

STORM DATA

WITH LATE REPORTS/CORRECTIONS



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C O N T E N T S

Cover: A busy thoroughfare in Rock Springs, Wyoming becomes a momentary river as water from a flash flood on the nearby Dead Horse Canyon Creek surges through the city's downtown during the supper hour on July 12th. The flood, resulting from a thunderstorm that dropped heavy rain mainly to the south (upstream) of Rock Springs, caused extensive damage to homes, businesses and vehicles that was estimated to exceed 1.5 million dollars in value (see pages 12 and 13). ---Photo from the Daily Rocket-Miner, Rock Springs, Wyoming; and supplied through the NWSFO at Cheyenne, Wyoming. Page

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STORM DATA (ISSN 0039-1972)

The section on Outstanding Storms of the Month is prepared by Professor T. Theodore Fujita, editor, and Duane J. Stiegler, associate editor, the University of Chicago, with funding by the U. S. Office of Naval Research. The Storm Data and Unusual Weather Phenomena narratives, and summaries of Hurricanes/Tropical Storms are prepared by the National Weather Service. The National Climatic Data Center compiles statistics on deaths, injuries, damage and prepares the annual summaries of tornadoes and lightning. This publication contains our best information on storms, but due to the difficulties inherent in collection of this type of data it is not all-inclusive. Late reports and corrections will be carried quarterly. Maps of zones used in the Storm Data and Unusual Weather Phenomena will be published in all editions.

Storm Data is published monthly by the National Climatic Data Center.

Publication Staff

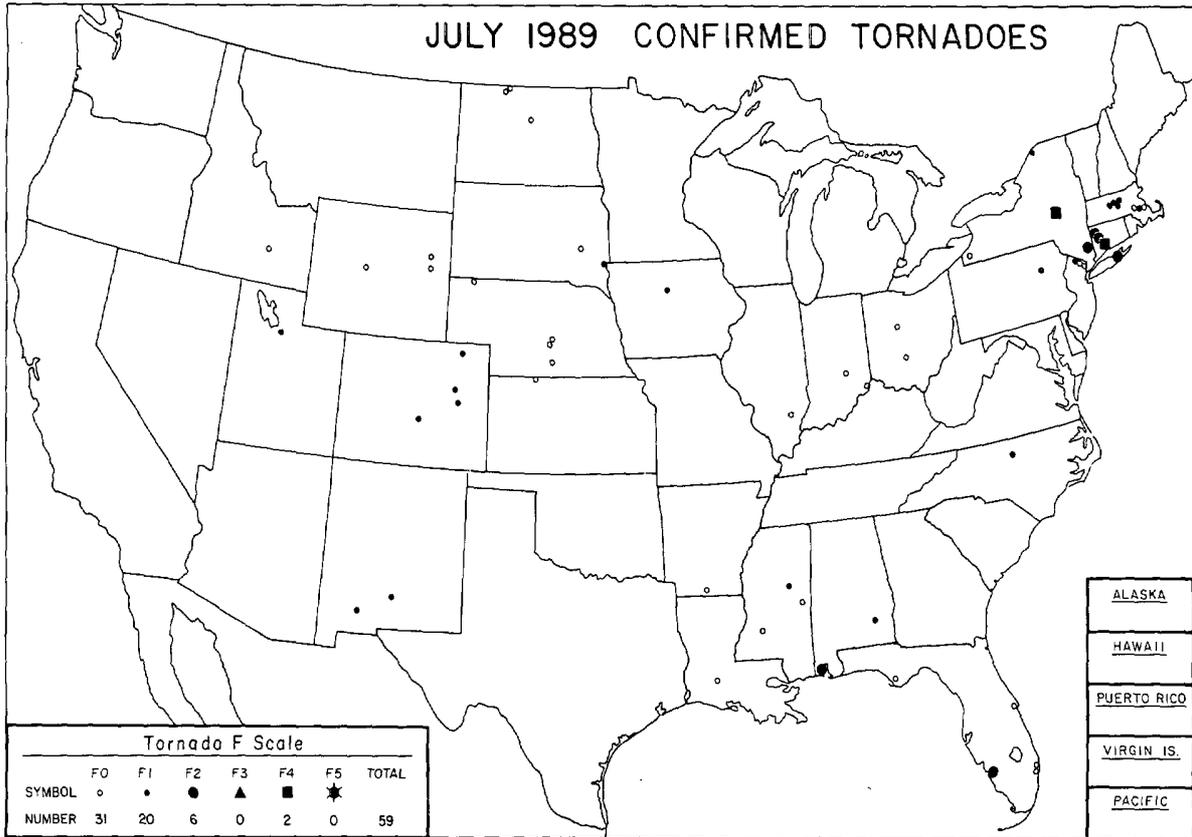
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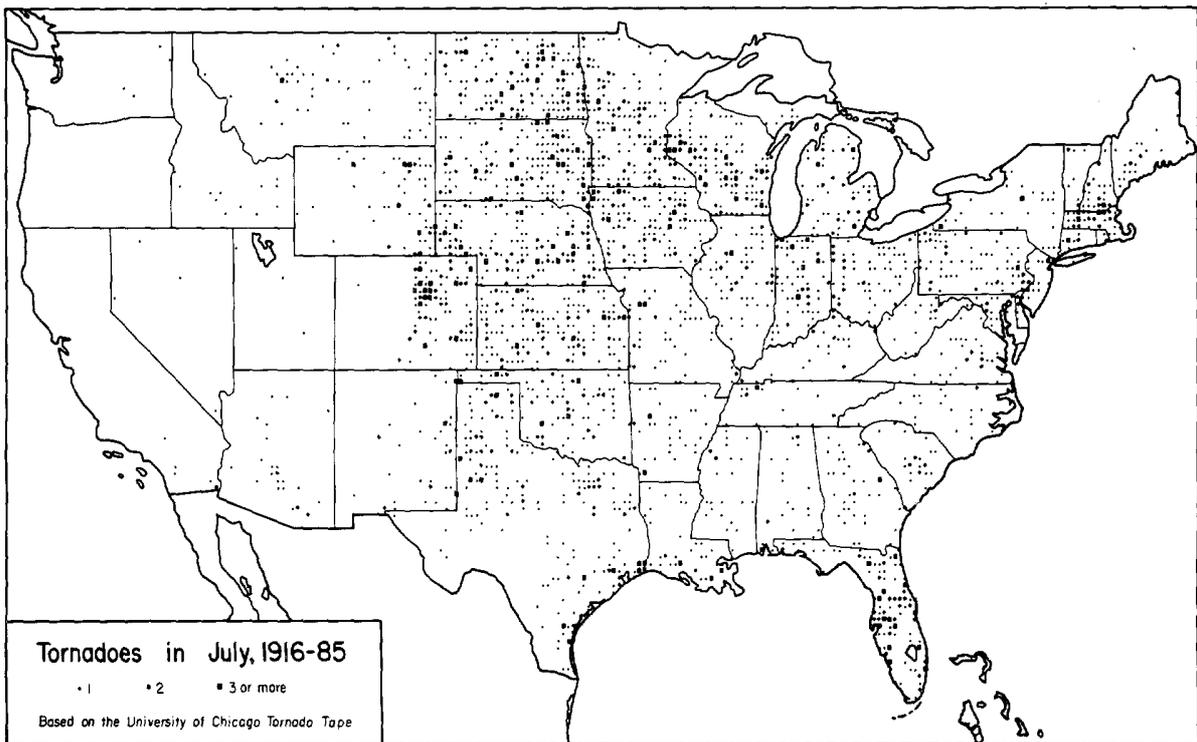
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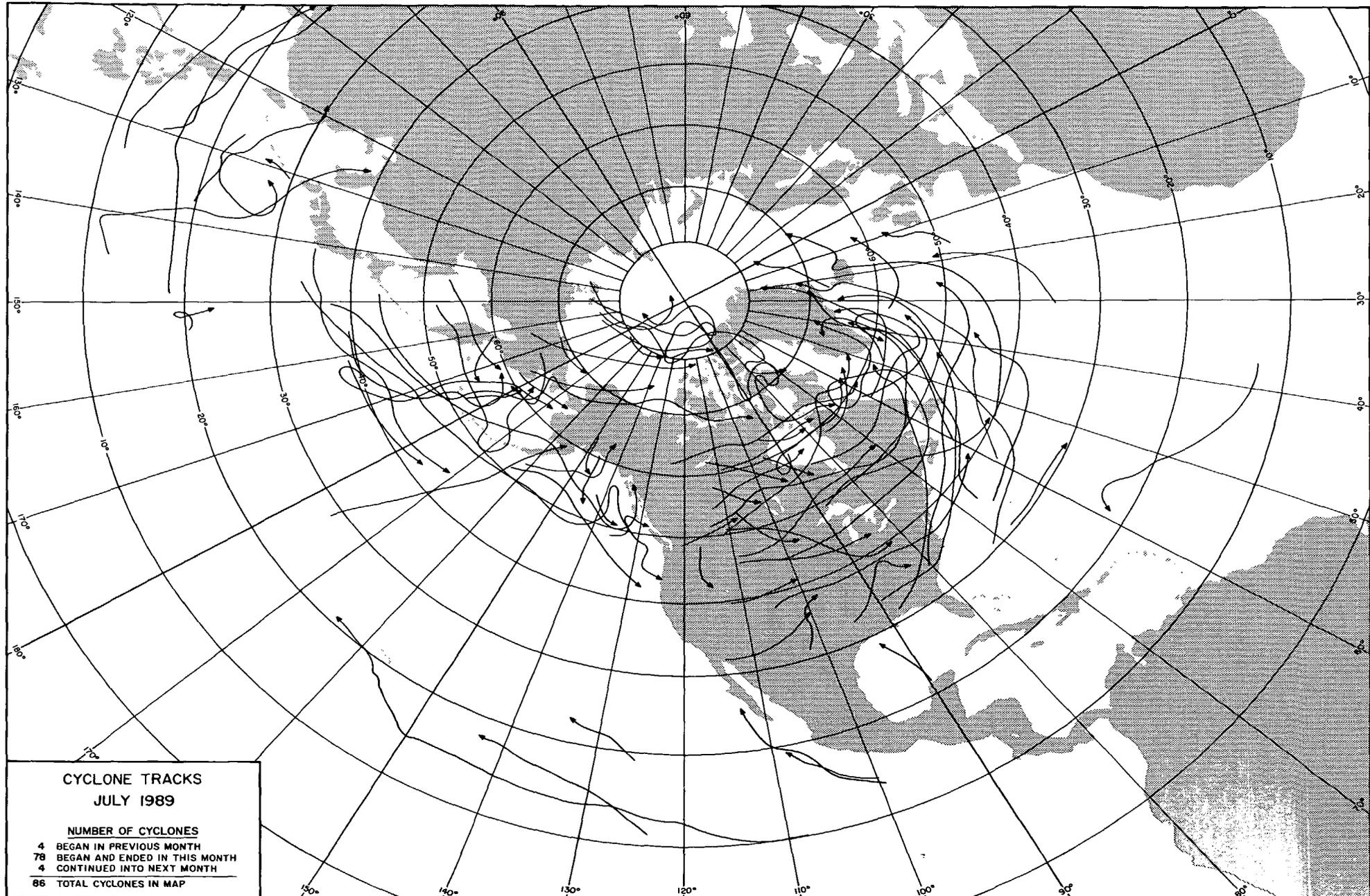
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OUTSTANDING STORMS OF THE MONTH



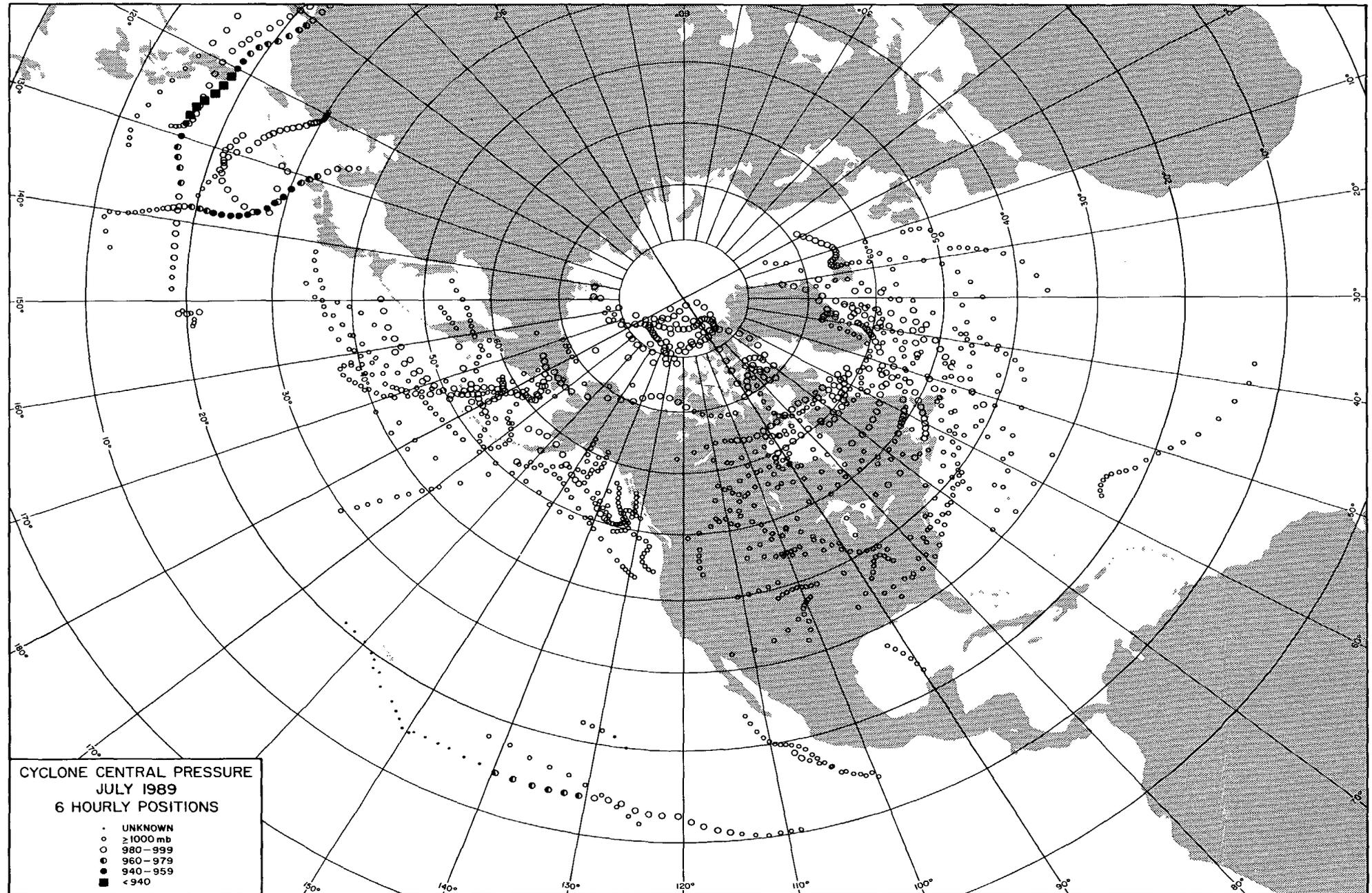
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(S) southern (C) central	● 4CA(S)	● 11IL	● 18MD	● 25NE	● 30NY(W)	● 36PA(W)	● 41TX(W)	● 48WV	● 53PC
(E) eastern (O) coastal	● 5CO	● 12IN	● 19MA	● 26NV	● 31NC	● 37RI	● 42UT	○ 49AK(N)	
(SE) southeastern	● 6CT	● 13IA	● 20MI	● 27NH	● 32ND	● 38SC	● 43VT	● 49AK(S)	





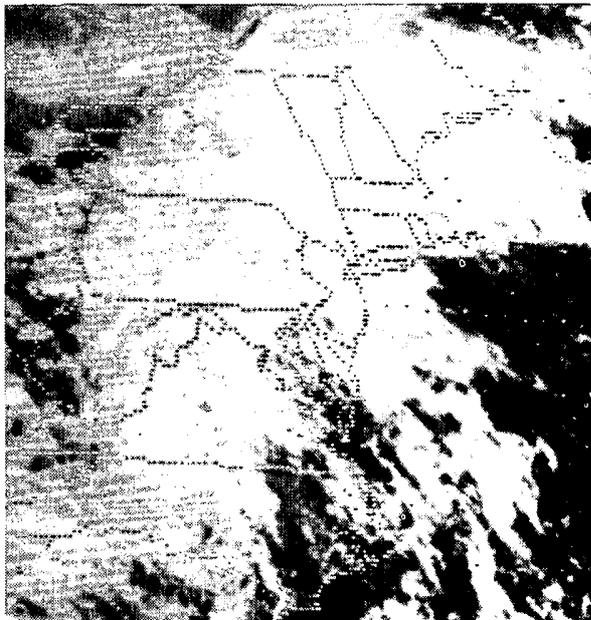
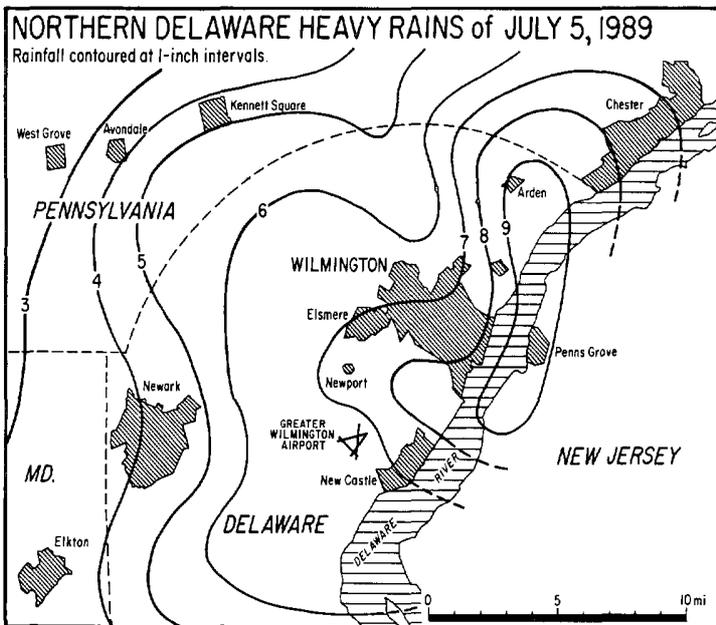
CYCLONE TRACKS
JULY 1989

NUMBER OF CYCLONES
4 BEGAN IN PREVIOUS MONTH
78 BEGAN AND ENDED IN THIS MONTH
4 CONTINUED INTO NEXT MONTH
86 TOTAL CYCLONES IN MAP



1. HEAVY RAIN and FLASH FLOODING in the WILMINGTON, DELAWARE AREA on July 5, 1989

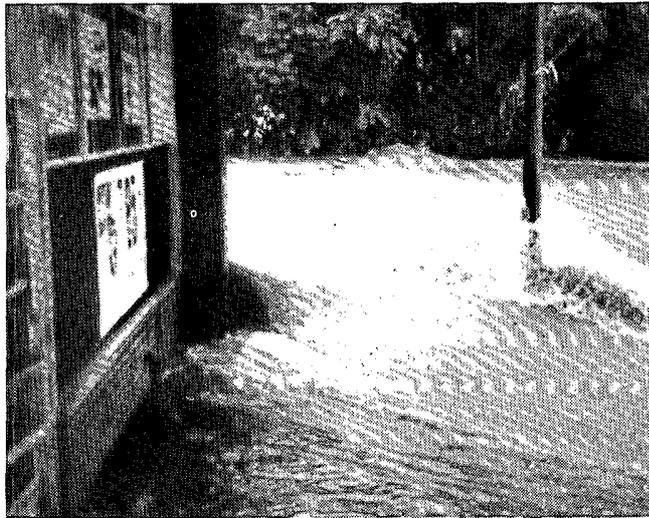
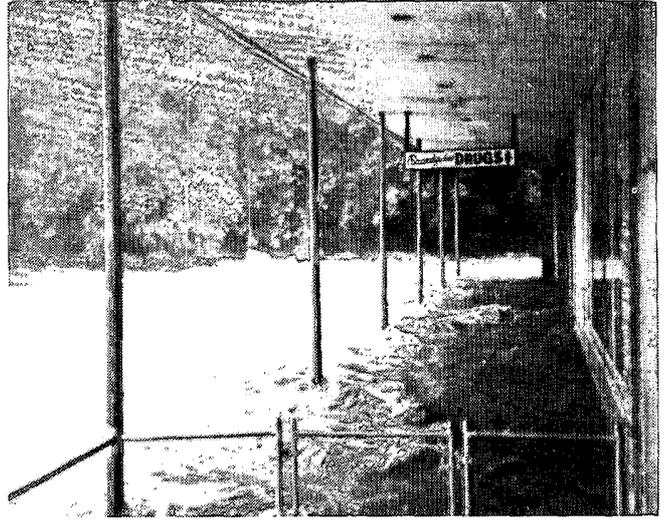
On July 5th, remnant moisture from Tropical Storm ALLISON passed through the East-Central U.S. and triggered thunderstorms that dumped very heavy rain. The rain resulted in flash flooding that broke out across much of northern Delaware, southern New Jersey, southeast Pennsylvania and portions of Maryland bordering Chesapeake Bay. Some of the largest rain amounts occurred in the Wilmington area of northern Delaware, where three fatalities resulted from the deluge. The heaviest rains fell during the morning hours of the 5th, as the storms sat nearly stationary over the Wilmington area. Rainfall amounts were generally in the range of 5 to 7 inches across northern Delaware, but up to 10 inches was reported from the Claymont area just northeast of Wilmington. At Wilmington Airport, a record-breaking 6.83 inches of rain was recorded over a 24 hour period, 6.37 inches of it having fallen in just six hours between 0400 and 1000 EST. The event was a large contributor to northern Delaware getting its wettest month in 70 years, as the Wilmington WSO recorded 12.63 inches of rain during July 1989. As much as 14.86 inches fell at the Porter Reservoir in North Wilmington.



LEFT: An isohyec analysis of 24-hour rainfall over northern Delaware and adjoining areas on July 5, 1989. ---Mapping by the USGS Delaware Geological Survey at the University of Delaware, Newark. RIGHT: The bright white anvil cloud emanating from the rain-producing thunderstorm over northern Delaware can be seen spread over most of New Jersey in this GOES 7 satellite, visible image taken at 0830 EST on the morning of July 5th. As can be seen, the cell was part of a large area of moisture remnant of Tropical Storm ALLISON that was passing through the Northeast U.S. ---Photo from NESDIS, Washington, DC.



Rising waters from the Shellpot Creek in northeast Wilmington sweep away vehicles from an adjacent shopping center parking lot. ---Photo by D.C. Quinn.



The four photos above are additional views of the flooding at the shopping center along Shellpot Creek in north-east Wilmington. In addition to sweeping away vehicles from the parking lot, the churning waters lapped away at and penetrated store fronts and carried off large sections of the lot's asphalt pavement as well. ---All four photos by D.C. Quinn.



A concrete arch bridge along State Route 7 in Stanton, about 5 miles west of Wilmington, is breached by the floodwaters of White Clay Creek. Note that as a result, debris accumulated against the bridge. ---Photo from the U.S. Geological Survey.



In another scene along Route 7 in Stanton, the floodwaters of White Clay Creek engulf several businesses and nearly submerge a vehicle visible behind the stop sign located at left center in the photo. ---Photo from the U.S. Geological Survey.



The extent of the erosion incurred by the parking lot at the shopping center in northeast Wilmington (shown in previous photos) is revealed in this photo taken after the floodwaters of Shellpot Creek had receded. The removal and transport of such large pieces of asphalt give testament to the force that fast-flowing water can impart. ---Photo by D.C. Quinn.

Effects from the July 5th flooding included the halting of Amtrak trains due to a track washout, the evacuation of 600 people from their apartments in Elsmere when floodwaters filled 39 basement apartments, and the sweeping away of several vehicles and much of a supermarket parking lot along Shellpot Creek in northeast Wilmington. The Christiana River reached a crest of 13.1 feet, 4.1 feet above flood stage and 10 feet above normal, the highest level ever recorded. Total damages for northern Delaware alone were estimated at 5 million dollars. The three fatalities include a 9 year old boy who slipped into a raging creek, a 21 year old male who drowned while riding an inner tube in similarly raging waters, and a 35 year old man who died in his vehicle during a bridge failure.



A trail of debris including a small pickup truck lines an embankment along Market Street in Wilmington where the street crosses over Shellpot Creek. Large sections of curbing and the formerly adjacent sidewalk slid down the slope and damage was done to the bridge as well. ---Photo by D.C. Quinn.

---All damage photos above and on pages 6 through 8 are courtesy of the U.S. Geological Survey and are provided through Rich Hitchens, NWSO at Wilmington, Delaware.

2. TORNADO at HAMDEN-NEW HAVEN, CONNECTICUT on July 10, 1989

Severe thunderstorms passing through the Northeast U.S. on July 10th spawned 17 tornadoes including two of F4 intensity which is rare for the region. One of the F4's struck the heavily populated area of Hamden and New Haven, Connecticut. It was the third of three tornadoes produced in the western half of the state by a single thunderstorm as it moved south-southeast. The tornado destroyed about 350 homes and over 40 businesses. The



LEFT: A Hamden home that was toppled by the tornado onto a vehicle parked in the adjacent driveway. RIGHT: The front view of a townhouse complex along Newhall Street in Hamden. ---Both photos by Christopher Cappella of East Haven, Connecticut.

most significant damage was along a half mile segment of the path in Hamden. Damage in Hamden alone was estimated at 100 million dollars, while the North Haven-New Haven area had about 20 million dollars in damage. No deaths resulted from the tornado, but 40 persons were injured. A previous tornado in the Watertown-Waterbury area injured 70 persons.

Of the 17 tornadoes occurring in the region on July 10th, 2 were F4 in intensity, there were no F3's, 4 were F2, 7 were F1 and 4 were F0. By state, Connecticut had 3, Massachusetts 7, New Jersey 3 and New York 4 (see map on page 3).



A side view along the entire townhouse complex on Newhall Street in Hamden.



All but a few remaining walls of this Hamden home were torn away by the tornado.

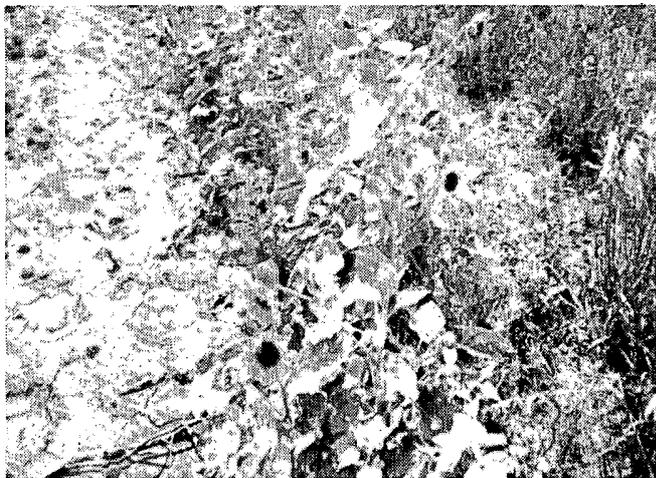
---Both above photos are by Christopher Cappella of East Haven, Connecticut.

3. DROUGHT in NORTH DAKOTA during July, 1989

The hot, dry weather experienced across North Dakota during July 1989 quickly made it apparent to area farmers that they were in for a second disastrous growing season in a row, as almost nationwide drought conditions which began in the Spring of 1988 but which had since been alleviated elsewhere, continued over the state into a second year. The rainfall over the state during the 1989 growing season, generally 70% of normal, was insufficient to make up for already persisting soil moisture deficiencies. By July, topsoil moisture was still deficient over 92% of the state while subsoil moisture was deficient over 63% of the state, and July's hot temperatures only put further stress on already struggling crops. Statewide, agricultural losses were estimated to be about 700 million dollars. The drought also caused shortages in water supplies and necessitated the implementation of user restrictions.



Sparse and stunted crops give a field in the Bismarck area a patchwork appearance. Normally these crops would be approaching maturity by late July when this photo was taken.



As the angle of view tells, these sunflowers, normally taller than most humans by late July, are severely stunted as they eke out a meager existence in the parched, cracking soil of a field near Bismarck.

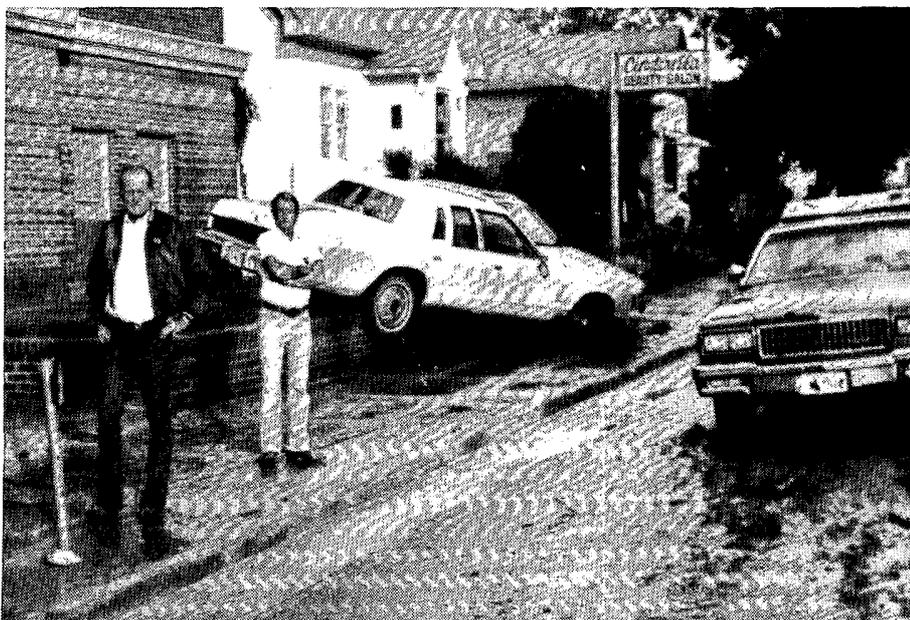


Cattle graze almost barren North Dakota rangeland that has little to offer in the way of nourishment.

---All above photos are by Richard May, NWSFO at Bismarck, North Dakota.

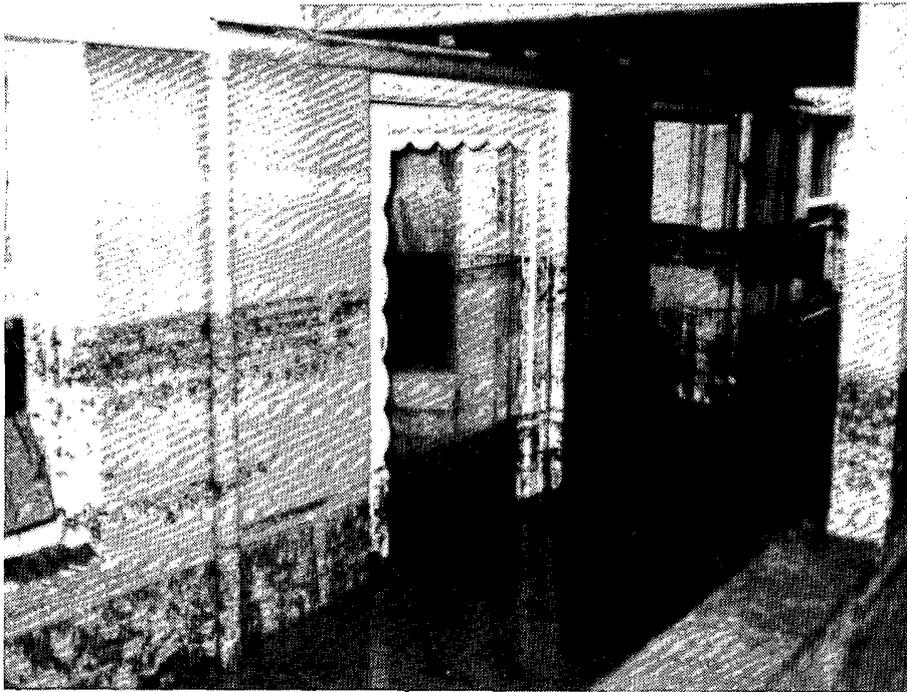
4. FLASH FLOOD at ROCK SPRINGS, WYOMING on July 12, 1989

A slow-moving thunderstorm with torrential rains struck the Rock Springs, Wyoming area during the late afternoon and early evening of July 12th. The heaviest precipitation, accompanied by three-quarter inch diameter hail that piled to a depth of 1.5 feet, fell during an hour-long period over areas south of the town, and as a result of Rock Springs being lower in elevation than that area, a wall of water and mud up to 3 feet deep surged northward on Dead Horse Canyon Creek and into the southern part of the town between 1700 and 1830 MST. The water and mud inundated downtown Rock Springs quickly, causing catastrophic damage to homes, businesses and vehicles. City and county officials estimated that losses due to damage would be more than 1.5 million dollars, not including costs associated with automobile damage. One death was related to the flood event when wind and floodwater caused a stationary railcar on a siding to lean over into the path of the mainline track. A 34 year old conductor on an approaching train was killed when the train's engine struck the railcar. A brakeman on the train was injured.



ABOVE: A sudden gush of water sweeps down a busy thoroughfare and past the offices of Mountain Bell in downtown Rock Springs during the supper hour on July 12th. Vehicles and other loose items such as garbage cans were carried away by the swift-flowing waters. ---Photo from the Daily Rocket-Miner, Rock Springs, Wyoming.

A car hangs over an embankment after the floodwaters had receded. ---Photo courtesy of Judy Valentine, Sweetwater County Emergency Management Agency, Wyoming.



A mudline marks the height to which floodwater had risen in this Rock Springs basement. ---Photo courtesy of Judy Valentine, Sweetwater County Emergency Management Agency, Wyoming.

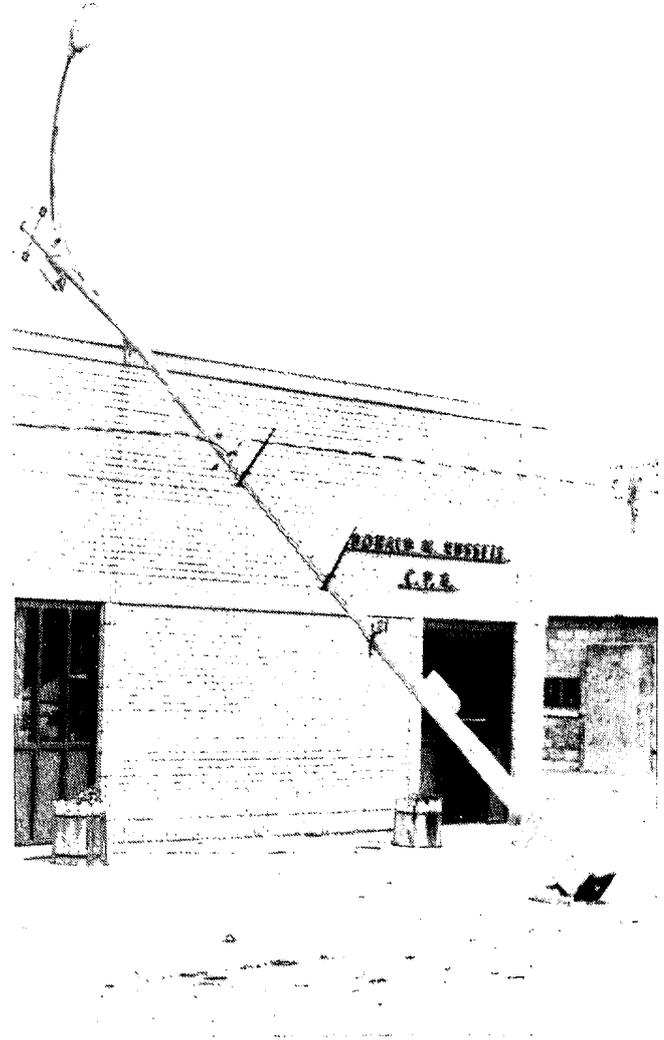
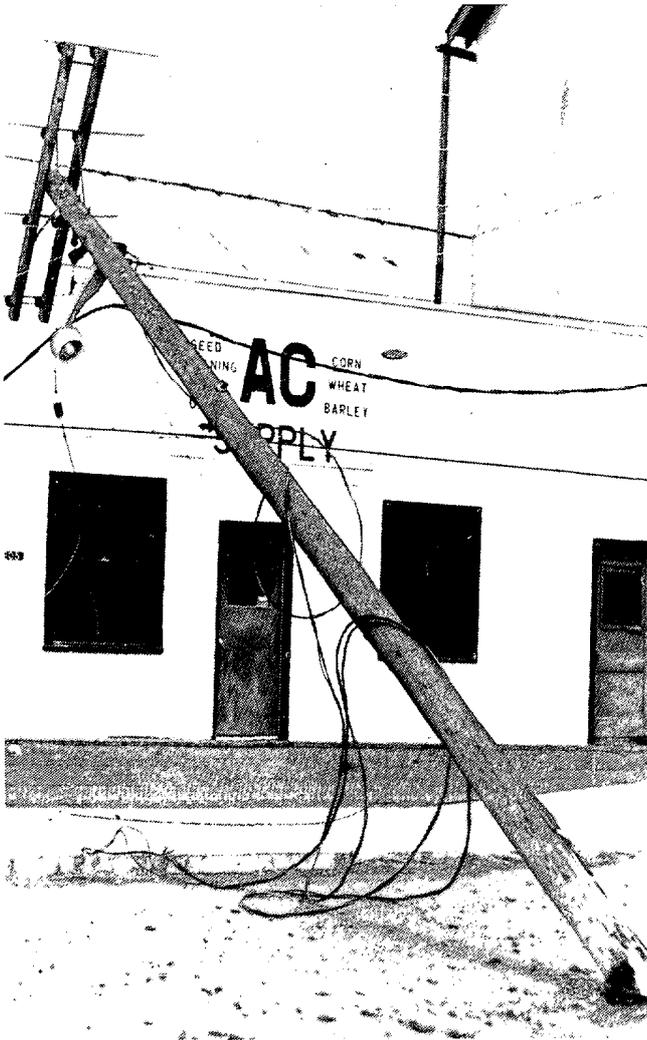


The undulating, rapid current in this wash demonstrates the culvert's inability to control the unusually large volume of water created by the storm's heavy rainfall, as even more water pours into it from across an adjacent road. Many washes in the Rock Springs area suffered erosional damage as a result. ---Photo from the Daily Rocket-Miner, Rock Springs, Wyoming.

---All photos on pages 12 and 13 are provided through Edward K. Berry, NWSFO at Cheyenne, Wyoming.

5. THUNDERSTORM WINDS in NORTH-CENTRAL WYOMING on July 10, 1989

During the mid afternoon of July 10th, thunderstorms that had produced heavy rain and large hail in parts of northwest Wyoming during the early afternoon, moved into the north-central part of the state and began to produce damaging winds that gusted to 85 mph at Basin and 58 mph at Worland. Extensive damage was done to power lines and poles in Basin, leaving the town without electricity for several hours. Damage was also done to trees, roofs and vehicles. To the south in Worland, damage was less but still included the downing of power lines and poles.

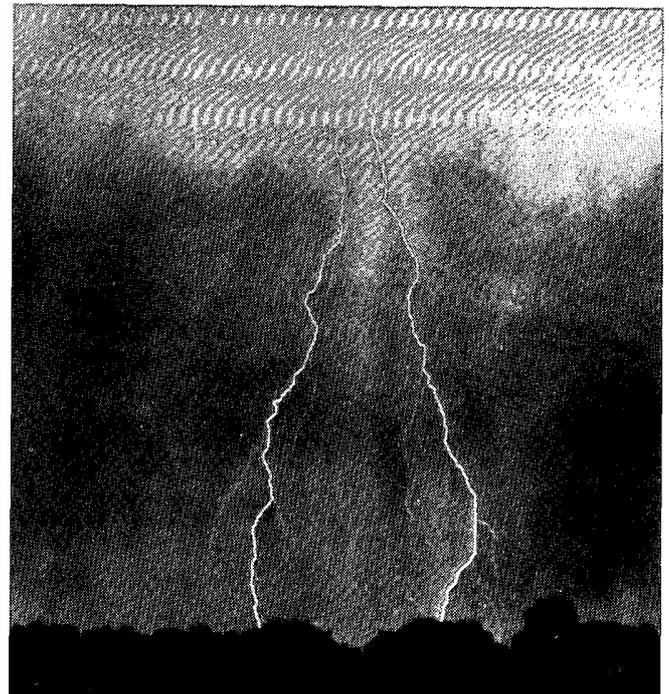


Above are two examples of the many power poles and light standards that were toppled in Basin. At left, local ranchers prepare to dismantle a large section of roof that was torn from an outbuilding by the winds and thrown into a power line, causing the nearby power pole to snap. ---All three photos are from *The Republican*, Basin, Wyoming; and are supplied by Edward K. Berry, NWSFO at Cheyenne, Wyoming.



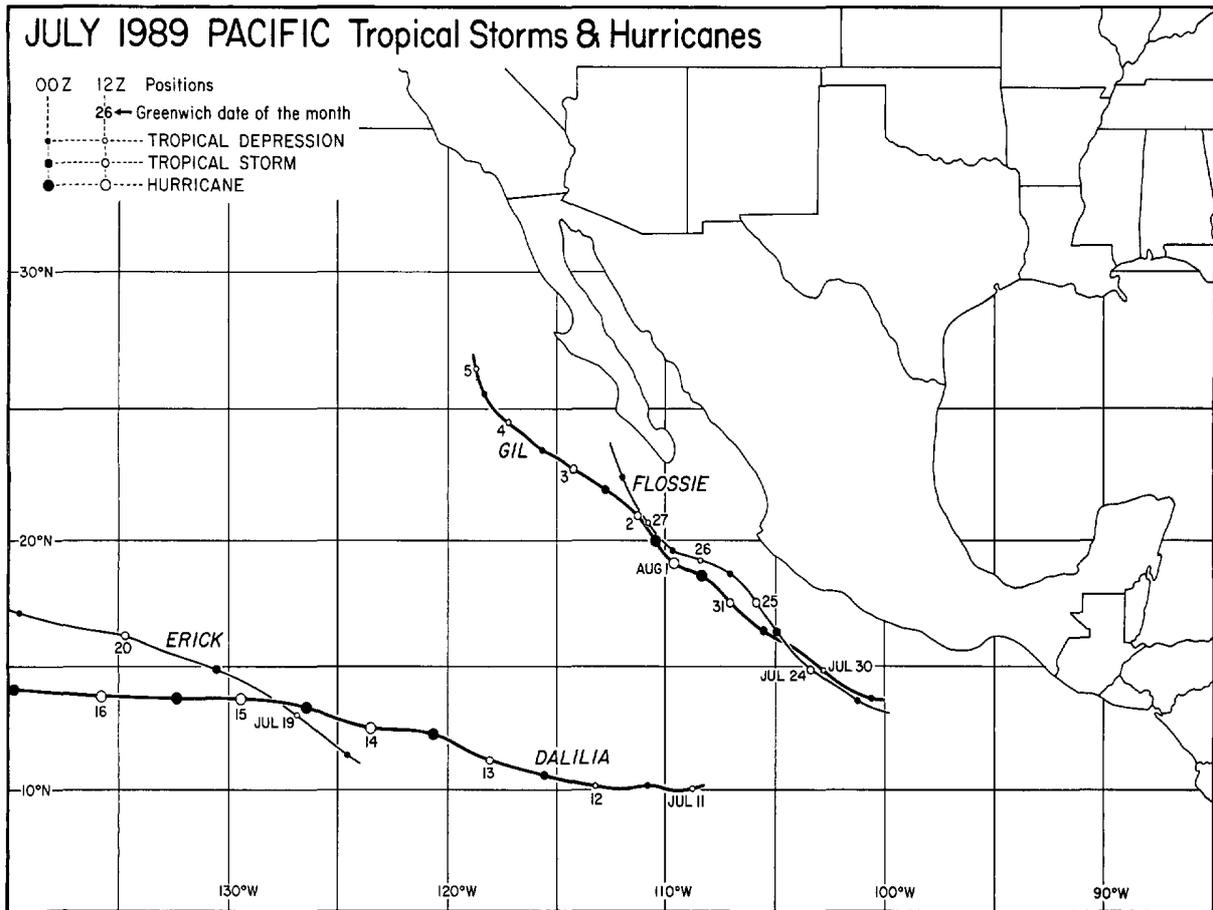
Linesmen prepare new poles near Worland, Wyoming to replace those that were snapped by the strong thunderstorm winds of July 10th. ---Photo courtesy of Scott Bose and The Northern Wyoming Daily News, Worland Wyoming; and was supplied by Edward K. Berry, NWSFO at Cheyenne, Wyoming.

STORM SHORTS . . .

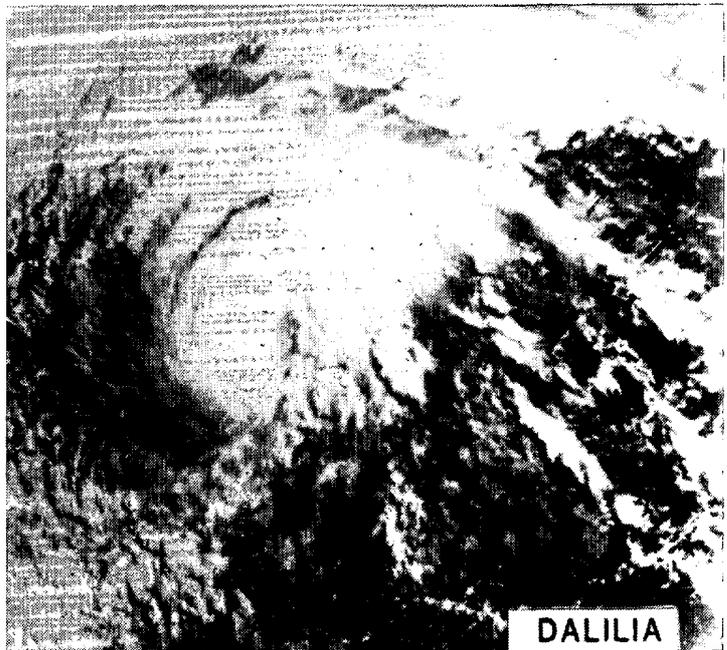
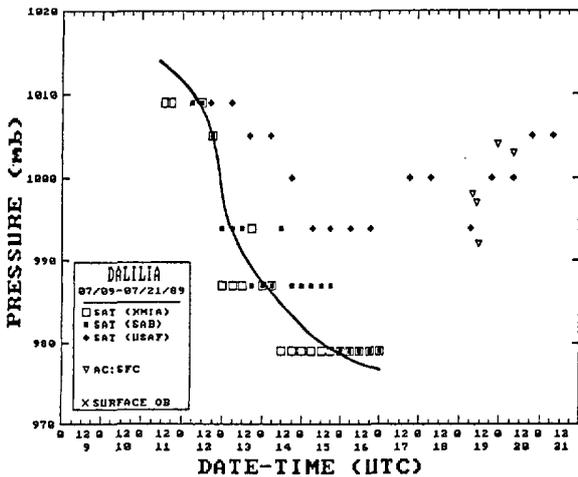
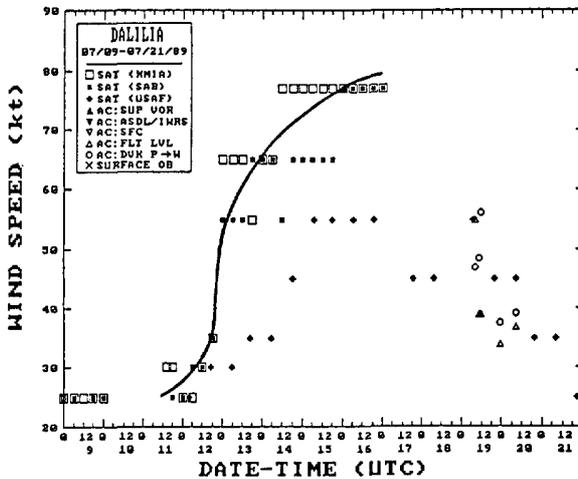


Cloud-to-ground lightning strikes discharge over Larchmont and New Rochelle on Long Island Sound in Westchester County, New York at about 1900 EST on July 7th. The thunderstorms were triggered by a cold front slipping southward from upstate New York and, as they moved southeastward toward Long Island, produced winds that downed trees and power lines and some hail of dime size. The widespread lightning resulted in numerous short-term power outages. ---Both photos by Jack "Thunderhead" Corso of Harrison, New York; copyright 1989.

TROPICAL STORMS and HURRICANES

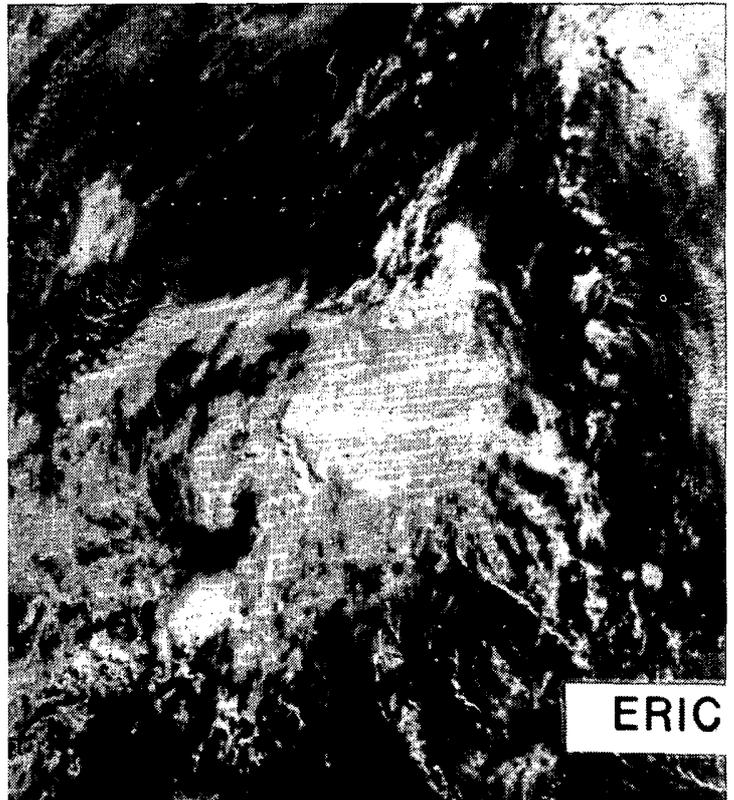
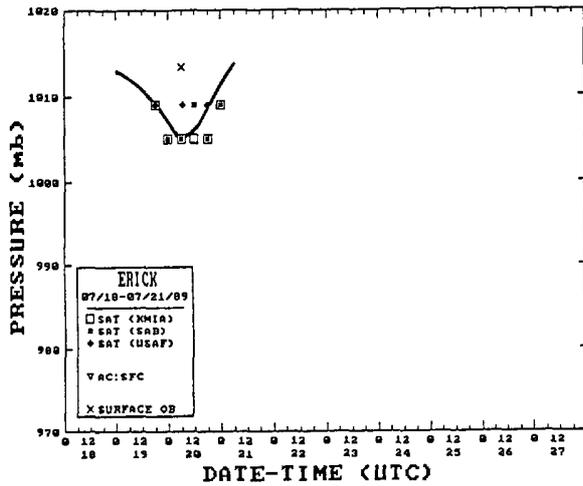
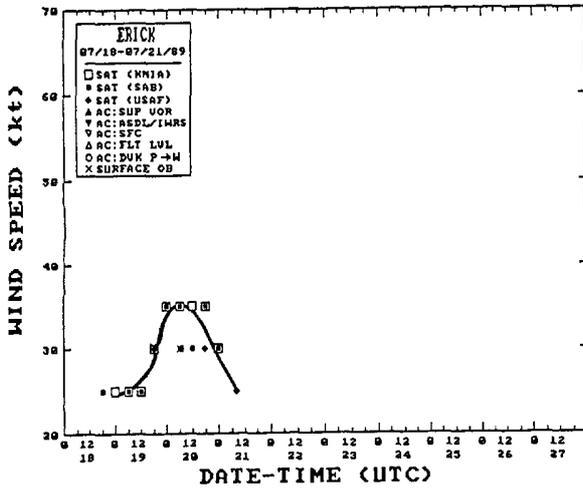


---Best track data from the National Hurricane Center, Miami, Florida.



Hurricane DALILIA centered near 130°W, 13°N in the Eastern Pacific at 1630 UTC on July 15th.

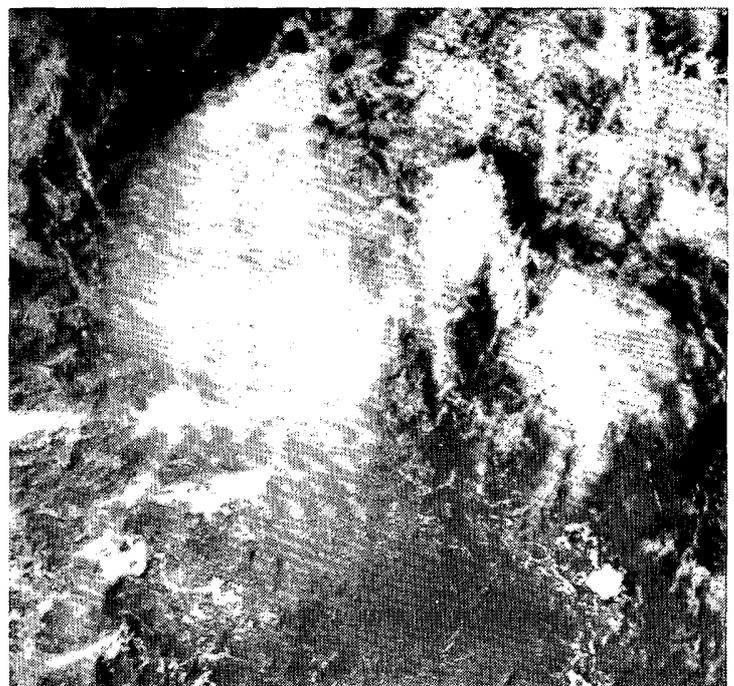
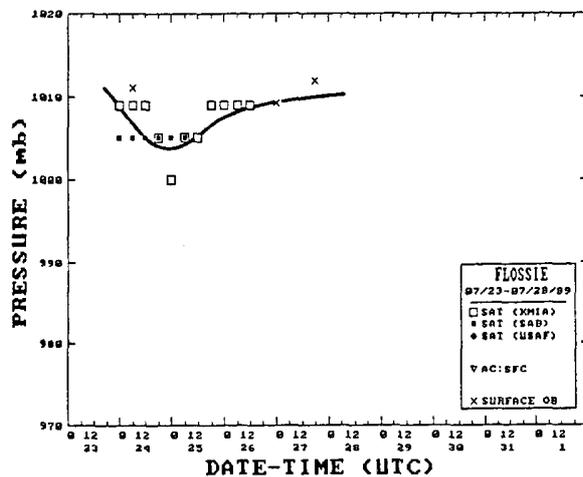
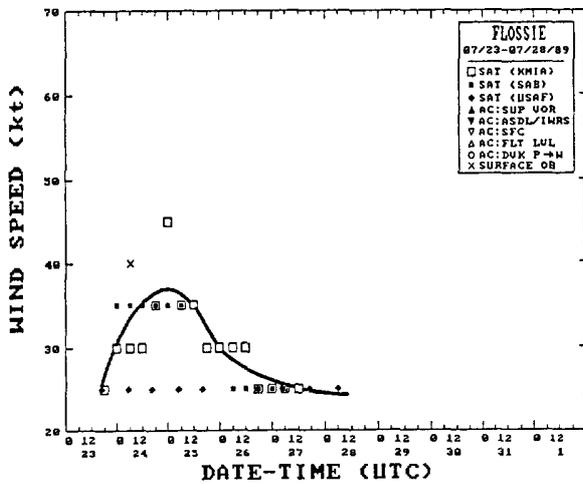
LEFT: Plots of estimated maximum wind speed and minimum surface pressure versus time for Hurricane DALILIA.



