. The 24 foot by 24 foot garage was a total loss.

Newton County

Enos to
Brook

08 1516CST 0 0 20K Thunderstorm Wind (G60)
1530CST

Benton County

Countywide

08 1620EST 0 0 10K Thunderstorm Wind (G60)
1635EST

A bow echo moved east out of central Illinois into northwest Indiana during the afternoon of Sunday July 8th. A building was leveled in Enos in Newton county at 1516 CST and trees were blown down in Brook. Trees and powerlines were blown down across all of Benton county and one tree fell onto two cars in Fowler producing significant damage.

Jasper County

9 ENE Rensselaer to
12 E Rensselaer

10 1405CST 0 0 10K Tornado (F0)
1409CST

A tornado touched down near County Road 400E and 200S destroying a garage and damaging the corner of a roof of a barn. The tornado continued through corn and bean fields and exited Jasper County 12 miles east of Rensselaer and moved into Pulaski County. (See Storm Data for Indiana, Northeast)

Newton County

Enos

22 1810CST 0 0 Thunderstorm Wind (G50)
Trees and power lines blown down.

Jasper County

3 S Rensselaer

22 1840CST 0 0 Thunderstorm Wind (G52) ^M

Porter County

Chesterton

23 1548CST 0 0 10K Lightning
Lightning struck the northeast corner of a garage and started a small fire. Most of the damage to the garage was caused by smoke and water used to put out the fire.

Newton County

Brook

23 1745CST 0 0 Thunderstorm Wind (G50)
Trees and power lines blown down.

Benton County

5 N Fowler

23 1909EST 0 0 Thunderstorm Wind (G50)
Power lines blown down.

INDIANA, South Central

Jefferson County

Countywide

08 1911EST 0 0 Thunderstorm Wind (G60)
1930EST

Washington County

Countywide

08 1920EST 0 0 Thunderstorm Wind (G60)
1940EST

Orange County

Paoli

08 1926EST 0 0 Thunderstorm Wind (G60)

Scott County

Countywide

08 1930EST 0 0 Thunderstorm Wind (G60)
1940EST

Clark County

Jeffersonville

08 1950EST 0 0 Thunderstorm Wind (G60)

Crawford County

English

08 1950EST 0 0 Thunderstorm Wind (G60)

Harrison County

Palmyra

08 1955EST 0 0 Thunderstorm Wind (G60)

Dubois County

Countywide

08 2005EST 0 0 Thunderstorm Wind (G60)

Floyd County

Floyds Knobs

08 2005EST 0 0 Thunderstorm Wind (G60)

Clark County

Countywide

08 2015EST 0 0 Thunderstorm Wind (G60)

Trees and power lines were downed as a line of thunderstorms moved through south central Indiana.

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
<u>INDIANA, South Central</u>									
Dubois County									
Countywide	20	0730EST 0930EST			0	0			Flash Flood
			Water was reported across many county roads.						
Clark County									
Jeffersonville	22	1715EST 1800EST			0	0	30K		Flash Flood
			Four homes were flooded in Jeffersonville. Roads were covered with water. One car was submerged.						
<u>INDIANA, Southeast</u>									
Wayne County									
Economy to 5 NW Greens Fork	04	1940EST 1950EST			0	0	10K		Thunderstorm Wind (G60)
			A severe thunderstorm moved across the northwest and north-central part of the county downing trees between Economy and Greens Fork. Many of the trees fell across roads. Golf ball size hail also occurred in Economy.						
Ripley County									
Morris to Sunman	08	1150EST 1210EST			0	0	5K		Thunderstorm Wind (G50)
			Trees knocked down across the northern half of the county.						
Dearborn County									
Countywide	08	1220EST 1240EST			0	0	5K		Thunderstorm Wind (G50)
			Trees were knocked down across the county.						
Fayette County									
Orange	08	1220EST 1225EST			0	0	3K		Thunderstorm Wind (G50)
			Five trees were knocked down in Orange.						
Franklin County									
Countywide	08	1225EST 1245EST			0	0	5K		Thunderstorm Wind (G50)
			Several trees knocked down across the county.						
Ohio County									
Rising Sun	08	1234EST 1235EST			0	0			Thunderstorm Wind (G50) ^M
			Winds gusted to 60 mph.						
Switzerland County									
Countywide	08	1245EST 1255EST			0	0	10K		Thunderstorm Wind (G50)
			Numerous trees were knocked down across the county and a barn roof was blown off in Patriot.						
Wayne County									
Countywide	08	1825EST 1845EST			0	0	50K		Thunderstorm Wind (G50)
			Trees were knocked down across the county. Also, a roof was blown off a fire station in Milton.						
Fayette County									
Countywide	08	1830EST 1845EST			0	0	5K		Thunderstorm Wind (G50)
			Trees knocked down across the county.						
Union County									
5 S Liberty	08	1840EST 1845EST			0	0	3K		Thunderstorm Wind (G50)
			Thunderstorm winds knocked down trees.						
Franklin County									
Countywide	08	1855EST 1915EST			0	0	5K		Thunderstorm Wind (G50)
			Trees knocked down across the county.						
Ripley County									
Napoleon	08	1905EST 1910EST			0	0	3K		Thunderstorm Wind (G50)
			Many trees knocked down.						
Dearborn County									
Countywide	08	1915EST 1930EST			0	0	5K		Thunderstorm Wind (G50)

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
INDIANA, Southeast									
Trees knocked down across the county.									
Ohio County									
Countywide	08	1920EST 1930EST			0	0	3K		Thunderstorm Wind (G50)
Trees knocked down.									
Switzerland County									
Countywide	08	1927EST 1940EST			0	0	5K		Thunderstorm Wind (G50)
Trees knocked down.									
Two bow echoes moved across eastern Indiana on the 8th leaving a trail of damage across the region.									
Wayne County									
Hagerstown	17	1949EST 1952EST			0	0	3K		Thunderstorm Wind (G50)
Roof was peeled off of a barn									
Wayne County									
Richmond	17 18	2212EST 0300EST			0	0			Flood
Roads closed due to high water. Several people were rescued from their homes in Centerville.									
Union County									
Countywide	17 18	2330EST 0300EST			0	0			Flood
Six roads and one bridge closed across the county due to high water									
Fayette County									
Connersville	18	0100EST 0200EST			0	0			Flood
Streets impassible through town because of high water									
Dearborn County									
Lawrenceburg	18	0130EST 0230EST			0	0			Flood
US Route 50 closed because of high water									
Franklin County									
Brookville	18	0130EST 0230EST			0	0			Flood
Three to four feet of water reported on several roads									
INZ058									
Fayette	18	0400EST 0730EST			0	0			Flood
The Whitewater River crested at 17.8 feet at 0600 EST on the 18th. Flood stage is 17.0 feet. Flooding of low-lying agricultural land occurred in Fayette and northern Franklin counties, with water approaching nearby county roads along the river.									
Franklin County									
Countywide	18	2005EST 2230EST			0	0	5K		Flood
State Route 52 and several county roads were closed due to high water.									
Dearborn County									
Countywide	18	2130EST 2300EST			0	0	5K		Flood
Many roads were flooded across the county.									
Ripley County									
3 E Versailles	18	2130EST 2300EST			0	0	3K		Flood
Heavy rainfall forced the closing of US 50.									
Ripley County									
Holton to Milan	28	0730EST 1030EST			0	0			Flood
Thunderstorms produced heavy rain which flooded roads and caused creeks to overflow their banks.									
INDIANA, Southwest									
Pike County									
Petersburg	22	1240CST			0	0			Thunderstorm Wind (G50)
Four trees were down.									

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm	
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops		Damage
INDIANA, Southwest										
Pike County										
Petersburg	22	1245CST 1345CST			0	0				Urban/Sml Stream Fld
Slow-moving thunderstorms produced torrential downpours, estimated over 2 inches per hour. Road flooding was reported.										
Gibson County										
Princeton	23	1517CST			0	0				Thunderstorm Wind (G50)
Trees and power lines were blown down on the east and northeast side of Princeton.										
Vanderburgh County										
Evansville	25	1630CST 1830CST			0	0				Urban/Sml Stream Fld
Slow-moving thunderstorms caused some street flooding in and around Evansville, with water depths commonly 3 to 5 inches.										
Pike County										
Winslow	25	1720CST 1830CST			0	0				Urban/Sml Stream Fld
Slow-moving thunderstorms caused some county roads to flood. A spotter reported 1.5 to 2 inches per hour.										
Gibson County										
1.5 SW Ft Branch	26	1015CST 1045CST			0	0				Funnel Cloud
A funnel cloud was photographed just southwest of Fort Branch over a 30-minute period. The funnel was not associated with strong or severe thunderstorms.										
Vanderburgh County										
Evansville	28	1730CST 1840CST			0	0				Funnel Cloud
Over a period of about an hour and 45 minutes, numerous funnel clouds were observed over the Evansville area. One of the funnel clouds was photographed near the Vanderburgh County fairgrounds and 4H Center. No touchdowns were known to have occurred. Meteorological conditions were highly unfavorable for tornadoes, and no strong or severe thunderstorms were present.										
Gibson County										
Princeton to Ft Branch	29	0230CST 0430CST			0	0	8K			Flash Flood
Slow-moving thunderstorms produced excessive amounts of rainfall over much of Gibson County. Widespread street flooding occurred in Princeton. A section of Route 168 between Owensville and Fort Branch was flooded, but the road remained open. South of Princeton, one lane of U.S. Highway 41 was flooded. Behind the Toyota auto plant, Pigeon Creek rose rapidly out of its banks and flooded a couple of homes. Backed-up storm sewers flooded at least one basement in Princeton.										
Spencer County										
1 NE Gentryville	29	1637CST			0	0				Tornado (F0)
A trained spotter observed a funnel cloud dip below the treeline before dissipating. No damage was observed. The tornado was not associated with a strong or severe thunderstorm.										
IOWA, Central										
Kossuth County										
Titonka	03	0225CST			0	0	5K	5K		Hail (1.00)
Thunderstorms dropped southeast into northern Iowa during the predawn hours. One of the storms was severe as it moved across Kossuth County, dropping one inch diameter hail on the town of Titonka.										
Madison County										
Truro	03	1438CST			0	0	5K	5K		Hail (1.00)
Warren County										
2 W New Virginia	03	1438CST			0	0	3K	5K		Hail (1.00)
Madison County										
Truro	03	1445CST			0	0	50K	25K		Hail (4.00)
Clarke County										
7 N Osceola to 7.5 NE Osceola	03	1505CST 1508CST			0	0	10K	15K		Thunderstorm Wind (G65)
Warren County										
1 S New Virginia	03	1505CST			0	0	10K	2K		Thunderstorm Wind (G61)
Warren County										
3 SW Indianola	03	1506CST			0	0	10K	10K		Hail (1.75)
Warren County										
New Virginia	03	1506CST			0	0	5K	5K		Hail (1.00)
Clarke County										
Jamison	03	1514CST			0	0	25K	10K		Hail (2.00)

Storm Data and Unusual Weather Phenomena

July 2001

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									
Warren County									
Indianola	03	1522CST			0	0	25K	5K	Hail (1.75)
Warren County									
Ackworth	03	1528CST			0	0	15K	10K	Hail (1.75)
Warren County									
Beech	03	1543CST			0	0	15K	10K	Hail (2.00)
Ringgold County									
Beaconsfield	03	1554CST			0	0	2K	10K	Hail (0.88)
Marion County									
2 W Pleasantville	03	1555CST			0	0	2K	10K	Hail (0.88)
Ringgold County									
Beaconsfield	03	1556CST			0	0	10K	10K	Hail (1.75)
Clarke County									
Osceola	03	1558CST			0	0	50K	10K	Hail (2.50)
Marion County									
Pleasantville	03	1558CST			0	0	10K	10K	Hail (1.75)
Marion County									
3 W Otley	03	1614CST			0	0	15K	15K	Hail (3.00)
Decatur County									
Decatur City	03	1620CST			0	0	25K	10K	Hail (1.50)
Decatur County									
Leon	03	1639CST			0	0	2K	5K	Hail (0.88)
Decatur County									
Decatur City	03	1705CST			0	0	10K	5K	Thunderstorm Wind (G56)
Decatur County									
Decatur City	03	1713CST			0	0	5K	5K	Hail (1.00)
Decatur County									
1 SW Lamoni	03	1729CST			0	0	5K	10K	Hail (1.00)
Ringgold County									
8 S Kellerton	03	1730CST 1745CST			0	0	75K	15K	Thunderstorm Wind (G70)
<p>Moist and unstable air lifted north into Iowa during the day on the 3rd. Dew points 24 hours prior to the event ranged from the upper 20s to the low 50s across the state. During the night of the 2nd and day of the 3rd, dew point temperatures rose into the mid 60s to low 70s. Surface temperatures rose into the 80s to low 90s across the state. This produced CAPE values in the 2000 to 4000 J/kg across the state by the mid afternoon hours. A warm front inched into southern Iowa during the afternoon while at the same time a cold front was dropping southeast across the state from the northwest. A small area of high CAPE values over 5000 J/kg was present over south central Iowa. Thunderstorms erupted just south of the Des Moines metropolitan area by the mid afternoon hours. The cluster moved south during the afternoon and exited the state by evening. The severe weather event of the day was hail. Large hail developed within 10 to 15 minutes of the first echo. Numerous areas reported hail in excess of an inch in diameter, with several reports larger than golf ball in size. Hail 4 inches in diameter pounded the town of Truro in Madison County, causing extensive damage. Three inch diameter hail fell in Marion County in rural Otley. Extensive damage occurred in the town of Osceola with two and one half inch diameter hail falling there. There was little in the way of wind damage from the storms. A few reports were received, mainly toward the end of the event as the storms began to collapse. During the early part of the event, high winds south of New Virginia in Warren County toward Osceola in Clarke County caused damage in a two to three mile wide area. Trees were downed, several road signs were blown over, and some light structural damage was reported across the area. Late in the storms life cycle, 65 MPH winds were reported in Decatur City of Decatur County. A collapsing cell caused damage south of Kellerton in Ringgold County just before the storms moved out of the state. Trees and power lines were downed and a grain bin was blown 300 meters off of its foundation. During the 15 minute event, a motor home was rolled over by the high winds as well.</p>									
Sac County									
4 E Carnarvon	08	0700CST 0715CST			0	0	15K	2K	Thunderstorm Wind (G61)
Boone County									
Boone	08	0825CST			0	0	5K		Thunderstorm Wind (G52)
Boone County									
Boone	08	0845CST			0	0	3K		Thunderstorm Wind (G50)
Story County									
Nevada	08	0900CST			0	0	3K		Thunderstorm Wind (G50)
Marshall County									
State Center	08	0915CST			0	0	10K	2K	Thunderstorm Wind (G61)

Storm Data and Unusual Weather Phenomena

July 2001

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

Marshall County

State Center 08 0925CST 0 0 10K 2K **Thunderstorm Wind (G61)**

Marshall County

Marshalltown 08 0935CST 0 0 10K 3K **Thunderstorm Wind (G61)**

Marshall County

Marshalltown 08 0940CST 0 0 15K 5K **Thunderstorm Wind (G65)**

Tama County

Tama 08 0950CST 0 0 15K 5K **Thunderstorm Wind (G65)**

Tama County

Dysart 08 1010CST 0 0 10K 3K **Thunderstorm Wind (G61)**

Tama County

Tama 08 1025CST 0 0 10K 3K **Thunderstorm Wind (G61)**

Another round of elevated convection moved into Iowa shortly after sunrise for the second day in a row. The synoptic situation was very much unchanged from the morning before. A stationary front extended from the Nebraska Panhandle into far northwest Iowa and into Wisconsin. Aloft a fast west to northwest flow of air was in place as the sub-tropical ridge aloft was firmly in place over the central U.S. Dew Point temperatures were in the low to mid 70s at sunrise, making for a very unstable airmass. The airmass was capped so convection was not able to initiate from the surface in spite of a weak boundary which was left across Iowa from the previous days convection. As the thunderstorms moved into Iowa, a small cluster of storms raced east at over 50 MPH in what was a mini Derecho. As the storms moved through western Iowa, Sac County was the first to be hit. Seventy MPH winds downed several trees in the southern part of the county with reports of one out building being destroyed. The storms weakened after that until they reached central Iowa. Deeper moisture aid in the intensification of the storms in Boone County. High winds moved through Boone with several trees being blown down in town. The high winds continued as the storm moved through Story County. Most areas reported winds around 50 MPH, however the storm began to increase as it moved into the Nevada area. Several large tree limbs were downed and a 14 inch diameter pine tree was snapped off. Winds of 70 to 75 MPH were reported with the storm as it moved into the town of Marshalltown in Marshall County. Quite a bit of damage was reported to trees in the town itself. High winds continued with the storm as it raced across Tama County as well. Winds of 70 to 75 MPH were reported in the towns of Tama and Dysart, causing considerable tree and power line damage.

Tama County

4 S Montour 17 1227CST 0 0 5K 10K **Hail (1.75)**

Poweshiek County

4 N Brooklyn 17 1256CST 0 0 3K 10K **Hail (1.25)**

Thunderstorms erupted over central and east central Iowa ahead of an approaching warm front from the south. Very moist air was drawn north into Iowa, with dew point temperatures soaring into the upper 70s to mid 80s over southwest into central Iowa by late afternoon. The thunderstorms became severe over Tama County and dropped golf ball size hail south of the town of Montour. The storms continued to move southeast into Poweshiek County and dropped ping ball size hail north of Brooklyn.

Adams County

Nodaway 17 2332CST 0 0 3K 10K **Hail (1.00)**

Taylor County

Bedford 18 0040CST 0 0 5K **Thunderstorm Wind (G52)**

Ringgold County

Mt Ayr 18 0100CST 0 0 10K 2K **Thunderstorm Wind (G56)**

A very unstable airmass was in place over Iowa during the evening of the 17th. A warm front lifted north into the state. Behind it were dew point temperatures in the upper 70s to mid 80s F. Surface temperatures soared to over 100 degrees over the far southwest corner of the state. Lifted indices were lower than -14 C. with CAPE values measured with the 00 UTC sounding data from Omaha at near 8200 J/kg. Although the freezing level was nearly 16,000 feet, intense storms were able to produce severe hail. Intense thunderstorms developed over east central Nebraska during the mid evening hours. The storms moved east into western Iowa and produced hail and high winds. One inch diameter hail fell on the town of Nodaway in Adams County. The storms continued east, but hail production diminished as they did. The storms became high wind producers as the continued east. Gusts of 60 to 65 MPH swept through Taylor and Ringgold Counties. Both of the counties reported widespread power outages and tree damage. After moving through the Mt Ayr area, the storm weakened and then drifted southeast out of the state.

Cerro Gordo County

Mason City 20 1207CST 0 0 2K **Thunderstorm Wind (G50)**

Very unstable conditions were in place across Iowa. Surface dew point temperatures were in the mid 70s across the northern part of the state with a warm front approaching from the south. At the same time, an old outflow boundary moved into the northern part of the state from convection that had taken place during the previous night in Minnesota. Thunderstorms erupted along the boundary. As they moved through the Mason City area, winds gusted to 52 MPH in the city, causing some minor damage. One small tree was blown over and a few power lines were taken down by branches.

Polk County

Bondurant 22 1512CST 0 0 30K 5K **Thunderstorm Wind (G57)**

Storm Data and Unusual Weather Phenomena

July 2001

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									
Polk County									
Bondurant	22	1515CST			0	0	30K	5K	Thunderstorm Wind (G57)
Polk County									
Bondurant	22	1520CST			0	0	150K	15K	Thunderstorm Wind (G69)
Polk County									
Altoona	22	1522CST			0	0	35K	5K	Thunderstorm Wind (G57) ^M
Polk County									
Mitchellville to 1 S Mitchellville	22	1523CST			0	0	25K	50K	Thunderstorm Wind (G57)
Jasper County									
Colfax	22	1530CST			0	0	25K	50K	Thunderstorm Wind (G57)
Story County									
1 S Gilbert	22	1610CST			0	0	5K		Thunderstorm Wind (G52)
<p>A hot and unstable airmass was in place once again over Iowa. Thought the sub-tropical ridge of high pressure was in place over the state, thunderstorms were able to break the cap during the late afternoon. Temperatures soared into the mid 90s to near 100 with dew point temperatures in the mid 70s to mid 80s. Lifted indices at the time were around -12 degrees C, with CAPE values in excess of 6500 J/kg. An outflow boundary was located east to west just north of the Des Moines metropolitan area. Thunderstorms erupted just north of the city during the late afternoon. Though isolated, the storms became severe quite quickly and produced high winds. There was some marble size hail, however with freezing levels near 15000 feet, hail was quite limited. Sixty five MPH winds swept into the town of Bondurant causing power line damage and downed trees. There were several waves of wind as cells developed rapidly in the same area as the entire area sank southeast around 5 MPH. Structural damage was reported in Bondurant as the last cell moved through. This cell produced winds around 80 MPH, damaging roofs in the area. One bar and grill in town sustained \$85,000 in damage. A clearly defined funnel cloud was visible with the storm, however it did not touch down. As the storm moved southeast, 65 MPH winds were reported in the Altoona area by a HAM radio operator with a hand held anemometer. The winds spread out into western Jasper County, causing crop damage in the area. Thunderstorms fired a little later in the afternoon near the town of Gilbert in Story County. The storms produced 60 MPH winds for a short period of time, however the storms weakened rapidly.</p>									
Hamilton County									
Webster City	24	1300CST 1500CST			0	0	25K		Urban/Sml Stream Fld
Black Hawk County									
Waterloo	24	1500CST 1700CST			0	0	250K		Flash Flood
Black Hawk County									
Waterloo	24	1508CST			0	0	3K		Hail (0.88)
Black Hawk County									
Elk Run Hgts	24	1513CST			0	0	10K		Thunderstorm Wind (G57)
Story County									
Ames	24	1515CST			0	0	3K		Thunderstorm Wind (G52)
Black Hawk County									
5 SE Waterloo	24	1520CST			0	0	50K	10K	Thunderstorm Wind (G69)
Story County									
Ames	24	1535CST			0	0	10K		Thunderstorm Wind (G52)
Polk County									
5 S West Des Moines	24	1536CST			0	0		1K	Tornado (F0)
Brief touchdown in field south of town.									
Polk County									
Windsor Hgts	24	1536CST			0	0	3K		Hail (0.88)
Wapello County									
Ottumwa Arpt	24	1836CST			0	0	3K		Thunderstorm Wind (G54) ^M
Wapello County									
2 N Agency	24	1920CST			0	0	10K	2K	Thunderstorm Wind (G61)

Iowa continued to be in a very unstable airmass with temperatures in the 80s and dew point temperatures well into the 70s. A mesoscale vorticity maximum developed over the High Plains during the previous night and was located over northeast Nebraska during the morning of the 24th. A complex of thunderstorms continued to move east into northwest Iowa. As daytime heating continued, the storms became stronger and more organized. The main product into the early afternoon hours was heavy rainfall. During the early to mid afternoon hours, meso analysis clearly indicated the development of a surface low pressure system. As the outflow, or meso cold front, dropped southeast into southern Iowa it encountered very rich air with dew points in the low 80s. Thunderstorms developed explosively in central Iowa. Within 15 to 20 minutes of initial development the storms became severe. A tornado touched down in an open field in southern Polk County, about 5 miles south of West Des Moines. The tornado was not well

Storm Data and Unusual Weather Phenomena

July 2001

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

IOWA, Central

organized and did little damage. Most of the storms that became severe produced high winds. Winds of 65 MPH were reported in the Waterloo area. One cell produced a wet microburst southeast of the city of Waterloo with winds around 80 MPH. The high winds ripped the roof off of a house there, resulting in the house being toppled. The storms left 2.29 inches of rain officially in the city, though some areas unofficially reported in excess of 8 inches. Considerable urban flooding took place in the city of Waterloo, with flash flooding in the outlying areas. Many basements were flooded as reports of standing water nearly 3 feet deep in the streets were received. Earlier in the afternoon heavy rains fell in Webster City. Upwards of 2 inches of rain fell in under an hour causing urban flooding in the city. The water receded quickly after the rain stopped. High winds were also reported in Story County in the Ames area. A few reports of hail were received, but the hail was not all that large being as the freezing level was 15000 feet. Nickle size hail fell in Waterloo and also in Windsor Heights. After the initial fury of activity, the storms did not produce severe weather for a few hours. As the storms continued to move east, they picked up in intensity again in the Ottumwa area. Winds of 60 to 70 MPH blew through Ottumwa and continued east toward the Agency area.

IOWA, East Central and Southeast

Benton County

Belle Plaine	08	1010CST	0	0	Thunderstorm Wind (G57)	M
65 mph wind gust. Reported by emergency management.						

Benton County

3 SE Garrison	08	1025CST	0	0	Thunderstorm Wind (G52)	
Large tree uprooted with numerous limbs down.						

Iowa County

South Amana	08	1100CST	0	0	Thunderstorm Wind (G52)	
8 inch limb down. Reported by trained storm spotter.						

Johnson County

Iowa City	08	1100CST	0	0	Thunderstorm Wind (G52)	
60 mph wind gust. Reported by law enforcement.						

Linn County

Cedar Rapids	08	1100CST	0	0	Thunderstorm Wind (G52)	M
60 mph wind gust. Reported by trained storm spotter.						

Linn County

Palo	08	1100CST	0	0	Thunderstorm Wind (G61)	
Severe winds pushed an empty grain train down the tracks. Reported by emergency management.						

Linn County

Cedar Rapids	08	1102CST	0	0	Thunderstorm Wind (G61)	
70 mph wind gust downed trees and damaged a communications tower. Reported by law enforcement.						

Linn County

Fairfax	08	1102CST	0	1	Lightning	
Reported by law enforcement.						

Linn County

Cedar Rapids	08	1105CST	0	0	Thunderstorm Wind (G52)	M
60 mph wind gust brought down a one foot diameter tree limb. Reported by news media.						

Linn County

Hiawatha	08	1110CST	0	0	Thunderstorm Wind (G61)	
Large trees and power poles snapped. Reported by emergency management.						

Cedar County

West Branch	08	1115CST	0	0	Thunderstorm Wind (G61)	
Power lines and trees downed. Reported by law enforcement.						

Linn County

Mt Vernon	08	1115CST	0	0	Thunderstorm Wind (G52)	
8 inch limbs downed. Reported by emergency management.						

Cedar County

Tipton	08	1120CST	0	0	Thunderstorm Wind (G52)	
Large tree limbs downed. Reported by law enforcement.						

Linn County

Springville	08	1120CST	0	0	Thunderstorm Wind (G52)	M
60 mph wind gust knocked down tree limbs. Reported by emergency management.						

Scott County

4 W Plainview	08	1125CST	0	0	Hail (0.88)	
Nickle sized hail. Reported by amateur radio.						

Johnson County

Countywide	08	1130CST	0	0	Thunderstorm Wind (G52)	
Tree limbs down throughout the county. Reported by law enforcement.						

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm	
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops		
IOWA, East Central and Southeast										
Muscatine County										
Muscatine	08	1133CST			0	0			Thunderstorm Wind (G65)	M
			75 mph wind gust. Reported by cooperative observer.							
Scott County										
Blue Grass	08	1140CST			0	0			Thunderstorm Wind (G52)	
			Several 6 inch limbs downed. Reported by off duty NWS employee.							
Jones County										
Scotch Grove	08	1146CST			0	0			Thunderstorm Wind (G70)	
			Severe wind tore the top off a camper on Highway 38 between Monticello and Wyoming. Reported by law enforcement.							
Scott County										
Davenport	08	1205CST			0	0			Thunderstorm Wind (G52)	
			8 inch diameter limb knocked down on power lines on the west side of the city. Reported by the general public.							
Muscatine County										
Muscatine	08	1208CST			0	0			Thunderstorm Wind (G65)	
			Numerous trees down and debris in streets. Reported by emergency management.							
			Event Summary for 7/8/01: Hot and humid conditions were found over the region with temperatures generally in the 90s and heat indices ranging from 100 to 110 degrees. A stationary boundary extended along the Interstate 80 corridor. This boundary was the focus for a narrow line of thunderstorms during the morning, which moved from Cedar Rapids eastward through the Quad Cities producing heavy rain of 1 to 2 inches per hour. This convection produced an outflow boundary which served as the focus for additional thunderstorm development by early afternoon. Also, thunderstorms re-developed over Central Iowa by early afternoon and moved east along the stationary front. Enough solar insolation resulted in very unstable conditions with CAPE in excess of 2500 J/KG. Cell mergers resulted in thunderstorms utilizing the pre-existing cold pool and accelerating southeast forming several small scale bow echoes. Many reports of strong to severe winds were received with wind gusts as high as 75 to 80 mph.							
Louisa County										
5 W Wapello	17	1345CST			0	0			Hail (0.75)	
			Penny sized hail. Reported by law enforcement.							
Buchanan County										
Independence	21	0252CST			0	0			Urban/Sml Stream Fld	
			Several streets flooded. Reported by law enforcement.							
Buchanan County										
Jesup	21	0252CST			0	0			Urban/Sml Stream Fld	
			Several streets flooded. Reported by law enforcement.							
Linn County										
Central City	21	0405CST			0	0			Thunderstorm Wind (G52)	
			Corn field flattened. Reported by National Weather Service cooperative observer.							
Linn County										
Springville	21	0408CST			0	0			Thunderstorm Wind (G52)	
			Power lines and wires down. Reported by law enforcement.							
Scott County										
Davenport	21	0530CST			0	0			Thunderstorm Wind (G52)	
			Wind knocked over the starting tower at The Quad City Times Bix 7 Road Race. Reported by media.							
Scott County										
Davenport	21	0530CST			0	0			Urban/Sml Stream Fld	
			Several streets flooded. Reported by law enforcement.							
			Event Summary for 7/21/01: Scattered thunderstorms developed during the early morning, producing isolated reports of damaging winds. A microburst was likely to blame for flattening a corn field in Central City. Strong winds also whipped through Davenport, just prior to the start of The Quad City Times Bix 7 Road Race, toppling the race starting tower. No injuries were reported. Aside from the isolated damaging wind reports, the main threat with the storms was very heavy rain. Rainfall amounts of 2 to 3 inches produced localized flooding of streets in portions of Buchanan and Scott counties.							
Buchanan County										
Independence	24	1500CST 1704CST			0	0			Heavy Rain	
			2.56 inches of rain fell in just over 2 hours. Reported by emergency management.							
Buchanan County										
Jesup	24	1500CST 1630CST			0	0			Heavy Rain	
			2.04 inches of rain fell in 90 minutes. Reported by emergency management.							

Storm Data and Unusual Weather Phenomena

July 2001

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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IOWA, East Central and Southeast

Buchanan County

Jesup	24	1630CST			0 0		Urban/Sml Stream Fld
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Small creek out of it's banks just west of Jesup, with water covering a county road. Reported by emergency management.

Jones County

Anamosa	24	1756CST			0 0		Thunderstorm Wind (G57)
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Large tree down blocking city street. Reported by emergency management.

Jackson County

1 E Maquoketa	24	1842CST			0 0		Thunderstorm Wind (G52)
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60 mph wind gust. Reported by law enforcement.

Clinton County

Calamus	24	1850CST			0 0		Thunderstorm Wind (G57)
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Tree blown down on a house. Reported by law enforcement.

Clinton County

Lost Nation	24	1850CST			0 0		Thunderstorm Wind (G52)
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Large tree limbs down. Reported by trained storm spotter.

Henry County

Mt Pleasant	24	1945CST			0 0		Thunderstorm Wind (G57)
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Large tree down, partially blocking street. Reported by law enforcement.

Henry County

Salem	24	1957CST			0 0		Thunderstorm Wind (G57)
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Large trees down. Reported by trained storm spotter.

Des Moines County

Burlington	24	2032CST			0 0		Thunderstorm Wind (G52)
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Power lines down. Reported by law enforcement.

Event Summary for 7/24/01:

An east-west frontal boundary was positioned near the Highway 20 corridor by late afternoon. This boundary was the dividing line between slightly cooler and drier air to the north (temperatures in the 80s and dewpoints in the middle 60s), with hot and humid conditions to the south (temperatures in the lower 90s and dewpoints in the middle to upper 70s). This contrast in airmasses fueled a line of severe thunderstorms during the late afternoon. This line developed a bowing segment which moved across portions of Jones, Jackson and Clinton counties, producing wind damage. Winds were estimated between 60 mph and 70 mph, downing trees and power lines.

IOWA, Northeast

Mitchell County

Carpenter	21	1235CST			0 0		Hail (0.75)
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IAZ008>011-018>019-029>030 Mitchell - Howard - Winneshiek - Allamakee - Floyd - Chickasaw - Fayette - Clayton

	31	1300CST 2359CST			0 0		Excessive Heat
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High humidity combined with temperatures in the middle to upper 90s produced heat indices of 105 to 115. The dangerous heat continued to affect northeast Iowa during the first week and a half of August.

IOWA, Northwest

Plymouth County

5 SW Hinton	07	0758CST			0 0		Thunderstorm Wind (G52)
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Cherokee County

6 SE Quimby	07	0820CST			0 0	5K	Thunderstorm Wind (G52)
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Thunderstorm winds caused tree damage and tossed patio furniture.

Ida County

7 N Battle Creek	07	0820CST			0 0		Thunderstorm Wind (G57)
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Thunderstorm winds caused tree damage, blew over power poles, and flattened corn. The amount of property and crop damage was not known.

Woodbury County

3 NE Merville	07	0823CST			0 0		Thunderstorm Wind (G52)
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Plymouth County

2 NW Kingsley	07	0830CST			0 0		Thunderstorm Wind (G52)
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Ida County

Holstein	07	0850CST			0 0		Thunderstorm Wind (G52)
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Cherokee County

5 W Washita	07	0850CST			0 0		Thunderstorm Wind (G52)
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Storm Data and Unusual Weather Phenomena

July 2001

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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IOWA, Northwest

Lyon County

Rock Rapids	24	0928CST 1100CST			0	0			Flood
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Rainfall of three and a half inches caused flooding of the Lyon County fairgrounds, forcing several fair events to be cancelled or postponed. The fair manager described part of the fairgrounds as like a lake, and six to eight inches of water stood in livestock barns.

Sioux County

Sioux Center	24	1030CST			0	0			Flood
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Heavy rainfall of around two inches caused flooding of streets and small creeks in town.

IOWA, Southwest

Mills County

3 N Glenwood	03	0558CST			0	0			Hail (0.75)
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Pottawattamie County

Carter Lake	17	2235CST			0	0			Thunderstorm Wind (G60)
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Large tree limbs were broken by thunderstorm wind gusts which were around 70 mph. A gust of 70 mph was measured at Eppley Airfield which is just a mile or so east of Carter Lake.

Montgomery County

Villisca	17	2316CST			0	0			Thunderstorm Wind (G55)
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Thunderstorm winds estimated at over 60 mph downed power poles causing a power outage in Villisca.

Page County

Clarinda	18	0019CST			0	0			Thunderstorm Wind (G55)
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A ham radio operator estimated thunderstorm wind gusts of between 60 and 70 mph. Large tree limbs were downed.

IAZ055>056-069-079>080-090>091

Harrison - Shelby - Pottawattamie - Mills - Montgomery - Fremont - Page

28	1800CST				0	0			Excessive Heat
31	2359CST								

A heat wave of which lasted over 1 week affected much of eastern Nebraska and southwest Iowa from late July into early August. The heat was finally broken by a cold front that pushed afternoon temperatures down into the 80s on 8/09/01. During the heat wave, high temperatures were consistently in the mid to upper 90s with overnight lows in the mid to upper 70s. The dewpoints were also very high, often times in the mid 70s and even around 80 or in the lower 80s. The heat index during this time frequently reached 105 to 115 degrees from mid afternoon into early evening. The extreme heat caused a 39 year-old male to die of heat stroke while on a work-release construction site near Beatrice, Nebraska on the 30th.

KANSAS, East

Washington County

Greenleaf	03	1840CST			0	0			Hail (0.88)
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Marshall County

2 S Home	03	1947CST			0	0			Hail (1.75)
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Cloud County

2 SSW Glasco	05	0150CST			0	0	0.30K		Lightning
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Lightning struck a wheat field and started a fire, but rain soon put it out.

Cloud County

4 WSW Glasco	05	0200CST			0	0			Hail (1.00)
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Ottawa County

3 S Delphos	05	0200CST			0	0			Hail (0.88)
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Morris County

4 S White City	05	0250CST			0	0			Hail (2.00)
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Clay County

3 ENE Longford	05	0325CST			0	0			Hail (1.75)
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Clay County

3 ENE Longford	05	0325CST			0	0	2K		Thunderstorm Wind (G61)
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Strong winds ripped a door and its metal siding from an outbuilding and carried it 60 feet into a farmhouse.

Dickinson County

15 N Enterprise	05	0337CST			0	0			Hail (0.75)
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Thunderstorms developed over north central Kansas during the early morning hours of the 5th. Some of the storms became severe and produced reports of large hail, some strong winds and one fire started by lightning.

Marshall County

Home	11	2320CST			0	0			Hail (0.75)
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Marshall County

Frankfort	11	2348CST			0	0			Hail (0.75)
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Storm Data and Unusual Weather Phenomena

July 2001

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, East</u>									
Brown County									
4 S Powhattan	12	0147CST			0	0			Hail (0.75)
Pottawatomie County									
Belvue	16	0500CST 0630CST			0	0			Urban/Sml Stream Fld
Four inches of rain in a short period caused water to overflow U.S. Highway 24 near Belvue for a time.									
Republic County									
4 S Scandia	18	1705CST			0	0			Hail (0.88)
Republic County									
Belleville	18	1735CST			0	0	2K		Thunderstorm Wind (G60)
Strong winds downed power lines, stree signs and trees.									
Republic County									
5 S Belleville	18	1750CST			0	0			Hail (0.88)
Republic County									
3 W Cuba	18	1752CST			0	0	5K		Thunderstorm Wind (G60)
Strong winds destroyed a garage.									
Republic County									
Agenda	18	1755CST			0	0			Hail (0.75)
Washington County									
Morrowville	18	1800CST			0	0			Thunderstorm Wind (G55)
Washington County									
Haddam	18	1812CST			0	0			Thunderstorm Wind (G61)
Washington County									
5 W Washington	18	1812CST			0	0			Thunderstorm Wind (G52)
Washington County									
Washington	18	1815CST			0	0			Thunderstorm Wind (G55)
Washington County									
2 WNW Washington	18	1815CST			0	0			Thunderstorm Wind (G55)
Washington County									
Washington	18	1824CST			0	0			Thunderstorm Wind (G55)
Washington County									
1 N Washington	18	1840CST			0	0			Hail (0.75)
Washington County									
Hanover	18	1855CST			0	0			Thunderstorm Wind (G52)
Marshall County									
Oketo	18	1915CST			0	0			Thunderstorm Wind (G52)
Marshall County									
2 W Marietta	18	1918CST			0	0			Thunderstorm Wind (G52)
Marshall County									
Home	18	1925CST			0	0			Thunderstorm Wind (G65)
Marshall County									
Beattie	18	1950CST			0	0	2K		Thunderstorm Wind (G60)
Strong winds blew down trees and power lines.									
Marshall County									
Winifred	18	1950CST			0	0			Thunderstorm Wind (G65)
Nemaha County									
2 NW Baileyville	18	2000CST			0	0			Thunderstorm Wind (G52)
Nemaha County									
1 NW Corning	18	2026CST			0	0			Thunderstorm Wind (G56)
Nemaha County									
3 W Sabetha	18	2045CST			0	0	4K		Lightning
Lightning struck a house and started a fire that did some damage to the interior.									
Brown County									
Morrill	18	2105CST			0	0			Thunderstorm Wind (G52)
Brown County									
Hamlin	18	2108CST			0	0			Thunderstorm Wind (G52)

Storm Data and Unusual Weather Phenomena

July 2001

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, East</u>									
Brown County									
Hiawatha	18	2125CST			0	0			Thunderstorm Wind (G56)
Brown County									
2 N Robinson	18	2136CST			0	0			Thunderstorm Wind (G52)
Pottawatomie County									
Havensville	19	0048CST			0	0			Hail (0.88)
Nemaha County									
Sabetha	19	0422CST			0	0			Flash Flood
Heavy rains caused flash flooding. Water was 1 foot deep over U.S. Highway 75 near Sabetha for a time.									
Pottawatomie County									
4 N Onaga	19	0430CST			0	0	2K		Thunderstorm Wind (G60)
Strong winds blew the roof off a shed several hundred feet.									
Brown County									
Hiawatha	19	0458CST			0	0			Flash Flood
Heavy rains produced flash flooding. Many roads were flooded with some barricaded for a time.									
Nemaha County									
1 N Sabetha	19	0502CST			0	0			Flash Flood
Heavy rains produced flash flooding. Water covered U.S. 75 1 mile north of Sabetha as well as some street flooding within Sabetha for a time.									
Nemaha County									
4 NNW Oneida	19	0555CST			0	0			Flash Flood
Heavy rains caused flash flooding. Deer creek went out of its banks with flooding of nearby fields for a time.									
Thunderstorms developed near the Nebraska border the evening of the 18th and continued to the early morning hours of the 19th.									
There were numerous reports of large hail and damaging winds. Heavy rains from the thunderstorms caused some flash flooding as well.									
Cloud County									
3 SW Concordia	25	0227CST			0	0			Thunderstorm Wind (G58)
Republic County									
Belleville	25	0233CST			0	0			Hail (1.00)
Clay County									
12 S Clifton	25	0300CST			0	0			Thunderstorm Wind (G58)
Anderson County									
Garnett	25	1845CST			0	0			Hail (0.75)
Anderson County									
1 NE Kincaid	25	1915CST			0	0			Hail (1.00)
Anderson County									
3 N Kincaid	25	1920CST			0	0	5K		Thunderstorm Wind (G60)
Strong winds downed power poles and blew off the roof of a trailer.									
Coffey County									
4 NE Le Roy	25	1937CST			0	0			Hail (1.00)
Anderson County									
1 S Kincaid	25	1945CST			0	0			Hail (0.75)
Dickinson County									
1 SW Elmo	25	2110CST			0	0			Hail (0.75)
Clay County									
Clay Center	27	2220CST			0	0			Flash Flood
	28	0130CST							
Heavy rains caused flash flooding in Clay Center and rural areas of Clay county.									
Washington County									
Washington	27	2345CST			0	0			Flash Flood
	28	0100CST							
Heavy rains caused flash flooding in Washington and rural areas of Washington county.									
Marshall County									
1 N Herkimer	28	0035CST 0230CST			0	0			Flash Flood
Heavy rains caused flash flooding in Marshall county. Water was over a roadway 1 mile north of Herkimer for a time. Other roads in the county were also flooded.									

Storm Data and Unusual Weather Phenomena

July 2001

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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KANSAS, Extreme Southeast

KSZ073-097-101 Bourbon - Crawford - Cherokee

17	1200CST				0	0			Excessive Heat
31	2359CST								

During the middle of July a large area of high pressure began to build over the Central United States. It held together through the last week of July with a brief period of cloud cover and shower activity around the 26, 27 and 28 of the month. Temperatures rose into the upper 90's and low 100's. The high temperatures combined with increased humidity levels to produce very high heat indices of 105 to 115 degrees for several consecutive days.

KANSAS, North Central

Phillips County

Long Is	05	0010CST			0	0	0	0	Hail (0.75)
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Phillips County

2 N Agra	05	0046CST			0	0	0	100K	Hail (1.75)
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Smith County

Athol	05	0055CST			0	0	0	0	Hail (0.75)
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Mitchell County

2 W Asherville	05	0135CST			0	0	2K	100K	Hail (2.00)
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Smith County

15 SW Smith Center	18	2130CST			0	0	5K	200K	Hail (1.75)
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Phillips County

12 N Agra	18	2145CST			0	0	3K	500K	Thunderstorm Wind (G57)
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Smith County

6 NW Smith Center	18	2145CST			0	0	25K	1.5M	Thunderstorm Wind (G57)
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Late evening severe thunderstorms produced winds in excess of 60 mph in western Smith county. Damage to outbuildings was reported. Large hail accompanied the wind in parts of the county causing significant crop damage. Minor damage was also reported near the Pleasant Green Assembly of God Church about 12 miles north of Agra.

Smith County

Gaylord	19	1752CST			0	0	500K	1.5M	Thunderstorm Wind (G87)
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Jewell County

4 SW Burr Oak	19	2000CST			0	0	0	0	Thunderstorm Wind (G52)
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Wind gusts estimated at 100 mph caused considerable damage in the town of Gaylord just before 7 pm CDT. The wind was a result of a wet microburst from a storm located just east of Gaylord. Homes and businesses on the east side of town sustained the most damage; including considerable tree damage, windows blown out, and minor structural damage. Considerable damage occurred at the local grain and fertilizer companies. Warehouses and grain bins were destroyed. Power was not restored in town until six hours later.

Phillips County

4 N Phillipsburg	24	0040CST			0	0	0	0	Thunderstorm Wind (G52)
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Phillips County

Phillipsburg	25	0030CST			0	0	0	0	Thunderstorm Wind (G52)
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Smith County

Kensington	25	0145CST			0	0	0	0	Thunderstorm Wind (G52)
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Mitchell County

Glen Elder	27	1915CST			0	0	5K	0	Thunderstorm Wind (G52)
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Strong winds from a passing severe thunderstorm toppled a tree onto a mobile home in Glen Elder.

KANSAS, Northeast

Doniphan County

Troy	03	2255CST			0	0			Hail (0.88)
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Leavenworth County

4 W Jarbalo	10	0015CST			0	0	3K		Thunderstorm Wind (G57)
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Large trees blown down. Windows blown out of house. Barn lifted off of foundation.

Johnson County

De Soto	10	0133CST			0	0			Hail (0.75)
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Johnson County

Olathe	10	0133CST			0	0	25K		Lightning
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Johnson County

Olathe	10	0133CST			0	0			Thunderstorm Wind (G52)
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6 inch tree limbs blown down.

Johnson County

Stilwell	10	0133CST			0	0			Hail (0.75)
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Storm Data and Unusual Weather Phenomena

July 2001

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, Northeast</u>									
Miami County									
Louisburg	10	0220CST			0	0			Thunderstorm Wind (G52)
			Power lines and trees down.						
Doniphan County									
Elwood	12	0000CST			0	0			Thunderstorm Wind (G52)
			Large trees uprooted. Numerous power outages.						
Leavenworth County									
1 NW Leavenworth	12	0156CST			0	0			Hail (0.75)
KSZ025-103									
Atchison - Leavenworth									
	12	0200CST			0	0			Flood
	13	2300CST							
			Minor flooding was reported on the Delaware River at Muscotah and Stranger Creek at Easton.						
KSZ025-057-060-102>105									
Atchison - Miami - Linn - Doniphan - Leavenworth - Wyandotte - Johnson									
	17	1200CST			0	0			Excessive Heat
	24	2000CST							
			Excessive heat with afternoon heat indices 105 to 110 degrees...dominated the weather across eastern Kansas from July 17th to July 24th.						
Doniphan County									
Iowa Pt	18	2130CST			0	0			Thunderstorm Wind (G57)
Doniphan County									
4 W Highland	18	2138CST			0	0			Thunderstorm Wind (G52)
KSZ103									
Leavenworth									
	19	1200CST			0	0			Flood
		2300CST							
			Minor flooding was again reported on Stranger Creek near Easton.						
KSZ103									
Leavenworth									
	19	1400CST			0	0			Flood
		2200CST							
			Heavy rains caused some minor flooding on the Stranger Creek at Easton.						
Doniphan County									
Iowa Pt	19	1830CST			0	0			Thunderstorm Wind (G52)
Doniphan County									
Troy	19	1845CST			0	0			Thunderstorm Wind (G52)
Linn County									
4 SW Centerville	25	1845CST			0	0			Thunderstorm Wind (G52)
			4 inch tree limbs blown down.						
Linn County									
4 SW Centerville	25	1852CST			0	0			Hail (0.75)
<u>KANSAS, Northwest</u>									
Sherman County									
12.5 W Goodland	01	2025MST			0	0			Thunderstorm Wind (G72) ^M
		2029MST							
Sherman County									
7.5 NW Ruleton	01	2025MST			0	0			Thunderstorm Wind (G52)
Sherman County									
Goodland	01	2030MST			0	0			Flash Flood
		2300MST							
			Significant flooding in town which closed roads, stalled cars, and caused ditches to overflow. Many roads were impassable for hours due to the swift moving water.						
Sherman County									
Ruleton	01	2032MST			0	0			Thunderstorm Wind (G61)
Sherman County									
Goodland Arpt	01	2041MST			0	0			Thunderstorm Wind (G50) ^M
Cheyenne County									
St Francis	01	2043MST			0	0			Thunderstorm Wind (G56)
Sherman County									
10 S Goodland	01	2048MST			0	0			Thunderstorm Wind (G65)

Storm Data and Unusual Weather Phenomena

July 2001

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>									
Sherman County									
10 S Goodland	01	2050MST			0	0			Thunderstorm Wind (G70)
Wallace County									
2 E Sharon Spgs	01	2110MST			0	0			Thunderstorm Wind (G52)
Cheyenne County									
St Francis	01	2137MST			0	0			Thunderstorm Wind (G60) ^M
Wind destroyed awning to home in town.									
Cheyenne County									
19 NW St Francis	02	1918MST			0	0			Hail (0.75)
Rawlins County									
14 NW Atwood	03	1600MST			0	0			Hail (1.00)
Sherman County									
1 SW Goodland	11	1845MST			0	0			Thunderstorm Wind (G52)
Sherman County									
Goodland	11	1849MST			0	0			Thunderstorm Wind (G58)
Greeley County									
15 SW Tribune	11	1920MST			0	0			Hail (0.88)
Rawlins County									
Ludell	12	1635MST			0	0			Hail (0.88)
Rawlins County									
Ludell	12	1639MST			0	0			Thunderstorm Wind (G52)
Rawlins County									
2 SW Atwood	12	1658MST			0	0			Thunderstorm Wind (G52)
Rawlins County									
Atwood	12	1700MST			0	0			Thunderstorm Wind (G52)
The strong winds blew down 1 to 2 inch tree limbs. Also, the power was out near Atwood.									
Cheyenne County									
9 SE Bird City	12	1730MST			0	0			Thunderstorm Wind (G52)
Metal grain bin blown onto road.									
Cheyenne County									
8 S Wheeler	12	1742MST			0	0			Thunderstorm Wind (G61)
Thomas County									
15 NNE Brewster	12	1800MST			0	0			Hail (1.00)
Sherman County									
Goodland	12	1808MST			0	0			Thunderstorm Wind (G54) ^M
Wallace County									
10 S Sharon Spgs	12	1816MST			0	0			Thunderstorm Wind (G52)
Sherman County									
Goodland	12	1818MST 1830MST			0	0			Hail (1.00)
Wallace County									
Sharon Spgs	12	1858MST			0	0			Thunderstorm Wind (G61)
Logan County									
8 W Winona	12	1915MST			0	0			Thunderstorm Wind (G65)
Cheyenne County									
20 SW St Francis	14	2130MST 2345MST			0	0			Flash Flood
Torrential rainfall caused flooding in terraces and fields. Water evident over country roads.									
Cheyenne County									
20 SW St Francis	14	2130MST			0	0			Thunderstorm Wind (G52)
Thomas County									
6 SE Mingo	17	1800MST			0	0			Hail (0.75)
Gove County									
17 W Grainfield	17	1815MST			0	0			Hail (0.88)
Gove County									
17 W Grainfield	17	1815MST			0	0			Thunderstorm Wind (G70)

Storm Data and Unusual Weather Phenomena

July 2001

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>									
Logan County									
6 S Oakley	17	1815MST			0	0			Hail (0.75)
Norton County									
1 W New Almelo	23	0023MST			0	0			Thunderstorm Wind (G52)
Norton County									
Norton	23	0054MST			0	0			Thunderstorm Wind (G53) ^M
Wallace County									
Weskan	23	2040MST			0	0			Thunderstorm Wind (G52)
Sherman County									
13 S Ruleton	23	2130MST			0	0			Thunderstorm Wind (G56)
Greeley County									
13 NNW Tribune	23	2145MST			0	0			Thunderstorm Wind (G52)
Thomas County									
Brewster	23	2210MST			0	0			Hail (0.75)
Thomas County									
2 N Brewster to Brewster	23	2210MST			0	0			Thunderstorm Wind (G62)
The strong winds knocked down power lines in the Brewster area.									
Thomas County									
4 W Colby	23	2218MST			0	0			Thunderstorm Wind (G52)
Rawlins County									
13 SSE Mc Donald	23	2225MST			0	0			Thunderstorm Wind (G52)
Thomas County									
Colby	23	2240MST			0	0			Thunderstorm Wind (G55) ^M
Thomas County									
5 E Colby	23	2243MST			0	0			Thunderstorm Wind (G52)
Thomas County									
8 SE Mingo	23	2250MST			0	0			Thunderstorm Wind (G54)
Logan County									
Oakley	23	2254MST			0	0			Thunderstorm Wind (G52)
KSZ013>014 Sherman - Thomas									
	23	2300MST 2345MST			0	0			Flood
Locally very heavy rainfall in a short period of time produced street flooding in parts of Goodland.									
Sheridan County									
1 NE Seguin	23	2312MST			0	0			Thunderstorm Wind (G50)
Graham County									
5 N Hill City	24	0011MST			0	0			Thunderstorm Wind (G65)
Greeley County									
19 NW Tribune	24	2020MST			0	0			Thunderstorm Wind (G57)
Irrigation pivot tipped over from the winds.									
Wallace County									
16 SW Sharon Spgs	24	2020MST			0	0			Thunderstorm Wind (G57)
Irrigation pivot tipped over.									
Greeley County									
13 N Tribune	24	2113MST			0	0			Thunderstorm Wind (G52)
Wallace County									
10 S Sharon Spgs	24	2139MST			0	0			Thunderstorm Wind (G61)
Greeley County									
13 N Tribune	24	2140MST			0	0			Hail (1.75)
Wallace County									
1 W Sharon Spgs to 1 E Sharon Spgs	24	2152MST 2157MST			0	0			Thunderstorm Wind (G61)
The strong winds blew down a large tree onto a car in Sharon Springs. Also, limbs were down and buildings sustained damage around the area.									
Sheridan County									
11 SE Hoxie	24	2230MST			0	0			Thunderstorm Wind (G52)
The strong winds knocked over some corn in southern Sheridan county.									

Storm Data and Unusual Weather Phenomena

July 2001

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, Northwest</u>							
Rawlins County							
7 NW Atwood	24	2300MST			0 0		Thunderstorm Wind (G52)
			A couple two inch diameter tree limbs were blown down.				
Thomas County							
Colby	24	2305MST			0 0		Thunderstorm Wind (G54) ^M
KSZ014							
Thomas	24	2320MST			0 0		Flood
			Slow moving thunderstorms created minor street flooding in the Colby area.				
Logan County							
Oakley	24	2338MST			0 0		Thunderstorm Wind (G52)
			The strong winds blew down a sign at the truck stop.				
Graham County							
5 N Hill City	25	0011CST			0 0		Thunderstorm Wind (G65)
			Straight line winds reported with possible gustnado.				
Cheyenne County							
8 S Wheeler	26	1855MST			0 0		Thunderstorm Wind (G59) ^M
Logan County							
22 S Oakley	26	2100MST			0 0		Flash Flood
			Over three inches of rain caused minor flooding near the Smokey River. Also, water was reported over roads across southern Logan county.				
Wichita County							
Marienthal	26	2200MST			0 0		Flash Flood
			Heavy rainfall in a short period of time caused basement flooding in three homes near Marienthal.				
Rawlins County							
5 SW Atwood	27	1640MST			0 0		Tornado (F0)
			A brief tornado touched down over open fields across southern Rawlins county.				
Rawlins County							
4 WSW Blakeman	27	1705MST			0 0		Hail (1.50)
Rawlins County							
20 SW Atwood	27	1715MST			0 0		Hail (1.75)
Thomas County							
12 NNW Levant	27	1730MST			0 0		Thunderstorm Wind (G52)
Logan County							
9 E Winona	27	1927MST			0 0		Hail (0.75)
Gove County							
4.5 SE Gove	27	1945MST 2100MST			0 0		Flash Flood
			Heavy rains caused a septic tank to overflow and water was running over many county roads.				
Logan County							
1.5 E Monument to 6 S Oakley	27	2015MST 2130MST			0 0		Flash Flood
			Locally very heavy rains caused water of significant depth to run over highway 40 and highway 83. Also, many county roads were flooded.				
Rawlins County							
11.5 SE Mc Donald	27	2215MST			0 0		Funnel Cloud
			Funnel eventually touched down.				
Rawlins County							
12 SE Mc Donald to 12.5 SE Mc Donald	27	2217MST 2222MST			0 0		Tornado (F0)
			Tornado had about a 5 minute life span over open fields according to spotters in 2 counties.				
Graham County							
9 SE Hill City	30	1803MST			0 0		Hail (0.88)
Graham County							
9 SE Hill City	30	1803MST			0 0		Thunderstorm Wind (G70)
			The strong winds blew down 4 to 6 inch diameter tree limbs and knocked out power. Also, shingles were blown off roofs and tops of trees were torn off.				
Graham County							
5 SE Hill City	30	1810MST			0 0		Hail (0.88)

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property Damage	Crops	
<u>KANSAS, Northwest</u>									
Cheyenne County									
1 SW St Francis	31	1740MST			0	0			Thunderstorm Wind (G66)
									Wind damage at local golf course with large tree branches down and uprooted evergreen.
Cheyenne County									
St Francis	31	1847MST			0	0			Thunderstorm Wind (G61) ^M
									The strong winds blew down 6 to 8 inch tree limbs all over town. Also, a semi truck was blown off Highway 27, five miles north of Saint Francis.
<u>KANSAS, Southeast</u>									
Reno County									
Hutchinson	17	2143CST 2147CST			0	0	75K		Thunderstorm Wind (G66) ^M
									Extensive tree damage, barn blown down as were power lines.
Sedgwick County									
Clearwater	25	1603CST			0	0	25K		Thunderstorm Wind (G52)
									Power lines downed.
Butler County									
5 NE Rose Hill	25	1625CST			0	0	50K		Thunderstorm Wind (G65)
									Trees with 8-inch diameter trunks uprooted, power lines downed, and door blown in on shed.
Kingman County									
Kingman	25	1645CST			0	0			Thunderstorm Wind (G52)
Reno County									
4 E Partridge	25	1830CST			0	0	10K		Thunderstorm Wind (G56)
									Damage to fences and large trees.
Reno County									
5 E Partridge	25	1845CST			0	0			Hail (1.75)
Reno County									
5 E Partridge	25	1845CST			0	0			Thunderstorm Wind (G52)
Reno County									
South Hutchinson	25	1847CST			0	0			Hail (0.88)
Reno County									
8 E South Hutchinson	25	1915CST			0	0			Thunderstorm Wind (G52)
Sumner County									
Argonia	25	1919CST			0	0	10K		Thunderstorm Wind (G63) ^M
									Carport blown down.
Mcpherson County									
Canton	25	1920CST			0	0			Hail (0.88)
Mcpherson County									
Canton	25	1920CST			0	0			Thunderstorm Wind (G61)
									Tree damage.
Reno County									
Medora	25	1928CST			0	0			Thunderstorm Wind (G52)
									Large limbs downed.
Allen County									
Moran	25	1955CST			0	0			Thunderstorm Wind (G52)
									Limbs downed.
Marion County									
Hillsboro	25	2000CST			0	0	1.5M		Lightning
									City of Hillsboro electrical and maintenance building was struck and considered a total loss. Time of occurrence is approximate.
Allen County									
3 N Iola	25	2015CST			0	0			Thunderstorm Wind (G52)
									Tree damage.
Allen County									
Moran	25	2015CST			0	0			Thunderstorm Wind (G52)
									Tree damage.
Allen County									
Iola	25	2040CST			0	0			Thunderstorm Wind (G50) ^M
Allen County									
2 N Elsmore	25	2050CST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 2001

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>									
Neosho County									
Stark	25	2117CST			0	0			Thunderstorm Wind (G52)
Lincoln County									
6 S Barnard	25	2300CST			0	0			Thunderstorm Wind (G52)
Russell County									
17 N Russell	27	0029CST			0	0			Thunderstorm Wind (G52)
Russell County									
Milberger to Waldo	27	0100CST 0315CST			0	0			Flash Flood
From Milberger north/northeast to midway between Waldo and Luray some rural and gravel roads washed out and obviously impassable. In Luray, some streets were flooded just over the curbs.									
Lincoln County									
Lincoln	27	0242CST 0353CST			0	0			Flash Flood
Creek running through city park overflowed. Streets flooded as well.									
Woodson County									
Yates Center	27	0400CST 0545CST			0	0			Flash Flood
Low water bridges flooded.									
Allen County									
Iola	27	0404CST 0545CST			0	0			Flash Flood
High water on streets with several vehicles stalled.									
Barton County									
Cheyenne Bottoms	27	1745CST			0	0	25K		Thunderstorm Wind (G52)
Semi overturned on Highway 156.									
Rice County									
3 N Chase	27	1822CST 1825CST			0	0			Thunderstorm Wind (G52)
Large branches downed.									
Rice County									
Silica	27	1827CST			0	0			Thunderstorm Wind (G52)
Limbs 3-4 inches in diameter downed.									
Rice County									
1 NW Raymond	27	1833CST			0	0			Thunderstorm Wind (G70)
Rice County									
5 NE Chase	27	1842CST			0	0			Thunderstorm Wind (G70)
Rice County									
3 SE Chase	27	1855CST			0	0			Thunderstorm Wind (G65)
Limbs 3 inches in diameter downed.									
Rice County									
Chase	27	1858CST			0	0			Thunderstorm Wind (G56)
Rice County									
1 E Lyons	27	1905CST			0	0	1K		Thunderstorm Wind (G56)
Tree damage and "STOP" sign blown over.									
Cowley County									
3 N Burden	28	1544CST			0	0			Hail (1.25)
Sumner County									
4 NE South Haven	28	1645CST			0	0			Hail (1.00)
<u>KANSAS, Southwest</u>									
Trego County									
9 NE Ogallah	03	1805CST			0	0			Hail (1.00)
Ellis County									
6 NE Ellis	03	1815CST			0	0			Thunderstorm Wind (G52)
Trego County									
6 S Collyer	03	1825CST			0	0			Hail (0.88)
Trego County									
3 SE Wakeeney	03	1855CST			0	0			Hail (1.25)

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time		Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
		Local/Standard				Killed	Injured	Property	Crops	
<u>KANSAS, Southwest</u>										
Rush County										
9 SSE Alexander	03	2000CST				0	0			Thunderstorm Wind (G61)
										Three inch diameter limbs down.
Lane County										
7 WSW Dighton	03	2030CST				0	0			Hail (0.88)
Morton County										
1.5 N Elkhart	14	1945CST				0	0			Hail (0.75)
										Hail accumulated to 3" in depth.
Morton County										
1 N Elkhart	14	1945CST				0	0			Hail (0.88)
Hamilton County										
Syracuse	15	0212CST				0	0			Flash Flood
										Streets under water.
Morton County										
3 N Elkhart	15	1630CST				0	0			Hail (0.75)
Stanton County										
Johnson	15	1658CST				0	0			Hail (0.75)
Morton County										
2 ENE Wilburton	15	1855CST				0	0			Hail (0.75)
Stevens County										
Hugoton	15	1858CST				0	0			Hail (1.25)
Stevens County										
Hugoton	15	1905CST				0	0			Hail (1.75)
Morton County										
Rolla	15	1915CST				0	0			Hail (0.75)
Stevens County										
6 SSW Hugoton	15	1937CST				0	0			Hail (0.75)
Grant County										
9 S Hickok	15	1950CST				0	0			Hail (0.75)
Haskell County										
6 NNW Satanta	15	2010CST				0	0			Hail (0.75)
Haskell County										
6 NNW Satanta	15	2010CST				0	0			Thunderstorm Wind (G52)
Haskell County										
Satanta	15	2015CST				0	0	10K		Thunderstorm Wind
										A natural gas sub-station was taken out by high wind.
Seward County										
12 N Liberal	15	2015CST				0	0	5K		Thunderstorm Wind
										Ten power poles blown down.
Seward County										
6 NW Liberal	15	2025CST				0	0			Hail (1.00)
Seward County										
12 N Liberal	15	2040CST				0	0			Hail (0.75)
Gray County										
9 WSW Ingalls	15	2050CST				0	0			Thunderstorm Wind (G52)
Gray County										
9 WSW Ingalls	15	2055CST				0	0			Hail (0.75)
Gray County										
4 S Cimarron	15	2100CST				0	0			Hail (1.00)
Gray County										
Ingalls	15	2100CST				0	0			Thunderstorm Wind (G54) ^M
Ford County										
3 N Dodge City	15	2145CST				0	0			Hail (1.00)
Ford County										
3 N Dodge City	15	2145CST				0	0			Thunderstorm Wind (G70)
Ford County										
Dodge City Arpt	15	2149CST				0	0			Thunderstorm Wind (G52) ^M

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time		Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
		Local/Standard				Killed	Injured	Property	Crops	
<u>KANSAS, Southwest</u>										
Ford County										
Dodge City Arpt	15	2150CST				0	0			Thunderstorm Wind (G56) ^M
		Backup wind equipment.								
Ford County										
1 N Dodge City	15	2155CST				0	0			Hail (1.00)
Hodgeman County										
12 SE Jetmore	15	2156CST				0	0			Thunderstorm Wind (G61)
		Five inch diameter limbs down.								
Edwards County										
Kinsley	15	2250CST				0	0			Thunderstorm Wind (G61)
		Five inch diameter limbs down.								
Pawnee County										
1.5 SW Larned	15	2312CST				0	0			Hail (0.88)
Stafford County										
Stafford	15	2334CST				0	0			Thunderstorm Wind (G65)
Clark County										
15 NW Ashland	17	1725CST				0	0			Hail (0.75)
Ford County										
5 NE Bucklin	17	1750CST				0	0			Thunderstorm Wind (G52)
Meade County										
Fowler	17	1824CST				0	0			Hail (0.88)
Ford County										
21 SW Dodge City	17	1828CST				0	0			Hail (0.75)
Morton County										
13 NW Richfield	18	1700CST				0	0			Thunderstorm Wind (G52)
Morton County										
13 NW Richfield	18	1715CST				0	0			Hail (0.75)
Stanton County										
9 S Johnson	18	1740CST				0	0			Hail (1.00)
Grant County										
Ulysses	22	0230CST				0	0			Lightning
		A lightning strike left a large burn mark in the yard. Also, on the inside a burn mark was noticed on the wall. The A/C, TV and satellite receiver were all damaged.								
Hamilton County										
11 NE Coolidge	26	1910CST				0	0			Hail (0.75)
Scott County										
8 WSW Scott City	26	2159CST				0	0			Hail (0.88)
Trego County										
4.5 S Collyer	26	2225CST				0	0			Thunderstorm Wind (G61)
		Three inch limbs broken.								
Grant County										
11 SW Ulysses	27	1605CST				0	0			Hail (0.75)
Grant County										
2 S Ulysses	27	1625CST				0	0			Thunderstorm Wind (G61)
Grant County										
12 NE Ulysses	27	1650CST				0	0			Hail (0.75)
Rush County										
Liebenthal	27	1700CST				0	0			Thunderstorm Wind (G70)
		Five to six inch diameter limbs down.								
Grant County										
14 NE Ulysses	27	1701CST				0	0			Hail (0.88)
Finney County										
25 NE Garden City	27	1730CST				0	0			Hail (0.75)
Kearny County										
14 WSW Lakin	27	1730CST				0	0			Hail (1.25)
Ellis County										
10 ENE Hays	27	1735CST				0	0			Hail (1.25)

Storm Data and Unusual Weather Phenomena

July 2001

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>									
Ellis County									
Victoria	27	1745CST			0	0			Hail (1.25)
Hamilton County									
11 SE Syracuse	27	1745CST			0	0			Hail (1.00)
Lane County									
16 SSW Dighton	27	1745CST			0	0			Thunderstorm Wind (G70)
			Ten inch diameter limbs blown down.						
Lane County									
16 SW Dighton	27	1745CST			0	0			Thunderstorm Wind (G70)
			Three to four inch limbs blown down.						
Ness County									
2 NW Beeler	27	1830CST			0	0			Thunderstorm Wind (G61)
			Large tree branches blown down.						
Ness County									
2 ESE Utica	27	1900CST			0	0			Hail (0.75)
Hodgeman County									
14 W Jetmore	30	1650CST			0	0			Thunderstorm Wind (G52)
			Two inch tree branches broken.						
Ford County									
2 N Dodge City	30	1745CST			0	0			Thunderstorm Wind (G52)
			Two inch tree branches broken.						
Ness County									
4 N Utica	30	1800CST			0	0			Thunderstorm Wind (G52)
			Two inch tree branches broken.						
KSZ078									
									Ford
	31	1800CST			0	0			Excessive Heat
			July ended as the 4th hottest July on record(records back to 1875). There were 19 days of 100 or hotter at the Dodge City airport. The average high temperature was 99.4 with only 1934 (101.0) and 1980 (101.9) hotter. There were 22 days of 100 or hotter in both 1934 and 1980.						
<u>KENTUCKY, Central</u>									
Clark County									
Hootentown	03	1802EST			0	0			Thunderstorm Wind (G60)
			Trees were downed by thunderstorm winds.						
Bullitt County									
Mt Washington	04	0450EST			0	0			Hail (0.88)
Nicholas County									
3 NE Carlisle	04	0630EST 0730EST			0	0	75K		Flash Flood
			Parts of US 68 were washed out. Several houses and mobile homes were inundated by water.						
Green County									
Greensburg	04	1220EST			0	0			Hail (2.75)
Green County									
Greensburg	04	1220EST			0	0			Hail (1.75)
Hart County									
Horse Cave	04	1220EST			0	0			Thunderstorm Wind (G60)
Taylor County									
Mannsville	04	1240EST			0	0			Thunderstorm Wind (G60)
Barren County									
Haywood	04	1250EST 1320EST			0	0	5K	10K	Thunderstorm Wind (G70)
Casey County									
2 N Liberty	04	1300EST			0	0			Thunderstorm Wind (G60)
Taylor County									
2 E Campbellsville	04	1300EST 1310EST			0	0			Thunderstorm Wind (G60)
Barren County									
Roseville	04	1302EST			0	0	30K		Thunderstorm Wind (G70)
			Two farm buildings and one garage were totally destroyed by straight line winds.						

Storm Data and Unusual Weather Phenomena

July 2001

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>									
Barren County									
Glasgow	04	1310EST			0	0			Thunderstorm Wind (G60)
Lincoln County									
Waynesburg	04	1325EST			0	0			Hail (2.75)
Cumberland County									
Modoc	04	1335EST			0	0			Thunderstorm Wind (G60)
Russell County									
Countywide	04	1340EST			0	0			Thunderstorm Wind (G60)
Monroe County									
Akersville	04	1354EST			0	0			Thunderstorm Wind (G60)
Trees and power lines were downed by straight line winds over parts of east central and south central Kentucky. Large hail was also reported with some of the storms.									
Logan County									
Adairville	05	1420EST			0	0			Thunderstorm Wind (G60)
Warren County									
Countywide	05	1540EST			0	0			Hail (0.75)
Barren County									
Countywide	05	1640EST			0	0			Thunderstorm Wind (G60)
Russell County									
Bryan	05	1645EST			0	0	10K		Thunderstorm Wind (G70)
A few mobile homes were damaged at Bryan.									
Metcalf County									
Edmonton	05	1700EST			0	0			Thunderstorm Wind (G60)
Clinton County									
Albany	05	1750EST			0	0			Thunderstorm Wind (G60)
Trees and power lines were downed by straight line winds over much of south central Kentucky.									
Nicholas County									
Countywide	08	1324EST			0	0			Thunderstorm Wind (G60)
Bourbon County									
Countywide	08	1330EST 1350EST			0	0			Thunderstorm Wind (G60)
Harrison County									
Cynthiana	08	1330EST			0	0			Thunderstorm Wind (G60)
Harrison County									
Countywide	08	1400EST			0	0			Thunderstorm Wind (G60)
Bourbon County									
Clintonville	08	1405EST			0	0			Hail (0.75)
Bourbon County									
Clintonville	08	1405EST			0	0			Thunderstorm Wind (G60)
Nicholas County									
Carlisle	08	1410EST			0	0			Thunderstorm Wind (G60)
Clark County									
2 E Winchester	08	1420EST			0	0			Thunderstorm Wind (G60)
Scott County									
Sadieville	08	1424EST			0	0			Thunderstorm Wind (G60)
Fayette County									
Lexington	08	1430EST			0	0			Thunderstorm Wind (G60)
Clark County									
Ruckerville	08	1445EST			0	0			Thunderstorm Wind (G60)
Madison County									
Waco	08	1525EST			0	0			Thunderstorm Wind (G75)
Spencer County									
Waterford	08	1650EST			0	0			Thunderstorm Wind (G60)
Trimble County									
Countywide	08	1950EST			0	0			Thunderstorm Wind (G60)
Henry County									
Countywide	08	2000EST			0	0			Thunderstorm Wind (G60)

Storm Data and Unusual Weather Phenomena

July 2001

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									
Louisville	08	2010EST			0	0	75K		Thunderstorm Wind (G80)
			A section of steel roof was peeled off a hangar at the Louisville International Airport.						
Jefferson County									
St Matthews	08	2010EST			0	0			Thunderstorm Wind (G70)
Oldham County									
Pewee Vly	08	2015EST			0	0			Thunderstorm Wind (G60)
Franklin County									
Frankfort	08	2020EST			0	0			Thunderstorm Wind (G60)
Harrison County									
Cynthiana	08	2020EST			0	0			Thunderstorm Wind (G60)
Scott County									
Countywide	08	2020EST			0	0			Thunderstorm Wind (G60)
Woodford County									
Versailles	08	2020EST			0	0			Thunderstorm Wind (G60)
Shelby County									
Shelbyville	08	2025EST			0	0			Thunderstorm Wind (G60)
Anderson County									
Lawrenceburg	08	2035EST			0	0			Thunderstorm Wind (G60)
Bourbon County									
Escondida	08	2035EST			0	0			Thunderstorm Wind (G60)
Bullitt County									
Shepherdsville	08	2035EST			0	0			Thunderstorm Wind (G60)
Nicholas County									
Carlisle	08	2040EST			0	0			Thunderstorm Wind (G60)
Nelson County									
Coxs Creek	08	2057EST			0	0			Thunderstorm Wind (G60)
Clark County									
Winchester	08	2100EST			0	0			Thunderstorm Wind (G60)
Jessamine County									
Countywide	08	2100EST			0	0			Thunderstorm Wind (G60)
Mercer County									
Harrodsburg	08	2100EST			0	0			Thunderstorm Wind (G60)
Washington County									
Willisburg	08	2105EST			0	0			Thunderstorm Wind (G60)
Fayette County									
Lexington	08	2110EST			0	0			Thunderstorm Wind (G60)
Fayette County									
Lexington	08	2110EST			0	0			Thunderstorm Wind (G75)
Garrard County									
Countywide	08	2120EST			0	0			Thunderstorm Wind (G60)
Madison County									
Richmond	08	2120EST			0	0			Thunderstorm Wind (G60)
Marion County									
Lebanon	08	2125EST			0	0	25K		Thunderstorm Wind (G60)
			A tree was blown on to three cars.						
Boyle County									
Countywide	08	2130EST			0	0			Thunderstorm Wind (G60)
Casey County									
Liberty	08	2145EST			0	0			Thunderstorm Wind (G60)
Lincoln County									
Stanford	08	2145EST			0	0			Thunderstorm Wind (G60)
Taylor County									
Campbellsville	08	2150EST			0	0			Thunderstorm Wind (G60)
Adair County									
Columbia	08	2208EST			0	0			Thunderstorm Wind (G60)

Storm Data and Unusual Weather Phenomena

July 2001

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>									
Casey County 3 S Liberty	08	2215EST			0	0			Thunderstorm Wind (G60)
Taylor County Mansville	08	2218EST			0	0			Thunderstorm Wind (G60)
Trees and power lines were downed as a line of thunderstorms moved through central Kentucky. There was some property damage as trees were blown on to vehicles. A section of steel roof was peeled off a hangar at the Louisville International Airport. There was one report of hail at Clintonville in Bourbon County.									
Bourbon County Countywide	22	0025EST 0045EST			0	0			Flash Flood
Water covered Highways 68E, 627, and 1678 in the eastern part of the county.									
Harrison County Countywide	22	0813EST 1100EST			0	0	50K		Flash Flood
Up to 8 inches of rain fell over Harrison County over about a 3 and a half hour period. Water covered Highway 36 in northwest Harrison County. Eight homes were damaged by flood waters near Gray's Run and Lee's Lick. Flooding was reported in Leesburg at 1000 EST. A few roads were closed around Leesburg at 1030 EST.									
Scott County Countywide	22	0830EST 1100EST			0	0	30K		Flash Flood
Up to 8 inches of rain fell over Scott County in about a three and a half hour period. Highway 32 in and around Sadieville was flooded at 0900 EST. Oxford had flooding around 1000 EST. Most roads in Eastern Scott County were flooded around 1030 EST. At least five homes in the county were flooded. Five people were evacuated from homes and several more were evacuated from vehicles.									
Jefferson County Louisville	22	1615EST 1800EST			0	0	30K		Flash Flood
Many viaducts in Louisville were flooded, trapping vehicles. The basement of the Louisville Library was flooded.									
Scott County Sadieville	22	1730EST			0	0	500K	500K	Flash Flood
30 to 40 homes were damaged by flood waters, one home had 4 feet of water. People were trapped in vehicles by rising water.									
Bourbon County Countywide	25	2120EST 2335EST			0	0			Flash Flood
A female was trapped in a car on Redmon Road between Paris and Millersburg. Flooding was reported on several other state roads.									
Scott County Countywide	25 26	2300EST 0030EST			0	0			Flash Flood
Several roads were flooded in the eastern part of the county.									
Ohio County Countywide	26	0130EST 0330EST			0	0			Flash Flood
Water covered roads throughout the county, but mainly over the north. Flooding of low lying areas was reported.									
Hardin County Elizabeth Town	26	1630EST 1730EST			0	0	50K		Flash Flood
Cardinal and Shaw Creeks were out of their banks. Water was in the basements of several homes in the Cardinal Creek Subdivision.									
Bourbon County 1 N Paris	28	1645EST 1830EST			0	0			Flash Flood
Two feet of water covered a roadway.									
Madison County 2 SW Richmond	28	1740EST 1830EST			0	0			Flash Flood
One car was stalled in a foot of water on Highway 52.									
Bourbon County 2 NW Paris	28	1745EST 2040EST			0	0			Flash Flood
One road was closed just west of Highway 27. A couple of roads were closed in Paris.									
Scott County Georgetown	28	1745EST 2020EST			0	0			Flash Flood

Storm Data and Unusual Weather Phenomena

July 2001

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>									
Several roads were closed near Georgetown. A rock wall washed onto Lloyd Pike Road west of Georgetown.									
Madison County									
Waco	28	1800EST 1900EST			0	0	15K		Flash Flood
One road was closed and several homes had water in basements.									
Clinton County									
Countywide	29	0930EST 1020EST			0	0			Flash Flood
Water covered several roads countywide. Cars had stalled in the water and blocked the roads.									
<u>KENTUCKY, Eastern</u>									
Estill County									
Countywide	03	1815EST			0	0	0	0	Thunderstorm Wind
Trees blown down all across the county.									
Powell County									
5 SW Stanton	03	1825EST			0	0	0	0	Thunderstorm Wind
Strong winds blew numerous trees down in the Hardwick Creek area. Trees also were reported blown down in the city of Stanton.									
Wolfe County									
Landsaw	03	1830EST			0	0	2K	0	Thunderstorm Wind
Trees and power lines were blown down.									
Lee County									
Heidelberg	03	1840EST			0	0	0	0	Thunderstorm Wind
Numerous trees were blown down.									
Owsley County									
Booneville	03	1900EST			0	0	0	0	Thunderstorm Wind
Trees were blown down.									
Wolfe County									
5 NW Campton	03	1915EST			0	0	2K	0	Thunderstorm Wind
Trees and power lines were blown down.									
Breathitt County									
Lost Creek	03	1915EST			0	0	0	0	Thunderstorm Wind
Trees were blown down.									
Breathitt County									
2 S Crockettville	03	1915EST			0	0	2K	0	Thunderstorm Wind
Trees were blown down onto homes and roadways.									
Perry County									
Chavies	03	1940EST			0	0	0	0	Thunderstorm Wind
Numerous trees were blown down.									
Breathitt County									
10 SW Jackson	03	1945EST			0	0	0	0	Thunderstorm Wind (G60)
Perry County									
3 SE Hazard	03	2000EST			0	0	0	0	Thunderstorm Wind
Multiple trees were blown down.									
Clay County									
4 N Manchester	04	1130EST			0	0	0	0	Thunderstorm Wind
Numerous trees were blown down									
Knox County									
Countywide	04	1300EST			0	0	0	0	Thunderstorm Wind
Numerous trees were reported blown down all across the county.									
Pulaski County									
Eubank	04	1310EST			0	0	0	0	Hail (1.75)
Pulaski County									
4.5 NW Somerset to 10 SW Goodwater	04	1311EST 1400EST			0	0	350K	0	Tornado (F1)

Storm Data and Unusual Weather Phenomena

July 2001

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>									
Bath County									
Sharpsburg	08	1330EST			0	0	2K	0	Thunderstorm Wind
			Trees and power lines were blown down.						
Rowan County									
Morehead	08	1340EST			0	0	0	0	Thunderstorm Wind
			Trees were blown down by thunderstorm winds.						
Morgan County									
5 SE West Liberty	08	1342EST			0	0	0	0	Thunderstorm Wind
			Trees were blown down.						
Fleming County									
Flemingsburg	08	1350EST			0	0	0	0	Thunderstorm Wind
			Trees were blown down.						
Montgomery County									
Mt Sterling	08	1400EST			0	0	2K	0	Thunderstorm Wind
			Trees and power lines were blown down.						
Menifee County									
Countywide	08	1415EST			0	0	0	0	Thunderstorm Wind
			Numerous reports of trees down were received from around the county. Some towns with damage included Deniston, Frenchburg and Tar Ridge.						
Breathitt County									
Countywide	08	1420EST			0	0	0	0	Thunderstorm Wind
			Numerous trees were blown down across the county.						
Powell County									
Clay City	08	1420EST			0	0	0	0	Thunderstorm Wind
			Trees were blown down.						
Morgan County									
Wrigley	08	1420EST			0	0	0	0	Thunderstorm Wind
			Numerous trees were blown down.						
Lee County									
4 N Beattyville	08	1425EST			0	0	0	0	Thunderstorm Wind
			Numerous trees were blown down.						
Powell County									
Clay City	08	1428EST			0	0	0	0	Hail (1.75)
Wolfe County									
5 W Campton	08	1430EST			0	0	0	0	Thunderstorm Wind
			Numerous trees were blown down along Highway 715.						
Morgan County									
Cottle	08	1430EST			0	0	0	0	Thunderstorm Wind
			Trees blown down along Highway 713.						
Estill County									
North Irvine	08	1430EST			0	0	4K	0	Thunderstorm Wind
			Thunderstorm winds blew the roof off of a storage building.						
Estill County									
Countywide	08	1435EST			0	0	0	0	Thunderstorm Wind
			Numerous trees blown down across county.						
Owsley County									
Vincent	08	1515EST			0	0	0	0	Thunderstorm Wind
			Numerous trees blown down in town.						
Owsley County									
3 E Island City	08	1520EST			0	0	2K	0	Thunderstorm Wind
			Thunderstorm winds blew 2 trees down and blew siding off a home.						
Leslie County									
Countywide	08	1520EST 1540EST			0	0	0	0	Thunderstorm Wind
			A line of severe thunderstorms moved across the county blowing trees down in several areas. Some towns that reported damage were; Hyden, Stinnett, Confluence, and Knob Lick.						
Harlan County									
Countywide	08	1525EST			0	0	0	0	Thunderstorm Wind
			Trees blown down in several locations across the county. Trees were also down along Highways 421 and 219.						

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm	
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops		
KENTUCKY, Eastern										
Clay County										
Manchester	08	1530EST			0	0	0	0	Thunderstorm Wind	Numerous trees blown down.
Estill County										
Irvine	08	1535EST			0	0	0	0	Thunderstorm Wind	Trees were blown down.
Estill County										
Ravenna	08	1550EST			0	0	3K	0	Thunderstorm Wind	Thunderstorm winds blew a tree down which fell onto a car.
Fleming County										
2 NE Wallingford	08	2020EST			0	0	2K	0	Thunderstorm Wind	Winds brought trees and power lines down.
Elliott County										
2 S Sandy Hook	08	2040EST			0	0	0	0	Thunderstorm Wind	Several trees were blown down.
Bath County										
Olympia	08	2040EST			0	0	0	0	Thunderstorm Wind	Trees were blown down.
Rowan County										
2 E Cranston	08	2100EST 2200EST			0	0	0	0	Flash Flood	Heavy rains caused creeks to overflow onto several roadways. Roads were impassable for about an hour.
Montgomery County										
Mt Sterling	08	2100EST			0	0	0	0	Thunderstorm Wind	Trees were blown down.
Elliott County										
Countywide	08	2110EST			0	0	0	0	Thunderstorm Wind	Thunderstorm winds brought numerous trees down across the county.
Powell County										
Clay City	08	2115EST			0	0	0	0	Thunderstorm Wind	Thunderstorm winds brought several trees down in the area.
Morgan County										
Wrigley	08	2130EST 2230EST			0	0	0	0	Flash Flood	Heavy rains caused water to cover Highway 7 and the road was closed for approximately an hour.
Fleming County										
Muses Mills	08	2135EST 2230EST			0	0	0	0	Flash Flood	Creeks overflowed onto roadways in the area. Some roads were closed due to the high water.
Morgan County										
3 NW West Liberty	08	2135EST			0	0	0	0	Hail (0.88)	
Wolfe County										
Campton	08	2138EST			0	0	0	0	Thunderstorm Wind	Trees were blown down.
Estill County										
3 W Irvine	08	2140EST			0	0	2K	0	Thunderstorm Wind	Trees and power lines were blown down.
Elliott County										
Sandy Hook	08	2145EST 2215EST			0	0	0	0	Flash Flood	Heavy rains brought several creeks and streams out of their banks.
Johnson County										
Thealka	08	2145EST			0	0	0	0	Thunderstorm Wind	Numerous trees were blown down.
Lee County										
10 W Beattyville	08	2145EST			0	0	0	0	Thunderstorm Wind	Trees were blown down by thunderstorm winds.
Breathitt County										
1 N Jackson	08	2200EST			0	0	0	0	Thunderstorm Wind	

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
KENTUCKY, Eastern									
Trees were blown down.									
Jackson County New Zion	08	2200EST			0	0	0	0	Thunderstorm Wind
Trees were blown down.									
Rockcastle County Brodhead	08	2200EST			0	0	0	0	Thunderstorm Wind
Trees and large limbs were blown down.									
Perry County Countywide	08	2205EST 2220EST			0	0	0	0	Thunderstorm Wind
Trees were blown down in numerous locations across the county.									
Pulaski County Mt Victory	08	2210EST			0	0	0	0	Thunderstorm Wind
Trees were blown down.									
Laurel County 4 W London	08	2215EST			0	0	0	0	Thunderstorm Wind
Trees were blown down.									
Mccreary County Whitley City	08	2235EST			0	0	0	0	Thunderstorm Wind
Trees were blown down.									
Whitley County Williamsburg	08	2248EST			0	0	0	0	Thunderstorm Wind
Trees were blown down by thunderstorm winds.									
Knox County Countywide	08	2250EST			0	0	0	0	Thunderstorm Wind
Numerous trees were blown down throughout the county.									
Pike County Canada	26	2000EST 2230EST			0	0	0	0	Flash Flood
Heavy rains brought flooding to the area. Water was reported flowing over U.S. Highway 119 near Canada. Rock and mudslides were also reported in the area.									
Pike County Regina	26	2008EST 2230EST			0	0	0	0	Flash Flood
Water was flowing over roads along Harless Creek.									
Pike County 3 SW Pikeville	26	2015EST 2230EST			0	0	0	0	Flash Flood
Heavy rains brought flooding to several roads including Highway 3416 near Pigeon.									
Pike County 5 W Shelbiana	26	2030EST 2230EST			0	0	25K	0	Flash Flood
Heavy rains brought wide spread flash flooding to the area. Hardest hit areas were Sookeys Creek, Lick Fork and Town Fork. 3 to 5 inches of rain fell in these areas washing out creek beds causing major damage to roadways, storm drains and personal property.									
Pike County Greasy Creek	26	2100EST 2330EST			0	0	10K	0	Flash Flood
Flash floods washed out the Greasy Creek bridge.									
Floyd County Prestonsburg	28	1700EST 2100EST			0	0	5K	0	Flash Flood
Flood waters from Abbott Creek washed a car off of Kentucky Highway 1447. No injuries were reported.									
Floyd County 3 E Banner	28	1700EST 2000EST			0	0	10K	0	Flash Flood
Heavy rains caused flash flooding across the county. On Ivy Creek flood waters threaten 5 homes. One wheelchair occupant had to be evacuated.									
Estill County Irvine	28	1830EST 2020EST			0	0	0	0	Flash Flood

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
<u>KENTUCKY, Eastern</u>									
Heavy rains caused creeks and streams to overflow their banks around the area. Three feet of water was flowing over Salt Lick Road on the north side of town.									
Wayne County									
Monticello	28	2005EST 2100EST			0	0	0	0	Flash Flood
Water was flowing over numerous streets in town.									
Powell County									
1 E Stanton	29	0830EST 0930EST			0	0	0	0	Flash Flood
Heavy rains brought 6 inches of water to flow over roads in town.									
Laurel County									
London	29	0922EST 1030EST			0	0	0	0	Flash Flood
Water flooded several streets in town. 4th Street down to Spring Street was flooded and impassable.									
Laurel County									
2 E London	29	0953EST 1130EST			0	0	5K	0	Flash Flood
Water was flowing over West 192 resulting in the flooding of the Esquire Estates sub-division. Water was reported in some homes. Water as deep as car headlights was also reported along Highways 30 and 490.									
Pulaski County									
7 N Somerset	29	1000EST 1400EST			0	0	0	0	Flash Flood
Heavy rains cause numerous roads to go under water. Kentucky Highway 39 was under water for nearly 4 hours.									
Laurel County									
London	29	1002EST 1130EST			0	0	10K	0	Flash Flood
Heavy rains caused flooding to numerous homes and the nursing home in town was also flooded.									
Lee County									
5 N Beattyville	29	1100EST 1200EST			0	0	0	0	Flash Flood
Heavy rains caused water to flow over Kentucky Highway 498.									
Bath County									
6 NE Owingsville	29	1100EST 1200EST			0	0	0	0	Flash Flood
Water was flowing over Highway 111.									
Montgomery County									
Mt Sterling	29	1100EST 1230EST			0	0	0	0	Flash Flood
Heavy rains brought flooding to several roads throughout town.									
Wolfe County									
7 S Campton	29	1200EST 1300EST			0	0	0	0	Flash Flood
Approximately 6 inches of water was flowing over Little Bloody Creek Road.									
Morgan County									
Wrigley	29	1300EST 1500EST			0	0	5K	0	Flash Flood
Over a foot of water was flowing over the intersection of Highway 7 and 711. Water also was reported to have entered several homes in town.									
Laurel County									
London	29	1330EST 1500EST			0	0	0	0	Flash Flood
Over a foot of water was reported flowing over Commercial Drive in town.									
Wolfe County									
3 E Campton	29	1400EST 1500EST			0	0	0	0	Flash Flood
Water was reported flowing over Kentucky Highway 191. The road was impassable.									
<u>KENTUCKY, Northeast</u>									
Lawrence County									
Martha to Blaine	29	1100EST 1200EST			0	0	4K		Flash Flood

Storm Data and Unusual Weather Phenomena

July 2001

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

KENTUCKY, Northeast

Blaine Creek flooded roads and a campground.

KENTUCKY, Northern

Owen County

3 S Owenton to Gratz	03	1550EST 1600EST	0	0	5K	Thunderstorm Wind (G50)
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Power poles were knocked down just south of Owenton and trees and large limbs were knocked down in Gratz.

Mason County

Countywide	08	1130EST 1145EST	0	0	5K	Thunderstorm Wind (G50)
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Numerous trees knocked down.

Bracken County

Countywide	08	1215EST 1230EST	0	0	5K	Thunderstorm Wind (G50)
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Trees knocked down across the county.

Pendleton County

Butler	08	1220EST 1225EST	0	0	3K	Thunderstorm Wind (G50)
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Several trees knocked down.

Mason County

Countywide	08	1230EST 1250EST	0	0	5K	Thunderstorm Wind (G50)
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Trees were knocked down across the county.

Boone County

(Cvg)Gtr Cin Arpt	08	1233EST 1250EST	0	0	50K	Thunderstorm Wind (G53) ^M
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Thunderstorm winds gusted to 61 mph at the Cincinnati-Northern Kentucky International Airport. Nearly 200 trees were knocked down across the county with this storm.

Kenton County

Countywide	08	1245EST 1307EST	0	0	25K	Thunderstorm Wind (G50)
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Many trees were knocked down across the county. A camper was also flipped over in Erlanger.

Pendleton County

Countywide	08	1250EST 1305EST	0	0	5K	Thunderstorm Wind (G50)
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Numerous trees knocked down.

Campbell County

Countywide	08	1255EST 1315EST	0	0	5K	Thunderstorm Wind (G50)
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Trees and power lines were knocked down across the county.

Gallatin County

Countywide	08	1300EST 1315EST	0	0	5K	Thunderstorm Wind (G50)
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Numerous trees knocked down across the county.

