

STORM DATA



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DIRECTOR
NATIONAL CLIMATIC DATA CENTER

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C O N T E N T S

Cover: A car hangs over a guardrail and large slabs of dislodged pavement grace the shoulder of Texas Highway 16 south of Comanche, Texas after a flash flood submerged the highway bridge over Mercer Creek overnight on May 31st and June 1st, 1988. Rainfall of 14 inches was recorded in Comanche during the episode (see HEAVY RAINS and Flash Flooding in NORTH-CENTRAL TEXAS...., pages 6 through 11).
---Photo by Steve Tulcus, The Brownwood Bulletin, Brownwood, Texas.

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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.

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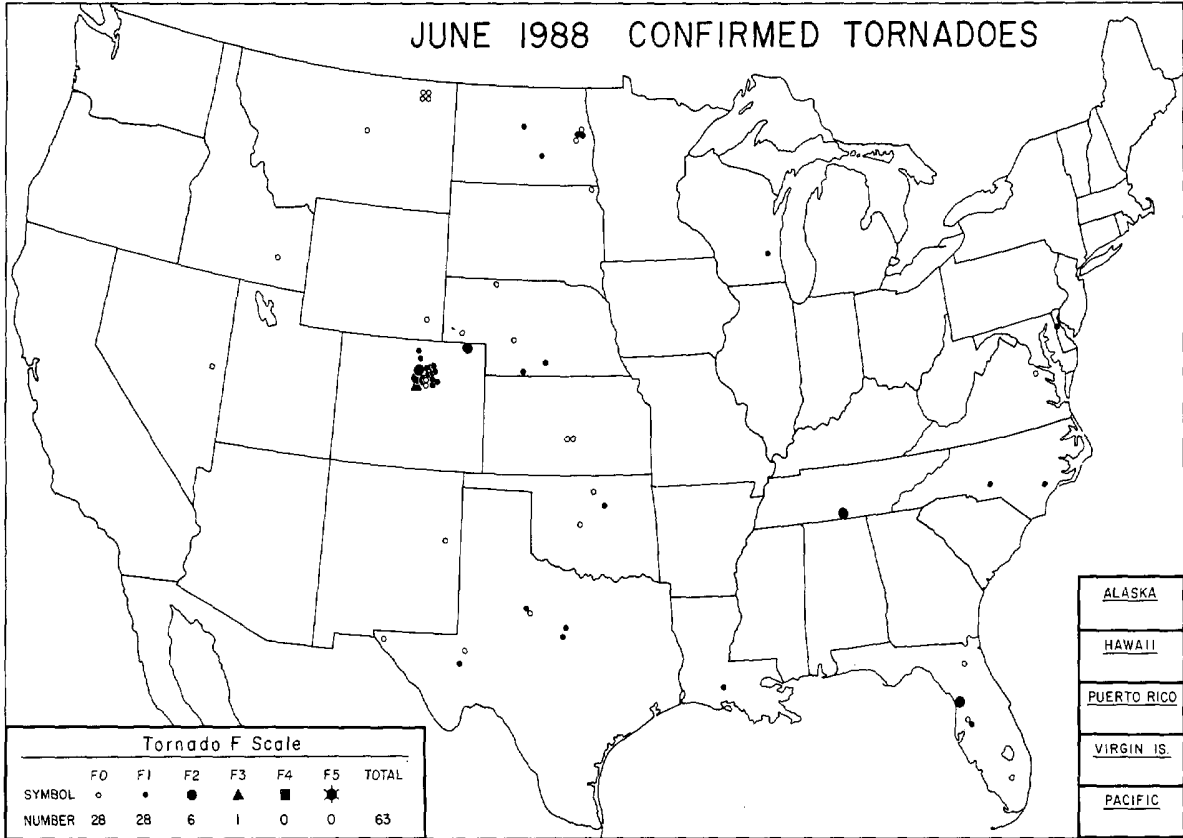
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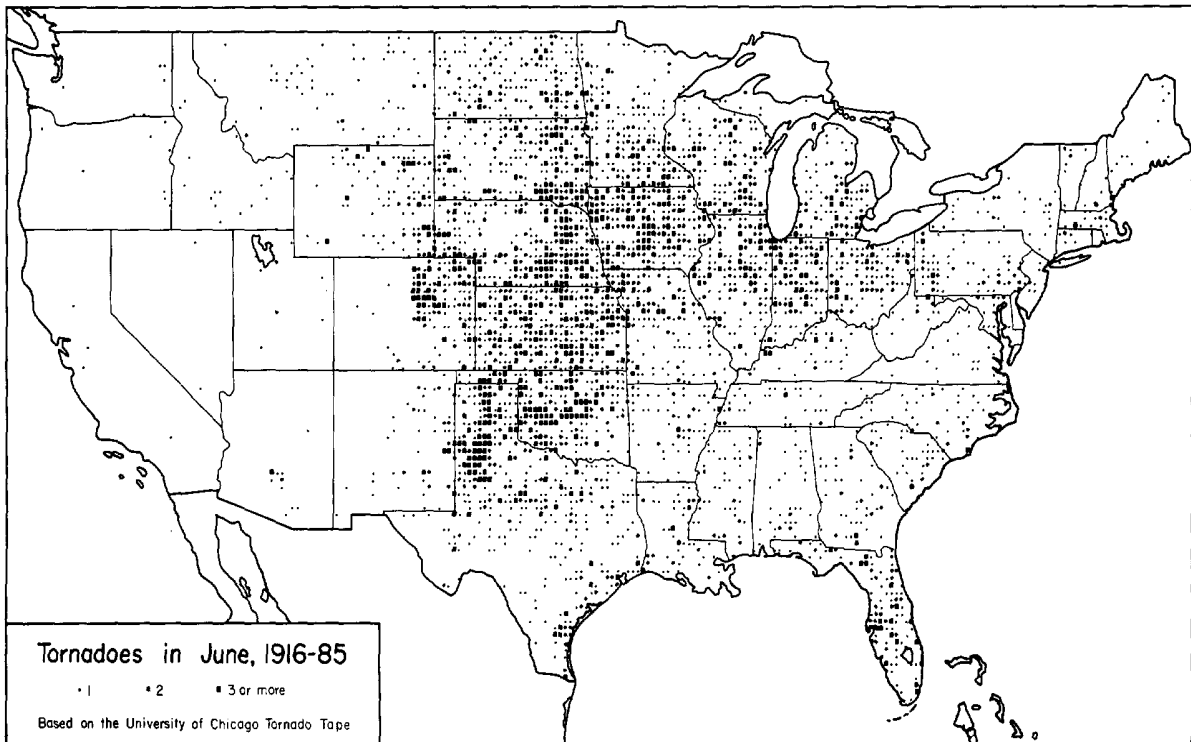
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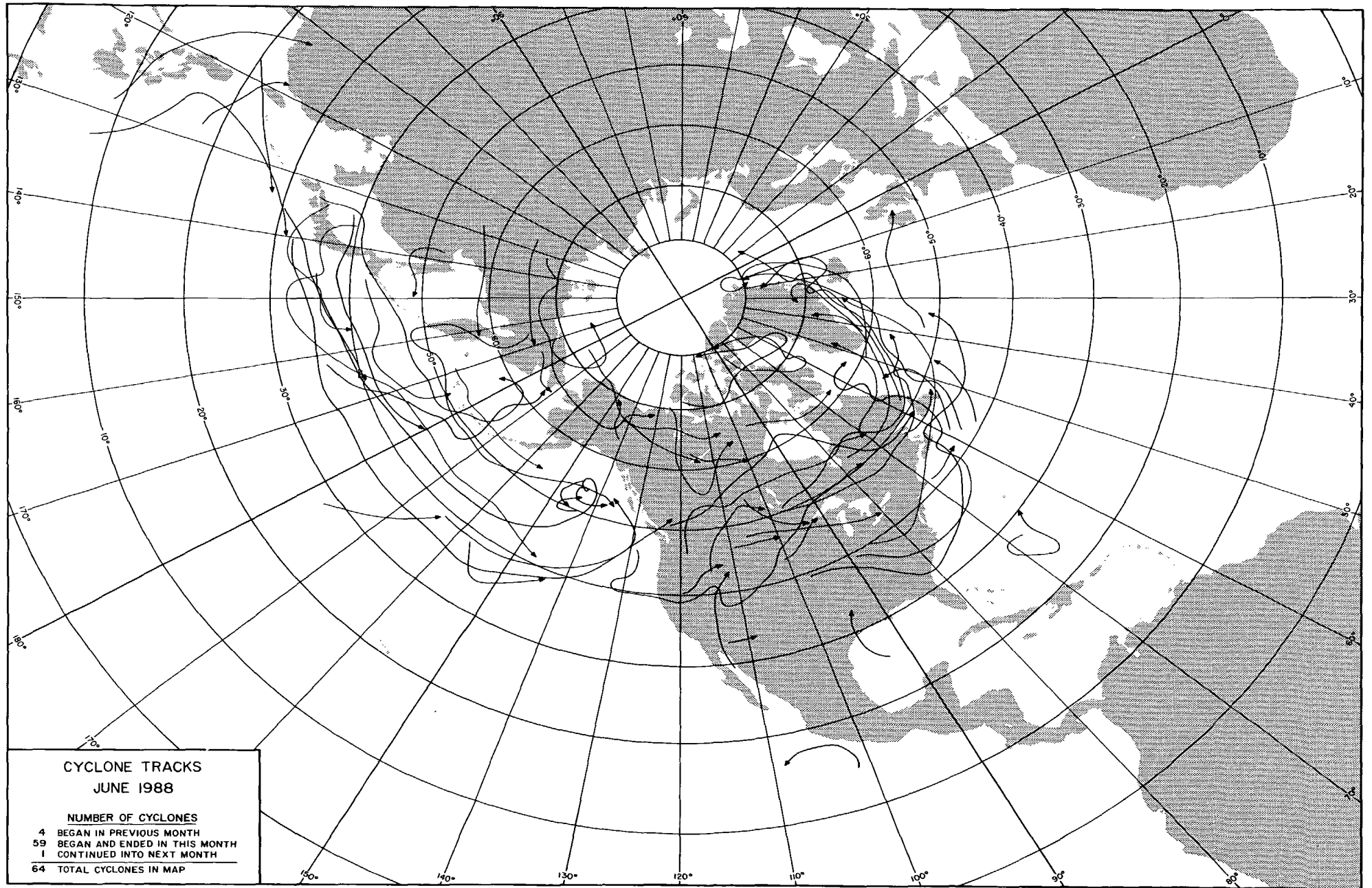
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OUTSTANDING STORMS OF THE MONTH

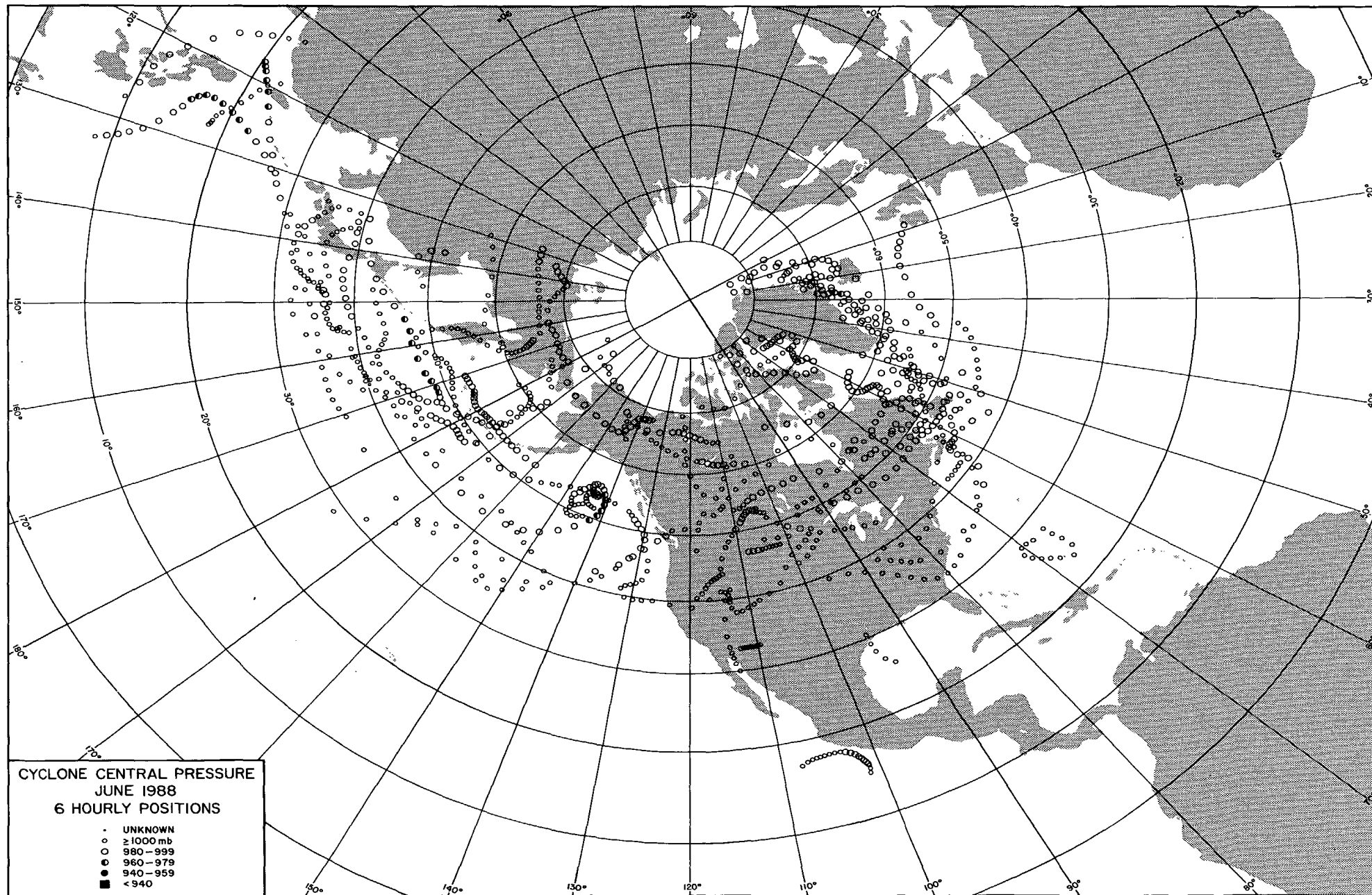


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○ PRELIMINARY REPORT RECEIVED	● 2AZ	● 8FL	● 15KY	● 22MS	● 29NM	● 34OK	● 40TN	● 45WA	● 50HI
○ REPORT NOT RECEIVED	● 3AR	● 9GA	● 16LA	● 23MO	● 30NY(O)	● 35OR	● 41TX(N)	● 46WV	● 51PR
(N) northern (W) western	● 4CA(N)	● 10ID	● 17ME	● 24MT	● 30NY(C)	● 36PA(E)	● 41TX(S)	● 47WI	● 52VI
(S) southern (C) central	● 4CA(S)	● 11IL	● 18MO	● 25NE	● 30NY(W)	● 36PA(W)	● 41TX(W)	● 48WY	● 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)	



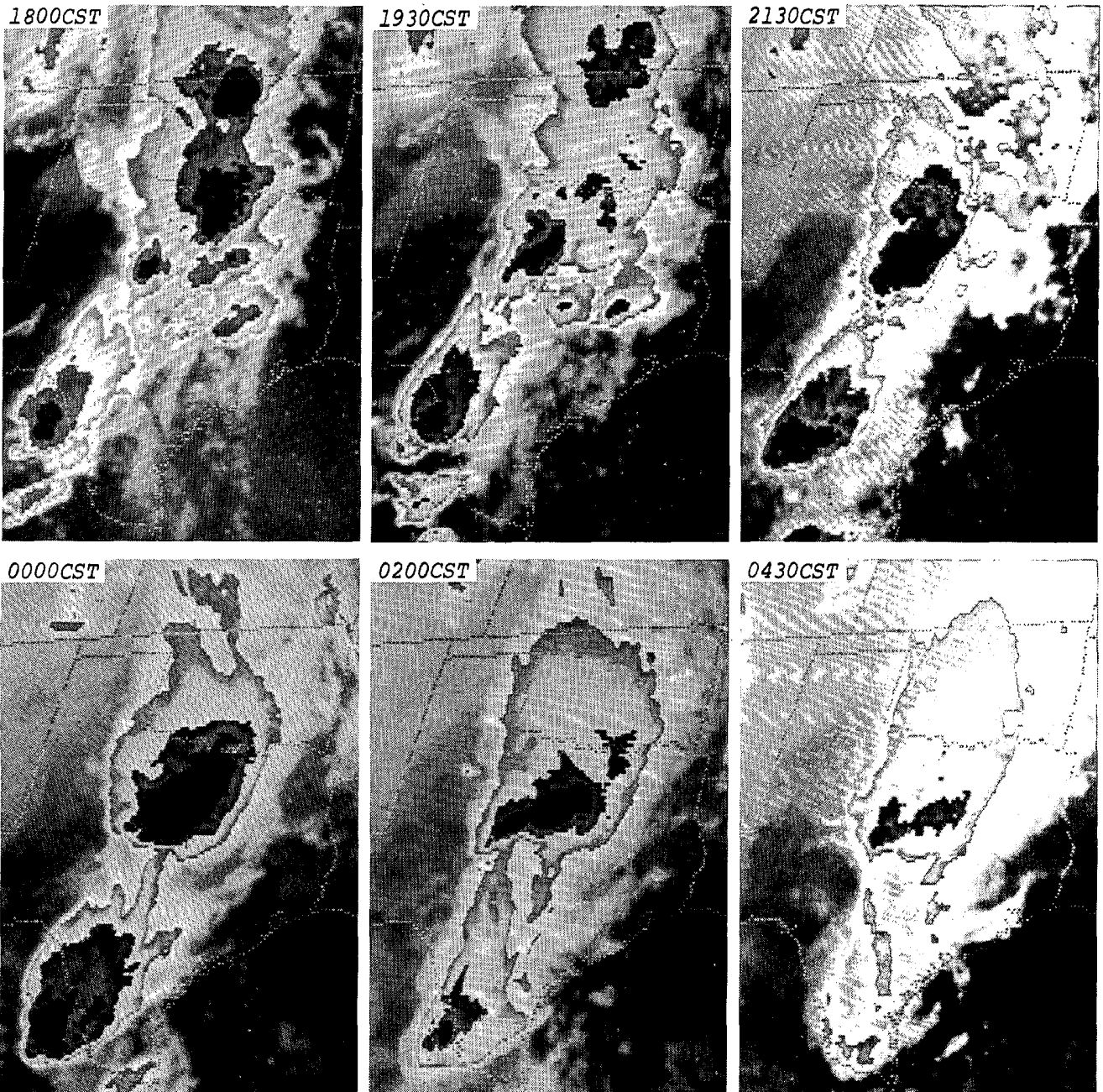


Mapped at the University of Chicago from NMC, cyclone track data

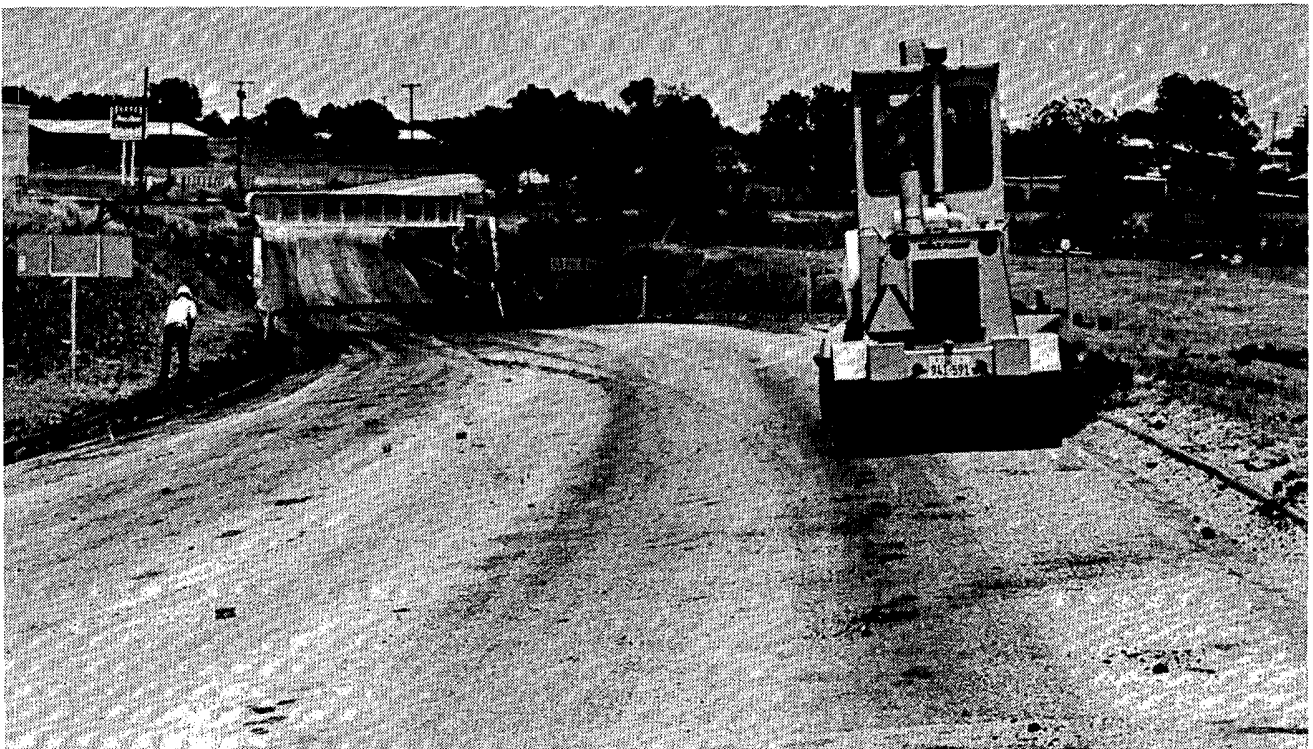


1. HEAVY RAINS and FLASH FLOODING in NORTH-CENTRAL TEXAS on May 31 to June 1, 1988

During the late evening of May 31st, heavy thunderstorm rains began to produce flash flooding in Eastland, Comanche and Erath counties of North-Central Texas, southwest of the Dallas - Fort Worth area. The rains and flooding continued through the pre-dawn morning of June 1st while spreading to Brown and Hamilton counties in the same area, and Denton, Tarrant and Dallas counties in the Dallas - Fort Worth area. The largest rainfalls occurred in Comanche County where DeLeon received 7.6 inches, and the county seat Comanche received a whopping 14 inches. Likewise, the area received the worst of the flooding as Indian Creek in Comanche poured out of its banks, its waters infiltrating about 150 homes and washing away two businesses. Damage in Comanche was estimated at 3 to 5 million dollars in value, and over 300 people in the town were evacuated. In DeLeon, waters from a small creek covered streets to a two foot depth, and a car was washed downstream. About 3 miles south of Comanche, an earthen dam on Lake Eanes failed and sent a wall of water down Mercer Creek to Lake Comanche. Many highways in Comanche County were closed due to the flooding, and street flooding was a problem in urban areas of all of the affected counties.



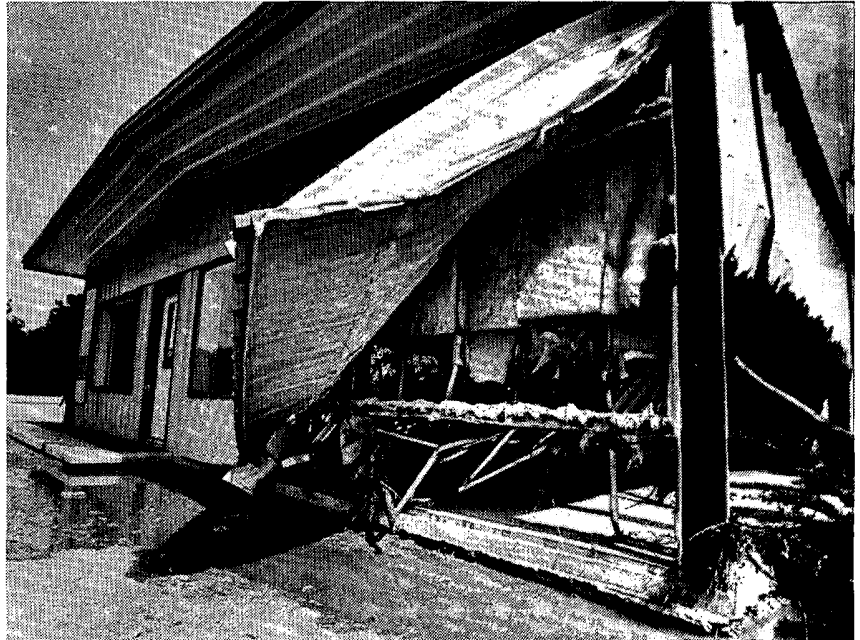
GOES 6 satellite, infrared images taken during a 10.5 hour period late on May 31st (top row) and early on June 1st (bottom row), show the nearly motionless thunderstorm system that sat over north-central Texas and dumped its flood-producing rains. A sister storm formed south of the Rio Grande in Mexico and moved slowly southeastward into extreme southern Texas during the period. ---Photos from NESDIS, Washington, DC.

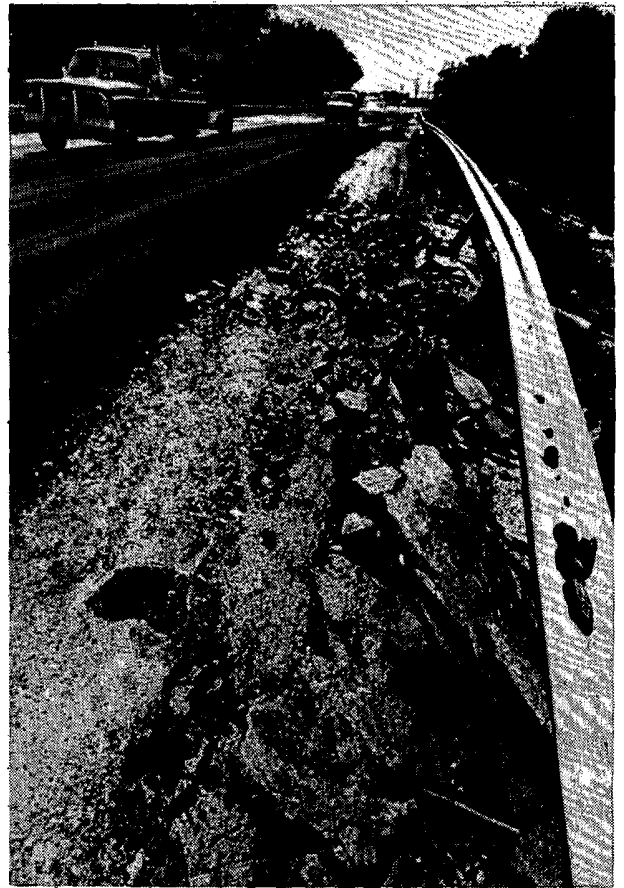
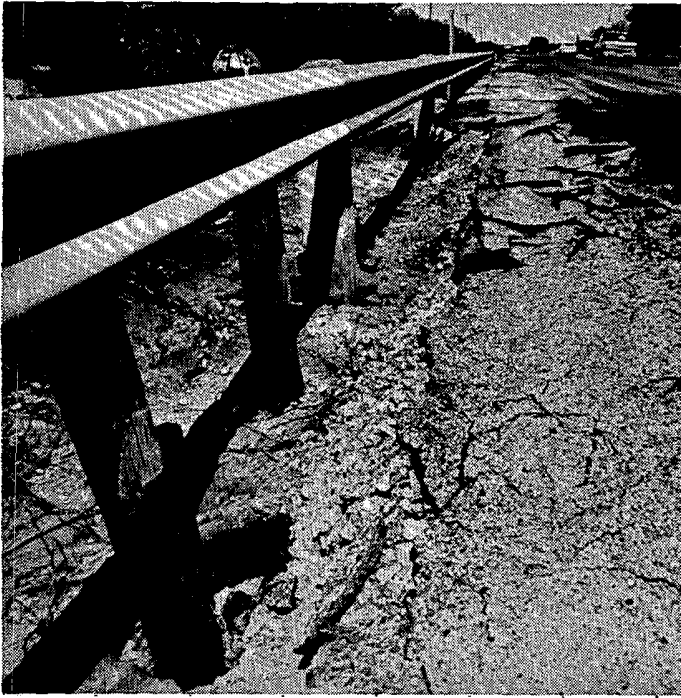


At top, U.S. Highway 67/377 is seen engulfed at an underpass near a low water crossing of Indian Creek at the west edge of Comanche, early on the morning of June 1st, with debris left by the receding floodwater covering much of the emerging road surface. At bottom, the same location is seen as a road crew completes the cleanup. ---Both photos from the Brownwood Bulletin, Brownwood, Texas; bottom photo by Steve Tulcus.



Situated only 50 feet from the banks of Indian Creek and about one block from the viaduct shown on the previous page, this building housed Carouth Craft, one of two businesses in Comanche damaged by the flood. Although the steel frame of the building remained intact, the rapidly flowing water forced its way through the building, bending the sheet metal walls inward on the upstream side and outward on the downstream side. Cabinets that were manufactured inside were washed out of the building and carried downstream, eventually ending up captured in bushes and trees as the waters receded.





Erosion damage to the road surface and guardrail of Texas Highway 36 just east of Comanche where it crosses Indian Creek. Repairs were already under way as fresh asphalt had just been spread over the driving lanes.



Grass, cactus and a debris-covered fence reflect the effects of the flash flooding that occurred on a small tributary of Mercer Creek 6 miles southwest of Comanche along Farm-to-Market Road 590.



Eight miles south of Comanche, this low section of Texas Highway 16 had large sections of the pavement lifted and carried off the roadbed by floodwaters of Mercer Creek. It was 7 miles upstream of this location that an earthen dam on Lake Eanes gave way, however a second dam on Lake Comanche, about 4 miles upstream, held. Both views above are toward the south, and the direction of flow was from right to left (east).

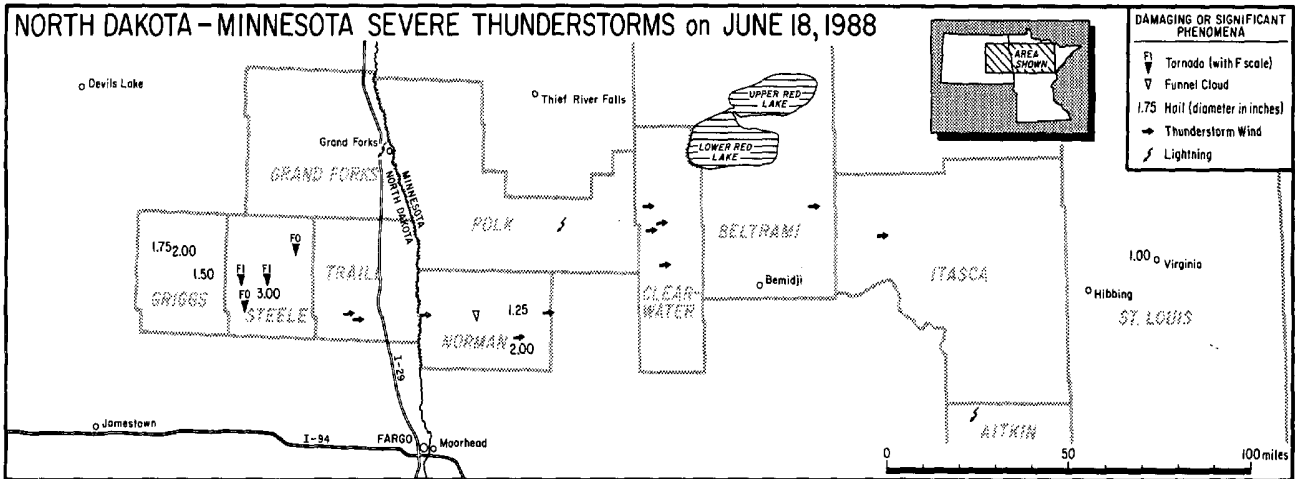


Three closer views of the road damage on Texas Highway 16 at Mercer Creek. The auto left hanging on the guard-rail was under water for at least 5 hours, as was noted by a volunteer helper who arrived on the scene after the vehicle was swept in and subsequently prevented other drivers from accidentally entering the hazardous waters.

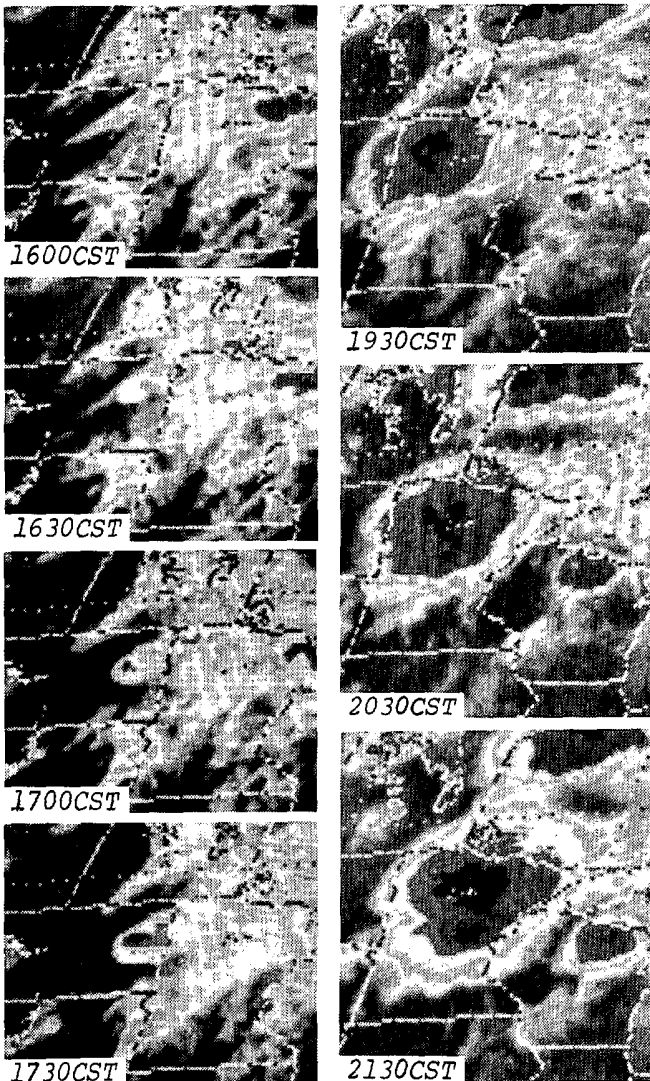
---All photos on pages 8 through 11 are by Steve Tulcus, The Brownwood Bulletin, Brownwood, Texas.

2. SEVERE THUNDERSTORMS in NORTH DAKOTA and MINNESOTA on June 18, 1988

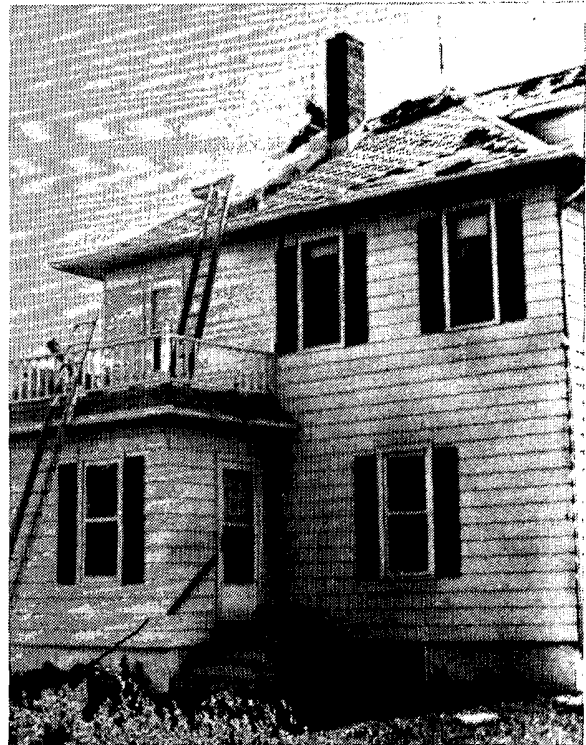
On the afternoon of June 18th, a severe thunderstorm erupted over eastern North Dakota and developed into a storm complex that later, during the evening hours, moved eastward across northern Minnesota. The storm brought a variety of severe weather phenomena to the area, first dropping large hail of up to two inches in diameter as it formed in Griggs County, and then striking the Finley area of Steele County with four tornadoes and hail of up to 3 inches in diameter. The tornadoes caused structural and equipment damage at many farms south of Finley, and crop damage from the hail, as large as peaches in some spots, was extensive. Some farmers reported a 100% crop loss. As the storm system enlarged and moved east, the form of its fury became more diverse but far less destructive, as only spotty reports of high winds, lightning, large hail, and a funnel cloud were received from the large area that the storm traversed.



Distribution of severe thunderstorm phenomena reported in eastern North Dakota and northern Minnesota on June 18, 1988. Only affected counties are indicated. ---Graphic by the University of Chicago from data supplied by NWSFO's at Minneapolis, Minnesota and Bismarck, North Dakota.



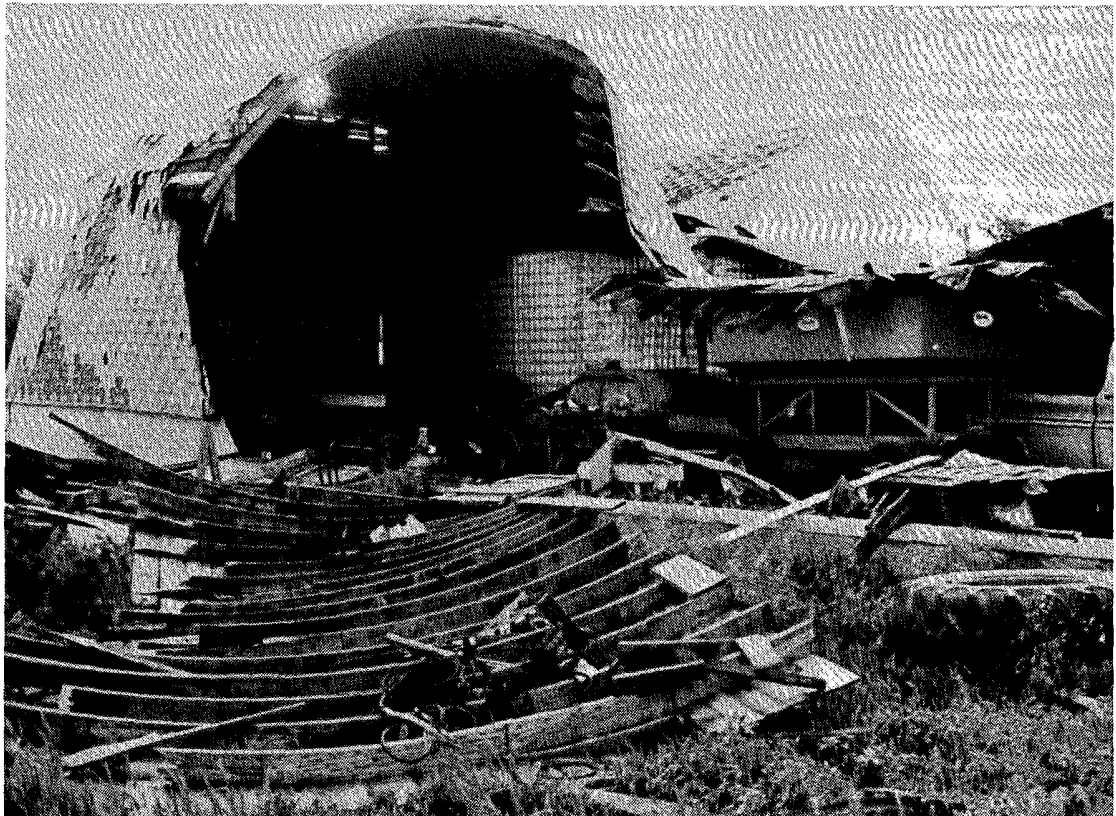
LEFT: GOES 6 satellite, infrared images show the storm's birth and steady growth while producing the tornadoes and large hail over eastern North Dakota on the afternoon of June 18th (left column), and its movement eastward across northern Minnesota during the evening after becoming a much more extensive system (right column). ---Photos from NESDIS, Washington, DC.

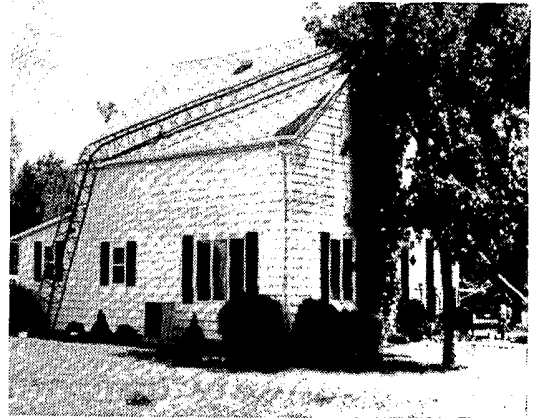
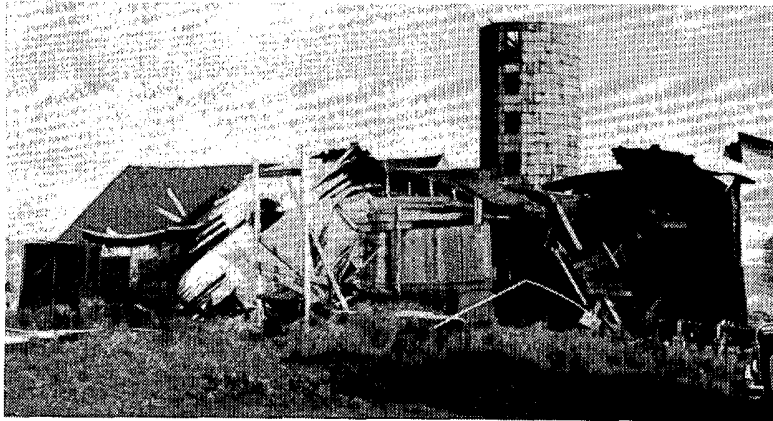


On the day following the storm, roof repairs are underway at the Kindle farm southwest of Finley after a tornado had torn many shingles from the farmhouse's roof. ---Photo from the Steele County Press, Finley, North Dakota.



Along North Dakota Highway 200, the tornado southwest of Finley also struck the Ernest Juliuson farm, where a storage shed (left) and wooden quonset (below) were destroyed. The tornado cut a path through trees on the farmstead as well. Another quonset (bottom) was ripped apart at the nearby, Jens Egediuson farm. Equipment stored in each of the quonsets was damaged. ---All photos from the Steele County Press, Finley, North Dakota.





Remains of a tornado-destroyed barn at the Archer farm southwest of Finley. A CB tower that a tornado felled over a home in the Sherbrooke area southeast of Finley.