ERICK

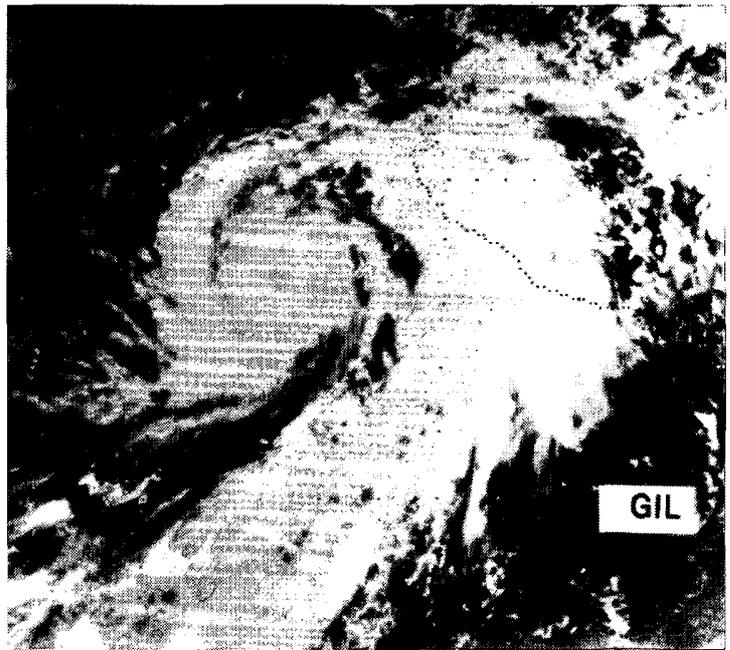
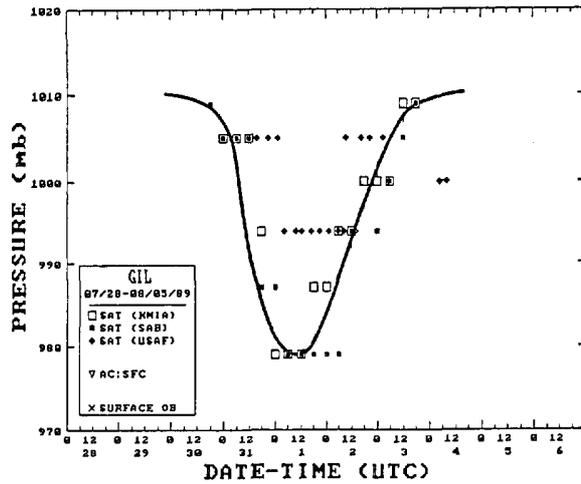
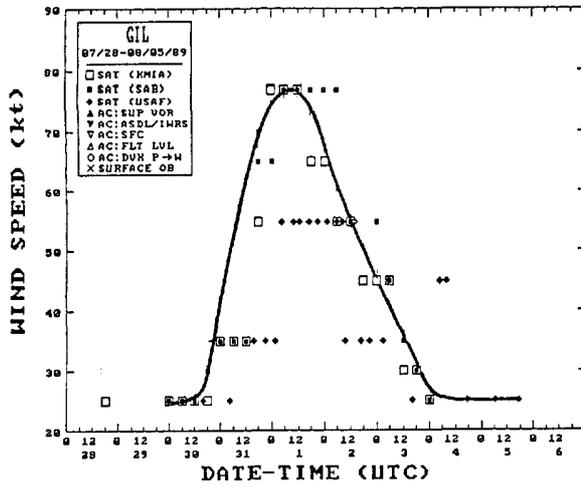
Tropical Storm ERICK centered near 137°W, 16.5°N in the Eastern Pacific at 1700 UTC on July 20th.

LEFT: Plots of estimated maximum wind speed and minimum surface pressure versus time for Tropical Storm ERICK.



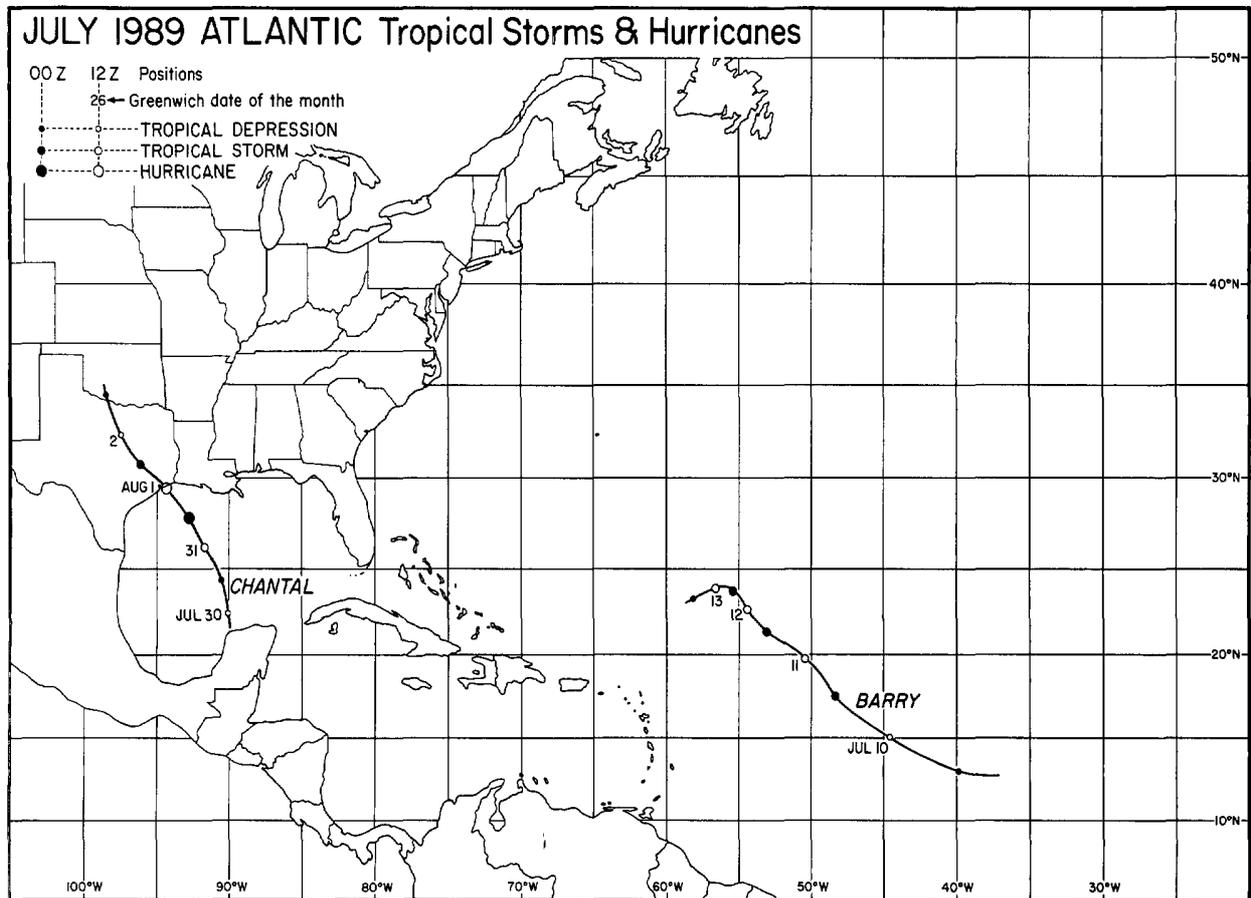
Tropical Storm FLOSSIE centered near 106.5°W, 18.5°N in the Eastern Pacific about 140 nautical miles southwest of Puerto Vallarta, Mexico at 2000 UTC on July 25th.

LEFT: Plots of estimated maximum wind speed and minimum surface pressure versus time for Tropical Storm FLOSSIE.

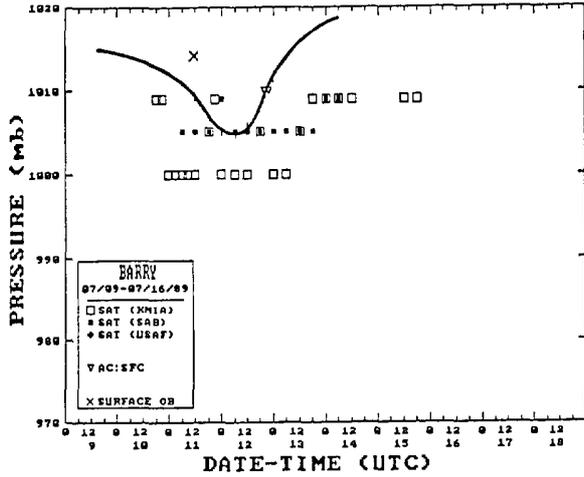
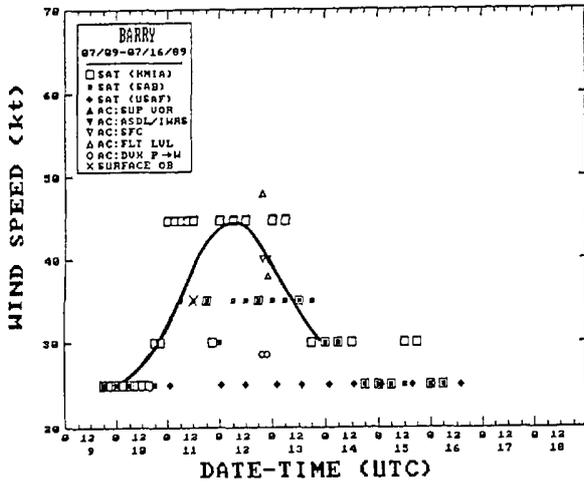


Hurricane GIL centered near 108°W, 18.5°N in the Eastern Pacific about 220 nautical miles southwest of Puerto Vallarta, Mexico at 1900 UTC on July 31st.

LEFT: Plots of estimated maximum wind speed and minimum surface pressure versus time for Hurricane GIL.



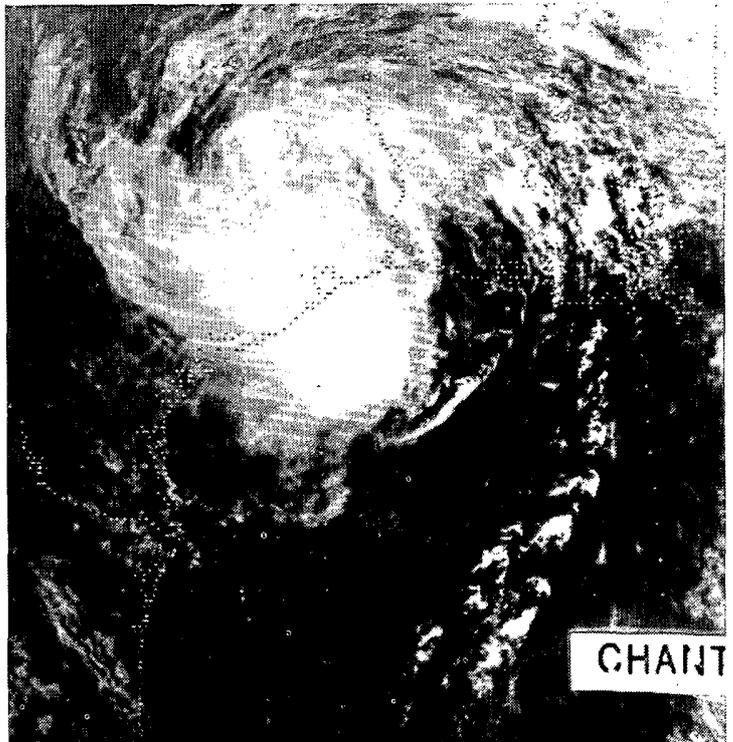
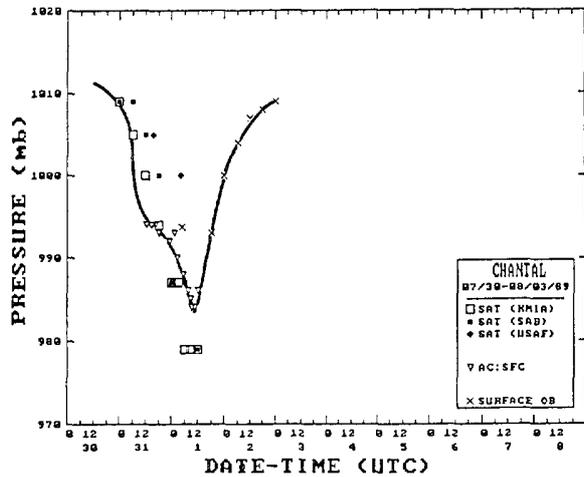
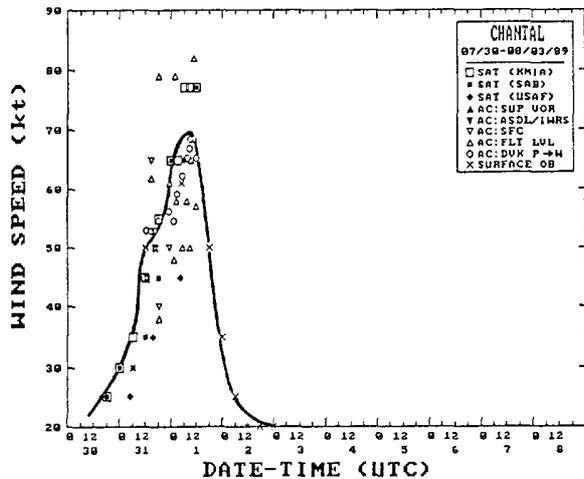
---Best track data from the National Hurricane Center, Miami, Florida.



BARRY

Tropical Storm BARRY, centered here near 54.5°W, 23°N in the Atlantic at 1400 UTC on July 12th, exhibits a large exhaust cloud emanating mainly from one strong cell situated just to the east of the storm's center.

LEFT: Plots of estimated maximum wind speed and minimum surface pressure versus time for Tropical Storm BARRY.



CHANT

Hurricane CHANTAL centered near Houston, Texas at 1530 UTC on August 1st, about two and one-half hours after landfall at High Island, Texas. CHANTAL's landfall occurred on August 1st, but the system reached tropical storm status on July 31st and is therefore presented here as a July storm. Additional material on CHANTAL and its effects will appear in the August 1989 issue of Storm Data.

LEFT: Plots of estimated maximum wind speed and minimum surface pressure versus time for Hurricane CHANTAL.

---All materials on pages 16 through 19 are from the National Hurricane Center and are provided through the Hurricane Research Division of AOML, both of Miami, Florida.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

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

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

ALABAMA

Clarke County	01 1235CST	0 0 ? ?	TSTM Wind	Trees were blown across a highway 6 miles southeast of Coffeeville.					
Washington County	01 1240CST	0 0 0 0	TSTM Wind	Trees were blown down at Chatom.					
Mobile County	02 1123-1130CST	1.0 75 0 0	5 0	Tornado (F2) A tornado touched down in Belle Fontaine in south Mobile County along Bellingrath Road in the Fowl River area. The tornado moved northeast about 1 mile, leveling trees and damaging a couple of houses. The thunderstorm which spawned the small tornado moved into the upper Mobile Bay. Damage estimates were placed at sixty thousand dollars.					
Baldwin County	04 1150CST	- - - -	- - - -	Funnel Cloud Gulf Shores Police Department reported a funnel cloud near the Gulf State Park moving toward the northeast.					
Calhoun County	05 1500CST	0 2 ? ?	Flash Flooding	Heavy rains over saturated ground caused streams and small creeks to swell, flooding some roadways in and around Anniston. A weather-related photo session almost ended in tragedy when a woman was swept through a flooded 50-foot culvert and her would-be rescuer was trapped by the current for 25 minutes. Neither person was seriously injured in the incident.					
Shelby County	06 0900CST	0 0 3 0	Flash Flooding	Bishop Creek in Pelham came out of its banks, flooding some townhomes. Nearly three inches of rain was reported at an unofficial rain gauge in nearby Helena. Damage was estimated at about five thousand dollars.					
Jefferson County	09 1642CST	0 0 0 0	Hail (0.50)	Pea size hail occurred in Birmingham around the Vulcan statue.					
Limestone County	11 0600-1130CST	0 0 4 ?	Flash Flooding	Heavy rains caused widespread flash flooding in Ardmore. As much as five inches may have fallen during the morning hours. Several streets were flooded and a number of businesses and several homes were flooded. Damage estimates were placed at around ten thousand dollars.					
Lawrence County	11 1310CST	0 0 0 0	Hail (0.50)	Marble size hail was reported 6 miles west of Moulton.					
Chambers County	11 1500CST	0 0 4 0	TSTM Wind	Thunderstorm winds downed trees and power lines in the West Point area of Chambers County. The 1500CST time is approximate. Damage estimates were placed at approximately 20 thousand dollars.					
Lauderdale County	11 1500CST	0 0 4 0	TSTM Wind	Strong thunderstorm winds downed trees in the Greenhill area. Wind also blew down a brick wall and broke several windows at a nursery. Damage estimates were placed at 10 thousand dollars.					
Montgomery County	11 1700CST	0 0 ? ?	TSTM Wind	Strong thunderstorm winds blew down trees and power lines between Grady and Ramer in South Montgomery County.					
Lauderdale County	12 1340CST	0 0 ? ?	TSTM Wind	Trees were blown down at Florence.					
Mobile County	12 1425CST 12 1445CST	0 0 ? ? 0 0 ? ?	Hail (1.00) TSTM Wind (GSR)	At 1425CST quarter size hail fell and thunderstorm winds gusted to 58 mph at Brookley Field in Mobile. At 1445CST quarter size hail broke the windshield of a car five miles south of Mobile.					
Calhoun County	12 1635CST	0 0 ? ?	TSTM Wind	Awnings were blown off several homes 2 miles west of Anniston.					
Houston County	13 1415CST	0 0 4 ?	TSTM Wind	What was described as a microburst caused power outages and downed trees at Ashford. The wind which accompanied a thunderstorm occurred along Church Street and lasted for about 30 seconds according to eyewitnesses. One tree toppled onto a car.					
Baldwin County	14 1640CST	0 0 0 0	Waterspouts	Baldwin County Emergency Management Agency reported several public sightings of waterspouts in the Gulf of Mexico south of the Fort Morgan peninsula.					
Etowah County	16 1100-1600CST	0 0 5 ?	Flash Flooding	Heavy rains fell on the county, producing considerable flooding along small creeks and streams and along many roadways. An automatic gauge measured 3.6 inches of rain with most of that falling between 1100 and 1400CST. Water threatened some homes in the Gadsden area. Damage estimates were placed at around fifty thousand dollars.					

ALABAMA

Etowah County	16 1300CST	0 0 5 ?	High Wind	A small but intense low pressure system moved across North Alabama producing a strong pressure gradient and high wind. Damage to trees and power lines was reported throughout Etowah County. Some trees fell on homes. Wet ground may have contributed to the ease with which some trees were uprooted. Damage estimates were placed at sixty thousand dollars.					
Chambers County	16 1500CST	0 0 4 ?	TSTM Wind	A brief thunderstorm caused wind damage to several houses in the Lanett area of Chambers County. One home near the Lanett airport suffered extensive damage. Damage estimates were placed at around 10 thousand dollars.					
Monroe County	16 1500CST	0 0 3 0	TSTM Wind	Thunderstorm winds toppled a number of trees and blew down power lines in Monroeville. At least one tree fell on a house. Damage estimates were placed at around two thousand dollars.					
Pike County	16 1645CST	1.0 50 0 0	5 0	Tornado (F1) A small tornado swept through Brundidge damaging the roof of the Pike County Elementary School. Rain following the tornado also damaged the interior of the building. Damage estimates were placed at around 75 thousand dollars.					
Baldwin County	16 2035CST	0 0 0 0	Waterspout	A waterspout was observed with a thunderstorm over the lower part of Mobile Bay just north of the west end of the Fort Morgan peninsula.					
Houston County	19 1510CST	0 0 ? ?	TSTM Wind	Power lines were downed 2 miles south of Dothan. Pea size hail was reported near Wicksburg.					
Dale and Henry Counties	19 1625CST	- - - -	- - - -	Funnel Cloud A funnel cloud was reported on the Dale-Henry county line by Department of Public Safety personnel.					
Henry County	19 1635CST	0 0 ? ?	TSTM Wind	Strong thunderstorm winds blew down trees and power lines on County Road 97 in eastern Henry County. Trees also were blown down in Abbeville.					
Dale County	19 1650CST	0 0 ? ?	TSTM Wind	Trees were blown onto power lines at Clopton.					
Houston County	22 1310CST	0 1 2 0	Lightning	A 13 year old girl sustained minor injuries when her home in Cottonwood was struck by lightning. The lightning came into the house through an outside antenna. In the bathroom, the lightning left two burn holes in a mirror and through the wall behind the mirror. The girl was standing in front of the mirror when the lightning bolt came in, striking her on the arm.					
Talladega County	26 1625CST	0 0 3 0	Lightning	Lightning struck the roof of a house in Sylacauga causing a small fire. Damage was placed at approximately 500 dollars.					
Talladega County	26 1630CST	0 0 ? ?	Hail (0.75)	Dime size hail was reported 2 miles south of the City of Talladega.					
Shelby County	26 1800CST	0 0 3 ?	TSTM Wind	Strong thunderstorm winds uprooted numerous trees and destroyed a hay barn in eastern Shelby County about 5 miles northwest of Wilsonville. Damage estimates were placed at about 2 thousand dollars.					
Walker County	26 1828CST	0 0 ? ?	TSTM Wind	Strong thunderstorm winds downed trees and power lines in Sipsy and Cordova in the eastern part of the county.					
Bibb County	26 1853CST	0 0 ? ?	TSTM Wind	Numerous tree limbs and a few trees were blown down in West Blockton according to the Bibb County Emergency Management Agency.					
Sumter County	29 1620-1635CST	0 0 ? ?	Hail (1.75)	Golf ball size hail was reported in Livingston with hail fall lasting 15 minutes.					
Cullman County	30 1800-1830CST	0 0 4 ?	TSTM Wind	Numerous trees and tree limbs were blown down on the north and northeast side of the City of Cullman. One tree fell on a car and another fell on a house. Wind gust in the 35 to 45 mile an hour range may have caused the damage. The Cullman County Emergency Management Agency recorded a wind gust to 38 mph in downtown Cullman. Damage estimates were placed at approximately 10 thousand dollars.					

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS				ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	PROPERTY	CROPS	
2 ARIZONA											
Yavapai County, Mayer	07	1200 MST			0	0	4	0			Thunderstorm wind
At least two mobile homes overturned, several sheds collapsed, and three commercial signs were destroyed as strong downburst winds left a half-mile trail of damage in town.											
Pima County, 15 W Tucson	08	1555 MST			0	0	0	0			Thunderstorm wind (66)
Winds gusted to 76 mph at Ryan Field.											
Gila County, Winkelman	09	2100 MST			0	0	2	0			Thunderstorm wind
Trees and power lines were downed due to high winds.											
Gila County, 30 E Payson	10	afternoon			1	0	0	0			Lightning
A fire-fighter working on the Horton Fire was struck and killed by lightning. M190											
Maricopa County, Phoenix	10	1545 MST			0	0	4	0			Thunderstorm wind
Some trees were ripped from the ground during late afternoon storms. Power was knocked out to about 10,000 customers throughout the metropolitan area. In Queen Creek, winds damaged a trailer and blew down a 100 ft. section of a block wall. Winds were clocked at 48 mph at Williams AFB. One inch of rain fell in one hour in Chandler Heights.											
Cochise County, Sierra Vista	18	1800 MST			0	0	?	0			Thunderstorm wind (62)
Downburst winds exceeded 57 mph throughout much of Fort Huachuca. Winds of 63 mph hit Lower Garden Canyon, just south of Sierra Vista, and 60 mph winds occurred at the Aerostat Balloon site.											
Coconino County, Flagstaff	21	1510 MST			1	0	0	0			Lightning
A truck driver was struck and killed instantly by lightning while standing on the flatbed of a semi-tractor trailer. M40V.											
Pima County, NE of Tucson	21	1730 MST			0	0	3	0			Flash flooding
Thunderstorms produced very heavy rains in short periods. Some of the gages in the Redington Pass area reported over an inch in 2 to 3 hours.											
Maricopa County, Phoenix	21	1930 MST			0	0	5	0			Thunderstorm wind
Winds uprooted trees, toppled power poles, overturned a motor home and damaged several roofs in many areas of western and northern Phoenix. As many as 10,000 customers were left without power because about 20 power poles were downed.											
Coconino County, Flagstaff	24	afternoon			0	0	4	0			Lightning
A duplex was struck by lightning and caught on fire, resulting in damages estimated at \$10,000.											
Cochise County, Bisbee	24	1800 MST			0	0	2	0			Flash flooding
Minor street flooding occurred in Bisbee. A spotter reported 1.54 inches of rain fell between 1800 and 1900 MST, .75 inch falling in a 15 minute period.											
Coconino County, 20 SW Flagstaff	26	afternoon			0	0	3	0			Lightning
A rural home was struck by lightning, destroying several electrical and electronic appliances.											
Yavapai County, Chino Valley	26	afternoon			0	0	3	0			Flash flooding
Thunderstorms and very heavy rains resulted in many flooded homes and roads in the area.											
Pima County, Tucson	26	1900 MST			0	0	3	0			Flash flooding
Thunderstorms with local heavy downpours hit the area. An automatic gage in north-central Tucson had 1.37 inches in a half hour. By 7:30 pm many dips, roads, and washes flooded and there were many stranded motorists. Tucson police reported 3 feet of water at Speedway and Rosemont Boulevard.											
ARIZONA											
Yuma County, Yuma	27	1835 MST			0	2	7	6			Thunderstorm wind (53) Flash flooding
The worst storm on record hit Yuma Thursday evening as thunderstorms from the north merged with others that had developed over northern Sonora, Mexico. Record rains and winds were observed. Power outages were widespread throughout the city after winds were clocked at 61 mph at the airport and unofficially 95 mph about 3 miles north of Somerton. The visibility was reduced to near zero. Winds destroyed mobile homes, ripped away roofs and trees, and damaged aircraft. Arizona Public Service Co. replaced 240 power poles that were blown over or snapped by the winds. Most of the heaviest rain fell within one hour. The total accumulation at the airport was 2.55 inches, making it the heaviest in a 24 hour period in July. This made July 1989 the wettest July ever in Yuma. At North Gila, the rain total was 3.71 inches, while to the east, Tacna had 1.75 and Wellton 2.75 inches. Many cars were stalled and some washed away in the heavy flooding. Crop damage was minimal as many fields were empty when the storm hit. About 50 acres of citrus trees were damaged.											
Maricopa County, Phoenix	30	2100 MST			0	0	4	0			Thunderstorm wind
Power outages due to very strong winds occurred in the northern and western areas of the city.											
Maricopa County, Laveen	31	1800 MST			0	0	3	0			Thunderstorm wind
A few small power outages occurred due to winds in the southern and southeastern parts of the Phoenix area. Strong winds ripped the roof from a garage in Laveen.											
Pinal County, Casa Grande	31	2330 MST			0	0	5	0			Thunderstorm wind
Strong downburst winds ripped through a small area of the airport, tearing the roof off a small hangar and damaging two airplanes and one car inside. Three nearby structures to the north of the hangar received some roof damage.											
3 ARKANSAS											
Ashley Co. Hamburg	01	0700CST			0	0	?	?			Flash Flood
Portland	01	0700CST			0	0	?	?			Flash Flood
Wilmot	01	0700CST			0	0	?	?			Flash Flood
Heavy rains overnight caused flash flooding across Ashley County. Roads were washed out, and homes and businesses were flooded in Hamburg, Portland and Wilmot.											
Chicot Co. Dermott	01	0800CST			0	0	4	0			Flash Flood
About six inches of rain that fell overnight caused widespread flash flooding in Dermott. Water covered most roads, and crept into City Hall, the police station and most downtown businesses.											
Phillips Co. Helena	01	1500CST			0	0	5	0			Flash Flood
Heavy rain from the remains of Tropical Storm Allison caused widespread flash flooding in the Helena area. All major roads were flooded, while some roads had sections washed away. About 100 people were evacuated from either flooded homes or vehicles.											
Desha Co. Dumas	01	1645CST			0	0	4	0			Flash Flood
Heavy rains flooded and damaged roads in the Dumas area.											
Cleveland Co. Rison	01	1700CST			0	0	5	0			Flash Flood
Rye	01	1700CST			0	0	5	0			Flash Flood
Heavy rain that fell across Cleveland County caused some flash flooding at Rison and Rye. Bridges and roads were flooded and damaged in both communities. A poultry farm just north of Rye lost half of their chickens as water flooded the chicken houses.											
Calhoun Co. Chambersville	01	1715CST			0	0	5	0			Flash Flood
Heavy rains caused flash flooding that washed out several roads in the Chambersville area.											

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

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					KILLED	INJURED	PROPERTY	CROPS	PROPERTY	CROPS	
— ARKANSAS											
Crittenden Co. West Memphis	01	1800CST			0	0	5	0			Flash Flood
											Heavy rains caused flash flooding in West Memphis. Fifteen families were evacuated from their homes in one area, where the water was over 44 inches deep.
Sevier Co. DeQueen	02	1355CST			0	0	?	?			Thunderstorm Wind (52)
											Severe thunderstorm winds downed trees in DeQueen. The falling trees downed power lines, and damaged several homes and vehicles.
Polk Co. Mena	02	1400CST			0	0	?	?			Thunderstorm Wind
											Thunderstorm winds downed trees and power lines.
Little River Co. Wilton	02	1410CST			0	0	?	?			Thunderstorm Wind
											Thunderstorm winds damaged several homes and downed trees and power lines.
Howard Co. Okay	02	1415CST			0	0	?	?			Hail (1.00)
	02	1415CST			0	0	?	?			Thunderstorm Wind
											Numerous trees were blown down by thunderstorm winds.
Little River Co. Ashdown	02	1425CST			0	0	?	?			Thunderstorm Wind
											Thunderstorm winds downed trees and power lines.
Miller Co. Texarkana	02	1500CST			0	0	?	?			Thunderstorm Wind (70)
											A severe thunderstorm downed trees and power lines in Texarkana.
Hempstead Co. Hope	02	1515CST			0	0	?	?			Thunderstorm Wind
											Thunderstorm winds downed trees, damaging some homes and vehicles.
Lafayette Co. Bradley	02	1525CST			0	0	?	?			Thunderstorm Wind
											Thunderstorm winds downed trees and power lines. Several homes were severely damaged and five cars destroyed by falling trees.
Union Co. El Dorado	02	1600CST			0	0	?	?			Thunderstorm Wind
											Thunderstorm winds downed trees and power lines.
Union Co. 7 N Junction City	06	1315CST			0	0	0	0			Funnel Cloud
	06	1315CST	0.25	50	0	0	?	?			Tornado (F0)
											A small tornado and a funnel cloud were observed seven miles north of Junction City. Damage was limited to a few downed trees and power lines.
Faulkner Co. Conway	07	1145CST			0	0	5	0			Thunderstorm Wind
											A severe thunderstorm blew down trees, power lines and road signs. Nine mobile homes were destroyed and fifteen others damaged at mobile home sales lots in southeastern Conway.
Lenoke Co. Cabot	10	1715CST			0	1	0	0			Lightning
											A woman was seriously injured when lightning struck a home in Cabot. The strike apparently struck the woman through the kitchen stove.
Pope Co. Russellville	12	1745CST			0	0	?	?			Thunderstorm Wind
											Thunderstorm winds downed trees and power lines.
Yell Co. Dardanelle	12	1758CST			0	0	?	?			Thunderstorm Wind
											Thunderstorm winds downed trees and power lines.
Yell Co. Rover	12	1815CST			0	0	?	?			Thunderstorm Wind
											Thunderstorm winds downed trees and power lines. A mobile home was destroyed by a downed tree.
Faulkner Co. 2 E Conway	12	1845CST			0	0	?	?			Flash Flood
											Nearly two inches of rain in 45 minutes flooded five to six acres of land two miles east of Conway. Fifteen homes were evacuated and one pickup truck was swept off a road. The flood waters completely receded by 2300 CST.
Sebastian Co. Midland	12	1949CST			0	0	?	?			Hail (1.00)
— ARKANSAS											
Scott Co. 3 SE Waldron	12	2014CST			0	0	?	?			Thunderstorm Wind
											Thunderstorm winds downed trees three miles southeast of Waldron.
Scott Co. 5 W Waldron	12	2030CST			0	0	?	?			Thunderstorm Wind
											Thunderstorm winds downed trees five miles west of Waldron.
Polk Co. Mena Potter Rocky	12	2100CST			0	0	?	?			Thunderstorm Wind
	12	2100CST			0	0	?	?			Thunderstorm Wind
	12	2100CST			0	0	?	?			Thunderstorm Wind
											Strong winds from a line of thunderstorms downed trees and power lines, damaged cars and homes, and ripped the roofs off chicken houses at poultry farms.
Polk Co. Cove Hatfield	12	2130CST			0	0	?	?			Thunderstorm Wind
	12	2130CST			0	0	?	?			Thunderstorm Wind
											Thunderstorm winds downed trees and power lines. Downed trees damaged several homes and cars.
Sevier Co. DeQueen	12	2200CST			0	0	?	?			Thunderstorm Wind
											Thunderstorm winds downed trees and power lines.
Ouachita Co. Camden	15	1630CST			0	0	?	?			Thunderstorm Wind
											Thunderstorm winds downed trees.
Jefferson Co. Pine Bluff	15	1700CST			0	0	?	?			Flash Flood
											Nearly four inches of rain caused flash flooding in Pine Bluff. At least four homes were flooded, and various roads were covered by up to four feet of water stranding motorists.
Sebastian Co. Fort Smith	17	0830CST			0	0	?	?			Thunderstorm Wind
	17	0830CST			0	0	5	0			Lightning
											Thunderstorm winds downed trees and power lines. Lightning started a fire which destroyed a \$175,000 home.
Montgomery Co. Mt. Ida	17	1315CST			0	0	?	?			Thunderstorm Wind
											Thunderstorm winds downed trees and power lines. Downed trees caused some minor damage to a couple of mobile homes.
Montgomery Co. Caddo Gap Hopper 3-5 NNE Glenwood	17	1325CST			0	0	?	?			Thunderstorm Wind
	17	1325CST			0	0	?	?			Thunderstorm Wind
	17	1325CST			0	0	5	0			Thunderstorm Wind
											Thunderstorm winds blew down trees and power lines in Caddo Gap and Hopper. The winds also blew down a swath of timber about 25 miles long and 10-12 miles wide along the southern edge of the county. The worst damage was located 3 to 5 miles north-northeast of Glenwood.
Pike Co. Glenwood	17	1330CST			0	0	5	?			Thunderstorm Wind (52)
											A severe thunderstorm downed trees and power lines throughout Glenwood. Over 40 homes had trees fall on them from the winds. The roof was torn off a newspaper office and roofs were blown off at the Pike County Fairgrounds. The livestock auction barns also suffered considerable roof damage. Numerous windows were also broken.
Hot Spring Co. Bonnerdale	17	1330CST			0	0	?	?			Thunderstorm Wind
											Thunderstorm winds downed trees and power lines.
Garland Co. Hot Springs	17	1330CST			0	0	?	?			Hail (1.00)
	17	1330CST			0	0	?	?			Thunderstorm Wind
	17	1330CST			0	0	?	?			Flash Flood
											Thunderstorm winds downed trees and power lines. A van with three youths was swept off a road by a flooded creek. The youths were trapped in the van and had to be rescued by emergency personnel.
Sevier Co. DeQueen	17	1330CST			0	0	?	?			Thunderstorm Wind
											Thunderstorm winds downed numerous trees along U. S. Highway 71.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

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					KILLED	INJURED	PROPERTY	CROPS							KILLED	INJURED	PROPERTY	CROPS		
— ARKANSAS —																				
Pike Co.										Bradley Co.	17	1545CST			0	0	?	?	Thunderstorm Wind	
Kirby	17	1345CST			0	0	?	?	Thunderstorm Wind	Warren										Thunderstorm winds downed trees and power lines.
Daisy	17	1345CST			0	0	?	?	Thunderstorm Wind	Union Co.	17	1600CST			0	0	?	?	Thunderstorm Wind	
Newhope	17	1345CST			0	0	?	?	Thunderstorm Wind	Huttig										Thunderstorm winds downed trees and power lines.
									Thunderstorm winds downed trees and power lines.	Drew Co.	17	1610CST			0	0	?	?	Thunderstorm Wind	
Clark Co.	17	1345CST			0	0	?	?	Thunderstorm Wind	Monticello										Thunderstorm winds downed trees and power lines.
Amity									Thunderstorm winds downed trees and power lines.	Lincoln Co.	17	1615CST			0	0	?	?	Thunderstorm Wind	
Hot Spring Co.	17	1345CST			0	0	?	?	Thunderstorm Wind	Cornerville										Thunderstorm winds downed trees and power lines.
Malvern	17	1345CST			0	0	?	?	Thunderstorm Wind	Ashley Co.	17	1620CST			0	0	?	?	Thunderstorm Wind	
Magnet Cove	17	1345CST			0	0	?	?	Thunderstorm Wind	Crossett										Thunderstorm winds downed trees and power lines.
									Thunderstorm winds downed trees and power lines.	Drew Co.	17	1645CST			0	0	?	?	Thunderstorm Wind	
Pike Co.	17	1355CST			0	0	?	?	Thunderstorm Wind	Bethel										Thunderstorm winds downed trees and power lines.
Murfreesboro									Thunderstorm winds downed trees and power lines.	Chicot Co.	17	1730CST			0	0	?	?	Thunderstorm Wind	
Nevada Co.	17	1405CST			0	0	?	?	Thunderstorm Wind	Eudora										Thunderstorm winds downed trees and power lines.
Prescott									Thunderstorm winds downed trees and power lines.	Marion Co.	18	1335CST			0	0	?	?	Hail (1.75)	
Hot Spring Co.	17	1405CST			0	0	?	?	Thunderstorm Wind	Ralph										A Forest Ranger driving on Highway 14 near Ralph was pelted with pea size to golfball size hail.
Friendship									Thunderstorm winds downed trees and power lines.	Marion Co.	18	1347CST			0	0	0	0	Hail (1.00)	
Howard Co.	17	1406CST			0	0	?	?	Thunderstorm Wind (55)	Buffalo Point										Thunderstorm winds downed trees and power lines.
Nashville									Thunderstorm winds downed trees and power lines.	Garland Co.	18	2000CST			0	0	?	?	Thunderstorm Wind	
Clark Co.	17	1415CST			0	0	4	?	Thunderstorm Wind	Hot Springs										Thunderstorm winds downed trees and power lines.
Arkadelphia	17	1415CST			0	0	?	?	Thunderstorm Wind	Garland Co.	18	2026CST			0	0	?	?	Hail (0.88)	
Gurdon	17	1415CST			0	0	?	?	Thunderstorm Wind	Hot Springs										Thunderstorm winds downed trees and power lines.
Shiloh	17	1415CST			0	0	?	?	Thunderstorm Wind	Hot Spring Co.	18	2040CST			0	0	?	?	Thunderstorm Wind	
									Thunderstorm winds downed trees and power lines and also damaged several roofs.	Magnet Cove										Thunderstorm winds downed trees and power lines.
Little River Co.	17	1418CST			0	0	?	?	Thunderstorm Wind	Grant Co.	18	2346CST			0	0	?	?	Thunderstorm Wind	
Foreman									Thunderstorm winds downed trees and power lines.	7 W Sheridan										Thunderstorm winds downed trees and power lines.
Cleveland Co.	17	1435CST			0	0	?	?	Thunderstorm Wind	Hempstead Co.	19	0100CST			0	0	?	?	Thunderstorm Wind	
Kingsland									Thunderstorm winds downed trees and power lines.	Blevins										Trees were downed by thunderstorm winds across much of north Hempstead County.
Dallas Co.	17	1435CST			0	0	?	?	Thunderstorm Wind	Hot Spring Co.	19	0110CST			0	0	?	?	Thunderstorm Wind	
Holly Springs	17	1435CST			0	1	5	?	Thunderstorm Wind	Friendship										Thunderstorm winds downed trees and power lines.
Fordyce	17	1435CST			0	0	?	?	Thunderstorm Wind	Hot Spring Co.	19	0140CST			0	0	?	?	Flash Flood	
Sparkman	17	1435CST			0	0	?	?	Thunderstorm Wind	Friendship										Flash flood water covered most streets and flooded one home.
									Thunderstorm winds downed trees and power lines throughout Fordyce. Numerous homes were damaged by falling trees. A man was severely injured while driving when a tree fell on the cab of his pickup truck.	Clark Co.	19	0140CST			0	0	?	?	Flash Flood	
Hempstead Co.	17	1445CST			0	0	?	?	Thunderstorm Wind	Caddo Valley										Heavy rains flooded most roads. Several storage buildings were flooded with one to two feet of water.
Hope									Thunderstorm winds downed trees and power lines.	Saline Co.	19	0140CST			0	0	?	?	Thunderstorm Wind	
Quachita Co.	17	1450CST			0	0	?	?	Thunderstorm Wind	Bryant	19	0140CST			0	0	?	?	Thunderstorm Wind	
Camden	17	1450CST			0	0	?	?	Thunderstorm Wind	Shannon Hills										Thunderstorm winds downed trees and power lines.
Stephens	17	1450CST			0	0	?	?	Thunderstorm Wind	Jefferson Co.	19	0145CST			0	0	?	?	Thunderstorm Wind (52)	
Bearden	17	1450CST			0	0	?	?	Thunderstorm Wind	Fine Bluff										Thunderstorm winds downed trees and power lines.
									Thunderstorm winds downed trees and power lines.	Saline Co.	19	0210CST			1	0	5	?	Flash Flood	
Lafayette Co.	17	1450CST			0	0	?	?	Thunderstorm Wind	Alexander	19	0210CST			0	0	5	?	Flash Flood	
Stamps									Thunderstorm winds downed trees and power lines.	Bryant	19	0210CST			0	0	5	?	Flash Flood	
Union Co.	17	1500CST			0	0	?	?	Thunderstorm Wind	Shannon Hills	19	0210CST			0	0	5	?	Flash Flood	
Smackover									Thunderstorm winds downed trees and power lines.											Rainfall of five to six inches in one to two hours' time caused flash flooding across eastern Saline County. A woman was killed when her car was washed off Interstate 30 at mile marker 123, between Alexander and Bryant. Ninety-three families were evacuated from homes due to high water. Flash Flood F39W
Miller Co.	17	1505CST			0	0	?	?	Thunderstorm Wind	Howard Co.	19	0230CST			0	0	5	?	Flash Flood	
Fort Lynn									Thunderstorm winds downed trees and power lines.	15 N Nashville										Heavy rains flooded and damaged State Highway 369. Other county roads were damaged by flood waters.
Columbia Co.	17	1515CST			0	0	?	?	Thunderstorm Wind											
Macedonia	17	1515CST			0	0	?	?	Thunderstorm Wind											
Calhoun	17	1515CST			0	0	?	?	Thunderstorm Wind											
									Thunderstorm winds downed trees and power lines.											
Cleveland Co.	17	1530CST			0	0	?	?	Thunderstorm Wind											
New Edinburg									Thunderstorm winds downed trees and power lines. Power was knocked out to the city water pumping station, prompting the National Guard to be called out to supply a generator to give the city water service.											
Union Co.	17	1545CST			0	0	?	?	Thunderstorm Wind											
El Dorado									Thunderstorm winds downed trees and power lines.											

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					KILLED	INJURED	PROPERTY	CROPS	
— ARKANSAS									
Jefferson Co. Pine Bluff	19	0335CST			0	0	5	?	Flash Flood
			Heavy rain caused flash flooding throughout Pine Bluff. Numerous roads and highways were closed due to high water. The Pine Bluff jail was evacuated and the Civic Center basement flooded. Numerous cars floated down flooded residential streets.						
Saline Co. 4 NW Bryant	22	1330CST			1	0	0	0	Lightning
			A man was killed while working on a bulldozer when struck by lightning. Lightning M330						
Nevada Co. White Oak Lake	22	1430CST			0	2	0	0	Lightning
			Two men were injured when struck by lightning while fishing on White Oak Lake in extreme eastern Nevada County.						
Sebastian Co. Fort Smith	23	1344CST			0	0	3	0	Thunderstorm Wind (74)
			A thunderstorm downburst produced a wind gust of 85 MPH at the Fort Smith Airport. Windows were broken on five cars by flying debris.						
Boone Co. Bergman	30	1430CST			0	0	2	0	Thunderstorm Wind
			Thunderstorm winds caused minor damage to a church.						
Boone Co. Bellefonte	30	1440CST			0	0	0	0	Funnel Cloud
Washington Co. Springdale	30	1600CST			0	0	?	?	Thunderstorm Wind
			Thunderstorm winds downed signs and awnings and broke windows at downtown businesses. Trees and power lines were also downed.						
Garland Co. Hot Springs	30	1911CST			0	0	0	0	Funnel Cloud
South Arkansas	All Month				0	0	0	7	Excessive Rain
			Above normal rainfall, especially over the first half of July, continued to cause serious problems for south Arkansas farmers. Damage to crops, such as cotton, wheat, soybeans, and tomatoes will be in the millions.						
4 CALIFORNIA, Northern									
Butte County, Butte Meadows	15	1800PST			1	0	0	0	Lightning
			Lightning struck a tree then jumped to a metal building, striking a youth camping with a church group. M140						
4 CALIFORNIA, Southern									
Imperial Co., Eastern San Diego Co., Eastern Riverside Co., and Extreme Eastern San Bernardino Co.	27	1830PST			0	0	4	0	TSTM Wind (57), Flash Flood
			Severe thunderstorms developed over Arizona during the day and moved across the Southern California border by early evening. Several thunderstorm cells merged over the Colorado River Valley, forming a Mesoscale Convective Complex. Strong gusty winds were reported on both sides of the border. Heavy rain was confined mainly to the Arizona side, with the exception of the Winterhaven area near Yuma, Arizona. Winterhaven reported flooding in some areas, while Yuma received extensive damage due to flooding and almost three inches of rain. Imperial and Blythe reported wind gusts of 50 to 55 knots and visibilities reduced to less than a 1/4 mile in blowing dust and sand. Sketchy information on the wind damage indicated many downed power lines and poles in scattered areas of Imperial and eastern San Diego counties.						
5 COLORADO									
Cheyenne County, Wild Horse	1	1600MST			0	0	0	0	Hail (1.75)
Mesa County, Glade Park	1	afternoon			0	0	5	0	Lightning
			Lightning started a fire near Glade Park, about 15 miles southwest of Grand Junction. The blaze burned through sage country and destroyed a large home.						
Pueblo County, Pueblo	3	1732MST			0	0	0	0	Hail (1.25)
			1 1/4 inch hail fell in central Pueblo. 1-inch stones buffeted the northeast part of the city.						
Pueblo County, Fremont County, Penrose area	3	1800MST			0	0	0	0	Hail (1.75)
Chaffee County, Salida	5	1415MST			0	0	4	0	Tstm. winds
			Thunderstorm microbursts downed phone lines and tree limbs, and caused minor damage to homes in Salida.						
Saguache County, Saguache	5	evening			0	0	4	0	Tstm. winds
			A microburst unroofed a sheep shed, depositing the roof in the middle of a road. Winds caused minor damage to a few other buildings in the area.						
Larimer County, SNE Bellvue	8	1126MST			0	0	0	0	Tstm. wind (71)
Statewide	4-8				0	0	0	0	Heat
			One of the most intense heat waves on record roasted all areas of Colorado. At Denver, the temperature reached 100 degrees on five consecutive days from the 4th through the 8th. The city had never recorded more than two straight 100 degree days since records began in 1872. 100 degree temperatures sizzled almost all spots at lower elevations, and the mercury even reached that figure at Salida, 7000 feet above sea level in Chaffee County. An all time high of 96 degrees was recorded at Alamosa, at an elevation of 7500 feet in Alamosa County. The highest temperature reported in Colorado during the hot spell was 113 degrees in Merino, on the South Platte River in Logan County, on July 8.						
			Although the heat and accompanying low humidity exacerbated the drought in parts of western Colorado, no specific damage or casualties were attributed to the high temperatures. However, water and electricity use in the Denver area reached all time highs.						
Larimer County, Glendevev	9	1230MST			0	0	3	0	High winds
			Strong winds blew a large door off a barn, broke tree branches, and blew an empty 55 gallon barrel through a wire fence. The damage occurred in the mountains in the extreme northwest corner of the county.						
Lake County, Leadville	11	evening			0	0	5	0	Heavy rain
			Heavy rain weakened an old four-story hotel in Leadville, causing its northwest corner to collapse. Damage was estimated at \$100,000.						
Chaffee and Saguache Counties CO2006-008-010	12	1530MST			0	0	4	0	Heavy rain
			Heavy rains hit the city of Salida and surrounding areas, causing mudslides that washed out numerous unpaved roads in the area. There was local street and basement flooding in Salida, and lightning knocked out power in several areas. The region affected extended from Monarch Pass east to Salida and south to Poncha Pass.						
Douglas County, Castle Rock	13	1737MST			0	0	0	0	Tstm. wind
			Thunderstorm microbursts blew down trees and bent a metal basketball fixture just north of Castle Rock in the Surrey Ridge area.						
Logan County, SN Merino	13	1817MST	1.3	25	0	0	3	0	Tornado (F1)
			A tornado was sighted 5 miles north of Merino. It damaged a barn roof, peeled paint from a farmhouse, and carried a chemical tank a quarter of a mile and deposited it in a field.						
Lincoln County, 15N Limon	13	1918MST	0.6	30	0	0	0	0	Tornado (F1)
			A tornado touched down 15 miles north of Limon.						
El Paso County, Colorado Springs	13	1933MST			0	0	0	0	Tstm. wind (50)
Lincoln County, SW Hugo	13	1955MST	0.6	30	0	0	0	0	Tornado (F1)
			A tornado was sighted 5 miles west of Hugo.						
Fremont County, Penrose	13	2130MST	0.3	25	0	0	4	0	Tornado (F1)
			A tornado demolished a mobile home in Penrose. It was moved 40 feet off its block and overturned.						
El Paso County, Monument	14	1100MST 1135MST			0	0	0	0	Tstm. wind (51) Hail (1.75)
			A severe thunderstorm produced wind gusts to 59 mph at Monument, along with hail up to golfball size that covered the ground.						