Bracken County

Brooksville	08	1315EST 1325EST	2	3	100K	Thunderstorm Wind (G60)
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Thunderstorm winds blew over a mobile home killing 2 and injuring 3 people. Another mobile home was damaged and trees were knocked down. F28MH, F11MH

Grant County

3 NE Jonesville to Williamstown	08	1315EST 1330EST	0	0	10K	Thunderstorm Wind (G50)
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Numerous trees and large limbs were knocked down across the county. A shed was also damaged near Jonesville.

Pendleton County

Countywide	08	1320EST 1340EST	0	0	5K	Thunderstorm Wind (G50)
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Numerous trees knocked down.

Mason County

Maysville	08	1325EST 1335EST	0	0	3K	Thunderstorm Wind (G50)
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Many large limbs downed by thunderstorm winds.

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
<u>KENTUCKY, Northern</u>									
Robertson County									
Mt Olivet	08	1330EST 1340EST			0	0	5K		Thunderstorm Wind (G50)
		Trees knocked down.							
Owen County									
5 NE New Liberty to New Liberty	08	1345EST 1400EST			0	0	5K		Thunderstorm Wind (G50)
		Numerous trees knocked down.							
Lewis County									
Tollesboro to Petersville	08	1400EST 1415EST			0	0	25K		Thunderstorm Wind (G50)
		A roof was blown off a barn and numerous trees were knocked down.							
Mason County									
West Portion	08	1400EST 1500EST			0	0	5K		Flood
		Several hours of heavy rainfall caused the closing of roads in the western part of the county.							
Boone County									
Countywide	08	1930EST 1950EST			0	0	5K		Thunderstorm Wind (G50)
		Numerous trees knocked down across the county.							
Campbell County									
Grants Lick	08	1945EST 1947EST			0	0			Thunderstorm Wind (G53) ^M
		Thunderstorm winds were measured at 62 mph.							
Carroll County									
Countywide	08	1945EST 2000EST			0	0	5K		Thunderstorm Wind (G50)
		Trees knocked down across the county.							
Gallatin County									
Countywide	08	1950EST 2000EST			0	0	5K		Thunderstorm Wind (G50)
		Many trees knocked down across the county.							
Grant County									
Countywide	08	2003EST 2020EST			0	0	5K		Thunderstorm Wind (G50)
		Trees knocked down across the county.							
Pendleton County									
Countywide	08	2005EST 2020EST			0	0	5K		Thunderstorm Wind (G50)
		Trees knocked down across the county.							
		Two large bow echoes moved across northern Kentucky on the 8th leaving a trail of damage.							
Kenton County									
Ft Mitchell	18	0135EST 0430EST			0	0			Flood
		Cars underwater in a motel parking lot							
Boone County									
Union	18	0140EST 0500EST			0	0			Flood
		Basements flooded in town							
Bracken County									
Augusta	18	0200EST 0600EST			0	0			Flood
		High water on roads. Augusta-Minerva Road was impassable.							
Campbell County									
California	18	0200EST 0500EST			0	0			Flood
		Church basement flooded in town							
Campbell County									
Countywide	18 19	2145EST 0015EST			0	0	5K		Flood

Storm Data and Unusual Weather Phenomena

July 2001

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

KENTUCKY, Northern

Numerous roads closed across the county including Route 10.

Pendleton County

Countywide	25	2300EST			0	0			Flood
	26	0000EST							

Thunderstorms produced heavy rain which caused high water on roads.

Lewis County

Trinity	28	1830EST			0	0			Flood
		2030EST							

Thunderstorms produced heavy rain which caused high water on roads and creeks to overflow their banks.

Lewis County

Trinity	29	0833EST			0	0			Flood
		0930EST							

Thunderstorms produced heavy rain which flooded roads and caused creeks to overflow their banks.

KENTUCKY, Southwest

Mclean County

Livermore	04	0945CST			0	0	2K		Lightning
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Lightning struck a tree, causing it to fall on power lines and start a fire.

Hopkins County

Madisonville	05	0630CST			0	0	5K		Thunderstorm Wind (G50)
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Several trees were brought down by thunderstorm winds. A large tree fell on a house on Hall Street. Electricity was cut to about 200 customers.

Muhlenberg County

2 W Greenville	05	0715CST			0	0			Thunderstorm Wind (G50)
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Several trees were blown down.

KYZ001>022

Fulton - Hickman - Carlisle - Ballard - Mccracken - Graves - Livingston - Marshall - Calloway - Crittenden - Lyon - Trigg - Caldwell - Union - Webster - Hopkins - Christian - Henderson - Daviess - Mclean - Muhlenberg - Todd

	07	1500CST			0	0			Excessive Heat
	09	1400CST							

Daytime high temperatures in the mid to upper 90's, combined with dew points in the mid 70's, resulted in heat indices from 105 to 112 degrees. Nighttime heat indices only fell to around 80. The highest temperature at Paducah during this heat wave was 99 degrees. The Salvation Army reported giving out many more fans than usual for July, which apparently helped keep heat-related illnesses to a minimum. No heat-related fatalities were reported.

Marshall County

Benton	09	1730CST			0	0	30K		Thunderstorm Wind
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The roof was blown off the Wildlife Management Center building. Seven or eight large trees were blown down. Numerous power lines were down in the area. A shed off Bethel Road was completely destroyed. The damage was mainly on the east side of Benton.

Carlisle County

4 SW Bardwell to Milburn	09	1915CST			0	0	50K		Thunderstorm Wind
		1930CST							

Numerous trees were reported down, mainly in south and southwest parts of the county. The estimated total number of downed trees was around 70. Tree damage from the storm resulted in numerous state and county road closings, minor damage to one house, and interruption of power to approximately one-third of the county for several hours.

Mccracken County

Reidland	18	1455CST			0	1	10K		Tstm Wind/Hail
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Thunderstorm winds gusted to 43 MPH at the Paducah National Weather Service. Although very few trees were brought down, one large tree landed on a passing vehicle in Reidland. Shortly after the dead 40-foot tree crushed her moving vehicle, fire broke out in the car. The female driver was extricated from the vehicle by firefighters within 30 minutes. She was not seriously injured, but required hospitalization for extensive bruising.

Lyon County

Countywide	18	1515CST			0	0	25K		Thunderstorm Wind (G50)
		1530CST							

Thunderstorms produced damaging winds that downed about 100 trees and power lines. A few trailers were damaged by fallen trees. One trailer on State Route 1055 was damaged enough that it became uninhabitable. Some residents were without power for several hours.

Marshall County

Countywide	18	1515CST			0	0	10K		Thunderstorm Wind (G50)
		1530CST							

Trees were blown down at several locations across Marshall County, including Benton, Fairdealing, Highway 641 North, and 5 miles east of Benton. Power lines were down at Gilbertsville, Benton, and Draffenville.

Storm Data and Unusual Weather Phenomena

July 2001

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

KENTUCKY, Southwest

Trigg County

Countywide	18	1544CST			0	0	10K		Thunderstorm Wind (G50)
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Thunderstorm winds downed at least 40 trees in the county. One of the trees landed on a house in northern Trigg County. Power outages extended well into the night for some residents.

Caldwell County

4 E Princeton	18	1600CST			0	0			Thunderstorm Wind (G50)
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Electric utility spokesmen reported numerous trees down along and east of Highway 91.

Calloway County

Kirksey to Murray	18	1615CST			0	0	10K		Thunderstorm Wind (G50)
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Trees were blown down on both the north and south end of Murray. Wires were down at scattered locations in the city. Near Kirksey, several limbs were down, and a whole tree was blown across Kirksey Highway. Power was restored to all customers within 5 or 6 hours.

Fulton County

Cayce	18	1650CST			0	0	3K		Thunderstorm Wind (G50)
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Power lines were blown down.

Calloway County

Countywide	24	0945CST 1200CST			0	0	75K		Flash Flood
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Livingston County

Grand Rivers	24	0945CST 1130CST			0	0	10K		Flash Flood
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Marshall County

Countywide	24	0945CST 1115CST			0	0	50K		Flash Flood
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Thunderstorms producing torrential downpours were nearly stationary over Calloway County, including the city of Murray, for a couple of hours. Spotters reported rainfall rates up to 2.4 inches per hour. Rainfall totals up to 4 and 5 inches occurred at Murray and Benton, mostly within two hours. In Murray, vehicles were nearly completely submerged at one apartment complex. A motorist was trapped in his submerged vehicle after attempting to cross a flooded stretch of Highway 121. He was rescued, uninjured, by passers-by. Numerous streets were flooded in Murray, and a few buildings reported some water in them. An electric substation that serves Murray State University was shut down due to potential flooding, causing power outages to several campus buildings. Across Marshall and southern Livingston Counties, the storms were moving, but multiple storms deluged the same locations. About 30,000 dollars damage was done to roads in Marshall County. Flooded roads in Marshall County included Kentucky 80 east, Kentucky 408 east, and about 20 smaller roads. In Benton, a bridge on West 9th Street was washed out, and overflowing creeks damaged a city park and a few mobile homes. Sewer lines backed up into basements across Benton. Town Creek came out of its banks and flooded the area near East 14th and Birch Streets. In the Grand Rivers section of Livingston County, flooding on Ridge Road pulled 60 feet of culvert out of the ground.

Daviess County

Whitesville	25	2315CST			0	0			Flash Flood
	26	0200CST							

Thunderstorms repeatedly moved across Daviess County from the late evening of the 25th into the wee morning hours of the 26th. The heaviest rainfall was near Whitesville, in the eastern part of the county. Radar estimated more than 3 inches per hour in that area. Water was standing on numerous roads in Whitesville.

Ballard County

Countywide	26	0430CST 0900CST			0	0	25K		Urban/Sml Stream Fld
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A large cluster of thunderstorms moved slowly across the county, producing very heavy rainfall. Some road flooding occurred, with washouts causing damage in a few spots.

Union County

Sturgis to 4 E Sturgis	26	1930CST 2145CST			0	0			Flash Flood
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Slow-moving thunderstorms produced very heavy rainfall, with radar estimates around 3 inches in 4 hours just east of Sturgis. Serious street flooding was reported in Sturgis, with water getting into some residences. Highway 270 was flooded just east of Sturgis.

Livingston County

North Portion	26	2130CST			0	0	100K		Flash Flood
	27	0030CST							

Slow-moving thunderstorms produced torrential rainfall across northern parts of Livingston County, with around 5 inches in 24 hours. County officials estimated damage to roads was around 100,000 dollars. Road damage was reported in Burna, Salem, Carrsville, Lola, and Joy. A bridge was washed out on Campground Road near Hampton. Water undermined roads in Lola and Joy. Sections of two rural roads were rendered impassable by washouts.

Storm Data and Unusual Weather Phenomena

July 2001

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

KENTUCKY, Southwest

Muhlenberg County

Greenville	27	1530CST 1700CST			0	0			Urban/Sml Stream Fld
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Slow-moving thunderstorms dumped very heavy rain. Water was reported over some roads in Greenville.

Daviess County

1 S Owensboro	29	1613CST 1632CST			0	0			Funnel Cloud
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Numerous reports were received of a funnel cloud. The funnel cloud reportedly showed only slight rotation, and would rapidly form and dissipate in cycles. Meteorological conditions were not favorable for tornadoes, and no severe thunderstorms were in the area.

Daviess County

Utica	29	1715CST 1900CST			0	0			Urban/Sml Stream Fld
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Torrential rains from slow-moving thunderstorms caused flooding of Kentucky Highway 140 in the 200 block. About two and a half feet of water was over the road, apparently from flooding of Two Mile Creek.

LOUISIANA, Northeast

Tensas Parish

Countywide	12	1545CST			0	0	3K		Thunderstorm Wind
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Several trees and powerlines were blown down in eastern portions of the parish.

Tensas Parish

New Light	12	1655CST			0	0	1K		Thunderstorm Wind
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Several trees were blown down along Highway 65.

Franklin Parish

Wisner	12	1745CST			0	0	1K		Thunderstorm Wind
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A few trees were blown down.

Concordia Parish

Countywide	12	1805CST			0	0	15K		Thunderstorm Wind
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Numerous trees and powerlines were blown down across the parish.

Franklin Parish

Jigger	12	1815CST			0	0	6K		Thunderstorm Wind
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Numerous trees and powerlines were blown down.

Concordia Parish

Ferriday	12	1830CST			0	0	15K		Thunderstorm Wind
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The roof was blown off of a small building. Several trees were blown down.

Franklin Parish

6 W Wisner	12	1900CST			0	0	1K		Thunderstorm Wind
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Several trees were blown down.

LOUISIANA, Northwest

Webster Parish

4.8 SE Dubberly	03	1615CST			0	0	110K		Lightning
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Firefighters responded to a tank fire containing water and distillate, a by-product of oil, when a tank exploded after lightning struck it. The tank was located at an Alice-Sydney Oil Co. site.

Jackson Parish

2 NE Jonesboro	05	0733CST			0	0	155K		Lightning
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Lightning hit the electric meter and energized every piece of wiring in the home according to the Jonesboro Fire Chief. One piece of wire in the attic sent fire from one end of the home to the other. The home was 4 years old and totally destroyed. The owner was able to save some personal belongings by entering the rapidly burning building.

Red River Parish

3 ESE Coushatta	22	1500CST			0	0	15K		Lightning
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Lightning set a storage shed afire and brought firefighters from four departments to the scene. The owner and her son were inside the home when lightning struck a nearby utility pole and in her words, "A ball of electricity ran along the wire to the shed." The shed was fully afire in spite of a heavy downpour and could not be saved. Also ruined were two four-wheelers, a lawn mower, two bicycles and kitchen appliances.

LOUISIANA, Southeast

Livingston Parish

Denham Spgs	05	1340CST			0	0	10K		Thunderstorm Wind
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Several trees and large tree limbs were blown down.

Assumption Parish

Paincourtville	06	1600CST			0	0	5K		Thunderstorm Wind
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A large carport was destroyed by thunderstorm wind gusts.

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
<u>LOUISIANA, Southeast</u>									
Plaquemines Parish									
Belle Chasse	11	1430CST			0	0	15K		Thunderstorm Wind
									Several trees were blown down. A house roof was damaged by a falling tree. Belle Chasse Naval Air Station (NAS) reported a wind gust to 51 mph at 1359CST.
Tangipahoa Parish									
3 SW Hammond	11	1610CST			0	0	15K		Thunderstorm Wind
									Several trees were blown down. A car and home were damaged by the fallen trees.
Livingston Parish									
Maurepas	11	1645CST			0	0	5K		Thunderstorm Wind
									Several trees were blown down.
St. Helena Parish									
Greensburg	11	1655CST			0	0	5K		Thunderstorm Wind
									Several trees were blown down.
East Baton Rouge Parish									
Baton Rouge	11	1730CST			0	0	10K		Thunderstorm Wind
									Several trees and large tree limbs were blown down in the central section of Baton Rouge.
East Baton Rouge Parish									
Pride	11	1730CST			0	0	25K		Thunderstorm Wind
									Several large trees were blown down. A truck and trailer were heavily damaged by falling trees.
East Baton Rouge Parish									
3 SE Foreman	11	1735CST			0	0	15K		Thunderstorm Wind (G70)
									A NWS cooperative observer and spotter reported wind gusts estimated near 80 mph. Trees and power lines were also blown down.
Livingston Parish									
Denham Spgs	11	1750CST			0	0	15K		Thunderstorm Wind
									Multiple trees were blown down.
Ascension Parish									
Gonzales	11	1755CST			0	0	15K		Thunderstorm Wind
									Several trees and power lines were blown down.
Iberville Parish									
Countywide	11	1845CST			0	0	15K		Thunderstorm Wind
									Trees were reported blown down in several locations. A area of strong to severe thunderstorms moved across portions of southeast and east central Louisiana. Downed trees and power lines were reported in several areas. During the evening, the power company reported 25,000 customers without power.
Assumption Parish									
Paincourtville	12	1315CST			0	0	5K		Thunderstorm Wind
									Several trees and large tree limbs were blown down.
Washington Parish									
Bogalusa	13	1600CST			0	0	5K		Thunderstorm Wind
Washington Parish									
Thomas	13	1600CST			0	0	5K		Thunderstorm Wind
									Thunderstorm wind gusts blew down trees near Bogalusa and Thomas.
Tangipahoa Parish									
Kentwood	21	1638CST			0	0	5K		Thunderstorm Wind
									Several trees were blown down blocking roads.
St. Tammany Parish									
Bush to Covington	31	1510CST 1540CST			0	0	50K		Thunderstorm Wind
									A severe thunderstorm moved from northeast to southwest across the north portion of St. Tammany Parish. Large trees and power lines were blown down in several locations from near Bush through Covington and Folsom.
<u>LOUISIANA, Southwest</u>									
Allen Parish									
2 NE Oakdale	05	1840CST			0	0			Hail (0.75)
Cameron Parish									
Grand Lake	06	1615CST			0	0			Hail (1.75)
Cameron Parish									
Grand Lake	06	1615CST			0	0	250K		Thunderstorm Wind (G65)

Storm Data and Unusual Weather Phenomena

July 2001

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

LOUISIANA, Southwest

A microburst caused significant damage to a storage warehouse by pulling most of the roof off, as well as damaging several mobile homes.

Calcasieu Parish

10 S Lake Charles **06** **1615CST** **0** **0** **20K** **Thunderstorm Wind (G60)**

The microburst that began in Cameron Parish at 415 pm moved into southern sections of Calcasieu Parish, blowing some trees down and damaging a couple of homes with minor roof damage.

Avoyelles Parish

Mansura **06** **1727CST** **0** **0** **10K** **Thunderstorm Wind**

Many trees were blown down along Highway 114.

Iberia Parish

Coteau **11** **2000CST** **0** **0** **400K** **Lightning**

A well-built home was struck by lightning and burned to the ground. No one was injured. A neighbor looking out his window saw the house on fire and warned the residents inside to evacuate.

MAINE, North

Piscataquis County

Moosehead **09** **1612EST** **0** **0** **Hail (0.75)**

Aroostook County

St David **09** **1810EST** **0** **0** **Hail (0.88)**

The hail accumulated to a depth of 4 to 6 inches.

Aroostook County

Madawaska **09** **1810EST**
1945EST **0** **0** **35K** **Flash Flood**

Merging thunderstorm cells produced very heavy rains in the vicinity of Madawaska in the St John River Valley. Radar estimates and spotter reports indicated that up to 3 to 5 inches of rain fell during a 1 to 2 hour interval.

At the peak of the flooding...2 to 3 feet of water were reported on Main Street in Madawaska and along portions of a 2 mile section of Route 1. Portions of Route 1 and several other roads were closed at times due to water flowing across the roads. Several minor rock and mud slides were also reported along Route 1 which contributed to the road closure.

The dirt shoulders along Route 1 and other roads in the vicinity of Madawaska were heavily damaged with guardrails undercut and several culverts washed out. A 50 foot portion of a railroad bed and culvert were also washed out.

Aroostook County

Weston **24** **1440EST** **0** **0** **Thunderstorm Wind (G50)**

Large branches were broken off and powerlines were toppled.

Penobscot County

Mattawamkeag **24** **1505EST** **0** **0** **Thunderstorm Wind (G50)**

Several trees were toppled with numerous power outages reported.

Washington County

Topsfield **24** **1530EST** **0** **0** **Thunderstorm Wind (G50)**

Numerous trees were toppled with many power outages also reported.

Penobscot County

16 NW Patten to **24** **1945EST**
11 N Patten **2000EST** **0** **0** **Tornado (F1)**

Aroostook County

5 NW Oakfield to **24** **2000EST**
4 E Oakfield **2045EST** **0** **1** **Tornado (F1)**

Numerous trees were toppled or broken off along the intermittent path of the tornado. The tornado originated in northern Penobscot county and continued intermittently into southeast Aroostook county where it dissipated. Most of the path was through wooded areas. However...around Oakfield...several buildings received damage to shingles and siding. Windows were blown out of several structures and some signs were toppled. Several cars parked near the Oakfield community center were damaged from flying debris with some car windows blown out. One car was thrown 50 to 75 feet and landed on its roof. 6 cars received some damage...with 4 of the cars receiving major damage. One injury was reported to an occupant of one of the parked cars.

In Dyer Brook...a metal garage was torn off its foundation and blown 100 feet into the woods. Along Spaulding Lake numerous trees were toppled or broken off...with some landing on houses and camps.

Aroostook County

New Limerick **24** **2100EST** **0** **0** **Thunderstorm Wind (G50)**

Trees were toppled onto a power transformer resulting in power outages.

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
MAINE, South									
York County									
Newfield	01	1314EST			0	0			Lightning
Lightning struck a haybarn in Newfield causing a fire that destroyed the barn and 200 bales of hay inside.									
York County									
Shapleigh	01	1323EST			0	0			Lightning
A house in Shapleigh was damaged when it was struck by lightning. Although there was no fire, the lightning reportedly melted some of the aluminum siding on the outside walls, and melted the insulation off electrical wiring in the home.									
Cumberland County									
Brunswick	01	1401EST			0	0	50K		Lightning
Lightning struck the Brunswick town office causing an estimated \$50,000. in damage. The lightning destroyed 16 computers and a printer and damaged another 29 computers. Telephone and voice mail systems were also damaged.									
Lincoln County									
Nobleboro	01	1410EST			0	0			Thunderstorm Wind (G50)
Winds from a a severe thunderstorm knocked over trees in the town of Nobleboro.									
Lincoln County									
Wiscasset	01	1413EST			0	0			Thunderstorm Wind (G50)
Winds estimated to have gusted to near 60 mph knocked over large trees in the town of Wiscasset.									
York County									
York Vlg	01	1445EST			0	5			Lightning
Five employees of a zoo and amusement park were injured when lightning struck a nearby tree and traveled in or along the ground to them. The five were closing down a ride at the park when the lightning struck and knocked them off their feet. All five were transported to a nearby hospital where they were treated and released.									
York County									
York Beach	01	1450EST			0	0			Lightning
Lightning struck the chimney of a home in York Beach blowing the drywall off the walls.									
Franklin County									
Strong	09	1350EST			0	0			Hail (0.75)
A severe thunderstorm dropped dime-sized hail in the town of Strong.									
Franklin County									
Farmington	09	1405EST			0	0	14K		Lightning
Lightning struck and knocked out the electronic surveillance system and destroyed one of the cameras at the Franklin County Detention Center.									
Franklin County									
Farmington	09	1410EST			0	0			Hail (0.88)
A severe thunderstorm dropped nickel-sized hail in the town of Farmington.									
York County									
Limerick	09	1435EST			0	0			Hail (0.75)
A severe thunderstorm dropped penny-sized hail in the town of Limerick.									
Franklin County									
Wilton	09	1445EST			0	0			Hail (1.00)
A severe thunderstorm dropped 1 inch hail in the town of Wilton.									
York County									
Waterboro	09	1514EST			0	0			Hail (1.00)
A severe thunderstorm dropped 1-inch hail in the town of Waterboro.									
Androscoggin County									
Livermore Falls	09	1515EST			0	0			Hail (0.75)
A severe thunderstorm dropped 3/4-inch hail in the town of Livermore Falls.									
Kennebec County									
Wayne	09	1556EST			0	0			Thunderstorm Wind (G50)
A severe thunderstorm knocked trees onto power lines in the town of Wayne.									
York County									
Newfield	09	1745EST			0	0			Thunderstorm Wind (G50)
Winds from a severe thunderstorm knocked over trees in the town of Newfield.									
Cumberland County									
North Sebago	10	1304EST			0	0			Hail (0.75)
A severe thunderstorm dropped penny-sized hail in the town of North Sebago.									
Franklin County									
Wilton	10	1400EST 1600EST			0	1			Lightning

Storm Data and Unusual Weather Phenomena

July 2001

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

MAINE, South

Lightning struck a 75-ft brick industrial chimney in the town of Wilton, damaging the chimney and also electronic equipment inside the building. The strike blasted a 2x2 ft hole in the chimney near the top, and also cracked the chimney. One person who was working on computer equipment at the time was jolted by the strike and was taken to a nearby hospital for treatment.

York County

Alfred	10	1703EST			0	0	30K		Lightning
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Lightning struck a home in Alfred and ignited a fire that caused an estimated \$30,000 in damage.

York County

Kennebunk	10	1730EST			0	0	15K		Lightning
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Lightning struck a home in Kennebunk and ignited a fire that caused an estimated \$15,000 in damage.

York County

Alfred	11	1645EST			0	2	100K		Lightning
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Two communication workers at the York County Dispatch Center in Alfred were struck by lightning while working at their 911 consoles. Lightning apparently struck the phone pole directly outside the County Courthouse and followed the communications lines from the pole to the basement of the building where the two were working. Both were taken to a nearby hospital where they were treated, then sent home to recover from their injuries, which included arrhythmia, numbness, tingling, and severe headaches. In addition, computer systems and other equipment within the courthouse sustained about \$100,000. in damage.

Kennebec County

Wayne	11	1651EST			0	0			Hail (0.75)
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A severe thunderstorm dropped dime-sized hail in the town of Wayne.

Franklin County

Rangeley	24	1540EST			0	0			Thunderstorm Wind (G50)
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Winds from a severe thunderstorm knocked over several trees in the town of Rangeley.

MARYLAND, Central

Carroll County

Sykesville	01	1450EST			0	0	5K		Thunderstorm Wind
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Numerous trees were downed.

Baltimore County

Countywide	01	1510EST 1525EST			0	0	5K		Thunderstorm Wind
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Trees were downed onto wires.

Baltimore City (C)

Baltimore	01	1525EST 1530EST			0	0	8K		Thunderstorm Wind
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Numerous trees were downed in the north portion of the city.

Baltimore County

2 SE Towson	01	1530EST			0	0	1M		Lightning
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An apartment building in Hillendale was uninhabitable after it was damaged by a lightning fire. Damage amount was estimated.

Montgomery County

Darnestown	01	1700EST			0	0			Lightning
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A house attic was damaged by a fire started by lightning.

Montgomery County

Potomac	01	1700EST			0	0	80K		Lightning
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A home was damaged by a lightning fire.

Charles County

Countywide	01	1715EST			0	0	2K		Thunderstorm Wind
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Several trees were downed.

Prince George's County

Bowie to Mitchellville	01	1720EST			0	0	250K		Thunderstorm Wind
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Numerous trees were downed onto roads and property.

St. Mary'S County

Countywide	01	1805EST			0	0	2K		Thunderstorm Wind
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Trees and wires were downed.

Thunderstorms with damaging winds and frequent lightning moved through central Maryland between 3:30 and 7:30 PM EDT on the 1st. In Carroll County, numerous trees were downed in the Sykesville area. In Baltimore County, trees were downed in White Marsh and Catonsville. A wind gust of 53 MPH was recorded at Sparrows Point. Numerous trees were downed across the northern part of Baltimore. Lightning struck an apartment building in Hillendale and started a roof fire which made 12 units uninhabitable. In Montgomery County, a lightning fire caused \$80,000 damage to a home in Potomac. Another home in Darnestown was damaged by lightning. In Prince George's County, numerous trees and power lines were downed in Mitchellville, Glenn Dale, and the south

Storm Data and Unusual Weather Phenomena

July 2001

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

MARYLAND, Central

portion of Bowie. Trees were downed onto Central Avenue, Chantilly Lane, Enterprise Road near Route 50, Mitchellville Road, Route 193, and Church Road. A few homes and cars were damaged by felled trees. Areas with concentrated tree damage included Pointer Ridge, Kingsford, and Kings Forest neighborhoods. A 46 MPH wind gust was recorded in Landover. In Charles County, several trees were downed. The hardest hit areas were in the western half of the county. In St. Mary's County, a 41 MPH wind gust was recorded in Tall Timbers. Trees and wires were downed countywide.

Montgomery County

Countywide	04	1600EST 1900EST		0	0				Heavy Rain
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Anne Arundel County

Odenton	04	1630EST		0	1				Lightning
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A 13-year-old boy was injured by lightning.

Prince George's County

Bowie	04	1715EST		0	0				Hail (0.75)
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Pea to dime sized hail was reported in South Bowie.

Calvert County

Port Republic	04	1830EST		0	0	10K			Thunderstorm Wind
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A barn collapsed, a home received minor damage, and trees were downed.

Thunderstorms with heavy rainfall, strong winds, and dangerous lightning moved through central Maryland between 5 and 8 PM EDT on the 4th. In Montgomery County, a 40 MPH wind gust was reported in Chevy Chase where small limbs were downed. Rainfall totals included 3.14 inches in Forest Glen, 3.12 inches in Chevy Chase, and 2.25 inches in Bethesda. In Prince George's County, pea to dime sized hail and 2.08 inches of rain were reported in South Bowie. In Anne Arundel County, a 13-year-old boy was injured by lightning in Odenton. The bolt dug a shallow trench in the ground and a ball of fire shot toward two boys and a woman playing horseshoes under a tree. Two of the people had no visible injuries but the 13-year-old boy had burns on his legs. In Calvert County, high winds caused an old barn to collapse along Route 4, 1.2 miles south of Broomes Island Road near Port Republic. Nearby, trees were snapped, numerous large items were blown around, and a home suffered minor damage.

Montgomery County

Germantown	05	1450EST		0	0				Hail (1.50)
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Quarter to walnut sized hail was reported.

Prince George's County

Suitland	05	1615EST		0	0				Hail (0.75)
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Pea to dime sized hail fell.

Frederick County

Ridgeville	05	1721EST		0	0	0.50K			Thunderstorm Wind
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Trees and wires were downed onto Woodville Road.

Carroll County

Sykesville	05	1745EST		0	0	2K			Thunderstorm Wind
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Several wires were downed.

Howard County

West Friendship	05	1750EST		0	0	0.50K			Thunderstorm Wind
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Trees were downed onto Gaither and Driver Road.

Baltimore County

Granite	05	1800EST		0	0	5K			Thunderstorm Wind
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Ten trees were downed.

Baltimore City (C)

Baltimore	05	1815EST		0	0	15K			Thunderstorm Wind
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Trees were downed across the city.

Thunderstorms with damaging winds, large hail, and heavy rainfall moved through central Maryland between 3:45 and 7:30 PM EDT on the 5th. In Frederick County, trees and wires were downed onto Woodville Road in Mt. Airy. In Carroll County, several wires were downed in Sykesville. In Frederick County, trees and wires were downed onto Woodville Road in Mt. Airy. In Carroll County, several wires were downed in Sykesville. In Baltimore County, ten trees were downed in Granite. In the city of Baltimore, around 200 trees were also downed, including a large tree that was felled onto a garage and power poles. An extensive area of trees were felled in the Pimlico Race Track area. Funnel clouds were sighted in the Woodlawn area. A wind gust of 43 MPH was recorded downtown. In Howard County, trees were downed across Gaither and Driver Roads in West Friendship. In Montgomery County, quarter to walnut sized hail was reported in Germantown. One stone with a diameter of two inches was found. A spotter estimated a wind gust of 45 MPH. In Prince George's County, pea to dime sized hail was reported in Suitland.

Frederick County

Emmitsburg	10	1506EST 1510EST		0	3				Thunderstorm Wind (G60) M
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A 69 MPH wind gust was reported. Three workers were injured when a barn under construction collapsed.

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
MARYLAND, Central									
Carroll County									
Countywide	10	1530EST			0	0	5K		Thunderstorm Wind
			Trees were downed and a roof was damaged.						
Allegany County									
Frostburg	10	1553EST 1555EST			0	0			Hail (0.75)
			Dime sized hail fell.						
Harford County									
Jarrettsville	10	1602EST			0	0	30K		Lightning
			Lightning blew off a chimney and started an attic fire.						
Baltimore County									
Countywide	10	1615EST 1624EST			0	0	0.50K		Thunderstorm Wind
			Trees were downed in Reisterstown and Randallstown.						
Montgomery County									
Germantown	10	1615EST			0	0	5K		Hail (1.75)
			Golfball sized hail damaged a car, shingles, and siding. The time of the event was estimated.						
Baltimore City (C)									
West Baltimore	10	1627EST			0	0	2K		Thunderstorm Wind
			Four trees were downed.						
Prince George'S County									
Clinton	10	2100EST			0	0	5K		Thunderstorm Wind
			Several trees were downed onto roads and cars in the Fox Run Estates neighborhood.						
Calvert County									
Olivet	11	0036EST			0	0	5K		Thunderstorm Wind
			Several trees were downed.						
			Thunderstorms with high wind, large hail, and dangerous lightning moved across Maryland between 4 PM EDT on the 10th through 2 AM EDT on the 11th. In Allegany County, dime sized hail fell in Frostburg where winds gusted to 40 MPH. In Frederick County, a 69 MPH wind gust was recorded in Emmitsburg where 2 inches of rain fell. Southeast of Emmitsburg, a 100x300 foot barn under construction on Dry Bridge Road collapsed. Three workers inside the structure were injured. Trees were downed near Rocky Ridge south of Thurmont. A spotter just across the Washington County border near Smithsburg reported a 45 MPH wind gust and viewed a possible tornado in Frederick County 10 miles northeast of their location. In Carroll County, several trees were felled. A portion of a tin roof was torn off in Detour. Three trees were downed in a campground near Double Pipe Creek. A wind gust of 42 MPH was recorded in Westminster. In Baltimore County, a wind gust of 48 MPH was recorded at the University of Maryland campus in Baltimore. Four trees were downed across the western part of Baltimore. Large trees were downed in Reisterstown and Randallstown and tree limbs were downed in Owings Mills. A total of 13,000 customers across the county lost power because of the storms. In Harford County, lightning struck a home in Jarrettsville. The bolt blew off the chimney and started the attic on fire resulting in \$30,000 damage. In Montgomery County, golfball sized hail was reported in Germantown. Damage was reported to a car and to shingles and siding on a townhouse. In Prince George's County, several trees were downed onto roads and cars in the Fox Run Estates neighborhood of Clinton. In Calvert County, several trees were downed in the Olivet area.						
Harford County									
East Portion	23	0000EST 2359EST			0	0			Heavy Rain
			Heavy rainfall occurred across northeast Maryland on the 23rd. Conowingo Dam recorded 3.54 inches of rain in 24 hours.						
Calvert County									
Countywide	26	1300EST 1900EST			0	0			Heavy Rain
Charles County									
Countywide	26	1300EST 1900EST			0	0			Heavy Rain
Prince George'S County									
South Portion	26	1300EST 1900EST			0	0			Heavy Rain
St. Mary'S County									
Countywide	26	1300EST 1900EST			0	0			Heavy Rain

Storms with heavy rainfall moved across south central Maryland between 2 and 8 PM EDT on the 26th. In Prince George's County, 3.84 inches of rain was recorded in Accokeek and 2.27 inches fell at Brown Landfill. A basement flooded in Clinton where 4.51 inches was reported. Other spotters across the southern portion of the county reported rainfall amounts between 2.25 and 4.50 inches.

Storm Data and Unusual Weather Phenomena

July 2001

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

MARYLAND, Central

In Charles County, 4.38 inches was recorded in Waldorf. In Calvert County, Meadow Lane in Breezy Point was flooded by runoff. Rainfall totals included 4.25 inches in Dunkirk, 4.18 inches in Huntingtown, and 3.00 in Prince Frederick. In St. Mary's County, rainfall totals included 5.15 inches in Morganza, 3.48 inches in Hollywood, 3.36 inches in Oraville, and 2.90 inches in Mechanicsville.

MARYLAND, Northeast

MDZ008-012-015-019>020 Cecil - Kent - Queen Annes - Talbot - Caroline

01 0000EST 1900EST 0 0 Excessive Heat

A large ridge of high pressure both at the surface and aloft along the western Atlantic Ocean produced as much as six consecutive days of heat and increasing humidity across the Maryland Eastern Shore from June 26th through July 1st. High temperatures reached into the mid 90s with June 28th and June 30th being the two hottest days. A cold front broke the excessive heat with strong to severe thunderstorms on July 1st. Highest temperatures included 95 degrees at the Baltimore-Washington International Airport and 93 degrees in Stevensville (Queen Anne's County) and Salisbury.

Kent County

Millington

01 1430EST 0 0 5K 5K Lightning

Lightning struck and damaged a shed that was half filled with straw in Millington.

Kent County

Betterton to Lynch

01 1545EST 1600EST 0 0 Thunderstorm Wind (G52)

Kent County

Chestertown

01 1612EST 1625EST 0 0 Thunderstorm Wind (G52)

A pair of severe thunderstorms knocked down trees and power lines in the western half of Kent County. Several roads were blocked because of downed trees. The high winds in combination with the lightning caused power outages that affected 18,000 Conectiv customers in the Maryland Eastern Shore. All power in Kent County was restored by noon EDT on the 2nd.

Kent County

Chestertown

01 1600EST 0 0 0 Lightning

Most of Chestertown lost power after lightning struck two major Conectiv Energy facilities and a transmission line was also damaged. Power was restored around Noon EDT on the second. Lightning and damaging winds caused 18,000 Conectiv customers along the Maryland Eastern Shore to lose power.

Queen Anne'S County

Countywide

01 1625EST 1655EST 0 0 Thunderstorm Wind (G52)

A line of severe thunderstorms knocked down a large number of trees and power lines from Centreville southward in the county including Kent Island. Power was out in most of the southern half of the county. In all Conectiv energy reported about 18,000 customers lost power in the Maryland Eastern Shore.

Caroline County

Goldsboro

01 1700EST 1715EST 0 0 Thunderstorm Wind (G52)

A severe thunderstorm knocked down trees and wires in the northern part of Caroline County.

Caroline County

Denton

01 1730EST 0 0 Thunderstorm Wind (G52)

A severe thunderstorm knocked down trees and power lines in and around Denton. The line of severe storms knocked out power to 18,000 Conectiv customers along the Maryland Eastern Shore.

Talbot County

Royal Oak

01 1800EST 0 0 150K 0 Lightning

Lightning struck and the ensuing fire badly damaged a home in Royal Oak. Damage was estimated at \$150,000. The owners were away when this occurred.

Talbot County

Trappe

04 1925EST 0 0 Hail (0.88)

Queen Anne'S County

Romancoke

05 1700EST 0 0 Thunderstorm Wind (G52)

A severe thunderstorm knocked down trees in Romancoke.

Talbot County

Easton

05 1730EST 0 0 Hail (0.88)

Talbot County

Easton

05 1730EST 0 0 Thunderstorm Wind (G50)

A severe thunderstorm dropped down penny size hail and pulled down large limbs in and around Easton.

Storm Data and Unusual Weather Phenomena

July 2001

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

MARYLAND, West

Heavy thunderstorm rains produced over 3 inches of rainfall at several locations across Garrett County. This heavy rain forced creeks out of their banks in the Gorman area, forcing the temporary closure of several roads. Motorists were stranded in several feet of water in both Gorman and Pleasant Valley, and a few needed to be rescued from their cars by local fire companies. Several reports of flooded basements were also received in the Oakland and Gorman areas.

MASSACHUSETTS, Central and East

Franklin County

Greenfield to Orange	01	1430EST			0	0			Thunderstorm Wind (G50)
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Worcester County

Athol to Lunenburg	01	1432EST 1435EST			0	0			Thunderstorm Wind (G50)
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Middlesex County

Ashby	01	1435EST			0	0			Thunderstorm Wind (G50)
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Essex County

Haverhill	01	1451EST			0	0			Thunderstorm Wind (G50)
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Worcester County

Fitchburg to Leominster	01	1520EST			0	0			Thunderstorm Wind (G50)
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Essex County

Rowley to Newbury	01	1522EST 1532EST			0	0			Thunderstorm Wind (G50)
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Middlesex County

Groton	01	1530EST			0	0			Thunderstorm Wind (G50)
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Hampden County

West Springfield	01	1545EST			0	0			Thunderstorm Wind (G50)
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Essex County

Lawrence to Methuen	01	1548EST 1555EST			0	0			Hail (1.00)
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Worcester County

Templeton	01	1555EST			0	0			Thunderstorm Wind (G50)
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Essex County

Topsfield	01	1615EST			0	0			Thunderstorm Wind (G50)
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Middlesex County

Natick to Framingham	01	1715EST			0	0	200K		Lightning
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For the second straight day, severe thunderstorms moved across much of central and northeast Massachusetts. Thunderstorm winds downed trees, power lines, and large branches throughout much of Worcester, Middlesex, and Essex Counties. Hail as large as quarters was reported in Lawrence and Methuen. In the Connecticut River Valley, a second line of storms downed nearly ten trees, one of which flattened a parked car. Nearly 22,000 electric customers were left without power during the storms.

Lightning strikes caused damage in southern Middlesex County. In Natick, lightning struck a church steeple and ignited a fire, causing an estimated \$75,000 in damage. In Framingham, lightning struck an apartment building and caused an estimated \$125,000 in damage. No injuries were reported.

Hampshire County

Chesterfield to Northampton	10	1505EST 1515EST			0	0			Thunderstorm Wind (G50)
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Franklin County

Warwick	10	1530EST			0	0			Thunderstorm Wind (G50)
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Hampshire County

South Amherst to Belchertown	10	1535EST 1543EST			0	0			Hail (1.00)
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Hampshire County

Ware	10	1600EST			0	0			Hail (1.00)
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Hampden County

Chester	10	1609EST 1616EST			0	0			Hail (1.00)
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Worcester County

Warren to Brookfield	10	1610EST 1618EST			0	0			Hail (0.75)
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Storm Data and Unusual Weather Phenomena

July 2001

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									
Huntington to Southhampton	10	1615EST			0	0			Hail (1.00)
Hampden County									
Springfield	10	1635EST			0	0			Hail (0.88)
Worcester County									
West Boylston	10	1635EST			0	0			Hail (0.75)
Middlesex County									
Marlborough	10	1700EST			0	0			Thunderstorm Wind (G50)
Worcester County									
Oxford	10	1705EST			0	0			Hail (1.50)
Norfolk County									
Norwood to Randolph	10	1800EST 1820EST			0	0			Lightning
Suffolk County									
Revere	10	1815EST			1	0			Lightning

M33OU

Severe thunderstorms rolled through much of western and central Massachusetts, dropping large hail and downing trees and power lines in Hampden, Hampshire, Worcester, and Middlesex Counties. Hail the size of ping pong balls was reported in South Oxford, while quarter-sized hail fell in South Amherst, Belchertown, Ware, Chester, and Huntington. A spotter in Springfield reported nickel-sized hail, and dime-sized hail was observed in Northampton, Warren, Chester, Brookfield, and West Boylston. Around 6,000 electric customers, mostly in the Connecticut River Valley, lost power during the storms.

In Eastern Massachusetts, the storms produced frequent lightning. In Revere, a man out walking his dog was struck and killed by lightning. Lightning struck two homes in Norwood, as well as an antenna on Norwood Town Hall, disrupting fire department communications. Minor damage was reported in all instances. Lightning also struck a utility pole in Canton, causing several homes to lose power. In Randolph, a large section of town was left without power due to lightning strikes.

Barnstable County

Hyannis	11	1000EST			0	0			Thunderstorm Wind (G50)
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An isolated severe thunderstorm downed large tree limbs in Hyannis.

Middlesex County

Billerica to Stoneham	12	1715EST 1728EST			0	0			Hail (1.50)
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An isolated severe thunderstorm dropped dime sized hail in Billerica, then strengthened as it moved southeast to Stoneham, where it produced hail as large as golf balls.

Barnstable County

Eastham	17	0900EST			0	0			Hail (1.00)
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An isolated severe thunderstorm dropped quarter-sized hail in Eastham.

MASSACHUSETTS, West

Berkshire County

Cheshire	01	1354EST			0	0	13K		Thunderstorm Wind
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Berkshire County

Adams	01	1355EST			0	0	90K		Thunderstorm Wind
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Berkshire County

North Adams	01	1355EST			0	0	10K		Thunderstorm Wind
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Berkshire County

Savoy	01	1400EST			0	0	18K		Thunderstorm Wind
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A powerful cold front, combined with a strong upper level disturbance to produce widespread thunderstorms across Berkshire County during the afternoon of July 1. One of the storms became severe as winds from it blew down trees in Cheshire, Savoy and North Adams. A possible microburst hit the town of Adams with a concentrated area of damage centered around a home on Burlingame Hill Road. At one residence, the wind destroyed a carport, flattening a garage which crushed a car parked inside. Debris from the carport was blown up to 270 yards away. In addition, an aluminum and glass greenhouse was shattered and strewn about.

The storms knocked out power to about 2,500 customers in Berkshire County.

Berkshire County

Pittsfield	10	1435EST 1440EST			0	0			Hail (0.75)
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Berkshire County

Pittsfield	10	1435EST			0	0	31K		Thunderstorm Wind
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Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property Damage	Crops	
<u>MICHIGAN, East</u>									
Midland County									
3 SSE Edenville	22	1800EST			0	0	75K		Thunderstorm Wind (G65)
Trees and power lines were blown. The old Grandsen building on M-30 lost part of its roof. A tree fell on a truck in Hope Township. A barn roof was partially blown off causing flat tires to a few motorists. One tree fell on a home.									
Saginaw County									
3 NW Saginaw	22	1943EST			0	0			Thunderstorm Wind (G50)
Power Lines were blown down. Thunderstorms developed during the evening hours along an area of convergence from lake breeze boundaries off of Lake Huron. One storm developed over Gladwin county and moved into Midland. The storm strengthened as it moved into Midland county and produced damaging winds. The storm then moved southeast into Saginaw county where it weakened. The more widespread wind damage from this storm occurred in Edenville and Hope Townships in northern Midland County. The approximate area of damage was bounded by N. Sanford lake Road on the west, 5 Mile Road on the east, Bakar Road on the north, and Shaffer Road on the south.									
Shiawassee County									
Carland	29	1755EST			0	0			Thunderstorm Wind (G60)
50 trees blown down.									
Shiawassee County									
6 W Owosso	29	1800EST			0	0			Thunderstorm Wind (G60)
Poles and wires down at M21 and Baldwin Rd.									
Shiawassee County									
Owosso	29	1804EST			0	0			Thunderstorm Wind (G50)
Large limbs down.									
Shiawassee County									
Bennington	29	1807EST			0	0			Hail (1.00)
Shiawassee County									
Perry	29	1807EST			0	0			Thunderstorm Wind (G50)
Several trees blown down.									
Livingston County									
Cohoctah	29	1824EST			0	0			Thunderstorm Wind (G50)
Uprooted tree blocking cohoctah road.									
Livingston County									
6 N Fowlerville	29	1830EST			0	0			Thunderstorm Wind (G60)
Trees blown down at Fowlerville and Mohrle Roads.									
Livingston County									
5 SE Pinckney	29	1855EST			0	0			Thunderstorm Wind (G50)
Several Trees blown down.									
Livingston County									
Brighton	29	1900EST			0	0			Thunderstorm Wind (G50)
Limbs and power lines blown down.									
Oakland County									
2 SW Milford	29	1900EST			0	0			Thunderstorm Wind (G60)
Large trees blown down in Kensington Metro Park.									
Washtenaw County									
Chelsea	29	1905EST			0	0			Hail (0.88)
Livingston County									
Brighton	29	1910EST			0	0			Thunderstorm Wind (G50)
Trees blown down.									
Washtenaw County									
Dexter	29	1910EST			0	0			Hail (0.75)
Washtenaw County									
5 E Saline	29	1911EST			0	0	65K		Lightning
A storage shed and 900 gallons of diesel fuel caught fire when lightning struck the fuel tanks in Pittsfield Township.									
Washtenaw County									
Chelsea	29	1912EST			0	0			Hail (1.75)
Washtenaw County									
4 SE Manchester	29	1920EST			0	0	2K		Lightning
Lightning struck a house. Only minor damage was reported.									
Washtenaw County									
1 NW Dexter	29	1923EST			0	0	5K		Thunderstorm Wind (G60)
Trees blown down onto a vehicle.									

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property Damage	Crops	
<u>MICHIGAN, East</u>									
Washtenaw County									
6 N Manchester	29	1924EST			0	0			Hail (0.88)
Washtenaw County									
Ypsilanti	29	1946EST			0	0	10K		Hail (0.75)
			Several vehicles damaged by hail at state police post.						
Lenawee County									
Tecumseh	29	2004EST			0	0			Hail (1.00)
Lenawee County									
4 S Tecumseh	29	2005EST			0	0			Hail (0.75)
Monroe County									
Lambertville	29	2029EST			0	0			Thunderstorm Wind (G50)
			Tree blown down onto power lines.						
			An upper level disturbance and weak surface low moved south across central Lower Michigan during the evening of the 29th. This low pressure system, combined with very unstable air across southern Michigan, triggered numerous thunderstorms. These storms were strongest across the western sections of southeast Michigan, where several reports of damaging winds and large hail were received. The storms also caused many power outages. 5000 power outages were estimated in Oakland county and 3000 in Livingston. Monroe county also reported many power outages.						
<u>MICHIGAN, Extreme Southwest</u>									
Berrien County									
3 S Bridgman	01	1700EST			1	0			Rip Currents
			13 year old girl drowned at Warren Dunes State Park. Police and park rangers believe girl was caught in rip current near shore.						
			F13IW						
Hillsdale County									
Hillsdale	21	1600EST			1	0			Lightning
			Man went outside to check possible lightning damage to barn. While standing outside of barn was hit by lightning and died shortly after at Hillsdale Community Health Center.						
			M51OU						
<u>MICHIGAN, North</u>									
Charlevoix County									
3 E Charlevoix	09	1745EST			0	0			Thunderstorm Wind (G55)
Charlevoix County									
10 SE Charlevoix	09	1755EST			0	0			Thunderstorm Wind (G55)
			An isolated thunderstorm moved inland from Lake Michigan and downed several trees and power lines just southeast of Charlevoix.						
Alcona County									
Curtisville	22	1430EST			0	1	2K		Thunderstorm Wind (G55)
			Thunderstorm downed several trees. One truck had its windshield broken by flying debris and a female passenger in the truck was injured.						
Iosco County									
3 N Whittemore	22	1500EST			0	0			Thunderstorm Wind (G50)
			Thunderstorm downed a few trees near the intersection of M-55 and M-65.						
Oscoda County									
Mio	22	1520EST			0	0			Hail (0.75)
Arenac County									
Sterling	22	1705EST			0	0			Hail (0.88)
			An unstable airmass combined with lake breeze boundaries to produce scattered thunderstorms across northeast Lower Michigan during the afternoon of the 22nd. A few of the storms produced severe wind gusts and hail.						
<u>MICHIGAN, Upper</u>									
Delta County									
18 E Rapid River	21	1720EST			0	0			Thunderstorm Wind (G55)
			A tree uprooted, 6-inch branches down.						
Delta County									
48 N Isabella	21	1723EST			0	0			Thunderstorm Wind (G60)
			Numerous trees down.						
Schoolcraft County									
5 S Steuben	21	1755EST			0	0			Thunderstorm Wind (G60)
			Large tree down across the road.						
Schoolcraft County									
5 SE Steuben	21	1800EST			0	0			Thunderstorm Wind (G60)

Storm Data and Unusual Weather Phenomena

July 2001

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

MICHIGAN, Upper

Two trees down, one over the main highway.

On July 21st, high pressure over the east coast and low pressure over the central plains produced a strong southwest flow over the Upper Great Lakes region. The strong southwest flow advected ample Gulf of Mexico moisture into Michigan's Upper Peninsula. The high humidity fueled the development of numerous showers and thunderstorms. Two of the thunderstorms became severe over Schoolcraft and Delta counties.

MICHIGAN, West

Calhoun County

Battle Creek	21	1143EST 1146EST			0	0	25K		Thunderstorm Wind (G53)
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A large tree was blown down and blocked the intersection of Kirby and Waubascon roads. Several tree limbs that were two to three inches in diameter were also blown down.

Calhoun County

Battle Creek	21	1210EST 1215EST			0	0	50K		Thunderstorm Wind (G53)
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Several trees and power lines were blown down in Battle Creek and across Emmet township. One tree fell on power lines and a parked car.

Ottawa County

Holland	23	1158EST 1500EST			0	0	50K	25K	Flash Flood
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Allegan County

Saugatuck	23	1215EST 1500EST			0	0	50K	25K	Flash Flood
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Flash flooding occurred during the early afternoon hours of the 23rd across mainly northwestern Allegan county and southwestern Ottawa county. Numerous roads were reported to be flooded along the Allegan and Ottawa county lines by area law enforcement. Several reports of flooding were received from the city of Holland (Ottawa county). A report of 5.51 inches of rain was received from a trained spotter in Holland Township (Ottawa county) at 12:58 p.m. EDT, who also reported several impassable flooded roads.

Osceola County

Reed City to Ewart	29	1502EST 1525EST			0	0	150K	25K	Thunderstorm Wind (G53)
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Mecosta County

Barryton	29	1530EST			0	0	25K	25K	Hail (1.00)
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Isabella County

Weidman to Blanchard	29	1613EST 1636EST			0	0	50K		Thunderstorm Wind (G53)
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Montcalm County

Mc Brides to Carson City	29	1630EST 1640EST			0	0	150K	25K	Thunderstorm Wind (G53)
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Gratiot County

Riverdale	29	1650EST 1700EST			0	0	50K	10K	Thunderstorm Wind (G53)
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Clinton County

St Johns	29	1725EST			0	0	50K	10K	Thunderstorm Wind (G53)
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Gratiot County

Bannister	29	1730EST			0	0	25K		Thunderstorm Wind (G53)
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Ionia County

Ionia	29	1730EST 1740EST			0	0	50K	10K	Thunderstorm Wind (G53)
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Clinton County

Ovid to St Johns	29	1750EST 1820EST			0	0	150K	25K	Thunderstorm Wind (G53)
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Eaton County

Grand Ledge to Eaton Rapids	29	1810EST 1822EST			0	0	50K	10K	Thunderstorm Wind (G53)
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Ingham County

Lansing	29	1810EST			0	0	50K	10K	Thunderstorm Wind (G53)
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Ingham County

Holt	29	1840EST 1843EST			0	0	50K	10K	Thunderstorm Wind (G53)
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Storm Data and Unusual Weather Phenomena

July 2001

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

MICHIGAN, West

Calhoun County

Countywide 29 1855EST
1910EST 0 0 50K 10K Thunderstorm Wind (G53)

Calhoun County

Lee Center 29 1857EST 0 0 25K Thunderstorm Wind (G53)

Jackson County

Parma to Spring Arbor 29 1910EST
1925EST 0 0 25K Thunderstorm Wind (G53)

A large severe weather outbreak across southern and central lower Michigan during the late afternoon and evening hours resulted in numerous reports of downed trees and power lines, and a few reports of large hail.

The first reports of wind damage came from 6 miles northeast of Reed City and and 7 miles west of Ewart, both in Osceola county. Numerous trees were reported down by law enforcement in those areas. The only report of large hail came from 5 miles west of Barryton, in Mecosta county, where one inch hail was reported by law enforcement. Numerous trees and power lines were blown down in Weidman and Blanchard (Isabella county).

Numerous trees were blown down across Montcalm county, including the communities of McBride, Vestaburg, Crystal and Carson City. Three quarters inch hail was reported by spotters in Edmore, also in Montcalm county. Trees were also blown down in Riverdale and New Haven township (Griiot county).

Trees were also blown down 4 miles north of St. John's, in Clinton county, as well as in Bannister (Griiot county). A 911 center in Ionia reported trees down all across Ionia county.

Some of the most significant damage occurred 4 miles north of Ovid, in Clinton county, where two barns were damaged by severe thunderstorm wind gusts. Debris from the barn damage was then slammed into a home. Trees and power lines were also blown down in St. John's and Ovid (Clinton county).

Trees were also blown down in Grand Ledge (Eaton county).

Trees and power lines were also blown down in south Lansing, Holt and Dansville (Ingham county). More reports of trees being blown down came from Lee and Sheriden townships (Calhoun county). A 911 center in Spring Arbor (Jackson county) reported trees down in that area. The final report of severe weather came from Lee Center (Calhoun county) at 7:57 p.m. EDT, where several 2 to 3 foot diameter trees were blown down.

MINNESOTA, Central and South Central

Morrison County

Motley 17 1935CST 0 0 Hail (0.75)

Morrison County

Camp Ripley 17 1940CST 0 25 Lightning

One U. S. Marine Reservist was critically injured, but survived and was released the next afternoon. Twenty four others were treated and released within hours of the strike.

Morrison County

Cushing 17 2000CST 0 0 Hail (2.75)

Morrison County

4 E Little Falls 17 2040CST 0 0 Thunderstorm Wind (G60)

Grove of trees felled.

Douglas County

3 W Carlos 17 2115CST 0 0 Thunderstorm Wind (G55)

Tree down, slight damage to home.

Mille Lacs County

Onamia 17 2115CST 0 0 10K Thunderstorm Wind (G60)

Numerous trees down, some falling on homes.

Mille Lacs County

Vineland to Isle 17 2115CST
2120CST 0 0 100K Thunderstorm Wind (G64)

Swath of damage along the south side of Mille Lacs Lake. Many boats and docks turned over. Numerous trees down, some onto houses and vehicles.

Benton County

1 NW Rum River 17 2130CST 0 0 Thunderstorm Wind (G50)

A few trees down.

Mille Lacs County

3 N Page 17 2130CST 0 0 Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 2001

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									
Kanabec County									
1 W Mora	17	2155CST			0	0			Thunderstorm Wind (G55)
									Numerous trees toppled. Roof taken off garage under construction.
Isanti County									
Cambridge to Braham	17	2210CST 2215CST			0	0	50K		Thunderstorm Wind (G60)
									Bleachers blown over. Portion of Walmart greenhouse ripped off and destroyed.
Chisago County									
Taylors Falls	17	2230CST			0	0			Thunderstorm Wind (G50)
									Trees down
Redwood County									
6 N Walnut Grove	21	0910CST			0	0			Thunderstorm Wind (G52)
									Numerous 8 inch branches downed.
Redwood County									
Sanborn	21	0925CST			0	0			Thunderstorm Wind (G50)
									Numerous six inch branches down.
Martin County									
Fairmont Arpt	22	0535CST			0	0			Thunderstorm Wind (G51) M
Faribault County									
Winnebago	22	0600CST			0	0			Thunderstorm Wind (G52) M
									Numerous 6 inch branches down.
Lac Qui Parle County									
5 E Nassau	22	2030CST			0	0			Hail (0.75)
									Wind driven hail dented siding on a few houses and chipped paint on several others.
Lac Qui Parle County									
2 S Nassau to 4 S Bellingham	22	2030CST 2035CST			0	0			Thunderstorm Wind (G55)
									Numerous trees down in a 5 mile wide swath that included the cities of Nassau and Marietta. Some trees toppled onto houses and vehicles.
Chippewa County									
10 SE Milan	22	2056CST			0	0			Hail (0.75)
Swift County									
Appleton	23	0110CST			0	0			Thunderstorm Wind (G50)
									Few trees toppled.
Stevens County									
Alberta	23	0115CST			0	0	10K		Thunderstorm Wind (G55)
									Grain bin dented, roof off pole barn.
Stevens County									
Morris Arpt	23	0116CST			0	0			Thunderstorm Wind (G62) M
Pope County									
Starbuck to Glenwood	23	0140CST 0150CST			0	0	100K		Thunderstorm Wind (G65)
									Hundreds of trees down, some on houses, businesses and vehicles. Numerous docks and boats flipped along Lake Minnewaska in Starbuck.
Swift County									
3 NW Murdock to 4 SE Kerkhoven	23	0140CST 0155CST			0	0			Thunderstorm Wind (G60)
									Numerous trees down along a 12 mile long swath.
Kandiyohi County									
4 N Willmar to Atwater	23	0210CST 0225CST			0	0	20K		Thunderstorm Wind (G60)
									Scattered trees down in a swath that extended to Atwater. Church under construction in Spicer blown down.
Stearns County									
St Augusta	23	0320CST			0	0	15K		Thunderstorm Wind (G55)
									Numerous trees down over 12 square blocks of St. Augusta. Some fell on houses and vehicles. A plywood sheet was blown through a window.
Stearns County									
St Cloud	23	0330CST			0	0			Thunderstorm Wind (G52) M
									Measured at St. Cloud University. Six inch diameter tree toppled onto a spotter's car.

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
MINNESOTA, Northeast									
Cass County									
Pillager	17	1925CST			0	0			Thunderstorm Wind (G52) M
Cass County									
Lake Shr	17	1925CST			0	0			Thunderstorm Wind (G52) M
Crow Wing County									
Baxter	17	1958CST			0	0			Hail (1.00)
Crow Wing County									
Baxter	17	1958CST			0	0			Thunderstorm Wind (G50) M
Crow Wing County									
Ft Ripley	17	2010CST			0	0			Hail (0.88)
Cass County									
Walker	17	2023CST			0	0			Hail (0.75)
Cass County									
Bena	17	2035CST			0	0			Hail (1.75)
Cass County									
Bena	17	2035CST			0	0			Thunderstorm Wind (G52) M
Cass County									
Remer	17	2113CST			0	0			Thunderstorm Wind (G52) M
Cass County									
3 NE Remer	17	2125CST			0	0			Thunderstorm Wind (G52) M
Six inch diameter trees were blown down on State Highway 6.									
Aitkin County									
7 W Hill City	17	2145CST			0	0			Thunderstorm Wind (G52) M
Several trees were blown down.									
Itasca County									
17 N Grand Rapids	18	2241CST			0	0			Thunderstorm Wind (G50)
A tree and many branches were blown down. The wind speed is estimated.									
Itasca County									
3 N Nashwauk	18	2317CST			0	0			Thunderstorm Wind (G50)
Trees were blown down. The wind speed is estimated.									
Lake County									
15 N Two Harbors	21	1704CST			0	0			Hail (0.75)
Koochiching County									
Birchdale to Pelland	31	1845CST 1900CST			0	0			Thunderstorm Wind (G60)
Numerous trees were reported blown down along State Highway 11 between Birchdale and Pelland. The wind speed is estimated.									
St. Louis County									
14 NNE Ash Lake	31	1930CST			0	0			Thunderstorm Wind (G55)
A swath of trees 1 mile long and 1/4 mile wide was blown down on Labonty's Point on Lake Kabetogama. The wind speed is estimated.									
St. Louis County									
10 NW Ash Lake to 16 NE Ash Lake	31	2200CST 2230CST			0	0			Thunderstorm Wind (G60)
Severe thunderstorm winds damaged approximately 11,000 acres of timber in a largely uninhabited area of northwestern St. Louis County between Pearl Lake and Little Johnson Lake. About 75% of the trees in the 20-mile long swath were downed or severely damaged. The time of the damage is estimated.									
St. Louis County									
21 N Orr	31	2230CST			0	0			Thunderstorm Wind (G60)
A microburst demolished an attached garage, broke windows in a home, lifted up the roof, and downed many trees. The wind speed is estimated.									
MINNESOTA, Northwest									
MNZ006									
Lake Of The Woods									
	01	0000CST			0	0	250K		Flood
	31	2359CST							
High water on Lake of the Woods and the Rainy River caused major damage to numerous resort and home owners. Docks were covered in water and several resort owners hauled in rocks to prevent further erosion of their lakefront property.									
Kittson County									
5 E Donaldson	16	2050CST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property Damage	Crops	
MINNESOTA, Northwest									
Kittson County									
5 E Donaldson	16	2200CST			0	0			Flash Flood
			Four inches of rain in 45 minutes caused water to overflow a dike into a field.						
Beltrami County									
Thorhult	17	1400CST			0	0		5K	Thunderstorm Wind
			Wind damage to crops and trees was reported.						
Beltrami County									
10 N Bemidji	17	1437CST			0	0			Hail (0.75)
Beltrami County									
9 N Bemidji	17	1450CST 1454CST			0	0			Hail (1.00)
Beltrami County									
7 N Bemidji	17	1500CST			0	0			Hail (1.00)
Beltrami County									
10 N Bemidji	17	1505CST			0	0			Hail (1.00)
Beltrami County									
3 N Bemidji	17	1525CST			0	0			Hail (1.50)
Beltrami County									
10 NW Fourtown to 11 NW Fourtown	17	1530CST			0	0			Hail (1.75)
Beltrami County									
2 NW Bemidji	17	1535CST			0	0			Hail (1.50)
Roseau County									
3 S Salol	17	1535CST			0	0			Hail (1.00)
Roseau County									
Skime	17	1540CST			0	0			Hail (0.75)
Beltrami County									
4 W Kelliher	17	1553CST			0	0			Hail (0.75)
Beltrami County									
15 E Bemidji	17	1559CST			0	0			Hail (2.75)
Beltrami County									
Bemidji	17	1621CST			0	0			Hail (1.75)
Beltrami County									
Ponemah	17	1630CST			0	0			Hail (0.75)
Lake Of The Woods County									
Graceton	17	1650CST			0	0			Hail (0.75)
Marshall County									
6 SE Middle River	17	1715CST			0	0			Hail (1.00)
Beltrami County									
Bemidji	17	1721CST			0	0			Hail (1.75)
Beltrami County									
3 W Redby	17	1724CST			0	0			Tornado (F0)
			A brief touchdown was reported by the public.						
Beltrami County									
Saum	17	1724CST			0	0			Tornado (F0)
			An amateur radio operator reported a brief tornado touchdown.						
Lake Of The Woods County									
Carp	17	1730CST			0	0	4K		Thunderstorm Wind
			A 10 to 12 foot wide path of downed trees was reported.						
Beltrami County									
6 N Bemidji	17	1731CST			0	0			Hail (1.00)
Beltrami County									
4 N Bemidji	17	1736CST			0	0			Hail (0.75)
			The hail fell on the north shore of Lake Bemidji.						
Beltrami County									
Bemidji	17	1738CST			0	0			Hail (1.00)

Storm Data and Unusual Weather Phenomena

July 2001

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									
Beltrami County									
6 N Bemidji	17	1743CST			0	0			Hail (1.00)
Beltrami County									
9 N Bemidji	17	1750CST			0	0			Hail (1.50)
Beltrami County									
2 S Turtle River	17	1752CST			0	0			Hail (1.00)
Beltrami County									
3 SW Funkley	17	1756CST			0	0			Tornado (F0)
			A brief touchdown was reported.						
Beltrami County									
5 NW Funkley	17	1758CST			0	0			Tornado (F0)
			A brief touchdown was reported.						
Wadena County									
6 S Huntersville	17	1758CST			0	0			Hail (2.50)
Beltrami County									
7 E Bemidji	17	1800CST			0	0			Hail (0.88)
Beltrami County									
Funkley to 1 E Funkley	17	1800CST 1805CST			0	0			Tornado (F0)
			A brief touchdown was reported.						
Beltrami County									
Thorhult	17	1800CST			0	0			Flash Flood
			The heavy rain flooded several roads.						
Beltrami County									
7 N Bemidji	17	1810CST			0	0			Hail (1.00)
Beltrami County									
3 N Hines	17	1815CST			0	0			Hail (1.75)
Beltrami County									
Hines	17	1828CST			0	0			Hail (0.75)
Beltrami County									
Tenstrike	17	1831CST			0	0			Hail (0.75)
Wadena County									
Oylen	17	1844CST			0	0			Hail (1.75)
Beltrami County									
14 E Bemidji	17	1845CST			0	0			Hail (1.00)
Beltrami County									
Ponemah	17	1847CST			0	0			Hail (1.75)
Roseau County									
Roosevelt	17	1851CST			0	0			Hail (1.00)
Lake Of The Woods County									
6 NW Williams	17	1855CST			0	0			Hail (1.00)
Lake Of The Woods County									
Carp	17	1900CST			0	0			Flash Flood
			Widespread flooding of roads and ditches was reported in the Carp area.						
Beltrami County									
1 E Tenstrike	17	1930CST			0	0			Hail (1.00)
Hubbard County									
10 NE Park Rapids	17	1938CST			0	0			Hail (0.88)
Wilkin County									
2 W Rothsay	17	1945CST			0	0	1K		Thunderstorm Wind
			Several large branches were blown down.						
Hubbard County									
10 NE Park Rapids	17	1946CST			0	0			Hail (1.75)
Wilkin County									
1 N Rothsay	17	1954CST			0	0			Thunderstorm Wind (G54) ^M

Storm Data and Unusual Weather Phenomena

July 2001

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									
Otter Tail County									
Fergus Falls	17	2003CST			0	0			Thunderstorm Wind (G56) ^M
Otter Tail County									
Parkers Prairie	17	2105CST			0	0			Hail (0.75)
Kittson County									
St Vincent	18	1535CST			0	0			Thunderstorm Wind (G52) ^M
A Minnesota DOT RWIS site measured a 60 mph wind gust.									
Kittson County									
5 E St Vincent	18	1537CST			0	0			Hail (2.50)
Kittson County									
Orleans	18	1555CST			0	0			Hail (2.75)
Kittson County									
Humboldt	18	1600CST			0	0			Hail (2.00)
Kittson County									
Orleans	18	1600CST			0	0	150K		Thunderstorm Wind
Six 50,000 bushel grain bins were destroyed and 4 others were damaged by the strong wind.									
Kittson County									
2 S Orleans	18	1600CST			0	0			Tornado (F0)
A brief touchdown was reported.									
Kittson County									
3 W Lancaster	18	1603CST			0	0			Thunderstorm Wind (G56)
Kittson County									
5 NW Lancaster	18	1607CST			0	0			Hail (1.75)
Kittson County									
5 NW Lancaster	18	1607CST			0	0	0.50K		Thunderstorm Wind
Large branches were blown down.									
Kittson County									
6 SW Caribou	18	1649CST			0	0			Hail (0.75)
Roseau County									
Roseau	18	1730CST			0	0			Hail (0.75)
Kittson County									
4 SW Lancaster	18	1807CST			0	0	1K		Thunderstorm Wind
Branches were blown down and shingles were blown off a roof.									
Kittson County									
7 SW Hallock	18	1830CST			0	0			Hail (0.75)
Kittson County									
6 SW Caribou	18	1849CST			0	0			Hail (0.75)
Kittson County									
2 NW Halma	18	1900CST			0	0	1K		Thunderstorm Wind
Trees and branches were blown down.									
Kittson County									
St Vincent to Hallock	18	1900CST			0	0			Flash Flood
Street flooding was reported.									
Lake Of The Woods County									
6 W Lude	18	1900CST			0	0	1K		Thunderstorm Wind
Two large trees were blown down.									
Lake Of The Woods County									
Lude	18	1905CST 1935CST			0	0	5K		Flash Flood
Basements were flooded as 4 1/2 inches of rain fell over a short period of time.									
Lake Of The Woods County									
2 NW Lude	18	1905CST			0	0	50K		Thunderstorm Wind
At the Long Point Resort, trees fell on cabins, homes, boats, and powerlines.									

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
MINNESOTA, Northwest									
Lake Of The Woods County									
Lude	18	1905CST			0	0	5K		Thunderstorm Wind
			Trees and powerlines were blown down.						
Lake Of The Woods County									
Lude	18	1905CST			0	0			Tornado (F0)
			A brief tornado touchdown was reported.						
Roseau County									
Malung	18	1910CST			0	0			Hail (0.88)
Roseau County									
5 SE Pencer	18	1930CST			0	0			Flash Flood
			Ditches were full of water and running over the roads.						
Roseau County									
5 SE Pencer	18	1930CST			0	0			Hail (1.50)
Roseau County									
Roseau	18	1930CST			0	0			Hail (1.50)
Marshall County									
5 S Newfolden	18	1940CST			0	0			Funnel Cloud
Lake Of The Woods County									
Baudette to Williams	18	2000CST 2300CST			0	0	10K		Flash Flood
			Many basements and roads were flooded.						
Roseau County									
3 E Pencer	18	2000CST			0	0			Hail (1.00)
Marshall County									
4 NE Gatzke	18	2005CST			0	0			Tornado (F1)
			A swath of trees were downed across highway 89.						
Roseau County									
Skime	18	2005CST			0	0	10K		Thunderstorm Wind
			Powerlines were blown down.						
Marshall County									
12 N Grygla	18	2010CST			0	0	2K		Thunderstorm Wind
			Trees were blown down by the strong wind.						
Beltrami County									
Jelle	18	2030CST			0	0	0.50K		Thunderstorm Wind
			Branches were blown down.						
Lake Of The Woods County									
20 S Baudette	18	2045CST			0	0			Hail (1.00)
Lake Of The Woods County									
20 S Baudette	18	2045CST			0	0	2K		Thunderstorm Wind
			Trees were blown down.						
Lake Of The Woods County									
11 SSE Baudette	18	2100CST			0	0	0.50K		Thunderstorm Wind
			Branches were blown down.						
Polk County									
3 W Tabor	18	2110CST			0	0			Hail (1.00)
Polk County									
3 W Tabor	18	2114CST			0	0			Hail (1.00)
Beltrami County									
Waskish	18	2120CST			0	0	2K		Thunderstorm Wind
			Trees were blown down by the strong wind.						
Marshall County									
8 S Argyle	18	2145CST			0	0			Hail (1.00)

Storm Data and Unusual Weather Phenomena

July 2001

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									
Polk County									
Angus	18	2145CST			0	0	0.50K		Thunderstorm Wind
			Branches were blown down.						
Roseau County									
Pencer	18	2200CST			0	0			Flash Flood
			Several roads were flooded.						
Beltrami County									
Tenstrike	18	2210CST			0	0	25K		Thunderstorm Wind
			Boats and docks were damaged.						
Pennington County									
14 SW Thief River Falls	18	2215CST			0	0			Hail (1.00)
Pennington County									
14 SW Thief River Falls	18	2225CST			0	0	2K		Thunderstorm Wind
			Trees were blown down.						
Red Lake County									
3 NW Red Lake Falls	18	2230CST			0	0			Hail (2.00)
Red Lake County									
Dorothy	18	2300CST			0	0			Hail (2.50)
Polk County									
6 NE Euclid	18	2315CST			0	0			Hail (1.00)
Polk County									
East Grand Forks	18	2330CST			0	0			Flash Flood
			Street flooding was reported.						
Polk County									
Fisher	18	2330CST			0	0			Thunderstorm Wind (G51) ^M
			A 59 mph gust was reported by a Minnesota DOT RWIS station.						
Polk County									
2 SE Greenview	19	0045CST			0	0			Hail (0.75)
Marshall County									
10 W Argyle	19	0100CST			0	0			Flash Flood
			Water was reported over highway 19.						
Norman County									
Syre	19	0100CST			0	0			Hail (0.75)
Norman County									
2 SE Twin Vly	19	0105CST			0	0			Hail (1.00)
Mahnomen County									
7 S Mahnomen	19	0115CST			0	0	0.50K		Thunderstorm Wind
			Tree branches were blown down.						
Clay County									
2 E Hawley	19	0125CST			0	0	0.50K		Thunderstorm Wind
			Tree branches were blown down.						
Becker County									
2 NW Lake Park	19	0130CST			0	0			Hail (0.75)
Marshall County									
7 N Oslo	19	0130CST			0	0	0.50K		Thunderstorm Wind
			Trees were blown down.						
Norman County									
6 W Ada	21	0337CST			0	0			Thunderstorm Wind (G56) ^M
			A 64 mph wind gust was measured at a Minnesota DOT RWIS site.						
Clay County									
Dilworth	21	0345CST			0	0			Thunderstorm Wind (G52)
			Tree branches were blown down.						
Clay County									
Hawley	21	0430CST			0	0	0.50K		Thunderstorm Wind
			A large tree was blown down at the Hawley Golf Course.						
Otter Tail County									
Pelican Lake	21	0430CST			0	0	2K		Thunderstorm Wind
			Trees were blown down.						

Storm Data and Unusual Weather Phenomena

July 2001

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									
Otter Tail County									
Vergas	21	0442CST			0	0			Thunderstorm Wind (G52)
Otter Tail County									
Fergus Falls	21	0444CST			0	0			Thunderstorm Wind (G52)
Becker County									
2 S Detroit Lakes	21	0445CST			0	0	20K		Thunderstorm Wind (G52)
The Soo Pass Ranch was holding its Spirit Fest concert south of Detroit Lakes. The strong wind knocked over chairs, vendor booths, and sound equipment.									
Wilkin County									
Tenney	21	0445CST			0	0			Thunderstorm Wind (G52)
Becker County									
Cormorant	21	0447CST			0	0			Thunderstorm Wind (G52)
Becker County									
10 NE Detroit Lakes to 15 NE Detroit Lakes	21	0450CST 0500CST			0	0			Thunderstorm Wind (G52)
Hubbard County									
7 N Park Rapids	21	0515CST			0	0	0.50K		Thunderstorm Wind
Tree branches were blown down.									
Otter Tail County									
New York Mills	21	0515CST			0	0			Hail (2.00)
Wadena County									
3 SE Wadena	21	0515CST			0	0			Thunderstorm Wind (G52)
Norman County									
6 SE Halstad	22	0747CST			0	0			Thunderstorm Wind (G51) ^M
A 59 mph wind gust was measured by a Minnesota DOT RWIS site.									
Red Lake County									
1 S Dorothy	29	2125CST			0	0			Hail (0.88)
Clay County									
1 S Georgetown	30	0920CST			0	0			Hail (1.00)
Clay County									
5 W Felton to 1 SW Felton	30	0934CST 0937CST			0	0			Hail (0.75)
Polk County									
East Grand Forks	30	1024CST			0	0			Hail (0.75)
Becker County									
Shoreham	30	1030CST			0	0			Hail (0.75)
Otter Tail County									
2 SE Carlisle	30	1050CST			0	0			Hail (0.75)
Becker County									
4 SE Detroit Lakes	30	1056CST			0	0			Hail (0.88)
Becker County									
Detroit Lakes	30	1056CST			0	0	5K		Lightning
Lightning hit a major downtown power substation, knocking out power for two-thirds of the city.									
Becker County									
2 S Detroit Lakes	30	1056CST			0	0	50K		Thunderstorm Wind
Strong winds hit the Soo Pass Ranch, which was preparing for its country music festival. Three travel trailers were flipped over, one completely wrecked. Signs, fence posts, and a booth were damaged. One tree fell on a large camper. Two boats were flipped over.									
Becker County									
Detroit Lakes	30	1056CST			0	0	20K		Thunderstorm Wind
Strong winds knocked tree branches onto powerlines and blew over a portable greenhouse. A metal roof was torn off a building.									
Wadena County									
Sebeka	30	1112CST			0	0	2K		Thunderstorm Wind
Trees were blown down in Sebeka.									
Wadena County									
2 NE Nimrod	30	1130CST			0	0	1K		Thunderstorm Wind
Several trees were blown down.									
Red Lake County									
4 N Red Lake Falls	30	1138CST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 2001

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										
Norman County										
Halstad	31	0257CST			0	0			Thunderstorm Wind (G58)	M
	A 67 mph wind gust was measured at a Minnesota DOT RWIS site.									
Clay County										
Hawley	31	0317CST			0	0			Hail (0.88)	
Polk County										
Crookston Muni Arpt	31	0320CST			0	0			Thunderstorm Wind (G50)	M
	A 58 mph wind gust was measured at the Crookston Airport.									
Norman County										
12 SE Ada	31	0325CST			0	0	20K		Thunderstorm Wind	
	Large branches were blown down in Ada.									
Norman County										
Twin Vly	31	0325CST			0	0	20K		Thunderstorm Wind	
	Branches were blown down in Twin Valley.									
Polk County										
Crookston	31	0325CST			0	0	50K		Thunderstorm Wind	
	Tree branches were blown down.									
Polk County										
Gentilly	31	0325CST			0	0	50K		Thunderstorm Wind	
	Branches were blown down.									
Red Lake County										
6 S Red Lake Falls	31	0330CST			0	0			Thunderstorm Wind (G52)	
Marshall County										
Gatzke	31	0335CST			0	0	5K		Thunderstorm Wind	
	Large trees and power poles were blown down.									
Polk County										
2 S Erskine	31	0335CST			0	0	50K		Thunderstorm Wind	
	Boats were overturned and trees uprooted at Lake Sarah.									
Polk County										
Fosston	31	0340CST			0	0	50K		Thunderstorm Wind	
	A warehouse roof was blown off and parts of the roof severed the nearby powerlines. This cut power for parts of Fosston for several hours. A parked semi truck was also overturned nearby.									
Norman County										
Halstad	31	0345CST			0	0	20K		Thunderstorm Wind	
	Power poles were blown down.									
Polk County										
1 E Gully	31	0355CST			0	0	1K		Thunderstorm Wind	
	Trees were blown down along Highway 92.									
Clearwater County										
Gonvick	31	0400CST			0	0	250K		Thunderstorm Wind	
	Trees were blown down on cars and powerlines.									
Red Lake County										
3 N Oklee	31	0400CST			0	0			Thunderstorm Wind (G52)	
Marshall County										
4 NW Grygla	31	0415CST			0	0	1K		Thunderstorm Wind	
	Large trees were blown down.									
Roseau County										
1 NE Skime	31	0415CST			0	0	0.50K		Thunderstorm Wind	
	Large trees were blown down.									
Roseau County										
Badger	31	0440CST			0	0			Thunderstorm Wind (G62)	M
	A 71 mph wind gust was measured at the Minnesota DOT RWIS site at Badger.									
Beltrami County										
Waskish	31	0500CST			0	0	0.50K		Thunderstorm Wind	
	A large tree was blown down.									
Lake Of The Woods County										
6 SE Baudette	31	0500CST			0	0	100K		Thunderstorm Wind	
	Trees were blown down and a roof was torn off a mobile home.									

Storm Data and Unusual Weather Phenomena

July 2001

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									
Lake Of The Woods County									
1 SW Carp	31	0510CST			0	0	100K		Thunderstorm Wind
			Several roofs were heavily damaged and trees were blown down.						
Polk County									
Fisher	31	1032CST			0	0	50K		Thunderstorm Wind
			Power poles were blown down.						
Polk County									
3 S Angus	31	1050CST			0	0	2K		Thunderstorm Wind
			Numerous trees were blown down.						
Polk County									
7 NE Angus	31	1100CST			0	0	0.50K		Thunderstorm Wind
			Branches were blown down.						
Red Lake County									
1 SW Wylie	31	1115CST			0	0			Hail (0.75)
Pennington County									
Thief River Falls	31	1120CST			0	0			Thunderstorm Wind (G63) ^M
			Numerous large trees were blown down. The wind speed was measured by a Davis system. Two powerlines were also blown down.						
Pennington County									
Thief River Falls	31	1123CST			0	0			Hail (0.75)
Pennington County									
4 W Mavie	31	1135CST			0	0	0.50K		Thunderstorm Wind
			Several large branches were blown down.						
Marshall County									
15 SW Grygla	31	1145CST			0	0			Hail (0.75)
			The hail fell along the county line.						
Pennington County									
2 NE Mavie	31	1145CST			0	0			Hail (0.75)
			The hail fell along the county line.						
Polk County									
4 SE Angus	31	1230CST			0	0			Thunderstorm Wind (G61)
			Small trees were blown down.						
Pennington County									
13 W Thief River Falls	31	1235CST			0	0	0.50K		Thunderstorm Wind
			Branches were blown down.						
Marshall County									
3 NE Holt	31	1300CST			0	0			Hail (0.88)
Marshall County									
3 NE Holt	31	1300CST			0	0	0.50K		Thunderstorm Wind
			Tree branches were blown down.						
Marshall County									
5 NW Grygla	31	1330CST			0	0			Hail (0.75)
Beltrami County									
7 NW Thorhult	31	1345CST			0	0	0.50K		Thunderstorm Wind
			Tree branches were blown down.						
Lake Of The Woods County									
4 S Graceton	31	1730CST			0	0	100K		Tornado (F0)
			A brief touchdown was reported.						
Polk County									
2 W Key West	31	1615CST			0	0	0.50K		Thunderstorm Wind
			A tree was blown down.						
Roseau County									
4 NE Skime	31	1630CST			0	0			Hail (0.88)
			The hail damaged the awnings on a home.						
Beltrami County									
8 NE Fourtown	31	1700CST			0	0	1K		Thunderstorm Wind
			Trees were blown down.						

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time		Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
		Local/Standard				Killed	Injured	Property	Crops	
MINNESOTA, Northwest										
Polk County										
East Grand Forks	31	1700CST				0	0	15K		Flash Flood
						Basements were flooded in the point area of East Grand Forks.				
Lake Of The Woods County										
Pitt	31	1712CST				0	0	50K		Thunderstorm Wind
						Signs were blown down and pieces of a roof torn off.				
Lake Of The Woods County										
3 SW Pitt	31	1730CST				0	0			Hail (1.00)
Clay County										
5 NE Georgetown	31	1735CST				0	0	0.50K		Thunderstorm Wind
						Branches were blown down.				
Norman County										
4 E Perley	31	1735CST				0	0			Thunderstorm Wind (G52)
						Large branches were blown down.				
Marshall County										
Grygla	31	1745CST				0	0	2K		Flash Flood
						Street flooding was reported in Grygla. County roads, yards, and fields were also flooded along the Mud River. Several homes were completely surrounded by water.				
Red Lake County										
Red Lake Falls	31	1750CST				0	0	2K		Flash Flood
						Street flooding was reported in Red Lake Falls.				
Marshall County										
Viking	31	1800CST				0	0	1K		Flash Flood
						Ditches overflowed near Viking.				
Polk County										
Crookston	31	1800CST				0	0	2K		Flash Flood
						Street flooding was reported in Crookston.				
Red Lake County										
1 W Plummer	31	1802CST				0	0	1K		Flash Flood
						Water was reported over Highway 1.				
Norman County										
1 SW Flaming	31	1814CST				0	0			Hail (0.75)
Beltrami County										
12 SW Ponemah	31	1815CST				0	0			Tornado (F0)
						A tornado was reported over the Lower Red Lake.				
Pennington County										
Thief River Falls	31	1815CST				0	0	10K		Flash Flood
						Street flooded was reported with numerous cars stalled.				
Red Lake County										
Terrebonne	31	1815CST				0	0			Hail (0.75)
Polk County										
Fertile	31	1820CST				0	0			Hail (0.75)
Polk County										
4 SW Erskine	31	1835CST				0	0			Hail (0.88)
Lake Of The Woods County										
Baudette	31	1840CST				0	0	2K		Flash Flood
						Streets were flooded in Baudette.				
Lake Of The Woods County										
4 E Williams	31	1845CST				0	0	10K		Flash Flood
						Basement flooding was reported along with water pooling in yards.				
Red Lake County										
4 S Oklee	31	1845CST				0	0	0.50K		Thunderstorm Wind
						Branches were blown down.				
Roseau County										
3 NW Greenbush	31	1900CST				0	0	200K		Flash Flood

Storm Data and Unusual Weather Phenomena

July 2001

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									
Water washed out county road 7.									
Roseau County									
Roseau	31	1900CST			0	0	200K		Flash Flood
Street flooding was reported in Roseau.									
Polk County									
4 NE Fosston	31	1905CST			0	0			Hail (0.88)
Lake Of The Woods County									
Graceton	31	1924CST			0	0	150K		Flash Flood
County road 66 was washed out.									
Pennington County									
4 SE High Lndg	31	1925CST			0	0			Hail (0.75)
Clearwater County									
2 NE Clearbrook	31	1933CST			0	0			Hail (0.88)
Beltrami County									
12 W Redby	31	1945CST			0	0	2K		Thunderstorm Wind
Trees were blown down along highway 1.									
Beltrami County									
6 W Redlake	31	1945CST			0	0			Funnel Cloud
Clearwater County									
10 N Gonvick	31	1945CST			0	0	15K		Hail (0.75)
A 1500 acre wild rice field was flattened.									
Pennington County									
1 S Goodridge	31	2000CST			0	0			Hail (0.75)
Beltrami County									
Ponemah	31	2005CST			0	0			Hail (0.88)
Beltrami County									
1 S Thorhult	31	2100CST			0	0	2K		Flash Flood
Ditches overflowed onto county roads.									
Beltrami County									
3 SW Fourtown	31	2230CST			0	0			Flash Flood
Water was reported over a county road. Seven inches of rain was reported.									
Beltrami County									
8 NE Fourtown	31	2230CST			0	0	10K		Flash Flood
Roads and basements were flooded and several homes were surrounded by water. 7 1/2 inches of rain was reported.									
Beltrami County									
11 NW Fourtown	31	2230CST			0	0			Flash Flood
A township road was inundated with water. The Moose River flooded several roads.									
Lake Of The Woods County									
Baudette	31	2300CST			0	0	10K		Flash Flood
Streets and basements were flooded. Some streets had 12 to 16 inches of water on them.									
MINNESOTA, Southeast									
Fillmore County									
Whalan	21	1353CST			0	0	0.40K		Hail (1.00)
Fillmore County									
Bratsberg	21	1405CST			0	0	0.70K	2.5K	Hail (1.00)
Storm spotters and the public reported hail the size of quarters.									
Wabasha County									
Lake City	22	0740CST			0	0	1.5K		Thunderstorm Wind (G50)
Wind gusts up to 60 mph caused power outages.									
MN Z079-086>088- 094>096									
Wabasha - Dodge - Olmsted - Winona - Mower - Fillmore - Houston									
	31	1300CST 2359CST			0	0			Excessive Heat
Temperatures in the middle 90s combined with high humidity caused dangerous heat indices of 105 to 110. The excessive heat and humidity continued to affect southeast Minnesota through the first week and a half of August.									

Storm Data and Unusual Weather Phenomena

July 2001

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

MINNESOTA, Southwest

Nobles County

Worthington **02 0900CST** **0 0** **2K** **Lightning**
Lightning struck and split a large tree. Most of the tree fell and damaged siding on a house, but just missed a parked car.

Nobles County

Round Lake **03 0148CST** **0 0** **Hail (1.00)**
0155CST

Jackson County

3 W Okabena to **20 1139CST** **0 0** **Tornado (F0)**
1 W Okabena **1142CST**
A tornado damaged corn crops, but the amount of crop damage was not known.

Lincoln County

6 N Hendricks **21 0745CST** **0 0** **Thunderstorm Wind (G61)**
0805CST

Lincoln County

Hendricks to **21 0750CST** **0 0** **Thunderstorm Wind (G61)**
5 E Arco **0830CST**
Thunderstorm winds caused widespread tree and power line damage. The winds also caused crop damage, mainly consisting of corn being blown over. The amount of crop damage was not known, especially since much of the corn recovered to some degree within a few days after the event.

Lincoln County

Lake Benton **21 0814CST** **0 0** **Hail (1.00)**

Lincoln County

Lake Benton **21 0819CST** **0 0** **Hail (0.75)**

Lyon County

5 W Russell to **21 0815CST** **0 0** **Thunderstorm Wind (G52)**
3 S Marshall **0845CST**

Thunderstorm winds caused crop damage, mainly to corn. The amount of crop damage was not known, as some of the corn recovered during the next few days after the event. However, damage was still suspected because, according to the Lyon County extension educator, the storm occurred during the pollination period, when stalks should be upright for successful pollination.

Lyon County

Marshall Arpt **21 0834CST** **0 0** **Thunderstorm Wind (G50)** ^M

Rock County

Kanaranzi **24 0825CST** **0 0** **Flash Flood**
1030CST

Rainfall of two to four inches caused flash flooding of the Upper Kanaranzi Creek. Lowlands along the creek were also flooded, but no damage reports were available.

Nobles County

2 W Kinbrae to **24 0930CST** **0 0** **Flood**
2 E Kinbrae **1100CST**

Heavy rainfall caused flooding of gravel roads near East Graham Lake, closing the roads.

MINNESOTA, West

NONE REPORTED.

MINNESOTA, West Central

Big Stone County

5 E Clinton **23 0045CST** **0 0** **Thunderstorm Wind (G56)**
A large cottonwood tree was downed by the very strong winds.

MISSISSIPPI, Central

Simpson County

Pinola **02 1500CST** **0 0** **1K** **Thunderstorm Wind**
A few trees were blown down.

Bolivar County

Shelby **03 1245CST** **0 0** **1K** **Thunderstorm Wind**
Several trees were blown down.

Bolivar County

Cleveland **03 1305CST** **0 0** **1K** **Thunderstorm Wind**
A few trees were blown down.

Lowndes County

Caledonia **04 1912CST** **0 0** **2K** **Thunderstorm Wind**
Several trees and powerlines were blown down.

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property Damage	Crops	
MISSISSIPPI, Central									
Lowndes County									
Columbus	04	1940CST			0	0	2K		Thunderstorm Wind
					Several trees and powerlines were blown down on Highways 12 and 82 in the Columbus area.				
Noxubee County									
Macon	04	1947CST			0	0	2K		Thunderstorm Wind
					A few trees were blown down in the Macon area, including some trees blown onto Highway 388.				
Lauderdale County									
5 S Toomsaba	05	1700CST			0	0	1K		Thunderstorm Wind
					A few trees were blown down.				
Lincoln County									
7 SE Brookhaven	06	1624CST			0	0			Hail (0.75)
Lincoln County									
7 SE Brookhaven	06	1635CST			0	0	15K		Thunderstorm Wind
					The roof of a residence was blown off, and several trees were blown down.				
Lincoln County									
Bogue Chitto	11	1620CST			0	0			Hail (0.75)
Lincoln County									
Bogue Chitto	11	1620CST 1623CST			0	0	1K		Thunderstorm Wind
					A few trees were blown down.				
Rankin County									
Florence	11	1620CST			0	0			Hail (0.75)
Rankin County									
3 N Florence	11	1640CST 1645CST			0	0			Hail (0.75)
Rankin County									
3 N Florence	11	1640CST 1645CST			0	0	2K		Thunderstorm Wind
					Several trees and powerlines were blown down between Richland and Florence.				
Oktibbeha County									
2 W Adaton	11	1650CST			0	0	1K		Thunderstorm Wind
					Several trees were blown down.				
Rankin County									
Florence	11	1710CST 1830CST			0	0	10K		Flash Flood
					Up to 8 inches of rain fell in several hours in southwest Rankin County from Florence to the Pearl River. A number of roadways became flooded.				
Lincoln County									
Auburn	11	1745CST			0	0	1K		Thunderstorm Wind
					A few trees were blown down.				
Scott County									
Lake	12	1245CST			0	0	2K		Thunderstorm Wind
					A few trees were blown down.				
Bolivar County									
Merigold	12	1300CST			0	0	2K		Thunderstorm Wind
					Several trees and powerlines were blown down.				
Jasper County									
3 S Bay Spgs	12	1300CST			0	0	1K		Thunderstorm Wind
					A few trees were blown down in a rural area.				
Jones County									
Laurel	12	1415CST			0	0	25K		Thunderstorm Wind
					Several trees were blown down. One tree landed on a house and caused significant damage.				
Leake County									
8 S Carthage	12	1430CST			0	0	1K		Thunderstorm Wind
					A few trees were blown down in a rural area.				
Neshoba County									
5 N Philadelphia to Philadelphia	12	1445CST 1450CST			0	0	2K		Thunderstorm Wind
					Several trees were blown down.				