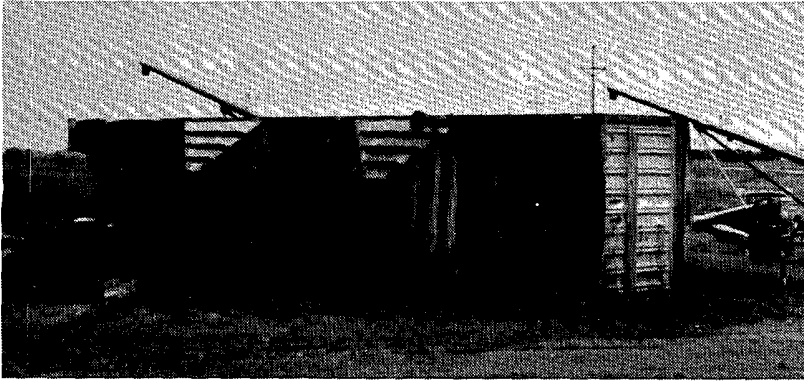


A machine shed at the Mehus farm east of Pickert, southeast of Finley, that was also destroyed by a tornado.

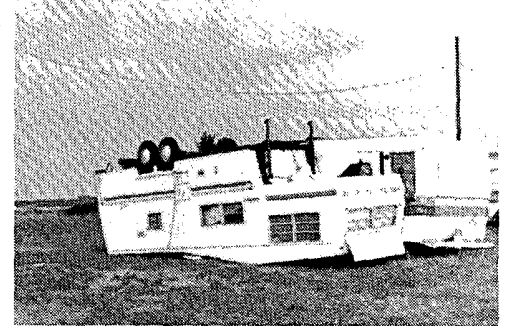
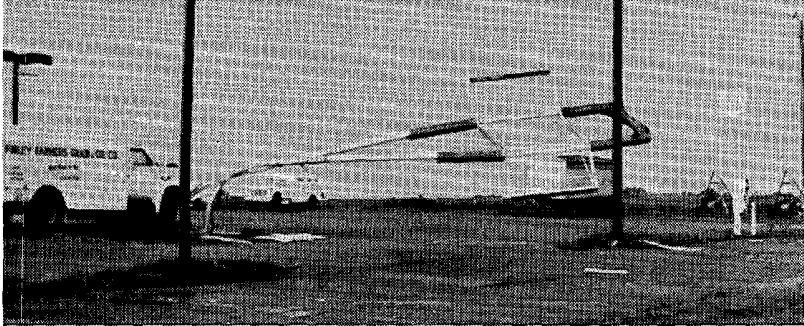


A field of corn in the Pickert-Sherbrooke area southeast of Finley that was reduced to mulch after being pummeled by up to 3-inch diameter hail during the June 18th storm.

---All above photos from the Steele County Press, Finley, North Dakota.

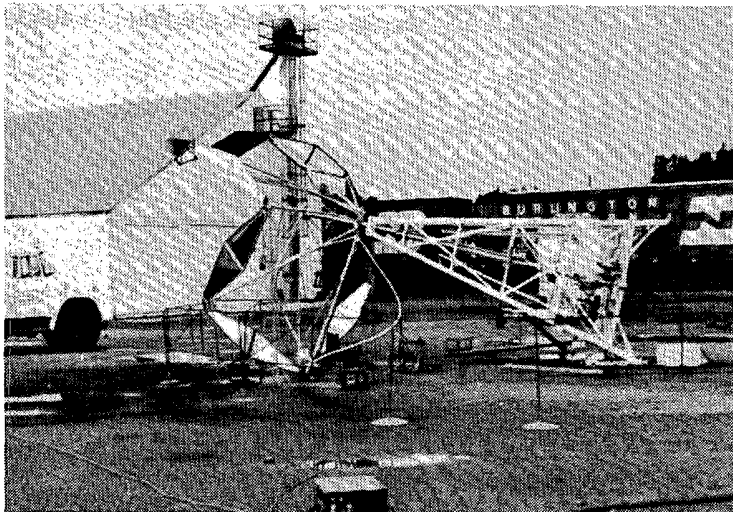


As the June 18th storm brought its tornadoes and hail to areas south and east of Finley, some minor wind damage was also experienced within the town. At the Finley Farmers Oil Company a grain trailer was flipped over (left) and a sign with steel I-beam supports was bent over parallel with the ground (lower left). Two trailers on the east edge of town were flipped over as well (below). After being uprighted, one of the trailers was again overturned by thunderstorm winds on June 20th. ---All photos from the Steele County Press, Finley, North Dakota.

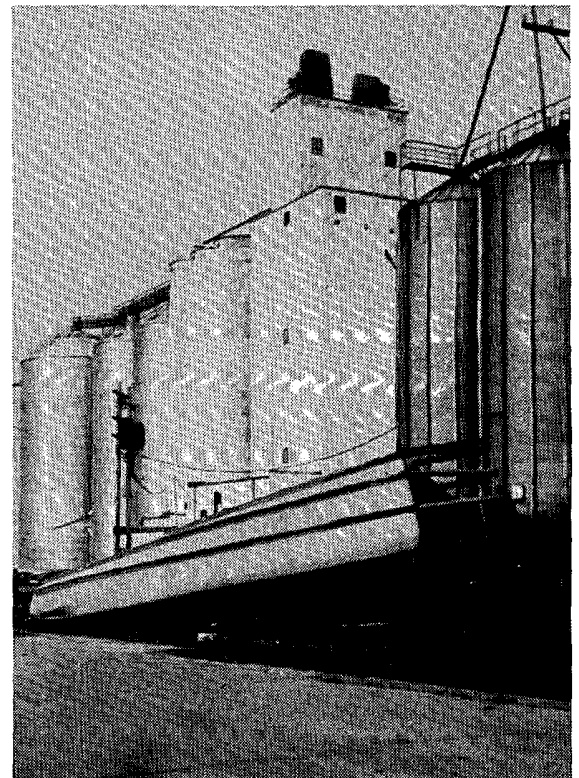


3. THUNDERSTORM WINDS at FINLEY, NORTH DAKOTA on June 20, 1988

Only two days after the June 18th storm, a thunderstorm again brought damaging winds to the Finley area of Steele County in North Dakota. Winds from a June 20th, evening storm toppled a grain bin and carnival ride in the town, and a lightning strike knocked bricks loose from the top of a building, one of which hit and injured a carnival worker in the street below. Power lines were also downed in this storm, leaving parts of the community without power for several hours.



A carnival ride that was tipped onto its side by the winds.



A large metal grain bin at the seed plant of the Finley Farmers Elevator that was blown down by the winds.

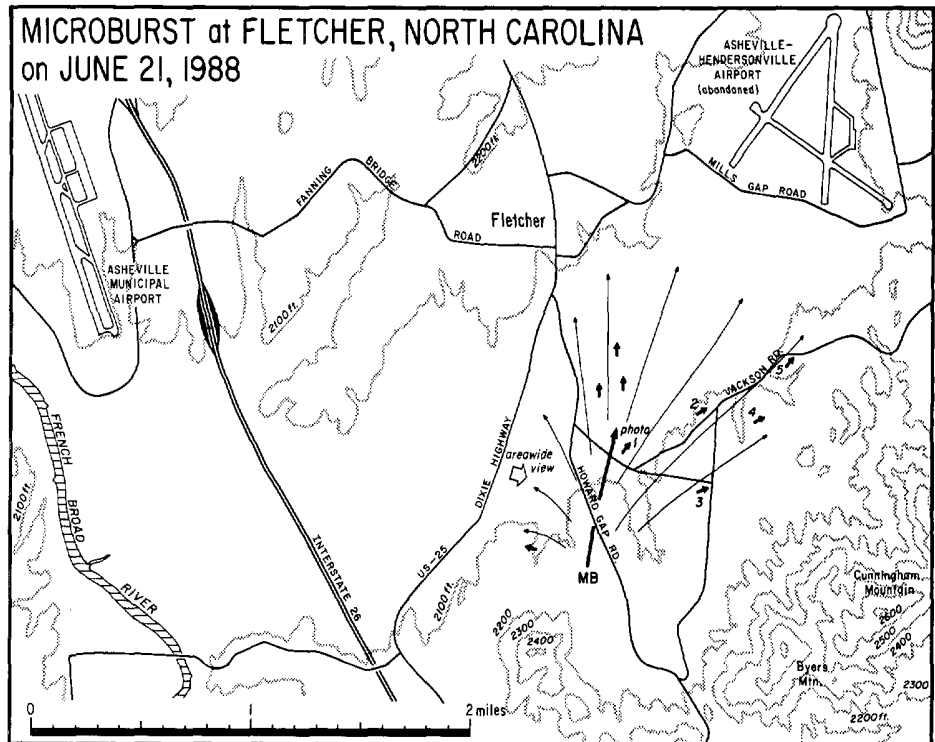


The top of the Norgaard Farm Service building in Finley, from which numerous bricks were blasted out by a lightning strike.

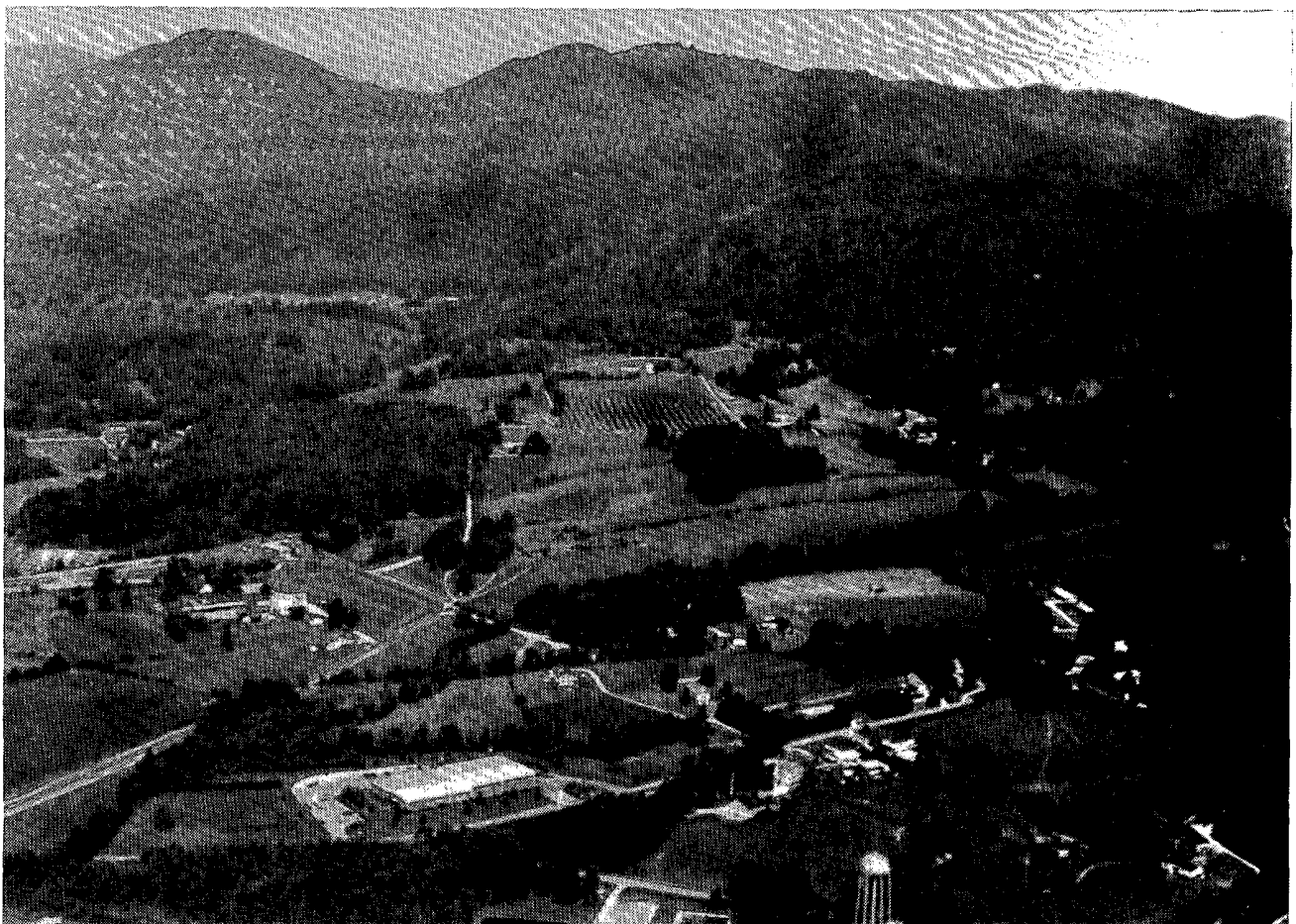
---All photos from the Steele County Press, Finley, North Dakota.

4. MICROBURST at FLETCHER, NORTH CAROLINA on June 21, 1988

On the afternoon of June 21st, strong thunderstorm winds downed trees and caused minor roof damage at Fletcher, North Carolina, about 11 miles south of Asheville. The true nature of the strong wind, a microburst, was later discovered when the damage was mapped during an aerial survey and showed a diverging pattern in the tree falls and strewn debris. The winds had spread out from the microburst's center as it moved north-northeast from about 1.5 miles south of the center of Fletcher. The damage path, located in a relatively flat spot of the mountainous area, was about 1.5 miles long and one mile wide. It is well established that microbursts are an aviation hazard, particularly during aircraft landings and take-offs, and have been linked to a number of crashes. This one is notable as it occurred quite close to one of the approaches of the Asheville Municipal Airport; luckily, no incident occurred.



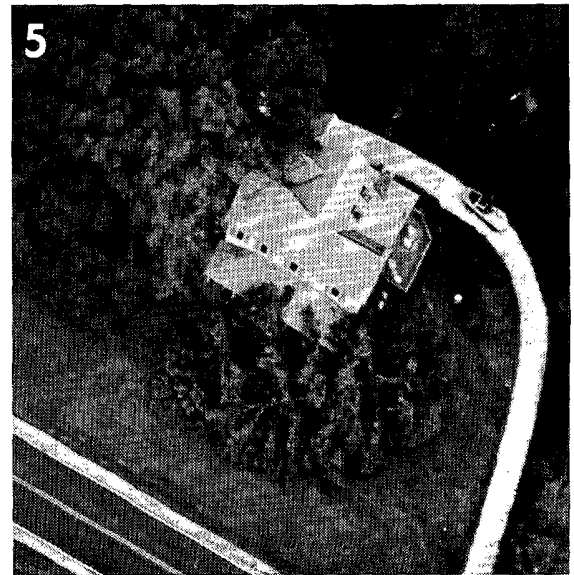
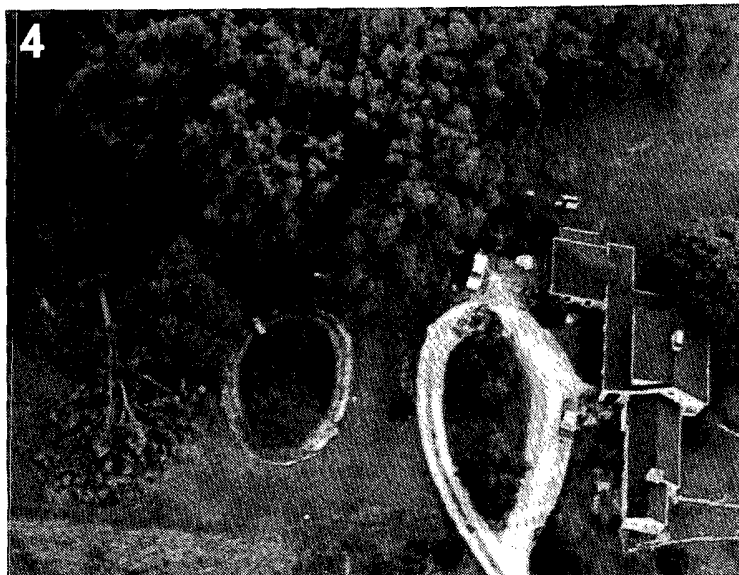
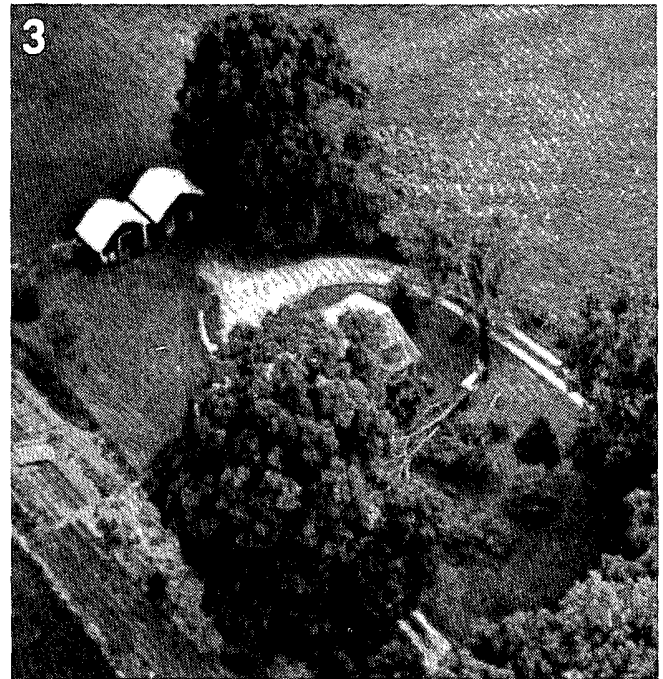
Mapping of the June 21, 1988 microburst at Fletcher, North Carolina, including the path of the microburst's center (MB), streamlines marking the windflow, and damage vectors. Numbers accompanying some of the damage vectors correspond to the numbered photos on the following page. ---Map and survey by Grant W. Goode, National Climatic Data Center, Asheville, North Carolina.



East-southeast areawide view (indicated in map above) of the location south of Fletcher where the microburst descended as it moved north-northeast (right to left in the photo). Cunningham Mountain appears in the background. ---Photo by Grant W. Goode, NCDC.

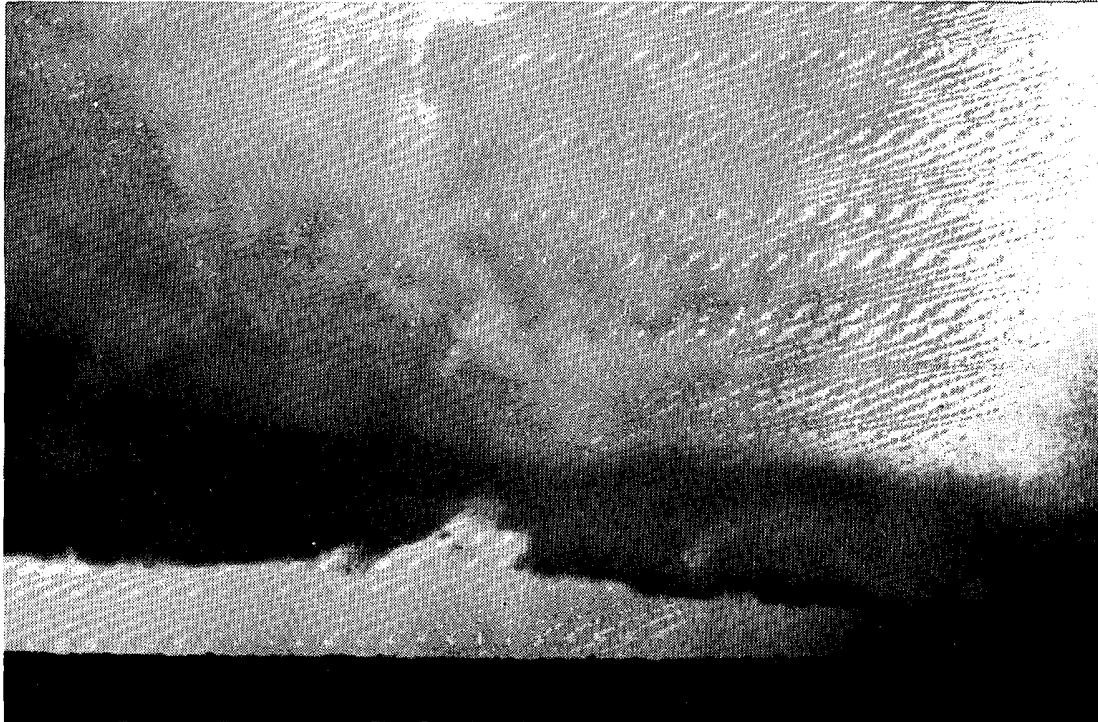


Aerial photos showing roof (number 1) and tree (2 through 5) damage produced by the Fletcher microburst. The photo numbers correspond to the numbered damage vectors in the map on the previous page. An additional ground photo shows the stump of the split tree in photo 3 after it was cut down. ---All photos by Grant W. Goodge, NCDC.



5. TORNADO along ALLIGATOR ALLEY in SOUTHERN FLORIDA on June 21, 1988

At 1600 EST on June 21st, a thunderstorm over the Everglades of southern Florida spawned a small tornado that touched down along Interstate 75, Alligator Alley, in western Broward County. The tornado and its parent cloud system were photographed as the tornado formed below a newly-developed wall cloud on a gust front. The tornado, of the "gustnado" type, was in contact with the ground for about three minutes and moved only very slightly to the northeast.



Viewed toward the south from Interstate 75 in western Broward County, the outflow boundary of the parent thunderstorm is seen with a well-developed shelf cloud (right side of the photo) and forming wall cloud.

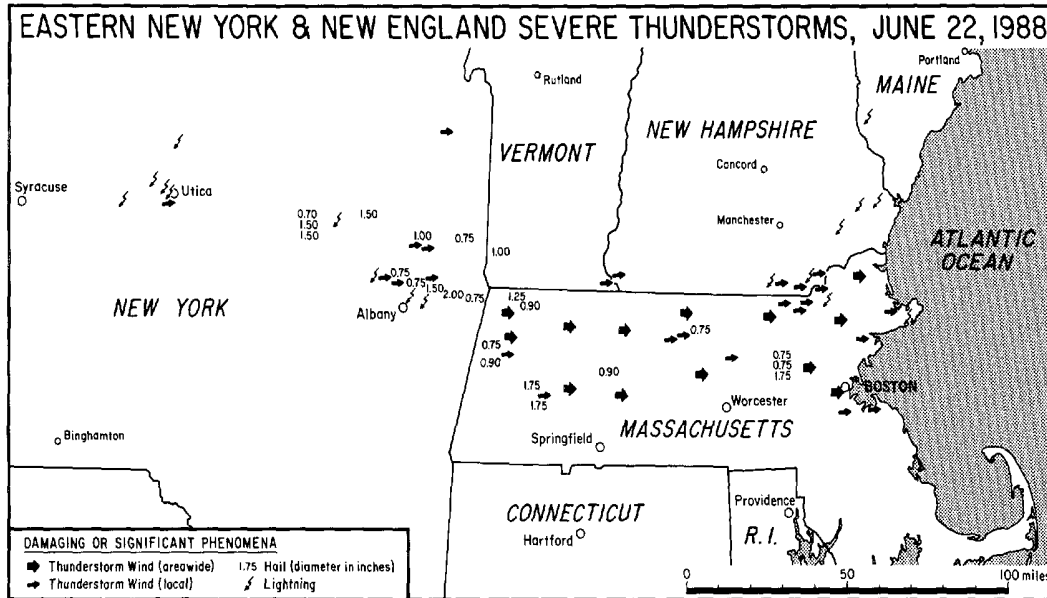


From a point on Interstate 75, 5 miles east of the location where the top photo was taken, the same cloud feature is seen toward the west with the wall cloud now fully developed and the small, short-lived tornado extending from its base to the ground.

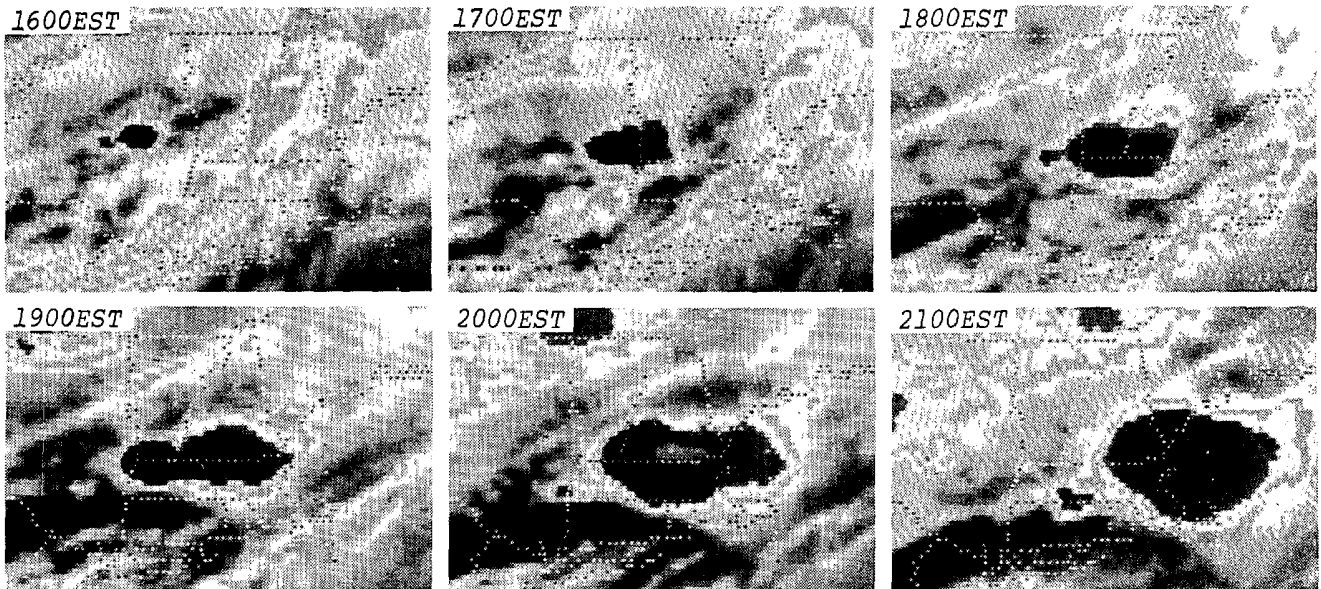
---Both photos by Jack "Thunderhead" Corso, Harrison, New York; copyright 1988.

6. SEVERE THUNDERSTORMS in EASTERN NEW YORK and NEW ENGLAND on June 22, 1988

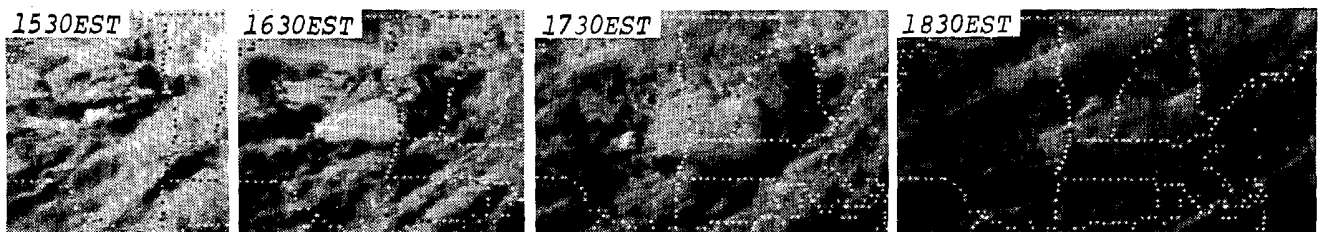
During the afternoon of June 22nd, an unusually strong thunderstorm for the northeast U.S. formed over Fulton County in eastern New York and began moving east, producing strong winds, damaging lightning and large hail along its path which crossed just north of Albany. The pre-frontal storm developed into a multi-cell complex and crossed New England during the evening hours, causing more widespread damage from hail, wind and lightning across the northern half of Massachusetts, southern Vermont and New Hampshire, and extreme southern Maine. Most prevalent were the strong winds which knocked down many trees and limbs, resulting in the disruption of electric service in many areas. Strong wind gusts were recorded at most area airports, the highest of which was 81 mph at the Schenectady Airport. Another storm farther to the west along an approaching front brought mainly damaging lightning to the area around Utica, New York during the late evening hours.



Distribution of severe thunderstorm phenomena reported in east-central New York and New England on June 22, 1988. ---Graphic by the University of Chicago from data supplied by NWSFO's at Portland, Maine and Albany, New York; and the Blue Hill NWS Meteorological Observatory, Milton, Massachusetts.

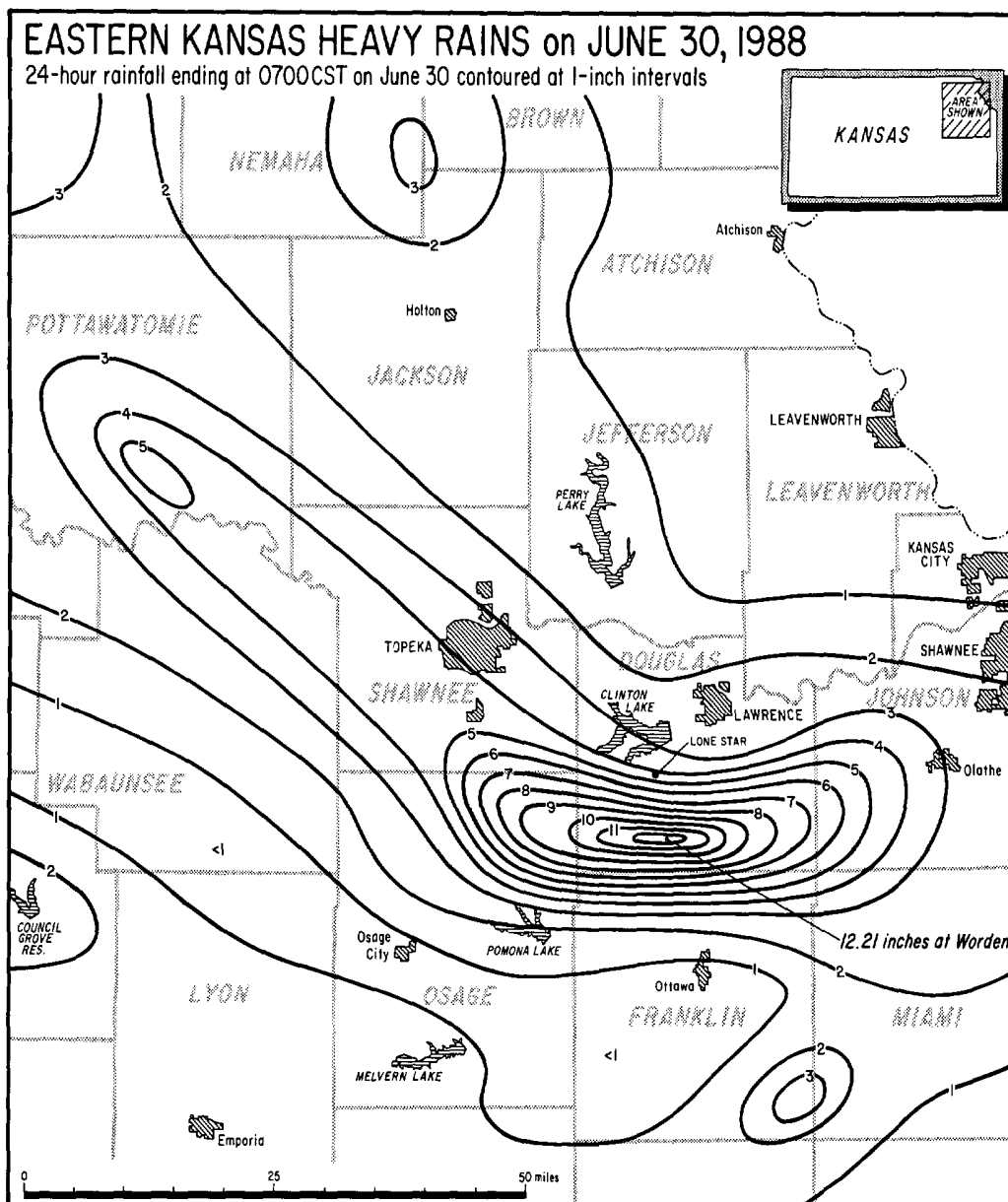


Above, the development and path of the June 22nd storm complex are revealed in a sequence of GOES 6 satellite, infrared images. The system was characterized by the repeated addition of newly-formed cells along a rearward flanking line. A sequence of visible images taken during the daylight portion of the period appears below. ---All photos from NESDIS, Washington, DC.

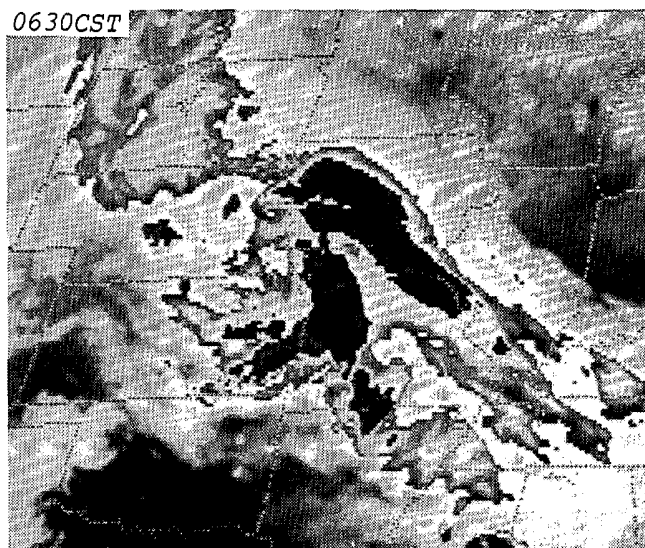
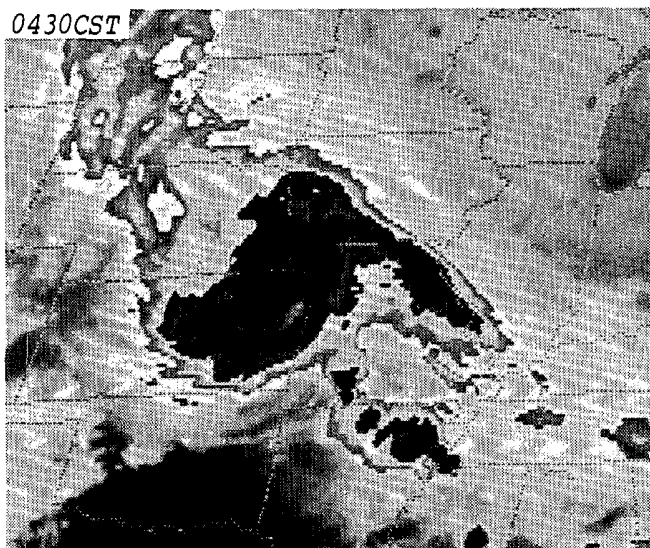
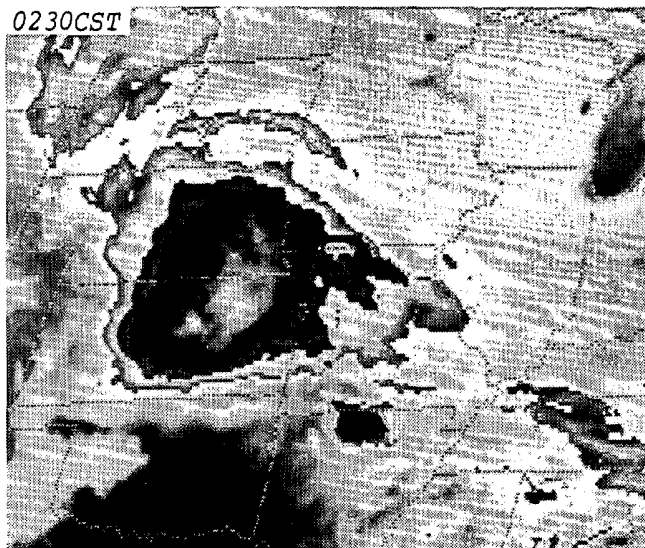
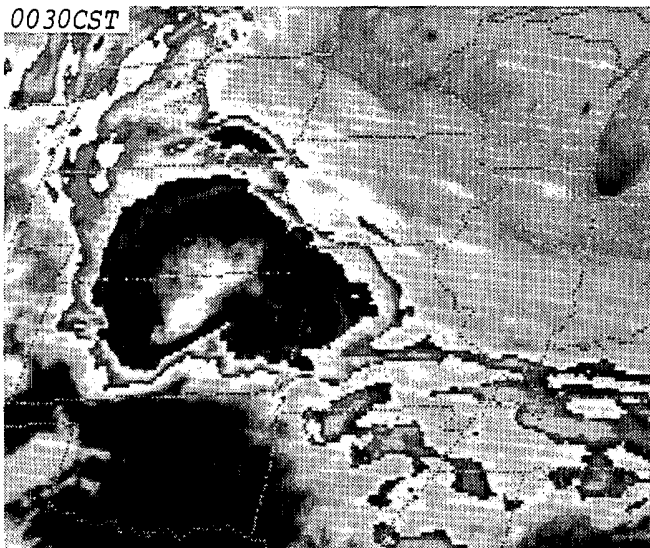


7. HEAVY RAINS and FLASH FLOODING in EASTERN KANSAS on June 30, 1988

Intense thunderstorms that formed along an instability line late on June 29th, swept rapidly eastward across north-central and eastern Kansas during the early morning hours of June 30th. The wringing effect of the system and ample moisture ahead of it combined for some extremely heavy rainfall rates. Rainfall of up to 5 inches was received over most of the area, but hardest hit was northeast Osage, southern Douglas and northern Franklin counties where rainfall of between 6 and 12 inches was received. The heaviest amount, 12.21 inches, was recorded at Worden, Kansas, about 25 miles southeast of Topeka. Naturally, the deluge resulted in flash flooding throughout the area, and the substantial runoff quickly sent small streams out of their banks. Hardest hit by the flooding was the small community of Lone Star in western Douglas County, where a wall of water 2 to 4 feet deep moved out of Washington Creek and through the town. Every home in the town received some water damage, and damage to the homes alone was estimated at \$700,000. Many roads were washed out or rendered impassable, and a great deal of farmland was submerged as well.



Analysis of storm-total rainfall in northeast Kansas on June 30, 1988. ---Mapped by the University of Chicago from data and analyses supplied by the NWSFO at Topeka, Kansas, and Cooperative Observer data supplied by NCDC, Asheville, North Carolina.



Shown in a sequence of GOES 6 satellite, infrared images taken on June 30th, the initially very cold cloud top of the storm system underwent warming as the complex dumped its heavy rains over northeast Kansas, and the configuration of the system as a whole adopted a more comma-like shape associated with large-scale cyclonic circulations. ---Photos from NESDIS, Washington, DC.



Floodwater covers a road near Lone Star, Kansas (left), and a high water marker is submerged to just below the three foot level in runoff from Lone Star Lake (right). Photographed during the day on the 30th, the water levels were most likely much higher during and just after the rains which had fallen overnight. ---Both photos by Mike Yoder, The Journal World, Lawrence, Kansas.



A farmer from Lone Star uses a tractor to survey the damage done to his crops by the flash flood on the morning of June 30th. A great deal of farmland was submerged in the fast-flowing floodwater, as were many roads. ---Photo by John Bock, The Topeka Capital-Journal, Topeka, Kansas; supplied by the NWSFO at Topeka, Kansas.



Douglas County Route 458 becomes a causeway above flooded fields southwest of Lawrence, Kansas after overflow from Lone Star Lake and the Wakarusa River inundated the area. ---Photo by Mike Yoder, The Journal World, Lawrence, Kansas.



After floodwaters receded, corn in a field near Lone Star maintains a bow of respect, testament to the rapid flow of the floodwater that raked it down.

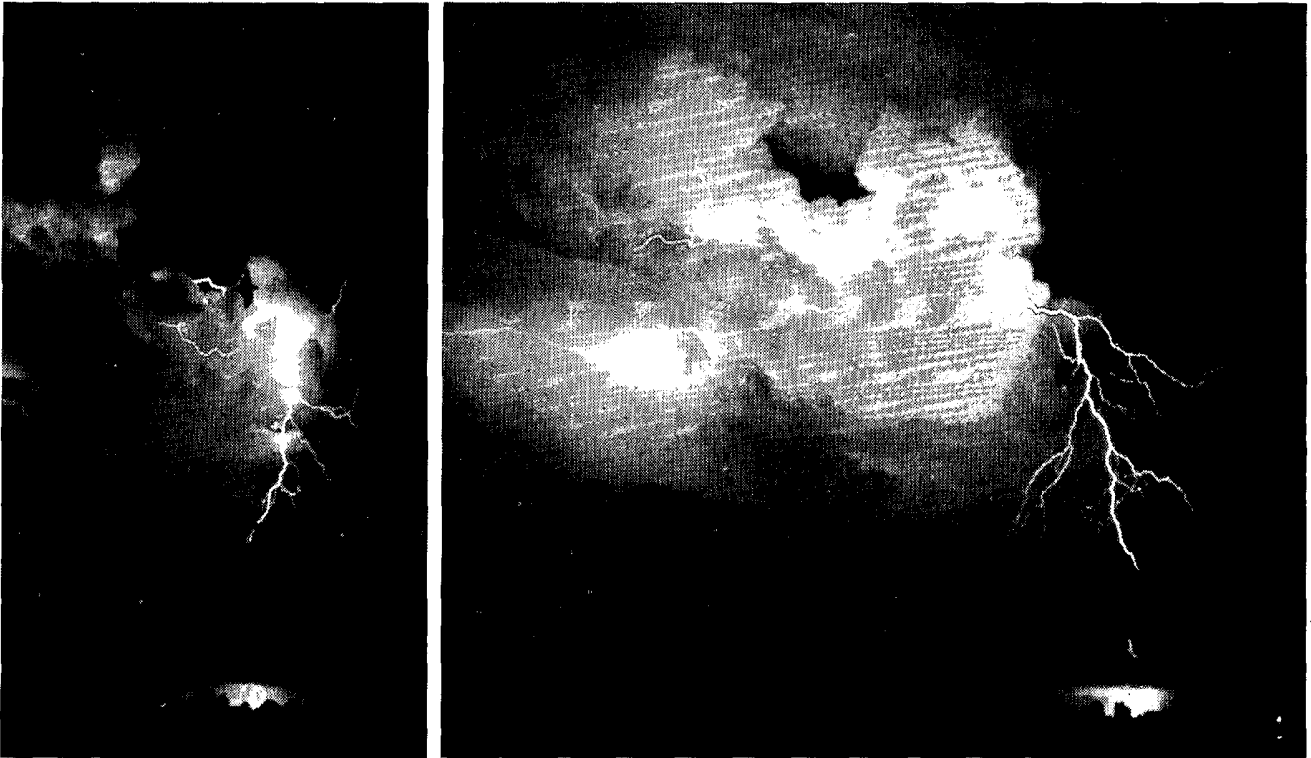


Erosion damage on Douglas County Route 1 near Lone Star.

---Both above photos by Mike Yoder, The Journal World, Lawrence, Kansas.

8. LIGHTNING near FLORIDA CITY, FLORIDA on June 24, 1988

A thunderstorm with a 54,000 foot high anvil top produced a spectacular lightning display just west of Florida City, Florida on the evening of June 24th. The lightning danced about growing cumulus towers that were feeding into the main storm cell, and occasionally cloud-to-ground bolts discharged through clear sky, well outside of the storm cloud. A few of the strikes sparked fires in the Everglades brush as the storm moved southeast. Such vivid lightning displays are not uncommon in Florida's and the Gulf Coast's tropical summer climate, but they are far less common in other seasons, or in any season throughout the rest of the U.S.