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
COLORADO									
Las Animas County, 35 ENE Trinidad	14	1400MST			0	100	5	0	Tstm. wind (E52) A thunderstorm packing winds estimated at 60 mph caused havoc at a National Guard encampment at Pinon Canyon, 35 miles east-northeast of Trinidad. The wind blew down 12 to 15 large tents, including a field hospital, and damaged about 30 smaller ones. About 100 soldiers were injured by flying debris and collapsing tents. About 20 were hurt seriously enough to be hospitalized with head injuries, bruises, and broken bones. Small hail and about half an inch of rain accompanied the storm.
Otero County, La Junta	14	1430MST			0	0	3	0	Tstm. wind (67) Thunderstorm microbursts reached 77 mph at La Junta. Gusts of 50 knots or more occurred almost continuously from 1422 to 1435MST. Some tree branches were blown down in the city, and one light pole was toppled. Brief heavy rain caused some street flooding.
Bent County, Las Animas	14	1500MST			0	0	4	0	Tstm. wind Microbursts downed power lines in the Las Animas area.
Prowers County, 5S Lamar	14	1505MST			0	0	0	0	Hail (1.0)
Pueblo County, Pueblo	15	1537MST			0	0	5	0	Hail (2.75) Hail up to baseball size pummeled central and southern sections of Pueblo from 1530 to 1545MST. Many cars and some roofs were damaged to some extent, but the hail was fairly soft, limiting damage estimates to \$300,000.
Weld County, Eaton-Barnesville area	15	1717MST			0	0	3	5	Heavy rain Tstm. winds 0 0 0 5 Hail (0.5) 0 0 0 5 Hail (0.5)
Washington County, 6S Woodrow	15	1830MST			0	0	0	0	Hail (1.0)
El Paso County, Colorado Springs	15	evening			0	0	0	0	Hail (1.0) 1-inch hail was reported in the northern part of Colorado Springs.
Elbert County, Elbert	16	1615MST			0	0	0	0	Hail (1.0)
La Plata County, Durango	20	1240MST			0	1	0	0	Lightning A 27 year old man was slightly injured by lightning. The bolt struck a tree or a pole about five feet from him.
Routt County, 20 N Steamboat Springs	22	1530MST			1	3	0	0	Lightning A 40 year old man was killed by lightning atop Hahns Peak, about 20 miles north of Steamboat Springs. Two women, one 29 and the other 27, were injured and had to be hospitalized; another man was briefly stunned by the bolt.
Mesa County, Grand Junction	22	evening			0	0	3	0	Tstm. winds Thunderstorm microbursts hit the Grand Junction area, uprooting trees and destroying chicken pens. One farmer lost five pens and a peach tree.
Gunnison County, Almont	26	afternoon			0	0	4	0	Lightning Lightning knocked out phone lines and damaged several television sets in Almont, a small town 10 miles north of Gunnison. Ball lightning shot into a room at a resort building, causing minor damage.
Arapahoe County, Littleton	27	1600MST			0	0	3	0	Lightning Lightning hit a home in Littleton, setting a bed on fire. Damage was confined to the bedroom.
Jefferson County, Arvada	28	1700MST			2	0	0	0	Lightning Lightning killed two men in Arvada. They were taking wash from a clothesline when a bolt hit the older man, 39, killing him instantly. The bolt then traveled along the line, which was stretched between two tall trees, and hit his 26 year old brother, who died the next day.
Boulder County, Nederland	29	1630 MST			0	0	5	0	Lightning Lightning struck a \$250,000 home near Nederland and started a fire which destroyed all of it except two garages.
Garfield County	29	afternoon			0	0	4	0	Heavy rain 1.4 inches of rain fell in Rifle. A pedestrian bridge was washed out, and numerous buildings and streets were flooded. Farther east in the county, a mudslide closed Interstate 70 for two hours in Glenwood Canyon, east of Glenwood Springs.
COLORADO									
Front Range CO2011	29	afternoon-evening			0	0	?	?	Heavy rain Rain drenched all areas of the Front Range, both in the foothills and on the adjacent plains. The wettest area was just north of Greeley in Weld County, where 6 to 7 1/2 inches fell in an 8 hour period. Amounts of 1 to 3 inches were general over the area. The Front Range had been very dry for several weeks before this storm, and the rain fell over a fairly long period of time, so damage was confined to a few minor road washouts and some street, basement, and crop flooding, except for portions of Weld County (see following entry).
Weld County CO2011-012	29	afternoon-evening			0	0	5	6	Heavy rain Hail 0 0 0 6 Hail 0 0 0 5 Tstm winds
Jefferson County, Evergreen	29	2143MST			0	0	4	0	Lightning Lightning started a fire in a home in Evergreen. It reached the house by hitting a tree, then traveling through a metal clothesline strung between the tree and the building.
Phillips County, CO2013	30	1620MST			0	0	5	0	Flash Flood Heavy rain fell in eastern Logan County between 1000 and 1200MST; 3 1/2 inches doused one area near Fleming in two hours. Only minor flooding occurred in that region, but the downpour filled Frenchmans Creek, creating a flash flood to the east in Phillips County. The creek flooded several homes near Paoli, and washed out numerous side roads. U.S. Highway 6 was closed for five hours in the area. The normally dry creek grew to a width of half a mile, and was four feet deep. Some flooding also occurred in the larger towns of Haxtun, to the west, and Holyoke, to the east, but little damage was noted in these areas. Flooding ended around midnight. Actual rainfall in the Paoli area was only about a quarter of an inch.
Logan County CO2012-013	30	afternoon			0	0	5	5	Heavy rain Thunderstorms soaked much of Logan County with 3 to 6 inches of rain, with the largest amounts in the central part of the county from the Sterling area east to Fleming. Bridges and culverts were washed out, roads were flooded, and fences washed away. Many fields were flooded, and total property and crop damage was estimated at \$500,000.
Gunnison County, Gunnison	31	afternoon			0	0	4	0	Heavy rain 1.15 inches of rain fell in Gunnison, with heavier amounts just east of the city. Roads were washed out and fences damaged. A mudslide closed U.S. Highway 50 two miles east of town. A 22 foot long truck was swept off U.S. 50 seven miles east of the city by a mudslide and deposited in Tomichi Creek. Both occupants of the vehicle were unharmed.
Statewide	March-July				0	0	0	8	Drought Dry weather during spring and early summer caused an estimated 160 million dollars damage to Colorado's wheat crop. More than half of the state's wheat was destroyed by the drought, with severe damage to barley, alfalfa, and pinto beans. In general, the drought was most severe in the southern part of the state; and in southwestern Colorado conditions did not improve until late July.
CONNECTICUT									
Litchfield County Kent	07	1705EST			0	0	4	0	TSTM Winds (50+) Thunderstorm winds of over 50 knots downed large trees. Power lines were snapped also.
Litchfield County Salsbury, Sharon, Lakeville, Kent, and Canaan	10	1515-1530EST			0	0	6	0	TSTM Winds (70) A severe thunderstorm with winds of over 70 mph caused scattered damage in towns of northwest Litchfield County.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

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					KILLED	INJURED	PROPERTY	CROPS	
CONNECTICUT									
Litchfield County Cornwall through Milton to Bantam	10	1540- 1605EST	10	75	0	4	7	0	Tornado (F2)
<p>A tornado in Litchfield County produced damage in three separate segments of 1 to 1.5 miles each along about a 10 mile long path. In the Cornwall area along the first, 1.5 mile long segment, the tornado caused severe damage to the Mohawk Mountain Ski Lodge and over 2 million dollars worth of damage in the sparsely populated vicinity. Also destroyed was "Cathedral Pines," a historically significant forest which was a National Landmark.</p> <p>The tornado moved in a south-southeast direction and caused significant tree damage along its second segment of damage path, about one mile long, in Milton. Hundreds of felled trees blocked most of the roads in Milton.</p> <p>In its third and final damage path segment, the tornado caused major destruction along a 1.5 mile path through the town of Bantam. The only building left entirely intact in the small town was the fire station. The tornado then dissipated at Bantam Lake.</p>									
Litchfield County Morris	10	1605- 1615EST			0	0	6	0	TSTM Winds (80+)
Thunderstorm winds, with gusts to 90 mph recorded at Morris, caused considerable tree damage.									
Litchfield County Watertown	10	1615EST			1	10	7	0	TSTM Winds (80)
Thunderstorm winds in excess of 80 mph knocked over most of the trees and power lines along Route 63 just north-northwest of Watertown. A young camper in a tent was killed by a falling tree in the nearby Black Rock State Park. Thunderstorm Wind F120									
Litchfield County Woodbury area	10	1615EST			0	0	4	0	Hail (1.25)
Large hail caused damage to many cars in the Woodbury area.									
Litchfield and New Haven Counties Watertown through Oakville to Waterbury	10	1615- 1630EST	5	100	0	70	7	0	Tornado (F2)
<p>A tornado touched down in Watertown and moved into Oakville. Fifty homes received heavy damage and hundreds more received less serious damage. Hundreds of trees that were knocked down blocked roads and felled utility wires. As the tornado continued into Waterbury, a church steeple was knocked down, several buildings had their roofs ripped off, and several warehouses were leveled. At least 50 people received mainly minor injuries. The tornado dissipated within the city of Waterbury.</p>									
New Haven County Hamden to just north of New Haven	10	1645- 1710EST	4.6	100	0	40	8	0	Tornado (F4) and Hail (1.00)
<p>The thunderstorm complex responsible for the previously listed tornado continued to move south-southeast and produced another tornado. This major tornado, an F4 which is rare for New England, touched down in Hamden. It devastated a portion of the community, especially a section known as Highwood. As many as 350 homes and over 40 businesses were destroyed, resulting in many hundreds of people becoming displaced. The more significant tornado damage was along about a 0.5 mile path, but tree damage extended much further. Damage estimates in Hamden alone exceeded 100 million dollars. Miraculously, no deaths occurred and injuries were rather minor.</p> <p>The tornado continued along an intermittent path toward the south-southeast to North Haven and ended just north of New Haven. An estimated 20 million dollars worth of damage was done by falling trees in this area. Over 30 streets were blocked by fallen trees in New Haven right after the storm. Throughout New Haven County, over 90,000 people were without power; some were without power for up to a week.</p>									
Middlesex County Middleton	10	1641EST			0	0	4	0	TSTM Winds (50+)
Thunderstorm winds knocked down many trees and caused some damage to a small house.									
New London County	14	1330EST			0	3	0	0	Lightning
Three lifeguards were injured, none seriously, by a bolt of lightning when it struck near a beach on a small lake.									
7 DELAWARE									
New Castle Co., Newark	4	1200-1400EST			0	0	?	?	Heavy Rains
Two to four inches of rain fell in Newark. Cooches Bridge on the Christina River reached bankful.									
8 FLORIDA									
Monroe Co., 25NE Key West	02	1105EST							Waterspout
A pilot reported a waterspout.									
Monroe Co., 25N Key West	02	1158EST							Waterspout
A waterspout was reported.									
Charlotte Co., 22NW Fort Myers	02	1500EST			0	0	0	0	Tstm.wind (52)
Wind gusts to 52 knots were reported.									
Santa Rosa Co., Pensacola and Warrington	02	2000EST			0	0	3	0	Tstm.wind (50)
Thunderstorm winds did minor damage to houses and also downed trees.									
DELAWARE									
New Castle Co.	5	0800-2230EST			3	0	?	?	Flash Flood
<p>Northern parts of the county suffered the most damage, with an average reported rainfall of 5 to 7 inches, and 10 inches reported in Claymont. At Wilmington Airport, 6.83 inches of rain fell, making that the greatest 24 hour rainfall ever; 6.37 inches of that fell in just 6 hours, between 0400 and 1000EST. Railroad tracks just north of Wilmington were washed out, stopping Amtrak trains and stranding thousands of travelers. In Elsmere, 600 people had to be evacuated from their apartments. In all, 39 basement apartments were flooded and destroyed. Shellpot Creek carried away much of a supermarket parking lot, dislodged 10 foot sections of concrete, and swept several cars downstream. The Christina River reached 13.1 feet (10 feet above normal, and the highest ever recorded), and Red Clay Creek reached 16.5 feet (11 feet above normal). A 9 year old boy died when he slipped into Pike Creek while riding his bike. A 35 year old man died in his car when a bridge over Stoney Creek was washed away. A 21 year old man died while riding an inner tube in White Clay Creek near Newark.</p> <p style="text-align: center;">M90 M35V M210</p>									
Sussex Co., Rehobeth	6	1600EST			0	1	0	0	Lightning
A man was hit by lightning but survived.									
New Castle Co. and Sussex Co.	16	1000-2130EST			0	0	?	?	Flash Flood
Several roads in the counties were closed due to heavy rains. On average, 2 1/4 to 4 inches of rain fell, with the heaviest rains in Newark in New Castle County. Cooches Bridge on the Christina River reached 11.5 feet (flood stage 9.0 feet), and White Clay River reached 15.2 feet (flood stage 13 feet).									
New Castle Co.	20	0700-1630EST			0	0	?	?	Flash Flood
Heavy downpours dropped 3.65 inches of rain in Claymont, and 2.17 inches in Wilmington before the rain ended between 1000 and 1030EST. Cooches Bridge on the Christina River reached 11.4 feet (flood stage 9.0 feet) and the White Clay River reached 13.85 feet (flood stage 13 feet). An earthen dam in the northern part of the county was in danger of collapsing for several hours.									
Sussex Co., Seaford	26	0600EST			0	1	0	0	Lightning
An 18 year old man was struck by lightning, but survived.									

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					KILLED	INJURED	PROPERTY	CROPS		
FLORIDA										
Santa Rosa Co., Escambia Bay	03	1100EST		0	3	0	0		Waterspout	A waterspout flipped a 30 foot houseboat, causing injury to a family of three.
Broward Co., 10S Fort Lauderdale	03	1200EST							Funnel cloud	A funnel cloud was sighted.
Collier Co., Ochopee	03	1725EST							Funnel clouds	The National Park Service reported several funnel clouds.
Clay Co., Orange Park	03	1800EST		0	4	3	0		Lightning	Four persons in a speed boat on Doctors Lake were injured when lightning struck the water nearby.
Monroe Co., 5NE Key West	05	1158EST							Waterspout	A Weather Service employee reported a waterspout.
Putnam Co., Palatka	05	1400EST		0	0	4	0		Tstm.wind (60)	A large oak tree fell onto a fence.
Duval Co., Jacksonville	05	1615EST		0	1	0	0		Lightning	A stewardess was injured by a nearby lightning strike while escorting passengers to the terminal.
Hillsborough Co., 20NW Tampa	06	1300EST		0	2	0	0		Lightning	Two construction workers were thrown 4 feet into the air by a nearby lightning strike.
Duval Co., Jacksonville	06	1440EST		0	0	0	0		Hail (0.75)	A Weather Service employee reported 3/4 inch diameter hail.
Duval Co., Jacksonville	06	1515EST		0	0	3	0		Tstm.wind (50)	Trees were blown down and minor house damage was done.
Orange Co., Orlando	08	1631EST							Funnel cloud	A funnel cloud was reported by the Orlando Flight Service Station.
Monroe Co., 5N Key West	09	0751EST							Waterspout	A Weather Service employee reported a waterspout.
Putnam Co., San Mateo	09	1550EST		0	0	0	0		Hail (0.88)	Marble and nickel size hail was reported.
Putnam Co., Melrose	09	1600EST		0	1	0	0		Lightning	A woman in a bath tub was shocked when lightning struck the house.
Monroe Co., 3NE Key West	11	0825EST							Waterspout	A pilot reported a waterspout.
Manatee Co., Bradenton	11	1130EST		0	0	4	0		Lightning	Lightning struck a power pole which fell onto a car and ignited a fire that destroyed the vehicle.
FLORIDA										
Highlands Co., Sebring	11	1700EST		0	0	4	0		Tstm.wind (50)	Two buildings suffered minor damage and trees, billboards and traffic signs were blown down.
Sarasota Co., Sarasota	12	1100EST			0	1	0	0	Lightning	Lightning injured a man entering his truck when it struck the antenna.
Hillsborough Co., 3N Tampa	12	1215EST			0	0	0	0	Tstm.wind (50)	Trees were downed.
Sarasota Co., Sarasota	12	1400EST			0	1	0	0	Lightning	A telephone worker was injured when lightning struck a nearby pole.
Pasco Co., Dade City	12	1415EST			0	0	5	0	Tstm.wind (70) Hail (1.25)	Several large trees were downed on cars and quarter size hail was reported.
Charlotte Co., Port Charlotte	12	1415EST			0	0	3	0	Tstm.wind (60) Hail (1.75)	Winds damaged pool enclosures and downed trees. Dime to golf ball size hail was reported.
Lee Co., Boca Grande	12	1415EST			0	0	0	0	Hail (1.75)	Dime to golf ball size hail was reported.
Clay Co., Orange Park	12	1500EST			0	0	0	0	Tstm.wind (50)	Trees were downed.
Sarasota Co., Sarasota	12	1500EST			0	1	0	0	Lightning	A man in a truck was injured by a nearby lightning strike.
Sumter Co., Center Hill	12	1500EST			0	0	5	0	Tstm.wind (60)	Large trees fell and damaged at least three houses. Also, damage to roof shingles, antennae and power lines was done.
Gulf Co., White City	12	1512EST -1525EST	2		0	0	4	0	Tornado (F1)	A house suffered damage from a tornado that was on the ground for 13 minutes.
Sarasota Co., Sarasota	12	1530EST			0	0	4	0	Lightning	A lightning bolt blew a three foot hole in an apartment roof, starting a small fire and doing \$5000 damage.
Lake Co., Leesburg	12	1530EST			0	0	4	0	Tstm.wind (50)	Large trees were blown down, causing damage to a house and car.
Collier Co., Marco Island	12	1600EST			0	0	3	0	Tstm.wind (50)	Trees were blown down onto a truck.
Santa Rosa Co., Milton	12	1630EST			0	0	0	0	Tstm.wind (50)	Trees were downed.
Volusia Co., Lake Helen	12	1700EST			0	0	4	0	Tstm.wind (60)	Trees were downed, causing damage to businesses and houses.

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JULY 1989

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					KILLED	INJURED	PROPERTY	CROPS	
FLORIDA									
Levy Co., Bronson	13	0645EST			0	0	0	0	Tstm.wind (50)
									Trees were downed.
Suwannee Co., McAlpin	13	1130EST			0	0	4	0	Tstm.wind (60)
									Chicken houses, a meat processing business and a house roof were damaged.
Columbia Co., Columbia City	13	1300EST			0	0	0	0	Tstm.wind (50)
									Trees were downed.
Duval Co., Jacksonville	13	1400EST			0	1	0	0	Lightning
									A truck driver at a landfill was injured by a nearby lightning strike.
Bay Co., Panama City	13	1855EST							Waterspouts
									Two waterspouts were sighted just offshore of Panama City.
Palm Beach Co., Boca Raton	14	1330EST	short ?		0	0	3	0	Tornado (F0)
									A tornado which was photographed and viewed by numerous people did minor damage at a construction sight.
Monroe Co., 3NE Key West	14	1358EST							Waterspout
									A Weather Service employee spotted a waterspout.
Volusia Co., New Smyrna Beach	14	1530EST			0	0	2	0	Tstm.wind (50)
									A tree was downed on a residence.
Brevard Co., Titusville	14	1545EST			0	0	0	0	Tstm.wind (55)
									A gust to 55 knots occurred at Titusville Airport.
Indian River Co., Vero Beach	14	1630EST			0	0	3	0	Tstm.wind (50)
									Several mobile homes suffered minor wind damage.
Martin Co., Palm City	14	1700EST							Funnel clouds
									Three funnel clouds were sighted over the St. Lucie River.
Leon Co., Tallahassee	14	1822EST			0	0	5	0	Lightning
									A lightning-initiated fire completely destroyed a house.
Volusia Co., Daytona Beach	15	1600EST			0	0	3	0	Tstm.wind (51)
									Gusts to 51 knots overturned a Cessna aircraft.
Volusia Co., New Smyrna Beach	15	1620EST			0	0	0	0	Tstm.wind (55) Hail (0.75)
									Sustained winds of 50 knots and marble size hail were reported at the Coast Guard station.
Monroe Co., 3NW Key West	15	1638EST							Waterspout
									A Weather Service employee reported a waterspout.
Monroe Co., Islamorada	16	1030EST							Waterspout
									The Coast Guard reported a waterspout.
FLORIDA									
Okaloosa Co., Crestview	16	1845EST			0	0	0	0	Tstm.wind (50)
									Small trees and limbs were downed.
Santa Rosa Co., Milton	16	1845EST			0	0	0	0	Tstm.wind (50)
									Trees and limbs were downed.
Escambia Co., Cottage Hill	16	1845EST			0	0	0	0	Tstm.wind (50)
									Trees and limbs were downed.
Escambia Co., Molino	16	1855EST			0	0	3	0	Tstm.wind (60)
									Trees fell on houses, doing minor damage.
Escambia Co., Pensacola	16	1940EST			0	0	3	0	Tstm.wind (55)
									Trees were downed, causing damage to a car.
Monroe Co., 1N Key West	17	0710EST							Waterspout
									A Weather Service employee reported a waterspout.
Palm Beach Co., Lantana Boynton Beach	17	1315EST	.25	10	0	0	3	0	Tornado (F0) Tstm wind (60)
									A tornado did minor damage to house roofs and outside furniture as well as downing several trees near Lantana. Thunderstorm winds gusting to 60 knots downed trees near Boynton Beach.
Indian River Co., Vero Beach	17	1430EST			0	0	4	0	Tstm wind (60)
									Strong wind gusts caused structural damage to several mobile homes.
Brevard Co., Titusville	17	1615EST			0	1	0	0	Lightning
									An 11 year old boy sitting on a metal stool in a kitchen was struck by a bolt that came through an open window.
Martin Co., Indiantown	19	1400EST			0	0	4	0	Lightning
									A lightning-initiated fire destroyed a mobile home.
Palm Beach Co., 25W Palm Beach	19	1430EST			0	2	0	0	Lightning
									A nearby lightning strike injured two people touring Lion Country Safari.
Brevard Co., Sharpes	19	1629EST	short ?		0	1	4	0	Tornado (F0)
									A mobile home was heavily damaged and a woman inside injured when a tornado briefly touched down. Damage to several businesses was reported and trees were downed also.
Indian River Co., Vero Beach	19	1755EST			0	0	0	0	Hail (1.75)
									Golf ball size hail fell at the beach.
Palm Beach Co., Boca Raton	20	0930EST			0	1	3	0	Tstm.wind (65)
									A construction worker was injured when blown from the roof of a house. The house suffered minor damage.
Escambia Co., Barrineau Park	20	1045EST			0	0	0	0	Tstm.wind (50)
									Trees were downed.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

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					KILLED	INJURED	PROPERTY	CROPS	
FLORIDA									
Santa Rosa Co., Munson	20	1100EST			0	0	0	0	Tstm. wind (50)
									Trees were downed.
Lake Co., Bussville Park	20	1600EST			0	0	2	0	Tstm. wind (50)
									Trees were downed onto a pickup truck.
Flagler Co., Bunnell and Flagler Beach	20	1630EST			0	0	3	0	Tstm. wind (73)
									Wind gusts of 84 mph downed trees and did minor house damage.
Polk Co., Lakeland	21	1648EST			0	0	0	0	Tstm. wind (54)
									Gusts to 63 mph occurred at Lakeland Municipal Airport.
Duval Co., Jacksonville	21	1655EST			0	0	5	0	Tstm. wind (80)
									Thirteen light planes were damaged at Herlong Field as a likely downburst hit. A hangar and patio roof were damaged and pine trees were downed.
Hernando Co., Brooksville	21	1800EST			0	0	3	0	Tstm. wind (55)
									A mobile home was damaged by a windblown carport.
Alachua Co., Gainesville	22	1437EST			0	0	3	0	Tstm. wind (50)
									Strong winds destroyed a storage shed.
Hillsborough Co., Carrollwood and Lutz	22	1530EST			0	0	5	0	Tstm. wind (80)
									Roofs were blown off of 11 apartment buildings and debris damaged cars.
Pasco Co., Zephyrhills	22	1538EST			0	0	5	0	Tstm. wind (75)
									Damage amounting to \$300,000 was done to 60 mobile homes.
Pasco Co., Crystal Lake	22	1545EST			0	0	4	0	Tstm. wind (60)
									Nineteen mobile homes were damaged.
Manatee Co., SS Oak Knoll	22	1435EST							Funnel clouds
									Two funnel clouds were sighted.
Polk Co., Winter Haven	22	1725EST							Funnel cloud
									A large funnel cloud was sighted.
Marion and Alachua Counties	23	1400EST			0	0	4	0	Tstm. wind (55)
									Several trees were downed, causing damage to roofs and vehicles in southern Alachua County and north-central Marion County.
Lee Co., Fort Myers	23	1605- 1608EST	1.0	300	0	0	6	0	Tornado (F2)
									A tornado touched down three times in south Fort Myers causing damage estimated at \$720,000. Residences damaged included 38 mobile homes, 7 condominiums and 20 apartments. Commercial damage included 11 buildings, 37 boats and 15 travel trailers.
Manatee Co., 10E Bradenton	24	1315EST			0	3	0	0	Lightning
									Three farm workers suffered minor burns from a nearby lightning strike.
FLORIDA									
Monroe Co., 3NW Key West	24	1442EST							Waterspout
									A Weather Service employee reported a waterspout.
Highlands Co., Avon Park	24	1700EST			0	0	3	0	Tstm. wind (50)
									Thunderstorm winds tore the patio from a mobile home.
Monroe Co., 2S Key West	26	1001EST							Waterspout
									A Weather Service employee reported a waterspout.
Dade Co., 3E Miami Beach	27	0540EST							Waterspout
									A Weather Service employee sighted a waterspout.
Monroe Co., 10N Key West	27	1617EST							Waterspout
									A Weather Service employee sighted a waterspout.
Monroe Co., 5N Key West	28	1435EST							Waterspout
									A Weather Service employee sighted a waterspout.
Lee Co., Fort Myers	28	1900EST			0	0	3	0	Tstm. wind (58)
									Thunderstorm winds peaking at 58 knots at Page Field downed 33 trees on a nearby golf course and did minor house damage.
Dade Co., 15S Miami	29	1400EST			0	1	0	0	Lightning
									A man was injured by a lightning strike while doing lawn work.
Baker Co., Sanderson	29	1630EST			0	0	0	0	Tstm. wind (50) Hail (0.75)
									A tree was downed and dime size hail fell.
Lee Co., Cape Coral	29	1700EST			0	0	3	0	Lightning
									Lightning punched a 6" hole in the roof of a house and damaged appliances.
Dade Co., Hialeah	30	0930EST			1	0	0	0	Lightning
									A woman out for a walk was killed by lightning at Hialeah Race Track. F600.
Monroe Co., 5NW Key West	30	1300EST							Waterspout
									A Weather Service employee reported a waterspout.
Dade Co., 3E Miami Beach	30	1515EST							Waterspout
									A waterspout was sighted,
Charlotte Co., Punta Gorda	30	1750EST			0	0	4	0	Tstm. wind (55)
									A pool enclosure was destroyed, resulting in \$5000 damage.
Alachua Co., Gainesville	30	2015EST			1	0	0	0	Lightning
									A 15 year old boy playing outside was killed by lightning. M150.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

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					KILLED	INJURED	PROPERTY	CROPS	
9 GEORGIA									
CRAWFORD COUNTY Roberta	03	1145EST			0	0	?	?	TSTM Wind
MUSCOGEE COUNTY Columbus	03	0855EST-1100EST			0	0	?	0	Flash Flood
After receiving more than three inches of rainfall in four hours from the remains of Tropical Storm Allison, localized flooding of some streets, underpasses, and low-lying areas developed over the Columbus metropolitan area.									
DEKALB COUNTY Decatur	03	1100EST			0	0	?	0	Flash Flood
Streets and low-lying areas were flooded.									
BIBB COUNTY countywide	03	1230EST			0	0	?	0	TSTM Wind
Scattered power disruptions occurred as the storms moved across Bibb County.									
CATOOSA COUNTY Fort Oglethorpe Chickamauga National Park	03	1700EST			0	0	?	0	Flash Flood
	03	1700EST			0	0	?	0	Flash Flood
Heavy rainfall caused flash flooding at Fort Oglethorpe and southward through that part of Chickamauga National Park that lies in Catoosa County.									
WALKER COUNTY Chickamauga National Park Chickamauga	03	1700EST			0	0	?	0	Flash Flood
	03	1700EST			0	0	?	0	Flash Flood
Heavy rainfall caused flash flooding in that part of Chickamauga National Park that lies in Walker County. In the town of Chickamauga, a flooded mobile home park was evacuated.									
WALKER COUNTY Rossville	04	0930EST			0	0	?	?	Flash Flood
CATOOSA COUNTY Fort Oglethorpe	04	1835EST			0	0	?	?	Flash Flood
Approximately three feet of water flooded a subdivision of Fort Oglethorpe and resulted in the evacuation of several mobile homes in the area.									
COBB COUNTY countywide	05-	2230EST-			0	0	6	0	Flash Flood
	06	0100EST			0	0	?	0	Flash Flood
	06	0700EST-0955EST			0	0	?	0	Flash Flood
After receiving from three to near nine inches of rain in areas of Cobb County, parts of sixteen roads and several bridges were closed due to flood damage. A bridge and a 24-inch water main near Lake Wooten in the Acworth-Kennesaw area were completely washed away, leaving about 300 homes without water. A failed water main at Spyrna left 700 apartments units without water. Across the county, water flooded many homes and inundated numerous cars. Several mobile home parks in Kennesaw were evacuated or damaged. In all, six major water feeder lines broke due to shifting earth. At Powder Springs, one foot of water flooded a community park. In north Cobb, a nearly completed \$100,000 frame house was destroyed by rushing water.									
CHEROKEE COUNTY Woodstock	05-	2230EST-			0	0	5	0	Flash Flood
	06	0100EST			0	0	?	0	Flash Flood
	06	0700EST-0915EST			0	0	?	0	Flash Flood
Many roads and bridges were closed over south Cherokee County. Two cars were washed away, although the four occupants were rescued and unharmed. A boat and trailer were damaged when flood waters washed them into a culvert. A water main, broken by the flood waters, left many homes without water.									
PICKENS COUNTY Jasper	06	0700EST-0915EST			0	0	?	0	Flash Flood
After receiving over 3 inches of rainfall in parts of Pickens County, several roads and bridges were closed due to flooding.									
WHITFIELD COUNTY Dalton	06	0700EST			0	0	4	0	Flash Flood
A neighborhood in Dalton was flooded when near 2 inches of rain fell in morning storms. Seven or eight homes had water inside them. Water levels reached the roofs of several parked cars. The heavy rains loosened the ground, felling small trees that left traffic blocked.									
— GEORGIA									
COBB COUNTY 4E Marietta Powder Springs	09	1905EST			0	0	0	0	Small Hail
	09	1930EST	0.8	33	0	0	?	?	TSTM Wind
Downburst winds occurred near Powder Springs. Numerous trees were blown down toward the west. The path width was about 100 feet and path length was estimated between 1/2 and one mile. Some trees were snapped off, others were uprooted. Several small outbuildings and some fencing were also destroyed.									
COBB COUNTY Marietta 5W Marietta	09	1930EST			0	0	?	0	Flash Flood
	09	1942EST			0	0	0	0	Small Hail
In about half an hour, near 1 inch of rain fell onto already saturated ground and caused flash flooding.									
FULTON COUNTY Hapeville	09	2030EST-2215EST			0	0	0	0	Flash Flood
FLOYD COUNTY Crystal Springs	12	1430EST			0	0	?	?	TSTM Wind
A few trees were felled by thunderstorm winds.									
SPALDING COUNTY 2S Luella 2S Luella	12	1750EST			0	0	0	?	Hail (1.00)
	12	1750EST			0	0	?	?	TSTM Wind
Downburst winds uprooted or damaged 80 to 100 trees near Georgia Highway 155 close to the Spalding County-Henry County line. The winds also downed power lines, toppled a grain elevator, took roofs off chicken houses and garages, and destroyed several small utility buildings.									
JONES COUNTY 2SE James	12	1800EST			0	0	0	4	Lightning Small Hail
Sixty-seven (67) beef cows were killed when they huddled underneath a tree to avoid small hail. Lightning struck the tree and dispersed into the ground. The cows, worth over \$40,000, were not burned; the surge of electricity burst their hearts.									
WILKINSON COUNTY 3E Irwinton	12	1830EST			0	0	?	?	TSTM Wind
LAURENS COUNTY Dublin	12	1830EST			0	0	?	?	TSTM Wind
HOUSTON COUNTY 4W Warner Robbins Warner Robbins	12	2015EST			0	0	?	?	TSTM Wind
	12	2115EST			0	0	?	?	TSTM Wind
Trees were blown down across Georgia Highway 247 at around 2015EST. At 2115EST, trees were blown across the highway and power lines were broken in Warner Robbins.									
DOUGHERTY COUNTY Albany 1N Albany 1N Albany	13	1316EST			0	0	0	0	TSTM Wind (71)
	13	1330EST			0	0	4	0	TSTM Wind
	13	1333EST			0	0	?	0	Lightning
Downburst winds did little damage at the Albany airport where the 82 mile an hour gust was measured. However, one mile north of the airport, the winds pushed a cinder block wall down and caused a gas line to rupture. Although the gas line exploded, no injuries occurred. In the same area, numerous trees and power lines were blown down. The wind caused damage to several pickup trucks and tore new awnings off a church. Lightning damaged the exterior of a home after striking a nearby tree.									
COWETA COUNTY 2S Palmetto	13	1830EST			0	0	4	0	Flash Flood
Most of the homes in a mobile home park and the residents' vehicles were heavily damaged by near 5 feet of water and mud. Rain and poor drainage caused a local creek to leave its banks. Residents returned to their homes at about 0230EST of the next day.									
MUSCOGEE COUNTY Columbus Columbus	16	1345EST			0	0	?	0	TSTM Wind
	16	1345EST			0	0	?	0	Flash Flood
Scattered trees, along with electrical and telephone lines, were blown down by thunderstorm winds.									
COBB COUNTY 3SW Woodstock Kennesaw	16	1425EST			0	0	?	0	Flash Flood
	16	1425EST			0	0	2	0	Flash Flood
A mobile home park, located partially in the Noonday Creek flood plain at Kennesaw, flooded when three inches of rain fell.									
POLK COUNTY Rockmart Rockmart	16	1425EST			0	0	0	0	Funnel Cloud
	16	1430EST			0	0	?	?	TSTM Wind
A few trees were downed across county roads around Rockmart.									

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					KILLED	INJURED	PROPERTY	CROPS	
— GEORGIA									
FULTON COUNTY Atlanta, Roswell and Hapeville	16	1430EST- 1730EST			0	0	?	0	Flash Flood
									Many streets and bridges were closed due to heavy rainfall that faded five hours later.
FULTON COUNTY East Point	16	1430EST			0	0	?	0	TSTM Wind
									Although winds toppled trees and downed electric and telephone wiring across Fulton County, East Point had extensive outages.
CLAYTON COUNTY Jonesboro	16	1430EST			0	0	?	0	TSTM Wind
									Thunderstorm winds damaged trees and tore down electric and telephone wiring around Jonesboro.
DEKALB COUNTY Tucker	16	1430EST			0	0	?	0	TSTM Wind
									Although winds toppled trees along with electric and telephone wiring across the county, Tucker had extensive outages.
DEKALB COUNTY Chamblee	16	1430EST- 1730EST			0	0	?	0	Flash Flood
									Several cars were swept away or damaged by flood waters after five hours of rainfall.
WINNETT COUNTY Lawrenceville and Duluth Lilburn and Lawrenceville	16	1430EST			0	0	?	0	TSTM Wind
	16	1430EST- 1730EST			0	0	?	0	Flash Flood
									Although winds toppled trees and electrical wires across the county, Lawrenceville had extensive power and telephone outages. At Duluth, thunderstorm winds caused a hotel's pavillion to collapse. After five hours of heavy rain, two motorcycles and a car were damaged by flood waters at Lawrenceville. In Lilburn, a front yard collapsed and another home's basement caved in.
GREENE COUNTY Penfield	17- 18	1000EST- 2330EST			0	0	0	?	River Flood
									The Oconee River at Penfield was over its flood stage, 11 feet. Flooding of the agricultural lands along the river occurred.
MADISON COUNTY Ila, 2NE Carlton and Danielsville	17- 18	2200EST- 0300EST			0	0	?	?	Flash Flood
									Rainfall, totaling near 6 inches around Ila caused a creek to rise and burst a dam adjacent to a mobile home park. The swift, shoulder-high water forced the hasty evacuation of four families. The heavy downpours caused bridges and roads to wash out near the Broad River, at the Madison County-Elbert County line. Basements and driveways of several homes, along with secondary roads and seven culverts, sustained considerable flood damage.
HART COUNTY Airline, Bethany and Shoal Creek	17- 18	2200EST- 0300EST			0	0	?	?	Flash Flood
									Around 7 inches of rainfall caused two rural bridges to collapse and damaged four others. Estimated costs of materials to repair the bridges were \$25,000; several roads required resurfacing.
CHATHAM COUNTY 12SE Savannah	18	1225EST			0	0	?	?	TSTM Wind
									Scattered trees were uprooted in a Skidway Island subdivision.
COBB COUNTY Acworth	19	1745EST			0	0	?	?	TSTM Wind
									Thunderstorm winds caused considerable tree damage near Acworth.
FULTON COUNTY 4E Roswell	19	1750EST			0	0	?	0	TSTM Wind
									Several trees were broken or uprooted. Wind gusts were estimated near 50 miles an hour in Roswell at 1805EST.
LAURENS COUNTY Dudley	19	1750EST			0	0	?	?	TSTM Wind
									Thunderstorm winds downed trees and power lines around Dudley.
— GEORGIA									
COBB COUNTY Sweat Mountain Acworth and Kennesaw Marietta Marietta	19	1800EST			0	0	?	0	Lightning
	19	1815EST			0	0	?	?	TSTM Wind
	19	1820EST			0	0	?	0	Flash Flood
	19	1830EST			0	0	?	0	TSTM Wind
									Most damaged occurred over north and east Cobb County. Winds uprooted or damaged several trees and utility lines. Falling trees, along with lightning, caused power outages. A few mobile and permanent homes, along with a car, had notable damage from trees. Flash floods occurred along Proctor Creek in Marietta.
DOUGLAS COUNTY Lithia Springs	19	1820EST			0	0	?	0	TSTM Wind
									Thunderstorm wind gusts were estimated near 50 miles an hour.
WINNETT COUNTY	19	1900EST			0	0	?	0	TSTM Wind Lightning
									Scattered trees were snapped or uprooted over the county. Three home fires resulted from lightning.
FULTON COUNTY Atlanta	20	1720EST- 2020EST			0	0	?	0	Flash Flood
									Localized heavy rainfall over north Atlanta began about 1515EST. Runoff from the rains pushed Peachtree Creek onto a golf course and recreational area.
WINNETT COUNTY Snellville Snellville	21	1315EST			0	0	5	0	TSTM Wind Small Hail
	21	1400EST			0	0	?	0	TSTM Wind
									Thunderstorm winds caused damage to several homes and uprooted trees, mainly in a three block area. Trees damaged the roofs, garages, and cars at the residences. Five homeowners estimated the damage costs between \$10,000 and \$15,000 per house.
FLOYD COUNTY Rome and Lindale	22	1900EST- 2130EST			0	0	0	0	Flash Flood
									Roads and low-lying areas were flooded between Cartersville and Rome by over two inches of rain. Several cars were damaged.
BUTTS COUNTY Jackson Jackson Lake	25	1710EST			0	0	?	0	TSTM Wind Small Hail
	25	1725EST			0	0	?	?	TSTM Wind
									Strong winds around Jackson and that part of Jackson Lake in Butts County damaged or uprooted scattered trees.
HENRY COUNTY Stockbridge	25	1730EST			0	0	0	0	Hail (.75)
GILMER COUNTY SW Ellijay	25	1803EST			0	0	?	?	TSTM Wind
FULTON COUNTY Atlanta	25	1810EST			0	0	?	0	TSTM Wind
									Winds tore down power lines in three areas of the city.
COBB COUNTY 3NE Marietta	25	1815EST			0	0	?	0	TSTM Wind
									Thunderstorm winds downed a couple of trees. The trees damaged a home and a car.
BARTOW COUNTY Pine Log 10W Cartersville	25	1905EST			0	0	0	?	Hail (.75)
	25	2000EST			0	0	?	?	TSTM Wind
									Numerous trees and power lines were downed west of Cartersville.
DOUGLAS COUNTY Douglasville	25	2040EST			0	0	?	?	TSTM Wind
									Numerous trees and power lines were downed across the county and at Douglasville. Very small hail developed.
DOUGLAS COUNTY Douglasville Douglasville Douglasville	26	1615EST			0	0	0	0	Hail (0.88)
	26	1620EST			0	1	?	0	Lightning
	26	1635EST			0	0	?	0	TSTM Wind
									A Douglas County firefighter was jarred by a lightning strike near a house that he was investigating for lightning damage. Although unburned, the firefighter was extremely sore. The cost of the lightning damage to the home was unknown.

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					KILLED	INJURED	PROPERTY	CROPS	
— GEORGIA —									
COBB COUNTY countywide	26	1615EST			0	1	?	0	TSTM Wind Small Hail
Kennesaw	26	1615EST			0	0	?	0	Lightning
Countywide, numerous trees and power lines were downed. Around Kennesaw, a construction worker suffered a broken leg when sudden wind gusts overturned a crane and caused a building under construction to collapse. Lightning started three house fires and was the probable cause of another three.									
FULTON COUNTY Atlanta and Sandy Springs	26	1635EST			0	0	?	0	TSTM Wind Lightning
Wind-blown limbs and lightning were responsible for scattered power outages and traffic problems in Atlanta and Sandy Springs.									
DEKALB COUNTY Decatur	26	1645EST			0	0	?	0	TSTM Wind Lightning
Lightning, along with trees and limbs felled by thunderstorm winds, were responsible for scattered power outages.									
BARTOW COUNTY Cartersville	26	2045EST			0	0	4	0	TSTM Wind
High winds blew the roof off an athletic building at a high school, causing about \$40,000 in damages. Rain and wind damage also occurred in the interior, to athletic equipment, and to a scoreboard and a press box.									
BARTOW COUNTY Pine Log	26	2050EST			0	0	?	0	TSTM Wind
CRAWFORD COUNTY Roberta	27	1936EST			0	0	?	?	TSTM Wind
Convective wind gusts over 50 miles an hour blew large tree limbs onto power lines near Roberta.									
CRAWFORD COUNTY 5S Roberta	27	2005EST			0	0	?	?	TSTM Wind Small Hail
Thunderstorm winds downed several trees and power lines.									
DEKALB COUNTY Decatur	30	1615EST			0	0	?	0	TSTM Wind
EFFINGHAM COUNTY Clyo	30	2010EST			0	0	?	?	TSTM Wind
Trees were blown down by thunderstorm winds at Clyo, resulting in power outages.									
10 IDAHO									
Franklin Co., Weston	1				0	0	4	0	TSTM WIND
Strong winds associated with a thunderstorm tore more than half the roof off a large hay barn.									
Boundary Co.	9	1800 PST			0	0	0	4	LIGHTNING
A thunderstorm passing over northern Idaho near the Canadian border ignited two small forest fires.									
Caribou Co., Soda Springs	10				0	0	4	0	LIGHTNING
Lightning struck a utility pole next to the Caribou Lodge, sending a power surge through the lines to the Lodge's switchboard computer and damaging a transformer.									
S.W. Canyon Co.	14	1630 MST			0	1	4	0	TSTM WIND (70)
Strong winds associated with thunderstorms downed trees and power lines and damaged buildings and recreational vehicles. A man was injured when the pickup truck he was driving struck some sprinkler pipe which had been blown onto the road and was obscured by blowing dust.									
Butte, Camas, Jerome, Minidoka, Cassia, Blaine, Owyhee, Blaine, Lincoln, Washington, Valley, Boise, Nez Perce, and Lewis Counties	15				0	0	0	6	LIGHTNING
Thunderstorms producing about 1600 lightning strikes in 7 hours set off numerous forest and range fires in southern Idaho.									
— IDAHO —									
Clark and Bonneville Counties	16				0	0	0	5	LIGHTNING
Forest fires were set off by lightning in the Targhee National Forest; one near Dubois and two others north of Palisades Reservoir.									
Latah Co.	16				0	0	0	5	LIGHTNING
Several small fires were set off by lightning at the southern end of the Panhandle national forests.									
S.W. Canyon Co.	19				0	0	4	0	TSTM WIND
Numerous power lines were downed by falling trees. One power pole was blown through the roof of a mobile home.									
Custer, Idaho, Valley, and Boise Counties	20	1700 MST			0	0	0	5	LIGHTNING
Numerous small forest fires were set off by lightning in western and central Idaho.									
Minidoka Co., Paul	20	2030 MST			0	0	3	0	TSTM WIND
A thunderstorm with strong gusty winds damaged power lines and blew down trees.									
Minidoka Co., Rupert	26	1700 MST			0	0	2	0	TSTM WIND
A tree limb fell on a power line, interrupting power for about an hour.									
Clark Co., Dubois	26	1930 MST			0	0	3	0	LIGHTNING
Lightning struck a power pole, leaving most of Clark County without power for close to four hours.									
Washington and Idaho Counties	26				0	0	0	7	LIGHTNING
Lightning started several fires, the largest of which were located in the Salmon River Canyon and in Hells Canyon. About 12,000 ac.									
Cassia Co., Burley	26				0	0	3	0	TSTM WIND
At Burley Municipal Golf Course thunderstorm winds blew down two silver poplar trees between 60 and 70 years old. A Chinese elm was also toppled. Other trees in the area were broken but not uprooted.									
Minidoka Co., Rupert	26				0	0	3	0	LIGHTNING
A lightning strike burned up a transformer.									
Idaho, Adams, Valley, Boise, Elmore, Camas, Blaine, and Custer Counties	26-27				0	0	0	7	LIGHTNING
Thunderstorms over a two-day period with up to 2,000 lightning strikes an hour set off more than 500 forest fires in central and southwest Idaho, destroying more than 3,200 acres of forest by late on the 27th.									
Bingham Co., near Aberdeen	27				0	0	4	0	TSTM WIND
A wind gust destroyed an equipment storage shed. The building was blown off its foundation. The roof collapsed after equipment was removed.									
Bingham Co., NW of Aberdeen	28	?	1/4	20	0	0	4	0	TORNADO (FO)
A tornado removed 350 feet of the roof of a holding shed which landed upside down on the other side of the road. The remainder of the shed was completely destroyed. The roof struck power lines, disrupting service.									
Custer, Lincoln, Twin Falls, and Blaine Counties	31				0	0	0	6	LIGHTNING
Lightning strikes set off numerous forest fires from the Twin Falls area into the northern Sawtooth wilderness.									
11 ILLINOIS									
Cook Co., 5N Midway Airport	11	0825CST			0	0	?	0	Hail (1.0)
A pilot reported (1-inch hail).									
Du Page Co., Woodridge	11	0845CST			0	3	0	0	Lightning
Lightning struck a family of three outside their apartment complex in Woodridge. One person (wife) was critically injured but later made a full recovery. The two adults (husband and wife) were carrying umbrellas when the lightning struck. Their four year old son was also injured.									
De Kalb Co., De Kalb-Sycamore	11	1335CST			0	0	4	?	Tstm winds
A probable microburst crushed corn stalks and knocked down trees and power lines. A semi-trailer truck on Route 84 south of Lanark was blown over. 5000 persons were without electricity in De Kalb. High winds blew the roof off a medical clinic in Sycamore. In Malta, large trees were reported down. A building near Kirkland along Route 72 was reported blown down by high winds.									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
ILLINOIS									
Grundy Co., Gardner	11	1400CST			0	0	4	?	Funnel cloud, Tstm.winds
									The Gardner chief of police sighted a funnel cloud that was also spotted by other citizens in the area. Strong thunderstorm winds caused damage to crops, some buildings and power lines. Up to 2.68 inches of rain fell at the Dresden lock and dam.
Kankakee Co., Kankakee	11	1500CST			0	0	4	?	Tstm.winds Rain
									High winds blew down a grandstand roof at the Kankakee County Fair Grounds and toppled a utility pole. 3000 utility customers were left without power in Kankakee. In Martinton 3 inches of rain fell and caused some local flooding on roadways. In Kankakee County corn stalks in many fields were blown into a 45 degree angle because of high winds. Some large trees were reported uprooted in a few rural areas of the county.
Wayne Co., Geff	24	1910CST	0.1	10	0	0	0	0	Tornado (F0)
									A tornado touched down briefly in an open field but caused no damage.
Wayne Co., NW Geff	24	1919CST			0	0	0	?	Hail (0.75)
McHenry Co., Woodstock	27	1630CST			0	0	?	?	Hail (0.75) Tstm.winds (52)
Winnabago Co., East Winnabago Co., Loves Park	27	1805CST			0	0	0	?	Hail (1.0)
	27	1814CST			0	0	?	0	Tstm.winds
									Strong winds blew down some trees and power lines.
Winnabago Co., near Durand	27	1832CST			0	0	0	?	Hail (1.75)
Boone Co., near Capron	27	1815CST			0	0	?	0	Tstm.winds
									Strong winds blew down some trees and power lines.
Boone Co., Belvidere	27	1845CST			0	0	?	0	Tstm.winds
									High winds blew down some trees and power lines.
Jersey Co., Jerseyville	28	1435CST			0	0	?	0	Tstm.winds
									Strong winds blew down some power lines.
Massac Co., near Hilleman	29	1601CST			0	0	0	?	Hail (0.75)
INDIANA									
Jackson Co.	01	1515 EST			0	1	1	?	Lightning
									A male, 36 years old, was injured when he was struck by lightning while putting up a tent pole. The injury was not serious.
Hendricks Co., 3E Plainfield	08	1822 EST			0	0	?	?	Hail(1.25)
Marion Co.	08	1824-1834 EST			0	0	?	?	Hail(1.25)
									Several reports of hail up to near golf ball size across the southern third of the county were received.
Hendricks Co., Avon	08	1845 EST			0	0	?	?	Hail(1.25)
Marion Co., 3S Indianapolis	09	1850 EST			0	0	4	?	Hail(1.25)
									Large hail damaged cars in southern Marion County.
INDIANA									
St. Joseph Co., Roseland	09	0235 EST			0	0	?	?	Hail(0.75)
Elkhart Co., 2NE Elkhart	09	0245 EST			0	0	?	?	Tstm.Wind
									Numerous large trees were downed.
St. Joseph Co., Mishawaka	09	0445 EST			0	0	?	?	Flash Flooding
									Six to ten inches of water standing on US 20 to the east side of Mishawaka was reported.
Elkhart Co., Elkhart	09	0515 EST			0	0	?	?	Flash Flooding
									City streets were flooded in Elkhart.
St. Joseph Co., South Bend	09	0700 EST			0	0	?	?	Flash Flooding
									South Main Street collapsed causing a 30 by 20 foot hole 10 feet deep due to overflowing of sewer lines. Three and two-thirds inches of rain fell at the South Bend Airport.
St. Joseph Co., South Bend	11	1310 EST			0	0	?	?	Hail (0.75)
									Hail to three-quarters of an inch was recorded at the WSO observation site at the airport.
Kosciusko Co., North Webster	11	1405 EST			0	0	?	?	Tstm.Wind:60!
									Strong winds rocked cars. Power lines and large trees fell and blocked county roads from Milford to Wawasee and North Webster.
Kosciusko Co., Syracuse	11	1410 EST			0	0	?	?	Hail(0.75)
Allen Co.	11	1416 EST			0	0	5	0	Tstm.Wind(75)
									Winds recorded to 75 mph at Smith Field in Fort Wayne produced \$75,000 in damage. Damage from the winds included damage to a DC-3 and two small aircraft, and the destruction of a hangar.
Hamilton Co., Westfield	11	1430 EST			0	0	5	0	Lightning
									Lightning struck a house, causing it to catch on fire. Damage was estimated at \$100,000.
Allen Co.	11	1435 EST			0	0	3	0	Hail(1.25)
									Large hail was reported in northeast Fort Wayne at Maplecrest and Stallhorn roads.
Dekalb Co.	11	1435 EST			0	0	3	0	Tstm.Wind
									Several trees were reported down in Auburn, including a 12 inch diameter willow tree.
Noble Co.	11	1435 EST			0	0	4	0	Tstm.Wind
									Numerous trees, limbs and power lines were reported down across the southeastern section of county.
Hendricks Co.	11	1438 EST			0	0	?	?	Tstm.Wind
									Trees were reported down at the Speedway Airport.
Dekalb Co.	11	1440 EST			0	0	4	0	Tstm.Wind
									Numerous trees, limbs and lines were reported down across the southern part of county.
Marion Co.	11	1440 EST			0	0	?	?	Hail(0.75)
									Dime size hail was reported on West 10th Street in Indianapolis.
Henry Co.	11	1515 EST			0	0	?	?	Tstm.Wind
									Trees were downed in the county.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

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					KILLED	INJURED	PROPERTY	CROPS	
INDIANA									
Shelby Co.	11	1524 EST			0	0	?	?	Tstm. Wind Trees were downed in the northwest section of the county.
Shelby Co. Fairland	11	1525 EST	0.5	25	0	0	4	?	Tornado(F0) A brief tornado touched down in Fairland. Trees were blown down. One tree landed on a car and one on a house. The corn crop was damaged. Power lines were downed by falling limbs. There was also some damage to roofs and barns and an apartment complex.
Delaware Co. Muncie	11	1530 EST			0	0	3	?	Tstm. Wind Twenty large trees were downed. One tree landed on a car.
Tiptecanoe Co. Lafayette	11	1540 EST			0	0	3	?	Tstm. Wind Large trees were blown down. Power lines were downed. Two trees fell onto cars.
Madison Co. Alexandria	11	1615 EST			0	0	?	?	Hail(0.75)
Randolph Co.	11	1615 EST			0	0	?	?	Tstm. Wind Trees were reported down in the county.
Delaware Co.	11	1655- 1900 EST			0	0	?	?	Flash Flooding Flooding reported in Albany in the northern portion of the county caused water to pool 8 to 10 inches deep on Route 67.
Newton Co.	11	1730 EST			0	0	?	?	Tstm. Wind Trees fell in Morocco, Brook and Kentland.
White Co.	11	1735 EST			0	0	4	?	Tstm. Wind Trees fell in Walcott. One tree fell on a house and several cars were also damaged.
Vigo Co. SSE Terre Haute	11	1745 EST			0	0	?	?	Hail(1.00)
Parke Co. Marshall	11	1747 EST			0	0	?	?	Hail(1.00)
White Co.	11	1810 EST			0	0	?	?	Tstm. Wind Large tree limbs fell in Reynolds.
Switzerland Co.	11	1815 EST			0	0	4	0	Tstm. Wind Trees were blown down in Vevay Township.
Tiptecanoe Co. Lafayette	11	1816 EST			0	0	?	?	Tstm. Wind(59) Winds were measured at 59 mph at the West Lafayette Airport.
Vigo Co.	11	1825 EST			0	0	?	?	Hail(0.75) Hail reported at Seelyville, Sandcut and Fontanet reached three-quarters of an inch in diameter.
Hendricks Co. Jamestown	11	1925 EST			0	0	?	?	Tstm. Wind Trees were blown down.
Delaware Co.	11	1810- 2100 EST			0	0	?	?	Flash Flooding Flooding of parking lots and streets was reported in Muncie. Six miles east of Muncie over five inches of rain fell during the day. Many farm fields were flooded.
Sullivan and Southern Vigo Counties	11	2115- 2230 EST			0	0	?	?	Flash Flooding Nearly all streets in Shelburne flooded in Sullivan County. Two inches of rain fell in Farmersburg in 45 minutes. State Road 157 south of Riley was closed by high water.
INDIANA									
Randolph Co.	19	1930- 2100 EST			0	0	?	?	Flash Flooding Numerous roads were closed in the county due to high water. The worst flooding occurred at Farmland. County Road 900 West was washed out.
Boone Co.	20	1435 EST			0	0	?	?	Flash Flooding Streets and drainage ditches were flooded. Six and one half inches of rain was reported two and a half miles south of Lebanon.
Hamilton Co. Sheridan	20	1500 EST			0	0	?	?	Flash Flooding Street flooding was reported in Sheridan. State Road 38 was flooded.
Delaware Co.	20	1515 EST			0	0	?	?	Flash Flooding Water was four foot deep on State Road 332 east of Muncie. Many streets in Muncie were under water.
Montgomery and Boone Counties	20	1515- 1600 EST			0	0	?	?	Flash Flooding Flooding was reported along the Montgomery and Boone county line. Water was flowing over roads.
Madison Co.	23	1500- 1600 EST			0	0	?	?	Flash Flooding Numerous roads were closed in Summitville due to high water. Water was flowing across State Road 128 east of State Road 13.
Randolph Co.	23	1620 EST			0	0	?	?	Flash Flooding Houses in downtown Carlos were flooded. Flooding was reported on county roads south of US 36.
Switzerland Co.	23	1751 EST- 1800 EST	2.5	30	0	0	?	?	Tornado(F0) The sheriff's department reported a tornado touched down between Florence and Patriot, Indiana along Route 156. A mobile home was reported overturned. The tornado was then reported two and one-half miles west of Patriot at "North Bend Farms". One roof was blown off a barn, shutters were stripped from the south side of a house and four 3000 gallon fertilizer tanks were overturned, one of which was completely full. Numerous limbs were also stripped from surrounding trees.
Allen Co.	27	1510 EST			0	0	4	?	Tstm. Wind A house received substantial damage when a tree three feet in diameter was uprooted and blown into the house on Rudisill Blvd. In addition, numerous limbs as large as one foot in diameter were down in south-central sections of Fort Wayne.
Vanderburgh Co. ONE Evansville	28	1518 EST			0	0	3	?	Tstm. Winds Thunderstorm winds knocked down power lines.
13 IOWA									
St. Louis County, 1M-IN Newkirk	10	0140 CST			0	0	4	4	Hail (1.75) A small area of thunderstorms moved into Northwest Iowa. Golfball size hail fell west and north of Newkirk. Crops were damaged, and one 80 acre field was completely destroyed.
Marshall County: Marshalltown	10	1847 CST			0	0	3	4	Hail (1.00)
Marshalltown	10	1910 CST			0	0	4	3	Tstm. Winds (50+)
Jasper County, 5W Newton	10	1955 CST			0	0	4	3	Tstm. Winds (50+)
									An isolated thunderstorm developed over Marshall County, and then developed southward into Jasper County. One-inch diameter hail fell in Marshalltown. A short time later, high winds downed several large trees in Marshalltown. The storm caused high winds north of Newton, blowing down several farm buildings.