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
MISSISSIPPI, Central									
Yazoo County									
Satartia to Bentonla	12	1450CST 1455CST			0	0	2K		Thunderstorm Wind
			Several trees were blown down.						
Jefferson County									
6 E Fayette	12	1500CST			0	0	1K		Thunderstorm Wind
			Several trees were blown down in a rural area.						
Madison County									
Flora	12	1500CST			0	0	1K		Thunderstorm Wind
			A few trees were blown down.						
Scott County									
Countywide	12	1500CST			0	0	7K		Thunderstorm Wind
			Trees were blown down in various parts of the county.						
Rankin County									
Brandon	12	1507CST			0	0			Hail (0.75)
Simpson County									
Magee	12	1515CST			0	0	1K		Thunderstorm Wind
			Several large limbs were blown down.						
Warren County									
Vicksburg to 4 E Vicksburg	12	1515CST			0	0	2K		Thunderstorm Wind
			A few trees and powerlines were blown down.						
Claiborne County									
Port Gibson	12	1615CST			0	0	1K		Thunderstorm Wind
			Several trees were blown down.						
Copiah County									
5 E Hazlehurst	12	1640CST			0	0	1K		Thunderstorm Wind
			Several trees were blown down along Highway 28.						
Jefferson County									
Harriston	12	1730CST			0	0	1K		Thunderstorm Wind
			A few trees were blown down.						
Adams County									
Natchez	12	1815CST			0	0			Thunderstorm Wind (G50) ^M
			A wind gust of 58 mph was measured at the Adams Civil Defense office.						
Adams County									
Natchez	12	1845CST			0	0	10K		Thunderstorm Wind
			Strong winds knocked down several trees and large limbs in the downtown area. Several powerlines were knocked down by fallen limbs. A house sustained damage from a fallen tree.						
MSZ048									
	12	1300CST			1	0			Excessive Heat
			A man died of heatstroke after falling asleep in his car in a grocery store parking lot with the windows rolled up. M54VE						
Bolivar County									
Renova	13	0020CST			0	0	1K		Thunderstorm Wind
			A few trees were blown down.						
Lowndes County									
8 N Columbus	20	1800CST			0	0	8K		Thunderstorm Wind
			Numerous trees and powerlines were blown down.						
Smith County									
Polkville	21	1330CST			0	0	1K		Thunderstorm Wind
			A few trees were blown down.						
Smith County									
1 S Raleigh	21	1355CST			0	0	1K		Thunderstorm Wind
			Several trees were blown down.						
Washington County									
Leland to Greenville	21	1725CST 1740CST			0	0	15K		Thunderstorm Wind
			A number of trees and powerlines were blown down. One tree fell on a mobile home and caused significant damage.						

Storm Data and Unusual Weather Phenomena

July 2001

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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MISSISSIPPI, Central

Copiah County

Countywide	26	0750CST 0950CST			0	0	50K		Flash Flood
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Up to eight inches of rain fell in about 3 to 4 hours. Many roads were flooded, and several residences and businesses sustained water damage. One culvert under a road was completely washed out by flood waters.

Rankin County

Countywide	26	0800CST 1000CST			0	0	100K		Flash Flood
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Various portions of the county had significant flooding. In Pearl, at least three homes were flooded and water covered a number of roads. Several roads had to be closed. Several cars became nearly submerged by the flood waters. Flooding also caused road closures in the Florence and Flowood areas. Water also covered several roads and came over the top of drainage ditches in portions of Brandon where up to six inches of rain fell in a few hours.

Hinds County

Utica to Byram	26	0830CST 1230CST			0	0	60K		Flash Flood
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Several roads were flooded, and flood waters entered a home in Utica. A bridge was washed out on old Highway 3 north of Utica due to the rapidly rising waters of a creek. Flooding occurred in several neighborhoods in Byram, but no water in homes was reported.

Rankin County

Pearl	27	1718CST 1815CST			0	0			Flash Flood
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Flood waters covered Old Brandon Road at Rankin Square.

Hinds County

West Jackson	31	1420CST			0	0	15K		Flash Flood
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Water flooded three homes due to flash flooding.

Copiah County

15 W Hazlehurst	31	1440CST			0	0	1K		Thunderstorm Wind
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Several trees were blown down.

Lowndes County

2 E Columbus	31	1640CST			0	0			Hail (0.75)
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MISSISSIPPI, North

Alcorn County

Glens	04	1620CST 1625CST			0	0	0.01K		Hail (0.75)
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Tunica County

3 E Tunica	10	1025CST 1035CST			0	0	1K		Thunderstorm Wind
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Several large tree limbs were knocked down.

Coahoma County

Clarksdale	11	2210CST 2215CST			0	0	5K		Thunderstorm Wind
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One large tree and several other large tree limbs were blown down.

Coahoma County

2 W Jonestown	21	1535CST 1540CST			0	0	5K		Thunderstorm Wind
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A few trees were knocked down along Highway 61.

De Soto County

South Haven	29	1300CST 1305CST			0	6	0		Lightning
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Six persons were injured when lightning struck a baseball dugout during a baseball tournament.

MSZ001

De Soto

De Soto	29	1300CST 1400CST			0	5	0		Excessive Heat
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Five people were treated for heat exhaustion at the same baseball tournament where lightning struck on July 29 injuring 6 other people.

MISSISSIPPI, South

Hancock County

10 S Bay St Louis	02	0808CST			0	0			Waterspout
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Hancock County

5 S Bay St Louis	02	0810CST			0	0			Waterspout
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Several waterspouts were sighted south of Bay St. Louis and Point Henderson.

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
<u>MISSISSIPPI, South</u>									
Harrison County									
3 W Lyman	05	1420CST			0	0	1K		Thunderstorm Wind
			Thunderstorm wind gusts blew down several trees.						
Walthall County									
2 E Tylertown	06	1547CST			0	0			Hail (0.75)
			Dime size hail was reported east of Tylertown.						
Pike County									
Summit	11	1605CST			0	0	15K		Thunderstorm Wind
Pike County									
Magnolia	11	1620CST			0	0	15K		Thunderstorm Wind
Amite County									
Countywide	11	1700CST			0	0	15K		Thunderstorm Wind
			Strong to severe thunderstorms developed over southwest Mississippi. Thunderstorm wind gusts downed trees and power lines in several location.						
Walthall County									
Countywide	13	1500CST			0	0	25K		Thunderstorm Wind
			Trees were blown down in several locations in the county. At least two automobiles were damaged by falling trees.						
Harrison County									
3 S Gulfport	26	0853CST			0	0			Waterspout
			A waterspout was sighted offshore Gulfport.						
<u>MISSISSIPPI, Southeast</u>									
			NONE REPORTED.						
<u>MISSOURI, East</u>									
Monroe County									
Paris	03	2040CST			0	0			Thunderstorm Wind (G52)
			The County Sheriff reported trees down in Paris.						
Boone County									
Columbia	03	2140CST			0	0			Thunderstorm Wind (G50)
			Emergency Management officials reported large tree limbs down blocking traffic.						
MOZ018>019-026>027-034>036-041>042-047>052-059>065-072>075-084>085-099									
	07	1100CST			5	61			Excessive Heat
	10	2100CST							
			The first real heat wave of the summer hit the area July 7 through July 10. Temperatures peaked in the middle to upper 90s with the Heat Index ranging from 105 to 110. At least 5 people died from the heat. M53OU, F75PH, F58PH, F86PH, M48PH						
MOZ018>019-026>027-034>036-041>042-047>052-059>065-072>075-084>085-099									
	17	1100CST			0	19			Excessive Heat
		2100CST							
			A one day Heat Wave hit the area. Temperatures hit the middle to upper 90s with the Heat Index ranging from 110 to 115.						
St. Louis (C)									
St Louis	17	2005CST			0	0			Thunderstorm Wind (G52)
			The St. Louis Police reported power lines down in the city.						
Warren County									
3 S Warrenton	18	1215CST			0	0			Thunderstorm Wind (G53)
Warren County									
1 N Warrenton	18	1220CST			0	0			Thunderstorm Wind (G53)
			The Sheriff Department reported trees down south of Warrenton and a machine shed damaged north of town.						
Franklin County									
Union	18	1225CST			0	0			Thunderstorm Wind (G55)
Franklin County									
Union	18	1230CST			0	0	8K		Thunderstorm Wind (G55)

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of		Estimated		Character of Storm
					Killed	Injured	Property	Crops	
MISSOURI, East									
Thunderstorm wind gusts downed trees and power lines in the Union area. Several vehicles were damaged by flying debris at East Central Community College.									
Jefferson County Cedar Hill	18	1305CST			0	0			Thunderstorm Wind (G55)
Jefferson County Hillsboro	18	1315CST			0	0			Thunderstorm Wind (G55)
The County sheriff reported numerous trees and power lines down, especially across the central part of the County.									
Ste. Genevieve County Ste Genevieve	18	1410CST			0	0			Hail (0.75)
The County Sheriff reported 3/4 inch hail.									
Crawford County Bourbon	19	1230CST			0	0			Thunderstorm Wind (G51)
The Crawford County Sheriff reported 60 mph wind gusts along Interstate 44 near Bourbon.									
Washington County Cadet	19	1305CST			0	0			Thunderstorm Wind (G55)
The Sheriff Department reported trees and power lines down in the Cadet area.									
Boone County Columbia	19	1510CST			0	0			Thunderstorm Wind (G55)
Emergency Management officials reported several trees down in the southwest part of the city.									
Osage County 4 SW Westphalia	19	1615CST			0	0			Hail (0.88)
Osage County 4 SW Westphalia	19	1615CST			0	0			Thunderstorm Wind (G52)
Storm spotters reported nickel size hail and trees down southwest of Westphalia.									
Boone County Columbia	19	1635CST 2035CST			0	0			Flash Flood
Heavy rain caused flooding across parts of Boone County. Several roads and streets has to be closed across the southwest part of Columbia. Flooding was also reported north of McBaine.									
Montgomery County Wellsville	20	0500CST			0	0			Thunderstorm Wind (G55)
Thunderstorm wind gusts caused damage, mainly across the west part of Wellsville. 2 buildings suffered roof damage, a couple of utility poles were down, one tree fell on a house and another fell on a mobile home causing damage.									
MOZ018>019-026>027-034>036-041>042-047>052-059-061>065-072>075-084>085-099	21	1100CST			3	71			Excessive Heat
	24	2100CST							
The second mini Heat Wave of the month hit from July 21 through July 24. Temperatures rose to the middle to upper 90s with St. Louis hitting 99 degrees, the hottest of the summer thus far. The maximum Heat Index ranged from 105 to 115 degrees. There were at least 3 known deaths from the heat. In one case, a 19-month-old girl died when left in an automobile. M79PH, M79PH, F1VE									
Jefferson County Countywide	24	0645CST 0930CST			0	0			Flash Flood
Heavy early morning rain caused scattered flash flooding across Jefferson County. Interstate 55 had to be closed at a couple of spots due to high water. Creeks in the De Soto area flooded covering roads and threatening a few homes.									
Iron County Annapolis	28	2330CST			0	6			Flash Flood
	29	0530CST							
Madison County Saco	28	2330CST			0	0			Flash Flood
	29	2330CST							
Reynolds County Ellington	28	2330CST			0	0			Flash Flood
	29	0530CST							
Rainfall of 3 to 6 inches caused scattered flash flooding across parts of Iron, Madison and Reynolds counties. Numerous county roads were flooded. The heavy rain washed out the ground under railroad tracks between Sabula and Annapolis in Iron County. The Texas Eagle Amtrak train on route from Chicago, IL to San Antonio, TX hit this area about 200 am CDT and derailed. The 18 car train had									

Storm Data and Unusual Weather Phenomena

July 2001

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, East

181 passengers on board and a crew of 12. The engine, an empty passenger car, and a baggage car fell onto their sides. The rest of the train derailed but remained upright. Six people were injured with 4 taken to a local hospitals.

**MOZ018>019-
026>027-034>036-
041>042-047>052-
059>065-072>075-
084>085-099**

Knox - Lewis - Shelby - Marion - Monroe - Ralls - Pike - Boone - Audrain - Moniteau - Cole - Osage - Callaway - Montgomery - Lincoln - Gasconade - Warren - St. Charles - Franklin - St. Louis - St. Louis (C) - Jefferson - Crawford - Washington - St. Francois - Ste. Genevieve - Iron - Madison - Reynolds

29	1100CST	0	4	Excessive Heat
31	2300CST			

The 3rd mini heat wave of the summer hit the area July 29 through July 31, and continued into early August. Temperatures peaked in the lower to middle 90s with the Heat Index ranging from 105 to 110.

MISSOURI, Lower

NONE REPORTED.

MISSOURI, Northeast

NONE REPORTED.

MISSOURI, Northwest

Atchison County

3 W Rockport	03	1644CST	0	0	Hail (0.75)
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Putnam County

Livonia	03	1703CST	0	0	Hail (0.75)
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Harrison County

3 N Eagleville	03	1726CST	0	0	Thunderstorm Wind (G52)
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Harrison County

Cainsville	03	1750CST	0	0	Thunderstorm Wind (G52)
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Law enforcement reported several large trees down.

Mercer County

Princeton	03	1752CST	0	0	Thunderstorm Wind (G57)
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Harrison County

Cainsville	03	1800CST	0	0	Hail (1.00)
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Mercer County

Princeton	03	1802CST	0	0	2K Thunderstorm Wind (G74)
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Grundy County

5 W Spickard	03	1815CST	0	0	Hail (1.00)
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Harrison County

11 N Bethany	03	1817CST	0	0	Hail (1.75)
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Mercer County

4 SW Princeton	03	1833CST	0	0	Hail (0.88)
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Grundy County

Trenton	03	1923CST	0	0	3K Thunderstorm Wind (G70) ^M
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Ham radio reported 3/4 inch hail and wind gusts to 80 mph. Trees up to 2 feet in diameter blown down.

Worth County

3 NW Grant City	03	1929CST	0	0	Hail (1.00)
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Nodaway County

Maryville	03	1945CST	0	0	Hail (0.75)
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Livingston County

3 S Chula	03	1950CST	0	0	Thunderstorm Wind (G52)
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Large trees reported down.

Livingston County

Chula	03	1950CST	0	0	Thunderstorm Wind (G52)
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Large trees reported down.

Nodaway County

9 E Maryville	03	1953CST	0	0	Hail (0.75)
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Daviess County

2 N Coffey	03	1955CST	0	0	Hail (0.75)
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Harrison County

8 S Bethany	03	1955CST	0	0	Hail (0.75)
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Storm Data and Unusual Weather Phenomena

July 2001

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									
Gentry County									
8 N Stanberry	03	2005CST			0	0			Hail (0.75)
Livingston County									
2 S Utica	03	2035CST			0	0			Hail (0.88)
Randolph County									
1 S Moberly	03	2105CST			0	0			Thunderstorm Wind (G52)
			One foot in diameter tree reported down.						
Nodaway County									
Guilford	03	2120CST			0	0			Hail (0.75)
Gentry County									
10 S Stanberry	03	2125CST			0	0			Hail (0.75)
Andrew County									
Bolckow	03	2127CST			0	0			Hail (0.75)
De Kalb County									
3 E Maysville	03	2226CST			0	0			Hail (0.75)
Andrew County									
Savannah	03	2243CST			0	0			Hail (1.00)
Andrew County									
Savannah	03	2245CST			0	0			Hail (0.75)
Andrew County									
Savannah	03	2246CST			0	0			Hail (0.75)
Andrew County									
Amazonia	03	2249CST			0	0			Hail (0.75)
Andrew County									
Amazonia	03	2256CST			0	0			Hail (1.00)
Clay County									
Kearney	04	0140CST			0	0			Hail (0.88)
MOZ001>008-011>017-020>025-028>033-037>040-043>046-053>054			Atchison - Nodaway - Worth - Gentry - Harrison - Mercer - Putnam - Schuyler - Holt - Andrew - De Kalb - Daviess - Grundy - Sullivan - Adair - Buchanan - Clinton - Caldwell - Livingston - Linn - Macon - Platte - Clay - Ray - Carroll - Chariton - Randolph - Jackson - Lafayette - Saline - Howard - Cass - Johnson - Pettis - Cooper - Bates - Henry						
	06	1200CST			2	0			Excessive Heat
	08	1400CST							
			Oppressive heat and humidity covered all of northwest Missouri between July 6th and July 8th. Afternoon highs in the 90's combined with dewpoints as high as 80 degrees...combined to produce heat indices as high as 115 degrees. A 47 year old Clay county male and 68 year old Jackson county male died of heat related causes. M47PH, M68PH						
Henry County									
Montrose	10	0322CST			0	0			Thunderstorm Wind (G52)
			Large trees reported down.						
Andrew County									
8 S Savannah	11	2345CST			0	0			Thunderstorm Wind (G61)
Buchanan County									
St Joseph	11	2355CST			0	0	10K		Thunderstorm Wind (G52)
			Widespread wind damage reported with many trees reported down. Tractor trailer blown over and roof partially blown off.						
Caldwell County									
Polo	12	0024CST			0	0			Thunderstorm Wind (G57)
Caldwell County									
Mirabile	12	0025CST			0	0			Hail (0.88)
Clay County									
Kearney	12	0055CST			0	0			Thunderstorm Wind (G61)
Ray County									
Orrick	12	0055CST			0	0			Thunderstorm Wind (G52)
			Large tree blown down.						
Lafayette County									
Higginsville	12	0128CST			0	0			Thunderstorm Wind (G69) ^M
Lafayette County									
Lexington	12	0130CST			0	0			Thunderstorm Wind (G57)
			Large tree blown down.						

Storm Data and Unusual Weather Phenomena

July 2001

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									
Jackson County									
Blue Spgs	12	0140CST			0	0	2K		Thunderstorm Wind (G52)
									5 foot long tree limb down on camper at Blue Springs. Damage reported to camper.
MOZ029-039-044-054 Clay - Saline - Johnson - Henry									
	12	0200CST			0	0			Flood
	14	1900CST							Minor to moderate flooding was reported on several rivers and creeks...across west central Missouri. The Little Platte River near Smithville Missouri, crested at 30.69 feet...or 6.69 feet above flood stage.
MOZ001>008-011>017-020>025-028>033-037>040-043>046-053>054 Atchison - Nodaway - Worth - Gentry - Harrison - Mercer - Putnam - Schuyler - Holt - Andrew - De Kalb - Daviess - Grundy - Sullivan - Adair - Buchanan - Clinton - Caldwell - Livingston - Linn - Macon - Platte - Clay - Ray - Carroll - Chariton - Randolph - Jackson - Lafayette - Saline - Howard - Cass - Johnson - Pettis - Cooper - Bates - Henry									
	17	1200CST			2	0			Excessive Heat
	24	2000CST							Excessive heat plagued northern and western Missouri from July 17th through July 24th. In Kansas City the heat caused the deaths of two men aged 50 and 79. M50PH, M79PH
Holt County									
1 N Oregon	18	2200CST			0	0			Thunderstorm Wind (G52)
									7 inch diameter tree blown down.
Andrew County									
Savannah	18	2210CST			0	0			Thunderstorm Wind (G52)
Buchanan County									
St Joseph	18	2230CST			0	0			Thunderstorm Wind (G50)
Andrew County									
Savannah	18	2240CST			0	0			Thunderstorm Wind (G57)
Andrew County									
Savannah	18	2248CST			0	0			Hail (0.75)
Platte County									
Dearborn	19	0007CST			0	0			Thunderstorm Wind (G52)
Saline County									
Sweet Spgs	19	1710CST			0	0			Hail (2.00)
Mercer County									
2 NW Princeton	24	2035CST			0	0			Hail (0.88)
Nodaway County									
5 E Hopkins	24	2100CST			0	0			Thunderstorm Wind (G52)
Putnam County									
1 E Powersville	24	2110CST			0	0			Thunderstorm Wind (G52)
									8 inch tree limb down.
Grundy County									
Spickard	24	2128CST			0	0			Hail (0.75)
									Ham radio reported 3/4 inch hail and measured 65 mph wind gusts.
Sullivan County									
3 W Milan	24	2203CST			0	0			Thunderstorm Wind (G52)
Harrison County									
5 N Bethany	24	2214CST			0	0			Thunderstorm Wind (G52) ^M
Gentry County									
4 NW Stanberry	24	2225CST			0	0			Thunderstorm Wind (G52)
									Large tree limbs reported down.
Harrison County									
Bethany	24	2225CST			0	0			Thunderstorm Wind (G56) ^M
Gentry County									
Stanberry	24	2234CST			0	0			Hail (0.75)
Mercer County									
10 SE Princeton	24	2245CST			0	0			Hail (0.75)
Daviess County									
Jamesport	24	2250CST			0	0	3K		Thunderstorm Wind (G51)
									Power line reported down.

Storm Data and Unusual Weather Phenomena

July 2001

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									
Grundy County									
Trenton	24	2251CST			0	0			Thunderstorm Wind (G58) ^M
Grundy County									
2 N Trenton to Trenton	24	2252CST			0	0			Thunderstorm Wind (G57) ^M
Daviess County									
3 N Lock Spgs	24	2305CST			0	0			Thunderstorm Wind (G51)
Adair County									
Irk Cannon Mem Arpt	24	2319CST			0	0			Thunderstorm Wind (G53) ^M
Andrew County									
3 NNW Fillmore	25	0030CST			0	0	10K		Thunderstorm Wind (G57)
			2 foot diameter tree blown over crushing truck.						
MOZ031>032-044									
Carroll - Chariton - Johnson									
	25	1200CST			0	0			Flood
	27	1200CST							
			Minor flooding was reported on the Grand River near Sumner...Blackwater River near Valley City and the Wakenda Creek at Carrollton.						
MOZ020-028-030-054									
Buchanan - Platte - Ray - Henry									
	28	0600CST			0	0			Flood
	30	2200CST							
			Thunderstorms produced heavy rains over Platte and Buchanan counties. This resulted in minor flooding on the Platte River...South Grand River and the Crooked River.						
MISSOURI, Southeast									
Wayne County									
4 N Patterson	05	0440CST			0	0			Hail (0.75)
MOZ076-086>087-100-107>112-114									
Perry - Bollinger - Cape Girardeau - Wayne - Carter - Ripley - Butler - Stoddard - Scott - Mississippi - New Madrid									
	07	1500CST			1	0			Excessive Heat
	09	1400CST							
			Daytime high temperatures in the mid to upper 90's, combined with dew points in the mid 70's, resulted in heat indices from 105 to 112 degrees. Nighttime heat indices only fell to around 80. On July 9, an elderly male was found in his Cape Girardeau home three days after he died from heat stroke. The home had no air conditioning, and the windows of the home were nailed shut for safety. M74PH						
Bollinger County									
15 S Marble Hill	09	1830CST			0	0			Thunderstorm Wind (G50)
			The road department reported trees down on a county road.						
Perry County									
Brewer	18	1414CST			0	0			Hail (0.75)
Cape Girardeau County									
2 N Cape Girardeau	18	1510CST			0	0	6K		Thunderstorm Wind (G50)
			Trees were down on Route W north of Cape Girardeau, bringing a power line down. In the northwest corner of the county, trees were down in the vicinity of Friedheim. Fallen power lines were reported in Gordonville.						
Cape Girardeau County									
Cape Girardeau	18	1515CST			0	0			Hail (1.00)
Scott County									
Miner	18	1556CST			0	0			Thunderstorm Wind (G52)
			Small trees were blown down by winds estimated near 60 MPH.						
Stoddard County									
Dexter	18	1610CST			0	0			Thunderstorm Wind (G50)
			Numerous tree tops were sheared off by thunderstorm winds.						
Mississippi County									
Wyatt	18	1615CST			0	0			Thunderstorm Wind (G50)
			Numerous trees and power lines were blown down.						
Wayne County									
5 S Greenville	18	1630CST			0	0			Hail (0.88)
Butler County									
Poplar Bluff	18	1710CST			0	0			Thunderstorm Wind (G50)

Storm Data and Unusual Weather Phenomena

July 2001

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

MISSOURI, Southeast

Tree limbs, some of them large, were down in Poplar Bluff.

Ripley County
5 SW Doniphan
Cape Girardeau
County

18 1837CST 0 0 Hail (0.75)

Cape Girardeau

19 0855CST
1140CST 0 0 50K Flash Flood

Scott County

Kelso to
Scott City

19 1045CST
1140CST 0 0 Flash Flood

Widespread, major street flooding occurred in Cape Girardeau. Vehicles stalled, and emergency crews rescued trapped motorists from water as deep as 8 feet. Some buildings received water damage, including 36 homeowners who reported basement flooding to city officials. One home's basement wall collapsed. At Southeast Missouri State University, the basement of the crime lab was flooded. At Southeast Missouri Hospital, a broken roof drain caused thousands of gallons of water to flood the hospital's material management offices and a warehouse. In Cape Girardeau County, five families were evacuated from Jefferson Street in Jackson, which received 4.25 inches of rain in 6 hours. Jackson closed its city park to keep people away from flooded Hubble Creek. Route K and Route AB were closed. In Scott County, portions of northbound Interstate 55 between the 85 and 86 mile markers were inundated. Highway 311 near Kelso was also inundated. Floodwaters covered Main Street in Scott City, and several inches of water got into the city hall. Slow-moving thunderstorms persisted in a narrow north-to-south band along the Mississippi River, primarily eastern Cape Girardeau and Scott Counties. At the Cape Girardeau Airport, the automated observing system measured about 5 inches of rain in 6 hours. An unofficial report was received of 6.5 inches on the south side of Cape Girardeau.

Ripley County

Doniphan

19 1410CST
1645CST 0 0 Flash Flood

Thunderstorms repeatedly moved across Ripley County from midday through late afternoon. Radar estimated 3 to 4 inches fell over portions of the county. A street was closed in downtown Doniphan.

Wayne County

Lodi

22 1505CST 0 0 Hail (0.75)

A severe thunderstorm moved south across Wayne County, producing dime size hail near Lodi. The storm weakened by the time it reached Greenville.

Scott County

Benton

26 0830CST
1030CST 0 0 Urban/Sml Stream Fld

Slow-moving thunderstorms produced very heavy rain, causing flooding of Highway 61 and other county roads near Benton.

Butler County

Poplar Bluff

27 0005CST
0300CST 0 0 5K Flash Flood

Nearly stationary thunderstorms, producing over an inch of rain per hour, caused creeks and roads to flood. One parked car was damaged when rushing water pushed it down a hill and into a pole. Two wooden bridges were washed out. One house had 4 inches of water in the basement from a nearby creek. Another house had floodwaters nearly to the foundation. A rest home received some flooding, but no evacuations were conducted. Numerous roads across the county were flooded.

Wayne County

5 NNE Patterson

29 0415CST
0700CST 0 0 Flood

Torrential rain from persistent thunderstorms caused Big Creek to rise rapidly during the early morning hours. Prior to reaching bankful, campers were evacuated from the Sam A. Baker State Park due to rapid rises on Big Creek.

MOZ100

Wayne

29 1100CST
1600CST 0 0 Flood

Torrential thunderstorm rains caused the St. Francis River to rise very quickly during the morning hours of the 29th. The river crested about a foot above flood stage at Patterson at 1:45 P.M. This resulted in minor flooding. The greatest danger was to campers and canoers on the river, especially since the event began at night. Big Creek, a tributary of the St. Francis River, threatened campers in the Sam A. Baker State Park, who were evacuated. A couple of campers were stranded on an island, but were never directly endangered by the floodwaters.

MISSOURI, Southwest

Taney County

4 NW Branson

04 1600CST 0 0 25K Lightning

Lightning caused a house fire northwest of Branson, or near the old Shepherd of the Hills Lumber Company.

Polk County

Humansville

05 0130CST 0 0 0 Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 2001

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									
6 W Collins	05	0200CST			0	0	15K		Thunderstorm Wind (G52)
Straight line winds blew over a boat and trailer west of Collins.									
St. Clair County									
Appleton City	05	0200CST			0	0	0		Hail (1.00)
Nickel size hail also fell around Appleton City.									
Cedar County									
El Dorado Spgs	05	0200CST			0	0	5K		Thunderstorm Wind (G52)
Trees and power lines were blown down near El Dorado Springs.									
Polk County									
Humansville	05	0230CST			0	0	0		Hail (0.88)
Golf ball size hail was also reported in Humansville.									
Greene County									
Fair Grove	05	0330CST			0	0	0		Thunderstorm Wind (G52)
Numerous large trees were uprooted near Fair Grove.									
Webster County									
4 N Rogersville	05	0335CST			0	0	0		Thunderstorm Wind (G52)
Trees were uprooted north of Rogersville.									
Christian County									
5 NE Ozark	05	0350CST			0	0	10K		Thunderstorm Wind (G52)
An outbuilding was damaged, along with several large trees blown down.									
Christian County									
Elkhead	05	0405CST			0	0	0		Thunderstorm Wind (G52)
Numerous trees were uprooted at the intersection of Highway K and 14 in extreme northeast Christian County near Elkhead.									
Webster County									
Fordland	05	0405CST			0	0	0		Thunderstorm Wind (G52)
Douglas County									
Rome	05	0410CST			0	0	0		Thunderstorm Wind (G52)
Numerous trees were uprooted near Rome, and along Highway T west of Goodhope.									
Ozark County									
Pontiac	05	0430CST			0	0	0		Thunderstorm Wind (G52)
Trees were uprooted near Pontiac.									
St. Clair County									
South Portion	05	0500CST 1030CST			0	0	0		Flash Flood
County roads were impassable west of Roscoe, especially along Highway 82. Both Simms and Coon Creek were reported out of their banks and crossing Highway 82 between Tiffin and Roscoe.									
Taney County									
Branson	05	0528CST			0	0	0		Hail (0.75)
Polk County									
Bolivar	05	0600CST 0730CST			0	0	0		Flash Flood
Significant city street flooding occurred around Bolivar.									
Douglas County									
West Portion	05	0815CST 0930CST			0	0	0		Flash Flood
Flooding was observed along Highway 76, especially along Beaver Creek between Goodhope and Ava.									
Christian County									
East Portion	05	0815CST 0930CST			0	0	0		Flash Flood
Flooding was observed along Swan Creek between Oldfield and Garrison.									
Cedar County									
El Dorado Spgs	05	0830CST 0930CST			0	0	0		Flash Flood
Significant city street flooding was observed around El Dorado Springs.									
Ozark County									
West Portion	05	0930CST 1030CST			0	0	0		Flash Flood
Street flooding was observed around Isabella.									

Storm Data and Unusual Weather Phenomena

July 2001

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									
Lowry City to Osceola	10	0330CST 0345CST			0	0	50K		Thunderstorm Wind (G62)
									Seventy mph straight line winds caused considerable damage to homes from near Lowry City, southeast through the Osceola area. Numerous trees were also uprooted between the cities.
Hickory County									
Hermitage	10	0330CST			0	0	0		Thunderstorm Wind (G52)
									Numerous trees were uprooted near Hermitage, especially along Highway B and Highway D.
Hickory County									
2 N Cross Timbers	10	0400CST			0	0	5K		Thunderstorm Wind (G52)
									An outbuilding was damaged along with a few trees blown down north of Cross Timbers.
Benton County									
Warsaw	10	0405CST			0	0	0		Thunderstorm Wind (G52)
									Large trees were uprooted near Warsaw.
Hickory County									
Northeast Portion	10	0635CST 0830CST			0	0	0		Flash Flood
Benton County									
South Portion	10	0640CST 0830CST			0	0	0		Flash Flood
									Numerous low water crossings were impassable across southern Benton and northeast Hickory Counties. Along Turkey Creek southeast of Fristoe, a bridge was covered by three feet of flowing water during the height of the storm.
Camden County									
2 W Lake Ozarks West Lake Ozarks East	12	0400CST 0415CST			0	0	15K		Thunderstorm Wind (G58)
									Sixty-five mph straight line winds blew down numerous trees, power lines, and caused the roof at Lake Ozark City Hall to be partially blown off. Water and electrical damage also occurred at the City Hall. Numerous trees were also uprooted around the Camdenton area.
Dallas County									
Buffalo	12	0400CST			0	0	10K		Thunderstorm Wind (G52)
									High winds blew over a half-dozen trees and took down numerous fair tents at the annual Dallas County Fair in Buffalo. Also a pavilion was damaged due to uprooted trees.
Pulaski County									
Dixon	12	0440CST			0	0	0		Thunderstorm Wind (G57) ^M
									Trees were also uprooted around Dixon.
St. Clair County									
South Central Portion	12	0440CST 0600CST			0	0	0		Flash Flood
									Low water crossings were flooded along Coon and Brush Creeks south of Osceola.
Polk County									
Adonis	12	0445CST			0	0	15K		Thunderstorm Wind (G52)
									A boat dock and a boat were flipped over by high winds in the Clear Water Cove area, which caused damage to both. Numerous large trees were also uprooted around the area.
Greene County									
Springfield	12	0522CST			0	0	0		Thunderstorm Wind (G52)
									Thunderstorm winds caused trees to be uprooted across northern areas of Springfield.
Hickory County									
North Portion	12	0522CST 0730CST			0	0	0		Flash Flood
Benton County									
South Portion	12	0730CST 0830CST			0	0	0		Flash Flood
									Numerous secondary roads and low water crossings were impassable across northern Hickory County. Small creeks and streams, or tributaries of the Pomme de Terre River between Wheatland and Cross Timbers were the main areas affected by the flood waters. Deer Creek, especially east of Edwards, was flooded along Highway 7 in extreme southeast Benton County.
Christian County									
Nixa	12	0550CST			0	0	0		Thunderstorm Wind (G52)
									Thunderstorm winds caused trees to be uprooted near Nixa.

Storm Data and Unusual Weather Phenomena

July 2001

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

MISSOURI, Southwest

MOZ055>058-066>071-077>083-088>098-101>106	Benton - Morgan - Miller - Maries - Vernon - St. Clair - Hickory - Camden - Pulaski - Phelps - Barton - Cedar - Polk - Dallas - Laclede - Texas - Dent - Jasper - Dade - Greene - Webster - Wright - Newton - Lawrence - Christian - Douglas - Howell - Shannon - McDonald - Barry - Stone - Taney - Ozark - Oregon								
	17	1200CST			1	0			Excessive Heat
	31	2359CST							

During the middle of July a large area of high pressure began to build over the Central United States. It held together through the last week of July with a brief period of cloud cover and shower activity around the 26, 27 and 28 of the month. Temperatures rose into the 90's with a few 100's in southeast Kansas and portions of southwest and west central Missouri. The high temperatures combined with increased humidity levels to produce very high heat indices of 100 to 110 degrees for several consecutive days. By the 23th of the month, 23 heat related illnesses were received from the Department of Health, and one related death in Dade County on the 21th. M79OT

Greene County

Springfield	19	1850CST 1900CST			0	0	0		Hail (1.00)
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St. Clair County

Osceola	25	1000CST 1030CST			2	0	0		Flash Flood
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Excessive rainfall of three to five inches fell over northern and eastern portions of St. Clair County between 6 and 9 am. Occupants of a minivan went across a low water crossing that was already flooded. The van was partially washed into the creek, but the car remained upright and did not turn over. Two females, one an adult, the other a 17 month old infant, went out of their van and were swept away by the fast flowing water. F1IW, F3IIW

Hickory County

West Portion	26	0215CST 0345CST			0	0	0		Flash Flood
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Three inches of rain fell between midnight and 2 am over western portions of Hickory County. Along Highway 123 south of Wheatland the road was flooded and impassable for several hours.

St. Clair County

North Portion	26	0320CST 0430CST			0	0	0		Flash Flood
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Excessive rainfall caused Highway A between Appleton City and Ohio to flood and remain impassable for about an hour.

Greene County

Central Portion	28	0800CST 0930CST			0	0	0		Flash Flood
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One to two inches of rain fell over central parts of Springfield causing several city streets to flood.

Christian County

Ozark	28	0800CST			0	0	20K		Lightning
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Lightning caused both electrical and water damage to the courthouse in Ozark.

McDonald County

Countywide	28	1545CST 1830CST			0	0	50K		Flash Flood
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Rainfall totals of three to six inches fell over portions of McDonald County during the late afternoon. One observer reported three inches of rainfall in less than one hour in Tiff City. Noel reported the worse damage when a mudslide occurred along Highway 59, which caused several large boulders to block the highway for several hours. Several campgrounds reported flowing water up four feet in depth during the height of the storm.

McDonald County

Noel	28	1545CST 1555CST			0	2	20K		Thunderstorm Wind (G60)
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Straight line winds blew down numerous power lines and trees around the Noel area. Some of the flying debris damaged cars, and caused two injuries at a local campground.

Laclede County

South Portion	28	2130CST 2230CST			0	0	0		Flash Flood
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Over two inches of rain fell in less than one hour caused flooding over Interstate 44 near Phillipsburg. Flooding was also reported north of Conway on Highway CC and Interstate 44.

Greene County

Springfield	29	0630CST 0930CST			0	0	200K		Flash Flood
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Two to four inches of rain fell over portions of southwest Springfield in one hour. Due to local terrain affects and excessive runoff, 10 to 15 houses had their basements flooded which caused over 200,000 dollars in damage.

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property Damage	Crops	
MISSOURI, Southwest									
Greene County									
Springfield	29	1730CST 1930CST			0	0	100K		Flash Flood
Three to five inches of rain fell over portions of southeast Springfield in less than two hours. It caused several houses to flood along the James River on the southeast side of Springfield. The James River recorded a rapid rise from 2 feet, to over 9 feet in less than two hours. A bridge was impassable for a short time due to the excessive rainfall, but no damage or injuries occurred.									
Ozark County									
3 E Tecumseh	30	1530CST			0	0	0		Thunderstorm Wind (G52)
Numerous trees were blown down east of Udall, and east of Tecumseh on Highway 160.									
MONTANA, Central									
Pondera County									
Valier	01	0225MST			0	0			Hail (0.88)
Actual location of event Valier 7 W.									
Pondera County									
Valier	01	0312MST			0	0			Thunderstorm Wind (G52)
Reported by spotter in Valier.									
Pondera County									
Conrad	01	0345MST			0	0			Hail (0.75)
Reported by Air Force personnel assigned to missile site affiliated with Malmstrom AFB.									
Toole County									
Galata	01	0400MST			0	0			Hail (0.75)
Actual spotter location Galata 6 W.									
Judith Basin County									
Stanford	12	1430MST			0	0			Thunderstorm Wind (G51) ^M
Reported by spotter in Stanford.									
Lewis And Clark County									
Marysville	12	1430MST			0	0			Hail (1.75)
Actual spotter location Marysville 8 W (Great Divide Ski Resort).									
Judith Basin County									
Hobson	12	1515MST			0	0			Hail (1.00)
Actual event location Hobson 16 SW.									
Lewis And Clark County									
Helena	12	1535MST			0	0			Hail (0.75)
Actual spotter location Helena 10 NE.									
Cascade County									
Eden	12	1550MST			0	0			Thunderstorm Wind (G61)
Actual spotter location Eden 9 SW (or Ft Shaw 2 S).									
Broadwater County									
Winston	12	1600MST			0	0			Hail (1.00)
Actual event location Winston 20 NE.									
Meagher County									
White Sulphur Spgs	12	1615MST			0	0			Thunderstorm Wind (G52)
Actual event location White Sulphur Springs 18 NW.									
Fergus County									
Lewistown	12	1625MST			0	0			Hail (0.75)
Actual event location Lewistown 15 SW.									
Fergus County									
Lewistown	12	1630MST			0	0			Hail (1.00)
Actual spotter location Lewistown 2 NW.									
Fergus County									
Lewistown	12	1640MST			0	0			Hail (0.75)
Actual spotter location Lewistown 10 E.									
Fergus County									
Moore	12	1645MST			0	0			Tstm Wind/Hail
Pickup truck blown off road by estimated 80-85 kt winds...1 inch diameter hail accumulated to 1 1/2 feet deep in spots causing fields to appear white...Monetary damage amounts unknown.									

Storm Data and Unusual Weather Phenomena

July 2001

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, Central</u>									
Fergus County									
Lewistown	12	1650MST			0	0			Hail (1.75)
									Actual spotter location Lewistown 7 E...Some crop damage reported...Monetary damage amounts unknown.
Chouteau County									
Carter	12	1715MST			0	0			Thunderstorm Wind (G69)
									Actual event location Carter 11 N.
Chouteau County									
Ft Benton	12	1739MST			0	0			Thunderstorm Wind (G53) ^M
									Actual spotter location Ft Benton 14 NW.
Hill County									
Havre	12	1823MST			0	0			Hail (1.00)
									Reported by former National Weather Service employee in Havre.
Hill County									
Havre	12	1840MST			0	0			Hail (0.75)
									Reported by former National Weather Service employee in Havre.
Fergus County									
Winifred	12	1855MST			0	0			Thunderstorm Wind (G56) ^M
									Actual spotter location Winifred 1 S.
Fergus County									
Roy	12	2010MST			0	0			Thunderstorm Wind (G56)
									Actual spotter location Roy 20 NE...2 1/2 inches of rain also fell in 40 minutes.
Judith Basin County									
Windham	13	1255MST			0	0			Hail (1.00)
									Reported by spotter in Windham.
Gallatin County									
Maudlow	13	1410MST			0	0			Hail (0.75)
									Actual event location Maudlow 8 SE.
Lewis And Clark County									
(Hln)Helena Rgnl Arp	13	1619MST			0	0			Thunderstorm Wind (G50) ^M
									Reported by ASOS at Helena Regional Airport (actual location Helena 3 E)...Power lines down with minor wind damage...Monetary damage unknown.
Lewis And Clark County									
Helena	13	1630MST			0	0			Thunderstorm Wind (G52)
									Actual spotter location Helena 8 N...Street signs blown over...Shingles blown off roof...Trees blown down...Monetary damage unknown.
Meagher County									
White Sulphur Spgs	13	1730MST			0	0			Hail (1.00)
									Actual spotter location White Sulphur Springs 33 NW.
Lewis And Clark County									
Helena	15	1600MST 1615MST			0	0			Flash Flood
									Actual event location is Magpie Creek at the point it empties into the north end of Canyon Ferry Lake (location is approximately 20 E of Helena)...Flowing water and mud washed out road at event location...No other damage reported.
Lewis And Clark County									
Augusta	15	1615MST			0	0			Thunderstorm Wind (G52)
									Actual spotter location Augusta 7 W.
Lewis And Clark County									
Helena	16	1405MST			0	0			Hail (0.75)
									Reported by spotter in Helena.
Lewis And Clark County									
Wolf Creek	16	1415MST			0	0			Hail (0.75)
									Actual event location Wolf Creek 8 NW.

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property Damage	Crops	
<u>MONTANA, Central</u>									
Cascade County									
Eden	16	1515MST			0	0			Tstm Wind/Hail
									3/4 inch diameter hail and estimated wind gusts of 52 kt reported by spotter at Eden 7 S.
Cascade County									
Monarch	16	1550MST			0	0			Thunderstorm Wind (G52)
									Actual spotter location Monarch 3 N.
Judith Basin County									
Raynesford	16	1555MST			0	0			Thunderstorm Wind (G52)
									Actual spotter location Raynesford 2 NW.
Chouteau County									
Geraldine	16	1630MST			0	0			Thunderstorm Wind (G52)
									Actual spotter location Geraldine 13 W.
Chouteau County									
Carter	16	1640MST			0	0			Thunderstorm Wind (G52)
									Actual event location Carter 11 N.
Fergus County									
Garneill	16	1645MST			0	0			Thunderstorm Wind (G52)
									Reported by spotter in Garneill.
Toole County									
Shelby	16	1645MST			0	0			Thunderstorm Wind (G52)
									Actual spotter location Shelby 18 NE.
Fergus County									
Lewistown	16	1740MST			0	0			Thunderstorm Wind (G61)
									Actual spotter location Lewistown 10 S...Measured wind gust of 52 kt reported by ASOS at Lewistown Municipal Airport (occurring at same time).
Fergus County									
Moore	16	1740MST			0	0			Thunderstorm Wind (G52)
									Reported by spotter in Moore.
Fergus County									
Grassrange	16	1805MST			0	0			Thunderstorm Wind (G69)
									Actual spotter location Grassrange 10 NW.
Fergus County									
Roy	16	1830MST			0	0			Thunderstorm Wind (G52)
									Actual event location Roy 25 NE.
Cascade County									
Monarch	17	1440MST			0	0			Hail (0.88)
									Actual spotter location Monarch 10 N (reported as Raynesford 5 W).
Judith Basin County									
Geyser	17	1455MST			0	0			Thunderstorm Wind (G51) ^M
									Reported by Air Force personnel assigned to missile site affiliated with Malmstrom AFB.
Gallatin County									
Maudlow	20	1642MST			0	0			Hail (1.50)
									Actual event location Maudlow 12 NE (along Gallatin/Meagher county line)...1 inch hail reported by trained spotter at Maudlow 5 E (also at 1642 MST).
Meagher County									
Ringling	20	1645MST			0	0			Hail (1.50)
									Reported by general public in Ringling...1 inch hail also reported by general public 3 SW of Ringling (also at 1645 MST).
Fergus County									
Hilger	20	1915MST			0	0			Hail (3.00)
									Actual spotter location Hilger 5 N...Near total crop damage (monetary total of crop damage unknown).
Chouteau County									
Iliad	21	1415MST			0	0			Hail (1.50)
									Actual event location Iliad 3 E.
Judith Basin County									
Stanford	21	1445MST			0	0			Hail (0.75)
									Actual event location Stanford 10 NE.
Fergus County									
Denton	21	1520MST			0	0			Hail (1.00)
									Reported by Air Force personnel assigned to missile site affiliated with Malmstrom AFB.

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property Damage	Crops	
<u>MONTANA, Central</u>									
Judith Basin County									
Stanford	21	1545MST			0	0			Hail (1.00)
		Actual event location Stanford 8 N.							
Blaine County									
Cleveland	21	1600MST			0	0			Hail (0.75)
		Actual event location Cleveland 8 SE.							
Fergus County									
Suffolk	21	1605MST			0	0			Hail (1.00)
		Reported by general public in Suffolk.							
Fergus County									
Roy	21	1725MST			0	0			Hail (1.00)
		Actual event location Roy 3 E.							
Meagher County									
Martinsdale	21	1740MST			0	0			Hail (1.75)
		Reported by spotter in Martinsdale.							
Fergus County									
Lewistown	21	1855MST			0	0			Hail (0.75)
		Actual spotter location Lewistown 15 SE.							
Pondera County									
Valier	21	1935MST			0	0			Hail (0.75)
		Reported by spotter in Valier.							
Meagher County									
Martinsdale	23	1556MST			0	0			Hail (1.00)
		Actual event location Martinsdale 10 N...Slight damage to automobiles (monetary amount of damage unknown).							
Fergus County									
Grassrange	26	0720MST			0	0			Hail (1.00)
		Actual event location Flatwillow Creek (approximately 20 S of Grassrange).							
Cascade County									
Eden	28	1314MST			0	0			Thunderstorm Wind (G58) ^M
		Actual spotter location Eden 9 SW.							
Cascade County									
Stockett	28	1401MST			0	0			Thunderstorm Wind (G69)
		Actual spotter location Stockett 4 SE...Small limbs broken off trees.							
Cascade County									
Belt	28	1410MST			0	0			Thunderstorm Wind (G61)
		Reported by spotter in Belt...52 kt tstm wind gust reported by spotter at Belt 6 E at 1410 MST.							
Judith Basin County									
Geyser	28	1415MST			0	0			Thunderstorm Wind (G52)
		Actual spotter location Geyser 1 E.							
Hill County									
Havre City Co Arpt	28	1418MST			0	0			Thunderstorm Wind (G54) ^M
		Actual event location Havre 4 W (Reported by ASOS at Havre City-County Airport).							
Chouteau County									
Highwood	28	1420MST			0	0			Thunderstorm Wind (G56)
		Actual spotter location Highwood 3 SE.							
Blaine County									
Lloyd	28	1430MST			0	0			Thunderstorm Wind (G52)
		Actual spotter location Lloyd 10 SW.							
Blaine County									
Maddux	28	1431MST			0	0			Thunderstorm Wind (G52)
		Actual event location Maddux 4 SW.							
Fergus County									
Coffee Creek	28	1500MST			0	0			Thunderstorm Wind (G52)
		Reported by spotter at Coffee Creek.							
Hill County									
Havre	28	1500MST			0	0			Thunderstorm Wind (G52)
		Actual spotter location Havre 20 S.							
Chouteau County									
Geraldine	28	1515MST			0	0			Thunderstorm Wind (G52)

Storm Data and Unusual Weather Phenomena

July 2001

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, Central

Reported by spotter in Geraldine.

Chouteau County

Ft Benton	28	1530MST			0	0			Thunderstorm Wind (G52)
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Actual event location Ft Benton 20 N (just east of Goose Bill Butte).

Hill County

Rudyard	28	1530MST			0	0			Thunderstorm Wind (G52)
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Reported by spotter in Rudyard...Power knocked out.

Hill County

Rudyard	28	1620MST			0	0			Thunderstorm Wind (G52)
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Actual spotter location Rudyard 6 S.

Lewis And Clark County

Helena	31	0230MST			0	0			Flash Flood
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Actual event location is Cave Creek (approximately 20 E of Helena - Cave Creek is the creek that runs down Cave Gulch where soil was scorched by wildfire in 2000)...Driveway washed out by flowing water and mud...Monetary damage unknown.

Fergus County

Lewistown	31	0800MST			0	0			Thunderstorm Wind (G61)
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Microburst wind gust reported by general public in Lewistown...Branches ripped from trees and propelled into side of house...Shingles and six-foot wide sections of skirting ripped from mobile home...Tree uprooted and dropped on house and automobile...Large metal garbage container (dumpster) blown over...Boat moved by wind...Hot tub damaged...Monetary damage unknown.

Lewis And Clark County

Helena	31	0830MST			0	0			Flash Flood
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Actual event location is Cave Creek at marina on northern shore of Canyon Ferry Lake (approximately 20 E of Helena)...Rainfall onto scorched earth (from wildfire in 2000) caused flowing water and mud to wash out road...Monetary damage unknown.

MONTANA, East

Phillips County

10 SW Malta	01	0730MST			0	0			Hail (0.75)
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Valley County

Nashua	01	1032MST			0	0			Hail (0.88)
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Valley County

Nashua	01	1130MST 1140MST			0	0			Hail (0.75)
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McCone County

Vida	01	1141MST			0	0			Hail (0.88)
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McCone County

13 NW Vida	01	1200MST 1220MST			0	0	75K		Hail (1.75)
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Several hundred acres of wheat were from 60 to 90 percent wiped out.

Valley County

2 S Frazer	01	1210MST			0	0			Hail (0.75)
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McCone County

11 NW Vida	01	1236MST			0	0			Hail (0.75)
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McCone County

Vida	01	1305MST			0	0			Hail (0.88)
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Dawson County

18 NW Richey	01	1315MST			0	0			Hail (0.75)
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Dawson County

9 NE Bloomfield	01	1410MST			0	0			Hail (0.75)
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Prairie County

2 SW Fallon	02	0646MST			0	0			Hail (0.75)
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Prairie County

17 NW Fallon	02	0804MST			0	0			Hail (0.88)
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Dawson County

18 W Glendive	02	0834MST			0	0			Hail (1.75)
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Dawson County

3 SE Glendive	02	0850MST			0	0			Hail (0.75)
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Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
MONTANA, East									
Mccone County									
14 W Circle	02	1435MST			0	0			Hail (1.25)
Mccone County									
5 N Brockway	02	1510MST			0	0			Hail (1.00)
Mccone County									
5 SE Brockway	02	1520MST			0	0			Hail (1.25)
Roosevelt County									
15 N Brockton	05	1940MST			0	0			Thunderstorm Wind (G52) ^M
Roosevelt County									
17 N Brockton	05	1940MST			0	0			Thunderstorm Wind (G73) ^M
Dawson County									
Glendive	05	1950MST			0	0			Hail (0.88)
Roosevelt County									
11 W Froid	05	1950MST			0	0	25K		Thunderstorm Wind (G73) ^M
Roosevelt County									
6 SW Froid	05	1950MST			0	0			Thunderstorm Wind (G88) ^M
Sheridan County									
Homestead	05	2020MST			0	0			Thunderstorm Wind (G52) ^M
Richland County									
6 NW Sidney	05	2021MST			0	0			Tornado (F0)
Storm chaser reported a brief tornado touchdown in a field. No damage occurred.									
Richland County									
5 N Sidney	05	2034MST			0	0			Hail (0.88)
Prairie County									
3 SW Terry	05	2230MST			0	0			Hail (0.75)
A thunderstorm moving across the northeast corner of the state produced 80 to 100 mph measured wind gusts. A semi-truck and trailer were flipped over, and several homes had damage to roofing. Many trees had large branches broken out of them, and a few were completely uprooted.									
Valley County									
Glasgow Intl Arprt	10	1344MST 1348MST			0	0			Thunderstorm Wind (G60) ^M
Valley County									
Ft Peck	10	1505MST			0	0			Thunderstorm Wind (G52) ^M
Garfield County									
10 N Edwards	12	1532MST			0	0			Hail (1.00)
Garfield County									
10 N Edwards	12	1532MST			0	0			Thunderstorm Wind (G52) ^M
Garfield County									
10 N Edwards to 12 NE Edwards	12	1600MST			0	0	75K		Hail (2.00)
Garfield County									
2 NW Edwards	12	1600MST			0	0	75K		Hail (2.00)
Garfield County									
13 NE Edwards	12	1605MST			0	0	5K		Hail (1.75)
Garfield County									
12 W Jordan	12	1610MST			0	0			Funnel Cloud
Sheriff reported a funnel cloud could be seen from Highway 200.									
Garfield County									
10 N Edwards to 7 S Brusett	12	1625MST 1645MST			0	0	175K		Hail (2.00)
Garfield County									
West Central Portion	12 13	1700MST 0100MST			0	0	10K		Flash Flood
Garfield County									
23 SE Cohagen	12	1836MST 1841MST			0	0			Hail (1.00)

An isolated supercell thunderstorm formed over Garfield County, and remained nearly stationary for an hour. The storm produced 3 to 6 inches of rainfall which led to the coulees and ditches to fill up with water. The water overtopped the gravel roads in numerous

Storm Data and Unusual Weather Phenomena

July 2001

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

MONTANA, East

Heavy rainfall, at rates of one to three inches an hour, washed through several fields, causing significant crop damage. It also topped over numerous gravel roads in the extreme southeast corner of Garfield County.

Petroleum County									
Winnett	16	1920MST			0	0			Thunderstorm Wind (G52) M
Garfield County									
35 NW Jordan	16	2025MST			0	0			Thunderstorm Wind (G52) M
Phillips County									
58 S Malta	17	1700MST			0	0			Hail (0.75)
Garfield County									
Cohagen	17	1920MST			0	0			Thunderstorm Wind (G52) M
Garfield County									
Jordan Arpt	17	1929MST			0	0			Thunderstorm Wind (G52) M
Garfield County									
3 SE Cohagen to 3 S Cohagen	17	1930MST			0	0			Thunderstorm Wind (G61) M
Richland County									
15 W Fairview	17	2000MST			0	0			Hail (0.88)
Prairie County									
40 NW Terry	17	2015MST			0	0			Thunderstorm Wind (G56) M
McCone County									
8 W Brockway	17	2025MST			0	0			Thunderstorm Wind (G52) M
Garfield County									
30 E Jordan	17	2030MST			0	0			Thunderstorm Wind (G52) M
Prairie County									
3 W Terry	17	2100MST			0	0		45K	Hail (0.88)
Some crop damage to wheat fields. Damage was from 30 to 60 percent of the crop over several hundred acres.									
McCone County									
8 SE Circle	17	2115MST			0	0			Hail (0.75)
Dawson County									
12 S Lindsay	17	2120MST			0	0			Hail (0.75)
Dawson County									
2 NW Bloomfield	17	2125MST			0	0			Thunderstorm Wind (G65) M
Dawson County									
8 N Lindsay	17	2125MST			0	0			Hail (0.88)
Dawson County									
8 N Lindsay	17	2125MST			0	0			Thunderstorm Wind (G55) M
Richland County									
40 NW Sidney	17	2130MST			0	0			Thunderstorm Wind (G52) M
Prairie County									
7 SE Fallon	17	2200MST			0	0			Hail (0.75)
Roosevelt County									
Culbertson	17	2200MST			0	0			Thunderstorm Wind (G52) M
Roosevelt County									
Froid	17	2200MST			0	0		1K	Thunderstorm Wind
Strong downburst winds broke 12-15 inch limbs off of cottonwood trees, and damaged shingles on a roof.									
Richland County									
Savage	17	2215MST			0	0			Thunderstorm Wind (G52) M
Richland County									
17 NW Sidney	17	2215MST			0	0			Thunderstorm Wind (G60) M
Sheridan County									
5 E Homestead	17	2215MST			0	0			Thunderstorm Wind (G60) M
Richland County									
20 NW Sidney	17	2225MST			0	0			Thunderstorm Wind (G53) M
Dawson County									
16 SE Richey	17	2230MST			0	0			Thunderstorm Wind (G52) M
Dawson County									
5 NW Richey	17	2235MST			0	0			Thunderstorm Wind (G52) M

Storm Data and Unusual Weather Phenomena

July 2001

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, East</u>									
Roosevelt County									
Bainville	17	2240MST			0	0			Thunderstorm Wind (G52) ^M
Prairie County									
3 W Terry	17	2300MST			0	0			Hail (0.88)
Richland County									
North Portion	17	2300MST			0	0	10K		Flash Flood
	18	0500MST							
Three to four inches of rain in two hours caused a culvert to wash out, causing the road to become washed out.									
Richland County									
Savage	17	2300MST			0	0			Thunderstorm Wind (G52) ^M
Roosevelt County									
Central Portion	17	2300MST			0	0	30K		Flash Flood
	18	0500MST							
Intense thunderstorms produced 3 to 5 inches of rainfall which caused flash flooding in the Brockton area. Water up to 4 feet deep covered U.S. Highway 2, two miles east of town. Two vehicles were swept off the road. One vehicle ended up in a ditch, and the occupants were not injured. Another vehicle was swept off the road, and underneath a railroad bridge. The two female occupants crawled out of the vehicle before it was swept under the bridge, and swam to solid ground. They stated that they could not touch the ground when they got out of the vehicle. The car ended up 400 feet downstream of the railroad bridge.									
Roosevelt County									
Culbertson	17	2300MST			0	0			Thunderstorm Wind (G52) ^M
Sheridan County									
4 SE Medicine Lake	17	2300MST			0	0			Hail (0.75)
Prairie County									
East Portion	18	0000MST			0	0	10K		Flash Flood
		0400MST							
Heavy rainfall of 2 to 4 inches caused ditches to fill up and water to start running up to two feet deep across Highway 10 east of Terry. Some damage occurred to the road, but it was not washed out.									
Prairie County									
11 SW Mildred	18	0030MST			0	0			Hail (0.75)
Garfield County									
10 S Cohagen	18	1720MST			0	0			Hail (0.75)
Garfield County									
34 NE Jordan	19	1000MST			0	0			Hail (0.88)
McCone County									
33 NW Circle	19	1215MST			0	0			Hail (0.75)
Roosevelt County									
10 W Culbertson	19	1230MST			0	0			Hail (0.88)
Richland County									
20 NW Enid	19	1315MST			0	0			Hail (0.75)
Sheridan County									
25 E Medicine Lake	19	1344MST			0	0			Thunderstorm Wind (G52) ^M
Wibaux County									
15 S Wibaux	19	1853MST			0	0			Hail (0.75)
Wibaux County									
18 S Wibaux	19	1854MST			0	0			Hail (1.75)
Wibaux County									
15 S Wibaux	19	1905MST			0	0			Hail (1.00)
Phillips County									
2 S Bowdoin	20	0840MST			0	0			Hail (0.75)
Phillips County									
10 S Malta	20	0846MST			0	0			Hail (0.75)
Phillips County									
15 SW Saco	20	1104MST			0	0			Hail (0.75)
Daniels County									
20 S Peerless	20	1200MST			0	0			Hail (0.75)
Sheridan County									
6 W Reserve	20	1216MST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 2001

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, East</u>									
Sheridan County									
13 S Plentywood	20	1310MST			0	0			Hail (0.75)
Phillips County									
1 E Sun Prairie to 10 E Sun Prairie	20	1420MST 1455MST			0	0			Tornado (F0)
A tornado developed 11 miles east of Sun Prairie and moved into Valley County. The tornado moved through open prairie and caused no damage.									
Valley County									
40 SW Tampico to 30 W Ft Peck	20	1455MST 1520MST			0	0			Tornado (F0)
A tornado moved into Southwest Valley County and moved east before dissipating. It moved through open prairie and caused no damage. The storm and wall cloud were seen from the National Weather Service office over 35 miles away.									
Valley County									
40 SW Glasgow	20	1551MST			0	0			Thunderstorm Wind (G84) ^M
Valley County									
5 S Opheim	20	1600MST			0	0			Hail (1.00)
Valley County									
24 S Glasgow	20	1610MST 1630MST			0	0	45K		Hail (1.75)
Large hail broke out windows from homes and dented vehicles at The Pines Recreation area.									
Valley County									
Opheim	20	1615MST			0	0			Funnel Cloud
Garfield County									
Haxby Hoolie Arpt to 9 ESE Haxby Hoolie Arpt	20	1620MST 1635MST			0	0			Tornado (F0)
Tornado reported near Haxby Point.									
Valley County									
10 S Opheim	20	1620MST			0	0			Hail (0.75)
Daniels County									
8 S Scobey	20	1631MST			0	0			Tornado (F0)
Brief tornado occurred south of Scobey.									
Garfield County									
45 NE Jordan	20	1635MST			0	0	30K		Hail (1.75)
Large hail broke out windows of homes at Rock Creek Recreation area. Several vehicles also had hail damage.									
McCone County									
30 WSW Vida to 30 W Vida	20	1635MST			0	0	30K		Hail (4.50)
A Montana Department of Transportation truck got caught in large hail along Highway 24, near Rock Creek. The truck had several large hail dents in it, and the windshield was shattered.									
McCone County									
30 WSW Vida to 30 W Vida	20	1635MST 1700MST			0	0			Tornado (F0)
The tornado moved into the county from extreme northeastern Garfield County. A storm chaser followed the storm and reported that it had multiple vortices. The last seen location of the tornado before it dissipated was 22 miles northwest of Circle. The tornado moved through unpopulated rangeland areas and no damage was reported.									
Daniels County									
6 ESE Scobey	20	1643MST			0	0			Funnel Cloud
Garfield County									
45 NE Jordan	20	1700MST 1730MST			0	0			Hail (2.00)
McCone County									
32 W Vida	20	1700MST			0	0			Hail (4.50)
McCone County									
20 SW Vida	20	1730MST			0	0			Hail (0.75)
McCone County									
10 NW Circle to 10 SE Circle	20	1735MST 1810MST			0	0	1.6M	500K	Thunderstorm Wind (G98) ^M

Storm Data and Unusual Weather Phenomena

July 2001

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

MONTANA, East

Damaging downburst winds blew down 25 steel electric towers as well as 25 wooden power poles. It also caused 100 percent crop damage over a 20 mile long area starting from 10 miles north and northwest of Circle, then southeast along Highway 200 to the Dawson County line. The crop damage ranged from 1 to 5 miles wide. Several farms had significant damage to buildings and property. The town of Circle had the grain elevators crushed in, with significant wind damage to other portions of the elevator buildings. Metal sheeting from the grain elevators was found downstream nearly a mile away. Many houses and vehicles had windows broken or shattered, and large trees were uprooted. The Circle Airport had a measured wind gust of 113 mph.

McCone County

10 NW Circle to 10 SE Circle 20 1740MST 0 0 Hail (1.75)

Dawson County

2 NE Bloomfield 20 1815MST 0 0 Hail (0.75)

Dawson County

2 NE Bloomfield 20 1815MST 0 0 Thunderstorm Wind (G52) M

Dawson County

4 W Richey 20 1815MST 0 0 Funnel Cloud

McCone County

12 SSE Circle 20 1816MST 0 0 Thunderstorm Wind (G50) M

Dawson County

12 NW Lindsay to Lindsay 20 1820MST 0 0 75K 250K Thunderstorm Wind (G90)
1840MST

The damaging downburst winds that occurred in McCone County continued into Dawson County. Several farms along Highway 200 had significant damage to outbuildings, and well as to equipment. Crops were 100 percent destroyed in a 1 to 5 mile wide swath from 12 miles northwest of Lindsay to the town of Lindsay. A home in Lindsay also had the roof blown off.

Sheridan County

1 N Antelope 20 1820MST 0 0 Hail (0.75)

Sheridan County

1 N Antelope 20 1820MST 0 0 5K Thunderstorm Wind (G52) M

Richland County

20 NW Lambert 20 1825MST 0 0 Thunderstorm Wind (G52) M

Roosevelt County

5 E Poplar 20 1827MST 0 0 Thunderstorm Wind (G53) M

Dawson County

10 NW Glendive 20 1853MST 0 0 Tornado (F0)
1855MST

Tornado reported by Dawson County Sheriffs Department. The tornado occurred in open prairie and did not cause any damage.

Roosevelt County

Culbertson to 20 1910MST 0 0 Thunderstorm Wind (G52)
5 E Culbertson 1915MST

High winds downed small trees, and broke large branches off of trees in the Culbertson area.

Prairie County

20 N Terry 20 1915MST 0 0 Hail (1.25)

Prairie County

21 NNW Terry 20 1921MST 0 0 Hail (1.00)

Dawson County

5 N Glendive 20 1923MST 0 0 Tornado (F0)

Brief tornado touchdown reported by spotter north of Glendive.

Prairie County

15 NW Terry 20 1930MST 0 0 Hail (1.00)
1940MST

Wibaux County

20 N Wibaux 20 2000MST 0 0 Thunderstorm Wind (G52) M

Dawson County

3 SW Hoyt 20 2115MST 0 0 Hail (1.00)

A large supercell formed in Southwestern Phillips County and headed east across southern Valley County. The storm produced a tornado that crossed from Phillips County into Valley County. The tornado dissipated as the storm moved east, but golfball size hail was reported for 20 minutes at The Pines Recreation Area. The storm crossed over the east side of Ft. Peck Lake and formed another tornado near the Rock Creek Recreation area. The tornado then crossed Highway 24, in McCone County. Four inch diameter hail was reported with this storm at the time of the tornado. The tornado continued in a southeast path towards the town of Circle. The last known location of the tornado before it dissipated was 22 miles northwest of Circle. Downburst winds and golfball size hail then became the more significant threat from this storm. The hail and high winds caused a large area of 100 percent crop damage from 10

Storm Data and Unusual Weather Phenomena

July 2001

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

MONTANA, East

miles north and northwest of Circle to Lindsay. The damage swath was 1 to 5 miles wide. Other large hail and high wind reports were received from the Richey and Bloomfield areas in northwestern Dawson County as well. 25 large steel electrical towers were blown over in the area between Circle and Richey, and 25 wooden electrical poles were snapped also. The storm continued southeast toward Glendive and then followed Interstate 94 into North Dakota. No more substantial damage was reported once the storm passed through the Lindsay area. A few smaller tornados were reported by law enforcement officials northwest and north of the Glendive area, but they did not cause any damage and were short lived.

Phillips County

3 W Wagner	21	1653MST			0	0			Hail (0.75)	
Phillips County										
3 W Wagner	21	1653MST			0	0			Thunderstorm Wind (G61)	M
Phillips County										
2 W Wagner	21	1655MST			0	0			Hail (0.88)	
Phillips County										
2 W Wagner	21	1655MST			0	0			Thunderstorm Wind (G52)	M
Phillips County										
Malta	21	1725MST 1733MST			0	0			Thunderstorm Wind (G57)	M
Phillips County										
Central Portion	21	1735MST 2000MST			0	0			Flash Flood	

Heavy rainfall caused street flooding in the town of Malta. Numerous roads were impassable as the water was up to one foot high in places.

Phillips County

Saco	21	1751MST			0	0			Thunderstorm Wind (G52)	M
Valley County										
4 SW Hinsdale	21	1810MST			0	0			Thunderstorm Wind (G52)	M
Petroleum County										
20 SW Winnett	21	1820MST			0	0			Thunderstorm Wind (G52)	
Valley County										
40 SW Glasgow	21	1820MST			0	0			Thunderstorm Wind (G56)	M
Valley County										
2 SW Glasgow	21	1835MST			0	0			Thunderstorm Wind (G52)	M
Valley County										
42 N Glasgow	21	1851MST			0	0			Thunderstorm Wind (G53)	M
Valley County										
40 SW Glasgow	21	1851MST			0	0			Thunderstorm Wind (G51)	M
Garfield County										
Brusett	21	1855MST			0	0			Hail (0.75)	
Garfield County										
Brusett	21	1855MST			0	0			Thunderstorm Wind (G56)	M
Garfield County										
26 N Jordan	21	1921MST			0	0			Thunderstorm Wind (G61)	M
Garfield County										
25 SW Jordan to Jordan	21 22	1925MST 0100MST			0	0			Flash Flood	

The region has been in a moist weather pattern for nearly two weeks, with some areas receiving 10 inches of rain (three-quarters of the yearly precipitation) or more in the two week time period. More thunderstorms moving slowly across the western portion of Garfield County caused many gravel roads to be inundated again, and small streams to flow out of thier banks. Highway 200 had nearly a foot of water running across the road in places 10 to 20 miles west of Jordan.

Garfield County

20 W Jordan	21	1925MST			0	0			Hail (0.75)	
Garfield County										
7 E Sand Spgs	21	1933MST			0	0			Hail (1.00)	
Garfield County										
7 E Sand Spgs	21	1933MST			0	0			Thunderstorm Wind (G70)	M
Valley County										
4 N Oswego	21	1944MST			0	0			Thunderstorm Wind (G56)	M

Storm Data and Unusual Weather Phenomena

July 2001

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, East</u>									
Garfield County									
10 W Jordan	21	1945MST			0	0			Hail (0.88)
Garfield County									
Cohagen	21	2000MST			0	0			Hail (0.88)
Garfield County									
Cohagen	21	2000MST			0	0			Thunderstorm Wind (G52) M
Roosevelt County									
13 W Wolf Pt	21	2002MST			0	0			Thunderstorm Wind (G52) M
Roosevelt County									
Wolf Pt	21	2015MST			0	0			Thunderstorm Wind (G56) M
Garfield County									
36 SE Jordan	21	2020MST			0	0			Hail (0.75)
McCone County									
10 N Vida	21	2037MST			0	0			Thunderstorm Wind (G61) M
Petroleum County									
9 SE Winnett	21	2040MST			0	0			Thunderstorm Wind (G52)
			Six inch diameter branches downed by high winds.						
Roosevelt County									
(Old)Wolf Pt Int Arpt	21	2045MST			0	0			Thunderstorm Wind (G64) M
Prairie County									
40 WNW Terry	21	2100MST 2115MST			0	0	10K		Hail (1.00)
McCone County									
Circle	21	2105MST			0	0			Thunderstorm Wind (G56) M
Richland County									
24 NW Sidney	21	2105MST			0	0			Thunderstorm Wind (G56) M
Prairie County									
35 NW Terry	21	2110MST			0	0			Hail (0.75)
Dawson County									
8 NE Bloomfield	21	2115MST			0	0			Thunderstorm Wind (G52) M
Roosevelt County									
4 N Poplar	21	2125MST			0	0			Hail (0.75)
Dawson County									
Glendive Dawson Arpt	21	2135MST			0	0			Thunderstorm Wind (G61) M
Richland County									
16 NW Sidney	21	2135MST			0	0	15K		Thunderstorm Wind (G61) M
			High winds blew down a total of 13 wooden power poles.						
Richland County									
Sioux Pass	21	2140MST			0	0			Thunderstorm Wind (G65) M
Roosevelt County									
Countywide	21 22	2145MST 0100MST			0	0			Flash Flood
			Law enforcement reported flooding at several locations around the county. The Poplar Airport grounds were completely flooded, and planes were unable to land or take off. The water from the airport spilled over onto Highway 2 and flooded the road enough for the BIA Police Officers to close the highway down. A sheriffs deputy also reported significant street flooding in the Culbertson area. Water covered the main roads in town, including Highway 2, and caused some flooded basements.						
Roosevelt County									
Poplar	21	2145MST			0	0			Hail (1.00)
Richland County									
Savage	21	2150MST			0	0			Thunderstorm Wind (G65) M
Dawson County									
Glendive	21	2200MST			0	0			Thunderstorm Wind (G52) M
Garfield County									
16 S Jordan	21	2200MST			0	0			Hail (1.25)
Dawson County									
20 SE Glendive	21	2215MST			0	0	20K		Thunderstorm Wind
			Strong downburst winds caused damage to a roof on a farm.						

Storm Data and Unusual Weather Phenomena

July 2001

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, East</u>										
Richland County										
6 E Sidney	21	2219MST			0	0			Thunderstorm Wind (G65)	M
Richland County										
Sidney Richland Arpt	21	2230MST			0	0			Thunderstorm Wind (G61)	M
Roosevelt County										
4 E Culbertson	21	2230MST			0	0			Thunderstorm Wind (G52)	M
Wibaux County										
3 E Wibaux	21	2230MST			0	0			Thunderstorm Wind (G52)	M
Richland County										
Savage	21	2243MST			0	0			Thunderstorm Wind (G56)	M
Richland County										
North Portion	21	2300MST			0	0			Flash Flood	
Intense rainfall of 3 to 4 inches in a few hours caused several gravel roads to become impassable. Highway 16 had a half foot of water going across it 16 miles north of Sidney.										
Sheridan County										
9 NW Westby	22	1700MST			0	0			Hail (1.00)	
Phillips County										
20 N Saco	24	1440MST			0	0			Hail (0.75)	
Phillips County										
21 N Saco	24	1500MST			0	0			Hail (1.00)	
Valley County										
2 S Hinsdale	24	1640MST			0	0			Hail (1.75)	
Valley County										
10 W Glasgow	24	1705MST			0	0			Hail (1.75)	
Valley County										
4 S Hinsdale	24	1710MST			0	0			Flash Flood	
	25	0100MST								
Intense rainfall of 3 to 4 inches, over an area that had already received a lot of rain during the previous two weeks, caused some county roads to have flooding problems. A storm spotter reported 8-10 inches of water flowing over road south of Hinsdale, and the emergency manager stated that there were problems with portions of the roads getting washed out.										
Valley County										
4 SE Glasgow	24	1810MST			0	0			Hail (1.00)	
Valley County										
6 SE Glasgow	24	1815MST			0	0			Hail (1.00)	
Valley County										
5 SW Ft Peck	24	1817MST			0	0			Hail (1.75)	
Valley County										
1 SW Glasgow	24	1817MST			0	0			Hail (0.75)	
Valley County										
Ft Peck	24	1825MST			0	0			Hail (1.25)	
McCone County										
42 NW Circle	24	1832MST			0	0			Hail (2.75)	
Valley County										
1 SW Glasgow to 4 SE Glasgow	24	1840MST 1846MST			0	0	10K		Thunderstorm Wind	
Downburst winds snapped 10 power poles south of Glasgow, causing a power outage for much of the area for several hours.										
McCone County										
20 W Vida	24	1930MST 1945MST			0	0			Hail (0.75)	
Valley County										
Ft Peck	24	2044MST			0	0			Thunderstorm Wind (G52)	M
McCone County										
40 NW Circle	24	2056MST			0	0			Thunderstorm Wind (G52)	M
Valley County										
Ft Peck	24	2057MST			0	0			Thunderstorm Wind (G52)	M
Garfield County										
43 NE Jordan	24	2124MST			0	0			Hail (0.75)	

Storm Data and Unusual Weather Phenomena

July 2001

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, East</u>									
Garfield County									
43 NE Jordan	24	2130MST			0	0			Flash Flood
	25	0100MST							
Intense rainfall of 3 to 4 inches, in a location that had received a lot of rain in the previous two weeks caused ditches to fill up and overflow onto county roads. A storm spotter reported water over road in 5 locations throughout northeastern Garfield County, and small streams were flowing out of their banks.									
Garfield County									
43 NE Jordan	24	2139MST			0	0			Hail (0.75)
Garfield County									
43 NE Jordan	24	2155MST			0	0			Hail (1.00)
Garfield County									
43 NE Jordan	24	2239MST			0	0			Thunderstorm Wind (G52) ^M
Dawson County									
10 SW Richey	24	2240MST			0	0			Thunderstorm Wind (G61) ^M
Garfield County									
43 NE Jordan	24	2332MST			0	0			Hail (0.75)
Dawson County									
12 S Lindsay	25	0130MST			0	0			Hail (0.88)
Dawson County									
12 S Lindsay	25	0130MST			0	0			Thunderstorm Wind (G52) ^M
Dawson County									
5 SW Glendive	25	0200MST 0500MST			0	0			Flash Flood
Intense rainfall of 2 to 3 inches fell over an area that had received a lot of rain over the previous two weeks. A storm spotter reported water over County Road 261 with water around a foot deep.									
Dawson County									
5 SW Glendive	25	0205MST			0	0	50K		Hail (0.88)
A storm spotter reported that he had 100 percent crop loss from hail that piled up to two feet deep. He had several hundred acres of crops that were destroyed.									
Dawson County									
3 E Hodges	25	1615MST			0	0			Hail (0.88)
Prairie County									
20 N Terry	25	1615MST			0	0			Hail (0.75)
Wibaux County									
6 NW Wibaux	25	1629MST			0	0			Hail (0.75)
Prairie County									
12 E Fallon	25	1720MST			0	0			Hail (1.25)
Dawson County									
26 W Glendive	25	1722MST			0	0			Hail (0.75)
Wibaux County									
6 SE Wibaux	25	1725MST			0	0			Hail (1.75)
Wibaux County									
6 E St Phillip	25	1746MST			0	0			Hail (2.75)
Garfield County									
4 N Sand Spgs	26	0930MST			0	0			Hail (0.75)
Phillips County									
Content	26	1000MST			0	0			Hail (0.75)
Garfield County									
15 SE Sand Spgs	26	1405MST			0	0			Hail (1.75)
Garfield County									
15 SE Sand Spgs	26	1405MST			0	0			Thunderstorm Wind (G54) ^M
Garfield County									
20 W Cohagen	26	1430MST 1445MST			0	0			Hail (1.00)
Garfield County									
East Portion	26	1430MST 1700MST			0	0			Flash Flood

Storm Data and Unusual Weather Phenomena

July 2001

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

MONTANA, East

Several creeks, swollen from heavy rainfall throughout the month of July, flowed out of their banks as another 3 to 5 inches of rainfall fell across the eastern portion of Garfield County. Also, one inch hail that was at least a foot deep, melted and flowed into areas creeks. Wildcat Creek, which is usually dry or very low during July, was 15 feet high, and well out of its banks according to the emergency manager.

Garfield County 15 SE Cohagen	26	1538MST			0	0			Thunderstorm Wind (G52)	M
Prairie County 30 E Terry	26	1730MST			0	0			Hail (0.88)	
Garfield County Sand Spgs	28	1555MST			0	0			Thunderstorm Wind (G56)	M
Phillips County Content	28	1655MST			0	0			Thunderstorm Wind (G52)	M
Garfield County 20 N Jordan	28	1720MST			0	0			Thunderstorm Wind (G52)	M
Phillips County 5 E Whitewater	28	1745MST			0	0			Thunderstorm Wind (G52)	M
Valley County 40 SW Glasgow	28	1751MST			0	0			Thunderstorm Wind (G64)	M
Phillips County Whitewater	28	1803MST			0	0			Thunderstorm Wind (G66)	M
Wibaux County 12 S Wibaux	28	2030MST			0	0			Hail (0.75)	
Wibaux County Wibaux	28	2030MST			0	0			Thunderstorm Wind (G65)	M
Garfield County 20 W Jordan to 12 W Jordan	31	1411MST			0	0			Tornado (F0)	

A tornado touched down in a rangeland area. No damage was caused. The tornado was on the ground for approximately 15 minutes.

MONTANA, South

Custer County Miles City	01	0507MST			0	0			Hail (1.00)	
Custer County 1 E Miles City	01	0510MST			0	0			Hail (1.25)	
Custer County 3 NE Miles City	01	0512MST			0	0			Hail (1.25)	
Custer County 10 E Miles City	01	0525MST			0	0			Hail (1.25)	
Custer County Mizpah	01	0605MST			0	0			Hail (1.00)	
Custer County 15 S Mizpah	01	0610MST			0	0			Hail (2.00)	
Custer County 20 SW Mizpah	01	0617MST			0	0			Hail (1.00)	
Carter County 15 NW Ekalaka	01	0645MST			0	0			Hail (1.00)	
Carter County 15 E Ekalaka	01	0701MST			0	0			Hail (1.00)	
Carter County Ekalaka	01	0710MST			0	0			Hail (0.75)	
Carter County 6 S Ekalaka	01	0716MST			0	0			Hail (1.00)	
Carter County Belltower	01	0737MST			0	0			Hail (1.00)	
Stillwater County 4 SW Nye	01	2000MST			0	0			Hail (0.75)	
Musselshell County 20 N Roundup	01	2100MST			0	0			Hail (0.75)	

Storm Data and Unusual Weather Phenomena

July 2001

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>									
Musselshell County									
12 N Roundup	01	2125MST			0	0			Hail (0.75)
Musselshell County									
13 NE Roundup	01	2155MST			0	0			Hail (0.75)
Musselshell County									
10 N Roundup	01	2300MST			0	0			Flash Flood
Water covered the roadways									
Musselshell County									
10 N Roundup	01	2300MST			0	0			Hail (0.75)
Musselshell County									
9 NW Roundup	01	2305MST			0	0			Hail (0.75)
Musselshell County									
10 N Roundup	01	2355MST			0	0			Flash Flood
Water continued to cover the roadways and the reservoirs were overflowing.									
Golden Valley County									
27 N Lavina	02	0000MST			0	0			Hail (0.75)
Golden Valley County									
27 N Lavina	02	0200MST			0	0			Hail (0.75)
Musselshell County									
10 N Roundup	02	0210MST			0	0			Hail (0.88)
Treasure County									
11 N Hysham	02	0430MST			0	0			Hail (1.00)
Rosebud County									
Vananda	02	0440MST			0	0			Hail (1.75)
Musselshell County									
Roundup	02	0532MST			0	0			Hail (0.75)
Yellowstone County									
45 NE Billings	02	0630MST			0	0			Hail (1.75)
Yellowstone County									
6 NE Custer	02	0655MST			0	0			Hail (1.75)
Rosebud County									
12 SW Forsyth	02	0700MST			0	0			Hail (0.75)
Rosebud County									
14 W Forsyth	02	0700MST			0	0			Hail (0.75)
Rosebud County									
12 W Forsyth	02	0725MST			0	0			Hail (0.75)
Treasure County									
8 SE Hysham	02	0730MST			0	0			Hail (0.75)
Treasure County									
Hysham	02	0803MST			0	0			Hail (0.75)
A persistent weather pattern exhibiting favorable shear, upper level flow, and abundant low-level moisture, provided sufficient dynamics to allow numerous supercell thunderstorms to develop across south-central and southeast Montana and Sheridan County, Wyoming from June 26 to July 31, 2001. Supercells and other severe thunderstorms (mainly large hail producers) developed almost daily across the NWS Billings County Warning Area during this time period.									
Musselshell County									
10 SE Roundup	02	1820MST			0	0			Thunderstorm Wind (G80)
80 mph thunderstorm wind gust...trees down in the Bull Mountains									
Severe thunderstorms (mainly large hail producers) developed across the NWS Billings County Warning Area around 9:00 pm on the evening of July 1st and continued through the early morning hours until 9:00 am July 2nd.									
Park County									
Livingston	12	1730MST			0	0			Flash Flood
Four feet of water in the B Street underpass. Several streets with 6 inches of water flowing like a river.									
Carter County									
18 NW Alzada	12	1858MST			0	0			Hail (0.75)
Golden Valley County									
15 N Lavina to 23 W Lavina	12	1915MST			0	0			Hail (1.25)

Storm Data and Unusual Weather Phenomena

July 2001

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>									
Golden Valley County									
7 N Lavina	12	2015MST			0	0			Hail (0.75)
Musselshell County									
12 W Roundup	12	2025MST			0	0			Hail (0.75)
Musselshell County									
7 W Roundup	12	2032MST			0	0			Hail (0.75)
Musselshell County									
Roundup	12	2038MST			0	0			Thunderstorm Wind (G60)
Sweet Grass County									
7 NW Melville	13	1520MST			0	0			Hail (0.75)
Wheatland County									
Harlowton	13	1613MST			0	0			Hail (0.75)
Golden Valley County									
5 S Ryegate	13	1632MST			0	0			Hail (0.75)
Golden Valley County									
5 S Ryegate	13	1648MST			0	0			Hail (2.75)
Broken windows on car and house. Funnel cloud also spotted.									
Golden Valley County									
Lavina	13	1650MST			0	0			Hail (0.75)
Yellowstone County									
20 NW Billings	13	1710MST			0	0			Hail (0.75)
Stillwater County									
8 NW Rapelje	13	1727MST			0	0			Hail (1.00)
Yellowstone County									
5 N Laurel	13	1730MST			0	0			Hail (0.75)
Yellowstone County									
Billings	13	1751MST			0	0			Hail (0.75)
Yellowstone County									
Billings Hgts	13	1759MST			0	0			Hail (1.00)
Golden Valley County									
Belmont	13	1800MST			0	0			Hail (0.75)
Yellowstone County									
Billings	13	1800MST			0	0			Hail (0.88)
Yellowstone County									
Billings	13	1800MST			0	0			Hail (0.88)
Yellowstone County									
Billings	13	1800MST			0	0			Hail (1.00)
Yellowstone County									
Billings	13	1800MST			0	0			Hail (1.00)
Yellowstone County									
Billings	13	1800MST			0	0			Hail (0.88)
Yellowstone County									
Billings	13	1805MST			0	0			Hail (0.75)
Yellowstone County									
Billings Hgts	13	1806MST			0	0			Hail (1.00)
Stillwater County									
1 S Absarokee	13	1841MST			0	0			Hail (0.75)
Musselshell County									
20 S Roundup	13	1900MST			0	0			Hail (0.75)
Yellowstone County									
10 E Billings	13	1930MST			0	0			Hail (2.00)
Big Horn County									
Hardin	13	1958MST			0	0			Hail (0.75)
Big Horn County									
Hardin	13	2002MST			0	0			Flash Flood
5 inches of water over I-90									

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
<u>MONTANA, South</u>									
Big Horn County									
Hardin	13	2015MST			0	0			Hail (0.88)
Big Horn County									
Hardin	13	2021MST			0	0			Flash Flood
			3 feet of water covering Custer Street and 7th and 8th Streets. Widespread downtown flooding.						
Yellowstone County									
2 W Laurel	13	2028MST			0	0			Hail (0.75)
Big Horn County									
1 W Hardin	13	2030MST			0	0			Hail (1.00)
Big Horn County									
Hardin	13	2035MST			0	0			Hail (0.75)
Yellowstone County									
Billings	13	2052MST			0	0			Hail (1.00)
Big Horn County									
Hardin	13	2100MST			0	0			Flash Flood
			Flooding in town. 2 to 3 feet of water is common						
Big Horn County									
Crow Agency	13	2140MST			0	0			Hail (0.75)
Powder River County									
Biddle	14	1540MST			0	0			Flash Flood
			Pea size hail and 1 inch of rain in 20 minutes						
Powder River County									
Biddle	14	1600MST			0	0			Hail (1.00)
Powder River County									
Biddle	14	1615MST			0	0			Flash Flood
			2 inches of rain and pea size hail						
Yellowstone County									
Huntley	14	1630MST			0	0			Hail (1.00)
			Ground covered by hail and white.						
Big Horn County									
15 NW Yellowtail to 10 S Yellowtail	14	1700MST			0	0			Funnel Cloud
Carbon County									
Joliet	14	1732MST			0	0			Heavy Rain
			0.3 inches of rain in 30 minutes						
Carbon County									
Joliet	14	1732MST			0	0			Thunderstorm Wind (G55)
Carbon County									
Bridger	14	1800MST			0	0			Heavy Rain
			1.5 inches of rain in 35 minutes with 2 inches of water over main street						
Carbon County									
2 N Bridger	14	1814MST			0	0			Heavy Rain
			1-2 inches of rain in 30 minutes						
Rosebud County									
1 SW Rock Spgs	14	1850MST			0	0			Hail (0.75)
Rosebud County									
1 SW Rock Spgs	14	1850MST			0	0			Thunderstorm Wind (G58)
Big Horn County									
Decker	14	1855MST			0	0			Flash Flood
			1 inch of rain in 20 minutes						
Big Horn County									
Decker	14	1912MST			0	0			Flash Flood
			2-3 feet of water running over the road in town						
Big Horn County									
Decker	14	1948MST			0	0			Flash Flood
			Gullies and valleys have torrential flow. Standing water over flat areas						
Big Horn County									
Decker	14	2030MST			0	0			Flash Flood

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
MONTANA, South									
145 feet of road bed washed out beneath the Burlington/Northern Railroad tracks...2 feet of water over the tracks									
Powder River County 6 SW Biddle	15	1555MST			0	0			Hail (1.00)
Yellowstone County Billings Hgts	16	1625MST			0	0			Hail (1.00)
Powder River County 6 N Otter	16	1824MST			0	0			Hail (0.75)
Wheatland County 10 S Twodot	17	1255MST			0	0			Hail (1.00)
Wheatland County 10 S Twodot	17	1305MST			0	0			Hail (1.00)
Wheatland County Harlowton	17	1320MST			0	0			Hail (0.75)
Wheatland County Harlowton	17	1330MST			0	0			Hail (0.88)
Sweet Grass County 1 W Melville	17	1413MST			0	0			Hail (0.75)
Golden Valley County 18 NW Ryegate	17	1428MST			0	0			Hail (0.75)
Musselshell County 25 NW Roundup to 27 N Roundup	17	1520MST			0	0			Hail (0.88)
Nickel size hail two feet deep									
Stillwater County 3 W Park City	17	1530MST			0	0			Hail (0.75)
Carbon County Boyd	17	1545MST			0	0			Hail (0.75)
Yellowstone County 10 W Billings	17	1632MST			0	0			Hail (0.75)
Yellowstone County Billings	17	1645MST			0	0			Flash Flood
Street flooding on the south side of Billings									
Big Horn County 9.5 N Hardin	17	1800MST			0	0			Hail (0.75)
Rosebud County 15 N Sumatra	17	1800MST			0	0			Hail (0.75)
Musselshell County Melstone	17	1900MST			0	0			Flash Flood
3-4 feet of water running over the highway 12. Flooding lasted until 10 pm MDT.									
Custer County 10 NE Miles City	17	2300MST			0	0			Hail (0.75)
Custer County 11 SE Miles City	17	2335MST			0	0			Hail (0.75)
Fallon County 25 NW Baker	18	0100MST			0	0			Hail (0.75)
Big Horn County 1 W Hardin	18	1503MST			0	0			Hail (0.75)
Hail covered the ground									
Big Horn County Hardin	18	1505MST			0	0			Hail (1.75)
Big Horn County 2 N Hardin	18	1510MST			0	0			Hail (0.75)
Musselshell County Melstone	18	1515MST			0	0			Hail (0.75)
Rosebud County 12 W Sumatra	18	1520MST			0	0			Hail (1.00)

Storm Data and Unusual Weather Phenomena

July 2001

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>									
Rosebud County									
14 S Colstrip	18	1620MST			0	0			Hail (1.00)
Custer County									
15 S Mizpah	18	1650MST			0	0			Hail (0.75)
Fallon County									
25 W Willard	18	1700MST			0	0			Hail (1.75)
Rosebud County									
Brandenberg	18	1700MST			0	0			Hail (0.88)
Carter County									
24 NW Ekalaka	18	1717MST			0	0			Hail (1.25)
Fallon County									
20 SW Baker	18	1750MST			0	0			Hail (0.88)
Powder River County									
Broadus	18	1810MST			0	0			Hail (4.50)
Supercell thunderstorms (mainly large hail producers) developed across the eastern half of the NWS Billings County Warning Area around 3:30 pm on July 18th and continued until 9:30 pm. Baseball to softball size hail fell in Broadus, Montana. Numerous car windshields and house windows were smashed. In addition...vinyl siding was stripped from houses, metal roofs were severely dented...and many trees throughout town were stripped of their leaves. The Broadus Elementary and High Schools had approximately 60 to 70 windows broken. Several private business establishment had their outdoor signs broken. The Powder River Nursing Home also had all the windows on the west side of the building broken.									
Fallon County									
25 SE Baker	18	1835MST			0	0			Hail (0.75)
Carter County									
24 SW Ekalaka	18	1900MST			0	0			Tstm Wind/Hail
70 mph thunderstorm wind gust with dime size hail...2 foot diameter trees downed									
Carter County									
44 S Ekalaka	18	1915MST			0	0			Thunderstorm Wind (G60)
Powder River County									
5 W Broadus	18	1915MST			0	0			Flash Flood
Water over Highway 212									
Carter County									
20 S Ekalaka to 44 S Ekalaka	18	1920MST			0	0			Tstm Wind/Hail
60 mph thunderstorm wind gust with dime sized hail									
Carter County									
10 S Ekalaka	18	1922MST			0	0			Tstm Wind/Hail
70 mph thunderstorm wind gust with nickel size hail									
Carter County									
30 S Ekalaka	18	1925MST			0	0			Tstm Wind/Hail
65 mph thunderstorm winds with nickel size hail									
Carter County									
4 NE Mill Iron	18	1957MST			0	0			Hail (0.88)
Damage to home in Broadus, Montana from baseball to softball size hail that fell on the evening of July 18, 2001.									
Carter County									
13 N Albion	19	1635MST			0	0			Hail (1.00)
Carter County									
17 SW Ekalaka	19	1645MST			0	0			Hail (0.75)
Carter County									
Ekalaka	19	1719MST			0	0			Hail (0.75)
Carter County									
Ekalaka	19	1729MST			0	0			Hail (0.75)
Carter County									
Ekalaka	19	1730MST			0	0			Hail (1.00)
Carter County									
Ekalaka	19	1730MST			0	0			Hail (1.25)
Stillwater County									
15 NW Rapelje	19	1745MST			0	0			Hail (1.75)

Storm Data and Unusual Weather Phenomena

July 2001

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>									
Carter County									
10 N Ekalaka	19	1748MST			0	0			Hail (1.25)
Yellowstone County									
17 NW Billings	19	1755MST			0	0			Hail (0.88)
Nickel size hail lasted from 655pm to 720pm MDT.									
Yellowstone County									
9 S Broadview	19	1802MST			0	0			Hail (0.88)
Fallon County									
3 S Plevna	19	1815MST			0	0			Hail (1.75)
Wheatland County									
15 NW Judith Gap	19	1821MST			0	0			Hail (0.75)
Hail covered the ground									
Yellowstone County									
25 N Billings	19	1835MST			0	0			Hail (1.75)
Musselshell County									
43 SE Roundup	19	1850MST			0	0			Hail (1.25)
Fallon County									
23 NW Baker	19	1855MST			0	0			Hail (1.00)
Yellowstone County									
17 N Pompeys Pillar	19	1915MST			0	0			Thunderstorm Wind (G91)
91 mph thunderstorm wind gust measured by anemometer. 10 inch diameter trees blown down									
Powder River County									
5 NW Biddle	21	1735MST			0	0			Hail (0.75)
Wheatland County									
20 W Harlowton	21	1738MST			0	0			Hail (1.75)
Wheatland County									
Judith Gap	21	1800MST			0	0			Hail (1.75)
Golden Valley County									
15 N Ryegate	21	1815MST			0	0			Hail (0.75)
Wheatland County									
9 SE Judith Gap	21	1817MST			0	0			Hail (1.75)
Wheatland County									
Judith Gap	21	1826MST			0	0			Hail (0.88)
Musselshell County									
25 NW Roundup	21	1935MST			0	0			Hail (0.88)
Yellowstone County									
1 W Billings	21	2150MST			0	0			Hail (0.75)
Yellowstone County									
Billings	21	2158MST			0	0			Hail (0.88)
Yellowstone County									
Lockwood	21	2250MST			0	0			Hail (1.00)
Custer County									
Locate	22	0015MST			0	0			Hail (1.00)
Custer County									
20 NW Miles City	22	0118MST			0	0			Hail (0.75)
Big Horn County									
5 SW Busby	22	1410MST			0	0			Hail (0.75)
Big Horn County									
8 S Busby	22	1412MST			0	0			Hail (1.75)
Big Horn County									
14 N Hardin	22	1430MST			0	0			Hail (1.75)
Rosebud County									
12 SW Lame Deer	22	1445MST			0	0			Hail (0.75)
Treasure County									
25 SSE Hysham	22	1450MST			0	0			Hail (1.00)
Rosebud County									
17 NNW Forsyth	22	1515MST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 2001

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>									
Powder River County									
2 NW Sonnette	22	1538MST			0	0			Hail (1.75)
Powder River County									
5 W Broadus	22	1615MST			0	0			Hail (0.75)
Powder River County									
5.5 S Broadus	22	1622MST			0	0			Tstm Wind/Hail
70 mph thunderstorm winds caused part of a roof to be removed. Nickel size hail covered the ground.									
Carter County									
7 N Boyes	22	1650MST			0	0			Tstm Wind/Hail
Golfball size hail covered the ground. 70 mph winds. Multiple windows broken									
Fallon County									
15 S Plevna	22	1712MST			0	0			Hail (0.88)
Carter County									
14 N Albion	22	1725MST			0	0			Hail (0.75)
Fallon County									
8 S Baker	22	1738MST			0	0			Hail (1.75)
Carter County									
6 NE Albion	22	1750MST			0	0			Tstm Wind/Hail
70 mph thunderstorm winds along with quarter size hail that covered the ground..									
Carter County									
20 W Alzada	22	1950MST			0	0			Hail (0.88)
Powder River County									
1.5 S Broadus	22	1625MST			0	0			Flash Flood
Water was flowing over Highway 212									
Golden Valley County									
15 NW Lavina	23	1612MST			0	0			Hail (0.75)
Golden Valley County									
11 NW Lavina	23	1620MST			0	0			Hail (0.88)
Musselshell County									
7 WSW Roundup	23	1645MST			0	0			Hail (1.00)
Musselshell County									
5 W Roundup	23	1650MST			0	0			Hail (1.00)
Big Horn County									
5 W Busby	23	1652MST			0	0			Hail (1.00)
Musselshell County									
Roundup	23	1703MST			0	0			Hail (1.25)
Musselshell County									
Roundup	23	1705MST			0	0			Hail (0.88)
Musselshell County									
Delphia	23	1720MST			0	0			Hail (0.88)
Musselshell County									
Musselshell	23	1730MST			0	0			Hail (0.88)
Musselshell County									
4 S Melstone	23	1745MST			0	0			Hail (0.75)
Yellowstone County									
3 NE Custer to Custer	23	1759MST			0	0			Hail (0.75)
Big Horn County									
10 N Decker	23	1800MST			0	0			Thunderstorm Wind (G60)
Rosebud County									
6 S Sumatra	23	1805MST			0	0			Hail (0.75)
Treasure County									
20 NW Hysham to 10 S Hysham	23	1808MST			0	0			Hail (0.75)
Treasure County									
15 NW Hysham to 15 SSE Hysham	23	1810MST			0	0			Hail (0.88)

Storm Data and Unusual Weather Phenomena

July 2001

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>									
Rosebud County									
5 W Forsyth	23	1827MST			0	0			Hail (0.75)
Powder River County									
10 W Biddle	23	1830MST			0	0			Hail (0.75)
Rosebud County									
3 N Vananda to Central Portion	23	1902MST			0	0			Hail (1.00)
Powder River County									
10 S Biddle	23	1908MST			0	0			Hail (1.00)
Stillwater County									
20 SE Columbus	23	1915MST			0	0			Hail (0.75)
Carbon County									
4.5 W Joliet	23	1930MST			0	0			Hail (0.75)
Yellowstone County									
6 S Laurel	23	1935MST			0	0			Hail (0.88)
		Hail covered the ground							
Yellowstone County									
Billings	23	1945MST			0	0			Hail (0.75)
Carbon County									
Boyd	23	2000MST			0	0			Hail (0.75)
Carbon County									
Silesia	23	2030MST			0	0			Hail (0.75)
Stillwater County									
5 W Columbus	23	2130MST			0	0			Hail (0.75)
Carbon County									
3 S Joliet	23	2142MST			0	0			Hail (0.75)
Yellowstone County									
20 NW Billings	24	2200MST			0	0			Hail (0.75)
Yellowstone County									
Pompeys Pillar	24	2301MST			0	0			Thunderstorm Wind (G70)
Big Horn County									
22 N Hardin	24	2310MST			0	0			Hail (0.75)
Big Horn County									
15 N Hardin	25	0003MST			0	0			Hail (0.75)
Rosebud County									
10 W Forsyth	25	0009MST			0	0			Hail (1.00)
Custer County									
10 E Mizpah	25	0125MST			0	0			Hail (0.75)
Fallon County									
4 W Baker	25	0258MST			0	0			Hail (0.75)
Carter County									
22 NE Ekalaka	25	0330MST			0	0			Hail (0.88)
Fallon County									
16 N Plevna	25	1815MST			0	0			Hail (1.75)
Fallon County									
5 N Baker	25	1820MST			0	0			Hail (1.75)
Custer County									
57 S Miles City	25	1910MST			0	0			Hail (1.75)
Rosebud County									
Ashland	25	1910MST			0	0			Hail (0.75)
Fallon County									
18 NW Baker	25	1930MST			0	0			Hail (1.00)
		Hail covered the ground							
Rosebud County									
9 SW Forsyth	25	0110MST			0	0			Hail (0.75)
Fallon County									
13 N Baker	25	1820MST			0	0			Tornado (F2)

Storm Data and Unusual Weather Phenomena

July 2001

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

MONTANA, South

NWS Post-Storm Damage Assessment Team determined F2 tornado 200 yards wide with a path length of 2 miles. It was on the ground for 15 minutes over open range west of State Highway 7.