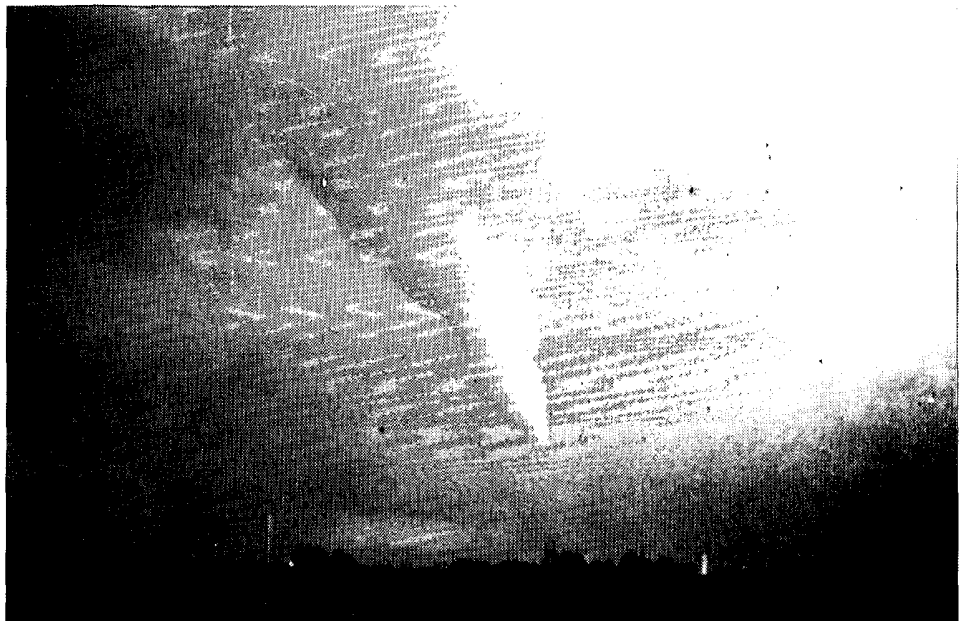


Lightning discharges viewed toward the west from Florida City, Florida at about 2100 EST on June 24, 1988. ---Both photos by Jack "Thunderhead" Corso, Harrison, New York; copyright 1988.

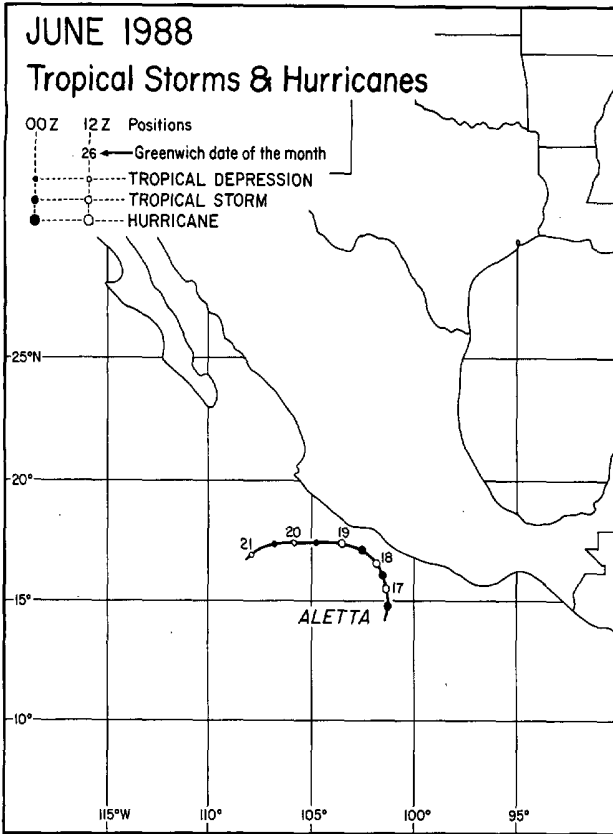
9. TORNADOES at DENVER, COLORADO on June 15, 1988

On the afternoon of June 15th, five tornadoes were spawned by thunderstorms in the South Platte Valley on the lee side of the Colorado Front Range within a one hour period, 1500 to 1600 MST. The tornadoes, one F3 in intensity, one F2 and three F1, all had short paths, the longest being 2.5 miles by the F3. Even though they had very short paths, three of the four tornadoes in the Denver vicinity were long lived, lasting 16 to nearly 30 minutes. The two strongest tornadoes touched down within Denver and caused substantial damage to buildings and trees. The F3 tornado did an estimated 5 to 10 million dollars in damage in southern Denver, damaging 85 buildings, 20 severely.

The F2 tornado over northeast Denver on June 15th as seen toward the southwest from the NWSFO at Stapleton International Airport at 1520 MST. Although the visible condensation funnel was not in contact with the ground at the time, trees 18 inches in diameter and larger were being uprooted below the funnel at 17th Street and Monaco Parkway. The white object in the lower right of the photo is the Stapleton Control Tower which was abandoned for about 20 minutes as the tornado passed. ---Photo from the NWSFO at Denver, Colorado.



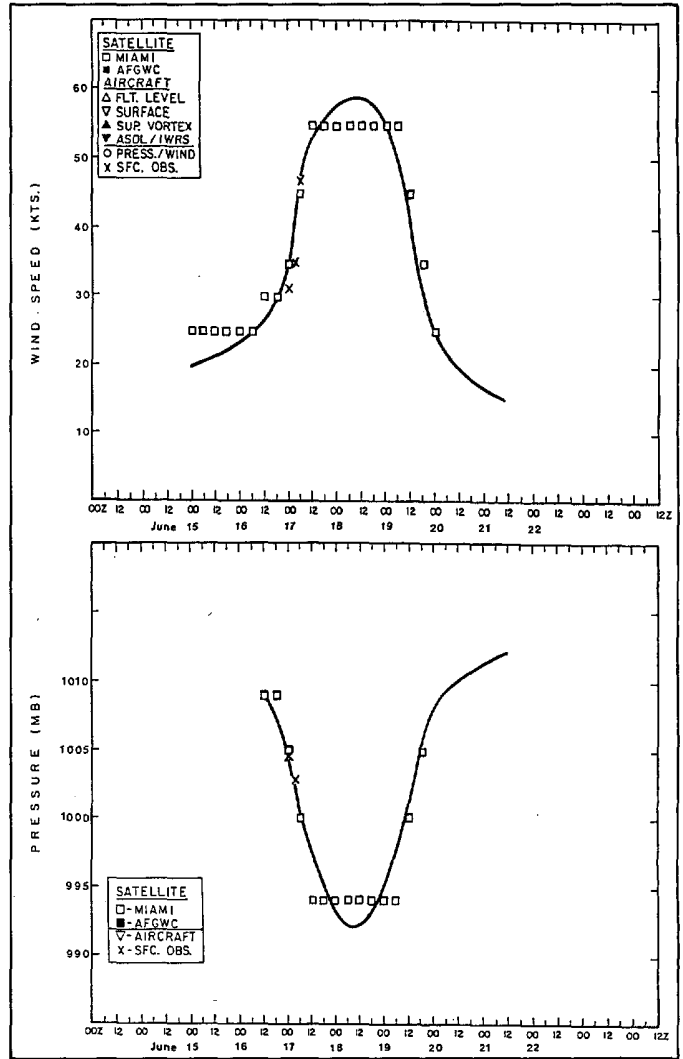
TROPICAL STORMS and HURRICANES



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

DATE	TIME (UTC)	POSITION		PRESSURE (mb)	WIND (kt)	STAGE
		LATITUDE	LONGITUDE			
6/16	1800	14.3	101.4	1007	30	Tropical Depression
6/17	0000	14.8	101.3	1004	35	Tropical Storm
6/17	0600	15.2	101.3	1000	50	" "
6/17	1200	15.5	101.4	997	50	" "
6/17	1800	15.8	101.5	995	55	" "
6/18	0000	16.1	101.6	993	60	" "
6/18	0600	16.4	101.7	992	60	" "
6/18	1200	16.7	101.9	992	60	" "
6/18	1800	17.0	102.2	993	60	" "
6/19	0000	17.2	102.6	995	55	" "
6/19	0600	17.3	103.1	998	50	" "
6/19	1200	17.5	103.6	1002	40	" "
6/19	1800	17.5	104.2	1006	30	Tropical Depression
6/20	0000	17.5	104.8	1008	25	" "
6/20	0600	17.5	105.4	1009	20	" "
6/20	1200	17.5	105.9	1010	20	" "
6/20	1800	17.5	106.4	1011	20	" "
6/21	0000	17.4	106.9	1011	15	" "
6/21	0600	17.3	107.4	1012	15	" "
6/21	1200	17.0	108.0	1012	15	" "
<hr/>						
6/18	1200	16.7	101.9	992	60	Minimum Pressure

Table of the best track data for Tropical Storm ALETTA, including position of the storm center, estimated minimum pressure and maximum wind speed, and stage at 6-hour intervals.



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

DATE	TIME (UTC)	SHIP	POSITION		PRESSURE (mb)	WIND (dir/kt)
			LATITUDE	LONGITUDE		
6/17	0000	SHIP	15.5	100.4	1006.4	130/21
6/17	0000	ZCKP	14.8	100.7	1004.6	190/31
6/17	0300	ZCKP	15.0	101.4	1002.8	220/35
6/17	0600	ZCKP	15.2	102.1	1004.6	260/47
6/17	0600	BXX	16.4	102.2	1007.9	070/30
6/17	1200	PHBS	17.4	103.8	1007.5	310/18
6/17	1600	WSRY	16.5	100.1	1009.0	090/30
6/17	1800	3ENAS	16.7	101.3	1007.5	100/26
6/17	1800	KCSA	13.3	101.8	1011.5	240/30
6/18	1700	SHIP	16.4	101.4	1007.7	190/19
6/18	1800	KCSA	13.5	106.2	---	220/30
6/18	1800	7JFY	16.8	102.3	1004.0	020/30
6/18	1800	ELDWS	12.4	104.3	1011.3	280/30
6/19	0000	JERV	17.0	102.2	1000.9	---

Pressure and wind reports from ships experiencing effects of Tropical Storm ALETTA.

---Both tables and graph from the National Hurricane Center, Miami, Florida.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1988

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									
Lamar County	02	1450CST			0	0	?	?	TSTM Wind Thunderstorm winds uprooted several trees and blew down power lines at Beaverton.
Morgan County	02	1515CST			0	0	?	?	TSTM Wind An apparent microburst from a thunderstorm occurred in southeast Decatur. Extensive damage occurred to trees. A few trees fell onto houses causing some damage. Other houses received damage to awnings and gutters.
Choctaw County	07	1500CST			0	0	?	?	TSTM Wind Trees were blown down and some roof damage occurred at Yantley.
Montgomery County	07	1636CST			0	0	?	?	Hail (1.75) Golf ball size hail fell in the northern part of the City of Montgomery.
Washington County	09	1430CST			0	0	?	?	TSTM Wind Trees were blown down at Frankville.
Clarke County	09	1501CST			0	0	?	?	Hail (0.75) Dime size hail fell at Jackson.
Houston County	09	1517CST			0	0	?	?	Hail (0.75) 09 1535CST 0 0 ? ? Hail (0.75) 09 1555CST 0 0 ? ? TSTM Wind Nickel and dime size hail fell at Dothan at 1517CST and at 1535CST. Trees and power lines were also blown down at Dothan at 1555CST.
Washington County	09	1525CST			0	0	?	?	Hail (0.75) Dime size hail covered the ground six miles north of McIntosh.
Geneva County	09	1610CST			0	0	?	?	TSTM Wind At Samson and the City of Geneva trees and power lines were blown down. A few homes and vehicles received damage from the fallen trees.
Baldwin County	09	1715CST			0	0	?	?	TSTM Wind Trees and power lines were blown down at Stapleton.
Escambia County	09	1735CST			0	0	?	?	Hail (0.75) Nickel and dime size hail fell at Canoe.
Baldwin County	09	1745CST			0	0	?	?	Hail (0.75) Dime size hail fell at Bay Minette.
Mobile County	09	1835CST			0	0	?	?	TSTM Wind Straight-line thunderstorm winds destroyed a mobile home at Chickasaw. The mobile home was not tied down and was parked by a large building with long straight sides. It is likely that the winds were funneled along the large building. Two persons inside the mobile home were slightly injured.
Baldwin County	09	1940CST			0	0	?	?	TSTM Wind 09 1940CST 0 0 ? ? TSTM Wind Trees and power lines were blown down one half mile west of Loxley. A building was also blown away. Also around the same time, the roof was blown off an auto parts store at Bay Minette.
Mobile County	09	1945CST			0	1	0	0	Lightning In Mobile, a female (age unknown) was slightly injured when she was struck by lightning while talking on the telephone.
Fayette County	18	1520CST			0	0	?	?	TSTM Wind Trees and power lines were blown down at Fayette.
DeKalb County	18	1630CST			1	1	0	0	Lightning One 19 year old male was killed by lightning as he was watering horses in a horse barn. He was standing in water with a hose in his hands when lightning entered his body through the hose. Another male (age unknown) who was also in the barn was slightly injured. Lightning M190
Franklin County	20	1400CST			1	0	0	0	Lightning A 43 year old male was killed by lightning at Red Bay. He was putting a ball on a trailer hitch of a mobile home. The ground was wet and he was using a wrench in his hand. Lightning M430
Chilton County	20	1830CST			0	0	?	?	TSTM Wind At the Union Springs Community four miles west of Jamison straight-line winds moved through a path about one-fourth mile long and 200 yards wide. Three houses were moderately damaged, one barn was totally destroyed, and the top of a pump house was blown off. Estimates were placed at three thousand dollars.
Cherokee County	20	1925CST			0	0	?	?	TSTM Wind Straight-line thunderstorm winds knocked over and damaged three mobile homes at Cedar Bluff on the north side of Weiss Reservoir.
Jefferson County	21	1735CST			0	0	?	?	TSTM Wind Five trees were blown down, one onto the corner of a house, causing minor damage. Minor damage was also done to one mobile home. The damage occurred in the Gardendale vicinity.
ALABAMA									
Marion County	21	1945CST			0	0	?	?	TSTM Wind At Shottsville straight-line thunderstorm winds destroyed one house, tore the roofs off three barns and blew trees and power lines down.
Henry County	25	1400CST			0	0	?	?	TSTM Wind At Abbeville straight-line winds destroyed a mobile home, tore the awning from a store, and blew trees and power lines down. In downtown Abbeville a portion of the wall of a building toppled from the wind.
Houston County	25	1400CST			0	0	?	?	TSTM Wind At Ashford thunderstorm winds blew trees and power lines down, tore several awnings from houses, and toppled signs. At Kinsey the top was blown off a mobile home and the rear of the fire department was blown away.
Jefferson County	25	1700CST			0	0	?	?	TSTM Wind In northern Jefferson County thunderstorm winds blew the roof off a mobile home. Five people inside were uninjured. In the same area there was damage to a welding company and several other homes and mobile homes were slightly damaged.
Montgomery County	26	1300CST			0	0	?	?	TSTM Wind 26 1300CST 0 0 ? ? Lightning Trees were blown down on the eastern side of the City of Montgomery. One mobile home was set on fire by lightning and was a total loss. One house was hit by lightning and had fire damage.
Shelby County	26	1300CST			0	1	0	0	Lightning A male, age 19, was slightly injured by lightning while water skiing on Lay Lake.
Pike County	26	1415CST			0	0	?	?	TSTM Wind At Troy a mobile home was damaged. Three outbuildings were destroyed on the same lot.
Houston County	26	1500CST			0	0	?	?	TSTM Wind At Dothan numerous automobiles parked at the Dothan Airport were damaged when portions of the roof of the terminal building blew onto them. Trees and power lines were blown down in the same area.
Coffee County	26	1515CST			0	0	?	?	TSTM Wind 26 1515CST 0 0 ? ? Hail (1.00) Numerous large tree limbs were blown down in northeast Coffee County. Also in the same area quarter size hail dented several automobiles.
Dale County	26	1515CST			0	0	?	?	TSTM Wind 26 1521CST 0 0 ? ? TSTM Wind (G58) Trees and power lines were blown down in the northern part of Dale County at 1515CST. Thunderstorm winds that gusted to 67 mph at Ft. Rucker at 1521CST seriously damaged a UH-60 Blackhawk helicopter. Trees and power lines were also downed in that area.
Covington County	26	1555CST			0	0	?	?	TSTM Wind 26 1605CST 0 0 ? ? TSTM Wind At Andalusia thunderstorm winds destroyed two mobile homes and damaged the roofs of several houses. The roof of a nearby building supply store was blown off while trees and power lines were blown down in the same general area around 1605CST.
Coffee County	26	1620CST			0	0	?	?	Lightning 26 1620CST 0 0 ? ? Hail (0.75) 26 1620CST 0 0 ? ? TSTM Wind A house was hit and damaged by lightning between New Brockton and Enterprise. Dime size hail fell near Enterprise. Trees and power lines were blown down in the same area.
Jefferson County	26	1740CST			0	0	?	?	TSTM Wind Thunderstorm winds blew trees and power lines down at numerous locations in the east and northeast part of the City of Birmingham. Some trees fell across automobiles and buildings. The winds also blew in a hangar door at the Birmingham Airport causing the door to collapse and fall onto a Cessna 180 parked inside.
Shelby County	26	1845CST			0	0	?	?	TSTM Wind 26 1900CST 0 0 ? ? TSTM Wind 26 1921CST 0 0 ? ? TSTM Wind Trees and power lines were blown down at Alabaster at 1845CST. A tree was blown across a house in central Shelby County at 1900CST. Trees and power lines were blown across State Highway 119 near Siluria at 1921CST.
Chilton County	26	1900CST			0	0	?	?	TSTM Wind Trees and power lines were blown down at numerous locations throughout Chilton County.
Houston County	27	1550CST			0	0	?	?	Hail (0.75) Nickel to dime size hail fell at Ashford. Crops were stripped in the area.
Henry County	27	1745CST			0	0	?	?	TSTM Wind Trees were uprooted and power lines were blown down at Shorterville.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1988

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					KILLED	INJURED	PROPERTY	CROPS	
ALABAMA									
Houston County	27	1800CST			0	0	?	?	TSTM Wind Several trees were blown down three miles south of Ashford.
Houston County	27	1805CST			0	1	0	0	Lightning In Dothan, a woman (age unknown) was struck by lightning and was slightly injured as she was talking on the telephone.
Houston County	30	1123CST			0	0	?	?	TSTM Wind
	30	1130CST			0	0	?	?	TSTM Wind At 1123CST high winds turned over a small pump house in the Rehobeth area south of Dothan. A large oak tree was downed in the same vicinity. At 1130CST trees and power lines were blown down a few miles north of Dothan.
ARIZONA									
Apache County, 10 SW St. Johns	27	1520 MST			0	0	0	0	Funnel Clouds Pilot reported two funnel clouds moving southwest.
Maricopa County: 25 N Phoenix	29	1828 MST			0	0	3	0	Thunderstorm Winds Strong thunderstorms formed over the Central Basins and drifted south into the deserts. A SKYWARN spotter estimated wind gusts at 60 mph with blowing dust and 1/10 mile visibility. Lightning caused large brush fire near Bartlett Dam, northeast of Carefree, eventually burning about 8,000 acres.
Glendale	29	1900 MST			0	0	3	0	Thunderstorm Winds Shingles blown off at least one home.
West Phoenix	29	1930 MST			0	0	?	0	Thunderstorm Winds Power lines downed by high winds. About 10,000 customers were left without power.
Maricopa County: Phoenix	30	1859 MST			0	0	4	0	Thunderstorm Winds Power lines downed at 13th Ave and Clarendon.
Phoenix	30	1900 MST			0	0	?	0	Thunderstorm Winds Gusts to 63 mph at KTSP-TV 10.
Phoenix	30	1945 MST			0	0	3	0	Thunderstorm Winds Several trees blown down and uprooted in north Phoenix.
ARKANSAS									
Pulaski Co.	02	1355CST			0	0	4	0	Lightning Lightning struck a tree and roof of a house on Highway 300 near Roland. The lightning touched off a fire which caused an estimated \$8,000 damage to the house.
Saline Co.	02	1400CST			0	0	?	?	Hail (1.75) Hail ranging in size from marble to golfball fell ten miles south of Benton. The hail covered the ground. Report from a retired Air Force weather observer.
Pulaski Co.	02	1405CST			0	0	4	0	Thunderstorm Wind A severe thunderstorm moved through western parts of the county, and its associated high winds ripped apart a dock at a marina on Lake Maumelle. The damage was estimated at \$15,000.
Pulaski Co.	02	1410CST			0	0	3	0	Lightning A lightning bolt started a small fire at a house in Crystal Valley. The fire caused \$1,500 in damage.
Grant Co.	02	1448CST			0	0	?	?	Thunderstorm Wind High winds from a severe thunderstorm downed a tree two miles west of Sheridan. Report from the Sheriff's Office.
Yell Co.	02	1505CST			0	0	?	?	Hail (1.75) Golfball-size hail was reported by the State Police in Rover.
Cleveland Co.	02	1539CST			0	0	?	?	Thunderstorm Wind High winds downed trees just north of Rison on Highway 35. Report from Sheriff's Office.
Cleveland Co.	02	1544CST			0	0	?	?	Hail (0.75) Dime-size hail was reported just north of Rison. Report from Sheriff's Office.
Washington Co.	02	1647CST			0	0	?	?	Hail (1.50) Hail up to 1-1/2 inches in diameter fell at Tontitown.
Crawford Co.	02	1730CST			0	0	?	?	Thunderstorm Wind High winds from a severe thunderstorm downed trees five miles NNE of Van Buren on Highway 64. Report from the Sheriff's Office.
Union Co.	02	1815CST			0	0	?	?	Thunderstorm Wind A severe thunderstorm downed trees and power lines at Strong.
Logan Co.	02	1840CST			0	0	?	?	Thunderstorm Wind High winds downed several trees just east of Booneville. One tree landed on a house.
Benton Co.	08	2012CST			0	0	?	?	Hail (0.75) Dime-size hail fell in and around Bella Vista.
Benton Co.	08	2027CST			0	0	3	?	Thunderstorm Wind High winds from a severe thunderstorm overturned and damaged an airplane at Rogers Airport. The highest wind gust recorded was 58 mph. The winds also downed tree limbs and power lines in Rogers.
Clay Co.	08	2030CST			0	0	?	?	Thunderstorm Wind The County Sheriff reported wind gusts to 60 mph at Corning.
Sharp Co.	08	2030CST			0	0	?	?	Hail (1.75) 08 2030CST 0 0 ? ? Thunderstorm Wind
Washington Co.	08	2048CST			0	0	?	?	Hail (0.75) State warning point reported golfball-size hail and gusty winds at Ash Flat. The winds downed a few trees in Ash Flat.
Lawrence Co.	08	2050CST			0	0	?	?	Hail (1.75) Dime-size hail fell two miles east of Springdale.
Benton Co.	08	2104CST			0	0	?	?	Hail (0.75) Golfball-size hail fell at Imboden.
Searcy Co.	08	2105CST			0	0	4	0	Thunderstorm Wind Dime-size hail fell in east Siloam Springs. High winds downed a large tree onto a car in Leslie. The car was totaled by the damage.
Madison Co.	08	2105CST			0	0	?	?	Thunderstorm Wind High winds downed trees on a farm at Japton.
Washington Co.	08	2120CST			0	0	?	?	Hail (0.75) Dime-size hail was reported 15 miles west of Fayetteville.
Conway Co.	08	2140CST			0	0	3	?	Thunderstorm Wind High winds downed trees and damaged chicken houses at Jerusalem.
Johnson Co.	08	2205CST			0	0	?	?	Thunderstorm Wind High winds downed trees and power lines in Clarksville.
Fope Co.	08	2205CST			0	0	4	?	Thunderstorm Wind High thunderstorm winds blew down one chicken house and tore off the roof of another at Appleton. Two power lines were also downed.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1988

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	

— ARKANSAS

Pope Co.	08	2210CST			0	0	?	?	Thunderstorm Wind
			High winds downed power lines at Crow Mountain, three miles north of Atkins.						
Conway Co.	08	2210CST			0	0	?	?	Thunderstorm Wind
Conway Co.	08	2215CST			0	0	?	?	Thunderstorm Wind
			High winds downed trees at Blackwell and at Morrilton.						
Franklin Co.	08	2214CST			0	0	?	?	Hail (0.75)
			Dime-size hail fell at Ozark.						
Yell Co.	08	2240CST			0	0	4	?	Thunderstorm Wind
			Severe thunderstorms ripped through Yell County causing quite a bit of damage countywide. Several roofs and storage sheds were damaged, and numerous trees were downed. High winds also downed fences and damaged fruit trees in the county. Large hail accompanied the storm and caused minor damage to vehicles in Centerville.						
Crawford Co.	08	2301CST			0	0	?	?	Hail (1.00)
Crawford Co.	08	2305CST			0	0	?	?	Hail (2.00)
Crawford Co.	08	2317CST			0	0	?	?	Hail (1.00)
			Large hail fell at Mountainburg, Alma, and near Rudy; all in Crawford County.						
Sebastian Co.	08	2337CST			0	0	?	?	Hail (2.50)
			Tennis hall size hail fell on Highway 96 near Lavaca.						
Garland Co.	08	2345CST			0	0	4	?	Thunderstorm Wind
			A severe thunderstorm created high winds which blew a mobile home off its foundation on U. S. Highway 270 at Hot Springs. Some windows were blown out of cars, and trees were downed along Highway 7, again in Hot Springs. 3000 residents lost power during the storm.						
Poinsett Co.	08	2345CST			0	0	?	?	Thunderstorm Wind
			High winds downed trees on Military Road near Marked Tree.						
Pike Co.	09	0325CST			0	0	?	?	Hail (1.00)
			Large hail fell two miles south of Antoine.						
Nevada Co.	09	0340CST			0	0	?	?	Hail (0.88)
			Nickel-size hail fell five miles northwest of Prescott.						
Hempstead Co.	09	0355CST			0	0	?	?	Hail (0.88)
			Nickel-size hail was reported at Dunlap.						
Nevada Co.	09	0555CST			0	0	?	?	Hail (1.00)
			Large hail fell at Young.						
Desha Co.	17	1415CST			0	0	?	?	Thunderstorm Wind
			An isolated severe thunderstorm created high winds which downed a tree at the State Police Office in Dumas.						
Poinsett Co.	21	1725CST			0	2	4	?	Thunderstorm Wind
			High winds overturned a mobile home, took a roof off a small business, and damaged the shingles and siding of four homes. Only a small amount of rain accompanied this isolated storm as it caused the damage on Highway 149 at Black Oak.						
Perry Co.	29	1220CST			0	0	4	?	Thunderstorm Wind
			High thunderstorm winds damaged a youth center and two chicken houses just south of Fourche Junction on Highway 7.						
Pulaski Co.	29	1413CST			0	0	?	?	Thunderstorm Wind
			Winds gusted to 58 mph just northwest of North Little Rock. Report from Police Department.						
Prairie Co.	29	1600CST			0	0	?	?	Thunderstorm Wind
			In Biscoe, high winds downed signs and trees.						

— ARKANSAS

Desha Co.	29	1800CST			0	0	5	?	Thunderstorm Wind
			High winds from a severe thunderstorm knocked over several boxcars from their railroad tracks near McGehee. In addition, a five thousand square foot roof of a building in McGehee was destroyed.						
Benton Co.	29	2215CST			0	0	4	?	Thunderstorm Wind
			As many as 50 trees were downed in Sulphur Springs as a severe thunderstorm passed through. A number of windows in houses were also broken along Highway 59.						
Carroll Co.	30	2000CST			0	0	5	0	Lightning
			A schoolhouse in Eureka Springs was hit by lightning. The ensuing fire caused damage estimated at \$300,000.						

4 CALIFORNIA, Northern

Santa Cruz Co.	20	1630PST			0	2	0	0	LIGHTNING
Santa Cruz Beach			A lightning strike on the beach hit between two girls who were running. Both sustained minor burns and temporary paralysis.						

4 CALIFORNIA, Southern — NONE REPORTED

5 COLORADO

Chaffee Co.	4	1915MST			0	0	3	0	Heavy Rain
			Heavy rain caused some secondary roads to wash out in Chaffee county, and there were power outages in Buena Vista. U.S. 285 was under 10 inches of water at one spot.						
Adams and Weld Counties	5	1405MST	1	50	0	0	5	0	Tornado (F2)
			A tornado touched down 5 miles east of Lafayette, near Interstate 25 on the Weld-Adams county line, and moved northeast. It hit a campground, demolishing one trailer, and damaging six others, along with four cars. The ropelike funnel also blew down fences, signs, and electrical boxes. Total damage to the campground was estimated at \$50,000. The twister moved a 1500 pound hay wagon 150 feet. It stayed on the ground until about 1420MST.						
Boulder Co.	5	1425MST	0.5	50	0	0	5	0	Tornado (F2)
			A tornado touched down between Broomfield and Lafayette, staying on the ground about 20 minutes. It hit a subdivision, unroofing one abandoned house, and causing minor damage to a dozen others. A four car garage and three barns were destroyed. At one house, a chain link fence, a satellite dish, and a shed were destroyed, while the house's deck and garage were damaged. A grain storage tank was moved 200 feet by the twister. There were reports of boards being blown through walls; one came into a kitchen.						
Mesa Co.	5	1430MST			0	0	3	0	Tstm. winds
			A thunderstorm microburst destroyed a horse barn in Clifton.						
Larimer Co.	5	1455MST			0	0	0	0	Hail (1.0)
			1-inch hail fell 5 miles southeast of Loveland.						
Eagle Co.	5	evening			1	0	4	0	Lightning
			A 51 year old man was struck and killed by lightning 20 miles north of Eagle. In Eagle, lightning caused minor damage to a house and killed two horses, valued at \$8000.						

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1988

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					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	

— COLORADO

Larimer Cy.	7	1830MST			0	0	4	0	Tstm. winds A microburst unroofed a shed east of Loveland, and downed a power pole, severing some nearby lines.
Adams Cy.	8	1705MST	1.5	30	0	0	0	0	Tornado (F1) A tornado touched down 15 miles northwest of Bennett, about 20 miles northeast of Denver's Stapleton Airport, and stayed on the ground for 15 minutes. It was observed by National Weather Service personnel from the airport.
Adams Cy.	8	1724MST	0.5	30	0	0	0	0	Tornado (F1) Another tornado touched down close to the location of the previous one; this twister was about 10 miles northeast of Montbello, a neighborhood in extreme northeast Denver.
Jefferson Cy.	9	1330MST			0	0	0	0	Hail (1.75) Golfball size hail fell in Conifer, along with 1.3 inches of rain.
Boulder Cy.	9	1343MST			0	0	3	0	Hail (0.75) 3/4 inch hail fell in Longmont, causing minor damage to cars. 3 miles north of Louisville, 1.10 inches of rain fell in just 20 minutes.
Larimer Cy.	9	1407MST			0	0	0	0	Hail (0.75) 3/4 inch hail fell at several spots in the Fort Collins area from 1407 to 1413 MST.
Jefferson Cy.	9	1430MST			0	0	0	0	Hail (1.5) Ping pong ball size hail fell in Arvada from 1430 to 1432 MST.
Larimer Cy.	9	1433MST			0	0	0	0	Hail (0.75) 3/4 inch hail fell 4 1/2 miles southwest of Fort Collins.
Pueblo Cy.	9	1608MST			0	0	0	0	Hail (0.75) 3/4 inch hail fell in Colorado City.
Denver Cy.	10	1450MST			0	0	3	0	Tstm. wind (G52) A 60 mph microburst was clocked at Stapleton Airport. At a nearby home, a porch was unroofed and a fence was blown down.
Arapahoe Cy.	10	1517MST	0.2	20	0	0	0	0	Tornado (F0) A tornado touched down in southeast Aurora. It was on the ground until 1520 MST.
Arapahoe Cy.	10	1535MST	0.1	20	0	0	0	0	Tornado (F0) A small tornado touched down briefly in northeast Aurora.
Gunnison Cy.	10	1645MST			0	0	0	0	Tstm wind (G50) A microburst gusted to 58 mph at Gunnison.
Pueblo Cy.	11	1657MST			0	0	0	0	Tstm wind (G52) A microburst produced a gust of 60 mph at the Pueblo airport.
Denver Cy.	11	evening			0	1	0	0	Lightning A 30 year old man was seriously injured by lightning while mowing his lawn in Denver.
Larimer Cy.	12	1310MST			0	0	0	0	Hail (0.75) 3/4 inch hail fell in the Red Feather Lakes area, at about 9000 feet elevation.
Summit Cy.	12	1702MST			0	0	0	0	Hail (1.0) Quarter size hail fell at the eastern end of the Eisenhower Tunnel on Interstate 70 east of Dillon, at an elevation of 11,000 feet!
Douglas Cy.	13	1218MST			0	0	0	0	Hail (2.0) 2 inch hail fell in Parker.
Pueblo Cy.	13	1305MST			0	0	0	0	Tstm wind (G51) A thunderstorm microburst produced a gust of 59 mph in Pueblo.
Jefferson Cy.	13	1319MST			0	0	0	0	Hail (1.0) Soft hail 1 inch in diameter fell at the mouth of Turkey Creek Canyon, 5 miles southwest of Morrison.
Adams County: Bennett	13	1320MST			0	0	0	0	Hail (1.75)
1N Strasburg	13	1329MST			0	0	0	0	Hail (1.75)
5N Strasburg	13	1340MST			0	0	0	0	Hail (1.13) Hail from 1 1/8 inch to golfball size fell around Bennett and Strasburg.
Adams Cy.	13	1322MST	0.2	30	0	0	0	0	Tornado (F1) A tornado touched down briefly at Strasburg.

— COLORADO

Larimer Cy.	13	1400MST			0	1	2	0	Lightning A man helping to build a house was slightly injured by debris thrown by a lightning strike. The house was slightly damaged.
Morgan County: Pt. Morgan	13	1425MST			0	0	0	0	Tstm wind (G52)
Pt. Morgan	13	1430MST			0	0	4	3	Hail (1.75) A thunderstorm produced golfball size hail at Fort Morgan, along with a strong microburst. About 100 windows were broken in the city, and cars were pitted. There was minor crop damage in the area.
Cheyenne Cy. 5S Cheyenne Wells	13	1547MST			0	0	0	0	Hail (1.0)
Cheyenne Cy. Kit Carson	13	1550MST			0	0	0	0	Hail (1.0)
Logan Cy.	13	1600MST	1.5	50	0	0	5	0	Tornado (F2) A tornado touched down 4 miles north of Proctor, about 20 miles northeast of Sterling. It destroyed several buildings on a farm and partially unroofed a home. The roof section was carried a mile, then deposited more or less intact on the ground.
Lincoln Cy.	13	evening			0	1	0	0	Tstm. winds Strong winds blew over a moving truck 14 miles east of Hugo, injuring the driver.
Boulder Cy.	14	1930MST			0	0	3	0	Lightning Lightning tore a small hole in the roof of a home in the southern part of Boulder. There were some power outages in the area.
Arapahoe Cy.	15	1415MST			0	0	0	0	Hail (1.38) 1 3/8 inch hail fell in extreme southeast Aurora.
Adams Cy.	15	1503MST	2.0	100	0	0	3	0	Tornado (F1) A tornado touched down just northeast of the Rocky Mountain Arsenal, about 10 miles northeast of Denver's Stapleton Airport. The twister moved very slowly and did no damage except to demolish a small electrical substation, but it was long lived, not dissipating until 1530 MST.
Denver Cy.	15	1516MST	0.5	400	0	0	6	0	Tornado (F2) A tornado cut a swath through northeast Denver. The main path went through a thickly wooded area for about six blocks and uprooted about 500 city-owned trees, many of them large elms 75 to 100 years old. Hundreds of privately-owned trees were also sucked out of the ground by the slow-moving twister, which was filmed by a news team in a helicopter as it uprooted trees. The replacement cost of the city-owned trees was estimated at 1.5 million dollars. Not too much damage to buildings occurred. Some homes suffered roof and chimney damage, a gas main was ruptured, and some cars were damaged by falling trees. The uprooted trees also caused curb and sidewalk damage and cut some electric wires. After lifting just off the ground, the funnel passed very close to Stapleton Airport, causing the tower to be evacuated for 20 minutes. The ropelike tornado moved from southwest to northeast, staying on the ground until about 1540 MST.
Denver Cy.	15	1524MST	2.5	200	0	7	7	0	Tornado (F3) A strong tornado cut an erratic path through the southern part of Denver, moving northeast, then south-east, then almost due north, causing extensive damage in at least three areas. The twister damaged about 85 buildings, 20 severely; the total loss was estimated at 5 to 10 million dollars. Many cars were severely damaged; at least 15 vehicles were overturned and totaled. One trailer was lifted onto the top of a building that had just been unroofed; numerous antique cars inside the building were damaged. A Ford Bronco was blown over a church, and landed 100 yards away. A metal storage shed was deposited far above the ground in some power lines. The tornado uprooted hundreds of trees, many of them on a golf course as it roared right down the 18th fairway. As it crossed the South Platte River, it deposited a 30 foot evergreen in midstream. Miraculously, considering the strength of the storm, nobody was seriously hurt; seven people suffered minor injuries from flying debris. A golfer was thrown 40 feet, but was not hurt; a man clinging to a telephone pole was unscathed, but lost both shoes, a sock, and buttons off his shirt. A woman holding a baby was sucked through a broken window of a convenience store; both were unharmed. A dog was suspended in the air by the twister, tethered to the ground by its leash. As with the twister in northeast Denver, the uprooted trees crushed cars and damaged curbs and sidewalks. People in downtown Denver had a view of three

STORM DATA AND UNUSUAL WEATHER PHENOMENA

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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
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COLORADO

	tornadoes occurring simultaneously; the two in the city and the storm near the arsenal. The south Denver tornado stayed on the ground until about 1540 MST.								
Adams Cy.	15	1530MST	1.0	100	0	0	0	0	Tornado (F1)
A tornado was sighted east of Brighton, about 2 miles north of Barr Lake.									
Larimer Cy.	15	1538MST	1.0	50	0	0	3	0	Tornado (F1)
A tornado touched down 5 miles NNE of Fort Collins, and unroofed a mobile home.									
Kit Carson Cy. Burlington and Stratton	15	1600MST			0	0	0	0	Hail (1.0)
Hail up to 1 inch in diameter fell in both Burlington and Stratton.									
Bent Cy.	15	1645MST			0	0	3	0	Hail (0.75), Tstm. winds, Heavy rain
3/4 inch hail fell near Caddoa, 15 miles east of Las Animas. Hail in the area piled up several inches deep and was still covering the ground on the afternoon of the 16th. 3 1/2 inches of rain fell in the area, causing local flooding, and thunderstorm winds blew part of a roof off a trailer.									
Washington Cy.	15	1806MST			0	0	0	?	Hail (2.75)
Golfball to baseball size hail fell at Messex, on the South Platte River in the extreme northwest corner of Washington county.									
Logan Cy.	15	1820MST			0	0	4	5	Hail (1.75)
Moving a few miles downstream, the same thunderstorm that bombed Messex dropped golfball size hail in Merino. Numerous windows were broken, and extensive crop damage occurred in southwestern Logan county.									
Elbert Cy.	21	aftn.			1	0	0	0	Lightning
A 24 year old man was killed by lightning near Elbert.									
Denver Cy.	21	1330MST			0	0	4	0	Lightning
Lightning struck a home in Denver, causing about \$10,000 damage.									
Arapahoe Cy.	21	1415MST			0	0	4	0	Lightning
Lightning damaged three homes in Littleton, and also hit a house in Greenwood Village that had been struck seven years before.									
Larimer Cy.	22	1130MST			0	2	0	0	Lightning
Two boys, aged 15 and 17, were hit by lightning at Lawn Lake in Rocky Mountain National Park. Both were injured, one seriously.									
Adams Cy.	22	1530MST	0.5	40	0	0	0	0	Tornado (F1)
A tornado was spotted one mile east of Brighton; it stayed on the ground until 1536 MST.									
Douglas Cy.	22	1730MST			0	0	3	0	Lightning
Lightning damaged a home near Castle Rock.									
Saguache Cy.	23	aftn.			0	0	3	0	Hail (1.75) Heavy rain
Golfball size hail fell near Bonanza, about 10 miles north of Saguache. Heavy rain washed out a road in the area.									
El Paso Cy.	23	1845MST			0	2	0	0	Lightning
A 66 year old man was seriously injured by lightning just northwest of Colorado Springs; another person sustained minor injuries.									
Jefferson and Larimer Counties	24	eve.			0	0	4	0	Lightning
Lightning destroyed the chimney of a house near Evergreen, in Jefferson county. A bolt demolished a transmitter in the area, and another bolt knocked a Fort Collins radio station off the air in Larimer county.									
Adams Cy.	25	1235MST	0.5	30	0	0	0	0	Tornado (F1)
A tornado touched down one mile south of Watkins, staying on the ground until 1239 MST.									
Adams Cy.	25	1255MST	0.5	40	0	0	0	0	Tornado (F1)
A tornado was spotted just southeast of Barr Lake, and stayed on the ground until 1300 MST.									
Larimer Cy.	25	1346MST	1.0	65	0	0	0	0	Tornado (F1)
A tornado touched down five miles east of Loveland, staying on the ground until 1353 MST.									
Larimer Cy.	25	1420MST			0	0	3	0	Tstm. wind
A microburst unroofed a garage south of Loveland, causing about \$1000 damage.									

COLORADO

Weld Cy. CO2011	25	1500MST			0	0	4	0	Heavy rain, Lightning
Lightning started a house fire in Ault, causing extensive damage to the home. Over two inches of rain fell in the area, and high water forced the closure of U.S. Highway 85 between Ault and Nunn for several hours.									
Boulder Cy. CO2011	25	1530MST			1	1	0	0	Lightning
Lightning struck two rock climbers near Eldorado Springs. A 25 year old man was killed, and a 21 year old man suffered extensive injuries.									
Weld Cy. CO2012	25	eve.			0	0	0	5	Tstm. winds
Strong winds induced by thunderstorms caused extensive damage to crops in north-central Weld county.									
Denver Cy. CO2011	25	1630MST			0	0	5	0	Tstm. winds
Thunderstorm microbursts near downtown Denver knocked over two elm trees. One fell on a house, destroying most of it. A nearby building was unroofed, and two cars were damaged. A truck that had been severely damaged by one of the June 15 tornadoes was hit again.									
Adams Cy. CO2011	26	1237MST	1.0	30	0	0	0	0	Tornado (F1)
A tornado touched down two miles north of Watkins. It stayed on the ground until 1252 MST.									
Yuma Cy. CO2013	28	eve.			0	0	3	0	Lightning
Several places were hit by lightning in Eckley. A satellite dish was damaged.									
Gunnison Cy. CO2005	28	1900MST			0	0	4	0	Flash flood
Ohio Creek, north of Gunnison, overflowed its banks after heavy rain upstream. Culverts, headgates, and roads were washed out.									

CONNECTICUT

CT2001-004	05	2100EST			0	0	0	0	Gusty Winds
	06	0500EST							
A period of gusty winds gusting up to 40 to 45 MPH knocked out power to up to 10,000 customers in the Danbury area. In Brookfield, on Candlewood Lake, many boats and docks were damaged by the high waves whipped up by the winds.									
New Haven County	26	0130EST			1	1	0	1	Lightning
A teenage couple walking in a field were struck by lightning. The girl was injured and the boy killed, instantly. M170									
New London County	26	0000EST-0900EST			0	1	0	0	Lightning
At least eight houses were struck by lightning during a prolonged thunderstorm which lasted up to nine hours during the early morning hours. Power was knocked out to several thousand electric customers. A woman was injured by lightning while using a telephone in Stonington.									
New London County, Waterford	26	0912EST			0	0	0	0	Hail (1.75)
Golfball size hail was reported.									