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					KILLED	INJURED	PROPERTY	CROPS	
IOWA									
Osceola County, Harris	10	1935 CST			0	0	3	3	Tstm.Winds (50)
Dickinson County, 2 1/2 E Lake Park	10	1956 CST			0	0	3	3	Tstm.Winds (52)
Emmett County, Estherville	10	2355 CST			0	0	3	0	Lightning
Ringgold County, Mt. Ayr	11	1420 CST			0	0	3	0	Lightning
Polk County: Johnston	11	1420 CST			0	0	4	4	Tstm. Winds (61)
Des Moines	11	1435 CST			0	0	4	0	Lightning
Decatur County, Lamoni	11	1630 CST			0	0	5	4	Tstm.Winds (50+)
									Thunderstorms developed over West-Central Iowa. They moved into the central counties during the mid-afternoon hours. Gusty winds and some small hail were reported with the storms. Osceola and Dickinson counties had winds of around 60 MPH. Lightning struck a house in Estherville causing minor damage to the house.
Hardin County, 3W Iowa Falls	13	1215 CST			0	0	0	0	Funnel Cloud
Buchanan County, 3SW Lamont	17	1540 CST			0	0	3	5	Hail (1.00)
Plymouth County, Akron	17	1800 to 2100 CST			0	0	5	3	Urban Flooding
Woodbury County, Sioux City	17	1830 to 2000 CST			0	0	4	2	Urban Flooding
Hamilton County, 3NW-4NE Webster City	17	2100 to 2115 CST	5.0	40	0	0	3	4	Tornado (F1)
Harrison County: Missouri Valley	17	2120 CST			0	0	4	4	Tstm. Winds (50+)
Little Sioux	17	2145 CST			0	0	3	1	Tstm.Winds (50+)
Persia	17	2150 CST			0	0	5	4	Tstm.Winds (50+)
Carroll County, 4SW Carroll	17	2146 CST			0	0	4	3	Tstm.Winds (50+)
Pottawattamie County, Minden	17	2155 CST			0	0	4	4	Tstm.Winds (50+)
Cass County: Atlantic	17	2300 CST			0	0	3	0	Lightning
Atlantic	17	2310 CST			0	0	4	3	Tstm.Winds (52)
Union County, Creston	17	2345 CST			0	0	4	2	Tstm.Winds (50+)
Floyd County, Charles City	18	0020 CST			0	0	3	0	Lightning
Jasper County, 3W Newton	18	0046 CST			0	0	3	5	Hail (1.75)
									A line of thunderstorms developed across Northwest into West-Central Iowa. For the most part, heavy rains, gusty winds, and some small hail occurred with them. One storm developed out ahead of the line in Hamilton County. It produced a tornado, which tracked through open country. Only one farm shed was destroyed. High winds occurred in Cass County, while the storm dropped golfball size hail in Jasper County. Strong winds were reported in Union County, where two large grain bins were blown down in Creston. In Harrison and Pottawattamie counties, high winds downed trees and damaged crops. At Persia, in Harrison County, winds damaged a barn and several outbuildings. One hundred hogs were killed. High winds in Carroll County downed trees southwest of Carroll. Some hail accompanied the winds, adding to the crop damage. As the storms passed through the Atlantic area, lightning struck a building. A minor fire was started, which caused smoke damage to the building. In Northeast Iowa, lightning struck a home in Cascade. A fire was started by the lightning in the electrical box.
IOWA									
Keokuk County: IN Sigourney	18	1500 CST			0	0	3	4	Hail (.75)
IN Sigourney	18	1500 CST			0	0	3	4	Tstm.Winds (50+)
Muscatine County, Covesville	18	1500 CST			0	0	4	5	Hail (1.75)
Clinton County: Camanche	18	1520 CST			0	0	4	4	Hail (1.00)
Camanche	18	1520 CST			0	0	4	3	Tstm.Winds (50+)
Clinton	18	1523 CST			0	0	4	5	Hail (1.75)
Clinton	18	1523 CST			0	0	4	3	Tstm.Winds (50+)
Muscatine County, West Liberty	18	1525 CST			0	0	4	3	Tstm.Winds
Linn County, Mt. Vernon	18	1530 CST			0	0	3	4	Tstm.Winds (50+)
Lee County, West Point	18	1700 CST			0	0	4	2	Tstm.Winds (50+)
Dubuque County, Cascade	18	1805 CST			0	0	5	0	Lightning
									Severe thunderstorms developed over Eastern Iowa. Hail and high winds caused considerable damage to crops near Sigourney. Clinton and Muscatine counties were hard hit with hail and high winds. Considerable crop damage was done by the hail. Winds downed numerous trees in these counties. A second area of thunderstorms developed behind the first line. These storms produced strong winds in Linn County, downing a few trees and flattening crops near Mt. Vernon. Later on, lightning struck a dairy barn in Cascade. It was a complete loss as it burned to the ground. The southern extent of the thunderstorm area reached into Southeast Iowa. As the line of storms moved through Lee County, power lines were downed in West Point. A tree was blown over onto a trailer, causing considerable damage to the trailer.
Warren County, New Virginia	22	1615 CST			0	1	3	0	Lightning
									Isolated thunderstorms developed over Iowa. As one of them passed over New Virginia, lightning struck a telephone pole just outside of a house. A girl talking on the telephone was injured as the lightning traveled through the telephone line. Some minor damage was also done to the house.
Cass County, Atlantic	29	0830 CST			0	0	4	0	Lightning
									As a thunderstorm moved through the Atlantic area, lightning struck and killed 9 cattle on a farm.
Ringgold County, Mt. Ayr	30	0400 CST			0	0	4	0	Lightning
									Lightning struck a local business in Mt. Ayr. Considerable damage was done to the electrical system.
All of Iowa					0	0	0	8	Drought
									The drought conditions that began in 1988 persisted into the 1989 growing season. Although conditions were not as severe as in 1988, there was considerable drought damage during July. By month's end, damage estimates for the corn crop were near \$200 million, while the damage to the soybean crop was around \$125 million. Most of the damage occurred during the first half of the month. There was little rainfall, with temperatures between 95 and 100° F in most areas during this period. Cooler weather, and some rainfall helped during the last half of the month, but at month's end, subsoil moisture was 100 percent short.
14 KANSAS									
Barton Co. Great Bend	01	0210 to 0400CST			0	0	4	0	Flash Flood
									Runoff from heavy thunderstorms in the Great Bend area produced flash flooding. Streets and roadways were under water for a few hours, but no major damage was reported.
Western Pottawattamie Co.	01	0930 to 1200CST			0	0	3	3	Flash Flood
									Heavy rains of up to 5 inches fell across western Pottawattamie County during the late morning hours. The heavy rain caused several creeks and streams to go over bankful for a few hours. No major damage was reported.

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					KILLED	INJURED	PROPERTY	CROPS	
KANSAS									
Smith Co. 15N Smith Center Smith Center	02	0217CST 02 0230CST			0	0	3	2	TSTM Wind (52)
Osborne Co. 4N Osborne	02	0234CST			0	0	3	2	TSTM Wind (52)
Jewell Co. 15W Mankato 10W Mankato 12S Mankato	02	0243CST 02 0320CST 02 0337CST			0	0	3	2	TSTM Wind (52)
Lincoln Co. 10W Lincoln	02	0320CST			0	0	3	2	TSTM Wind (52)
Mitchell Co. Beloit 5E Beloit	02	0336CST 02 0357CST			0	0	3	2	TSTM Wind (52)
Ottawa Co. Tescott	02	0345CST			0	0	3	2	TSTM Wind (52)
	A cluster of severe thunderstorms moved across portions of north-central Kansas. The storms produced strong straight-line winds that damaged a few farm buildings and uprooted several trees.								
Atchison Co. Atchison	10	1515CST			0	0	4	0	TSTM Wind
Leavenworth Co. 10E McLouth Lansing	10	1830CST 10 1845CST			0	0	4	0	TSTM Wind
	Severe thunderstorms in northeast Kansas brought strong winds that damaged a few buildings and blew down several trees. A barn was leveled and two homes under construction were damaged east of McLouth. Damage to the homes was estimated at \$30,000.								
Wichita Co. Leoti	10	1845CST			0	0	3	3	TSTM Wind (55)
Logan Co. 10SE Russell Springs	10	1925CST			0	0	3	3	Hail (.75)
	A few severe thunderstorms formed across western Kansas, bringing strong winds and large hail. No major damage was reported with the storms.								
Republic Co. Cuba	11	1945CST			0	0	3	3	Hail (.75)
Washington Co. 15W Washington Washington Hanover	11	1950CST 11 2235CST 11 2345CST			0	0	3	4	Hail (1.0)
Morris Co. Dunlap	11	2008CST			0	0	2	0	Hail (.75)
Pottawatomie, Wabaunsee and Lyon Counties	11- 12	2315 to 0200CST			0	0	4	4	Flash Flood
	Scattered severe thunderstorms moved across north-central Kansas, bringing large hail. A second area of thunderstorms produced hail and heavy rains across northeast and east-central Kansas. Heavy rains of up to 6 inches produced areas of flash flooding in Emporia, McFarland and Flush. Water was 3 feet deep across some roads in Emporia. No major damage was reported from the storms.								
Ford, Finney and Comanche Counties	12	1530 to 1800CST			0	0	2	0	Flash Flooding
	Thunderstorms produced locally heavy rains of up to 6 inches in two hours time that caused minor flooding in some areas. In Dodge City, 4 inches of rain caused some basement flooding while many fields were under water for a short time in Comanche and Finney counties.								
KANSAS									
Kearny Co. Lakin 5N Lakin	14	1735CST 14 1840CST			0	0	3	0	TSTM Wind
Norton Co. 10N Norton 8ESE Norton	14	1844CST 14 1927CST	Short Narrow		0	0	0	0	Tornado (F0) Funnel Cloud
Haske11 Co. 10N Santana	14	1944CST			0	0	4	0	TSTM Wind
Jewell Co. 2W Mankato	14	2045CST			0	0	3	3	TSTM Wind
Phillips Co. Logan	14	2113CST			0	0	3	3	TSTM Wind (50)
Rooks Co. Stockton	14	2200CST			0	0	3	3	Flash Flood
	Scattered severe thunderstorms developed across portions of western and north-central Kansas during the evening hours. A small tornado briefly touched down in an open field north of Norton, doing no damage. In Jewell County, a severe thunderstorm brought strong winds that uprooted several large trees. Over 3 inches of rain fell in Stockton in one hour, producing some street and basement flooding in the town. In southwest Kansas, severe thunderstorms brought strong straight-line winds that caused some damage in the area. Winds gusts to 72 MPH at Lakin that caused damage to buildings and machinery in the area.								
Finney Co. 4N Garden City 3W Garden City	16	2355CST 17 0005CST			0	0	3	2	Hail (.75) Hail (1.0)
	A severe thunderstorm dropped large hail near Garden City, producing very little damage.								
Butler Co. Augusta Douglass Smileyberg	17	0545CST 17 0618CST 17 0620CST			0	0	4	2	TSTM Wind (61) TSTM Wind (52) TSTM Wind (52)
Sedwick Co. Wichita	17	0600CST			0	0	4	0	TSTM Wind
Cowley Co. Udall Winfield	17	0608CST 17 0622CST			0	0	3	1	TSTM Wind (52) TSTM Wind (67)
Sumner Co. 5N Oxford	17	0615CST			0	0	4	2	TSTM Wind
Chautauque Co. 6W Sedan	17	0702CST			0	0	3	2	TSTM Wind (52)
Elk Co. Grenola	17	0716CST			0	0	4	2	TSTM Wind
	A complex of severe thunderstorms moved across south-central and southeast Kansas during the early morning hours, producing strong winds. Winds up to 75 MPH were clocked in Winfield, which downed several trees and damaged some buildings. Other minor damage was done across the area from the straight-line winds.								
Decatur Co. Oberlin Oberlin	17	2055CST 17 2220CST			0	0	3	3	Hail (.75) Hail (1.75)
Smith Co. Kensington Smith Center 11W Smith Center 1N Lebanon	17	2231CST 17 2251CST 17 2255CST 17 2339CST			0	0	3	3	Hail (.75) Hail (.75) Hail (.75) Hail (.75)
Mitchell Co. Cawker City 5W Beloit 1.5E Glen Elder Hunter	17	2340CST 18 0015CST 18 0110CST 18 0145CST			0	0	3	3	TSTM Wind (52) Hail (.75) Hail (.75) TSTM Wind, Hail (1.75)
Osborne Co. Downs	18	0136CST			0	0	3	3	TSTM Wind (52)
Lincoln Co. 11N Lincoln Shady Bend	18	0157CST 18 0210CST			0	0	3	3	TSTM Wind Hail (2.75)
Ottawa Co. Tescott	18	0220CST			0	0	3	3	TSTM Wind (52)

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED ¹ DAMAGE		CHARACTER OF STORM										
					KILLED	INJURED	PROPERTY	CROPS											
— KANSAS —																			
Cowley Co. Winfield	25	1230CST			0	0	0	0	Funnel Clouds	A series of severe thunderstorms moved across sections of northwest and north-central Kansas during the late evening and early morning hours. The storms produced high winds that downed several trees, and hail up to baseball size broke windows and damaged crops. The hail piled up to 6 inches deep in Hunter.									
										Several cold air funnel clouds were sighted around the Winfield area during the early afternoon hours. The funnels were short lived and did not touch down.									
										Sedgwick Co. Wichita	30	1450CST			0	3	0	0	Lightning
										Cloud Co. 5NW Miltonvale	30	1554CST			0	0	0	0	Funnel Cloud
										Clay Co. 5S Clifton	30	1650CST			0	0	3	3	Hail (.75)
Dickinson Co. Abilene	30	1836CST			0	0	3	3	TSTM Wind (52)	A few severe thunderstorms developed across north-central Kansas during the late afternoon and evening hours. The storms produced a funnel cloud near Miltonvale and large hail fell south of Clifton. Strong winds to 60 MPH were reported in Abilene. A lightning bolt from a thunderstorm in the Wichita area struck a softball field and injured 3 persons. The electrical charge from the lightning apparently struck a metal backstop, and in turn passed into the softball field. The three men required medical treatment at a local hospital and were then released. No rain was falling at the time the lightning struck.									
SPECIAL HAIL SUMMARY																			
Kansas-Oklahoma Hail Loss Service reports indicate hail was especially damaging to crops in the listed counties on the following dates:																			
12 Haskell																			
18 Lincoln, Mitchell and Thomas																			
15 KENTUCKY																			
Todd Co. Elkton	01	1630CST			0	0	0	0	Flash Flood	Remnants from Tropical Storm Allison dropped 2.25 inches of rain in the Elkton area over a two hour period, flooding numerous low-lying areas, including State Highway 41, and the intersection of State Highway 181 and 845.									
Fulton Co.	01	2015CST			0	0	3	0	Thunderstorm Wind	Strong winds peeled off a tin roof from a barn in the southern portion of the county. In addition, two TV antennas on the roof of a house were bent and a tree was uprooted. 450 homes in south Fulton County were without power as the tin from the barn roof struck power lines.									
Allen Co., Edmonson Co., Simpson Co. and Warren Co.	03	0230CST			0	0	4	3	Flash Flood	Heavy rain fell over saturated ground, flooding low-lying areas, including some homes and many roads. Rainfall amounts included a 24 hour total of 4.99 inches at Bowling Green.									
Rockcastle Co.	04	1430EST			0	0	4	3	Flash Flood	Three and one-half inches of rain in two hours fell on Brodhead, flooding several streets and roads in this northwest Rockcastle County community. Water was running 18 inches deep across Main Street in front of the fire station. High water buckled pavement on one street. Highway U.S. 150 was covered with 3 to 4 feet of water and was closed for several hours.									
— KENTUCKY —																			
Pulaski Co.	04	1650EST			0	0	3	3	Flash Flood	Heavy rain in a short period of time forced some streams and creeks out of their banks in Somerset. Low-lying areas and several streets were covered with water.									
Pulaski Co.	05	1900EST			0	0	3	2	Flash Flood	Heavy rain falling on already saturated ground produced flooding in Somerset. Several roads were covered with water and water was reported in the basements of some homes.									
Breathitt Co. and Owsley Co.	06- 07	2330- 0332EST			0	0	6	4	Flash Flood	Thunderstorms with heavy rain developed over southeast Kentucky during the evening of the 6th. Under the influence of high pressure little movement was noted. Nearly three inches of rain fell within 45 minutes. The end result was a classic example of flash flooding in a narrow mountain valley. Property and crop damage were in the millions of dollars. In Breathitt County a 10 to 15 foot wall of water washed out a bridge at the mouth of Morris Fork Creek, stranding nearly 200 people in the small community of Morris Fork. In addition, numerous vehicles were washed away, numerous homes damaged and some evacuations required. Many crops were completely washed away and some farm animals were killed. In Owsley County, four to five inches of rain fell in the area of Conkling. Several bridges were washed out, some evacuations required, trees were downed, and mudslides and rockslides blocked roads.									
Shelby Co. Simpsonville	07	1930EST			0	0	0	0	Hail (0.75)										
Shelby Co.	08	1945EST			0	0	1	0	Thunderstorm Wind	Thunderstorm winds and lightning caused power outages in Simpsonville. In addition tree branches and electrical poles were blown down.									
Spencer Co.	08	1945EST			0	0	3	0	Thunderstorm Wind	Strong winds blew down several trees and damaged some outbuildings in the northern portion of the county.									
Hardin Co. and Larue Co.	10	1830EST			0	0	2	0	Thunderstorm Wind	Strong winds knocked trees down in southern Hardin and western Larue counties, blocking Highway 84.									
Graves Co.	11	1330CST			0	0	3	0	Thunderstorm Wind	Winds estimated at 50 mph accompanied by 1 to 2 inches of rain hit the southern portion of the county, causing scattered property damage. Trees and limbs were blown down in the Pilot Oak area. A downed tree damaged a grain bin.									
Spencer Co.	11	1815EST			0	0	4	3	Flash Flood	Heavy rain in a short period of time produced flash flooding on Elk Creek and Plum Creek in the Elk Creek and Waterford areas. Water entered some homes and people had to be evacuated. In addition crops received much damage and some gardens were destroyed.									
Mason Co.	11	1930EST			0	0	4	3	Thunderstorm Wind, Flash Flood	A strong thunderstorm dropped from 1 to 3 inches of rain and produced strong winds and dangerous lightning. In Maysville trees were blown across vehicles and one tree fell on a house. At Washington Township water was out of its banks at New Town Bridge.									
Warren Co.	12	1500CST			0	0	4	0	Thunderstorm Wind	Strong winds downed power and telephone lines and blew off a section of a metal roof at Beech Bend Park.									
Hardin Co.	12	1800EST			0	0	4	0	Thunderstorm Wind	Thunderstorm winds gusting to 70 mph blew over a trailer near Sonora. In addition several barn roofs in the area were blown off.									
Allen Co., Logan Co., Simpson Co. and Warren Co.	13	0418CST			0	0	5	3	Flash Flood	Excessive rainfall flooded numerous low-lying areas and roadways. Several residents in Brookhaven, a subdivision of Russellville, were forced to evacuate their homes when 4 inches of rain fell in 5 hours. Damage to homes in Russellville came to \$60,000. Several roads were also closed around Bowling Green.									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS				ESTIMATED ¹ DAMAGE	CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS		

KENTUCKY

Hardin Co.	19	1708EST			1	0	0	0	Lightning	
Specialist Billy J. Sadler, age 22, was killed by lightning at Fort Knox.										
Larue Co.	19	1920EST			0	0	4	0	Thunderstorm Wind	
Strong winds ripped through the Sonora area uprooting trees and upsetting barns, tool sheds and trailers. A barn's tin roof was blown 100 yards into the front of a house.										
Boyd Co.	27	1415EST			0	0	4	0	Thunderstorm Wind	
A microburst occurred in the community of Bellefonte. Numerous large trees were blown down over power lines and 3 to 5 cars were damaged by falling trees.										

16 LOUISIANA

LAZ001-002-003-005-006-007-008-009-011-012	01	0000CST-02 0000CST			2	0	?	?	Tropical Storm, Heavy Rain	
The majority of the narrative description of the effects of Tropical Storm Allison and its remnant low pressure system on Louisiana is located in the June Monthly Storm Data Report.										
All but extreme northeast and extreme southeast sections										
There were two storm-related fatalities in early July. A 60 year old man drowned in Beauregard Parish on July 1st while assisting evacuation efforts along the Flooded Sabine River. A 12 year old boy drowned in Alexandria on July 1st. He was playing in a flooded bayou and was drawn into a drainage culvert and drowned. M600, M120										
Approximately 700 homes were flooded in Louisiana as a result of the torrential rain associated with the decaying Tropical Storm. Over a 6 day period from June 26 through July 3, nearly 24 inches of rain, 23.91 inches, was recorded in Winnfield.										
Caddo Parish, Mira	02	1520CST			0	0	3	?	TSTM Wind	
Webster Parish, Shongaloo	02	1522CST			0	0	?	?	TSTM Wind	
Caddo Parish, D'I City	02	1525CST			0	0	?	?	TSTM Wind	
Shreveport	02	1540CST			0	0	?	?	TSTM Wind (57)	
Bossier Parish, Bossier City	02	1550CST			0	0	?	?	TSTM Wind	
DeSoto Parish, entire parish	02	1600CST-1630CST			0	0	3	?	TSTM Wind	
Bienville Parish, 2 SE Ringgold	02	1625CST			0	0	4	?	TSTM Wind	
Red River Parish, entire parish	02	1645CST			0	0	?	?	TSTM Wind	
Sabine Parish, north portion	02	1655CST-1715CST			0	0	4	?	TSTM Wind	
Natchitoches Parish, Campti to Robeline	02	1715CST-1725CST			0	0	3	?	TSTM Wind	
Jackson Parish, Jonesboro	02	1718CST			0	0	?	?	TSTM Wind	
Union Parish, 2 S Farmerville	02	1720CST			0	0	?	?	TSTM Wind	
Lincoln Parish, entire parish	02	1725CST			0	0	?	?	TSTM Wind	
Vernon Parish, entire parish	02	1735CST-1800CST			0	0	3	?	TSTM Wind	
Winn Parish, entire parish	02	1740CST			0	0	?	?	TSTM Wind	
Ouachita Parish, southwest portion	02	1745CST			0	0	?	?	TSTM Wind	
Monroe	02	1745CST			0	0	?	?	TSTM Wind	
Morehouse Parish, Bastrop to Collinston	02	1755CST-1810CST			0	0	?	?	TSTM Wind	
Grant Parish, Colfax	02	1745CST			0	0	?	?	TSTM Wind	
Rapides Parish, Alexandria	02	1815CST			0	0	?	?	TSTM Wind	
Deville	02	1848CST			0	0	?	?	TSTM Wind	
Catahoula Parish, Jonesville	02	1900CST			0	0	?	?	TSTM Wind	
Avoyelles Parish, Vick	02	1900CST			0	0	?	?	TSTM Wind	
A line of severe thunderstorms, associated with a low pressure trough moving southeast, swept rapidly southeast across the north half of Louisiana. The thunderstorms produced very strong wind gusts in excess of 60 mph which toppled numerous trees and snapped many large tree limbs. Several highways were blocked and numerous power lines were snapped due to falling trees and branches. The tree damage was exaggerated due to wet soil conditions which made the trees less stable. In the Shreveport area, several boats were overturned in Caddo Lake and a portion of a school's roof was blown off. In Ringgold, two mobile homes were rolled by the wind and two others heavily damaged by falling trees. Eight homes in Converse were damaged by falling trees. One business building in Deville was damaged by the strong winds.										

LOUISIANA

Vernon Parish, 7 ESE Leesville	14	1600CST			0	2	0	0	Lightning	
Two soldiers at Fort Polk were injured when lightning struck the tent they were occupying. Both suffered entrance and exit burns, and one was rendered unconscious. The soldiers were hospitalized for three days then returned to duty.										
Caddo Parish, 3 SE Greenwood	16	1540CST			0	0	?	?	TSTM Wind	
3 SE Greenwood	16	1540CST			0	0	?	?	Hail (0.75)	
A thunderstorm produced three-quarter inch hail and high winds which downed several trees.										
West Baton Rouge Parish, 7 SE Erwinville	16	2120CST			0	0	?	?	TSTM Wind	
Thunderstorm wind gusts blew down several trees.										
Calcasieu Parish, Lake Charles	16	2240CST			0	0	4	?	Lightning	
Lightning started a house fire which caused approximately \$6,000 damage.										
Bossier Parish, Sligo	17	1555CST			0	0	?	?	TSTM Wind	
Union Parish, Haile	17	1635CST			0	0	?	?	TSTM Wind	
Caldwell Parish, Vixen	17	1732CST			0	0	?	?	TSTM Wind	
Franklin Parish, Baskin	17	1735CST			0	0	?	?	TSTM Wind	
5 W Jigger	17	1735CST			0	0	?	?	TSTM Wind	
Rapides Parish, 1 S Pineville	17	1745CST			0	0	?	?	TSTM Wind	
Catahoula Parish, Foulles	17	1810CST			0	0	?	?	TSTM Wind	
Avoyelles Parish, 5 NW Marksville	17	1836CST			0	0	?	?	TSTM Wind	
Strong thunderstorms produced wind gusts which downed trees and power lines in scattered locations in north and east-central Louisiana.										
LAZ008-012 south-central Louisiana	13	2200CST-14 0800CST			0	0	0	0	Heavy Rain	
Lafayette, western St. Landry, eastern Vermillion and St. Mary Parishes	14	0000CST-0800CST			0	0	5	?	Flash Flood	
Torrential rainfall of 6 to 10 inches occurred over a small part of south-central Louisiana from near Abbeville across Lafayette into western St. Landry Parish. Rainfall of 3 to 6 inches fell over much of St. Mary Parish. At Careno, in north Lafayette Parish, 7.50 inches of rain fell between midnight and 0600CST, and Morgan City received 5.85 inches. In the 24 hour period ending at 0600CST, Grand Coteau received 10.00 inches and Opelousas recorded 9.20 inches; most occurring between 0000CST and 0600CST. The hardest hit area was Opelousas where approximately 80 residents were evacuated as 2 to 3 feet of water flooded numerous homes. In Lafayette Parish 25 to 30 homes were flooded. House flooding was also reported in Morgan City and Franklin, and U.S. Highway 90 was flooded with one foot of water between the two cities. In Abbeville, two dozen homes were flooded.										
St. Tammany Parish, 1 NE Pearl River	27	1810CST			0	0	0	?	TSTM Wind	
A National Weather Service employee reported several trees and large branches downed by thunderstorm wind gusts in the Pearl River Wildlife Management Area.										
LAZ007-008-011-012-014 Coastal Louisiana	31	0000CST-01 2300CST			0	0	5	?	Tropical Storm	
Acadia Parish, 1 S Iota	31	0500CST	short 20		0	0	3	?	Tornado (F0)	
A tropical depression which formed over the central Gulf of Mexico on July 30th was classified as Tropical Storm Chantal on July 31 at 0600CST. The storm continued to move northwest and intensified to hurricane status at 1600CST on the 31st and eventually made landfall as a minimal hurricane on the upper Texas coast around 0600CST on Aug. 1st. The National Weather Service Office in Lake Charles recorded the highest one minute wind speed (23 knots) and highest gust (32 knots) between 0930CST and 1100CST on Aug. 1st, respectively. The lowest pressure at the Lake Charles National Weather Service Office was 1006.4 mb at 0426CST on Aug. 1st. Storm total rainfall was not great, with most areas receiving less than 3 inches of rain.										
Tides were 1 to 2 feet above normal along the coast east of Morgan City on the night of the 31st and morning of the 1st. Minor flooding of Louisiana Highway 1 was reported on Grand Isle and near Leveille. Also, minor flooding of a few roads occurred along bayous south of Houma. Tides of 2 to 4 feet above normal were recorded west of Morgan City. The highest tide gauge reading was at Cameron with 4.2 feet MSL at 0500CST on Aug. 1st. Along the coastal areas of Cameron Parish, 61 dwellings were damaged by high surf, 26 of those had major damage or were economic losses. Louisiana Highway 82 was washed out in several										

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

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					KILLED	INJURED	PROPERTY	CROPS	
17 LOUISIANA									
									places between Holly Beach and Constance Beach. Significant beach erosion was also noted on Grand Isle. In the Gulf of Mexico, offshore the Louisiana coast, gale force and minimal hurricane force winds pounded offshore oil facilities on the 31st and morning of the 1st. Approximately 5,000 employees were evacuated from the rigs and platforms offshore Louisiana. One fatality occurred as a 48 year old man drowned about 100 miles south of New Orleans as he attempted to evacuate an oil rig. A lift boat capsized in the Gulf, about 20 miles off the coast south of Morgan City, on the 31st at approximately 0500CST. Four men were rescued but 10 others were trapped in the vessel, of which seven are known drowned, and three missing and presumed drowned. Another man was injured while evacuating a dredge barge in the coastal waters south of Lafayette. Approximately 8,500 residents evacuated lower Cameron Parish on the 31st, as did 1,800 Grand Isle residents. A tornado touched down near Iota shortly before sunrise on the 31st. Several trees were uprooted and a mobile home moved off its foundation.
18 MARYLAND and D.C.									
York Co.	10	1300EST			0	0	4	0	Lightning
									Afternoon thunderstorms passed through York County, and in the town of York, lightning strikes on a house caused damage to the interior of the structure after putting a foot-wide hole in the corner of the house. The town hall in York was also hit by several strikes, causing considerable damage to the computer systems. Lightning also hit the York General Hospital, but did minimal damage.
Penobscot Co. and Somerset Co.	19	Afternoon			0	0	4	0	Lightning, Thunderstorm Winds
									In the town of Bangor, lightning struck a house, resulting in over \$5,000 damage. In the same area many trees were blown down, causing power outages across much of Bangor. In the towns of Dexter and Cambridge, thunderstorms winds caused considerable damage, blowing large trees onto power lines and houses.
Waldo Co. and Somerset Co.	25	Afternoon			0	0	4	0	Thunderstorm Winds
									The roof was blown off a large administrative building at Unity College and trees were blown down in scattered locations in these two counties.
Somerset Co. Kennebec Co. Oxford Co.	26	1500EDT-1900EDT			0	0	4	0	Lightning
									In Pittsfield \$7000 damage was done at a water pumping station as lightning struck the main pumps. In Vassalboro a house was set on fire when struck by lightning. In Kezar Falls numerous lightning strikes to buildings set several fires.
Penobscot Co.	26	1530EDT			0	1	4	0	Thunderstorm Winds
									In Bangor many large trees were blown down and a large commercial tent was blown down at a social event. The tent fell on 15-20 people with one man being struck in the head by the main tent support pole. There were numerous power outages and damage to houses as trees fell on them.
Androscoggin Co.	26	1600EDT			0	0	4	0	Thunderstorm Winds
									In Sabattus a house lost its roof to very strong winds (estimated 75 mph).
Cumberland Co.	26	1747EDT			0	0	3	0	Thunderstorm Winds
									In Pownal trees were felled.
	26	1835EDT			0	0	3	0	Thunderstorm Winds
									In New Gloucester numerous trees were downed.
York Co.	27	2250EDT			0	0	1	0	Hail (1.0)
									In Acton one (1) inch hail fell.
	27	2325EDT			0	0	2	0	Thunderstorm Winds
									In Buxton many trees were blown down.
	27	2350EDT			0	0	3	0	Thunderstorm Winds
									In South Berwick several houses were damaged as trees were blown onto them.
Aroostook Co.	27	Afternoon			0	0	3	0	Thunderstorm Winds
									In extreme north Maine near Madawaska and Hamlin, several houses received damage when trees were blown onto them.
Cumberland Co.	28	1400EST			0	0	3	0	Thunderstorm Winds
									A car parked in a driveway was demolished when a large tree was toppled onto it during a thunderstorm in Westbrook.
Anne Arundel Co.	5	0530-0700EST			0	0	?	?	Urban Flooding
									Roads in the south part of the county were closed due to an estimated 3 to 4 feet of water on the roadways. Numerous basements were flooded. Rainfall amounts were as follows: 11.36 inches in Franklin Manor, 9.63 inches in Shady Side, 10 inches in Rosehaven and 9.5 inches in Churchton. Some of these rains fell in 4 hours or less.
Calvert Co.	5	0530EST			0	0	?	?	Urban Flooding
									Roads in the north part of the county were closed due to heavy rains. Rainfall amounts were as follows: 2.5 inches at Owings and 5.6 inches in North Beach.
Harford Co.	5	1100EST			0	0	?	?	Urban Flooding
									Twenty-four roads were reported closed. Rains had occurred on July 4th, and rainfall reports on the 5th ranged up to 2 to 4 inches.
Cecil Co.	5	130-1500EST			0	0	?	?	Flash Flood
									Big Elk Creek in Elkton flooded. Portions of some roads between Chesapeake City and Elkton were closed. A child had to be rescued from a storm drain, and 2 canoeists had to be rescued from the Elk River.
Anne Arundel Co.	6	0130EST			0	0	?	?	Urban Flooding
									Heavy rainfall in the south part of the county weakened root support for trees, which then fell across and blocked several roads. Basements and lower levels of houses were flooded.
Calvert Co.	13	1025-1046EST			0	0	0	0	Waterspouts
									Three waterspouts were reported over the Chesapeake Bay near Patuxent River Naval Air Station, each lasting only a few minutes.
MD2001 Lower Eastern Shore	16	1530-1800EST			0	0	?	?	Heavy Rains
									Several roads were under water due to heavy rains that began around 0800EST and lasted about 12 hours. Total rainfall was 5.16 inches at the Salisbury Water Plant, and 4.19 inches at Salisbury Airport.
Allegany Co.	20	1430EST			0	0	?	?	Flash Flood
									Heavy rains struck the western part of the county, lasting about 1 hour and causing flash flooding. Several roads were under water. Two women had to be rescued from their house trailer.
MD2002 Upper Eastern Shore	21	1700-1800EST			0	0	?	?	Heavy Rains
									Some roads were reported under water due to heavy rains.
MD2002 Upper Eastern Shore	26	0215-0300EST			0	0	?	?	Heavy Rains
									Several roads were under water near Centerville and near Kent Island and the Chesapeake Bay Bridge, and also in the southern part of Caroline County. Lightning knocked out the emergency operations center in Queen Annes County.
Prince Georges Co., Clinton	26	1300EST			0	1	0	0	Lightning
									An 18 year old man was struck by lightning.
Allegany Co.	26	1400-1530EST			0	0	?	?	Flash Flooding
									Flooding occurred along Georges Creek in the western part of the county due to heavy rains. Several basements were flooded, and two mobile home courts in Probstburg had to be evacuated.
MD2002 Upper Eastern Shore	26	1700-1800EST			0	0	?	?	Heavy Rains
									Some roads were reported under water due to heavy rains.

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					KILLED	INJURED	PROPERTY	CROPS	
19 MASSACHUSETTS									
Middlesex County Lowell	07	1650-1710EST			0	0	5	0	TSTM Winds (60)
									Thunderstorm winds blew down several trees, causing widespread power outages.
Essex County Lynn	07	1650-1710EST			1	1	5	0	TSTM Winds (60)
									A severe thunderstorm with strong winds caused widespread damage. In Lynn, a worker was blown off a scaffolding and killed, his partner was injured.
Middlesex County Groton	07	1700-1725EST			0	0	4	0	TSTM Winds (70)
									Thunderstorm winds blew down several trees and power lines.
Essex County Andover and Boxford	07	1700-1710EST			0	0	5	0	TSTM Winds (70), Hail (0.75)
									Thunderstorm winds with gust of up to 80 mph knocked down trees and limbs and damaged homes and automobiles. Up to 20,000 customers were without power.
Essex County Gloucester, Beverly and Rockport	07	1700-1725EST			0	0	5	0	TSTM Winds (70)
									A severe thunderstorm with winds gusting to 82 mph in Rockport caused widespread damage to homes and automobiles as well as scattered power outages. Many boats were capsized in the harbour areas.
Suffolk County South Boston	07	1715EST			0	0	0	0	TSTM Winds
									A strong thunderstorm with winds of over 50 mph blew several people off of a fishing pier.
Berkshire County Williamstown	10	0920EST			0	0	3	0	TSTM Winds (50)
									Thunderstorm winds blew down several trees.
Hampden County Holyoke, Westfield and Chicopee	10	0935-0945EST			0	0	0	0	Hail (1.00)
									A thunderstorm produced marble size hail in all three towns and scattered power outages.
Hampden County Ludlow	10	0950EST			0	0	3	0	Hail (0.75)
									A thunderstorm produced dime size hail.
Franklin County Northfield	10	1000EST			0	0	3	0	TSTM Winds (50+), Hail (0.75)
Hampshire County North Hampton	10	1015EST			0	0	3	0	Lightning
									Lightning ignited a fire that destroyed a barn. Damage was estimated at \$8,000.
Hampden County West Springfield	10	1027EST			0	0	3	0	TSTM Winds (50+), Hail (1.00)
									Thunderstorm winds knocked down several trees and 1-inch diameter hail was reported.
Hampden County Ludlow Center	10	1029EST			0	0	3	0	Hail (1.75)
									Golfball size hail was reported with a thunderstorm.
Hampden County Chicopee	10	1030EST			0	0	3	0	TSTM Winds (50+), Hail (0.75)
									Marble size hail and winds in excess of 55 mph caused scattered damage.
Hampden County Hampton	10	1040EST			0	0	3	0	Hail (1.75)
									Golfball size hail was reported in the Chestnut Hills area.
Worcester County Templeton	10	1455EST			0	0	5	0	TSTM Winds (70)
									Thunderstorm winds in excess of 75 mph blew down trees and caused considerable property damage and power outages.
Berkshire County Southern Section	10	1505EST			0	0	3	0	TSTM Winds
									Several trees were knocked down by strong thunderstorm winds in the southern portion of the county.
Worcester County Hubbardston	10	1505EST	0.3	50	0	0	5	0	Tornado (F1)
									A small tornado struck 9 homes, causing damage in excess of \$150,000. Also, a barn roof was blown into a tree.
Essex County Salisbury and Newburyport	10	1505- 1515EST			0	0	5	0	TSTM Winds (60)
									Thunderstorm winds knocked down trees and limbs, several houses were damaged, and thousands of customers lost electric power.
Berkshire County Pittsfield	10	1508EST			0	0	4	0	TSTM Winds (50)
									Thunderstorm winds with gust of over 55 mph knocked down trees.

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
— MASSACHUSETTS									
Worcester County Princeton	10	1510EST	0.3	50	0	0	5	0	Tornado (F1)
									A small tornado caused localized damage to property and autos.
Worcester County Sterling	10	1510EST	0.3	50	0	0	5	0	Tornado (F1)
									A small tornado caused localized damage to buildings and cars.
Worcester County West Boylston	10	1515EST	0.3	50	0	0	5	0	Tornado (F1)
									A small tornado caused localized damage to buildings and autos.
Worcester County Sterling	10	1525EST			0	0	5	0	TSTM Winds (61)
									A severe thunderstorm with winds of around 76 mph caused scattered damage and power outages. A barn and greenhouse were knocked down.
Middlesex County Ashland	10	1525- 1530EST			0	0	5	0	TSTM Winds (80)
									A severe thunderstorm moved through southern Ashland. Very strong straight-line wind in excess of 80 mph caused considerable damage and power outages.
Middlesex County Marlborough	10	1530EST			0	0	4	0	Hail (1.00)
									One-inch diameter hail was reported with a severe thunderstorm.
Norfolk County Canton	10	1610EST	0.1	25	0	0	3	0	Tornado (F0)
									A small tornado caused localized tree damage and rolled over a car several times in a parking lot.
Plymouth County Brockton	10	1626- 1635EST	0.1	25	0	1	4	0	Tornado (F1)
									A small tornado caused localized damage to trees and homes in Brockton. One person was injured by broken glass inside a van.
Plymouth County Hanover	10	1630- 1640EST	0.1	25	0	0	4	0	Tornado (F0)
									A small tornado caused localized damage to trees and homes in the Hanover area. A grove of pine trees was severely damaged.
Berkshire County Lenox	10	1648EST			0	0	0	0	Hail (0.75)
Berkshire County Richmond and Lenox	10	1702EST			0	0	4	0	TSTM Winds (50)
									Several trees were knocked down by strong winds from a severe thunderstorm.
Barnstable County Harwich	10	1740EST			0	0	4	0	TSTM Winds (50+)
									Thunderstorm winds knocked down trees and wires in a small section of town.
Essex County Salisbury	10	1800EST			0	0	4	0	TSTM Winds (50+)
									Thunderstorm winds knocked down large trees and caused scattered damage.
Barnstable, Duke and Nantucket Counties	17	most of the day			0	0	5	0	High Winds
									A summer Nor'easter brought gale force winds to Cape Cod, Martha's Vineyard, and Nantucket. The winds raised havoc with pleasure craft. Many were torn from their moorings. Winds gusted to around 60 mph, with one gust being reported at up to 74 mph at Vineyard Haven on Martha's Vineyard. Scattered power outages occurred.
Berkshire County Pittsfield and Lanesboro	27	0845EST			0	0	3	0	TSTM Winds (50+)
									Thunderstorm winds knocked down many trees, causing isolated damage.
Franklin County New Salem	27	2035EST			0	0	0	0	TSTM Winds (50)
									Thunderstorm winds blew down trees and limbs, causing isolated damage.
Berkshire County Pittsfield	27	2045EST			0	0	3	0	TSTM Winds (50)
									Thunderstorm winds downed several trees in the Pittsfield area.
Franklin County Wendell	27	2130EST			1	0	0	0	Lightning
									A bolt of lightning struck a tree at a campground in Wendell, killing a man sleeping in a tent about 30 feet from the base of the tree. Lightning M420
Bristol County Fall River	27	2230EST			0	0	3	0	TSTM Winds (50)
									Strong thunderstorm winds knocked down trees and limbs, causing isolated damage.
Bristol County Narragansett Bay area	27	2330EST			0	0	0	0	Hail (0.75)
									Three-quarter inch diameter hail was reported near Swansea in the Narragansett Bay area.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

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

MASSACHUSETTS

Berkshire County Lee	28 1304EST				0	0	0	0	Hail (0.75) Dime size hail was reported.
Franklin County Sheilbourne Falls	28 1305EST				0	0	4	0	TSTM Winds (50+) Trees were downed by thunderstorm winds, causing isolated damage.
Franklin County Greenfield	28 1310EST				0	0	4	0	TSTM Winds (50+) Thunderstorm winds knocked down a stand of large oak trees and caused scattered property damage and power outages.
Worcester County Phillyston	28 1350EST				0	0	4	0	TSTM Winds (50+) Thunderstorm winds blew down trees and wires, causing isolated damage and power outages.
Hampden County Russell	28 1355EST				0	0	4	0	TSTM Winds (50+) Thunderstorm winds blew down trees and tree limbs, resulting in localized damage and power outages.
Worcester County Hubbardston	28 1400EST				0	0	4	0	TSTM Winds (50+) Thunderstorm winds blew down several trees and limbs, causing scattered damage and power outages.
Hampshire County Southampton	28 1400EST				0	0	4	0	TSTM Winds (50+) Thunderstorm winds blew down several large trees, causing scattered damage and power outages.
Worcester County West Boylston	28 1410EST				0	0	4	0	TSTM Winds (50+) Thunderstorm winds blew down several trees and limbs, causing scattered damage and power outages.
Hampden County Agawam	28 1410EST				0	0	4	0	TSTM Winds (50+) Thunderstorm winds blew down several large trees, causing scattered damage and power outages.
Middlesex County Chelmsford	30 1500EST				0	0	0	0	TSTM Winds (56), Hail (0.50) The public reported a wind gust to 64 mph and grape size hail. The gust was not registered on certified equipment.

20 MICHIGAN

Muskegon County Muskegon Airport	02 1151EST				0	0	0	?	TSTM Wind (50)
Clinton County Dewitt Township	02 1400EST				0	0	0	?	Hail (0.83)
Genesee County southern portion	02 1600EST				0	0	0	?	TSTM Wind Several trees were blown down.
Berrien County St. Joseph	09 0225EST				0	0	0	?	TSTM Wind Several trees were blown down.
Berrien County ZW Niles	09 0315EST				0	0	0	?	TSTM Wind Several trees were blown down.
Berrien County	09 1639EST				0	0	5	?	Flash Flood Up to 5.6 inches of rain fell. Roads were flooded and a warehouse roof collapsed.
Berrien County south of St. Joseph	11 1300EST				0	0	0	?	Hail (0.75)
Berrien County Eau Claire	11 1300EST				0	0	0	?	TSTM Wind (52)
Berrien County St. Joseph	11 1300EST				0	0	5	?	Lightning A foundry was seriously damaged by fire when struck by lightning.
St. Joseph County Three Rivers	11 1315EST				0	0	0	?	TSTM Wind (55) Several trees were blown down.
Cass and St. Joseph Counties	11 1415EST				0	0	0	?	TSTM Wind (52) Large tree limbs were blown down across both counties.

MICHIGAN

Shiawassee County Henderson	25 0900EST				0	0	0	?	TSTM Wind Several trees were blown down.
Mackinac County Curtis	26 ?				0	0	0	?	TSTM Wind Several trees were blown down and boats were swamped.
Bay County Bay City	27 0110EST				0	0	5	?	Lightning A factory was destroyed by a lightning-induced fire.
Branch County	27 1600EST				0	0	0	?	TSTM Wind Many trees were blown down.
Macomb County Sterling Heights	27 2006EST				0	0	?	?	Lightning A house was destroyed by a lightning-induced fire.
Washtenaw County Ypsilanti	27 2040EST				0	0	5	?	TSTM Wind The roof was blown off of a community center.

21 MINNESOTA

Dakota County, Inver Grove Heights	01 1900CST				0	0	4	0	Lightning A house was set afire by a lightning strike.
Hubbard County: 5N Park Rapids 35W Nevis 2S Dorset Chamberlain	02 1910CST 02 1926CST 02 1926CST 02 2015CST				0	0	0	0	Hail (1.75) Hail (2.75) Hail (3.5) Funnel Egg size hail fell five miles north of Park Rapids. Golf ball size hail fell around Dorset and Nevis. Softball size hail pierced quarter-inch plywood two miles south of Dorset and baseball size hail was reported three miles southwest of Nevis.
Cass County, ZW Jenkins	02 2025CST				0	0	0	0	Funnel
Cass and Crow Wing Counties	02 2035CST				0	0	4	0	Thunderstorm Wind Thunderstorm winds knocked down numerous trees and caused power-outages from Lake Winnibigoshish to Warba.
Todd County: 8N Browerville 11N Eagle Bend	02 2111CST 02 2134CST				0	0	0	0	Hail (1.0) Hail (0.75)
Pope County, Cyrus to Starbuck	02 2135CST				0	0	0	0	Hail (0.75)
Roseau County, Roseau	05 1810CST				0	0	0	0	Hail (1.0)
Marshall County: Grygla Newfolden	05 1845CST 05 1910CST				0	0	4	0	Thunderstorm Wind Hail (0.75)
Koochiching County, International Falls	05 2018CST				0	0	0	0	Thunderstorm Wind (54)
Beltrami County, 30N Bemidji	05 2047CST				0	0	0	0	Thunderstorm Wind
Koochiching County: Big Falls Gremmell	05 2115CST 05 2120CST				0	0	0	0	Hail (1.5) Thunderstorm Wind
St. Louis County: Orr Cook Tower Virginia Aurora	05 2225CST 05 2250CST 05 2259CST 05 2259CST 05 2308CST				0	0	4	0	Thunderstorm Wind Thunderstorm Wind Thunderstorm Wind Thunderstorm Wind Thunderstorm Wind
Strong thunderstorms with damaging winds and hail moved east along the Canadian border and extreme Iron Range. A barn was destroyed just east of Grygla. Winds gusted to 62 miles per hour at International Falls. Winds damaged outbuildings around Gremmell and flipped over vehicles near Orr by Pelican Lake. Highway 24 from Cook to Vermillion Lake was covered with downed trees. Tree damage and power outages were extensive especially in the vicinity of Pelican Lake, Vermillion Lake and Virginia.									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

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					KILLED	INJURED	PROPERTY	CROPS	
MINNESOTA									
Anoka County, Coon Rapids	07	1900CST			0	0	4	0	Lightning
									A house was set afire by a lightning strike.
Sibley County, Henderson	08	0435CST			0	0	0	0	Thunderstorm Wind
LeSueur County, LeSueur	08	0440CST			0	0	3	0	Thunderstorm Wind
									Numerous trees throughout the community of Henderson were blown over. Trees were also downed at the LeSueur County fairgrounds.
Clearwater County	09	0253CST			0	0	0	0	Thunderstorm Wind
									Thunderstorm winds knocked down trees and power lines across northern Clearwater County between Gonvick and Berner.
Martin County, Fairmont	10	2130CST			0	0	4	0	Thunderstorm Wind
									Thunderstorm winds caused tree damage and flooding over portions of Fairmont. Three to five inches of rain caused urban flood damage; some areas had standing water up to five feet deep. Many trees were uprooted due to the strong thunderstorm winds.
Murray County, SW of Fulda	18	1400CST			0	0	0	0	Funnel
Nobles County, 4SW Brewster	18	1420CST			0	0	0	0	Funnel
22 MISSISSIPPI									
MSZ001-002-003-004-005-006-007-013 Northern, West-Central and Coastal Mississippi	01-06				?	?	?	8	Heavy Rain
									Remnants of Tropical Storm ALLISON moved north along the Louisiana-Mississippi border on the first day of the month and then moved slowly northeast into western Tennessee by July 3rd. The storm moved as far north as southern Indiana before returning to Mississippi by July 5th. Blocking high pressure systems to the east and west of Mississippi prevented the storm from moving away from Mississippi. As a result, heavy rainfall occurred across much of northern, west-central, and portions of coastal Mississippi through the first six days of the month. From 2300 CST on July 1st to 0500 CST on the 2nd, Biloxi received 12.58 inches of rain and Gulfport recorded 10.73 inches. Rainfall across northern and west-central Mississippi ranged from seven to over fifteen inches in the first six days of the month. Several flash floods occurred and accounted for five deaths. Extensive damage to crops from flood waters prompted thirty Mississippi counties to request federal flood-damage assistance. Statewide, only 8 percent of the corn crop matured, about 43 percent of the cotton crop was destroyed, and 29 percent of the soybean crops were rated as poor or very poor. Crop loss estimates were placed at 55 million dollars. Heavy rainfall also pushed northern Mississippi flood control reservoirs of Arkabutla, Enid, Sardis, and Grenada to 10 to 15 feet above normal. Arkabutla Reservoir exceeded its flood pool by 2 feet and water was forced over the emergency spillway.
Bolivar County	01	0650-1000CST			0	0	?	0	Flash Flood
									Over six inches of rain fell during the early morning hours. More than 150 homes were flooded throughout the county. Fifty-two houses were flooded in and around Cleveland, 45 homes were flooded in Mound Bayou, and about 16 homes were flooded in Shelby. People evacuated houses in low-lying areas throughout the county. Several highways had to be blocked off due to high water.
Sunflower County 3N Indianola	01	0700-1100CST			0	0	?	0	Flash Flood
									Roads flooded north of Indianola.
Washington County	01	0700-1300CST			0	0	?	0	Flash Flood
									Numerous roads flooded throughout the county.
Adams County Natchez	01	1100-1700CST			2	0	0	0	Flash Flood
									Heavy rains caused streets to flood and drainage ditches to overflow in low-lying areas of the city. Two teenage boys drowned while swimming in rain-swollen St. Catherine's Creek, one mile north of Natchez. The bodies were found a couple of miles from the point where they entered the water. M140, M140.
MISSISSIPPI									
Calhoun County	01	1125CST			0	0	4	0	Thunderstorm Wind
									An airplane was flipped over and its hangar was destroyed. Debris from the hangar was scattered over the airport. Several utility poles were downed and some minor damage was done to other structures.
Grenada County Holcomb	01	1600CST			0	0	3	0	Thunderstorm Wind
									High winds caused damage to several trees and a church building.
Washington County Greenville	01	1900-2330CST			0	0	5	0	Flash Flood
									Heavy rains flooded streets and at least six homes. A parking lot of an apartment complex had two and one-half feet of water in it.
Harrison County Biloxi and Gulfport	01-02	2300-0500CST			0	0	5	0	Flash Flood
									Biloxi received 12.58 inches of rain and Gulfport recorded 10.73 inches of rain. Extensive street flooding occurred and water got into several homes. Floodwaters washed away roadbed foundations, causing the pavement to crack.
DeSoto County 4E Lewisburg	02	0005-0300CST			1	0	?	0	Flash Flood
									Heavy rain caused extensive flooding in and around Lewisburg. A twelve year old girl drowned when she and her mother were thrown from a boat being walked by Civil Defense workers through knee-deep, swift water. The boat hit a tree and turned over. The mother grabbed a tree with one hand and the girl with the other, but the girl ingested too much water and drowned. F120.
Oktober County 154W Starkville	02	1600CST	1.0	75	0	0	4	0	Tornado (F1)
									A tornado touched down briefly at the airfield in Vernon. A hangar had roof damage, a plane was turned over, and two telephone poles were knocked down.
Amite County 5SSE Centreville	02	1600-1900CST			1	0	?	0	Flash Flood
									Heavy rains caused a rapid rise along the Comite River. A man drove his truck into high water in a gully along the Comite River. His truck stalled and he got out and tried to make it to a nearby bridge. His body was found the next morning when the water level dropped in the gully. M250.
Adams County Natchez	02	1600-1730CST			0	0	?	0	Flash Flood
									Heavy rains flooded low-lying areas, with at least 3 feet of water pooling in some streets. Rains also caused minor mud slides along a couple of highways.
Adams County Natchez	02	1630CST			0	0	?	0	Thunderstorm Wind
									Several trees were blown down across streets in Natchez.
Bolivar County Mound Bayou	03	1200CST			1	0	?	0	Flooding
									An eleven year old boy drowned after he fell or jumped into a canal that was bloated by heavy rains. The water depth was reported to have been 10 to 12 feet with a heavy current.
Copiah County 3S Hazelhurst	03	1655CST	0.1	20	0	0	?	0	Tornado (F0)
									A tornado touched down and went right back up into the cloud base. No damage was reported.
Neshoba County 12W Philadelphia	09	1130CST			0	0	4	0	Thunderstorm Wind
									High winds blew several trees and power lines down and damaged several farm buildings.
Lauderdale County 1W Meridian	09	1415CST			0	0	?	0	Thunderstorm Wind
									Several trees were blown down.
Clarke County 3NW Quitman	09	1500CST			0	0	?	0	Thunderstorm Wind
									Numerous trees were blown down.
Lauderdale County 3SE Meridian	09	1505CST			0	0	?	0	Thunderstorm Wind
									Several trees were blown down.
Lauderdale County Meridian	09	1600-1900CST			0	0	5	0	Flash Flood
									Numerous reports of street flooding in and around Meridian were received. Several homes had to be evacuated. Other reports of flooding were received from throughout the county.
Tishomingo County Tishomingo	12	1415CST			0	0	?	0	Thunderstorm Wind
									At least twenty trees were knocked down. Several large trees were uprooted and several power outages occurred.
Coahoma County Clarksdale	15	2200CST			0	0	4	0	Thunderstorm Wind
									Wind ripped a 50 foot by 75 foot section of roof off the public library.

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JULY 1989

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					KILLED	INJURED	PROPERTY	CROPS	

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					KILLED	INJURED	PROPERTY	CROPS	

MISSISSIPPI

Coahoma County Clarksdale	15-16	2200-0200CST			0	0	6	0	Flash Flood
		Approximately six inches of rain fell in about a four hour period, causing localized flooding of virtually every area of Clarksdale. As many as 150 homes and 25 businesses suffered some degree of damage from the rising water.							
Quitman County Marks	15	2230CST			0	0	4	0	Thunderstorm Wind
		Numerous trees and large limbs were blown down. There was wind damage to several buildings.							
Humphreys County Gooden Lake	16	0030CST			0	0	4	0	Thunderstorm Wind
		Several buildings were damaged or destroyed.							
Adams County 2N Natchez	17	1850CST			0	0	?	0	Thunderstorm Wind
		Numerous limbs and small trees were blown down. Numerous power outages occurred.							
Calhoun County eastern portion	18	2015CST			0	0	?	0	Thunderstorm Wind
		Several trees were blown down across a highway.							
Neshoba County Philadelphia	19	1420CST			0	0	?	0	Thunderstorm Wind (G52)
Kemper County 12SW Dekalb	19	1445CST	0.8	50	0	0	3	0	Tornado (F0)
		A tornado's high winds blew a trailer off its blocks and also blew down several trees.							
Monroe County Hatley	19	1345CST			0	0	?	0	Thunderstorm Wind
		A few trees were uprooted by wind.							
Neshoba County 5S Philadelphia	19	1630CST			0	0	?	0	Thunderstorm Wind
		Several trees were blown down onto power lines.							
Kemper County 10W Dekalb	19	1705CST			0	0	3	0	Thunderstorm Wind
		A roof was blown off of a trailer and trees were blown down.							
Jackson County Gautier	20	0745CST			0	0	5	0	Thunderstorm Wind
		Several homes were damaged, trees and power lines were blown down, and a satellite dish was destroyed.							
Bolivar County 2W Cleveland	22	1500CST			0	0	4	0	Thunderstorm Wind
		A tin porch was blown off of a mobile home. There was minor damage to two other mobile homes from flying debris.							
Yazoo County Holly Bluff	22	1556CST			0	0	0	5	Hail (0.50)
		A hail storm hit farms around Holly Bluff, damaging 1500 acres of cotton and approximately 450 acres of soybeans. Damage estimates were close to a half million dollars.							
Panola County Como	22	1730CST			0	0	4	0	Thunderstorm Wind
		Numerous trees were blown down, four telephone poles were knocked down, numerous power lines were downed, and damage was done to a few homes due to the falling trees and limbs.							
Clarke County near Enterprise	26	1415CST			0	0	?	0	Thunderstorm Wind
		Wind blew down numerous trees and power lines near Enterprise.							
Jasper County 5SE Rose Hill	26	1445CST			0	0	?	0	Thunderstorm Wind
		Several large trees were uprooted.							
Yalobusha County Coffeeville	27	1130CST			0	2	0	0	Lightning
		Two people were hospitalized after being struck by lightning.							
Copiah County Hazelhurst	27	1358CST			0	0	5	0	Thunderstorm Wind
		High winds tore off a 90 foot section of roof from a storage shed at a manufacturing company. Many large trees and limbs littered the streets.							
Copiah County Crystal Springs	27	1405CST			0	0	?	0	Thunderstorm Wind
		Numerous trees were blown down.							
Copiah County Wesson	27	1430CST			0	0	?	0	Thunderstorm Wind
		Several trees were blown down.							
Hinds County 2N Jackson	27	1600-1800CST			0	0	5	0	Flash Flood
		Up to 5.70 inches of rain fell over northern Jackson causing street flooding and causing water to get into several homes.							
Lauderdale County Key Field (MEI)	27	1714CST			0	0	?	0	Thunderstorm Wind (G52)
		Several trees were blown down.							
Lauderdale County Key Field (MEI)	27	1724CST			0	0	?	0	Hail (0.75)
Lauderdale County Meridian	27	1815CST			0	0	?	0	Thunderstorm Wind
		Several trees were blown down.							