Fallon County

8 NE Baker

25 1850MST 0 0 Tornado (F1)

NWS Post-Storm Damage Assessment Team determined F1 tornado 100 yards wide with a path length of 3/4 of a mile and was on the ground for 5 minutes.

Around 6:45 p.m. on July 25th...a supercell thunderstorm developed in Prairie County, Montana and moved southeast into Fallon County inside the WFO Billings County Warning Area. A WFO Billings Post-Storm Damage Assessment Team confirmed that an F2 tornado occurred 13 miles north of Baker, Montana in Fallon County at 7:20 p.m. on July 25, 2001. The tornado moved in a nearly north to south direction and remained just west of Montana Highway 7. The tornado was 200 yards wide, 2 miles long, and was on the ground for approximately 15 minutes. The tornado remained over open range while on the ground and caused no property damage. F2 tornadoes produce wind speeds from 113 to 157 mph.

A second tornado developed after the first tornado dissipated. This second tornado occurred 8 miles northeast of Baker, Montana in Fallon County at 7:50 p.m. on July 25, 2001. The tornado moved in a northwest to southeast direction and was located near Johnny Creek. The tornado was 100 yards wide, 3/4 of a mile long, and was on the ground for approximately 5 minutes. The tornado remained over open range while on the ground and caused no property damage. F1 tornadoes produce wind speeds from 73 to 112 mph.

Custer County

Miles City

25 0110MST 0 0 Flash Flood

Flooding of streets and underpasses.

Wheatland County

9 N Shawmut

26 1010MST 0 0 Hail (1.25)

Golden Valley County

20 N Lavina

26 1140MST 0 0 Hail (0.75)

Treasure County

25 N Bighorn to 20 S Bighorn

26 1340MST 0 0 Hail (1.25)

Treasure County

20 W Hysham to Hysham

26 1350MST 0 0 Hail (0.75)

Treasure County

12 W Hysham

26 1430MST 0 0 Hail (1.75)

Treasure County

11 NW Hysham

26 1435MST 0 0 Hail (2.75)

Yellowstone County

5 N Billings Logan Arp

26 1437MST 0 0 Hail (1.00)

Yellowstone County

Billings Hgts

26 1455MST 0 0 Hail (0.75)

Musselshell County

8 N Melstone

26 1500MST 0 0 Hail (0.88)

Rosebud County

2 E Rosebud

26 1630MST 0 0 Tstm Wind/Hail

Golf ball size hail and 60 mph winds

Big Horn County

1 S Kirby

26 1655MST 0 0 Hail (0.75)

Rosebud County

Hathaway

26 1710MST 0 0 Hail (2.50)

Baseball size hail with 70 to 80 mph winds resulting in broken windows

Rosebud County

1 W Birney

26 1724MST 0 0 Hail (0.75)

Custer County

12 S Miles City

26 1745MST 0 0 Tstm Wind/Hail

Nickel size hail with 70 mph wind gust resulting in broken windows

Custer County

20 W Miles City

26 1750MST 0 0 Flash Flood

Water over Interstate 94

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
<u>MONTANA, South</u>									
Custer County									
12 S Miles City	26	1755MST			0	0			Tstm Wind/Hail
					Quarter size hail along with 80 mph winds resulting in damage to trees				
Rosebud County									
12 SE Birney	26	1810MST			0	0			Hail (0.75)
Fallon County									
30 SW Baker	26	1845MST			0	0			Thunderstorm Wind (G60)
Custer County									
7 S Mizpah	26	1855MST			0	0			Thunderstorm Wind (G60)
Carter County									
13 W Ekalaka	26	2010MST			0	0			Thunderstorm Wind (G60)
Fallon County									
Baker	26	2250MST			0	0			Flash Flood
					Water 4 feet deep in the parks...as well...as running down the streets				
Golden Valley County									
25 N Ryegate	26	1200MST			0	0			Flash Flood
					Water covered a 1 mile stretch of roadway				
Musselshell County									
25 NW Roundup	26	1230MST			0	0			Hail (0.75)
					Hail completely covered the ground				
Golden Valley County									
10 NW Ryegate to 25 E Ryegate	26	1245MST			0	0			Hail (0.75)
Musselshell County									
20 NW Roundup	26	1250MST			0	0			Hail (0.88)
					Hail completely covered the ground				
Yellowstone County									
5 N Pompeys Pillar	26	1400MST			0	0			Hail (0.75)
Treasure County									
4 N Hysham	26	1448MST			0	0			Hail (2.50)
Rosebud County									
10 W Sumatra	26	1515MST			0	0			Hail (1.00)
Rosebud County									
10 SE Ingomar to 15 N Ingomar	26	1520MST			0	0			Hail (1.00)
Carbon County									
Roscoe	26	1730MST			0	0			Hail (0.75)
Sweet Grass County									
Greycliff	26	1745MST			0	0			Hail (0.75)
					Hail completely covered the ground				
Stillwater County									
4 S Nye	26	1815MST			0	0			Hail (1.00)
Powder River County									
9 SW Otter	26	1830MST			0	0			Hail (0.75)
Fallon County									
25 NW Plevna	26	1900MST			0	0			Hail (1.00)
Stillwater County									
6 SW Molt	27	2000MST			0	0			Thunderstorm Wind (G70)
					60-70 mph thunderstorm wind gust blew over 4 large trees				
Yellowstone County									
3 NE Laurel	27	2020MST			0	0			Hail (0.88)
Yellowstone County									
Billings	27	2035MST			0	0			Hail (0.75)
Big Horn County									
5 W Hardin	27	2144MST			0	0			Thunderstorm Wind (G60)
					60 mph thunderstorm wind gust estimated by spotter.				
Big Horn County									
Hardin	27	2203MST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property Damage	Crops	
<u>MONTANA, South</u>									
Big Horn County									
8 N Hardin	27	2209MST			0	0			Thunderstorm Wind (G100)
			100 mph thunderstorm wind gust. Several 5 to 6 foot diameter trees blown down.						
Rosebud County									
2 W Colstrip	27	2300MST			0	0			Hail (1.00)
Golden Valley County									
5 S Ryegate	27	2000MST			0	0			Hail (0.75)
Musselshell County									
5 S Roundup	27	2030MST			0	0			Hail (0.75)
Carbon County									
Joliet	27	2042MST			0	0			Hail (0.75)
Yellowstone County									
Ballantine	27	2120MST			0	0			Hail (0.75)
Yellowstone County									
5 N Custer	27	2232MST			0	0			Hail (0.75)
Treasure County									
2 S Hysham	27	2243MST			0	0			Hail (0.75)
Carbon County									
5 W Joliet	28	1300MST			0	0			Thunderstorm Wind (G70)
			Wind damage. Roof blown off house and chicken coop blown over						
Yellowstone County									
24 E Billings	28	1425MST			0	0			Thunderstorm Wind (G60)
			60 mph thunderstorm wind gust estimated by spotter.						
Big Horn County									
20 N Hardin	28	1502MST			0	0			Thunderstorm Wind (G60)
			60 mph thunderstorm wind gust estimated by spotter.						
Treasure County									
25 SSE Hysham	28	1535MST			0	0			Thunderstorm Wind (G60)
			60 mph thunderstorm wind gust estimated by spotter.						
Rosebud County									
13 W Forsyth	28	1552MST			0	0			Hail (0.75)
Rosebud County									
10 NW Colstrip	28	1602MST			0	0			Thunderstorm Wind (G60)
			60 mph thunderstorm wind gust estimated by spotter.						
Rosebud County									
9 NW Colstrip	28	1608MST			0	0			Thunderstorm Wind (G60)
			60 mph thunderstorm wind gust estimated by spotter.						
Custer County									
18 SW Miles City	28	1747MST			0	0			Hail (0.75)
Custer County									
3 NW Mizpah	28	1822MST			0	0			Thunderstorm Wind (G65)
			65 mph thunderstorm wind gust estimated by spotter.						
Custer County									
15 N Volborg	28	1650MST			0	0			Hail (0.75)
Custer County									
15 W Ismay	28	1900MST			0	0			Hail (0.75)
Custer County									
7.5 NE Miles City	31	0030MST			0	0			Hail (1.00)
Rosebud County									
Hathaway	31	0110MST			0	0			Flash Flood
			Excessive rain with water running over some roads and creeks running bankfull.						
Custer County									
Miles City	31	0120MST			0	0			Flash Flood
			Major street flooding. Water up to car hoods. Underpass with 7 ft. of water. I-94 closed between mile markers 157-160.						
Custer County									
7.5 NE Miles City	31	0200MST			0	0			Flash Flood
			Several roads partially washed out.						

Storm Data and Unusual Weather Phenomena

July 2001

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, West</u>									
Missoula County									
Missoula	11	1706MST			0	0			Thunderstorm Wind (G52)
A thunderstorm with estimated winds of 60 mph was reported in the Miller Creek area by off duty NWS employee.									
Powell County									
Garrison	12	1350MST			0	0			Hail (1.00)
Powell County									
Deer Lodge	12	1717MST			0	0			Hail (0.75)
Ravalli County									
Conner	15	1605MST			0	0			Flash Flood
Ravalli County									
6 SE Darby	15	1605MST			0	0			Flash Flood
Strong thunderstorms with heavy rain moved across severely burned areas of southern Ravalli County. Several roads were washed out with some people stranded on North Fork Rye Creek road. Minor flooding and debris reported on highway 93 near Conner. Spotters reported 0.50 inches of rainfall in one-half hour in the area.									
Ravalli County									
5 NW Sula	20	1415MST			0	0			Flash Flood
Ravalli County									
3 NW Sula	20	1500MST			0	0			Flash Flood
Thunderstorms with heavy rain moved over the severely burned areas of southern Ravalli County. Flooding was reported by Bitterroot Dispatch along Gilbert Creek. Lord Draw flood water swept a trailer home down a hill. Laird Creek flooded a restaurant in Sula. Residential damage was reported by rising water on Laurence Gulch. Sheriff reported water two feet from homes along the North Fork Rye Creek.									
Ravalli County									
Sula	21	1640MST 2000MST			0	0			Flash Flood
Heavy rain from thunderstorms moved across severely burned areas of southern Ravalli County for the second day. Rainfall of 0.50 inch in 20 minutes was reported along with small hail piling to 1.5 inches deep. Numerous reports of flood damage to homes occurred between Sula and Conner. East Fork road was covered in mud and debris up to ten feet deep. Highway 93 was flooded and closed for a time. Several other roads were washed out or blocked, including the North Fork Rye Creek road, and the Two Bear road along Sleeping Child Creek southeast of Hamilton. A restaurant and fire hall were flooded in the town of Sula along Laird Creek.									
Missoula County									
24 S Clinton	21	1800MST			0	0			Tstm Wind/Hail
Three dozen large trees blown down by thunderstorm winds.									
<u>NEBRASKA, Central</u>									
Holt County									
8 NNE Stuart	01	0245CST			0	0			Hail (0.75)
Brown County									
5 ENE Ainsworth	01	1140CST			0	0			Hail (0.75)
Rock County									
10 SW Bassett	01	1200CST			0	0			Hail (0.75)
Keith County									
8 S Ogallala	01	1720MST			0	0			Thunderstorm Wind (G70)
A 6 inch tree limb was broken off.									
Perkins County									
2 S Venango	01	1755MST			0	0	5K	10K	Hail (1.00)
Perkins County									
2 S Venango	01	1810MST			0	0			Hail (0.75)
Garden County									
30 N Lewellen	02	1555MST			0	0	10K	15K	Hail (1.50)
Grant County									
19 S Ashby	02	1610MST			0	0	15K		Hail (1.75)
Grant County									
5 NW Whitman	02	1655MST			0	0	5K		Hail (1.00)
Blaine County									
8 E Brewster	02	1835CST			0	0	15K		Hail (1.75)
Loup County									
10 NW Almeria	02	1850CST			0	0	5K		Hail (1.00)

Storm Data and Unusual Weather Phenomena

July 2001

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									
Hooker County									
7 SSE Mullen	02	1900CST			0	0	10K		Hail (1.50)
Loup County									
13 W Taylor	02	1905CST			0	0	15K		Hail (1.75)
Blaine County									
1 NE Dunning	02	1915CST			0	0	5K		Hail (1.00)
Loup County									
3 SW Almeria	02	1930CST 1950CST			0	0	30K		Hail (1.75)
Holt County									
5 WSW Amelia	02	1939CST			0	0	10K		Hail (1.75)
Garfield County									
21 NNE Burwell	02	1940CST			0	0	5K		Hail (1.00)
Custer County									
7 N Sargent	02	1945CST			0	0	5K	10K	Hail (1.00)
Holt County									
5 S Amelia	02	1950CST			0	0	30K		Hail (4.00)
Loup County									
5 WNW Almeria	02	1953CST			0	0	20K		Hail (1.75)
			The hail damaged a roof of a house.						
Holt County									
5 W Amelia	02	1955CST			0	0	35K		Hail (4.25)
Loup County									
14 W Taylor	02	1955CST			0	0	20K		Hail (1.75)
Custer County									
10 WSW Sargent	02	2030CST			0	0			Hail (0.75)
Holt County									
8 ENE Chambers	02	2030CST			0	0	5K		Hail (1.00)
Custer County									
6 W Sargent	02	2035CST			0	0	5K		Hail (1.00)
Holt County									
1 W Ewing	02	2045CST			0	0	5K		Hail (1.00)
Boyd County									
4 NE Lynch	02	2055CST			0	0	10K		Hail (1.50)
Holt County									
7 S Inman	02	2133CST			0	0			Hail (0.75)
Boyd County									
2 E Spencer	02	2135CST			0	0			Hail (0.75)
Cherry County									
Wood Lake	02	2210CST			0	0	10K	5K	Hail (1.75)
Boyd County									
2 S Butte	02	2230CST			0	0			Hail (0.75)
Holt County									
2 SE Chambers	02	2230CST			0	0			Hail (0.75)
Keya Paha County									
4 E Norden	02	2230CST			0	0	20K		Hail (2.75)
Boyd County									
3 S Butte	02	2250CST			0	0			Hail (0.88)
Holt County									
1 S Ewing	03	0025CST			0	0	6K		Hail (1.75)
Hooker County									
5 E Mullen	04	1525MST			0	0			Hail (0.75)
Hooker County									
7 SE Mullen	04	1550MST			0	0	6K	3K	Hail (2.00)
Hooker County									
17 SW Mullen	04	1615MST 1625MST			0	0	10K	3K	Hail (1.75)

Storm Data and Unusual Weather Phenomena

July 2001

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									
Sheridan County									
4 N Antioch	04	1635MST			0	0	5K		Hail (1.00)
Cherry County									
10 SW Brownlee	04	1645CST			0	0	6K		Hail (1.50)
Garden County									
31 N Lisco	04	1700MST			0	0	6K	3K	Hail (1.75)
Cherry County									
15 SW Brownlee	04	1735CST			0	0	4K		Hail (1.00)
Hooker County									
21 SSW Mullen	04	1745MST 1755MST			0	0	15K	10K	Hail (2.50)
Arthur County									
14 SSE Arthur	04	1820MST			0	0	3K		Hail (1.00)
Mcpheerson County									
17 NW Tryon	04	1825CST			0	0	6K		Hail (1.75)
Keith County									
8 N Keystone	04	1840MST			0	0	10K	15K	Hail (2.00)
Mcpheerson County									
16 SW Tryon	04	1905CST			0	0	9K		Hail (2.00)
Keith County									
2 NNW Roscoe	04	1920MST			0	0			Hail (0.75)
Chase County									
7 NNW Lamar	04	1945MST			0	0			Hail (0.75)
Lincoln County									
2 NW Sutherland	04	1945CST			0	0			Hail (0.75)
Perkins County									
8 S Grant	04	1950MST			0	0			Hail (0.75)
Chase County									
4 S Lamar	04	2000MST			0	0			Hail (0.88)
Lincoln County									
2 W Sutherland	04	2000CST			0	0			Funnel Cloud
Lincoln County									
2 W Sutherland	04	2000CST			0	0			Hail (0.88)
Lincoln County									
2 NNE Sutherland	04	2000CST			0	0	6K		Hail (1.00)
Frontier County									
9 SW Eustis	05	0000CST			0	0	5K		Hail (1.00)
Sheridan County									
6 NW Antioch	07	2010MST			0	0			Hail (0.75)
Garden County									
35 N Oshkosh	07	2030MST			0	0			Thunderstorm Wind (G52)
A 5 inch diameter tree limb was broken off.									
Cherry County									
5 WSW Merriman	07	2035MST			0	0			Thunderstorm Wind (G52)
Lincoln County									
North Platte	08	0105CST			0	0			Thunderstorm Wind (G56)
Large tree limbs were down at Cody Park.									
Logan County									
Stapleton	08	0125CST			0	0			Thunderstorm Wind (G56)
An 8 inch diameter tree limb was down.									
Custer County									
6 W Merna	08	0140CST			0	0	25K	5K	Thunderstorm Wind (G61)
Off-duty NWS employee reported high winds with large trees down and a grain bin destroyed. A fertilizer and seed plant was also demolished.									
Custer County									
8 SE Sargent	08	0230CST			0	0	6K	8K	Hail (1.00)

Storm Data and Unusual Weather Phenomena

July 2001

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									
Custer County									
8 SE Sargent	08	0230CST			0	0			Thunderstorm Wind (G52)
			Large limbs were broken off trees.						
Garfield County									
10 ESE Burwell	08	0300CST			0	0			Thunderstorm Wind (G52)
Wheeler County									
5 E Ericson	08	0320CST			0	0			Thunderstorm Wind (G52)
			Winds toppled over large trees and numerous tree limbs were down.						
Wheeler County									
13 SE Bartlett	08	0335CST			0	0			Thunderstorm Wind (G52)
			A 12 inch diameter tree was uprooted.						
Holt County									
8 NE Atkinson	09	0803CST			0	0			Tornado (F0)
			A brief touchdown occurred in open rangeland with no damages reported.						
Sheridan County									
10 SSE Hay Spgs	09	2145MST			0	0			Thunderstorm Wind (G52)
			Tree limbs up to 5 inches in diameter were down.						
Deuel County									
4 SSW Chappell	09	2250MST			0	0			Hail (0.75)
Garden County									
Oshkosh	09	2330MST			0	0			Thunderstorm Wind (G52)
			A 5 inch diameter tree branch down.						
Chase County									
6 NNE Lamar	10	0330MST			0	0			Hail (0.75)
Blaine County									
13 SSE Brewster	11	0400CST			0	0			Thunderstorm Wind (G52)
			Tree limbs up to 5 inches in diameter were down.						
Frontier County									
1 N Curtis	12	1510CST			0	0			Hail (0.75)
Hayes County									
4 SE Hayes Center	12	1540CST 1600CST			0	0	9K	3K	Hail (1.00)
Perkins County									
6 WSW Grant	12	1615MST			0	0			Hail (0.75)
Chase County									
6 NNE Lamar	12	1635MST			0	0			Hail (0.75)
Grant County									
9 NNE Hyannis	13	1632CST			0	0			Thunderstorm Wind (G52)
Garden County									
Oshkosh	15	1950MST			0	0	6K	4K	Hail (1.00)
Garden County									
Oshkosh	15	1955MST			0	0	6K	4K	Hail (1.00)
Rock County									
10 NW Newport	16	1410CST			0	0	10K	3K	Hail (1.75)
Keya Paha County									
17 E Springview	16	1418CST			0	0	5K		Hail (1.00)
Boyd County									
8 WNW Naper	16	1445CST			0	0			Hail (0.88)
Rock County									
5 N Newport to 5 NE Newport	16	1450CST			0	0			Hail (0.75)
Holt County									
8 NE Stuart	16	1520CST			0	0			Hail (0.75)
Rock County									
5 N Newport	16	1520CST			0	0			Hail (0.88)
Holt County									
9 NW Atkinson	16	1550CST			0	0	15K	5K	Hail (1.75)

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>NEBRASKA, Central</u>									
Rock County									
9 NW Newport to 7 N Newport	16	1615CST			0	0	10K	2K	Hail (1.50)
Holt County									
1 N O Neill	16	1639CST			0	0	24K	6K	Hail (1.75)
Holt County									
O Neill	16	1640CST			0	0			Thunderstorm Wind (G52)
Rock County									
7 N Newport	16	1608CST 1721CST			0	0	250K	100K	Flash Flood
Thunderstorms which slowed and began back building across parts of Northern Rock county resulted in flash flooding. Culverts and bridges were washed out as storms began to train with torrential rainfall over a 3.5 hour period. Rainfall up to 8 inches was indicated on the KLNK WSR-88D 3 hour precipitation graphic. The Department of Roads reported a close 7.7 inches of rainfall as of 1630 pm CST. The excessive rains resulted in increased runoff with over 2 feet of water flowing over roadways 7 miles north of Newport, on Highway 137, by 1608 PM CST and water over Highway 20, 8 miles west of Bassett, by 1720 pm CST as thunderstorms redeveloped to the west.									
Rock County									
11 NNE Newport	16	1630CST			0	0	10K	20K	Hail (1.00)
Holt County									
4 E O Neill	16	1645CST			0	0	25K	25K	Tornado (F0)
A brief touchdown which destroyed grain bins was reported.									
Holt County									
1 E O Neill	16	1649CST			0	0	15K	240K	Hail (1.75)
Holt County									
16 E O Neill	16	1710CST			0	0			Hail (0.75)
Holt County									
6 ENE Page	16	1730CST			0	0	16K	35K	Hail (1.75)
Holt County									
Ewing	16	1754CST			0	0	55K	18K	Thunderstorm Wind
Power lines and poles were blown down.									
Holt County									
1 N Ewing	16	1800CST			0	0	6K	5K	Hail (1.75)
Holt County									
2 SE Ewing	16	1800CST			0	0	6K	5K	Hail (1.75)
Holt County									
1 SE Ewing to 2 SE Ewing	16	1815CST			0	0	35K		Thunderstorm Wind (G62)
Strong winds destroyed a barn and grain bin and damaged a machine shed. Over 100 trees were damaged while over 25 trees were uprooted. Some trees fell and blocked the road.									
Holt County									
7 SW Ewing	16	1900CST			0	0			Hail (0.88)
Wheeler County									
12 SE Bartlett	16	2020CST			0	0			Hail (0.88)
Cherry County									
11 NW Wood Lake	17	1220CST			0	0	6K		Hail (1.25)
Keya Paha County									
19 W Springview	17	1245CST			0	0			Hail (0.75)
Rock County									
2 N Rose	17	1620CST			0	0	10K	6K	Hail (1.75)
Rock County									
3 NE Rose	17	1645CST			0	0	12K	6K	Hail (2.75)
Rock County									
11 E Rose	17	1658CST			0	0			Hail (0.88)
Rock County									
12 SE Rose	17	1720CST			0	0	6K		Hail (1.25)
Holt County									
14 SW Amelia	17	1740CST			0	0			Hail (0.88)

Storm Data and Unusual Weather Phenomena

July 2001

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									
Loup County									
17 NE Taylor	17	1750CST			0	0	10K	6K	Hail (1.75)
Garfield County									
20 N Burwell	17	1810CST			0	0	10K	6K	Hail (1.75)
Loup County									
15 NNE Taylor	17	1812CST 1815CST			0	0			Tornado (F0)
A brief tornado touchdown occurred northeast of Taylor on the south side of Calamus Reservoir over open rangeland. No damage was reported.									
Holt County									
3 S Chambers to 6 SE Chambers	17	1814CST 1907CST			0	0			Tornado (F0)
The tornado touched down 3 miles south of Chambers and preceded slowly southeast. No damage was reported as the tornado tracked to near Highway 281, 6 miles southeast of Chambers, before lifting.									
Loup County									
17 NNE Taylor	17	1815CST			0	0	15K	8K	Hail (2.75)
Loup County									
17 NNE Taylor to 16 NE Taylor	17	1820CST 1855CST			0	0	50K	6K	Tornado (F0)
As the supercell continued to track northeast and intensify, a second tornado touched down on the north side of the reservoir about 17 miles north northeast of Taylor. The second tornado was larger and longer lived as it moved across open rangeland. Four windmills were destroyed and 36 cattle were instantly killed. An additional 14 cattle were destroyed due to injuries. The tornado lifted as it moved toward the Loup and Garfield county line on the north side of Calamus Reservoir.									
Holt County									
1 S Chambers	17	1844CST			0	0	6K		Hail (1.75)
Garfield County									
15 N Burwell	17	1849CST			0	0	12K	8K	Hail (2.50)
Garfield County									
6 NE Burwell	17	1855CST			0	0			Tornado (F0)
A tornado touched down briefly 6 miles northeast of Burwell in open rangeland with no damage.									
Garfield County									
9 N Burwell	17	1920CST			0	0			Hail (0.88)
Garfield County									
11 NNE Burwell	17	1950CST			0	0	12K	8K	Hail (2.00)
Hail of various sizes fell for half an hour.									
Garfield County									
11 NE Burwell	17	2005CST			0	0	10K	6K	Hail (1.50)
Garfield County									
11 NE Burwell	17	2115CST			0	0	8K	4K	Hail (1.00)
Hayes County									
12 W Hayes Center	19	1805CST			0	0			Hail (0.75)
Keith County									
5 NNE Paxton	19	1830MST			0	0			Hail (0.75)
Keith County									
18 NW Ogallala	19	1843MST			0	0			Thunderstorm Wind (G62)
Tree branches up to 5 inches in diameter were broken.									
Keith County									
7 NW Ogallala	19	1910MST			0	0	15K		Thunderstorm Wind (G62)
Strong winds overturned several boats on Lake McConaughy.									
Keith County									
18 NW Ogallala	19	1915MST			0	0			Thunderstorm Wind (G62)
Tree branches up to 5 inches in diameter were broken.									
Lincoln County									
Maxwell	19	2050CST			0	0	15K		Thunderstorm Wind
Strong winds tore off part of a garage roof.									
Lincoln County									
4 NE Maxwell	19	2105CST			0	0			Thunderstorm Wind (G62)
Numerous 8 inch diameter limbs were down.									

Storm Data and Unusual Weather Phenomena

July 2001

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									
Hayes County									
7 ESE Hayes Center	20	1600CST			0	0			Hail (0.75)
Frontier County									
7 S Stockville	20	1635CST			0	0			Thunderstorm Wind (G62)
			Strong winds tore the top half of large tree off.						
Garden County									
1 N Lisco	21	1415MST			0	0			Thunderstorm Wind (G52)
			Tree limbs to 10 inch diameter down.						
Rock County									
6 W Rose	21	1815CST			0	0			Hail (0.75)
Cherry County									
2 E Crookston	21	1830CST			0	0	5K	2K	Hail (1.00)
Cherry County									
1 E Valentine	21	1900CST			0	0			Thunderstorm Wind (G62)
Cherry County									
4 NW Brownlee	21	2130CST			0	0			Thunderstorm Wind (G52)
			Several 5 inch diameter limbs down.						
Holt County									
5 SW Amelia	22	1555CST			0	0			Hail (0.75)
Holt County									
Chambers	22	1623CST			0	0			Hail (0.75)
Custer County									
22 W Oconto	22	1625CST			0	0			Hail (0.88)
Lincoln County									
7 E Brady	22	1715CST			0	0			Hail (0.75)
Lincoln County									
11 ENE Wellfleet	22	1725CST			0	0			Thunderstorm Wind (G52)
			Tree limbs up to 6 inches in diameter were down.						
Mepherston County									
10 N Ringgold	22	1955CST			0	0			Thunderstorm Wind (G52)
Deuel County									
Chappell	23	1505MST			0	0			Hail (0.88)
Deuel County									
Chappell	23	1510MST			0	0	10K	35K	Hail (1.75)
Perkins County									
Elsie	23	1535MST			0	0			Hail (0.75)
Perkins County									
Madrid	23	1538MST			0	0			Thunderstorm Wind (G52)
			Large trees were down.						
Chase County									
7 NNW Lamar	23	1545MST			0	0			Hail (0.75)
Perkins County									
3 SSW Elsie	23	1545MST			0	0			Thunderstorm Wind (G62)
Perkins County									
4 S Venango	23	1545MST			0	0	8K	2K	Hail (1.00)
Lincoln County									
14 N North Platte	23	1625CST			0	0			Hail (0.75)
Logan County									
6 N Stapleton	23	1630CST			0	0			Hail (0.75)
Chase County									
9 N Imperial	23	1700MST			0	0			Thunderstorm Wind (G52)
Lincoln County									
5 SE North Platte	23	1700CST			0	0			Thunderstorm Wind (G52)
			A large tree was down as well as several 4 inch diameter limbs.						
Perkins County									
8 S Madrid to 8 W Madrid	23	1700MST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 2001

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									
Perkins County									
8 S Madrid	23	1700MST			0	0			Thunderstorm Wind (G52)
Custer County									
6 W Callaway	23	1910MST			0	0			Hail (0.75)
Custer County									
6 W Callaway	23	1910CST			0	0			Thunderstorm Wind (G52)
Cherry County									
16 SSW Cody	24	1945MST			0	0			Hail (0.75)
Cherry County									
8 ENE Merriman	25	1825MST			0	0	25K		Hail (2.75)
Cherry County									
4 N Merriman to 5 NE Merriman	25	1825MST			0	0	15K		Thunderstorm Wind (G52)
Siding on a house was damaged and windows were broken. Several large tree limbs were down.									
Cherry County									
2 SE Merriman to 7 S Eli	25	1830MST 1852MST			0	0	115K	75K	Tornado (F0)
A tornado touched down 2 miles southeast of Merriman and moved southeast to 7 miles south of Eli before lifting. Trees were uprooted and windows were broken out of a house. Extensive damage was done to popcorn crops and alfalfa hay fields. Nine center pivot irrigation systems were destroyed. A stretch of power lines was snapped off along highway 20 and also along a road south of Eli as the tornado moved southeast.									
Cherry County									
8 S Merriman	25	1840MST			0	0			Thunderstorm Wind (G52)
Cherry County									
Eli	25	1852MST			0	0			Thunderstorm Wind (G62)
Cherry County									
18 SSW Cody	25	1925MST			0	0	8K		Hail (1.00)
Cherry County									
30 S Cody	25	1945MST			0	0			Hail (0.75)
Cherry County									
48 S Eli to 64 SE Eli	26 27	1140MST 0304MST			0	0	39K		Flash Flood
An extended period of rainfall resulted in flash flooding along Calf Creek located in Southwest Cherry county as runoff increased. Storm total precipitation for the period indicated 7.1 inches of rainfall on the North Platte radar. The public reported a total of 7 inches with several culverts washed out.									
Perkins County									
6 E Venango	26	1715MST			0	0			Hail (0.88)
Keya Paha County									
19 NW Springview	28	2130CST			0	0	8K		Hail (1.00)
Small tree limbs down.									
Keith County									
18 NNW Brule	29	1440MST			0	0			Hail (0.88)
Keith County									
10 W Lemoyne	29	1540MST			0	0	8K		Hail (1.75)
Deuel County									
11 NNW Big Spgs	29	1650MST			0	0			Hail (0.88)
Keith County									
11 NW Brule	29	1705MST			0	0			Hail (0.75)
Keith County									
Ogallala	29	1714MST			0	1			Lightning
Lightning struck a woman as she walked past a utility pole during a thunderstorm. The woman was knocked to the ground. She was taken to the hospital but then released with no serious injuries.									
Keith County									
6 NW Ogallala	29	1727MST			0	0			Hail (0.75)
Brown County									
12 NW Ainsworth	29	1730CST			0	0			Hail (0.88)
Brown County									
3 N Ainsworth	29	1735CST			0	0	6K		Hail (1.00)

Storm Data and Unusual Weather Phenomena

July 2001

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									
Lincoln County									
5 N North Platte	29	1810CST			0	0			Thunderstorm Wind (G52)
Lincoln County									
15 N North Platte	29	1837CST			0	0			Hail (0.88)
Lincoln County									
15 N North Platte	29	1850CST			0	0			Hail (0.75)
Rock County									
14 NNE Rose	29	1850CST			0	0			Hail (0.75)
Keith County									
2 NE Roscoe	29	1900CST			0	0			Hail (0.75)
Brown County									
5 WNW Ainsworth	29	1915CST			0	0	8K		Hail (1.00)
Custer County									
15 W Callaway	29	2004CST			0	0			Hail (0.75)
Holt County									
5 SW Amelia	29	2005CST			0	0			Hail (0.75)
Lincoln County									
3 S Sutherland	29	2008CST			0	0	20K	4K	Hail (1.75)
Keya Paha County									
19 W Springview	29	2010CST			0	0	9K	3K	Hail (1.75)
Rock County									
12 ESE Rose	29	2010CST			0	0			Hail (0.75)
Custer County									
4 SW Oconto	29	2015CST			0	0			Thunderstorm Wind (G70)
Wheeler County									
5 S Bartlett	29	2114CST			0	0			Thunderstorm Wind (G52)
Large tree limbs down.									
Keya Paha County									
2 S Springview	30	0530CST			0	0			Hail (0.75)
Rock County									
6 NNE Bassett to 6 NN Bassett	30	0555CST			0	0			Hail (0.88)
Lincoln County									
15 NE North Platte	31	1559CST			0	0			Thunderstorm Wind (G52)
Lincoln County									
15 NE North Platte	31	1605CST			0	0			Thunderstorm Wind (G52)
Lincoln County									
1 W Brady	31	1655CST			0	0			Thunderstorm Wind (G52)
Logan County									
16 NE Stapleton	31	1655CST			0	0			Thunderstorm Wind (G52)
Hayes County									
13 WNW Hayes Center	31	1611CST			0	0			Thunderstorm Wind (G52)
Brown County									
3 W Ainsworth	31	1730CST			0	0			Thunderstorm Wind (G61)
Tree limbs up to 4 inches in diameter were down.									
Brown County									
4 SW Ainsworth	31	1730CST			0	0			Thunderstorm Wind (G52)
Tree limbs up to 3 inches in diameter were down.									
Brown County									
Ainsworth	31	1737CST			0	0			Thunderstorm Wind (G61)
Widespread power outages and extensive tree damage were reported in the city of Ainsworth.									
Custer County									
8 NE Arnold	31	1740CST			0	0			Hail (0.75)
Brown County									
Ainsworth	31	1745CST			0	0	15K		Thunderstorm Wind (G61)
Strong winds damaged a covered porch and downed several tree limbs.									

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>NEBRASKA, Central</u>									
Brown County									
4 SW Ainsworth	31	1757CST			0	0			Hail (0.88)
Lincoln County									
10 S North Platte	31	1819CST			0	0			Thunderstorm Wind (G64) ^M
Lincoln County									
10 S North Platte	31	1820CST			0	0			Thunderstorm Wind (G68) ^M
Rock County									
5 N Bassett	31	1825CST			0	0			Thunderstorm Wind (G52)
Numerous large tree limbs down.									
Lincoln County									
10 S North Platte	31	1831CST			0	0			Thunderstorm Wind (G73) ^M
Lincoln County									
10 S North Platte	31	1831CST 1850CST			0	0	60K		Thunderstorm Wind (G73)
Strong winds channeled under garage doors which were left open nearly a foot. The winds tore off the roof over the garage and master bedroom area and caused structural damage to the garage walls. The winds then exited through the soffits over the covered porch on backside of the house. Heavy rain accompanied the storm which caused water damage to the master bedroom and bath and the partially exposed kitchen.									
Lincoln County									
6 E Brady	31	1850CST			0	0	80K		Thunderstorm Wind (G73)
Strong winds to near 90 mph caused a Union Pacific train derailment on the Lincoln and Dawson county line. The derailment of 13 cars caused 200 feet of track to be destroyed with bedrock damaged on the north tracks. Large tree limbs were also down.									
Brown County									
6 N Long Pine	31	1810CST 1835CST			0	0			Thunderstorm Wind (G61)
Power lines and large tree branches down.									
Rock County									
4 N Bassett	31	1845CST			0	0			Thunderstorm Wind (G69)
Holt County									
14 N Stuart	31	1850CST			0	0			Thunderstorm Wind (G52)
Boyd County									
6 W Butte	31	1908CST			0	0			Thunderstorm Wind (G52)
Custer County									
2 E Westerville	31	1915CST			0	0			Thunderstorm Wind (G61)
Boyd County									
4 N Bristow	31	1950CST			0	0			Thunderstorm Wind (G52)
Holt County									
9 NNW O Neill	31	2015CST			0	0			Thunderstorm Wind (G52)
<u>NEBRASKA, East</u>									
Madison County									
Tilden	01	0510CST			0	0			Hail (1.00)
Knox County									
Creighton	02	0058CST			0	0			Hail (0.88)
Antelope County									
2 W Orchard	02	2058CST			0	0			Hail (0.75)
Knox County									
5 E Niobrara	02	2109CST			0	0			Hail (1.00)
Pierce County									
2 N Pierce	02	2200CST			0	0			Hail (0.88)
Hail up to nickel size caused extensive damage to grapes at a vineyard near Pierce.									
Knox County									
Wausa	02	2210CST			0	0			Hail (0.88)
The hail caused quite a bit of crop damage near town and the rain washed it into 2 foot drifts where were still around the next afternoon.									
Knox County									
Bloomfield	02	2230CST			0	0			Hail (0.88)
Antelope County									
1 W Clearwater	03	0034CST			0	0			Hail (1.00)

Storm Data and Unusual Weather Phenomena

July 2001

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									
Antelope County									
Neligh	03	0046CST			0	0			Hail (1.00)
Antelope County									
Tilden	03	0120CST			0	0			Thunderstorm Wind (G55)
Thunderstorm winds downed tree limbs and power lines between Battle Creek and Tilden.									
Douglas County									
14 WSW Omaha	03	0240CST			0	0			Hail (1.75)
Nemaha County									
5 SW Brownville	03	1619CST			0	0			Hail (0.75)
Knox County									
Crofton	07	0651CST			0	0			Thunderstorm Wind (G55)
A Ham radio operator estimated a thunderstorm wind gust of 65 mph which snapped several large trees in town.									
Knox County									
Santee	07	0651CST			0	0			Thunderstorm Wind (G55)
Thunderstorm wind gusts over 60 mph downed large tree limbs and broke a few windows on homes in Santee.									
Cedar County									
8 NW Hartington to Hartington	07	0705CST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds broke large tree limbs and uprooted trees from northwest of Hartington into Hartington.									
Wayne County									
Wayne	08	0455CST			0	0			Thunderstorm Wind (G50)
A thunderstorm wind gust estimated at around 60 mph blew part of a tree down.									
Cedar County									
Coleridge	08	1535CST			0	0			Hail (0.75)
Cedar County									
2 S Coleridge	08	1535CST			0	0			Tornado (F0)
A storm chaser caught a brief tornado touchdown on film. The tornado was very narrow and briefly touched down in open country causing no damage.									
Cedar County									
Randolph	08	1620CST			0	0			Hail (0.75)
The hail was accompanied by thunderstorm wind gusts estimated at between 50 and 60 mph.									
Gage County									
Barneston	12	0000CST			0	0			Hail (0.75)
Gage County									
3 S Beatrice	12	0045CST			0	0			Hail (0.75)
Antelope County									
5 NW Neligh	16	1813CST			0	0			Hail (0.75)
Antelope County									
11 NW Neligh to 9 N Neligh	16	1815CST 1818CST			0	0			Tornado (F0)
An apparent tornado tracked across rural areas of northern Antelope county. The tornado uprooted 25 to 30 trees and caused major damage to 100 others. A machine shed was also destroyed and power poles were snapped off.									
Antelope County									
2 N Clearwater	16	1836CST			0	0			Hail (1.00)
Knox County									
15 W Creighton	16	1845CST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds downed 4 to 8 inch diameter tree limbs.									
Antelope County									
4 W Neligh	16	1852CST			0	0			Hail (1.00)
Antelope County									
North Portion	16	1920CST 2100CST			0	0			Flash Flood
Heavy rain flooded county roads in the northern half of Antelope county.									
Antelope County									
Oakdale	16	1940CST			0	0			Hail (1.00)
Antelope County									
Oakdale	16	1950CST			0	0			Thunderstorm Wind (G60)
A thunderstorm wind gust of around 70 mph was reported by a law enforcement official.									

Storm Data and Unusual Weather Phenomena

July 2001

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									
Antelope County									
5 NNW Elgin	16	1950CST			0	0			Tornado (F0)
Brief tornado touchdown in open country, reported by a law enforcement official.									
Cedar County									
Laurel	16	2015CST			0	0			Thunderstorm Wind (G60)
Thunderstorm winds estimated at over 60 mph downed trees and power lines in Laurel.									
Madison County									
5 NE Newman Grove to 10 ENE Newman Grove	16	2030CST 2040CST			0	0	2.5M		Hail (1.00)
The same supercell that produced the tornado west of Madison, as well as the flash flooding in western Madison county, also produced a large amount of hail up to one inch in diameter. The hail, strong winds and heavy rain damaged between 40 and 70 percent of crops in a 3 mile wide by 8 mile long swath of farmland northeast of Newman Grove. The total damage affected around 86,000 acres of crops, mainly corn and soybeans.									
Madison County									
16 W Madison	16	2040CST 2041CST			0	0	75K		Tornado (F1)
Law enforcement reported a tornado west of Madison which downed power lines and destroyed a few grain bins. The tornado also demolished a garage and car as well overturning a center pivot irrigation system.									
Boone County									
3 N Albion	16	2050CST			0	0			Hail (1.00)
Platte County									
Lindsay	16	2100CST			0	0			Thunderstorm Wind (G55)
Tree damage was reported by law enforcement officials in Lindsay from thunderstorm wind gusts estimated at over 60 mph.									
Madison County									
West Portion	16	2120CST 2200CST			0	0			Flash Flood
Rainfall of 2 to 3 inches in a few hours washed out several county roads from Meadow Grove toward Newman Grove.									
Colfax County									
5 W Clarkson	16	2138CST			0	0			Hail (0.75)
Dodge County									
Scribner	16	2230CST			0	0			Hail (0.75)
Dodge County									
North Bend	17	0022CST			0	0			Hail (0.75)
Douglas County									
Omaha	17	1730CST			1	0			Lightning
A 46 year old man was killed when lightning struck him while he was riding alone on a bike trail in central Omaha. The lightning came from a high based thunderstorm that was producing occasional cloud to ground lighting but little rainfall as it tracked east across the city. M46OU									
Dodge County									
Nickerson	17	2000CST			0	0			Hail (1.00)
Dodge County									
4 W Nickerson	17	2115CST			0	0			Hail (1.75)
Hail as large as golfball size fell to the northeast of Fremont. The hail caused a significant amount of crop damage according to a local Co-op manager.									
Dodge County									
Fremont	17	2120CST 2125CST			0	0			Hail (1.75)
Dodge County									
Fremont	17	2120CST 2125CST			0	0			Thunderstorm Wind (G53) ^M
A supercell thunderstorm produced large hail and damaging winds across a large part of Fremont. Most of the damage was caused by large trees and tree limbs that were broken or uprooted. The wind was measured at 61 mph at the Awos in Fremont, but much stronger gusts were quite likely in town. According to the Fremont Dept. of Utilities it was the worst storm damage to hit the town since an ice storm in the mid 1990s.									
Saunders County									
5 N Leshara	17	2130CST			0	0	30K		Thunderstorm Wind (G50)
Thunderstorm winds knocked over a large tree onto a cabin in the Woodcliff area south of Fremont.									

Storm Data and Unusual Weather Phenomena

July 2001

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									
Washington County									
Blair	17	2135CST			0	0			Hail (0.75)
Douglas County									
Omaha	17	2153CST 2237CST			0	0			Thunderstorm Wind (G61) ^M
A supercell thunderstorm tracked across Douglas county and the greater Omaha area producing widespread wind gusts of 50 to 70 mph. These strong winds downed some power poles and trees as well as blew around a lot of outdoor furniture throughout the central and northern sections of the city. The storm produced a wind gust to around 70 mph at Eppley Airfield. The storm was also accompanied by hail up to golfball size and continuous lightning which caused several house and garage fires. The storm also knocked power out to 30,000 OPPD customers.									
Douglas County									
Omaha	17	2153CST			0	0			Hail (1.75)
Although large hail was not widespread with the supercell that produced the wind damage to Omaha this evening, a few reports of golfball size hail was reported in the far northwest part of the city.									
Jefferson County									
2 NW Reynolds to 1 E Harbine	18	1811CST 1857CST			0	0	500K		Thunderstorm Wind (G70)
A supercell thunderstorm produced a 20 mile long path of damage due to downburst winds across Jefferson county. The winds were estimated at between 80 and 90 mph. The winds toppled trees and damaged roofs and windows most significantly in a 3 block wide swath in southern Fairbury. Power poles were snapped and several sheds and garages were also destroyed in this area. In rural areas there were center pivot irrigation systems and grain bins overturned as well as scattered tree damage.									
Gage County									
2 S Ellis	18	1855CST			0	0			Thunderstorm Wind (G60)
Thunderstorm winds estimated at around 70 mph downed trees south of Ellis. Reported by Emergency Management.									
Gage County									
Beatrice	18	1920CST			0	0			Thunderstorm Wind (G60)
Thunderstorm wind gusts downed trees and power lines in Beatrice.									
Gage County									
Virginia	18	1930CST			0	0			Thunderstorm Wind (G50)
Thunderstorm wind gust estimated at around 60 mph by a spotter. Tree limbs were downed.									
Richardson County									
4 SW Falls City	19	0700CST 0845CST			0	0			Flash Flood
Heavy rainfall in Richardson county, radar estimated over 3 inches in some locations, caused flash flooding along Walnut Creek southeast of Falls City. The flood waters affected mainly rural lowlands but did flood a county road near town.									
NEZ093									
Richardson	19	0730CST 1600CST			0	0			Flood
Radar estimated that over 3 inches of rain fell across parts of Richardson county during the early morning hours of the 19th. Besides flooding ditches and a few tributaries of the Big Nemaha River, the River itself flooded, reaching a crest of 27 feet at Falls City at 1130 am on 7/19/01. Flood stage is 23 feet. The flooding affected mainly crop lands in low areas.									
Gage County									
Beatrice	28	0100CST 0200CST			0	0			Flash Flood
Heavy rains caused significant street flooding in Beatrice.									
Richardson County									
Falls City	28	0100CST 0145CST			0	0			Flash Flood
Heavy rain caused flooding of county roads near Falls City.									
NEZ034-044>045-050>052-065>068-078-088>093									
Burt - Dodge - Washington - Butler - Saunders - Douglas - Seward - Lancaster - Cass - Otoe - Saline - Jefferson - Gage - Johnson - Nemaha - Pawnee - Richardson	28	1800CST			1	0			Excessive Heat
	31	2359CST							
A heat wave of which lasted over 1 week affected much of eastern Nebraska and southwest Iowa from late July into early August. The heat was finally broken by a cold front that pushed afternoon temperatures down into the 80s on 8/09/01. During the heat wave, high temperatures were consistently in the mid to upper 90s with overnight lows in the mid to upper 70s. The dewpoints were also very high, often times in the mid 70s and even around 80 or in the lower 80s. The heat index during this time frequently reached 105 to 115 degrees from mid afternoon into early evening. The extreme heat caused a 39 year-old male to die of heat stroke while on a work-release construction site near Beatrice on the 30th. M39OU									

Storm Data and Unusual Weather Phenomena

July 2001

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, East

Antelope County

Clearwater	29	2200CST			0	0			Thunderstorm Wind (G50)
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A law enforcement official estimated thunderstorm wind gusts of around 60 mph in Clearwater.

NEBRASKA, Extreme Northeast

Dixon County

Ponca	07	0730CST			0	0	20K		Thunderstorm Wind (G57)
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Thunderstorm winds blew down trees and large branches, resulting also in damage to vehicles.

Dakota County

4 NW Jackson	07	0740CST			0	0			Thunderstorm Wind (G52)
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Thunderstorm winds caused an unknown amount of tree damage.

Dixon County

2 NE Concord	16	2030CST			0	0			Thunderstorm Wind (G52)
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Dixon County

5 S Martinsburg	16	2040CST			0	0			Thunderstorm Wind (G52)
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Thunderstorm winds caused tree damage, including large branches down.

NEBRASKA, Extreme Southwest

Red Willow County

Mc Cook Arpt	01	1853MST			0	0			Thunderstorm Wind (G50) ^M
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Dundy County

20.6 NNW Haigler	04	2032MST			0	0			Thunderstorm Wind (G65)
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Dundy County

5 W Haigler	04	2045MST 2145MST			0	0			Thunderstorm Wind (G65)
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The strong winds created near zero visibility across western Dundy county.

Hitchcock County

10 N Stratton	12	1534MST			0	0			Thunderstorm Wind (G65)
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Hitchcock County

10 N Stratton	12	1545MST			0	0			Hail (1.00)
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Red Willow County

Mc Cook Arpt	17	1628MST			0	0			Thunderstorm Wind (G60) ^M
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Red Willow County

Mc Cook	17	1630MST			0	0			Hail (0.75)
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Dundy County

2 E Benkelman	26	1832MST			0	0			Hail (0.75)
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Dundy County

2 E Benkelman to Max	26	1900MST 2300MST			0	0			Flash Flood
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Over 3.5 inches of rain fell in a very short duration resulting in washed out roads and bridges. Deep water also reported in the town of Benkelman making roads impassible.

NEBRASKA, South Central

Furnas County

Cambridge	05	0027CST			0	0	0	0	Hail (0.75)
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Valley County

Ord Arpt	08	0243CST			0	0	0	0	Thunderstorm Wind (G52) ^M
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Greeley County

Spalding	08	0315CST			0	0	0	0	Thunderstorm Wind (G52)
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Nuckolls County

3 SW Nelson	10	0215CST			0	0	0	0	Thunderstorm Wind (G50)
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Thayer County

Hubbell	18	1744CST			0	0	10K	100K	Thunderstorm Wind (G61)
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Thayer County

3 NE Hubbell to 5 NE Hubbell	18	1758CST 1804CST			0	0	50K	5K	Tornado (F1)
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A rural Hubbell man escaped injury by diving into a storage shed as a tornado approached. The tornado set down just before 7 pm CDT and destroyed about half of the building the man looked to for shelter. Fortunately, he was not in the destroyed portion of the building. The tornado set down for about 2 miles, but did little more than tree damage after hitting the farm.

Buffalo County

Amherst	22	2013CST			0	0	0	0	Thunderstorm Wind (G52)
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Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>NEBRASKA, South Central</u>									
Buffalo County									
Pleasanton	22	2030CST			0	0	5K	0	Thunderstorm Wind (G52)
Hall County									
Grand Is Arpt	22	2130CST			0	0	0	0	Thunderstorm Wind (G55) ^M
Merrick County									
Countywide	22	2130CST 2215CST			0	0	150K	500K	Thunderstorm Wind (G69)
Hamilton County									
3 SE Marquette	22	2140CST			0	0	40K	250K	Thunderstorm Wind (G69)
A quick moving severe thunderstorm produced 80 mph winds as it moved across Merrick county. Minor structural damage and widespread tree damage was reported. South of Central City, near Marquette in Hamilton county, a large storage shed was blown away on one farm. Earlier that evening, the same thunderstorm system knocked over trees, downed power lines and blew a Porta-Potty about three-quarters of a mile in northern Buffalo county.									
<u>NEBRASKA, West</u>									
Morrill County									
3 E Broadwater	01	1525MST 1530MST			0	0			Hail (1.50)
Morrill County									
Broadwater	01	1531MST 1535MST			0	0	40K		Hail (2.75)
Cheyenne County									
18 NE Sidney	01	1546MST 1550MST			0	0			Hail (0.75)
Cheyenne County									
6 NE Gurley	01	1547MST 1551MST			0	0			Hail (2.00)
Cheyenne County									
6 E Gurley	01	1555MST 1559MST			0	0			Hail (1.25)
Cheyenne County									
Sunol	01	1614MST 1617MST			0	0	25K		Hail (1.50)
Cheyenne County									
3 E Lorenzo	01	1623MST 1624MST			0	0			Tornado (F0)
Weak and very brief tornado reported by public.									
Cheyenne County									
10 SE Sidney	01	1645MST 1648MST			0	0			Hail (0.75)
Dawes County									
Chadron	04	0315MST 0322MST			0	0	50K		Hail (1.75)
Dawes County									
5 S Chadron	04	0327MST 0331MST			0	0			Hail (1.75)
Dawes County									
9 S Chadron	04	0330MST 0333MST			0	0			Hail (0.75)
3/4 inch hail reported at Chadron State Park.									
Dawes County									
12 SE Chadron	04	0352MST 0356MST			0	0			Hail (1.75)
Sioux County									
14 SE Agate	04	1637MST 1641MST			0	0	10K		Hail (2.75)
Box Butte County									
18 WNW Alliance	04	1652MST 1656MST			0	0			Hail (1.00)

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>NEBRASKA, West</u>									
Sioux County									
29 SE Agate	04	1718MST 1722MST			0	0			Hail (2.75)
Kimball County									
9 SE Kimball	04	1720MST 1725MST			0	0			Hail (1.75)
Scotts Bluff County									
Scottsbluff	04	1725MST 1730MST			0	0			Hail (1.75)
1.75 inch hail reported on north side of Scottsbluff, NE.									
Kimball County									
5 N Kimball	04	1731MST 1735MST			0	0			Hail (0.75)
Scotts Bluff County									
Scottsbluff	04	1741MST 1748MST			0	12	50M		Hail (3.00)
Large hail fell over parts of Scottsbluff, NE, damaging many cars and buildings as well as causing some minor injuries from broken glass.									
Scotts Bluff County									
Scottsbluff Arpt	04	1745MST 1746MST			0	0			Thunderstorm Wind (G51) ^M
Kimball County									
Kimball	04	1746MST 1749MST			0	0			Hail (0.75)
Scotts Bluff County									
Gering	04	1752MST 1756MST			0	0			Hail (1.75)
Scotts Bluff County									
Minatare	04	1823MST 1827MST			0	0	50K		Hail (2.00)
1 to 2 inch diameter hail reported.									
Banner County									
15 NE Harrisburg	04	1848MST 1853MST			0	0			Hail (1.25)
Scotts Bluff County									
Minatare	04	1955MST 1958MST			0	0			Hail (0.75)
Dawes County									
Crawford	04	2020MST 2040MST			0	1	100K		Thunderstorm Wind (G61)
Estimated 70 mph thunderstorm winds uprooted some trees and knocked out power in Crawford.									
Kimball County									
18 S Bushnell	07	1808MST 1813MST			0	0			Hail (1.75)
Box Butte County									
5 W Alliance	07	1847MST 1853MST			0	0			Hail (1.00)
Dawes County									
(Cdr)Chadron Arpt	09	2014MST			0	0			Thunderstorm Wind (G50) ^M
<u>NEVADA, North</u>									
Humboldt County									
Mc Dermitt	04	1630PST 1633PST			0	0			Thunderstorm Wind (G61)
Weather spotter reported wind gust of 70 mph.									
Elko County									
32 SW White Rock	05	1500PST			0	0			Thunderstorm Wind (G57) ^M
Elko County									
Mountain City	05	1635PST			0	0			Hail (1.00)

Storm Data and Unusual Weather Phenomena

July 2001

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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NEVADA, North

A severe thunderstorm produced wind gusts to 66 mph at the Antelope Lake Raws then dropped 1 inch diameter hail in Mountain City.

Lander County

40 NW Austin

05	1600PST								Thunderstorm Wind (G52) ^M
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Red Butte Raws reported a wind gust to 60 mph.

Elko County

6 S Contact

05	1715PST								Hail (0.75)
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Lander County

4 SE Battle Mtn

10	1950PST								Thunderstorm Wind (G52) ^M
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Humboldt County

20 S Orovada to
Orovada

11	2015PST								Thunderstorm Wind (G54) ^M
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Severe thunderstorm winds knocked down numerous highway signs along highway 95 around 20 miles south of Orovada. This same storm also produced a wind gust to 63 mph at the Morey Creek Raws site 6 miles southwest of Paradise Valley. As the storm moved through Orovada a farmer reported his hay crop destroyed.

NEVADA, South

NVZ017

Western Clark/Southern Nye

02	0535PST					25K			High Wind (G54) ^M
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Strong thunderstorm outflow winds flattened a home that was under construction. Several trees nearby were also knocked down due to the winds.

NVZ017

Western Clark/Southern Nye

02	1700PST					5K			High Wind (G61)
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Strong thunderstorm outflow winds caused a 50-foot elm tree to topple into a residential backyard. The tree did minor damage to the stucco wall and some backyard furniture. Strong winds also blew a metal shed into power lines causing blackouts that lasted a couple of hours. Another home received minor damage when the chimney was knocked off the roof.

Clark County

Glendale

05	2025PST								Flash Flood
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Heavy rains from thunderstorms produced flash flooding over parts of Mohave county. Area washes were running around a foot deep and some flooding was reported on area roads.

Clark County

Jean

06	1330PST								Flash Flood
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Heavy rain from thunderstorms produced 1.38 inches of rain in an hour. Significant flooding of area roads was noted.

Clark County

Las Vegas

06	1445PST								Flash Flood
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Strong thunderstorms produced heavy rain across much of the Las Vegas valley. Many roads around town were flooded and impassable.

Clark County

Henderson

06	1530PST					10K			Flash Flood
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Heavy rain from strong thunderstorms closed many roads throughout Henderson. 1.22 inches of rain was recorded in an hour and several motorists were stranded after their car engines stalled.

Clark County

West Central Portion

07	1330PST								Flash Flood
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Strong thunderstorms produced heavy rain which closed Spring Mountain Ranch State Park. The park service recorded 1.38 inches of rain in a two hour period.

NEVADA, West

Douglas County

Minden

03	1530PST					2K			Lightning
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Newspaper report of lightning hitting a house in Minden. Several electrical appliances were damaged beyond repair.

Douglas County

Genoa

03	1600PST								Wild/Forest Fire
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Spotter report of dry lightning that started a wildfire near Genoa. No injuries or damaged was reported.

Washoe County

Reno

03	1600PST								Wild/Forest Fire
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Nevada Highway Patrol, Washoe County Sheriff and Reno Police Department all reported several lightning sparked fires. No reports of injury or damage.

Lyon County

Dayton

11	1551PST								Hail (1.00)
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Spotter report of 1 inch and larger hail covering the ground.

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
<u>NEVADA, West</u>									
Washoe County									
Sparks	11	1645PST			0	0	0		Hail (1.10)
	Spotter report of 1 and 1/8 inch hail. No damage or injuries were reported.								
Washoe County									
Sparks	11	1700PST			0	0	0		Hail (1.50)
	A National Weather Service Employee family member reported 1 1/2 inch hail in Spanish Springs.								
Washoe County									
Sparks	11	1710PST			0	0	0		Hail (1.00)
	A National Weather Service employee family member reported 1 inch hail in Sparks. No damage or injuries were reported.								
NVZ004									
Western Nevada Basin And Range									
	11	1722PST			0	0	0		High Wind (G51) ^M
	ASOS unit at the Lovelock airport recorded sustained winds of 39 knots with gusts to 51 knots,								
Pershing County									
Lovelock	11	1853PST			0	0	100K		Thunderstorm Wind
	Nevada Highway Patrol reported two semi trucks were blown over in Lovelock. Westbound traffic was blocked for 2 hours. No injuries were reported and damage was estimated at \$100,000.								
<u>NEW HAMPSHIRE, North and Central</u>									
Belknap County									
Sanbornton to Belmont	01	1220EST			0	0			Thunderstorm Wind (G50)
	Winds from a severe thunderstorm knocked over trees in the towns of Sanbornton and Belmont. A large tree also fell on a home in Laconia.								
Belknap County									
Meredith	01	1255EST			0	0			Lightning
	Five people escaped serious injury when the boat in which they were riding was struck by lightning. Although the boat was damaged, none of the occupants required treatment.								
Rockingham County									
Newmarket	01	1422EST			0	0	75K		Lightning
	Lightning ignited a fire that damaged a home in Newmarket causing about \$75,000 in damage. The garage and apartment above it sustained the greatest damage.								
Rockingham County									
Salem	01	1442EST			0	0			Thunderstorm Wind (G50)
	Winds from a severe thunderstorm knocked over trees in the town of Salem. In addition, a lightning strike split off the top 20 feet of a tall pine tree which then crashed through the roof of a home, cut through the attic insulation, pierced the ceiling, and landed in the bedroom. In two other separate incidents, lightning struck two homes in Pelham, causing a small fire in one of the homes.								
Sullivan County									
Langdon	04	1958EST			0	0			Thunderstorm Wind (G50)
	Winds from a severe thunderstorm knocked down trees and wires in the town of Langdon.								
Strafford County									
Milton Mills	09	1600EST			0	0			Lightning
	Lightning struck and damaged the steeple of a historic church in the town of Milton Mills.								
Rockingham County									
Raymond	09	1635EST			0	0			Thunderstorm Wind (G50)
	Winds from a severe thunderstorm knocked trees onto wires in the town of Raymond.								
Rockingham County									
Kingston	09	1842EST			0	0			Thunderstorm Wind (G50)
	Winds from a severe thunderstorm snapped several trees and downed branches in the town of Kingston. The falling trees and branches blocked roadways and damaged a home.								
Rockingham County									
Exeter	09	1850EST			0	0	50K		Lightning
	Lightning from a thunderstorm caused damage to several homes in the town of Exeter. Lightning struck one home, igniting a fire that reportedly caused \$50,000. in damage. Another lightning strike split apart a large tree that fell and caused damage to the roof and a hot tub of another home.								
Coos County									
Groveton	10	1215EST			0	0			Hail (1.00)
	A severe thunderstorm produced 1-inch hail in the town of Groveton.								
Strafford County									
Dover	12	1420EST			0	0			Hail (0.88)
	A severe thunderstorm produce dime- to nickel-sized hail in Dover. In some areas, the hail was deep enough to shovel.								

Storm Data and Unusual Weather Phenomena

July 2001

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

Cheshire County

Richmond	01	1325EST			0	0			Hail (0.75)
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Cheshire County

Richmond to Rindge	01	1325EST 1335EST			0	0			Thunderstorm Wind (G50)
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Hillsborough County

Manchester	01	1335EST			0	0			Hail (0.75)
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Severe thunderstorms knocked down trees in Richmond and Rindge, and dropped dime sized hail in Richmond and Manchester. About 4,500 electric customers were left without power as a result of the storms, most of them in the Nashua area.

NEW JERSEY, Northeast

Union County

Kenilworth to Linden	01	1502EST 1515EST			0	0			Thunderstorm Wind (G52)
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Bergen County

Ramsey	01	1555EST			0	0			Thunderstorm Wind (G50)
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On Sunday, July 1st, a strong cold front approached northern New Jersey from the northwest during the late afternoon hours. As this front clashed with a warm, moist and very unstable air mass already in place, strong to locally severe thunderstorms developed and moved east-southeast across portions of northeast New Jersey. Damaging winds in excess of 50 mph caused numerous large trees to topple, and led to scattered power outages. Fallen trees also caused several road closures, particularly from Roselle to Linden in Union County. In Linden, a large tree fell onto an occupied car. Fortunately, the occupant escaped without injury.

Frequent cloud to ground lightning strikes also accompanied these thunderstorms.

Passaic County

Wayne	11	0605EST			0	0			Thunderstorm Wind (G50)
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Bergen County

Saddle River to Carlstadt	11	0620EST 0635EST			0	1			Thunderstorm Wind (G52)
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During the morning hours of Wednesday, July 11th, a strong cold front swept across northern New Jersey. As this front clashed with moist and unstable air already in place, a line of strong to severe thunderstorms rapidly moved east-southeast across portions of northeast New Jersey. The line attained a "bow-echo" structure, which produced a swath of damaging winds and small hail across portions of Passaic and Bergen Counties in New Jersey. These damaging winds toppled numerous large trees onto power lines and roadways, which resulted in scattered power outages and road closures.

NEW JERSEY, South and Northwest

Warren County

Lower Harmony to Asbury	01	1355EST			0	0			Thunderstorm Wind (G52)
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A severe thunderstorm knocked down several trees in the southern part of Warren County. One house was also struck by lightning.

Hunterdon County

Holland	01	1405EST			0	0			Hail (1.75)
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Somerset County

Peapack	01	1430EST			0	0			Thunderstorm Wind (G52)
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A severe thunderstorm knocked down trees and wires across the northern part of Somerset County. The worst damage occurred in Peapack-Gladstone Borough.

Mercer County

Princeton	01	1430EST			0	2		0	Lightning
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Two twenty-two year old women were struck and injured by lightning when they took shelter under a tree in front of Laughlin Hall on the campus of Princeton University. Lightning apparently struck the tree and then them. One woman was struck in the left shoulder and critically (burned) injured. The other woman was treated and released from a local hospital.

Monmouth County

Wickatunk to Hazlet	01	1447EST 1505EST			0	0			Hail (1.50)
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A Skywarn Spotter reported that a severe thunderstorm dropped walnut size hail in Marlboro Township. A bit farther northeast in Hazlet Township, the same storm dropped dime to quarter size hail and produced wind gusts estimated to around 50 mph.

Sussex County

Myrtle Grove to Hopatcong	01	1515EST			0	0			Thunderstorm Wind (G57)
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A severe thunderstorm knocked down numerous trees and wires across the southeastern quarter of Sussex County. Power outages and downed trees were reported in Andover Borough, Andover Township, Hamburg Borough, Hampton Township, Hardyston Township, Hopatcong Borough, Newton Town and Sparta Township. Several roads were blocked and included roadways in

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		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property Damage	Crops	

NEW JERSEY, South and Northwest

Hamburg, Hardyston and Stockholm. About 4,200 homes and businesses lost power. Half of Sparta lost power. Power was fully restored around 5 p.m. EDT on the 3rd. Throughout the northern two thirds of New Jersey, GPU Energy reported about 20,000 customers lost power. Telephone service was also interrupted to about 50 homes in Sussex, Warren and Morris Counties. In addition lightning damaged telephone equipment in about 20 homes in Warren and Sussex Counties.

Warren County

Countywide	01	1530EST 1545EST	0	0	Thunderstorm Wind (G52)
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A severe thunderstorm knocked down numerous trees and wires across Warren County. Throughout the northern two thirds of New Jersey, GPU Energy reported about 20,000 customers lost power. All power was restored in Warren County by the evening of the 2nd. Telephone service was also interrupted to about 50 homes in Sussex, Warren and Morris Counties. In addition lightning damaged telephone equipment in about 20 homes in Warren and Sussex Counties.

Monmouth County

Strathmore	01	1530EST	0	0	Hail (0.75)
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Hunterdon County

Countywide	01	1535EST 1605EST	0	0	Thunderstorm Wind (G50)
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A severe thunderstorm knocked down numerous trees and wires across Hunterdon County. Throughout the northern two thirds of New Jersey, GPU Energy reported about 20,000 customers lost power. All power was restored in Hunterdon County by the evening of the 2nd.

Morris County

Dover to Morristown	01	1550EST	0	0	Thunderstorm Wind (G50)
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Morris County

Morristown	01	1550EST	0	0	0 Lightning
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A severe thunderstorm knocked down trees and power lines across central Morris County in Dover, Mendham and Morris Townships as well as in Morristown. A power substation in Morristown was struck and damaged by lightning. GPU Energy reported about 20,000 customers lost power across the northern two thirds of New Jersey. Power was completely restored in Morris County by the evening of the 2nd.

Middlesex County

East Brunswick	01	1628EST	0	0	Thunderstorm Wind (G52)
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A severe thunderstorm knocked down trees and power lines in Milltown Borough and East Brunswick Township.

Monmouth County

Holmdel	01	1635EST	0	0	Hail (1.75)
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Monmouth County

Keansburg	01	1635EST	0	0	Thunderstorm Wind (G50) ^M
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Monmouth County

Englishtown to Long Branch	01	1645EST 1715EST	0	0	Thunderstorm Wind (G56)
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Monmouth County

Tinton Falls	01	1653EST	0	0	0 Lightning
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A severe thunderstorm which was observed to have tornado-like clouds caused wind and/or lightning damage in about a dozen communities in Monmouth County. About 8,000 homes and businesses lost power in Monmouth and adjacent Ocean Counties because of the severe thunderstorm. Golf ball size hail fell in Holmdel Township. In Manalapan Township, two roads were closed by downed trees. One property owner in Middletown Township alone lost about eight trees. Numerous trees were knocked down in Atlantic Highlands Borough. The southern half of Deal Borough and all of Allenhurst Borough lost power. Several trees were knocked down in Oakhurst (Ocean Township), one damaged a house. Downed trees were also reported in Fair Haven Borough and Millstone Township. A lightning strike started a fire and damaged a home in Tinton Falls Borough. Another lightning strike set a pole on fire in Monmouth Beach Borough. A Coast Guard sensor in Keansburg Borough reported a measured wind gust of 58 mph.

Mercer County

Princeton	01	1640EST	0	0	Thunderstorm Wind (G52)
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A severe thunderstorm knocked down trees and power lines on two blocks in Princeton.

Burlington County

Countywide	01	1705EST 1725EST	0	0	Thunderstorm Wind (G52)
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A severe thunderstorm knocked down a few trees and power lines throughout Burlington County.

Burlington County

Jacobstown	01	1715EST	0	0	10K 0 Lightning
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Lightning struck the roof of a home in North Hanover Township. The stroke caused the home's electrical wiring to overheat and started a fire in the attic. Firefighters confined the fire to the attic.

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NEW JERSEY, South and Northwest

Ocean County

New Egypt to Island Hgts	01	1725EST 1740EST			0	0			Thunderstorm Wind (G52)
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A severe thunderstorm knocked down trees and power lines in Plumstead Township. Many power lines were knocked down within the township. Later that evening the same storm took down trees and power lines in Island Heights Borough and Toms River. One downed tree damaged a vehicle in Toms River. GPU Energy reported about 8,000 homes and businesses lost power in Ocean and neighboring Monmouth County.

Cumberland County

Countywide	04	0500EST 0700EST			0	0			Heavy Rain
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Atlantic County

Dorothy to Leeds Pt	04	0600EST 0800EST			0	0			Heavy Rain
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Ocean County

Beach Haven	04	0630EST 0830EST			0	0	0		Heavy Rain
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A line of thunderstorms with heavy downpours dropped heavy rain throughout most of Cumberland County. The heaviest rain then narrowed to a band in Atlantic County from Weymouth Township northeast through Galloway Township. This band also affected extreme southern Ocean County. Doppler Radar storm total estimates ranged between 1 and 3 inches, all of which fell in a two hour period. The heaviest rain affected sections of Hamilton, Galloway and Egg Harbor Townships in Atlantic County. In Beach Haven (Ocean County) about half a foot of water covered most roadways.

Ocean County

Beach Haven	04	1530EST			0	0	0		Lightning
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Lightning knocked out the pump to the Beach Haven water supply. There was a brief water outage on the 4th as the remaining water in the tower was drained before the pump was repaired.

Middlesex County

Woodbridge to Carteret	04	2000EST 2200EST			0	0	0		Heavy Rain
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Thunderstorms with heavy rain dropped a Doppler Radar storm total estimate of between 1 and 2 inches across the northern tier of Middlesex County during the evening of July 4th. The heavy rain caused poor drainage flooding on area roadways and caused the stranding of several cars.

Cape May County

Villas to Sea Isle City	04	2100EST 2300EST			0	0			Urban/Sml Stream Flo
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Thunderstorms with torrential downpours dropped a Doppler Radar storm total estimate of around 3 inches of rain within a two hour period in a narrow band across Cape May County from Villas northeast through Sea Isle City. Poor drainage flooding occurred with up to three feet of water accumulating in low lying areas.

Atlantic County

.3 E Atlantic City	04	2200EST			0	0	0		Lightning
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Lightning struck firework barges just east of Atlantic City. They caught fire, but no serious injuries were reported.

Atlantic County

Somers Pt to 1 SE Linwood	05	1710EST 1715EST			0	0	15K	0	Tornado (F1)
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An F1 tornado caused wind damage in Somers Point and Linwood. About six homes were damaged by the tornado. More than 30 trees were either uprooted or badly twisted. Electrical, telephone and cable wires were knocked down. Siding was ripped off several houses and one porch was badly damaged. At least one vehicle was damaged by downed trees. About 400 Conectiv customers lost power. Strongest winds were estimated at about 90 mph in Somers Point. The tornado apparently touched down as a waterspout over Patcong Creek and then moved into Somers Point. It crossed the Garden State Parkway near mile marker 30.4. The first observed wind damage were trees down on Bala Drive. Wind damage also occurred on Bucknell and Exton Roads. On Bucknell Road, a boat was tossed 90 feet into a neighbor's yard. The tornado traveled eastnortheast down Southview Drive across Chapman Boulevard. It was this location where it reached its maximum intensity, badly damaged a porch and uprooted several large trees. The tornado proceeded to move through Crestview Drive, across U.S. Route 9, Euclid Avenue and Abbey Road before entering Linwood near West Royal Drive. Trash cans were flying in circular motions. The last property damage occurred in Linwood near Candlewood Drive where a couple of bird house poles were bent and twisted. The tornado continued on the ground through the marshes before it dissipated as a waterspout over Scull Bay. The total path length was about 3.6 miles. The tornado was not on the ground its entire length. Its maximum width was about 100 yards. No serious injuries were reported.

Morris County

Flanders	05	1822EST			0	0			Thunderstorm Wind (G56)
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A severe thunderstorm knocked down many trees and power lines on Main Road and Donna Lane in Mount Olive Township.

Middlesex County

East Brunswick	07	2310EST			0	0	25K	0	Lightning
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		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	

NEW JERSEY, South and Northwest

Lightning struck a storage barn in East Brunswick. The ensuing blaze destroyed the building. The barn contained apple crates. No injuries were reported.

Salem County

Central Portion

10	1635EST			0	0				Thunderstorm Wind (G50)
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A severe thunderstorm knocked down a couple of trees and numerous limbs in Salem County. The most reported downed limbs were in Salem City.

Cumberland County

Seabrook

10	1650EST			0	0				Thunderstorm Wind (G52)
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Several trees, tree limbs and wires were knocked down by a severe thunderstorm in Upper Deerfield Township.

Warren County

Washington to Phillipsburg

10	1732EST			0	0				Thunderstorm Wind (G50)
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Warren County

Washington

10	1732EST 1740EST			0	0				Tstm Wind/Hail
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Large tree limbs and wires were pulled down by a severe thunderstorm in Washington Township and Phillipsburg. Small hail also fell with the thunderstorm.

Hunterdon County

Hampton to Oldwick

10	1740EST 1805EST			0	0				Thunderstorm Wind (G56)
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A severe thunderstorm knocked down numerous trees and power lines in the northern half of the county. Heavy rain also caused some roadway flooding. Downed trees were reported in Hampton Borough, Glen Gardener Borough, Califon Borough, Lebanon Borough, Clinton Township and Tewksbury Township.

Somerset County

Raritan

10	1825EST			0	0				Thunderstorm Wind (G50)
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A severe thunderstorm pulled down tree limbs and wires in Raritan Borough.

Middlesex County

New Brunswick

10	1845EST			0	0	15K	0		Lightning
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A lightning strike damaged a portion of the fire alarm system in the Middlesex County Courthouse. It made the alarm inaudible through parts of the building.

Warren County

Manunka Chunk

11	0515EST			0	0				Thunderstorm Wind (G52)
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A severe thunderstorm knocked down trees in White Township.

Sussex County

Branchville

11	0525EST			0	0				Thunderstorm Wind (G52)
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A severe thunderstorm tore down power lines and trees in Branchville Borough.

Ocean County

Waretown

11	1250EST			0	0				Hail (0.75)
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Ocean County

Beach Haven

11	1441EST			0	0	0	0		Funnel Cloud
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A funnel cloud was spotted over Beach Haven and the nearby Atlantic Ocean. No damage was reported as it apparently did not touch down.

Warren County

New Vlg

17	1945EST			0	0				Thunderstorm Wind (G50)
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A severe thunderstorm knocked down large limbs in Franklin Township.

Hunterdon County

Flemington

17	2030EST			0	0				Thunderstorm Wind (G52)
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A severe thunderstorm knocked down trees and wires in Flemington Borough and Union Township. Scattered power outages were also reported.

Burlington County

Wrightstown

17	2107EST			0	0				Thunderstorm Wind (G50)
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Ocean County

Toms River

18	0500EST			0	0	25K	0		Lightning
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A lightning strike ignited a fire in adjacent homes in the Money Island section of Dover Township. The fire damaged the contents of one home, while the fire was confined to the attic and roof of the second home. Frequent lightning caused power outages to about 1,600 homes and businesses in Ocean County.

Atlantic County

Brigantine to Longport

18	0500EST			0	1	0			Rip Currents
22	1700EST								

Storm Data and Unusual Weather Phenomena

July 2001

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

Cape May County

Ocean City to Cape May Pt	18 22	0500EST 1700EST			0 0	0 0	0 0	0 0	Rip Currents
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Monmouth County

Highland Beach to Manasquan	18 22	0500EST 1700EST			0 0	0 0	0 0	0 0	Rip Currents
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Ocean County

Pt Pleasant Beach to Beach Haven Hgts	18 22	0500EST 1700EST			0 0	0 0	0 0	0 0	Rip Currents
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NJZ014-024

Eastern Monmouth - Eastern Cape May

19	1800EST				0	0	0	0	Coastal Flooding
21	2300EST				0	0	0	0	

The combination of a weak low pressure system that traveled east off the Delmarva Coastal Waters on the 18th and 19th, a high pressure system that built into New England and then south toward the New Jersey Coast and spring tides caused by the new moon produced minor tidal flooding and rip currents along the New Jersey coast. Rip currents and rough surf occurred from Wednesday the 18th through Sunday the 22nd. They peaked on Friday the 20th. Cautionary bathing flags were posted up and down the shore as four to six foot waves were common. Minor tidal flooding occurred during the evening of the 19th (the highest in this cycle) in Monmouth and Cape May Counties and the two subsequent evenings in Cape May County. The highest tides were 7.30 feet above mean lower low water at Cape May City and 6.79 feet above mean lower low water at Sandy Hook around 8 p.m. EDT on the 19th. The rough surf caused at least one reported injury when a 41-year-old man dislocated his shoulder after his kayak overturned near Atlantic City.

NJZ008-010-012>013-012>022

Morris - Somerset - Middlesex - Western Monmouth - Mercer - Salem - Gloucester - Camden - Burlington - Western Ocean - Cumberland - Western Atlantic

24	1000EST				0	0	0	0	Excessive Heat
25	2000EST				0	0	0	0	

A hot and humid air mass pushed daytime high temperatures into the lower and middle 90s across much of central and southern New Jersey. Slightly cooler weather occurred near the shore and in northwest New Jersey. A cold front stalled across the region on the 26th. The clouds prevented temperatures from reaching the 90s again. This front slipped south of the region by the morning of the 27th. Highest temperatures included 97 degrees in Belle Mead (Somerset County) and Pennsauken (Camden County), 96 degrees in Iselin (Middlesex County), 95 degrees in Sandy Hook (Monmouth County), Chatham (Morris County) and Mount Holly (Burlington County), 94 degrees in New Brunswick (Middlesex County), Red Bank (Monmouth County) and West Deptford (Gloucester County), 93 degrees in Washington's Crossing (Mercer County) and 92 degrees at the Atlantic City International Airport.

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

31	2359EST				0	0	0	0	Unseasonably Cool
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July 2001 was an unseasonably cool month for the state of New Jersey. The preliminary statewide monthly mean temperature of 71.4 degrees was the 6th coolest July on record since 1895. The monthly mean temperature of 71.5 degrees at the Atlantic City International Airport set a new monthly record for the location. The previous record was 71.7 degrees set just last year.

NEW MEXICO, Central and North

Los Alamos County

Los Alamos	02	1620MST 1700MST			0	0	3.5M	0	Flash Flood
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A storm with heavy rain of 1 to 2 inches in an hour developed over Pueblo Canyon on the west edge of Los Alamos. Storm runoff from the burnt forest was brief, but intense with water and mud flows estimated at 1500 CFS which overwhelmed the inlet structure west of North Road and then breached the street 60 feet above. A 150 yard section of road surface was destroyed and one of the city's main sewer lines was undercut then broken. Debris fill the basement of at least 5 homes along Alabama Avenue.

Rio Arriba County

Espanola	02	1650MST			0	0	10K	0	Thunderstorm Wind
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Espanola police reported several utility poles downed during a strong thunderstorm.

Sandoval County

Sandia Pueblo	02	1815MST			0	0	20K	0	Thunderstorm Wind
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Sandoval County

Rio Rancho	02	1830MST			0	0	0	0	Thunderstorm Wind (G53) ^M
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Bernalillo County

Albuquerque	02	1900MST 1915MST			0	0	30K	0	Thunderstorm Wind
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Bernalillo County

Albuquerque	02	1900MST 1910MST			0	0	0	0	Thunderstorm Wind (G56)
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Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property Damage	Crops	
NEW MEXICO, Central and North									
Valencia County									
Los Lunas	02	1930MST 1940MST			0	0	20K		Thunderstorm Wind
									Strong thunderstorms moved south from the Jemez Mountains into the middle Rio Grande Valley with brief heavy rain, intense lightning and gusty winds of 45 to 65 mph. Several porch coverings and roofs were damaged or torn off at Sandia Pueblo. The storms passed over Albuquerque causing mainly downed tree limbs and power outages, but several tents and portable fireworks facilities were tossed and overturned. Damage to additional roofs and fireworks tents were also reported at Los Lunas.
San Juan County									
Farmington	10	1500MST			0	0	30K		Lightning
									A water and oil separator tank exploded, sending debris over a large area after being struck by lightning.
Union County									
5 NE Folsom	13	1330MST 1450MST			0	0			Flash Flood
									Raging water flows were reported in arroyos north of Folsom. A nearby cooperative observer reported 1.6 inch rain in about an hour. Satellite rain estimates over the rural country were as high as 4 inches in 2 hours.
Colfax County									
10 S Springer	13	1445MST			0	0			Funnel Cloud
									A brief funnel cloud was reported by State Police.
Colfax County									
12 SE Raton to 20 E Raton	13	1600MST			0	0			Flash Flood
Union County									
Capulin	13	1600MST			0	0			Flash Flood
									Motorist reported water over Highway 87 at numerous places from Capulin west into Colfax County for about 20 miles. An observer in Capulin had 2 inches of rain in 75 minutes.
Quay County									
Logan	13	1703MST			0	0			Hail (1.75)
									Marble to golfball hail covered the ground at Logan.
San Miguel County									
Conchas Dam	13	1810MST 1812MST			0	0			Hail (0.75)
									Hail and heavy rain of 1.5 inch in 30 minutes was reported at Conchas Dam.
Santa Fe County									
8 SE Santa Fe	14	1528MST			0	0			Hail (0.88)
									Nickel size hail was reported in the Eldorado area.
San Juan County									
Shiprock	14	1700MST			0	0	100K		Heavy Rain
									The main building of Shiprock High School suffered a roof collapse during a storm with heavy rain and gusty winds. A 20-foot section of collapsed roof severed a 4 inch fire-sprinkler water pipe which then caused flooding of 12-15 classrooms. Storm drains along Highway 64 clogged and produced some road and street flooding.
NMZ015									
	15	1710MST			0	4			Other
									Four children received minor injuries when caught in a large dust devil near Magdalena.
Lincoln County									
Alto	22	1439MST			0	0			Hail (1.00)
									One inch size hail accumulated to 6 inches deep in arroyos near Alto.
Quay County									
1 W Tucumcari	23	1307MST			0	0	5K		Thunderstorm Wind
									A cooperative observer reported several power poles downed and a small travel trailer overturned during a strong storm near Tucumcari.
Bernalillo County									
Albuquerque	26	1515MST			0	1			Lightning
									A 40 year old male operator at the city waste treatment plant was injured by a lightning strike. A report of a lightning fatality in Rio Rancho during the same storm was later determined to be a death from self-inflicted wounds.
Roosevelt County									
7 W Portales	30	1315MST			0	0	20K		Thunderstorm Wind
									Several tin roofs were blown off and steel poles bent during a strong storm west of Portales on Highway 267.
Quay County									
7 E Tucumcari	30	1440MST			0	0			Hail (1.00)

Storm Data and Unusual Weather Phenomena

July 2001

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

Curry County

Clovis to 8 NE Clovis	30	1450MST			0	0			Heavy Rain
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Heavy rain of 1.5 to 3 inches moved across northern Clovis and east central Curry Country. Street flooding was reported in Clovis with several cars stranded in low intersections.

NEW MEXICO, South Central and Southwest

Otero County

10 E Alamogordo	31	1335MST 1615MST			0	0	10K	0	Flood
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A cluster of thunderstorms dropped an estimated 3 inches of rain on the western Sacramento Mountains between Alamogordo and Cloudcroft. Mudslides resulted and caused the closure of US Highway 82 for at least two hours.

NEW MEXICO, Southeast

NONE REPORTED.

NEW YORK, Central

Oneida County

Lee Center	01	0900EST			0	0			Lightning
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Newspaper reports indicate a house on Kiwanis Road was struck by lightning. Electrical appliances were damaged but no significant structural damage was reported.

Cayuga County

Cato	01	1124EST			0	0			Thunderstorm Wind (G50)
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Emergency management reported trees and wires blown down by thunderstorm winds 3 miles south of Cato.

Seneca County

Dublin	01	1145EST			0	0			Thunderstorm Wind (G50)
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Law enforcement reported trees and wires blown down by thunderstorm winds in Junius township.

Onondaga County

Lysander to Baldwinsville	01	1148EST			0	0			Thunderstorm Wind (G55)
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Emergency management reported many trees and wires blown down by thunderstorm winds.

Oneida County

Countywide	01	1215EST			0	0			Thunderstorm Wind (G55)
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Emergency management reported trees and wires blown down by thunderstorm winds across the county.

Madison County

Countywide	01	1220EST 1240EST			0	0			Thunderstorm Wind (G55)
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Emergency management reported trees and wires blown down by thunderstorm winds across the county.