DELAWARE

New Castle and Kent Counties; Summit Airport to Woodland Beach	7	1510EST	25	100	0	30	6	6	Tornado (F1)
New Castle County, Odessa	7	1515EST			0	0	?	?	Hail (1.00)
Kent County; Smyrna	7	1535EST			0	0	?	?	Thunderstorm Wind (58 kt)
					0	0	?	?	Hail (1.75)
Dover AFB	7	1549EST			0	0	?	?	Thunderstorm Wind (57 kt)
A supercell thunderstorm moved into northern Delaware, then developed a tornado. The tornado was intermittent, hitting Summit Airport, then Middletown, and Blackbird State Forest in New Castle County, and Smyrna and Woodland Beach in Kent County. It then moved out into the Delaware Bay, where it weakened. A barn and garage were flattened in Middletown,									

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					KILLED	INJURED	PROPERTY	CROPS	
DELAWARE									
Statewide	22-23				0	?	?	?	Heat Spell
									and 50 foot trees were uprooted. Numerous trees downed in Odessa between 1615-1625EDT. In Smyrna, a house was destroyed and over 120 other homes damaged in the Greenmeadows development. Three single engine planes were overturned at Smyrna Airport. Many trees reported down just west of Dover AFB. The greatest amount of damage was reported in Smyrna and Woodland Beach.
									Temperatures averaged well up into the 90s, reaching 98 at Wilmington on the 22, which broke the record for that date.
FLORIDA									
Dixie Co., Cross City	05 1500EST				0	0	3	0	Hail (2.0)
	05 1510EST				0	0	1	0	TSTM wind (55)
									Hail 2 inches in diameter was reported. High wind downed several trees.
Pasco Co., Zephyrhills	05 1930EST	0.5	30	0	2	3	0		Tornado (F0)
									A small tornado was observed to damage a mobile home. Two men in the home suffered minor injuries.
Marion Co., Ocala	05 2200EST				0	0	4	0	TSTM wind (60)
									High wind damaged the roof of a house.
Seminole Co., Sanford	06 1320EST				0	0	2	0	TSTM wind (55)
									High wind downed several large trees, a wood fence, and a concrete block wall.
Pasco Co., Dade City	06 1416EST				0	0	4	0	TSTM wind (60)
									High wind blew a large tree onto a house. Several other trees were blown down.
Brevard Co., Scottsmore(6mi S)	06 1530EST				0	6	4	0	TSTM wind (65)
									High wind blew a mobile home off its foundation into a pond. Six people in the home suffered minor injuries.
Flagler Co., St. Johns Park	06 1545EST				0	0	5	0	TSTM wind (65)
									High wind destroyed a mobile home and a camper vehicle. Sheds were destroyed and several trees were uprooted. A horse barn was destroyed.
Santa Rosa Co., Jay (2mi E)	07 1400CST				0	0	2	0	TSTM wind (60)
									High wind blew down two 70 foot tall high tension power poles.
Orange Co., Apopka (2mi NW)	07 1520EST				0	0	0	0	Hail (1.5)
									Hail 1.5 inches in diameter was reported.
Seminole Co., Oviedo	07 1550EST				0	0	0	0	Hail (0.88)
									Hail the size of nickels was reported along with very strong wind.
Brevard Co., Melbourne	07 1700EST				0	2	0	0	Lightning
									Lightning injured two men on an airboat. Light rain was falling from an approaching thunderstorm at the time.
Clay Co., Orange Park	10 1618EST				0	0	3	0	TSTM wind (55)
									High wind damaged a sign, blew the roof off of a nursery shed and blew down several trees.
Bradford Co., Lawley	10 1625EST	1.0	30	0	0	0	0	0	Tornado (F0)
									A tornado was sighted in a rural area. Trees were blown down.
Gulf Co., Port St. Joe	12 1400CST				0	0	3	0	TSTM wind (55)
									High wind blew over a substantial sign and a satellite antenna. Small hail damaged several cars.
FLORIDA									
Lee Co., Cape Coral	21 1500EST				0	0	3	0	TSTM wind (55)
									High wind destroyed two pool screen enclosures and blew down several trees.
Broward County	21 1600EST				0	0	0	0	Tornado (F0)
									A short-lived tornado touched down in the Everglades just south of Interstate 75, Alligator Alley, in western Broward County. It lasted about 3 minutes and moved northeast very slowly.
Polk Co., Kathleen	22 1700EST	1.0	30	0	0	4	0	0	Tornado (F1)
									A tornado destroyed one mobile home and several mobile homes were blown off their foundations.
Citrus Co., Inverness	25 1500EST	2.0	40	0	0	4	0	0	Tornado (F2)
									A tornado damaged 12 mobile homes and destroyed a barn.
Hernando Co., Brooksville	25 1500EST				0	0	4	0	TSTM wind (55)
									High wind damaged 15 mobile homes.
Manatee Co., Bradenton	25 1700EST				0	0	4	0	TSTM wind (55)
									High wind damaged several mobile homes, a porch roof was blown off, several trees were uprooted and power lines were downed.
Orange Co., southwest part	26 1500EST				1	0	0	0	Lightning
									A ten year old boy was killed by lightning while riding a bicycle in a campground. M100.
Polk Co., Winter Haven	26 1645EST				0	0	4	0	TSTM wind (55)
									High wind destroyed a patio enclosure. Several trees were blown down.
Leon Co., Woodville	27 1830EST				0	0	0	0	Hail (1.0)
									Hail one inch in diameter was reported by a sheriff's officer.
Polk Co., Lake Wales	28 1400EST				1	0	0	0	Lightning
									A male was killed by lightning while riding a horse, on a cattle ranch. M620.
GEORGIA									
Wilkinson County, McIntyre	08 1615EST				0	0	?	?	Hail (1.00)
Morgan County, 2N Rutledge	09 1530EST				0	0	?	0	TSTM Wind
									Thunderstorm winds downed several trees and power lines in the vicinity of Hard Labor Creek State Park.
McDuffie County, Thomson	09 1550EST				0	0	?	0	Hail (0.75)
Columbia County, 10W Augusta	09 1700EST				0	0	?	0	TSTM Wind
	09 1700EST				0	0	?	?	Hail (1.00)
									Thunderstorm winds gusted to 60 mph near the Columbia-Richmond county line west of Augusta.
Harris County, 3W Whitesville	09 1710EST				0	0	?	?	Hail (0.75)
	09 1710EST				0	0	?	?	TSTM Wind
									Large tree limbs were downed by thunderstorm winds in the Flat Shoals area west of Whitesville.
Dooly County, Vienna	09 1750EST				0	0	?	?	TSTM Wind
									A building was heavily damaged and others suffered roof damage from thunderstorm winds. Trees and power lines were also downed throughout the city. Two homes were damaged by falling trees.
Crisp County, Cordele	09 1800EST				0	0	?	?	Hail (1.75)
	09 1800EST				0	1	?	?	TSTM Wind
									Thunderstorm winds downed trees, power lines and signs in Cordele. A woman was injured when hit by debris from a blown down store sign. Many roads were impassable due to the down trees and large limbs.

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					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	

GEORGIA

Turner County, Dakota	09 1820EST	0 0 ? ?	TSTM Wind	Thunderstorm winds downed trees across U.S. Highway 41.					
Bibb County, Macon	09 1840EST	0 0 ? ?	TSTM Wind	Thunderstorm winds downed large tree limbs and power lines in the eastern and southern sections of Macon.					
Twiggs County: Jeffersonville Bullard	09 1915EST 09 1915EST	0 0 ? ? 0 0 ? ?	TSTM Wind TSTM Wind	Thunderstorm winds blew down trees across U.S. Highway 80 and Georgia Highway 96 in Jeffersonville. Power lines were downed at scattered locations throughout Twiggs County. The roof of a house was blown off and part of a barn blown down by thunderstorm winds near Bullard.					
Wilkinson County: Irwinton Toombsboro	09 1930EST 09 1930EST	0 0 ? ? 0 0 ? ?	TSTM Wind TSTM Wind	Thunderstorm winds blew down trees in Irwinton and Toombsboro.					
Laurens County, Dublin	09 2000EST	0 0 4 ?	TSTM Wind	Thunderstorm winds flattened a warehouse under construction and uprooted several trees in Dublin. One of the trees fell across a mobile home, destroying it.					
Walton County, Monroe	17 1600EST	0 2 ? 0	TSTM Wind	Thunderstorm winds downed trees in Monroe. Two people were injured when a tree fell on the car they were in.					
Baldwin County, Milledgeville	17 1810EST	0 0 ? ?	Hail (1.75)						
Union County, Blairsville	18 1420EST	0 0 ? ?	Hail (0.75)						
DeKalb County, Chamblee	18 1436EST 18 1530EST	0 0 4 0 0 0 5 0	TSTM Wind (70) Lightning	Thunderstorm winds gusted to 81 mph at the Peachtree-DeKalb Airport. There was roof damage to several airport buildings and to a few aircraft parked on the apron. Minor damage to homes was also reported in the area. Lightning caused several fires that damaged a church, destroyed one home and damaged two others.					
Dodge County, Milan	18 1500EST	1 0 0 0	Heat	A woman living in a un-airconditioned trailer in an open field died of heat stroke. F50P					
Fulton County, Atlanta	18 1512EST	0 0 4 0	Lightning	A house and an apartment building along with several cars were damaged by lightning-caused fires.					
Bartow County, 4N Cartersville	18 1530EST	0 0 ? ?	TSTM Wind	Thunderstorm winds downed several trees across Castle Road north of Cartersville.					
Cherokee County, Woodstock	18 1545EST 18 1545EST	0 0 4 0 0 0 ? ?	Lightning TSTM Wind	Lightning caused three house fires near Woodstock. Thunderstorm winds downed numerous trees between Canton and Woodstock.					
Gwinnett County, Lawrenceville	18 1600EST	0 0 5 0	Lightning	Lightning started 8 house fires and several brush fires in and just east of Lawrenceville. Though most of the damage was minor, one house was totally destroyed.					
Walton County, Walnut Grove	18 1650EST	0 0 ? ?	TSTM Wind	Large trees were blown down along Georgia Highway 138 in Walnut Grove.					
Barrow County, 1E Winder	18 1655EST	0 0 ? ?	TSTM Wind	Three trees were blown down by thunderstorm winds just east of Winder.					
Monroe County, Bolingbroke	19 1615EST	0 0 ? ?	TSTM Wind						
Crawford County, 9NE Roberta	19 1615EST	0 0 ? ?	TSTM Wind	Trees were downed by thunderstorm winds near Bolingbroke and in the Moran community of northern Crawford County.					
Whitfield County, Dalton	24	1 0 0 0	Heat	A 72 year old man died due to heat stroke. M72P					

GEORGIA

Screven County: 5E Sylvania 4S Sylvania	24 1425EST 24 1435EST	0 0 3 0 0 0 4 0	TSTM Wind TSTM Wind	Thunderstorm winds damaged the roofs of two homes and destroyed a shed in the eastern part of the county. A building was destroyed south of Sylvania.					
Newton County, 8SW Covington	24 1430EST	0 0 ? ?	TSTM Wind	Thunderstorm winds uprooted 4 large trees and damaged other trees in the southwest part of Newton County.					
Bulloch County, Statesboro	24 1500EST	0 0 5 ?	TSTM Wind	Thunderstorm winds blew out windows, downed trees and power lines and heavily damaged two buildings and one garage in Statesboro on U.S. Highway 80. Two buildings had their roofs blown off and the back wall of an open bay garage was blown out. The roof of a warehouse was damaged 3 miles north of Statesboro. Numerous trees were uprooted by the wind and there were many power outages. One man was injured when struck by a car that was going around a tree in the road. Six other persons were treated for minor injuries from car accidents.					
Spalding County, 4E Griffin	24 1540EST	0 0 ? 0	TSTM Wind	Several trees were uprooted or snapped off east of Griffin by thunderstorm winds.					
Bibb County, 5W Macon	24 1615EST	0 0 ? ?	TSTM Wind	A house under construction was flattened by thunderstorm winds.					
Monroe County, 2S Forsyth	24 1635EST	0 0 ? ?	TSTM Wind	Thunderstorm winds blew down power lines south of Forsyth.					
Upton County, 7W Thomaston	24 1645EST	0 0 ? 0	TSTM Wind	Two trees were downed by thunderstorm winds.					
Montgomery County, Uvalda	24 1745EST	0 0 ? 0	TSTM Wind	Part of a roof of a house was blown off by thunderstorm winds.					
Laurens County, 2S Dublin	24 1800EST	0 0 ? 0	TSTM Wind	Thunderstorm winds downed trees and power lines south of Dublin.					
Montgomery County, Ailey	24 1810EST	0 0 ? ?	TSTM Wind	Trees were downed by thunderstorm winds in Ailey.					
Dodge County, 6NW Eastman	24 1850EST	0 0 5 ?	TSTM Wind	Thunderstorm winds caused damage estimated at nearly \$500,000 to several farms northwest of Eastman. Two barns were destroyed and 100 foot silo was ripped in half. Other sheds and utility buildings were destroyed.					
Rabun County, Clayton	25 1545EST	0 0 ? ?	TSTM Wind	A tree was blown down onto a car by thunderstorm winds.					
Heard County, Franklin	25 1610EST	0 0 ? ?	TSTM Wind	Trees were downed by thunderstorm winds in Franklin.					
Heard County, Franklin	25 1610EST	1 1 0 0	Lightning	A man was struck and killed by lightning as he was returning from a day of fishing. He had just left a boat and was struck in an open area about 15 yards from the water. A companion who was nearby was knocked unconscious but not seriously injured. M550					
Heriweather County, Gay	25 1634EST	0 0 ? ?	TSTM Wind	Thunderstorm winds downed power lines in the community of Gay.					
Coweta County, Roscoe	25 1730EST	0 0 ? ?	TSTM Wind	Thunderstorm winds downed several trees at scattered locations near Roscoe.					
Macon County, 10NW Montezuma	25 1755EST	0 0 ? ?	TSTM Wind	Numerous trees were downed by thunderstorm winds on Georgia Highway 195.					
Monroe County, 2W Forsyth	25 1800EST	0 0 ? 0	TSTM Wind	Thunderstorm winds downed trees onto power lines west of Forsyth.					
Lumpkin County, 5S Dahlonega	25 1800EST	0 5 0 0	Lightning	Five people were injured when lightning struck a pavilion next to a church just south of the community of Auraria.					

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1988

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	
— GEORGIA									
Clarke County, Athens	25	1850EST			0	2	5	?	TSTM Wind
			Thunderstorm winds downed trees and power lines in Athens. Some of the trees fell on cars. Two persons were injured when a tree fell on the car they were in.						
Oconee County, Watkinsville	25	1915EST			0	0	?	?	TSTM Wind
			Thunderstorm winds downed several trees in Watkinsville.						
Greene County, 10NW Greensboro	25	1930EST			0	0	?	?	TSTM Wind
			Large tree limbs were blown down over power lines by thunderstorm winds in northern Greene County.						
Fulton County, Sandy Springs	25	2000EST			0	0	?	?	TSTM Wind
	25	2000EST			0	0	?	0	Lightning
			Thunderstorm winds downed trees and power lines in Sandy Springs. A house was set on fire by lightning.						
DeKalb County, Chamblee	25	2015EST			0	0	?	0	TSTM Wind
			Trees were downed by thunderstorm winds around Chamblee.						
Baldwin County, 2SE Milledgeville	25	2045EST			0	0	?	?	TSTM Wind
			Trees were downed across power lines by thunderstorm winds southeast of Milledgeville.						
Jones County, 3N Gray	25	2105EST			0	0	?	?	TSTM Wind
			Thunderstorm winds downed several trees north of Gray.						
Tift County, Tifton	25	2330EST			0	0	?	?	TSTM Wind
			Thunderstorm winds downed numerous trees and power lines in the southern part of Tifton.						
Houston County, 5S Perry	26	1230EST			0	0	4	0	TSTM Wind
			Thunderstorm winds downed trees and utility poles and destroyed a barn south of Perry.						
Bleckley County, 2SE Cochran	26	1500EST			0	0	?	?	TSTM Wind
			Several trees were blown down southeast of Cochran by thunderstorm winds.						
Dooly County, Byronville	26	1500EST			0	0	?	?	TSTM Wind
			Thunderstorm winds blew down several trees near Byronville.						
Laurens County, 1SS Dublin	26	1600EST			0	0	?	?	TSTM Wind
			Thunderstorm winds downed trees across power service lines in southern Laurens County.						
Calhoun County, 3NE Arlington	26	1710EST			0	0	?	?	TSTM Wind
			Trees were blown down, one striking a car, near Georgia Highway 45.						
Monroe County, 5SW Forsyth	26	1820EST			0	0	?	0	TSTM Wind
	26	1820EST			0	0	?	0	TSTM Wind
			Trees were downed on power lines west and southwest of Forsyth.						
Jones County, East Juliette	26	1805EST			0	0	?	?	Hail (1.00)
Monroe County, Juliette	26	1805EST			0	0	?	?	Hail (1.00)
Jasper County, Monticello	26	1915EST			0	0	?	?	Hail (1.75)
Gilmer County, 3S Ellijay	26	2000EST			0	0	3	0	Lightning
			Lightning set a house on fire south of Ellijay.						
Jefferson County, Stapleton	26	2045EST			0	1	4	0	TSTM Wind
			Thunderstorm winds damaged many homes, uprooted trees and downed power lines in Stapleton. A child standing near a window was injured when the window was blown in. The roof of a mobile home was torn off and the mobile home blown off the foundation.						
Camden County, 2NE Kingsland	27	0005EST			0	0	5	0	Lightning
			Lightning caused a fire that nearly destroyed a house and caused several small brush fires.						
Wilkes County, Washington	27	0015EST			0	0	5	0	Lightning
			Lightning started a fire that heavily damaged a stately 19th century home in Washington.						
Bibb County, Macon	27	0800EST			1	0	0	0	Heat
			A 52 year old man died of heat stroke at a rescue mission in Macon.						
— GEORGIA									
Lee County, 3S Leesburg	27	1515EST			0	0	?	?	Hail (1.00)
Dougherty County, Albany	27	1525EST			0	0	?	?	TSTM Wind
	27	1525EST			0	0	?	?	Hail (0.75)
			Thunderstorm winds downed large tree limbs in Albany.						
Turner County: Rebecca	27	1530EST			0	0	?	?	TSTM Wind
	27	1530EST			0	0	?	?	Hail (0.75)
	27	1615EST			0	0	?	?	TSTM Wind
	27	1615EST			0	0	?	?	Hail (0.75)
			Power lines and trees were blown down in northeast and southern Turner County by thunderstorm winds.						
Worth County, 12N Sylvester	27	1605EST			0	0	?	?	TSTM Wind
			Numerous trees and power lines were downed along Georgia Highway 33 in the northeast part of the county.						
Greene County: SE Greensboro	30	1210EST			0	0	?	?	TSTM Wind
	30	1230EST			0	0	?	?	TSTM Wind
	30	1230EST			0	0	?	?	TSTM Wind
			Trees were downed onto power lines in eastern and western Greene County and in western Taliaferro County.						
Early County, Blakely	30	1400EST			0	0	?	?	TSTM Wind
			Several power lines and a few large tree limbs were downed by thunderstorm winds in Blakely.						
Bibb County, 9S Macon	30	1442EST			0	0	0	0	TSTM Wind (50)
			Winds gusted to 58 mph at the Lewis B. Wilson Airport.						
Wilkinson County, 2S Irwinton	30	1445EST			0	0	?	?	TSTM Wind
			Thunderstorm winds downed power lines south of Irwinton.						
Lee County, 5SE Leesburg	30	1500EST			0	0	?	0	TSTM Wind
			Several large tree limbs were downed in scattered areas of southeast Lee County.						
Crisp County, Cordele	30	1545EST			0	0	?	?	TSTM Wind
			Large tree limbs and power lines were blown down by thunderstorm winds.						
Wilcox County: 2S Rochelle	30	1545EST			0	0	?	?	TSTM Wind
	30	1545EST			0	0	?	0	TSTM Wind
			Trees were blown down by thunderstorm winds across Georgia Highway 112 south of Rochelle and west of Abbeville. One of the trees fell on a mobile home west of Abbeville.						
Ben Hill County: 14NW Fitzgerald	30	1600EST			0	0	4	?	TSTM Wind
	30	1600EST			0	0	?	?	TSTM Wind
	30	1615EST			0	0	?	?	TSTM Wind
	30	1615EST			0	0	?	?	TSTM Wind
			Thunderstorm winds uprooted trees and downed power lines in Fitzgerald and Alamo. Numerous chinaberry trees were uprooted and a house heavily damaged and the roof of another damaged by thunderstorm winds near Abba. Farm equipment, a grain bin and two homes were damaged in the Salem community 14 miles northwest of Fitzgerald.						
Telfair County, Jacksonville	30	1610EST			0	0	?	?	TSTM Wind
			Thunderstorm winds uprooted trees and snapped the tops out of others along Georgia Highway 117 in southern Telfair County.						
Laurens County, East Dublin	30	1630EST			0	0	?	?	TSTM Wind
			Thunderstorm winds downed several trees across U.S. Highway 80 in East Dublin.						
Liberty County, Rinesville,	30	1730EST			0	0	4	?	TSTM Wind
			A mobile home was destroyed and a house damaged by falling trees in Rinesville.						

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1988

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	
10 IDAHO									
ID208E-OSW Southeastern Idaho Southwestern Idaho	1-30								Drought
									Stream flow and reservoir levels continued very low.
Bannock Co. Pocatello	15	1500MST	0.2	75	0	0	4	0	Tornado (F0)
									A large 160 ft. long shed was lifted 40 feet into the air at 2601 Pole Lane.
Clearwater Co.	16	1800-2000PST			0	0	0	0	Lightning
									Lightning ignited 30 fires, the largest of which was three-quarters of an acre. One fire in the Mallard-Larkins Pioneer area northeast of Pierce was allowed to burn naturally.
Jefferson Co.	25	1710MST			0	0	4	0	Thunderstorm wind
									"Winds moved everything movable". Lightning struck Utah Power and Light's Amys Substation at Goshen, causing power outages affecting 1000 customers.
Gooding Co.	25	1730MST	8	1000	0	23	6	?	Thunderstorm wind (85)
									A "100mph" microburst from the southwest turned over a semi truck-trailer, four motor homes, and a travel-trailer at the Bliss Port of Entry and rest stop. Rocks used on roofs "flew like missiles" over a large area of the rest stop, breaking vehicle windows. A mobile home near the Bliss Power Plant was "picked up and dropped" 20 feet from its foundation with one wall blown 300 feet into a pasture. Eleven power transmission structures were toppled, eight on a 138,000 volt line and three on a 230,000 volt line. Crews worked through the night repairing rain damage, clearing roads, and restoring electrical service.
Valley Co. 25 N Crouch	25	1840MST	8	1000	0	5	4	5	Thunderstorm wind
									A microburst blew down 500,000 board feet of commercial timber in the form of seed trees left over after a 1986 salvage sale. "The wind was strong enough that it would take a 24 to 28-inch tree, break it off at the 15-foot level and sling it about 100 feet." Four campers were evacuated to hospitals; several vehicles were destroyed.
Gemma Co.	25	Evening			0	0	0	0	Funnel clouds
Cassia Co. Burley	26	1600MST			0	0	4	4	Heavy rain
									A thunderstorm with .87 inch of rain flooded many basements and some basement apartments with up to two inches of water. Wind and rain laid some wheat and barley down.
Owyhee Co. Homedale	26	1630MST	6	1500	0	0	4	6	Thunderstorm wind (50) Hail (1.0)
									Heaviest damage was along Succor Creek between the Oregon state line and Homedale, where 12 farms received over 80% hail damage to orchards, alfalfa seed, and truck crops. Several sheds and at least one motor home were overturned by wind.
Elmore Co. Glenns Ferry	27				0	0	4	5	Thunderstorm wind, Hail
									Hail (size unknown) flattened wheat, other grains, potatoes, and sugar beets. Wind damaged farm structures and hay stacks.
Bonner Co.	27				0	0	5	0	Lightning
									Lightning struck the power plant at Cabinet Gorge Dam. Scores of appliances and satellite systems were damaged by power surge. The surge protectors in some cases were melted.
11 ILLINOIS									
Du Quoin Perry Co	3	1320CST			0	0	3	0	Tstm wind
									Strong thunderstorm winds caused extensive damage to a mobile home and demolished a shed southeast of Du Quoin.
Alton Madison Co	6	1600CST			0	0	4	0	Tstm wind
									Strong winds measured to 63 mph knocked trees onto cars, power lines and a house in Alton.
Edwardsville Madison Co	8	1625CST			0	0	3	0	Funnel cloud Tstm wind
									Winds estimated over 60 mph blew down some trees. A co-operative weather observer reported a funnel cloud near Edwardsville.
Belleville St. Clair Co	8	1630CST			0	0	4	0	Tstm wind
									Damaging winds in Belleville blew down some trees and power lines.
New Athens St. Clair Co	8	1700CST			0	0	3	0	Tstm wind
									Strong winds blew down a few trees.
3N Fredrickstown Madison Co	8	1745CST			0	0	3	0	Tstm wind
									High winds blew down some trees.
1.5S Aroma Park Kankakee Co	20	1900CST			0	0	4	0	Tstm wind Hail
									High winds blew down a couple of large trees and tore off house shingles and doors off a farm building. Hail of unknown size destroyed 75 acres of bean plants.
ILZALL Entire State	All Month				0	0	0	?	Severe Drought
									A worsening Spring drought became severe over much of Illinois during the month of June which is normally the wettest month of the year across Illinois. Normal rainfall for June across the state ranges from about 3.5 to 4.5 inches. During June 1988 many co-operative weather reporting stations recorded total monthly rainfall amounts under one inch and some locations received less than 1/4 of an inch. The least amount reported for the month was a mere 0.06 inches recorded at Piper City in Ford County in the east-central part of the state. On the other hand, only a few areas in the north and central sections of the state received monthly totals over one inch. Golden in the far western section of the state had the greatest monthly total of 3.00 inches. Rainfall was a little more abundant in the far southern sections of Illinois where monthly rainfall was generally in the 1 to 2 inch range, but a few areas received less than one inch of rain. In general, the total rainfall across Illinois departed about 2.0 to 4.0 inches below normal for the month of June. Some specific rainfall data for June: 1.05 inches of rain recorded during June at the official station for Chicago located at O'hare International Airport, the seventh driest on record dating back to 1871; The total precipitation of 2.24 inches for May and June combined was the second driest on record and the 4.32 inch total for April, May and June combined was the fourth driest; Urbana in the east-central section of the state was the driest June on record. Also, Urbana and Springfield reported the first six months of 1988 to be the driest such period on the weather record books. June's extreme dry weather, with the much below normal rainfall across much of the state during the Spring months of March, April and May, produced severe drought conditions in the northern and central parts of Illinois and moderate drought in the far southern sections by the end of June. Yearly rainfall deficits from January 1 to June 30 range from about 7 up to 10 inches below normal over northern and central sections of the state and shortfalls of 3 to 7 inches were noted in the south. The following table summarizes rainfall amounts and departures from normal for June and for the first half of the year. Data from official first-order weather reporting stations across Illinois and nearby bordering locations:
1988 DROUGHT FOR ILLINOIS									
STATION	JUNE RAINFALL	DEPARTURE	JANUARY 1 - JUNE 30 RAINFALL	DEPARTURE					
DUBUQUE	0.70	-3.47	6.25	-9.90					
MOLINE	1.16	-3.16	10.02	-8.19					
ROCKFORD	0.46	-4.12	10.03	-7.71					
CHICAGO	1.05	-3.03	9.64	-6.75					
URBANA	0.41	-3.51	7.74	-10.48					
GALESBURG	1.05	-3.42	10.20	-9.29					
PEORIA	0.60	-3.28	9.40	-8.07					
SPRINGFIELD	0.62	-3.09	9.90	-7.60					
ST. LOUIS	1.97	-1.76	14.86	-3.10					
PADUCAH	0.41	-4.04	18.93	-6.81					
EVANSVILLE	1.11	-2.39	14.32	-8.35					
CAIRO	0.50	-3.66	19.14	-4.41					
	Along with the developing severe drought conditions, temperatures across Illinois for the month of June averaged 1 to 4 degrees above normal. Daily maximum temperatures during the month were well above the normal and record daily maximums were set throughout the state on a number of days during June. Included here are some high temperatures recorded over 100 degrees for								

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1988

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										
										<p>selected sites across Illinois. Chicago O'Hare Airport-- 104 degrees on the 20th (equalled the highest reading ever recorded for the month of June); 101 degrees on the 21st; and 103 degrees on the 25th. (3 days of 100 degrees or more for the month were the most 100 degree days for any June on record.) Springfield--101 on the 25th. Moline--101 on the 20th; 101 on 21st; 104 on 25th. Rockford--101 on the 20th; 100 on the 21st; 101 on the 25th. Peoria--105 on the 25th (equalled the highest ever recorded for the month of June. Out of nearly 300 co-operative weather stations reporting, the highest recorded temperature for the month of June in Illinois was 106 degrees observed at Piper City in Ford County in east-central Illinois. Interestingly, Piper City had the least amount of rain for the month of June in Illinois and measured only 0.06 inches for the entire month.</p>
INDIANA										
LaPorte County, SE Westville	20	0435 EST			0	0	?	?	Tstm Wind	<p>Nine to twelve trees 3 to 5 feet in diameter were uprooted, damaging 3 homes. A 30 x 50 foot barn was moved about 10 feet off its foundation.</p>
Allen County, Fort Wayne	20	2112 EST			1	7	6	3	Tstm Wind Hail (2.0)	<p>A severe thunderstorm developed in east-central Fort Wayne at approximately 840 pm est and moved southeast across the southeast side of the city, leaving a 6 mile long path of hail and wind damage estimated at \$1.5 million. Wind speeds within the storm were estimated at 60 to 70 mph with trees as big as 1 foot in diameter being clipped off. Much of the wind damage was due to trees falling on cars or houses.</p> <p>Hail to 2 inches in diameter was reported, with the greatest hail damage occurring over the extreme southeast part of the city. One insurance company alone reported 250 hail-damaged cars.</p> <p>There were seven storm-related injuries and one storm-related fatality. The fatality was a 31-year-old male who was driving a motorcycle which hit a wind-downed tree. M31V</p>
IOWA										
Woodbury County, Anthon to Danbury	07	1925 CST			0	0	4	6	Hail (0.50)	<p>A thunderstorm complex developed over Northwest Iowa during the evening of the 7th. Lightning struck 2 farmsteads near Rembrandt. The first was west of town, where 2 buildings were struck and 1800 bales of hay were destroyed. The second was east of town, where a building was struck, blowing a hole in the roof and setting it on fire. As the thunderstorms moved across Woodbury County, a considerable amount of marble size hail fell. A 14x4 mile area of crops was nearly destroyed. Damage was around \$750,000. As the storms moved southeast, a church was struck by lightning in Knoxville. Damage was placed at \$20,000.</p>
Buena Vista County: 2NW Rembrandt 4E Rembrandt	07	2100 CST			0	0	4	0	Lightning	
	07	2120 CST			0	0	4	0	Lightning	
Marion County, Knoxville	08	0134 CST			0	0	4	0	Lightning	
Fremont County, Bartlett	28	2230 CST			0	0	2	0	Tstm Winds (50+)	
Warren County: Indianola	29	0130 CST			0	0	5	4	Tstm Winds (80)	
New Virginia	29	0134 CST			0	0	5	0	Lightning	
Butler County, New Hartford	29	0240 CST			0	0	5	0	Lightning	<p>Two areas of thunderstorms developed in Iowa. The first area developed in West-Central and Southwest Iowa, and quickly spread to South-Central Iowa. A truck was blown off I-80 in Fremont County in Southwest Iowa. In Warren County, near Indianola, downburst winds gusted to over 90 MPH. These winds damaged the roof of a church. At least 2 large machine sheds were picked up and destroyed. Also, at Indianola, considerable damage was reported at a camper-trailer sales business. Twenty trailers were blown over. Damage at Indianola was estimated at \$350,000-\$400,000. Lightning struck a farm at New Virginia. Fire destroyed a barn, machine shed, 2 tractors, and 300 bales of hay. The second area of thunderstorms was over Northern Iowa. Lightning struck a Farmers' Coop office at New Hartford. Fire destroyed the 40x100 foot building.</p>
IOWA										
All of Iowa					0	0	0	9	Drought	<p>The severe drought conditions that began over the State during the late Winter months began taking a toll on Iowa crops. Estimates through the end of June indicated that about 20% of the corn crop, and 15% of the soy bean crop were destroyed. Damage for the corn and soy bean crops alone were \$1,300,000,000.</p>
14 KANSAS										
Washington Co 7N Clifton	02	0945CST			0	0	0	0	Funnel Clouds	
5W Linn	02	1230CST			0	0	0	0	Funnel Clouds	
										<p>Several funnel clouds were sighted across Washington County during the late morning hours.</p>
Chautauqua Co Sedan	02	1325CST			0	0	2	0	TSTM Wind (52)	<p>A severe thunderstorm moved across far southeast Kansas and produced strong winds and pea size hail in Sedan. No major damage resulted from the storm.</p>
Shawnee Co Dover	02	1413CST			0	0	0	0	Funnel Cloud	
5N Rossville	02	2043CST			0	0	0	0	Funnel Cloud	
Osage Co. 10NW Burlingame	02	1420CST			0	0	0	0	Funnel Cloud	<p>Strong thunderstorms developed across portions of northeast Kansas and produced several funnel clouds in the area.</p>
Reno Co Buhler	15	1320CST			0	0	0	4	Hail (1.0)	
Harvey Co Hesston	15	1400CST			0	0	0	4	Hail (1.0)	<p>A severe thunderstorm moved eastward from Buhler in Reno County to Hesston in Harvey County and destroyed 20 to 30 percent of the wheat crop in its path.</p>
Johnson Co Olathe	15	1431CST			0	0	2	0	TSTM Wind (52)	<p>A severe thunderstorm brought strong winds up to 60 mph as it moved through the Olathe area.</p>
Allen Co 3S Piqua Hill	15	1800CST			0	0	2	3	Lightning	<p>Lightning started a fire that destroyed 10 acres of wheat and a tool shed.</p>
Reno Co Hutchinson	19	1635CST			0	0	3	2	Hail (1.75)	
2N Hutchinson	19	1655CST			0	0	3	2	Hail (1.75)	<p>Intense thunderstorms formed across south-central Kansas during the late afternoon and evening hours. Hail up to golf ball size fell in and around the Hutchinson area. Only minor damage resulted from the large hail.</p>
Harper Co Attica	26	1600CST			0	0	4	0	TSTM Wind	<p>A severe thunderstorm developed across far south-central Kansas and produced damaging winds as it moved across the town of Attica. The strong winds destroyed a store front and threw a Cessna 177 airplane about 150 yards. The plane was totally destroyed. The storm also downed 12 large trees within the town.</p>
Reno Co 10SW Hutchinson	26	1755CST			0	0	2	0	Hail (1.75)	
1.5NE Partridge	26	1833CST	.5	20	0	0	0	2	Tornado (F0)	
1NE Partridge	26	1835CST			0	0	2	2	Hail (1.75)	
1N Plevna	26	1849CST	.5	20	0	0	0	2	Tornado (F0)	
Hutchinson	26	1900CST			0	0	4	0	TSTM Wind	
Sedgwick Co Wichita	26	1838CST			0	0	0	0	Funnel Cloud	
Wichita	26	1850CST			0	0	0	0	Funnel Cloud	
Wichita	26	1900CST			0	0	0	0	Funnel Cloud	

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1988

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	

KANSAS

Severe thunderstorms produced two tornadoes and large hail in Reno County during the evening hours. The first tornado briefly touched down 1.5 miles north of Partridge at 1833CST and moved westward in open farm country. The second tornado touched down 1 mile north of Plevna at 1849CST and also moved west in open farm country. Only minor crop damage resulted from both tornadoes. Strong thunderstorms in the Wichita area produced several funnel clouds in the metropolitan area. Strong winds from thunderstorms in Hutchinson blew down a few trees and power lines around 1900CST.

Sedgwick Co	28 1630CST	0	0	2	0	TSTM Wind (56)
SE Wichita	28 1638CST	0	0	2	0	TSTM Wind (56)
NE Wichita	28 1638CST	0	0	2	0	TSTM Wind (50)

Severe thunderstorms moved across the eastern sections of Wichita during the late afternoon hours and produced winds up to 65 mph. Only minor damage resulted from the strong winds. Marble size hail also accompanied the storms.

Cloud Co	28 1747CST	0	0	3	0	TSTM Wind (52)
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A downburst from a severe thunderstorm blew over an empty grain bin that in turn knocked down one power pole. No other damage was reported.

Butler Co	29 1251CST	0	0	2	2	TSTM Wind (52)
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Sherman Co	29 1603CST	0	0	0	0	TSTM Wind (56)
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Cloud Co	29 1725CST	0	0	2	3	Hail (1.0)
155SW Concordia	29 1747CST	0	0	2	3	TSTM Wind (55)

Crawford Co	29 1730CST	0	0	3	0	TSTM Wind (52)
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Scattered severe thunderstorms developed across Kansas during the afternoon and evening hours. Hail up to one inch in diameter and wind gusts to 65 mph accompanied some of the storms. Only minor damage was reported, however several large trees were blown down and a store front was damaged in Pittsburg.

Northern Osage, Southern Douglas, Northern Franklin counties	30 0245 to 0730CST	0	0	6	5	Flash Flood
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A complex of heavy thunderstorms moved across portions of north-central and eastern Kansas during the early morning hours and produced extremely heavy rains in some areas. More than 12 inches of rain was recorded near Worden (12.21) while between 4 to 9 inches fell in an area from southeast Pottawatomie County and southern portions of Douglas and Shawnee counties across northern sections of Osage and Franklin counties. The resulting heavy rains caused widespread flash flooding from northern portions of Franklin and Osage counties into southern Douglas County. The small community of Lone Star in western Douglas County was hardest hit by the flood as Washington Creek overflowed its banks and caused a wall of water 2 to 4 feet deep to move through the town. All homes in Lone Star received some water damage from the flood. Damages to the homes alone was estimated at \$700,000. Many county roads were washed out or were impassable due to high water. Crops in the region were also severely damaged by the flood waters. The flood cut a swath 5 miles wide from just west of Lone Star eastward to US Highway 59. The heavy rains also sent many other creeks and the Wakarusa River out of their banks. The Wakarusa River at Lawrence rose from a level of 5 feet on June 29th to 29 feet by noon on June 30th, some 6 feet over flood stage. Some other rainfall amounts from the storm included: Overbrook 8.72 inches, Carbondale 6.54 inches, Louisville 5.30 and Auburn 4.10 inches.

KANSAS

Morton Co	30 1600CST	0	0	4	4	Hail (.75), TSTM Wind
Rolla						
Cowley Co	30 1715CST	0	0	2	2	TSTM Wind (52)
Rock	30 1751CST	0	0	2	2	TSTM Wind (52)
Winfield	30 1758CST	0	0	3	3	TSTM Wind (64), Hail (1.75)
Winfield						
Sumner Co	30 1717CST	0	0	2	2	Hail (.75)
Nellington						
Seward Co	30 1800CST	0	7	4	2	TSTM Wind
SW Liberal						
Harper Co	30 1930CST	0	0	2	2	Hail (.75)
4NE Harper	30 1935CST	0	0	4	4	Hail (2.0)
6NE Anthony						

Severe thunderstorms developed across portions of southwest and south-central Kansas during the late afternoon and evening hours. The storms produced large hail and strong winds in some areas. In Rolla, strong winds downed trees and power poles and also damaged a shed and grain bin. The hail and resulting heavy rains of 2 to 4 inches damaged crops in the area. The city of Liberal was also hard hit by strong winds that overturned 8 mobile homes and injured 7 people. Severe thunderstorms in Harper County brought large hail up to 2 inches in diameter that damaged roofs, leveled crops, broke windows and dented automobiles. In Winfield, severe thunderstorms also brought strong winds up to 75 mph and golfball size hail that broke windows, downed trees, damaged roofs and dented automobiles. Crops in the area were also severely damaged.

SPECIAL HAIL SUMMARY

Kansas-Oklahoma Hail Loss Service reports indicate that hail was especially damaging to crops in the listed counties on the following dates:

13th Grant
30th Stevens

15 KENTUCKY

Boyd County	16 1630 EST	0	0	4	0	Thunderstorm Wind
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A thunderstorm with winds near 60 mph ripped down a street in Catlettsburg, cumbling trees into several houses. Roofs and porches were damaged. Also electrical power to the area was knocked out for over three hours.

Campbell County	21 0300 EST	0	1	0	0	Lightning
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Campbell County officer Scott Bauerle was thrown across the room when lightning struck the county dispatch center in Alexandria. The current apparently ran through a telephone receiver.