MISSISSIPPI

Lauderdale County 2SE Meridian	27	1830CST			0	0	?	0	Thunderstorm Wind
		Two large oak trees were blown down on Sweet Gum Bottom Road in Lauderdale County.							
Lauderdale County Meridian	27	1845-2140CST			0	0	4	0	Flash Flood
		Meridian received 2.78 inches of rain in less than 2 hours, causing flooding of roads and streets in and around the city. Water got into several houses in Meridian.							
Pearl River County Poplarville	28	1840CST			0	0	?	0	Hail (0.75)
Jasper County 5SE Rosehill	29	1640CST			0	0	?	0	Thunderstorm Wind
		Several large trees were blown down.							
Simpson County Magee	30	1340CST			0	0	?	0	Thunderstorm Wind
		Several power lines were blown down and small hail was reported in Magee.							
Lafayette County Oxford	30	1415CST			0	0	?	0	Thunderstorm Wind
		Several trees were blown down onto power lines.							
Tippah County Faulkner	30	1430CST			0	0	3	0	Thunderstorm Wind
		Roof damage was done to a small building and several trees were blown down.							
Calhoun County	30	2045CST			0	0	?	0	Thunderstorm Wind
		Several trees were blown down. One of the trees fell on a house.							

23 MISSOURI

Cape Girardeau County between Gordonville and Cape Girardeau	28	1600CST			0	0	4	0	TSTM Wind
		Damage was done to trees and buildings.							
Boone County Columbia	29	0330CST			0	0	4	0	Flash Flooding
		Widespread street flooding in Columbia was reported by the Columbia EOC.							
Boone County 12 S Columbia	29	0430CST			0	0	?	?	Flash Flooding
		The Columbia Regional Airport recorded 2.5 inches of rainfall in 105 minutes. Some flooding resulted.							
Boone County 12 S Columbia	29	0700CST			0	0	?	?	Flash Flooding
		The Columbia Regional Airport recorded 3.5 inches of rainfall between 0300CST and 0700CST. Some flooding resulted.							
Boone County 5 E Columbia	29	0730CST			0	0	?	?	Flash Flooding
		Floodwater was 3 feet deep over Interstate 70 and on nearby Route Z, 5 miles east of Columbia.							
Boone County Centralia	29	0730CST			0	0	4	0	Flash Flooding
		Roads and streets flooded.							
Howard County 15 N Columbia	29	0830CST			0	0	3	0	Flash Flooding
		Water was one to two feet deep over Route O.							
Boone County 15 SE Columbia	29	0830CST			0	0	3	0	Flash Flooding
		Water was one to two feet deep over Route Y.							
Cape Girardeau County Jackson	30	1230CST			0	0	4	0	TSTM Wind
		Power lines and tree limbs were downed by winds of 50 to 60 mph.							

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					KILLED	INJURED	PROPERTY	CROPS	
24 MONTANA									
Flathead County Big Fork	10	1500MST			0	0	0	1	Hail (1.00)
Judith Basin County Stanford	10	1645MST			0	0	0	2	Hail (0.75)
Pondera County Valier	10	1650MST			0	0	-	-	Hail (1.75), TSTM Winds
Toole County Shelby	10	1700MST			0	1	-	-	Hail (1.75)
Liberty County	10	1730MST			0	0	-	-	TSTM Winds
Hill County Rudyard	10	1745MST			0	0	-	-	Hail (1.75), TSTM Winds
					area totals		5	6	
A severe thunderstorm moved from Valier north and eastward to Rudyard. The thunderstorm moved through the Bullhead area, hit Shelby, and then followed the Marias Drainage to Rudyard. The path of hail damage was 5 miles wide, and within the path severe damage was done to crops and farm property. A woman was injured by flying glass in Shelby when the hail broke the windows out of her mobile home.									
MTZ001	12	1700MST			0	0	4	4	Flash Flood
A flash flood closed Going-to-the-Sun Highway in Glacier National Park. Heavy rains during the previous three days saturated the ground.									
Carbon County Warren	13	1330MST			0	0	0	0	Funnel Clouds
Three funnel clouds were observed, but did not touch down.									
Lake County Charlo	15	1430MST			0	0	0	0	Hail (0.75)
Ravalli County 2W Hamilton	15	1520MST			0	0	2	0	TSTM Winds
2W Stevensville	15	1525MST			0	0	3	0	TSTM Winds
Powell County Deer Lodge	15	1530MST			0	0	3	0	TSTM Winds
Trees were blown down.									
Flathead County Kalispell	15	1545MST			0	0	0	0	Hail (1.00)
Lewis and Clark County Helena	15	1744MST			0	0	3	0	TSTM Winds (55)
Broadwater County Townsend	15	1800MST			0	0	0	0	TSTM Winds
Cascade County Great Falls	15	1940MST			0	0	3	3	TSTM Winds (50)
One inch of rain fell at Malmstrom AFB. Power lines were knocked down by thunderstorm winds.									
Lake County near St. Ignatius	16	afternoon			0	0	2	3	Hail (1.75)
Yellowstone County	16	evening			0	0	3	0	Lightning
Lightning strikes started two house fires in the county.									
Sheridan County 1S Plentywood	17	early AM			0	0	3	0	Lightning
Two horses were killed by lightning.									
Deer Lodge County Anaconda	20	1700MST			0	0	2	0	TSTM Winds
Flathead County Kalispell	20	1700MST			0	0	0	0	Hail (0.75)
West Glacier	20	1900MST			0	0	0	0	Hail (0.75)
Cascade County Great Falls	20	1807MST			0	0	3	3	TSTM Winds (54)
Trees and power poles were downed by thunderstorm winds, and heavy rains fell.									
Chouteau County Loma	20	1915MST			0	0	0	0	TSTM Winds
Lewis and Clark County Helena	23	1554MST			0	0	2	0	TSTM Winds (50)
Missoula County 1SE Missoula	26	1700MST			0	0	2	0	TSTM Winds
Lewis and Clark County Helena	26	1926MST			0	0	3	2	TSTM Winds (54)
Power lines and trees were downed. Damage was done to several roofs.									

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED ¹ DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
MONTANA									
Lewis and Clark County Wolf Creek	26	2015MST			0	0	4	2	TSTM Winds
Winds blew a tractor-trailer over on Interstate 15.									
Flathead County Somers	26	1930MST			0	0	5	0	TSTM Winds
A thunderstorm developed over Flathead Lake and caused 5 to 7 foot waves at Somers. Thirty-one boats sank and 51 docks were damaged.									
Flathead County SW Kalispell	26	2000MST			0	0	2	0	TSTM Winds
Cascade County Ulm	26	2000MST			0	0	0	0	TSTM Winds
MTZ004	26	evening			0	0	5	3	Flooding
Heavy thunderstorms 20 miles northwest of Helena caused Canyon Creek to flood, washing out the railroad grade and causing damage to local ranches.									
Fergus County 25N Lewistown	27	1803MST			0	0	3	3	TSTM Winds (78)
Lewistown	27	1805MST			0	0	0	0	TSTM Winds
Pondera County Conrad	27	1915MST			0	0	2	2	TSTM Winds (60)
Gallatin County Belgrade	28	1747MST			0	0	0	0	TSTM Winds (50)
Lewis and Clark County 3S Lincoln	30	1615MST			0	0	0	0	Hail (1.00)
Cascade County Great Falls	30	1743MST			0	0	0	0	TSTM Winds (50)
Winds gusting to 50 knots were reported from Malmstrom AFB.									
Judith Basin County Moccasin	30	1756MST			?	?	?	?	TSTM Winds (60)
5E Moccasin	30	1835MST			0	0	3	3	TSTM Winds (68)
Teton County 4N Devon	30	2030MST			0	0	2	3	TSTM Winds
Small hail and very heavy rain accompanied damaging thunderstorm winds									
Flathead County West Glacier	31	1800MST			0	1	3	0	TSTM Winds
Trees were knocked over by thunderstorm winds. One vehicle was crushed by a falling tree. One woman was injured when hit by a falling tree limb at the Sprague Creek Campground.									
Cascade County Ulm	31	1934MST			0	0	2	0	Lightning
Two buildings were set on fire by lightning.									
25 NEBRASKA									
Garden Co. Oshkosh	01	1800CST			0	0	5	3	Thunderstorm Wind
Strong wind gusts blew down trees and broke limbs, with some of the falling trees landing on buildings. Four miles north of Oshkosh ranch outbuildings were heavily damaged and irrigation pipes blown about.									
Phelps Co. Holdrege	02	0120CST			0	0	4	0	Thunderstorm Wind
Winds estimated to around 70 m.p.h. downed trees and power lines. Falling limbs damaged cars.									
Gosper Co. 3S Smithfield	02	0140CST			0	0	5	0	Lightning
A lightning strike severely damaged a home and contents.									
Harlan Co. Alma and Ragan	02	0140CST			0	1	4	0	Thunderstorm Wind
Strong winds broke limbs and downed power lines. Five boats were blown upon the dam at Harlan County Reservoir. A sheriff was injured on the dam during rescue of fishermen.									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS				ESTIMATED DAMAGE	CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS		
NEBRASKA										
Sheridan Co. 5E Gordon	03	1552CST			0	0	3	4		Hail (1.75)
Hooker Co. Mullen	03	2050CST			0	0	3	1		Thunderstorm Wind (50)
Cherry Co. 4W Crookston	03	2200CST			0	0	3	1		Thunderstorm Wind Wind gusts destroyed a garage and damaged vehicles inside. The roof was blown off of a hog barn and flying wood punched holes in a nearby building.
Sheridan Co. 10NE Alliance	06	1915CST			0	0	2	4		Lightning Fire started by lightning burned 6000 acres of rangeland.
Sioux Co. 4W Crawford	08	1500CST			0	0	5	6		Lightning Fire ignited by lightning ravaged 100,000 acres of park and private lands including portions of Fort Robinson State Park. The burn area extended about 15 miles to the west or about 10 miles east of Harrison and was about 11 miles wide. Seven farm and ranch buildings were damaged or destroyed. The fire was not controlled until the 11th.
Nuckolls Co. Superior	11	2100CST			0	0	4	2		Thunderstorm Wind Strong wind gusts blew out a plate glass window in a downtown building. A number of trees were uprooted and limbs broken.
Perkins Co.	13	0100CST			0	0	4	5		Flash Flood Six inches of rain between Grant and Madrid damaged crops, eroded fields and flooded roads. Vehicles were reported axle deep in water.
Dundy Co. 14NW Benkelman	13	0200CST			0	0	3	4		Flash Flood Six inches of rain damaged crops and caused soil erosion.
Custer Co. Merna	14	1340CST			0	0	5	5		Hail (1.75) One and three-quarter inch hail stripped trees, damaged crops, dented vehicles and broke a few windows.
Custer Co. Comstock	14	1400CST			0	0	4	5		Flash Flood Upwards of 4 inches of rain in a short period of time washed out a road 1 mile south of Comstock. Rain flooded fields.
Dawes Co. 4N Chadron	14	1431CST	0.1	20	0	0	1	1		Tornado (F0) A public-reported, small tornado touched down briefly in rangeland.
Valley Co. Ord	14	1500CST			0	0	4	3		Thunderstorm Wind Strong gusts broke tree limbs. A number of limbs fell on buildings.
Sherman Co. 1W Hazard	14	1526CST	0.1	30	0	0	2	1		Tornado (F0) A tornado touched down briefly 1 mile west of Hazard.
Sherman Co. Hazard	14	1526CST			0	0	3	4		Hail (1.75)
Buffalo Co. Pleasanton	14	1615CST			0	0	4	3		Hail (1.75)
Buffalo Co. 14SW Pleasanton	14	1620CST	0.3	40	0	0	4	1		Tornado (F0) A tornado touched down 14 miles southwest of Pleasanton, destroying a machine shed on a farm.
Buffalo Co. Amherst	14	1715CST			0	0	4	3		Hail (1.75)
Hall Co. Cairo	14	1727CST			0	0	5	2		Thunderstorm Wind Strong wind gusts downed trees and power lines.
Kearney Co. SW Minden and Axtell	14	1800CST			0	0	5	3		Thunderstorm Wind Wind gusts ripped portions of roofs off of farm buildings 5 miles west of Minden. Near Axtell strong winds destroyed a building and damaged another.
Hall Co. Wood River	14	1800CST			0	0	4	2		Thunderstorm Wind
Doniphan	14	1809CST			0	0	4	2		Thunderstorm Wind
Wood River	14	1825CST			0	0	3	2		Thunderstorm Wind Strong wind gusts uprooted trees and downed power lines in Doniphan, and broke limbs in Wood River. Falling limbs damaged buildings.
NEBRASKA										
Buffalo Co. and Hall Co.	14	1830CST			0	0	5	5		Flash Flood Four to five inches of rain in about an hour fell around Pleasanton and Doniphan, with 3.65 inches reported at Cairo. Dry and Prairie creeks were forced briefly out of banks and a road was washed out 1 mile southwest of Cairo. Streets and fields were flooded with water reported up to vehicle bumper height at Doniphan. Crops were damaged.
Kearney Co. 2S Axtell	14	1830CST	0.2	40	0	0	5	1		Tornado (F0) A tornado touched down briefly 2 miles south of Axtell destroying a shed and damaging a steel building.
Clay Co. Deweese	15	0600CST			0	0	2	3		Flood The Little Blue River rose to 1 foot over flood stage due to 2 to 4 inch rains upstream the evening of the 14th.
Hall Co. Wood River	16	Daytime			0	0	2	3		Flood The Wood River rose to 1 foot over flood stage due to 4 inch rains upstream the evening of the 14th.
Logan Co. 12W Logan	17	0300CST			0	0	3	0		Lightning A lightning strike killed five head of cattle.
Nuckolls Co. Superior	17	0500CST			0	0	3	0		Lightning A lightning strike damaged the side of a home and heavily damaged the electrical system.
Thomas Co. 2W Thedford	17	1540CST			0	0	2	3		Hail (1.75)
Wayne Co. 7SW Carroll	17	1800CST			0	0	4	1		Lightning A fire started by a lightning strike destroyed a barn and 70 hogs.
Lincoln Co. North Platte	17	1850CST			0	0	6	4		Hail (4.00) Hail from 1 and 3/4 inches to 4 inches in diameter damaged numerous vehicles and homes, broke windows and stripped leaves and small branches from trees.
Furnas Co. 1N Holbrook	17	1900CST			0	0	4	5		Hail (1.00) Hail damaged crops and broke building windows.
Dawson Co. Farnam	17	1920CST			0	0	4	4		Hail (1.75)
Cherry Co. Merriman	17	1940CST			0	0	3	3		Hail (1.50)
Lincoln Co. 4W Wellfleet to Wellfleet	17	2015CST			0	0	6	6		Hail (2.75) One and three-quarter to 2 and 3/4 inch hail damaged crops, vehicles, and building roofs, and also stripped trees. Practically all windows on the north and west sides of buildings in Wellfleet were broken out.
Frontier Co. Maywood, 5S Eustis, Curtis, and Stockville	17	2015CST			0	0	6	7		Hail (4.00) One and three-quarter to 4 inch hail severely damaged crops, and numerous vehicles, windows and building roofs. One out of four vehicles in Maywood reportedly sustained hail damage. Significant damage to crops and farm buildings was also reported south of Eustis. A number of livestock were injured.
Saunders Co. Wahoo	17	2030CST			0	0	4	2		Thunderstorm Wind Strong gusts downed trees and broke limbs.
Washington Co. Spiker	17	2040CST			0	0	3	1		Thunderstorm Wind
Burt Co. Tekamah	17	2040CST			0	0	3	1		Thunderstorm Wind Wind gusts broke tree limbs and uprooted a few trees.
Frontier Co. 2SW Eustis	17	2100CST			0	0	5	2		Thunderstorm Wind Strong gusts flattened a barn and broke tree limbs and power lines.
Red Willow Co. Indianola	17	2105CST			0	0	3	4		Hail (1.75) One and three-quarter inch hail damaged area crops and caused minor property damage.
Dodge Co. Fremont	17	2200CST			0	0	3	1		Thunderstorm Wind (52) Wind gusts estimated to 60 m.p.h. blew down scaffolding.

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					KILLED	INJURED	PROPERTY	CROPS	
NEBRASKA									
Dodge Co. 3W Fremont	18	0010CST			0	0	6	0	Lightning
									Fire started by lightning destroyed a manufacturing building.
Buffalo Co. Kearney	30	2000CST			0	0	3	1	Thunderstorm Wind
									Strong gusts broke tree limbs and blew down a few trees.
26 NEVADA									
Lander County	20	1830PST			0	0	2	0	TSTM Wind (58)
									Outflow winds from a thunderstorm caused minor damage approximately five miles southeast of Battle Mountain. A cooperative observer nearby reported wind gusts to 58 MPH.
Elko County	23	1946PST			0	0	2	0	High Wind
									Winds from nearby thunderstorms reached 58 MPH at the Elko Airport. There was no thunderstorm occurring at the airport at the time of the high wind. Minor damage was reported.
27 NEW HAMPSHIRE									
Sullivan Co.	07	1515EDT			0	0	4	0	Thunderstorm Winds (Hail 1.0)
									In Sunapee a thunderstorm with winds estimated 80-100 mph along the northwest side of Lake Sunapee damaged some homes. An oak tree 3.5 feet in diameter was sheared off and quarter size (one inch) hail fell. Three horses were killed by lightning and hail damaged cars.
Merrimack Co.	07	1538 EDT			0	0	1	0	Hail (1.0)
									In Newbury quarter size (one inch) hail fell from a passing thunderstorm.
	07	1608EDT			0	0	3	0	Thunderstorm Winds
									In Warner and Davisville trees were blown down.
	07	1615EDT			0	0	4	0	Thunderstorm Winds
									In Hopkinton trees were blown onto a house.
	07	1618EDT			0	0	3	0	Thunderstorm Winds Lightning
									In Contoocook trees were blown down on top of a car. In Concord lightning started a fire in an apartment building with substantial damage to the 2 1/2 story building.
	07	1640EDT			0	0	4	0	Thunderstorm Winds Hail (0.75)
									In Bow thunderstorm winds knocked down trees closing route 3A. Dime size (3/4 inch) hail fell.
Hillsborough Co.	07	1710EDT			0	0	3	0	Thunderstorm Winds (61) Lightning
									In Hashua a thunderstorm brought damaging winds. A wind gust to 61 mph was measured at the Hashua Airport. In Peterborough lightning struck several buildings and in Franconstown a barn fire was caused by lightning strikes.
Rockingham Co.	07	1740EDT			0	0	3	0	Thunderstorm Winds
									In Salem large trees were felled and cars stopped on Interstate 93 were moved by the wind. Small hail also fell.
28 NEW JERSEY, Northern									
Middlesex, Monmouth, Somerset, Hudson, Essex, Union, Morris, and Hunterdon Counties	05	afternoon			0	0	6	?	Flood
									Very heavy rains fell across northern New Jersey for several hours from remnants of Tropical Storm Allison. Rainfall amounts ranging from 3 to 6 inches resulted in massive flooding. The counties of Middlesex, Monmouth and Somerset were hardest hit. Most major roadways were flooded. This caused not only extensive disruption of highway travel, but rail and air transportation were affected as well. Thousands of homes were without power for several hours.
Hunterdon County Lebanon Township	07	2140EST			0	0	?	0	Thunderstorm Wind
Essex County West Orange	07	2210EST			1	0	0	0	Lightning
Monmouth County Red Bank	07	2237EST			0	0	?	0	Thunderstorm Wind
NEW JERSEY, Northern									
Passaic County Upper Greenwood Lake to Hewitt and to Ringwood	10	1800- 1809EST	7	100	0	0	6	?	Tornado (F1)
Bergen County Oakland to Wyckoff	10	1820- 1825EST	3	100	0	0	6	?	Tornado (F0)
Teaneck to Leonia to Fort Lee	10	1847- 1855EST	5	100	0	0	6	0	Tornado (F0)
									A hot and humid air mass was displaced by a cold front moving southeastward across the area. This produced some severe thunderstorms that downed many large trees and power lines. Several roadways were blocked by debris. In West Orange a young boy in the picnic area of the Eagle Rock Reservation was struck and killed by lightning. M160
									The second tornado touched down in Oakland and caused damage in both Oakland and Wyckoff. Numerous trees were uprooted in both towns, but the little structural damage observed in either town was minor. The tornado lifted as it exited Wyckoff. Twenty-two minutes later, a third tornado from the same storm touched down in Teaneck and caused damage in Teaneck, Leonia and Fort Lee. Several trees were uprooted, and in Leonia many homes were damaged and five vehicles were severely damaged. As the tornado moved into Fort Lee it passed between the Mediterranean Towers highrise buildings and through the Port Authority parking lot just south of the George Washington Bridge. About five cars received damage from flying debris in the parking lot. A Port Authority employee saw the funnel lift as it moved out over the Hudson River. In total about 150 homes across Passaic and Bergen counties were damaged. Fortunately there were no fatalities or serious injuries.
Monmouth County Freehold	20	evening			0	0	?	0	Flood
									Extensive flooding took place in the Freehold area as very slow-moving thunderstorms dumped a couple of inches of rain in a very short period of time. Several cars were damaged.
28 NEW JERSEY, Southern									
Salem County, 3 SE Quinton	05	0700 EST			0	0	3	?	TSTM Wind
									Thunderstorm wind gusts downed numerous trees in a 300 ft. wide damage path.
NJZ002 Mercer, Burlington, Camden, Gloucester and Salem Counties	05	0900 EST			0	0	7	5	Flash Flood
									Moisture remaining from Tropical Storm Allison moved over the west portion of Southern New Jersey causing torrential rain. Pennsville in Salem County had 8 inches of rain in 4 hours, Mt. Holly in Burlington County had 6.8 inches in 6 hours, Mt. Ephraim in Camden County had 5 inches in 4 hours, Woodbury in Gloucester County had 3.5 inches in 1 hour and Trenton and Hazlet Square in Mercer County had 4 inches in 4 hours. This excessive rainfall resulted in widespread urban and small stream flooding. Thousands of houses and other buildings had flooding to some degree, many had never been flooded before. In some areas every street or road was flooded. Mt. Holly in Burlington County was just about isolated, with roads around the town all flooded. Hundreds of people had to evacuate their home, schools or workplaces. Innumerable vehicles were flooded where they were parked or where they stalled out after being driven onto flooded roadways. In Mt. Holly the dam on a small lake washed out. The resulting flood waters washed out part of the foundations on four homes. Portions of roads along streams and drainage areas or adjacent to bridges were washed out in some areas. The storm damage was 4.4 million dollars in Gloucester County, 2.3 million in Burlington County, 2.1 million in Salem County and 450 thousand in Camden County. The official damage estimate was available for Mercer County. The Assunpink Creek in Mercer County crested at 8.5 ft, its flood stage is 7 ft. The Rancocas Creek in Burlington County crested at 2.74 ft, its flood stage is 2.7 ft. Flooding occurred between 0900 and 1400 EST in Salem and Gloucester counties, between 1200 and 1500 EST in Burlington and Camden counties and between 1030 and 1400 EST in Mercer County.
Cumberland County	05	0900 EST			0	0	6	?	Flash Flood
									Moisture remaining from Tropical Storm Allison moved over Southern New Jersey causing torrential rain. The rain caused widespread urban and small stream flooding. The flooding resulted in 1 million dollars damage. Flooding occurred between 0900 and 1400 EST.

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					KILLED	INJURED	PROPERTY	CROPS	
NEW JERSEY, Southern									
Camden and Gloucester Counties	20	2000 EST			0	0	4	?	Flood
	Thunderstorm downpours dumped over 3 inches of rain in some locations in about 2 hours. Considerable urban flooding resulted and some roads were closed. Both roads and houses were flooded. Flooding occurred between 2000 and 2200 EST. The heavy rain and flooding were mainly in Washington Township, Gloucester County and Gloucester City, Camden County.								
Camden County	26	1930 EST			0	0	4	?	Flood
	Thunderstorms brought heavy downpours to the county, causing considerable urban flooding. Mt. Ephraim had 4.95 inches of rain in less than 2 hours. Many roadways were flooded and many vehicles stranded, some in water up to their windows. There also were some flooded basements. Flooding occurred between 1930 and 2200 EST.								
29 NEW MEXICO									
Chaves County	09	1515MST			0	0	3	?	Thunderstorm Wind
	Thunderstorm wind blew the roof off a mobile home in Roswell.								
Los Alamos County	14	1100MST			0	0	0	?	Hail (1.00)
	One-inch hail fell at Los Alamos.								
Los Alamos County	14	1430MST			0	0	0	?	Hail (1.00)
	One-inch hail fell at Los Alamos.								
Union County	14	1545MST			0	0	0	?	Hail (1.00)
	One-inch hail fell at Greenville								
Guadalupe County	14	1700MST			0	0	0	0	Hail (.75)
	Dime size hail fell 20 miles west of Santa Rosa.								
Guadalupe County	14	1700MST			0	0	0	?	Hail (1.00)
	Quarter size hail fell at Dilia (26 SSE Las Vegas).								
Quay County	14	1715MST			0	0	4	0	Thunderstorm Wind
	A boat house and barge were flipped over on Ute Lake, and storage buildings were damaged.								
Guadalupe County	14	1800MST			0	0	4	0	Thunderstorm Wind
	Strong thunderstorm winds blew a few trees down and took shingles off roofs in Newkirk.								
Roosevelt County	14	1830MST			0	0	4	0	Thunderstorm Wind
	Straight-line winds destroyed 2 mobile homes and downed 6 power poles 5 miles south-southwest of Portales.								
Lea County	14	2135MST			0	0	?	?	Thunderstorm Wind (G52)
	Lovington Fire Department recorded gusts to 60 mph.								
La County	14	2140MST			0	?	?	?	Thunderstorm Wind (G80)
	Wind gusts to 92 mph blew a large tree down in Lovington (wind measured by Fire Department).								
Lea County	14	2200MST			0	0	5	?	Thunderstorm Wind
	Thunderstorm wind blew trees down, blew privacy walls and fences over, and overturned a pickup truck in Hobbs.								
Lea County	14	2210MST			0	0	?	?	Thunderstorm Wind (G55)
	Thunderstorm wind turned a plane over at the Lea County Airport in Hobbs.								
Guadalupe County	15	1545MST			0	0	?	?	Hail (1.00) and Thunderstorm Wind
	Strong thunderstorm wind blew down several trees along Highway 84, 15 miles north of Alamogordo Reservoir. One-inch hail also stopped traffic.								
De Baca County	15	1615MST			0	0	3	?	Thunderstorm Wind
	Strong thunderstorm wind damaged roofs and a barn 30 miles west of Ft. Sumner; also a few trees were damaged.								
NEW MEXICO									
Lincoln County	15	1615MST			0	0	?	?	Hail (.75) and Thunderstorm Wind
	Strong wind and brief, dime-size hail forced several vehicles off Highway 285 near Ramon.								
Quay County	16	1830MST			0	0	?	?	Hail (1.00)
	A cooperative observer reported nickel size hail at San Jon.								
Eddy County	18	1526MST			0	0	?	?	Hail (.75) and Thunderstorm Wind
	Dime size hail was blown by gusts to 76 mph at the Carlsbad Airport.								
Rio Arriba County	20	1305MST			0	0	0	0	Hail (.75)
	Dime size hail fell at El Rito.								
San Miguel County	20	1525MST			0	0	?	?	Hail (2.00)
	Two-inch diameter hail fell at the Pecos National Monument.								
San Miguel County	20	1610MST			0	0	?	?	Hail (1.00)
	One-inch diameter hail fell at the Pecos River Bridge along Highway 85, 20 miles southwest of Las Vegas.								
Torrance County	21	1535MST			0	0	?	?	Hail (1.75)
	Golfball size hail fell 14 miles south of Tijeras.								
Otero County	22	1405MST	0.2	30	0	0	4	0	Tornado (F1)
	A tornado hit an automobile repair shop along Highway 70 just west of Alamogordo, destroyed part of the shop and turned over two pop-up campers. Estimated damage of \$30,000 was done.								
Bernalillo County	23	1535-1615MST			1	3	0	0	Flash Flood
	2.6 feet of water in an arroyo swept away a 17-year-old male skateboarding in the arroyo. Three males from a fire department rescue unit were injured.								
Sandoval County	24	1600-1645MST			0	0	?	?	Flash Flood
	Heavy rainfall produced runoff that flooded roads in Rio Rancho, and washed out county roads between Cochiti Reservoir and the Rio Grande.								
Bernalillo County	24	1600-1645MST			0	0	5	?	Flash Flood
	A street was washed away and collapsed in western Albuquerque due to 1 to 2 inches of rain.								
Grant County	24	1630-1715MST			0	0	4	?	Flash Flood
	Heavy rainfall put water across parts of Highway 260, and creeks overflowed, washing away parts of county roads between White Signal and Red Rock.								
Rio Arriba County	24	1800MST			0	1	0	0	Lightning
	A forty-nine year old male was struck by lightning as he was cutting timber 15 miles northeast of Cuba.								
Santa Fe County	24	2000-2230MST			0	0	6	?	Flash Flood
	About 1.5 inches of rain washed out roads, extensively damaged bridges, and flooded homes in Santa Fe and Nambé. Damage was estimated at 500 to 600 thousand dollars.								
Bernalillo County	26	1705MST			0	2	0	0	Lightning
	Lightning struck and injured two males ages 8 and 6 playing in their yard. CPR administered by a mother and neighbor saved their lives.								
Otero County	28	1545-1630MST			1	0	0	0	Flash Flood
	A 32-year-old man was swept away and drowned in an arroyo in Alamogordo.								
Dona Ana County	28	1840MST	4.0	50	0	0	0	0	Tornado (F1)
	Two meteorologists from White Sands Missile Range observed a tornado develop and move across unpopulated rangeland 25 miles west of Las Cruces.								

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED ¹ DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
NEW MEXICO									
Sandoval County	31	1400-1445MST			0	0	?	?	Flash Flood
		Two inches of rain in 30 minutes washed out county roads between Cuba and Wolf Canyon, 15 miles southeast of Cuba.							
Colfax County	31	1645-1730MST			0	0	?	?	Flash Flood
		Very heavy rainfall put roads under water near Springer and westward toward Cimarron; also, some county roads in the western part of the county were washed out.							
30 NEW YORK, Coastal									
Nassau and Suffolk Counties	05	afternoon-evening			0	0	?	0	Flood
		Very heavy rain fell across coastal sections of New York from remnants of Tropical Storm Allison. Rainfall amounts ranging from 2 to 4 inches resulted in extensive flooding across Long Island.							
Nassau County	07	1945EST			0	0	?	0	Thunderstorm Wind
Hicksville	07	2015EST			0	0	?	0	Hail (0.75)
Suffolk County	07	2015-2045EST			0	0	?	0	Thunderstorm Wind
Islip									
Deer Park, Ronkonkoma and Patchogue									
		A hot and humid air mass was displaced by a cold front moving southeastward across the area. This triggered severe thunderstorms that downed many large trees and power lines across Long Island. These storms also produced dime size hail at Islip.							
Suffolk County	10	1745-1800EST			0	0	?	?	Thunderstorm Wind
Manorville									
Center Moriches and Eastport	10	1745-1800EST			0	0	?	?	Hail (2.50)
East Moriches	10	1815EST short	40		0	1	?	0	Tornado (F2)
		A severe thunderstorm moved from northwest to southeast across Suffolk County during the early evening hours. A downburst at Manorville downed several large trees and caused some damage to a nearby corn and wheat field. Large hail was reported by residents at Center Moriches and Eastport. The hail ranged in size from 2 to 2.5 inches in diameter. At Spadaro's airport in East Moriches, a tornado touched down briefly. A 60 foot long mobile house, used as an office, was completely destroyed. The only occupant of this mobile office was extremely fortunate to have been only slightly injured. Several airplanes were damaged or destroyed, and an automobile was damaged also.							
Bronx County	10	1920EST			0	0	?	0	Thunderstorm Wind
Queens County	10	1920EST			0	0	?	0	Thunderstorm Wind
Nassau County	10	2045EST			0	0	0	0	Hail (1.00)
Bethpage									
		A severe thunderstorm moved from the Bronx across Queens County and into Nassau County during the late evening hours. Trees and power lines were downed in the Bronx and Queens. As it passed over Nassau County the storm produced hail ranging in size from a dime to a quarter at Bethpage.							
Suffolk County	14	1610EST			0	0	?	0	Hail (0.75)
Bridgehampton	14	1610EST			0	0	0	0	Waterspout
Peconic Bay									
		Severe thunderstorms produced dime size hail at Bridgehampton and a waterspout at approximately the same time over Peconic Bay.							
30 NEW YORK, Central									
Montgomery Co. Amsterdam	03	PM			0	0	4	0	Urban Flooding
		Locally heavy rains overwhelmed the storm water runoff systems and resulted in urban flooding. Several streets had large sections of pavement ripped up. Witnesses reported that manhole covers were blown into the air. Concrete retaining walls were washed away.							
Franklin Co. Chateaugay	04	1440EST			0	0	2	0	Hail (0.9)
Chateaugay Clinton Co. Mooers	04	1440EST			0	0	2	0	Hail (0.75)
		Large hail and thunderstorm winds did minor damage in the Adirondacks of New York							
Delaware Co. Deposit	04	1538EST			0	13	3	0	Lightning
		Thirteen persons were injured by a lightning strike in the village of Deposit, at the village reservoir on Reservoir Rd. Only one person required overnight medical attention. Injuries were limited to minor burns. All the victims were in a tent at the time of the lightning strike.							
Washington Co. Hebron	07	1330EST			0	0	3	0	Tstm. Wind
Granville	07	1445EST			0	0	2	0	Tstm. Wind
Chemung Co. Oxford	07	1330EST			0	0	2	0	Tstm. Wind
McDonough	07	1401EST			0	0	4	0	Lightning
McDonough	07	1401EST			0	0	1	0	Tstm. Wind
Greene	07	1430EST			0	0	4	2	Lightning
Delaware Co. Sidney	07	1455EST			0	0	2	2	Tstm. Wind
Sidney	07	1507EST			0	0	2	0	Tstm. Wind
Walton	07	1511EST			0	0	3	0	Tstm. Wind
Walton	07	1512EST			0	0	3	0	Tstm. Wind
Colchester	07	1525EST			0	0	2	0	Tstm. Wind
5 NE Treadwell	07	1528EST			0	0	3	0	Tstm. Wind
Washington Co. Ft. Edward	07	1500EST			0	0	3	0	Lightning
Kingsbury	07	1515EST			0	0	3	0	Lightning
Argyle	07	1517EST			0	0	3	0	Tstm. Wind
Broome Co. Pt. Crane	07	1515EST			0	0	4	0	Lightning
Cortland Co. Cortland	07	1519EST			0	0	2	0	Tstm. Wind
Little York	07	1519EST			0	0	1	0	Tstm. Wind
Homer	07	1519EST			0	0	3	0	Tstm. Wind
Delaware Co. Downsview	07	1525EST			0	0	1	0	Tstm. Wind
Treadwell	07	1528EST			0	0	2	0	Tstm. Wind
Hudson Falls	07	1530EST			0	0	4	0	Lightning
Broome Co. Pt. Crane	07	1530EST			0	0	3	0	Lightning
Schoharie Co. Petersburg Mtn.	07	1545EST			0	0	6	0	Lightning
Cortland Co. S. Cortland	07	1556EST			0	0	1	0	Tstm. Wind
Messengerville	07	1600EST			0	0	2	0	Tstm. Wind
Schenectady Co. Schenectady	07	1600EST			0	0	4	0	Lightning
Albany Co. Albany	07	1612EST			0	0	0	0	Tstm. Wind (G 065)
Albany									
Colonie	07	1620EST			0	0	2	0	Tstm. Wind
Columbia Co. Valatie	07	1640EST			0	0	4	2	Tstm. Wind
Chatham	07	1648EST			0	0	3	0	Lightning
Dutchess Co. Staatsburgh	07	1745EST			0	0	3	0	Tstm. Wind
Hillbrook	07	1745EST			0	0	3	0	Tstm. Wind
Salt Point	07	1745EST			0	0	3	0	Tstm. Wind
		Numerous trees, tree limbs and power lines were downed. In Schoharie County, lightning destroyed the county emergency radio system. This damage would later hamper communication efforts during the Schoharie tornado of July 10th.							

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED ¹ DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
NEW YORK, Central									
St. Lawrence Co. Ogdensburg	10	0330EST			0	1	4	4	Downburst
Ogdensburg to 1.75 Ogdensburg Hamilton Co. Inlet	10	0520-0527EST	1.7	30	0	1	4	4	Tornado (F1)
Montgomery Co. Amsterdam	10	0714EST			0	0	1	2	Hail (0.90)
Fulton Co. Johnstown	10	0720EST			0	0	3	2	Tstm. Wind
Montgomery Co. Fonda	10	0722EST			0	0	3	3	Hail (1.00)
Amsterdam Schenectady Co. Schenectady	10	0730EST			0	0	3	0	Lightning
Franklin Co. Tupper Lake	10	0745EST			0	0	3	0	Tstm. Wind
Albany Co. Albany	10	0800EST			0	0	3	0	Lightning
Saratoga Co. Saratoga	10	0800EST			0	0	1	0	Tstm. Wind
Wilton Saratoga Springs	10	0820EST			0	0	3	0	Tstm. Wind
1.5W Saratoga Spgs.	10	0820EST			0	0	1	0	Tstm. Wind
1S Schuylerville Stillwater	10	0830EST			0	0	2	0	Tstm. Wind
Franklin Co. Tupper Lake	10	0830EST			0	0	4	0	Lightning
Rensselaer Co. Stephentown	10	0830EST			0	0	3	0	Lightning
Hosack Falls Warren Co. Glens Falls	10	0830EST			0	0	2	2	Hail (1.25)
10 0920EST	10	0920EST			0	0	2	0	Tstm. Wind
10 0900EST	10	0900EST			0	0	4	0	Lightning
An early morning wave of thunderstorms produced hail and strong gusty winds. Wind damage was confined to downed trees, tree limbs and power lines.									
St. Lawrence Co. Massena	10	0855EST			0	0	3	0	Lightning
Franklin Co. Coreys	10	0935EST			0	0	4	4	Tstm. Wind
Coreys	10	0935EST			0	0	3	0	Lightning
Coreys	10	0935EST			0	0	3	2	Hail (1.00)
Chapel Island N. Bangor	10	0938EST			0	0	3	0	Tstm. Wind
10 1030EST	10	1030EST			0	0	2	2	Hail (0.90)
St. Lawrence Co. West Potsdam	10	1015EST			0	0	2	0	Lightning
Potsdam	10	1051EST			0	0	4	4	Lightning
Clinton Co. Peru	10	1025EST			0	0	3	0	Hail (0.75)
Morrisonville Essex Co. Lake Placid	10	1028EST			0	0	2	0	Lightning
10 1055EST	10	1055EST			0	0	3	0	Small Stream Flooding
Chapel Pond Keene	10	1105EST			0	0	4	0	Mud Slide
10 1105EST	10	1105EST			0	0	4	0	Flash Flood
Willsboro Warren Co. West Bolton	10	1110EST			0	0	4	0	Lightning
Hamilton Co. Long Lake	10	1057EST			0	1	4	0	Lightning
Essex Co. Ausable	10	1113EST			0	0	3	0	Lightning
Ausable	10	1115EST			0	0	3	0	Lightning
Keene	10	1116EST			0	0	4	0	Tstm. Wind
Jay	10	1116EST			0	0	3	0	Tstm. Wind
Elizabethtown Oneida Co. Ramson	10	1116EST			0	0	3	0	Tstm. Wind
Vienna	10	1120EST			0	0	3	0	Lightning
10 1210EST	10	1210EST			0	0	3	0	Tstm. Wind
10 1245EST	10	1245EST			0	0	2	0	Tstm. Wind
Saratoga Co. S Glens Falls	10	1305EST			0	0	3	0	Tstm. Wind
Washington Co. Ft. Edward	10	1330EST			0	0	2	0	Tstm. Wind
Montgomery Co. 3E Ames	10	1327EST	43.5	1100	0	20	7	6	Tornado (F4)
to Schoharie Co. Carlisle	10	1343EST							
Schoharie (village)	10	1355EST							
Middleburg (town) to Albany Co. 1.5 SE Rensselaerville	10	1355EST							
Albany Co. Medusa	10	1400EST							
to Greene Co. Surprise	10	1415EST							
Greene Co. Surprise	10	1420EST							
10 1437EST	10	1437EST							
NEW YORK, Central									
Otsego Co. Cherry Valley	10	1334EST			0	0	3	0	Tstm. Wind
Schoharie Co. Middleburg	10	1355EST			0	0	3	3	Tstm. Wind (G050)
Albany Co. Berne	10	1355EST			0	0	1	1	Hail (0.75)
Schoharie Co. Cobleskill	10	1400EST			0	0	4	0	Microburst
Schenectady Co. Scotia	10	1415EST			0	0	2	0	Tstm. Wind
Greene Co. 2 E Greenville	10	1445EST			0	0	4	0	Flash Flood
countywide	10	1445EST			0	0	2	2	Tstm. Wind
Greenville	10	1450EST			0	0	2	0	Flash Flood
Columbia Co. Hudson	10	1445EST			0	0	2	0	Tstm. Wind
Claverack	10	1445EST			0	0	2	2	Tstm. Wind
Ancram	10	1445EST			0	0	2	0	Tstm. Wind
County Wide	10	1515EST			0	0	3	2	Tstm. Wind
Stuyvesant	10	1520EST			0	0	4	2	Tstm. Wind
Ulster Co. Stone Ridge	10	1512EST			0	0	2	0	Tstm. Wind
Saugerties	10	1520EST			0	0	2	2	Tstm. Wind
Saugerties	10	1530EST			0	0	2	0	Lightning
Otsego Co. Worcester	10	1550EST			0	0	3	3	Tstm. Wind
Oneonta	10	1550EST			0	0	3	0	Tstm. Wind
Schenevus	10	1557EST			0	0	2	2	Tstm. Wind
Otsego	10	1613EST			0	0	2	0	Tstm. Wind
Lauren	10	1644EST			0	0	2	0	Tstm. Wind
Dutchess Co. 10 to 20 NE (POU)	10	1600EST			0	0	4	3	Tstm. Wind
Delaware Co. Deposit	10	1616EST			0	0	3	0	Tstm. Wind
Sullivan Co. Callicoon	10	1618EST			0	0	2	0	Rain
Callicoon	10	1623EST			0	0	3	0	Hail (0.75)
Callicoon	10	1630EST			0	0	4	4	Tstm. Wind
Chenango Co. Earlville	10	1645EST			0	0	2	2	Tstm. Wind
Sherburne	10	1645EST			0	0	2	2	Tstm. Wind
Columbia Co. Niverville	10	1645EST			0	0	2	0	Lightning
E. Chatham	10	1648EST			0	0	3	0	Lightning
Broome Co. 2 N. Glen Aubrey	10	1645EST			0	0	3	0	Tstm. Wind
Delaware Co. Bloomville	10	1645EST			0	0	1	0	Hail (0.90)
Bloomville	10	1652EST			0	0	3	0	Tstm. Wind
Putnam Co. Carmel	10	1658EST	.5	100	0	5	7	4	Tornado (F2)
Brewster	10	1704EST							
Columbia Co. New Lebanon	10	1700EST			0	0	2	2	Tstm. Wind
Putnam Co. Brewster	10	1700EST			0	0	3	0	Tstm. Wind
Cortland Co. Cortland	10	1700EST			0	0	2	0	Tstm. Wind
Taylor	10	1700EST			0	0	3	0	Tstm. Wind
Columbia Co. Stuyvesant Falls	10	1719EST			0	0	2	0	Lightning
Orange Co. Warwick	10	1810EST			0	0	3	3	Tstm. Wind
Franklin Co. Tupper Lake	10	1830EST			0	0	2	0	Lightning
A second wave of thunderstorms rolled through eastern New York about midday into the early evening. The thunderstorms produced two tornados; the first occurred east of Ames, Montgomery County, moved through the hamlets of Carlisle, Brammerville, Howe Caverns, Central Bridge, and Wetsel Hollow, and into the village of Schoharie, then lifted off on the ridge east of the village.									
The tornado touched down again on other side of the ridge, in the hamlet of Rensselaerville, Albany County. The storm remained on the ground for about 1.5 miles, then lifted off again.									
The third touchdown occurred between the hamlets of Greenville and Surprise, Greene County. The tornado again remained on the ground for about 1.5 miles, then lifted off again. It's likely that the same cell produced tornados in Connecticut, Long Island Sound, and in Long Island New York State.									
Maximum winds appeared to be achieved near Wetsel Hollow Road and Route 7. This was an area where damage patterns suggested two cells merged. Estimated winds were about 225-250 miles per hour, a minimal F4.									
According to local records this is the most powerful tornado to ever have been recorded in eastern New York.									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

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

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

NEW YORK, Central

<p>Another tornado touched down in Putnam County, destroying a portion of the Kings Condominiums. This tornado was rated a strong F2. Only 5 persons were injured. No one was killed.</p>									
Montgomery Co. Glen Saratoga Co. Wilton	14	1145EST			1	0	2	0	Lightning
	14	1228EST			0	0	3	0	Lightning
<p>Summer thunderstorms resulted in lightning striking a road painter while he was working on the New York State Thruway. The resulting bolt also dug a six inch deep hole into the road surface.</p>									
M-36-0									
Warren Co. Bolton Landing	19	1330EST			0	2	4	0	Tstm.Wind
<p>Two persons were injured when a tree fell onto a vehicle during high thunderstorm winds.</p>									
Schoharie Co. Howe Caves	20	1815EST			0	0	3	0	Rain
Albany Co. Colonie	27	1500EST			0	0	2	0	Lightning
Saratoga Co. Mechanicville	27	1525EST			0	0	3	0	Tstm.Wind
Stillwater	27	1530EST			0	0	3	0	Tstm.Wind
Clifton Park	27	1530EST			0	1	2	0	Lightning
Oneida Co. Boonville	27	1602EST			0	0	3	0	Lightning
Lee Center	27	1613EST			0	0	2	0	Tstm.Wind
West Canada	27	1652EST			0	0	3	0	Lightning
Warren Co. Glens Falls	27	1630EST			0	0	4	0	Lightning
Montgomery Co. Canajoharie	27	1640EST			0	0	3	2	Tstm.Wind
Oneida Co. Rome	27	1655EST			0	0	3	0	Tstm.Wind
Rome	27	1702EST			0	0	2	0	Lightning
Lee Center	27	1710EST			0	0	2	2	Tstm.Wind
Lake Delta	27	1714EST			0	0	4	2	Tstm.Wind
Holland Patent	27	1716EST			0	0	3	3	Tstm.Wind
Utica	27	1733EST			0	0	3	3	Tstm.Wind
Saratoga Co. Stillwater	27	1705EST			0	0	3	0	Lightning
Fulton Co. Broodabin	27	1715EST			0	0	2	0	Tstm.Wind
Salemville	27	1715EST			0	0	3	0	Tstm.Wind
Johnston	27	1715EST			0	0	2	2	Tstm.Wind
Montgomery Co. Canajoharie	27	1717EST			0	0	4	3	Tstm.Wind
Pelaine Bridge	27	1720EST			0	0	2	0	Tstm.Wind
Washington Co. Kingsbury	27	1717EST			0	0	3	0	Tstm.Wind
Warren Co. Glen Falls	27	1720EST			0	0	2	2	Hail (0.75)
Madison Co. Chittenango	27	1735EST			0	0	2	0	Tstm.Wind
Herkimer Co. Herkimer	27	1739EST			0	1	3	2	Tstm.Wind
Ilion	27	1745EST			0	0	3	0	Tstm.Wind
Herkimer	27	1802EST			0	0	3	0	Flash Flood
Albany Co. Albany	27	1745EST			0	0	3	0	Lightning
Saratoga Co. Rensselaer County	27	1800EST			0	0	3	0	Lightning
Troy	27	1746EST			0	0	3	0	Tstm.Wind
N. Greenbush	27	1815EST			0	0	2	0	Tstm.Wind
Delaware Co. Masonville	27	1754EST			0	0	3	0	Tstm.Wind
Oneida Co. Clinton	27	1804EST			0	0	3	0	Lightning
Otsego Co. Gilbertsville	27	1815EST			0	0	5	0	Tstm.Wind
Cortland Co. 2 W DeRuyter	27	1815EST			0	0	3	0	Tstm.Wind
Albany Co. Alcove	27	1900EST			0	0	3	0	Tstm.Wind
Rensselaer County southern portion	27	1940EST			0	0	4	0	Tstm.Wind
Oneida Co. Chadwicks	27	2000EST			0	0	2	0	Tstm.Wind
<p>Thunderstorm winds downed trees, tree limbs, and power lines and did some damage to homes in Gilbertsville, Otsego County.</p>									

NEW YORK, Central

Otsego Co. Cooperstown	28	0808EST			0	0	2	0	Tstm.Wind
5 S Cooperstown	28	0815EST			0	0	2	0	Tstm.Wind
Rensselaer County Johnstonville	28	1220EST			0	0	3	0	Tstm.Wind
Saratoga Co. Wilton	30	1135EST			0	0	2	0	Hail (0.75)
Saratoga Springs	30	1140EST			0	0	3	0	Tstm.Wind
<p>Several trees were uprooted and tree limbs and power lines were knocked down.</p>									
30 NEW YORK, Western									
CAYUGA COUNTY									
Port Byron	07	1228EST			0	0	4	0	TSTM Wind
Auburn	07	1241EST			0	0	3	0	HAIL (0.50)
Throop	07	1255EST			0	0	3	0	TSTM Wind
Sempronius	07	1317EST			0	0	3	0	TSTM Wind
ONONDAGA COUNTY									
Otisco	07	1302EST			0	0	4	0	TSTM Wind
S. Onondaga	07	1329EST			0	0	3	0	TSTM Wind
JEFFERSON COUNTY									
Sacketts Harbor	07	1349EST			0	0	4	0	TSTM Wind
Adams Center	07	1409EST			0	0	3	0	TSTM Wind
Hounsfield	07	1409EST			0	0	3	0	TSTM Wind
E. Rodman	07	1415EST			0	4	4	0	TSTM Wind
NIAGARA COUNTY									
N. Tonawanda	07	1420EST			0	0	2	0	HAIL (1.00)
ERIE COUNTY Buffalo	07	1435EST			0	0	3	0	TSTM Wind
TOMPKINS COUNTY									
Newfield	07	1720EST			0	0	3	0	HAIL (0.75)
ALLEGANY COUNTY									
Angelica	07	1755EST			0	0	3	0	TSTM Wind
Belmont	07	1815EST			0	0	3	0	TSTM Wind
STEBUN COUNTY									
Bishopville	07	1815EST			0	0	3	0	HAIL (0.75)
Hornell	07	1815EST			0	0	4	0	HAIL (0.75)
Greenwood	07	1815EST			0	0	4	0	TSTM Wind
CHEMUNG COUNTY									
Gillet	07	1915EST			0	0	3	0	HAIL (0.75)
<p>Afternoon and evening thunderstorms developed in unstable air across Western New York. Trees and wires were downed causing scattered power outages. In Greenwood, a tree fell on a house. In East Rodman a utility pole fell on a car containing four occupants. Three-quarter inch hail covered the ground in Gillet. Lightning struck a school in Hornell, causing \$5000 damage.</p>									
LEWIS COUNTY									
New Bremen	10	1145EST			0	0	3	0	TSTM Wind
Newfield	10	1730EST			0	0	4	0	TSTM Wind
<p>Afternoon thunderstorms downed trees and caused scattered power outages. In Newfield a tree was downed onto a trailer.</p>									
CHAUTAUQUA COUNTY									
Lake Chautauqua at Bemus Point	19	1530EST	0.1	5	0	0	3	0	WATERSPOUT - TORNADO (F0)
<p>A waterspout formed over Lake Chautauqua and came ashore causing minor damage to five small docks. The mini tornado moved a small aluminum dock around on Lake Chautauqua near Bemus Creek Road.</p>									
CHEMUNG COUNTY									
countywide	27	1345EST			0	0	4	0	TSTM Wind
Horseheads	27	1400EST			0	0	4	0	TSTM Wind
<p>Thunderstorms crossed the area during the afternoon. The thunderstorm winds downed trees and branches, causing scattered power outages throughout the area.</p>									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
31 NORTH CAROLINA									
Transylvania Co. Rosman	03	1330EST			0	0	0	5	Flood
					The French Broad River crested at 9.1 feet producing minor flooding of low-lying areas. Flood stage is 8 feet.				
Caldwell Co.	04	0915EST			1	0	0	0	Flash Flood
Avery Co.	04	1100EST			0	0	5	6	Flash Flood
Caldwell Co.	04	1400EST			0	0	0	0	Flash Flood
Mortimer Burke Co.	04	1400EST			0	0	5	0	Flash Flood
N of Lake James McDowell Co. Marion	04	1400EST			0	0	5	0	Flash Flood
					During the period July 3-4, five to eight inches of rain fell over the North Carolina mountains. The greatest single amount recorded was 8.00 inches in Sapphire Valley along the Jackson-Transylvania county line. On July 3, a young woman drowned while rafting on Norton Mill Creek south of Cashiers in Jackson County. Heavy rains had swollen the creek. No serious flooding was reported. On July 4, in Caldwell County during the morning an 18 year old female camper was swept away in her tent while camping at Brown Mountain Beach along Wilsons Creek in the Pisgah National Forest. By the afternoon flash flooding washed over roads and bridges. Water flooded roads to a depth of 5 feet near Mortimer. In Avery County \$500 thousand in damage to crops and \$350 thousand to farm structures, roads and bridges was reported, mainly along the Linville and Toe rivers. Rising waters flowed over the top of the Land Harbor Lake Dam. About 300 people from homes and campgrounds were evacuated from the dam to Linville Gorge. In Burke County the Linville River north of Lake James flooded, inundating several houses and cabins. In McDowell County the Catawba River flooded sections of U.S. Highway 221. A car was swept from the road near Marion. (F180)				
Ashe Co.	05	1500EST			0	0	5	5	Flash Flood
					With rivers swollen and the ground saturated from the two previous days of heavy rain, additional rain on the 5th quickly produced flash flooding in Ashe County. Eight homes and seven businesses were flooded. About \$200 thousand damage was done to mostly roads and crops in the county. Heaviest hit were the towns of Warrensville, Smeethport, Claybank and Buffalo.				
Henderson Co. Etowah	07	1515EST			0	0	0	0	TSTM Winds
					Severe thunderstorm blew down trees and power lines in Etowah.				
Iredell Co. Harmony	08	1445EST			0	0	0	0	TSTM Winds
					Severe thunderstorm blew down trees and power lines in Harmony.				
Columbus Co. Whiteville	09	1700EST			0	0	0	0	Hail (1.00)
					Quarter size hail fell in Whiteville.				
Tyrrell Co. Columbia	12	1222EST			0	0	0	0	TSTM Winds
Pasquotank Co. 10 N Elizabeth City	12	1300EST			0	0	0	0	Funnel Cloud
					Several trees were blown down near Columbia. A funnel cloud was sighted 10 miles north of Elizabeth City.				
Milkes Co. Traphill	12	1320EST			0	0	0	0	TSTM Winds
Mecklenburg Co. Charlotte	12	1435EST			0	0	0	0	TSTM Winds
Union Co. S of Monroe	12	1444EST			0	0	0	0	TSTM Winds
Granville Co. Southern	12	1500EST			0	0	0	0	Hail (0.75)
Catawba Co. Claremont	12	1507EST			0	2	0	0	Lightning
Chatham Co. Siler City	12	1525EST			0	0	0	0	TSTM Winds
Alamance Co. N of Burlington	12	1552EST			0	0	0	0	TSTM Winds
Warren Co. Eastern	12	1536EST			0	0	0	0	TSTM Winds
Guilford Co. Southeast	12	1615EST			0	0	0	0	TSTM Winds
Lee Co. Sanford	12	1617EST			0	0	0	0	TSTM Winds
Person Co. Southern	12	1630EST			0	0	4	0	TSTM Winds
Warren Co. Warrenton	12	1645EST			0	0	0	0	TSTM Winds
Nash Co. Nashville	12	1645EST			0	0	0	0	Hail (0.75)
Harnett Co. Bunn Level	12	1830EST			0	0	0	0	Flash Flood
					Severe thunderstorms began in the foothills and swept east to the Coastal Plain by early evening. Most severe weather reports were of downed trees and power lines. Downed trees damaged a mobile home in southern Person County. Nickel to quarter size hail fell				
NORTH CAROLINA									
Chowan Co. Edenton	13	1545EST			0	0	4	0	Flash Flood
					Heavy rain produced minor flash flooding in Edenton. Streets were blocked and four businesses were flooded. Rainfall in the area was measured at 3.9 inches.				
Wake Co. Garner	13	1620EST			0	0	4	0	Lightning
					Lightning struck a house, starting a fire that did \$20 thousand damage.				
Pender Co. Sloops Point	13	2115EST			0	0	0	0	TSTM Winds (52)
					Winds were measured at 60 MPH at Sloops Point in Pender County.				
Durham Co. Durham	16	0935EST	0.1	30	0	0	4	0	Tornado (F1)
					A weak tornado touched down in the western part of the City of Durham. A Durham police officer witnessed the tornado as it moved north-northeast, striking the center of a long warehouse containing individual storage rental units. The tornado was about 30 yards wide and only traveled a short distance on the ground. Damage was estimated near \$20,000. The center part of the warehouse was almost completely destroyed.				
Orange Co. Chapel Hill	16	1100EST			0	0	4	0	Flash Flood
Durham Co. N of Durham	16	1110EST			0	0	0	0	Flash Flood
Harnett Co. Dunn	16	1240EST			0	0	6	0	TSTM Winds
Harnett Co. Benson	16	1330EST			0	0	0	0	Flash Flood
					Heavy rains from a thunderstorm produced flash flooding in Orange, Harnett, and Durham counties. In Chapel Hill five cars, nine apartment units and three businesses were flooded as Booker Creek came out of its banks. There was extensive highway flooding in the Tryburn area of Durham County. The city park in Durham was flooded. Numerous buildings in Benson were flooded as the area received over seven inches of rain during the afternoon. A severe thunderstorm also blew down trees and damaged a warehouse in Dunn.				
Vadkin Co. Jonesville and Elkin	16	1645EST			0	0	4	0	TSTM Winds
Bertie Co. Merry Hill	16	1705EST			0	0	0	0	TSTM Winds
					Thunderstorm downburst winds blew down trees in Jonesville and demolished a barn near Elkin. In Merry Hill trees and power lines were blown down.				
Chatham Co. W of Pittsboro	17	1115EST			0	0	0	0	Flash Flood
Granville Co. Stem	17	1735EST			0	0	0	0	Flash Flood
					About three to four inches of rain fell in Chatham and Granville counties producing some flash flooding. In Chatham County U.S. Highway 64 west of Pittsboro was blocked by high water. There was minor flooding in Stem. Two major roads in the area were flooded.				
Dare Co.	19	1630EST			0	0	0	0	Waterspouts
					Several waterspouts were sighted in the Albemarle Sound near Kitty Hawk Bay.				
Mecklenburg Co. Charlotte	19	1815EST			0	0	5	0	Lightning
					In Charlotte lightning started a fire that damaged 10 apartment units. Damage was near \$200 thousand.				
Watauga Co.	20	2100EST			0	0	5	0	Flash Flood
					Over seven inches of rain fell in Watauga County. The resulting flash floods washed out bridges over much of the county. In Boone 18 homes and 40 condominiums were damaged. Water was reported up to the bellies of airplanes at Boone Airport. Mud slides were reported along U.S. Highway 321.				
Iredell Co. Turnersburg	21	1430EST			0	0	0	0	TSTM Winds
					Severe thunderstorms blew down trees near Turnersburg.				