Sullivan County

Countywide	01	1315EST 1400EST			0	0			Thunderstorm Wind (G55)
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Emergency management reported trees and wires blown down by thunderstorm winds across the county.

Sullivan County

Grahamsville	01	1315EST			0	0			Hail (0.75)
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SKYWARN storm spotters reported 3/4 inch hail.

Sullivan County

Hasbrouck	10	1500EST			0	0			Thunderstorm Wind (G60)
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Residents reported the roof of a saw mill was peeled off on Benton Hollow Road.

NEW YORK, Coastal

Suffolk County

Hampton Bays	01	0030EST			0	0			Tornado (F0)
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As a severe thunderstorm moved southeast at 40 to 50 mph, it produced a quick hitting microburst followed by a weak F0 tornado. The first report of damage occurred around 1:30 am EDT on Channing Cross Road near Newton Road in Hampton Bays. Several large trees were blown over. There was evidence of a suction vortex spinning around a funnel. The highest wind speeds occurred with the microburst, which were estimated from 70 to 90 mph.

Suffolk County

Shinnecock Hills	01	0033EST			0	0			Funnel Cloud
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As this severe thunderstorm moved southeast, an eyewitness saw a funnel cloud move across the Shinnecock Canal after being awakened by intense lightning.

Storm Data and Unusual Weather Phenomena

July 2001

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									
Suffolk County Shinnecock Hills	01	0035EST			0	0			Hail (1.75)
Golf ball size hail was reported near the Shinnecock Canal and at the Peconic Beach Club.									
Suffolk County Shinnecock Hills	01	0035EST			0	0			Tornado (F0)
As the severe thunderstorm continued southeast, it spawned another short-lived weak tornado near Peconic Beach. On the property of the Peconic Beach Club, several boats were picked up and damaged. One small catamaran was picked up and blown through the side of a building. Several hundred pound umbrella stands were tossed around in different directions and metal fences around the tennis court were bent severely.									
Suffolk County Water Mill to Sagaponack	01	0040EST			0	0			Thunderstorm Wind (G61)
As the severe thunderstorm continued southeast across Southampton, it produced high winds that damaged trees along its path from Mill Pond to Water Mill to Sagaponack. In Mill Pond, several large trees were blown down along Head of the Pond Road, and both upper and lower Seven Ponds Road. In Sagaponack, tree damage occurred near Daniels and Gibson Lanes, before the storm moved over the Atlantic coastal waters.									
Orange County Montgomery	01	1435EST			0	0			Thunderstorm Wind (G52)
Rockland County Orangeburg to Sparkill	01	1455EST			0	0			Thunderstorm Wind (G50)
Suffolk County Huntington	01	1505EST			0	0			Thunderstorm Wind (G52)
Putnam County Lake Carmel	01	1515EST			0	0			Thunderstorm Wind (G50)
Nassau County Syosset	01	1553EST			0	0			Thunderstorm Wind (G52)
Rockland County Ramapo	01	1600EST			0	0			Thunderstorm Wind (G50)
Suffolk County Riverhead	01	1615EST			0	0			Thunderstorm Wind (G52)
Suffolk County Southampton	01	1645EST			0	0			Thunderstorm Wind (G52)
On Sunday, July 1st, a strong cold front approached southeast New York from the northwest during the late afternoon hours. As this front clashed with a warm, moist and very unstable air mass already in place, strong to locally severe thunderstorms developed and moved east-southeast across portions of southeast New York. Damaging winds in excess of 50 mph caused numerous large trees to topple, and led to scattered power outages. Frequent cloud to ground lightning strikes also accompanied these thunderstorms.									
Westchester County Elmsford	10	1825EST			0	0			Hail (0.75)
On Tuesday, July 10th, a cold front located across the Great Lakes moved east into central New York State by Tuesday night. Well in advance of the front, scattered strong to locally severe thunderstorms developed. One thunderstorm moved east across central and southern Westchester County, and produced dime-size hail in Elmsford.									
Westchester County White Plains	11	0645EST			0	0			Thunderstorm Wind (G50)
Rockland County Orangeburg	11	0700EST			0	0			Thunderstorm Wind (G52)
Suffolk County Stony Brook	11	0710EST 0712EST			0	0			Thunderstorm Wind (G53) ^M
Suffolk County Ridge to Upton	11	0730EST			0	0			Hail (0.75)
Suffolk County Flanders to Southampton	11	0800EST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 2001

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

NEW YORK, Coastal

Suffolk County

Southampton 11 0805EST 0 0 **Thunderstorm Wind (G52)**

During the morning hours of Wednesday, July 11th, a strong cold front swept across southeast New York. As this front clashed with moist and unstable air already in place, a line of strong to severe thunderstorms rapidly moved east-southeast across portions of southeast New York and Long Island. The line eventually developed into a "bow-echo" structure, which produced a swath of damaging winds and dime size hail across portions of Westchester County in southeast New York and Suffolk County on Long Island. Wind gusts were measured at 61 mph as the line passed through Stony Brook. These damaging winds toppled numerous large trees onto power lines and roadways, which resulted in scattered power outages and road closures. There were numerous reports of dime size hail, including at the National Weather Service Office in Upton.

Queens County

Rockaway Beach 23 0800EST 3 0 **Rip Currents**

Three girls were playing in knee-deep surf near Beach 17th street on Rockaway Beach around 9 am EDT, when they were swept away by rip currents. The inlet between Rockaway and Atlantic Beach was dredged to accommodate boat travel. The steep slope of the Continental Shelf, coupled with the tides, created a dangerous funnel effect. F13IW, F14IW, F16IW

NYZ078

Northwest Suffolk

28 1330EST 0 0 **Dust Devil**

A dust devil was reported in Northport along Route 25A. About 30 people saw it as it passed over the King Kullen Shopping Center. High winds picked up and tossed shopping cart shelters and downed signs on the parking lot. Wind speeds were estimated at 60 mph.

NEW YORK, East

Albany County

Latham 01 1100EST 0 0 8K **Thunderstorm Wind**

Rensselaer County

Speigletown 01 1111EST 0 0 **Hail (0.88)**

Washington County

Hampton 01 1111EST 0 0 18K **Thunderstorm Wind**

Albany County

Colonie 01 1127EST 0 0 **Lightning**

Rensselaer County

Averill Park 01 1251EST 0 0 **Hail (0.75)**

Rensselaer County

West Sand Lake 01 1251EST 0 0 7K **Hail (1.00)**

Rensselaer County

Poestenkill 01 1253EST 0 0 6K **Hail (1.00)**

Rensselaer County

Averill Park 01 1300EST 0 0 12K **Hail (2.00)**

Albany County

Guilderland Center 01 1325EST 0 0 **Hail (1.00)**

Albany County

Guilderland Center 01 1325EST 0 0 17K **Thunderstorm Wind**

Schenectady County

Rotterdam 01 1330EST 0 0 31K **Thunderstorm Wind**

Montgomery County

Glen 01 1344EST 0 0 22K **Thunderstorm Wind**

Fulton County

Johnstown 01 1347EST 0 0 **Hail (0.75)**

Fulton County

Johnstown 01 1347EST 0 0 10K **Thunderstorm Wind**

Albany County

Colonie 01 1405EST 0 0 27K **Thunderstorm Wind**

Schenectady County

Glenville 01 1410EST 0 0 44K **Thunderstorm Wind**

Montgomery County

Amsterdam 01 1415EST 0 0 19K **Thunderstorm Wind**

Storm Data and Unusual Weather Phenomena

July 2001

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									
Saratoga County									
Milton Center	01	1420EST			0	0	15K		Thunderstorm Wind
Ulster County									
Gardiner to Ireland Corners	01	1420EST 1425EST			0	0	65K		Thunderstorm Wind
Dutchess County									
Poughkeepsie	01	1425EST			0	0	12K		Thunderstorm Wind
Rensselaer County									
Troy	01	1430EST			0	0	18K		Thunderstorm Wind
Washington County									
Greenwich	01	1442EST			0	0	23K		Thunderstorm Wind
Washington County									
White Creek	01	1452EST			0	0	27K		Thunderstorm Wind
Dutchess County									
Beacon	01	1503EST			0	0	10K		Hail (1.75)
Washington County									
Salem	01	1505EST			0	0	15K		Thunderstorm Wind
Rensselaer County									
Grafton	01	1525EST			0	0	30K		Thunderstorm Wind
Ulster County									
New Paltz	01	1525EST			0	0	25K		Thunderstorm Wind

A powerful cold front, combined with a strong upper level disturbance to produce widespread thunderstorms across eastern New York during the afternoon of July 1. Some of these storms became locally strong to severe. In Albany County, thunderstorm winds blew down trees in Latham, Guilderland Center and Colonie. In addition, dime size hail was reported in Guilderland Center. In Schenectady County, wind damage, including downed trees, was noted in the towns of Rotterdam and Glenville. Two trees fell onto separate homes also in Glenville. In Rensselaer County, dime to nickle size hail was reported in Speigletown, while quarter size hail fell at both West Sand Lake and Poestenkill. Averill Park reported both one and two inch diameter hail. Thunderstorm winds brought trees down at Grafton State Park.

In Ulster County, microburst damage was surveyed by National Weather Service personnel on the east side of Gardiner. Winds were estimated to be around 100 mph and the damage was generally contained within a semi-circle to the west of Ireland Corners. Large trees were snapped or taken down in an area bounded by Route 44-55, Route 208 and Marabac Road. One tree fell on an automobile, crushing it. Meanwhile to the south of the Route 208 intersection, another tree fell onto the roof of a house. At the same location, a chimney toppled onto another vehicle. At the same time, thunderstorm winds blew down numerous trees in the city of New Paltz.

Trees were blown down in the town of Poughkeepsie in Dutchess County. Also, in the same county, quarter to golfball-size hail fell in the town of Beacon.

In Fulton County, a large tree fell onto some headstones in a cemetery in Johnstown. Spotty damage, including downed trees, was also noted in Montgomery and Saratoga Counties.

Lightning from the storms struck three houses, two of which were in Dutchess County and all of them caught fire. Houses were struck in Poughkeepsie, and Hyde Park. Another house was struck in Highland, Ulster County. No injuries were reported. The house in Hyde Park was uninhabitable. The house in Poughkeepsie sustained damage to the roof and attic. In Highland, the house struck by lightning had limited damage.

An estimated 7,500 customers were temporarily without power in the Capital District, Mohawk Valley, and the Lake George Saratoga region. An additional 3,500 customers were out of power in the Mid Hudson Valley. Lightning struck a person in the town of Colonie, but there were no injuries reported to the National Weather Service.

Saratoga County

Malta	04	1715EST			0	0	19K		Thunderstorm Wind
Saratoga County									
Schuylerville	04	1720EST			0	0			Hail (0.75)
Saratoga County									
Schuylerville	04	1720EST			0	0	49K		Thunderstorm Wind
Saratoga County									
Stillwater	04	1730EST 2359EST			0	0	25K		Mudslide
Washington County									
Middle Falls	04	1730EST			0	0	15K		Thunderstorm Wind
Washington County									
Greenwich	04	1740EST			0	0	30K		Thunderstorm Wind
Washington County									
Salem	04	1830EST			0	0	10K		Thunderstorm Wind

Storm Data and Unusual Weather Phenomena

July 2001

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, East</u>									
Albany County									
Albany	04	1840EST			0	0	40K		Thunderstorm Wind
Rensselaer County									
Schaghticoke	04	1845EST			0	1	25K		Lightning
Rensselaer County									
Schaghticoke	04	1845EST			0	0	10K		Thunderstorm Wind
Rensselaer County									
Speigletown	04	1845EST			0	0	33K		Thunderstorm Wind
Rensselaer County									
Eagle Mills	04	1850EST			0	0	21K		Thunderstorm Wind
<p>A cold front, plowing into an unstable airmass, triggered widespread thunderstorms across eastern New York on the evening of Independence Day. Some of the storms became strong to locally severe. Thunderstorm winds brought trees and wires down at both Malta and Schuylerville, Saratoga County. One tree was blown onto a Schuylerville house. Dime size hail also fell in Schuylerville. In Washington County, thunderstorm winds knocked down trees in Middle Falls and Salem. Also in Washington County, trees were blown down along Route 372 between Greenwich and Cambridge. Large tree limbs fell on two cars in the city of Albany. In Rensselaer County, large tree limbs and power lines were brought down in the towns of Speigletown, Schaghticoke and Eagle Mills. Lightning struck a house in Schaghticoke producing minor damage and and at least one injury.</p> <p>Torrential thunderstorm rains triggered a mudslide on Route 9P near Brown Road, in the town of Stillwater, closing Route 9P near Saratoga Lake between Brown Road and Cedar Bluff Road.</p>									
Warren County									
Glens Falls	09	1330EST			0	0	9K		Hail (1.00)
Washington County									
Hudson Falls	09	1335EST			0	0	8K		Hail (1.00)
Washington County									
Ft Edward	09	1340EST			0	0	20K		Thunderstorm Wind
Washington County									
Hudson Falls	09	1342EST			0	0	100K		Thunderstorm Wind
<p>A weak surface trough touched off a cluster of thunderstorms in an unstable airmass across Warren and Washington counties during the early afternoon of July 9. One of the storms became briefly severe as it deposited one inch size hail in the town of South Queensbury. It was reported that the ground was covered by hail. In the town of Hudson Falls in Washington County, quarter size hail fell . Strong thunderstorm winds tore a roof off the assembly building at the GL & V Group on Allen Street, damaging equipment inside the building and caving in portions of the roof on an adjacent building. Thunderstorm winds also blew down limbs and branches onto a golf course at Fort Edward, forcing the golf course to close for 24 hours.</p>									
Washington County									
Hampton	10	1343EST			0	0	22K		Thunderstorm Wind
Rensselaer County									
East Greenbush	10	1357EST			0	0			Hail (0.88)
Rensselaer County									
East Greenbush	10	1357EST			0	0	27K		Thunderstorm Wind
Ulster County									
Greenfield Park	10	1515EST			0	0	17K		Thunderstorm Wind
<p>A strong cold front triggered scattered showers and thunderstorms across eastern New York during the afternoon of July 10. Some of the storms became strong to locally severe. Thunderstorm winds knocked down trees and wires in the town of Hampton, Washington County. Trees were knocked down at Greenfield Park, Ulster county. In Rensselaer County, trees and wires were blown down in the town of East Greenbush and nickle-size hail was reported there as well.</p>									
Schenectady County									
Duanesburg	10	1355EST			0	1	2K		Lightning
<p>Lightning from a thunderstorm struck a male farmer in Duanesburg. He was thrown to the ground, but never lost conciousness and only suffered minor injuries. A tree was struck nearby, caught fire and was destroyed.</p>									
<u>NEW YORK, North</u>									
Franklin County									
Malone	09	1950EST			0	0	10K		Lightning
<p>Lightning struck and burned portions of a house.</p>									
Clinton County									
Peru	09	2205EST			0	0			Small Hail
<p>A northwest flow in the upper levels of the atmosphere with upper level disturbances triggered evening and nighttime thunderstorms. Pea size hail was reported in Peru, New York around 1105 PM EDT (1005 PM EST).</p>									
Essex County									
Willsboro	10	1245EST			0	0	5K		Thunderstorm Wind

Storm Data and Unusual Weather Phenomena

July 2001

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, North

Essex County

Ticonderoga	10	1250EST			0	0	5K		Thunderstorm Wind
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Thunderstorms developed in an unstable airmass ahead of a surface trough during the afternoon and evening hours. Trees and power lines were blown down with some damage to houses.

St. Lawrence County

Hammond	10	1925EST			0	0	5K		Thunderstorm Wind
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St. Lawrence County

Gouverneur	10	2006EST			0	0			Thunderstorm Wind (G50)
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St. Lawrence County

Gouverneur	10	2007EST			0	0			Tstm Wind/Hail
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Thunderstorms developed in an unstable airmass ahead of a surface trough during the evening hours in portions of northern New York. Trees and power lines were blown down in Hammond. In Gouverneur winds were estimated at 58 mph (50 Knots) with 1/2 inch diameter hail.

NEW YORK, West

Jefferson County

Clayton	01	0910EST			0	0	40K		Thunderstorm Wind (G65)
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Lewis County

Martinsburg	01	0945EST			0	0	15K		Thunderstorm Wind (G50)
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Monroe County

Webster	01	1035EST			0	0	10K		Thunderstorm Wind (G50)
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Wayne County

Macedon	01	1055EST			0	0	8K		Thunderstorm Wind (G50)
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Cayuga County

Cato	01	1124EST			0	0	8K		Thunderstorm Wind (G50)
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Thunderstorms ahead of a cold front crossed the western Finger Lakes region and eastern Lake Ontario counties during the morning hours. The storms produced damaging winds which downed trees and power lines across the area. In Clayton, Jefferson county, the winds tore a portion of a roof off a house. In Lewis county, power outages were reported from Lowville to Brantingham Lake.

Ontario County

Phelps	04	1424EST			0	3			Lightning
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A Boy Scout leader (age 48) and scout (age 15) were struck by lightning while target shooting. Both suffered burns and the young scout had to be resuscitated when he stopped breathing. A third scout (age 14), standing nearby, was also injured by the near lightning strike.

Monroe County

Chili Center	10	2125EST			0	0	10K		Thunderstorm Wind (G50)
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Ontario County

Canandaigua	10	2205EST			0	0	8K		Thunderstorm Wind (G50)
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Ontario County

Canandaigua	10	2348EST			0	0	15K		Thunderstorm Wind (G50)
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Strong thunderstorms moved across parts of the Finger Lakes during the late evening hours. The storms downed trees and power lines in Chili and Canandaigua.

Chautauqua County

Panama	10	2200EST			0	0	10K		Thunderstorm Wind (G50)
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An isolated thunderstorm intensified as it moved onshore from Lake Erie. The thunderstorm winds downed trees in the town of Panama.

Oswego County

Fulton	24	1405EST			0	0	8K		Thunderstorm Wind (G50)
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Thunderstorms developed rapidly across parts of the eastern Lake Ontario counties. The thunderstorm winds downed trees in Schroepfel, just east of Fulton.

NORTH CAROLINA, Central

Davidson County

Southmont	04	1745EST			0	0			Thunderstorm Wind (G50)
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About 10 trees were blown down, along with some power lines.

Guilford County

Greensboro	04	1826EST 1926EST			0	0			Flash Flood
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Three inches of rain in a short period caused several creeks in Greensboro to overflow. One covered a major artery: Wendover Ave. Several cars were flooded and the occupants had to be rescued from the rising water. The flood waters then receded quickly.

Storm Data and Unusual Weather Phenomena

July 2001

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

Randolph County

Asheboro	04	1850EST 2000EST			0	0			Flash Flood
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Road flooding was reported in Asheboro.

Lee County

North Portion	04	1900EST 2100EST			0	0			Flash Flood
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Flooding was reported on Lower River Road and Lower Moncure Road.

Davidson County

Lexington	04	1915EST 2000EST			0	0			Flash Flood
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Several roads flooded, some with over two feet of water.

Chatham County

Pittsboro	04	1920EST			0	0			Flash Flood
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Highway 87 just north of town was flooded.

Wake County

South Portion	04	2000EST 2300EST			0	0			Flash Flood
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Middle Creek and Swift Creek overflowed their banks, causing extensive flooding in Holly Springs, Fuquay-Varina, and Garner. A mobile home park near Ten-Ten Road and Highway 401 was evacuated. Many roads and a few bridges were washed out, causing some people to abandon their cars.

Wake County

South Portion	09 10	2230EST 0030EST			0	0			Flash Flood
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Swift Creek caused flooding on Highway 401 in Fuquay-Varina. Penny Road and several roads near Lochmere Golf Course flooded.

Johnston County

West Portion	09 10	2315EST 0100EST			0	0			Flash Flood
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Black Creek caused flooding along Black Creek Road.

NORTH CAROLINA, Central Coastal

Carteret County

Morehead City	05	1700EST			0	0			Thunderstorm Wind (G52)
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Numerous trees were blown down across Morehead City as 60 mph blew across the entire area.

Carteret County

Harkers Is	05	1720EST			0	0			Thunderstorm Wind (G51) ^M
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Wind was measured by the Harkers Island draw bridge personnel.

Onslow County

Camp Lejeune	06	1231EST			0	0			Hail (0.75)
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Beaufort County

Washington	25	1610EST			0	0	2K		Lightning
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Lightning struck a tree which then fell onto a residence late in the afternoon. The residence suffered minor structural damage from the weight of the tree.

NORTH CAROLINA, Extreme Southwest

Cherokee County

Hiwasse Dam	03	1440EST			0	0	2K		Thunderstorm Wind
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Two trees down.

Cherokee County

3 NW Ranger	04	1745EST			0	0	1K		Thunderstorm Wind
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Two trees down.

NORTH CAROLINA, North Coastal

NONE REPORTED.

NORTH CAROLINA, Northwest and North Central

Watauga County

8 W Boone	08	1610EST			0	0	0		Thunderstorm Wind
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A thunderstorm during the late afternoon of the 8th downed trees 8 miles west of Boone.

Ashe County

Countywide	29	1440EST 1530EST			0	0	10K		Flash Flood
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Heavy thunderstorm rains caused several small streams and creeks to flood washing out culverts and closing roads. There were also

Storm Data and Unusual Weather Phenomena

July 2001

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

NORTH CAROLINA, Northwest and North Central

10 mudslides reported across the county.

NORTH CAROLINA, South Coastal

New Hanover County

Wilmington to Carolina Beach	02	1230EST 1330EST			0	1			Urban/Sml Stream Fld
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A cold front and associated heavy rains caused poor visibilities, minor street flooding and scattered car accidents. One injury was reported.

Pender County

Surf City	02	1440EST			0	0			Lightning
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Emergency manager reported that lightning struck a house in Surf City, south of the drawbridge.

Brunswick County

Calabash to Supply	06	1430EST 1630EST			0	0			Flood
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Slow moving thunderstorms caused heavy rains measuring 4 to 6 inches that caused widespread ponding and forced closing part of U.S. 17 in western Brunswick County.

Brunswick County

Southport	06	1500EST 1800EST			0	0			Urban/Sml Stream Fld
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Minor flooding was reported on Caswell Beach Rd. and Long Beach Rd.

Pender County

Surf City	11	1630EST			0	0	10K		Lightning
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Lightning struck a house on Oak Drive, punching charred holes in the roof and damaging most electrical appliances.

New Hanover County

Castle Hayne to Carolina Beach	11	1730EST 1900EST			0	0			Urban/Sml Stream Fld
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New Hanover 911 reported water entering a house on Old Mill Rd. Based on radar, around 4 inches of rain fell in Castle Hayne. There were several car accidents with no injuries reported. A newspaper report described about 1200 customers in the Wilmington area without power.

Brunswick County

Supply to Shallotte	26	1715EST 1830EST			0	0			Flood
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Brunswick county sheriff reported high water along Hwy 17 from Shallotte to Supply. Flooding was also reported at the intersection of Rts. 179 and 211.

NORTH CAROLINA, Southwest

Caldwell County

Lenoir to 7 N Lenoir	02 03	2315EST 0130EST			0	0	50K		Flash Flood
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Flooding was observed in the city of Lenoir and a couple of roads flooded just outside of town. By 0045 EST, several roads had been washed out., but flooding had abated. A car was flooded out and floated along U.S. 321 north of Lenoir; the woman inside the car was rescued. Two other cars were also flooded. Mudslides occurred 5 to 7 miles north of Lenoir. A couple of cars ran into rocks on the road from the mudslides. A few streams overflowed their banks and flooded out the highway.

A storm spotter relayed a scanner report of two mobile homes struck by lightning. Torrential rain fell in the northern half of Caldwell County, upwards of 4.3 inches in a two-hour period.

Caldwell County

Lenoir	02	2330EST 2345EST			0	0			Lightning
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Rutherford County

Forest City to Spindale	03	0000EST 0300EST			0	2	100K		Flash Flood
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Five streets or roads completely shut down by high water, with trees and power lines across roads. A transformer blew. Eagle Lake overflowed, washing out a section of Duke Street. A vehicle with two passengers went in the washout, nearly killing both occupants.

The event started with several areas of standing water. Then, water was reported ankle-deep in a house. Several trees were downed from the water, and mudslides occurred in Spindale. By 0056 EST, water was 5 feet deep in places, flooding an apartment complex. Several businesses were damaged by the flooding.

Henderson County

Hendersonville	03	1500EST			0	0			Urban/Sml Stream Fld
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A couple of roads flooded in low places, with a few cars stranded in 4 to 5 feet of water.

Jackson County

Cashiers	03	1520EST			0	0	100K		Lightning
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Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
NORTH CAROLINA, Southwest									
Buncombe County									
Skyland	03	1553EST			0	0	15K		Lightning
									Lightning struck an unoccupied house, resulting in a fire that destroyed the structure and all of its contents.
Buncombe County									
Asheville	03	1600EST			0	0			Thunderstorm Wind (G50)
									Trees down in the Bent Creek area, blocking Brevard Road for a short time.
NCZ053									
									Buncombe
	04	1700EST			0	0			High Wind (G40)
									Mesoscale high wind event developed behind a line of strong to severe thunderstorms. Numerous trees were blown down countywide during a time of persistent 30 to 40 mph winds. Later, an off-duty weather observer estimated wind gusts of between 40 and 50 mph.
Rutherford County									
Lake Lure to Rutherfordton	04	1710EST 1720EST			0	0			Thunderstorm Wind (G50)
									Numerous trees and power lines knocked down.
Rutherford County									
3 SE Rutherfordton	04	1725EST			0	0			Thunderstorm Wind (G60)
									Numerous trees and power lines blown down between Rutherfordton and Forest City. Power poles were snapped in half. Urban flooding occurred, closing three streets. A car was trapped under downed power lines. Some trees were blown onto houses.
Rutherford County									
3 SE Rutherfordton	04	1725EST 1815EST			0	0			Urban/Sml Stream Fld
Union County									
8 NE Monroe	04	1938EST			0	0	16K		Tornado (F0)
									A "gustnado" formed along a gust front ahead of a line of thunderstorms. The small tornado destroyed a 70 X 70 barn by lifting its roof and carrying it 100 yards and dropping it to the ground. A refrigerator inside the barn had its door removed and a large post, buried three feet into the ground, was pulled out and carried about 100 yards. The vortex lifted briefly, then carved a 10-foot wide path through soybean fields.
Polk County									
1 N Saluda	05	1645EST			0	0			Hail (0.75)
									Trained spotter reported dime-sized hail.
Mecklenburg County									
2 W Cornelius to 2 E Huntersville	05	1830EST 1840EST			0	0			Thunderstorm Wind (G50)
									Trees down on the peninsula of Lake Norman. Dime-sized hail also reported with this thunderstorm.
Mecklenburg County									
2 E Huntersville	05	1830EST			0	0			Hail (0.75)
Rowan County									
1 E Kannapolis	05	1855EST			0	0			Thunderstorm Wind (G50)
									Trees knocked down.
Cabarrus County									
2 NW Harrisburg	05	1900EST			0	0			Hail (1.25)
									Half-dollar-sized hail reported at Lowes Motor Speedway.
Avery County									
9 N Newland	08	1630EST 1730EST			0	0			Heavy Rain
Avery County									
9 N Newland	08	1630EST			0	0			Thunderstorm Wind (G55)
									Many trees blown down across roads in the ski areas around Beech Mountain. Torrential rain led to mudslides.
Mitchell County									
Countywide	08	1645EST 1700EST			0	0			Thunderstorm Wind (G55)
									Numerous trees and power lines down throughout the county. At least six houses had trees fall on them, and 12,000 homes were without power for a short time.
Avery County									
Newland	08	1645EST			0	0			Thunderstorm Wind (G55)
									A tobacco farm was leveled by the wind.
Yancey County									
Countywide	08	1645EST			0	0			Thunderstorm Wind (G55)

Storm Data and Unusual Weather Phenomena

July 2001

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, Southwest									
			Hundreds of trees were blown over by the wind, with structural damage reported to a half-dozen homes. 7000 homes lost power for a brief time during the storm.						
Madison County Hot Spgs to 12 SW Hot Spgs	08	1658EST			0	0			Thunderstorm Wind (G60)
			Numerous trees and power lines down in northern, and eastern, Madison County. A tree was blown onto a house at Hot Springs.						
Madison County Marshall to Mars Hill	08	1703EST			0	0			Thunderstorm Wind (G60)
			Numerous trees and power lines down. A roof blown off a barn at Mars Hill. Some trees fell onto structures.						
Buncombe County 4 W Weaverville to Weaverville	08	1705EST 1710EST			0	0			Thunderstorm Wind (G50)
			Numerous trees and power lines blown over.						
Mcdowell County Marion	08	1705EST			0	0			Thunderstorm Wind (G55)
			Numerous trees and power lines blown down. Some of the trees fell onto Interstate 40.						
Buncombe County Asheville	08	1710EST			0	0			Thunderstorm Wind (G65)
			Power poles were snapped in half and numerous roads were blocked by downed trees. Widespread power outages reported.						
Mcdowell County 3 E Old Ft	08	1714EST			0	0			Thunderstorm Wind (G50)
			Trees and power lines knocked down.						
Buncombe County 10 SE Asheville	08	1716EST			0	0			Thunderstorm Wind (G70) ^M
			Cooperative observer at Flat Top Mountain reported a measured wind gust to 81 mph.						
Mcdowell County Nebo	08	1718EST			0	0			Thunderstorm Wind (G50)
			Trees blown down in and around Lake James.						
Mcdowell County 10 S Marion	08	1720EST			0	0			Thunderstorm Wind (G55)
			Numerous trees and power lines blown down. Widespread, long-term power outages resulted.						
Haywood County Canton	08	1720EST			0	0			Thunderstorm Wind (G50)
			Trees down across some yards in Canton.						
Buncombe County Leicester	08	1728EST			0	0			Thunderstorm Wind (G60)
			Trees blown down across Interstate 40, six miles west of Asheville. One tree was blown onto a house, and several fell on cars and roofs. Damage was far greater in the western half of Buncombe County than in the eastern half.						
Rutherford County Lake Lure	08	1730EST			0	0			Thunderstorm Wind (G50)
			Trees blown down.						
Buncombe County Skyland	08	1730EST 1745EST			0	0			Thunderstorm Wind (G55)
			10 trees down between Skyland and the Henderson County line.						
Henderson County 10 N Hendersonville	08	1736EST			0	0			Thunderstorm Wind (G58) ^M
			Trained spotter measured a wind gust at Hoopers Creek.						
Henderson County Hendersonville	08	1745EST			0	0			Thunderstorm Wind (G60)
			Numerous trees and power lines down. Some trees fell on houses. Over 7000 homes lost power during the storm and remained without power for much of the night.						
Rutherford County Rutherfordton	08	1745EST			0	0			Thunderstorm Wind (G50)
			Numerous trees blown down onto roads and streets. Power lines down countywide.						
Cleveland County Casar	08	1745EST			0	0			Thunderstorm Wind (G50)
			Trees down near the intersection of N.C. 10 and Olive Grove Road.						

Storm Data and Unusual Weather Phenomena

July 2001

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, Southwest

Polk County

Beulah to 2 N Mill Spg	08	1745EST			0	0			Thunderstorm Wind (G50)
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Trees down along N.C. 9 near Mill Spring. Stop signs were blown down near Beulah.

Strong thunderstorms developed across the Tennessee Valley on the afternoon of July 8th, and organized into a substantial squall line in east Tennessee that crossed the western half of North Carolina late in the afternoon through early evening.

Graham County

Stecoah	08	1920EST			0	0			Hail (0.75)
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Dime-sized hail fell at Stecoah. This storm was not related to the squall line that passed through hours earlier, but was associated with a secondary cluster of convection that moved out of east Tennessee later that evening.

Madison County

Spring Creek	09	0040EST			0	0			Thunderstorm Wind (G55)
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Gas station personnel reported numerous trees and power lines down across roads overnight.

Swain County

Bryson City	09	0130EST			0	0			Thunderstorm Wind (G50)
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Four reports of trees blown down around town.

Graham County

Fontana Vlg	09	0140EST			0	0			Thunderstorm Wind (G50)
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Large branches blown onto area roads overnight.

A cold front dropped into eastern Tennessee and western North Carolina overnight, producing another round of thunderstorm wind events for some of the higher elevation locations near the Tennessee line.

Caldwell County

Lenoir	10	2300EST			0	0			Heavy Rain Effects
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A very large sinkhole developed in the city, resulting from a couple of very heavy rainfall events in the previous couple of weeks. The sinkhole developed gradually to a depth of 45 feet, was 100 feet long and 25 feet wide.

Rutherford County

Rutherfordton	24	2000EST 2100EST			0	0			Urban/Sml Stream Fld
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A park in downtown Rutherfordton was flooded and closed during torrential downpours associated with slow-moving thunderstorms.

Caldwell County

8 E Lenoir	25	1700EST 1800EST			0	0			Flash Flood
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Tributary of McCrary Creek flooded part of Highway 90.

Madison County

4 E Marshall to 12 N Marshall	29	0800EST			0	0	1M	2.5M	Flash Flood
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A significant flash flood occurred in Madison County on the 29th, the fourth major flash flood to affect Madison County in six weeks. Numerous roads were flooded, closing major commuter highways 208 and 212. Many private bridges were washed away. Damage to the tobacco crop alone was estimated at \$400,000.

Flooding began after nearly four hours of moderate to heavy rain trained over the rugged, hilly terrain of northern Madison County. The first report was of a mudslide between Marshall and Mars Hill, then Laurel Creek, especially susceptible to flooding during the summer of 2001, overflowed its banks once again, taking 7 or 8 bridges with it and washing a mobile home away.

Big Laurel and Shelton Laurel creeks also flooded, stranding 9 families for a couple of days once the roads connecting them to the main highway were washed out.

Madison County

Countywide	29	1300EST 1900EST			0	0			Flash Flood
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Numerous roads remained flooded, and new ones began to flood as streams, creeks and rivers, already swollen from heavy rain earlier in the day, overflowed their banks. The French Broad River flooded River Road, near the state line north of Hot Springs, closing it for two days.

Madison County

3 N Marshall to 12 NE Marshall	30	0430EST			0	0	100K	2.5M	Flash Flood
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Another round of heavy rain brought Big Laurel creek out of its banks again. A house trailer was damaged this time, and parts of highways 19 and 23 leading into Yancey County were washed away or closed because of water, sand and debris. Bridges and roads were still closed in many of these same areas from flooding the day before. The Jarrett Cove bridge, which crosses Big Laurel, washed away between 430 AM EST and 515 AM EST.

A series of classic flash floods developed across the higher terrain of northern and central Madison County over the weekend of the

Storm Data and Unusual Weather Phenomena

July 2001

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									
3 NNW Minot	16	1902CST			0	0			Hail (1.75)
Ward County									
Minot	16	1915CST			0	0			Hail (1.75)
Ward County									
Logan	16	1947CST			0	0			Hail (0.75)
Ward County									
5 S Logan	16	1950CST			0	0			Funnel Cloud
Morton County									
Glen Ullin	17	1502CST			0	0			Hail (0.75)
Morton County									
12 E Glen Ullin	17	1507CST			0	0			Hail (1.50)
Kidder County									
10 N Tuttle	17	1524CST			0	0			Funnel Cloud
Kidder County									
3 W Lake Williams to 3 S Pettibone	17	1615CST 1632CST			0	0	1M		Tornado (F2)
Tornado reported to be 1/2 mile wide at times. The tornado remained in open country before entering into Stutsman county. Damage was contained to metal and double poled high power line towers. A farmstead in the path of the tornado sustained \$200,000 in damage. (see Stutsman county report on same tornado.)									
Morton County									
Hebron	17	1620CST			0	0			Hail (2.75)
Numerous vehicles and homes substained hail damage.									
Stutsman County									
20 NW Cleveland to 2 W Cleveland	17	1632CST 1721CST			0	0	500K		Tornado (F2)
The tornado moved southeast out of Kidder county. Numerous sources reported the tornado ranged to 1/2 mile wide at times. The tornado was on the ground for 66 minutes with a total storm path of 29 miles. The tornado remained in open country flattening a total of 64 metal and double high power line towers.									
Kidder County									
Pettibone	17	1632CST			0	0			Hail (2.75)
The hail occurred with the same storm which produced the large tornado. The hail damaged windows and vehicles.									
Wells County									
Harvey	17	1728CST			0	0			Hail (0.75)
Stutsman County									
1 N Cleveland	17	1730CST			0	0			Hail (2.00)
Stutsman County									
Sydney	17	1844CST			0	0			Hail (1.75)
Foster County									
2 W Glenfield	18	0015CST			0	0			Hail (0.75)
Billings County									
11 NW Fairfield	18	0110CST			0	0			Thunderstorm Wind (G65) M
Report of crops destroyed.									
Billings County									
11 NW Fairfield	18	0110CST			0	0			Thunderstorm Wind (G65) M
Crops destroyed.									
Mckenzie County									
2 S Grassy Butte	18	0115CST			0	0			Thunderstorm Wind (G52) M
Williams County									
Tioga	18	0119CST			0	0			Thunderstorm Wind (G50) M
Mountrail County									
Stanley	18	0147CST			0	0			Thunderstorm Wind (G78) M
Winds measured at the radar site in Stanley ND operated by an employee of the Atmospheric Resource board.									
Mountrail County									
New Town	18	0200CST			0	0			Hail (0.88)
Burke County									
3 E Portal	18	0230CST			0	0			Hail (1.00)

Storm Data and Unusual Weather Phenomena

July 2001

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	18	0326CST			0	0			Hail (0.75)
Stutsman County Eldridge	18	1842CST			0	0			Hail (0.75)
Stutsman County Eldridge	18	1851CST			0	0			Hail (1.00)
Stutsman County Jamestown	18	1924CST			0	0			Hail (1.00)
Logan County 2 NW Lehr	18	1925CST			0	0			Hail (1.75)
Mcintosh County 7 S Ventura	18	1930CST			0	0			Tornado (F0)
			Tornado touched down in open country. The tornado destroyed 137 bales of hay.						
La Moure County 6 W Nortonville	18	1953CST 2040CST			0	0			Tornado (F1)
			Tornado touched down in open country damaging a farmstead and ripping off a roof and rafters to a construction company in rural Judd.						
Bowman County 20 SW Rhame	18	2006CST			0	0			Hail (1.25)
Mcintosh County Ashley	18	2040CST			0	0			Hail (1.00)
Mcintosh County 9 SE Ashley	18	2043CST			0	0			Funnel Cloud
Bowman County 2 S Rhame	18	2045CST			0	0			Hail (0.75)
Stutsman County 6 S Jamestown	18	2056CST			0	0			Thunderstorm Wind (G52) ^M
Bowman County 3 W Bowman	18	2100CST			0	0			Hail (1.75)
Mcintosh County Ashley	18	2110CST			0	0			Hail (1.75)
Dickey County Monango	18	2204CST			0	0			Hail (0.75)
Adams County Hettinger Arpt	18	2211CST			0	0			Thunderstorm Wind (G63) ^M
			Numerous tree branches down. Several homes and vehicles sustained damage.						
Divide County 6 S Alkabo	19	1500CST			0	0			Hail (0.75)
Divide County 11 SE Crosby	19	1530CST			0	0			Hail (3.50)
Burke County Powers Lake	19	1558CST			0	0			Hail (1.25)
Burke County 5 E Powers Lake	19	1615CST			0	0			Tornado (F0)
			Tornado briefly touched down in open country.						
Ward County Kenmare	19	1632CST			0	0			Hail (1.50)
Burke County 10 E Powers Lake	19	1638CST			0	0			Hail (2.75)
Burke County 15 E Powers Lake	19	1638CST			0	0			Tornado (F1)
			The multi-vortex tornado cut a 2 mile wide swath across open country twisting off numerous tree tops.						
Ward County 3 S Kenmare	19	1705CST			0	0			Hail (1.75)
Ward County 10 NW Donnybrook	19	1705CST			0	0			Tornado (F0)
			Tornado briefly touched down in open country.						

Storm Data and Unusual Weather Phenomena

July 2001

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>									
Adams County									
Hettinger	19	2019CST			0	0			Thunderstorm Wind (G52)
Golden Valley County									
3 N Beach	19	2020CST			0	0			Funnel Cloud
Sioux County									
Solen	19	2115CST			0	0			Hail (0.75)
Grant County									
15 S New Leipzig	19	2115CST			0	0			Thunderstorm Wind (G52)
Morton County									
Glen Ullin	19	2145CST			0	0			Hail (0.75)
			Heavy rain and wind gust to 50 mph reported with this storm.						
Billings County									
10 N Fairfield	19	2145CST			0	0			Hail (1.50)
Grant County									
5 S Carson	19	2158CST			0	0			Tornado (F0)
			Tornado briefly touched down in open country.						
Emmons County									
Linton	19	2213CST			0	0			Thunderstorm Wind (G52)
			Numerous tree branches down.						
Morton County									
Mandan	19	2229CST			0	0			Thunderstorm Wind (G57) ^M
			Numerous tree's blown over.						
Burleigh County									
(Bis)Bismarck Muni A	19	2232CST			0	0	50K		Thunderstorm Wind (G66) ^M
			Widespread tree damage across the southern half of the city of Bismarck. The property damage figure was for cleanup only. Power outage across much of the city. Several homes and business, including the Bismarck airport terminal building substained damage.						
Burke County									
Columbus	19	2250CST			0	0			Hail (1.75)
Mountrail County									
Lostwood	19	2255CST			0	0			Hail (0.75)
			Very heavy rain with the hail reduced visibility to less than 1/8th of a mile.						
Burleigh County									
22 NW (Bis)Bismarck M	19	2300CST 2305CST			0	0			Thunderstorm Wind (G52)
Oliver County									
12 SE Center	19	2300CST 2305CST			0	0			Thunderstorm Wind (G52)
Kidder County									
Steele	19	2305CST			0	0			Thunderstorm Wind (G52)
			Very heavy rain and pea size hail with the storm.						
Mountrail County									
8 S Stanley	19	2325CST			0	0			Hail (0.75)
			Very heavy rain with the storm.						
McLean County									
2 W Max	19	2328CST			0	0			Hail (0.75)
			Hail covered the ground.						
Mountrail County									
Palermo	19	2345CST			0	0			Hail (1.75)
Wells County									
Fessenden	20	0000CST			0	0			Thunderstorm Wind (G62) ^M
			Numerous tree branches and limbs down. A grain bin flatten by the wind. Visibility reduced to several yards in heavy rain driven rain.						
Sheridan County									
Martin	20	0005CST			0	0			Thunderstorm Wind (G52)
Stutsman County									
(Jms)Jamestown Muni	20	0010CST			0	0			Hail (1.00)
Burke County									
2 SE Columbus	20	0025CST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 2001

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>									
Mchenry County									
Towner	20	0115CST			0	0			Thunderstorm Wind (G52)
Bottineau County									
Willow City	20	0118CST			0	0			Thunderstorm Wind (G61) ^M
Divide County									
15 SSW Noonan	20	1525CST			0	0			Hail (4.50)
The hail storm leveled 250 acres of crops, ripped down tree branches and heavily damaged farm vehicles. Rainfall measured at 2.6 inches following the hail storm.									
Divide County									
7 S Noonan	20	1535CST			0	0			Hail (1.75)
Divide County									
18 SSE Noonan	20	1555CST			0	0			Funnel Cloud
Burke County									
4 N Battleview	20	1610CST			0	0			Tornado (F0)
Visiable condensation funnel extended over half way to the ground with a brief touchdown in open country.									
Burke County									
10 N Battleview	20	1610CST			0	0			Hail (1.75)
Hail covered the ground.									
Williams County									
1 N Buford	20	1900CST			0	0			Thunderstorm Wind (G61)
Mobile home tipped over. Numerous tree limbs broken.									
Mckenzie County									
13 W Alexander	20	1955CST			0	0			Thunderstorm Wind (G52)
Williams County									
18 SW (Isn)Sloulin Fld	20	2000CST			0	0			Thunderstorm Wind (G61)
Shingles torn off the visitors center at Fort Union Trading Post. Heavy rain caused urban flooding in the city of Williston.									
Mckenzie County									
8 WNW Charbonneau	20	2005CST			0	0			Thunderstorm Wind (G52)
Williams County									
1 S (Isn)Sloulin Fld Wi	20	2011CST			0	0			Hail (0.88)
Williams County									
(Isn)Sloulin Fld Wil	20	2011CST			0	0			Thunderstorm Wind (G59) ^M
Golden Valley County									
3 SE Golva	20	2020CST			0	0			Hail (1.75)
Several windows, skylights and roof damage to a farmstead. Hail accumulated up to 5 inches in yard.									
Golden Valley County									
3 N Beach	20	2020CST			0	0			Funnel Cloud
Williams County									
20 E (Isn)Sloulin Fld W	20	2045CST			0	0			Hail (0.75)
Golden Valley County									
4 N Beach	20	2058CST			0	0			Thunderstorm Wind (G52)
Mckenzie County									
Watford City	20	2105CST			0	0			Thunderstorm Wind (G50)
Mountrail County									
New Town	20	2117CST			0	0			Thunderstorm Wind (G52)
Golden Valley County									
Trotters	20	2140CST			0	0			Hail (0.88)
Mckenzie County									
Grassy Butte	20	2144CST			0	0			Hail (0.88)
Burke County									
12 SSW Bowbells	20	2145CST			0	0			Hail (0.75)
Hail covered the road.									
Mountrail County									
2 NW New Town	20	2145CST			0	0			Funnel Cloud
Sheriff reported seeing two funnels. None touched down.									
Billings County									
18 N Medora	20	2154CST			0	0			Thunderstorm Wind (G61)
Several tree's uprooted.									

Storm Data and Unusual Weather Phenomena

July 2001

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>									
Mountrail County									
Belden	20	2210CST			0	0			Thunderstorm Wind (G52)
Billings County									
6 S Fairfield	20	2210CST			0	0			Thunderstorm Wind (G61)
			Reports of tree's down and damage to farm buildings.						
Dunn County									
Killdeer	20	2225CST			0	0			Hail (0.75)
Ward County									
(Mib)Minot Afb	20	2234CST			0	0			Thunderstorm Wind (G54) ^M
Ward County									
Sawyer	20	2300CST			0	0			Thunderstorm Wind (G61)
			Cooperative observer reported large tree's down.						
Mercer County									
Beulah	20	2300CST 2359CST			0	0			Thunderstorm Wind (G52)
			Cooperative observer reported the event last nearly 60 minutes. Several tree limbs down and a large tree split in two.						
Stark County									
1 NE Dickinson	20	2301CST			0	0			Hail (0.75)
McLean County									
Washburn	20	2310CST			0	0			Thunderstorm Wind (G52)
			Reports of large branches down and storage tank rolled.						
Mchenry County									
Drake	20	2330CST			0	0			Thunderstorm Wind (G52)
Adams County									
4 S Bucyrus	20	2356CST			0	0			Hail (2.50)
Morton County									
Hebron	21	0000CST			0	0			Hail (0.75)
			Hail reported from a cooperative observer.						
Pierce County									
Selz	21	0000CST			0	0			Thunderstorm Wind (G52)
Morton County									
Mandan	21	0000CST			0	0			Thunderstorm Wind (G52)
Burleigh County									
Bismarck	21	0005CST			0	0			Thunderstorm Wind (G52)
Grant County									
Elgin	21	0012CST			0	0			Thunderstorm Wind (G52)
Grant County									
16 N Elgin	21	0012CST			0	0			Hail (0.75)
			Hail reported over Lake Tschida.						
Sheridan County									
6 SE McClusky	21	0015CST			0	0			Thunderstorm Wind (G57)
			Reports of numerous 3-inch branches broken off tree's on a farmstead.						
Emmons County									
Hazelton	21	0040CST			0	0			Thunderstorm Wind (G53)
Kidder County									
Robinson	21	0100CST			0	0			Thunderstorm Wind (G52) ^M
Wells County									
Fessenden	21	0115CST			0	0			Thunderstorm Wind (G57)
Foster County									
3 W Mc Henry	21	0145CST			0	0			Thunderstorm Wind (G57)
			Cooperative observer reported large tree's down and dime size hail with the storm.						
Stutsman County									
10 N (Jms)Jamestown M	21	0145CST			0	0			Thunderstorm Wind (G52)
			At least two camper trailers were overturned at a park.						
Stutsman County									
(Jms)Jamestown Muni	21	0153CST			0	0			Thunderstorm Wind (G57) ^M
Foster County									
Mc Henry	21	0158CST			0	0			Thunderstorm Wind (G57)

Storm Data and Unusual Weather Phenomena

July 2001

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>									
Foster County									
2 W Mc Henry	21	0158CST			0	0			Hail (0.75)
Golden Valley County									
Beach	21	2325CST			0	0			Thunderstorm Wind (G53) ^M
Mckenzie County									
8 S Alexander	21	2330CST			0	0			Thunderstorm Wind (G50)
Mckenzie County									
Arnegard	21	2335CST			0	0			Thunderstorm Wind (G52)
Mckenzie County									
Watford City	21	2340CST			0	0			Thunderstorm Wind (G60) ^M
			Numerous tree damage in city of Watford City.						
Mckenzie County									
Grassy Butte	22	0030CST			0	0			Thunderstorm Wind (G52)
Dunn County									
15 NW Killdeer	22	0030CST			0	0			Thunderstorm Wind (G57)
			Reports of tree damage.						
McLean County									
5 NNE Raub	22	0124CST			0	0			Thunderstorm Wind (G52)
			Cooperative observer reported large branches down at a farmstead.						
Mountrail County									
New Town	22	0125CST			0	0			Thunderstorm Wind (G61)
Dunn County									
Marshall	22	0130CST			0	0			Thunderstorm Wind (G52)
McLean County									
Roseglen	22	0139CST			0	0			Thunderstorm Wind (G61)
			Reports of shed destroyed and a few tree's and power poles down.						
Stark County									
Richardton	22	0150CST			0	0			Hail (0.88)
Ward County									
Ryder	22	0151CST			0	0			Thunderstorm Wind (G57)
			Reports of numerous tree's down.						
Ward County									
20 S Minot	22	0200CST			0	0			Thunderstorm Wind (G57)
			Cooperative observer reported shingles torn off roof's and tree damage.						
Mercer County									
Beulah	22	0200CST			0	0			Thunderstorm Wind (G52)
Morton County									
New Salem	22	0245CST			0	0			Thunderstorm Wind (G52)
Burleigh County									
8 NNE Wilton	22	0300CST			0	0			Thunderstorm Wind (G57)
			Cooperative observer reported huge tree's and crop damage.						
Burleigh County									
Wilton	22	0327CST			0	0			Thunderstorm Wind (G61)
McLean County									
4 NW Wilton	22	0327CST			0	0			Thunderstorm Wind (G61)
Morton County									
Mandan	22	0328CST			0	0			Thunderstorm Wind (G61)
			Reports of branches and a few tree's down.						
Grant County									
10 N Lark	22	0330CST			0	0			Thunderstorm Wind (G61)
			Cooperative observer reported tree's down.						
Oliver County									
Hensler	22	0330CST			0	0			Thunderstorm Wind (G57)
			Cooperative observer reported tree's damage and dumpster flipped over.						
Burleigh County									
(Bis)Bismarck Muni A	22	0332CST			0	0			Thunderstorm Wind (G61) ^M
Emmons County									
Hazelton	22	0400CST			0	0			Thunderstorm Wind (G52)

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
NORTH DAKOTA, Central and West									
Cooperative observer reported numerous branches down.									
Burleigh County Driscoll	22	0400CST			0	0			Thunderstorm Wind (G61)
Reports of several tree's down and numerous branches broken off.									
Kidder County Robinson	22	0410CST			0	0			Thunderstorm Wind (G70) ^M
Kidder County Steele	22	0416CST			0	0			Thunderstorm Wind (G57)
Quonset doors blown off.									
Logan County Gackle	22	0450CST			0	0			Thunderstorm Wind (G52)
Cooperative observer reported numerous tree branches down.									
Stutsman County Woodworth	22	0507CST			0	0			Thunderstorm Wind (G52)
Stutsman County Montpelier	22	0605CST			0	0			Thunderstorm Wind (G52)
Cooperative observer reported tree's and numerous branches down.									
Foster County 2 S Carrington	22	0615CST			0	0			Thunderstorm Wind (G50)
Slope County Marmarth	22	1905CST			0	0			Hail (0.88)
Reported by a cooperative observer.									
Bowman County Rhame	22	1915CST			0	0			Hail (1.75)
Reported by a Ham operator.									
Bowman County Bowman	22	1930CST			0	0			Hail (0.88)
Reported by ham operator.									
Bowman County Bowman Arpt	22	1934CST			0	0			Hail (1.00)
Bowman County Bowman Arpt	22	1934CST			0	0			Thunderstorm Wind (G57) ^M
Bowman County 9 E Bowman	22	1955CST			0	0			Thunderstorm Wind (G65)
Adams County Reeder	22	2015CST			0	0			Hail (0.88)
Reported by a cooperative observer.									
Bowman County 25 SW Rhame	25	0445CST			0	0			Thunderstorm Wind (G52)
Numerous tree branches down.									
Golden Valley County 6 S Beach	25	1820CST			0	0			Hail (1.75)
Golden Valley County 3 N Golva	25	1827CST			0	0			Hail (1.75)
Trained spotter reported ground white from hail and wind gust to 60 mph accompanied the storm.									
Golden Valley County 5 ENE Golva	25	1845CST			0	0			Tornado (F2)
The tornado remained in open country but hit a farmstead causing major damage. Windows blown out. Singles and siding ripped off.									
Golden Valley County 5 ENE Golva	25	1845CST			0	0			Hail (2.75)
This is the same storm which produced an f2 tornado 5 miles east...northeast of Golva. Reportes of "rivers" of water and hail caused localize flooding.									
Billings County 19 S Medora	25	2003CST			0	0			Hail (1.75)
Slope County 1 N Amidon	25	2045CST			0	0			Hail (1.00)
Golden Valley County 4 E Golva	25	2100CST			0	0			Flash Flood

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
NORTH DAKOTA, Central and West									
Flash flooding resulted in the death of several livestock.									
Slope County									
Marmarth	25	2101CST 2107CST			0	0			Hail (1.25)
The hail lasted 6 minutes.									
Slope County									
1 E Marmarth	25	2112CST			0	0			Hail (1.75)
Golden Valley County									
5 ENE Golva	25	2113CST			0	0			Flood
Up to 3 inches of rain fell in a 2 hour period associated with drifts of hail caused overland flooding and washing out back roads.									
Bowman County									
4 W Rhame	25	2130CST			0	0			Hail (0.88)
Grant County									
Elgin	26	1700CST			0	0			Urban/Sml Stream Fld
Mckenzie County									
13 E Watford City	26	1735CST			0	0			Tornado (F0)
Brief touchdown in open country.									
Burke County									
17 E Battleview	26	1740CST			0	0			Tornado (F0)
Brief touchdown in open country.									
Morton County									
6 E Flasher	26	1910CST			0	0			Hail (1.00)
Golden Valley County									
Golva	26	1946CST			0	0			Hail (0.75)
Bowman County									
Scranton	26	2026CST			0	0			Urban/Sml Stream Fld
Hettinger County									
8 SW Regent	26	2120CST			0	0			Flood
Up to 4 inches of rain fell during a 12 hour period causing flooding of ditches and some back roads.									
Grant County									
8 N Carson	26	2123CST			0	0			Flood
Law enforcement reported 5 inches of rain. Water washing over the roadway.									
Bottineau County									
5 NW Bottineau	26	2135CST			0	0			Flood
Law enforcement reported several roads washed out.									
Billings County									
7 S Fairfield	26	2135CST			0	0			Heavy Rain
Emergency management reported 2 inches of rain within a 15 minute period causing road flooding.									
Morton County									
Mandan	26	2200CST			0	0			Flood
Emergency manager reported some back roads washed out.									
Burleigh County									
Bismarck	26	2200CST			0	0			Urban/Sml Stream Fld
Around 2 inches of rain fell in a very short time causing street flooding and pooling of water in the city.									
Morton County									
Mandan	26	2200CST			0	0	200K		Urban/Sml Stream Fld
Up to 5 inches of rain fell within a 24 hour period causing flooded roads. High water washed up debris over some rural roads and homes. Up to 4 feet of standing water on some roads in the city.									
Bottineau County									
Bottineau Arpt	26	2350CST			0	0			Flood
Three inches of rain fell in the city and unconfirmed reports of up to 6 inches reported south of the city.									
Grant County									
8 E Elgin	27	0030CST			0	0			Flood
Flooding of roads started around 9 pm mdt. rainfall totals of 6 to 7 inches reported.									
Hettinger County									
Regent	27	0100CST			0	0			Flood
Unknown amount of rain caused flooding of back roads. Unconfirmed reports of some back roads washing out.									
Bottineau County									
5 NW Newburg	27	0130CST			0	0			Urban/Sml Stream Fld

Storm Data and Unusual Weather Phenomena

July 2001

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 DAKOTA, Central and West

Numerous basements flooded. Up to 4 inches of rainfall reported.

Pierce County

Rugby	27	0140CST			0	0			Funnel Cloud
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Burleigh County

Bismarck	27	0200CST			0	0			Urban/Sml Stream Fld
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Rainfall of 3 to 4 inches over the city caused flooding of streets and underpasses. Many back roads near the Missouri River were water covered at times and a few washed out. Two mud slides on River Road covered the north bound lanes.

Morton County

1 N Mandan	27	0200CST			0	0			Urban/Sml Stream Fld
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An off duty NWS employee reported 4.75 inches of rain. Several roads accumulated up to 2 feet of water closing those roads to traffic.

Golden Valley County

3 N Golva	28	2140CST			0	0			Hail (0.75)
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Golden Valley County

Beach	28	2140CST			0	0			Thunderstorm Wind (G52)
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Dickey County

Oakes	30	0630CST			0	0			Hail (1.00)
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Dickey County

Oakes	30	0630CST			0	0			Hail (1.00)
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Emmons County

Linton	30	2340CST			0	0			Thunderstorm Wind (G50)
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Wind damage to a farm buildings and toppled silo's 12 miles east and 18 miles southeast of Linton.

Sioux County

Ft Yates	30	2345CST			0	0			Thunderstorm Wind (G57)
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Tree's and branches down in town.

Emmons County

Strasburg	30	2348CST			0	0			Thunderstorm Wind (G52)
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Tree limbs of 3 to 4 inch diameter down.

Mcintosh County

Wishek	31	0000CST			0	0			Thunderstorm Wind (G61)
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Roof damage to commercial building and semi truck blown over. Playground equipment scattered.

Logan County

6 NNW Fredonia	31	0015CST			0	0			Thunderstorm Wind (G57)
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Grain bin destroyed.

Mcintosh County

Ashley	31	0025CST			0	0			Hail (1.75)
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Reported by an cooperative observer.

Mcintosh County

Ashley	31	0025CST			0	0			Thunderstorm Wind (G52)
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Reported by an cooperative observer.

Stutsman County

Montpelier	31	0110CST			0	0			Thunderstorm Wind (G52)
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Reported by an cooperative observer.

Stutsman County

1 NW Courtenay	31	0130CST			0	0			Thunderstorm Wind (G52)
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Tree damage reported by an cooperative observer.

Bottineau County

Lansford	31	0710CST			0	0			Hail (1.50)
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Reported by an cooperative observer.

NORTH DAKOTA, East

Grand Forks County

Grand Forks Afb	16	1625CST			0	0			Hail (0.75)
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Grand Forks County

Grand Forks Afb	16	1625CST			0	0			Thunderstorm Wind (G59) ^M
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Benson County

Oberon	16	2030CST			0	0			Hail (0.75)
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Eddy County

Sheyenne	16	2040CST			0	0	0.50K		Thunderstorm Wind
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Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
NORTH DAKOTA, East									
Branches were blown down.									
Griggs County 7 NE Cooperstown	17	1450CST			0	0			Hail (2.00)
Steele County 6 W Finley	17	1500CST			0	0			Hail (1.75)
Griggs County 4 E Cooperstown	17	1504CST			0	0			Hail (1.00)
Steele County 5 W Finley	17	1505CST			0	0			Hail (1.75)
Griggs County 5 E Cooperstown	17	1520CST			0	0			Funnel Cloud
Griggs County 3 NE Cooperstown	17	1520CST			0	0			Hail (2.00)
Steele County 3 S Finley	17	1528CST			0	0			Hail (1.00)
Steele County 3 SW Finley	17	1530CST			0	0	15K		Hail (1.75)
The hail battered a farmhouse, denting the siding and putting holes in the gutters. Several windows were broken and the shingles were damaged.									
Steele County 5 N Hope	17	1535CST			0	0			Hail (1.75)
Steele County 7 SW Finley	17	1600CST 1615CST			0	0	10K	5M	Hail (2.00)
The hail damaged a pickup. County extension agents estimated that 10,000 acres were destroyed along a strip from highway 200 along the Steele/Griggs line to near Blabon.									
Steele County 10 S Finley	17	1600CST 1700CST			0	0			Hail (4.50)
Traill County 5 SW Portland	17	1607CST			0	0			Funnel Cloud
Griggs County 5 E Cooperstown	17	1610CST			0	0			Hail (0.75)
Steele County 10 S Finley	17	1645CST			0	0			Hail (4.50)
Traill County Clifford	17	1645CST			0	0			Hail (0.75)
Traill County Clifford	17	1645CST 1700CST			0	0			Hail (0.75)
Cass County Lynchburg	17	1700CST			0	0			Hail (2.75)
Griggs County 3 E Cooperstown	17	1700CST			0	0			Flash Flood
Water was reported over highway 200 with many fields and ditches full.									
Steele County 5 S Finley	17	1700CST			0	0			Flash Flood
Water was reported over highways 200 and 32 with many fields and ditches also flooded.									
Traill County 6 SE Kelso	17	1706CST			0	0			Hail (0.75)
Cass County 3 N Chaffee	17	1715CST			0	0	50K		Hail (4.50)
The ground was white with hail. The hail killed birds and damaged several vehicles and buildings.									
Cass County 3 NE Chaffee	17	1720CST			0	0			Hail (3.00)
Barnes County 2 N Oriska	17	1800CST			0	0			Hail (0.88)

Storm Data and Unusual Weather Phenomena

July 2001

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>									
Richland County									
8 W Walcott	17	1827CST			0	0			Hail (0.75)
Richland County									
8 W Walcott	17	1827CST			0	0			Thunderstorm Wind (G61)
Richland County									
12 N Wyndmere	17	1830CST			0	0			Thunderstorm Wind (G70)
			Small trees were blown down.						
Cass County									
4 E Kindred	17	1836CST			0	0			Hail (0.75)
Ramsey County									
Brocket	17	1840CST			0	0			Hail (0.75)
Richland County									
13 S Walcott	17	1845CST			0	0			Thunderstorm Wind (G78)
Ransom County									
1 N Mc Leod	17	1900CST			0	0	1K		Thunderstorm Wind
			Tree branches were blown down.						
Richland County									
Walcott	17	1900CST			0	0	20K		Thunderstorm Wind
			Half of the metal roof on the fire station was blown off and deposited a block away. Many trees were uprooted by the strong wind.						
Richland County									
Mooreton	17	1905CST			0	0			Thunderstorm Wind (G56) ^M
			A 65 mph wind gust was measured at the Mooreton Weigh Station.						
Richland County									
8 NE Barney	17	1910CST			0	0			Hail (1.00)
Richland County									
6 N Barney	17	1910CST			0	0			Hail (1.00)
Richland County									
8 NE Barney	17	1910CST			0	0	100K		Tornado (F1)
			70 trees were uprooted and twisted in different directions. The awnings of a home and a barn were destroyed by the tornado. Several radio towers were toppled. At a nearby farm, a large grain bin, house, and several other buildings were damaged.						
Ransom County									
4 N Mc Leod	17	1915CST			0	0	1K		Thunderstorm Wind
			Tree branches were blown down.						
Richland County									
Mooreton	17	1920CST			0	0			Thunderstorm Wind (G69) ^M
			A 79 mph wind gust was measured at the Mooreton Weigh Station.						
Barnes County									
2 S Fingal	17	1938CST			0	0			Hail (2.00)
Richland County									
4 E Mooreton	17	1945CST			0	0			Hail (0.75)
Richland County									
9 W Wahpeton	17	1950CST			0	0			Thunderstorm Wind (G56)
			Trees were downed by the strong wind.						
Cass County									
7 SW Alice	17	1955CST			0	0			Hail (1.75)
Cass County									
17 W Leonard	17	2000CST			0	0			Hail (1.75)
Ransom County									
Sheldon	17	2015CST			0	0			Hail (0.75)
Ransom County									
5 SW Lisbon	17	2055CST			0	0			Hail (1.50)
Richland County									
15 N Wyndmere	17	2055CST			0	0			Hail (1.00)
Richland County									
7 N Walcott	17	2100CST			0	0			Hail (0.75)
Ransom County									
6 S Lisbon to 7 S Lisbon	17	2110CST 2115CST			0	0			Hail (1.75)

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
<u>NORTH DAKOTA, East</u>									
Richland County									
9 W Wahpeton	17	2150CST			0	0			Thunderstorm Wind (G56)
			Numerous trees were blown down.						
Richland County									
3 SE Mooreton	17	2155CST			0	0			Hail (1.75)
Richland County									
3 SW Mooreton	17	2200CST			0	0			Hail (1.75)
Richland County									
5 E Mooreton	17	2200CST			0	0			Hail (1.00)
Barnes County									
13 NE Valley City	17	2335CST			0	0			Hail (0.75)
Griggs County									
4 W Binford	18	0010CST			0	0			Hail (1.00)
Cass County									
9 N Tower City	18	0015CST			0	0			Hail (0.75)
Steele County									
2 S Blabon	18	0100CST 0115CST			0	0			Hail (1.00)
Steele County									
Hope	18	0130CST			0	0	2K		Thunderstorm Wind
			Trees were blown down in Hope.						
Pembina County									
4 E Neche	18	1511CST			0	0			Hail (2.50)
Pembina County									
3 W Pembina	18	1518CST			0	0			Hail (1.00)
			The ground was white with hail.						
Pembina County									
1 W Pembina	18	1530CST			0	0	10K		Hail (2.75)
			The hail knocked out a yard light and damaged several vehicles.						
Pembina County									
2 S Pembina	18	1534CST			0	0			Tornado (F0)
			A brief tornado touchdown was reported.						
Pembina County									
2 S Pembina to Pembina	18	1535CST			0	0	20K		Hail (1.75)
			The hail broke many windows.						
Nelson County									
2 S Mc Ville	18	1655CST			0	0			Tornado (F0)
			A brief touchdown was reported.						
Griggs County									
8 N Binford	18	1657CST 1701CST			0	0			Tornado (F0)
			A brief touchdown was reported.						
Nelson County									
1 N Lakota	18	1700CST			0	0			Hail (0.75)
Griggs County									
2 NW Binford	18	1704CST			0	0			Tornado (F0)
			A brief touchdown was reported.						
Nelson County									
9 SW Pekin to 5 S Pekin	18	1705CST 1710CST			0	0	200K		Tornado (F3)
			A tornado hit the home of the Nelson county sheriff, who was out of town at the time. The tornado tore the roof off the house and destroyed the barn. A piece of farm machinery was thrown through the bedroom wall and a tractor was hurled 75 yards. The sheriff's squad car was crushed.						
Griggs County									
9 NW Binford to 8 NW Binford	18	1709CST 1710CST			0	0			Tornado (F0)
			A brief touchdown was reported.						

Storm Data and Unusual Weather Phenomena

July 2001

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>									
Nelson County									
4 N Pekin	18	1720CST			0	0			Hail (1.75)
Nelson County									
3 N Aneta	18	1723CST			0	0			Tornado (F0)
			The tornado was 100 yards wide.						
Pembina County									
Cavalier	18	1723CST			0	0			Hail (0.75)
Nelson County									
12 NW Aneta	18	1725CST			0	0			Tornado (F0)
			The tornado was 100 yards wide.						
Griggs County									
5 N Binford	18	1735CST			0	0			Tornado (F0)
			A brief touchdown was reported.						
Walsh County									
Park River	18	1753CST			0	0			Hail (0.88)
Walsh County									
3 S Park River	18	1755CST			0	0			Hail (1.25)
Nelson County									
5 S Pekin	18	1800CST			0	0			Tornado (F0)
			A brief touchdown was reported.						
Pembina County									
2 E Hensel	18	1800CST			0	0			Hail (0.75)
Steele County									
1 N Sharon	18	1800CST			0	0			Tornado (F0)
			A brief tornado touchdown was reported.						
Nelson County									
4 S Tolna	18	1804CST			0	0			Tornado (F0)
			The tornado destroyed a grove of trees.						
Nelson County									
2 N Tolna	18	1820CST			0	0			Tornado (F0)
			A brief touchdown was reported.						
Pembina County									
2 S St Thomas	18	1830CST			0	0			Hail (0.75)
Walsh County									
5 S Grafton	18	1830CST			0	0			Hail (0.75)
Pembina County									
3 NW Crystal	18	1845CST			0	0			Hail (0.75)
Griggs County									
14 E Binford	18	1900CST			0	0			Tornado (F0)
			A brief touchdown was reported.						
Pembina County									
St Thomas	18	1900CST			0	0	1K		Flash Flood
			Street flooding was reported in St. Thomas.						
Steele County									
4 W Sharon	18	1900CST			0	0			Tornado (F0)
			A brief touchdown was reported.						
Walsh County									
8 NE Minto	18	1915CST			0	0	0.50K		Thunderstorm Wind
			Numerous branches were blown down.						
Barnes County									
Urbana	18	2030CST			0	0			Hail (0.75)
Grand Forks County									
4 N Manvel	18	2200CST			0	0			Hail (0.75)
Grand Forks County									
4.5 S Emerado	18	2304CST 2307CST			0	0			Tornado (F0)
			A tornado touchdown was reported, paralleling county road 6.						

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
<u>NORTH DAKOTA, East</u>									
Grand Forks County									
4 W Grand Forks to 3 SW Grand Forks	18	2314CST 2322CST			0	0			Tornado (F0)
A brief touchdown was reported. At the 8300 block of 32nd Avenue South, 2 policemen in their squad cars felt the pull of the strong wind.									
Grand Forks County									
Grand Forks	18 19	2330CST 0100CST			0	0	250K		Flash Flood
Three inches of rain in nearly a half hour caused problems for portions of the city of Grand Forks. Widespread flooding was reported, with 2 to 4 feet of water on some city streets. Numerous vehicles were stalled in the high water. The Old Englestad Arena took on 4 1/2 feet of water and 20 other UND buildings reported some water damage. Water seepage occurred in several basements.									
Traill County									
3 E Buxton	18	2330CST			0	0			Hail (0.75)
Traill County									
3 E Buxton	18	2330CST			0	0	2K		Thunderstorm Wind
Numerous large trees were blown down.									
Traill County									
Reynolds	19	0000CST			0	0	0.50K		Flash Flood
Basement flooding was reported in Reynolds.									
Walsh County									
4 E Minto	19	0100CST			0	0			Hail (0.88)
Eddy County									
4 W New Rockford	20	0015CST			0	0	0.50K		Thunderstorm Wind
Tree branches were blown down.									
Griggs County									
Hannaford	20	0025CST			0	0	0.50K		Thunderstorm Wind
Tree branches were blown down.									
Benson County									
7 E Warwick	20	0030CST			0	0	1K		Thunderstorm Wind
A tree was blown down.									
Ramsey County									
Devils Lake	20	0045CST			0	0	5K		Thunderstorm Wind
A tree branch was blown down onto a car, breaking its windshield. Another tree fell on a garage and another tree fell on a house, knocking out its power.									
Barnes County									
2 NE Rogers	20	0050CST			0	0	2K		Thunderstorm Wind
Numerous large tree branches were blown down.									
Nelson County									
Lakota	20	0050CST			0	0	0.50K		Thunderstorm Wind
Tree branches were blown down.									
Steele County									
Finley	20	0100CST			0	0	2K		Thunderstorm Wind
Trees were blown down.									
Ransom County									
3 NE Lisbon	20	0105CST			0	0			Hail (1.25)
Richland County									
3 NE Wyndmere	20	0130CST			0	0	10K		Thunderstorm Wind
A grain bin was lifted off its foundation and demolished. Numerous trees were blown down.									
Richland County									
Wahpeton	20	0430CST			0	0			Thunderstorm Wind (G51) ^M
A 59 mph wind gust was measured at the ND State College of Science.									
Benson County									
11 S Esmond	21	0015CST			0	0	0.50K		Thunderstorm Wind
Tree branches were blown down.									
Benson County									
Maddock	21	0045CST			0	0			Thunderstorm Wind (G56)
Tree branches were blown down.									

Storm Data and Unusual Weather Phenomena

July 2001

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>									
Eddy County 5 W New Rockford to New Rockford	21	0121CST			0	0			Thunderstorm Wind (G61)
			Many trees were blown over.						
Benson County 3 E Oberon	21	0139CST			0	0			Hail (0.75)
Eddy County Sheyenne	21	0200CST			0	0	0.50K		Thunderstorm Wind
			Trees were blown down.						
Griggs County Binford	21	0200CST			0	0			Hail (0.75)
Nelson County Mc Ville	21	0200CST			0	0			Thunderstorm Wind (G61)
			Trees were blown down.						
Barnes County Dazey	21	0210CST			0	0			Thunderstorm Wind (G56)
Benson County Oberon	21	0230CST			0	0	0.50K		Thunderstorm Wind
			A large tree was blown down.						
Ramsey County Crary	21	0230CST			0	0	0.50K		Thunderstorm Wind
			Tree branches were blown down.						
Ramsey County Devils Lake	21	0230CST			0	0			Flash Flood
			Heavy rains flooded underpasses, and several cars stalled in the water.						
Steele County Finley	21	0245CST			0	0			Thunderstorm Wind (G52)
Cass County Page	21	0300CST			0	0			Thunderstorm Wind (G61)
Ransom County Mc Leod	21	0300CST			0	0			Thunderstorm Wind (G52)
Trails County 5 E Mayville	21	0300CST			0	0	1K		Thunderstorm Wind
			Trees were blown down.						
Barnes County Valley City	21	0330CST			0	0	0.50K		Thunderstorm Wind
			Large branches were blown down.						
Richland County 8 W Walcott	21	0355CST			0	0	0.50K		Thunderstorm Wind
			Large branches were blown down.						
Barnes County Dazey	22	0600CST			0	0	10K		Thunderstorm Wind
			A powerline was blown down.						
Cavalier County 2 W Nekoma	22	0640CST			0	0	0.50K		Thunderstorm Wind
			Large branches were blown down.						
Cass County Chaffee	22	0700CST			0	0	1K		Thunderstorm Wind
			Trees were blown down.						
Grand Forks County Grand Forks	27	0950CST			0	0			Flash Flood
			Street flooding was reported in Grand Forks.						
Eddy County 17 SW Hamar	27	1200CST			0	0			Flash Flood
			Water was reported over a county road.						
Nelson County 11 S Lakota	27	1352CST			0	0			Flash Flood
			Water was reported over highway 1.						

Storm Data and Unusual Weather Phenomena

July 2001

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>									
Sargent County									
4 NE Crete	30	0645CST			0	0			Hail (1.00)
Ransom County									
Englevale	30	0650CST			0	0			Hail (0.75)
Cass County									
Arthur	30	0845CST			0	0			Hail (0.88)
Cass County									
4 S Gardner	30	0900CST			0	0			Hail (1.00)
Nelson County									
Petersburg to 1 S Petersburg	30	0918CST 0923CST			0	0			Hail (0.88)
Sargent County									
7 S Geneseo	30	0925CST			0	0			Hail (0.75)
Grand Forks County									
3 N Niagara	30	0930CST			0	0			Hail (1.00)
Richland County									
15 W Walcott	30	0930CST			0	0			Hail (0.75)
Nelson County									
1 S Dahlen	30	0945CST			0	0			Hail (0.88)
Grand Forks County									
4 SW Gilby	30	1005CST			0	0			Hail (0.75)
Grand Forks County									
Grand Forks	30	1019CST			0	0			Hail (0.75)
Grand Forks County									
Grand Forks	30	1021CST			0	0			Hail (0.75)
			The hail was reported in downtown Grand Forks.						
Grand Forks County									
Grand Forks	30	1022CST			0	0			Hail (1.50)
			The hail was reported at Altru Hospital.						
Grand Forks County									
Grand Forks	30	1025CST			0	0			Hail (0.88)
Grand Forks County									
3 E Inkster	30	1032CST			0	0			Hail (0.75)
Walsh County									
3 N Grafton	30	1045CST			0	0			Hail (0.75)
Walsh County									
2 NW Ardoch	30	1104CST			0	0			Hail (0.75)
Barnes County									
7 N Valley City	31	0140CST			0	0	150K		Thunderstorm Wind (G70)
			Large trees were uprooted around Lake Ashtabula, falling on cars, decks, and houses. Boats, pontoons, jet skis, and boat lifts were also damaged.						
Barnes County									
Valley City	31	0140CST			0	0	2K		Thunderstorm Wind
			Trees were blown down.						
Cass County									
Arthur	31	0145CST			0	0	0.50K		Thunderstorm Wind
			Large trees were blown down.						
Cass County									
Buffalo	31	0211CST			0	0			Thunderstorm Wind (G50) ^M
			A 58 mph wind gust was measured at a North Dakota DOT RWIS site.						
Steele County									
7 NE Hope	31	0230CST			0	0	0.50K		Thunderstorm Wind
			Trees were blown down.						
Trail County									
5 E Buxton	31	0255CST			0	0	0.50K		Thunderstorm Wind
			A large tree was blown down.						
Grand Forks County									
Grand Forks	31	0300CST			0	0	1K		Thunderstorm Wind

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm	
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops		Damage
<u>NORTH DAKOTA, East</u>										
Several large trees were blown down in south Grand Forks.										
Griggs County Cooperstown	31	0900CST			0	0	0.50K		Thunderstorm Wind	
			Branches were blown down.							
Grand Forks County 3 SW Holmes	31	0950CST			0	0	0.50K		Thunderstorm Wind	
			Branches were blown down.							
Griggs County Cooperstown	31	0955CST			0	0	5K		Flash Flood	
			The city park was flooded and water was 2 feet deep on streets downtown.							
Steele County 15 NE Finley	31	1000CST			0	0	0.50K		Thunderstorm Wind	
			Branches were blown down.							
Trail County Hatton	31	1008CST			0	0	0.50K		Thunderstorm Wind	
			Branches were blown down.							
Grand Forks County 7 SW Grand Forks	31	1030CST			0	0			Hail (0.75)	
Grand Forks County Grand Forks	31	1030CST			0	0	1K		Thunderstorm Wind	
			Trees were blown down.							
Cass County Embden	31	1550CST			0	0			Hail (0.75)	
Grand Forks County Grand Forks	31	1554CST			0	0			Hail (1.00)	
			A few one inch hailstones fell in south Grand Forks.							
Grand Forks County Grand Forks	31	1652CST 1720CST			0	0	20K		Flash Flood	
			Street flooding was reported in Grand Forks with a few stalled vehicles. Sewer backup occurred in the basement of one house. Underground parking lots were flooded.							
Cass County 3 NE Argusville	31	1730CST			0	0			Thunderstorm Wind (G52)	
<u>OHIO, East</u>										
Columbiana County Fredericktown	01	1200EST			0	0	1K		Thunderstorm Wind	
			Thunderstorm winds downed a large tree.							
Tuscarawas County Dover	01	1215EST			0	1			Lightning	
			A 19-year old woman was struck by lightning outside her home as she was attempting to move a large umbrella. She was taken to the local hospital and listed in satisfactory condition.							
Tuscarawas County New Philadelphia	01	1235EST			0	0	2K		Thunderstorm Wind	
			Thunderstorm winds downed a few trees along SR 39.							
Tuscarawas County Port Washington	01	1250EST			0	0	2K		Thunderstorm Wind	
			Thunderstorm winds downed a few trees.							
Harrison County Piedmont	01	1330EST			0	0	5K		Thunderstorm Wind	
			Thunderstorm winds downed several large trees along U.S. Route 22.							
Guernsey County Cumberland	01	1345EST			0	0	5K		Thunderstorm Wind	
			Thunderstorm winds downed several large trees.							
Muskingum County Zanesville	01	1420EST			0	0	2K		Thunderstorm Wind	
			Thunderstorm winds downed a few trees.							
Belmont County Shadyside	01	1430EST			0	0	10K		Thunderstorm Wind	

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
<u>OHIO, East</u>									
Thunderstorm winds downed numerous trees across eastern sections of the county, including the Weegee, Farmington and Belaire areas.									
Columbiana County									
Salem	05	1030EST			0	0			Hail (0.75)
Guernsey County									
Byesville	09	2030EST			0	0	2K		Thunderstorm Wind
Thunderstorm winds downed a few trees.									
Muskingum County									
Avondale	09	2030EST			0	0	2K		Thunderstorm Wind
Thunderstorm winds downed a few trees and power lines.									
Carroll County									
Perryville	10	1520EST			0	0	2K		Thunderstorm Wind
Thunderstorm winds downed a few trees.									
Harrison County									
Cadiz Jct	10	1530EST			0	0	10K		Thunderstorm Wind
Thunderstorm winds downed numerous trees in the German Township area.									
Jefferson County									
Steubenville	10	1615EST			0	0	10K		Thunderstorm Wind
Thunderstorm winds downed numerous trees and power lines in Steubenville, with the heaviest damage occurring in the city's West End.									
Jefferson County									
Smithfield	10	2044EST			0	0			Hail (1.00)
Guernsey County									
Antrim	25	0600EST			0	0			Flood
Thunderstorm rains accumulating over 3 inches in only a few hours produced minor roadway flooding.									
<u>OHIO, North</u>									
Erie County									
Milan	01	1135EST			0	0			Hail (0.75)
Dime size hail was reported.									
Erie County									
Milan	01	1135EST			0	0			Hail (0.75)
Dime size hail was reported three miles north of Milan.									
Holmes County									
Countywide	01	1140EST			0	0	5K		Thunderstorm Wind
Thunderstorm winds downed a few trees across the county.									
Huron County									
Wakeman	01	1150EST			0	0	5K		Thunderstorm Wind
Thunderstorm winds downed a few trees.									
Knox County									
Mt Vernon	01	1205EST			0	0	10K		Lightning
Lightning struck a building in downtown Mt. Vernon and damaged a brick facade.									
Knox County									
Gambier	01	1210EST			0	0	10K		Thunderstorm Wind
Thunderstorm winds downed two trees and a power pole.									
Wood County									
Hoytville	04	1740EST			0	0	2K		Thunderstorm Wind
Thunderstorm winds downed a tree.									
Hancock County									
Findlay	04	1803EST			0	0			Hail (0.75)
Dime size hail was reported two miles north of Findlay.									
Hancock County									
Findlay	04	1805EST			0	0			Hail (1.00)
Quarter size hail was reported.									
Huron County									
Willard	09	1613EST 1616EST			0	0	15K		Thunderstorm Wind
Thunderstorm winds downed six trees. A car was damaged by a fallen tree.									
Richland County									
Shiloh	09	1640EST			0	0	2K		Thunderstorm Wind

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
OHIO, North									
Thunderstorm winds downed a tree.									
Richland County									
Mansfield	09	1705EST			0	0	2K		Thunderstorm Wind
Thunderstorm winds downed a tree five miles east of Mansfield.									
Knox County									
Mt Vernon	09	1800EST			0	0	10K		Thunderstorm Wind
Thunderstorm winds downed four large trees near Mt. Vernon.									
Wayne County									
Wooster	10	1400EST			0	0	35K		Thunderstorm Wind
Thunderstorm winds downed 15 to 20 trees along Beall Avenue near University Street. At least one car was damaged by a fallen tree.									
Hancock County									
Mt Cory	10	1530EST			0	0	2K		Thunderstorm Wind
Thunderstorm winds downed two large tree limbs.									
Stark County									
East Sparta	10	1930EST			0	0	10K		Thunderstorm Wind
Thunderstorm winds downed several trees and large limbs in Pike Township near East Sparta.									
Marion County									
New Bloomington	19	1640EST			0	0	25K		Thunderstorm Wind
Thunderstorm winds downed two trees two miles north of New Bloomington. Both trees landed on a house and caused some roof damage.									
Knox County									
Mt Vernon	19	1800EST			0	0	25K		Thunderstorm Wind
Thunderstorm winds downed around a dozen trees.									
OHZ023									
	19	2020EST 2050EST			0	0	50K		Flood
Thunderstorms dumped heavy rains on Howland Township forcing the closure of three roads because of flooding. Many basements in the area were also flooded.									
Ashtabula County									
Austinburg	23	1415EST			0	0	5K		Thunderstorm Wind
Thunderstorm winds downed two trees along State Route 45.									
Huron County									
Monroeville	25	1453EST			0	0	10K		Thunderstorm Wind
Thunderstorm winds downed a few trees six miles northwest of Monroeville on Friedley Avenue in Bellevue. A power pole was also knocked down.									
Lucas County									
Countywide	29	2100EST 2120EST			0	0	15K		Thunderstorm Wind
Thunderstorm winds downed a few trees across the county.									
Ottawa County									
Genoa to Oak Harbor	29	2110EST			0	0	25K		Thunderstorm Wind
Thunderstorm winds downed several power poles along State Route 163 between Genoa and Oak Harbor.									
Sandusky County									
Lindsey	29	2145EST			0	0	2K		Thunderstorm Wind
Thunderstorm winds downed a large tree along County Road 106 east of Lindsey.									
Sandusky County									
Fremont	29	2155EST			0	0	2K		Thunderstorm Wind
Thunderstorm winds downed a tree along U.S. Highway 6 in Fremont.									
OHIO, Northwest									
Paulding County									
5 W Paulding	10	1515EST			0	0	0.50K		Thunderstorm Wind
Trees down and windows blown out of house.									
Paulding County									
1 W Paulding	10	1515EST			0	0	0		Thunderstorm Wind
Trees down and old barn blown over.									
Allen County									
Delphos	10	1545EST			0	0	0		Thunderstorm Wind
Trees and power lines down.									

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
<u>OHIO, Northwest</u>									
Allen County									
5 W Lima	10	1605EST			0	0	0		Thunderstorm Wind
			Trees and power lines down.						
Van Wert County									
Van Wert	21	1537EST			0	0			Thunderstorm Wind (G57) ^M
Van Wert County									
2 N Van Wert	21	1544EST			0	0	0		Thunderstorm Wind
			Trees down.						
Van Wert County									
Van Wert	21	1555EST			0	0	0		Thunderstorm Wind
			Trees down.						
Fulton County									
Metamora	29	2028EST			0	0			Hail (1.00)
<u>OHIO, Southeast</u>									
Morgan County									
Countywide	01	1440EST 1445EST			0	0	5K		Thunderstorm Wind
			Scattered locations, mainly over the northern portion, had trees or large branches blown down.						
Washington County									
Marietta	01	1515EST			0	0	10K		Thunderstorm Wind
			A few structures sustained roof damage.						
			Thunderstorms formed in a typical summer environment, ahead of a strong cold front. The storms were moving from about 280 degrees on the compass at a speed around 40 mph.						
<u>OHIO, Southwest</u>									
Clark County									
Springfield	01	1315EST 1325EST			0	0	3K		Thunderstorm Wind (G50)
			Strong winds knocked down numerous trees and powerlines. A few buildings sustained some damage.						
Fairfield County									
Millersport	01	1315EST 1320EST			0	0	25K		Thunderstorm Wind (G50)
			A barn was blown off its foundation and numerous trees were knocked down.						
Warren County									
7 NW Lebanon	01	1500EST 1505EST			0	0	3K		Thunderstorm Wind (G50)
			Several trees were knocked down by thunderstorm winds.						
Shelby County									
3 NW Sidney	07	1111EST 1115EST			0	0			Hail (2.00)
Miami County									
Tipp City	07	1152EST 1155EST			0	0			Hail (1.75)
Pickaway County									
8 W Circleville to 8 E Circleville	08	0120EST 0130EST			0	0	3K		Thunderstorm Wind (G50)
			Trees were knocked down on the west and east side of Circleville.						
Clermont County									
Felicity	08	1207EST 1215EST			0	0	10K		Thunderstorm Wind (G50)
			Numerous trees and power lines were knocked down. Roof damage was also reported to a barn.						
Butler County									
Countywide	08	1230EST 1250EST			0	0	5K		Thunderstorm Wind (G50)
			Numerous trees knocked down across the county.						
Hamilton County									
Harrison to 5 N Cincinnati	08	1250EST 1310EST			0	0	5K		Thunderstorm Wind (G50)

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property Damage	Crops	
OHIO, Southwest									
Trees were knocked down at several locations across the county.									
Clermont County Mt Pisgah	08	1318EST 1325EST			0	0	5K		Thunderstorm Wind (G50)
Thunderstorm winds knocked down numerous trees.									
Brown County Georgetown to Countywide	08	1330EST 1350EST			0	0	5K		Thunderstorm Wind (G50)
Trees were knocked down. A roof was ripped off a building at the county fairgrounds and a barn was damaged.									
Adams County Manchester	08	1400EST 1410EST			0	0	3K		Thunderstorm Wind (G50)
Trees knocked down.									
Preble County New Paris	08	1850EST 1900EST			0	0	3K		Thunderstorm Wind (G50)
Trees and power lines knocked down.									
Hamilton County Cincinnati	08	1900EST 1910EST			0	0	5K		Thunderstorm Wind (G50)
Thunderstorm winds knocked down trees.									
Butler County Hamilton	08	1910EST 1920EST			0	0	3K		Thunderstorm Wind (G50)
Trees knocked down by thunderstorm winds.									
Clermont County Miamiville	08	1910EST 1920EST			0	0	3K		Thunderstorm Wind (G50)
Large limbs were knocked down in the northwestern part of the county.									
Two bow echoes clipped the southwestern part of Ohio on the 8th leaving a trail of damage across the area.									
Hardin County 5 N Kenton	11	1600EST 1605EST			0	0	3K		Thunderstorm Wind (G50)
Trees knocked down.									
Auglaize County 3 SE Criddersville	11	1630EST 1635EST			0	0	3K		Thunderstorm Wind (G50)
Thunderstorm winds knocked down trees.									
Fairfield County Baltimore	17	1907EST 1911EST			0	0	3K		Thunderstorm Wind (G50)
Several trees down throughout town									
Clermont County Milford	17	1953EST 1957EST			0	0	3K		Thunderstorm Wind (G50)
Trees and powerlines down across town									
Clermont County Batavia to Felicity	17	2050EST 2100EST			0	0	3K		Thunderstorm Wind (G50)
Trees down across the southern part of the county									
Brown County Countywide	17	2100EST 2115EST			0	0	3K		Thunderstorm Wind (G50)
Trees down across the county									
Adams County Lawshe	17 18	2130EST 0415EST			0	0	200K		Flash Flood
An unoccupied truck was swept away in high water near Peebles. Minor damage sustained by a few homes and roadways across the northern part of the county.									

Storm Data and Unusual Weather Phenomena

July 2001

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

OHIO, Southwest

Brown County

Countywide	17	2130EST			0	0	100K		Flash Flood
	18	0500EST							

Damage reported to State Route 131 and other county roads, with eight to ten bridges washed out.

Preble County

Countywide	17	2215EST			0	0			Flash Flood
	18	0500EST							

Roads flooded across the county. Twenty homes and trailers were evacuated due to high water.

Butler County

Countywide	17	2218EST			0	0	500K		Flash Flood
	18	0230EST							

Several state, county and township roads incurred culvert and/or beam damage. 159 dwellings and one nursing home with damage across county. A stream was out of its banks at the intersection of State Routes 73 and 177.

Warren County

Mason	17	2245EST			0	0	500K		Flash Flood
	18	0300EST							

One hundred homes sustained damage with two destroyed from high water. A resident lost six cars when water flooded his garage. Several roads across county sustained minor damage.

Hamilton County

Newtown	17	2256EST			0	0			Thunderstorm Wind (G53) ^M
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Hamilton County

Countywide	17	2258EST			3	0	5M		Flash Flood
	18	0230EST							

389 dwellings sustained damage due to flooding. Several businesses were flooded along Mill Creek in Sharonville. Two people, a young woman, 21, and her father, 48, died in their flooded basement in Fairfax, when Little Duck Creek flooded in their neighborhood. A young woman, 16, was swept away while attempting to escape a vehicle which had become trapped in high water on a bridge. F21PH, M48PH, F16IW

Clermont County

Countywide	17	2300EST			0	0	2.5M		Flash Flood
	18	0300EST							

Eleven bridges along county and township roads sustained damage in Miami, Goshen, Wayne and Gardner Townships. Four hundred homes, four businesses, two public buildings and more than two dozen cars, driveways and private bridges were damaged due to the high water.

Butler County

Countywide	17	2315EST			0	0	10K		Thunderstorm Wind (G50)
		2330EST							

Trees were knocked down across the county.

Clermont County

5 S Batavia	17	2320EST			0	0	50K		Thunderstorm Wind (G50)
		2330EST							

Thousands of trees knocked down near Batavia.

Hamilton County

Cincinnati	17	2320EST			0	0	3K		Thunderstorm Wind (G50)
		2325EST							

Large limbs knocked down.

OHZ078

Clermont

18	0000EST			0	0			Flood
	0830EST							

The Little Miami River overflowed its banks at Milford reaching a crest of 21.5 feet at 400 am EST on the 18th. Flood stage is 17.0 feet. Flooding occurred in low areas between Main Street and the river and along portions of Roundbottom Road in Anderson Township.

OHZ077

Hamilton

18	0930EST			0	0			Flood
	19 0000EST							

The Great Miami River rose to around 17.0 feet at 1300 EST, above the flood stage at 16.0 feet. Water approached summer cottages along the river in Miamitown.

OHZ081

Adams

18	1100EST			0	0			Flood
	1330EST							

The Ohio Brush Creek overflowed at West Union, cresting at 15.9 feet at 1200 pm EST on the 18th. Flood stage is 15.0 feet. Lowlands along the creek were flooded, with some water on State Route 348, and along State Routes 32 and 41 outside of Peebles.