Fayette County	25 1930 EST	0	0	5	0	Thunderstorm Wind Lightning
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A strong thunderstorm moved through Lexington with winds reported around 60 mph. Lightning set one house on fire. Several large plate glass windows were blown out. Also several large tree limbs were blown down, doing minor damage to a few houses.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1988

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	
16 LOUISIANA									
Jefferson Davis Parish, Jennings	03	1421CST			0	0	?	?	TSTM Wind
Acadia Parish, Crowley	03	1540CST			0	0	4	?	TSTM Wind
Iberia Parish, New Iberia	03	1600CST			0	0	0	0	Funnel Clouds
Strong thunderstorms developed over southwest Louisiana during the afternoon. Thunderstorm wind gusts downed trees and large tree limbs at Jennings. A roof was ripped off a commercial building at Crowley and trees were also downed by strong wind gusts. Several funnel clouds were sighted at New Iberia.									
Washington Parish, Bogalusa	04	1600CST			0	0	?	?	Hail (1.00)
Beauregard Parish, DeRidder	09	1900CST			0	0	0	4	Lightning
Lightning struck a large tree in an open pasture. Seventeen head of cattle near the tree were killed by the electrical discharge. The loss was estimated at \$7,000.									
St. Martin Parish, Breaux Bridge	18	1925CST	0.4	20	0	0	4	?	Tornado (F1)
A tornado touched down briefly, ripping the roof off a small commercial building and downing several trees. Value of the loss was estimated at \$12,000.									
Richland Parish, Holly Ridge	19	1445CST			0	0	?	?	TSTM Wind
Thunderstorm winds blew down several outbuildings.									
Rapides Parish, Hot Wells	19	1500CST			0	0	?	4	Hail (0.75)
A brief hail storm destroyed several hundred acres of cotton.									
Vermilion Parish, 6W Kaplan	22	1615CST			0	0	?	?	TSTM Wind
Thunderstorm winds destroyed several sheds and downed a couple of trees.									
West Carroll Parish, Oak Grove	29	1945CST			0	0	?	?	TSTM Wind
Thunderstorm winds downed 5 trees.									
LAZ001-006, north and central Louisiana	01 30								Drought
Extremely dry weather was recorded in north and central Louisiana during the month. Rainfall across the northern third of the state from Shreveport to Tallulah ranged between 0.20 to 0.60 inches; 15 to 20 percent of normal. In the central area, between 1.0 and 1.5 inches fell; about 40 percent of normal. For the growing season beginning on April 1, rainfall has only been 25 to 35 percent of normal across the north and 40 to 50 percent of normal over the central. These rainfall deficits make it the worst drought since 1925 in many areas of north Louisiana. An economic estimate of agricultural losses due to the drought conditions will be given in storm data reports at the end of the growing season. The Mississippi River reached record low monthly stages along the Mississippi-Louisiana border southward to New Orleans. Due to low stages on the Mississippi River, salt water intrusion was noted along the river south of New Orleans. Salt concentration was low enough to not affect water supplies except over extreme south Plaquemines Parish. Construction of an underwater salt water sill was started on June 30th at Myrtle Grove to stop the upstream movement of the denser salt water.									
17 MAINE									
Oxford Co. Newry	05	1730EST			0	0	1	0	Hail (0.75)
Oxford Co. Buckfield	05	1730EST			0	0	1	4	Hail (1.00)
Androscoggin Co. Turner	05	1730EST			0	0	1	4	Hail (1.00)
Androscoggin Co. Leeds	05	1750EST			0	0	1	4	Hail (1.00)
Oxford Co. Sumner	05	1755EST			0	0	1	5	Hail (0.75)
An apple orchard suffered major damage to its apple blossoms from hail and heavy rain.									
MAINE									
Cumberland Co. Gorham	05	1810EST			0	0	2	4	Hail (0.75)
Hail covered the ground to over a two-inch depth.									
Oxford Co. West Paris	05	1815EST			0	0	1	4	Hail (0.75)
Penobscot Co. Bangor	16	1530EST			0	0	5	0	TSTM Wind (60)
A thunderstorm with measured wind gusts to 60 MPH at the Bangor International Airport took down several trees and power lines. The hardest hit sections of the city were Essex Street, Brewer Lake, and Field's Pond areas.									
Piscataquis Co.	20	Evening			0	0	1	5	Lightning
Lightning from thunderstorms started 12 forest fires on Paper Company land in the northern part of the county. The largest fire consumed about 500 acres.									
Piscataquis Co. Dover-Foxcroft	20	2055EST			0	0	4	0	TSTM Wind
A thunderstorm produced winds that took down several trees.									
Washington Co. Danforth	20	2145EST			0	0	4	0	TSTM Wind
A thunderstorm produced winds that took down several trees.									
York Co. Lebanon	23	0000EST			0	0	6	0	Lightning
A thunderstorm with wind gusting to 40 MPH moved across York County. Lightning strikes caused several power outages. One bolt caused a fire that levelled a barn and workshop on the Prospect Hill Road in Lebanon.									
18 MARYLAND and D.C.									
Cecil Co, Elkton	7	1445EST			0	0	2	?	Thunderstorm Wind (69 kt)
					0	0	?	?	Hail (1.00)
A thunderstorm produced hail and strong winds. Near Elkton, the winds blew a large part of a barn roof about 200 yards, damaged a house under construction in Chesapeake City, and also overturned a camping trailer. Numerous trees were reported down throughout the county. Two inches of rain fell in less than an hour in Chesapeake City. No major damage was reported.									
Montgomery Co.	8	2140EST			0	0	4	0	Lightning
Five houses were set afire by lightning between 2240 and 2400EDT. Total damage was estimated at \$16,000.									
Statewide and District of Columbia	21-23				?	?	0	?	Heat spell
Temperatures averaged well into the 90s throughout the state and the District of Columbia, with frequent readings of 100 or higher. Numerous records were broken.									
Frederick Co, New Market	22	1510EST			0	0	?	?	Hail (1.00)
St. Mary's Co, Tall Timbers	26	1540EST			0	0	3	?	Thunderstorm Wind (89 kt)
Somerset Co.	26	1605EST			0	4	?	?	Thunderstorm Wind
Strong winds associated with thunderstorms gusted to 89 knots in Tall Timbers, knocking over a 40 foot tall weather tower. Winds gusted to 50 knots at Piney Point. There was little damage elsewhere in the county. The thunderstorm moved out over the Chesapeake Bay, tossing about a 96 foot tour boat leaving Tangier Island. Four people on the boat were injured. In Somerset County, strong winds knocked over 6 chimneys and many large trees, and broke numerous windows.									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1988

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	
19 MASSACHUSETTS									
MAZ001	05	2200EST			0	0	4	0	Custy Winds
	06	0500EST							A period of gusty winds gusting up to 50 MPH knocked down tree limbs causing scattered property damage and electric power loss to several thousand customers.
Essex County, Lawrence	16	1645EST			0	1	0	0	Lightning A teenager was critically injured by a bolt of lightning while running on athletic field at the local stadium.
Middlesex County, Dracut and Lowell	16	1600EST-1630EST							Thunderstorm Winds (55 kts)
Essex County; Lawrence, Haverhill and Methuen	16	1630EST-1700EST							Thunderstorm Winds (60 kts)
North Middlesex County and Essex County	16	1545EST-1700EST			0	0	5	0	Thunderstorm Winds (60 kts) Up to 9,000 electric customers lost power when a severe thunderstorm swept through the area, knocking down trees and tree limbs. The most affected communities were Methuen, Lawrence, Haverhill, No. Andover, Lowell, Dracut, and Chelmsford.
Essex County, Salisbury	16	1750EST			0	2	4	0	Thunderstorm Winds (70 kts) A severe thunderstorm brought winds gusting to around 80 MPH, and sixteen trailers and mobile homes were blown onto their sides at a campsite at Salisbury State Park, injuring two people.
Hampden County, Springfield	17	0800EST-0830EST			0	0	4	0	Lightning Lightning bolts struck two homes, starting fires which resulted in up to \$40,000 damage.
Norfolk County; Milton, Quincy, and Weymouth	18	1545EST-1615EST			0	0	5	0	Lightning Lightning struck several homes and a church steeple. One home in Quincy was a total loss of about \$200,000, and the church steeple in Quincy suffered damage estimated at \$250,000. A home in Weymouth sustained several thousand dollars damage.
Norfolk County, Weymouth	18	1555EST-1605EST			0	0		0	Hail Small hail with diameter of 1/8 to 1/4 inch fell during a heavy thunderstorm in the northern portion of town.
Plymouth County, Hingham	18	1600EST			0	0	0	0	Heavy Rain A NWS cooperative weather station recorded 1 inch of rain in 12 minutes resulting in considerable street flooding during a thunderstorm.
Berkshire County, Central and Northern portion	22	1730EST-1800EST			0	0	5	0	Thunderstorm Winds (60 kts) A severe thunderstorm hit the area with winds gusting up to about 70 MPH, knocking down trees and tree limbs. Power was out for several hours to about 7500 electric customers. Falling trees blocked streets and caused scattered property damage. More than one inch of rain fell during one hour, causing street flooding. Marble size hail was reported in scattered locations.
Berkshire County, North Adams	22	1745EST			0	0	4	0	Hail (1.25) Quarter to half dollar size hail was reported.
Berkshire County, Florida	22	1745EST			0	0	3	0	Hail (.90) Nickel size hail was reported.
Worcester County, Phillipston	22	1822EST			0	0	3	0	Thunderstorm Winds (60 kts)
Worcester County, Templeton	22	1828EST			0	0	3	0	Thunderstorm Winds (50 + kts) Several large trees were downed by thunderstorm winds.
Berkshire County, Lanesboro	22	1833EST			0	0	3	0	Hail (.75) Dime size hail was reported.
Berkshire County, Pittsfield	22	1838EST-1851EST			0	0	3	0	Hail (.90) Nickel size hail was reported.
Berkshire County, Dalton	22	1839EST			0	0	3	0	Thunderstorm Winds (50 + kts) Thunderstorm winds knocked down several large trees in town.
Essex County, Methuen	22	1858EST			0	0	3	0	Thunderstorm Winds (55 + kts) Thunderstorm winds estimated over 60 MPH knocked down several trees.
— MASSACHUSETTS									
Franklin and Hampshire Counties	22	1800EST-1900EST			0	0	5	0	Thunderstorm Winds (60 kts) A severe thunderstorm moved rapidly eastward across the counties with winds gusting up to 70 MPH which felled many trees and tree limbs. Power outages affected up to 15,000 to 20,000 electric customers. Scattered property damage occurred when trees fell on houses and automobiles. A small tornado was suspected in the North Greenfield, Gill, and Northfield area where a swath of trees were blown down on a hillside.
Worcester County, Central and Northern portion	22	1830EST-2000EST			0	0	5	0	Thunderstorm Winds (60 kts) A severe thunderstorm moved rapidly eastward across the area. Wind gusts were recorded to 54 MPH at the Worcester Airport and were likely somewhat stronger elsewhere. Hundreds of reports of fallen trees and tree limbs causing scattered damage to homes and automobiles were received. Widespread power losses occurred, lasting up to several hours.
Middlesex County, Dracut	22	1900EST			0	0	3	0	Thunderstorm Winds (50 + kts) Several large trees were downed by thunderstorm winds.
Hampden County, N. Chester	22	1905EST-1910EST			0	0	3	0	Thunderstorm Winds (50 + kts)
Hampden County, Chester	22	1905EST-1922EST			0	0	4	0	Hail (1.75) Golfball size hail was reported.
Hampshire County, Middlefield	22	1905EST			0	0	4	0	Hail (1.75) Golfball size hail was reported.
Middlesex County, Lowell	22	1915EST			0	0	3	0	Thunderstorm Winds (50 + kts) Thunderstorm winds knocked down several large trees.
Worcester County, Gardner	22	1915EST-1945EST			0	0	3	0	Hail (.75)
Essex County, Essex	22	1915EST			0	0	3	0	Thunderstorm Winds (50 + kts) Thunderstorm winds knocked down several large trees.
Middlesex County, Maynard	22	1915EST			0	0			Hail (.75) Three-quarter inch hail fell during a severe thunderstorm.
Essex County, Lawrence	22	1915EST			0	0	6	0	Lightning A lightning-ignited fire gutted a mill building and the 5-alarm fire caused about \$1 million damage.
Hampshire County, N. Amherst	22	1920EST			0	0	3	0	Hail (.90)
Middlesex County	22	1930EST-2000EST			0	3	5	0	Thunderstorm Winds (60 kts) A fast-moving severe thunderstorm crossed the county from west to east with wind gusts estimated up to 70 MPH. Thousands of people lost electric power due to falling trees and tree limbs. Three people were injured when a tree fell on their auto in Tyngsboro.
Essex County	22	1900EST-1945EST			0	0	5	0	Thunderstorm Winds (60 kts) A rapidly-moving severe thunderstorm with winds gusting up to 70 MPH knocked out power to up to 33,000 electric customers in the Merrimack Valley. A small aircraft was flipped over at the Lawrence Airport. Thousands of downed trees and tree limbs blocked streets, damaged homes and automobiles. Heaviest wind damage appeared to be in the Lawrence and Haverhill area. School was cancelled the next day in Haverhill because of the hazard of downed electric wires.
Essex County, Gloucester	22	1945EST			0	1	0	0	Lightning A thirteen year old boy was struck and injured by a bolt of lightning while in a tent at a local campsite.
Middlesex County, Tyngsboro	22	1945EST			0	0	4	0	Thunderstorm Winds (50 + kts) Thunderstorm winds knocked down several trees.
Middlesex County, Maynard	22	1948EST			0	0	3	0	Hail (1.75) Golfball size hail was reported.
Suffolk County	22	1945EST-2015EST			0	0	5	0	Thunderstorm Winds (59 kts) A fast-moving severe thunderstorm swept rapidly through Boston and vicinity. A wind gust of 68 MPH was recorded at Logan Intl. Airport. There were numerous reports of downed trees and tree limbs and scattered power losses.
Middlesex County, Acton	22	2000EST			0	0	3	0	Hail (.75) Dime size hail was reported.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1988

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					KILLED	INJURED	PROPERTY	CROPS	
MASSACHUSETTS									
Middlesex County, Sudbury	22	2000EST			0	0	3	0	Thunderstorm Winds (50 + kts)
									Thunderstorm winds knocked down several trees.
Worcester County, Sterling	22	2000EST			0	0	3	0	Thunderstorm Winds (53 kts)
Norfolk County, Milton	22	2010EST			0	0	4	0	Thunderstorm Winds (64 kts)
									Thunderstorm winds knocked down several trees.
N. Plymouth County, Hingham	22	2015EST			0	0	3	0	Thunderstorm Winds (45 kts)
									Several branches were knocked down by thunderstorm winds.
Essex County, Peabody	22	2025EST			0	0	3	0	Thunderstorm Winds (53 kts)
									Thunderstorm winds were estimated at 60 MPH.
Plymouth County, southern portion, Barnstable, Dukes, and Nantucket Counties	26	0500EST-0900EST			0	3	5	0	Lightning
									Heavy thunderstorms brought damaging lightning, including a bolt of lightning which hit a main power transmission line in Sandwich, knocking out power to all of Cape Cod and Martha's Vineyard, 140,000 customers, for up to 6 hours. On Nantucket Island, three people were injured by lightning while in buildings, and a section of roof was ripped off by lightning. In Plymouth and on the Cape several homes were damaged by lightning strikes.
20 MICHIGAN									
Chatham, Alger Co.	19	2009EST			0	0	0		Hail (0.75)
Wakefield, Gogebic Co.	25	0100EST			0	0	0		Hail (1.00)
21 MINNESOTA									
Ottertail Co. 35W Wadena	02	1600CST			1	0	0	0	Lightning
									A man was hospitalized in critical condition and died after being hit by lightning on a farm southwest of Wadena. The man was on his pickup truck putting up hay as the storm approached. M290
Clearwater Co. Bagley	12	1300CST			0	0	0	0	Thunderstorm Wind
									Trees were knocked down near Bagley.
Koochiching Co. International Falls	12	1640CST			0	0	0	0	Hail (0.75)
Lac Qui Parle Co. Dawson	12	2357CST			0	0	3	0	Thunderstorm Wind
									Winds damaged several farm sites northeast of Dawson. Several sheds were destroyed, a windmill was knocked down, windows were broken and trees and power lines were downed.
Lac Qui Parle Co. 12E Madison	13	2327CST			0	0	2	0	Thunderstorm Wind
									A farm building was moved off its foundation.
Kandiyohi Co. 10NE Willmar	14	0040CST			0	0	0	0	Thunderstorm Wind
									Large tree limbs were knocked down.
MINNESOTA									
Koochiching Co. Big Falls	14	1340CST			0	0	0	0	Thunderstorm Wind
10E Little Fork	14	1410CST			0	0	0	0	Thunderstorm Wind
									Thunderstorm winds knocked down trees around Big Falls and east of Little Fork.
Steele Co. Owatonna	14	1720CST			0	0	0	?	Thunderstorm Wind (57)
Dodge Co. West Concord	14	1747CST			0	0	3	?	Thunderstorm Wind/Hail (2.0)
Olmsted Co. 15W Pine Island	14	1806CST			0	0	0	0	Hail (1.5)
Goodhue Co. Pine Island	14	1815CST			0	0	0	0	Thunderstorm Wind
Wabasha Co. Mazeppa	14	1817CST			0	0	0	0	Thunderstorm Wind
Zumbro Falls	14	1830CST			0	0	0	0	Thunderstorm Wind
									Thunderstorm winds accompanied by hail caused spotty crop damage across northern Steele and northern Dodge counties. Sixty mile per hours winds hit Owatonna and hail up to two inches in diameter fell between West Concord and Concord. Large trees and power lines were downed and windows were broken in northern Dodge county. Winds also caused numerous power outages from Pine Island through Mazeppa to Zumbro Falls.
Pennington Co. Thief River Falls	15	1530CST			0	0	0	0	Funnel
St. Louis Co. Hibbing	15	1716CST			0	0	0	0	Hail (0.75)
Sherburne Co. Elk River	17	0130CST			0	0	6	0	Lightning
									Lightning caused a fire that destroyed a building housing several businesses. The lightning hit and welded together two one-half inch copper clad steel rods.
Norman Co. Gary	18	1840CST			0	0	0	0	Hail (1.25)
Halstad	18	1850CST			0	0	0	0	Thunderstorm Wind
10E Gary	18	1857CST			0	0	0	0	Thunderstorm Wind (61)
SN Ada	18	1900CST			0	0	0	0	Funnel
Polk Co. Erskine	18	1905CST			0	0	3	0	Lightning
Clearwater Co. 65W Clearbrook	18	1906CST			0	0	3	0	Thunderstorm Wind
2S Clearbrook	18	1910CST			0	0	0	0	Thunderstorm Wind (69)
Norman Co. Twin Valley	18	1915CST			0	0	4	0	Thunderstorm Wind/Hail (2.0)
Clearwater Co. Gonvick	18	1948CST			0	0	0	0	Thunderstorm Wind
Bagley	18	2000CST			0	0	4	0	Thunderstorm Wind
Beltrami Co. Black Duck	18	2030CST			0	0	0	0	Thunderstorm Wind (61)
Itasca Co. Squaw Lake	18	2040CST			0	0	0	0	Thunderstorm Wind
Island Lake	18	2106CST			0	1	4	0	Thunderstorm Wind
St. Louis Co. Mountain Iron	18	2230CST			0	0	0	0	Hail (1.0)
Aitkin Co. Hill City	18	2238CST			0	0	4	0	Lightning
									Damaging thunderstorms moved from Norman county east through Clearwater, southern Beltrami and northern Itasca counties into central St. Louis county. Numerous trees were knocked down and power outages were widespread. Thousands of trees were downed in northern Itasca county alone, including trees in the Bigfork, Jessie Lake and Bowstring areas. Downed trees and power outages were reported as far east as Babbitt and Ely. A man was seriously injured and hospitalized when a tree fell on his tent near Island Lake in extreme northwest Itasca county. Winds gusted to 80 miles per hour two miles south of Clearbrook and 70 miles per hour at Black Duck and ten miles east of Gary. In Bagley a railway crossing arm was twisted and buildings were destroyed at the fairgrounds. A trailer house was damaged six miles southwest of Clearbrook and a garage was taken down in Twin Valley. Lightning burned down a townhouse near Hill City.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1988

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					KILLED	INJURED	PROPERTY	CROPS	
MINNESOTA									
LeSueur Co. Lexington	19	1604CST			0	0	0	0	Hail (1.75)
Washington Co. Hugo	19	1711CST			0	0	5	0	Thunderstorm Wind/ Hail (1.0)
					Wind ripped through Hugo uprooting trees as large as 10 inches in diameter. Two homes were damaged and a garage along with several barns were destroyed. Playground equipment at an elementary school was damaged and the wind knocked down a ham radio tower. Hail one inch in diameter fell just east of Hugo.				
Mille Lacs Co.	21	0700CST			0	0	4	0	Lightning
					Lightning sparked a fuel fire on a commercial fishing launch along the west shore of Mille Lacs Lake.				
St. Louis Co. Voyageurs National Park Crane Lake	21	1930CST			0	0	0	0	Thunderstorm Wind
	21	2030CST			0	0	0	0	Thunderstorm Wind
					Large pine trees were knocked down in Voyageurs National Park by winds estimated from 70 to 80 miles per hour. Wind also knocked down trees near Crane Lake.				
Grant Co. 2NW Wendell	24	1953CST			0	0	0	0	Hail (1.0)
Ottertail Co. 15E Fergus Falls	24	2000CST			0	0	0	0	Hail (1.0)
Traverse Co. 6N Norcross	24	2000CST			0	0	3	0	Lightning
Todd Co. Bertha	24	2014CST			0	0	0	0	Hail (1.0)
Morrison Co. 19SW Brainerd	24	2039CST			0	0	0	0	Hail (0.75)
Crow Wing Co. Brainerd	24	2100CST			0	0	0	0	Hail (1.75)
Swift Co. 1N DeGraff	24	2116CST			0	0	4	0	Thunderstorm Wind
Pine Co. Sturgeon Lake	24	2206CST			0	0	0	0	Hail (1.5)
Carlton Co. Mouse Lake Barnum	24	2230CST			0	0	0	0	Hail (1.75)
	24	2230CST			0	0	0	0	Hail (1.75)
					Lightning blew siding off a home six miles west of Norcross, knocked out electrical appliances and broke windows. Wind just north of DeGraff blew windows out of a mobile home, tore off the roof of a shed and destroyed a barn.				
Chisago Co. 1E Wyoming	28	0725CST			0	0	0	0	Hail (1.0)
Lyon Co. Lynd	28	1545CST			0	0	4	0	Thunderstorm Wind
Brown Co. Springfield	28	1700CST			0	0	4	0	Thunderstorm Wind
					Wind destroyed a garage attached to a home near Lynd. Just north of Springfield windows were broken, shingles and a television antenna were torn from a roof, trees were twisted and knocked down and a barn and granary received structural damage.				
22 MISSISSIPPI									
Jasper County, 10E Bay Springs	02	1310CST			0	0	?	?	Hail (.75)
Kemper County, 10S DeKalb	02	1430CST			0	0	?	?	Thunderstorm Winds
					Large trees were blown down 10 miles south of DeKalb.				
Clarke County, 18NE Quitman	02	1530CST			0	0	?	0	Thunderstorm Winds Hail (1.00)
					Quarter size hail covered the ground at Snell, which is located in the extreme northeast corner of Clarke County. Also, strong winds blew down several trees and power lines.				
MISSISSIPPI									
Coahoma County, 18W Clarksdale	03	1830CST			0	0	4	0	Thunderstorm Winds
					Power and telephone lines were blown down on the east side of Moon Lake or about 18 miles north of Clarksdale. A large tree also blew down on a house and heavily damaged the roof.				
Jackson County, Gautier	06	2000CST			0	0	4	0	Lightning
					Lightning struck a house, caught it on fire and nearly destroyed it.				
Pontotoc County, Springville	08	0230CST			0	0	?	0	Thunderstorm Winds
					Several large trees were uprooted and twisted in Springville. Also, 40 pieces of tin were blown off a hay barn.				
Wayne County, Waynesboro	09	1450CST			0	0	?	0	Hail (1.00)
					Nickel size hail covered the ground in Waynesboro.				
Hancock County, Bay St. Louis	09	2100CST			0	0	4	0	Thunderstorm Winds
					Strong winds blew down signs in Bay St. Louis. One roof was damaged when a large tree was uprooted and fell on it.				
Neshoba County, 10SE Philadelphia	18	1340CST			0	0	?	?	Hail (.75)
Northeastern Marion County, Improve	18	1345CST			0	1	4	0	Thunderstorm Winds
					Strong winds demolished a mosque temple that was nearly constructed. A 5 year old girl was seriously injured when the structure collapsed on top of her. When the girl was recovered, she was not breathing, but was revived through CPR.				
Newton County, Newton	18	1420CST			0	0	?	?	Hail (.75)
Copiah County, Hazlehurst	18	1450CST			0	0	?	?	Hail (1.75)
Scott County, 7N Morton	18	1530CST			0	0	4	0	Thunderstorm Winds
					Strong winds blew down trees and power lines at Roosevelt State Park. Three cars and one cabin were damaged by the trees.				
Walthall County, Enon and New Bethel	18	1730CST			0	0	4	0	Thunderstorm Winds
					Strong winds blew over a trailer and damaged a home. Numerous barns were damaged, and heavy tree damage occurred.				
Itawamba County, 2NE Fairview	20	1500CST			0	0	?	0	Thunderstorm Winds
					Large trees were blown down on power lines.				
Clairborne County, Port Gibson	21	1400CST			0	0	?	0	Thunderstorm Winds
					Numerous trees and power lines were blown down in Port Gibson.				
Copiah County, 10SW Crystal Springs	21	1500CST			0	0	?	0	Thunderstorm Winds
					Several large trees were blown down at a Boy Scout camp. Two of the trees fell on tents with children in them, but no one was injured.				
Pike County, 5NW McComb	21	1540CST			0	0	?	?	Hail (1.75)
Lincoln County, 18SW Brookhaven	21	1600CST			0	0	?	0	Thunderstorm Winds
					Trees were blown 18 miles southwest of Brookhaven.				
Pike County, McComb	21	1605CST			0	0	?	?	Hail (.75)
Leflore County, Minter City	22	1650CST			0	0	4	0	Thunderstorm Winds
					In Minter City, strong winds blew a roof off of a mobile home. Shingles were also blown off of a roof at a residence.				
Washington County, 8S Greenville	22	1730CST			0	0	?	0	Thunderstorm Winds
					Eight miles south of Greenville near Lake Lee, several roofs were damaged and trees were blown down by strong winds.				
Panola County, Batesville	23	1530CST			0	0	?	0	Thunderstorm Winds
					Several trees and branches were blown down by thunderstorm winds in Batesville.				
Lauderdale County, Toomsaba	26	1540CST			0	0	4	0	Thunderstorm Winds
					Strong winds blew a roof off a mobile home. Also, trees and power lines were downed in the Toomsaba area.				
Lincoln County, 11E Brookhaven	27	1340CST			0	0	?	0	Thunderstorm Winds
					Strong winds blew down trees on at least 3 cars on U.S. Highway 84, 11 miles east of Brookhaven.				
Warren County, 15NW Vicksburg	27	1445CST			0	0	3	0	Thunderstorm Winds
					Strong winds blew 10 trees down in the Eagle Lake area and damaged several vehicles.				

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1988

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					KILLED	INURED	PROPERTY	CROPS	
MISSISSIPPI									
Jasper County, 10E Bay Springs	27	1600CST			0	0	?	0	Thunderstorm Winds
			Several trees were blown down by strong winds 10 miles east of Bay Springs.						
Simpson County, Mendenhall	27	1700CST			0	0	?	0	Thunderstorm Winds
			Several trees were blown down near Mendenhall.						
Rankin County, 2SE Pearl	29	1745CST			0	0	?	0	Thunderstorm Winds (66)
			Numerous large tree limbs were blown down by strong winds in Southeast Pearl. An awning was blown off a small eating establishment.						
Yazoo County, Bentonia	29	2130CST			0	0	?	0	Thunderstorm Winds
			In Bentonia, an awning was blown off of a house.						
Madison County, 7N Flora	29	2200CST			0	0	?	0	Thunderstorm Winds
			Several trees and power lines were blown down by strong winds.						
23 MISSOURI									
Cedar County, SE Jerico Springs	2	1300CST			0	0	0	0	Hail (0.75)
Dade County, Arcola	2	1302CST			0	0	0	0	Hail (0.75)
Jasper County, Jasper	2	1430CST			0	0	0	0	Hail (0.75)
Warren County: Warrenton	8	1510CST			0	0	0	0	Hail (0.75)
Wright City	8	1530CST			0	0	0	0	Hail (0.75)
			Rainfall of 1.50 inches accompanied the hail at Wright City.						
St. Charles County, NWS St. Peters	8	1545CST			0	0	2	0	TSTM Wind
			Winds up to 63 mph were measured at the National Weather Service Office in St. Peters.						
St. Louis County, Florissant	8	1555CST			0	0	3	0	TSTM Wind
			Winds of up to 60 mph were reported by meteorologist Guy Tucker.						
Franklin County, Union	8	1600CST			0	0	1	0	Hail (1.75)
St. Louis County, Eureka	8	1600-1610CST			0	0	3	0	TSTM Wind and Hail (1.75)
			Winds of 60 to 70 mph produced some tree damage.						
St. Louis County, Pacific	8	1600-1610CST			0	0	3	0	TSTM Wind and Hail (1.75)
			Winds of 60 to 70 mph accompanied hail of up to 1 3/4 inch diameter.						
St. Louis County and St. Louis City	8	1600-1615CST			0	0	5	0	TSTM Wind
			Winds estimated at 60 to 70 mph produced major damage to trees in and around Forest Park, near the west-central portion of the city. The Park Service counted at least 70 trees that were downed. Tree damage was also reported in west portions of St. Louis County.						
Jefferson County	8	1700CST			0	0	4	0	TSTM Wind
			A mobile home was blown off of its frame and completely collapsed. This damage was about 5 miles west of De Soto. Two mobile homes were hit broadside by strong winds on Stone House Road, about 1 mile west of De Soto. A McDonald's sign was also blown down.						
Madison County, 3N Fredricktown	8	1745CST			0	0	3	0	TSTM Wind
			High winds produced tree damage and nearly blew a truck off the road on Route 67.						
Christian County, Billings	8	1810CST			0	0	0	1	Hail (1.75)
Stone County, 4N Crane	8	1839CST			0	0	0	0	Hail (0.75)
Maries County, Vichy Airport	23	1521CST			0	0	0	0	TSTM Wind
			Thunderstorm winds gusted to 58 mph.						
24 MONTANA									
Pondera County, Conrad Airport	3	1725 MST			0	0	0	0	TSTM Wind (G59)
Yellowstone County: Billings	5	1740 MST			0	0	4	0	TSTM Wind (G55)
Huntley	5	evening			0	0	4	0	TSTM Wind (G65)
Custer	5	evening			0	0	4	0	TSTM Wind (G65)
Pompeys Pillar	5	evening			0	0	4	0	TSTM Wind (G65)
Choteau County: Warrick	7	1436 MST			0	0	0	0	Hail (1.25)
Highwood	7	1540 MST			0	0	0	0	Hail (0.75)
Deer Lodge County, Anaconda	8	afternoon			0	0	2	0	TSTM Wind (G55)
			Sign and tree damage occurred.						
Richland County, Sidney	8	afternoon			0	0	2	0	TSTM Wind (G50)
			A shed was blown over.						
Fergus County, 8NE Roy	8	1600 MST	?	?	0	0	3	0	Tornado (F0)
			A tornado took a roof off of a shed.						
Lewis & Clark County, 5NW Augusta	8	1613 MST			0	0	0	0	TSTM Wind (G58)
Pondera County: Brady	8	1700 MST			0	0	0	0	TSTM Wind (G60)
Conrad	8	1700 MST			0	0	0	0	TSTM Wind (G58)
Judith Basin County, Hobson	8	1700 MST			0	0	0	0	TSTM Wind (G50) Hail (1.75)
Phillips County: 2W Malta	8	1720 MST			0	0	3	0	Hail (2.75)
Landusky	8	1720 MST			0	0	4	0	Hail (2.75)
Zortman	8	1720 MST			0	0	3	0	Hail (1.75)
4W Malta	8	1725 MST			0	0	4	0	Hail (1.75)
			Power lines were downed.						
Daniels County, 12W Scobey	8	1830 MST	?	?	0	0	0	0	Tornado (F0)
	8	1830 MST	?	?	0	0	0	0	Tornado (F0)
	8	1830 MST	?	?	0	0	0	0	Tornado (F0)
	8	1830 MST	?	?	0	0	0	0	Tornado (F0)
			Four small tornadoes were observed twelve miles west of Scobey. They did no known damage.						
Sheridan County, 8SE Plentywood	10	2030 MST			0	0	4	0	TSTM Winds
			Thunderstorm winds tore the roof off of a mobile home.						
Broadwater County, Townsend	15	afternoon			0	0	3	0	TSTM Winds (G70)
			Trees were blown down, causing building damage.						
Garfield County, Mosby	15	evening			0	0	2	0	Hail (1.75)
			Windows were broken out of houses.						
Toole County, Shelby	16	afternoon			0	0	0	0	TSTM Winds (G60)
Missoula County, 5 to 15 N Seeley Lake	17	0010 MST			0	0	5	0	TSTM Winds (G70)
			Highway 83 was closed by hundreds of downed trees. Lots of damage occurred to campers and buildings.						
Lake County, Polson	17	0015 MST			0	0	4	0	TSTM Winds (G70)
			Twenty power poles and numerous trees were downed. Finley and Pablo were also hit.						
Cascade County, Great Falls	17	1619 MST			0	0	3	0	TSTM Winds (G63)
			Tree and power line damage occurred.						
Judith Basin County, Raynesford	17	1619 MST			0	0	3	0	TSTM Winds (G63)
			Tree and power line damage occurred.						
Missoula County, 5E Missoula	17	1730 MST			0	0	0	0	Hail (1.00)
Wibaux County, Wibaux	19	afternoon			0	0	3	0	TSTM Winds (G50)
			Damage was done to a building.						
Gallatin County: Butte	21	afternoon			0	0	0	0	TSTM Winds (G60)
4S Manhattan	21	afternoon			0	0	3	3	Hail (2.25)
			Damage to trees, crops and buildings occurred.						

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					KILLED	INJURED	PROPERTY	CROPS	PROPERTY	CROPS	
MONTANA											
Ravalli County, Hamilton to Victor	25	afternoon			0	0	4	3	TSTM Winds (G50) Lightning		
					Lightning killed six cows. Many trees were downed.						
Silver Bow County, Butte	25	1800 MST			0	0	0	0	TSTM Wind (G60)		
Sweet Grass County, Big Timber	25	1930 MST			0	0	4	0	TSTM Winds		
					Power poles and trees were blown down.						
Musselshell County, Roundup	26	evening			0	0	4	0	TSTM Winds (G70)		
					Damage was done to buildings and trees.						
Ravalli County: Darby	27	1235 MST			0	0	0	0	Hail (1.75)		
Hamilton	27	1257 MST			0	0	2	0	TSTM Wind (G50) Hail (1.00)		
Flathead County: 5N Whitefish	28	1015 MST			0	0	2	0	Hail (0.75)		
Olney	28	1030 MST			0	0	0	0	Hail (1.00)		
Polebridge	28	1100 MST			0	0	0	0	Hail (1.75)		
Missoula County, 6N Missoula	28	1300 MST			0	0	0	0	Hail (1.75)		
Ravalli County, Darby to Victor	28	1330 MST			0	0	4	4	Hail (2.75)		
					Damage was done to crops and trees.						
Glacier County, East Glacier	28	1430 MST			0	0	0	0	Hail (1.75)		
Teton County: Dutton	28	1435 MST			0	0	0	0	Hail (1.00)		
12W Choteau	28	1545 MST			0	0	0	0	Hail (0.75)		
Pondera County, Valier and Dupuyer	28	1544 MST			0	0	2	2	Hail (1.75)		
Glacier County, Del Bonita	28	1545 MST			0	0	0	0	Hail (0.75)		
Toole County, Shelby	28	2030 MST			0	0	0	0	Hail (0.75)		
Phillips County: Malta	29	1540 MST			0	0	0	0	TSTM Winds (G62)		
35S Malta	29	1730 MST			0	0	0	0	Hail (2.00)		
Valley County, 20S Glasgow	29	1730 MST			0	0	0	0	TSTM Winds (G60)		
20S Glasgow	29	1840 MST			0	0	0	0	TSTM Winds (G69)		
Garfield County, Jordan	29	1737 MST			0	0	0	0	TSTM Winds (G65)		
25 NEBRASKA											
Brown Co. Ainsworth	12	1737CST			0	0	2	3	Hail (0.75)		
Dawes Co. Crawford	12	1946CST			0	0	3	3	Hail (1.00)		
Box Butte Co. 3NW Berea	12	2000CST			0	0	4	5	Hail (1.50)		
					Wind-driven hail broke windows and damaged roofs. Extensive damage occurred to crops in a band about 2 miles wide extending to the east-northeast approximately 12 miles.						
Box Butte Co. 5S Alliance	13	1700CST			0	0	0	0	Funnel Cloud		
Alliance	13	1706CST			0	0	3	2	Thunderstorm Wind (60)		
Alliance	13	1716CST			0	0	5	4	Hail (1.75)		
					Wind gusts damaged trees and power lines. Crops were damaged.						
Cherry Co. 1N Merriman	13	1735CST	0.1	25	0	0	2	2	Tornado (F0)		
					Tornado touched down briefly 1 mile north of Merriman.						
Sheridan Co. Gordon	13	1745CST			0	0	5	4	Hail (1.75)		
					Hail broke windows, damaged siding and vehicles, stripped leaves from trees and caused heavy crop damage mainly in a swath about 1 mile wide starting just southwest of town and extending northeast about 12 miles.						
NEBRASKA											
Dawes Co. 5N Crawford	13	1815CST			0	0	5	4	Hail (1.75)		
					Wind-driven hail broke windows, damaged siding and stripped leaves from trees. Crops were heavily damaged.						
Garden Co. 4NE Levellan	13	1818CST			0	0	5	2	Thunderstorm Wind		
					Strong winds damaged a barn, blew shingles off a farm house roof, blew over grain bins and broke tree limbs.						
Duel Co. Big Springs	13	1845CST			0	0	3	1	Thunderstorm Wind		
					Strong wind gusts blew trees down.						
Dundy Co. 5N Benkelman	13	1900CST			0	0	4	5	Thunderstorm Wind		
					Winds damaged a center pivot irrigation system. Hail with the wind damaged crops in a strip about 1 mile wide extending east 10 miles.						
Scottsbluff Co. 3S Scottsbluff	15	1845CST			0	0	3	3	Hail (1.75)		
Red Willow Co. 10SE McCook	19	1705CST	0.2	35	0	0	2	2	Tornado (F1)		
					Tornado touched down 10 miles southeast of McCook in open country and moved a short distance east causing minor damage.						
Cheyenne Co. 12NE Sidney	22	1600CST			0	0	5	5	Hail (1.75) Thunderstorm Wind		
					Wind gusts broke tree limbs. Hail driven by the wind severely damaged crops, broke windows and damaged siding and a few vehicles.						
Morrill Co. 5W Bridgeport	22	1800CST			0	0	3	5	Hail (1.50)		
					Hail damaged crops.						
Sarpy Co. Papillion	28	2030CST			0	0	3	1	Thunderstorm Wind (56)		
LaVista	28	2030CST			0	0	4	1	Thunderstorm Wind		
					Sixty-five m.p.h. winds downed trees and power lines.						
Douglas Co. Omaha	28	2045CST			0	0	4	1	Thunderstorm Wind		
					Wind gusts broke tree limbs and power lines in scattered areas of the city.						
Douglas Co. Omaha	28	2100CST			0	0	5	0	Lightning		
					Numerous lightning strikes caused power outages and started fires at a number of homes and a downtown business.						
Cheyenne Co. 8NW Sidney	29	1319CST	0.1	20	0	0	2	1	Tornado (F0)		
					Small tornado touched down briefly near an Air Force missile silo.						
Scottsbluff Co. 10NE Scottsbluff	29	1515CST			0	0	0	0	Funnel Cloud		
Box Butte Co. 8SW Alliance	29	1540CST			0	0	0	0	Funnel Cloud		
Jefferson Co. 2E Plymouth	29	1645CST			1	0	0	0	Lightning		
					Lightning struck and killed a farmer checking an irrigation system. M610.						
Lincoln Co. 2SW North Platte to 2NW North Platte	29	1710CST-1720CST	1.5	60	0	0	4	1	Tornado (F0)		
					Tornado touched down near golf course 2 miles southwest of downtown North Platte and moved north lifting in the rodeo grounds area 2 miles west-northwest. Damage included broken home windows and siding damage, a garage pushed off its foundation, and damage to a ticket booth and outbuildings in the rodeo arena area.						
Lincoln Co.	29	1720CST-1900CST			0	0	5	2	Flash Flood		
					Two to four inch rains caused urban flooding around North Platte. Streets and intersections were flooded along with some basements and businesses.						
Dawson Co.	29	1800CST-2000CST			0	0	5	5	Flash Flood		
					Four to seven inch rains from around Farnam and Gothenburg east through Cozad and Barr flooded some roads and washed out culverts. Crops and fields were damaged, and fences were reported washed out.						
Dawson Co. 4NE Lexington	29	1815CST			0	0	3	1	Thunderstorm Wind		
					Wind gusts blew trees down.						

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					KILLED	INJURED	PROPERTY	CROPS	
NEBRASKA									
Custer Co.	29	1900CST-2100CST			0	0	5	6	Flash Flood
			Around 5 to 11 inches of rain fell from approximately 15 miles northwest of Broken Bow south through the Callaway area flooding roads and basements, washing out roads, damaging crops and causing severe erosion. Portions of the Mud and South Loup rivers were swollen to minor overflows. Largest unofficial report was 11.25 inches reported just east of Callaway.						
Phelps Co. 3N-2W Atlanta	29	1930CST			0	0	5	2	Thunderstorm Wind
			Strong winds destroyed 2 barns, broke windows and damaged home roofs, machine sheds and grain bins on two farms. Trees and power lines were also downed.						
Phelps Co. 1SE Holdrege to 1ESE Holdrege	29	1950CST	1.0	40	0	0	6	3	Tornado (F1)
			A tornado touched down 1 mile southeast of Holdrege and moved northeast 1 mile. A mobile home was destroyed. Damage also occurred to storage buildings, a garage, grain bins, a farm equipment manufacturing building along with trees and power lines.						
Buffalo Co. Kearney	29	2015CST			0	0	3	0	Thunderstorm Wind
			Winds broke a glass door, blew a small shed into an auto and broke tree limbs.						
Jefferson Co. Reynolds	29	2300CST			0	0	4	4	Thunderstorm Wind
			Wind gusts tore shingles off of buildings, damaged siding and grain bins and downed trees and power lines. Crops were damaged by wind-driven hail.						
Gage Co. Jefferson Co.	29-30	2300CST-0300CST			0	0	5	5	Flash Flood
			Five to eight inches of rain fell around Endicott and Steele City east to Odell causing field erosion and crop damage. Small creeks overflowed, fences were torn out by debris from trees, and bridges were damaged.						
26 NEVADA									
White Pine County	12	1150PST	?	?	0	0	0	0	Tornado (F0)
			A Nevada Highway Patrolman reported the tornado briefly touched the ground near Highway 6, 12 miles southeast of Ely, NV. The tornado occurred in an area of open rangelands.						
Elko County	17	0850PST			1	0	0	0	Lightning
	17	1715PST			0	0	3	0	TSTM Wind (60)
			A series of strong thunderstorms formed over East-Central Nevada and moved rapidly north into Elko County. A bolt of lightning killed a fisherman at the Ruby Lake National Wildlife Refuge in extreme southern Elko County. Thunderstorm outflow winds produced minor damage in the town of Carlin, NV later the same day. Tree limbs and fences were blown down. There were reports of 40 to 50 MPH sustained winds with gusts to 60 MPH. Lightning M430						
Nye County	20	1420PST			0	0	0	0	TSTM Wind (64)
Churchill County	20	1747PST			0	0	0	0	TSTM Wind (58)
Lyon County	20	1830PST			0	0	5	0	TSTM Wind (80)
			Strong thunderstorms formed over western Nevada and moved rapidly north. Thunderstorm winds gusting to 64 MPH were reported by the weather observer at the Tonopah, NV airport in western Nye County. Later, thunderstorm winds gusting to 58 MPH kicked up blowing dust and sand in the Fallon area of Churchill County. The visibility was reduced to two miles at the Fallon Naval Air Station. At approximately the same time another storm moved over the Warm Springs area, about 10 miles south of Fernly, NV. Strong outflow winds produced by this storm, gusting to 80 MPH, ripped through the town of Fernly, in northern Lyon County. There was widespread damage, but no injuries. Trees were pulled from the ground and power poles were snapped. A 25 foot section of roof was peeled off a mobile home, and another mobile home that was not tied down was blown over. Snapped poles, uprooted trees and broken tree limbs caused widespread power outages. Storms from the same outbreak that moved through the Reno-Carson City area caused gusty winds and dangerous lightning. In downtown Reno a lightning bolt caused a piece of a multistory building to fall on a car parked on the street below.						
NEVADA									
Pershing County	21	1755PST			0	0	0	0	Funnel Cloud
			A pilot reported a funnel cloud extending 1000 feet below the cloud base and 5000 feet above the ground 3 miles northeast of Lovelock, NV.						
Lyon County	25	afternoon			0	0	6	C	Flash Flood
			A thunderstorm developed near the headwaters of the East Walker River, south of Yerington, NV, and dumped heavy rain as it moved down the course of the river. The level of the river rose to 10 feet in some places and the flow rate increased from 90 cubic feet per second to 1200 cubic feet per second. Damage was done to the East Walker Road in several places where water and debris flooded over it. At the Cutler Ranch, approximately 18 miles south of Yerington, agricultural diversion dams were taken out and agricultural land was damaged. The total damage to the ranch was estimated to be between \$400,000 and \$500,000. Further downstream, in the Pumpkin Hollow area, newcut hay was washed out of the field.						
Elko County	27	2115PST			0	0	3	0	Flash Flood
			A thunderstorm south of the town of Jackpot, NV produced heavy rain that generated a flash flood. Water rushing across Highway 93, five miles south of Jackpot, washed a car off the roadway. The passengers escaped without injuries.						
27 NEW HAMPSHIRE									
Grafton, Sullivan, Cheshire, Coos, Belknap, Carroll, Merrimack and Hillsborough Counties	05	1500 to 1800EST			0	1	5	0	High Wind
			A fast moving cold front pushed through the State causing high winds. The wind took down trees, branches and power lines in several communities causing power outages. A police sergeant, answering an emergency call, was seriously injured in Holderness when a "large pine tree approximately four feet across flew down" in the path of his cruiser. Hardest hit areas were Lancaster, Nashua, Manchester, Newport, Alexandria, Meredith, Sanbornton, Gilford, Laconia, Belmont, Chocorua, Newfound Lake, Claremont, Antrim, Marlow, Troy, Walpole, Hinsdale and Contoocook.						
Rockingham Co. Salem	16	1735EST			0	2	4	0	TSTM Wind, Lightning
			A thunderstorm produced winds that took trees down. Heavy rain flooded some streets. Lightning struck two men, working on a car, causing them to be sent to a hospital.						
Cheshire Co. Hinsdale	22	1813EST			0	0	4	0	TSTM Wind
			A thunderstorm produced winds that blew down trees and power lines.						
Hillsborough Co. Nashua	22	1902EST			0	0	5	0	TSTM Wind, Lightning
			A thunderstorm produced winds that took down trees. Lightning set fire to a building.						
Hillsborough Co. Pelham	22	1910EST			0	0	5	0	TSTM Wind
			A thunderstorm produced winds that took down dozens of pine trees. 8000 homes were without power.						
Rockingham Co. Salem	22	1911EST			0	0	5	0	TSTM Wind, Lightning
			A thunderstorm produced winds that took trees and power lines down. Lightning set fire to one home, destroying it.						
Rockingham Co. Newmarket, Brentwood and Newington	22	Late Evening			0	0	6	0	Lightning
			Lightning strikes started fires that burned a barn to the ground in each community.						
Merrimack Co. Loudon	25	Evening			0	0	5	0	Lightning
			Lightning struck a barn and set it on fire. The barn and 3000 bales of hay were consumed in the blaze.						