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

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					KILLED	INJURED	PROPERTY	CROPS	
NORTH CAROLINA									
New Hanover Co. 6 NE Wilmington	21	1635EST			0	0	0	0	Funnel Clouds
									Funnel clouds were sighted by several people six miles north of the Wilmington area.
Carteret Co. Bogue Sound	24	1615EST			0	0	0	0	Waterspout
									A waterspout was sighted briefly in Bogue Sound near Morehead City.
Buncombe Co. Skyland	25	1545EST			0	0	0	0	TSTM Winds
Henderson Co. Fletcher	25	1550EST			0	0	4	0	Lightning
Cleveland Co. Polkville	25	1740EST			0	0	0	0	TSTM Winds
									Severe thunderstorm in the western part of the state blew down trees in the Skyland area and in Polkville. Lightning started a fire that burned down a house in Fletcher.
Henderson Co. Mills River and Hendersonville	26	1315EST			0	0	0	0	TSTM Winds, Hail (0.75)
Henderson Co. Windsor Hills	26	1520EST			0	0	4	0	Lightning
Caldwell Co. Hudson	26	1759EST			0	0	0	0	TSTM Winds
Surry Co. Mount Airy	26	1810EST			0	0	0	0	TSTM Winds
Iredell Co. Statesville	26	1830EST			0	0	4	0	TSTM Winds
Rutherford Co. Rutherfordton	26	1950EST			0	0	0	0	Hail (0.75)
									Severe thunderstorm blew down trees and power lines over parts of the mountains and foothills. In Caldwell County a downburst blew down trees over a large area near Hudson. Dime size hail fell in Hendersonville and Rutherfordton. Trees were blown down and the roof was blown off a warehouse in Statesville. Lightning started a fire in a house in Windsor Hills.
Gaston Co. Cherryville	27	1815EST			0	0	0	0	TSTM Winds
									Thunderstorm winds blew down trees in Cherryville.
Rowan Co. Granite Quarry	29	0005EST			0	1	0	0	Lightning
									A man was struck and injured by lightning while on his front porch in Granite Quarry.
Caldwell Co. Hudson	30	1830EST			0	0	0	0	TSTM Winds
									Trees were blown down on four houses and two cars in Hudson.
Dare Co. Pamlico Sound	31	1130EST			1	2	0	0	Lightning
Catawba Co. Banoak	31	1652EST			0	1	0	0	Lightning
Burke Co. Connelly Springs	31	1655EST			1	0	0	0	Lightning
									Lightning killed two people and injured three on July 31. Three men were fishing in a boat in Pamlico Sound when their boat was struck by lightning, killing one 33 year old man and injuring the other two. A man in Banoak was turning off his television when his house was struck by lightning. He was knocked unconscious for about five minutes. A 27 year old Connelly Springs man was killed by lightning while in a small shed near his house. (M33B) (M270)
32 NORTH DAKOTA									
					0	0	9	9	Drought
NDZ001-002-003-004-005-006-007-008 Western and Central North Dakota									Drought conditions, which began in the Spring of 1988, continued over most of North Dakota into the second year. Rainfall amounts during the 1989 growing season were only about 70% of normal through July. The topsoil moisture was deficient over 92% of North Dakota while the subsoil moisture was deficient over 63% of the state. Above normal temperatures during the month of July have caused further stress on crops and pastureland. Losses, so far, are estimated at 700 million dollars. The drought has also caused shortages of water supplies and some user restrictions.
NORTH DAKOTA									
LaMoure County, Grand Rapids	07	2245CST			0	0	0	0	Hail (1.75)
Dickey County, 7N Oakes	07	2300CST			0	0	5	5	TSTM Wind
									Strong winds destroyed a mobile home. The winds, combined with heavy rains and hail, damaged crops in the area.
Stutsman County, 11W Hillarton	07	2306CST			0	0	4	4	Hail (1.00)
Sargent County, Cogswell	07	2310CST			0	0	4	4	TSTM Wind
									Winds broke large trees.
Renville County: Sherwood	08	1750CST	Short	10	0	0	5	0	Tornado (FO)
1SW Sherwood	08	1750CST	Short	10	0	1	5	0	Tornado (FO)
7W Sherwood	08	1750CST			0	0	4	0	TSTM Wind (61)
									A tornado in Sherwood ripped the roof off a school, damaged roofs on homes, and downed power lines. Another tornado 1 mile southwest of Sherwood uprooted trees, moved grain bins and caused other severe damage to two farmsteads. A woman on one of the farms received minor injuries from flying glass. Strong winds caused other damage in northern Renville County, blowing down trees and farm buildings and moving machinery.
Bottineau County: Antler	08	1751CST			0	0	4	?	Hail (1.75)
Westhope	08	1801CST			0	0	4	4	Hail (1.75)
Newburg	08	1825CST			0	0	4	4	Hail (2.50)
Kramer	08	1825CST			0	0	5	5	Hail (2.50) TSTM Wind
									Golfball size to baseball size hail broke windows, smashed gardens and damaged crops. Strong winds blew down oil rigs, fuel tanks and grain bins in the Kramer area.
McHenry County, 13E Upham	08	1834CST			0	0	4	4	Hail (2.00)
Pierce County: Turnbridge	08	1900CST			0	0	6	6	TSTM Wind
12S Rugby	08	1929CST			0	0	6	6	TSTM Wind Hail (1.75)
									Winds blew grain bins off of their foundations and damaged homes in Turnbridge. The winds also uprooted trees, and damaged farm buildings and machinery in central Pierce County, south of Rugby. The falling debris killed 11,000 turkeys.
Benson County: Esmond	08	1910CST			0	0	6	?	TSTM Wind (61)
Fillmore	08	1925CST			0	0	4	?	TSTM Wind (56)
Esmond	08	1945CST			0	0	?	?	Hail (0.75)
Maddock	08	1948CST			0	0	6	?	TSTM Wind (65)
Minnewauken	08	1959CST			0	0	6	6	Hail (1.00)
									Damaging winds and hail were widespread over Benson County. The winds uprooted hundreds of trees, blew down power lines and satellite dishes, peeled many roofs and sidewalks, moved railroad tracks, destroyed grain elevators and a gas station, lifted the roof off a crowded gymnasium, and damaged many other homes and buildings. Debris was widespread throughout the towns of Esmond and Maddock. Wind speeds were estimated in excess of 75 mph. Hail swaths up to 4 miles wide extended eastward across Benson County, along and north of Highway 19. About 20,000 acres of crops were destroyed.
Eddy County, 10NW New Rockford	08	2010CST			0	0	?	?	TSTM Wind (61) Hail (1.00)
Griggs County, Cooperatown	08	2108CST			0	0	4	0	TSTM Wind (56)
									Winds sheared off railroad crossing arms.
Walsh County: Grafton	09	0100CST			0	0	4	0	TSTM Wind
Park River	09	0100CST			0	0	4	0	TSTM Wind
									Strong winds in Grafton totaled a metal building and ripped out bleachers. In Park River, the winds snapped off the tops of evergreen trees.
Grand Forks County, Grand Forks Air Force Base	09	0140CST			0	0	0	0	TSTM Wind (52)

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

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					KILLED	INJURED	PROPERTY	CROPS	
— NORTH DAKOTA									
Renville County, 15SW Lansford	11	1700CST							Funnel Cloud
Williams County: 20SE Grenora	11	1700CST			0	0	4	4	Hail (2.00)
Williston	11	1816CST			0	0	0	0	TSTM Wind (54)
10SE Williston	11	1830CST			0	0	4	4	Hail (1.00)
Hail from 3/4 to 2 inches in diameter occurred along a path from 8 miles southeast of Grenora to 20 miles southeast of Grenora. Wind gusts to 63 mph were recorded at Sloughlin Field in Williston (ISW).									
Ward County: 2S Burlington	11	1815CST			0	0	4	?	Hail (1.75)
Minor	11	1821CST			0	0	4	4	TSTM Wind (50)
Burlington	11	1826CST			0	0	4	4	TSTM Wind
Golfball size hail broke windows while winds blew down trees in Burlington. The winds also uprooted trees and caused power outages in the City of Minor. A wind gust to 58 mph was recorded at the Minor International Airport.									
McKenzie County: 10N Watford City	11	1825CST			0	0	4	4	Hail (1.75)
9W New Town	11	1850CST			0	0	?	?	Hail (1.50)
12NE Watford City	11	1916CST			0	0	?	?	Hail (1.75)
9SNE Watford City	11	2000CST			0	0	?	?	Hail (2.00)
Hail caused crop damage in northeastern McKenzie County.									
Mountrail County, New Town	11	1915CST			0	0	4	0	TSTM Wind
Tree limbs up to 18 inches in diameter were blown down.									
McHenry County, 2W Drake	11	2005CST	Short	10	0	0	0	0	Tornado (FO)
A tornado was spotted by Drake police.									
Dunn County, Werner	11	2040CST			0	0	0	0	Hail (1.00)
Grant County: 8NW Carson	11	2235CST			0	0	5	5	Hail (2.00)
5SW Carson	11	2245CST			0	0	5	5	Hail (1.75)
Carson	11	2248CST			0	0	5	5	Hail (2.50)
Hailstones up to baseball size occurred in a triangular area, from Carson to 8 miles northwest of Carson to 5 miles southwest of Carson. The hailfall was intense and lasted up to 15 minutes. There was little or no rain with the hailstorm.									
The hail destroyed crops, dented vehicles, broke windows, stripped trees, smashed gardens and took off shingles. The depth of the hailstones was 12 inches in some places.									
McIntosh County, 1NE Wishek	28	1600CST			0	2	0	0	Lightning
Two brothers, ages 12 and 19, were struck by lightning while operating separate combines in an open field. The youths were about 100 yards apart when the lightning struck. Neither youth was seriously injured.									
Burleigh County, 3SE Bismarck	28	1630CST			0	0	4	0	TSTM Wind
Winds blew over a camper and a trailer.									
33 OHIO									
Allen County	07	1600 EST			0	0	4	0	Lightning
Logan County	07	1740 EST			0	0	4	0	Thunderstorm Wind
Delaware County	07	1755 EST			0	0	4	0	Thunderstorm Wind
Coshocton County	07	1800 EST			0	0	4	0	Thunderstorm Wind
Franklin County	07	1820 EST			0	0	4	0	Thunderstorm Wind
Fayette County	07	1930 EST			0	0	4	0	Thunderstorm Wind
Pickaway County	07	1930 EST			0	0	4	0	Thunderstorm Wind
Ross County	07	2020 EST			0	0	4	0	Thunderstorm Wind
Fairfield County	07	2030 EST			0	0	5	0	Thunderstorm Wind
Thunderstorms developed during the afternoon from west-central into central Ohio. Lightning struck a garage in Lima, in Allen County, and the ensuing fire did \$12,000 damage. Trees and power lines were blown down in Bellefontaine, in Logan County and across Delaware and Franklin counties. A trailer was moved 14 feet, trees were blown down, and damage occurred to homes across the northwest corner of Coshocton County. Trees and power lines were blown down across southeast Fayette and southern Pickaway counties; and near Chillicothe and Frankfort in Ross County. Trees were blown down and two homes under construction were destroyed in Pickerington, in Fairfield County.									
— OHIO									
Noble County	09	1610 EST			0	0	4	0	Thunderstorm Wind
Washington County	09	1610 EST			0	0	?	?	Hail (0.75")
Trees were blown down and large hail fell along State Route 821 in southern Noble and northern Washington counties.									
Miami County	11	1400 EST			0	0	4	0	Lightning
Marion County	11	1440 EST			0	0	?	?	Hail (1.75")
Logan County	11	1450 EST			0	0	4	0	Thunderstorm Wind
Marion County	11	1510 EST			0	0	?	?	Hail (0.75")
Union County	11	1514 EST			0	0	4	0	Thunderstorm Wind
Delaware County	11	1530 EST			0	0	4	0	Thunderstorm Wind
Union County	11	1540 EST			0	0	4	0	Thunderstorm Wind
Defiance County	11	1545 EST			0	0	4	0	Thunderstorm Wind
Thunderstorms dropped large hail and produced damaging winds across western and central Ohio during the afternoon. Lightning struck a house near Ludlow Falls, in Miami County, and the ensuing fire did \$20,000 damage. Golfball size hail fell southeast of the City of Marion, in Marion County. Trees were blown down and large hail fell over the northwest corner of Logan County. Large hail fell 5 miles east of Marion on State Route 95, in Marion County. Trees were blown down in parts of western Union County; the City of Delaware, in Delaware County; and the City of Defiance, in Defiance County.									
Montgomery County	11	1710 EST			0	0	4	0	Thunderstorm Wind
Trees were blown down across the county and nickel size hail fell in Kettering.									
Adams County	11	2230 EST			0	0	5	?	Flash Flood
Rainfall of 4.2 inches was measured in southwest Adams County between 2130 EST and 2200 EST. By 2230 EST Threemile Creek, near the intersection of State Route 41 and Buttermilk Run Road, had risen about 10 feet. The creek eventually rose enough to cover the State Route 41 bridge. Two trucks, two cars, two farm wagons and a manure spreader were carried downstream by the flood waters. A farmer also lost much of his tobacco crop.									
Marion County	12	1420 EST	0.25	50	0	0	?	?	Tornado (FO)
A tornado briefly touched down on State Route 95 one mile west of the City of Marion.									
Pickaway County	12	1630 EST	0.25	50	0	0	?	?	Tornado (FO)
A tornado briefly touched down about 2 miles east of Mount Sterling in the northwest part of Pickaway County.									
Clermont County	12	1900 EST			0	0	4	0	Thunderstorm Wind
Hamilton County	12	1920 EST			0	0	4	0	Thunderstorm Wind
Highland County	12	2115 EST			0	0	4	0	Thunderstorm Wind
Thunderstorms moved across the southwest corner of Ohio downing trees in New Richmond Township and near the intersection of Graves Lane and Little Indian Creek Road in Clermont County. Trees and power lines were also blown down in parts of Hamilton and Highland counties.									
Mahoning County	21	1500 EST			0	0	4	0	Thunderstorm Wind
Trees were blown down near the intersection of McGuffy Road and Sunshine Street in the northeast part of Youngstown.									
Belmont County	26	1115 EST			0	0	4	0	Thunderstorm Wind
Trees and power lines were blown down around Bellaire.									
Lorain County	27	0810 EST			0	1	0	0	Lightning
Lorain County	27	0920 EST			0	1	0	0	Lightning
Stark County	27	1000 EST			0	3	0	0	Lightning
Lightning struck a tree and traveled into a house where it struck a 15 year old girl. Lightning also injured a golfer at the Pine Brook County Club in Eaton Township, in Lorain County. Three golfers were injured by lightning at the Paradise Lake County Club in Suffield, in Stark County.									
Defiance County	27	1239 EST			0	0	?	?	Hail (0.75")
Allen County	27	1351 EST			0	1	4	0	Thunderstorm Wind
Marion County	27	1430 EST			0	0	4	0	Thunderstorm Wind
Delaware County	27	1450 EST			0	0	4	0	Thunderstorm Wind
Logan County	27	1450 EST			0	0	4	0	Thunderstorm Wind
Thunderstorms moved across western and central Ohio producing large hail and wind damage. Large hail fell two miles south of Hicksville in Defiance County. Trees were blown down on the west side of Lima, in Allen County, and one man was injured when a tree fell on his car. Trees were also blown down in Prospect, in Marion County. A barn was destroyed in the northwest corner of Delaware County, and a television tower and trees were blown down in Huntsville, in Logan County.									

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					KILLED	INJURED	PROPERTY	CROPS	
OHIO									
Stark County	27	1600 EST			0	0	4	0	Thunderstorm Wind
			Trees were blown down around Alliance.						
Clermont County	27	2110 EST			0	0	?	?	Hail (1.00")
Clermont County	27	2135 EST			0	0	4	0	Thunderstorm Wind
					0	0	?	?	Hail (1.25")
Clermont County	27	2200 EST			0	0	4	0	Thunderstorm Wind
			Thunderstorms moved across Clermont County dropping large hail in the northwest sections of the county. Trees were blown down in Miami Township and Bethel.						
Hamilton County	30	1920 EST			0	0	4	0	Lightning
			Lightning struck a house in Mount Airy and the ensuing fire resulted in damages of \$10,000.						
34 OKLAHOMA									
Alfalfa County, Amorita	02	0650CST			0	0	?	?	TSTM Wind
Woods County, Alva Municipal Airport	02	0653CST			0	0	?	?	TSTM Wind (61)
Alfalfa County, Burlington	02	0717CST			0	0	?	?	TSTM Wind (52)
Grant County, Pond Creek	02	0717CST			0	0	?	?	TSTM Wind
Grant County, Manchester	02	0719CST			0	0	?	?	TSTM Wind
Grant County, Medford	02	0725CST			0	0	?	?	TSTM Wind (52)
Major County, Fairview	02	0740CST			0	0	?	?	ISTM Wind (52)
Kay County, Tonkawa	02	0750CST			0	0	?	?	TSTM Wind (56)
Garfield County, Enid	02	0800CST			0	0	?	?	TSTM Wind
Kay County, (PNC) Ponca City	02	0801CST			0	0	?	?	TSTM Wind (50)
Kay County, Blackwell	02	0803CST			0	0	?	?	TSTM Wind (52)
Blaine County, Okeene	02	0803CST			0	0	?	?	TSTM Wind
Kay County, Ponca City	02	0805CST			0	0	?	?	Hail (0.88)
Kay County, Ponca City	02	0805CST			0	0	3	?	TSTM Wind
Blaine County, 2 S Watonga	02	0820CST			0	0	?	?	TSTM Wind
Noble County, Perry	02	0820CST			0	0	?	?	TSTM Wind
Kingfisher County, Loyal	02	0825CST			0	0	?	?	TSTM Wind (52)
Kingfisher County, 5 WNW Okarche	02	0830CST			0	0	?	?	TSTM Wind (52)
Pawnee County, Pawnee	02	0835CST			0	0	?	?	TSTM Wind
Logan County, Orlando	02	0837CST			0	0	?	?	Hail (0.75)
Osage County, Fairfax	02	0840CST			0	0	?	?	TSTM Wind (52)
Payne County, Ingalls	02	0840CST			0	0	?	?	TSTM Wind
Noble County, 3 SE Perry	02	0850CST			0	0	5	?	Lightning
Oklahoma County, Edmond	02	0850CST			0	0	?	?	TSTM Wind (52)
Payne County, Cushing	02	0850CST			0	0	?	?	TSTM Wind (52)
Pawnee County, Jennings	02	0855CST			0	0	?	?	TSTM Wind
Canadian County, 1 W Oklahoma City	02	0855CST			0	0	?	?	TSTM Wind
Lincoln County, Wellston	02	0900CST			0	0	?	?	TSTM Wind (59)
Grady County, Tuttle	02	0930CST			0	0	?	?	TSTM Wind
Creek County, 1 W Sapulpa	02	0936CST			0	0	?	?	TSTM Wind
Osage County, 8 NE New Prue	02	0939CST			0	0	?	?	TSTM Wind (52)
OKLAHOMA									
Oklahoma County, (OKC) Will Rogers	02	0951CST			0	0	?	?	TSTM Wind (54)
McClain County, Newcastle	02	0955CST			0	0	?	?	TSTM Wind (56)
Oklahoma County, Oklahoma City	02	1000CST			0	0	5	?	Lightning
Osage County, Tulsa	02	1000CST			0	0	?	?	TSTM Wind
Cleveland County, 5 W Moore	02	1005CST			0	0	?	?	TSTM Wind (52)
Tulsa County, Broken Arrow	02	1015CST			0	0	?	?	TSTM Wind
Garvin County, Lindsay	02	1015CST			0	0	?	?	TSTM Wind
Carter County, 2.5 NW Springer	02	1105CST			0	0	?	?	TSTM Wind
Murray County, 4 NE Sulphur	02	1110CST			0	0	?	?	TSTM Wind
Carter County, 1 N Ardmore	02	1120CST			0	0	?	?	TSTM Wind
Latimer County, Wilburton	02	1130CST			0	0	?	?	TSTM Wind (61)
McCurtain County, 2 SE Battiest	02	1350CST			0	0	?	?	TSTM Wind
Love County, Marietta	02	1720CST			0	0	?	?	Hail (1.00)
Jefferson County, 15 S Ringling	02	1850CST			0	0	?	?	Hail (1.00)
			An east-west line of thunderstorms moved southward from Kansas during the early morning hours, producing many reports of strong winds, and hail up to quarter size. In Enid, the siding was blown from a house, and a neon sign was blown down in Blackwell. In Ponca City, a mobile home was damaged and power lines were downed. Power lines were also downed in Perry. Windows were blown out of a restaurant 2.5 miles northwest of Springer. There were numerous reports of trees and large tree limbs downed by the winds. Large tree limbs or trees were downed in Sulphur, Ponca City, 2 miles south of Watonga, Loyal, northwest Oklahoma City, 5 miles west-northwest of Okarche, Wellston, and one mile north of Ardmore Airpark. In Perry, lightning struck an oil storage tank. The resulting fire "badly damaged" the tank and an adjacent tank. In Oklahoma City, lightning struck a home and caused damage estimated at 65,000 dollars.						
Woods County, 8 E Waynoka	12	1805CST			0	0	?	?	Hail (0.88)
Blaine County, 5 ESE Hitchcock	12	1828CST			0	0	?	?	Hail (0.88)
McIntosh County, Pierce	12	1900CST			0	0	?	?	Hail (1.75)
McIntosh County, near Hanna	12	1940CST			0	0	?	?	TSTM Wind (56)
McIntosh County, 3 E Hanna	12	1940CST			0	0	?	?	Hail (1.75)
Pittsburg County, Indianola	12	1950CST			0	0	?	?	Hail (0.75)
Beaver County, Clear Lake	12	1955CST			0	0	?	?	Hail (1.75)
Pittsburg County, Scpio	12	2000CST			0	0	?	?	Hail (0.75)
Pittsburg County, Scpio	12	2000CST			0	0	?	?	TSTM Wind
Harper County, Laverne	12	2030CST			0	0	?	?	Hail (0.75)
Harper County, Laverne	12	2030CST			0	0	?	?	TSTM Wind
LeFlore County, Howe	12	2030CST			0	0	?	?	Hail (1.75)
LeFlore County, near Heavener	12	2050CST			0	0	?	?	Hail (0.75)
			Severe thunderstorms in northwest Oklahoma and the Oklahoma Panhandle produced hail up to golfball size and strong winds which rolled an unoccupied mobile home through a fence in Laverne. Eight-inch diameter trees were blown down and onto power lines, resulting in power outages. Severe thunderstorms in southeast Oklahoma also produced large hail and damaging winds. Trees were downed in Scpio and golfball size hail was reported 3 miles east of Hanna.						
Oklahoma County, Oklahoma City	13-14	2300CST-0200CST			0	0	?	?	Flash Flood
Bryan County, Southern Half	14	0100CST-0400CST			0	0	?	?	Flash Flood
			Heavy rains from slow-moving thunderstorms produced flash flooding in the Oklahoma City area. Four motorists were stranded on top of their vehicles by high water and several roads were closed due to flooding in downtown Oklahoma City. Very heavy rains in Bryan County during the morning of the 14th also resulted in flash flooding as up to 5 inches of rain fell in a 3-hour period. A nursery home in Calera was evacuated and volunteers quickly sandbagged the area around the home, however, 6 inches of water was reported inside the home. Highway 9 between Durant and Calera was closed for 3 hours.						

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

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

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

OKLAHOMA									
Tulsa County, Broken Arrow	15	2050CST			0	0	?	?	Hail (2.00)
Tulsa County, Broken Arrow	15	2050CST			0	0	?	?	TSTM Wind (66)
Wagoner County, E Broken Arrow	15	2105CST			0	0	?	?	Hail (2.00)
Wagoner County, E Broken Arrow	15	2105CST			0	0	?	?	TSTM Wind (66)
Wagoner County, Coweta	15	2105CST			0	0	?	?	Hail (1.75)
Wagoner County, Coweta	15	2105CST			0	0	?	?	TSTM Wind (65)
Muskogee County, Haskell	15	2130CST			0	0	?	?	TSTM Wind
Okfuskee County, 8 N Paden	15	2145CST			0	0	?	?	Hail (0.75)
<p>Thunderstorms in northeast Oklahoma produced damaging winds and 2-inch diameter hail during the late evening hours. The strong winds downed power lines in Broken Arrow. The combination of 2-inch hail and winds up to 66 knots broke windows from residences in eastern Broken Arrow. In Haskell, strong thunderstorm winds resulted in minor structural damage to a church.</p>									
Noble County, 13 E Marland	17	0410CST			0	0	?	?	Hail (1.50)
Pawnee County, near Ralston	17	0420CST			0	0	?	?	TSTM Wind (52)
Osage County, near Fairfax	17	0430CST			0	0	?	?	Hail (0.75)
Osage County, 10 NW Hominy	17	0500CST			0	0	?	?	TSTM Wind (52)
Osage County, 10 NW Hominy	17	0500CST			0	0	?	?	Hail (0.75)
Pawnee County, Blackburn	17	0500CST			0	0	?	?	Hail (0.75)
Osage County, Foraker	17	0720CST			0	0	?	?	TSTM Wind (56)
Kay County, 3 S Hardy	17	0724CST			0	0	?	?	TSTM Wind (52)
Osage County, Shidler	17	0725CST			0	0	?	?	TSTM Wind (61)
Osage County, Pawhuska	17	0749CST			0	0	?	?	TSTM Wind (61)
Washington County, Bartlesville	17	0754CST			0	0	?	?	TSTM Wind (52)
Washington County, near Bartlesville	17	0804CST			0	0	?	?	TSTM Wind (70)
Nowata County, Watova	17	0810CST			0	0	?	?	TSTM Wind (52)
Tulsa County, Collinsville	17	0830CST			0	0	?	?	TSTM Wind (52)
Rogers County, Claremore	17	0840CST			0	0	?	?	TSTM Wind
Tulsa County, Tulsa	17	0900CST			0	0	4	?	Heavy Rain
Cherokee County, near Peggs	17	0945CST			0	0	?	?	TSTM Wind (78)
Cherokee County, 5 SE Peggs	17	0950CST			0	0	?	?	TSTM Wind (61)
Pittsburg County, Krebs	17	1140CST			0	0	?	?	TSTM Wind (52)
McCurtain County, McCurtain Co.	17	1415CST			0	0	?	?	TSTM Wind
McCurtain County, 2 E Tom	17	1418CST			0	0	?	?	TSTM Wind
<p>Thunderstorms in northeast Oklahoma during the early morning of the 17th moved into southeast Oklahoma during the afternoon hours producing 1.5 inch diameter hail and damaging winds. Heavy rains from the storms caused a portion of the roof of the Tulsa Sheraton to collapse, causing damage estimated at 25,000 dollars. Thunderstorm winds resulted in minor damage to a home in Krebs, and also downed trees and power lines. Trees were also downed near Walston.</p>									
Pushmataha County, 11 W Stanley	18	2030CST			0	0	?	?	Hail (1.75)
Atoka County, 5 SE Atoka	18	2115CST			0	0	?	?	TSTM Wind
Jefferson County, Ringling	18	2145CST			0	0	?	?	Hail (0.75)
Jefferson County, Ringling	18	2145CST			0	0	?	?	TSTM Wind
Carter County, Wilson	18	2200CST			0	0	?	?	TSTM Wind
Love County, 8 N Courtney	18	2200CST			0	0	?	?	Hail (1.75)
Marshall County, Marshall Co.	18	2240CST			0	0	?	?	TSTM Wind
Marshall County, Marshall Co.	18	2240CST			0	0	?	?	Hail (0.75)
Bryan County, Calera	18	2300CST			0	0	?	?	Hail (1.75)
<p>Thunderstorms in south-central and southeast Oklahoma produced hail up to the size of golf balls and damaging winds. A shed was destroyed and trees were downed at Lake Texoma State Park, and a sign was blown down in Ringling. Large tree limbs were downed 5 miles southeast of Atoka. A sign was blown down in Ringling. Trees were also downed in Wilson.</p>									

OKLAHOMA									
Muskogee County, Council Hill	23	1350CST			0	0	?	?	TSTM Wind (61)
<p>A thunderstorm briefly attained severe levels and produced strong winds.</p>									
Garfield County, 5 NW Garber	31	1730CST			0	0	?	?	TSTM Wind (52)
Garfield County, 2 W Garber	31	1805CST			0	0	?	?	Hail (0.75)
Garfield County, Covington	31	1805CST			0	0	?	?	TSTM Wind (65)
<p>Thunderstorms in north-central Oklahoma produced dime size hail and wind damage. The roofs of 2 outbuildings were lifted and destroyed in Covington, and large trees were uprooted and power lines downed. Large tree limbs were downed just northwest of Garber.</p>									
35 OREGON									
OR2004 Lane County	31	1600PST			0	0	3	?	Thunderstorm Wind
<p>On this Monday, an unseasonable summer storm system moved inland from the Pacific and brought locally heavy rain, wind and thunderstorms. In the Springfield-Eugene area a thunderstorm at 5 pm (LDT) had wind strong enough to cause two 100 year old trees to break one-half way up the trunk and topple over. One of the trees crashed onto the roof of a house but there were no injuries.</p>									
36 PENNSYLVANIA, Eastern									
PAZ012 Delaware, Philadelphia, Chester, Bucks and Montgomery Counties	05	1000 EST			0	0	7	?	Flash Flood
<p>Moisture remaining from Tropical Storm Allison moved over southeastern Pennsylvania causing torrential rain. The 3 hour rainfall at Philadelphia, of over 3 inches, was enough to be a 100 year storm. Philadelphia International Airport had 4.38 inches of rain on July 5th which was a new record for any July day. Rainfall amounts of 4 to 6 inches fell over much of the area. 6.17 inches were recorded at 3rd and Mifflin streets in Philadelphia. Only the northwest portion of Chester County, the western portion of Montgomery County and northwest Bucks County had less rainfall, with some locations receiving less than 2 inches. The excessive rainfall resulted in widespread urban and small stream flooding. Thousands of houses and other buildings had flooding to some degree, many had never had flooding before. Some areas had every street or road flooded. As much as 12 feet of water was on some roadways. Hundreds of people had to evacuate their homes or workplaces, 500 in Delaware County alone. Innumerable vehicles were flooded where they were parked or where they stalled after being driven onto flooded roadways. The hardest hit areas were in eastern Delaware County, portions of Philadelphia and extreme southeast Bucks County. In Ridley Park, Delaware County overflowing water from Ridley Park Lake washed out a crater 40 ft. long, 30 ft. wide and 20 ft. deep. The crater consumed a large portion of the road and the front yards of two homes. Water and gas lines were also washed out. Chester Creek in Delaware County crested at 13.65 ft, 5.65 ft. above flood stage. Brandywine Creek in Chester County crested at or just above flood stage of 9 ft. at Chadds Ford. The flooding occurred in Chester and Montgomery counties from 1030 to 1430 EST, in Philadelphia and Bucks counties from 1000 to 1400 EST and in Delaware County from 1030 to 1400 EST.</p>									
Tioga County, Millerton	07	1929 EST			0	0	3	?	TSTM Wind
<p>Thunderstorm wind gusts downed trees and utility lines.</p>									
Bradford County, Troy	07	1945 EST			0	0	?	?	Hail(1.75)
Bentley Creek	07	1947 EST			0	0	?	?	TSTM Wind(57) Hail(1.0)
<p>Thunderstorms dropped 1 inch hail near Bentley Creek and golf ball size hail near Troy. Wind gusts were measured at 65 MPH near Bentley Creek.</p>									
Huntingdon County	07	2030 EST			0	0	3	?	Flood
<p>Heavy rains of over 2 inches, 2.32 inches at Orwinstown, caused flooding over southern portions of Huntingdon County. Shady Creek flooded nearby roads in the Orwinstown area around 2030 EST. Augwick Creek was also out of its banks in some areas around 2115 EST. Flooding occurred from 2030 to 2230 EST.</p>									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

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					KILLED	INJURED	PROPERTY	CROPS	

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					KILLED	INJURED	PROPERTY	CROPS	

PENNSYLVANIA, Eastern

Montgomery County	13	0900 EST			0	0	?	?	Flood
Chester County	13	1400 EST			0	0	?	?	Flood
<p>Heavy rains of as much as 2 inches or more in the morning and early afternoon caused urban and small stream flooding. The Brandywine Creek in Chester County crested at 7.14 ft, slightly above flood stage of 7 ft. There was minor flooding along the Pennypack Creek in Montgomery County. Flooding occurred from 0900 to 1100 EST in Montgomery County and from 1400 to 1430 EST in Chester County.</p>									
Perry County	16	1400 EST			0	0	?	?	Flood
<p>Heavy rain caused considerable drainage and roadway flooding, with many roads closed. Snow rainfall amounts were: Landisburg 4.25, Blair 3.30, New Blossfield 3.00 and Little Buffalo State Park 2.20 inches. Flooding occurred from around 1400 EST on the 16th until around 0800 EST on the 17th.</p>									
Schuylkill County: Andreas	16	2015 EST			0	0	3	?	TSTM Wind(53)
1 E Dreheraville	16	2020 EST			0	0	3	?	Hail(0.75)
<p>Thunderstorm wind gusts estimated at over 60 MPH downed large trees near Andreas. Several trees were uprooted and large limbs were broken near Dreheraville by winds estimated to have exceeded 55 mph; dime size hail also fell.</p>									
Carbon County, Little Gap	16	2023 EST			0	0	3	?	TSTM Wind(55)
<p>Thunderstorm wind gusts that uprooted large trees near Little Gap were estimated to have exceeded 62 mph.</p>									
Berks County, West Lava	16	2044 EST			0	0	3	?	TSTM Wind
<p>Thunderstorm wind gusts uprooted large trees and broke off limbs near West Lava.</p>									
Carbon County, 2 E Leighton	17	1540 EST			0	0	?	?	TSTM Wind(54) Hail(0.75)
<p>Thunderstorm wind gusts of 62 MPH and 3/4 inch hail were reported near Leighton.</p>									
Schuylkill County, New Ringgold	17	1550 EST			0	0	3	?	TSTM Wind(53)
<p>Thunderstorm wind gusts estimated at over 60 MPH uprooted large trees and broke limbs near New Ringgold.</p>									
Berks County: Reading	17	1600 EST			0	0	3	?	TSTM Wind(55)
1 SE Lebachsville	17	1630 EST			0	0	3	?	TSTM Wind(53)
<p>Thunderstorm wind gusts of 63 MPH uprooted large trees and broke off utility poles in Reading. Winds over 60 MPH broke off trees and downed utility poles near Pikeville just southeast of Lebachsville.</p>									
Northampton County: Bath	17	1618 EST			0	0	3	?	TSTM Wind(51)
Glendon	17	1655 EST			0	0	4	?	TSTM Wind(52)
<p>Thunderstorm wind gusts greater than 50 MPH brought down large trees and snapped off utility poles at Bath. Winds of 60 MPH brought down billboards and uprooted trees in the vicinity of Glendon.</p>									
Lehigh County, Custer Valley	17	1635 EST			0	0	4	?	TSTM Wind(57) Lightning
<p>Thunderstorm wind gusts of 65 MPH broke store windows, blew off several roofs and uprooted many trees. A 22 unit apartment complex was ruined by a lightning-caused fire. Three people were injured in the fire.</p>									
Franklin County	19	2330 EST			0	0	4	?	Flash Flood
<p>Heavy rains caused flash flooding along Johnston Run and Bread Run. Johnston Run overflowed its banks and washed through part of Leewagart Co. Tannery in Mercersburg. A corrosive chemical was washed into the stream. Near Fort Loudon, Bread Run overflowed into a mobile home park, forcing the evacuation of residents. Flooding occurred from 2330 EST on the 19th until 0200 EST on the 20th.</p>									
Union County	20	0015 EST			0	0	3	?	Flash Flood
<p>Heavy rain, with amounts of as much as 4.35 inches in Pine Flat, caused considerable drainage and small stream flooding. Peans Creek reached a stage of 8.3 ft, just over flood stage of 8 ft. A number of roads were closed due to flooding. Basements were flooded and 3 families had to be evacuated near Glen Iron. Flooding occurred from 0015 EST to 0800 EST.</p>									

PENNSYLVANIA, Eastern

Lycoming County	20	0100 EST			0	0	4	?	Flash Flood
<p>Heavy rain, of at least several inches, caused considerable urban and small stream flooding over South Williamsport. At least 20 homes were flooded along with garages and at least one swimming pool. Many roadways were flooded with water 3 ft. deep in spots. Flooding occurred from 0100 EST to 0500 EST.</p>									
Huntingdon County	20	2000 EST			0	0	4	?	Flash Flood
<p>Heavy rains, of as much as 2 inches, resulted in widespread urban and small stream flooding in the north and central portions of the county. The Muddy Run near Huntingdon was reported to have reached higher levels than in the 1972 flood. Many roadways and basements were flooded. There also were mudslides in many locations. Flooding occurred between 2000 EST on the 20th and 0600 EST on the 21st.</p>									
Mifflin County	20	2100 EST			0	0	4	?	Flash Flood
<p>Heavy rains, of more than 2 inches in a short time, resulted in widespread urban and small stream flooding. Many roads were flooded and closed and many basements were flooded. At least one home had the basement wall collapse. Flooding occurred between 2100 EST on the 20th until 0900 EST on the 21st.</p>									
Perry County	21	0100 EST			0	0	4	?	Flash Flood
<p>Heavy rain, of as much as 3.5 inches, caused considerable urban and small stream flooding in the north-central portion of the county around Ickesburg. There also was flooding along Big Buffalo Creek. Flooding occurred between 0100 and 0600 EST.</p>									
Cumberland and York Counties	21	0100 EST			0	0	4	?	Flood
<p>Heavy rains, of as much as 2 inches, caused considerable urban and small stream flooding in southeast Cumberland County and northwest York County. There also was flooding along the Yellow Breeches Creek. Many roadways, parking lots and basements were flooded. Flooding occurred between 0100 and 1000 EST.</p>									
Mifflin County	22	1900 EST			0	0	5	?	Flash Flood
<p>Heavy rains, of as much as several inches, fell in less than 2 hours. In Lewistown 2.65 inches fell and in East Waterford 3.00 inches fell. There was considerable urban and small stream flooding. Many basements were flooded. Portions of roads, fields and lawns were washed out. One dam on a golf course gave way and washed away paths, bridges and golf carts. One lane of a road was washed away as a 30 to 40 ft deep hole was washed out. The flooding occurred between 1900 and 2300 EST.</p>									
Juniata County	22	2000 EST			0	0	4	?	Flash Flood
<p>Thunderstorm downpours, which deposited around 3.5 inches of rain in 2 hours, caused flash flooding in Lack Township in the western end of the county. Roadways and yards were flooded by small streams which overflowed their banks. Large pieces of paved roadways were washed out. An automobile was pushed into a tree, and the garden and portion of an outside building were washed away on one farm. The flooding occurred between 2000 EST on the 22nd and 0900 EST on the 23rd.</p>									
Carbon County, 1 NW Ashfield	25	1300 EST			0	0	2	2	TSTM Wind
<p>Thunderstorm wind gusts moved a hay wagon on a farm and picked up another hay wagon and threw it 100 ft. into a field. The wind ruined about half an acre of corn.</p>									
Berks County, Kenhorst	25	1530 EST			0	0	4	?	TSTM Wind
<p>Thunderstorm wind gusts downed many large trees in Kenhorst and in surrounding Cummertownship.</p>									
Fulton County, 5 S Emmaville	26	1350 EST			0	0	3	?	TSTM Wind
<p>Thunderstorm wind gusts downed trees and power lines at Town Hill Mountain south of Emmaville.</p>									
Berks County, 1 S Oley	26	1410 EST			0	0	?	?	Hail(1.0)
<p>Thunderstorms dropped 1-inch hail between Oley and Linekiln. Very strong winds were also reported.</p>									
Columbia County, Briar Creek	26	1715 EST	4.0	50	0	0	4	?	Tornado (F1)
<p>A tornado downed trees, tree limbs and utility lines, tore the roof off a large mobile home and smashed a backyard shed as it moved across portions of Centre and Briar Creek townships. Classification: FPP121</p>									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

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					KILLED	INJURED	PROPERTY	CROPS	

PENNSYLVANIA, Eastern

Bucks and Montgomery Counties	26	2000 EST	0	0	4	?	Flash Flood	
<p>Slow-moving thunderstorms dumped about four and one half inches of rain, 4.51 inches at Willow Grove Naval Air Station, in a two hour period. As a result there was widespread roadway, basement and small stream flooding. Flooding of the first floor occurred on some buildings. People were evacuated from an apartment complex in Warminster, Bucks County. A police car and a dumpster were washed into a creek in Ambler, Montgomery County. A large number of vehicles were stranded in flooded roadways. The Little Neshaminy Creek in Bucks County and the Pennypack Creek in Montgomery County flooded. The flooding was mainly confined to Warrington and Warminster townships in Bucks County and Hersham and Upper Dublin townships in Montgomery County. Flooding occurred between 2000 and 2300 EST.</p>								
Montgomery County: Prospectville	26	2140 EST	0	0	4	?	TSTM Wind	
Hersham	26	2145 EST	0	0	4	?	Hail(1.75)	
Ambler	26	2135 EST	0	0	4	?	TSTM Wind Hail(1.75)	
<p>Thunderstorm wind gusts downed numerous large trees in Prospectville, Ambler and Hersham. Golfball size hail fell in Hersham and Ambler. Many utility lines were also down.</p>								

36 PENNSYLVANIA, Western

Butler County 20N Butler	04	1230EST	0	3	0	0	Lightning	
<p>Three persons were injured by a lightning strike while outdoors at a fair.</p>								
Bedford County Bedford	05	1300EST	0	0	0	0	Flood	
<p>Road and basement flooding occurred in Bedford.</p>								
Venango County 6E Franklin	07	1530EST	0	0	3	0	Thunderstorm Wind	
<p>Trees were downed in Oil City; one home was damaged by falling trees.</p>								
Clarion County Clarion	07	1610EST	0	0	0	0	Thunderstorm Wind	
<p>Tree damage occurred in Clarion.</p>								
Jefferson County Brookville	07	1630EST	0	0	?	0	Thunderstorm Wind	
<p>Power lines were downed in Brookville.</p>								
Jefferson County 15S Brookville 15S Brookville	07	1635EST	0	0	?	0	Thunderstorm Wind	
	07	1700EST	0	0	?	0	Thunderstorm Wind	
<p>Trees were damaged and power lines downed on two occasions in Punxsutawney.</p>								
Indiana County 14NE Indiana	07	1805EST	0	0	0	0	Thunderstorm Wind	
<p>A large tree was uprooted in Commodore. Power outages also occurred.</p>								
Armstrong County 5W Kittanning	07	1815EST	0	0	4	0	Thunderstorm Wind	
<p>Thunderstorm winds struck Worthington. A chimney was blown off of an office building.</p>								
Armstrong County 4S Kittanning	07	1820EST	0	0	0	0	Hail (1.00)	
<p>One-inch diameter hail fell at Ford City.</p>								
Cambria County	07	1830EST	0	0	0	0	Thunderstorm Wind	
<p>Tree damage and power outages were reported from throughout the county.</p>								
Indiana County Indiana	07	1830EST	0	0	0	0	Hail (0.75)	
Cambria County 3SE Johnstown	07	1915EST	0	0	0	0	Hail (1.75)	
<p>One and three-quarter inch diameter hail fell at Getstown.</p>								
Indiana County	07	1920EST	0	0	?	0	Thunderstorm Wind	
<p>Trees were damaged and power lines downed throughout the county.</p>								

PENNSYLVANIA, Western

Bedford County Bedford	07	1945EST	0	0	0	0	0	Thunderstorm Wind
Bedford	07	2000EST	0	0	0	0	0	Hail (1.25)
9E Bedford	07	2017EST	0	0	3	0	0	Lightning
<p>At Bedford, trees were damaged and power outages occurred due to thunderstorm winds, and one and one-quarter inch diameter hail covered the ground. Lightning struck a building and started a fire that caused two to three thousand dollars in damage at Everett, 9 miles east of Bedford.</p>								
Indiana County 6NE Indiana	07	2020EST	0	0	0	0	0	Thunderstorm Wind
<p>A row of trees was knocked down near Clymer by thunderstorm winds.</p>								
Clearfield County 21SW Clearfield	07	2030EST	0	0	4	0	0	Lightning
<p>An attic was set afire by a lightning strike at a house in Westover. The attic was gutted.</p>								
Cambria County 12N Ebensburg	07	2030EST	0	0	4	0	0	Lightning
<p>A trailer was destroyed by a lightning strike and its subsequent fire in Thomas Mills.</p>								
Bedford County 14NW Bedford	07	2100EST- 08 0045EST	0	0	0	0	0	Flash Flood
<p>Small stream flooding occurred in Pleasantville at the headwaters of Dunnings Creek. Some evacuations were necessary.</p>								
Bedford County Bedford	07	2300EST	0	0	0	0	0	Hail (0.75)
Butler County 15NW Butler	10	1800EST	0	0	?	0	0	Thunderstorm Wind
<p>Trees were damaged and power lines downed around Slippery Rock.</p>								
Bedford County	14	0230EST	0	0	0	0	0	Thunderstorm Wind
<p>A large tree was downed in northeast Bedford County.</p>								
Bedford County 8NW Bedford	19	2030EST	0	0	0	0	0	Flood
<p>Roads were closed near Cessna and Schellsburg due to flooding.</p>								
Bedford County 11S Bedford	19	2130EST	0	0	0	0	0	Flood
<p>Buffalo Run went over its banks and water was over roads.</p>								
Bedford County 9E Bedford	25	0030- 0130EST	0	0	0	0	0	Flash Flood
<p>Basement flooding occurred in Everett.</p>								
Washington County 12NW Washington	25	1930EST	0	0	0	0	0	Thunderstorm Wind
<p>Tree damage occurred at Avella in Cross Creek Park.</p>								
Somerset County 14SW Somerset	26	1200EST	0	0	4	0	0	Lightning
<p>A barn was set on fire by lightning in Silbaugh in Addison Township. The barn was destroyed.</p>								
Somerset County 16SW Somerset	26	1345EST	0	0	3	0	0	Flood
<p>Flooding occurred on Route 281 around Confluence. People were trapped in cars.</p>								
Somerset County 18SW Somerset	26	1350- 1700EST	0	0	0	0	0	Flood
<p>Flooding occurred around Listonburg on Whites Creek.</p>								
Somerset County 8SE Somerset	26	1500- 1700EST	0	0	0	0	0	Flood
<p>Flooding occurred around Berlin on Buffalo Creek.</p>								
Butler County 8SE Butler	26	1700EST	0	0	0	0	0	Flood
<p>Flooding occurred around Saxonburg and a local high school.</p>								
Fayette County 13E Uniontown	26	1705EST	0	0	4	0	0	Flood
<p>Flooding occurred around Ohiopyle. Roads were damaged.</p>								

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
37 RHODE ISLAND									
Providence, Newport, and Washington Counties	27-28	2300-0500EST			0	0	4	0	Lightning
									Thunderstorms brought damaging lightning strikes to the three county area. A church in Westerly and three homes in Newport were struck, and each received damage. Scattered power outages were reported from each county.
38 SOUTH CAROLINA									
PICKENS COUNTY near Six Mile	03	1325EST			0	0	5	?	FLASH FLOOD
YORK COUNTY Western & Northern Portions	03	1730EST			0	0	?	?	TSTM WINDS
OCONEE COUNTY Central & Southern Portions	03	1930EST			0	0	5	?	FLASH FLOOD
Salem	03	2050EST			0	0	?	?	FLASH FLOOD
Tolksena Crossroads	04	0005EST			0	0	?	?	FLASH FLOOD
									Very heavy rainfall over the mountains and foothills of South Carolina caused the most extensive flooding in several years over Pickens and Oconee counties. Portions of John Holliday Road off S.C. Hwy. 137 washed away into a rain-swollen creek. Rainfall totaled 4 to 6 inches at many locations and nearly 10 inches were reported from the northern parts of Oconee County. Many streams flooded causing numerous roads to be closed. The water nearly reached the bridge where S.C. Highway 11 crosses the Little River at Salem. Several bridges were washed out or severely damaged. Some holiday campers had to be rescued from campsites in northern Oconee County.
ORANGEBURG COUNTY SW Holly Hill	04	0100EST			0	0	?	0	LIGHTNING
									Lightning is suspected to have struck the Target AME Church, and burned it to the ground.
SPARTANBURG COUNTY Campbello	07	1605EST			0	0	3	?	HAIL(0.75)
SPARTANBURG COUNTY between Spartanburg & Campbello	07	1631EST			0	0	3	?	TSTM WINDS
Northern portions	07	1645EST			0	0	5	0	LIGHTNING
									A severe thunderstorm developed near Landrum and moved very slowly south across the county. Some large hail was observed, and a few trees were blown down. Lightning caused a couple of house fires and near flooding conditions resulted over northern sections of the county.
GREENVILLE COUNTY Greenville	08	1633EST			1	0	0	0	HEAT
									A 44 year old man died from hyperthermia after working outside. (M440)
GEORGETOWN COUNTY Marrel's Inlet	08	PM			0	3	0	0	LIGHTNING
									Three people pulling in a fishnet were injured by lightning.
ORANGEBURG COUNTY Denmark	11	1645EST			0	0	3	0	LIGHTNING
countywide	11	1645EST			0	0	?	?	TSTM WINDS
									Lightning struck Elizabeth's of Denmark, starting a fire at the fuse box. Several trees were reported down throughout the county.
KERSHAW COUNTY Buffalo Community	12	1700EST			0	0	4	0	LIGHTNING
									Lightning struck a home, knocking a hole in a brick wall, and damaging appliances and electronic equipment.
RICHLAND COUNTY Cedar Creek	12	1730EST			0	0	?	?	HAIL(0.75)
									Dime size hail was reported.
MARLBORO COUNTY countywide	12	1830EST			0	0	?	?	HAIL(0.25) & TSTM WINDS & LIGHTNING
									A thunderstorm accompanied by strong winds, sharp lightning and marble size hail disrupted electrical service and caused limbs to fall from trees.
WILLIAMSBURG COUNTY Kingstree	13	0030EST			0	0	?	0	LIGHTNING
									Lightning struck a telephone pole near the Kingstree Knits plant and ran down the phone line into a phone in the building's office, starting a fire.
SPARTANBURG COUNTY Inman	13	1400EST			0	0	4	0	LIGHTNING
									Lightning struck the Church of God of Prophecy, apparently struck a rooftop fan, burning the roof of the building. The building does not have a steeple.
— SOUTH CAROLINA									
MARION COUNTY Marion	14	0525EST			0	0	4	0	LIGHTNING
									Lightning is believed to have started a house fire.
LEXINGTON COUNTY Cayce & West Columbia	15	0900EST			0	0	?	0	URBAN FLOODING
RICHLAND CO Columbia	15	0900EST			0	0	?	0	URBAN FLOODING
									A thunderstorm with heavy downpours flooded streets of West Columbia, Cayce and Columbia.
ANDERSON COUNTY Williamston	15	1400EST			0	0	?	?	FLASH FLOOD
GREENVILLE COUNTY Ware Place	15	1400EST			0	0	4	?	FLASH FLOOD
									Six inches of rain fell at Williamston in one and one-half hours, and 4 inches in a little more than one-half hour was reported at the Ware Place community in southern Greenville County. This area was affected by a thunderstorm which apparently became stationary while other storms in the area continued to move northeasterly. The rain resulted in rather severe flooding over a small area. Some evacuations were required and some bridges were washed out. Some creeks flooded which 80 year old residents of the area could only recall flooding once before in their lifetime.
COLLETON COUNTY Walterboro	16	1630EST			0	0	?	0	TSTM WINDS
									Thunderstorm winds uprooted several trees.
DORCHESTER COUNTY Summerville	16	1700EST			0	0	3	0	TSTM WINDS LIGHTNING
									A tree was downed at Summerville High School and a transformer damaged by other falling trees. Part of a metal roof was ripped from the Advance Auto Parts store in a shopping center along Hwy. 17A. Lightning damaged a small storage shed south of Summerville along Iadson Road.
CHESTER COUNTY Chester	17	0900EST			0	0	?	0	URBAN FLOODING
									Heavy rains flooded portions of the city of Chester.
ABBEVILLE COUNTY 3 E Abbeville	17	AM			0	0	?	?	FLASH FLOODING
									Flooding along Long Cane Creek submerged construction equipment involved in the widening of SC Hwy 72.
CHARLESTON COUNTY Charleston	18	0850EST			0	0	3	?	URBAN FLOODING
									1.21 inches of rain in one hour caused minor urban flooding in downtown Charleston.
PICKENS COUNTY 6 N Pickens	19	1430EST			0	0	3	?	TSTM WINDS
GREENWOOD COUNTY W of Greenwood	19	1605EST			0	0	?	?	TSTM WINDS
GREENWOOD COUNTY Greenwood	19	1630EST			0	0	4	0	TSTM WINDS
GREENWOOD COUNTY Southern portions	19	1630EST			0	0	?	?	FLASH FLOOD
									About a dozen trees were blown down and some outbuildings were damaged in a severe thunderstorm north of Pickens. A severe thunderstorm developed west of Greenwood and moved slowly across the city. Trees fell on houses and a church and there was some substantial damage. Slow-moving thunderstorms caused some minor flooding problems in the southern sections of Greenwood County. Trees were downed at the intersection of Highways 25 and 225.
SPARTANBURG COUNTY Cooley Springs	19	1630EST			0	0	4	0	LIGHTNING
									Lightning struck a mobile home and set it on fire.
YORK COUNTY Fort Mill	19	PM			0	0	4	?	TSTM WINDS & LIGHTNING
									A brief but intense storm caused numerous power outages and downed a number of trees. Lightning started several house fires.
EDGEFIELD COUNTY Merriwether Comm.	19	1930EST			0	0	4	0	LIGHTNING
									Lightning started a house fire.
CLARENDON COUNTY Randolph's Landing	20	PM			0	0	4	?	TSTM WINDS
									Two mobile homes were blown off their foundations; a porch was torn from another. Several trees were also uprooted and snapped. A shed was pulled up into the air, turned around several times, then dropped back down.
YORK COUNTY Fort Mill Cherry Road Comm. S Rock Hill Winthrop Heights	21	1710EST			0	0	5	?	TSTM WINDS
									Thunderstorm winds uprooted trees and felled limbs onto power lines, causing some power outages. 1.2 inches of precipitation was reported at Catawba in 20 minutes.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