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
OHIO, Southwest									
Hamilton County									
Cleves	18	1950EST 2230EST			0	0	400K		Flood
									Several business throughout area were flooded. Interstate 74 was closed due to high water across roadway.
Licking County									
Croton	19	1835EST 2000EST			0	0	2K		Flood
									Heavy rainfall flooded Appleton Road.
Hamilton County									
Greenhills	20	1650EST 1800EST			0	0			Flood
									Thunderstorms produced heavy rain which closed two roads and flooded two basements.
Mercer County									
Mendon	21	1635EST 1638EST			0	0			Thunderstorm Wind (G50)
									Thunderstorms produced strong winds which knocked down trees.
Auglaize County									
St Marys	21	1650EST 1653EST			0	0			Thunderstorm Wind (G50)
									Thunderstorms produced strong winds which knocked down a tree and large limbs.
Auglaize County									
St Marys	21	1700EST 1830EST			0	0			Flood
									Thunderstorms produced heavy rain which caused a foot of water to flow over Deep Cut Road.
Mercer County									
Celina	21	1815EST 1830EST			0	0			Flood
									Thunderstorms produced heavy rain which caused high water on roads including U.S. Rte 33.
Butler County									
Monroe	21	1945EST 2000EST			0	0			Flood
									Thunderstorms produced heavy rain which caused Gregory Creek to overflow its banks.
Butler County									
Trenton	21	2000EST 2115EST			0	0			Flood
									Thunderstorms produced heavy rain which caused a road to be closed.
Brown County									
Mt Orab	22	0515EST 0545EST			0	0			Flood
									Thunderstorms produced heavy rain which caused high water on roads.
Franklin County									
Grove City	25	1200EST 1245EST			0	0			Flood
									Thunderstorms produced heavy rain causing three feet of water on roads.
Montgomery County									
Riverside	25	1800EST 1804EST			0	0			Thunderstorm Wind (G50)
									Thunderstorms produced strong winds which knocked down trees.
Greene County									
Fairborn	25	1804EST			0	0			Thunderstorm Wind (G52)
									Thunderstorms produced strong winds which were estimated at Wright-Patterson Air Force Base at 60 mph.
Clermont County									
Williamsburg	25	2030EST 2215EST			0	0			Flood
									Thunderstorms produced heavy rain which caused high water on roads.
Brown County									
Fayetteville	25	2330EST			0	0			Flood
	26	0000EST							Thunderstorms produced heavy rain which caused high water on roads.

Storm Data and Unusual Weather Phenomena

July 2001

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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OHIO, Southwest

Clermont County

Felicity	26	0100EST 0130EST			0	0			Flood
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Thunderstorms produced heavy rain which caused high water on roads.

Clark County

Tremont City	29	0530EST 0630EST			0	0			Flood
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Thunderstorms produced heavy rain which caused flooded roads.

Fairfield County

Amanda	29	0600EST 0604EST			0	0			Hail (0.75)
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Thunderstorms produced dime size hail.

OKLAHOMA, Eastern

OKZ054>055-059>060-064 Osage - Washington - Pawnee - Tulsa - Creek

16	1200CST				1	0			Excessive Heat
26	1800CST								

During the middle of July strong high pressure in the upper atmosphere became anchored over the south central part of the United States. This high pressure brought extreme heat to parts of northeast Oklahoma. At the Tulsa International Airport eight days out of eleven from July 16 to July 26 had high temperatures above 100. Meanwhile, on six of those days the low temperature did not fall below 80. Humidity was also a problem with dew points generally in the lower to mid 70s. This resulted in afternoon heat indexes around 115. Over the time period several people were treated for heat related illnesses. One man in rural Pawnee county died from heat stroke on July 17. M43OT

Delaware County

Dennis	24	1550CST			0	0	5K		Thunderstorm Wind (G61)
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Thunderstorm winds estimated at 70 miles an hour blew a few trees down and damaged a barn.

Delaware County

4 S Grove	24	1600CST			0	0	3K		Thunderstorm Wind (G61)
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Thunderstorm wind estimated at 70 miles an hour blew down a tree. The tree blocked a road. Power lines were also blown down.

Delaware County

North Portion	24	1600CST			0	0			Flash Flood
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Heavy thunderstorm rains caused numerous roads to be flooded.

Delaware County

3 N Zena	24	1600CST			0	0	3K		Thunderstorm Wind (G52)
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Thunderstorm winds estimated at 60 miles an hour blew down large tree limbs and damaged the roofs of a few barns.

Nowata County

Nowata	28	1425CST			0	0	3K		Thunderstorm Wind (G61)
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Thunderstorm winds estimated at 70 miles an hour blew down power lines and an amateur radio antenna.

Craig County

Bluejacket	28	1452CST			0	0			Thunderstorm Wind (G61)
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Thunderstorm wind estimated at 70 miles an hour blew down a few trees.

OKLAHOMA, Extreme Southeast

NONE REPORTED.

OKLAHOMA, Panhandle

Cimarron County

2 N Boise City	12	1735CST			0	0			Hail (0.75)
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An isolated severe thunderstorm over the western Oklahoma panhandle during the early evening hours produced dime-sized hail.

Texas County

1 W Hooker	17	1655CST			0	0			Thunderstorm Wind (G54) ^M
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A severe thunderstorm produced high winds over the central Oklahoma panhandle during the early evening hours.

OKLAHOMA, Western, Central and Southeast

OKZ004>009-011>048-050>052 Harper - Woods - Alfalfa - Grant - Kay - Ellis - Major - Garfield - Noble - Roger Mills - Dewey - Custer - Blaine - Kingfisher - Logan - Payne - Beckham - Washita - Caddo - Canadian - Oklahoma - Lincoln - Grady - McClain - Cleveland - Pottawatomie - Seminole - Hughes - Harmon - Greer - Kiowa - Jackson - Tillman - Comanche - Stephens - Garvin - Murray - Pontotoc - Coal - Cotton - Jefferson - Carter - Johnston - Atoka - Love - Marshall - Bryan

04	0000CST				8	0			Excessive Heat/Drought
31	2359CST								

Storm Data and Unusual Weather Phenomena

July 2001

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

OKLAHOMA, Western, Central and Southeast

An extended period of excessive heat and drought affected all of western and central Oklahoma in July. Daily mean temperatures ranged from the mid 80s to near 90 degrees, which is four to five degrees above normal. Most areas regularly experienced high temperatures at or above 100 degrees, particularly western and north central Oklahoma. Eight fatalities resulted from the heat. A 78 year-old male died July 6th in Stillwater (Payne County) while loading equipment at a storage facility. An 82 year-old female died July 14th in her residence in Oklahoma City (Oklahoma County). A 62 year-old male died July 15th in his residence in Edmond (Oklahoma County). A 29 year-old male died July 17th in an Oklahoma City parking lot. Two persons died July 21st, one a 76 year-old male in a residence in Lawton (Comanche County), and the other an 85 year-old female in her residence in Oklahoma City. A 52 year-old male died July 24th in his residence in Oklahoma City, and a 49 year-old male died July 28th in his residence in Oklahoma City. In addition to the excessive heat, rainfall averaged about one-third of normal. M76PH, M29OU, M49PH, M52PH, F85PH, M62PH, F82PH, M78BU

Logan County

5 S Crescent 12 1657CST 0 0 Hail (0.75)

Logan County

2 W Langston 12 1658CST 0 0 Thunderstorm Wind (G52)

Logan County

3 W Meridian 12 1706CST 0 0 Thunderstorm Wind (G56)

Logan County

5 SE Guthrie 12 1725CST 0 0 20K Thunderstorm Wind

Two farm buildings, several trees, and a farm gate were damaged or destroyed.

Caddo County

Anadarko 16 1610CST 0 0 0.01K Thunderstorm Wind

Eight-inch diameter tree limbs were downed.

Greer County

6 N Mangum 16 1700CST 0 0 0.50K Thunderstorm Wind

Highway signs were blown down.

Beckham County

4 ESE Erick 16 1725CST 0 0 Thunderstorm Wind (G53) ^M

Wind gust was measured by Oklahoma mesonet.

Greer County

5 NNW Mangum 16 1830CST 0 0 5K Thunderstorm Wind

A large metal barn was destroyed.

Greer County

6 N Mangum 16 1831CST 0 0 Hail (0.88)

OREGON, Central and East

Wheeler County

5 SE Spray 10 1300PST 0 0 Lightning

Lightning caused a 6000 acre fire that burned for around 5 days near Sentinal Peak.

Deschutes County

Sunriver 11 1245PST 0 0 0 Urban/Sml Stream Fld
1315PST

A heavy slow moving thunderstorm dumped one inch of rain in one hour over Sunriver. Many roads became awash when runoff overwhelmed the town's drainage ditches.

Deschutes County

La Pine 11 1415PST 0 0 0 Hail (0.75)
1425PST

Penny sized hail completely covered the ground.

Grant County

Monument 11 1800PST 0 0 15K 0 Thunderstorm Wind

Winds from a thunderstorm toppled several trees and caused minor damage to several buildings.

Grant County

Galena 11 1805PST 0 0 0 Hail (0.75)
1810PST

Along with penny-sized hail, torrential rain fell, accumulating to 0.47 inches within 7 minutes.

Deschutes County

3 NE Sisters 12 1355PST 0 0 0 Hail (1.00)

Jefferson County

5 W Culver 12 1427PST 0 0 0 Hail (0.75)

A spotter reported penny-sized hail on the west side of Lake Chinook.

Umatilla County

4 SE Weston 12 1505PST 0 0 0 Hail (0.88)

Storm Data and Unusual Weather Phenomena

July 2001

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

OREGON, Central and East

Along with nickle sized hail, wind gusts of 65 mph were reported at the same time 2 miles away in Pine Creek Canyon.

Jefferson County

11 NW Camp Sherman
10 NW Camp Sherman

12 1600PST 0 0 Lightning

Lightning started a 6 day fire that burned 1800 acres northwest of Camp Sherman. This fire, named the Bald Peter Fire, threatened trout habitat in the Metolius River and cost 1.2 million dollars to control.

Morrow County

5 SSE Irrigon

12 1800PST 0 0 0 0 Thunderstorm Wind (G61) ^M

Several wind sensors located adjacent to the Umatilla Army Depot received severe wind gusts. 3 sites measured gusts of 70, 65 and 59 mph respectively.

Umatilla County

Hermiston

12 1800PST 0 0 10K 0 Thunderstorm Wind (G50)

Estimated wind gusts between 50 and 60 mph broke large limbs off many trees around Hermiston.

During the late afternoon, thunderstorms developed in southern Umatilla and Morrow counties. These storms later collapsed as they moved north over lower terrain along the foothills of the Blue Mountains and the Lower Columbia Basin, leading to wind damage along the front edge of the gust front.

Deschutes County

Tumalo

19 1700PST 0 0 100K 0 Lightning

Lightning from a thunderstorm during the afternoon of the 19th sparked a fire that later destroyed a house and its contents.

Deschutes County

La Pine

19 2000PST
2020PST 0 0 0 0 Urban/Sml Stream Fld

0.68 of an inch of rain fell in 20 minutes. The runoff flooded several low lying intersections to a depth of 6 inches.

OREGON, Northwest

NONE REPORTED.

OREGON, Southeast

Harney County

Burns

20 1442PST
1505PST 0 0 Hail (1.75)

Spotter at 11 NE Burns reported windows broken by 1.75 inch hail.

OREGON, Southwest

Jackson County

Ruch

10 1556PST
1633PST 0 0 Tstm Wind/Hail

See below.

A Severe Thunderstorm warning was issued for Northwest Siskiyou county in California and Southwest Jackson county in Oregon for the period listed above based on a spotter report and radar data. A Siskiyou county spotter reported "blueberry-sized" hail with this thunderstorm. The thunderstorm strengthened significantly on the radar after the report, so the warning was issued under the assumption that the hail was now at least 3/4 inch in diameter. Verification of the warning was attempted, but was unsuccessful.

Jackson County

Lakecreek

10 1815PST 0 0 Tstm Wind/Hail

See below

A Severe Thunderstorm Warning was issued for East Central Jackson county at 1807 PDT on 07/10/01 and expired at 1854 PDT on 07/10/01. A spotter reported dime size hail at Fish Lake Resort at 1815 PDT, verifying the warning.

Klamath County

Keno

11 1509PST 0 0 Tstm Wind/Hail

See below.

A Severe Thunderstorm Warning was issued for South Central Klamath county at 1507 PDT on 07/11/01, expiring at 1541 PDT on 07/11/01. Spotter KL04 in Keno reported dime size hail and heavy rain at 1509 PDT, verifying the warning.

Douglas County

Tokenee Falls

11 1519PST 0 0 Flash Flood

See below.

A Flash Flood Warning was issued for East Central Douglas county for the period listed above, based on radar data. The Boulder Creek area was of special concern. The US Forest Service later reported some flooding across USFS roads in the Calf Creek and Copeland Creek drainages as well as some mudslides. The largest problem was a 2 inch accumulation of .25 to .50 inch hail on State Highway 138 which caused the roadway to be slick along with near zero visibilities.

Jackson County

Ruch

12 1934PST 0 0 Tstm Wind/Hail

See below.

Storm Data and Unusual Weather Phenomena

July 2001

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

OREGON, Southwest

A Severe Thunderstorm Warning was issued for Southwest Jackson county at 1835 PDT on 07/12/01, expiring at 1951 PDT 07/12/01. A spotter near Ruch reported dime size hail at 1934 PDT, verifying the warning. Quarter size hail was also reported with this storm in the Applegate area.

Jackson County

Ruch	13	1938PST			0	0			Tstm Wind/Hail
		2046PST							

See below.

A Severe Thunderstorm Warning was issued for North Central Siskiyou County in California and Southwestern Jackson county in Oregon for the period listed above, based on radar data. Verification of the warning was attempted, but was unsuccessful.

Lake County

Lakeview	14	1558PST			0	0			Flash Flood
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See below.

At the time listed above, Lakeview Police reported rock and/or mudslides on State Highway 140 at mileposts 22, 23.2, and 25.1. They also reported .25 inch hail up to an inch deep and 2 feet of water in spots on the same highway. Based on this report and radar data, a Flash Flood Warning was issued for Southern Lake county at 1604 PDT on 07/14/01 and expired at 1900 PDT on 07/14/01.

ORZ029>031

Klamath Basin - Northern & Eastern Klamath County & Western Lake County - Central & Eastern Lake County

16	1544PST			0	0				Extreme Cold
17	0800PST								

See below.

A Frost Warning was issued for the above zones effective at the above dates and times. Observed low temperatures ranged from 29 to 40. No frost was reported, but it likely did form this night.

PACIFIC GUZ002

Micronesia

01	0000SST			0	0	700K	100K	Tropical Storm
03	0000SST							

A weak circulation formed on the monsoon trough south of Chuuk on about June 26th. The circulation moved westward over the next few days and gradually strengthened to become Tropical Depression 06W at 1900 local on the 1st. At this time the tropical depression was located near 7N 138E or 195 miles east of Palau. The system continued to intensify and became Tropical Storm Utor on the afternoon of

the 2nd. At this time Utor was 100 miles northwest of Yap. The tropical storm continued to move to the northwest and away from Yap and Palau. Utor was 184 miles northwest of Yap by the evening of the 2nd. The track of the tropical cyclone took it between Yap and Palau. Heavy rain and gusty winds were experienced at both locations as cyclone passed by.

Max sustained winds at the weather service office in Koror Palau were 35 mph with gust to 65 mph on July 2nd. The greatest rainfall recorded during the storm passage was at the Weather Service Office on Palau with 10.18 inches falling during a 24-hour period from the 1st to the 2nd. Total rainfall recorded for the entire storm passage was 13.24 inches from the morning of the 1st to the evening of the 2nd.

Gusty winds and heavy rains from Utor caused disruption across Palau. The heavy rainfall resulted in mudslides, which damaged 15 roads in Koror, Palau. The mudslides also affected water pipes, sewage pipes and underground telephone lines. Several electrical transmission lines were damaged from fallen trees resulting in an island-wide blackout.

The gusty winds also knocked down numerous trees across Palau. In Ngeremlengui State, a key bridge in the Ngermeskang Bridge, locally known as Koba Bridge, was washed away during the storm, cutting off traffic from northwest Babeldaob toward the south, including Koror. On the West Coast, a section of the public road Between Nekken and the Koksai junction were damaged by the storm.

47 residential homes were damaged across Palau. The estimated cost to fix these homes amounted to \$417,000. Many of the houses were of wood and tin roof construction. A few of the houses had their roofs blown off. In addition to the roof damage, some houses received water damage after the heavy rain poured through the damaged roof.

A landslide occurred in the vicinity of the U.S Embassy. The landslide eroded 38 meters of paved road and one half of the road width near the embassy. In Olluu, Angaur a breadfruit tree fell on top of the Catholic Church and in Ngaramas, Angaur a Mountain Apple tree fell on the Old Age Center.

The force of the waves damaged the docks at Ngardmau and Rois, Angaur. Waves also caused damage to a seawall at Ngaremlengui beach in Ngermetengel.

Landslides caused damage to fiber optic and copper communication cables that were buried at the side of some roadways. The fiber optic cable carries much of the islands communication and is linked to an earth station at Meyuns. With the fiber optic cable severed by the landslide, Palau lost much of its communication with the rest of the world. Limited access via the copper cable was possible.

Storm Data and Unusual Weather Phenomena

July 2001

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

PACIFIC

Cost
to fix the communication problem was about \$26,000.

Crops were also affected throughout Palau. Depending on location crops received varying amounts of damage.

Cassava plants were between 30 to 85 % damaged.
Bananas between 25 to 85% mainly young and mature fruit bearing trees
Taro between 10 to 90% some damaged from salt water intrusion and other from
fresh water flooding.

Betel nut 2 to 60 %
Papaya 2 to 70% mainly young and mature fruit bearing trees
Pineapple 10 to 30 %
Sugar Cane 10 to 30%
Sour sop 35 % in one state, no reports from others.
Mango and breadfruit 5% in one state, no reports from others.
Lemon 20% in one state, no reports from others.
Coconut and Pandanus 20% in one state, no reports from others.
One Tapioca farm was flooded, but unknown damage amount.

Yap had 30 mph with gust to 50 mph. An automated weather station on Ulithi, an island to the northeast of Yap had gust to 55 mph on the 2nd. An automated weather station on Ngulu, an island to the south of Yap recorded a gust to 40 mph on the second. The lowest sea level pressure recorded was 991.2 mb on Yap on the morning of the 2nd.

On Yap exposed beaches on the south and southwest side of the island was eroded due to high surf. About 10 percent of the road along the beachfront was washed away on the southwest side of the island. These areas are susceptible to damage from high surf, especially from southerly winds because the reefs are close to the shoreline. Riverbanks and low-lying areas on Yap were flooded. A few banana trees and some weak tree branches were damaged. Some tin-roofed structures that were in open areas had were blown off. A few termite infested houses collapsed.

No injuries or deaths were reported in Palau or Yap as a result of Tropical Storm Utor's passage through the area.

Rota

Songsong

04	0100SST 2300SST	0	0	40K	Rip Currents
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Swell generated by Tropical Storm Utor were refracted by the small peninsula on the southwest side of Rota. These swells crashed into the East Harbor docks in Songsong resulting in damage to them. The swells caused the coral backfill in the pier to be washed out.

Guam

Central Portion

04	1820SST 1900SST	0	1		Rip Currents
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At 1830, the Guam Police Department received a call of a swimmer stranded off the reef. The individual, a male, was kayaking outside the reef near the Nikko Hotel with his friends. Witnesses said they saw the guy flip over in his kayak. Three bystanders went to assist the man only to find themselves drifting out as well until police arrived. The surf was reported as very rough with waves reaching as high as 10 feet and crashing into the reef. Other people in the area reported as seeing another body in the water. Guam Fire Department rescue units and a Navy HC-5 squadron helicopter were activated. They found out that it was just floating debris. The swells that generated the Hazardous Surf conditions was generated by Tropical Storm Utor, which passed west of the Mariana Islands.

Guam

Ritidian Point

06	1610SST 1800SST	0	1		Rip Currents
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Rescue workers were able to save a male surfer who went over the reef near Ritidian Point. James Glynn, U.S. Fish and Wildlife Services acting manager, said he called the U.S. Coast Guard at 1615 when he received word that two males were boggie boarding, and one had made it back to shore. A helicopter from the Navy's HC-5 squadron hoisted the individual, whose name and age were not available, out of the water and took him to Naval Hospital. Immediately after the individual arrived he was transferred by ambulance to Guam Memorial Hospital. The young man was reported in stable Condition. Rescue units from the Guam Fire Department and Andersen Air Force Base Fire Department participated in the rescue. The swells that generated the Hazardous Surf conditions was generated by Tropical Storm Utor, which passed west of the Mariana Islands.

PENNSYLVANIA, Central

Potter County

Cross Fork

01	1200EST	0	0		Thunderstorm Wind (G50)
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Trees were reported down on power lines in Cross Fork.

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
PENNSYLVANIA, Central									
Clinton County									
11 NW Renovo	01	1210EST			0	0			Thunderstorm Wind (G50)
			Trees were reported down 11 miles northwest of Renovo.						
Lycoming County									
3 S Williamsport	01	1310EST			0	0			Thunderstorm Wind (G50)
			Trees were reported down 3 miles south of Williamsport.						
Clinton County									
Woolrich	01	1318EST			0	0			Thunderstorm Wind (G50)
			Trees were reported down in Woolrich.						
Clearfield County									
Ansonville	01	1320EST			0	0			Thunderstorm Wind (G50)
			Trees were reported down in Ansonville.						
Sullivan County									
Laporte	01	1330EST			0	0			Thunderstorm Wind (G50)
			Trees were reported down in Laporte.						
Lycoming County									
Glen Mawr	01	1330EST			0	0			Thunderstorm Wind (G50)
			Trees were reported down in Glen Mawr.						
Cambria County									
Hastings	01	1335EST			0	0			Thunderstorm Wind (G50)
			Trees were reported down in Hastings.						
Somerset County									
Jennerstown	01	1421EST			0	0			Thunderstorm Wind (G50)
			Trees were reported down on a shed in Jennerstown.						
Columbia County									
Catawissa	01	1430EST			0	0			Thunderstorm Wind (G50)
			Trees were reported down in Catawissa.						
Mifflin County									
Lewistown	01	1430EST			0	0			Thunderstorm Wind (G50)
			A tree was reported down in Lewistown.						
Huntingdon County									
Warriors Mark	01	1435EST			0	0			Thunderstorm Wind (G50)
			Trees were reported down in Warriors Mark.						
Perry County									
Blain	01	1450EST			0	0			Thunderstorm Wind (G50)
			Trees were reported down in Blain.						
Juniata County									
Mc Alisterville	01	1450EST			0	0			Thunderstorm Wind (G50)
			Trees were reported down in McAlisterville along Route 235.						
Dauphin County									
Halifax	01	1510EST			0	0			Thunderstorm Wind (G50)
			Trees and wires were reported down on Peter's Mountain Road in Halifax.						
Bedford County									
2 N Bedford	01	1515EST			0	0			Thunderstorm Wind (G50)
			Trees were reported down on Pencil Hollow Road, 2 miles north of Bedford.						
Lebanon County									
Palmyra	01	1515EST			0	0			Thunderstorm Wind (G50)
			Trees were reported down in Palmyra.						
Cumberland County									
Mt Holly Spgs	01	1520EST			0	0			Thunderstorm Wind (G50)
			A dozen trees were reported down in Mount Holly Springs.						
Franklin County									
Chambersburg	01	1530EST			0	0			Thunderstorm Wind (G50)
			Trees and power lines were reported down in Chambersburg.						
Cambria County									
Westmont	01	1530EST			0	0			Thunderstorm Wind (G50)
			Trees were reported down in Westmont.						
York County									
York	01	1630EST			0	0			Thunderstorm Wind (G50)

Storm Data and Unusual Weather Phenomena

July 2001

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									
Trees were reported down in York. Also, a television antenna was blown off of a York High School.									
Lancaster County									
Lancaster	01	1630EST			0	0	8K		Thunderstorm Wind
Trees and power lines were reported down in the city of Lancaster. One tree demolished a car.									
Adams County									
East Berlin	01	1635EST			0	0			Thunderstorm Wind (G50)
Trees were reported down in East Berlin on East Berlin Road.									
Tioga County									
Mansfield	04	1430EST			0	0			Thunderstorm Wind (G50)
Trees were reported down in Mansfield.									
Cambria County									
Johnstown	05	1315EST			0	0			Thunderstorm Wind (G50)
Trees were reported down in Johnstown.									
Somerset County									
Meyersdale	05	1355EST			0	0			Thunderstorm Wind (G50)
Trees were reported down in Meyersdale.									
Bedford County									
Bedford	05	1430EST			0	0			Thunderstorm Wind (G50)
Trees were reported down in Bedford.									
Perry County									
Ickesburg	05	1536EST			0	0			Thunderstorm Wind (G50)
Trees were reported down in Ickesburg.									
Blair County									
Altoona	10	1255EST			0	0			Thunderstorm Wind (G50)
Trees were reported down.									
Schuylkill County									
Pottsville	10	1328EST			0	0			Thunderstorm Wind (G50)
Trees and power lines were reported down in Pottsville.									
Huntingdon County									
Huntingdon	10	1330EST			0	0			Hail (1.75)
Golfball sized hail was reported in Cornpropt Mills near Huntingdon.									
Cumberland County									
2 N Camp Hill	10	1339EST			0	0			Hail (0.88)
Nickle sized hail was reported 2 miles north of Camp Hill.									
Lebanon County									
Cornwall	10	1401EST			0	0			Thunderstorm Wind (G50)
Trees and power lines were reported down in Cornwall.									
Dauphin County									
Harrisburg	10	1407EST			0	0			Thunderstorm Wind (G50)
Numerous trees and wires were reported down in Swatara Township, including the city of Harrisburg.									
York County									
2 E York	10	1410EST			0	0			Thunderstorm Wind (G50)
Trees were reported down, blocking roads 2 miles northeast of York.									
Clinton County									
Renovo	10	1434EST			0	0			Thunderstorm Wind (G50)
Trees were reported down in Renovo.									
Clearfield County									
Clearfield	10	1435EST			0	0			Thunderstorm Wind (G50)
Trees were reported down in Clearfield.									
Franklin County									
Rouzerville	10	1440EST			0	0			Tstm Wind/Hail
Trees were down on Camp Penn Road in Rouzerville. Also, nickle sized hail was reported in Mont Alto at 14:45 EST.									
Lancaster County									
Lancaster	10	1440EST			0	0			Thunderstorm Wind (G50)
Trees and power lines were reported down in Lancaster. Also, trees were uprooted in New Holland at 14:50 EST.									
Somerset County									
Somerset	10	1448EST			0	0			Thunderstorm Wind (G50)
Trees were downed.									

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
PENNSYLVANIA, Central									
Clinton County									
Lamar	10	1448EST 1449EST			0	0			Tornado (F0)
An F0 tornado touched down briefly near Lamar. The path length was 100 yards and the width 20-50 yards. The tornado downed some trees on Mountain Road. It lifted less than a minute after touchdown. No injuries or fatalities were reported.									
Cambria County									
Johnstown	10	1449EST			0	0			Thunderstorm Wind (G50)
Numerous trees were reported down in Johnstown.									
Franklin County									
Quincy	10	1450EST			0	0			Thunderstorm Wind (G50)
Trees were reported down in Quincy.									
Adams County									
Fountain Dale	10	1525EST			0	0			Thunderstorm Wind (G50)
Trees and power lines were reported down in Carroll Valley, approximately 5 miles northeast of Fountain Dale.									
Somerset County									
Springs	10	1530EST			0	0			Tstm Wind/Hail
Golf ball sized hail was reported in the town of Springs. Also, there were reports of trees down and a sighting of a funnel cloud.									
Clinton County									
Lamar	10	1545EST			0	0			Thunderstorm Wind (G50)
Trees and power lines were reported down in Lamar.									
Centre County									
Nittany	10	1613EST			0	0			Thunderstorm Wind (G50)
Trees were reported down near the town of Nittany.									
Clinton County									
Renovo	10	1615EST			0	0			Hail (0.75)
Dime sized hail was reported.									
Snyder County									
Selinsgrove	10	1615EST			0	0			Thunderstorm Wind (G50)
A tree was down in Selinsgrove and also at Penns Creek at 16:20 EST.									
Northumberland County									
Sunbury	10	1630EST			0	0			Thunderstorm Wind (G50)
Trees were reported down in Sunbury.									
Clearfield County									
Curwensville	10	1725EST			0	0			Hail (0.75)
Dime sized hail was reported in Curwensville.									
Schuylkill County									
Tamaqua	10	1742EST			0	0			Thunderstorm Wind (G50)
Trees were reported down in Tamaqua and in Hometown at 17:51 EST.									
Cambria County									
Cresson	10	1810EST			0	0			Thunderstorm Wind (G50)
Trees were reported down.									
Dauphin County									
Lykens	10	1830EST			0	0			Thunderstorm Wind (G50)
Trees were reported down in Lykens.									
Dauphin County									
Halifax	10	1840EST			0	0			Thunderstorm Wind (G50)
Trees were reported down in Halifax.									
Lebanon County									
Annville	10	1854EST			0	0			Hail (0.75)
Dime sized hail was reported in Annville.									
Lancaster County									
Lancaster	10	1920EST			0	0			Thunderstorm Wind (G50)
Trees were reported down in Lancaster and throughout the county.									
Warren County									
Warren	10	2240EST			0	0			Thunderstorm Wind (G50)
Trees were reported down in Warren.									
Lycoming County									
Williamsport	11	0300EST			0	0			Hail (1.00)

Storm Data and Unusual Weather Phenomena

July 2001

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

PENNSYLVANIA, Central

Quarter sized hail was reported in Williamsport.

Union County

Mifflinburg	17	1545EST			0	0			Thunderstorm Wind (G50)
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Large tree limbs were down, blocking roads in Mifflinburg.

Columbia County

Bloomsburg	17	1600EST			0	0	3K		Thunderstorm Wind (G50)
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A barn collapsed in Hemlock due to thunderstorm winds.

Schuylkill County

Pottsville	25	1630EST 2245EST			0	0	15K		Flash Flood
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A series of thunderstorms moved across Schuylkill County during the late afternoon of July 25th. Rain amounts of 2 to 3 inches were recorded in less than 2 hours as the storms moved through the region. Heaviest hit was the area around Pottsville, where numerous roads were flooded. Water, up to 3 feet deep, was reported on area roads. Numerous basements were flooded, and water also damaged several businesses, including a local restaurant, a real estate office, and a baby supply store. Pottsville local officials issued a state of emergency for the city, which was lifted early the next morning.

Blair County

Roaring Spg	25	1800EST 2100EST			0	0			Flash Flood
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Three inches of rain caused flooding at Ore Hill Golf Course in Roaring Springs.

Dauphin County

Harrisburg	25	2000EST			0	0	3K		Thunderstorm Wind (G50)
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Trees were reported down in Harrisburg. One tree caused damage to the Patriot News building at 23rd and Market Streets, damaging the gutters and punching holes in the roof.

Dauphin County

Harrisburg	25	2045EST 2330EST			0	0			Flash Flood
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Widespread urban flooding was reported with many roads closed in Harrisburg. Over 3 inches of rain was reported over portions of the Harrisburg metropolitan area.

PENNSYLVANIA, East

PAZ067>071

Chester - Montgomery - Bucks - Delaware - Philadelphia

	01	0000EST 1800EST			1	0			Excessive Heat
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A large ridge of high pressure both at the surface and aloft along the western Atlantic Ocean produced six consecutive days of heat and increasing humidity across southeastern Pennsylvania from June 26th through July 1st. A cold front broke the excessive heat with strong to severe thunderstorms on July 1st. High temperatures reached into the mid 90s and combined with the humid air mass produced afternoon heat indices of around 100 degrees. There were three heat related deaths (two in June and one in July). A 70-year-old woman, a 58-year-old man and a 77 year-old woman all perished because of the heat in Philadelphia. June 28th and 30th were the hottest days for most locations. Highest temperatures included 97 degrees at the Franklin Institute within Philadelphia, 96 degrees in Perkasie (Bucks County) and West Chester (Chester County), 94 degrees at the Philadelphia International Airport, 93 degrees at the Northeast Philadelphia Airport and 91 degrees in Doylestown (Bucks County) and Pottstown (Montgomery County). F77PH

Monroe County

Long Pond to Analomink	01	1223EST 1237EST			0	0			Thunderstorm Wind (G50)
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A severe thunderstorm caused scattered outages across the central part of Monroe County when it pulled down numerous large limbs.

Berks County

Hamburg	01	1235EST			0	0			Thunderstorm Wind (G50)
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A severe thunderstorm knocked down trees and power lines in and around Hamburg.

Lehigh County

Ironton	01	1305EST			0	0			Thunderstorm Wind (G52)
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A severe thunderstorm knocked down several trees and numerous wires across central Lehigh County. Downed trees blocked roadways in North Whitehall Township. About 8,000 Pennsylvania Power and Light (PPL) customers lost power from the first round of severe thunderstorms in the Lehigh Valley. All power was restored by 9 p.m. EDT on the 2nd.

Northampton County

Northampton to Wilson	01	1345EST			0	0			Thunderstorm Wind (G50)
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A severe thunderstorm knocked down several trees and numerous wires, particularly across the southern half of Northampton County. About 8,000 Pennsylvania Power and Light (PPL) customers lost power from the first round of severe thunderstorms in the Lehigh Valley. All power was restored by 9 p.m. EDT on the 2nd.

Lehigh County

Cementon	01	1400EST			0	0	5K	0	Lightning
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Storm Data and Unusual Weather Phenomena

July 2001

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

PENNSYLVANIA, East

Lightning struck and burst an eighteen foot round above ground pool in Whitehall Township. The lightning also knocked out two sections of a fence.

Monroe County

Snydersville

01 1455EST **0 0** **0** **Tornado (F0)**

A F0 tornado with estimated strongest winds of 70 mph tore through the Fawn Valley Trailer Park in Snydersville in Hamilton Township. Nine trailers were damaged and two families were displaced. The tornado moved two trailers about three feet off their foundation. It ripped the roof off of one mobile home and carried debris 1,000 feet between the mobile home park and Pennsylvania State Route 33. The patio roof of another home collapsed. In addition to the two displaced mobile homes, three homes suffered moderate damage and four homes suffered minor damage. Several sheds were also destroyed. The tornado path length was about 1,000 feet and its maximum path width was about 50 yards. No serious injuries occurred.

Lehigh County

Coopersburg

01 1520EST **0 0** **Thunderstorm Wind (G52)**

Northampton County

Hellertown to Easton

01 1525EST **0 0** **Thunderstorm Wind (G52)**
1530EST

Northampton County

Bethlehem

01 1527EST **0 0** **Hail (0.75)**

A severe thunderstorm knocked down trees and wires from Coopersburg in Lehigh County eastward across the southern tier of Northampton County. Numerous trees and wires were knocked down in Bethlehem City. One downed tree crushed a vehicle. Pennsylvania Power and Light reported about 15,000 customers lost power from both severe thunderstorms that affected the Lehigh Valley. The second severe storm knocked out power to 5,000 GPU Energy customers in Easton.

Northampton County

Bethlehem

01 1530EST **0 0** **1K** **0** **Lightning**

Lightning struck and damaged a festival booth in Bethlehem. No injuries were reported.

Bucks County

Countywide

01 1545EST **0 0** **Thunderstorm Wind (G52)**
1700EST

Montgomery County

Countywide

01 1600EST **0 0** **Thunderstorm Wind (G52)**
1700EST

A line of severe thunderstorms knocked down scattered trees and power lines in Philadelphia's northern suburbs. Downed trees and scattered power outages were reported in both Bucks and Montgomery Counties. PECO Energy reported about 36,000 customers lost power in their service area which includes Montgomery and Bucks Counties.

Chester County

Phoenixville

01 1645EST **0 0** **0** **Lightning**

For the third time in his life, a 73-year-old Phoenixville man was struck and injured by lightning. The gentleman was securing his family property from the storm when lightning struck a tree seven feet from where he was standing. The lightning stripped the tree of its bark and knocked him to the ground.

Philadelphia County

Byberry

01 1710EST **0 0** **0** **Thunderstorm Wind (G52)**

A severe thunderstorm knocked down several trees in the northeast part of Philadelphia.

Philadelphia County

Philadelphia

01 1735EST **0 0** **0** **Thunderstorm Wind (G50)**

A severe thunderstorm knocked down about a dozen trees in South Philadelphia. PECO Energy reported about 36,000 homes and businesses lost power because of the lightning and high winds in Philadelphia and its northern and western suburbs.

PAZ071

Philadelphia

09 0900EST **1 0** **0** **Excessive Heat**
10 1800EST

Two days of high temperatures in the lower 90s and low temperatures in the lower 70s caused the death of a 79-year-old male in Philadelphia. The highest temperatures were 94 degrees at the Franklin Institute and 93 degrees at both the Philadelphia International and Northeast Philadelphia Airports. A strong cold frontal passage during the early morning of the 11th ended the two day hot spell. M79PH

Chester County

Kennett Square

10 1525EST **0 0** **Thunderstorm Wind (G61)**

A severe thunderstorm toppled trees, telephone poles and damaged two mushroom houses. The aluminum roofs of two mushroom houses were torn away. The debris from one house blew down one street and wrapped itself around a couple of poles. The wall of one mushroom house collapsed. There were workers inside the building, but they escaped without any serious injuries. A tractor trailer was knocked on its side. Several large trees were uprooted and took down wires along Pennsylvania State Route 82. Several pine trees that were knocked over onto wires caught fire. One park bench was crushed.

Monroe County

Snydersville

10 1645EST **0 0** **Thunderstorm Wind (G52)**

Storm Data and Unusual Weather Phenomena

July 2001

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

A severe thunderstorm knocked down several trees and a couple of wires in Snydersville. The downed trees and wires as well as the heavy rain led to several vehicles accidents.

Northampton County

Bangor 10 1710EST 0 0 **Thunderstorm Wind (G52)**

Northampton County

Flicksville 10 1715EST 0 0 **10K 0 Lightning**

Northampton County

Zucksville 10 1730EST 0 0 **50K 0 Lightning**

Northampton County

Nazareth 10 1735EST 0 0 **Thunderstorm Wind (G52)**

A severe thunderstorm knocked over trees and power lines in northeast and central parts of Northampton County. Lightning from the same thunderstorm ignited two house fires. The worst fire occurred to a home in Forks Township. Lightning struck a tree. Burning fragments entered through a basement window and ignited wooden office furniture. Rough terrain and high humidity made it difficult to fight this fire. Twelve firefighters suffered either heat exhaustion and/or smoke inhalation. Damage to the interior of the house was extensive. The second fire started in a Washington Township home. Lightning punched a hole in the roof and started a fire. The fire was extinguished in about 15 minutes.

Lehigh County

Fogelsville 10 1815EST 0 0 **Thunderstorm Wind (G52)**

Lehigh County

Hosensack 10 1830EST 0 0 **Thunderstorm Wind (G52)**

A severe thunderstorm knocked down trees and power lines in Fogelsville and Lower Milford Township.

Carbon County

Albrightsville 11 0431EST 0 0 **Hail (0.75)**

Monroe County

Effort to Stroudsburg 11 0445EST 0 0 **0505EST Thunderstorm Wind (G56)**

One of the more intense looking thunderstorms as displayed on Doppler Radar for the summer of 2001 tore down numerous trees and tree limbs from Effort east through East Stroudsburg.

Northampton County

Wind Gap to Zucksville 17 1920EST 0 0 **Thunderstorm Wind (G52)**

A severe thunderstorm knocked down several trees and wires in the northern and central portion of Northampton County. Trees were hanging on wires in Forks Township.

Bucks County

Bristol 17 2053EST 0 0 **Thunderstorm Wind (G50)**

Large tree limbs and wires were pulled down by a severe thunderstorm in Bristol Township.

PAZ067>071

Chester - Montgomery - Bucks - Delaware - Philadelphia

24 1000EST 2 0 Excessive Heat
25 1900EST

A hot and humid air mass pushed daytime high temperatures into the lower and mid 90s across southeast Pennsylvania on the 24th and 25th. A cold front stalled across the region on the 26th. The clouds prevented temperatures from reaching the 90s again. This front slipped south of the region by the morning of the 27th. The heat claimed the life of two men within Philadelphia, a 51-year-old and an 89-year-old. Highest temperatures included 97degrees in Green Lane (Montgomery County), 96 at the Northeast Philadelphia Airport, West Chester (Chester County) and the Willow Grove NAS (Montgomery County), 95 degrees in Neshaminy Falls (Bucks County) and the Franklin Institute within Philadelphia, 94 degrees at the Philadelphia International Airport and New Hope (Bucks County), 93 degrees in Pottstown (Montgomery County) and 92 degrees in Doylestown. M51PH, M89PH

Monroe County

Marshalls Creek 25 1518EST 0 0 **Thunderstorm Wind (G52)**

A severe thunderstorm knocked down trees and wires in Marshalls Creek (Smithfield Township).

Monroe County

Southeast Portion 25 1530EST 0 0 **1800EST Flash Flood**

Thunderstorms with torrential downpours dropped as much as a Doppler Radar storm total estimate of 6 inches of rain in southeast Monroe County. This caused flooding of roadways and some of the smaller creeks in the county. Near East Stroudsburg and Stroudsburg Pennsylvania State Route 191 was impassable and U.S. Route 209 had water covering the roadway. A cooperative observer in East Stroudsburg reported 3.8 inches of rain fell between 3 p.m. and 5 p.m. EDT. No serious injuries were reported.

Northampton County

Northampton to Easton 25 1655EST 0 0 **Thunderstorm Wind (G52)**

A severe thunderstorm knocked trees and power lines across a central strip of Northampton County from Northampton Borough east

Storm Data and Unusual Weather Phenomena

July 2001

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
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PENNSYLVANIA, East

through Nazareth, Tatamy, Forks Township and Easton. Many trees were snagged on power lines. Others blocked roadways. Pennsylvania Power and Light reported about 3,500 homes and businesses lost power in the Lehigh Valley.

Northampton County

East Central Portion	25	1715EST			0	0			Flash Flood
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The thunderstorms not only produced damaging winds, but also flooding rains in east central Northampton County. Flooding was reported along the Bushkill Creek. In Forks Township, an earthen bank collapsed as water cascaded over a guardrail on Frost Hollow Road. Zucksville Road was impassable. Doppler Radar storm total estimates ranged between 3 and 4 inches.

Lehigh County

Lanark	25	1730EST			0	0			Thunderstorm Wind (G50)
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A severe thunderstorm knocked down large tree limbs in Upper Saucon Township and Allentown. Several roads were blocked. Pennsylvania Power and Light reported about 3,500 homes and businesses lost power in the Lehigh Valley; 2,300 of the outages were in Allentown.

Berks County

Reading to Bally	25	2000EST			0	0			Flood
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Thunderstorms with torrential downpours dropped a Doppler Radar storm total estimate of between 3 and 7 inches in a band across central Berks County from just west of Reading east through Hereford Township during the evening of the 25th. The heavy rain caused poor drainage flooding and flooding of creeks and streams. Roads were closed in Muhlenberg Township. The Manatawny Creek at Spangville exceeded its 6 foot flood stage from 102 a.m. EDT through 805 a.m. EDT on the 26th. It crested at 7.31 feet at 430 a.m. EDT on the 26th. Storm totals included 5.30 inches in Pricetown, 4.75 inches in Hereford, 4.35 inches in Reading and 3.8 inches in Breinigsville (Lehigh County).

Montgomery County

North Portion	26	0008EST			0	0			Flood
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Montgomery County

North Portion	26	0525EST			0	0			Flood
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Thunderstorms with heavy rain over extreme northern Montgomery County during the evening of the 25th and runoff from the thunderstorms that same evening over Berks County led to the flooding of two streams in Montgomery County on the 26th. The West Branch of the Perkiomen Creek and East Greenville was above its 5 foot flood stage from 108 a.m. EDT through 341 a.m. EDT. It crested at 5.48 feet at 230 a.m. EDT. The Manatawny Creek at Pottstown was above its 6 foot flood stage from 625 a.m. EDT through 934 a.m. EDT on the 26th. It crested at 6.67 feet at 815 a.m. EDT. Doppler Radar storm total estimates reached 3 inches in extreme northern Montgomery County.

PAZ054>055-060>062-067>071 Carbon - Monroe - Berks - Lehigh - Northampton - Chester - Montgomery - Bucks - Delaware - Philadelphia

31	2359EST			0	0	0	Unseasonably Cool
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July 2001 was one of the coolest Julys on record for all of Pennsylvania. The preliminary monthly state mean temperature was 68.0 degrees, the 3rd coolest July on record since 1895. At the Lehigh Valley International Airport, the monthly mean temperature of 68.9 degrees was the coolest July on record in Allentown dating back to 1922. The previous record was 69.9 degrees set in 1956. At the Philadelphia International Airport, the monthly mean temperature was 75.4 degrees. While it was 1.3 degrees below normal, it did not crack the top ten coolest.

PENNSYLVANIA, Northeast

Bradford County

Troy	01	1120EST			0	0		Lightning
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Newspaper reports indicate a barn was struck by lightning and caught on fire. The barn sustained significant damage to its upper level.

Bradford County

Litchfield	01	1130EST			0	0		Thunderstorm Wind (G50)
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Emergency management reported trees and wires blown down by thundersorm winds in Litchfield and Rome townships. Some small hail was also reported.

Bradford County

Springfield	01	1130EST			0	0		Lightning
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Emergency management reported a house struck by lightning.

Bradford County

Herrick	01	1145EST			0	0		Thunderstorm Wind (G50)
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Emergency management reported trees and wires blwon down by thunderstorm winds.

Susquehanna County

Dimock to Clifford	01	1220EST			0	0		Thunderstorm Wind (G55)
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Storm Data and Unusual Weather Phenomena

July 2001

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

PENNSYLVANIA, Northeast

Emergency management reported trees and wires blown down by thunderstorm winds across the southern portion of the county from Dimock through Harford to Clifford.

Wayne County

Rileyville 01 1255EST 0 0 **Thunderstorm Wind (G50)**

Emergency management reported trees blown down by thunderstorm winds along Route 371.

Lackawanna County

Mayfield 01 1330EST 0 0 **Hail (1.75)**

Local media reported golf ball size hail.

Wayne County

Beach Lake 01 1335EST 0 0 **Hail (0.75)**

SKYWARN storm spotters reported 3/4 inch diameter hail.

Luzerne County

Harveys Lake to
Wilkes Barre 01 1350EST
 1400EST 0 0 **Thunderstorm Wind (G55)**

SKYWARN storm spotters and local media reported trees and wires blown down by thunderstorm winds. Small hail was also reported. Minor street flooding was also noted in Wilkes-Barre and West Pittston. More than 7000 people were reported to be without power following the storm. Two houses and vehicle on North Washington Street in Wilkes-Barre received severe damage when a large tree was blown down.

Luzerne County

Lehman to
Wilkes Barre 10 1510EST
 1535EST 0 0 **Thunderstorm Wind (G50)**

Emergency management reported trees and wires blown down by thundersorm winds from Lehman township through Wilkes-Barre.

Luzerne County

Huntsville 10 1515EST 0 0 **Hail (1.00)**

Emergency management reported 1 inch diameter hail in Jackson township, causing some damage to a police car.

Luzerne County

Plymouth 10 1530EST 0 0 **Tstm Wind/Hail**

SKYWARN storm spotters reported small hail and wind gusts to 50 MPH.

Luzerne County

Nanticoke 11 0340EST 0 0 **Hail (1.75)**

Emergency management reported golf ball size hail 4 miles west of Nanticoke.

Luzerne County

Plymouth 11 0340EST 0 0 **Tstm Wind/Hail**

Volunteer spotters reported small hail and wind gusts to 50 MPH.

Lackawanna County

Scranton 11 0415EST 0 0 **Thunderstorm Wind (G50)**

Emergency management reported a few trees blown down by thunderstorm winds.

PENNSYLVANIA, Northwest

Erie County

North East 10 2120EST
 2125EST 0 0 **2M Hail (0.75)**

Dime size hail was reported over a large area. Around 3,000 acres of grapes on 24 farms were damaged by the hail. Approximately 25 percent of the grape crop on these 3,000 acres was destroyed. Initial estimates put the financial loss at \$2,000,000 but actual losses could be significantly higher and will not be known until after the fall harvest.

Erie County

North East 10 2120EST
 2125EST 0 0 **500K Thunderstorm Wind**

A thunderstorm downburst with winds estimated at 70 mph moved onshore from Lake Erie at North East. The damage path from this downburst was approximately one and a half miles wide and around two miles in length with the most concentrated damage near the lakeshore. This area was bordered to the west by State Route 89 and to the south by US Highway 20. Several dozen trees and power poles were downed and at least four homes damaged. A garage and up to two dozen cars were also damaged. About an hour after the storm, a man driving a car hit some debris in the road and was killed in the resulting accident.

Crawford County

Cambridge Spgs 19 1620EST 0 0 **5K Thunderstorm Wind**

Thunderstorm winds downed two trees just east of Cambridge Springs in Rockdale Township.

PENNSYLVANIA, West

Mercer County

Greenville 01 1045EST 0 0 **5K Thunderstorm Wind**

Thunderstorm winds downed several trees and power lines.

Storm Data and Unusual Weather Phenomena

July 2001

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									
Venango County									
5 W Pleasantville	01	1110EST			0	0	5K		Thunderstorm Wind
									Thunderstorm winds downed several trees along SR 8.
Butler County									
Valencia	01	1150EST			0	0	5K		Thunderstorm Wind
									Thunderstorm winds downed several trees along Valencia Road.
Beaver County									
Countywide	01	1200EST 1215EST			0	0	10K		Thunderstorm Wind
									Thunderstorm winds downed numerous trees at several locations the county, including Economy, Potter Township, Bookstown and South Beaver.
Butler County									
Winfield Jct	01	1210EST			0	0	5K		Thunderstorm Wind
									Thunderstorm winds downed several trees along Winfield Road.
Armstrong County									
Freeport	01	1215EST			0	0	5K		Thunderstorm Wind
									Thunderstorm winds downed several trees.
Westmoreland County									
2 N Derry	01	1240EST			0	0			Hail (0.75)
Allegheny County									
Etna	01	1245EST			0	0			Hail (1.00)
Allegheny County									
Moon	01	1257EST			0	0			Thunderstorm Wind (G52) ^M
									A thunderstorm wind gust to 60 MPH was recorded at the Pittsburgh International Airport.
Allegheny County									
Moon	01	1315EST			0	0	5K		Thunderstorm Wind
									Thunderstorm winds downed several trees.
Indiana County									
Creekside	01	1315EST			0	0	2K		Thunderstorm Wind
									Thunderstorm winds downed a few trees.
Washington County									
2 W Midway	01	1340EST			0	0	2K		Thunderstorm Wind
									Thunderstorm winds downed a few trees.
Westmoreland County									
Latrobe	01	1345EST			0	0	2K		Thunderstorm Wind
									Thunderstorm winds downed a few trees and power lines.
Allegheny County									
Mt Nebo	01	1400EST			0	0			Hail (0.75)
Allegheny County									
2 S Wexford	01	1400EST 1600EST			0	0	1K		Flood
									Strong thunderstorms produced over 2 inches of rain in less than an hour, which forced Fish Run and Wexford Run out of their banks in McCandless Township.
Allegheny County									
Wexford	01	1400EST			0	0	2K		Thunderstorm Wind
									Thunderstorm winds downed a few trees.
Washington County									
1 NE Canonsburg	01	1410EST			0	0	2K		Thunderstorm Wind
									Thunderstorm winds downed a few trees along McDowell Lane.
Greene County									
Bobtown	01	1440EST			0	0	5K		Thunderstorm Wind
									Thunderstorm winds downed several trees.
Fayette County									
Masontown	01	1450EST			0	0	2K		Thunderstorm Wind
									Thunderstorm winds downed a few trees.
Greene County									
Holbrook	05	0640EST 0830EST			0	0			Flood

Storm Data and Unusual Weather Phenomena

July 2001

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

PENNSYLVANIA, West

Strong thunderstorm rains produced minor roadway flooding on SR 18. Minor flooding was also reported along SR 21 near Graysville.

Westmoreland County

New Alexandria **05** **1245EST** **0** **0** **2K** **Thunderstorm Wind**

Thunderstorm winds downed a few trees.

Allegheny County

Clairton **05** **1330EST** **0** **0** **25K** **Thunderstorm Wind**

Thunderstorm winds blew the roof from a building, peeled some aluminum siding from another, and downed several trees along SR 837.

Westmoreland County

Mt Pleasant **05** **1444EST** **0** **0** **2K** **Thunderstorm Wind**

Thunderstorm winds downed a few trees.

Allegheny County

Liberty **10** **1345EST** **0** **0** **50K** **Thunderstorm Wind**

Thunderstorm winds downed numerous trees in the Liberty and Glassport areas. Several homes and one parked boat were damaged in Liberty from falling trees. On Elizabeth Street in Liberty, a children's playground and pavilion were damaged. In nearby McKeesport, the thunderstorm winds also did some minor damage to a few radio towers. Several trees were also reported down in the Munhall area.

Westmoreland County

West Newton **10** **1410EST** **0** **0** **2K** **Thunderstorm Wind**

Thunderstorm winds downed a few trees.

Fayette County

5 NE Connellsville **10** **1500EST** **0** **0** **2K** **Thunderstorm Wind**

Thunderstorm winds downed a few trees.

Washington County

3 W Washington **10** **1550EST** **0** **0** **Hail (1.25)**

Washington County

Prosperity **10** **1630EST** **0** **0** **10K** **Thunderstorm Wind**

Thunderstorm winds downed numerous trees.

Fayette County

2 E Uniontown **10** **1645EST** **0** **0** **10K** **Thunderstorm Wind**

Thunderstorm winds downed numerous trees.

Greene County

Waynesburg **10** **1655EST** **0** **0** **5K** **Thunderstorm Wind**

Thunderstorm winds downed several trees.

Westmoreland County

Derry **10** **1405EST** **0** **0** **Hail (1.25)**

Washington County

Washington **10** **1650EST**
1930EST **0** **0** **10K** **Flood**

Several strong thunderstorms passing over the city of Washington produced minor roadway and basement flooding. A car was swamped near Washington and Jefferson College's Cameron Station on Park Avenue, where over a foot of water covered the roadway.

Forest County

10 NE Marionville **11** **0130EST** **0** **0** **Hail (1.00)**

Lawrence County

Ellwood City **24** **1545EST** **0** **0** **1K** **Thunderstorm Wind**

Thunderstorm winds downed a large tree.

Beaver County

Fombell **24** **1548EST** **0** **0** **1K** **Thunderstorm Wind**

Thunderstorm winds downed a large tree.

Washington County

Finleyville **25** **1638EST**
1650EST **0** **0** **25K** **Thunderstorm Wind**

Thunderstorm winds downed numerous trees and power lines across Finleyville. Other locations in Peters and Union Townships affected were Thompsonville, Venetia, McMurray and Elrama.

Allegheny County

Carnegie **25** **1650EST** **0** **0** **10K** **Thunderstorm Wind**

Thunderstorm winds downed numerous trees and power lines across the Carnegie and Greentree areas.

Storm Data and Unusual Weather Phenomena

July 2001

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

PUERTO RICO

Northeast

Loiza	04	1530AST 1600AST			1	0			High Seas
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A person on board in an inflatable boat drowned when rough seas turned over the boat near shore. Two of its occupants were able to swim to shore. M17IW

North Central

Arecibo	23	1330AST			0	0			Tstm Wind/Hail
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Northwest

East Portion	23	1330AST			0	0			Tstm Wind/Hail
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A strong thunderstorm caused strong winds and small hail over parts of northern Puerto Rico. Emergency Managers in Camuy and a spotter in Hatillo reported small hail. In Arecibo strong winds knocked down some tree branches.

Mayaguez And Vicinity

Mayaguez	28	1400AST 1500AST			0	0	10K		Tstm Wind/Hail
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Strong thunderstorms caused torrential rains and strong gusty winds across the western sections of Puerto Rico. These winds detached the roofs of several houses in Mayaguez, knocked down tree branches and electric poles. Road 354 was blocked by few trees and a mudslide.

PRZ001>013

San Juan And Vicinity - Northeast - Southeast - Eastern Interior - North Central - Central Interior - Ponce And Vicinity - Northwest - Western Interior - Mayaguez And Vicinity - Southwest - Culebra - Vieques

	29	0400AST 1200AST			0	0	300K		Volcanic Ash
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The Montserrat Volcano erupted during the late afternoon of Sunday July 29. A large amount of volcanic ash was released into the atmosphere during Sunday evening and night. Simultaneously, a strong tropical wave was crossing the Leeward Islands. Strong southeast winds moved the volcanic ash towards the U.S. Virgin Islands and Puerto Rico. Rainfall during Sunday night and Monday morning deposited the ash across most of the Virgin Islands and eastern Puerto Rico. This was a significant event. Roads, cars and vegetation were covered by an ash layer. Aviation operations across Puerto Rico and the Virgin Islands were suspended until Tuesday morning.

RHODE ISLAND

Providence County

Burrillville	15	1945EST			0	4			Lightning
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Lightning struck a family of four in Burrillville, as they took refuge in their trailer during a thunderstorm. They were treated at a local hospital for minor injuries and later released.

SOUTH CAROLINA, Central

Clarendon County

Turbeville	03	1759EST 2100EST			0	0			Flash Flood
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Sheriff reported street flooding and one home flooded. Five inches of rain were unofficially reported.

Lexington County

Lexington	04	2100EST			0	0	0	0	Thunderstorm Wind (G55)
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Sheriff reported trees and powerlines down in the Lexington area.

Lexington County

2 NW St Andrews	04	2130EST			0	0	0	0	Thunderstorm Wind (G50)
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Sheriff reported a few trees down in the Whitehall area.

Richland County

St Andrews	04	2130EST			0	0	0	0	Thunderstorm Wind (G50)
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Sheriff reported a few trees down in the St. Andrews area.

Fairfield County

Ridgeway	04	2150EST			0	0	0	0	Thunderstorm Wind (G50)
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Sheriff and Electric Co. reported trees and powerlines down in southeast fairfield county.

Chesterfield County

Dudley	11	1858EST			0	0	0	0	Thunderstorm Wind (G50)
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SKYWARN spotter reported trees down in the Dudley area from a microburst.

Aiken County

3 SE New Ellenton	12	1348EST			0	0	0	0	Thunderstorm Wind (G50)
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Sheriff reported several trees down at the intersection of US 278 and SC HWY 19

Orangeburg County

Providence to Santee	12	1623EST 1628EST			0	0	0	0	Thunderstorm Wind (G50)
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Highway Patrol reported trees down along I 95 between Providence and Santee.

Storm Data and Unusual Weather Phenomena

July 2001

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, Central

Lexington County

St Andrews	25	2130EST			0	0	0		Thunderstorm Wind (G50)
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General public reported trees down in the St. Andrews area near I-26.

Richland County

Blythewood	25	2152EST			0	0	0	0	Thunderstorm Wind (G50)
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General public reported trees down near the A.M.E. Baptist church in Blythewood.

Newberry County

8 NW Newberry to Newberry	29	1615EST 1630EST			0	0		0	Thunderstorm Wind (G50)
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Sheriff and public reported a few trees down along I-26 and in Newberry.

SOUTH CAROLINA, North Coastal

Florence County

Florence	02	1300EST			0	0			Thunderstorm Wind (G65)
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Emergency manager reported trees and power lines down on West Palmetto St.

Florence County

Florence	02	1300EST 1400EST			0	0			Urban/Sml Stream Fld
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Emergency manager reported street flooding in Florence on West Palmetto St., Church St., Irby St., and Dargan St.

Horry County

North Myrtle Beach	02	1535EST			0	0			Hail (0.88)
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Long Creek-Grady fire department reported nickel size hail.

Georgetown County

Pawleys Is	02	1600EST			0	0	1K		Lightning
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Lightning caused a house fire on Gray Man Loop in Waccamaw Neck.

Horry County

Myrtle Beach	02	1620EST 1730EST			0	0			Flood
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Horry Skywarn reported rainwater flooding 1 foot deep at Ocean Blvd and 2nd Ave N, which was closed by police. Radar estimated 4 to 5 inches fell over a 2.5 hour period.

Georgetown County

Pawleys Is	02	1750EST 1830EST			0	0			Flood
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Heavy rains caused flooding at many intersections as well as the lower end or the causeway to the island.

Florence County

Florence	03	1605EST 1700EST			0	0			Flood
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Emergency manager reported flooding on Church and Dargan Street. A spotter also reported flooding on 2nd Loop Rd. and other residential streets in the area.

Horry County

5 SW North Myrtle Be	06	1505EST			0	0	800K		Tornado (F1)
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A F1 tornado crossed US Hwy 17 just south of SC Hwy 22 (Conway Bypass) doing damage to signs and power poles near the Chesapeake House Restaurant.

Horry County

Myrtle Beach	06	1515EST 1542EST			0	39	8M		Tornado (F2)
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As a weak cold front moved south into an afternoon sea breeze boundary, slow-moving thunderstorms developed along the Horry county coast. An F0 tornado briefly touched down at 9th Ave N near the Myrtle Beach Pavilion, and soon after a waterspout formed just off the beach near 3rd Ave N. It slightly damaged the 2nd Ave N pier and then moved over the beach as it developed more strongly, causing F2 damage - overturned buses and extensive damage to vehicles and hotels along the beach to about 4nd Ave S. Moving off the beach again, the waterspout continued south about 100 yards from the shore until it came ashore between 28th Ave S and Springmaid Pier...causing a 66 knot gust over water at the Springmaid Pier anemometer. As it moved through the Seagate RV park, it did F1 damage - destroyed 10 RVs and damaged 40 more. Weakening further, the tornado crossed US Hwy Business 17 onto Myrtle Beach International Airport, doing F0 damage to trees and structures.

SOUTH CAROLINA, Northwest

Chester County

Chester	02	2145EST 2345EST			0	0			Urban/Sml Stream Fld
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Bypass flooded in low spots during slow moving thunderstorms. No known stream flooding.

Oconee County

1 NW Walhalla	03	0430EST			0	0			Hail (1.00)
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Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
SOUTH CAROLINA, Northwest									
Quarter-sized hail reported just outside Walhalla.									
Union County									
Jonesville	03	1700EST			0	0	50K		Lightning
Lightning struck a garage business, destroying the building and a motorcycle located inside.									
Laurens County									
5 NW Laurens	03	1817EST			0	0			Hail (0.75)
Dime-sized hail reported near the WSSL radio tower.									
Oconee County									
Salem	04	1700EST			0	0			Thunderstorm Wind (G60)
Many trees blown down, some on cars and onto property.									
Oconee County									
6 E Walhalla	04	1710EST 1735EST			0	0			Thunderstorm Wind (G60)
Numerous trees and power lines down around Keowee Key, and as far west as West Union. One person was trapped in a car by a fallen tree. At least 100 trees were knocked down onto roads, and another 100 on private property.									
York County									
Rock Hill to Ft Mill	04	1900EST			0	0			Lightning
Lightning resulted in numerous power outages.									
Anderson County									
14 E Anderson	04	1917EST 1940EST			0	0	1.5M		Thunderstorm Wind (G50) ^M
A trained spotter measured a wind gust to 58 mph. Lightning struck a church in the Cheddar community, between Williamston and Belton. The resulting fire destroyed the main building.									
Anderson County									
14 E Anderson	04	1930EST			0	0			Lightning
Spartanburg County									
Moore to Roebuck	05	1710EST 1712EST			0	0			Thunderstorm Wind (G65)
Wind damage occurred at the construction site of Dorman High School, at the intersection of Interstate 26 and U.S. 221. A construction trailer was damaged, debris scattered and a 1000-pound roof vent was removed and rolled a short distance. Trees were felled in the Roebuck area of Spartanburg County at about the same time.									
Spartanburg County									
Woodruff	05	1725EST			0	0			Thunderstorm Wind (G60)
Numerous large trees were blown down across roads. County officials reported that Public Works crews were out all night cleaning up.									
Laurens County									
3 E Fountain Inn	05	1730EST			0	0			Thunderstorm Wind (G50)
General public report of a few trees down just south of the Spartanburg County line.									
Cherokee County									
Gaffney	08	1800EST			0	0			Thunderstorm Wind (G50)
A few large limbs were blown down.									
Spartanburg County									
Chesnee	08	1800EST			0	0			Thunderstorm Wind (G50)
State trooper reported trees down along U.S. 221.									
Greenville County									
Travelers Rest	08	1805EST			0	0			Thunderstorm Wind (G50)
Trees blown over onto U.S. 25.									
Spartanburg County									
Spartanburg	08	1825EST			0	0			Lightning
Spartanburg County									
Spartanburg to Cowpens	08	1825EST			0	0			Thunderstorm Wind (G50)
Trees and power lines down in numerous locations. Two printing plants lost power for several hours as a result of lightning hitting transformers nearby.									
Spartanburg County									
Holly Spgs	08	1825EST			0	0			Thunderstorm Wind (G50)
Trees blown down in several areas.									
A dying squall line moving out of North Carolina held together long enough to produce a short-lived but extensive swath of downed trees and power lines in the northern counties of upstate South Carolina.									

Storm Data and Unusual Weather Phenomena

July 2001

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

Anderson County

Anderson	09	1525EST			0	0			Thunderstorm Wind (G50)
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Two trees blown down along Whitner Street.

Anderson County

Iva	09	1545EST			0	0	25K		Thunderstorm Wind (G50)
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Several trees and power lines brought down by the wind. Widespread power outages. Some trees fell onto cars. Severe thunderstorms developed in Anderson County as a strong cold front crossed western South Carolina on the afternoon of the 9th.

Pickens County

Clemson to Easley	25	1100EST 1700EST			0	0			Flash Flood
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Small streams and roads flooded during heavy rain.

Anderson County

Pendleton to Piedmont	25	1100EST 1500EST			0	0			Flash Flood
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Small streams and creeks overflowed onto roads from the Pickens county line, down to the city of Anderson. Some vehicles were partially submerged, and a pond overflowed and flooded SC 86.

Greenville County

Greenville to Simpsonville	25	1100EST 1700EST			0	0			Flash Flood
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Several roads closed due to flooding. Gilder Creek in Simpsonville was out of its banks in several locations. Urban, street and small stream flooding started in Greenville around noon. A car was partially submerged on the Greenville County side of Piedmont, and a teenager tubing Gilder Creek in Mauldin was swept downstream some distance, but later rescued.

Anderson County

Anderson	25	1500EST 2000EST			0	0			Urban/Sml Stream Fld
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Small streams and creeks flooded and roads were closed in, and around, the city. A number of trees were downed by the high water and wet ground. A deep plume of tropical moisture overspread the western Carolinas and northeast Georgia as the remnants of a tropical wave moved from the Gulf Coast across the southeast states. Numerous cooperative observer stations in the region reported over 3 inches of rainfall from late morning on the 25th through the late evening hours.

Spartanburg County

Inman to Spartanburg	25	1600EST 1800EST			0	0			Urban/Sml Stream Fld
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Urban flooding in and around Spartanburg and Inman during slow-moving afternoon thunderstorms.

Laurens County

6 S Clinton	29	1559EST			0	0			Thunderstorm Wind (G50)
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A tree fell on a moving car. At press time, no confirmation of injuries.

SOUTH CAROLINA, South Coastal

Allendale County

2 SE Martin	03	1930EST			0	0			Hail (0.88)
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Allendale County

Sycamore	12	1335EST			0	0			Thunderstorm Wind (G50)
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Trees and power lines down.

Charleston County

3 S Adams Run	12	1340EST			0	0			Thunderstorm Wind (G50)
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Large tree limbs down.

Beaufort County

Beaufort	12	1345EST			0	0			Thunderstorm Wind (G50)
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Large limbs, trees and power lines down.

Colleton County

Cottageville	12	1440EST 1445EST			0	0			Thunderstorm Wind (G50)
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Several trees down.

Dorchester County

5 SW Givhans	12	1450EST			0	0			Thunderstorm Wind (G50)
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Numerous trees down.

SOUTH DAKOTA, Central and North

Dewey County

Timber Lake	03	1435CST			0	0			Thunderstorm Wind (G61)
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Storm Data and Unusual Weather Phenomena

July 2001

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 DAKOTA, Central and North</u>									
Corson County									
Morristown	03	1545CST			0	0			Hail (1.25)
Corson County									
4 SE Black Horse	03	1620CST			0	0			Hail (0.75)
Dewey County									
3 E Firesteel	03	1645CST			0	0			Hail (1.75)
Corson County									
18 SW Keldron	03	1655CST			0	0			Hail (0.75)
Dewey County									
9 S Firesteel	03	1705CST			0	0			Hail (1.75)
Dewey County									
10 NE Eagle Butte	03	1730CST			0	0			Hail (1.75)
Dewey County									
Parade	03	1730CST			0	0			Hail (1.75)
Large hail broke many car windows in Parade.									
Dewey County									
Lantry	03	1815CST			0	0			Hail (1.00)
Mcpheerson County									
4 S Leola	06	0540CST			0	0			Hail (0.88)
Hughes County									
Pierre	14	1650CST			0	0			Thunderstorm Wind (G58) ^M
Campbell County									
13 E Mound City	14	1655CST			0	0			Thunderstorm Wind (G52)
Edmunds County									
Hosmer	14	1731CST			0	0			Thunderstorm Wind (G56)
Faulk County									
7.5 SE Seneca	14	1745CST			0	0			Thunderstorm Wind (G52)
Faulk County									
3 N Cresbard	14	1825CST			0	0			Thunderstorm Wind (G56)
Winds to 65 mph brought down several trees north of Cresbard.									
Stanley County									
8 NE Bunker	15	1840CST			0	0			Thunderstorm Wind (G52)
Corson County									
.5 S Mc Laughlin	16	0055CST			0	0			Hail (0.75)
Campbell County									
Pollock	16	0138CST			0	0			Hail (0.75)
Corson County									
North Central Portion	16	0200CST 0900CST			0	0			Flash Flood
Very heavy rains of 3 to 7 inches fell across north central Corson county causing flash flooding. Oak creek along with several other streams washed out several roads and damaged some fences from Watauga to McIntosh to McLaughlin and north. Travel was stopped for awhile on the Highway north of McLaughlin.									
Walworth County									
12 SE Selby	18	1905CST			0	0			Hail (2.75)
Edmunds County									
Bowdle	18	1907CST			0	0			Hail (0.88)
Edmunds County									
14 S Bowdle to 15 S Bowdle	18	1940CST 1950CST			0	0			Tornado (F2)
A tornado touched down and heavily damaged a house. The attached garage was totally destroyed with two vehicles badly damaged. The metal roof was ripped off of the barn with three outbuildings destroyed. Five telephone/power poles were broken off with 1/2 to 3/4 of a mile of power lines down. Also, a small windmill was wrapped around a power pole.									
Mcpheerson County									
10 N Eureka to 10.5 N Eureka	18	1945CST 2000CST			0	0			Tornado (F0)
A tornado touched down north of Eureka. The tornado remained in open country and caused no damage. Path length and width were estimated.									

Storm Data and Unusual Weather Phenomena

July 2001

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, Central and North									
Potter County									
2 NE Tolstoy	18	2003CST			0	0			Hail (2.75)
Edmunds County									
13 NW Loyalton	18	2015CST			0	0			Hail (1.00)
Potter County									
3 NE Tolstoy	18	2015CST			0	0			Hail (1.75)
Faulk County									
5 NW Onaka	18	2019CST 2029CST			0	0			Tornado (F0)
A tornado touched down northwest of Onaka traveling through a field. The tornado only caused some tree damage. Path length and width were estimated.									
Faulk County									
4 W Onaka	18	2107CST			0	0			Hail (0.75)
Edmunds County									
9 SW Loyalton	18	2110CST			0	0			Hail (0.75)
Faulk County									
3 N Onaka	18	2110CST			0	0			Hail (0.75)
Edmunds County									
13 S Bowdle	18	2130CST			0	0			Hail (1.00)
Edmunds County									
Southwest Portion	18	2130CST			0	0			Flash Flood
	19	0015CST							
Faulk County									
Northwest Portion	18	2130CST			0	0			Flash Flood
	19	0015CST							
Very heavy rains of 3 to 4 inches fell across northwest Faulk and southwest Edmunds flooding several roads and streams.									
Corson County									
Keldron	18	2320CST			0	0			Thunderstorm Wind (G52)
Corson County									
3 SW Mc Intosh	19	0007CST			0	0			Hail (1.00)
Corson County									
1 SW Mc Intosh	19	0007CST			0	0			Thunderstorm Wind (G65) ^M
Corson County									
3 SW Mc Intosh	19	0007CST			0	0			Thunderstorm Wind (G50)
Corson County									
2 W Mc Laughlin to Mc Laughlin	19	0025CST			0	0			Hail (1.00)
Corson County									
2 W Mc Laughlin to Mc Laughlin	19	0025CST			0	0			Thunderstorm Wind (G61)
Winds to 70 mph along with quarter size hail broke many windows on the west side of buildings in McLaughlin. A lot of siding was also damaged along with shingles. Many vehicles were also dented along with some windshields broken out.									
Campbell County									
9 W Mound City	19	0050CST			0	0			Thunderstorm Wind (G52)
Campbell County									
10 NE Mound City	19	0130CST			0	0			Thunderstorm Wind (G52)
Mcperson County									
7 E Leola	19	0235CST			0	0			Thunderstorm Wind (G56)
Spink County									
Redfield	19	0357CST			0	0			Hail (1.00)
Walworth County									
9 SE Selby	19	1730CST			0	0			Hail (0.75)
Edmunds County									
10 S Bowdle	19	1750CST 1800CST			0	0			Hail (1.75)
Faulk County									
14 NW Faulkton	19	1838CST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 2001

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 DAKOTA, Central and North</u>									
Edmunds County									
14 S Roscoe	19	1843CST			0	0			Hail (0.75)
Dewey County									
Firesteel	19	2010CST			0	0			Hail (1.00)
Dewey County									
Isabel	19	2010CST			0	0			Hail (0.88)
Dewey County									
Bear Creek	19	2020CST			0	0			Thunderstorm Wind (G52) ^M
Edmunds County									
9 S Roscoe	19	2245CST			0	0			Thunderstorm Wind (G61)
Seventy mph winds moved a garage off of its foundation and also downed many large tree branches.									
Campbell County									
9 SE Mound City	20	0300CST			0	0			Hail (0.75)
Campbell County									
9 SE Mound City	20	0300CST			0	0			Thunderstorm Wind (G52)
Sixty mph winds blew down many large tree branches.									
Walworth County									
3 NE Glenham	20	0305CST			0	0			Hail (0.88)
Walworth County									
4 NE Selby	20	0345CST			0	0			Thunderstorm Wind (G61)
Seventy mph winds blew down many large tree branches.									
Mepherston County									
Leola	20	0500CST			0	0			Thunderstorm Wind (G52)
Sixty mph winds brought down some large tree branches.									
Hand County									
5 E Miller	20	0625CST			0	0			Hail (0.88)
Brown County									
4 SE Houghton	20	0635CST			0	0			Thunderstorm Wind (G52)
Marshall County									
2 SW Lake City	20	0637CST			0	0			Thunderstorm Wind (G56)
High winds brought down a large oak tree at Roy Lake along with many tree branches.									
Spink County									
4 S Conde	20	0725CST			0	0			Hail (0.75)
Clark County									
4 S Garden City	20	0835CST			0	0			Thunderstorm Wind (G56)
Strong winds brought down many large tree branches.									
Stanley County									
5 E Hayes	21	2145CST			0	0			Thunderstorm Wind (G52)
Hamlin County									
Bryant	22	0134CST			0	0			Hail (0.75)
Codington County									
3 S Florence	22	1856CST			0	0			Hail (1.00)
Codington County									
2 NE Rauville	22	1915CST			0	0			Hail (1.50)
Codington County									
1 W Waverly	22	1933CST			0	0			Hail (0.75)
Jones County									
16 NE Draper	22	2335CST			0	0			Hail (1.00)
Day County									
5 NE Grenville	22	2338CST			0	0			Hail (0.75)
Day County									
7 E Grenville	22	2345CST 2359CST			0	0			Thunderstorm Wind (G56)
Many large tree branches were downed by the high winds.									
Roberts County									
10 E Corona	23	0040CST			0	0			Hail (0.75)
Stanley County									
15 NW Ft Pierre	24	0235CST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 2001

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 DAKOTA, Central and North</u>									
Hughes County									
13 NW Pierre	24	0240CST			0	0			Hail (0.75)
Sully County									
23 SW Onida	24	0245CST			0	0			Hail (0.75)
Stanley County									
4 N Sansarc	25	1730CST 1745CST			0	0			Hail (0.75)
Stanley County									
1 E Hayes	25	1820CST			0	0			Hail (0.75)
Stanley County									
12 SE Hayes	25	1830CST 1855CST			0	0			Hail (1.25)
Large hail came down for nearly 25 minutes and covered the whole ground. The hail broke a window out of the house.									
Stanley County									
6 E Hayes	25	1835CST			0	0			Hail (1.00)
Stanley County									
7 E Hayes	25	1845CST			0	0			Hail (1.75)
Stanley County									
8 SW Hayes	28	1745CST			0	0			Thunderstorm Wind (G56)
High winds brought many large tree branches down.									
Jones County									
3 N Murdo	28	1845CST			0	0			Thunderstorm Wind (G56)
High winds blew over some power poles and also blew the roof off a grain bin.									
Hughes County									
Pierre	28	1855CST			0	0			Thunderstorm Wind (G54) ^M
Stanley County									
Ft Pierre	28	1855CST			0	0			Thunderstorm Wind (G54)
High winds brought down many tree branches in Fort Pierre.									
Buffalo County									
12 NE Ft Thompson	30	0514CST			0	0			Hail (0.75)
Stanley County									
Mission Ridge	30	2130CST			0	0			Thunderstorm Wind (G52)
Sixty mph winds brought down many large tree branches.									
Dewey County									
Glencross	30	2230CST			0	0			Thunderstorm Wind (G56)
Large branches were downed by the very strong winds.									
Dewey County									
4 NW Lantry	30	2230CST			0	0			Thunderstorm Wind (G55) ^M
Corson County									
8 S Wakpala	30	2240CST			0	0			Thunderstorm Wind (G61)
Walworth County									
Mobridge	30	2248CST			0	0			Thunderstorm Wind (G58) ^M
Walworth County									
Mobridge	30	2250CST			0	0			Thunderstorm Wind (G70) ^M
High winds of 81 mph blew much of the roof off of the bowling alley in Mobridge and took the roof off of a steel building which hit a house and damaged it. A trailer home was also damaged by some flying debris. Many trees were snapped in two or uprooted and many power lines were downed.									
Campbell County									
Pollock	30	2310CST			0	0			Thunderstorm Wind (G52)
High winds brought down tree branches and also knocked the power out for several hours in Pollock.									
Campbell County									
1 N Pollock	30	2320CST			0	0			Thunderstorm Wind (G61)
Very strong winds blew down many tree branches and also bent some signs over.									
<u>SOUTH DAKOTA, Southeast</u>									
Davison County									
10 S Mitchell	02	0018CST			0	0			Hail (0.75)
Yankton County									
Yankton	02	0435CST			0	0			Hail (1.00)

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property Damage	Crops	
SOUTH DAKOTA, Southeast									
Charles Mix County									
Lake Andes	07	0500CST			0	0	1K		Lightning
									Lightning struck and splintered a large and old tree in the yard of a home. Most of the tree remained standing, but it was feared the tree would not survive.
Bon Homme County									
Springfield	07	0600CST			0	0	100K		Thunderstorm Wind (G61)
									Thunderstorm winds caused widespread tree damage, including some large trees blown down. Some falling trees damaged houses, especially roofs, with at least one chimney broken off. Several vehicles were also damaged.
Yankton County									
Yankton	07	0630CST 0850CST			0	0	10K		Lightning
									Lightning struck the tower of a radio station, damaging transmitting equipment and knocking the station off the air temporarily.
Union County									
Jefferson	07	0740CST			0	0			Thunderstorm Wind (G61)
									Thunderstorm winds blew down several trees.
Beadle County									
5 W Hitchcock	19	0430CST			0	0			Thunderstorm Wind (G52)
Beadle County									
5 NW Yale	19	0515CST			0	0			Thunderstorm Wind (G69)
									Thunderstorm winds flattened corn crops. The amount of crop damage was not known, as it was suspected the corn would recover to some degree.
Beadle County									
1 NW Wolsey	20	0725CST			0	0			Hail (1.75)
Beadle County									
Wolsey	20	0725CST 0730CST			0	0			Hail (0.75)
Brookings County									
5 NW White	20	0800CST			0	0			Hail (0.75)
Kingsbury County									
Erwin	20	0845CST			0	0			Thunderstorm Wind (G61)
									Thunderstorm winds caused tree damage, including some trees blown down. The amount of damage was not known.
Brookings County									
8 NE White	21	0750CST			0	0			Thunderstorm Wind (G52)
Brookings County									
6 NW Bruce	21	0926CST 1526CST			0	0			Hail (1.00)
Brookings County									
6 N Bruce	21	0940CST			0	0			Hail (0.75)
Charles Mix County									
2 N Dante	21	2300CST			0	0	100K		Thunderstorm Wind (G61)
									Thunderstorm winds destroyed part of a large cattle shed. There was no livestock in the building at the time.
Aurora County									
Stickney	22	0020CST			0	0			Thunderstorm Wind (G86) ^M
									Thunderstorm winds in an apparent downburst pulled a steel roof from a publishing company building and blew it into a power pole, breaking the pole at its base, and leaving residents of Stickney without power for over two hours. Part of the roof was pushed into trees near the building. A television tower at the side of the building was twisted and blown down. A nearby shed was destroyed, and the vehicle parked inside damaged. The damage was very localized with nearby corn crops blown down, next to undamaged corn.
Hanson County									
3 W Emery	22	0100CST			0	0			Thunderstorm Wind (G52)
									Thunderstorm winds damaged corn in many fields. The amount of crop damage was not known, since some recovery was expected..
Brookings County									
Brookings	22	0230CST			0	0	3K		Lightning
									Lightning struck a house, damaging several appliances and lights.
Brookings County									
Brookings	22	0730CST			0	0	3K		Lightning
									Lightning struck a garage, causing a fire in the peak of the garage roof which was quickly extinguished.
Minnehaha County									
Hartford to Sioux Falls	24	0810CST 0900CST			0	0	100K		Flood

Storm Data and Unusual Weather Phenomena

July 2001

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

SOUTH DAKOTA, Southeast

Rainfall of two to four inches caused flooding of roads and low areas. Up to four feet of water covered some main roads in Sioux Falls. Flooding at construction sites included 2 to 3 feet of water which had to be pumped out of the site of the new jail in Sioux Falls. Street flooding also occurred in Hartford. Some basements were flooded.

Lincoln County

Sioux Falls to 2 W Beresford	24	0812CST 0955CST			0	0			Flood
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Rainfall of two to four inches, most of it in an hour, caused flooding of roads and low areas. In southern Sioux Falls, water was up to two and a half feet deep on roads, causing vehicles to stall. Near Beresford, two to three inches of water covered part of Interstate 29.

Lincoln County

Lennox	27	1805CST 1808CST			0	0	400K		Tornado (F1)
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A tornado damaged homes, public buildings, trees, and power lines. The American Legion building had its entire front facade ripped off, and its windows shattered. Several vehicles near the building sustained major damage from flying debris, and one was lifted and dropped partly onto another vehicle. Damage to homes included holes in permanent siding, several roofs heavily damaged, windows broken, fences blown down, garages damaged including at least one totally destroyed. Damage to public buildings included the pump house at the water tower being destroyed, the roof at the water plant was damaged, flag poles next to the ambulance building were broken, and an overhead door at the fire station was torn off. A fire truck at the fire station was damaged, and the station's window air conditioner was blown out along with some ceiling tiles inside. Power was lost to much of the city for at least an hour and a half because of the downed power lines.

Lincoln County

3 NW Tea	27	1843CST 1845CST			0	0	10K		Tornado (F0)
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A tornado damaged farm buildings. The tornado moved northeast and crossed briefly into Minnehaha County before dissipating.

Minnehaha County

6 SW (Fsd)Joe Foss Fl 5.5 SW (Fsd)Joe Foss Fld Si	27	1845CST 1847CST			0	0			Tornado (F0)
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A tornado crossing into the county from Lincoln County caused no reported damage in Minnehaha County before dissipating.

Lincoln County

8 W Canton	27	1854CST 1855CST			0	0			Tornado (F0)
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A tornado which was on the ground for one minute caused no reported damage.

Lincoln County

8 NW Canton	27	1912CST			0	0			Tornado (F0)
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A brief tornado caused no reported damage.

Brule County

Chamberlain Arpt	28	2031CST			0	0	5K		Thunderstorm Wind (G50) ^M
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Thunderstorm winds caused tree damage at a campground. Falling trees broke the air conditioning shroud on one camper and the awning on another camper.

Brule County

Kimball	28	2103CST			0	0			Thunderstorm Wind (G61) ^M
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Thunderstorm winds were reported by a National Weather Service trained spotter.

Aurora County

4 SW Plankinton	30	1100CST			0	0	1K		Lightning
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Lightning started a fire that destroyed 15 large round hay bales.

Charles Mix County

Wagner Arpt	30	1130CST			0	0	50K		Thunderstorm Wind (G75) ^M
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Thunderstorm winds, including a heat burst, blew off a door and part of the roof of an airport hangar, bent a flagpole, blew down trees and power poles, and blew two farm wagons across a highway. The temperature rose over 20 degrees in a few minutes, briefly reaching 99 degrees.

Charles Mix County

Pickstown to Marty	30	1140CST 1145CST			0	0	50K		Thunderstorm Wind (G61)
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Thunderstorm winds caused damage to trees and camping vehicles, including one camper that was crushed under a falling tree. No one was injured. The winds also moved a garage off its foundation.

Bon Homme County

Avon	30	1140CST			0	0	5K		Lightning
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Lightning struck a large tree, splitting the tree, part of which fell onto power lines, causing a power outage.

Bon Homme County

12 NE Avon	30	1147CST			0	0			Thunderstorm Wind (G52)
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Thunderstorm winds caused tree damage. The amount of damage was not known.

Storm Data and Unusual Weather Phenomena

July 2001

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									
Bennett County									
Martin	04	2200MST 2215MST			0	0	0		Hail (0.88)
Bennett County									
10 SE Martin	04	2240MST			0	0	0		Thunderstorm Wind (G60)
1 foot diameter tree down in Martin along with dime sized hail.									
Bennett County									
10 W Martin	05	0010MST			0	0	0		Hail (1.25)
Fall River County									
4 SE Burdock	06	1930MST			0	0	0		Hail (1.50)
Fall River County									
4 SE Burdock	06	1930MST			0	0	2K		Thunderstorm Wind (G70)
Large hail and damaging wind gusts broke windows and tore off part of a barn roof, and moved a horse trailer 200 feet. Several trees were also blown over.									
Pennington County									
1.5 E Rochford	07	0700MST			0	0	0		Lightning
Meade County									
10 S Sturgis	08	1130MST			0	0	0		Lightning
Lawrence County									
4 SE Spearfish	08	1415MST			0	0	0		Lightning
Lightning ignited several fires on July 7 and 8. No structures or crops were damaged however over 100 acres of mainly forests and shrubs were burned.									
Pennington County									
Johnson Siding	07	1325MST			0	0	0		Hail (0.75)
Pennington County									
Keystone	07	1405MST			0	0	0		Hail (1.75)
A severe thunderstorm moved from Johnson Siding through Keystone in Pennington county, producing large hail.									
Custer County									
12 W Custer	07	1743MST			0	0	0		Tornado (F0)
A tornado was reported by an experienced and well known spotter. A photo of the tornado was taken before rain and terrain obscured viewing of the tornado. No known damage was reported or observed by spotters.									
Custer County									
6 W Custer	07	1827MST 1837MST			0	0	0		Hail (1.75)
Golfball sized hail fell for 10 minutes.									
Custer County									
Custer Co Arpt	07	1913MST			0	0	0		Thunderstorm Wind (G55) ^M
Lawrence County									
10 SW Cheyenne Cross	07	1945MST			0	0	0		Hail (1.00)
Pennington County									
5 W Rockerville	08	1345MST			0	0	0		Hail (2.00)
Pennington County									
Rockerville	08	1345MST			0	0	0		Hail (0.75)
Custer County									
Hermosa	08	1415MST			0	0	0		Hail (2.00)
Pennington County									
2 SW Keystone	08	1420MST 1430MST			0	0	0		Hail (0.75)
Dime size hail fell for 10 minutes at Mt. Rushmore National Monument.									
Custer County									
1 NW Custer	08	1520MST			0	0	0		Hail (0.75)
Custer County									
Custer Co Arpt	08	1538MST			0	0	0		Hail (1.50)
Custer County									
2 N Blue Bell	08	1544MST			0	0	0		Hail (0.88)
Several thunderstorms moved across Custer County producing large hail.									
Custer County									
7 SW Custer	08	1630MST			0	0	0		Thunderstorm Wind (G98)

Storm Data and Unusual Weather Phenomena

July 2001

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

SOUTH DAKOTA, West

Straight-line winds from a thunderstorm downed approximately 2000 trees on National Forest land. Pea sized hail accumulated to three inches deep on the ground. Also, 15 people were evacuated due to propane tanks "knocked loose" by winds. No structural damage was reported.

Fall River County

Edgemont	08	1740MST 1741MST							Hail (2.25)
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Fall River County

9 W Hot Spgs	08	1810MST							Hail (1.75)
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Shannon County

Oglala	08	1810MST							Thunderstorm Wind (G52)
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Custer County

4 N Pringle	08	1810MST			5K				Thunderstorm Wind (G63)
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Trees downed on power lines and a roof blown off a building.

Pennington County

3 N Sheridan	09	1105MST							Thunderstorm Wind (G52)
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Pennington County

3 N Sheridan	09	1110MST							Hail (0.75)
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Todd County

5 E Parmelee	09	1920MST							Hail (0.75)
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Todd County

5 ESE Parmelee	09	1925MST							Thunderstorm Wind (G52)
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Fall River County

15 W Ardmore	09	1930MST							Thunderstorm Wind (G52)
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Harding County

3 W Harding to 3 SE Harding	11	1600MST							Thunderstorm Wind (G60)
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Several people reported "tremendous" winds as the storm passed Harding. Several tree branches were downed.

Pennington County

Keystone	11	1645MST 1820MST							Flash Flood
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1.00 to over 2.50 inches of rain fell in about 3 hours over the Grizzly Creek basin. As the creek rose, debris blocked bridges forcing water over roadways. Several homes and businesses along the creek channel reported water in basements.