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1988

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	
28 NEW JERSEY, Northern									
Essex Co.	01	1529EST			0	0	0	0	Thunderstorm Wind (66)
		A small group of thunderstorms moved across Essex County. As one thunderstorm moved across Newark International Airport the wind gusted to 60 knots (69 mph).							
Essex Co.	01	1555EST			0	0	?	0	Thunderstorm Wind
		A small group of severe thunderstorms moving across western Essex County downed several large trees in Roseland.							
Hudson Co.	01	1615EST			0	0	?	0	Thunderstorm Wind
		A small group of severe thunderstorms moved into Hudson County. Several large trees were uprooted in Jersey City.							
28 NEW JERSEY, Southern									
Gloucester County:									
Swedesboro	1	1645 EST			0	0	3	0	TSTM Wind
Clayton	1	1700 EST			0	0	3	0	TSTM Wind (52)
Pitman	1	1713 EST			0	0	3	0	TSTM Wind
1E Pitman	1	1720 EST			0	0	3	0	TSTM Wind
		Thunderstorm wind gusts brought trees down in Swedesboro, Clayton and Pitman, and also in Washington Township just east of Pitman. Wires were also downed in Pitman and Washington Township. The wind gusts were estimated at 55 to 60 mph in Clayton.							
Camden County, Erial	1	1656 EST			0	0	?	0	TSTM Wind (62)
		Thunderstorm wind gusts were measured at 71 mph.							
Burlington County, 4N New Gretna	1	1715 EST			0	0	?	0	TSTM Wind (61)
		Thunderstorm wind gusts were estimated at 60 to 70 mph in Bass River.							
Cumberland County, Millville	1	1725 EST			0	0	3	0	TSTM Wind
		Thunderstorm wind gusts brought down trees and tree limbs.							
Ocean County, Brandt Beach	1	1740 EST			0	0	?	0	TSTM Wind (52)
		Thunderstorm wind gusts were measured at 60 mph.							
Atlantic County, Bargaintown	1	1755 EST			0	0	4	0	TSTM Wind
		A hatchback window was blown out of an automobile and hit a van. At the same time, two buildings collapsed at an amusement area in Cardiff, Egg Harbor Township.							
Mercer County:									
Mercerville	1	2140 EST			0	0	3	0	TSTM Wind
Hamilton Square	1	2143 EST			0	0	3	0	TSTM Wind
Hamilton Square	1	2143 EST			0	0	?	0	TSTM Wind (52)
		Large tree limbs were downed in Mercerville. A tree was uprooted in the Maple Shade section of Hamilton Square. Wind gusts were measured at 60 mph on Miry Brook Road in Hamilton Square.							
Burlington County, Hainesport	1	2225 EST			0	0	3	0	TSTM Wind
		Trees and power lines were down in Hainesport.							
Ocean County, 4SW Tuckerton	1	2258 EST			0	0	?	0	TSTM Wind (61)
		Thunderstorm wind gusts were estimated at 60 to 70 mph in Mystic Island.							
Atlantic County, Mays Landing	1	2302 EST			0	0	3	0	TSTM Wind (61+)
		Trees and limbs were downed and there was debris over roads. Thunderstorm wind gusts were estimated at over 70 mph.							
Atlantic County, Scullville	1	2307 EST			0	0	3	0	TSTM Wind
		Thunderstorm wind gusts damaged boats being stored along Mays Landing Road.							
Cape May County, Wildwood Crest	7	1625 EST			0	0	3	0	TSTM Wind (52)
		Trees were downed in Cape May Court House. Thunderstorm wind gusts were estimated at 60 mph in Wildwood Crest.							
NEW JERSEY, Southern									
Gloucester County:									
Swedesboro	22	1500 EST			0	0	3	?	TSTM Wind
1S Wenonah	22	1510 EST			0	0	3	?	TSTM Wind
		Thunderstorm wind gusts brought down three telephone poles and numerous power lines near Swedesboro in Woolwich Township. Three shed were off their foundations and numerous trees were downed just south of Wenonah along the border of Deptford and Mantua townships.							
Burlington County:									
1S Lumberton	22	1520 EST			0	0	3	?	TSTM Wind
Vincetown	22	1522 EST			0	0	3	?	TSTM Wind
Unionville	22	1525 EST			0	0	3	?	TSTM Wind
3E Pemberton	22	1528 EST			0	0	3	?	TSTM Wind
		Thunderstorm wind gusts brought down power lines and poles just south of Lumberton, in Vincetown, in Unionville, Easthampton Township and east of Pemberton.							
Camden County, Somerdale	22	1530 EST			0	0	4	?	TSTM Wind
		Thunderstorm wind gusts caused damage around Sterling High School in Somerdale. Chairs and awnings were blown over on the football field. A concession stand on the far end of the field had its roof blown off. The high school had a window blown out, a 20 foot section of aluminum awning ripped off the wall, a sky light blown off the roof, a satellite dish blown over on the roof, a TV antenna broken off, and sections of the gymnasium roof damaged (picked up and set back down). Near the high school a 25 foot section of 10-foot-high cyclone fence was blown part way down. Large tree limbs were downed across the street from the high school.							
29 NEW MEXICO									
Rio Arriba County	11	early afternoon			0	1	0	0	Lightning
		Lightning injured an 18 year old male at a softball complex in Espanola.							
San Juan County	11	1400 MST			0	0	?	0	Thunderstorm Wind (50)
		A fifty knot gust was reported by the Farmington airport tower. Power outages were reported from throughout the area.							
Quay County	11	1636-1945 MST			0	0	?	?	Flash Flood
		One to five inches of rain fell around Tucumcari. Several roads were closed or washed out. Crop damage occurred, but no estimate of the loss is available.							
San Juan County	11	evening			0	0	?	?	Flash Flood
		Homes, businesses, and other structures were flooded by heavy rains.							
Quay County	13	1308 MST			0	0	0	0	Funnel Cloud
		A funnel cloud was sighted near Ragland, 25 miles south of Tucumcari.							
Quay County	13	1530 MST			0	0	6	5	Flash Flood Hail (1.75) Thunderstorm Wind
		Amounts of 2.5 to 7 inches of rain fell over the area. Extensive crop losses, flooding of homes and farms, and extensive damage to roads was reported. Seventy percent of the sorghum crop was destroyed. Hail occurred at Ragland at 1530 MST.							
Quay County	13	1925 MST	?	?	0	0	0	0	Tornado (F0)
		A tornado was reported over open country near Ragland.							
McKinley County	25	1415 MST			0	0	?	0	Hail (1.00) Thunderstorm Wind
		Wind gusts caused the collapse of a lumberyard building in Gallup. One-half to one foot of accumulated hail was reported with the storm, most of it being under three-quarter inch in diameter. Heavy rain caused the hail to wash into two to three foot drifts around town, producing traffic problems. Flooding to three feet deep was also reported in Gallup with the storm.							
Bernalillo County	25	evening			0	0	5	0	Flash Flood
		Two to three inches of rain in the Albuquerque South Valley area flooded homes, businesses, and apartments with up to three feet of water.							
Eddy County	27	2015 MST			0	0	0	0	Funnel Cloud
		A rope-like funnel cloud was reported west of Brantley Dam, north of Carlsbad.							

STORM DATA AND UNUSUAL WEATHER PHENOMENA

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					KILLED	INJURED	PROPERTY	CROPS	

NEW MEXICO

Chaves and Eddy Counties 29 1250 MST 0 0 0 0 Hail (0.75)
 A weather spotter on a ranch twelve miles west of Highway 285 on the Chaves-Eddy county line reported hail and heavy rain.

30 NEW YORK, Coastal — NONE REPORTED

30 NEW YORK, Central

Herkimer County	05 1500EST	0	0	5	0	High winds
Broome County	05 1500EST	0	0	5	0	High winds
Madison County	05 1500EST	0	0	4	0	High winds
Chenango County	05 1500EST	0	0	4	0	High winds
Otsego County	05 1515EST	0	0	4	0	High winds
Cortland County	05 1500EST	0	0	3	0	High winds
Tioga County	05 1500EST	0	0	3	0	High winds
Delaware County	05 1600EST	0	0	4	0	High winds
Clinton County	05 1630EST	0	0	5	0	High winds
Essex County	05 1630EST	0	0	6	0	High winds
Putnam County	05 1700EST	0	0	3	3	High winds
Warren County	05 1940EST	0	0	4	3	High winds
Washington County	05 2045EST	0	0	4	0	High winds

Non-convective winds brought down trees and power lines in several communities across Eastern New York. Broome County AP recorded wind gusts of 59 mph. Unofficial wind gusts were measured at better than 50 mph in Putnam County and at 66 mph in Westport, Clinton County. On Lake Champlain, 25 distress calls were transmitted and 10 people had to be rescued because of weather-related emergencies. Ten foot waves were recorded on Lake Champlain during the event.

Area-wide 13 0 8 ? ? Heat
16

A tropical heat wave gripped Eastern New York. The heat wave caused water shortages and outages. Power consumption rose to near record levels and caused scattered brownouts/blackouts. Eight (8) persons had to be treated for heat-related illnesses.

Area-wide 13 0 0 6* 8* Drought

Recent heat wave has brought local water shortages to the public's attention. Local water suppliers have not been able to meet demand due to water shortages. Most areas of Eastern New York are well below normal for precipitation. This deficit dates back to early March when snow cover during the late winter was also below normal.

Fulton County	Perth	22 1532EST	0	0	5	5	Lightning
	Johnstown	22 1548EST	0	0	2	0	Hail (0.70)
	Johnstown	22 1550EST	0	0	4	0	Hail (1.5)
Montgomery County	Fonda	22 1550EST	0	0	3	3	Hail (1.5)
Saratoga County	Galway	22 1615EST	0	0	3	3	Hail (1.5)
	Mechanicville	22 1630EST	0	0	4	2	Hail (1.0)
	Mechanicville	22 1630EST	0	0	3	0	Thunderstorm winds
Washington County	Kingsbury	22 1640EST	0	0	3	0	Thunderstorm winds
Schenectady County	Schenectady	22 1637EST	0	1	5	0	Lightning
	Schenectady	22 1650EST	0	0	4	0	Tsm.winds (81)
	Niskayuna	22 1655EST	0	0	4	0	Tsm.winds (60)
	Niskayuna	22 1655EST	0	0	2	0	Hail (0.75)
Rensselaer County	Buskirk	22 1705EST	0	0	0	0	Hail (0.75)
Albany County	Green Island	22 1710EST	0	0	0	0	Hail (0.75)
	Watervliet	22 1711EST	0	0	4	0	Lightning
Rensselaer County	Hemstreet Park	22 1710EST	0	0	4	0	Thunderstorm winds
	Troy	22 1712EST	0	0	0	0	Hail (1.5)
	Troy	22 1714EST	0	0	4	0	Lightning
	Lansingburgh	22 1715EST	0	3	5	0	Thunderstorm winds
	Berlin	22 1717EST	0	0	0	0	Hail (0.75)
	Poestenkill	22 1730EST	0	0	4	4	Hail (2.0)

NEW YORK, Central

Powerful thunderstorms uprooted large trees and brought down power lines and tree limbs. Uncommonly large hail damaged automobiles, windows, and house siding. Wind gusts were recorded at the Schenectady Airport at 81 mph and to 60 mph in the City of Schenectady. The storm continued into Berkshire County, MA.

Clinton County	Moors	22 2010EST	0	0	3	3	Thunderstorm winds
	Champlain	22 2020EST	0	0	3	3	Thunderstorm winds

Small trees uprooted, and limbs and power lines were downed during thunderstorms.

Oneida County	Oriskany	22 2210EST	0	0	4	0	Lightning
	Vernon	22 2214EST	0	0	4	4	Lightning
	Utica	22 2223EST	0	0	3	0	Thunderstorm winds
	Utica	22 2230EST	0	0	5	0	Lightning
	Whitesboro	22 2303EST	0	0	3	0	Lightning
	Remsen	22 2305EST	0	0	3	0	Lightning

Wind and lightning brought down trees and powerlines as well as started two (2) structure fires. In addition, seven (7) cows were electrocuted.

St. Lawrence County	Massena	25 1230EST	0	0	5	0	Thunderstorm winds (Macroburst)
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Franklin County	Bangor	25 1230EST	0	0	5	3	Thunderstorm winds (Downdraft)
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Clinton County	Morrisonville	25 1400EST	0	0	4	0	Thunderstorm winds
	Moers	25 1410EST	0	0	3	0	Thunderstorm winds
	Chateaugay	25 1412EST	0	0	3	0	Thunderstorm winds
	Chazy	25 1424EST	0	0	3	0	Thunderstorm winds
	Peru	25 1500EST	0	0	4	4	Thunderstorm winds

High winds brought down tree limbs, power lines, and small out-buildings. Two cows were also killed by flying limbs and building components. A department store collapsed in the city of Massena. At the same time, up to 80 percent of the city was without power for several hours. Three (3) sail boats capsized on Lake Champlain, one (1) other boat (a 35 foot sailboat) had its mast snapped in half. Wind gusts at PBC measured 50 mph.

Herkimer County	Beaver River	25 1533EST	0	0	6	0	Lightning
	Stillwater Res.	25 1535EST	0	0	5	0	Lightning

Lightning knocked power generation stations off line for a few hours.

St. Lawrence County	Massena	25 1240EST	0	0	3	3	Thunderstorm winds
	Massena	25 1240EST	0	0	3	3	Hail (1.5)
	Brasher Falls	25 1243EST	0	0	3	3	Thunderstorm winds
Franklin County	Hogansburg	25 1245EST	0	0	3	0	Thunderstorm winds

Thunderstorm winds brought down power lines and large tree limbs. Golfball size hail was reported in Massena.

Saratoga County	Saratoga Springs	25 2030EST	0	0	4	0	Thunderstorm winds
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Thunderstorm winds took down powerlines and tree limbs in and around the city of Saratoga Springs. Pea size hail was reported at 2110EST along the Schenectady-Saratoga county line.

Madison County	Cazenovia	26 1836EST	0	0	3	0	Thunderstorm winds
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30 NEW YORK, Western

Allegany County	Almond	05 1350 EST	0	0	4	0	High Winds
	Whitesville						Strong winds downed trees and power lines. There were widespread power outages.
Steuben County	Hornell						

Seneca County	Interlaken	05 1640 EST	0	0	4	0	High Winds
Yates County	Penn Yan						A large maple tree fell onto a house in Penn Yan. In Geneva, a fallen tree crushed a garage. Power lines were severed in Interlaken.
Ontario County	Geneva						

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					KILLED	INJURED	PROPERTY	CROPS	

NEW YORK, Western

Ontario County Geneva	22	Morning			0	2	2	0	Lightning
A bolt of lightning struck a piece of farm equipment and injured two farm workers.									
Chautauqua County Dunkirk	22	1950 EST			0	0	4	0	TSTM Winds (50)
Trees and power lines were downed.									
Thompkins County Dryden Freeville Croton	25	1609 EST			0	0	4	0	TSTM Winds
Cayuga Lake	25	1700 EST			0	0	2	0	TSTM Winds
Orleans County Albion	25	1700 EST			0	0	4	0	TSTM Winds
Niagara County Niagara Falls Wilson	25	1710 EST			0	1	4	0	TSTM Winds(60)
Lockport									
Erie County Clarence Ctr.	25	1715 EST			0	0	3	0	TSTM Winds
Monroe County Rochester	25	1730 EST			0	0	4	0	TSTM Winds
Wayne County Newark	25	1730 EST			0	0	3	0	Lightning
Oswego County Hannibal	25	1730 EST			0	0	4	0	TSTM Winds
Wayne County Williamson Sodus Point	25	1756 EST			0	0	4	0	TSTM Winds
Portions of Oswego & Onondaga Counties	25	1800 EST			0	0	4	0	TSTM Winds
Monroe County Fairport	25	1805 EST			0	0	4	0	TSTM Winds
Onondaga County Liverpool	25	1830 EST			0	0	4	0	TSTM Winds
West Syracuse	25	1845 EST			0	0	4	0	TSTM Winds
Wayne County Walworth	25	1847 EST			0	0	4	0	TSTM Winds
Onondaga County Manlius	25	1850 EST			0	0	4	0	TSTM Winds
Steuben County Erwins	25	2030 EST			0	0	4	0	TSTM Winds
Tompkins County Trumansburg	25	2035 EST			0	0	4	0	TSTM Winds
W. Danby	25	2145 EST			0	0	4	0	TSTM Winds

Strong winds toppled trees and snapped power lines.

The roof and sidings of a factory in Manlius, Onondaga County, were blown down.

In Albion, Orleans County, two cars were crushed by a fallen tree.

In Erwins, Steuben County, the wind knocked 8 cars against each other and damaged them. A 50 sq. ft. tent was torn from its moorings.

Several small boats docked at Cayuga Lake were toppled over. A 36-foot boat had its mast broken.

31 NORTH CAROLINA

Harnett Co. Olivia	02	1825EST			0	0	0	0	Hail (1.75)
Cumberland Co. Spring Lake	02	1643EST			0	0	0	0	Hail (1.00)
Cumberland Co. N of Spring Lake	02	1700EST			0	0	4	0	TSTM Winds Hail (1.00)
Cumberland Co. Cumberland Co.	02	1720EST			0	0	0	0	Hail (1.75)
Simmons Army Air Field	02	1740EST			0	0	0	0	TSTM Winds Hail (1.50)
Alamance Co. Orange Co.	02	1757EST			0	0	0	0	Hail (1.75)
Chapel Hill	02	1803EST			0	0	0	0	Hail (1.00)
Wake Co. Apex	02	1853EST			0	0	4	5	Hail (2.50)
Chatham Co. Sik Hope	02	1855EST			0	0	0	0	Hail (1.75)
Wake Co. Fuquay Varina	02	1908EST			0	0	0	0	Hail (1.75)
Chatham Co. Pittsboro	02	1915EST			0	0	0	0	Hail (1.00)
Johnston Co. Benson	02	1950EST			0	0	0	0	Hail (1.75)
Harnett Co. Dunn	02	2025EST			0	0	0	0	TSTM Winds

NORTH CAROLINA

Sampson Co. Newton Grove	02	2040EST			0	0	0	0	Hail (0.75)
Trees were blown down and a mobile home was damaged near Olivia. A barn was damaged near Dunn. Trees were blown over on a mobile home near Spring Lake. Baseball size hail fell near Apex damaging cars, roofs and crops. Golf ball size hail was reported over much of the Sandhills.									
New Hanover Co. Castle Hayne	08	1337EST			0	0	0	0	Hail (0.75)
Nickel size hail fell over a small area of northern New Hanover Co.									
Pitt Co. Hamrahan	08	1617EST			0	0	0	1	TSTM Winds
Pitt Co. Ayden	08	1630EST			0	0	4	0	TSTM Winds
Southern Green Co.	08	1632EST			0	0	0	0	TSTM Winds Hail (0.75)
Isolated thunderstorms blew down trees and blew the roof off a barn in Hamrahan. One man was injured by flying debris. Near Ayden trees were blown down damaging a house. Two barns were destroyed and a gas station pump canopy was destroyed. Trees were downed and nickel size hail fell in southern Green Co.									
Randolph Co. Seagrove	09	1335EST			0	0	0	0	Hail (1.75)
Davidson Co. Lexington	09	1430EST			0	0	0	0	TSTM Winds
Rowan Co. Salisbury	09	1445EST			0	0	0	0	TSTM Winds
Golf ball size hail fell in Seagrove. A few trees were blown down in Lexington and Salisbury.									
Harnett Co. Lillington	09	1406EST			0	0	0	6	Hail (0.75)
Harnett Co. Dunn	09	1435EST			0	0	6	7	Hail (2.75)
Lee Co. Sanford	09	1436EST			0	0	0	?	Hail (1.00)
Northern Lee Co.	09	1450EST			0	0	0	?	Hail (1.75)
Sampson Co. Newton Grove	09	1458EST			0	0	0	7	Hail (1.75)
Sampson Co. Suttontown	09	1506EST			0	0	0	0	Funnel Cloud
Southern Wayne Co.	09	1513EST			0	0	0	0	Hail (1.75)
Chatham Co. Siler City	09	1533EST			0	0	0	0	Funnel Cloud
Wayne Co. Mt. Olive	09	1548EST			0	0	0	0	Hail (1.75)
Northern Duplin Co.	09	1550EST			0	0	0	7	Hail (1.75)
Moore Co. Aberdeen	09	1555EST			0	0	0	0	Funnel Cloud TSTM Winds
Duplin Co. Moore Co.	09	1600EST			0	0	6	0	TSTM Winds
Vass Lee Co.	09	1600EST			0	0	0	0	TSTM Winds
Lemon Springs Wayne Co.	09	1610EST			0	0	0	0	TSTM Winds
Seven Springs Cumberland Co.	09	1616EST			0	0	5	?	Hail (2.75)
Hoke Co. Rockfish	09	1618EST			0	0	0	0	TSTM Winds (60)
Lenoir Co. Cumberland Co.	09	1625EST			0	0	0	0	Funnel Cloud
Spring Lake Lenoir Co.	09	1625EST			0	1	5	0	Hail (1.75) TSTM Winds
E of Kinston Hoke Co.	09	1640EST			0	0	?	?	Funnel Cloud Hail (2.75)
S of Raeford Cumberland Co.	09	1643EST			0	0	0	0	Funnel Cloud
Hope Mills	09	1645EST			0	0	0	0	TSTM Winds
Thunderstorms continued to redevelop over the Sandhills and move east producing extensive hail and some wind damage. Baseball size hail fell in Dunn, Seven Springs, and Kinston. Golf ball size hail fell across Lee, Wayne, Duplin, and Sampson counties. Hail damage to crops in the area was estimated over \$50 million. Property damage to cars, windows, and roofs was over \$4 million. Thunderstorm winds blew down trees, some falling on cars and buildings. The greatest damage was in Spring Lake in Cumberland Co. where four buildings were severely damaged. A man was injured when the roof of an auto parts store was blown off. In Duplin Co. four buildings were damaged by winds and falling trees.									
Southwest Cabarrus Co.	09	1445EST			0	0	0	0	TSTM Winds
Cabarrus Co. S of Concord	09	1445EST			0	0	0	0	Funnel Cloud
Cabarrus Co. Concord	09	1501EST			0	0	0	0	TSTM Winds

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					KILLED	INJURED	PROPERTY	CROPS	

NORTH CAROLINA

Northern Stanley Co.	09	1505EST			0	0	0	0	TSTM Winds
Montgomery Co. Mt. Gilead	09	1530EST			0	0	0	0	TSTM Winds
Union Co. SW of Monroe	09	1537EST			0	0	0	0	Funnel Cloud
Thunderstorm winds uprooted trees and destroyed a barn in southwest Cabarrus Co. Trees were downed and small buildings damaged in Mt. Gilead and in northern Stanley Co. Funnel clouds were reported in Monroe and Concord.									
Montgomery Co. Uwharrie	09	1539EST	0.3	75	0	0	0	0	Tornado (F1)
A small tornado touched down in a wooded area near Uwharrie. The tornado moved northeast for about a quarter of a mile. Thunderstorm winds also blew down trees near Ophir.									
Sampson Co. Spivey's Corner	09	1700EST			0	0	6	5	TSTM Winds Hail (1.75)
Craven Co. Dover	09	1713EST			0	0	5	0	Hail (1.75)
Duplin Co. Faison	09	1722EST			0	0	6	5	TSTM Winds Hail (1.75)
Craven Co. New Bern	09	1726EST			0	0	?	?	Hail (3.5)
Sampson Co. Clinton	09	1730EST			0	0	5	0	TSTM Winds
Hyde Co. Ocracoke Is.	09	1845EST			0	0	0	0	TSTM Winds (70)
Jones Co. Westend Crossroads	09	1845EST			0	0	0	0	Hail (0.75)
Onslow Co. Richlands	09	1850EST			0	0	0	0	TSTM Winds
Onslow Co. Belgrade	09	1900EST			0	0	0	0	TSTM Winds
Carteret Co. Newport	09	1938EST			0	0	0	0	TSTM Winds
Sampson, Craven, Duplin, and Onslow counties were pounded by baseball to golf ball size and damaging winds as thunderstorms moved east through the area. Hail larger than a baseball fell briefly near New Bern. Crop damage was estimated near \$11 million. Buildings were damaged in Clinton, Spivey's Corner, and Belgrade. A mobile home was turned over in Richlands. Property damage was near \$1 million.									
Onslow Co. Richlands	09	1802EST	0.3	75	0	2	6	5	Tornado (F1)
A tornado touched down four miles southeast of Richlands. Moving to the east-northeast it destroyed a mobile home, injuring two people. Trees were uprooted, a construction trailer overturned, and two houses were damaged.									
Duplin Co. Cedar Fork	15	1700EST			0	0	5	0	TSTM Winds
A powerful isolated thunderstorm destroyed two poultry houses, and blew trees over on houses and cars near Cedar Fork.									
Nash Co. Mt. Pleasant	17	1540EST			0	0	0	0	TSTM Winds Hail (1.75)
Bertie Co. S E Aulander	17	1553EST			0	0	0	0	Hail (1.75)
Chowan Co. Rockyhook	17	1635EST			0	0	0	0	Hail (0.75)
Bertie Co. Aulander	17	1740EST			0	0	0	0	Funnel Cloud
Chowan Co. Near Edenton	17	1849EST			0	0	0	0	TSTM Winds (65)
Bertie Co. Colerain	17	1850EST			0	0	0	0	Funnel Cloud
Trees were blown down and golf ball size hail fell in Mt. Pleasant. Funnel clouds were reported in Aulander and Coldrain. Gust to 65 knots was reported near Edenton.									
Wake Co. Wendell	17	1740EST			0	0	0	0	TSTM Winds
Wake Co. Knightdale	17	2030EST			0	0	0	0	Hail (0.75)
Trees were blown down near Wendell. Later a second thunderstorm moved into Wake County producing golf ball size hail near Knightdale.									
Stanley Co.	17	1730EST			0	0	4	0	TSTM Winds
Trees were damaged and three barns damaged west of Albemarle.									
Henderson Co. Horse Shoe	18	1345EST			0	0	0	0	Hail (0.75)
Polk Co. Columbus	18	1535EST			0	0	0	0	Hail (0.75)
Caldwell Co. Collins Springs	18	1600EST			0	0	0	0	TSTM Winds

NORTH CAROLINA

Caldwell Co. S of Lenoir	18	1702EST			0	0	0	0	TSTM Winds
Gaston Co. Belmont	18	1850EST			0	0	0	0	TSTM Winds Hail (1.00)
Mecklenburg Co. Charlotte	18	1850EST			0	0	0	0	Hail (0.75)
Nickel size hail fell in Henderson and Polk counties and in Charlotte. A few trees were blown down in Collins Springs and Belmont.									
Nash Co. Spring Hope	19	1730EST			0	0	0	0	Hail (0.75)
Nickel size hail was reported in Spring Hope.									
Cranville Co. Cranville	20	1600EST			0	0	4	0	TSTM Winds
Nash Co. Spring Hope	20	1620EST			0	0	4	0	TSTM Winds Hail (1.75)
Wake Co. N of Raleighville	20	1700EST			0	0	0	0	TSTM Winds
Wake Co. Raleigh	20	1800EST			0	1	0	0	Lightning TSTM Winds
Wake Co. Garner	20	1850EST			0	0	4	0	TSTM Winds
Trees were blown over on cars and buildings in Cranville. Tree damage and golf ball size hail was reported in Spring Hope. In Wake county large hail fell and a barn roof was destroyed. A fast food restaurant worker in Raleigh was injured by lightning while serving food from the drive-in window.									
Catawba Co. Claremont	20	1806EST			0	0	4	0	Hail (1.75)
Iredell Co. Mooresville	20	1900EST			0	0	0	0	Hail (1.00)
Roofs were damaged by golf ball size hail in Claremont. Hail the size of a quarter fell in Mooresville.									
Northeast Lincoln Co. Guilford Co.	21	1628EST			0	0	4	0	TSTM Winds Hail (1.00)
	21	1835EST			0	0	0	0	Hail (0.75)
A house boat and docks were damaged near Lake Norman. Power lines were taken down and the roof of an old house was destroyed in the area.									
Henderson Co. S Fletcher	21	est. 1730EST	1.5	1760	0	0	?	0	TSTM Winds
Several trees were uprooted or snapped off and some minor roof damage was done to some farm outbuildings just south and southeast of Fletcher. An aerial survey of the damage conducted by a meteorologist revealed the event to be a microburst that left a diverging pattern in the damage along a south-southwest to north-northeast path, 1.5 miles long and approximately 1 mile wide.									
Scotland Co. Laurinburg	22	1530EST			0	0	5	0	TSTM Winds
Thirty mobile homes from sales lots were damaged or destroyed by thunderstorm winds.									
Western Lincoln Co.	22	1748EST			0	0	0	0	TSTM Winds Hail (0.75)
Trees were blown down and large hail was reported in western Lincoln Co.									
Buncombe Co. S of Asheville	23	1830EST			0	0	0	0	TSTM Winds
Rockingham Co.	23	2130EST			0	0	0	0	TSTM Winds
Trees were blown down near Stoneville and Reidsville. Tree damage was reported three miles south of the Asheville Airport.									
Transylvania Co. 2 N Brevard	24	1515EST			0	0	0	0	Hail (0.75)
Buncombe Co.	24	1550EST			0	0	0	0	Hail (0.75)
Hail up to quarter size was reported near Brevard. Dime size hail fell in southern Buncombe Co.									
Buncombe Co. Asheville	25	0100EST			0	0	0	0	Lightning
Transylvania Co. Little River	25	1415EST			0	0	0	0	Lightning
Transylvania Co.	25	1500EST			0	0	0	0	Hail (0.75)
Lightning produced a fire that heavily damaged a savings and loan building in Asheville. A 19 year old man was injured by lightning while closing a window. Dime size hail fell in eastern Transylvania Co.									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1988

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	

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	

NORTH CAROLINA

Moore Co. Cameron	26	1605EST			0	0	0	0	0	0	Hail (0.75)
Nickel size hail fell in Cameron.											
Caston Co. Gastonia	26	1548EST			0	0	0	0	0	0	Hail (1.50)
Caston Co. Lowell	26	1617EST			0	0	0	0	0	0	Hail (1.00)
Caston Co. Cramerston	26	1637EST			0	0	0	0	0	0	TSTM Winds
Stokes Co. Pinnacle	26	1645EST			0	0	0	0	0	0	TSTM Winds
Caston Co. Belmont	26	1655EST			0	0	4	0	0	0	TSTM Winds
Rockingham Co.	26	1700EST			0	0	0	0	0	0	TSTM Winds
Mecklenburg Co. Lake Norman	26	1700EST			1	0	0	0	0	0	Lightning
Rockingham Co. near Eden	26	1700EST			0	0	5	0	0	0	TSTM Winds
Caswell Co.	26	1700EST			0	0	4	0	0	0	TSTM Winds
Iredell Co.	26	1702EST			0	0	0	0	0	0	TSTM Winds
Mooreville	26	1707EST			0	0	0	0	0	0	TSTM Winds
Forsyth Co. Walkertown	26	1720EST			1	0	0	0	0	0	TSTM Winds
Guilford Co. Greensboro	26	1742EST			0	0	0	0	0	0	TSTM Winds
Alamance Co. Burlington	26	1748EST			0	0	0	0	0	0	TSTM Winds
Person Co. Roxboro	26	1815EST			0	0	0	0	0	0	TSTM Winds
Randolph Co. Level Cross	26	1818EST			0	0	0	0	0	0	Hail (1.00)
Mecklenburg Co. Mint Hill	26	1955EST			0	0	0	0	0	0	TSTM Winds
Randolph Co. near Asheboro	26	2015EST			0	0	0	0	0	0	Hail (0.75)
Randolph Co. Seagrove	Two people were killed as severe thunderstorms covered central North Carolina. A 38 year old man was killed by lightning while on a pontoon boat on Lake Norman. An eight year old boy was killed when a tree fell on him while he was riding his bicycle. Quarter to golf ball size hail was reported over much of the area. There were many reports of trees down, some on houses and cars. Nineteen mobile homes were damaged by winds and falling trees near Eden. A mobile home was overturned in Caswell Co. M880 lightning, M80 TSTM Winds										
Southern Wayne Co.	26	2010EST			0	0	0	0	0	0	TSTM Winds
Craven Co. New Bern	26	2030EST			0	0	4	0	0	0	Lightning
Lee Co. near Sanford	26	2040EST			0	0	0	0	0	0	TSTM Winds
Southern Wayne Co.	26	2045EST			0	0	0	0	0	0	TSTM Winds
Carteret Co. 8 W Morehead City	26	2110EST			0	0	0	0	0	0	TSTM Winds
Southwest Harnett Co.	26	2110EST			0	0	0	0	0	0	TSTM Winds
Wind damage and large hail continued as the thunderstorms moved into the Sandhills and Southeastern North Carolina. Most wind damage was to trees and power lines. Fire started by lightning damaged two mobile homes in New Bern. Many trees were blown down across southern Wayne Co.											

32 NORTH DAKOTA

North Dakota NDZall	01-29				0	0	7	7			Drought, Extreme Heat
It was the hottest June on record at every major station across North Dakota. There were 13 to 22 days with temperatures of 90 degrees or more. In the west and south-central sections, 7 to 10 of these days were 100 degrees or more. Biefen, in south-central North Dakota, recorded the highest temperature, 108 degrees on the 27th. Bismarck and Washburn recorded maximum temperatures of 107 degrees on the same day.											
There were some heavy rain-producing thunderstorms in the east, and the west and central sections had substantial rain on the last day of the month. Otherwise the rainfall consisted of small showers and amounts were about half the monthly normal. In addition, high temperatures evaporated most of the moisture.											
This hot dry weather retarded the growth of crops, leaving them weak and vulnerable. Damage is estimated to be in the tens of millions of dollars.											
The hot dry weather also records high consumption of water and electricity on many days.											

NORTH DAKOTA

Morton County, 7NE Flashet	12	0620CST									Funnel Cloud
Kidder County, Tappen	12	0920CST-0930CST	0.5	50	0	1	5	0	0	0	Tornado (F1)
A tornado traveled southwest to northeast through the town of Tappen. The tornado sent trees into homes, damaged a dairy farm and twisted an irrigation unit. A woman was injured when a tree was blown into her mobile home.											
Stutsman County, Jamestown	12	1000CST			0	0	4	0	0	0	TSTM Wind (S4) Lightning
A wind gust to 63 mph was recorded at the Jamestown airport. Lightning strikes and wind-blown tree limbs caused power outages in and around the City of Jamestown. About 4500 people were without power for up to one hour.											
Logan County, 2NW Lehr	12	1050CST			0	0	0	0	0	0	Hail (0.75)
McIntosh County, Wishek	12	1130CST			0	0	0	0	0	0	Hail (0.75)
Griggs County: Binford	18	1640CST			0	0	5	5	5	5	Hail (1.75)
Cooperstown	18	1650CST			0	0	?	?	?	?	Hail (1.50)
Binford	18	1700CST			0	0	?	?	?	?	Hail (2.00)
Hail flattened crops throughout Griggs County and many fields were white with hail cover. The hail damage occurred on crops already weakened by prolonged hot dry weather.											
Steele County: 15SE Cooperstown	18	1715CST	Short	5-15	0	0	0	0	0	0	Tornado (F0)
65W Finley	18	1715CST	1	150	0	0	4	0	0	0	Tornado (F1)
75E Finley	18	1733CST	0.5	75	0	0	4	0	0	0	Tornado (F1)
75E Finley	18	1733CST			0	0	5	5	5	5	Hail (3.00)
35SW Grand Forks	18	1755CST	Short	5-15	0	0	0	0	0	0	Tornado (F0)
An Air Force weather observer reported a tornado touchdown 15 miles southeast of Cooperstown at 1715 CST. Also at 1715 CST, a tornado touched down 6 miles south-southwest of Finley, just south of Highway 200. This tornado was sighted by a Sheriff's deputy as it moved one mile toward the east-southeast. This tornado cut a path through trees and destroyed outbuildings on farmsteads. At 1733 CST, the Steele County Sheriff reported a tornado 7 miles southeast of Finley. This tornado damaged trees, destroyed outbuildings on farmsteads and scattered farm equipment. In addition, 3 inch hail caused extensive damage to crops. At 1755 CST, an Air Force weather observer sighted a tornado 35 miles southwest of Grand Forks at Golden Lake.											
Grand Forks County, Grand Forks	18	1730CST			0	0	4	0	0	0	Lightning
Lightning struck a TV antenna and moved to the roof, damaging the interior ceiling of the home.											
Traill County: 8E Clifford	18	1800CST			0	0	5	?	?	?	TSTM Wind
2S Blanchard	18	1830CST			0	0	5	?	?	?	TSTM Wind
Strong thunderstorm winds occurred over southern Traill County. These winds downed many large cottonwood trees, destroyed a quonset hut 8 miles east of Clifford, and blew down a grain bin 2 miles south of Blanchard. In addition, many storage bins, barns, equipment sheds and power poles were destroyed. Most of the damage occurred in the Clifford area.											
Burke County, 5NE McGregor	20	1530CST			0	0	5	0	0	0	TSTM Wind
Strong winds from a high-based thunderstorm blew out windows, moved a hangar 50 feet, knocked down high-line poles and windmills, damaged barns and outbuildings, destroyed tool sheds, and blew down hundreds of large trees. Eight farmsteads had heavy damage. Peak wind gusts from these macroburst winds were estimated between 80 and 100 mph. The winds lasted about 20 minutes.											
Hettinger County, 8SE New England	20	1815CST			0	0	0	0	0	0	Hail (0.75)
Sheridan County: 11SE Kief	20	2130CST			0	0	4	4	4	4	Hail (2.75)
11SE Kief	20	2130CST-0.8 2132CST	0.8	80-150	0	0	5	0	0	0	Tornado (F1)
A tornado moved on the ground for 3/4 of a mile and caused damages on two farms. Along its path the tornado destroyed a barn, overturned cars, sent cattle flying through the air, and destroyed a garage. Nearby farmhouses were untouched by the tornado. In addition, baseball-sized hail leveled crops.											
Steele County, Finley	20	2330CST			0	0	4	0	0	0	TSTM Wind Lightning
Strong winds pushed over a carnival ride and a grain bin. Lightning struck the top of a building knocking bricks loose. A male carnival worker was slightly injured by a flying brick.											

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1988

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	

NORTH DAKOTA

Benson County, 8SW Esmond	21	1645CST			0	0	0	0	Hail (2.00)
Wells County, 7NE Fessenden	21	1700CST			0	0	0	0	Hail (0.75)
Foster County, Carrington	21	1745CST			0	0	0	0	Hail (0.75)
Dickey County: Ellendale	24	1840CST			0	0	0	0	Hail (1.75)
2S Oakes	24	1850CST			0	0	0	0	Hail (0.75)

33 OHIO

Athens County	21	1640 EST			0	0	4	0	Thunderstorm Wind
Athens County	21	1640 EST			0	0	4	0	Lightning
Thunderstorm winds blew down trees and power lines in Nelsonville. Lightning from the same storm struck a house and the ensuing fire did \$20,000 in damage.									
Bulter County	25	1700 EST			0	0	4	0	Thunderstorm Wind
Thunderstorm winds blew down trees and power lines in Middletown and Trenton. A truck was destroyed when a tree fell on it in Middletown.									
Cuyahoga County	25	1932 EST			0	0	5	0	Thunderstorm Wind
A thunderstorm produced 84 mph winds at Cleveland Hopkins Airport. Numerous trees and power lines were blown down and some structural damage was done in Parma, Brecksville, Independence, Broadview Heights and North Royalton. The roof was blown off the airport post office, many large luggage containers were blown around, and windows were blown out of cars in the airport parking lot.									
Huron County	25	2117 EST			0	0	4	0	Thunderstorm Wind
Huron County	25	2135 EST			0	0	4	0	Thunderstorm Wind
Thunderstorm winds blew down trees and power lines just southeast of Bellevue. The same storm later blew down more trees and power lines, blew in windows and damaged roofs in Havana, Olena and North Fairfield.									
Entire State	Entire Month				0	0	0	0	Drought
Drought conditions continued during June across all of Ohio. Crops planted in the spring were barely surviving. Some cities and towns had water rationing programs in effect. Many rivers and streams were at near record or record low levels, and ground water levels fell substantially.									
Average precipitation for the state was only 21 percent of normal, which translates into eighty-five hundredths of an inch. Based on 105 years of record, June 1988 was the driest ever for the state as a whole. The previous driest June was in 1936 when the state averaged one and sixty-eight hundredths of an inch.									
Northwest Ohio was the driest part of the state. The average precipitation for that area was only fifty-one hundredths of an inch. This was only 13 percent of normal. Central Ohio received the highest average precipitation with one and twenty-six hundredths inches. This was only 31 percent of normal.									