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					KILLED	INJURED	PROPERTY	CROPS	
— SOUTH CAROLINA									
GEORGETOWN COUNTY Georgetown	25	0140EST			0	0	?	0	URBAN FLOODING
Georgetown	25	0300EST			0	0	?	0	URBAN FLOODING & TSTM WINDS
Salt Marsh Cove	25	0552EST			0	0	4	0	LIGHTNING
					Early morning thunderstorms dumped 3.1 inches of rain, flooding some city streets. Thunderstorm winds knocked over tree limbs, causing isolated power outages. Lightning struck a townhouse and caused a fire.				
ANDERSON COUNTY 3 SW Anderson Anderson	25	1906EST			0	0	?	?	TSTM WINDS
	25	1930EST			0	0	?	?	TSTM WINDS
					Numerous thunderstorms developed over the upstate and moved from the northeast toward the southwest. There was an enormous amount of lightning visible although there was not a great deal of damage reported. One or two of the storms briefly became severe near Anderson and blew down some power lines and tree limbs. Power was out to 1,500 customers as a result of the damage.				
ANDERSON COUNTY Belton	25	1945EST			0	1	0	0	LIGHTNING
					Lightning surged through a power outlet, injuring a 12 year old boy who was standing near the outlet and causing him to lose consciousness momentarily.				
PICKENS COUNTY 3 N Six Mile	26	1447EST			1	0	0	0	LIGHTNING
					Lightning struck and killed a man while he was jogging. (M390)				
PICKENS COUNTY near Central	27	1615EST			0	0	?	?	HAIL(0.75) & TSTM WINDS
					Severe thunderstorms produced localized damage. Some trees were downed and hail was observed.				
LEXINGTON COUNTY Chapin	27	1845EST			0	0	2	?	TSTM WINDS & HAIL(0.5)
					Marble size hail and damage to a small shed were reported. Several trees were downed.				
MCCORMICK COUNTY Bethany Com.	27	PM			0	0	?	0	LIGHTNING
					Lightning struck a house, causing it to burn to the ground.				
ANDERSON COUNTY Eastern portions	27	2050EST			0	0	?	?	TSTM WINDS(G62) & HAIL(0.25) & LIGHTNING
					Severe thunderstorms produced localized damage. Some trees were downed and hail was observed. 8,000 people were out of power for more than an hour, as lightning struck a substation.				
KERSHAW COUNTY Wateres Prison	28	0000EST			0	0	3	0	LIGHTNING
					Lightning struck a power line going to a cattle barn on the prison grounds, starting a minor blaze.				
DARLINGTON COUNTY Darlington	29	0930EST			0	0	?	0	LIGHTNING
					Lightning caused an isolated power outage.				
PICKENS COUNTY Mount Airy	30	AM			0	0	3	0	LIGHTNING
					Lightning struck and killed 17 heifers in the middle of a pasture.				
EDGEFIELD COUNTY countywide	30	1430EST			0	0	3	?	LIGHTNING & TSTM WINDS
					Thunderstorm winds caused scattered countywide damage. Trees fell on houses and winds peeled off some roofs. Lightning struck an electrical substation, knocking out power to 1,200 customers				
RICHLAND COUNTY Columbia	30	1445EST			0	0	?	0	Hail (1.00)
					Quarter size hail was reported in the Kilbourne Road area.				
LEXINGTON COUNTY West Columbia	30	1445EST			0	0	?	0	HAIL (0.50)
					Hail was reported in parts of West Columbia.				
SUMTER COUNTY between Wedgefield and Shaw AFB	30	1615EST			0	0	?	?	TSTM WINDS
					Many trees were downed. Four hundred to five hundred customers were without power.				
EDGEFIELD COUNTY southern portions	30	1700EST			0	0	?	?	HAIL (?)
					Hail of unknown size was reported in southern portions of the county.				
— SOUTH CAROLINA									
GREENVILLE COUNTY near Travelers Rest near Tigerville Greer	30	1802EST			0	0	?	?	HAIL (1.00)
	30	1815EST			0	0	?	?	TSTM WINDS
	30	1830EST			0	0	3	?	TSTM WINDS & LIGHTNING
SPARTANBURG COUNTY Lyman & Irman northern portions	30	1840EST			0	0	5	?	LIGHTNING
	30	1840EST			0	0	3	?	TSTM WINDS
COOKE COUNTY Walhalla	30	1900EST			0	0	?	?	TSTM WINDS
SPARTANBURG COUNTY Spartanburg 5 W Chesnee	30	1930EST			0	0	4	0	TSTM WINDS (52)
	30	1945EST			0	0	?	?	TSTM WINDS
					Several bands of severe storms affected the Greenville and Spartanburg metropolitan area during the evening. The first storm developed rapidly over the Greer and Travelers Rest areas. It caused some scattered wind damage and large hail. The greatest damage from all the of the storms occurred with the intense lightning. The most concentrated wind damage occurred west of Chesnee with the second wave of storms and between Irman and Cowpens with the third band of storms. Numerous trees were blown down during the last event. A tree fell on a house in Walhalla.				
JASPER COUNTY Hwys.119 & 321	30	2030EST			0	0	?	?	TSTM WINDS
					Four large trees were downed across SC Highway 119. Several trees were also downed along US Highway 321.				
SPARTANBURG COUNTY Northern portions	30	2145EST			0	0	4	?	TSTM WINDS
					Thunderstorm winds affected portions of Spartanburg County.				
GREENWOOD COUNTY Greenwood	31	1700EST			0	0	?	0	TSTM WINDS & URBAN FLOODING
	31	1715EST			0	0	2	0	LIGHTNING
					Thunderstorm winds downed a tree on Sweetwater Road. Urban flooding was reported along S.C. Highway 72 bypass. Also, lightning entered the electrical system of a furniture store and started a fire.				
39 SOUTH DAKOTA									
Custer County. Custer	01	1354 MST			0	0	0	0	Hail (1.75)
Jackson County. Cedar Pass	01	1818 MST			0	0	0	0	Hail (1.75)
Pennington Co.. Factola Lake	03	1430 MST			0	0	0	0	Hail (1.75)
Pennington Co.. Bad Lands	03	1445 MST			0	0	0	0	Hail (1.75)
Custer County. Custer Park	03	1530 MST			0	0	0	0	Hail (1.75)
Pennington Co.. 3N Wall	03	1550 MST			0	0	?	?	Hail (1.75)
					Hail produced crop and property damage in a 1 mile wide strip, several miles long.				
Ercole County. 5W Kimball	03	2115 CST			0	0	0	0	Hail (1.00)
Kingsbury County. 40ESE Huron	03	2210 CST			0	0	0	0	Funnel
Kingsbury County. 40E Huron	03	2250 CST			0	0	0	0	Funnel
Jackson County, 5W Kadoka	06	2340 MST			0	0	?	?	Hail (1.00)
Lincoln County. 2N Lennox	10	1656 CST			0	0	0	?	Hail (.75)
					Hail damaged corn and bean fields.				
Sanborn County, 10E Alpena	10	1700 CST			0	0	1	0	Hail (1.75)
Lincoln County. 35 Lennox	10	1705 CST			0	0	0	0	Hail (1.00)
Minnehaha County. Sioux Falls	10	1745 CST			0	0	3	0	Lightning
					Lightning struck a church, splintering its steeple.				

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					KILLED	INJURED	PROPERTY	CROPS	

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					KILLED	INJURED	PROPERTY	CROPS	

SOUTH DAKOTA

Beadle County, 2S Huron	10 1820 CST	0	0	0	?	Hail (1.75)			
7E 4N Huron	10 1830 CST	0	0	3	4	Hail (2.00)	Hail caused considerable crop damage and some property damage.		
Miner County, 2E Epiphany	10 1835 CST	1	30	0	0	4	0	Tornado (F0)	A tornado moved several farm buildings off their foundations, knocked down trees and destroyed part of a barn roof.
Potter County, 1845W Gettysburg	10 1927 CST	0	0	0	0	0	0	Hail (1.75)	
McCook County, 5N 1W Salem	11 1530 CST	0	0	0	0	4	0	Hail (1.00)	Hail covered an area approximately one and one-half square miles, destroying most crops.
Minnehaha County, 12SW Hartford	11 1800 CST	0	0	4	0	0	0	Lightning	Fire caused by lightning destroyed a barn.
Lincoln County, 2N Lennox	11 1805 CST	0	0	0	0	0	0	Hail (1.00)	
Lincoln County, 20S Lennox	11 1840 CST	0	0	0	0	0	0	Hail (1.00)	
Brule County, Chamberlain	17 1510 CST	0	0	0	0	0	0	TSTM Wind (52)	
Charles Mix Co., Platte	17 1535 CST	0	0	4	6	0	0	Hail (1.75)	Golfball size hail began near Platte, producing heavy crop damage in an area approximately 4 miles wide by 40 miles in length that ended near Parkston in Hutchinson County.
Brule County, 5S Chamberlain	17 1547 CST	0	0	0	0	0	0	Hail (.67)	
McCook County, Canistota	17 1720 CST	0	0	4	0	0	0	TSTM Wind	Strong thunderstorm winds picked up a semi-truck hauling 10,000 pounds of empty barrels on I-90 at Canistota and laid it on its side.
Minnehaha County, SW Sioux Falls	17 1805 CST	.3	30	0	1	5	0	Tornado (F1)	This tornado touched down briefly in southwest Sioux Falls causing one minor injury and damaging about 20 homes, six extensively. Damage was confined mainly to a three block area.
Minnehaha County, SE Sioux Falls	17 1810 CST	0	0	0	0	0	0	TSTM Wind (53)	
Walworth County, 4S 2E Java	28 1815 CST	0	0	4	0	0	0	TSTM Wind	Strong thunderstorm winds caused considerable damage to farm buildings.
4S Java	28 1815 CST	0	0	4	0	0	0	TSTM Wind	
Marshall County, 4E Langford	28 1856 CST	0	0	0	0	0	0	Hail (.67)	
Marshall County, 4E 1S Langford	28 1940 CST	0	0	0	0	0	0	Hail (1.75)	
Minnehaha County, E Sioux Falls	30 1535 CST	0	0	0	0	0	0	Funnel	
Minnehaha County, SE Sioux Falls	30 1600 CST	0	0	0	0	0	0	Hail (1.75)	

40 TENNESSEE

CANNON COUNTY AUBURNTOWN	01 0930CST	0	0	4	4			FLASH FLOOD	Heavy rainfall for two hours on already saturated ground caused flash flooding in this community. Four to six foot waves of water came down Marshall Creek. Sanders Fork overflowed and blocked roadways. Some farms had their hay crops washed away and fences torn down by the swift water. In the town, water got into a number of businesses including the bank and general store.
DEKALB COUNTY	01 1830CST	0	0	?	0			FLASH FLOOD	Heavy rains during the day caused flash flooding along the Smith Fork, in the communities of Liberty and Dowlletown. In Dowlletown, the Dekalb County Rescue Squads had to assist residents where water had gotten around their homes. In Liberty the flood water closed Highway 70 and left approximately 150 feet of the road damaged.
SHELBY COUNTY	01 1930CST	0	0	3	0			FLASH FLOOD	Widespread flash flooding was reported throughout the county in response to heavy rainfall that had occurred during the late afternoon and evening. A number of roads were blocked by the flood waters in East Memphis and a few cars were stranded in the flooded roads. Water got into one home in a subdivision in Collierville as a drainage ditch overflowed, sending water into streets and yards.
RUTHERFORD COUNTY	01 2000CST	0	0	3	0			FLASH FLOOD	Flash flooding occurred in a number of locations, but primarily in the northeast part of the county. At least 5 families had to be evacuated in the Lascassas area as the Stomes River flooded. Areas that are not normally flood prone flooded in the northeast part of the county.
RHEA COUNTY, SPRING CITY	03 2100CST	0	0	?	0			FLASH FLOOD	Flash flooding in the Spring City area caused the evacuation of 60 people in Spring City and damaged 400 houses, 21 businesses and a number of cars and trucks. The city's main route, U.S. 27 was left impassable until 7AM the next morning. The flooding was caused by the remnants of Tropical Storm Allison, which dumped up to 5 inches of rain on this community.
HAMILTON COUNTY	05 0500CST	0	0	4	0			FLOOD	Heavy rains caused the Chickamauga Creek to rise to 1.7 feet above flood stage. Heavy water runoff and water backing up due to the creek overflowing caused minor flooding of some streets and low-lying areas near the creek. Damage was reported to have been minor.
DAVIDSON COUNTY, NASHVILLE	05 1400CST	0	4	0	0			LIGHTNING	Four construction workers were injured by lightning as they walked along the site of the new runway at the Metro International Airport.
SHELBY COUNTY	10 1610CST	0	1	0	0			LIGHTNING	A 35 year old woman was seriously injured in Germantown, when struck by lightning while walking to her mailbox during a thunderstorm.
MARSHALL COUNTY GILES COUNTY	11 0930CST	0	0	?	0			FLASH FLOOD	Slow-moving thunderstorms dumped up to 7 inches of rain in about 3 hours over some locations within these two counties and caused widespread flash flooding. Lewisburg was hardest hit by the flooding. Over 150 people had to be evacuated, about 70 cars were washed away or submerged. Numerous roads were closed and water got into several homes near creeks in both counties.
	11 0930CST	0	0	?	0			FLASH FLOOD	
WILSON COUNTY	11 1000CST	0	0	2	0			FLASH FLOOD	Three to four inches of rain fell over most of southeastern Wilson County in a two hour period, causing flash flooding. Numerous gravel roads and a number of approaches to county bridges were washed out.
DEKALB COUNTY	11 1000CST	0	0	2	0			FLASH FLOOD	Heavy rain caused flash flooding in several locations in the county. Fall Creek in Smithville came out of its banks and forced the evacuation of people who live near the creek. Water reached a number of houses and businesses. Flood water got into several buildings in Alexandria as well.
PUNNAM COUNTY, COOKEVILLE	11 1000CST	0	0	3	0			FLASH FLOOD	A little over two inches of rain fell in less than two hours causing flash flooding. Streets flooded rapidly, stranding numerous cars. One car floated away with the flood waters. Numerous basements were flooded and some houses and businesses got water inside them.

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					KILLED	INJURED	PROPERTY	CROPS	
— TENNESSEE									
HARDEMAN COUNTY	12	1700CST			0	0	3	0	THUNDERSTORM WIND
									Damaging thunderstorm winds knocked down numerous trees near and in Bolivar and broke out several windows at one business.
SEQUATCHIE COUNTY	19	0800CST			0	1	0	0	LIGHTNING
									A 36 year old woman suffered injury to an ear while talking on the phone during a thunderstorm. Lightning apparently struck some nearby phone lines.
COFFEE COUNTY	19	1830CST			0	0	4	0	LIGHTNING
									Lightning killed 23 head of cattle on a farm north of Manchester. The animals were standing under a large tree during a thunderstorm.
CARTER COUNTY, ELIZABETHTON	25	1600CST			0	0	3	0	THUNDERSTORM WIND LIGHTNING
									A 16 year old girl was hospitalized suffering electrical shock, when lightning hit telephone wires containing the line she was using during a thunderstorm. The thunderstorm also produced damaging winds, knocking down numerous trees and power lines.
JEFFERSON COUNTY, DANDRIDGE	25	1930CST			0	1	4	0	THUNDERSTORM WIND
									A severe thunderstorm hit this area around 930 PM. It knocked down several trees and power lines in Dandridge. It then hit Douglas Lake where it tore a large boat dock and marina away from its moorings and pushed it approximately 500 yards down the lake from where it had been located. There were approximately 15 people on the dock and were later rescued by rescue squad personnel in boats. One woman sustained minor injuries by the flying debris from part of the dock being torn as it was ripped from its moorings.
OBION COUNTY	26	1400CST			2	1	0	0	HEAT
									An elderly couple died and a companion was found in critical condition, apparently from heat exhaustion. Their car had bogged down in mud on a rural West Tennessee road south of Reelfoot Lake. The woman was found in the car. Her husband and brother had apparently wandered away from the car. F74V N720
BLOUNT COUNTY	26	2115CST			0	0	2	0	THUNDERSTORM WIND
									Thunderstorm winds knocked down numerous trees and power lines in the southern part of the county.
SEVIER COUNTY	27	1930CST			0	0	5	0	LIGHTNING
									Lightning killed 10 horses standing in a field during a thunderstorm on a farm in the community of Boyds Creek. Four of the horses were valued at \$14,000 each.
SUMNER COUNTY, GALLATIN	30	1430CST			1	0	0	0	LIGHTNING
									A man was killed while standing under a tree on a golf course. The man had gone under the tree to seek shelter from the thunderstorms heavy rain when lightning struck the tree. #450
SHELBY COUNTY	30	1815CST 30 1900CST			0	0	3	0	THUNDERSTORM WIND FLASH FLOOD
									Slow-moving thunderstorms produced widespread wind damage and flash flooding throughout the county. Numerous trees and power lines were knocked down. The heaviest flooding occurred in Mid Town Memphis where 4 inches of rain fell in 2 hours. Many cars were stranded in the flood waters.
41 TEXAS, Northern									
Fannin County 5 N Bonham	02	1310CST			0	0	?	?	TSTM Wind (52)
									Strong winds were estimated at 60 MPH five miles north of Bonham.
Lamar County: Paris Roxton	02	1330CST 02 1340CST			0	0	?	?	TSTM Wind TSTM Wind
									A downburst uprooted trees in Paris and blew down power lines in Roxton.
Grayson County 7 NE Whitesboro	02	1335CST			0	0	?	?	TSTM Wind (52)
									Strong winds estimated at 60 MPH damaged several boats on the southern portion of Lake Texoma.
— TEXAS, Northern									
Red River County Woodland	02	1335CST			0	0	?	?	TSTM Wind (52)
									Strong winds estimated at 60 MPH blew down several trees in Woodland.
Delta County Cooper	02	1345CST			0	0	?	?	TSTM Wind (52)
									Strong winds were estimated at 60 MPH in Cooper.
Hunt County: Commerce Greenville	02	1400CST 02 1410CST			0	0	?	?	TSTM Wind (52) TSTM Wind (52)
									Strong winds estimated at 60 MPH blew down trees in Commerce and power lines in Greenville.
Franklin County Mount Vernon	02	1415CST			0	0	?	?	TSTM Wind (52)
									Strong winds were estimated at 60 MPH at Mount Vernon.
Titus County Talco	02	1415CST			0	0	?	?	TSTM Wind
									A downburst blew down trees and power lines at Talco.
Morris County: Cason 6 W Omaha	02	1415CST 02 1435CST			0	0	?	?	TSTM Wind TSTM Wind
									A downburst blew down trees and power lines at Cason and a telephone pole six miles west of Omaha.
Bowie County: New Boston Texarkana 11 S New Boston	02	1430CST 02 1430CST 02 1430CST			0	0	?	?	TSTM Wind TSTM Wind Funnel Cloud TSTM Wind (52)
									A downburst blew down numerous trees at both New Boston and Texarkana. A funnel cloud was observed at Lake Wright Petman (11 S New Boston) where strong winds estimated at 60 MPH overturned several boats.
Camp County Pittsburg	02	1455CST			0	0	?	?	TSTM Wind (52)
									Strong winds were estimated at 60 MPH at Pittsburg.
Marion County Smithland	02	1515CST			0	0	?	?	TSTM Wind
									A downburst blew down numerous trees at Smithland.
Cass County: Cass Lake of the Pines 3 NE Atlanta Kildaire	02	1515CST 02 1515CST 02 1520CST 02 1525CST			0	0	?	?	TSTM Wind TSTM Wind TSTM Wind TSTM Wind
									Strong winds blew down several trees onto power lines at Cass, Kildaire, and three miles northeast of Atlanta resulting in power outages that affected approximately 13,000 homes in the county. A downburst overturned several boats at Lake of the Pines.
Collin County: McKinney 3 N Plano Plano Allen	02	1543CST 02 1600CST 02 1602CST 02 1606CST			0	0	?	?	Hail (1.00) Hail (1.75) TSTM Wind (52) Hail (4.50) and TSTM Wind (52)
									In Frisco, downburst winds estimated at 70 MPH demolished a metal storage building, blew the roof off a travel agency, and produced over \$3000 damage to a high school where a gym wall and two baseball field light poles were blown down.
Parker Frisco	02	1621CST 02 1850CST			0	0	?	?	Hail (1.75) TSTM Wind (61)
Upshur County: 5 W Gilmer to 5 E Gilmer	02	1545CST			0	0	?	?	TSTM Wind
									A downburst uprooted numerous trees in an area from five miles east to five miles west of Gilmer.
Parola County: Carthage	02	1630CST			0	0	?	?	TSTM Wind
									A downburst blew down numerous trees near Carthage.
Shelby County Center	02	1700CST			0	0	?	?	TSTM Wind and Lightning
									A downburst blew down numerous trees while lightning ignited three house fires near Center.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED ¹ DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED ¹ DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	

TEXAS, Northern

Cooke County Valley View	02 1754CST								Hail (0.75)
Grayson County Whitesboro	02 1805CST								Hail (1.00)
Denton County:									
Sanger	02 1818CST								Hail (0.75)
Aubrey	02 1825CST								Hail (1.00)
5 E Lewisville	02 1835CST								TSTM Wind
Lewisville	02 1900CST								Flash Flooding
Lake Dallas	02 1900CST								Lightning and Flash Flooding
A downburst damaged a marina on Lake Lewisville (5 E Lewisville) while lightning set the roof of one home ablaze in Lake Dallas. Several homes were flooded due to high water at both Lewisville and Lake Dallas.									
Wise County:									
14 N Decatur	02 1826CST								Hail (1.75)
Decatur	02 1830CST								Hail (1.75) and TSTM Wind
Decatur Municipal Airport									
Rhone	02 1858CST								TSTM Wind (52)
4 E Rhone	02 1900CST								TSTM Wind
Newark	02 1904CST								Hail (1.00) and TSTM Wind (52)
Newark	02 1911CST								Hail (1.50)
A downburst damaged the roof of a Salvation Army building while wind-blown debris shattered the windows of several vehicles in Decatur. Strong winds produced over \$20,000 damage to eight planes at the Decatur Municipal Airport. A downburst blew an air conditioning unit over and through the roof of a building in Newark while destroying one mobile home and blowing the roof off a second around four miles east of Newark.									
Dallas County:									
Richardson	02 1910CST								TSTM Wind
Garland	02 1910CST								TSTM Wind
Dallas Naval Air Station	02 1910CST								TSTM Wind (50)
Dallas Love Field	02 1912CST								TSTM Wind (65)
Irving	02 1925CST								TSTM Wind (52)
Dallas	02 1935CST								TSTM Wind (78)
Farmers Branch	02 1935CST								TSTM Wind
Dallas	02 2000CST-2200CST								Flash Flooding
Very strong winds, measured from 58 MPH at the Dallas Naval Air Station to an estimated 95 MPH in the Pleasant Grove section of Dallas, resulted in scattered damage over a large portion of Dallas County. In Dallas, Richardson, and Garland numerous trees were snapped, uprooted or blown down, some onto power lines and 2 cars in the Garland area. Power outages affected over 100,000 residents. Tree damage to Dallas city parks and golf courses was estimated between 5 and 7 million dollars. In addition, strong winds damaged the roof of a local radio station, several signs, and a scaffold at an outdoor theatre in Dallas. Meanwhile, several 4th of July festival tents were flattened in both the Las Colinas portion of Dallas and in Irving, where 2 and 8 injuries occurred, respectively. In the Pleasant Grove section of Dallas, several utility poles were snapped, 56 homes were damaged, and numerous headstones were damaged at a cemetery. At Dallas Love Field strong winds measured at 75 MPH blew the door of a hangar off while a parked Southwest Airlines jet received minor damage when the end of a wing hit the passenger bridge. High water on several streets in Dallas stranded numerous automobiles.									
Tarrant County:									
North Richland Hills	02 1910CST								TSTM Wind (52)
Fort Worth	02 1915CST								Hail (1.75)
Keller	02 1920CST								TSTM Wind (52)
Eagle Mountain Lake	02 1920CST								TSTM Wind
5 NW Saginaw	02 1923CST								Hail (0.75) and TSTM Wind (52)
Saginaw	02 1929CST								Hail (0.88)
Fort Worth	02 1925CST								TSTM Wind
Lake Worth	02 1930CST								TSTM Wind
Fort Worth	02 1938CST								TSTM Wind (52)
Carswell Air Force Base	02 1945CST								TSTM Wind (66)
Fort Worth	02 2000CST-2200CST								Flash Flooding
Very strong winds measured from 60 to 76 MPH produced scattered damage over mainly northern portions of Tarrant County. At Eagle Mountain Lake, three-quarters of the roof of a residence was blown off while several trailer homes along the shores of Lake Worth were blown off their slabs or damaged by falling trees. In Fort Worth, trees were blown down onto power lines resulting in the loss of power to approximately 20,000 homes. High water stranded motorists on some secondary roadways in Fort Worth.									
Coleman County									
Coleman	02 1936CST								TSTM Wind and Lightning
In Coleman, a downburst uprooted numerous trees and blew down several storage sheds at a lumberyard while lightning ignited a fire that severely burned one house.									

TEXAS, Northern

Johnson County:	02 1956CST								
Alvarado	02 2015CST								Hail (0.75)
Burleson									
A downburst blew several trees onto power lines and one house at Alvarado.									
Ellis County:									
Ferris	02 2000CST								TSTM Wind
Bristol	02 2020CST								TSTM Wind (62)
Waxahachie	02 2045CST								Lightning
A downburst blew the roof off of a school under construction in Ferris while lightning ignited the roof of a house in Waxahachie and resulted in approximately \$500 damage.									
Kaufman County									
Rosser	02 2030CST								TSTM Wind (61)
A downburst with winds estimated at 70 MPH uprooted trees and blew down power lines at Rosser.									
Brown County:									
Brownwood	02 2200CST								TSTM Wind
Lake Brownwood	02 2200CST								TSTM Wind
A downburst uprooted trees and damaged the roof of a floral shop in Brownwood while three boats were overturned on Lake Brownwood.									
North Texas									
	02	(events listed individually above)							Thunderstorms
A cluster of severe thunderstorms moved south of the Red River into northeast Texas between Sherman and Texarkana at around 1200 CST. The area of thunderstorms continued moving southward throughout the day to just south of the Dallas-Fort Worth Metroplex before dissipating at around 2100 CST. Several reports of wind damage, large hail, and flash flooding (confined to mainly urban areas) accompanied the stronger thunderstorms.									
Rockwall County									
Rockwall	06 1845CST								TSTM Wind
A downburst blew the windows out of a business and uprooted trees in Rockwall.									
Linestone County									
4 NW Mexia	13 1900CST								TSTM Wind
A downburst damaged the roof of a gas station and blew down several billboard signs and a tree over the truck wash portion of a cement company four miles northwest of Mexia.									
Delta County									
	15 0640CST-0930CST								Flash Flooding
High water forced the closing of State Highway 24 to the south of Farm to Market Road 128.									
Hunt County									
	15 0640CST-0930CST								Flash Flooding
High water flooded numerous roadways in Hunt County and some homes in Commerce when 6.32 inches of rainfall fell during the early morning hours. Several cars were washed out near Greenville where high water flooded low water crossings along State Highway 380 just west of Greenville. High water near three feet in depth submerged U.S. Highway 69 three miles north of Greenville. Additional roads closed due to high water were: State Highway 34 north of Wolfe City and State Highway 224 near Commerce.									
Haskell County									
Sagerton	18 1653CST								TSTM Wind
A downburst blew down a metal storage building and a barn and damaged the roofs of several homes on Farm to Market Road 1661 near Sagerton.									
Jones County									
Stamford	18 1653CST								Hail (2.75)
Throckmorton County:									
2 SW Throckmorton	18 1715CST								TSTM Wind (78)
Throckmorton	18 1715CST								Hail (0.75) and TSTM Wind (65)
Woodson	18 1745CST								Hail (0.75)
18 SW Throckmorton	18 1800CST								TSTM Wind
Very strong winds estimated at 90 MPH blew over a trailer at an oil rig site located 2 miles southwest of Throckmorton. In Throckmorton, a downburst with winds estimated at 75 MPH separated a beauty shop from its foundation, destroyed several outdoor buildings, damaged roofs and awnings, and blew out windows at 75 to 100 homes. Numerous trees were also uprooted and fell on power lines, while one outdoor building was blown onto an automobile. At the Lambhead Creek Ranch (18 SW Throckmorton) several outdoor buildings were damaged by strong winds.									
Archer County									
Archer City	18 1945CST								Hail (0.88)
Lamar County:									
5 N Paris	18 2220CST								TSTM Wind (56)
Paris	18 2225CST								TSTM Wind (56)
Strong winds estimated at 65 MPH blew down trees and produced roof damage to several buildings in Paris.									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS				ESTIMATED DAMAGE		CHARACTER OF STORM					
					KILLED	INJURED	PROPERTY	CROPS	PROPERTY	CROPS						
TEXAS, Northern																
Grayson County Sherman	18	2232CST			0	0	?	?	Hail	(0.75)						
Red River County: 1 N Clarksville Woodland	18	2325CST			0	0	?	?	TSTM Wind							
	19	0015CST			0	0	?	?	Hail	(0.75)						
	A downburst blew down several large trees 1 mile north of Clarksville.															
Delta County Kensing	18	2330CST			0	0	?	?	TSTM Wind							
	A downburst blew down power lines, damaged several trees, and destroyed several radio antennas in Kensing.															
Hopkins County Sulphur Bluff	18	2350CST			0	0	?	?	TSTM Wind	(52)						
	Strong winds were clocked at 60 MPH in Sulphur Bluff.															
Hunt County Greenville	19	0000CST			0	0	?	?	TSTM Wind							
	A downburst blew down power lines in Greenville.															
North Texas	18-	(events listed individually above)									Thunderstorms					
	19	A cluster of severe thunderstorms developed along the leading edge of a cold front between Sherman and Clarksville on the 18th of July at 2200 CST. The thunderstorms continued moving slowly southward producing damaging bursts of wind and large hail before dissipating east of Dallas at 0100 CST on the 19th of July.														
Rains County 4 NE Emory	19	0630CST			0	0	?	?	TSTM Wind							
	At Lake Fork Reservoir (4 NE Emory), a downburst uprooted several trees and damaged a boat dock and several outdoor buildings. Meanwhile, falling debris produced roof damage to approximately fifty homes and one automobile.															
Hopkins County 2 E Arbala	19	0710CST			0	0	?	?	TSTM Wind							
	A downburst blew down numerous trees, destroyed an outdoor shed and a church nursery building, and damaged the roofs of two homes along a path seven miles long and two miles wide between Arbala and Seymour.															
Eastland County 10 S Eastland	23	0800CST			0	0	?	?	Lightning							
	A bolt of lightning killed twenty cows huddled under a tree at a ranch located ten miles south of Eastland.															
Ellis County Waxahachie	23	1300CST			0	0	?	?	TSTM Wind							
	A downburst damaged roofs, patio covers, windows and roof vents of six houses in Waxahachie.															
Franklin County 2 E Mount Vernon	23	1615CST			0	0	?	?	Lightning							
	A bolt of lightning killed 9 dairy cows on a farm located two miles east of Mount Vernon.															
41 TEXAS, Southern																
Southeast Texas	1-7										0	0	?	?	Flooding	
	The remnants of the weak circulation from tropical storm Allison continued to produce heavy rains over southeast Texas through the 1st of July. The flooding from these rains and the runoff from previous rains persisted through the 7th. The circulation from the storm after moving into Louisiana on the 27th and 28th of June backtracked and moved into southeast Texas on the 29th and lingered in the area until the early morning hours of the 1st. An additional 500 persons were forced from their homes the first three days of July. All entries below through the 7th relate to this weather event.															
Polk County	1	Morning			0	0	?	?	Flooding							
	Two inches of rain fell in the early morning hours and resulted in flooding.															
Liberty County	1-3										0	0	?	?	Flooding	
	Additional rains of up to 4 inches fell over portions of the county. By 8am on the 1st, Livingston had 2.43 inches and Moss Bluff, 3.60. Serious flooding continued in the area through the 3rd. Many homes were flooded west of the Trinity River above Liberty downstream to below Moss Bluff. 8 subdivisions or communities were flooded; water entered homes. Most roads in the area were closed due to high water. Dayton Lakes, a town of about 200 people along the Trinity River north of Liberty, remained under water on the 2nd.															
TEXAS, Southern																
Harris County	1	Afternoon			0	0	?	?	Flooding							
	On the afternoon of the 1st, 3 inches of rain fell at Seabrook. Flooding continued in eastern Harris County through the first few days in July as flood waters were slow to recede.															
Galveston County	1	Afternoon			0	0	?	?	Flooding							
	4 inches of rain fell at League City and produced flooding that lasted for several days.															
Brazoria County	1	Afternoon			0	0	?	?	Flooding							
	3 inches of rain fell at Alvin where local flooding was reported.															
Tyler County	1	Evening			0	0	?	?	Flooding							
	4 inches of rain fell along Sam Rayburn Reservoir which produced more flooding of low lands around the lake and downstream along the Trinity River.															
Hardin, Jasper Jefferson, Newton, and Orange Counties	3-7										0	0	?	?	Flooding	
	The Sabine River at Burkeville ran at near-record levels for several days, with the second highest level ever recorded falling on the 3rd. Flooding continued downstream to Deweyville and into Orange County through the 7th. The overflow from the Sabine River in the city of Orange on the 6th was the highest there since 1953 as flood waters inundated the low lands around the river. Low lands around the Neches River were flooded as well and this would include bayous and tributaries of this drainage area southward from Dam B to below Beaumont. In Hardin County, major flooding continued along the low lands of Pine Island Bayou and Village Creek, with numerous homes being flooded.															
Live Oak County 6E Georgewest	22	1805CST			0	0	?	0	Tstm.Wind	(?)						
	High winds from a thunderstorm blew over trees and fences.															
Wharton County El Campo	23	1550CST			0	0	?	?	Hail	(1.00)						
	Wind and hail did lots of tree damage in El Campo.															
Jefferson County	25	1500CST			0	0	?	?	Tstm.Wind	(?)						
	High winds from a thunderstorm tore the roof off of a building. Other minor damage was reported. The exact location was not specified.															
South Texas	1-31										0	0	?	9	Severe Drought	
	A severe drought has been developing over portions of South Texas extending back to July of 1987. The most serious areas affected would be South Texas generally south of the Hill County southeast to the coast and southwest to the Rio Grande River. More specific it would be south and southwest of a line from near Del Rio to Austin and southeast to the coast near Palacios. Not all of the area mentioned above would be categorized as severe, as some areas have received beneficial rains, but for the most part it has reached critical stages and some have described it as devastating. Some say it is worse than the drought of 1980 and is approaching the severity of that of the mid 50s. Streams in the Hill County that are normally fed by springs have for the most part gone dry. Wildlife, mainly deer, are dying off and the scarcity of natural vegetation is making the remaining wildlife lean and poor. Most stock tanks in the area have gone dry. Several ranchers are hauling water for their stock. Many ranchers have sold out all of their stock, while others have drastically reduced their herds. Pastures and grass ranges across South Texas including the Brush Country have been barren for months. For feed, cattlemen have been burring or singeing spines off of cactus so that stock can eat the pads.															
	Farmers in many areas have given up their crops for 1989. Dry land farmers saw no spring rains that were needed to give the crops any initial sprouting. Dryland farming from San Antonio west to Uvalde had crop lands yield less than 30 percent of normal. If subsequent rains fall later in the summer and early fall it will certainly help the pasture situation, but as far as crops go, they are finished for this year. Fields of grain sorghum on the coastal plains from Port Lavaca to Rockport were left unharvested because of poor yield.															
	Total losses to South Texas farmers and ranchers is expected to be in the neighborhood of 600 million dollars.															

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JULY 1989

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					KILLED	INJURED	PROPERTY	CROPS	
41 TEXAS, Western									
Hutchinson County 10 NW of Stinnett	12	1753 CST			0	0	0	0	Hail (1.00)
									An Emergency Services Spotter for the City of Stinnett observed nickel to quarter size hail 10 miles northwest of Stinnett.
Ochiltree County 2 W of Perryton	12	1840 CST			0	0	0	0	Hail (1.00)
									The public reported one-inch hail 2 miles west of Perryton on State Highway 15.
Hartley and Dallam Counties Dalhart FSS	14	1831 CST			0	0	0	0	Tstm.Wind (53)
									The Flight Service Station at Dalhart Municipal Airport, which is situated exactly on the county line, recorded a wind gust to 53 knots. Another gust of 51 knots occurred at 1840 CST.
Randall and Potter Counties	16	2345 CST 2355 CST			0	0	3	0	Tstm.Wind (59) Tstm.Wind
									Thunderstorm wind raked the Amarillo vicinity in both counties, inflicting scattered but substantial damage. At 2345 CST wind gusted to 59 knots at the Amarillo Weather Service Office (WSO). Several buildings and large advertising and road signs were destroyed along the Potter-Randall county line, according to EOC personnel. Power outages were reported at about that time due to lines knocked down by the strong wind, and at 2355 CST Department of Public Safety (DPS) officials reported that two tractor-trailers were overturned on Interstate 40 east of Amarillo by the intense windstorm.
Scurry County	18	est.1545 CST			0	0	0	3	Tstm.Wind
									Thunderstorm winds of unknown speed uprooted several trees in the Snyder area.
Coke County	18	1900 CST			0	0	3	0	Tstm.Wind
									A DPS official reported that thunderstorm winds blew the awning off a mobile home in Robert Lee.
Ward County	18	2050 CST			0	1	6	5	Tstm.Wind (est. 80)
									Thunderstorm winds estimated at 80 knots pounded the City of Monahans. The vicious windstorm snapped trees, broke windows, and inflicted a variety of structural damage throughout town. In Hill Park large trees were snapped off at their base, while the football stadium received significant damage to the pressbox. Opposing walls at an industrial tool shop in the east side of town on U. S. Highway 80 were blown out, and power lines were downed throughout the city.
Parmer County	22	est. 2100 CST			0	0	0	5	Hail (1.75)
									A thunderstorm brought hail the size of golf balls to the area between Lariat and Lazbuddie, over the southern part of the county. The hail inflicted nearly total damage along a 2 to 3 mile band west of Clays Corner, which is 6 miles west of Lazbuddie. Little, if any, rainfall was observed with the storm.
42 UTAH									
Salt Lake County, Midvale	08	1615MST	?	?	0	0	3	0	Tornado (F1)
									A small tornado touched down just west of I-15 at about 7200 South. A semi truck was blown over, a metal building had structural damage, and the windows were blown out of a car.
Utah County, Provo	12	2020MST			0	0	1	0	Thunderstorm Wind (G56)
Utah County, Provo	12	2032MST			0	0	1	0	Thunderstorm Wind (G52)
									A thunderstorm microburst gusted to 65 mph at Utah Lake State Park at about 9:25 p.m., and then gusted to 60 mph shortly afterward at the Provo Airport.
Garfield County, Bryce Canyon	27	1400MST			1	0	1	0	Lightning
									In the Bryce Canyon area lightning struck an 18 year old girl after first hitting a nearby tree. She was helping her parents set up a tent near the tree. The girl died two days later in a hospital in Salt Lake City. F180
UTAH									
Duchesne County, Pass Lake	27	1552MST			1	1	1	0	Lightning
									A man and woman were struck by lightning while fishing. The man later died as a result of a cardiac arrest, but the woman sustained only minor burns and recovered fully. M610
Washington County, Springdale	27	1600MST			0	0	1	0	Hail (0.88)
									A spotter in Springdale reported 7/8 inch diameter hail.
Washington County, Springdale	27	1605MST			0	0	3	0	Flash Flood
									Heavy thunderstorm rains filled normally dry washes and produced minor flash flooding across State Highway 9 between Rockville and Springdale.
Iron County, Cedar City	27	1845MST			0	0	2	0	Flash Flood
									A Utah Highway Patrol trooper reported a small flash flood that washed debris across Utah Highway 130 about 30 miles north of Cedar City.
Iron County	31	1455MST			0	0	1	0	Thunderstorm Wind (G51)
Iron County, Cedar City	31	1500MST			0	0	6	0	Flash Flood
									A major flash flood occurred in the Cedar City area after heavy thunderstorm rains fell in Fiddlers and Sullivan canyons. As many as 200 homes and a building housing state and Iron County law enforcement agencies were damaged by the flood waters. The hardest hit area was located in the northern part of Cedar City in a group of subdivisions and a mobile home park that were built on the alluvial fan at the base of the two canyons. One spotter in the canyon area reported receiving 1.11 inches of rain in about half an hour. Just before the flood began thunderstorm winds gusted to 59 mph at the Cedar City airport.
43 VERMONT									
Orleans County Derby	04	1745EST			0	0	0	2	Hail (0.75)
Holland	04	1750EST			0	0	3	0	TSTM Wind
Norton	04	1755EST			0	0	3	0	TSTM Wind
									Trees, tree limbs, and power lines were blown down.
Ruland County Cuttingsville	07	1330EST			0	0	4	3	TSTM Wind
Windsor County West Windsor	07	1345EST			0	0	4	0	TSTM Wind
West Windsor	07	1347EST			0	0	?	?	Hail (1.00)
Hartland	07	1350EST			0	0	2	2	Hail (0.75)
Windsor	07	1352EST			0	0	5	0	TSTM Wind
Windsor	07	1354EST			0	0	?	?	Hail (1.50)
Bennington County Arlington	07	1415EST			0	0	0	1	Hail (0.75)
Shaftsbury	07	1430EST			0	0	3	0	TSTM Wind
Orange County Randolph	07	1745EST			0	0	2	0	TSTM Wind
									Trees and power lines were downed.
Bennington County Shaftsbury	10	0912EST			0	0	0	1	TSTM Wind
Washington County Montpelier	10	1030EST			0	0	3	3	Hail (1.75)
Montpelier	10	1130EST			0	0	3	2	TSTM Wind
Orange County Randolph	10	1145EST			0	0	2	0	TSTM Wind
Chittenden County Milton	10	1200EST			0	0	2	0	TSTM Wind
Underhill	10	1200EST			0	1	4	0	Lightning
Washington County Waterbury countywide	10	1215EST 1215EST			0	0	3	0	Lightning TSTM Wind
									Trees, tree limbs and power lines were downed. Lightning was responsible for several power outages. One male was injured while he was working a cash register in a golf shop. Lightning also struck a storage barn on the golf course and the resulting fire consumed the building and its contents.
Addison County W Middlebury	16	PM			0	0	2	0	TSTM Wind
									Large tree limbs and power lines were downed at Middlebury College Deanery and along Route 125.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS				ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	PROPERTY	CROPS	
VERMONT											
Addison County Vergennes Middleburg	19	1605EST			0	0	3	0	TSTM Wind		
	19	1620EST			0	0	2	0	TSTM Wind		
	Trees were downed.										
Rutland County Ira	27	1725EST			0	0	2	2	Hail (0.75)		
Chittenden County Milton	27	1730EST			0	0	2	2	TSTM Wind (58)		
Underhill	27	1730EST			0	0	3	0	Lightning		
Burlington	27	1730EST			0	0	4	0	Lightning		
Burlington	27	1732EST			0	0	2	2	TSTM Wind (60)		
Colchester	27	1735EST			0	0	2	2	TSTM Wind		
Essex Junction	27	1805EST			0	0	3	0	TSTM Wind		
Windham County Jamaica	27	1740EST			0	0	4	0	Lightning		
Franklin County Highgate	27	1745EST			0	0	0	3	Lightning		
Lamoille County Stowe	27	1815EST			0	0	3	0	TSTM Wind		
Morrisville	27	1825EST			0	0	2	0	TSTM Wind		
Bennington County Bennington	27	1827EST			0	0	0	3	Hail (0.75)		
Orleans County Newport Derby	27	1930EST			0	0	3	0	TSTM Wind		
	27	1930EST			0	0	4	0	Lightning		
	Severe thunderstorms brought down trees, tree limbs and power lines and produced large hail, resulting in damage to homes and crops.										
44 VIRGINIA											
VAZ008-009-014-015 Southwestern Virginia	4-5	All Day			0	0	?	?	Heavy Rain, Flooding		
	Heavy rains caused creeks to overflow onto roads, bridges, and fields in many areas of southwestern Virginia. While rain fell during much of the two day period, most of the rain fell during occasional very heavy downpours. Rainfall totals of 3 to 6 inches were common. The worst conditions occurred near the North Carolina border, especially in Henry County where one rain gauge just south of Bassett caught over 8 inches during a 24 hour period.										
Grayson Co. and Carroll Co.	4-5	Overnight			0	0	?	?	Flash Flooding		
	The New River rose rapidly and overflowed its banks in response to torrential rains which were measured at 6.3 inches at Galax and over 5 inches in other areas. The flooding river closed roads, submerged bridges, caused mud-slides, and inundated several campgrounds. Some personal property was caught in the flooding, but most campers got their property out just in time.										
York Co, Hampton	5	1530EST			0	0	4	0	Lightning		
	Lightning set fire to a home which caused approximately \$30,000 damage.										
Henry Co.	5	1900EST			0	0	?	?	Flash Flooding		
	Nearly 60 people were evacuated from their homes due to rapidly rising waters in the Blackberry and Rangely areas.										
Pittsylvania Co.	6	0705EST			0	0	?	?	River Flooding		
	The Dan River surpassed its 11 foot flood stage. Flooding was minimal on the Virginia side but was more serious in North Carolina.										
Roanoke Co, Salem	6	1730EST			0	30	0	0	Lightning		
	At least 30 people attending the Salem Fair were injured by lightning, but only 3 seriously.										
Roanoke Co, Roanoke	6	1745EST			0	0	?	?	Flash Flooding		
	Heavy rains measured at 2.36 inches, mostly in one hour, caused Peters Creek to rise rapidly over its banks and also urban flooding. Some low-lying areas were evacuated.										
Wythe Co, Atkins	6	1840EST			0	0	?	0	Lightning		
	Lightning struck and set fire to the offices of a shale company and caused extensive damage.										
— VIRGINIA											
VAZ016 Southwestern Mountains	8	Evening			0	0	?	?	Heavy Rain		
	Heavy rains flooded fields in low-lying sections of Scott County.										
Scott Co.	8	2100EST			0	0	?	0	Thunderstorm Winds		
	Strong thunderstorm winds downed several trees. There was also hail of unknown size reported.										
Pulaski Co.	9	1315EST			0	0	?	0	Thunderstorm Wind		
	Strong thunderstorm winds downed trees at numerous locations in Pulaski County.										
Botetourt Co, Fincastle	9	1430EST			0	0	?	0	Lightning		
	Lightning set fire to a home and caused extensive damage.										
Accomac Co.	12	0015EST			0	2	?	0	Lightning		
	An electrical storm was described as more than an hour of almost continuous lightning. Two buildings, a home in Lee Mont and a historic former Coast Guard station on Parramore Island, were destroyed by fires ignited by lightning strikes. A mother and daughter were injured when lightning struck their home in Greenbush. Instruments detected 1900 lightning strikes between 0015 and 0045 EST. Rainfall at Accomac was measured at 1.4 inches.										
Greensville Co.	12	1345EST			0	0	?	0	Thunderstorm Wind Lightning		
	Numerous trees were downed at various locations of Greensville County. Several house fires were started by lightning, and a power company substation was knocked out by lightning.										
Suffolk Co, Suffolk	12	1424EST			0	0	5	0	Lightning		
	Lightning set fire to two homes. Total damage was about \$100,000. Winds blew down some tree limbs in the southern part of the city.										
Wythe Co, Millers Creek	12	1500EST			0	0	0	0	Flash Flooding		
	Heavy thunderstorm rains caused a rapid rise of Millers Creek. The creek overflowed only onto pasture land, and no damages resulted.										
Pittsylvania Co.	12	1525EST			0	0	5	0	Thunderstorm Wind		
	Strong thunderstorm winds downed numerous trees and utility poles, partially unroofed a house, and severely damaged a house under construction in the communities of Tuscarora Farms, Witt, and Blairs north of Danville. Damages totaled at least \$100,000. A wind gust of 50 mph was measured at the Danville Airport.										
Craig Co, Goose Creek	12	2200EST			0	0	?	?	Flash Flooding		
	Very heavy downpours triggered flash flooding of Goose Creek which flooded roads and undermined pavements. Rainfall of 5.1 inches fell on New Castle during the 90 minute period beginning at 2200 EST.										
VAZ002 Greater Hampton Roads	14	Early morning			0	0	?	0	Heavy Rain		
	Heavy rains of up to 3 inches before daybreak caused considerable urban flooding especially over southern parts. One inch of rain fell at the Norfolk Airport in the 20 minute period ending at 0400 EST.										
VAZ010-018 Central Foothills Central Piedmont	16	All Day			0	0	?	?	Heavy Rain		
	Heavy rain caused flooding of numerous roads in Albemarle, Louisa and Fluvanna counties. Rainfall amounts ranged from 1.5 to over 5 inches, with the heaviest in the vicinity of Ferncliff, Louisa County.										
VAZ004 Central Tidewater	16	Afternoon			0	0	?	?	Heavy Rain		
	More than 5 inches of rain fell on the lower end of Westmoreland County.										

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

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					KILLED	INJURED	PROPERTY	CROPS							KILLED	INJURED	PROPERTY	CROPS		
— VIRGINIA										— VIRGINIA										
Warren Co; Lemon, Linden	19	2245EST			0	0	5	?	Flash Flooding	VAZ008-009 Southwestern Piedmont and Southern Poothills	26	Evening			0	0	?	?	Heavy Rain	
									Heavy downpours between 2030 and 2400 EST caused severe flash flooding, especially in the Lemon area where 15 to 20 houses were damaged, and in Linden where about 20 residences were evacuated and rockslides blocked some roads. Rainfall was measured at 3.8 inches in Linden including 1.5 inches during the 15 minute period ending at 2045 EST and nearly 2 inches in 30 minutes centered around 2300 EST. There were no injuries, but many people had to be rescued. Flooding was first reported at 2245 EST. The estimate of property and road damage was at least \$300,000.											Heavy thunderstorm rains of 1 to 2 inches caused minor flooding. Also, strong winds and small hail caused only minor damage.
Fauquier Co; Delaplane, Markam	19	2325EST			1	0	5	?	Flash Flooding	Campbell Co. Pittsylvania Co, Climax	26	Evening			0	0	?	0	Lightning	
									Severe flash flooding of Goose Creek along U.S. Route 17 near Delaplane washed 2 to 3 feet over a bridge. The raging waters swept away 10 vehicles, and a 20 year old pregnant woman drowned as her pickup truck was swept away. Eyewitnesses stated that the creek rose about 13 feet in 30 minutes. A freight train was stopped just before entering the flooded area; the railroad tracks were undermined. Flash flooding also occurred in the vicinity of Markam where Cabin Run overflowed, flooding homes and carrying vehicles downstream into a heap. There were no other injuries, but several people had to be rescued. Damage to roads was approximately \$100,000. Four to 5 inches of rain within two hours triggered the flash flooding. P20V	26	2300EST			0	0	?	0	Lightning		
									Lightning set fire to a home in Climax that totally destroyed it. The occupant, a 77 year old woman, died of smoke inhalation. Also, the intense lightning caused widespread power outages in Pittsylvania and Campbell counties.	Campbell Co, Brookneal	27	1630EST			0	1	0	0	Lightning	
Shenandoah Co.	21	1705EST			0	0	?	?	Flash Flooding	Amherst Co; Madison Heights, Monroe	31	1600EST			0	0	?	0	Urban Flooding	
									Very heavy downpours triggered flash flooding along streams in the vicinities of Edinburg, Woodstock, and Strasburg. In Conicsville, 5 inches of rain fell during a two hour period.										Four inches of rain in an hour caused severe street and urban flooding from Madison Heights to Monroe.	
King William Co, Hockley	23	1700EST			0	0	?	0	Thunderstorm Wind	Amherst Co, Elon	31	1600EST			0	0	?	0	Lightning	
									Strong thunderstorm winds demolished a house that was under construction.										Lightning set fire to and destroyed a mobile home.	
Fairfax Co, Alexandria	25	1330EST			0	0	?	0	Urban Flooding	45 WASHINGTON										
									Heavy rain, measured at 1.19 inches in a short time, flooded several streets. One tree was downed on the 1200 block of Quaker Lane. Intense lightning was also reported.	Thurston County	13	0300PST			0	0	4	0	Lightning	
Rappahannock Co, Woodville	26	1430EST			0	0	?	0	Thunderstorm Wind										Lightning struck a house in the town of Tenino, 15 miles southeast of Olympia, causing extensive damage to the electrical system and appliances. Structural damage included the nails in a bedroom wall being blown out of the sheetrock and damage to some roof beams and a gable.	
Fairfax Co, Springfield	26	1500EST			0	0	?	0	Thunderstorm Wind	Chelan, Okanogan, Lincoln and Douglas Counties	14	2030PST			0	0	?	?	Lightning	
									Thunderstorm winds downed some trees across State Route 231 in the vicinity of Woodville. Also, heavy rain caused some minor flooding.		15	0230PST			0	0	0	?	Hail	
Henrico Co, Richmond	26	1545EST			0	2	0	0	Lightning		15	0300PST			0	0	0	0	Flash Flood	
									Lightning struck a chain link fence in the Stratford Hills section of Richmond. The resulting current flowed along the fence and injured two men that were in contact with it.										Lightning strikes from an outbreak of thunderstorms over north-central Washington during the late evening sparked up to 100 small forest and brush fires over the four county area. Fires were mostly 3 acres or less and were quickly contained by fire crews. As the thunderstorms were dissipating, parts of Okanogan and Lincoln counties had brief heavy rains and hail. Some wheat fields near Odessa received minor damage from small hail and some roads near Conconully were briefly covered with water and mud from the heavy precipitation.	
Rockingham Co, Harrisonburg	26	1600EST			0	0	?	0	Urban Flooding	Ferry County	15	Afternoon			0	0	4	0	Lightning	
									Heavy rain, measured at 2.5 inches in an hour, flooded streets, buildings, and some homes.										A lightning strike from a thunderstorm near Republic, 75 miles northwest of Spokane, first hit a tree and then traveled 50 feet to a house where it caused structural damage to a wall and damaged the telephone and electrical systems.	
Brunswick Co.	26	1830EST			0	0	?	6	Thunderstorm Wind, Heavy Rain, Hail	46 WEST VIRGINIA										
									A thunderstorm that many long-time residents cited as the worst storm in memory caused widespread major crop damage. The combination of very heavy rain, strong winds, and hail of unknown size flattened crops against the ground and downed numerous fruit trees. Up to 5 inches of rain was measured, and the lightning was described as very intense. Crop damage was estimated at between 1 and 2 million dollars.	Hampshire County	06	1800EST			0	0	?	?	High Winds	
Franklin Co, Penhook	26	2030EST			0	0	5	0	Thunderstorm Wind										High winds did minor damage to several homes in Romney and in the southwestern part of the county. Minor damage was also done to crops. Marble size hail fell also.	
									Thunderstorm winds damaged several mobile homes, downed or snapped several trees, and blew an air conditioner unit out of a window. Property damage was at least \$70,000.	Hardy County	06	1800EST			0	0	?	?	High Winds	
																			High winds downed large tree limbs and power lines in and near Wardensville. Damage was also done to crops in scattered areas of the county by marble size hail.	
										Hampshire County	07	2200EST			0	0	?	?	High Winds, Flash Flood	
																			Winds downed several trees near Cacapon Springs. Route 29 was covered by debris and Route 12 was closed due to high waters.	
										Lewis County	09	1620EST			0	0	?	?	High Winds	
																			Several trees were downed between Jane Lew and Berlin.	