Pennington County

3 SE Deerfield	13	1110MST							Hail (0.75)
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Custer County

4 N Custer	13	1254MST							Hail (1.00)
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Custer County

Custer Co Arpt	13	1326MST							Hail (0.75)
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Custer County

Pringle	13	1355MST							Hail (0.75)
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Custer County

Wind Cave to 1 S Wind Cave	13	1415MST 1420MST							Hail (1.75)
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Fall River County

4 N Hot Spgs	13	1435MST							Hail (1.75)
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Lawrence County

Deadwood to 2 SE Deadwood	14	1214MST 1225MST							Hail (1.00)
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Perkins County

3 N Usta	14	1300MST							Hail (0.75)
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Ziebach County

2 W Glad Vly	14	1305MST							Hail (0.75)
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Bennett County

Swett	14	1335MST							Thunderstorm Wind (G57)
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Lawrence County

5 SW Spearfish	15 17	1100MST 1430MST							Lightning
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A forest fire was reported at 1 pm MDT July 17, on the south slope of Crow Peak southwest of Spearfish. The fire is believed to be ignited by lightning, however the last thunderstorm over the area occurred around 11 am July 15. U.S. Forest Service spokesman

Storm Data and Unusual Weather Phenomena

July 2001

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									
indicated the fire likely smoldered for a couple of days. The fire burned about 3 acres.									
Pennington County									
Johnson Siding to Hisega	15	1125MST 1142MST			0	0	0		Hail (1.75)
Pennington County									
Johnson Siding	15	1154MST			0	0	0		Hail (1.00)
Pennington County									
Rapid City	15	1215MST			0	0	0		Hail (0.88)
Pennington County									
Rapid City	15	1215MST			0	0	0		Thunderstorm Wind (G65) ^M
Pennington County									
5 NW Rapid City to Rapid City	15	1220MST 1400MST			0	0	0		Flash Flood
A supercell thunderstorm developed just east of Pactola Reservoir and produced severe hail and wind gusts to 75 mph. As the storm approached Rapid City, rainfall became very heavy and overwhelmed street drainages in downtown Rapid City. Autos were reported to be moved "several feet" in flooded downtown streets. Water covered Nemo road in northwestern Rapid City, where the river gage at Echo Canyon went over flood stage.									
Ziebach County									
13 W Cherry Creek	15	1153MST			0	0	0		Thunderstorm Wind (G58) ^M
Haakon County									
6 N Milesville	15	1230MST			0	0	0		Hail (0.75)
Pennington County									
15 SE Rapid City	15	1315MST 1330MST			0	0	0		Hail (0.75)
Perkins County									
8 N Bison	15	1915MST 2130MST			0	0	200K		Flash Flood
Slow moving thunderstorms continually raked northern Perkins County during the afternoon and evening hours with several reports of 4 to 5 inches of rain. Water began flooding ranchers' yards by 715 pm MST. White Butte Road and several other minor roads were closed after water covered the roads. Two houses and a van were destroyed by flood waters that ran 5 to 10 feet deep. The worst flooding occurred in normally dry low-lying draws, not creeks.									
Harding County									
9 S Reva	15	2055MST			0	0	0		Hail (0.75)
Harding County									
Camp Crook	18	1950MST			0	0	0		Thunderstorm Wind (G50) ^M
Harding County									
9 SW Ladner	18	1955MST			0	0	2K		Thunderstorm Wind (G69)
Harding County									
2 E Ladner	18	2000MST			0	0	0		Hail (0.75)
Harding County									
2 E Ladner	18	2000MST			0	0	0		Thunderstorm Wind (G52)
Harding County									
1 N Buffalo	18	2007MST			0	0	0		Thunderstorm Wind (G65) ^M
A supercell thunderstorm moved across Harding county producing damaging outflow winds.									
Harding County									
3 SSE Ludlow	18	2010MST			0	0	0		Hail (0.88)
Perkins County									
13 W Lodgepole	18	2045MST			0	0	0		Thunderstorm Wind (G52)
Harding County									
1 N Buffalo	18	2048MST			0	0	0		Thunderstorm Wind (G51) ^M
Perkins County									
Lemmon	18	2149MST			0	0	0		Thunderstorm Wind (G61)
Shannon County									
Kyle	19	1453MST			0	0	0		Hail (0.75)
Shannon County									
2 W Kyle	19	1455MST			0	0	0		Hail (1.00)
Shannon County									
3 S Kyle	19	1510MST			0	0	0		Hail (1.75)

Storm Data and Unusual Weather Phenomena

July 2001

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 DAKOTA, West</u>									
Shannon County									
4 NE Kyle	19	1515MST			0	0	0		Hail (0.88)
Shannon County									
Rockyford	19	1535MST			0	0	0		Hail (1.75)
Jackson County									
7 SW Potato Creek	19	1550MST			0	0	0		Hail (0.75)
Jackson County									
Cactus Flats	19	1608MST			0	0	0		Thunderstorm Wind (G52)
Pennington County									
8 S Wall	19	1608MST 1616MST			0	0	0		Hail (1.75)
Jackson County									
10 S Kadoka	19	1649MST			0	0	0		Hail (0.75)
Harding County									
4 S Camp Crook	19	1653MST			0	0	0		Hail (0.88)
Harding County									
3 SE Harding	19	1710MST 1730MST			0	0	0		Hail (1.25)
Harding County									
8 NW Redig	19	1750MST 1800MST			0	0	0		Hail (1.75)
Harding County									
5 N Redig	19	1800MST			0	0	0		Hail (2.00)
Jackson County									
4 SE Interior	19	1715MST			0	0	0		Hail (0.75)
Custer County									
6 NE Blue Bell	19	1752MST			0	0	0		Hail (0.88)
Harding County									
3 SE Harding	19	1819MST			0	0	0		Hail (1.00)
Harding County									
10 S Buffalo	19	1841MST			0	0	0		Hail (1.75)
Jackson County									
8 NW Kadoka	19	1825MST			0	0	0		Hail (1.00)
Ziebach County									
Dupree	19	1833MST			0	0	0		Thunderstorm Wind (G52)
Ziebach County									
Dupree	19	1838MST			0	0	0		Hail (1.75)
Perkins County									
6 SW White Butte	19	1928MST			0	0	0		Thunderstorm Wind (G52)
Perkins County									
Meadow	19	1930MST 1940MST			0	0	0		Thunderstorm Wind (G52)
Perkins County									
Shadehill	19	1930MST			0	0	0		Hail (1.00)
Bennett County									
3 SW Swett to 3 NW Swett	21	1530MST 1545MST			0	0	0		Hail (1.00)
Pennington County									
3 S Wall to 3 SW Wall	21	1647MST 1652MST			0	0	0		Hail (1.50)
Pennington County									
7 NW Wall	21	1718MST			0	0	0		Hail (1.50)
Pennington County									
Creighton	21	1810MST			0	0	0		Hail (1.75)
Pennington County									
13 N Wall	21	1735MST 1750MST			0	0	0		Hail (1.50)

Storm Data and Unusual Weather Phenomena

July 2001

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									
Meade County									
3 NW Ellsworth Afb	21	1820MST			0	0	0		Hail (0.88)
Meade County									
1 E Ellsworth Afb	21	1850MST			0	0	0		Hail (0.75)
Butte County									
35 W Hoover	22	1800MST			0	0	0		Thunderstorm Wind (G50)
Several tree branches were blown down.									
Butte County									
25 NE Newell	22	1900MST			0	0	0	10K	Hail (1.00)
Hail destroyed 150 acres of alfalfa and millet.									
Meade County									
10 S Mud Butte	22	1910MST			0	0	0		Hail (0.75)
Meade County									
10 S Mud Butte	22	1910MST			0	0	0		Thunderstorm Wind (G52)
Meade County									
Red Owl	22	1930MST			0	0	0		Hail (1.00)
Meade County									
Red Owl	22	1930MST			0	0	0		Thunderstorm Wind (G52)
Thunderstorm winds broke a 10 inch tree limb.									
Meade County									
15 SW Faith	22	1945MST			0	0	0		Tornado (F0)
Meade County									
20 S Faith	22	2012MST			0	0	0		Tornado (F0)
A fireman, who was a trained storm spotter, reported seeing a tornado form and momentarily touch the ground south of Faith.									
Ziebach County									
4 N Bridger	22	2030MST			0	0	0		Hail (2.75)
Lawrence County									
12 W Spearfish	22	2100MST			0	0	0		Hail (0.75)
Haakon County									
4 NE Milesville	22	2100MST			0	0	0		Funnel Cloud
Haakon County									
2 S Milesville	22	2110MST			0	0	0		Hail (0.75)
Haakon County									
7 E Billsburg	22	2115MST 2130MST			0	0	0		Hail (1.00)
Haakon County									
7 E Billsburg	22	2115MST			0	0	0		Thunderstorm Wind (G52)
Haakon County									
2 N Kirley	22	2200MST			0	0	50K		Thunderstorm Wind (G50)
An old barn and fences were blown down.									
Lawrence County									
2 SE Deadwood	22	2122MST			0	0	0		Hail (0.75)
Meade County									
Union Center	22	2157MST			0	0	0		Thunderstorm Wind (G61)
Meade County									
7 S Enning	22	2200MST			0	0	0		Thunderstorm Wind (G52)
Jackson County									
5 W Cottonwood	23	0010MST			0	0	0		Thunderstorm Wind (G50)
Several tree limbs were broken off.									
Pennington County									
9 NE Creighton	23	0045MST			0	0	0		Thunderstorm Wind (G52)
Lawrence County									
9 SW Cheyenne Crossi	23	1700MST			0	0	0		Hail (1.00)
Lawrence County									
Lead	23	1710MST			0	0	0		Hail (0.75)
Butte County									
3 S Belle Fourche to 3 SSE Belle Fourche	23	2130MST 2200MST			0	2	0		Hail (1.00)

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					Killed	Injured	Property	Crops	

SOUTH DAKOTA, West

Butte County

3 S Belle Fourche to 3 SSE Belle Fourche	23	2130MST 2200MST			0	5	213K		Thunderstorm Wind (G78)
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A strong thunderstorm moved from the southwest to the northeast across southwestern Butte County. This storm exhibited very subtle bowing, but otherwise there was little to note about its structure. Damage from this storm was limited to a residential mobile and modular home area perched on a broad hill. The homes were situated on 1 acre lots, so they were not densely packed. The damage primarily consisted of rolled and broken mobile homes. The damage area was limited to an area less than one mile in diameter. Five mobile homes were rolled and destroyed. Four mobile and modular homes sustained major roof damage. The mobile homes that were destroyed were scattered between homes which were completely undamaged. Examination of destroyed homes indicated that they were not tied down or had inadequate or no skirting at all. Homes that had plywood skirting and were tied down weathered the storm. Debris patterns provided evidence of diffluent winds, suggesting straight-line downburst winds. Five people received minor injuries from side being inside rolled mobile homes. Two injuries were the result of wind driven hail after escaping a destroyed mobile home.

Ziebach County

13 W Cherry Creek	23	2328MST			0	0	0		Thunderstorm Wind (G54) ^M
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Haakon County

16 NW Philip	24	0100MST			0	0	0		Thunderstorm Wind (G52)
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Haakon County

4 N Kirley to 9 NE Kirley	24	0130MST 0200MST			0	0	0		Thunderstorm Wind (G60)
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Pennington County

13 SE Wall	25	1428MST			0	0	0		Hail (0.88)
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Meade County

Piedmont	25	1445MST			0	0	0		Hail (0.75)
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Meade County

Black Hawk	25	1455MST 1500MST			0	0	0		Hail (2.75)
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Pennington County

20 SE Quinn	25	1510MST			0	0	0		Hail (0.75)
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Pennington County

20 SE Quinn	25	1510MST			0	0	0		Thunderstorm Wind (G52)
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Jackson County

4 SE Interior	25	1515MST			0	0	0		Hail (0.75)
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Jackson County

9 SW Wanblee to 9 S Wanblee	25	1540MST 1740MST			0	0	0		Hail (1.75)
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Jackson County

6 S Wanblee	25	1620MST			0	0	0		Hail (2.75)
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Bennett County

13 N Martin	25	1650MST			0	0	0		Hail (0.88)
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Jackson County

Longvalley	25	1655MST			0	0	0		Hail (0.75)
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Bennett County

5 NE Martin	25	1730MST			0	0	0		Hail (1.75)
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Bennett County

8 E Tuthill	25	1740MST			0	0	0		Tornado (F0)
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Path length and width estimated.

Bennett County

8 SE Martin	25	1805MST			0	0	0		Hail (1.75)
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Bennett County

8 SE Martin	25	1805MST			0	0	0		Thunderstorm Wind (G52)
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Three inch diameter tree branches were broken off.

Pennington County

Johnson Siding	25	1528MST			0	0	0		Hail (0.75)
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Shannon County

12 S Kyle	25	1555MST			0	0	0		Hail (0.88)
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Perkins County

8 SSE Meadow	25	1850MST			0	0	0		Thunderstorm Wind (G52)
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Lawrence County

Spearfish	26	1601MST			0	0	0		Hail (0.75)
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					Killed	Injured	Property	Crops	
SOUTH DAKOTA, West									
Pennington County									
New Underwood	26	1715MST			0	0	0		Thunderstorm Wind (G57)
Meade County									
15 S Hereford	26	1720MST			0	0	0		Thunderstorm Wind (G52)
			Several tree limbs down.						
Harding County									
1.5 E Redig	26	1735MST			0	0	0		Thunderstorm Wind (G52) ^M
Custer County									
8 SE Blue Bell	27	1512MST			0	0	0		Hail (0.75)
Meade County									
4 SW Enning to 7 S Enning	28	1350MST 1450MST			0	0	0		Hail (2.00)
Meade County									
4 NE Elm Spgs	28	1515MST			0	0	0		Hail (1.50)
Ziebach County									
13 W Cherry Creek	28	1412MST			0	0	0		Thunderstorm Wind (G59) ^M
Meade County									
Red Owl	28	1515MST			0	0	0		Thunderstorm Wind (G50)
			4 inch diameter tree limbs were broken off.						
Pennington County									
14 NW Creighton to 6 NW Creighton	28	1520MST 1620MST			0	0	0		Hail (2.75)
Haakon County									
2 SW Grindstone to 3 SE Grindstone	28	1615MST 1620MST			0	0	10K		Hail (2.00)
			Large hail broke windows in 3 homes and damaged some crops.						
Pennington County									
7 E Creighton	28	1625MST			0	0	0		Hail (0.88)
Meade County									
Faith	28	1535MST			0	0	0		Hail (0.88)
Haakon County									
3.5 E Milesville	28	1610MST			0	0	0		Hail (0.88)
Haakon County									
17 N Midland	28	1629MST			0	0	0		Thunderstorm Wind (G52)
Haakon County									
13 NE Ottumwa	28	1640MST			0	0	0		Tornado (F0)
			Path length and width estimated.						
Jackson County									
2 E Cottonwood	28	1650MST			0	0	2K		Thunderstorm Wind (G64)
			Windows were broken out of a home.						
Jackson County									
Cottonwood to 2 E Cottonwood	28	1655MST 1711MST			0	0	0		Hail (1.25)
Haakon County									
11 NW Philip	28	1655MST			0	0	0		Hail (1.75)
Haakon County									
4 W Philip	28	1658MST			0	0	0		Hail (1.75)
Haakon County									
4 W Philip	28	1704MST			0	0	0		Funnel Cloud
Jackson County									
Kadoka	28	1739MST			0	0	0		Hail (0.88)
Mellette County									
10 NE White River	28	1800MST			0	0	0		Hail (0.75)
Mellette County									
8 W Cedar Butte	28	1805MST			0	0	0		Hail (0.75)
Mellette County									
Cedar Butte	28	1810MST			0	0	0		Thunderstorm Wind (G50)
			A big tree limb was broken off.						

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July 2001

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									
Mellette County									
12 NE Wood	28	1900MST			0	0	0		Hail (0.88)
Mellette County									
12 NE Wood	28	1900MST			0	0	0		Thunderstorm Wind (G50)
Todd County									
6 E Parmelee	28	1855MST			0	0	0		Hail (0.75)
Tripp County									
1 S Winner	28	1920MST			0	0	0		Funnel Cloud
A few funnel clouds were reported by public.									
Tripp County									
1 S Winner	28	1920MST			0	0	0		Thunderstorm Wind (G52)
Todd County									
9 SE Mission	28	1930MST 1940MST			0	0	0		Hail (0.88)
Tripp County									
5 SSE Keyapaha	28	2015MST			0	0	0		Thunderstorm Wind (G52)
Tripp County									
Winner	30	0501MST			0	0	0.50K		Thunderstorm Wind (G56) ^M
A thunderstorm over Winner produced a heat burst with damaging winds. Temperatures at the Winner airport jumped to 92F. One power pole was blown down.									
Fall River County									
12 S Hot Spgs	30	1615MST			0	0	0		Thunderstorm Wind (G50)
Thunderstorms winds damaged construction signs. "Large" hail was also reported, but no size was given.									
Fall River County									
Smithwick to 2 N Smithwick	30	1700MST			0	0	0		Thunderstorm Wind (G65)
One large tree was uprooted and several power poles were blown down.									
Fall River County									
9 E Oral	30	1720MST			0	0	0		Thunderstorm Wind (G61)
Several tree limbs were broken off.									
Custer County									
3 SSW Hermosa to Hermosa	30	1800MST			0	0	0		Thunderstorm Wind (G57)
Pennington County									
1 W Caputa	30	1815MST			0	0	0		Thunderstorm Wind (G52)
Pennington County									
(Rap)Rapid City Arpt	30	1822MST			0	0	0		Thunderstorm Wind (G57) ^M
Pennington County									
Rapid City	30	1823MST			0	0	0		Thunderstorm Wind (G63) ^M
Pennington County									
2 E Rapid City	30	1830MST			0	0	2K		Thunderstorm Wind (G61)
Several power poles were blown down by thunderstorm winds.									
Pennington County									
9 NE Scenic	30	1840MST			0	0	0		Thunderstorm Wind (G52) ^M
Meade County									
Hereford	30	1845MST			0	0	0		Thunderstorm Wind (G61)
Cars were reported "moved", not rolled, by thunderstorm winds.									
Meade County									
6 SW Elm Spgs	30	1900MST			0	0	0		Thunderstorm Wind (G60)
A 12 inch diameter tree was snapped.									
Pennington County									
12 N Wall	30	1914MST			0	0	0		Thunderstorm Wind (G61)
Meade County									
Enning	30	1915MST			0	0	0		Funnel Cloud
Meade County									
Red Owl	30	1920MST			0	0	0		Thunderstorm Wind (G52)
6 inch tree limbs were broken off.									

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July 2001

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 DAKOTA, West</u>									
Meade County									
4 SSW Plainview	30	1934MST			0	0	0		Thunderstorm Wind (G52)
Ziebach County									
13 W Cherry Creek	30	1950MST			0	0	0		Thunderstorm Wind (G66) M
Ziebach County									
8 NW Cherry Creek	30	1955MST			0	0	0		Thunderstorm Wind (G61)
Ziebach County									
10 S Dupree	30	2035MST			0	0	0		Thunderstorm Wind (G59) M
Ziebach County									
10 NE Cherry Creek	30	2036MST			0	0	0		Thunderstorm Wind (G59) M
Haakon County									
3 SE Milesville	30	2024MST			0	0	0		Thunderstorm Wind (G52) M
<u>TENNESSEE, Central</u>									
Lawrence County									
Center	02	1618CST 1800CST			0	0			Flash Flood
EMA reported water over Highway 241 at Buffalo Rd.									
Lawrence County									
Lawrenceburg	02	1620CST 1800CST			0	0			Flash Flood
EMA reported 2 to 3 feet of water over several roads in Lawrenceburg.									
Moore County									
1 E Lynchburg	03	1330CST			0	0			Thunderstorm Wind (G50)
Sheriff's office reported one tree down.									
Moore County									
Lynchburg	03	1335CST			0	0			Thunderstorm Wind (G55)
Law enforcement reported several trees down south of Lynchburg.									
Macon County									
Countywide	03	1630CST			0	0			Thunderstorm Wind (G50)
Law enforcement reported trees down around the county.									
Cumberland County									
Crossville	03	1854CST			0	0			Hail (0.75)
Dime size hail reported.									
Cumberland County									
Crossville	03	1930CST			0	0			Flash Flood
Sheriff's office reported several roads flooded.									
Robertson County									
7 SW Springfield	04	1234CST			0	0			Thunderstorm Wind (G55)
Law enforcement reported trees down, also downed power lines and a tree fell on a house.									
Sumner County									
9 NE Bethpage	04	1250CST			0	0			Thunderstorm Wind (G50)
Law enforcement reported trees down on a road.									
Davidson County									
Joelton	04	1300CST			0	0			Thunderstorm Wind (G50)
Spotter reported trees snapped off.									
Jackson County									
5 NW Gainesboro	04	1335CST			0	0			Thunderstorm Wind (G50)
Law enforcement reported trees down on York Highway (Highway 85).									
White County									
10 W Sparta	04	1439CST			0	0			Thunderstorm Wind (G50)
EMA reported a downed tree.									
Coffee County									
Tullahoma	04	1530CST			0	0			Thunderstorm Wind (G55)
Tullahoma Public Works reported 8 trees were blown down around Tullahoma.									
Giles County									
Countywide	04	1545CST			0	0			Thunderstorm Wind (G50)
Sheriff's office reported trees down around the county.									
Stewart County									
7 NE Dover	05	0810CST			0	0			Thunderstorm Wind (G50)

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		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
TENNESSEE, Central									
Spotter reported trees down across the intersection of Highway 46 and Highway 79.									
Montgomery County									
Palmyra	05	0832CST			0	0			Hail (1.50)
Law enforcement reported walnut size hail.									
Robertson County									
White House	05	0845CST			0	0			Thunderstorm Wind (G50)
Off duty NWS employee reported 2 trees down on U.S. Highway 31 in White House.									
Sumner County									
West Portion	05	0845CST 0850CST			0	0			Thunderstorm Wind (G55)
Newspaper article mentioned numerous trees and power lines were down from Hendersonville to Millersville.									
Davidson County									
Goodlettsville	05	0859CST			0	0			Hail (0.75)
Dime size hail reported.									
Wilson County									
4 NW Mt Juliet	05	0906CST			0	0			Thunderstorm Wind (G52) ^M
Thunderstorm wind gust of 60 mph measured at NWS office.									
Wilson County									
Mt Juliet	05	0910CST			0	0			Thunderstorm Wind (G55)
Multiple reports of downed trees and power lines by EMA. An electric pole was knocked down on Saundersville Rd.									
Wilson County									
Mt Juliet	05	0914CST			0	0			Funnel Cloud
Trained spotter reported a funnel cloud on Lebanon Pike and Mt. Juliet Rd.									
Davidson County									
Nashville	05	0916CST			0	0			Thunderstorm Wind (G52)
Spotter reported 60 mph wind gust in downtown Nashville.									
Wilson County									
Mt Juliet	05	0917CST			0	0			Hail (0.75)
Off duty NWS employee reported dime size hail just west of Mt. Juliet.									
Wilson County									
Mt Juliet	05	0919CST			0	0			Hail (0.88)
Off duty NWS employee reported nickel size hail.									
Dickson County									
South Portion	05	0933CST			0	0			Hail (1.75)
Public report of golf ball size hail.									
Hickman County									
Northeast Portion	05	0950CST			0	0			Thunderstorm Wind (G50)
Law enforcement reported trees down in the northeast part of the county.									
Lewis County									
Countywide	05	1030CST			0	0			Thunderstorm Wind (G50)
Law enforcement reported a few trees down around the county.									
Maury County									
Countywide	05	1030CST			0	0			Thunderstorm Wind (G50)
Law enforcement reported trees down around the county.									
Perry County									
Linden	05	1030CST			0	0			Hail (0.88)
Law enforcement reported nickel size hail.									
Perry County									
Linden	05	1030CST			0	0			Thunderstorm Wind (G50)
Law enforcement reported a tree down across a power line.									
Rutherford County									
Murfreesboro	05	1034CST			0	0			Thunderstorm Wind (G60)
Spotter reported several trees limbs down and winds estimated to be 60-70 mph just north of Murfreesboro.									
Lincoln County									
Countywide	05	1035CST			0	0			Thunderstorm Wind (G50)
Law enforcement reported trees down around the county.									
Marshall County									
Countywide	05	1035CST			0	0			Thunderstorm Wind (G50)
Law enforcement reported trees down around the county.									

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TENNESSEE, Central									
Williamson County									
West Portion	05	1040CST			0	0			Thunderstorm Wind (G50)
									Law enforcement reported a tree down on Highway 100 in the western part of the county.
Wayne County									
Countywide	05	1050CST			0	0			Thunderstorm Wind (G50)
									Law enforcement reported trees down around the county.
Lincoln County									
West Portion	05	1052CST 1053CST			0	0			Thunderstorm Wind (G55)
									EMA recieved numerous reports of trees down in the western part of the county from Boonshill to Coldwater.
Lincoln County									
West Portion	05	1100CST			0	0			Thunderstorm Wind (G50)
									Law enforcement reported trees and power lines down near Highway 274 in the western part of the county.
Bedford County									
Countywide	05	1120CST			0	0			Thunderstorm Wind (G50)
									News article reported trees down across Bedford county.
Lawrence County									
Lawrenceburg	05	1144CST 1400CST			0	0			Flash Flood
									Spotters and EMA officials reported flooding in Lawrenceburg. The flooding was affecting some residences.
Giles County									
Countywide	05	1150CST			0	0			Thunderstorm Wind (G50)
									Law enforcement reported trees down across the county.
Robertson County									
Springfield	05	1450CST			0	0			Lightning
									Lightning caused a fire and damaged a home on Rudolph St. near Springfield.
Robertson County									
Springfield	05	1450CST			0	0			Thunderstorm Wind (G52)
									Spotter estimated winds to be 60 mph in a thunderstorm. Several trees were blown down at the Golf View Lane golf Course near Springfield. Also, a gust of wind shattered a glass window at Firststar Bank on Memorial Blvd. in Springfield.
Davidson County									
Nashville	05	1535CST			0	0			Hail (0.75)
									Spotter reported dime size hail in the Whites Creek area of Nashville.
Davidson County									
Nashville	05	1538CST			0	0			Thunderstorm Wind (G50)
									EMA reported a tree was blown down across a power line near 25th Avenue So.
Putnam County									
Cookeville	09	1240CST			0	0			Thunderstorm Wind (G50)
									Public reported 3 trees blown down in the eastern part of town.
Rutherford County									
Murfreesboro	09	1415CST			0	0			Thunderstorm Wind (G50)
									Public reported a tree was blown down.
Marshall County									
Lewisburg	09	1553CST			0	0			Hail (0.75)
									Spotter reported dime size hail.
Sumner County									
Oak Grove	10	1049CST			0	1			Lightning
									A woman was picking blackberries near her home when lightning struck a tree about 20 feet from where she stood. The current travelled across the ground and injured her. She was taken to Sumner Region Medical Center and listed in good condition.
Lincoln County									
6 S Fayetteville	11	1634CST			0	0			Thunderstorm Wind (G60)
									Law enforcement reported a barn damaged, trees down, and power lines down on Prospect Road near the town of Skinem.
Stewart County									
Dover	18	1624CST			0	0			Thunderstorm Wind (G50)
									Law enforcement reported a tree down at the intersection of State Highway 232 and 76.
Houston County									
Erin	18	1642CST			0	0			Thunderstorm Wind (G50)
									Law enforcement reported a tree was blown down.

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		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property Damage	Crops	
<u>TENNESSEE, Central</u>									
Montgomery County									
Clarksville	18	1650CST			0	0			Thunderstorm Wind (G50)
									Law enforcement reported a tree was blown down in Clarksville and also on Grant Road in the eastern part of the county.
Houston County									
Erin	18	1655CST			0	0			Thunderstorm Wind (G50)
									Law enforcement reported a tree was blown down just north of Erin.
Davidson County									
Goodlettsville	28	1539CST			0	0			Thunderstorm Wind (G50)
									Metro EOC reported power lines down.
<u>TENNESSEE, East</u>									
Rhea County									
Dayton to Spring City	03	1222EST			0	0	5K		Thunderstorm Wind
									Several trees down between these two towns.
Knox County									
Corryton	03	1320EST			0	0			Hail (0.75)
Carter County									
Elizabethton	03	1400EST 1425EST			0	0			Flash Flood
									Thunderstorms with very heavy rainfall caused flash flooding in Elizabethton and surrounding areas. Several homes and other buildings were flooded. In addition, highway 321/159 was flooded in several places, with some damage due to washouts.
Sullivan County									
Countywide	03	1540EST			0	0			Flash Flood
									Several homes, streets and roads flooded across the county.
Claiborne County									
7 NE Tazewell	03	1920EST			0	0	6K		Thunderstorm Wind
									Several trees down.
Claiborne County									
Speedwell	04	1450EST			0	0	1K		Thunderstorm Wind
									Large limbs down.
Campbell County									
Countywide	04	1500EST			0	0	7K		Thunderstorm Wind
									Numerous trees and large limbs down.
Claiborne County									
Countywide	04	1500EST			0	0	21K		Thunderstorm Wind
									Trees down.
Hancock County									
Countywide	04	1515EST			0	0	11K		Thunderstorm Wind
									Trees down.
Union County									
Countywide	04	1525EST			0	0	10K		Thunderstorm Wind
									Trees down.
Grainger County									
Countywide	04	1525EST			0	0	16K		Thunderstorm Wind
									Trees down.
Hawkins County									
Church Hill to Mt Carmel	04	1530EST			0	0	12K		Thunderstorm Wind
									Trees down.
Bledsoe County									
Pikeville	04	1535CST			0	0	1K		Thunderstorm Wind
									Three trees down.
Morgan County									
Countywide	04	1540EST			0	0	20K		Thunderstorm Wind
									Trees down.
Knox County									
Mt Olive	04	1540EST			0	0			Thunderstorm Wind (G61)
Knox County									
Mt Olive	04	1540EST			0	0	11K	12K	Thunderstorm Wind

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm	
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops		
TENNESSEE, East										
			Trees and power lines down.							
Anderson County										
Lake City	04	1545EST			0	0		9K	Thunderstorm Wind	
			Trees down.							
Hamblen County										
Countywide	04	1555EST			0	0		21K	Thunderstorm Wind	
			Trees down.							
Sequatchie County										
Countywide	04	1555CST			0	0		16K	Thunderstorm Wind	
			Several trees down.							
Jefferson County										
Countywide	04	1600EST			0	0		11K	Thunderstorm Wind	
			Trees down.							
Sullivan County										
Countywide	04	1600EST			0	0		14K	Thunderstorm Wind	
			Trees down.							
Cocke County										
Countywide	04	1600EST			0	0		14K	Thunderstorm Wind	
			Trees down.							
Greene County										
Countywide	04	1600EST			0	0		23K	Thunderstorm Wind	
			Trees down.							
Washington County										
Gray	04	1605EST			0	0		8K	Thunderstorm Wind	
			Trees down.							
Anderson County										
Oliver Spgs	04	1605EST			0	0		10K	Thunderstorm Wind	
			Trees down.							
Blount County										
Countywide	04	1618EST			0	0		10K	Thunderstorm Wind	
			Trees down.							
Sevier County										
Pigeon Forge to Kodak	04	1620EST			0	0		24K	Thunderstorm Wind	
			Trees down across the northern half of the county.							
Carter County										
Countywide	04	1620EST			0	0		12K	Thunderstorm Wind	
			Several trees down.							
Roane County										
Countywide	04	1622EST			0	0		21K	Thunderstorm Wind	
			Numerous trees down.							
Johnson County										
Butler	04	1630EST			0	0		12K	Thunderstorm Wind	
			Trees down.							
Unicoi County										
Erwin	04	1630EST			0	0	1K		Thunderstorm Wind	
			Several windows blown out of buildings in the downtown area.							
Meigs County										
Decatur	04	1630EST			0	0		10K	Thunderstorm Wind	
			Numerous trees down.							
Rhea County										
Countywide	04	1630EST			0	0		19K	Thunderstorm Wind	
			Numerous trees down.							
Unicoi County										
Countywide	04	1630EST			0	0		16K	Thunderstorm Wind	
			Trees down.							
Rhea County										
Grandview to Spring City	04	1630EST			0	0	10K	4K	Thunderstorm Wind	

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
TENNESSEE, East									
A couple of trees down on houses.									
Monroe County Countywide	04	1640EST			0	0		10K	Thunderstorm Wind
Several trees down.									
Mcminn County Countywide	04	1650EST			0	0		9K	Thunderstorm Wind
Several trees down.									
Hamilton County Chattanooga	04	1730EST			0	0	0.50K		Thunderstorm Wind
Window blown out of Grandview Apartments.									
Bradley County Countywide	04	1730EST			0	0		20K	Thunderstorm Wind
Trees down.									
Hamilton County Countywide	04	1730EST			0	0	23K	20K	Thunderstorm Wind
Numerous trees and power lines down.									
Polk County Ocoee to 15 E Ocoee	04	1737EST			0	0		19K	Thunderstorm Wind
Several trees down over the western half of the county.									
Campbell County Countywide	05	1650EST			0	0		18K	Thunderstorm Wind
Trees down.									
Anderson County Oak Ridge	05	1714EST			0	0			Hail (1.00)
Anderson County Norris	05	1715EST			0	0			Hail (0.75)
Anderson County 2 NE Norris	05	1716EST			0	0			Hail (0.88)
Knox County 5 N Knoxville to Knoxville	05	1730EST			0	0		7K	Thunderstorm Wind
A few trees down across the north half of the county.									
Claiborne County Goin	05	1740EST			0	0		20K	Thunderstorm Wind
Grainger County 3 SW Bean Station	05	1800EST			0	0		3K	Thunderstorm Wind
Two trees down on Emory Road and Lakeshore Road.									
Anderson County Oak Ridge	05	1853EST 1900EST			0	0			Hail (1.00)
Anderson County Marlow	05	1900EST			0	0		15K	Thunderstorm Wind
Numerous trees down.									
Johnson County Countywide	08	1530EST			0	0		23K	Thunderstorm Wind
Trees down.									
Sullivan County Kingsport	08	1533EST			0	0		21K	Thunderstorm Wind
Trees down.									
Carter County Countywide	08	1600EST			0	0		27K	Thunderstorm Wind
Numerous trees down.									
Washington County Countywide	08	1605EST			0	0		14K	Thunderstorm Wind
Trees down.									
Hawkins County Countywide	08	1605EST			0	0		20K	Thunderstorm Wind
Trees down.									

Storm Data and Unusual Weather Phenomena

July 2001

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									
Hancock County									
Countywide	08	1610EST			0	0	17K	23K	Thunderstorm Wind
			Numerous trees and power lines down.						
Unicoi County									
Erwin	08	1625EST			0	0			Thunderstorm Wind (G52)
Johnson County									
Countywide	08	1630EST			0	0	16K		Thunderstorm Wind
			Trees down.						
Greene County									
Countywide	08	1630EST			0	0	20K	21K	Thunderstorm Wind
			Trees and power lines down.						
Hamblen County									
Russellville	08	1635EST			0	0			Hail (0.75)
Claiborne County									
Tazewell	08	1645EST			0	0	15K	17K	Thunderstorm Wind
			Trees and power lines down.						
Grainger County									
Bean Station	08	1645EST			0	0		18K	Thunderstorm Wind
			Numerous trees down.						
Cocke County									
Parrottsville	08	1700EST			0	0	15K	18K	Thunderstorm Wind
			Trees and power lines down.						
Sevier County									
Pittman Center	08	1805EST			0	0		21K	Thunderstorm Wind
			Numerous trees down.						
Claiborne County									
Tazewell to Harrogate	08	2325EST			0	0		25K	Thunderstorm Wind
			Numerous trees down over the northern half of the county.						
Campbell County									
La Follette	08	2330EST			0	0		15K	Thunderstorm Wind
			Trees down.						
Grainger County									
Countywide	08	2345EST			0	0		16K	Thunderstorm Wind
			Several trees down.						
Mcminn County									
Athens	09	1250EST			0	0	3K	14K	Thunderstorm Wind
			Several trees down and a roof damage.						
Bradley County									
Cleveland	09	1310EST			0	0		20K	Thunderstorm Wind
			Several trees down.						
Polk County									
Benton to Oldfort	09	1330EST			0	0		15K	Thunderstorm Wind
			Several trees down in Benton along Highway 411 and several trees down in Oldfort.						
Hamilton County									
Chattanooga	28	1840EST 1910EST			0	0			Flash Flood
			Flooding reported across Hixson Pike and Daisy Dallas Road in North Chattanooga. Water in home on Rogers Drive.						
Johnson County									
Mountain City	29	0900EST 1700EST			0	0			Flash Flood
			Water entering homes and businesses.						
Carter County									
Roan Mtn	29	1000EST 1700EST			0	0			Flash Flood
			Water in homes along Highway 143 near Roan Mountain State Park.						
Johnson County									
Mountain City	29	1030EST 1700EST			0	0			Flash Flood

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
<u>TENNESSEE, East</u>									
Widespread flooding.									
Sullivan County									
Blountville	29	1035EST 1600EST			0	0			Flash Flood
Water in businesses and two vehicles submerged in a parking lot.									
Carter County									
Hunter	29	1310EST 1500EST			0	0			Flash Flood
Highway 91 underwater.									
Sullivan County									
Bristol	29	1400EST 1600EST			0	0			Flash Flood
Water entered a home on Wyatt Hollow Road.									
Carter County									
2 NE Buladeen	29	1700EST			0	0			Flash Flood
High water problems continued on and along Highway 91. The highway was closed in several locations due to high water and mudslides.									
Johnson County									
Countywide	29	1700EST			0	0			Flash Flood
High water problems continued with numerous roads closed.									
Sullivan County									
Countywide	29	1700EST			0	0			Flash Flood
High water problems continued with a few roads closed and homes flooded.									
<u>TENNESSEE, West</u>									
Weakley County									
Dresden	05	0730CST 0735CST			0	0	25K		Thunderstorm Wind
Several trees were knocked down. Some trees fell on several houses.									
Carroll County									
Huntingdon	05	0845CST 0850CST			0	0	0.01K		Hail (0.75)
Carroll County									
Huntingdon	05	0845CST 0850CST			0	0	5K		Thunderstorm Wind
Several trees were knocked down.									
Decatur County									
Sugar Tree	05	0940CST 0945CST			0	0	10K		Thunderstorm Wind
Numerous trees were blown down.									
Shelby County									
Memphis	05	1020CST 1025CST			0	0	10K		Thunderstorm Wind
Several trees were blown down. Some of the trees fell on houses.									
Hardeman County									
Bolivar	05	1032CST 1040CST			0	0	10K		Thunderstorm Wind
Numerous trees were knocked down.									
Chester County									
3 N Henderson	05	1103CST 1110CST			0	0	20K		Thunderstorm Wind
Numerous trees and power lines were blown down.									
Mcnairy County									
2 W Selmer	05	1107CST 1115CST			0	0	5K		Thunderstorm Wind
Some trees were knocked down along Highway 64.									
Henderson County									
Countywide	05	1120CST 1130CST			0	0	10K		Thunderstorm Wind
Numerous trees were blown down.									

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
<u>TENNESSEE, West</u>									
Carroll County									
Huntingdon	05	1220CST 1225CST			0	0	10K		Thunderstorm Wind
A few trees were knocked down. One of the trees fell on a car.									
Carroll County									
Huntingdon	09	2030CST 2035CST			0	0	1K		Thunderstorm Wind
Several large trees limbs were blown down.									
Shelby County									
Bartlett	10	1050CST 1055CST			0	0	5K		Thunderstorm Wind
A couple of trees were snapped in two.									
Hardeman County									
8 W Bolivar	10	1330CST 1335CST			0	0	7.5K		Thunderstorm Wind
Some patio furniture was blown into a swimming pool. Several trees were blown down.									
Gibson County									
Dyer to Trenton	18	1750CST 1805CST			0	0	10K		Thunderstorm Wind
Part of a mobile home roof was blown off. A few trees were knocked down.									
Dyer County									
Dyersburg	18	1800CST 1805CST			0	0	1K		Thunderstorm Wind
Some large trees limbs were blown down.									
Shelby County									
Bartlett	21	1650CST 1655CST			0	0	10K		Thunderstorm Wind
Numerous trees were blown down.									
Shelby County									
Memphis	30	1810CST 1815CST			0	0	1K		Thunderstorm Wind
A couple of trees were blown down.									
Shelby County									
Memphis	30	1815CST 2000CST			0	6	25K		Flash Flood
Heavy rain caused part of the roof at a Sears store to collapse. Six persons suffered minor injuries. Some street flooding also occurred.									
<u>TEXAS, Central</u>									
NONE REPORTED.									
<u>TEXAS, Central Southeast</u>									
Washington County									
Chappell Hill TXZ213	01	1220CST			0	0			Funnel Cloud
	05	1819CST			1	0			Excessive Heat
Male collapsed from heat exposure while jogging and died. M38OU									
TXZ213									
	07	1120CST			1	0			Excessive Heat
Male died of heat exposure in his home. M58PH									
Galveston County									
Texas City TXZ213	07	1315CST			0	0			Funnel Cloud
	11	1800CST			1	0			Excessive Heat
Male died from heat exposure while working outside. M72OU									
TXZ213									
	12	1933CST			1	0			Excessive Heat
Female died of heat exposure while outside.									

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
TEXAS, Central Southeast									
TXZ213									
		F78OU							
		Harris							
	19	1230CST			1	0			Excessive Heat
		Male died of heat exposure in his home.							
		M68PH							
Harris County									
Clear Lake City	26	1120CST			0	0			Funnel Cloud
TEXAS, Extreme West									
El Paso County									
5 N El Paso to El Paso	30	1955MST			0	0	0	0	Thunderstorm Wind (G62) ^M
		An off-duty television meteorologist estimated winds gusting to 70 mph (wet microburst). A nearby mesonet site recorded a gust to 71 mph and 1.45 inches of rain in 40 minutes.							
TEXAS, Mid - South									
		NONE REPORTED.							
TEXAS, North									
Limestone County									
6 E Thornton	01	0344CST			0	0			Hail (1.00)
Tarrant County									
Bedford	01	0505CST			0	0	3K		Thunderstorm Wind (G58)
		A carport was damaged by high winds near Harris Hospital.							
Tarrant County									
Eules	01	0600CST			0	0	5K		Flash Flood
		Twenty units of an apartment complex had to be evacuated due to high water.							
Tarrant County									
Ft Worth	01	0600CST			0	0	2K		Thunderstorm Wind (G52)
		A tree was blown down by high thunderstorm winds. Traffic lights at 32 intersections were knocked out by high winds and blown down trees. The damage occurred in the west part of the city.							
Tarrant County									
Ft Worth	01	0640CST			0	0	2K		Flash Flood
		Cars stalled at Hemphill and Berry streets in waist deep water.							
Tarrant County									
Arlington	01	0700CST			0	0	20K		Flash Flood
		Widespread reports of street flooding and cars stalled in high water in west and east central parts of the city. High water caused 20k in damage at a Baptist church.							
Tarrant County									
Ft Worth	01	0700CST			0	0	300K		Flash Flood
		Widespread reports of street flooding and cars stalled in high water on the east and north sides of the city. The Fort Worth fire department responded to 28 high water rescues. Flooding at the Fort Worth zoo caused damage estimated at 300k.							
Dallas County									
Grand Prairie	01	0745CST			0	0			Flash Flood
		Widespread street flooding occurred and a few cars were stalled in high water.							
Tarrant County									
Benbrook	01	0750CST			0	0			Flash Flood
		Homes in east Benbrook, near the Trinity River, had to be sand bagged due to high water.							
Tarrant County									
Mansfield	01	0800CST 0900CST			0	0			Flash Flood
		A street in Mansfield was closed for one hour due to flash flooding.							
Bell County									
3 SE Killeen	01	0801CST			0	0			Flash Flood
		Flash flooding of streets was reported in Harker Heights.							
Bell County									
Killeen	01	0818CST			0	0	3K		Flash Flood
		Widespread flooding occurred in Killeen. Cars were under water at some intersections, and people were stranded.							
Bell County									
Killeen	01	0818CST			0	0			Thunderstorm Wind (G52)
		Trees and power lines were blown down by high thunderstorm winds.							

Storm Data and Unusual Weather Phenomena

July 2001

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, North

Johnson County

Venus	01	0848CST			0	0			Flash Flood
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County Road 509 was closed due to high water.

July 1, 2001 Episode Narrative

A large complex of rain and thunderstorms moved into north Texas from Oklahoma in the overnight hours and brought copious rainfall amounts to the area, generally north of Interstate 20. Some isolated pockets of heavy rain were reported in other parts of the area. Rain continued throughout the day and there were numerous reports of flash flooding. Some of the individual thunderstorms did briefly become severe bringing large hail and damaging winds. In what is normally a dry time of the year, a daily rainfall record was set at DFW Airport. For July 1, 3.83 inches of rain fell at the airport, eclipsing the old record of 1.20 inches set back in 1967.

TEXAS, North Panhandle

Hutchinson County

Stinnett	15	1916CST 2115CST			0	0			Flash Flood
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Ten to twelve inches of water over three to four streets was reported in town with the flash flooding lasting about two hours. Thunderstorms with very heavy rainfall caused flash flooding over the central Texas panhandle during the evening hours.

Gray County

1 W Pampa	27	1642CST			0	0	90K		Thunderstorm Wind (G57)
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Nine utility poles were reported blown down by the high winds. A trailer was totaled and blown about forty to fifty feet from where it had been parked. Several roofs were also damaged by the high winds.

Severe thunderstorms with damaging winds occurred across the eastern Texas panhandle during the early evening hours.

TEXAS, Northeast

NONE REPORTED.

TEXAS, South

TXZ248>255

Zapata - Jim Hogg - Brooks - Kenedy - Starr - Hidalgo - Willacy - Cameron									
	01	0000CST			0	0			Drought
	31	0000CST							

July 2001 was a very dry month across most of Deep South Texas, with sparse rainfall occurring in only a few select locations. As a result, a severe drought continues as surface and subsoil moistures remain very low. Most areas in Deep South Texas were running between 4 and 6 inches below normal for yearly rainfall through the end of July. The lack of rainfall has had an effect on the reservoirs that supply water to Deep South Texas. The average reservoir storage for the period from 1996-Present is the lowest on record for both Amistad and Falcon reservoirs. Following are some rainfall departures through the end of July: Brownsville reported 4.40 inches below normal; Harlingen reported 4.81 inches below normal; McAllen reported 2.15 inches below normal; Zapata reported 6.66 inches below normal; and Hebbronville reported 7.08 inches below normal.

TEXAS, South Central

Williamson County

East Portion	01	0915CST 1100CST			0	0	50K	0	Flash Flood
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Thunderstorms moving repeatedly over the eastern part of Williamson county produced a general rainfall of 2 to 3 inches, with as much as 5 inches reported from near Taylor northeastward to the Milam County line. Flash flooding closed numerous county roads through the remainder of the morning.

TEXAS, South Panhandle

TXZ021>044

Parmer - Castro - Swisher - Briscoe - Hall - Childress - Bailey - Lamb - Hale - Floyd - Motley - Cottle - Cochran - Hockley - Lubbock - Crosby - Dickens - King - Yoakum - Terry - Lynn - Garza - Kent - Stonewall									
	01	0000CST			0	0			Drought
	31	2300CST							

Storm Data and Unusual Weather Phenomena

July 2001

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

TEXAS, South Panhandle

After receiving slightly above average rainfall amounts in May, most of the South Plains, extreme southern Texas Panhandle, and Rolling Plains experienced very dry conditions in the months of June and July. In fact, little to no precipitation occurred across the area during those two months due to a warm, subtropical high pressure system that dominated the weather across the south central portion of the country through the early summer months. Rainfall deficits of nearly four inches on average were calculated for the months of June and July at most of the NWS cooperative observing sites across the region.

In addition to the persistent dry weather pattern that West Texas experienced, daytime temperatures routinely soared well above seasonal averages. The daily high temperature measured in Paducah was 100 degrees or more on 27 days during the month of July. A number of other stations including Childress, Aspermont, and Guthrie reached 100 degrees on at least 23 days during the month. The monthly average temperature of 85.3 degrees at the Lubbock International Airport made this month the second warmest on record since 1914.

The combination of prolonged heat and lack of rain significantly stressed agriculture across the South Plains, extreme southern Texas Panhandle, and Rolling Plains with dryland crops suffering the most. More details, including rough estimates of crop damage, will be included in later months after the extent of the drought is better determined.

Lamb County

Spade

13 1650CST 0 0 20K Hail (0.88)

Lamb County

2 S Fieldton

13 1655CST 0 0 50K Hail (1.25)

Lamb County

2 S Fieldton

13 1655CST 0 1 15K Thunderstorm Wind

Strong thunderstorm wind destroyed a large storage building, blew down power lines, and snapped two power poles. A man taking shelter from hail in the storage building was injured. An NWS storm survey indicated that the building was open-sided on the east, the direction from which the wind was blowing, which allowed the wind to enter the structure and lift it off of its foundation.

Lamb County

1 NE Amherst

15 2005CST 0 0 Thunderstorm Wind (G57) ^M

The West Texas Mesonet site northeast of Amherst measured a 65 mph thunderstorm wind gust.

Lynn County

1 N Odonnell

28 1410CST 0 0 Thunderstorm Wind (G51) ^M

The West Texas Mesonet station north of O'Donnell measured a 59 mph thunderstorm wind gust.

TEXAS, Southeast

Jefferson County

Nederland

01 0925CST 0 0 Hail (0.75)

Orange County

Orange

06 1720CST 0 0 5K Thunderstorm Wind

Trees blown down just north of I-10 along Highway 87.

Newton County

Burkeville

22 1645CST 0 0 5K Thunderstorm Wind

Trees and power lines were blown down on Highway 87.

TEXAS, West

NONE REPORTED.

TEXAS, Western North

TXZ083>090

Hardeman - Foard - Wilbarger - Wichita - Knox - Baylor - Archer - Clay

04 0000CST 0 0 Excessive Heat/Drought

31 2359CST

An extended period of excessive heat and drought affected western north Texas in July. The mean monthly temperature in Wichita Falls was 90 degrees, which is 5 degrees above normal, while just a trace of rain was recorded. Although no fatalities are known to have occurred directly from the heat in western north Texas, eight fatalities occurred in Oklahoma.

UTAH, East

Grand County

Moab

08 0730MST 0 0 Urban/Sml Stream Fld
0830MST

A large complex of slow moving thunderstorms dropped heavy rain over Moab. Runoff from the storms resulted in minor flooding along Mill Creek.

Grand County

Moab Canyonlands Arp

09 2145MST 0 0 Urban/Sml Stream Fld
2200MST

Heavy rain caused minor mud and rock slides in Arches National Park.

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property Damage	Crops	
UTAH, East									
Grand County									
Moab	10	1932MST 2000MST			0	0			Flash Flood
Thunderstorms in the Moab area produced heavy rain resulting in flash flooding. Highway 128 near the north end of Moab was closed due to extensive debris and water running across the road. Other areas in Moab, including the southern part of Moab, were sandbagged to protect against the flood waters.									
San Juan County									
La Sal	13	0800MST 0830MST			0	0			Urban/Sml Stream Fld
A stationary thunderstorm just north of La Sal in the La Sal mountains produced heavy rain that resulted in water overflow of roadside ditches.									
San Juan County									
8 SE Fry Canyon	15	1650MST 1651MST			0	0			Hail (0.88)
San Juan County									
2 SE Fry Canyon	15	1700MST 1701MST			0	0			Hail (1.00)
UTAH, West and Central									
Utah County									
Spanish Fork	04	1800MST			1	0	0	0	Dry Microburst
A 46-year-old man was killed after a strong Microburst blew his fireworks stand on top of him. M46OT									
Sanpete County									
Gunnison	06	2000MST 2100MST			0	0	2K	5K	Flash Flood
A flash flood occurred in Lone Cedar Canyon, southwest of Gunnison. A County road was washed out in several places, and about 60 acres of hay was damaged.									
Tooele County									
Central Portion	07	1500MST 1530MST			0	0	0	0	Hail (1.50)
Golfball-size hail was reported in an uninhabited area about 40 miles south of Wendover.									
Tooele County									
Grantsville to Tooele	09	1245MST 1600MST			0	0	20K	0	Flash Flood
Flash flooding hit the Tooele Valley, where near Grantsville 2 dirt roads became impassable as water 3 feet deep rushed over them, cutting off access to several homes. Two homes reported flooded basements there, with another basement flooded in Tooele.									
Iron County									
Parowan	09	1745MST 2000MST			0	0	0	0	Flash Flood
Debris flowed over the highway in Parowan Canyon, and sandbags were used to protect homes from the rising water.									
Tooele County									
Grantsville	09	1930MST 1940MST			0	0	0	0	Funnel Cloud
A funnel cloud was spotted over the Grantsville area.									
Salt Lake County									
Herriman	10	1635MST 1700MST			0	0	5K	1K	Flash Flood
Heavy rains in Herriman produced flash flooding, washing out several gravel driveways in the process.									
Piute County									
Marysvale	13	1300MST 1350MST			0	0	40K	0	Flash Flood
Flash flooding occurred in Marysville, as Rainbow Creek overflowed flooding about 20 homes. Several people had to be evacuated.									
Kane County									
Kanab to Glen Canyon	14	1330MST 1630MST			0	0	1K	0	Flash Flood
Flash flooding was reported in most canyon from Kanab to Lake Powell, with the heaviest flooding along Paria and Warm Creeks. Several roads were washed out.									
Utah County									
Soldier Summit	14	1500MST			0	0	2K	0	Hail (1.25)
A severe thunderstorm dumped 1 1/4" hail near Soldier Summit. The hail depth "drifted" to 3 feet, and some damage to a car was reported.									

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

Box Elder County

Lakeside	14	1700MST 1705MST			0	0	0	0	Thunderstorm Wind (G50)	M
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A severe thunderstorm at Lakeside produced a wind gust of 58mph (50kts).

Utah County

Payson	14	1730MST 1740MST			0	0	0	0	Thunderstorm Wind (G50)
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A severe thunderstorm brought 58mph (50kts) wind gusts to the Payson area.

Sevier County

Monroe	14	1900MST 17			0	0	0	0	Hail (0.75)
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Monroe reported 3/4" hail from a severe thunderstorm.

Juab County

Nephi	15	1400MST			0	0	0	0	Hail (1.00)
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A severe thunderstorm deposited 1" diameter hail in Nephi.

Emery County

Ferron	15	1500MST			0	0	0	0	Hail (1.75)
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Large hail fell in Ferron, with law enforcement officials reporting 1 3/4" hail.

Emery County

Clawson	15	1555MST			0	0	0	0	Hail (1.00)
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A severe thunderstorm over Clawson produced 1 inch hail.

Beaver County

Milford	17	2050MST			0	0	0	0	Hail (0.75)
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A spotter in Milford reported 3/4" hail.

Carbon County

Price	25	1330MST 1350MST			0	0	0	0	Tornado (F0)
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An F0 tornado was spotted over open country about 10 miles southwest of Price.

VERMONT, North and Central

Rutland County

Rutland to Killington	01	1050EST 1110EST			0	0	20K		Thunderstorm Wind (G50)
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A low pressure system moved across southern Canada during Sunday, July 1st. The associated cold front moved across the area during the afternoon. This cold front was preceded and accompanied by thunderstorms and showers. In Rutland county thunderstorms were accompanied by strong damaging winds in excess of 58 mph (50 knots). In the city of Rutland, 40 to 50 trees were blown down with power lines down around 1150 AM EDT (1050 AM EST). Trees and power lines were also blown down just north of Killington around 12 noon EDT (11 AM EST).

Rutland County

Castleton	04	1710EST 1720EST			0	0	5K		Thunderstorm Wind
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A storm system over James Bay in Canada on Wednesday, July 4th moved east across Canada during the day. A warm front moved north across the area Wednesday afternoon with a moist unstable airmass. The associated cold front approached New England during Wednesday night, July 4th. Thunderstorms preceded the cold front late Wednesday and Wednesday night, July 4th. In Castleton, Vermont trees and power lines were blown down around 615 PM EDT (515 PM EST).

Rutland County

Castleton	09	1450EST			0	0	5K		Thunderstorm Wind
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Rutland County

West Rutland	09	1515EST			0	0	5K		Thunderstorm Wind
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Rutland County

(Rut)Rutland Arprt	09	1535EST			0	0			Thunderstorm Wind (G50)	M
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A moist unstable air mass was in place across Vermont, as an area of weak low pressure moved across southern New England and triggered late afternoon and evening thunderstorms. Trees and power lines were blown down in the towns of Castleton and West Rutland. The AWOS instrument at Rutland Airport (North Clarendon) reported a thunderstorm wind gust to 58 mph (50 KTS).

Windsor County

Plymouth	09	1610EST			0	0	5K		Thunderstorm Wind
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Windsor County

Ludlow	09	1615EST			0	0	5K		Thunderstorm Wind
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A moist unstable air mass was in place across Vermont, as an area of weak low pressure moved across southern New England and triggered late afternoon and evening thunderstorms. Trees and power lines were blown down in the towns of Plymouth and Ludlow.

Storm Data and Unusual Weather Phenomena

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		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	

VERMONT, North and Central

Grand Isle County

Alburg	09	1845EST			0	0			Hail (0.88)
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A moist unstable air mass was in place across Vermont, as an area of weak low pressure moved across southern New England and triggered late afternoon and evening thunderstorms. A thunderstorm produced nickel size hail in the town of Alburg.

Franklin County

Swanton	09	1900EST			0	0			Tstm Wind/Hail
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A northwest flow in the upper levels of the atmosphere with upper level disturbances triggered afternoon and evening thunderstorms. Marble size hail was reported in Swanton around 8 PM EDT (7 PM EST).

Caledonia County

Lyndonville	10	1118EST			0	0			Hail (1.50)
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Thunderstorms developed in an unstable airmass ahead of a surface trough during the afternoon hours. Large hail was reported with locally gusty winds.

Grand Isle County

North Hero	10	1205EST			0	0			Hail (1.00)
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Thunderstorms developed in an unstable airmass ahead of a surface trough during the afternoon and evening hours. Large hail was reported with locally gusty winds.

Franklin County

North Fairfax	10	1240EST			0	0			Hail (1.00)
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Thunderstorms developed in an unstable airmass ahead of a surface trough during the afternoon and evening hours. Large hail was reported with locally gusty winds.

Lamoille County

Waterville	10	1300EST			0	0			Hail (1.00)
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Thunderstorms developed in an unstable airmass ahead of a surface trough during the afternoon and evening hours. Large hail was reported with locally gusty winds.

Addison County

Bristol	10	1315EST			0	0			Hail (0.75)
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Addison County

New Haven	10	1329EST			0	0			Hail (1.75)
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Thunderstorms developed in an unstable airmass ahead of a surface trough during the afternoon and evening hours. Large hail was reported with locally gusty winds.

Rutland County

Fair Haven	10	1330EST			0	0			Hail (1.00)
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Rutland County

Castleton	10	1335EST			0	0	50K		Thunderstorm Wind
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Thunderstorms developed in an unstable airmass ahead of a surface trough during the afternoon and evening hours. Large hail was reported in the town of Fair Haven. In Castleton, strong winds blew trees down on a house.

Addison County

South Lincoln	10	1350EST			0	0			Hail (1.00)
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Thunderstorms developed in an unstable airmass ahead of a surface trough during the afternoon and evening hours. Large hail was reported with locally gusty winds.

Washington County

Northfield	10	1355EST			0	0			Hail (0.88)
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Thunderstorms developed in an unstable airmass ahead of a surface trough during the afternoon and evening hours. Large hail was reported with locally gusty winds.

Orange County

Braintree	10	1430EST			0	0	5K		Thunderstorm Wind
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Orange County

Chelsea	10	1430EST			0	0			Hail (0.88)
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Thunderstorms developed in an unstable airmass ahead of a surface trough during the afternoon and evening hours. Nickel size hail reported in Chelsea. Multiple reports of trees blown down in Braintree.

Windsor County

Tyson	10	1432EST			0	0			Hail (0.88)
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Thunderstorms developed in an unstable airmass ahead of a surface trough during the afternoon and evening hours. Large hail was reported with locally gusty winds.

Orange County

Randolph Center	10	1530EST			0	0			Hail (0.75)
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Orange County

Vershire	10	1550EST			0	0			Hail (0.75)
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Thunderstorms developed in an unstable airmass ahead of a surface trough during the afternoon and evening hours. Large hail was

Storm Data and Unusual Weather Phenomena

July 2001

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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VERMONT, North and Central

reported with locally gusty winds.

Rutland County

Castleton	10	1535EST			0	0			Hail (1.75)
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Rutland County

Brandon	10	1542EST			0	0			Hail (1.75)
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Rutland County

Pittsfield	10	1606EST			0	0			Hail (0.75)
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Thunderstorms developed in an unstable airmass ahead of a surface trough during the afternoon and evening hours. Large hail was reported with locally gusty winds.

Windsor County

Barnard	10	1630EST			0	0			Hail (0.75)
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Windsor County

Woodstock	10	1640EST			0	0			Hail (0.88)
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Windsor County

Pomfret	10	1641EST			0	0			Hail (0.88)
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Thunderstorms developed in an unstable airmass ahead of a surface trough during the afternoon and evening hours. Large hail was reported with locally gusty winds.

Addison County

Bristol	11	1137EST			0	0			Hail (0.75)
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Instability resulted from a cold front rotating around an upper level low near James Bay. The cold front moved across Vermont during the late morning and afternoon hours. Thunderstorms preceded and accompanied the front. Dime size hail was reported in Bristol. Smaller hail also fell in Starksboro and Ferrisburgh.

VERMONT, South

Bennington County

Arlington	01	1435EST			0	0	26K		Thunderstorm Wind
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Windham County

Stratton	01	1502EST			0	0	11K		Thunderstorm Wind
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Windham County

South Newfane	01	1525EST			0	0	12K		Thunderstorm Wind
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A powerful cold front, combined with a strong upper level disturbance to produce widespread thunderstorms across southern Vermont during the afternoon of July 1. One of the storms became severe as winds from it ripped down trees in the Windham County towns of Stratton and South Newfane. In Bennington County, both trees and wires were blown down in the town of Arlington.

Bennington County

Sunderland	04	1855EST			0	0			Hail (1.25)
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A cold front triggered scattered thunderstorms across southern Vermont on the afternoon of Independence Day. One of the storms became severe as it deposited half dollar size hail in Sunderland, Bennington County.

VIRGIN ISLANDS

VIZ001>002

St. Thomas / St. John And Adjacent Islands - St. Croix

29	0400AST	1200AST			0	0	200K		Volcanic Ash
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The Montserrat Volcano erupted during the late afternoon of Sunday July 29. A large amount of volcanic ash was released into the atmosphere during Sunday evening and night. Simultaneously, a strong tropical wave was crossing the Leeward Islands. Strong southeast winds moved the volcanic ash towards the U.S. Virgin Islands and Puerto Rico. Rainfall during Sunday night and Monday morning deposited the ash across most of the Virgin Islands and eastern Puerto Rico. This was a significant event. Roads, cars and vegetation were covered by an ash layer. Aviation operations across Puerto Rico and the Virgin Islands were suspended until Tuesday morning.

VIRGINIA, East

Accomack County

Melfa to Painter	11	1330EST			0	0	2K		Thunderstorm Wind (G50) ^M
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Trees down. Power line down. Also, a 58 mph gust recorded in Painter.

Henrico County

Short Pump	22	1525EST			0	4	10K		Thunderstorm Wind
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A dust devil occurred in a store parking lot on West Broad Street. Flying debris caused 4 minor injuries and damage to cars and property.

Norfolk (C)

Norfolk	23	1405EST			0	0			Flash Flood
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Car submerged at the underpass on Colley Avenue and 21st Street. Also, numerous roads covered by 1 to 2 feet of water.

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July 2001

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		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property Damage	Crops	
<u>VIRGINIA, East</u>									
Caroline County									
5 NE Bowling Green	26	1530EST			0	2			Lightning
Two Boy Scouts were injured by lightning while at a campsite of the National Scout Jamboree.									
<u>VIRGINIA, Extreme Southwest</u>									
Lee County									
Woodway	04	1430EST			0	0	1K		Thunderstorm Wind
Large limbs down.									
Lee County									
Dryden	04	1450EST			0	0	1K		Thunderstorm Wind
Several large limbs down.									
Scott County									
Countywide	04	1515EST			0	0	17K		Thunderstorm Wind
Trees down.									
Washington County									
Countywide	08	1430EST			0	0	25K		Thunderstorm Wind
Trees down.									
Wise County									
Pound	08	1455EST			0	0	20K	15K	Thunderstorm Wind
Trees down on power lines.									
Wise County									
Wise	08	1500EST			0	0	10K	10K	Thunderstorm Wind
Trees down on power lines.									
Russell County									
Hansonville	08	1530EST			0	0	13K		Thunderstorm Wind
Trees down on Route 58.									
Scott County									
Countywide	08	1535EST			0	0	22K		Thunderstorm Wind
Trees down.									
Lee County									
Countywide	08	1540EST			0	0	18K		Thunderstorm Wind
Trees down.									
Washington County									
Countywide	08	1545EST			0	0	21K		Thunderstorm Wind
Trees down.									
Bristol (C)									
Bristol	08	1600EST			0	0	20K		Thunderstorm Wind
Roof blown off building.									
Lee County									
Countywide	08	2315EST			0	0	14K		Thunderstorm Wind
Several trees down.									
Lee County									
Countywide	29	0200EST 1300EST			0	0			Flash Flood
5-6 inches of water in a home in Stone Creek. Mudslides and roads underwater at Jonesville, Deep Springs, Pennington Gap and Dryden.									
Scott County									
Ft Blackmore	29	0410EST 1830EST			0	0			Flash Flood
On Route 657 at Stoney Creek. People trapped by high water.									
Wise County									
Big Stone Gap	29	0415EST 1600EST			0	0			Flash Flood
Some evacuations, roads closed or underwater in several areas of the city.									
Scott County									
2 NW Ft Blackmore	29	0430EST 1830EST			1	0			Flash Flood
M77MH									
Washington County									
Abingdon	29	0445EST 1530EST			0	0			Flash Flood

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July 2001

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, Extreme Southwest</u>									
Water over Highway 609 and two feet of water over roadway leading to city jail.									
Russell County 2 SW Mew	29	0600EST 1600EST			0	0			Flash Flood
Highway 65 near Scott County line impassable due to high water.									
Bristol (C) Bristol	29	0900EST 1130EST			0	0			Flash Flood
Water damage to numerous homes									
Wise County Coeburn	29	0915EST 1600EST			0	0			Flash Flood
Water entering homes.									
Russell County Honaker	29	0950EST 1600EST			0	0			Flash Flood
Roads closed and flooded.									
Wise County Big Stone Gap	29	1100EST 1600EST			0	0			Flash Flood
Widespread flooding.									
Washington County Abingdon	29	1200EST 1530EST			0	0			Flash Flood
Water entering home on Woodland Hills Road.									
Washington County Damascus	29	1430EST 1530EST			0	0			Flash Flood
Highway 91 closed.									
Scott County Ft Blackmore	29	1430EST 1830EST			0	0			Flash Flood
Widespread flooding across the county. Roads closed, bridges washed out. Fort Blackmore especially hard hit.									
Wise County Countywide	29	1530EST 1600EST			0	0			Flash Flood
High water problems continued through 430 pm, especially in the Big Stone Gap and Dunbar areas.									
Russell County Countywide	29	1600EST			0	0			Flash Flood
High water problems continued through 5 pm due to runoff with several businesses and homes flooded.									
Scott County Countywide	29	1600EST 1830EST			0	0			Flash Flood
Some flooding and high water problems continued through 5 pm.									
<u>VIRGINIA, North</u>									
Fauquier County Countywide	01	1600EST 1700EST			0	0	5K		Thunderstorm Wind
Numerous trees and power lines were downed.									
Prince William County Countywide	01	1623EST 1700EST			0	0	2K		Thunderstorm Wind
Trees and power lines were downed.									
Prince William County Manassas Arpt	01	1623EST			0	0			Thunderstorm Wind (G54) ^M
A wind gust of 62 MPH was recorded.									
Fairfax County Tysons Corner	01	1645EST			0	0			Hail (0.75)
Dime sized hail was reported.									

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<u>VIRGINIA, North</u>									
Fairfax (C)									
Fairfax	01	1645EST			0	0			Hail (0.75)
		Dime sized hail fell.							
Fairfax County									
Lorton	01	1650EST			0	0			Thunderstorm Wind (G54) ^M
		A wind gust of 62 MPH was recorded.							
Fairfax County									
Mt Vernon	01	1650EST			0	0	0.50K		Thunderstorm Wind
		Two trees were downed.							
Loudoun County									
Leesburg	01	1700EST			0	0	3K		Lightning
		A tree struck by lightning fell onto a car. The 911 system was temporarily knocked offline by lightning.							
Manassas (C)									
Manassas	01	1700EST			0	0	2K		Thunderstorm Wind
		Numerous trees were downed.							
Prince William County									
Quantico	01	1728EST			0	0			Thunderstorm Wind (G57) ^M
		A 66 MPH wind gust was reported.							
Loudoun County									
Countywide	01	1730EST			0	0	2K		Thunderstorm Wind
		Trees and wires were downed.							
Spotsylvania County									
Four Mile Fork	01	1900EST 1915EST			0	0	1K		Thunderstorm Wind
		Several trees were downed.							
Fredericksburg (C)									
Fredericksburg	01	1915EST			0	1			Lightning
		A man was injured by lightning after a bolt struck his home. Other homes across the county were damaged by lightning.							
Fairfax County									
5 E Vienna	01	2000EST 2030EST			0	0	2K		Thunderstorm Wind
		Downed power lines blocked Route 7.							
		Thunderstorms with damaging winds and frequent lightning moved through Northern Virginia between 5 and 9 PM EDT on the 1st. In Loudoun County, trees and wires were downed. Lightning struck several structures including the 911 system which was temporarily knocked off the air. A tree that was struck by lightning fell onto a car in Leesburg. In Fairfax County, two trees were downed in the Yacht Haven section of Mt. Vernon. Downed power lines blocked Route 7 near George Marshall High School between the beltway and Route 66. Trees fell onto an apartment building along Route 7 two miles east of Tyson's Corner. A 62 MPH gust was recorded by an automated sensor in Lorton. Dime sized hail fell in the city of Fairfax. In Fauquier County, numerous trees and power lines were downed in and around Warrenton. A 40 MPH wind gust was estimated in Opal. In Prince William County, a 62 MPH wind gust was reported at the Manassas Airport. Numerous trees and power lines were downed in Manassas, Woodbridge, Montclair, Independent Hill, and elsewhere across the country. Quantico AWOS recorded a wind gust of 66 MPH. In Spotsylvania County, several homes were struck and damaged by lightning. One man in a home near the Route 17 bypass on the west side of Fredericksburg was injured by lightning when electricity passed through the structure. The 29-year-old victim who had been struck by lightning before reported tingling all over his body and could not move for a while. The lightning strike also scorched some drywall in the home. High winds downed a tree onto Mine Road near Four Mile Fork and several trees were downed just west of Fredericksburg.							
Stafford County									
West Portion	05	1545EST			0	0	1K		Thunderstorm Wind
		Trees were downed across Garrisonville and Rock Hill Church Roads.							
		A thunderstorm with high winds moved across Stafford County between 4:30 and 5:00 PM EDT on the 5th. Trees were downed across Garrisonville and Rock Hill Church Roads.							
Loudoun County									
Philomont to Purcellville	10	1515EST 1530EST			0	0	2K		Thunderstorm Wind
		Trees were downed.							
Loudoun County									
Round Hill	10	1515EST			0	0			Hail (1.75)
		Golfball sized hail was reported.							
Warren County									
Happy Creek	10	1830EST			0	0	1K		Thunderstorm Wind
		Trees were downed across roads.							

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VIRGINIA, North

Fauquier County

North Portion	10	1845EST			0	0	5K		Thunderstorm Wind
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Trees were downed.

Manassas (C)

Manassas	10	1920EST			0	0	2K		Thunderstorm Wind
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Trees were downed.

Prince William County

Central Portion	10	1920EST			0	0	2K		Thunderstorm Wind
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Trees were downed outside of Manassas.

Thunderstorms with large hail and high winds moved across northern Virginia between 4:00 and 8:30 PM EDT. In Warren County, trees were downed across a road in Happy Creek. In Loudoun County, golfball sized hail fell in Round Hill. Hail was also reported at Mt. Weather. Trees were downed in the Philomont and Purcellville areas. In Fauquier County, scattered trees were downed across the northern portion of the county. In Prince William County, trees were downed in and just outside of Manassas. A wind gust of 52 MPH was recorded at the Manassas Airport.

Fairfax County

Southeast Portion	26	1300EST			0	0			Heavy Rain
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Madison County

Countywide	26	1300EST 1900EST			0	0			Heavy Rain
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Prince William County

Countywide	26	1300EST 1900EST			0	0			Heavy Rain
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Stafford County

Countywide	26	1300EST 1900EST			0	0			Heavy Rain
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Storms with heavy rainfall crossed a portion of northern Virginia between 2 and 8 PM EDT on the 26th. In Madison County, a spotter reported a total of 2.40 inches. In Stafford County, 3.88 inches was recorded just northeast of Fredericksburg. Route 624 was closed by flooding. In Prince William County, 4.5 inches fell in Woodbridge. In Dale City, Neabsco Creek overflowed onto Route 1 between Blackburn and Neabsco Roads closing the busy highway for hours. The creek overflowed onto Route 1 because debris clogged the watery's passage under the bridge. One car dealership on Route 1 and several other businesses reported flood damage. A total of 2.50 inches was reported in Canova and 3.45 inches fell at Quantico Marine Corps Base. Minor flooding occurred along Route 234 near Lake Jackson where 2.04 inches was recorded. In southeast Fairfax County, a total of 4.79 inches was recorded in the Mt. Vernon area.

Augusta County

Countywide	29	0400EST 2359EST			0	0			Heavy Rain
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Highland County

Countywide	29	0400EST 2359EST			0	0			Heavy Rain
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Madison County

Countywide	29	0400EST 2359EST			0	0			Heavy Rain
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Nelson County

Countywide	29	0400EST 2359EST			0	0			Heavy Rain
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Page County

Countywide	29	0400EST 2359EST			0	0			Heavy Rain
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Rappahannock County

Countywide	29	0400EST 2359EST			0	0			Heavy Rain
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Rockingham County

Countywide	29	0400EST 2359EST			0	0			Heavy Rain
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Shenandoah County

Countywide	29	0400EST 2359EST			0	0			Heavy Rain
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Warren County

Countywide	29	0400EST 2359EST			0	0			Heavy Rain
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A warm front over the region served as a focus for showers and thunderstorms on the 29th. In Highland County, 2.90 inches of rain

Storm Data and Unusual Weather Phenomena

July 2001

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

VIRGINIA, North

fell in Mustoe. In Augusta County, totals included 2.64 inches in Sherando, 3.32 inches at Stoney Creek, 2.20 inches at Robinson Hollow, 2.19 inches in Middlebrook, and 2.12 inches in Stokesville. In Nelson County, totals included 3.12 inches at Montebello Fish, 2.44 inches at Afton Mountain, and 2.40 inches at Rockfish. In Rockingham County, totals included 2.88 inches at Long Run Road and 2.16 inches at Cootes Store. In Shenandoah County, totals included 2.84 inches at Smith Creek, 2.48 inches at Camp Roosevelt, 2.47 inches in Woodstock, 2.40 inches at Jerome Gap and Strasburg Reservoir, and 2.36 inches at Burnshire Dam and Zepp. In Page County, totals included 3.60 inches at Lewis Mountain Camp, 3.92 inches at Skyland and Big Meadows, 2.72 inches at Rocky Branch and Luray, and 2.40 inches at Ida. In Madison County, totals included 3.24 inches in Hood, 2.80 inches in Netters, 2.72 inches in Graves Mill, 2.68 inches at Fork Mountain, and 2.44 inches in Syria. In Rappahannock County, totals included 2.74 inches in Washington and 2.10 inches in Massie's Corner. In Warren County, totals included 2.70 inches at Manassas Gap, 2.16 inches at Hogback Mountain, and 2.00 inches in Limeton.

VIRGINIA, Northwest

Buchanan County

Hurley	08	2230EST			0	0	1K	Thunderstorm Wind
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Trees and large branches were blown down.

Buchanan County

Grundy to Oakwood	26	2100EST			0	0	600K	Flash Flood
	27	0100EST						

Localized downpours occurred just south of Grundy. Private bridges were washed away. Grundy airport measured 3.8 inches, Vansant had 5.9 inches in about a 12 hour period. The sheriff reported Garden Creek, Dry Fork, and Greenbrier Creek were some of the streams that flooded.

Dickenson County

Countywide	26	2130EST			0	0	300K	Flash Flood
	27	0100EST						

Rains of 2.5 to 4 inches were common in 12 hours, with isolated amounts of 4 to 6 inches. The cooperative observer at John Flannagan Lake measured 4 inches. Birch Gap, along the Kentucky border, measured 5.9 inches, Clincho 5.1 inches, and Nealy Ridge 4.8 inches. Clintwood had 2.9 inches of rain. The sheriff reported flooding along Route 80, plus around Haysi.

Buchanan County

Oakwood to Council	29	1110EST			0	0	75K	Flash Flood
		1700EST						

Evacuations occurred along Garden Creek. Route 460 was closed for a time.

Dickenson County

East Portion	29	1110EST			0	0	50K	Flash Flood
		1400EST						

Most rains were 1 to 2 inches, but Flat Spur near Trammel had 3.2 inches in less than 24 hours. Streams flowed across highways.

As a result of the flooding on the 26th and the 29th, Dickenson and Buchanan Counties were added to the existing FEMA disaster declaration 1386. In Buchanan County, 5 single family homes were destroyed, 30 homes and 2 businesses had major damage. In Dickenson County, 20 homes had major damage.

July rain totals in Dickenson County included 13.1 inches at Birch Gap along Pine Mountain, 11 inches at Clincho, 10.9 inches at John Flannagan Lake, 10.3 inches at Flat Spur of Hazel Mountain.

VIRGINIA, Southwest

Tazewell County

1 W Pocahontas	03	1830EST			0	0		Flash Flood
		2200EST						

Heavy thunderstorm rains during the evening of the 3rd caused Laural Fork to flood and close Route 644, 1 mile west of Pocahontas.

Pittsylvania County

2 NW Pittsville to Pittsville	04	1230EST			0	0	0	Thunderstorm Wind
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Henry County

Bassett Forks	04	1315EST			0	0	400K	Lightning
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Henry County

Collinsville	04	1330EST			0	0	0	Thunderstorm Wind
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Martinsville (C)

Martinsville	04	1445EST			0	0	0	Flash Flood
		1630EST						

Storm Data and Unusual Weather Phenomena

July 2001

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

VIRGINIA, Southwest

Thunderstorms during the afternoon of the 4th produced damaging winds, damaging lightning, and flash flooding.

Thunderstorm winds downed trees from 2 miles northwest of Pittsville to Pittsville, and downed trees in Collinsville, blocking some roads.

Heavy thunderstorm rains caused Jones Creek to flood and close Figsboro Road in Martinsville. Additional roads in Martinsville were flooded and closed by the heavy rain.

Lightning struck a sawmill in Bassett Forks, igniting a fire which completely destroyed mill, equipment, and stock.

Craig County

4 NE Paint Bank **08** **0750EST** **0** **0** **0** **Thunderstorm Wind**

Bland County **Countywide**

08 **0945EST**
1330EST **0** **0** **35K** **Flash Flood**

Tazewell County

Countywide **08** **1030EST**
1330EST **0** **0** **15M** **Flash Flood**

Smyth County

11 NNE Marion **08** **1300EST**
1600EST **0** **0** **1K** **Flash Flood**

Thunderstorms during the morning of the 8th produced damaging winds and flash flooding.

In Tazewell County, heavy rains caused major flash flooding during the late morning and early afternoon. 1655 homes and 52 businesses received major damage, with 300 people evacuated. Numerous roads were closed with some washed out by flooding and mudslides. An automobile dealership had major damage to the building as well as the vehicles.

Thunderstorm winds downed trees onto route 311, four miles northeast of Paint Bank.

Heavy thunderstorm rains caused numerous small streams and creeks to flood across Bland County. Many roads were flooded and closed with several washed out. Lick Creek flooded 11 miles north northeast of Marion and washed out a foot bridge.

Tazewell County

Richlands **09** **0030EST**
0200EST **0** **0** **500K** **Flash Flood**

Heavy thunderstorm rains during the early morning of the 9th caused significant flash flooding. Several roads were closed. 83 homes and 5 businesses received major damage.

Patrick County

2.5 E Stuart **26** **1645EST**
1815EST **0** **0** **0** **Flash Flood**

An isolated thunderstorm produced heavy rain that cause Anglin Creek to flood 2 1/2 miles east of Stuart, washing out a culvert.

Smyth County

North Portion to **29** **1135EST**
Central Portion **30** **0230EST** **0** **0** **200K** **Flash Flood**

Tazewell County

Southwest Portion to **29** **1145EST**
Central Portion **2000EST** **0** **0** **150K** **Flash Flood**

Grayson County

Northwest Portion **29** **1400EST**
1515EST **0** **0** **0** **Flash Flood**

Wythe County

Wytheville **29** **1740EST**
2130EST **0** **0** **0** **Flash Flood**

VAZ009

Smyth
29 **1800EST** **0** **0** **Flood**
30 **0230EST**

Giles County

Narrows to **29** **1900EST**
7 W Narrows **30** **0230EST** **0** **0** **0** **Flash Flood**

Persistent heavy thunderstorm rains on the 29th produced flash flooding from late morning through the evening.

Heavy rain from southwest Tazewell County to central parts of the county caused numerous streams and creeks to flood. Numerous roads were closed with several washed out. Several homes were damaged and 97 people were evacuated.

Storm Data and Unusual Weather Phenomena

July 2001

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

VIRGINIA, Southwest

In Smyth County, the heavy rain caused numerous streams and creeks to flood. In addition, major flooding occurred on the North Fork of the Holston River at Saltville. The river crested almost 2 feet above flood stage 11 PM on the 30th at Saltville. As a result of the flash flooding and the river flooding, numerous roads were flooded and closed with several roads washed out. 10 homes were damaged and 150 people had to be evacuated.

Heavy thunderstorm rains caused small streams and roads to flood in northwest Grayson County, Wolf Creek to flood in several locations from Narrows to 7 miles west of Narrows, and Reed Creek to flood and close several roads in Wytheville.

WASHINGTON, Northeast

Okanogan County

20 N Winthrop	09	2000PST		4	4				Wild/Forest Fire
	23	1700PST							

The "Thirtymile" wildfire was in the mop-up stages on July 10 when excessively hot and dry conditions that afternoon caused the smoldering fire to blow up. The fire came roaring back to life, quickly spreading from 25 to 2,500 acres in just three hours. The quickly-spreading fire overran a group of 14 firefighters, causing members of the group to deploy emergency shelters. Four members of the group perished (direct), and four others were hospitalized with injuries. The Thirtymile fire was contained on July 23 after burning a total of 9,300 acres. The cost of fighting this fire exceeded \$4.3 million.

M30OU, M21OU, F19OU, F18OU

Okanogan County

10 E Oroville	12	1925PST		1	0	1.5M			Flash Flood
		2015PST							

Three to five inches of rain caused a significant 100+ year flash flood over the higher terrain of northeast Okanogan County on the evening of July 12. The weather pattern showed an upper level high pressure ridge over the western United States with monsoonal moisture extending northward into Washington. Early in the evening, a band of northward-moving thunderstorms developed over northeast Okanogan County which continued to re-generate on its southern flank for 2-3 hours. Excessive rainfall and flash flooding were the result.

The worst flash flooding occurred along a stretch of the Oroville-Chesaw Road. Three separate drainages contributed to the event: an unnamed creek that flows from Fletcher Mountain, Dry Creek and Tonasket Creek. A "wall of mud" blasted across Oroville-Chesaw Road where the unnamed creek crosses under the road (one mile east of its intersection with Molson Road), washing a van into the raging creek around 915 PM PDT. A 56-year old grandmother in the van pushed her granddaughter out in time for the granddaughter to escape injury. The grandmother could not escape the van and was presumably washed away inside it. The grandmother is missing and assumed dead (direct). Her body was never found in the deep mud.

Significant damage occurred in this rural part of Okanogan County. Eden Valley Road was completely washed out. A bridge along Dry Gulch Road was washed out. Damage to other county roads in the vicinity was extensive. At the Eden Valley Guest Ranch, fences and other farm implements were washed away. A grain bin was washed 30 feet away from its foundation. Water rose high enough to cause damage to parked vehicles. Mud filled another grain bin, a basement, garage, shop and barn. Much of the damage in the area was not covered by flood insurance. F56VE

WASHINGTON, Northwest

NONE REPORTED.

WASHINGTON, Southeast

Benton County

4 N Richland	12	1900PST		0	0	0	0	Thunderstorm Wind (G52)	M
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A wind gust of 60 mph was measured at one of the observing sites on the Hanford Reservation.

WASHINGTON, Southwest

NONE REPORTED.

WEST VIRGINIA, East

Mineral County

North Portion	10	1620EST		0	0	0.50K		Thunderstorm Wind
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A few trees were downed.

Hampshire County

North Portion	10	1640EST		0	0	1K		Thunderstorm Wind
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Trees and power lines were downed.

A thunderstorm with high winds crossed the northern portion of Mineral and Hampshire Counties between 5 and 6 PM EDT on the 10th. In Mineral County, a few trees were downed in the Patterson Creek area. In Hampshire County, trees and power lines were downed. A large tree blocked Route 29 near Slanesville. Hail of unknown size fell near Springfield.

Storm Data and Unusual Weather Phenomena

July 2001

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

Grant County

Countywide	29	0400EST 2359EST			0	0			Heavy Rain
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Hardy County

Countywide	29	0400EST 2359EST			0	0			Heavy Rain
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Pendleton County

Countywide	29	0400EST 2359EST			0	0			Heavy Rain
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A warm front over the region served as a focus for showers and thunderstorms on the 29th. In Pendleton County, rainfall totals included 2.24 inches at Middle Mountain, 2.16 at Cow Knob, 2.08 inches at Spruce Knob, and 2.04 inches at Bennett Gap. In Grant County, totals included 2.80 inches at Red Creek and 2.44 inches at Cave Mountain. In Hardy County, totals included 2.88 inches at Devils Hole and 2.00 inches at High Rocks.

WEST VIRGINIA, North

Marshall County

Moundsville	01	1415EST			0	0	150K		Lightning
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Lightning struck a house on SR 250 near Moundsville. Lightning hit the chimney and then traveled through the house. The subsequent fire caused the roof to collapse, completely destroying the second floor of the house. The house was completely demolished by the fire.

Marshall County

Moundsville	01	1415EST			0	0	2K		Thunderstorm Wind
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Thunderstorm winds downed a few trees.

Ohio County

Wheeling	01	1425EST			0	0	5K		Thunderstorm Wind
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Thunderstorm winds downed several trees and power lines in the Wheeling area.

Monongalia County

Morgantown	01	1520EST			0	0	5K		Thunderstorm Wind
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Thunderstorm winds downed several trees and power lines in the Morgantown area.

Preston County

Masontown	01	1545EST			0	0	2K		Thunderstorm Wind
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Thunderstorm winds downed a few trees.

Marion County

Boothsville	01	1620EST			0	0	5K		Thunderstorm Wind
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Thunderstorm winds downed several trees across the eastern sections of the county, including the East Fairmont and Colfax areas.

Ohio County

West Liberty	05	1410EST			0	0	1K		Thunderstorm Wind
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Thunderstorm winds downed a large tree.

Marion County

Countywide	05	1615EST 1800EST			0	0	2K		Flood
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Heavy thunderstorms rains produced minor small stream flooding across the county. Minor roadway flooding was also reported along US Route 19 near Fairmont.

Preston County

Masontown	05	1645EST			0	0	2K		Thunderstorm Wind
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Thunderstorm winds downed a few large trees.

Preston County

Newburg	05	1700EST 1930EST			0	0	1K		Flood
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Heavy thunderstorms rains produced roadway flooding which temporarily closed portions of SR 92 near Newburg.

Hancock County

Chester	10	1425EST			0	0			Hail (0.88)
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Marshall County

Moundsville	10	1710EST			0	0	5K		Thunderstorm Wind
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Thunderstorm winds downed several trees in and around the Moundsville area.

Monongalia County

Morgantown	10	1730EST			0	0	5K		Thunderstorm Wind
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Thunderstorm winds downed several trees.

Wetzel County

Hundred	10	1735EST			0	0			Hail (0.88)
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Storm Data and Unusual Weather Phenomena

July 2001

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

WEST VIRGINIA, North

Marion County

Farmington	10	1810EST			0	0	5K		Thunderstorm Wind
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Thunderstorm winds downed several trees and power lines in the Farmington and Monongah areas.

Preston County

Tunnelton	10	1825EST			0	0			Hail (1.00)
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Tucker County

2 S Parsons	10	1900EST			0	0	1K		Thunderstorm Wind
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Thunderstorm winds downed a large tree across SR 219.

Marion County

Countywide	10	1915EST			0	0	500K		Flood
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11 0330EST
 Torrential thunderstorm rains produced significant flash flooding across the county. Radar-estimated rainfall totals of 3.7 inches occurred in the Gladly Creek Basin, 3.6 inches in the Millersville and Robinson Run areas, and 3.3 inches in the city of Fairmont. Numerous roadways were closed as a result of the flooding, including portions of U.S. Route 19 in the Monongah, Worthington and White Rock areas. SR 73 at Boothville and portions of SR 310 near Valley Falls State Park were also closed. In the Valley Falls area alone, a total of 9 homes and 3 businesses reported major damage from the flooding with 7 homes reporting minor damage. Numerous homes across the county reported flooded basements, but no evacuations were necessary.

Brooke County

5 S Weirton	10	2100EST			0	0	2K		Thunderstorm Wind
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Thunderstorm winds downed several signs and large tree limbs along US Route 22.

Tucker County

Thomas	18	1015EST			0	0			Flood
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1200EST
 Thunderstorm rainfall totaling 2.33 inches produced minor roadway flooding near Thomas.

Preston County

Aurora	26	1230EST			0	0	50K		Flood
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1430EST
 Torrential thunderstorm rainfall totaling between 2 and 3 inches produced numerous reports of basement flooding and roadway flooding near Aurora.

Tucker County

Countywide	29	0520EST			0	0	20K		Flood
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1630EST
 Heavy thunderstorm rains forced creeks out of their banks across the county, producing basement and roadway flooding at several locations, including St. George, Thomas and Parsons.

Preston County

Countywide	29	0740EST			0	0	50K		Flood
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1630EST
 Heavy thunderstorm rains forced creeks out of their banks at several locations across the county, including Rowlesburg and Terra Alta. In Etam, Buffalo Creek overflowed its banks producing roadway and basement flooding. In the far southern portion of the county, 13 campers had to be rescued from the Cheat River by a U.S. Army UH60 helicopter. The campers had set up on Landboc Island, which is a small island of about an acre in the section of the river known as Seven Islands. The island is accessible only by a low-water bridge, which was flooded out as the Cheat River started rising quickly. No injuries were reported.

WEST VIRGINIA, Southeast

Monroe County

4 NW Lindsie	08	0735EST			0	0	0		Thunderstorm Wind (G51) ^M
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Greenbrier County

2 NE Alderson	08	0740EST			0	0	0		Thunderstorm Wind
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Mercer County

Countywide	08	0900EST			0	0	3M		Flash Flood
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09 0300EST

Summers County

South Portion	08	0900EST			0	0	500K		Flash Flood
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09 0300EST

Thunderstorms during the morning of the 8th produced damaging winds and flash flooding.

Persistent heavy rain from thunderstorms produced major flash flooding across the south portion of Mercer County from the morning of the 8th through the early morning of the 9th. Numerous evacuations were required with damage to homes and businesses. Numerous roads were closed with many washed out by the flooding and mudslides. In the south half of Summers County, heavy rains caused rockslides, and numerous small rivers and streams to flood. Numerous roads were closed and several washed out.

Thunderstorm winds downed power lines along Route 12, two miles northeast of Alderson.

Storm Data and Unusual Weather Phenomena

July 2001

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, Southeast

Mercer County

Central Portion to South Portion 29 1300EST
1545EST 0 0 100K **Flash Flood**

Monroe County

2 N Lindside to 3 NE Lindside 29 1400EST
1630EST 0 0 0 **Flash Flood**

Monroe County

Rock Camp to 3 NE Rock Camp 29 1400EST
1630EST 0 0 0 **Flash Flood**

Summers County

1 W Hinton 29 1440EST
1600EST 0 0 0 **Flash Flood**

Greenbrier County

Countywide 29 1500EST
1930EST 0 0 0 **Flash Flood**

Greenbrier County

Hines 29 1500EST
1930EST 0 0 30K **Flash Flood**

Thunderstorm rains during the afternoon and evening of the 29th produced flash flooding.

Heavy thunderstorm rain caused streams and creeks to flood, closing some roads in Greenbrier County. Severe flash flooding in Hines resulted in damage to 5 homes and necessitated evacuations.

Heavy rain flooded streams and creeks and closed roads from 2 miles north of Lindside to 3 miles northeast of Lindside, from Rock Camp to 3 miles northeast of Rock Camp, and 1 mile west of Hinton.

In central and southern Mercer County, heavy rain caused streams and creeks to flood, washing out roads. Numerous evacuations were carried out.

WEST VIRGINIA, West

Pleasants County

2 NE St Marys 01 1545EST 0 0 2K **Thunderstorm Wind**

Trees and large branches were blown down across Route 26, along Mount Carmel Ridge.

Lewis County

Jackson Mill to Lightburn 05 1535EST
1540EST 0 0 50K **Thunderstorm Wind**

Several trees were blown down in all directions along Routes 1, 1/3, and 8/3. Fallen trees were also along the West Fork River. One outbuilding was demolished and 2 vehicles were damaged.

Lincoln County

Yawkey 05 1650EST 0 0 3K **Thunderstorm Wind**

Several trees or large branches were downed.

The thunderstorms were associated with a strong cold front for early July.

Tyler County

Countywide 08 0330EST
0600EST 0 0 5K **Flash Flood**

County officials reported roads covered by small stream flooding, but no damage to dwellings. Widespread rainfall estimates of 2 to 3 inches, across Tyler County, were depicted by the National Weather Service radar. The cooperative observer at Middlebourne measured 2.4 inches of rain between 0200 and 0500E.

Doddridge County

Countywide 08 0400EST
0615EST 0 0 60K **Flash Flood**

Rains of 2 to 3.5 inches fell in 3 hours or less time from the Tyler County border on southeast, through West Union to the Harrison County border near Big Isaac. The cooperative observer at West Union measured 3.4 inches of rain. A mudslide from the adjacent hillside damaged the firehouse and its contents in West Union. The rear wall of the building collapsed. Seven families received financial assistance through FEMA.

Storm Data and Unusual Weather Phenomena

July 2001

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

Harrison County

Salem to Kincheloe	08	0415EST 0615EST			0	0	10K		Flash Flood
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Roads were flooded and damaged in the extreme southwestern portion of the county.

Fayette County

West Portion	08	0800EST 1600EST			0	0	47M		Flash Flood
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The area from around Mount Olive on south to include Cannelton, Smithers, Gauley Bridge, Kanawha Falls, Beckwith, Beards Fork, Page, Wriston, Kincaid, Ansted, Fayetteville, Oak Hill, Pax, and Mindon were hit the hardest in the county. Severe flash flooding occurred along such streams as Smithers Creek, Scrabble Creek, Loop Creek, Laurel Creek, Armstrong Creek, Paint Creek, and Arbuckle Creek. Dwellings along steep slopes, but well away from streams, also sustained damaged from debris slides. These slides contained rock, mud, and trees, as the topsoil turned to a liquid. One example was in communities of Falls View and Gauley Bridge. Homeowners there tried to divert runoff away from their homes. Longtime county residents used such words as "unprecedented" and "historic" to describe the flooding. Preliminary damage assessments had 4 single family homes and 33 mobile homes destroyed, while 80 sustained major damage. The state condemned around 90 structures. It took over 2 months to repair and reopen a portion of Route 16 along Laurel Creek. Along the same stream at Beckwith, around 45 animals at the county animal shelter drowned. About 30 other animals managed to survive.

Raleigh County

West Portion	08	0840EST 1530EST			0	0	40M		Flash Flood
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Areas along and west of the turnpike, which is Interstate 77, were hit the hardest. Rain amounts were less across eastern portions of the county. For example, the rain total in Beckley was 4.6 inches, but 2.6 inches at the Raleigh County Airport. Streams draining into the Clear Fork of the Big Coal River, plus into the Guyandotte River, saw severe flash flooding. This included such small communities as Leevale, Dorothy, Ameagle, Helen, and Rhodell. Preliminary damage assessment counted over 400 single family homes and mobile homes were destroyed. The lower reaches of Clear Fork at Leevale rose over 15 feet in the vertical, from a base stage near 13 feet to a record crest at 28.47 feet around 1400E. The previous maximum level was 20.8 feet on June 2, 1997. Local residents along the Clear Fork lost power around 0745E with flooding starting by 0900E. Residents described walls of water descending the steep hollows that run off Kayford Mountain into the Clear Fork. Flooding was not as severe along the March Fork of the Big Coal River, apparently sheltered slightly by Coal River Mountain.