34 OKLAHOMA

Noble County, 1 N Ceres	02	1209CST	0.5	50	0	0	?	?	Tornado (F0) Hail (1.75)
A rope type tornado touched down briefly downing trees and a fence. A barn suffered some damage estimated at \$3000. Golfball size hail covered ground about 2 minutes prior to the tornado.									
Choctaw County, Boswell	02	1310CST			0	0	?	?	Hail (0.88)
Choctaw County, 2 N Hugo	02	1315CST			0	0	?	?	Hail (1.75)
Coal County, 6 NE Coalgate	02	1321CST			0	0	?	?	Hail (0.75)

OKLAHOMA

Payne County, Stillwater	02	1332CST			0	0	?	?	Hail (1.75)
Johnston County, Mill Creek	02	1335CST			0	0	?	?	Hail (0.75)
Osage County, Foraker	02	1335CST			0	0	?	?	Hail (0.75)
Osage County, 10 W Copan	02	1340CST			0	0	?	?	Hail (0.75)
Oklahoma County, Edmond	02	1340CST			0	0	?	?	Hail (1.75)
Oklahoma County, Edmond	02	1340CST			0	0	?	?	TSTM Wind
Canadian County, Mustang	02	1343CST			0	0	?	?	Hail (0.75)
Oklahoma County, Newalla	02	1348CST			0	0	?	?	Hail (0.75)
Cleveland County, Moore	02	1355CST			0	0	?	?	Hail (1.00)
Washington County, Bartlesville	02	1400CST			0	0	?	?	Hail (0.75)
Payne County, Stillwater	02	1400CST			0	0	?	?	Hail (3.25)
Cleveland County, 3 NE Norman	02	1410CST			0	0	?	?	Hail (1.75)
Oklahoma County, 4 S Choctaw	02	1414CST			0	0	?	?	Hail (0.88)
Lincoln County, Meeker	02	1415CST			0	0	?	?	Hail (0.88)
McCurtain County, S McCurtain Co	02	1420CST			0	0	?	?	Hail (0.88)
Lincoln County, Stroud	02	1430CST			0	0	?	?	Hail (0.75)
Pottawatomie County, McLoud	02	1430CST			0	0	?	?	Hail (0.75)
Cleveland County, NE Norman	02	1435CST			0	0	?	?	Hail (1.00)
Oklahoma County, Nicoma Park	02	1444CST			0	0	?	?	Hail (0.75)
Oklahoma County, near Newalla	02	1444CST			0	0	?	?	Hail (0.75)
Lincoln County, 3 E Chandler	02	1445CST			0	0	?	?	Hail (0.75)
Creek County, near Dewey	02	1453CST			0	0	?	?	Hail (1.75)
Oklahoma County, Harrah	02	1458CST			0	0	?	?	Hail (0.75)
Pottawatomie County, 3 N Asher	02	1500CST			0	0	?	?	Hail (1.00)
Cleveland County, S Norman	02	1500CST			0	0	?	?	Hail (1.00)
Atoka County, 3 WNW Farris	02	1500CST			0	0	?	?	Hail (0.75)
Johnston County, 10 NW Tishomingo	02	1510CST			0	0	?	?	Hail (0.88)
Oklahoma County, 8 E Midwest City	02	1513CST			0	0	?	?	Hail (1.00)
Okmulgee County, 2 W Heneyetta	02	1530CST			0	0	?	?	Hail (1.75)
Mayer County, Locust Grove	02	1530CST			0	0	?	?	Hail (0.75)
Oklahoma County, 5 SE Choctaw	02	1533CST			0	0	?	?	Hail (0.75)
Pontotoc County, Francis	02	1540CST			0	0	?	?	Hail (0.75)
Marshall County, Little City	02	1600CST			0	0	?	?	Hail (0.88)
Stephens County, 6 E Loco	02	1600CST			0	0	?	?	Hail (1.75)
Bryan County, 2 N Durant	02	1605CST			0	0	?	?	Hail (0.88)
Pontotoc County, 3.5 N Stonewall	02	1615CST			0	0	?	?	Hail (0.88)
Coal County, 1 W Tupelo	02	1615CST			0	0	?	?	Hail (0.75)
Pontotoc County, 7 S Pittstown	02	1625CST			0	0	?	?	Hail (0.75)
Carter County, Dickson	02	1630CST			0	0	?	?	Hail (0.75)
Johnston County, Pontotoc	02	1630CST			0	0	?	?	Hail (0.75)
Jefferson County, Addington	02	1925CST			0	0	?	?	Hail (0.88)

Scattered thunderstorms developed across the southeast half of the state producing hail up to the size of golf balls at many locations. Hail a little over a 3 inch diameter size fell near Stillwater. Winds of 60 to 70 mph also occurred at several locations. No estimates of damage were received.

Canadian County, 3 N Union City	15	1215CST	1.0	20	0	0	0	0	Tornado (F0)
Murray County, 7 W Davis	15	1750CST			0	0	3	?	TSTM Wind

A rope-type tornado touched down just north of Union City and moved east-northeast for about a mile doing little damage. A collapsing thunderstorm caused \$2000 damage to a house, barn and several outbuildings.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1988

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	
OKLAHOMA									
Oklahoma County, SE Oklahoma City	16	1313CST			0	0	?	?	Hail (0.75)
Oklahoma County, SE Oklahoma City	16	1315CST			0	0	?	?	Hail (0.75)
Grady County, Tabler	16	1515CST			0	0	?	?	Hail (1.00)
					Thunderstorms formed over central sections of the state producing hail up to the one-inch size. No damage was reported.				
Washita County, Cordell	25	aftn.			2	0	0	0	Heat
					A man and his wife suffered the effects of hyperthermia on a camping trip. The man was found alive but died 5 days later in a hospital. HEAT F770 M800.				
Jackson County, Altus	25	2020CST			0	0	?	?	Hail (1.00)
					A thunderstorm produced 50 mph winds and one-inch hail. No damage report was received.				
Payne County, Stillwater	26	1545CST			0	0	4	?	TSTM Wind (70)
Sequoyah County, Sallisaw	26	1610CST			0	6	5	?	TSTM Wind
Payne County, Cushing	26	1751CST			0	0	?	?	Hail (1.75)
Cherokee County, 7 NE Tahlequah	26	1805CST			0	0	3	?	TSTM Wind
Payne County, 1 NE Cushing	26	1900CST	1.0	40	0	0	4	?	Tornado (F1)
					Scattered thunderstorms produced hail, heavy rains, and strong winds across portions of the state. A collapsing thunderstorm tore the roof off of an apartment complex at Oklahoma State University, broke out car windows and downed powerlines, causing \$45,000 damage. Strong winds blew the tote sign down at a race track near Sallisaw, injuring 6 people. Damage to the sign was \$100,000. Winds caused \$1,000 damage to a mobile home northeast of Tahlequah. A small tornado set down 1 mile north and 1/2 mile east of Cushing and moved toward the northwest for about one mile. The tornado damaged several houses and barns and turned a tractor-trailer over. Damage was estimated at \$25,000.				
Wagoner County, 1 E Coweta	27	1555CST			0	0	?	?	Hail (0.75)
Noble County, 7 SW Perry	27	1630CST			0	0	?	?	Hail (1.00)
Lincoln County, 5 NW Wellston	27	1638CST			0	0	?	?	TSTM Wind
Logan County, 3 S Orlando	27	1745CST			0	0	?	?	Hail (1.00)
Kingfisher County, 12 NE Kingfisher	27	2030CST			0	0	?	?	Flash Flooding
					Widely scattered thunderstorms produced some locally heavy rain, hail up to 1 inch size, and damaging winds. One thunderstorm produced 4 to 6 inches of rain in a few hours which caused rapid runoff washing out a bridge and several roadways northeast of Kingfisher.				
Murray County, Sulpher	28	1630CST			0	0	4	?	TSTM Wind
Canadian County, 4 NW Yukon	28	1730CST			0	0	4	?	TSTM Wind
Oklahoma County, NW Oklahoma City	28	1750CST			0	0	3	?	TSTM Wind (54)
Oklahoma County, W Edmond	28	1800CST			0	0	4	?	TSTM Wind (65)
Oklahoma County, W Edmond	28	1805CST			0	0	?	?	Hail (1.00)
Logan County, 4 NNE Waterloo	28	1815CST			0	0	?	?	Hail (0.75) TSTM Wind
Mayer County, Pryor	28	2020CST			0	0	?	?	TSTM Wind (52)
Logan and Oklahoma Counties	28	2030CST			0	0	?	?	Flash Flooding
Muskogee County, Fort Gibson	28	2040CST			0	0	?	?	TSTM Wind
					Scattered thunderstorms produced 70-80 mph winds, one-inch hail and very heavy rains. The strong winds took roofs off of houses, and damaged houses, barns, and businesses in Edmond, Sulpher, northern Oklahoma City and Pryor. Four to five inches of rain in a few hours caused 3 feet deep water across southern Logan county and in the city of Edmond.				
OKLAHOMA									
Ottawa County, Miami	29	1920CST			0	0	4	?	TSTM Wind (56)
					Strong winds downed trees and power lines, took the roof off of several buildings, and blew out several windows. Damage was estimated at \$10,000.				
Pottawatomie County, Shawnee	30	1500CST			1	0	0	0	Heat
					A 23 year old man died of hyperthermia after walking 2 1/2 miles in 100 degree temperatures. HEAT M230.				
Texas County, Tyrone	30	1700CST			0	6	4	?	TSTM Wind
Beaver County, Gate	30	1742CST			0	0	?	?	TSTM Wind
Alfalfa County, 2 W Burlington	30	1900CST			0	0	?	?	TSTM Wind
Alfalfa County, 6 N Burlington	30	1915CST			0	0	?	?	TSTM Wind (52)
Woods County, 4 NW Alva	30	1920CST			0	0	?	?	Hail (1.00)
Ellis County, 9 NW Gage	30	1920CST			0	0	?	?	TSTM Wind
Harper County, Laverne	30	1930CST			0	0	?	?	Hail (0.75)
Alfalfa County, Amorita	30	1930CST			0	0	?	?	Hail (1.00)
Woodward County, 4 SW Freedom	30	1955CST			0	0	?	?	Hail (1.00)
Woodward County, 15 N Mooreland	30	2025CST			0	0	?	?	Hail (0.75)
					Thunderstorms developed across the Panhandle and northwest sections of the state producing strong winds, one-inch hail, and heavy rain. Strong winds hit a mobile home park just north of Tyrone, destroying two homes and damaging 8 others. Six people were injured in the mobile home park, and damage was estimated at \$45,000. Strong winds elsewhere downed trees and power poles and damaged barns and outbuildings. Rainfall amounts of 4 to 5 inches caused a temporary flooding problem in Laverne.				
35 OREGON									
ORZ011 Baker, Union, and Wallowa Counties	26	1600-2100PST			0	0	?	?	Severe Thunderstorm Hail (0.75)
					Thunderstorms broke out in the late afternoon across northeast Oregon. Several reports of crop damage caused by heavy rain or hail were received. The communities of Baker and Enterprise had street and underpass flooding caused by heavy rain and three-quarter inch diameter hail. A Ham radio operator reported 2.00 inches of rain at Baker. State Highway 203 had a washout along Catherine Creek.				
36 PENNSYLVANIA, Eastern									
Lebanon County:									
1E Anville	1	1520 EST			0	0	3	?	TSTM Wind
1N Anville	1	1525 EST			0	0	3	?	TSTM Wind
Cornwall	1	1533 EST			0	0	3	?	TSTM Wind
Myerstown	1	1538 EST			0	0	3	?	TSTM Wind
					Thunderstorm wind gusts brought down numerous trees just east of Anville, a large tree just north of Anville, numerous trees at Cornwall, and trees and large limbs at Myerstown.				
Lancaster County:									
Ephrata	1	1549 EST			0	0	2	?	TSTM Wind
Akron	1	1549 EST			0	0	3	?	TSTM Wind
					Thunderstorm wind gusts brought down large limbs at Ephrata and power lines at Akron.				
Berks County, 1E Birdsboro	1	1618 EST			0	0	3	?	TSTM Wind (52+)
					Thunderstorm wind gusts brought down large tree limbs and uprooted trees between Birdsboro and Monocacy Station. The wind gusts were estimated to have been over 60 mph.				

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1988

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	

— PENNSYLVANIA, Eastern

Chester County: 15 Exton	1	1618 EST			1	0	3	0	TSTM Wind
	1	1620 EST			0	0	3	0	TSTM Wind (52)
Thunderstorm wind gusts brought down trees in West Chester, and were estimated at 55 to 60 mph. Thunderstorm wind gusts near Exton blew a very large limb out of the top of a very large tree. The limb came down on a passing automobile, killing the woman driver. F23V									
Delaware County, Aston	1	1630 EST			0	0	3	?	TSTM Wind
Thunderstorm wind gusts downed at least 10 trees.									
Bucks County, Northampton	1	2115 EST			0	0	5	0	Lightning
Lightning struck a house, causing a fire that burned out most of the interior of the house.									
Lancaster County: Lancaster	7	1418 EST			0	0	3	0	TSTM Wind
	7	1505 EST			0	0	3	0	TSTM Wind
Thunderstorms brought brief heavy rain and wind gusts that downed trees and power lines at a shopping center in the North portion of Lancaster. Some people were trapped in their automobile by a fallen tree. Thunderstorm wind gusts brought large trees down in Strasburg.									
Perry County, SE Newport	7	1535 EST			0	0	3	?	TSTM Wind
Thunderstorm wind gusts downed large limbs and a tree between Newport and Duncannon.									
Cumberland County, SE Carlisle	7	1601 EST			0	0	3	?	TSTM Wind
Thunderstorm wind gusts brought trees down across Bernheisel Road in Middlesex Township between Carlisle and Mechanicsburg. Heavy rain also accompanied the thunderstorm.									
Carbon County, SN Palmerton	16	1620 EST			0	0	?	?	TSTM Wind (57) Hail (0.75)
A thunderstorm north of Palmerton produced dime size hail and wind gusts estimated to have been in excess of 60 to 65 mph.									
Lancaster County, Willow Street	16	1830 EST			0	1	0	0	Lightning
Lightning struck a light post and traveled down it, eventually hitting a man walking nearby. The man was critically injured.									

36 PENNSYLVANIA, Western

Fayette County, 14 N Uniontown	16	1445 EST			0	0	0	0	Thunderstorm Wind
Trees and power lines were downed in Perryopolis and Star Junction.									
Westmoreland County, 18 SE Greensburg	16	1525 EST			0	0	0	0	Hail (1.25)
One and a quarter inch diameter hail fell at Donegal.									
Somerset County, 9 W Somerset	16	1540 EST			0	0	0	0	Thunderstorm Wind
Trees were downed by thunderstorm winds near Bakersville.									
Westmoreland County, 9 E Latrobe	16	1547 EST			0	0	0	0	Thunderstorm Wind
A tree was downed near Ligonier.									

37 RHODE ISLAND

Washington, Newport, and Kent Counties	26	0100EST- 1000EST			0	3	3	0	Lightning
A series of heavy thunderstorms swept across the southern portion of the state accompanied by numerous lightning strikes which injured three people, caused widespread power outages affecting up to about 8,000 customers, and sparked a rash of house fires. A lightning-caused fire heavily damaged a West Greenwich saw mill. In Portsmouth, lightning struck a radio antenna and traveled into a two-way radio, injuring the radio operator. Two other people were injured by lightning in Charlestown.									

38 SOUTH CAROLINA

York County between Clover and Bowling Green	03	1310EST			0	0	?	?	TSTM Wind
30" pine tree blown over.									
Chester Co. 5 E Richburg	03	1345EST			0	0	?	?	Hail (1.0)
Lexington Co. Irmo/Hollow Creek	03	1445EST			0	0	?	?	TSTM Wind
Trees down.									
Georgetown Co. 3E Outland	03	1505EST			0	0	?	?	Hail (1.75)
1N Georgetown	03	1520EST			0	0	?	?	Hail (1.75)
Horry Co. Myrtle Beach	03	1530EST			0	0	?	?	Hail (0.75)
Richland Co. Columbia	08	1235EST			0	0	?	?	Hail (.75)
Hail reported at Bill and Harden Streets.									
Lee Co. 8S Bishopville	08	1345EST			0	2	4	2	TSTM Wind
Two mobile homes damaged and roofs blown off two buildings in Lee County. Also, a storage building destroyed. One person slightly injured.									
Calhoun Co. 7W St. Matthews	08	1350EST			0	0	0	4	Hail (0.75)
St. Matthews	08	1350EST			0	0	3	0	Hail (1.00)
Fairfield Co. 10 E Wimsboro	08	1445EST			0	0	?	?	Lightning
10 E Wimsboro	08	1500EST			0	0	?	?	Hail (0.75)
Newberry Co. Prosperity	08	1500EST			0	0	?	?	Hail (1.0)
Horry Co. Bakers Chapel	08	1530EST			0	0	4	5	Hail (0.75)
Hail covered a 10 mile radius of Bakers Chapel from Bayboro to Jordanville. Considerable tobacco acreage was destroyed.									
Orangeburg Co. Santee	08	1700EST			0	0	3	0	TSTM Wind
Elloroe	08	1630EST			0	0	3	0	TSTM Wind
Several trees blown down.									
Greenville Co. Greenville	08	1717EST			0	0	2	0	Lightning
Two homes set afire by lightning - power off to 300 customers.									
Dorchester Co. Summerville	9	1400EST			0	0	?	?	TSTM Wind
A few trees blown down. Numerous reports of small hail.									
Greenwood County Breezewood	09	1515EST			0	0	4	0	TSTM Wind
A 128 year old pecan tree (18 feet circumference) was blown down in Breezewood area in southern Greenwood County. Power disrupted to 1000 customers - many trees down.									
Saluda Co. Near Saluda	09	1550EST			0	0	3	0	TSTM Wind
Limbs and trees blown down.									
Lexington Co. Batesburg	09	1615EST			0	0	3	0	TSTM Wind
Chapin	09	1628EST			0	0	?	?	TSTM Wind
Near Lexington	09	1633EST			0	0	?	?	TSTM Wind
Columbia Airport	09	1638EST			0	0	?	?	TSTM Wind
Cayce	09	1700EST			0	0	3	0	TSTM Wind
Large tree blown on house in Cayce. Gust to 60kt observed at Columbia Airport. Large tree crushed a car in Batesburg - Leesville area. Trees down in Chapin and near Lexington.									
York Co. Smyrna	09	1640EST			0	0	?	?	Hail (1.0)
5 E Rock Hill	09	1705EST			0	0	?	?	Hail (0.75)
Richland Co. 6 SE Columbia	09	1710EST			0	0	?	?	TSTM Wind
Sumter Co. Sumter	09	1720EST			0	0	2	0	TSTM Wind
Several large trees down.									
Kershaw Co. N Camden	09	1725EST			0	0	?	?	TSTM Wind
Orangeburg Co. Orangeburg	09	1730EST			0	0	?	?	TSTM Wind
Large sign and several trees blown down.									
Darlington Co. Lamar	09	1815EST			0	0	?	?	TSTM Wind
New Market	09	1815EST			0	0	?	?	TSTM Wind

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1988

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					KILLED	INJURED	PROPERTY	CROPS	PROPERTY	CROPS	
— SOUTH CAROLINA											
Horry Co. N. Myrtle Beach Aynor	09	1930EST			0	2	5	0			TSIM Wind
	09	1915EST			0	0	?	?			TSIM Wind
	The canopy of the recreation center in Aynor blown off as well as several barn roofs. Roof of Beach Cove Resort tower picked up and deposited several hundred feet downwind by winds estimated 100 mph. A nearby camper was rolled over 3 times. Sailboat parked on beach was tossed about. Storm covered Grand Strand area. Two people slightly injured by winds in North Myrtle Beach.										
Georgetown County Pawley's Island	09	1930EST			0	0	3	0			TSIM Wind
	Considerable minor wind damage reported caused power outages.										
Spartanburg Co. Spartanburg	10	1800EST			0	0	3	0			Lightning
	Lightning knocked out a small private water system serving 42 houses.										
Spartanburg Co. Spartanburg	17	1620EST			0	0	4	0			TSIM Wind
Spartanburg	17	1630EST			0	0	2	0			Urban Flood
Spartanburg	17	1720EST			0	0	2	0			Lightning
	Several cars flooded at underpass on New Cut Road. Small hail reported. A powerful thunderstorm developed over Spartanburg and blew down several trees and power lines. Some of the trees fell across houses causing substantial damage. Winds were estimated at 70 mph by some residents.										
Laurens Co. Waterloo	17	1730EST			0	0	4	0			Lightning
	House destroyed by lightning.										
near Clinton	17	1830EST			0	1	2	0			TSIM Wind
	Large oak tree blown on house, one person knocked down and rolled along ground by wind. Blew some trees across power lines near Clinton.										
Kershaw Co. Lake Wateree	17	2015EST			1	0	0	0			Lightning
	Lightning killed experienced swimmer wearing life jacket after winds had upset boat (#440).										
Greenville Co. Greenville	18	1645EST			0	0	2	0			Lightning
Greer/Greenville	18	1645EST			0	0	?	?			Hail (.75)
near Taylors	18	1715EST			0	0	?	?			Hail (.75)
SW of Greer	18	1730EST			0	0	?	?			TSIM Wind
	Lightning disrupted power to 2,000 customers. Severe thunderstorms moved through the eastern sections of Greenville County and western Spartanburg County causing several reports of severe weather. In Greenville County, dime size hail was observed between Greenville and Greer and also between Greer and Taylors. Some small trees were blown down southwest of Greer in Greenville County. The eastern edge of the same storm complex caused wind damage to homes in Lyman in Spartanburg County from falling trees and limbs. As the storm moved through that county, power lines were blown down in Woodruff causing a major power outage - power was out in town overnight in some areas. One inch hail was reported by a storm spotter near Walnut Grove. However, the storms provided the first substantial rain in about a month for the areas hit. In fact, urban flooding almost became a problem in Lyman as the storm moved through although no damage was reported.										
Spartanburg Co. Lyman	18	1715EST			0	0	?	?			TSIM Wind
Walnut Grove	18	1741EST			0	0	?	?			Hail (1.0)
Woodruff	18	1737EST			0	0	?	?			TSIM Wind
Pacolet	18	1640EST			0	0	2	0			Lightning
Inman	18	1625EST			0	0	2	0			Lightning
Una	18	1700EST			0	0	2	0			Urban Flood
	Home set afire in Pacolet and several houses struck by lightning in Inman. Two cars were caught in flood waters at Una forcing passengers to escape through windows. See further description following Greenville County.										
Bamberg Co. Bamberg	18	1715EST			0	0	3	0			TSIM Wind
	Flagpole bent double, plate glass windows broken, trees down.										
Spartanburg Co. Glendale	18	1745EST			0	1	0	0			Lightning
	Lightning struck a ten year old boy who had unplugged the television and was standing by the chimney.										
York Co. Clover	18	1800EST			0	0	4	0			Lightning
	Home destroyed, radio tower hit by lightning.										
Laurens Co. Ware Shoals	18	2000EST			0	0	2	0			Lightning
	Home struck by lightning.										
Anderson Co. Williamston	23	Aftn			0	0	2	0			TSIM Wind
West Pelzer	23	Aftn			0	0	3	0			Lightning
	Lightning struck home in West Pelzer. Winds blew down trees Williamston										
— SOUTH CAROLINA											
Richland Co. Cedar Creek	23	1520EST			0	0	3	0			TSIM Winds
	Oak trees (24" diameter) and lights at ball field blown down.										
Dorchester Co. Summerville	24	1400EST			0	0	3	0			Lightning
Summerville	24	1400EST			0	0	2	0			TSIM Winds
	Trees down in Kings Grant and Old Fort area of Summerville.										
Colleton Co. Jacksonboro	24	1550EST			0	0	?	?			TSIM Wind
	Several large trees blown down.										
Bamberg Co. E. Denmark	24	1623EST			0	0	?	?			TSIM Wind
near Olar	24	1640EST			0	0	?	?			Hail (1.0)
Clarendon Co. S Clarendon Co.	24	1740EST			0	0	?	?			TSIM Wind
	Several trees down in southern Clarendon County.										
Anderson Co. near Townville	24	2245EST			0	0	?	?			TSIM Winds
Oconee Co. Oakway	24	2235EST			0	0	3	0			TSIM Winds
Oakway	24	2235EST			0	0	4	0			Lightning
	A late night severe thunderstorm caused considerable damage in Oconee and Anderson counties. At Oakway in Oconee County, power lines were blown down, trees were uprooted, and the roof was torn off a feed mill. 21 cows were killed by a bolt of lightning at the same location. Trees and power lines were blown down along highway 24 near Townville in Anderson Co.										
Oconee County btwn. Westminster and Walhalla	25	1520EST			0	0	?	?			TSIM Winds
	25	1530EST			0	0	0	4			Lightning
	A severe thunderstorm caused quite a bit of damage in Oconee County. A 130 yr old house destroyed by lightning. Trees were blown across roads in several locations around the county, including Westminster and Walhalla. Power outages were also reported.										
Sumter Co.	26	1325EST			0	0	?	?			TSIM Wind (G50)
	26	1325EST			0	0	?	?			Hail (0.75)
	Dime size hail and gusty winds.										
Calhoun Co. St. Matthews	26	1415EST			0	0	2	3			Hail (0.75)
15 W. St. Matthews	26	1500EST			0	0	1	0			TSIM Wind
	Wind blew large tree across SC 176 & 21.										
Fairfield Co. 10 E Willsboro	26	1435EST			0	0	?	?			TSIM Wind
	Two trees down.										
Richland County Pontiac	26	1455EST			0	0	2	3			Hail (1.50)
Orangeburg Co. Neese	26	1535EST			0	0	4	0			TSIM Wind
Pinehill	26	1535EST			0	0	4	2			TSIM Wind
	Many trees down in northwest Orangeburg county, storage building destroyed near Neese.										
Abbeville Co. Abbeville	26	1600EST			0	0	3	0			Lightning
Abbeville	26	1600EST			0	0	2	0			Hail (1.0)
Cedar Springs Rd	26	1900EST			0	0	2	?			TSIM Winds
Abbeville	26	1936EST			0	0	2	?			TSIM Winds
	Small hail reported. Several trees blown down on Cedar Spring Rd and in Abbeville.										
York Co. near Bowling Green	26	1700EST			0	0	?	?			TSIM Wind
near Bowling Green	26	1700EST			0	0	?	?			Hail (.75)
Bamberg Co. Denmark	26	1700EST			0	0	?	?			Hail (.75)
Horry County Conway	26	1720EST			0	0	4	0			Lightning
Anderson Co. Honea Path	26	1730EST			0	0	2	0			TSIM Wind
	Small hail reported. Trees and out buildings were blown down.										
Greenwood Co. 15 Greenwood	26	1823EST			0	0	?	?			Hail (1.75)
Chester Co. Chester	26	1853EST			0	0	?	?			Hail (1.00)
Saluda Co. 12 E Saluda	26	2000EST			0	0	5	0			Lightning
	Four cows killed by lightning as they huddled together in an open field near SC 391.										
Laurens Co. near Clinton	26	2100EST			0	0	?	?			TSIM Winds

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					KILLED	INJURED	PROPERTY	CROPS	
— SOUTH CAROLINA									
STATEWIDE SC2001,002,003,004 SC2005,006,007,008,	1-30				0	0	5	6	Drought
	Drought is most severe in Northwestern S.C. Rainfall deficiencies ranged from 1 to 4 inches below normal since January 1st near coast to more than 20 inches below normal in mountains. Pastures, soybeans, and other crops in northwest South Carolina are needing rain badly. Inflows to streams and reservoirs are abnormally low; hydro-electrical generation greatly reduced.								
39 SOUTH DAKOTA									
Walworth County, Mabridge	12	0743 CST			0	0	4	0	TSTM Wind (60)
	Thunderstorm winds damaged the roof on a building and downed trees, causing over \$5,000 in damages.								
Lyman County, Oacoma	12	1820 CST			0	0	3	0	TSTM Wind
	Thunderstorm winds destroyed the roof on a mobile home and moved a house three feet from its foundation.								
Brule County, Chamberlain	12	1825 CST			0	0	3	0	TSTM Wind (50)
Meade County, 20NW Rapid City	13	1630 MST			0	0	4	0	TSTM Wind
	A mobile home was overturned by thunderstorm winds. Damage was in excess of \$20,000.								
Edmunds County, 1E Ipswich	14	0015 CST			0	0	4	0	TSTM Wind (66)
	Two vehicles, a mobile home and a few small buildings were damaged by severe thunderstorm winds.								
Tripp County, 20N Winner	16	1709 CST			0	0	0	0	Hail (1.75)
Dewey County, Eagle Butte	16	1930 CST			0	0	3	0	TSTM Wind (66)
	A roof was removed from a mobile home by thunderstorm winds.								
Spink County: 1NE Ashton 3NE Mellette	16	2000 CST			0	0	0	?	Hail (0.50)
	16	2055 CST			0	0	3	0	TSTM Wind (64)
	Hail destroyed a two-square mile area of crops one mile northeast of Ashton. An apparent downburst damaged a mobile home roof and a few smaller buildings, causing over \$500 in damages.								
Pennington Co., 16SSW Rapid City	22	1545 MST			0	0	0	0	Hail (1.75)
Custer County, 11E Custer	22	1559 MST			0	0	0	0	Hail (0.75)
Meade County, 25N Rapid City	22	2125 MST			0	0	4	0	Lightning
	Lightning struck a hay shelter and the resulting fire destroyed 4,000 bales of alfalfa.								
Ziebach County, 40N Philip	24	1400 MST			0	0	0	0	Hail (1.00)
Roberts County: Claire City 3NE Claire City to 3.SNE Claire City	24	1945 CST			0	0	3	0	TSTM Wind (66)
	24	1958 to 2001 CST	.5	?	0	0	3	0	Tornado (F0)
	Severe thunderstorm winds and a short-lived tornado downed power lines, numerous trees and damaged a few buildings in the Claire City area.								
Pennington Co., Rapid City	29	1306 MST			0	0	0	0	TSTM Wind (50)
40 TENNESSEE									
Franklin County, Farris Chapel	18	1400 CST			0	0	4	0	Lightning
	Lightning killed 10 head of cattle that were bunched near a tree when the lightning struck.								
Lincoln County, 1NW Flintville to 1SE Elora	18	1605 to 1620 CST	7	75	0	0	4	3	Tornado (F2)
	A tornado touched down in the southeast part of the county about one mile northwest of Flintville at around 1605 CST and moved southeast to about one mile southeast of Elora. It did its greatest damage in the Flintville area. On one farm it destroyed 50% of a hay crop, tore the roof off of a barn, and drove two-by-fours through the wall of the house, causing extensive damage. On another farm an outbuilding suffered major damage. Other small buildings and trailers were extensively damaged, trees were uprooted, and other property damage occurred as well.								
Unicoi County	21	1400 CST			0	0	?	0	Lightning
Polk County	21	1400 CST			0	0	?	0	Lightning
	Lightning caused two forest fires in the Cherokee National Forest in southeast Tennessee. Very dry conditions contributed significantly to the fires. The fires damaged about 200 acres in the Sampson Mountain Wilderness Area of Unicoi County, and about 50 acres in Polk County.								
Sevier County	24	1530 CST			0	2	5	0	Thunderstorm Wind
Polk County	24	1945 CST			0	0	4	0	Thunderstorm Wind
	A violent thunderstorm moved through Sevier County doing most of its damage in the Douglas Lake area. Two houseboats and three pontoon boats were capsized. Numerous other boats were damaged or destroyed. Two young women were injured when the houseboat they were in was demolished. There was an estimated \$10,000 to \$15,000 in damage done to the dock, and the total damage including all of the boats was estimated at \$50,000 to \$150,000. Also, a number of small trees at the campgrounds were broken or uprooted. In the Benton area, a large chicken house was destroyed, extensive damage was done to a work shop and shed, and a number of trees were downed as another thunderstorm struck that area.								
Rutherford County	25	1330 CST			0	0	4	0	Thunderstorm Wind
Hamilton County	25	1510 CST			0	0	0	0	Hail (0.75)
Hamilton County	25	1515 CST			0	0	2	0	Thunderstorm Wind
Bledsoe County	25	1610 CST			0	0	2	0	Thunderstorm Wind
Van Buren County	25	1610 CST			0	0	2	0	Thunderstorm Wind
	A thunderstorm produced three-quarter inch diameter hail and wind gusts that knocked down a number of trees in the northern part of Hamilton County near the Sale Creek community. Another thunderstorm hit the Fall Creek Falls State Park, knocking down trees in the section where Bledsoe and Van Buren counties border. Murfreesboro was hit by a thunderstorm that knocked out power, damaged roofs, and smashed windows in the downtown area stores. Trees were downed in many locations, and blocked roads.								
Hambien County	26	1500 CST			0	0	2	0	Thunderstorm Wind
Jefferson County	26	1500 CST			0	0	2	0	Thunderstorm Wind
Grainger County	26	1500 CST			0	0	2	0	Thunderstorm Wind
Davidson County	26	1515 CST			0	0	3	0	Thunderstorm Wind
Union County	26	1530 CST			0	0	3	0	Lightning
Hawkins County	26	1530 CST			0	0	2	0	Thunderstorm Wind
	Thunderstorms caused damage in a number of locations in middle and east Tennessee on Sunday afternoon. The Four Corners boat dock on Percy Priest Lake received extensive damage to its roof and moorings from thunderstorm winds. A marina at the German Creek boat dock in Grainger County sustained heavy damage from strong thunderstorm winds. There were many reports of roof damage and downed trees in Grainger and Hambien counties. A propane tank was damaged by a metal storage rack that was blown into it; it took 24 hours to drain the tank. A Union County church near Maynardsville was struck by lightning and burned to the ground. In Hawkins County near Rogersville, a barn was totally destroyed, several other buildings were damaged, and trees were downed by thunderstorm winds.								
Monroe County	26	1600 CST			0	0	?	0	Lightning
McMinn County	26	1600 CST			0	0	?	0	Lightning
Polk County	26	1600 CST			0	0	?	0	Lightning
Greene County	26	1600 CST			0	0	?	0	Lightning
	Lightning caused 18 forest fires in the Cherokee National Park. The largest one covered 40 acres.								
TNALL	30	1600 CST			0	0	0	?	Drought
	June continued very dry across the state. A total of 77 counties were declared disaster areas by the Department of Agriculture. Higher than normal temperatures accompanied the dry conditions. In the western part of the state rainfall was about one and a half inches below normal. In the Nashville area it was the second driest June on record. Chattanooga was nearly two and three-fourths inches below normal on precipitation.								

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1988

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	
41 TEXAS, Northern									
Comanche County	1	0000CST-0700CST			0	0	6	?	Flash Flooding
Erath County	1	0000CST-0300CST			0	0	?	?	Flash Flooding
Brown County Early	1	0300CST			0	0	?	?	Flash Flooding
Denton County 1 SE Roanoke	1	0215CST			0	0	?	?	Flash Flooding
Hamilton County Hico	1	0240CST			0	0	?	?	Flash Flooding
Tarrant County Azle	1	0350CST			0	0	?	?	Flash Flooding
Dallas County Dallas	1	0400CST			0	0	?	?	Flash Flooding
<p>Heavy rains which began falling during the evening of May 31 across North Central Texas continued into the early morning hours of June 1. The heaviest rains fell across Comanche and Erath Counties. Rainfall amounts during the evening of May 31 and the morning of June 1 totaled over 14 inches in Comanche and 7.6 inches at DeLeon, both in Comanche County. In Erath County, 7.1 inches fell at Dublin and 4.50 inches at Stephenville.</p> <p>Indian Creek flooded in Comanche damaging approximately 150 homes and washing away two businesses. Over 300 people were evacuated in Comanche where damage was estimated between \$3 million and \$5 million.</p> <p>Many highways within Comanche County were closed due to high water. An earthen dam on Lake Eanes, south of Comanche, collapsed at about 0400CST sending a wall of water down Mercer Creek and into Lake Comanche.</p> <p>In Erath County, many streets were flooded and impassable in Stephenville, Lingleville, and Dublin. In Brown County, U.S. Highway 84/183 was closed one mile south of Early. Early received over 6 inches of rain which flooded 20 homes.</p> <p>State Highway 114 was closed one mile southeast of Roanoke in Denton County. Considerable street flooding occurred at Hico in Hamilton County, Azle in Tarrant County, and Dallas in Dallas County.</p>									
Jones County:									
Anson	1	1405GST			0	0	?	?	Hail (1.75)
1 N Radium	1	1410CST			0	0	?	?	TSTM Wind
9 SSW Anson to 10-SSW Anson	1	1502CST-1507CST	1.0	75	0	0	0	?	Tornado (F1)
5 WSW Hawley	1	1520CST			0	0	4	?	TSTM Wind
Anson	1	1520CST			0	0	?	?	TSTM Wind
8 WSW Hawley	1	1525CST	short narrow		0	0	0	?	Tornado (F0)
Taylor County:									
4 NW Abilene	1	1600CST			0	0	?	?	Hail (2.00)
4 N Dyess AFB	1	1602CST			0	0	0	0	Funnel Cloud
Tye	1	1620CST			0	0	?	?	Hail (1.75)
Abilene	1	1620CST			0	0	?	?	Hail (1.75)
McCulloch County Melvin	1	1730CST			0	0	?	?	Hail (1.75)
<p>Thunderstorms produced scattered areas of hail which ranged up to golf ball size in Jones and McCulloch counties and to hen egg size in Taylor County. Strong winds uprooted trees along U.S. Highway 277 one mile north of Radium. A tornado was observed for a few minutes in open country about 9 miles south-southwest of Anson. Winds overturned a mobile home five miles west-southwest of Hawley and knocked down several power poles at Anson. A brief tornado was observed in open country 8 miles west-southwest of Hawley. A funnel cloud was observed four miles north of Dyess Air Force Base.</p>									
Hill County 1 W Whitney	2	0530CST			0	0	?	?	Hail (1.75)
Bosque County: Laguna Park Laguna Park	2	0621CST 0630CST			0	0	4	?	TSTM Wind Hail (2.75)
McLennan County: China Spring	2	0724CST-0730CST			0	0	5	?	TSTM Wind (61) and Hail (0.75)
3 NW Waco	2	0735CST			0	0	?	?	Hail (1.75)
2 N Waco Madison- Cooper Airport	2	0735CST			0	0	?	?	TSTM Wind
Hewitt	2	0805CST			0	0	?	?	Hail (0.75)
1.5 NW Lorena	2	0805CST			0	0	?	?	Hail (1.25)
Bell County Temple	2	0850CST			0	0	?	?	Hail (0.75)
<p>Thunderstorms produced areas of hail up to baseball size in North Central Texas. Strong winds damaged carports and boat sheds and uprooted trees at Laguna Park in Bosque County. Winds up to 70 miles per hour overturned several mobile homes and knocked down utility poles at China Spring in McLennan County. Winds broke windows, damaged several roofs and downed power poles and trees two miles north of Waco Madison-Cooper Airport.</p>									
— TEXAS, Northern									
Jack County:									
Bryson	2	1205CST			0	0	?	?	Hail (0.75)
Jacksboro	2	1210CST			0	0	?	?	Hail (0.75)
Baylor County:									
Seymour	2	1440CST			0	0	?	?	Hail (1.75)
Seymour	2	1510CST			0	0	?	?	Hail (1.75)
Young County 12 SE Graham	2	1445CST-1800CST			0	0	?	?	Flash Flooding
Archer County Megargel	2	1510CST			0	0	?	?	Hail (0.75)
<p>Thunderstorms produced scattered areas of hail which ranged up to golf ball size. Heavy rains flooded Farm-to-Market Roads 1191 and 2075 in southeastern Young County.</p>									
Eastland County 5 N Rising Star	2	1330CST			0	0	?	?	Hail (0.75)
Comanche County 4 E DeLeon	2	1520CST	Short Narrow		0	0	0	?	Tornado (F1)
<p>Dime-size hail fell 5 miles north of Rising Star. A tornado was observed briefly in open country 4 miles east of DeLeon.</p>									
Jones County: 3 NE Hawley	2	1515CST-1530CST			0	0	?	?	Hail (1.75)
Nugent	2	1520CST-1546CST			0	0	?	?	Hail (4.50)
Hamlin Hawley	2	1530CST			0	0	?	?	TSTM Wind
Taylor County: Abilene	2	1600CST			0	0	?	?	Hail (1.75)
Abilene	2	1604CST-1645CST			0	1	8	?	Hail (2.75)
Abilene	2	1635CST			0	0	0	0	Funnel Cloud
Abilene	2	1640CST			0	0	?	?	TSTM Wind (61)
<p>Thunderstorms moved through Jones and Taylor counties producing hail up to softball size. Winds damaged two warehouses in Hamlin in Jones County. Many parts of Abilene were pounded by hail which ranged up to baseball size. Windows in homes and office buildings were broken by the hail. Automobiles and roofs of homes and buildings were damaged. One man was injured when a hailstone hit him in the head. Winds up to 70 miles per hour accompanied the storm in Abilene. A funnel cloud was observed over southwest Abilene. Damage estimates in Abilene ranged between \$70 and \$100 million.</p>									
Bell County: Temple	2	1524CST			0	0	?	?	Hail (0.75) and TSTM Wind (52)
Killeen	2	1720CST			0	0	?	?	Hail (1.75)
Killeen	2	1740CST			0	0	?	?	Hail (1.25)
<p>Thunderstorms produced winds up to 60 miles per hour and hail up to golf ball size in Bell County.</p>									
Red River County 2 SE Manchester	2	1535CST			0	0	?	?	Hail (1.75)
<p>Golf ball size hail fell at Pine Creek (2 SE Manchester).</p>									
Brown County: Zephyr	2	1541CST			0	0	?	?	Hail (0.75)
Zephyr	2	1545CST	Short Narrow		0	0	?	?	Tornado (F1)
<p>Dime-size hail fell at Zephyr at 1541CST. A brief tornado downed power lines and trees and partially unroofed a house at Zephyr.</p>									
Haskell County Rule	2	1545CST			0	0	?	?	TSTM Wind
<p>Winds ripped the metal roofs off of several cattle sheds at Rule.</p>									
Callehan County Eula	2	1645CST			0	0	?	?	Hail (1.75)
Coleman County: Coleman	2	1730CST			0	0	?	?	Hail (1.75)
Coleman	2	1745CST			0	0	?	?	TSTM Wind
Coleman	2	1900CST			0	0	?	?	TSTM Wind
Brown County 5 W Lake Brownwood	2	1830CST			0	0	?	?	TSTM Wind
<p>Thunderstorms produced areas of hail up to golf ball size at Eula and Coleman. Winds downed power lines in Coleman at 1745CST and also damaged an outbuilding on the southeast edge of Coleman at 1900CST. A metal building was toppled by the wind onto a home near Lake Brownwood.</p>									
San Saba County 2 W San Saba	2	1645CST			0	0	?	?	TSTM Wind
Lampasas County Lometa	2	1700CST			0	0	?	?	TSTM Wind
<p>Strong winds uprooted trees and damaged a barn two miles west of San Saba. In Lometa, a train roundhouse built in the early 1900's was destroyed by strong winds. Several houses were also damaged in Lometa by the winds, and numerous trees uprooted.</p>									
McCulloch County 5 SSE Brady	2	1920CST-1930CST			0	0	?	?	Hail (1.00)
<p>Hail up to one inch in diameter fell 5 miles south-southeast of Brady.</p>									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1988