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

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					KILLED	INJURED	PROPERTY	CROPS								KILLED	INJURED	PROPERTY	CROPS																																																																																										
WEST VIRGINIA																																																																																																													
Harrison County	09	1625EST			0	0	?	?		High Winds	La Crosse Co., La Crosse	08	2000CST			0	0	?	?		Thunderstorm Wind																																																																																								
										Several trees were downed between Clarksburg and Salen on Sycamore Road.	La Crosse	08	2000CST			0	0	?	?		Hail (1.75)																																																																																								
Doddridge County	09	1645EST			0	0	?	?		Flash Flood	Vernon Co., Iw Viroqua Viroqua	08	2015CST			0	0	?	?		Hail (1.75) Thunderstorm Wind																																																																																								
										Four and four-tenths inches of rain fell. Arnold Creek flooded over several roads; one observer reported that it was at its second highest level seen in the last 11 years. Some homes had water in them in the Greenwood area.	Monroe Co., Portland Portland	08	2030CST			0	0	?	?		Hail (1.75) Thunderstorm Wind																																																																																								
Taylor County	09	1700EST			0	0	?	?		Flash Flood	St. Marys	08	2045CST			0	0	4	5		Hail (1.75)																																																																																								
										Route 76 was closed due to high water.	Sauk Co., Reedsburg Reedsburg	08	2055CST			0	0	?	?		Hail (1.75) Thunderstorm Wind																																																																																								
Barbour County	09	1710EST			0	0	?	?		High Winds	Loganville	08	2055CST			0	0	5	0		Lightning																																																																																								
										Trees blown down by high winds blocked Route 57.	Columbia Co., Cambria	08	2220CST			0	0	4	0		Thunderstorm Wind																																																																																								
Lewis County	09	1710EST			0	0	?	?		Flash Flood	Iowa Co., Barneveld	08	2225CST			0	0	5	?		Thunderstorm Wind																																																																																								
										Stone Coal Creek flooded several streets in Pricetown.	Dane Co., Madison	08	2225CST			0	0	4	0		Thunderstorm Wind																																																																																								
Lewis County	09	1722EST			0	0	?	?		High Winds	Sun Prairie Mount Horeb	08	2226CST			0	0	?	?		Hail (1.25) Thunderstorm Wind																																																																																								
										Several large trees were downed along Route 33 east of Weston.	Mount Horeb	08	2330CST			0	0	?	?		Hail (1.75)																																																																																								
Upshur County	09	1727EST			0	0	?	?		High Winds	Marquette Co., Oxford	08	2345CST			0	0	?	?		Hail (0.75)																																																																																								
										Limbs, trees and power lines were downed near Buckhannon. Trees were also downed at Mt. Nebo and on Brushy Fork Road.	A cluster of severe thunderstorms rumbled across southwest Wisconsin dropping hailstones, some of up to golfball size, in several swaths, shredding acres of crops. Strong winds accompanying the storms toppled numerous trees and power lines. Lightning caused a fire which destroyed a barn near Loganville.																																																																																																		
Randolph County	09	1745EST			0	0	?	?		Flash Flood												Winnebago Co., Winchester IN Oshkosh	27	1038CST			0	0	?	?		Hail (1.00) Hail (3.00)																																																																													
										Water flooded Georgetown Road in several places near Beverly.												Fond du Lac Co., Fond du Lac Lanartine	27	1228CST			0	0	?	?		Hail (0.75) Thunderstorm Wind																																																																													
Randolph County	09	1800EST			0	0	?	?		High Winds												Oak Center	27	1330CST			0	0	3	?		Thunderstorm Wind																																																																													
										Large limbs were downed near Beverly.												Oak Center	27	1345CST			0	0	5	?		Thunderstorm Wind																																																																													
Randolph County	09	1830EST			0	0	?	?		High Winds												Oak Center	27	1345CST			0	0	?	?		Hail (1.75)																																																																													
										Trees and power lines were downed at Monterville.												Washington Co., Newburg West Bend Jackson	27	1230CST			0	0	5	5		Hail (2.50) Hail (0.75) Thunderstorm Wind																																																																													
Pocahontas County	09	1945EST			0	0	?	?		High Winds, Hail (?)												Germantown	27	1356CST			0	0	5	?		Thunderstorm Wind (56)																																																																													
										Trees were downed over northern parts of the county. Large limbs were downed at Arborvale. Several reports of small hail were received from across the county.												Ozaukee Co., Mequon Cedarburg Grafton	27	1245CST			0	0	?	?		Hail (2.00) Hail (1.00) Hail (2.50)																																																																													
Monongalia County	11	1900EST			0	0	2	?		Flash Flood												Dodge Co., Waupun Mayville Mayville	27	1310CST			0	0	?	?		Hail (1.00) Hail (0.75) Thunderstorm Wind (52)																																																																													
										Flooding occurred in Mooresville and Cassville. Basements flooded in Westover and major flooding occurred in Osage. Several cars and two mobile homes were damaged. Flooding also occurred along Scoots Run. A bridge and highway were damaged along Route 7 from Osage to Blacksville. The total damage from the flooding is estimated at \$1.4 million.	Horicon	27	1352CST			0	0	?	?		Hail (0.75)																																																																																								
Tyler County	12	1100EST			1	0	?	?		Flash Flood	Milwaukee Co., Brown Deer Wauwatosa	27	1312CST			0	0	?	?		Hail (0.75) Thunderstorm Wind (52)																																																																																								
										A rain-swollen, abnormally swift stream claimed the life of a 9 year old, Tyler County girl during the afternoon of the 12th. She drowned after the car she was riding in was washed from a bridge by floodwaters in Tyler County. R09V	Hales Corners Hales Corners	27	1413CST			0	0	?	?		Hail (0.75) Thunderstorm Wind (52)																																																																																								
Taylor County	12	2100EST			0	0	?	?		Flash Flood	Franklin	27	1422CST			0	0	?	?		Thunderstorm Wind (52)																																																																																								
										Small streams flooded in the Grafton area. US Route 50 was closed in Bridgeport. Some roads were undermined and one bridge was damaged. Lots of basements were flooded. Some businesses had water in them.	Milwaukee	27	1422CST			0	0	?	?		Thunderstorm Wind (52)																																																																																								
Marshall County	12	2330EST			0	0	4	?		Flash Flood	Waukesha Co., Brookfield	27	1410CST			0	0	?	?		Thunderstorm Wind (52)																																																																																								
										County Road 34 in eastern Moundsville was flooded by Middle Grave Creek. Also, street flooding occurred in Moundsville.	Elm Grove	27	1415CST			0	0	4	?		Thunderstorm Wind																																																																																								
Calhoun County	13	?			1	0	?	?		Flash Flood	New Berlin	27	1435CST			0	0	5	?		Thunderstorm Wind (52)																																																																																								
										A Calhoun County man drowned after being swept into Steer Creek while attempting to clear a culvert in front of his home.	Waukesha Muskego	27	1435CST			0	0	?	?		Hail (0.75) Thunderstorm Wind (56)																																																																																								
Pendleton County	22	?			0	0	?	?		Heavy Rain	Waterville	27	1450CST			0	0	?	?		Hail (0.75)																																																																																								
										Fort Sybert received 2.7 inches of rain in one and a half hours. Parts of roads were washed away.	A cluster of severe thunderstorms rumbled across southwest Wisconsin dropping hailstones, some of up to golfball size, in several swaths, shredding acres of crops. Strong winds accompanying the storms toppled numerous trees and power lines. Lightning caused a fire which destroyed a barn near Loganville.																																																																																																		
Greenbrier County	25	1730EST			0	0	?	?		High Winds												A cluster of severe thunderstorms rumbled across southwest Wisconsin dropping hailstones, some of up to golfball size, in several swaths, shredding acres of crops. Strong winds accompanying the storms toppled numerous trees and power lines. Lightning caused a fire which destroyed a barn near Loganville.																																																																																							
										Numerous trees and power lines were downed in the Sewell Mountain area.																							A cluster of severe thunderstorms rumbled across southwest Wisconsin dropping hailstones, some of up to golfball size, in several swaths, shredding acres of crops. Strong winds accompanying the storms toppled numerous trees and power lines. Lightning caused a fire which destroyed a barn near Loganville.																																																																												
Hardy County	26	1520EST			0	0	?	?		High Winds																																		A cluster of severe thunderstorms rumbled across southwest Wisconsin dropping hailstones, some of up to golfball size, in several swaths, shredding acres of crops. Strong winds accompanying the storms toppled numerous trees and power lines. Lightning caused a fire which destroyed a barn near Loganville.																																																																	
										Several trees and numerous limbs were downed between Moorefield and Milan on Route 7.																																													A cluster of severe thunderstorms rumbled across southwest Wisconsin dropping hailstones, some of up to golfball size, in several swaths, shredding acres of crops. Strong winds accompanying the storms toppled numerous trees and power lines. Lightning caused a fire which destroyed a barn near Loganville.																																																						
Grant County	26	?			0	0	?	?		Flash Flood																																																								A cluster of severe thunderstorms rumbled across southwest Wisconsin dropping hailstones, some of up to golfball size, in several swaths, shredding acres of crops. Strong winds accompanying the storms toppled numerous trees and power lines. Lightning caused a fire which destroyed a barn near Loganville.																																											
										Water was over several roads in the county. Several people were evacuated along Johnson Road.																																																																			A cluster of severe thunderstorms rumbled across southwest Wisconsin dropping hailstones, some of up to golfball size, in several swaths, shredding acres of crops. Strong winds accompanying the storms toppled numerous trees and power lines. Lightning caused a fire which destroyed a barn near Loganville.																																
Raleigh County	26	1830EST			0	0	?	?		High Winds																																																																														A cluster of severe thunderstorms rumbled across southwest Wisconsin dropping hailstones, some of up to golfball size, in several swaths, shredding acres of crops. Strong winds accompanying the storms toppled numerous trees and power lines. Lightning caused a fire which destroyed a barn near Loganville.																					
										Several large trees and power lines were downed in the Eccles area.																																																																																									A cluster of severe thunderstorms rumbled across southwest Wisconsin dropping hailstones, some of up to golfball size, in several swaths, shredding acres of crops. Strong winds accompanying the storms toppled numerous trees and power lines. Lightning caused a fire which destroyed a barn near Loganville.										

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
WISCONSIN									
Racine Co., Racine	27	1515CST			0	0	?	?	Thunderstorm Wind
Kenosha Co., Kenosha	27	1528CST			0	0	?	?	Thunderstorm Wind
Walworth Co., Elkhorn	27	1528CST			0	0	5	?	Thunderstorm Wind
Lake Geneva	27	1635CST			0	0	?	?	Thunderstorm Wind
Rock Co., Edgerton	27	1645CST			0	0	5	?	Thunderstorm Wind (52)
SNW Janesville	27	1715CST			0	0	?	?	Thunderstorm Wind (52)
	<p>Numerous severe thunderstorms hit southeast Wisconsin with large hail up to 3 inches in diameter and winds gusting to 65 mph. Hail damage of over \$650,000 occurred to 250 cars around Oshkosh, 100 cars in Grafton and 50 cars in Newburg, most at auto dealerships. In Washington County alone more than 13,000 acres of crops were damaged by the wind and hail, with losses estimated at over \$730,000. The storms also wrecked several homes, barns and sheds. Hundreds of trees and power poles were toppled or snapped, especially in the Milwaukee and Waukesha areas. A 30 foot long trailer was tossed over 100 feet from its foundation by strong winds near Edgerton and a 440 foot radio tower was knocked down in New Berlin.</p>								
Monroe Co., Fort McCoy	29	1015CST			0	7	0	0	Lightning
	<p>Seven people were injured when lightning struck a field hospital near Fort McCoy.</p>								
48 WYOMING									
FREMONT COUNTY, 3E RIVERTON	09	1520MST	0.2	15	0	0	0	0	TORNADO (F0)
FREMONT COUNTY, 3E RIVERTON	09	1520MST			0	0	0	0	FUNNEL CLOUDS
	<p>DURING THE AFTERNOON OF THE 9TH, A SEVERE THUNDERSTORM SPAWNED A BRIEF TORNADO IN OPEN COUNTRY 3 MILES EAST OF RIVERTON. SEVERAL FUNNEL CLOUDS WERE ALSO SIGHTED.</p>								
TETON COUNTY, WILSON	09	2015MST			0	0	4	0	THUNDER- STORM WIND(52)
	<p>ON THE EVENING OF THE 9TH, A BRIEF BUT INTENSE THUNDERSTORM WIND EPISODE OCCURRED IN THE TOWN OF WILSON. WINDS GUSTING TO 60 MPH CAUSED MOSTLY TREE, ROOF AND POWER LINE DAMAGE TO THAT COMMUNITY. POWER OUTAGES WERE REPORTED.</p>								
PARK COUNTY, YELLOWSTONE PARK	10	1345MST			0	0	0	0	HAIL (0.75)
PARK COUNTY, CODY	10	1445MST			0	0	0	0	HAIL (0.75)
PARK COUNTY, CODY	10	1445MST			0	0	0	0	HEAVY RAIN
BIG HORN COUNTY, BASIN	10	1543MST			0	0	4	0	THUNDER- STORM WIND(74)
WASHAKIE COUNTY, WORLAND	10	1615MST			0	0	0	0	THUNDER- STORM WIND(50)
CARBON COUNTY, RAWLINS	10	1920MST			0	0	0	0	THUNDER- STORM WIND(55)
	<p>FROM THE EARLY AFTERNOON THROUGH THE EVENING OF THE 10TH, SEVERE THUNDERSTORMS PACKING HAIL AND STRONG WINDS MOVED THROUGH WESTERN WYOMING. AT 1345MST DIME SIZE HAIL OCCURRED AT THE EAST ENTRANCE OF YELLOWSTONE PARK. ONE HOUR LATER, THE SAME STORM HIT CODY AND DEPOSITED 1.79 INCHES OF RAIN IN 15 MINUTES ALONG WITH THREE-QUARTER INCH HAIL. MANY</p>								
WYOMING									
SWEETWATER COUNTY, ROCK SPRINGS	12	1600 TO 1930MST			1	1	6	0	FLASH FLOOD
SWEETWATER COUNTY, 5S ROCK SPRINGS	12	1700MST			0	0	0	0	HAIL (0.75)
	<p>DOWNTOWN STREETS AND LOW SPOTS WERE FLOODED IN THAT COMMUNITY. AT 1543MST, THUNDERSTORM WINDS GUSTING TO 85 MPH TORE THROUGH BASIN. EXTENSIVE DAMAGE DONE TO POWER LINES AND POLES LEFT THE TOWN WITHOUT ELECTRICITY FOR A FEW HOURS. THERE WAS ALSO DAMAGE DONE TO TREES, AUTOMOBILES AND ROOFS. AT 1615MST WORLAND HAD A THUNDERSTORM WIND GUST TO 58 MPH. FINALLY, THE LAST REPORT OF STRONG WINDS FROM A SEVERE THUNDERSTORM CAME OUT OF RAWLINS, WHERE A GUST TO 63 MPH WAS LOGGED AT 1920MST.</p>								
	<p>WEAK UPPER-LEVEL SOUTHERLY FLOW. VERY MOIST TROPICAL AIR AND AN UPPER-LEVEL DISTURBANCE CAUSED A SLOW-MOVING TORRENTIAL RAIN-PRODUCING THUNDERSTORM TO HIT ROCK SPRINGS ON THE LATE AFTERNOON AND EARLY EVENING OF THE 12TH. THE HEAVIEST PRECIPITATION OCCURRED JUST SOUTH OF THE TOWN BETWEEN 1640MST AND 1740MST. THE ROCK SPRINGS AIRPORT RECORDED 0.88 INCH OF RAIN ALONG WITH WIND GUSTS UP TO 52 MPH. HAIL, AS LARGE AS DIMES, COVERED THE GROUND TO 1.5 FEET DEEP 5 MILES SOUTH OF THE COMMUNITY.</p>								
	<p>AS A RESULT OF ROCK SPRINGS BEING LOW RELATIVE TO THE TERRAIN TO THEIR SOUTH, A TREMENDOUS SURGE OF WATER AND MUD, UP TO 3 TO 4 FEET DEEP, INVADED THE TOWN BETWEEN 1700MST AND 1830MST. THIS SURGE CAME NORTHWARD INTO THE SOUTH PART OF ROCK SPRINGS BY WAY OF DEAD HORSE CANYON CREEK. THE WATER AND MUD RAPIDLY INUNDATED THE DOWNTOWN SECTION OF THE COMMUNITY. THE RESULT WAS CATASTROPHIC LOSSES TO HOMES, BUSINESSES AND CARS. AUTOMOBILES WERE WASHED DOWN STREETS ONTO LAWNS, AND BASEMENTS FLOODED. NOT INCLUDING COSTS ASSOCIATED WITH AUTOMOBILES, A PRELIMINARY TOTAL DAMAGE FIGURE OF MORE THAN 1.5 MILLION DOLLARS WAS GIVEN BY COUNTY AND CITY OFFICIALS. ROCK SPRINGS IS LOCATED ON A 100 YEAR FLOOD PLAIN.</p>								
	<p>AT 1815MST, A STORM-RELATED DEATH OCCURRED TO A CONDUCTOR WHO WAS ON A WESTBOUND UNION PACIFIC RAILROAD ENGINE CAB THAT STRUCK A STATIONARY, EMPTY RAIL CAR. THE COMBINATION OF THE FLOODING WATERS AND STRONG WINDS CAUSED THE EMPTY RAIL CAR TO LEAN OVER TO THE RAILROAD TRACKS THAT THE ENGINE CAB WAS TRAVELING ON. A BRAKEMAN WAS ALSO INJURED IN THE ACCIDENT. M34V.</p>								
TETON COUNTY, 25NE JACKSON	13	1050MST			0	0	0	0	FUNNEL CLOUD
GOSHEN COUNTY, 10SW HAWK SPRINGS	13	1515MST			0	0	0	0	FUNNEL CLOUD
CAMPBELL COUNTY, GILLETTE	13	1808MST			0	0	0	0	THUNDER- STORM WIND(51)
	<p>THUNDERSTORMS MOVED FROM NORTHWEST TO SOUTHEAST ACROSS WYOMING DURING THE 13TH, PRODUCING SOME SEVERE WEATHER. IN THE LATE MORNING, A FUNNEL CLOUD WAS SEEN IN OPEN COUNTRY 25 MILES NORTHEAST OF JACKSON. ON THAT AFTERNOON, A FUNNEL CLOUD WAS SIGHTED 10 MILES SOUTHWEST OF HAWK SPRINGS. FINALLY, DURING THE EARLY EVENING, THE GILLETTE AIRPORT CLOCKED THUNDERSTORM WINDS TO 59 MPH.</p>								
CONVERSE COUNTY, 10NE BILL	16	1521MST	0.1	15	0	0	0	0	TORNADO (F0)
CONVERSE COUNTY, 25NE DOUGLAS	16	1615 TO 1630MST	5.0	25	0	0	0	0	TORNADO (F0)
CONVERSE COUNTY, 25NE DOUGLAS	16	1630MST			0	0	0	0	FUNNEL CLOUDS
	<p>DURING THE LATE AFTERNOON OF THE 16TH, SEVERE THUNDERSTORMS DEVELOPED OVER EAST-CENTRAL WYOMING. A BRIEF TORNADO OCCURRED 10 MILES NORTHEAST OF BILL AT 1521MST. FROM 1615MST TO 1630MST, A TORNADO MOVED EASTWARD ABOUT 5 MILES, 25 MILES NORTHEAST OF DOUGLAS. FINALLY, AT 1630MST 2 FUNNEL CLOUDS WERE SEEN 25 MILES NORTHEAST OF DOUGLAS.</p>								

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1989

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED ¹ DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
WYOMING									
PARK COUNTY, CRANDALL	23	1245 TO 1315MST			0	0	3	0	FLASH FLOOD
PARK COUNTY, YELLOWSTONE PARK	23	1320MST			0	0	0	0	HAIL (1.00)
JOHNSON COUNTY, SSW BUFFALO	23	1600 TO 1700MST			0	0	0	0	HEAVY RAIN
BIG HORN COUNTY, MEDICINE WHEEL	23	1700 TO 1800MST			0	0	0	0	HEAVY RAIN
BIG HORN COUNTY, MEDICINE WHEEL	23	1700 TO 1800MST			0	0	0	0	SMALL HAIL (0.50)
<p>FROM THE LATE AFTERNOON THROUGH EARLY EVENING OF THE 23RD, SLOW-MOVING THUNDERSTORMS PRODUCING MOSTLY HEAVY RAIN OCCURRED ACROSS NORTHERN WYOMING. FROM 1245MST TO 1315MST, EVEN THOUGH ONLY 0.33 INCH OF RAIN FELL, FLASH FLOODING OF LODGEPOLE CREEK CAUSED WATER AND MUD DAMAGE TO A RANCH AT CRANDALL. AT 1320MST, QUARTER SIZE HAIL WAS OBSERVED IN YELLOWSTONE PARK. HEAVY RAIN, UP TO 2.10 INCHES, RESULTED IN FLOODING OF SOME ROADS 5 MILES SOUTHWEST OF BUFFALO AND AT THE MEDICINE WHEEL HISTORIC SITE BETWEEN 1600MST AND 1800MST. FINALLY, FROM 1700MST TO 1800MST, 1 FOOT OF "SLUSHY" HAIL UP TO MARBLE SIZE COVERED A FEW OF THE ROADS AT THE MEDICINE WHEEL LANDMARK.</p>									
49 ALASKA, Northern ——— NO REPORT RECEIVED									
49 ALASKA, Southern ——— NONE REPORTED									
49 ALASKA, Southeastern ——— NONE REPORTED									
50 HAWAII									
All Islands	18-20				0	0	5	0	Tropical Storm Dalilia
<p>Tropical Storm Dalilia moved just south and southwest of the Hawaiian Islands coming close enough to cause some minor flooding and wind and surf damage mainly in the Kau district on the Island of Hawaii. Minor flooding also occurred on Oahu's north shore due to heavy runoff from 5 to 10 inch rains that fell above Waimea and Sunset Beach. There was some 10 to 15 foot surf on the 18th along the Puna and Kau shoreline. Dalilia had earlier been a hurricane but was in a weakening mode as it moved by the Islands and became involved with an upper-level cold core trough. The remnants of Dalilia traveled west-northwestward toward Midway Island where it redeveloped to tropical storm intensity as it recurved northward on the 26th and 27th and accelerated toward the Aleutians on the 28th.</p>									
Kauai	22-23				0	0	5	5	Flash flooding
<p>Remnant moisture travelling westward with the dissipating circulation of what was once Tropical Storm Erick moved through the Hawaiian Islands chain and also became involved with the upper trough west of the islands. Heavy thunderstorm rains fell on Kauai and Niihau which caused localized flooding throughout both islands. Some families were evacuated from Wainiha Valley on the north shore. A number of cars were damaged and high water closed roads and entered some homes located in low-lying areas.</p>									
51 PUERTO RICO ——— NONE REPORTED									
52 VIRGIN ISLANDS ——— NONE REPORTED									
53 PACIFIC ——— NONE REPORTED									

STORM SUMMARY

JULY 1989

TYPE	ALABAMA	ARIZONA	ARKANSAS	CALIFORNIA	COLORADO	CONNECTICUT	DELAWARE	FLORIDA	GEORGIA	IDAHO	ILLINOIS	INDIANA	IOWA	KANSAS	KENTUCKY	LOUISIANA	MAINE	MARYLAND & DC	MASSACHUSETTS	MICHIGAN	MINNESOTA	MISSISSIPPI	MISSOURI	MONTANA	NEBRASKA	NEVADA	NEW HAMPSHIRE
TORNADOES																											
Number	2		1		4	3		5		1	1	2	1	1		1			7			3			4		
Days	2		1		1	1		5		1	1	2	1	1		1			1			3			1		
Deaths	0		0		0	0		0		0	0	0	0	0		0			0			0			0		
Injuries	0		0		0	114		1		0	0	0	0	0		0			1			0			0		
Property Damage	5		?		0	8		6		4	0	3	3	5		3			6			4			5		
Crop Damage	0		?		0	?		0		0	0	3	4	5		?			0			0			2		
HAIL																											
Deaths	0		0		0	0		0		0	0	0	0	0		0	0		0			0		0	0		0
Injuries	0		0		0	0		0		0	0	0	0	0		0	0		0			0		1	0		0
Property Damage	?		?		5	4		6		?	?	4	5	5		?	?		3			?		6	6		3
Crop Damage	?		?		6	?		0		?	?	?	5	4		?	0		0			5		6	7		0
THUNDERSTORM WINDS																											
Deaths	0	0	0	0	0	1		0	0	0	0	0	0	0	0	0	0		1	0	0	0	0	0	0	0	0
Injuries	0	2	1	0	100	10		1	1	0	0	0	0	0	0	0	1		1	0	0	0	0	1	1	0	0
Property Damage	5	7	6	4	5	7		6	6	5	4	5	5	5	5	5	5		6	5	4	6	4	5	6	2	5
Crop Damage	?	4	?	0	5	?		0	?	0	?	?	5	4	0	?	0		0	0	0	0	0	5	4	0	0
HIGH WINDS																											
Deaths	0				0														0							0	0
Injuries	0				0														0							0	0
Property Damage	5				3														5							2	5
Crop Damage	?				0														0							0	0
LIGHTNING																											
Deaths	0	2	1	1	3	0	0	2	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0
Injuries	1	0	3	0	4	3	2	19	1	0	3	1	1	3	0	2	0	1	0	0	0	0	2	0	4	0	0
Property Damage	3	4	5	0	5	0	0	5	5	5	5	5	5	0	0	4	5	0	4	5	4	0	0	4	6	6	4
Crop Damage	?	0	0	0	0	0	0	0	o/c	7	0	?	0	0	0	0	0	0	0	0	0	0	0	0	6	6	0
FLASH FLOODS																											
Deaths	0	0	1	0	0		2	0				0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
Injuries	2	0	0	0	0		0	0				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Property Damage	5	5	6	?	5		?	7				?	5	5	7	5	?	?	?	5	6	6	4	4	5	5	5
Crop Damage	?	5	?	0	0		?	?				?	3	4	5	?			0	0	0	0	?	4	5	5	?
FLOODS																											
Deaths																											
Injuries																											
Property Damage																											
Crop Damage																											
HEAVY SNOWSTORMS AND BLIZZARDS @																											
Deaths																											
Injuries																											
Property Damage																											
Crop Damage																											
ICE STORMS #																											
Deaths																											
Injuries																											
Property Damage																											
Crop Damage																											
HURRICANES AND TROPICAL STORMS																											
Deaths																											
Injuries																											
Property Damage																											
Crop Damage																											
ALL OTHERS																											
Deaths			0		0		0	0					0						0								
Injuries			0		0		0	3					0						0								
Property Damage			0		5		?	0					?						?								
Crop Damage			7		8		?	0					8						?								

SEE REFERENCE NOTES FOR STORM DAMAGE CATEGORIES

STORM SUMMARY

JULY 1989

TYPE	NEW JERSEY	NEW MEXICO	NEW YORK	NORTH CAROLINA	NORTH DAKOTA	OHIO	OKLAHOMA	OREGON	PENNSYLVANIA	RHODE ISLAND	SOUTH CAROLINA	SOUTH DAKOTA	TENNESSEE	TEXAS	UTAH	VERMONT	VIRGINIA	WASHINGTON	WEST VIRGINIA	WISCONSIN	WYOMING	ALASKA	HAWAII	PACIFIC	PUERTO RICO	VIRGIN ISLANDS	NATIONAL DEATH & INJURY TOTALS	
TORNADOES																												
Number	3	2	5	1	3	2			1			2			1													
Days	1	2	2	1	2	1			1			2			1													
Deaths	0	0	0	0	0	0			0			0			0												0	
Injuries	0	0	27	0	1	0			0			1			0												145	
Property Damage	6	4	8	4	6	?			4			5			3													
Crop Damage	?	0	6	0	0	?			?			0			0													
HAIL																												
Deaths		0	0	0	0	0	0		0		0	0		0		0	0	0	0	0								0
Injuries		0	0	0	0	0	0		0		0	0		0		0	0	0	0	0								1
Property Damage		?	4	6	6	?	?		4		4	5		?		3	0	0	?	?	6							
Crop Damage		?	3	6	6	?	?		?		3	6		?		3	?	?	?	6								
THUNDERSTORM WINDS																												
Deaths	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		2
Injuries	0	0	8	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0		140
Property Damage	3	5	6	6	6	5	5	3	5	5	5	5	5	?	1	5	5	5	5	5	5	5	5	5	5	5		
Crop Damage	?	?	4	0	?	0	?	?	2	?	?	0	0	?	0	3	6	?	?	5	0							
HIGH WINDS																												
Deaths																												
Injuries																												
Property Damage																												
Crop Damage																												
LIGHTNING																												
Deaths	1	0	1	2	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0		19
Injuries	0	3	15	6	2	5	0	3	3	0	4	0	7	0	1	1	35	0	0	7	?	?	?	?	?	?		135
Property Damage	0	0	6	5	0	4	5	5	5	4	5	0	5	?	1	5	?	?	?	5	0							
Crop Damage	0	0	2	0	0	?	?	?	0	?	?	0	?	?	0	?	0	?	?	0								
FLASH FLOODS																												
Deaths	0	2	0	1		0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0		11
Injuries	0	3	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		5
Property Damage	7	6	5	6		5	5	7	?	?	5	?	?	?	6	?	?	3	6	?	6	?	?	?	?	?		
Crop Damage	5	?	0	6		?	?	?	?	?	?	0	?	?	0	?	?	0	?	?	0							
FLOODS																												
Deaths	0	0	0	0					0				0	0		0	0											1
Injuries	0	0	0	0					0				0	0		0	0											0
Property Damage	6	3	0	0				4	?				4	?		?	?											
Crop Damage	?	0	0	5				?	?				0	?		?	?											
HEAVY SNOWSTORMS AND BLIZZARDS @																												
Deaths																												
Injuries																												
Property Damage																												
Crop Damage																												
ICE STORMS #																												
Deaths																												
Injuries																												
Property Damage																												
Crop Damage																												
HURRICANES AND TROPICAL STORMS																												
Deaths																												2
Injuries																												0
Property Damage																												
Crop Damage																												
ALL OTHERS																												
Deaths			0	0		0					1		2				0		0									3
Injuries			0	0		0					0		1				0		0									4
Property Damage			4	9		4					0		0				?		?									
Crop Damage			0	9		0					0		0				?		?									

SEE REFERENCE NOTES FOR STORM DAMAGE CATEGORIES

STORM DATA AND UNUSUAL WEATHER PHENOMENA

LATE REPORTS

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

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

8 FLORIDA

June 1989

Walton Co., Knox Hill	07	1355EST	0	0	0	0	0	0	Tstm.wind(55)	A utility pole and some trees were blown down.
Santa Rosa Co., southern portion	07	2045EST	0	0	3	0	0	0	Tstm.wind(60)	A tree was blown down, damaging a car.

12 INDIANA

March 1989

Ripley Co.	14	2340 EST	0	0	?	0	0	0	Hail(1.75)	Golf ball size hail fell three miles north of Friendship.
Dearborn Co.	14	2350 EST	0	0	4	0	0	0	Tstm.Wind	Trees and power lines were blown down in Lawrenceburg.

April 1989

Dearborn Co.	28	2110 EST	0	0	?	0	0	0	Hail(0.75)	Three-quarter inch diameter hail fell north of Dillsboro.
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15 KENTUCKY

June 1989

Pendleton County	03	2015EST	0	0	4	0	0	0	Thunderstorm Wind	Trees and branches were downed near Falmouth.
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21 MINNESOTA

June 1989

Stevens County, Hancock	30	0015CST	0	0	3	0	0	0	Thunderstorm Wind	Thunderstorm winds toppled trees, which resulted in damage to automobiles.
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CORRECTIONS

MAY 1989

Page 35 - FLORIDA - Delete entry - Monroe Co., Key West day 03 1500 EST.

Page 104 - FLORIDA - Number of tornadoes should be 9 and not 10.

STORM DAMAGE CATAGORIES

REFERENCE NOTES

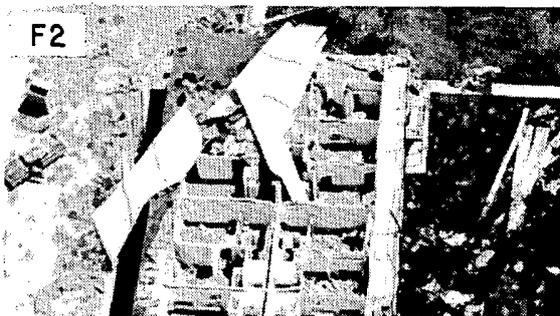
- 1 Less than \$50
- 2 \$50 to \$500
- 3 \$500 to \$5,000
- 4 \$5,000 to \$50,000
- 5 \$50,000 to \$500,000
- 6 \$500,000 to \$5 Million
- 7 \$5 Million to \$50 Million
- 8 \$50 Million to \$500 Million
- 9 \$500 Million to \$5 Billion

- 0/Blank None reported.
- * Miles instead of yards.
- ** Yards instead of miles.
- @ Includes heavy sleet storm.
- # Freezing drizzle and freezing rain, commonly known as glaze.
- ≠ Report incomplete.
- ≠# Report not received.
- o/c Indicates Crop Damage amount is included in the value given for property damage.

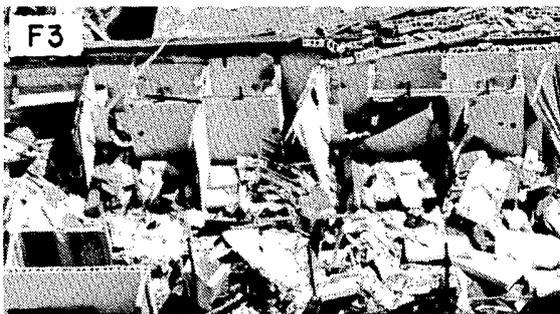
When reports are not received or are incomplete, the Storm Summary National Death and Injury totals may also be incomplete.

Definition of Fujita Tornado Scale (F scale)

(F0) Gale tornado (40-72 mph): Light damage
Some damage to chimneys; break branches off trees; push over shallow-rooted trees; damage sign boards.



(F1) Moderate tornado (73-112 mph): Moderate damage
The lower limit (73 mph) is the beginning of hurricane wind speed; peel surface off roofs; mobile homes pushed off foundations or overturned; moving autos pushed off the roads.



(F2) Significant tornado (113-157 mph): Considerable damage
Roofs torn off frame houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light-object missiles generated.

(F3) Severe tornado (158-206 mph): Severe damage
Roofs and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted; heavy cars lifted off ground and thrown.



(F4) Devastating tornado (207-260 mph): Devastating damage
Well-constructed houses leveled; structure with weak foundation blown off some distance; cars thrown and large missiles generated.

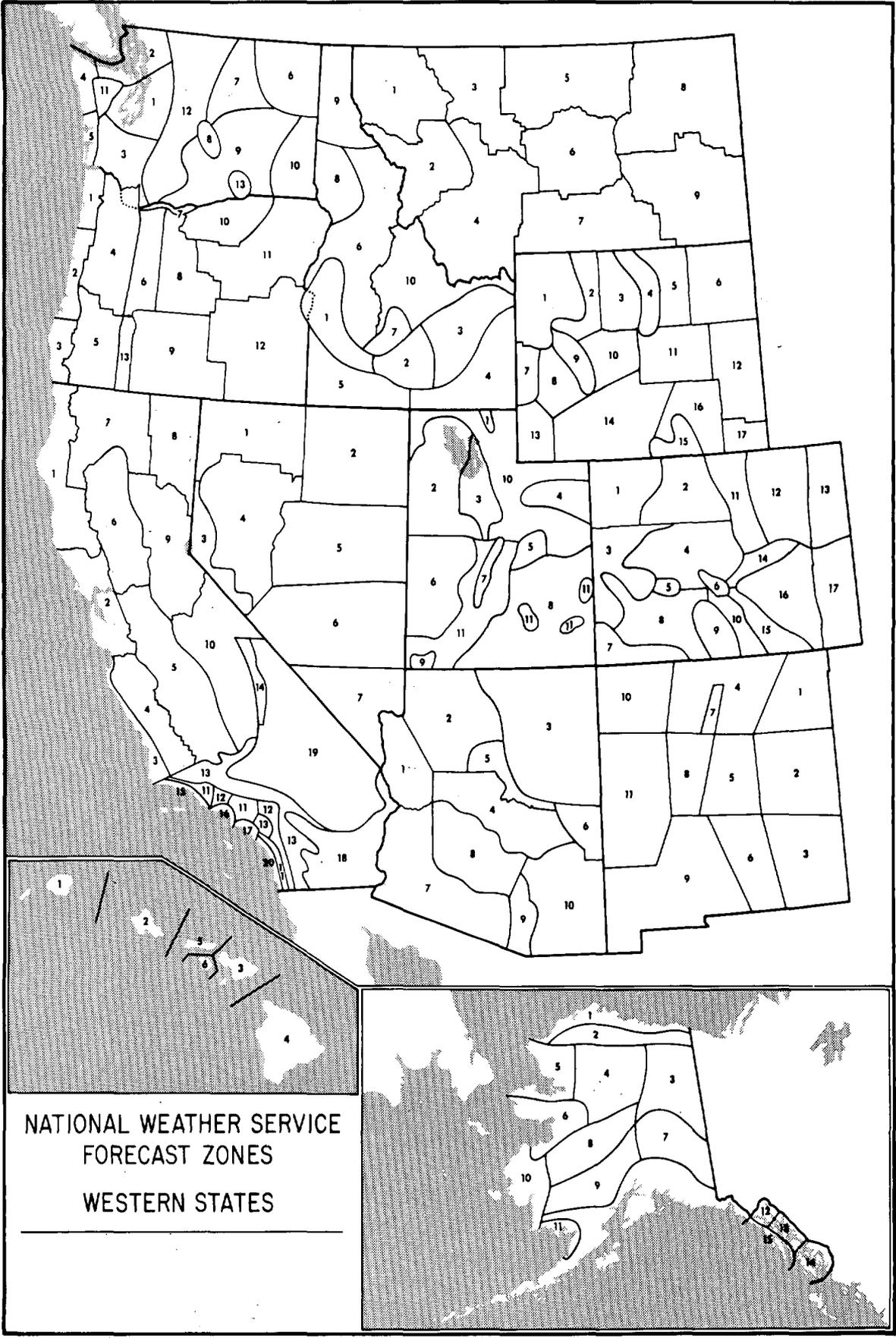
(F5) Incredible tornado (261-318 mph): Incredible damage
Strong frame houses lifted off foundations and carried considerable distance to disintegrate; automobile-sized missiles fly through the air in excess of 100 m; trees debarked; incredible phenomena will occur.

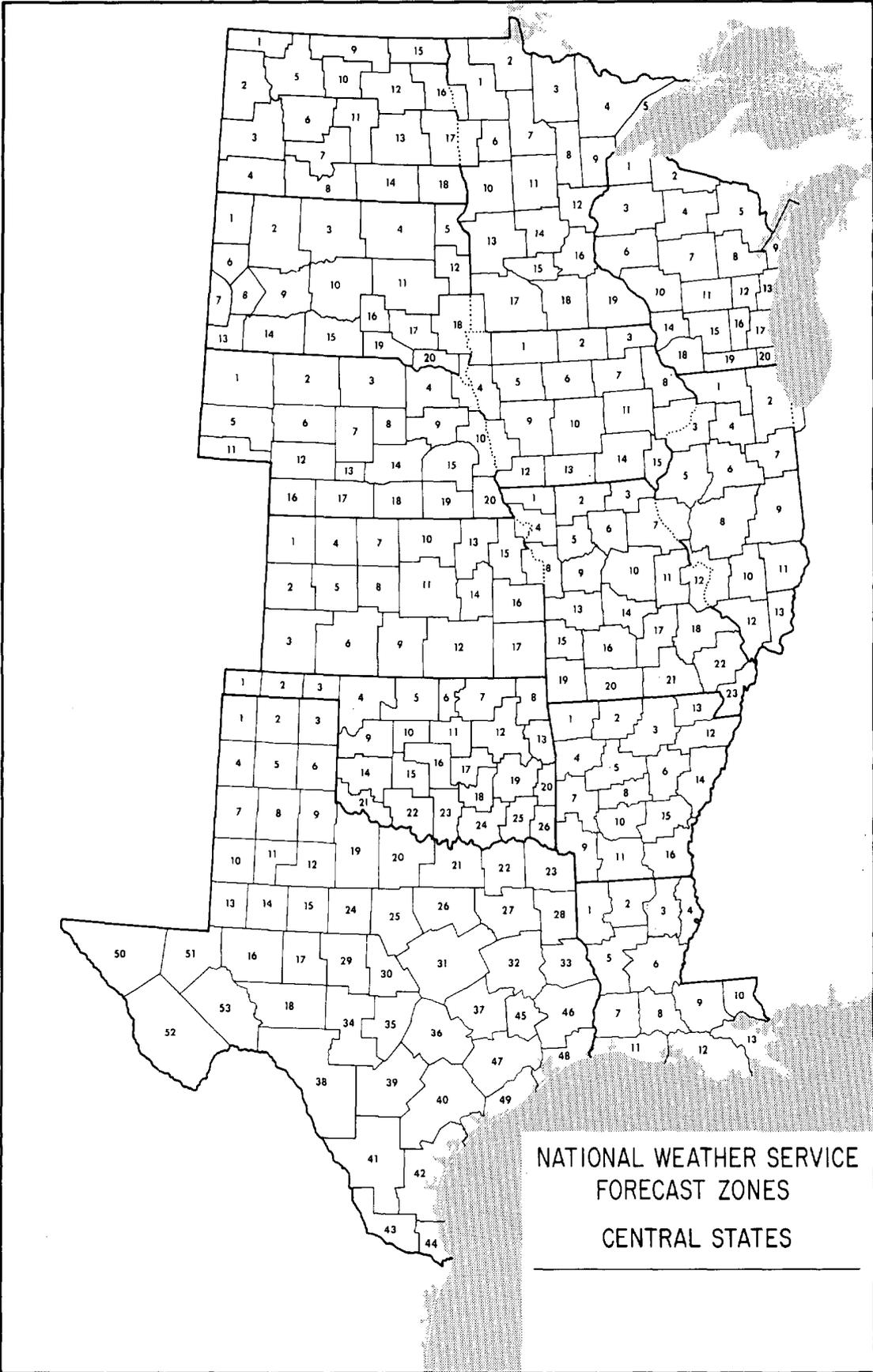


(F6-F12) (319 mph to Mach 1, the speed of sound):
The maximum wind speeds of tornadoes are not expected to reach the F6 wind speeds.

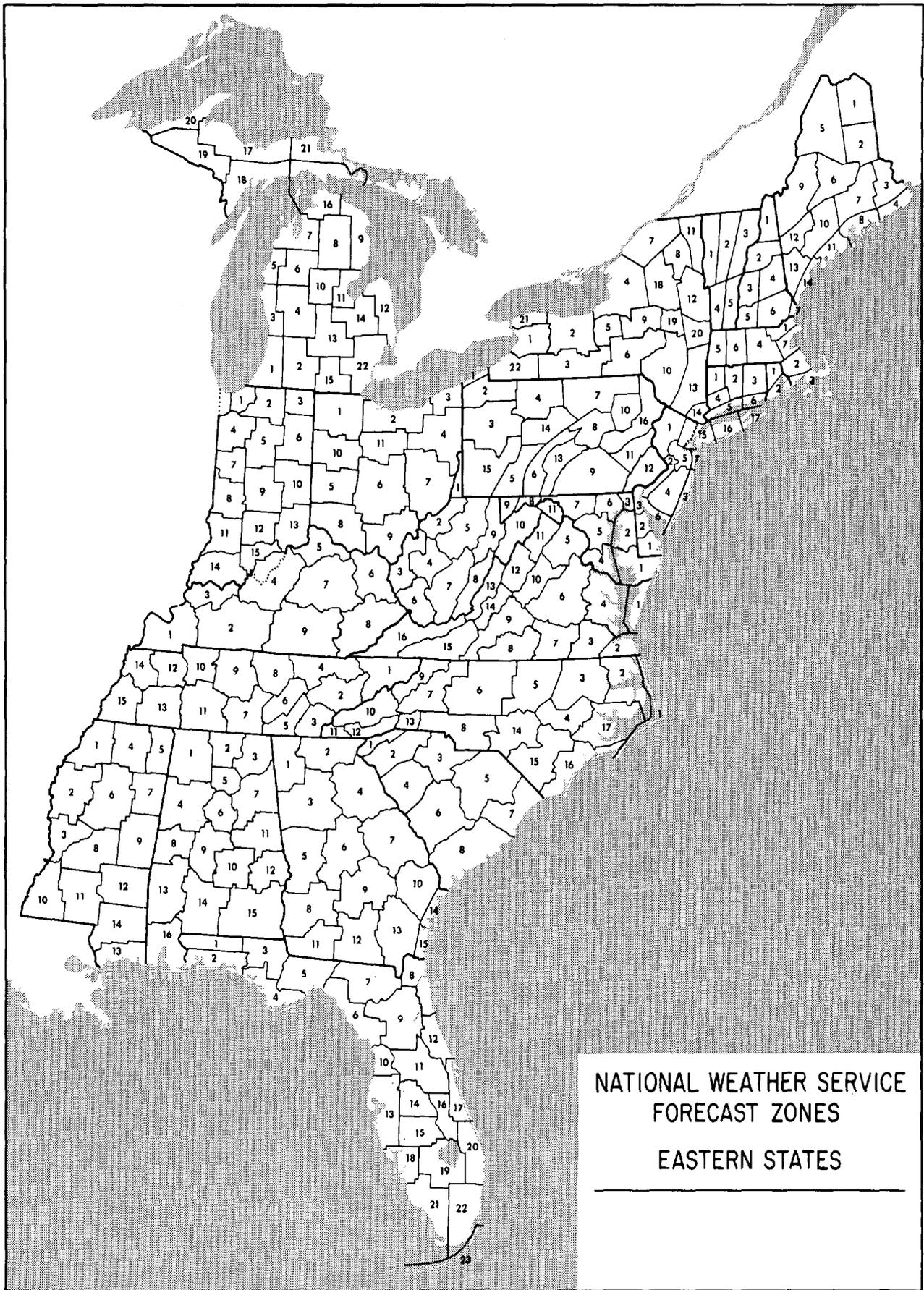
-
- (F0+F1) Weak Tornado
 - (F2+F3) Strong Tornado
 - (F4+F5) Violent Tornado
-

From J. Atmos. Sci., August 1981, p. 1517-1519





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WHAT TYPE OF INFORMATION DO YOU NEED?



- *Station Records*
- *Monthly/Annual Summaries*
- *Long Term Climatic Studies*
- *Surface or Upper Air Charts*



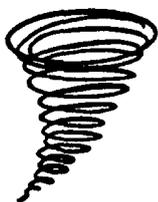
WHICH OUTPUT MEDIA IS BEST FOR YOU?



- *Publications*
- *Paper Copies*
- *Charts*
- *Microfiche/Microfilm*
- *Floppy Disk*
- *Computer Tape*



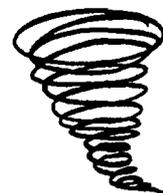
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HOURLY
PRECIPITATION DATA
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WITH ANNUAL SUPPLEMENT

ISSN 0361

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ARIZONA

ISSN 0145-0387

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PRECIPITATION DATA
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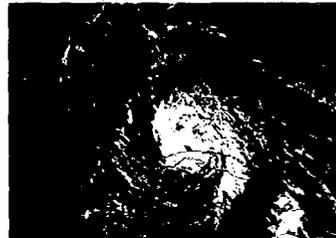
CLIMATOLOGICAL DATA
ARIZONA

ISSN 0145-0367

LOCAL
CLIMATOLOGICAL DATA
Monthly Summary

STATION	DATE	TEMPERATURE	PRECIPITATION	RELATIVE HUMIDITY	WIND VELOCITY	WIND DIRECTION	WIND FORCE	WIND GUSTS	WIND RUN	WIND SQUALLS	WIND STRENGTH	WIND BURSTS								
TUCSON	1/1	55	0.00	65	10	000	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STORM DATA

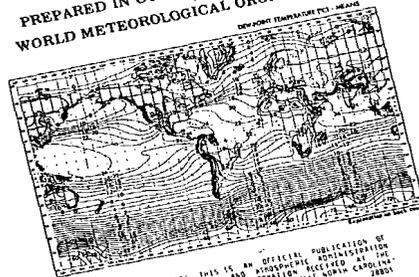


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Samuel S. Hadden
DIRECTOR
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MONTHLY CLIMATIC
DATA FOR THE WORLD
PREPARED IN COOPERATION WITH THE
WORLD METEOROLOGICAL ORGANIZATION

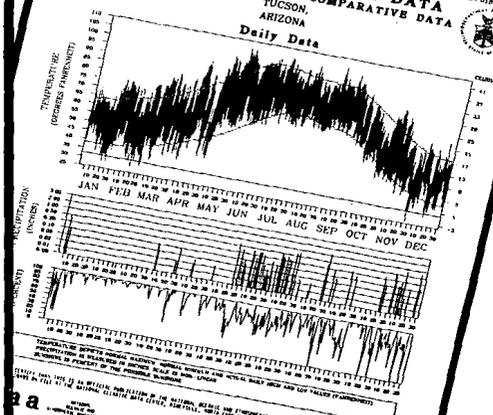


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LOCAL CLIMATOLOGICAL DATA
ANNUAL SUMMARY WITH COMPARATIVE DATA
TUCSON,
ARIZONA
Daily Data



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DIRECTOR
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CHALLENGES AHEAD: FLOOD LOSS REDUCTION STRATEGIES FOR THE '90s

This year's conference theme focuses on the challenges we face in the advent of the 21st century, and the strategies needed to further reduce flood hazards over the next decade. Papers are invited for, but not limited to, the following issues and subjects:

Mapping Issues: Delineation of floodplains in rapidly growing areas to account for the effects of future watershed development; new methods and techniques for assessing and evaluating flooding risks; dealing with floodplains not identified through the National Flood Insurance Program or where flood data does not exist.

Managing Stormwater: Linking floodplain and stormwater management programs; designing stormwater management facilities to reduce future flood losses while providing other environmental and community benefits; effective funding and maintenance arrangements.

The Floodplain and Beyond: Approaches for balancing the need to protect wetlands while allowing for appropriate development of floodplains; special partnerships which further multi-objective management; innovative land use strategies for river corridor management; basinwide approaches to stormwater management.

Floodplain Management for Tomorrow: Successful ways to encourage and promote flood preparedness and response; innovative floodplain management programs; effectiveness of Executive Order 11988 in the '90s.; new tools for floodplain managers; noteworthy local regulatory programs; key flood loss reduction issues for the decade ahead and alternatives for resolving them.

Flood Control: Designing flood control projects for multi-objective benefits; responding to the growing transfer of flood control project costs from federal to state and local governments.

Mitigation: Gaining greater support for state and local flood hazard mitigation activities; practical alternatives for mitigating flood losses to existing structures; exemplary mitigation projects.

Unique Flood Hazards: Defining the hazards; new mapping methodologies; effective management standards.

In addition to specific papers, the ASFPM also welcomes proposals for short course presentations at the conference and any special exhibits or demonstrations that may be of particular interest to conference attendees.

Submission of Abstracts

Prospective authors must submit three copies of the following items to Tim Keptner, Program Chair, by October 31, 1989:

- A one page abstract including the paper's title, all authors' names and their affiliations and the kinds of visual aids which will be used in the presentation.
- Concise biographies of all authors not to exceed 100 words per individual including current titles and positions, other background information directly relevant to the paper and complete mailing addresses and telephone numbers.

Authors will receive timely notification of the status of their papers. All papers selected must be submitted by May 15, 1990 for inclusion in the conference proceedings. All attendees, including authors, are expected to pay the conference registration fee.

About the Conference

The conference program will run Tuesday, June 12 through Thursday, June 14, including technical field trips in the Asheville area. The ASFPM will conduct its committee and general membership meetings on Monday, June 11. All members and conference participants are encouraged to attend.

The conference will be held at the Inn on the Plaza, in the heart of Asheville. Conference room rates are \$62 for a single and \$68 for a double. Hemispheric Travel, Inc. of Madison, Wisconsin will serve as the official conference travel agency.

Registration rates prior to May 1, 1990 will be \$180 for members, \$195 for non-members, and \$95 for students.

Exhibit Space

Exhibit space will be made available for a fee to individuals or organizations who wish to display a product or service to attendees. Further information can be obtained from Dan Accurti, Exhibits Chair.

Deadlines

OCTOBER 31, 1989 - final day for the receipt of abstracts and biographies.

MAY 15, 1990 - final day for the receipt of completed papers for inclusion in conference proceedings.



ASSOCIATION OF STATE
FLOODPLAIN MANAGERS
14TH ANNUAL CONFERENCE
ASHEVILLE, NORTH CAROLINA
JUNE 11-14, 1990

About Asheville

Located at the junction of the French Broad and Swannanoa Rivers, Asheville is the gateway to the Blue Ridge Parkway, Great Smoky Mountains National Park and Mt. Mitchell, the highest peak in the Eastern United States. This mountain region offers a unique blend of cultural and recreational opportunities from white water rafting to Appalachian arts and crafts; from raw natural beauty and scenic attractions to premier mountain resorts and from the simplicity of the Thomas Wolfe Memorial to the grandeur of 7,500 acre Biltmore Estate. Come join us for a breath of fresh air in the North Carolina mountains!

Conference Host:

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OF EMERGENCY MANAGEMENT

Conference Director - *Berry Williams*
NC Div. of Emergency Management
116 West Jones Street
Raleigh, NC 27603-1335
Tele. (919) 733-3867

Program Chair - *Tim Keptner*
PA Dept. of Community Affairs
551 Forum Building
Harrisburg, PA 17120
Tele. (717) 787-7403

Exhibits Chair - *Dan Accurti*
PA Dept. of Community Affairs
551 Forum Building
Harrisburg, PA 17120
Tele. (717) 787-7403

CALL FOR PAPERS

ASSOCIATION OF STATE
FLOODPLAIN MANAGERS
14TH ANNUAL CONFERENCE
ASHEVILLE, NORTH CAROLINA
JUNE 11-14, 1990



CHALLENGES AHEAD:

FLOOD LOSS REDUCTION STRATEGIES FOR THE '90s

The Association of State Floodplain Managers (ASFPM) invites all persons interested in presenting papers at the 14th annual conference in Asheville, North Carolina to submit abstracts for consideration by the program review committee. As the major floodplain management conference in the country, this yearly event attracts a broad audience including local, state, and federal officials, consultants, engineers, planners, representatives from non-profit organizations, researchers, educators, and involved citizens--all of whom have an interest or role in flood hazard reduction activities.

* * * DETAILS ON PAGE REVERSE * * *

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