Boone County

Whitesville to Orgas	08	0900EST 1630EST			0	0	3M		Flash Flood
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Small headwater creeks, such as Seng Creek, started flooding around 0900E. Larger creeks along the Raleigh County line flooded by 1000E. Lastly, the Big Coal River flooded from the Whitesville vicinity on down to Sylvester. The crest on the Big Coal River then flattened-out toward Orgas. The most severe flooding was along the steep slopes adjacent to Seng Creek. Five homes were condemned. Approximately, 30 homes had major damage.

Kanawha County

Pond Gap to Leewood	08	0900EST 1400EST			0	0	300K		Flash Flood
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Streams in the extreme eastern portion of the county flooded. Some of these streams included Hughes Creek, Bullpush Fork, Paint Creek, and Cabin Creek. This region was on the western fringe of the heavy rain. Damage was minor, when compared to points east and southeast.

Wyoming County

East Portion	08	0900EST 2130EST			1	0	60M		Flash Flood
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Storm Data and Unusual Weather Phenomena

July 2001

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

WEST VIRGINIA, West

The first flooding on small headwater streams and runs in Wyoming County occurred around 0900E. This would include such streams as Rockcastle Creek, Cabin Creek, the headwaters of Laurel Creek at Glen Rogers, and Slab Fork near Maben. Flooding in and around Mullens began 1000-1100E, then crested near 1500E. Water was 5 to 9 feet deep in most of the downtown business section. "Totally wiped out" is how the county emergency director described the Mullens business district. Caskets from the local funeral home were seen floating in the streets, by residents trapped in their homes.

One death occurred along the Milam Fork in McGraws. Water rose vertically about 12 to 14 feet on this stream. Behind the Milam post office, this headwater stream is normally no more than 5 yards across. A 58 year old woman was in a small wood frame house, when it started to float away. Neighbors had tried to get her to leave previously, but she refused. Her house logged against some trees near a small bridge. The house was then hit by either a mobile home or a double wide house. The floor came out, and she disappeared. Her body was found only about 30 yards downstream, in a neighbors fence. That neighbor said, "I can still see her in that house, by the window, holding her cat". The crest in McGraws was about 4 feet higher than the recent May flood.

Destruction to homes, bridges, and roads was widespread along the Laurel Fork, including such communities as Ravencliff, Sabine, Glen Fork, Jesse, and Matheny. A vertical rise of 20 to 25 feet occurred around Matheny. At the junction of the Clear Fork and the Laurel Fork, the low sections of Oceana were flooded.

On the main stem of the Guyandotte River, damage occurred along the entire stretch from Mullens through Pineville and Brenton. The crest at Pineville was around 21 feet between 1700 and 1800E. Flood stage is 13 feet. This crest at Pineville was some 39 inches higher than the crest on April 5, 1977. The old steel Pocahontas Fuel Company train trestle at Itman had withstood many a high water. However, the crest on the 8th, sheared the bridge from its northern abutment and pushed it into the south bank. At Baileysville, the vertical rise was 27 feet from a stage around 3.3 feet at dawn, to 30.6 feet around 1900E, or just before dark. In a 5 hour period during the afternoon, the river rose 22.5 feet.

The Corps of Engineers R. D. Bailey Dam held back the water. The lake elevation rose 3 feet per hour for 14 hours during Sunday night of July 8 into the 9th. The total rise to the lake elevation was 46 feet. Some 30 to 40 acres of trash also accumulated at the dam. In the flood's aftermath, no recreational activities were allowed at the lake for over 2 months.

Around 200 single family homes and mobile homes were destroyed in Wyoming County. Approximately, 550 homes and mobile homes had major damage. The state condemned at least 365 structures. F58PH

McDowell County East Portion

08	0930EST	0	0	50M	Flash Flood
	2130EST				

Streams that drain into the headwaters of the Tug Fork had severe flash flooding. This includes such streams as Elkhorn Creek and its North Fork. Some of the small communities hit hard were Landgraff, Jenkinjones, Anawalt, Kimball, Keystone, Eckman, Northfork, Maybeury, and Elkhorn.

The remains of homes and other structures collected against the bridges, restricting the flow. The mayor of Northfork said, "Northfork hollow is wiped out. I've never seen anything like this in my lifetime". In Landgraff, water levels reached the tops of parked cars. In Keystone, the water crest left debris on the elevated tracks of the Norfolk Southern Railroad. The larger community of Welch measured only 1.2 inches of rain on the 8th. However, the Tug Fork crested Sunday evening at a record level of 19.77 feet in Welch. The cooperative observer said this level was several feet higher than the crest during the flood of April, 1977. Bankfull is 10 feet at Welch.

Around 230 single family homes and mobile homes were destroyed in McDowell County. Approximately, 700 dwellings had major damage. The state condemned around 280 structures.

This episode, on the 8th of July, saw fast moving thunderstorms form along a north/south warm frontal boundary. This boundary marked the division between the dry and less humid air to the east, from the incoming steamy moist air, to the west. Low level inflow from the west and northwest was not disturbed, causing new storm formation. The initial training of the thunderstorms occurred across Tyler, Doddridge, and Harrison Counties during the predawn hours, dumping 2 to 3.5 inches of rain. A few hours later, the second and larger area of enhanced rainfall occurred across extreme eastern Kanawha County, western Fayette County, western Raleigh County, eastern Wyoming County, and extreme eastern McDowell County. The average west to east width of this enhanced rain was on the order of 30 miles, with a compass heading from 340 to 160 degrees.

In a 3 to 6 hour period, rains of 3 to 5.5 inches were common within that band. Maximum rain rates of 1.5 to 2.5 inches per hour occurred. Upslope, into these higher elevations, likely aided these rain amounts. Despite the initially dry top soil and low stream levels, the steep terrain and narrow valleys were quickly saturated. Between 0715 and 0830E, Hawks Nest State Park measured 2.3 inches of rain. With individual thunderstorm cells racing southeast at 40 to 50 mph, brief lulls occurred before new thunderstorm cells transversed this corridor. Lulls in the rain intensity were on the order of 5 to 15 minutes. The National Weather Service rain gauge in Mullens was washed away by the Slab Fork, but a Corps of Engineers automated gauge recorded a total of 5.37 inches.

Storm Data and Unusual Weather Phenomena

July 2001

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

WEST VIRGINIA, West

Other storm totals included 5.2 inches at Oceana and 5.0 inches at Hawks Nest State Park. A volunteer spotter at Page also reported 5.0 inches. Oak Hill and Pineville both measured 4.8 inches, while downtown Beckley had 4.6 inches. Elkhorn measured 4.5 inches of rain. A spotter on Arista Mountain on the Wyoming/Mercer County line had 4.3 inches of rain. London Lock and Dam had 4.0 inches of rain. A Corps of Engineers gauge one mile east of Crab Orchard also measured 4 inches. Dry Creek of Raleigh County saw 3.9 inches of rain.

As many as 14,000 homes lost power, with the most in Fayette and Wyoming Counties. Railroad beds were washed-out or undermined. Vulnerable spots were where railroad tracks crossed small streams running down from adjacent slopes. The Amtrak Cardinal train between Chicago and Washington D.C. was stopped in Charleston, as the main line through the New River gorge was damaged in Fayette County. A spokesman for the United States Postal Service said flood damages occurred at the offices located at Anawalt, Clear Fork, Dorothy, Glen Jean, Glen Ferris, Itmann, Kimball, Kincaid, Lynco, Maybeury, Minden, Mullens, Switchback, Wyco, and Wyoming. The most extensive damage was done to the offices in Kimball, Mullens, and Minden. The Mullens and Kimball offices were relocated to new quarters. The Minden office was washed off its foundation, but was stopped from floating further away, by its flag pole. Most of these offices were leased by the Postal Service, so the damages were the responsibility of the lessors. However, approximately \$200,000 was spent with postal funds in labor and materials for the recovery. The state reported 61 water systems were damaged. The state board of education estimated about 3 million dollars in damage to schools, most in Wyoming County.

More than 500 people gathered in 23 emergency shelters. Many flooded residents stayed with relatives. To assist in the clean-up, the air and army national guard personnel peaked at around 2400 members during the 4th week of July. Personnel from South Carolina, Virginia, Tennessee, and Kentucky, joined the West Virginia troops. The major general of the WV National Guard described the scene in southern West Virginia by saying, "It's just massive destruction". By month's end, 35,000 tons of debris had been hauled away by contractors. Much of the debris had collected on, or against, private and state bridges. The American Red Cross served over 275,000 meals to flood victims and recovery personnel.

FEMA added more counties to the original disaster declaration 1378 that was initiated in May. The agency set up a large disaster field office in Charleston. Temporary and large term housing trailers were being established by the month's end, amounting to 29 million dollars in disaster housing.

To summarize, for many affected residents, this flood was not a matter of property loss, but of survival. Many along the small streams had to escape "walls of water" within minutes. A father of a family in Dorothy thought, "we'll never get out of this alive". Water roared out of the hollows and onto the wider valleys, carrying trees, rocks, mud, and pieces of homes. As the steep topsoil turned into a liquid, considerable damage was done to dwellings, due to the runoff and debris slides. Accounts from citizens included running up the sides of mountains, driving to higher ground and waiting in vehicles, escaping from roof tops, while others were trapped in their homes. Governor Wise assessed the damage from the air during the afternoon of the 8th. His helicopter was then pressed into the rescue efforts. The main reason there was only 1 fatality, in these counties, was the fact that the flood occurred on a Sunday. Most residents were still at home, rather than at work or school. As a result, the urge to travel was limited. Also, the daylight hours made their escapes safer. Then, almost as quickly as it came, the water was gone.

Newspaper headlines favored the words, "destruction" and "devastation" to describe this event.

Taylor County

2 NW Grafton to
Grafton

10	1935EST	0	0	400K	Flash Flood
11	0045EST				

Thunderstorms formed ahead of a cold front. The storms dumped 2 to 4 inches of rain, over a small area, in less than 6 hours. The cooperative observer near Grafton measured 3.1 inches of rain. Flooding occurred inside the city limits of Grafton, plus along Plum Run, Wickwire Run, and Dry Run. County officials surveyed around 80 homes and 2 businesses that were affected. Taylor County was added to the previous FEMA disaster declaration 1378.

Raleigh County

Helen to
Rhodell

19	2145EST 2330EST	0	0	5K	Flash Flood
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Wyoming County

Maben to
Stephenson

19	2145EST 2330EST	0	0	5K	Flash Flood
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Rains of 1.5 to 2.5 inches fell in less than 3 hours. Fire departments and county officials reported water from Slab Fork into 1 home in Maben, and 2 in Pierpont. Winding Gulf flooded roads in the Helen and Ury vicinity.

Raleigh County

Countywide

26	1220EST 2000EST	0	0	500K	Flash Flood
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Storm Data and Unusual Weather Phenomena

July 2001

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

WEST VIRGINIA, West

Rains of 3 to 4 inches were common in 12 hours, most occurring in less than 6 hours. The cooperative observer in Beckley reported a 24 hour total of 5.3 inches. A spotter in Lester measured 4.3 inches, the Beckley airport had 3.5 inches, and Dry Creek had 3.1 inches of rain. Streams in the northern and western sections of the county were hit the hardest. Four families were evacuated along Beaver Creek, a few suffered extensive water damage. Water levels along the upper Clear Fork of the Big Coal River, near Artie and Clear Fork, were higher than on the 8th. Four homes along White Oak Road had water damage. A temporary bridge was destroyed near Dorothy. The bridge had just been built, after the flood on the 8th. The lower reaches of the Clear Fork near Leevale, crested 2 to 3 feet lower, compared to the flood on the 8th. The March Fork was likely higher than on the 8th. Around 1800E, Route 3 was closed near Rock Creek by that stream.

Fayette County

Countywide

26	1330EST 1800EST	0	0	1.5M	Flash Flood
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Rains of 2 to 4 inches fell in 12 hours, most in less than 6 hours. Oak Hill reported 2.8 inches of rain. Further south, rains of near 4 inches were likely along the Raleigh County border. Communities such as Mount Hope, Kilsyth, Glen Jean, and Pax were hardest hit. Dunloup Creek and its tributaries flooded Kilsyth and Mount Hope. Around 50 families were forced to evacuate. The City Hall in Mount Hope had 5 feet of water, compared to 3 feet on the 8th.

Putnam County

1.5 SE Hurricane to 4 S Hurricane

26	1345EST 1530EST	0	0	200K	Flash Flood
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Five homes received water damage from Buff's Branch. Water was 2 feet deep in some of these homes. A car was caught in the overflowing waters of Sycamore Creek near Nye.

Nicholas County

Countywide

26	1530EST 1800EST	0	0	200K	Flash Flood
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Rains of 2.5 to 4.5 inches fell in less than 12 hours. Summersville Lake measured 4.2 inches, Fenwick had 3.6 inches, and Richwood reported 2.8 inches. The most significant flooding occurred west of the Route 19 corridor. The town of Swiss sustained damage to dwellings. Flooding and slides closed the roads along Twentymile Creek. Some residents along the Cherry River were evacuated, but a more significant rise would come 3 days later.

Several rounds of showers and thunderstorms were along and south of a cold front. Areas of Fayette and Raleigh Counties were just recovering from the floods on the 8th, when renewed flooding hit. Referring to the clean up and recovery, the Raleigh County emergency director said, "It's disheartening. We've probably lost 30% of what we accomplished".

Medowell County

Countywide

29	0900EST 1630EST	1	0	150K	Flash Flood
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An unsupervised 3 year old boy ended up in the swollen Jenny Branch. Jenny Branch is a small stream across from his home. The location was on the lower reaches of County Route 7/4 near Davy. The tragedy occurred around 0930-1000E. His body was found in the Tug Fork.

Huff Creek in Cyclone washed out private bridges. Flooding occurred along Elkhorn Creek again, but minor, compared to the 8th. Homes in Maitland were surrounded by water from the Tug Fork. Mobile homes were flooded in Anawalt. M3OU

Webster County

East Portion

29	1130EST 1600EST	0	0	25K	Flash Flood
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The headwaters of the Gauley, Elk, and Williams Rivers overflowed. Police encouraged 75 homes to evacuate in the Bergoo vicinity. Some campers were stranded.

Boone County

East Portion

29	1145EST 1730EST	0	0	300K	Flash Flood
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Pond Fork and its tributaries flooded, entering homes along Route 85. County officials said, "we have about 160 homes affected, from water around the home, to water inside the front door".

Kanawha County

East Portion

29	1200EST 1330EST	0	0	5K	Flash Flood
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Paint Creek surrounded a few mobile homes near Hansford.

Storm Data and Unusual Weather Phenomena

July 2001

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

WEST VIRGINIA, West

Raleigh County

West Portion	29	1200EST 1700EST			0	0	50K		Flash Flood
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Draws and and Peachtree Creeks flooded homes near Naoma. Around 40 people were evacuated. Minor overflow occurred elsewhere.

Logan County

Lorado	29	1215EST 1530EST			0	0	15K		Flash Flood
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About a dozen residents were evacuated along the upper reaches of Buffalo Creek.

Mingo County

Gilbert	29	1215EST 1530EST			0	0	10K		Flash Flood
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Overflow from Horsepen and Gilbert Creeks blocked roads.

Fayette County

Countywide	29	1230EST 1700EST			0	0	200K		Flash Flood
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On the order of 30 people were evacuated in Beards Fork, Page, Kincaid, and Powellton. At Nallen, on the Meadow River and the Nicholas County line, rescue teams used ropes to help take residents to safety.

Nicholas County

Countywide	29	1250EST 1800EST			0	0	500K		Flash Flood
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The mayor of Richwood reported around 30 homes and a business flooded by the waters of the Cheery River, or by runoff from the mountainsides. Most of the homes had less than a foot of water, but 3 homes had more than 2 feet of water inside. A 120 bed nursing home was evacuated. Water also got into the basement of the hospital. Mudslide and high water on Routes 39 and 55, cut off the town of Richwood. Electricity was also out for about 3 hours. Around a dozen homes in Cottle, 12 homes in the Mount Nebo-Mount Lookout area, and 5 homes along the Fayette County border around Nallen, were flooded.

Pocahontas County

West Portion	29	1300EST 1630EST			0	0	5K		Flash Flood
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Remote areas flooded, in the headwaters of the Cranberry and Williams Rivers. In this vicinity, Laurel Creek flooded roads near Woodrow.

Wyoming County

Countywide	29	1330EST 1630EST			0	0	25K		Flash Flood
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Minor flooding blocked roads, but for the most part, people were able to remain in their homes. A few evacuations occurred around Glen Rogers.

The last onslaught of heavy July rain fell in waves during Saturday, the 28th, and Sunday, the 29th. The heaviest rain on the 28th was generally from the Charleston vicinity on east, into Nicholas County. Heavier rain fell again on the 29th. The most rain, over these 2 days, fell over the Gauley and Meadow River basins. Rain totals for the 48 hours were 6.1 inches at Mount Nebo, 5.8 inches at Summersville Lake, and 5.5 inches at Richwood. The cooperative observer from Mount Nebo described this event as, "big time flooding". Nicholas County was added to the FEMA disaster declaration 1378. The Meadow River near Mount Lookout crested Sunday evening the 29th at 13.92 feet, about a half foot higher than the old record crest set back on March 7, 1967. The Cranberry River near Richwood crested at 11.09 feet, the highest since August 21, 1989. The record crest there is 12.2 feet, set back on July 19, 1954. During the night of the 29th into the 30th, the lower reaches of the Gauley River at Belva crested at 19.09 feet. That was the highest stage at Belva since the 20.02 feet back on January 29, 1957. On the 30th, the crest passed Charleston, with a stage of 23.6 feet. The runoff from Boone and western Raleigh Counties caused the lower Coal River to crest at 23.1 feet at Tornado.

The monthly rain totals for July were 15.15 inches at Hawks Nest State Park in Fayette County. Summersville Lake had 14.7 inches during July. Oak Hill and Richwood both measured around 14.3 inches during the month. Mount Nebo had 13.9 inches, while downtown Beckley received 13.1 inches. Dry Creek of western Raleigh County had a monthly rain total of 11.6 inches.

WISCONSIN, Extreme Southwest

NONE REPORTED.

Storm Data and Unusual Weather Phenomena

July 2001

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, Northeast

WIZ022

Door

**04 2120CST
2140CST**

0 0

Strong Wind

Strong winds behind a cold front produced gusts to 36 knots at the Washington Island Coast Guard station, and gusts to 35 knots at the airport in Sturgeon bay as the front passed through the county. Waves of 5 to 6 feet were reported on the Bay of Green Bay.

Oneida County

Rhineland

18 0218CST

0 0

750K

Lightning

Lightning struck a warehouse in Rhineland causing a fire that destroyed the building. Part of the warehouse was used by a moving company and the office of a taxicab company.

Marathon County

Stratford

22 1023CST

0 0

Thunderstorm Wind (G50)

Wood County

Wisconsin Rapids

22 1035CST

0 0

Thunderstorm Wind (G50)

Marathon County

Wausau

22 1055CST

0 0

Thunderstorm Wind (G52) ^M

Portage County

Stevens Pt

22 1055CST

0 0

Thunderstorm Wind (G50)

Kewaunee County

2 W Kewaunee

22 1350CST

0 0

Thunderstorm Wind (G50)

Some severe thunderstorms developed in an unstable airmass ahead of an old thunderstorm complex. Damage consisted of downed trees and power lines.

WIZ050

Manitowoc

**31 1300CST
2000CST**

1 0

Excessive Heat

Although the temperature remained below 90 degrees and the heat index never reached 100 degrees on July 31st, a heat related death was reported in the city of Manitowoc. The woman was pronounced dead on August 4th. F82PH

WISCONSIN, Northwest

Burnett County

3.5 W Trade Lake

17 2240CST

0 0

Thunderstorm Wind (G56) ^M

Burnett County

Webster

17 2245CST

0 0

Thunderstorm Wind (G50)

Several large trees were blown down, some damaging houses and vehicles as they fell. The wind speed is estimated.

Bayfield County

2 N Grandview

30 0939CST

0 0

Hail (0.75)

WISCONSIN, Southeast

Lafayette County

5 N Shullsburg

03 1825CST

0 0

50K Hail (0.75)

Dodge County

Mayville to Theresa

**03 2040CST
2045CST**

0 0

Thunderstorm Wind (G56)

Washington County

2 W Allenton to Allenton

03 2055CST

0 0

Hail (0.75)

Scattered severe thunderstorms affected parts of south-central and southeast Wisconsin during the evening hours of July 3rd. Damaging straight-line winds and large hail were reported. The hail near Shullsburg (Lafayette Co.) damaged some of the corn crop. Two (2) inches of rain accompanied the hail near Shullsburg. Powerful downburst winds (estimated around 65 mph/56 knots/) toppled large trees and power lines in the Mayville to Theresa area of eastern Dodge county. Synoptically, a west-east orientated cold front slid southeast through southern Wisconsin. Air temperatures ahead of the front were 80 to 85 and surface dewpoints were in the mid to upper 60s. There was distinct veering of the winds across the front. In addition, about 50 knots of deep layer wind shear and a CAPE of 1400 existed. The wet bulb zero height was 9500 AGL.

Jefferson County

1 E Lake Mills

17 0747CST

0 0

25K

Lightning

Lightning struck a home, resulting in a fire which damaged the roof and attic.

WIZ052-060-066-071>072

Sheboygan - Ozaukee - Milwaukee - Racine - Kenosha

**18 0000CST
0600CST**

0 0

Fog

Dense fog developed overnight, lowering visibilities to 1/8 to 1/4 mile. Dozens of airplane flights at local airports were delayed. About a dozen vehicle accidents were noted in area newspapers.

Storm Data and Unusual Weather Phenomena

July 2001

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

WIZ052-060-066-071>072 **Sheboygan - Ozaukee - Milwaukee - Racine - Kenosha**

18	2200CST				0	0			Fog
19	0700CST								

Dense fog developed overnight once again. Visibilities were reduced to 1/8 to 1/4 mile. Dozens of airplane flights were delayed, and there were about a dozen vehicle accidents.

WIZ051-058>059-064>065-070 **Fond Du Lac - Dodge - Washington - Jefferson - Waukesha - Walworth**

19	0200CST				0	0			Fog
	0700CST								

Dense fog developed overnight once again. Visibilities were reduced to 1/8 to 1/4 mile. About a dozen vehicle accidents were noted in local newspapers.

WIZ059-064>066-068>072 **Washington - Jefferson - Waukesha - Milwaukee - Green - Rock - Walworth - Racine - Kenosha**

21	0000CST				2	0			Excessive Heat
22	1500CST								

The first, significant round of excessive heat for the summer of 2001 affected parts of south-central and southeast Wisconsin. Medical examiner reports indicated that two people died from heat exposure in Milwaukee County - a female (52), and a male (34). Their deaths occurred at the end of this heat event, or a couple days later. At least eighty (80) people who attended the Country Thunder music festival in western Kenosha County were medically treated on-site for the effects of heat exhaustion. Across the remainder of southeast Wisconsin, dozens of other people were treated for heat exhaustion at hospitals. Overnight heat index values were in the 80 to 90 range, and reached 105 to 110 for several hours during the afternoon hours on the 21st and 22nd. Maximum air temperatures were in the lower 90s while surface dewpoints were in the lower to mid 70s. Overnight minimum air temperatures were in the lower to mid 70s. Although the core period of the excessive heat was on the 21st and 22nd, very warm and muggy conditions actually started on the 20th and persisted through the 23rd. Milwaukee's maximum and minimum air temperatures at Mitchell Field for this period were: 87/71, 90/76, 90/71, 91/74. While excessive heat conditions were observed well inland, those locations near the Lake Michigan shoreline were slightly cooler. The long duration of this heat wave was a contributing factor toward the 2 deaths. M34PH, F52PH

Washington County

	Hartford to Germantown	22	1340CST 1405CST			0	0	30K	Thunderstorm Wind (G52)
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Ozaukee County

	2 W Cedarburg to Mequon	22	1405CST 1415CST			0	0	30K	Thunderstorm Wind (G52)
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Walworth County

	2 E Zenda	22	1435CST			0	0		Thunderstorm Wind (G52)
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Kenosha County

	Twin Lakes	22	1440CST			0	0		Thunderstorm Wind (G52)
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Kenosha County

	Twin Lakes	22	1443CST			0	4		Lightning
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Scattered severe thunderstorms rumbled through southeast Wisconsin during a very warm and muggy afternoon. Powerful, downburst, straight-line winds (estimated around 60 mph /52 knots/) accompanied the storms, resulting in toppled trees, power lines, and power poles. In addition, 4 people were injured when lightning struck tent support poles at the Country Thunder music festival near Twin Lakes in western Kenosha County. They were holding the poles as they waited out the powerful thunderstorm winds affecting that area. About 11,200 customers across the southern parts of Washington and Ozaukee Counties lost electrical power due to the toppled trees and power lines.

WIZ051>052-058>060-064>066-069>072 **Fond Du Lac - Sheboygan - Dodge - Washington - Ozaukee - Jefferson - Waukesha - Milwaukee - Rock - Walworth - Racine - Kenosha**

30	0300CST				0	0			Fog
	0700CST								

Dense fog developed overnight, reducing visibilities to 1/8 to 1/4 mile. Dozens of airplane flights were delayed. About a dozen vehicle accidents were noted in local newspapers. As with many other dense fog episodes in southern Wisconsin, rain (showers and thunderstorms) fell the day before. Light east-northeast surface airflow combined with clear skies to allow for the dense fog development.

WIZ046>047-051>052-056>059-062>065-067>070-072 **Marquette - Green Lake - Fond Du Lac - Sheboygan - Sauk - Columbia - Dodge - Washington - Iowa - Dane - Jefferson - Waukesha - Lafayette - Green - Rock - Walworth - Kenosha**

31	1100CST				0	0			Excessive Heat
	2359CST								

This was the second period of excessive heat, during the summer of 2001, to affect parts of south-central and southeast Wisconsin. Afternoon heat index values on the 31st reached 105 to 110 for several hours, while they stayed in the 85 to 100 range during the

Storm Data and Unusual Weather Phenomena

July 2001

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

evening hours. maximum afternoon air temperatures were in the lower to mid 90s, with surface dewpoints in the lower to mid 70s. Although official numbers are not available, several people were probably treated at hospitals due to the affects of heat exhaustion. For July 31, 2001, Madison (Dane Co.) recorded a maximum air temperature of 95, tying the daily record set back in 1988. Ft. Atkinson (Jefferson Co.) and Wisconsin Dells (Columbia Co.) both registered a high of 97. The 31st was the hottest day, to date, for the summer of 2001. Several utility companies reported new daily record demands for electricity, and public swimming pools reported large numbers of swimmers. The excessive heat on the 31st persisted to about 9pm on August 1, 2001.

WISCONSIN, Southwest

Clark County

3 SW Thorp	30	1450CST			0	0	0.50K		Hail (0.88)
WIZ017-029-032>034-041>044-053>055-061			Taylor - Clark - Buffalo - Trempealeau - Jackson - La Crosse - Monroe - Juneau - Adams - Vernon - Crawford - Richland - Grant						
	31	1300CST 2359CST			2	0			Excessive Heat

Temperatures climbed into the middle to upper 90s, with La Crosse (La Crosse County) even reaching 100. The excessive heat combined with high humidity pushed heat indices dangerously high, with values of 105 to 115. As a result, there were two deaths directly related to the heat. The dangerous heat would continue affecting southwest and central Wisconsin through the first week and a half of August. M75PH, M51PH

WISCONSIN, West

Polk County

Osceola to 2 E Dresser	17	2235CST			0	0	10K		Thunderstorm Wind (G50)
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Numerous trees down, including a few on houses and vehicles.

St. Croix County

Somerset to Star Prairie	17	2305CST 2310CST			0	0			Thunderstorm Wind (G50)
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Scattered trees felled.

WIZ027

Chippewa

	20	1100CST 1900CST			1	0			Excessive Heat
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A man died after fishing on Lake Stanley (in Stanley) during warm and humid weather. According to the cooperative observer in Stanley, the maximum temperature on the 20th was 85. The Eau Claire ASOS, 25 miles WSW of Stanley, registered a dewpoint in the low 70s, indicating the heat index was likely in the low 90s in Stanley. The man came to shore, collapsed shortly thereafter, and was brought to a hospital in Eau Claire where his body temperature was measured at 108 degrees. Death occurred on the 21st. The coroner described that the victim had been on three different prescribed medications at the time. M46BO

Polk County

Clear Lake	23	0530CST			0	0	20K		Hail (2.00)
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Hail damaged a number of vehicles.

Chippewa County

Boyd	30	1420CST			0	0			Hail (1.00)
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Chippewa County

Stanley	30	1440CST			0	0			Hail (1.75)
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WIZ014>016-023>028 Polk - Barron - Rusk - St. Croix - Pierce - Dunn - Pepin - Chippewa - Eau Claire

	31	0900CST 2359CST			0	0			Excessive Heat
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High heat and humidity moved into West Central Wisconsin on the 31st and persisted until August 1 (see August Storm Data for information regarding August 1). Temperatures soared into the middle and upper 90s. With dewpoints in the middle and upper 70s, heat indexes reached well over 100 during the afternoon and evening. Some noteworthy index values include 115 at Eau Claire (Eau Claire County) and 109 at Hager City (Pierce County).

WYOMING, Central and West

Fremont County

20 SE Lander	04	1300MST 2000MST			0	0	70K		Wild/Forest Fire
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The Sheep Mountain Fire was started by lightning. The fire burned 1,500 acres. One fire truck was destroyed. The damage is estimated.

Johnson County

5 S Buffalo	04	1315MST			0	0			Hail (0.88)
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Johnson County

15 SE Buffalo	04	1330MST			0	0			Hail (1.75)
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Every window in house broken and six vehicles windshields broken. Property damage amounts unknown. Sandhill crane also killed

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property Damage	Crops	
WYOMING, Central and West									
by hail.									
Johnson County 15 N Sussex	04	1342MST			0	0			Funnel Cloud
Several funnel clouds reported.									
Johnson County Sussex	04	1410MST 1420MST			0	0			Hail (0.88)
Johnson County Sussex	04	1425MST 1432MST			0	0			Hail (0.88)
Johnson County 17 E Kaycee	04	1440MST			0	0			Thunderstorm Wind (G50)
6 inch diameter tree limbs blown down.									
Lincoln County 14 SE Alpine	04 12	1500MST 1500MST			0	0			Wild/Forest Fire
The Greys River complex Fire was started by lightning. Burned acres unknown. Ending location estimated.									
Johnson County 23 NE Buffalo	04	1610MST			0	0			Hail (1.25)
Sweetwater County 7 W Rock Spgs	06	1429MST			0	0			Hail (0.75)
Sweetwater County 45 S Rock Spgs	06 09	1500MST 1500MST			0	0			Wild/Forest Fire
The Gap Fire was started by lightning. The fire burned 1,300 acres. Ending location estimated.									
Park County 23 W Cody	09	1330MST			0	0			Flash Flood
Flash flooding along Green Creek on the north fork of the Shoshone River. Eyewitnesses reported a 3 foot wall of mud and water.									
Lincoln County 10 E Opal to 15 E Opal	10	1345MST 1355MST			0	0			Tornado (F1)
Path length, width, Fujita number, exact location are all estimates.									
Hot Springs County 2.5 NW Kirby	10	1530MST			0	0			Flash Flood
Hot Springs County 2.5 NW Kirby	10	1530MST			0	0			Tornado (F2)
Eyewitnesses reported 2 brief touchdowns. Mobile home destroyed and barn damaged, approximately 1/4 mile apart. Property damage amounts unknown. Water at least 3 feet deep caused considerable damage to mobile home and fences. Three horses injured.									
Hot Springs County 10 N Kirby	10	1534MST 1539MST			0	0			Hail (1.00)
Hot Springs County 4 E Kirby	10	1535MST			0	0			Funnel Cloud
Washakie County 15 SW Worland	10	1545MST			0	0			Hail (1.75)
Washakie County 15 SW Worland	10	1549MST			0	0			Hail (0.75)
Washakie County 15 SW Worland	10	1549MST			0	0			Thunderstorm Wind (G52)
Hail and wind reported in Winchester.									
Hot Springs County .5 S Kirby	10	1545MST			0	0			Hail (1.00)
Washakie County 15 SW Worland	10	1545MST			0	0			Flash Flood
Flash flooding of many creeks and washes with water across the road near Winchester.									
Park County Clark	10	1645MST 1705MST			0	0	400K		Flash Flood
Flash flooding along Line Creek. Mobile home, outbuildings destroyed; homes flooded and roads and bridges washed out in the Line									

Storm Data and Unusual Weather Phenomena

July 2001

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

WYOMING, Central and West

Creek subdivision. Property damage estimated by emergency management official.

Hot Springs County

1 S Thermopolis 10 1845MST 0 0 **Flash Flood**

Hot Springs County

1 S Thermopolis 10 1845MST 0 0 **Thunderstorm Wind (G60)**

Damage to outbuildings and trees. Minor damage to mobile home. Large trees down due to either wind or flash flood. Property damage amounts unknown.

Johnson County

12 N Kaycee 10 2135MST 0 0 **Flash Flood**

Johnson County

10 N Kaycee 10 2215MST 0 0 **18K Flash Flood**

Flooding around home-basement full of water. Total rainfall estimated at 6.5 inches since around 3 pm MDT. Sheriff's deputy reported 6 inches of water on Reno Road approximately 10 miles north of Kaycee. Property damage amounts estimated

Teton County

10 SW Jackson 22 0745MST 0 0 **Wild/Forest Fire**
31 2359MST

The Green Knoll Fire was started by an unattended camp fire. The fire burned 4,620 acres and was not fully contained by the end of July. Ending location unknown.

Sweetwater County

(Rks)Rock Spgs Arpt 27 1546MST 0 0 **Thunderstorm Wind (G56)** M

Fremont County

(Lnd)Hunt Fld Lander 27 1753MST 0 0 **Thunderstorm Wind (G55)** M

Park County

41 W Wapiti 28 1230MST 0 0 **Wild/Forest Fire**
31 2359MST

The Arthur Fire was started by lightning. The fire had burned 1,500 acres and was not fully contained by the end of July.

Natrona County

8 E Casper 30 1930MST 0 0 **Wild/Forest Fire**
31 1800MST

The Cole Creek Fire was started by lightning. The fire burned approximately 1,300 acres. Ending location estimated.

WYOMING, Extreme Southwest

NONE REPORTED.

WYOMING, North Central

Sheridan County

4 S Clearmont 03 0345MST 0 0 **Hail (0.75)**

Sheridan County

5 NE Sheridan 14 1858MST 0 0 **Hail (1.75)**

Sheridan County

15 E Sheridan 14 1905MST 0 0 **Hail (1.75)**

Windshield broken and vehicle damaged

Sheridan County

11 NE Sheridan 14 1930MST 0 0 **Flash Flood**

Minor flooding over roads...hail floating on water

Sheridan County

14 NE Sheridan 22 1705MST 0 0 **Hail (0.75)**

Sheridan County

8 NE Sheridan 22 1715MST 0 0 **Hail (1.75)**

Sheridan County

40 NW Sheridan 23 1615MST 0 0 **Hail (1.75)**

Hail drifted over a foot deep

Sheridan County

22 NW Sheridan 26 1724MST 0 0 **Hail (0.75)**

Sheridan County

Ranchester 26 1735MST 0 0 **Hail (0.75)**

Sheridan County

Ranchester 26 1738MST 0 0 **Hail (1.00)**

Storm Data and Unusual Weather Phenomena

July 2001

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>WYOMING, North Central</u>									
Sheridan County									
1 S Clearmont	26	1825MST			0	0			Hail (0.88)
Sheridan County									
15 N Clearmont	26	1840MST			0	0			Hail (0.75)
Sheridan County									
Dayton	26	1835MST			0	0			Hail (1.00)
Sheridan County									
7 W Sheridan to 7 W Sheridan Arpt	28	1410MST			0	0			Thunderstorm Wind (G65)
			65 mph thunderstorm wind gust estimated by spotter.						
Sheridan County									
Sheridan Arpt	28	1422MST			0	0			Thunderstorm Wind (G64) ^M
			64 mph thunderstorm wind gust reported at the airport						
Sheridan County									
7 W Sheridan	28	1426MST			0	0			Thunderstorm Wind (G72)
			72 mph thunderstorm wind gust estimated by spotter.						
<u>WYOMING, Northeast</u>									
Crook County									
12 NE Moorcroft	03	1545MST 1600MST			0	0	0		Hail (0.75)
Weston County									
Upton	03	1632MST			0	0	0		Hail (0.75)
Campbell County									
6 E Rozet	03	1645MST			0	0	0		Hail (0.88)
Crook County									
7 W Moorcroft	03	1645MST			0	0	0		Hail (1.00)
Weston County									
Osage	03	1650MST			0	0	0		Hail (1.00)
			Several severe thunderstorms moved across Northeastern Wyoming. The storms produced large hail as they moved across Campbell, Crook, and Weston counties.						
Weston County									
9 WSW Upton	03	1725MST			0	0	0		Hail (0.75)
Weston County									
14 SW Newcastle	03	1735MST			0	0	0		Hail (1.00)
Campbell County									
20 SW Gillette	04	1338MST			0	0	0		Funnel Cloud
			Law enforcement officer reported seeing two funnel clouds.						
Crook County									
10 SW Moorcroft	06	1730MST			0	0	0		Hail (0.75)
Weston County									
Osage	06	1915MST			0	0	5K		Thunderstorm Wind (G70)
			At least one roof was blown off and damage to buildings were reported. Several tree limbs and power lines were down as well.						
Weston County									
3 E Rochelle	07	1700MST			0	0	0		Hail (0.75)
Weston County									
Clareton	07	1741MST			0	0	0		Hail (0.75)
Weston County									
30 SW Newcastle	07	1830MST			0	0	0		Hail (0.88)
Crook County									
Devils Tower	08	1430MST 1510MST			0	4	10K		Hail (2.50)
Crook County									
Devils Tower	08	1430MST			0	2	0		Lightning
Crook County									
New Haven	08	1430MST			0	0	0		Hail (1.00)
Crook County									
3 SE Devils Tower	08	1506MST			0	0	0		Hail (1.00)
			A thunderstorm moved across Crook County producing very large hail. Hail ranging in size from pennies to tennis balls pelted Devil's						

Storm Data and Unusual Weather Phenomena

July 2001

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

WYOMING, Northeast

Tower for 40 minutes. Four injuries (direct) were climbers on Devil's Tower who were hit by hail. Two injuries (direct) were the result of a lightning strike. The injuries were not life threatening, and it is not known if medical attention was administered. Damage to several cars was reported as "significant".

Crook County

18 SW Sundance 08 1610MST 0 0 0 Thunderstorm Wind (G57)

Weston County

7 W Clareton 08 2052MST 0 0 0 Hail (1.50)

Campbell County

2 N Rozet 09 1430MST 0 0 6K Thunderstorm Wind (G61)
1435MST

A 25' x 64' double-wide mobile home had part of the roof ripped off by straight line thunderstorm winds. A witness observed "...hurricane type winds for 5 minutes with a torrential downpour, then it just let up for a minute or so, then a strong gust came and ripped the roof off." The roof portions landed on a truck parked next to the home and shattered. Debris was scattered up a nearby hillside. The roof was reportedly rebuilt two years ago and was only fastened at the corners. No other damage was reported in the sparsely developed subdivision.

Crook County

Moorcroft 09 1430MST 0 0 250K Lightning

Lightning struck a building in downtown Moorcroft. The fire ignited the building, a sporting goods store. Most of the building was destroyed.

Campbell County

5 E Rozet 09 1447MST 0 0 0 Hail (0.75)

Crook County

3 S Moorcroft 09 1530MST 0 0 0 Thunderstorm Wind (G52)

Campbell County

8 S Wright 09 1555MST 0 0 0 Hail (0.75)

Campbell County

8 S Wright 09 1555MST 0 0 0 Thunderstorm Wind (G61) ^M

Campbell County

10 E Weston 22 1940MST 0 0 0 Hail (2.75)

Crook County

3 E Devils Tower 22 2000MST 0 0 0 Hail (0.75)

Crook County

7 S Sundance to 23 1600MST 0 0 0 Hail (2.00)
5 S Sundance

Crook County

Sundance 23 1610MST 0 0 0 Hail (0.75)

Campbell County

8 NE Weston 23 1730MST 0 0 0 Hail (2.75)

Crook County

Devils Tower 23 1810MST 0 0 0 Hail (0.88)

Campbell County

Recluse 23 1825MST 0 0 0 Hail (1.25)

Campbell County

14 NNW Recluse 23 1830MST 0 0 0 Hail (1.75)

Campbell County

14 NNW Recluse 23 1830MST 0 0 0 Thunderstorm Wind (G52)

Campbell County

15 NE Recluse 23 1900MST 0 0 0 Hail (1.75)

Campbell County

10 NE Weston 23 1910MST 0 0 0 Hail (0.75)

Crook County

New Haven 23 1950MST 0 0 0 Thunderstorm Wind (G52)

Campbell County

4 NE Gillette to 26 1530MST 0 0 0 Tornado (F0)
5 NE Gillette 1545MST

Campbell County

4 NE Gillette to 26 1540MST 0 0 0 Tornado (F0)
5 NE Gillette 1545MST

Storm Data and Unusual Weather Phenomena

July 2001

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

WYOMING, Northeast

Twin tornados witnessed by Emergency manager northeast of Gillette. Described as thin "rope" tornados.

Crook County									
New Haven	26	1632MST			0	0	0		Hail (1.00)
Weston County									
19 SW Upton	28	1800MST			0	0	0		Thunderstorm Wind (G52)
Weston County									
6 SW Rochelle	28	1800MST			0	0	0		Thunderstorm Wind (G52) ^M

WYOMING, Southeast

Albany County									
Laramie	03	1915MST 1925MST			0	0			Hail (0.88)
Albany County									
Laramie	03	1934MST 1939MST			0	0	50K		Hail (1.75)
Converse County									
30 W Bill	04	1545MST 1549MST			0	0			Hail (1.00)
Converse County									
20 NW Douglas	04	1650MST 1700MST			0	0			Hail (0.75)
Converse County									
15 N Bill	06	1725MST 1729MST			0	0			Hail (1.50)
Niobrara County									
28 NNW Lance Creek	06	1750MST 1751MST			0	0	10K		Dry Microburst

Strong wind gusts damaged corrals and sheds as well as removed some roof shingles.

Niobrara County									
33 N Lance Creek	06	1820MST 1821MST			0	0	1K		Thunderstorm Wind (G52)
Thunderstorm wind took roof off storage shed.									
Niobrara County									
25 N Lance Creek	06	1820MST 1823MST			0	0			Hail (0.88)
Laramie County									
5 E Burns	07	1559MST 1605MST			0	0			Hail (1.00)
Laramie County									
3 NE Carpenter	07	1605MST 1610MST			0	0			Hail (1.75)
Laramie County									
11 W Albin	07	1725MST 1731MST			0	0			Hail (1.25)
Laramie County									
2 S Pine Bluffs	07	1815MST 1819MST			0	0			Hail (0.75)
Laramie County									
13 W Cheyenne	08	1737MST			0	0			Thunderstorm Wind (G52)
Laramie County									
25 N Cheyenne	10	1830MST 1834MST			0	0			Hail (1.00)
Laramie County									
30 N Cheyenne	10	1835MST 1840MST			0	0			Hail (1.00)
Laramie County									
22 N Cheyenne	10	1913MST 1916MST			0	0			Hail (1.75)
Laramie County									
15 N Cheyenne	10	1930MST 1934MST			0	0			Hail (0.75)

Storm Data and Unusual Weather Phenomena

July 2001

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

Converse County

3 N Glenrock	15	1809MST 1813MST			0	0			Hail (0.88)
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Storm Data and Unusual Weather Phenomena

January 2000

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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ADDITIONS/CORRECTIONS

MARYLAND, South

MDZ022>023

Wicomico - Somerset

25	0600EST				0	0			Winter Storm
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A significant winter storm affected southern Maryland with six to nine inches of snow and freezing rain. Precipitation fell as a mixture of snow, sleet, and freezing rain during the morning hours, then changed to all snow by late afternoon. Wicomico county including Salisbury received 6 to 9 inches, and Somerset county picked up 6 inches. Winds gusted over 30 mph, producing blowing and drifting snow during the late afternoon and evening hours.

MDZ021

Dorchester

25	0600EST				0	0			Winter Storm
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A significant winter storm affected Dorchester county with between 9 and 14 inches of snow. Snow mixed with sleet and freezing rain during the morning and early afternoon hours. Winds gusting over 30 mph created blowing and drifting snow. Very cold air built in behind the storm system, preserving the snowpack for over a week.

MDZ024>025

Inland Worcester - Maryland Beaches

25	1000EST				0	0	20K		Winter Storm
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A significant winter storm affected southern Maryland with a variety of weather. Precipitation began as rain during the morning, then changed to freezing rain and sleet during the afternoon. Snow then mixed in during the evening hours before ending. Winds over 40 mph created some blowing snow during the evening. Snowfall totals of 1 to 2 inches were reported across Worcester county. Minor beach erosion was reported near Ocean City.

NORTH CAROLINA, North Coastal

NCZ012

Northampton

24	2300EST				0	0			Winter Storm
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A significant winter storm affected northeast North Carolina with snowfall amounts in Northampton county of between 7 and 10 inches. There was blowing and drifting of snow from winds which gusted over 30 mph at times. Very cold temperatures built in following the storm system, preserving the snowpack for up to a week.

NCZ030

Bertie

24	2300EST				0	0			Winter Storm
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A significant winter storm dropped between 5 and 6 inches of snow across Bertie county. There was some blowing and drifting of snow due to winds which gusted over 30 mph at times. Precipitation actually began as rain, which changed to heavy snow. Snow then mixed with sleet and freezing rain during the day. Very cold air built in behind the storm system, preserving the snowpack for nearly a week.

NCZ013>014

Hertford - Gates

25	0000EST				0	0			Winter Storm
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A significant winter storm dumped 3 to 4 inches of snow across Hertford county, and around 4 inches in Gates county. There was some blowing snow due to winds gusts over 30 mph during the storm. Precipitation began as rain, but then changed to snow during the morning hours. Snow was then mixed with sleet and freezing rain periodically. Very cold air built in behind the storm system and preserved the snowpack for several days.

NCZ015>016-031>032

Pasquotank - Camden - Chowan - Perquimans

25	1200EST				0	0			Winter Storm
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A winter storm affected northeast North Carolina with a mixture of snow, sleet, rain, and freezing rain. Precipitation began early in the morning as wind-blown rain. Rain then mixed with snow, sleet, and freezing rain during the afternoon hours, with general accumulations of 2 to 4 inches reported. Winds gusting over 40 mph created some blowing snow and power outages. Specific county accumulations were: Chowan county 3 to 4 inches, Perquimans county 2 inches, Pasquotank county 2 to 3 inches, and Camden county 2 to 3 inches.

VIRGINIA, East

VAZ048>049-060>062-068

Fluvanna - Louisa - Prince Edward - Cumberland - Goochland - Amelia

25	0100EST				0	0			Winter Storm
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A major winter storm dumped between 8 inches and one foot of snow across portions of central Virginia. Significant blowing and drifting of snow occurred with winds gusting over 30 mph. A period of far below normal temperatures occurred after the storm, preserving the snowpack for over one week. Specific county totals were: Louisa county 8 to 12 inches, Fluvanna county 8 inches, Goochland county 9.5 inches, Cumberland county 10 inches, Powhatan county, 9 inches, Amelia county 10 inches, Prince Edward

Storm Data and Unusual Weather Phenomena

June 2000

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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ADDITIONS/CORRECTIONS

GEORGIA, North and Central

Cobb County									
Marietta	25	1210EST 1215EST			0	0			Hail (0.75)
The public reported dime size hail on Johnsons Ferry Road and on South Cobb Drive in the east part of Marietta.									
Fulton County									
Sandy Spgs	25	1210EST 1240EST			0	0			Hail (0.75)
Numerous reports were received from the public of dime size hail from the Sandy Springs area in the northwest part of Fulton county.									
Gwinnett County									
Norcross	25	1245EST			0	0			Hail (1.00)
The public reported quarter size hail.									
Rockdale County									
Conyers to 1 E Conyers	25	1245EST 1300EST			0	0			Hail (1.00)
Several reports were received from the public of dime to quarter size hail. One report said the hail was covering the ground.									
Gwinnett County									
Norcross	25	1255EST			0	0			Hail (0.75)
The public reported dime size hail in the Peachtree Corners area of Norcross.									
Fulton County									
East Pt	25	1300EST			0	0			Hail (0.75)
The public reported dime to a little larger than dime size hail.									
Walton County									
Loganville	25	1300EST			0	0			Hail (1.25)
The public reported dime to half-dollar size hail.									
Walton County									
Loganville to Campton	25	1300EST 1305EST			0	0	2K		Thunderstorm Wind
The public reported two large oak trees were blown down in Campton and another large 2 foot diameter oak tree was blown down in Loganville.									
Newton County									
Covington	25	1309EST			0	0			Hail (0.75)
The public reported dime size hail.									
Barrow County									
Winder	25	1325EST			0	0			Hail (0.75)
The public reported dime size hail.									
Rockdale County									
Conyers to 4 SE Conyers	25	1325EST			0	0			Hail (1.75)
The public reported dime to golfball size.									
Newton County									
1 E Covington	25	1330EST			0	0			Hail (0.88)
The public reported nickel size hail.									
Clayton County									
Lovejoy to Jonesboro	25	1333EST 1345EST			0	0			Hail (1.00)
The public reported dime to quarter size hail.									
Henry County									
Hampton	25	1335EST			0	0			Hail (1.00)
The public reported quarter size hail.									
Walton County									
6 W Monroe	25	1338EST			0	0	1.5K		Thunderstorm Wind
The public reported some oak trees knocked down.									
Gwinnett County									
Snellville	25	1340EST			0	0			Hail (1.00)
The public reported dime to quarter size hail.									
Pike County									
Williamson	25	1400EST			0	0			Hail (0.75)
The Zebulon police relayed a report of dime size hail in Williamson.									

Storm Data and Unusual Weather Phenomena

June 2000

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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ADDITIONS/CORRECTIONS

GEORGIA, North and Central

Gwinnett County Snellville	25	1410EST			0	0			Hail (1.25)
The public reported half-dollar size hail.									
Monroe County Forsyth	25	1440EST			0	0			Hail (0.75)
The Forsyth police and the public reported dime size hail.									
Monroe County Forsyth	25	1440EST			0	0	2K		Thunderstorm Wind
The Monroe county 911 center reported that trees were down.									
Banks County Homer	25	1515EST			0	0	1.5K		Thunderstorm Wind
The Homer police reported three trees down on Hembre Road and one tree down on Fort Lamar Road.									
Putnam County Flat Rock	25	1530EST			0	0			Hail (0.75)
The Gold Store in Flat Rock reported dime size hail.									
Putnam County Flat Rock	25	1530EST			0	0	8K		Thunderstorm Wind
The Gold Store in Flat Rock reported several trees down, including one that damaged a house.									
Carroll County Villa Rica	25	1533EST			0	0			Hail (1.00)
The public reported quarter size hail.									
Paulding County Dallas to Hiram	25	1540EST			0	0	2K		Thunderstorm Wind
The Paulding county 911 center and a storm spotter reported several trees.									
Haralson County Buchanan	25	1630EST			0	0			Hail (0.75)
The public reported dime size hail.									
Chattahoochee County Cusseta	25	1645EST			0	0			Hail (0.75)
The Chattahoochee county 911 center reported dime size hail.									
Chattahoochee County Cusseta	25	1645EST			0	0	1.5K		Thunderstorm Wind
The Chattahoochee county 911 center reported two trees down on U.S. Highway 27.									
Marion County Buena Vista	25	1700EST			0	0	1.5K		Thunderstorm Wind
The public reported two trees down, one on County Road 97 and the other on County Road 163.									
Webster County 9 N Weston	25	1700EST			0	0			Hail (0.75)
The public reported dime size hail.									
Stewart County 2 S Lumpkin to 3 S Lumpkin	25	1755EST			0	0	2K		Thunderstorm Wind
The public reported two trees down 2 miles south of Lumpkin on Trotman Road and two more trees down on U.S. Highway 27, 3 miles south of Lumpkin.									

Storm Data and Unusual Weather Phenomena

November 2000

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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ADDITIONS/CORRECTIONS

NORTH DAKOTA, Central and West

Burleigh County

6 N Bismarck to
10 NNW Bismarck

01 1355CST 3 50 0 2 Tornado (F1)

Tornado touched down near highway 83 in north Bismarck and traveled in a west..northwest direction. Forty two homes sustained minor to moderate damage and injuring two people.

Burleigh County

10 N Bismarck to
13 NW Bismarck

01 1433CST 5 100 0 0 55K Tornado (F2)

Tornado touched down in a sparsely developed area in open country along highway 1804. The tornado skipped in a west..northwest direction. One home was heavily damaged. Several bales of hay were destroyed. The tornado crossed the Missouri River into Morton county.

Morton County

5 N Mandan to
12 NW Mandan

01 1500CST 12 50 0 0 Tornado (F1)

Tornado crossed the Missouri River from Burleigh county and moved in a northwest direction skipping across the open country side. The tornado then entered into Oliver county.

Oliver County

14 SE Center

01 1540CST 5 50 0 0 Tornado (F1)

Tornado entered Oliver county from Morton county. The tornado remained in open country then lifted back into the clouds 14 miles southeast of Center.

Mclean County

8 SW Mercer to
11 N Washburn

01 1558CST 20 40 0 0 Tornado (F0)

Tornado touched down in open country skipping in a west direction across the country side.

The tornado outbreak on the 1st of November was a rare and unusual weather phenomena to occur so late in the year in North Dakota. The last recorded tornado to occur in the state was October 11th 1979 in Sargent county in southeastern North Dakota. Several tornadoes, with five distinct paths, hit south central North Dakota causing property damage and injuries. The majority of the damage and injuries occurred in the Bismarck area. Forty two homes sustained minor to major damage. The tornadoes were rated F0 and F1 on the Fujita scale, packing winds up to 90 mph. Another unusual phenomena observed were that these tornadoes traveled from east to west. This was caused by an intense low pressure system , centered over north central South Dakota, spinning counterclockwise, allowing the low level flow over Bismarck to move east to west. At the same time period these tornadoes were occurring, snow began to fall in the far western area of North Dakota. Winter storm watches and warnings were posted across north central and western North Dakota that afternoon.

Storm Data and Unusual Weather Phenomena

April 2001

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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ADDITIONS/CORRECTIONS

KANSAS, East

Republic County

1 SW Courtland to 2 NE Republic	11	0018CST 0045CST	14	75	0	0	60K		Tornado (F1)
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A tornado moved from east central Jewell County into Republic County and struck the town of Courtland before dissipating near the town of Republic. Considerable damage occurred to power lines and farm outbuildings along the path of the tornado. Considerable damage occurred to several buildings in the town of Courtland as well.

MINNESOTA, Northeast

MNZ035>036

Northern Aitkin - Southern Aitkin

06	2300CST				0	0	675K		Flood
29	2300CST								

Lingering snowpack with a high water content, combined with three heavy rainfall events during the month of April, led to significant flooding along parts of the Mississippi River, Sandy River, and Big Sandy Lake. The water level came within four inches of rendering the Aitkin city sewage treatment plant inoperative. Despite sandbagging efforts, thousands of dollars in damage to homes, businesses, and roads occurred. Damage to public property was estimated at \$675,000 county-wide. Damage to private property was not available.

SOUTH DAKOTA, Central and North

SDZ008-019-021>023

Roberts - Clark - Grant - Hamlin - Deuel

07	0100CST				0	0	1.3M		Flood
08	0800CST								

Heavy rain of 1 to 3 inches combined with snowmelt runoff brought flooding to parts of northeast South Dakota. Many roads across Clark, Grant, Hamlin, Deuel, and Roberts counties were flooded and damaged. Floodwater moving towards the town of Willow Lake overpowered culverts and flooded several homes and several streets. Highway 28 had to be cut through to allow the water to flow away from the town, averting a disaster. Highwater from the creek west of Corona in far Southern Roberts county flowed towards Corona. As a result, 3 1/2 feet of water coursed through town flooding several homes and streets and knocking out the sewer system. Also, 1000 feet of railroad track was damaged by the floodwaters. The Big Sioux River and Lake Poinsett in Hamlin county also rose and resulted in some agricultural land and road flooding.

SDZ020

Codington

07	0100CST				0	0	785K		Flood
13	0800CST								

Heavy rain of 1 to 3 inches combined with runoff from snowmelt brought flooding throughout Codington county, especially in the Watertown area along the Big Sioux River and at Lake Kampeska. Many roads, especially gravel roads, throughout Codington county were flooded and damaged. The Big Sioux River near Watertown rose to 11.5 feet, 2.5 feet above flood stage, with Lake Kampeska rising to around 4 feet overfull. As a result of the flooding on the Big Sioux River, 300 people in Watertown were evacuated and were not allowed to return until the 22nd. Also, several streets were closed in Watertown due to the flooding. Hundreds of volunteers, inmates, national guardsmen, and city and emergency crews sandbagged along the Big Sioux River and Lake Kampeska to divert any flooding. A bridge on the Big Sioux River buckled due to large pieces of ice slamming into it. As Lake Kampeska rose, nearly 100 homes had to be evacuated along with 3 major businesses. Thirty homes and 2 businesses along the lake were flooded resulting in extensive damage. Lake Pelican also rose to way overfull, flooding several homes and roads.

WISCONSIN, Northwest

WIZ001>002

Douglas - Bayfield

06	2300CST				0	0	888K		Flood
23	2300CST								

Three heavy rain events plus the melting of a snowpack with a high water content added up to high water levels on many creeks, streams, rivers, and lakes. The worst flooding occurred on the 22nd and 23rd. Many roads were covered with water in both counties, and several houses were affected by high water levels, especially along the Amnicon River in Douglas County. Douglas County losses were estimated at \$888,000. Estimates for Bayfield County were not available.

Storm Data and Unusual Weather Phenomena

May 2001

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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ADDITIONS/CORRECTIONS

ARKANSAS, Northwest

Benton County Bentonville	20	1845CST			0	0			Hail (1.00)
Benton County 3 W Rogers	20	1852CST			0	0	0.50K		Thunderstorm Wind
Thunderstorms winds blew down many large tree limbs and trees west of Rogers.									
Sebastian County Ft Smith	20	1902CST			0	0			Hail (1.75)
Unconfirmed reports of softball size hail could not be confirmed.									
Madison County 5 NNW Clifty	20	1913CST	0.3	25	0	0	0.10K		Tornado (F0)
An F0 tornado briefly touched down five miles north northwest of Clifty near the Carroll and Madison county line. Only tree damage was reported.									
Sebastian County Ft Chaffee	20	1917CST			0	0			Hail (1.75)
Carroll County 6 S Eureka Spgs	20	1925CST	0.3	25	0	0			Tornado (F0)
An F0 tornado briefly touched down six miles south of Eureka Springs. No damage was reported.									
Sebastian County 1 S Ft Smith	20	1925CST			0	0	0.10K		Thunderstorm Wind
Thunderstorm winds blew down several trees.									
Sebastian County 10 ENE Greenwood to 11 ENE Greenwood	20	1929CST 1932CST	1	100	0	0	5K		Tornado (F0)
Brief tornado spin-up from updraft area that passed south of Fort Smith. Damage occurred on Fort Chaffee Military Reservation. Numerous trees were downed in an open field, but no structural damage to buildings was reported.									
Franklin County 1 E Charleston	20	1940CST			0	0	0.10K		Thunderstorm Wind
Thunderstorm winds blew down large tree limbs.									
Madison County 2 NE Clifty	20	1940CST			0	0	0.10K		Thunderstorm Wind
Thunderstorms winds blew down a few trees.									
Carroll County 5 W Berryville	20	1945CST			0	0			Hail (0.75)
Franklin County 4 S Branch	20	1951CST	0.3	25	0	0			Tornado (F0)
A F0 tornado briefly touched down four miles south of Branch. No damage was reported.									
Franklin County Branch	20	2005CST			0	0			Hail (1.00)
Sebastian County 6 S Mansfield	20	2030CST			0	0			Thunderstorm Wind (G52)
Crawford County Kibler	20	2225CST			0	0	0.10K		Thunderstorm Wind
Thunderstorm winds blew large tree limbs down.									
Sebastian County 1 SW Ft Smith	20	2244CST			0	0			Hail (1.00)
Sebastian County 1 SW Ft Smith	20	2244CST			0	0			Thunderstorm Wind (G65)
Sebastian County Greenwood	20	2300CST 2330CST			0	0	20K		Flash Flood
Heavy thunderstorm rains caused a few rural roads to be washed out near Greenwood.									
<u>NEW YORK, East</u>									
Schenectady County Rotterdam	28	1148EST			0	0	10K		Hail (1.75)
Schenectady County Niskayuna	28	1159EST			0	0	5K		Hail (1.00)
Schenectady County Niskayuna	28	1202EST			0	0	7K		Hail (1.25)

Storm Data and Unusual Weather Phenomena

May 2001

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

NEW YORK, East

Albany County									
Colonie	28	1205EST			0	0			Hail (0.75)
Columbia County									
Stockport	28	1207EST			0	0	11K		Hail (1.75)
Saratoga County									
Rexford	28	1210EST			0	0	15K	100K	Thunderstorm Wind
Columbia County									
Stuyvesant	28	1212EST			0	0			Hail (0.75)
Saratoga County									
Mechanicville	28	1215EST 1300EST			0	0	5K		Flood
Saratoga County									
Mechanicville	28	1217EST			0	0	8K		Hail (1.25)
Saratoga County									
Clifton Park	28	1219EST			0	0		200K	Hail (0.75)
Saratoga County									
Clifton Park	28	1230EST			0	0	13K		Thunderstorm Wind
Saratoga County									
Stillwater	28	1230EST			0	0	9K		Thunderstorm Wind
Albany County									
Albany	28	1328EST			0	0		600K	Hail (0.88)
Albany County									
Albany	28	1331EST			0	0			Hail (0.75)
Rensselaer County									
Averill Park	28	1400EST			0	0			Hail (0.75)

A very strong upper level disturbance along with a surface occluded front, resulted in widespread showers and thunderstorms across eastern New York during the afternoon of Memorial Day. Unseasonably cold air aloft, allowed for the formation of hail with several of the storms. Hailstones, ranging from dime to golfball-size, were noted at many locations across Albany County as well as a few spots in southern Saratoga, eastern Schenectady and northern Columbia counties. A lone report of dime-size hail was reported from Averill Park in Rensselaer County. There was one severe thunderstorm that produced wind damage in Saratoga County. Power utility poles were blown down in Rexford. Power lines were brought down in both Clifton Park and Stillwater.

Hail from the thunderstorms produced significant damage in two apple orchards in Southern Saratoga County, one in Clifton Park, and the other in Rexford. Another apple orchard suffered widespread damage to 80 percent of its crop at Altamont, Albany County.

Torrential rains from the storms flooded Central Avenue in Mechanicville, resulting in the temporary closing of the road.

Storm Data and Unusual Weather Phenomena

June 2001

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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ADDITIONS/CORRECTIONS

ILLINOIS, Central

Crawford County

1 N Eaton

05	1500CST								
				0	0				Thunderstorm Wind (G50)

Large tree blown down over road.

Shelby County

Countywide

05	1500CST								
				0	0				Flash Flood

06 0400CST
Flooding was reported across the county during the period. The Little Wabash River went out of its banks, blocking several local roads east of Stewardson, as well as 3 miles southeast of Strasburg. Along US Highway 51, near Mowequa, water covered the road for several hours. A motorist drove into water up to his door handles. Illinois Route 128, west of Findlay was severely flooded during the overnight hours, and the highway was closed for part of Wednesday morning 6 miles north of Shelbyville at a railroad viaduct. In Shelbyville, basement flooding was reported along with the closure of Illinois Route 16 due to flood waters. A culvert was washed out on county road 1800 E, around 3 miles south of Shelbyville. County road 700 N, between Illinois Route 32 and Neoga were closed due to flooding as well. A Findlay observer reported over 3.5 inches of rain. A SWOP observer in Lakewood, reported flooding on county road 1300 E, two and a half miles south of county road 750 N as a result of a local creek going out of its banks. This same observer reported over an inch of rain falling in just 12 minutes. Rescue crews were called out twice during the event for motorists trapped in vehicles. No injuries were reported.

Jasper County

Countywide

05	1535CST								
				0	0				Flash Flood

2230CST
Illinois Route 49 from Hunt City to Yale was closed with 3 to 4 feet of water over the roadway. Numerous roads were flooded around the area, with some other closures. Reports of basement flooding were also received. Illinois Routes 49, 33, and 130, between Hidalgo and Newton, and the blacktop between Illinois Route 130 and Illinois Route 49 were reported flooded during the evening.

Cumberland County

4 NE Neoga

05	1545CST								
				0	0				Flash Flood

1830CST
Water was reported over the roadway at the intersection of US Route 45 and Illinois Route 121.

Clark County

Martinsville

05	1550CST								
				0	0				Flash Flood

1830CST
Water was reported over US Route 40, near Martinsville.

Crawford County

Countywide

05	1600CST								
				0	0				Flash Flood

1900CST
Numerous rural roads and highways were reported flooding during the event. Illinois Route 1, north of Trimble, Illinois Route 33 between Willow Hill and the Fairview Drive-in and Illinois Route 1A between Trimble and Robinson were all reported as flooded. Signs were put up in the area to warn motorists, but the roads were not closed. Water was reported over the Yale Spur in the Bellair area.

Effingham County

Countywide

05	1600CST								
				0	0				Flash Flood

1830CST
Water was reported over roads across the county. Moccasin Road, around Effingham, was under water. US Route 45 north of Effingham and US Route 40 between Montrose and Teutopolis were under water.

Clay County

Flora

05	1720CST								
				0	0				Flash Flood

1900CST
Street flooding was reported in Flora, as well as water over many rural roads near Hord.

Clay County

Flora

05	1721CST								
				0	0				Hail (0.75)

Marshall County

4 N Sparland

05	1730CST								
				0	0				Flash Flood

1900CST
Illinois Route 29, 4 miles north of Sparland, was closed when water was "radiator deep on a car".

Richland County

1 N Olney

05	1730CST								
				0	0				Flash Flood

1900CST
The Fox River went out of its banks during the event, roughly 1 mile north of Olney, resulting in water across portions of Illinois Route 130.

Scott County

Winchester

05	1829CST								
				0	0				Hail (0.75)

Storm Data and Unusual Weather Phenomena

June 2001

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

ADDITIONS/CORRECTIONS

ILLINOIS, Central

Scott County Countywide

05	1840CST				0	0			Flash Flood
06	1100CST								

A local creek that runs through Bluffs went over its banks. A few cars were reported to have been flooded. Illinois Route 100 as well as Naples Lane, west of Bluffs, were closed due to flooding. Numerous basements were flooded in the area of the creek, along with the local water and sewer plant receiving flooding. A portion of the Glasgow blacktop and Illinois Route 267 at Manchester were closed for a period of time due to Sandy Creek exceeding its levee. A housing complex in the county (location unknown) reported having 12 cars in its parking lot flooded. Illinois Route 106, just south of Winchester, was reported to have 8 to 12 inches of water over the roadway.

Morgan County Countywide

06	0000CST				0	0			Flash Flood
	0900CST								

Water was reported over many roads in Waverly. Flooding was also occurring in and around Jacksonville, including US Route 67, south of Jacksonville. Mauvaiseterre Creek, east of Jacksonville, went over its banks, resulting in the closure of a few local roads. Water was also reported over Illinois Route 104, near Pisgah and Illinois Route 267, near Murrayville.

Tazewell County Pekin

06	0158CST				0	0			Flash Flood
	0400CST								

Pekin reported several roads/bridges that crossed a local drainage ditch closed due to flooding. A few adjacent city roads were also closed due to high water.

Cass County Ashland

06	0300CST				0	0			Flash Flood
	0430CST								

Flooding was reported in Ashland as a result of a tributary creek of the Little Indian Creek going over its banks due to heavy rain. Numerous roads were reported closed in town, with some basement flooding noted. Illinois Route 125 was open to traffic. No evacuations were needed.

Christian County Countywide

06	0330CST				0	0			Flash Flood
	0700CST								

Flooding was reported on most of the roads across the county. Road closures were reported on County Road 4, two miles west of Mowequa (near the Christian/Shelbyville county line) and County Road 23 two miles north of Edinberg. Langleyville Road and Jim Daley Road were also closed during the overnight hours. A motorist was rescued around 515 AM CDT after driving through flood waters up to the floorboard of the vehicle.

Macon County Countywide

06	0400CST				0	0			Flash Flood
	0700CST								

Reports of water over many county roads were received. Flooding was reported in Boody on Illinois Route 48, between Harvey City and Dalton City on County Highway 49 and on Illinois Route 121. More than a dozen basements were also flooded in Decatur.

Sangamon County Divernon

06	0540CST				0	0	500K		Flash Flood
	1100CST								

Brush Creek, which flows along the west side of Divernon, went out of its banks, resulting in widespread flooding and nearly 30 homes being evacuated around 2 AM CDT. Several people had to be rescued from their homes as the flood waters quickly filled in the natural flood plain of the creek, flooding numerous basements on the east side of town and entire homes on the west side of town, where water was reported to be as high as windows in a few locations. Railroad tracks in the area were washed out. No injuries or fatalities were reported. North and southbound Interstate 55 were closed for several hours south of the Illinois Route 104 junction, near Divernon, as a result of 18 to 24 inches of water over the highway. By 830 AM CDT, no additional flooding was reported. However, flood waters persisted in and around Divernon through 11 AM CDT. Flooding was also reported in Pawnee. Damage was estimated around \$500,000.

KENTUCKY, Eastern

Pulaski County Somerset

04	1650EST				0	0	0	0	Flash Flood
	2030EST								

Water was flowing over several roads in the area.

MASSACHUSETTS, West

Berkshire County Lee

30	1529EST				0	0			Hail (0.75)
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Storm Data and Unusual Weather Phenomena

June 2001

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

MASSACHUSETTS, West

Berkshire County									
West Becket	30	1538EST			0	0			Hail (0.88)
Berkshire County									
Sheffield	30	1821EST			0	0	27K		Thunderstorm Wind
Berkshire County									
North Adams	30	1833EST			0	0			Hail (0.75)
Berkshire County									
Lanesborough	30	1844EST			0	0	15K		Thunderstorm Wind
Berkshire County									
Lenox	30	1856EST			0	0	17K		Thunderstorm Wind
Berkshire County									
Pittsfield	30	1856EST			0	0	12K		Thunderstorm Wind

A weak trough rippling through a very unstable air mass, touched off a round of thunderstorms in Berkshire County during the afternoon of June 30. Some of the storms became strong to locally severe. Dime-size hail was reported at North Adams and Lee, while nickel-size hail fell at West Becket. Thunderstorm winds brought trees down in Sheffield, Lanesborough, Pittsfield and Lenox.

NEW YORK, East

Ulster County									
Kingston	03	0755EST			0	0	15K		Hail (1.75)
Ulster County									
Kingston	03	0810EST			0	0	13K		Lightning
Dutchess County									
Tivoli	03	0813EST			0	0	2K	500K	Hail (1.00)
Dutchess County									
Tivoli	03	0813EST			0	0	8K		Thunderstorm Wind
Ulster County									
Glenerie Falls	03	0813EST			0	0	5K		Hail (1.75)
Columbia County									
Clermont	03	0830EST			0	0	100K		Thunderstorm Wind
Rensselaer County									
Schodack Center	03	0843EST			0	0	3K		Thunderstorm Wind
NYZ061									
Eastern Columbia	03	0900EST 1100EST			0	0	10K		Flood
Rensselaer County									
Sand Lake	03	0900EST			0	0	17K		Thunderstorm Wind
Warren County									
Glens Falls	03	0919EST			0	0	20K		Lightning
Washington County									
Greenwich	03	0920EST			0	0	11K		Thunderstorm Wind

A strong upper level disturbance and a surface front, combined to produce numerous thunderstorms across eastern New York during the morning hours of June 3. A few of thunderstorms became severe as they worked across the Mid Hudson Valley and east into the Taconics. Golf ball size hail was reported in Kingston, Ulster County, producing damage to numerous cars. Golf ball size hail was also reported at Glenerie Falls in Columbia County. Thunderstorm winds brought trees down in Tivoli, Dutchess County.

A microburst in Clermont, Columbia County, with winds estimated to be between 60 and 70 mph, destroyed a 4,200 square-foot-shed and ripped two roofs off barns of a farm. Storms produced scattered downed trees between Schodack and Sand Lake in Rensselaer County. There were also scattered reports of downed trees in Southern Washington County around Greenwich.

Pea-sized hail produced damage to at least four fruit farms in northwestern Dutchess County, specifically in the Tivoli - Red Hook area. The storms also temporarily knocked out power to around 2,400 customers in the Mid Hudson Valley, with most of them located in northern Dutchess and southeastern Ulster counties.

Lightning from the storms set an apartment roof on fire in Kingston. Damage from the fire was limited to the roof and a hallway of the building. Lightning also brought down a high voltage wire onto the Adirondack Northway near Exit 20 in the town of Queensbury, Warren County. This downed wire caused a trench to be burnt into the road which resulted in the highway completely closing for a couple of hours between exit 19 and exit 20. 300 more customers lost power for a while in the Queensbury, Glens Falls area.

Heavy rains from the thunderstorms caused the Green River to reach or slightly exceed bankful. One resident had to evacuate his home. Some flooding was also reported on Tory Hill and Old Town roads in Hillsdale.

Storm Data and Unusual Weather Phenomena

June 2001

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

ADDITIONS/CORRECTIONS

VERMONT, South

Windham County

Athens

20	1610EST				0	0			Hail (1.00)
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Windham County

Grafton

20	1630EST				0	0			Hail (0.88)
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A cold front, pressing into a very unstable warm humid airmass, produced scattered severe thunderstorms across Windham County Vermont on the afternoon of June 20. A thunderstorm cell dropped quarter size hail (1.00 inch) at Athens while another dropped nickel size (0.88 inch) hail on Grafton.

Reference Notes:

Fatality Location Abbreviations:

BF	Ball Field	MH	Mobile Home
BO	Boating	OT	Other
BU	Business	OU	Outside/Open Areas
CA	Camping	PH	Permanent Home
EQ	Heavy Equipment/Construction	SC	School
GF	Golfing	TE	Telephone
IW	In Water	UT	Under Tree
LS	Long Span Roof	VE	Vehicle

List of Acronyms:

WCM	- Warning Coordination Meteorologist
NWS	- National Weather Service
NOAA	- National Oceanic and Atmospheric Administration
DST	- Daylight Savings Time
LST	- Local Standard Time
LDT	- Local Daylight Time

Other Notes:

When listing wind speed values under “Character of Storm”, ex. High Wind (G81), the “G” indicates a “Gust” which is a peak 5-second averaged wind speed in Knots (kts). 1 kt. = 1.152 mph.

When listing hail size under “Character of Storm”, ex. Hail (2.25), the hail size is given in inches and hundredths of inches.

When listing property and crop damage, the figures indicated are the best guess made by the NWS from the available sources of information at the time of the printing.

The Saffir-Simpson Scale

Category One Hurricane:

Winds 74-95 mph (64-82 kt or 119-153 kph). Storm surge generally 4-5 ft above normal. No real damage to building structures. Damage primarily to unanchored mobile homes, shrubbery, and trees. Some damage to poorly constructed signs. Also, some coastal road flooding and minor pier damage.

Category Two Hurricane:

Winds 96-110 mph (83-95 kt or 154-177 kph). Storm surge generally 6-8 feet above normal. Some roofing material, door, and window damage of buildings. Considerable damage to shrubbery and trees with some trees blown down. Considerable damage to mobile homes, poorly constructed signs, and piers. Coastal and low-lying escape routes flood 2-4 hours before arrival of the hurricane center. Small craft in unprotected anchorages break moorings.

Category Three Hurricane:

Winds 111-130 mph (96-113 kt or 178-209 kph). Storm surge generally 9-12 ft above normal. Some structural damage to small residences and utility buildings with a minor amount of curtainwall failures. Damage to shrubbery and trees with foliage blown off trees and large trees blown down. Mobile homes and poorly constructed signs are destroyed. Low-lying escape routes are cut by rising water 3-5 hours before arrival of the hurricane center. Flooding near the coast destroys smaller structures with larger structures damaged by battering of floating debris. Terrain continuously lower than 5 ft above mean sea level may be flooded inland 8 miles (13 km) or more. Evacuation of low-lying residences with several blocks of the shoreline may be required.

Category Four Hurricane:

Winds 131-155 mph (114-135 kt or 210-249 kph). Storm surge generally 13-18 ft above normal. More extensive curtainwall failures with some complete roof structure failures on small residences. Shrubs, trees, and all signs are blown down. Complete destruction of mobile homes. Extensive damage to doors and windows. Low-lying escape routes may be cut by rising water 3-5 hours before arrival of the hurricane center. Major damage to lower floors of structures near the shore. Terrain lower than 10 ft above sea level may be flooded requiring massive evacuation of residential areas as far inland as 6 miles (10 km).

Category Five Hurricane:

Winds greater than 155 mph (135 kt or 249 kph). Storm surge generally greater than 18 ft above normal. Complete roof failure on many residences and industrial buildings. Some complete building failures with small utility buildings blown over or away. All shrubs, trees, and signs blown down. Complete destruction of mobile homes. Severe and extensive window and door damage. Low-lying escape routes are cut by rising water 3-5 hours before arrival of the hurricane center. Major damage to lower floors of all structures located less than 15 ft above sea level and within 500 yards of the shoreline. Massive evacuation of residential areas on low ground within 5-10 miles (8-16 km) of the shoreline may be required.

The Fujita Scale

F-Scale	Intensity	Wind Speed (mph)	Typical Damage
F0	Gale Tornado	40 - 72	Some damage to chimneys; breaks branches off trees; pushes over shallow-rooted trees; damages sign boards.
F1	Moderate	73 - 112	The lower limit is the beginning of hurricane wind speed; peels surface off roofs; mobile homes pushed off foundations or overturned; moving autos pushed off the roads; attached garages may be destroyed.
F2	Significant	113 - 157	Considerable damage. Roofs torn off frame houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light object missiles generated.
F3	Severe	158 - 206	Roof and some walls torn off well constructed houses; trains overturned; most trees in fores uprooted
F4	Devastating	207 - 260	Well-constructed houses leveled; structures with weak foundations blown off some distance; cars thrown and large missiles generated.
F5	Incredible	261 - 318	Strong frame houses lifted off foundations and carried considerable distances to disintegrate; automobile sized missiles fly through the air in excess of 100 meters; trees debarked; steel re-inforced concrete structures badly damaged.
F6	Inconceivable	319 - 379	These winds are very unlikely. The small area of damage they might produce would probably not be recognizable along with the mess produced by F4 and F5 wind that would surround the F6 winds.

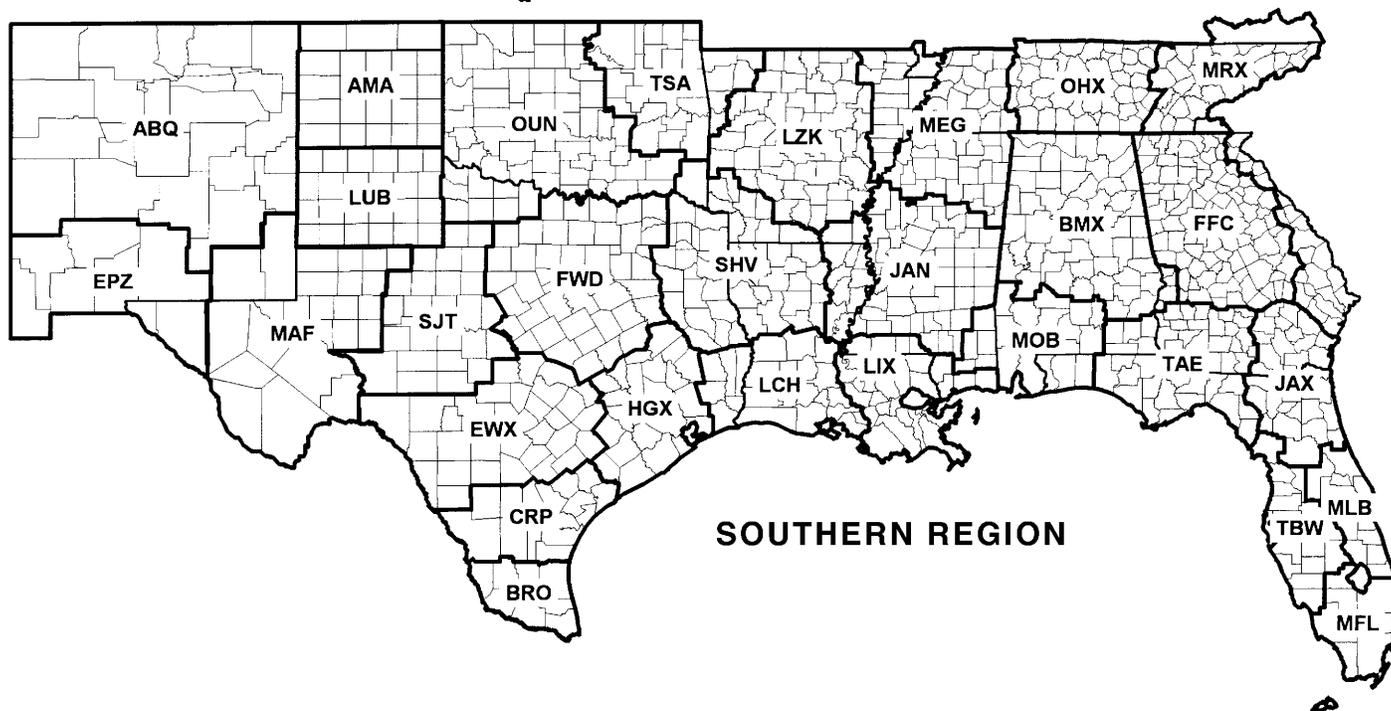


* From the Journal of Atmospheric Science, August 1981, p. 1517-1519

COUNTY WARNING & FORECAST AREAS - MODERNIZED NWS

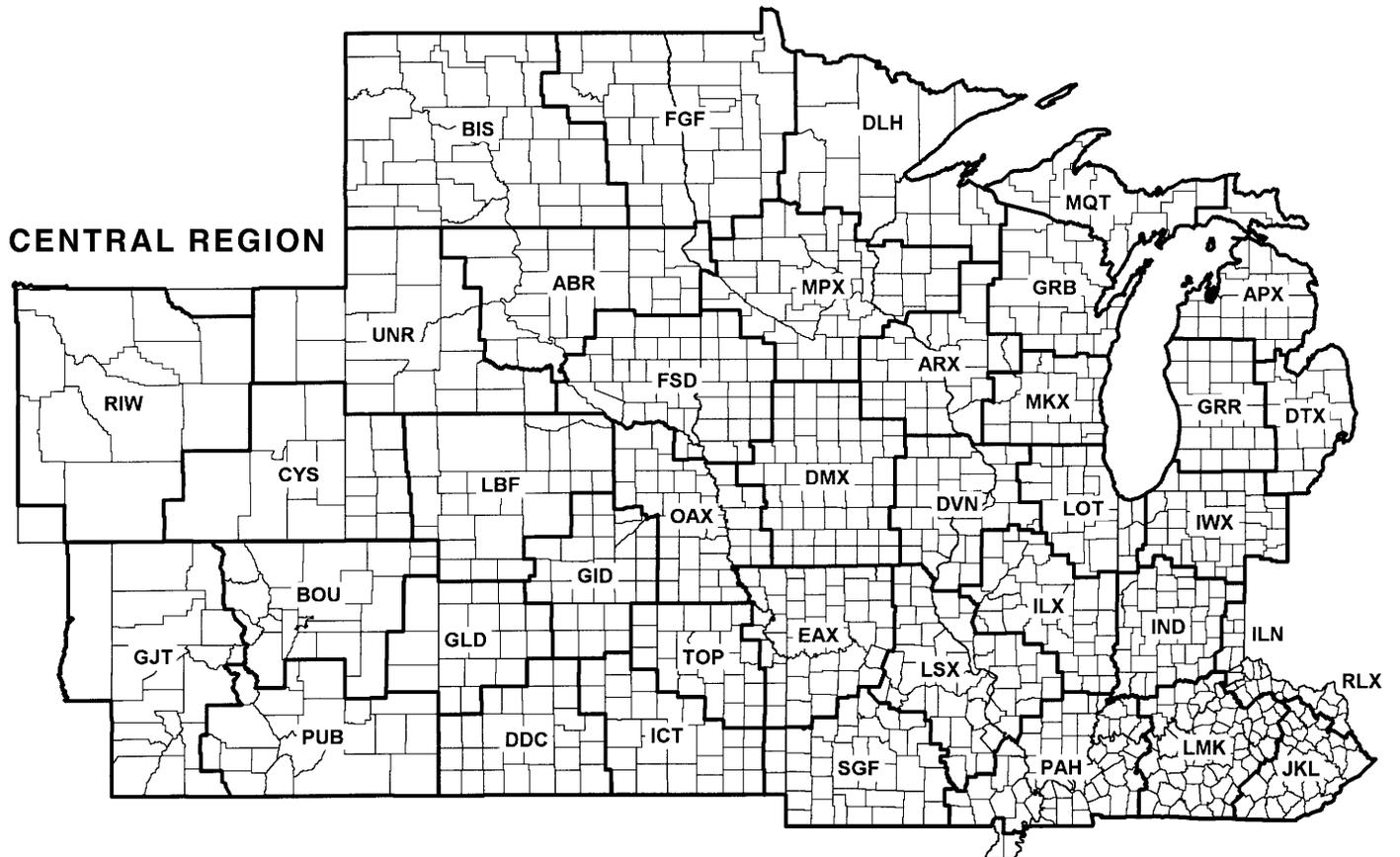
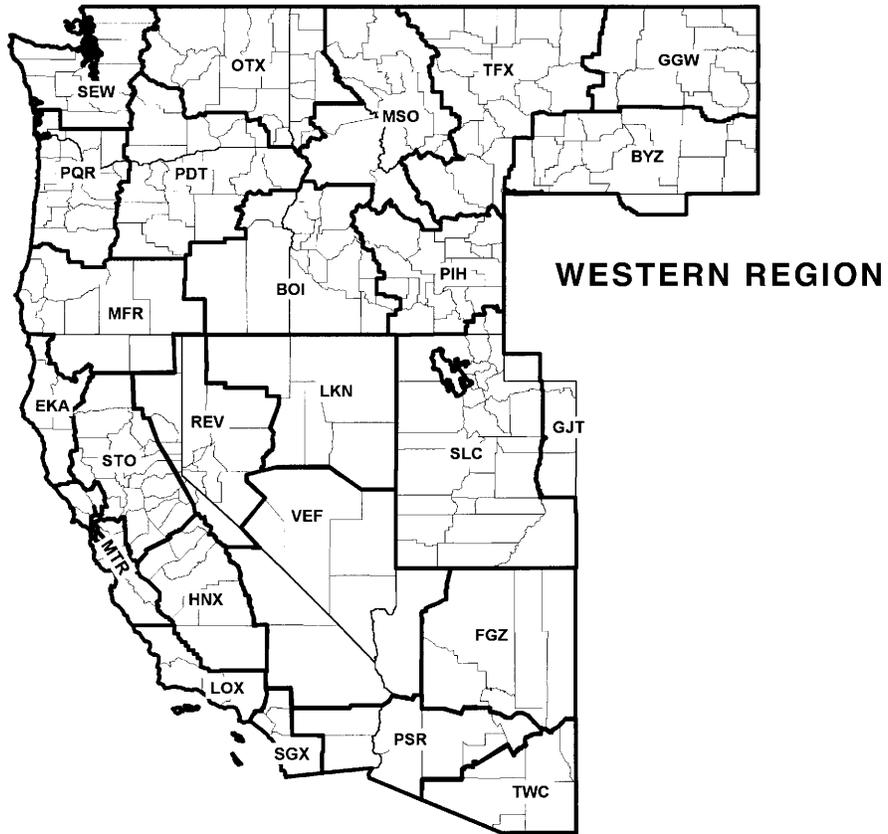


EASTERN REGION

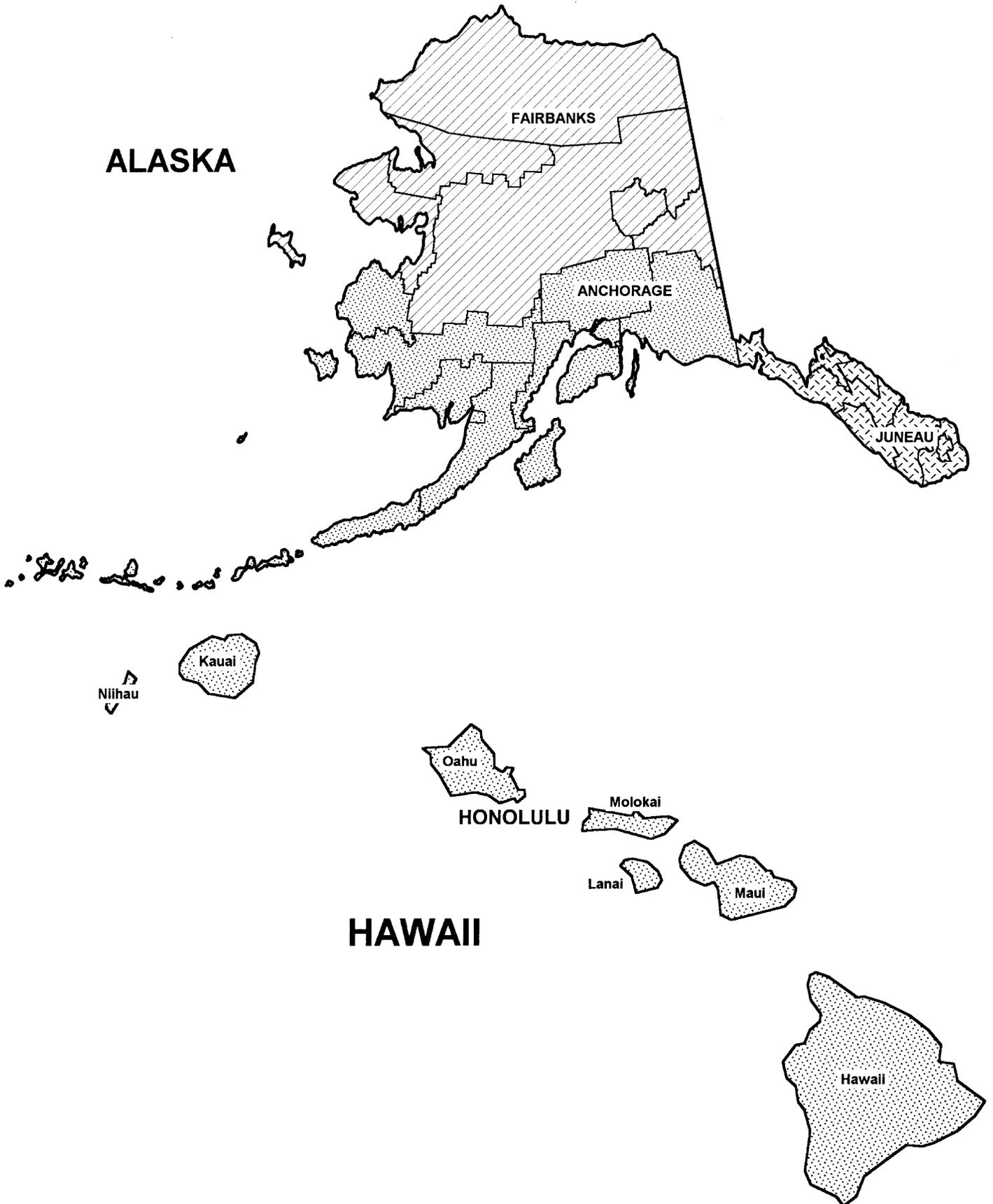


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COUNTY WARNING & FORECAST AREAS - MODERNIZED NWS



MODERNIZED COUNTY WARNING AREAS



These and other publications are available from the National Climatic Data Center

Hourly Precipitation Data

This publication contains hourly precipitation amounts obtained from recording rain gages located at National Weather Service, Federal Aviation Administration, and cooperative observer stations. Published data are displayed in inches and tenths or inches and hundredths at local standard time. **HPD** includes maximum precipitation for nine (9) time periods from 15 minutes to 24 hours, for selected stations.

Climatological Data

Monthly editions contain station daily maximum and minimum temperatures and precipitation. Some stations provide daily snowfall, snow depth, evaporation, and soil temperature data. Each edition also contains monthly summaries for heating and cooling degree days (65 degree F base). The July issue contains a recap of monthly heating degree days and snow data for the preceding July through June.

The Annual issue contains monthly and annual averages of temperature, precipitation, temperature extremes, freeze data, soil temperatures, evaporation, and a recap of monthly cooling degree days.

Storm Data

Monthly issues contain a chronological listing, by states, of occurrences of storms and unusual weather phenomena. Reports contain information on storm paths, deaths, injuries, and property damage. An "Outstanding storms of the month" section highlights severe weather events with photographs, illustrations, and narratives. The December issue includes annual tornado, lightning, flash flood, and tropical cyclone summaries.

Monthly Climatic Data for the World

This publication contains monthly means for temperature, pressure, precipitation, vapor pressure, and sunshine for approximately 2,000 surface data collection stations worldwide and monthly mean upper air temperatures, dew point depressions, and wind velocities for approximately 500 observing sites.

Local Climatological Data

LCD publications summarize temperature, relative humidity, precipitation, cloudiness, wind speed and direction observations for several hundred cities in the U.S. and its territories. Each monthly publication also contains the 3 hourly weather observations for that month and an hourly summary of precipitation. Annual **LCD** publications contain a summary of the past calendar year as well as historical averages and extremes.

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