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					KILLED	INJURED	PROPERTY	CROPS	
TEXAS, Northern									
Archer County: Scotland	16	1640CST			0	0	?	?	TSTM Wind (56)
1 N Windthorst	16	1650CST			0	0	?	?	Hail (1.75)
Clay County 2 E Windthorst	16	1650CST			0	0	?	?	Hail (1.75)
A thunderstorm uprooted trees at Scotland where winds were estimated at 65 miles per hour. Golf ball size hail fell near Windthorst.									
Gregg County Kilgore	19	1720CST			0	0	?	?	TSTM Wind
A few trees were uprooted and a patio cover damaged at Kilgore.									
Limestone County Groesbeck	23	1812CST			0	0	?	?	Hail (0.75)
Leon County Normangee	23	1823CST			0	0	?	?	TSTM Wind
A thunderstorm produced hail up to dime size at Groesbeck. Winds damaged the roofs of 3 businesses and a home in Normangee and uprooted trees.									
Jones County 10 N Abilene	26	1515CST			0	0	0	0	Funnel Cloud
A funnel cloud was observed near the Lake Fort Phantom Power Station 10 miles north of Abilene.									
Grayson County 2 N Denison	27	1800CST			0	0	?	?	TSTM Wind
Winds tore the roof off a produce store 2 miles north of Denison.									
Young County 4 SW Olney	28	1430CST			0	0	?	?	TSTM Wind
Wilbarger County 5 SE Vernon	28	1555CST			0	0	?	?	TSTM Wind
Winds ripped the roof off a barn just off U.S. Highway 79 four miles southwest of Olney. Trees were uprooted and two barns damaged by winds 5 miles southeast of Vernon, on Farm-to-Market Roads 433 and 1949.									
Parker County Aledo	29	1320CST			0	0	?	?	TSTM Wind
Tarrant County: White Settlement, Arlington, and Keller	29	1330CST- 1500CST			0	5	?	?	Lightning
5 W Fort Worth	29	1345CST			0	0	?	?	TSTM Wind
A porch was blown off a house at Aledo. Three construction workers were injured in White Settlement when lightning struck a crane. A teenager was injured in Arlington while talking on the telephone when lightning struck a nearby power pole. A woman was injured in Keller when lightning struck a nearby tree. A one foot diameter tree was uprooted in a yard in the western part of Fort Worth.									
41 TEXAS, Southern									
Southern Texas									
Llano County Pontotoc	02	1655CST			0	0	0	0	Hail (1.00)
Gillespie County	02	1915CST			0	0	?	?	TSTM Wind (?)
	02	1915CST			0	0	?	?	Hail (1.75)
High winds from thunderstorms did widespread damage over the county. Many oak trees were downed. West of Fredericksburg, the roof of a mobile home was blown off. Hail the size of golfballs broke out windows in Fredericksburg and in the town of Doss. Hail broke the windshield of a car driving on US Hwy. 87 near the town of Cherryspring. The hail also damaged many roofs in the county.									
Williamson County Hutto	02	1947CST			0	0	?	0	TSTM Wind (?)
High winds from a thunderstorm toppled a radio tower.									
Blanco County	02	2040CST			0	0	0	0	Hail (1.50)
Golfball size hail was reported in the town of Blanco by the Sheriffs Department.									
TEXAS, Southern									
Kerr County	02	2130CST			0	0	6	?	Tstm Wind (60)
High winds from a thunderstorm toppled trees, tore off roofs of homes and businesses in the county. Two apartment complexes in Kerrville lost their roofs. There was extensive damage to the concessions stands and tents at the State Arts and Crafts Show on the grounds of Schreiner College. Also in the southern part of the county near I-10, the Cypress Creek area reported many trees were blown over.									
Bexar County San Antonio	02	2245CST			0	0	5	0	Tstm Wind (70)
	02	2245CST			0	0	0	0	Hail (1.75)
High winds from a thunderstorm did considerable tree, fence and sign damage across the city of San Antonio. The FAA control tower at the International Airport clocked the wind at 80 MPH. 2 airport hangar doors were blown off and an airplane was flipped over. Golfball size hail was reported on the far north side of town in the development of Encino Park. The wind and hail shattered some windows in homes and automobiles.									
Medina County Castroville	02	2305CST			0	0	0	?	Hail (1.75)
Bexar County Kirby	02	2330CST			0	0	0	0	Hail (1.75)
Atascosa County Pleasanton	03	0006CST			0	0	0	0	Hail (1.75)
Val Verde Del Rio	03	0030CST			0	0	0	0	Hail (0.75)
Bee County	03	0120CST			0	0	?	?	Tstm Wind (60)
High winds from a line of thunderstorms did considerable damage in and around the town of Beeville. At the Naval Air Station a plane was flipped over and 2 roofs were blown off. The MAS measured a wind gust to 66 MPH. Many trees were blown over in the area.									
Bee County Skidmore	03	0218CST			0	0	?	0	Tstm Wind (?)
High winds from a thunderstorm blew over trees and powerlines in the town of Skidmore.									
San Patricio County Sinton	03	0220CST			0	0	?	5	Tstm Wind (?)
High winds from a thunderstorm heavily damaged three trailers, one of which was flipped over. Winds also damaged crops in the area.									
Nueces County	03	0228CST			0	0	?	?	Tstm Wind (?)
High winds from a thunderstorm did scattered damage in and around the City of Corpus Christi. There was tree and sign damage. Traffic lights were downed. 2 airplanes broke their tie-downs at the airport.									
Cameron, Willacy and Hidalgo Counties	03	0500CST			1	?	6	?	Tstm Wind (78)
High winds from a severe line of thunderstorm did widespread damage over the tri-county area. The high winds capsized several boats. One shrimp boat overturned and one of the crewmen drowned. The other two crewmen on board swam to safety. There was considerable damage to boats, docks and sheds around harbors. Winds gusted to near 90 MPH at the US Coast Guard Station. South Padre Island Jetty Harbor reported a gust to 83 MPH and an 85 MPH gust was recorded at the turning basin. While not listed in the casualties, there were two Mexican Nationals drowned from a small capsized boat near the mouth of the Rio Grande River. The high winds rolled over at least 24 mobile homes. 10 camper trailers were totally destroyed. Most of the mobile homes and trailers were damaged on South Padre Island in the Isla Blanca Park near the jetties. Farther inland, winds gusted to 62 MPH at the NWS Office in Brownsville. Edinburg reported gusts to 63 MPH. Power lines and poles, trees, signs and fences were all reported down in the above-mentioned counties. There was also damage to roofs of homes and apartment complexes. M60.									
Lavaca County	03	1333CST			0	0	?	0	Tstm Wind (?)
	03	1333CST			0	0	?	?	Hail (1.75)
High winds from a thunderstorm hit the northeast part of the town of Hallettsville and uprooted trees, damaged roofs, and toppled power poles and lines. A few outbuildings were destroyed. Hail the size of golfballs was reported in the area.									
Chambers County Anahuac	03	1615CST			0	0	0	0	Tstm Wind (52)
High winds from a thunderstorm were estimated at 60 MPH. Damage was not reported.									
Bexar County Adkins	03	1628CST			0	0	?	?	Tstm Wind (?)
High winds from a thunderstorm downed power lines and poles in the eastern part of the county. Trees were also toppled.									
Medina County	09	1628CST			0	0	?	?	Tstm Wind (?)
	09	1628CST			0	0	0	?	Hail (1.75)
High winds from a thunderstorm near the town of Rio Medina blew over signs, trees and power poles. At least one grain elevator bin was destroyed. Golfball size hail did some crop damage in the area.									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1988

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					KILLED	INJURED	PROPERTY	CROPS	
TEXAS, Southern									
Liberty County	19	1600CST			0	0	?	?	Tstm Wind (?) High winds from a thunderstorm blew over trees, signs and fences in the town of Liberty. Some buildings were also damaged. Winds were estimated between 50 and 60 MPH.
Edwards County	24	1550CST			2	3	0	0	Lightning About 15 miles south of Rocksprings 5 men were cutting cedar and stacking the posts onto a trailer. The men took cover under the trailer during a thunderstorm and lightning hit a metal post on the trailer and killed 2 of the 5 men. The other 3 men were hospitalized but later released. M350, M390.
Real and Uvalde Counties	25	0200CST			0	0	?	0	Flash Flooding Nearly 6 inches of rain (5.80 in Leakey) fell over portions of northern Uvalde and Real Counties. Streams and low water crossings were flooded.
Edwards and Uvalde Counties	26	0010CST			0	0	?	0	Flash Flooding Heavy rain fell in the two counties, which flooded streams and low water crossings. At least two main highways were closed due to high water. Flooding was reported in the Concan area. Campers had to be moved to higher ground in the flood plain of the Frio River in Garner State Park. The Frio River was reported up 6-10 feet.
41 TEXAS, Western									
Cottle County	02	1430CST			0	0	0	0	Hail (0.75) Dime-sized hail fell at Hackberry in the southeast part of the county, according to the Sheriff's Office.
Hunnels County	02	1715CST 1730CST			0	0	?	?	Flash Flooding Hail (1.00) A thunderstorm 7 miles north of Winters produced 2 inches of rainfall in 20 minutes and was accompanied by 3/4-inch hail. At Winters, the same storm generated 3/4 to 1-inch hail between 1730 and 1750 CST, inflicting minor crop damage.
Yoakum County	09	1635CST			0	0	0	0	Hail (0.90) Hail ranging in size from dimes to gumballs fell in conjunction with very heavy rain and high wind at the Shell Oil Pipe Plant on Farm-to-Market Road 1939 five miles east of Denver City.
Reeves County	11	1530CST 1535CST			0	0	?	?	Hail (1.75) Hail (1.00) The Reeves County Sheriff reported hail ranging in size from quarters to golfballs that fell from Balmorhea to 3 miles east of Balmorhea. The hail fell on Interstate 20 for a period of 10 to 15 minutes. At 1535 CST, the County Sheriff reported 1.00 inch hail 2 miles east of Balmorhea in conjunction with this storm.
Presidio County	13	1800CST			0	0	4	0	TSTM WIND (60) The Weather Observer at Marfa reported power outages at the Marfa Airport, caused by thunderstorm winds gusting to 60 knots. The winds blew a roof off of a hangar at the airport.
El Paso County	14	1350CST	0.2	30	0	0	0	0	Tornado (F0) A small tornado was reported by the public near Horizon City. The twister was on the ground for only a few seconds, causing no apparent damage.
Wheeler County	14	1703CST			0	0	0	0	Flash Flooding Heavy thunderstorm rains pushed water over many rural roadways across the county.
TEXAS, Western									
Tom Green County	24	1515CST			0	0	5	0	TSTM WIND An apparent thunderstorm microburst, of undetermined speed, caused extensive damage in a mobile home park in southwest San Angelo. The storm also inflicted sporadic roof and tree damage over the south side of town.
Lubbock County	25	1445CST 1455CST			0	1	0	0	Lightning TSTM WIND (73) A strong microburst generating winds gusting to 73 knots struck the Town and Country Airport in south Lubbock County, overturning a mobile home and damaging airport hangars. Ten minutes before, lightning from the same storm struck near a 12-year-old boy, knocking him unconscious. The youngster was hospitalized but not seriously injured.
Potter County	25	1730CST			0	0	4	0	TSTM WIND Thunderstorm winds of undetermined speed inflicted extensive damage to a church roof in Amarillo. The combination of wind and lightning caused an estimated 300 to 400 power outages in Amarillo and Canyon.
Moore and Hutchinson Counties	25	Est. 1900CST			0	1	4	0	TSTM WIND Thunderstorm winds struck from the southeast and swamped several pleasure boats on the north shore of Lake Meredith. One boater was thrown overboard, and injured his arm when he struck a bolt on the overturned boat. The injury was minor.
Childress County	26	0956CST			0	0	?	?	Flash Flooding Intense thunderstorm rains in the Childress area caused flooding that inundated city and adjacent rural streets.
Crosby County	26	1340CST							Funnel The Crosby County Sheriff's Office reported a funnel cloud 4 miles north of the City of Balls.
Lubbock County	26	1500CST							Funnel A funnel cloud was observed by National Weather Service Observers at Lubbock International Airport. The funnel lasted about 5 minutes and extended one third of the way to the ground.
Parmer County	26	1839CST							Funnel A Skywarn Spotter sighted a funnel cloud west of Bovina in the western part of the county.
Scurry County	27	Est. 1230CST							Funnels The public reported several funnels west of Ira.
Midland County	29	1615CST			0	0	4	0	TSTM WIND A thunderstorm microburst damaged a mobile home and frame building 5 miles southeast of Midland.
Crane County	29	2003CST	0.5	60	0	0	?	?	Tornado (F0) A tornado was reported by the public in the extreme western part of the county, 20 miles west of the City of Crane.
Oldham County	30	1450CST			0	0	?	0	Hail (1.75) Hail the size of golfballs was encountered by the public 3 miles southwest of Adrian.
Pecos County	30	Est. 1600CST	0.4	50	0	0	4	0	Tornado (F1) A small tornado struck a refurbished storage house located 4.5 miles north of Fort Stockton on Highway 18. Parts of the structure were carried 50 yards and deposited in a tree. The owner's mobile home was also overturned and a satellite dish was uprooted.
Potter County	30	1655CST			0	0	?	0	Hail (1.00) The public reported 1-inch hail at the intersection of 16th and Georgia Streets in Amarillo. No damage was reported.
Potter and Randall Counties	30	2045CST			0	0	?	0	Flash Flooding Torrential thunderstorm rains caused widespread flash flooding in the City of Amarillo. Between 2.50 and 4.00 inches of rain flooded many of the major arteries in town.

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JUNE 1988

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					KILLED	INJURED	PROPERTY	CROPS	
42 UTAH									
UTZ002	05	1030MST			0	0	1	0	High Wind
UTZ006	05	1230MST			0	0	1	0	High Wind (G51)
UTZ007	05	1520MST			0	0	1	0	High Wind (G61)
Great Salt Lake Desert, Southwest Valleys, Sevier Valley	Strong southwest flow aloft translated to strong southerly winds at the surface. The Salt Plant anemometer at Timpie registered sustained winds of 40 mph. Gusts to 59 mph and 70 mph were registered at Milford and Marysville, respectively.								
Millard County Delta	16	2230MST			0	0	1	0	Thunderstorm Wind (G58)
	A thunderstorm wind gust of 67 mph was reported by the Delta observer.								
Washington County St. George	20	1345MST			0	0	1	0	Thunderstorm Wind (G60)
Beaver County Milford	20	1645MST			0	0	1	0	Thunderstorm Wind (G51)
	A thunderstorm wind gust of 69 mph was recorded by the St. George observer. A few hours later the Milford observer recorded a gust to 59 mph.								
Washington County La Verkin	21	1535MST			0	0	3	0	Thunderstorm Wind (G52)
	A spotter in La Verkin reported a thunderstorm wind gust of 60 mph.								
Beaver County Milford	24	1530MST			0	0	1	0	Thunderstorm Wind (G55)
	The Milford observer reported a gust to 63 mph in a thunderstorm.								
Tuocle County Wendover	25	1645MST			0	0	1	0	Thunderstorm Wind (G50)
	The automatic weather station at Wendover reported a gust to 58 mph shortly before 6 p.m. MDT.								
43 VERMONT									
Bennington County, Bennington	22	1700EST			0	0	3	0	Hail (1.00)
Windham County, Vernon	22	1750EST			0	0	3	3	Thunderstorm Wind
	Thunderstorm winds accompanied by hail blew down trees and power lines. The storm also brought heavy rain that overloaded the city's sewage plant, resulting in millions of gallons of untreated waste being dumped into Lake Champlain.								
Grand Isle County, Alburg	22	2020EST			0	0	4	4	Thunderstorm Wind
	Trees and power lines were downed.								
44 VIRGINIA									
Botetourt Co, Fincastle	2	1510EST			0	0	?	?	Hail (1.00)
Bedford Co	2	1550EST			0	0	?	?	Hail (1.75)
Bedford Co	2	1630EST			0	0	?	?	Hail (0.88)
Roanoke Co	2	1647EST			0	1	0	0	Lightning
	A 26 year old man was hit and injured by lightning in Roanoke.								
Campbell Co, Lynchburg	17	1430EST			0	0	?	0	Thunderstorm Winds
	Thunderstorm winds knocked down several trees in Lynchburg; heavy rains caused a roof to collapse from water accumulation.								
Pulaski Co	17	1730EST			0	0	?	?	Hail (1.75)
Pulaski Co	17	1730EST			0	0	?	0	Thunderstorm Winds
Patrick Co	19	0000EST			0	0	0	0	Small Stream Flooding
	Small streams rose to near and just over bankful in isolated spots in the county. A couple of bridges were reported under water, but sustained no damage.								
— VIRGINIA									
Statewide	21-23				?	?	0	?	Heat Spell
	The temperature reached 100 degrees or more at several locations, with numerous readings averaging 95 to 100. Many records were equalled or broken.								
Rappahannock Co	23	1315EST			0	0	?	0	Thunderstorm Wind (55 kt)
Fauquier Co	23	1357EST			0	0	?	0	Hail (2.00)
Fauquier Co, Warrenton	23	1400EST			0	0	3	0	Thunderstorm Winds
	Strong winds associated with thunderstorms blew off a church roof in Warrenton.								
Prince William Co	23	1358EST			0	0	?	0	Thunderstorm Wind (55 kt)
Prince Edward Co, Farmville	23	1600EST			0	0	6	0	Thunderstorm Wind (90 kt)
	Farmville was severely hit by thunderstorms, producing widespread damage throughout the town.								
Amherst Co, Amherst	23	1800EST			0	0	0	0	Thunderstorm Winds
	Several trees were blown over by thunderstorm winds in Amherst.								
Virginia Beach	24	0300EST			0	0	5	?	Lightning
	Lightning began two fires in Virginia Beach, burning down a feed mill and partially destroying a house.								
Albemarle Co	26	1300EST			0	0	0	0	Hail (0.50)
Orange Co	26	1340EST			0	0	0	0	Hail (0.50)
Fluvanna Co	26	1320EST			0	0	0	0	Hail (0.50)
Nelson Co	26	1300EST			0	0	0	0	Hail (0.50)
Pittsylvania Co, Danville	26	1651EST			0	0	0	0	Thunderstorm Wind (55 kt)
Hecklenburg Co, South Hill	26	1700EST			0	1	0	0	Lightning
	A 23 year old man was hit and injured by lightning in South Hill.								
Halifax Co, South Boston	26	1700EST			0	0	4	0	Lightning
	A private home and a barn were set afire by lightning, causing \$40,000 damage.								
Accoonack Co, Wallops Island	26	1630EST			0	0	?	0	Thunderstorm Wind (62 kt)
Tangier Island	26	1630EST			0	0	?	0	Thunderstorm Wind (100kt)
Northampton Co, Cape Charles	26	1645EST			0	0	?	0	Thunderstorm Wind (59 kt)
Caroline Co, Port Royal	26	1400EST	0.3	20	0	0	?	0	Tornado (F0)
Westmoreland Co	26	1400EST			0	0	?	?	Hail (2.00)
Richmond Co	26	1440EST			0	0	?	0	Thunderstorm Winds
Essex Co	26	1450EST			0	0	?	0	Thunderstorm Winds
Westmoreland Co	26	1458EST			0	0	?	0	Thunderstorm Winds
Northumberland Co	26	1500EST			0	0	?	0	Thunderstorm Wind (70 kt)
Virginia Beach Co, Cape Henry	26	1700EST			0	0	?	0	Thunderstorm Wind (50 kt)
Chesapeake Co	26	1700EST			0	0	?	?	Thunderstorm Winds
Southampton Co, Courtland	26	1810EST			0	0	?	0	Thunderstorm Winds
Greensville Co, Shippers	26	1810EST			0	0	?	0	Thunderstorm Winds
Buckingham Co	26	Evening			1	0	0	0	Lightning
	Numerous trees were blown over due to strong thunderstorm winds. Downed trees numbered 25 to 30 in Westmoreland County, 30 to 35 in								

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1988

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	
— VIRGINIA									
									Richmond County, 3 in Greensville County, a few in Southampton County, and several each in Essex, Accomack and Norfolk counties. A mobile home was blown off its foundation, and a house roof was blown off in Accomack County. Large limbs were blown down in Chesapeake County around 1800EDT, blocking a 4 lane highway. Heavy rainfall averaged 1/2 to 2 1/2 inches accumulation. A 26 year old man was killed by lightning when he pulled his motorcycle off the road and sought shelter under trees near Dillwyn. M260
45 WASHINGTON									
Franklin County	05	1642 PST			0	0	0	0	Funnel Cloud
									Convective activity in the vicinity of the Tri Cities was strong enough to spawn a funnel cloud that was observed for 5 minutes to the east of Pasco airport.
Grant County	14	1400 PST			0	0	?	0	Dust Devil
									A large dust devil which moved through a mobile home park caused light structural damage to a carport and a few shingle roofs.
46 WEST VIRGINIA — NONE REPORTED									
47 WISCONSIN									
St. Croix Co., INE River Falls	19	1748CST			0	0	0	3	Hail (4.50)
2E Baldwin	19	1757CST			0	0	0	?	Hail (1.75)
Woodville	19	1757CST			0	0	5	0	Thunderstorm Wind
Pierce Co., Martell	19	1815CST			0	0	0	?	Hail (1.50)
Dunn Co., Menomonie	19	1825CST			0	0	3	0	Thunderstorm Wind (69)
									A cluster of severe thunderstorms dumped hail up to softball size and generated winds up to 79 mph which damaged trees and power lines over west-central Wisconsin. In Woodville (St. Croix county) severe thunderstorm winds damaged a pole shed, an amphitheater and several cars.
Oconto Co., Oconto	21	2115CST			0	0	5	0	Thunderstorm Wind
Door Co., Gills Rock	22	0200CST			0	0	?	0	Thunderstorm Wind (91)
Winnebago Co., Neenah/Menasha	22	0225-0300CST			0	0	5	0	Thunderstorm Wind
Outagamie Co., Appleton/Kimberly	22	0230-0240CST			0	0	5	0	Thunderstorm Wind
Dodge Co., INE Mayville	22	0245CST			0	0	3	0	Thunderstorm Wind
4 1/2 NE Iron Ridge	22	0245CST	2	100	0	0	5	0	Tornado (F1)
Washington Co., Allentown	22	0650CST			0	0	?	0	Thunderstorm Wind (54)
Kewaskum	22	0700CST			0	0	3	0	Thunderstorm Wind
Ozaukee Co., Newburg	22	0701CST			0	0	?	0	Thunderstorm Wind (52)
									Severe thunderstorms generated winds up to 105 mph at the automated weather station at Gills Rock (Door county). Thunderstorm downdraft winds caused widespread tree, roof and home damage in the city of Oconto (Oconto county), and the areas of Neenah/Menasha and Appleton/Kimberly. A tornado set down 4 1/2 NE of Iron Ridge (Dodge county) destroying a barn and damaging 3 other barns and one home, causing about \$200,000 in damage. In Mayville (Dodge county) a severe thunderstorm blew down some trees and a garage.
— WISCONSIN									
Douglas Co., SW Bennett	24	2315CST			0	0	5	0	Thunderstorm Wind
Bayfield Co., Iron River	24	2330CST			0	0	3	0	Thunderstorm Wind
									Scattered severe thunderstorms caused property and tree damage over Douglas and Bayfield counties.
Statewide		May through June			0	0	0	?	Drought
									The worst drought since 1976 hit Wisconsin with a combination of high temperatures, low humidities and sparse rainfall. In agriculture, the early pea harvest was 30-70 percent of the normal, soybean growth 10-30 percent of the normal, the first hay cut was 25-50 percent of the normal and the alfalfa harvest was 60-75 percent of the normal. The state's remaining crops of oats, asparagus, cabbage, potatoes, wheat, barley, tobacco, cherries, and corn were suffering greatly except in irrigated areas.
									Temperatures in June were generally in the 80s, 90s and at times 100-106, with some partial relief from cool fronts. Many areas reported one of the driest May and June precipitation amounts in many years.
									Farmers were allowed to tap rivers and streams to water their crops. Water levels fell so much that hydro-electric plants had to shut down and thousands of fish died as the hot weather depleted oxygen in the water. Numerous communities imposed water restrictions to save wells from drying up. Burning and fireworks restrictions were put into effect. There were 2110 forest fires which consumed 5130 acres. Electric companies reported record electricity demand.
48 WYOMING									
PLATTE CO., 7W CHUGWATER	10	1320MST			0	0	0	0	FUNNEL CLOUD
GOSHEN CO., HAWK SPRINGS	10	1622MST			0	0	0	0	SMALL HAIL
GOSHEN CO., 9W HAWK SPRINGS	10	1645MST			0	0	0	0	FUNNEL CLOUD
PLATTE CO., CHUGWATER	10	1720MST			0	0	0	0	WIND
									DURING THE AFTERNOON OF THE 10TH, SCATTERED THUNDERSTORMS DEVELOPED OVER SOUTHEAST WY. FUNNEL CLOUDS WERE REPORTED IN BOTH PLATTE AND GOSHEN COUNTIES. ALSO, DURING THE AFTERNOON SMALL HAIL, GUSTY WINDS, AND HEAVY RAIN WERE REPORTED WITH THESE THUNDERSTORMS. ONE-HALF INCH DIAMETER HAIL AND WIND GUSTS TO 53 MPH WERE OBSERVED WITH THE THUNDERSTORMS.
FREMONT CO.,	11	1500MST			0	0	3	0	LIGHTNING
FREMONT CO., FREMONT CO., 8NW RIVERTON	12	1500MST			0	0	3	0	LIGHTNING
	12	1430 TO 1600MST			0	0	0	5	SMALL HAIL
									SEVERAL THUNDERSTORMS MOVED THROUGH FREMONT COUNTY DURING THE AFTERNOONS OF THE 11TH AND THE 12TH. AT LEAST 10 RANGE FIRES WERE IGNITED BY LIGHTNING STRIKES. THE LARGEST OF THESE RANGE FIRES OCCURRED SOUTH OF JEFFREY CITY AND ANOTHER NEAR COPPER MOUNTAIN. THE FREMONT COUNTY FIRE WARDEN SAID THAT ALL THE FIRES WERE PUT OUT IN TIME BEFORE THEY GOT TOO LARGE. THESE THUNDERSTORMS ALSO PRODUCED ISOLATED HEAVY RAINFALLS OF TWO AND HALF TO THREE INCHES. ONE-HALF INCH DIAMETER HAIL COVERED THE GROUND NORTHWEST OF RIVERTON DURING THE AFTERNOON OF JUNE 12TH AND CAUSED CROP DAMAGE TO 80 ACRES OF HAY, 80 ACRES OF GRAIN, AND 20 ACRES OF CORN. ADDITIONALLY, FIELDS OF SUGAR BEETS AND BARLEY WERE DAMAGED BY THE SMALL HAIL. ALSO, NO FLOODING WAS REPORTED WITH THE HEAVY RAINFALL.
PLATTE CO., 56E WHEATLAND	12	1620MST			0	0	?	?	THUNDERSTORM WIND(61)
									DURING THE AFTERNOON OF THE 12TH, A SEVERE THUNDERSTORM DEVELOPED OVER CENTRAL PLATTE COUNTY AND MOVED EAST-SOUTHEAST THROUGH WHEATLAND. SUSTAINED WINDS OF 60 MPH WITH GUSTS AROUND 70 MPH WERE CLOCKED BY THE AIR FORCE JUST SOUTHEAST OF WHEATLAND.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1988

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	

— WYOMING									
JOHNSON CO.	12	1700 TO 1900MST			0	0	4	?	FLASH FLOOD
JOHNSON CO. 6N BUFFALO	12	1800MST			0	0	0	?	SMALL HAIL
DURING THE EVENING OF THE 12TH AN INTENSE THUNDERSTORM PRODUCED VERY HEAVY RAINFALL AND SOME SMALL HAIL IN A SHORT PERIOD OF TIME WEST OF THE TOWN OF BUFFALO. THE RAPIDLY RISING WATERS OF CLEAR CREEK FORCED A ROAD CLOSURE IN THE AREA. ALSO, A LOCAL RANCHER EAST OF BUFFALO LOST A FEW ANIMALS AND A CATTLE GUARD DUE TO FLOOD CONDITIONS. A PRIVATE BRIDGE WAS ALSO WASHED OUT.									
LARAMIE CO. 2W EGBERT	12	1820MST			0	0	0	?	SMALL HAIL
ALBIN	12	1945MST			0	0	0	?	SMALL HAIL
A STRONG THUNDERSTORM MOVED OVER NORTHERN AND CENTRAL LARAMIE COUNTY AND PRODUCED ONE-HALF INCH DIAMETER HAIL.									
SWEETWATER CO. GRANGER	12	2145MST			0	0	0	0	WIND
A THUNDERSTORM WIND GUST OF 50 MPH BLASTED THE TOWN OF GRANGER ABOUT 40 MILES WEST OF ROCK SPRINGS.									
ALBANY CO. 12E LARAMIE	13	1240MST			0	0	0	0	SMALL HAIL
LARAMIE CO. 15SW CHEYENNE	13	1300MST			0	0	0	0	FUNNEL CLOUD
PLATTE CO. 6S CHUGWATER	13	1308 TO 1310MST	.8	27	0	0	0	0	TORNADO(F0)
LARAMIE CO. CHEYENNE	13	1310MST			0	0	?	?	SMALL HAIL
NATRONA CO. MIDWEST	13	1320MST			0	0	?	0	SMALL HAIL
CAMPBELL CO. 35SW GILLETTE	13	1330MST			0	0	0	0	FUNNEL CLOUD
PLATTE CO. CHUGWATER	13	1335MST			0	0	0	0	WIND
PLATTE CO. 7S CHUGWATER	13	1340MST			0	0	0	?	HAIL(1.25)
GOSHEN CO. 5N HAWK SPRINGS	13	1350MST			0	0	?	0	THUNDERSTORM WIND(52)
GOSHEN CO. 5 N HAWK SPRINGS	13	1350MST			0	0	0	0	FUNNEL CLOUD
GOSHEN CO. 3NW HAWK SPRINGS	13	1350MST			0	0	?	?	HAIL(1.75)
DURING THE AFTERNOON OF THE 13TH A LINE OF SEVERE THUNDERSTORMS TRIGGERED BY AN UPPER-LEVEL DISTURBANCE AND UPSLOPE WINDS DEVELOPED AND MOVED EASTWARD ACROSS EAST WY. THESE STORMS PRODUCED A TORNADO, A COUPLE OF FUNNEL CLOUDS, AND HAIL FROM ONE-HALF INCH TO ONE AND THREE-QUARTERS INCHES IN DIAMETER. ADDITIONALLY THUNDERSTORM WIND GUSTS FROM 45 TO 60 MPH WERE REPORTED OVER SOUTHEAST WY.									
CONVERSE CO. GLENROCK	15	1542MST			0	0	?	?	HAIL(1.75)
CONVERSE CO. 5SE GLENROCK	15	1542MST			0	0	?	?	HAIL(2.50)
LARAMIE CO. 4N ALBIN	15	1600MST			0	0	?	?	HAIL(0.75)
LARAMIE CO. PINE BLUFFS	15	1650MST			0	0	?	?	HAIL(0.75)
AN UPPER-LEVEL DISTURBANCE COMBINED WITH MOIST SOUTHEASTLY UPSLOPE WINDS PRODUCED NUMEROUS THUNDERSTORMS ACROSS SOUTHEAST WY DURING THE AFTERNOON OF THE 15TH. HAIL FROM TWO AND ONE-HALF INCHES TO ONE AND THREE-QUARTERS INCHES FELL NEAR THE TOWN OF GLENROCK. LATER, ANOTHER STORM PRODUCED THREE-QUARTERS OF INCH DIAMETER HAIL ABOUT 41 MILES NORTH OF CHEYENNE NEAR THE TOWN OF ALBIN. FINALLY, AT 1650 MST A SEVERE THUNDERSTORM WAS REPORTED 38 MILES EAST OF CHEYENNE AT PINE BLUFFS. HEAVY RAIN AND THREE-QUARTERS OF AN INCH DIAMETER HAIL OCCURRED WITH THIS STORM.									

— WYOMING									
ALBANY CO. 5SE SARATOGA	22	1300MST			0	0	0	0	FUNNEL CLOUD
60N LARAMIE	22	1400MST			0	0	?	0	SMALL HAIL
A FEW INTENSE THUNDERSTORMS MOVED THROUGH ALBANY COUNTY ON THE 22ND. AT 1300 MST A RAFTER ON THE NORTH PLATTE RIVER JUST EAST OF SARATOGA REPORTED A FUNNEL CLOUD. ONE-HALF INCH DIAMETER HAIL WAS OBSERVED ON THE THE DOUBLE FOUR RANCH NORTH OF LARAMIE.									
LINCOLN CO. 3N BORDER	25	1800MST			0	0	0	0	THUNDERSTORM WIND(61)
A SEVERE THUNDERSTORM GENERATED ESTIMATED WIND GUSTS OF 70 MPH AS IT MOVED THROUGH THE SOUTH END OF THE STAR VALLEY NEAR BORDER.									
CARRON CO. 6SW LEO	25	2055MST			0	0	3	0	HEAVY RAIN
LARAMIE CO. 7S CHEYENNE	25	2225MST			0	0	0	0	HEAVY RAIN
THUNDERSTORMS RUMBLLED THROUGH NORTH CABON COUNTY ABOUT 35 MILES NORTHEAST OF RAWLINS NEAR LEO. THIS STORM PRODUCED HEAVY RAIN WHICH WASHED OUT A FEW ROADS. LATER THESE THUNDERSTORMS MOVED INTO LARAMIE COUNTY ABOUT 2225 MST AND DROPPED SOME LOCALLY HEAVY RAIN.									
LARAMIE CO. NIORRARA CO. WESTON CO.	29	1300 TO 2015MST			0	0	0	0	HEAVY RAIN
HEAVY RAINS PRODUCED FROM THUNDERSTORMS MOVED THROUGH EAST WY ON THE 29TH. CHEYENNE, LUSK AND UPTON RECEIVED BETWEEN ONE TO TWO INCHES OF RAIN.									
49 ALASKA, Northern ——— NO REPORT RECEIVED									
49 ALASKA, Southern ——— NONE REPORTED									
49 ALASKA, Southeastern ——— NONE REPORTED									
50 HAWAII ——— NONE REPORTED									
51 PUERTO RICO ——— NONE REPORTED									
52 VIRGIN ISLANDS ——— NONE REPORTED									
53 PACIFIC ——— NONE REPORTED									

STORM SUMMARY

JUNE 1988

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				18			1	4		1				2		1				0							
Days				8			1	4		1				1		1											
Deaths				0			0	0		0				0		0											
Injuries				7			30	2		0				0		0											
Property Damage				7			6	4		4				0		4											
Crop Damage				0			6	0		0				2		?											
HAIL																											
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	0
Injuries	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Property Damage	?	?	3	4	?	?	?	3	5	3	?	?	4	4	?	?	?	?	?	?	?	?	?	?	?	?	?
Crop Damage	?	?	?	5	?	?	?	0	6	6	?	3	6	5	?	4	5	?	?	?	?	?	1	5	6	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	0
Injuries	0	0	2	1	?	?	0	6	6	28	0	0	0	7	0	0	0	0	0	0	0	1	0	0	0	0	0
Property Damage	?	5	5	5	?	?	?	5	6	6	6	6	5	5	5	4	5	4	4	6	5	5	5	6	6	5	5
Crop Damage	?	0	?	5	?	?	?	0	?	5	0	?	4	4	0	?	0	?	?	?	?	0	3	3	5	0	0
HIGH WINDS																											
Deaths						0													0								0
Injuries						0													0								0
Property Damage						4													4								0
Crop Damage						0													0								0
LIGHTNING																											
Deaths	2	0	0	0	3	1	2	2	1	0			0	0	0	0	0	0	0	0	1	0	0	0	1	1	0
Injuries	4	0	0	7	2	2	2	6	6	0			0	0	1	0	0	0	5	0	0	0	0	0	0	0	2
Property Damage	?	?	5	5	4	4	0	6	6	5			5	2	4	0	6	4	6	6	6	4	4	4	5	0	6
Crop Damage	?	?	0	0	0	1	0	0	0	0			0	3	0	4	5	0	0	0	0	0	0	0	0	0	0
FLASH FLOODS																											
Deaths				0										0											0	0	0
Injuries				0										0											0	0	0
Property Damage				4										6											6	6	6
Crop Damage				0										5											6	6	o/c
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		3	0	0	0	0														
Injuries				0			?		0	0	0	0	0														
Property Damage				3			?		0	4	0	0	0														
Crop Damage				0			?		0	4	?		9														

SEE REFERENCE NOTES FOR STORM DAMAGE CATEGORIES

STORM SUMMARY

JUNE 1988

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		1		2	6		3					1	1	7			1			1	1								
Days		1		1	3		3					1	1	6			1			1	1								
Deaths		0		0	0		0					0	0	0			0			0	0							0	
Injuries		0		2	1		0					0	0	0			0			0	0							42	
Property Damage		0		6	5		4					3	4	4			3			0	0								
Crop Damage		0		5	0		?					0	3	?			0			5	0								
HAIL																													
Deaths		0		0	0		0					0	0	0			0			0	0								0
Injuries		0		0	0		0					0	0	1			0			0	0								1
Property Damage		0		5	7		?					5	0	8			3			0	?								
Crop Damage		?		3	8		?					?	?	?		0	?			3	5								
THUNDERSTORM WINDS																													
Deaths	0	0	0	1	0	0	0		1		0	0	0	1	0	0	0			0	0							3	
Injuries	0	0	1	1	0	0	12		0		4	0	2	1	0	0	0			0	0							89	
Property Damage	5	5	7	6	6	5	5		4		5	4	5	6	3	4	6			5	?								
Crop Damage	?	0	4	6	?	0	?		?		4	0	0	5	0	4	?			0	?								
HIGH WINDS																													
Deaths			0												0														
Injuries			0												0														
Property Damage			6												1														
Crop Damage			3												0														
LIGHTNING																													
Deaths	0	0	1	0	0	0			0		1	0	0	2			1				0								17
Injuries	1	3	2	0	0	0			3		1	0	0	9			2				0								53
Property Damage	0	6	5	4	4	4			5		5	4	4	?			6				3								
Crop Damage	0	6	0	0	0	0			0		0	0	0	?			0				0								
FLASH FLOODS																													
Deaths	0	0							0					0							0								
Injuries	0	0							0					0							0								
Property Damage	6	?							?					6							4								
Crop Damage	5								0					?							?								
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	3					0	0	0				?			0								6?	
Injuries		8		0	0	0					0	0	0				?			0									8?
Property Damage		6		7	0	0					5	0	0				0			0									
Crop Damage		8		7	?	0					6	?	?				?			?									

SEE REFERENCE NOTES FOR STORM DAMAGE CATEGORIES

STORM DAMAGE CATAGORIES

REFERENCE NOTES

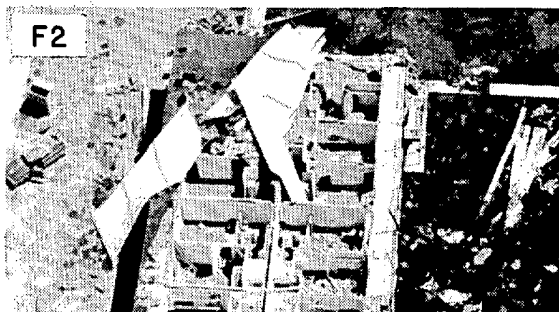
- 1 Less than \$50
- 2 \$50 to \$500
- 3 \$500 to \$5,000
- 4 \$5,000 to \$50,000
- 5 \$50,000 to \$500,000
- 6 \$500,000 to \$5 Million
- 7 \$5 Million to \$50 Million
- 8 \$50 Million to \$500 Million
- 9 \$500 Million to \$5 Billion

- O/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.



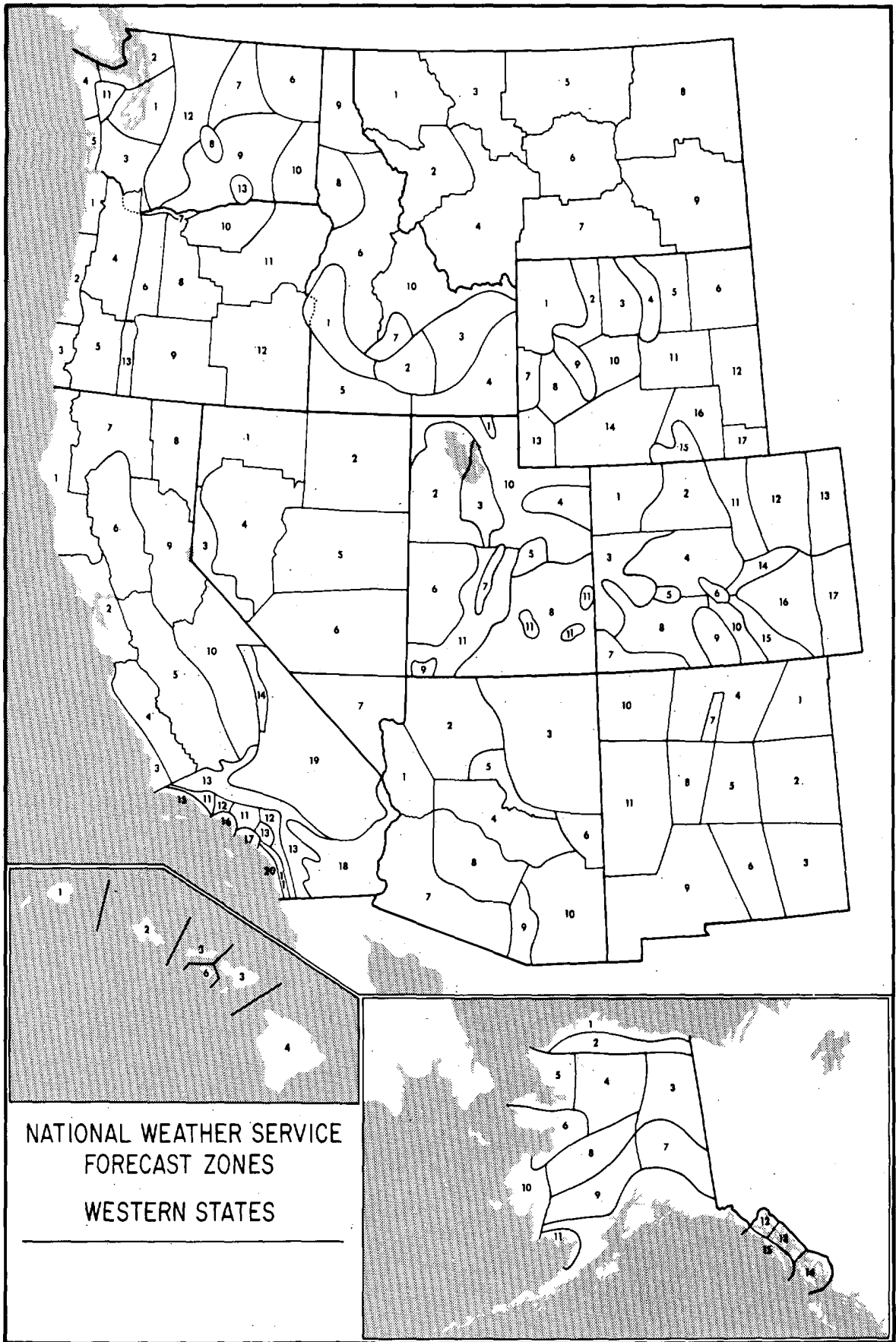
(F5) Incredible tornado (261-318 mph): Incredible damage
 Strong frame houses lifted off foundations and carried considerable distance to disintegrate; automobile-sized missiles fly through the air in excess of 100 m; trees debarked; incredible phenomena will occur.

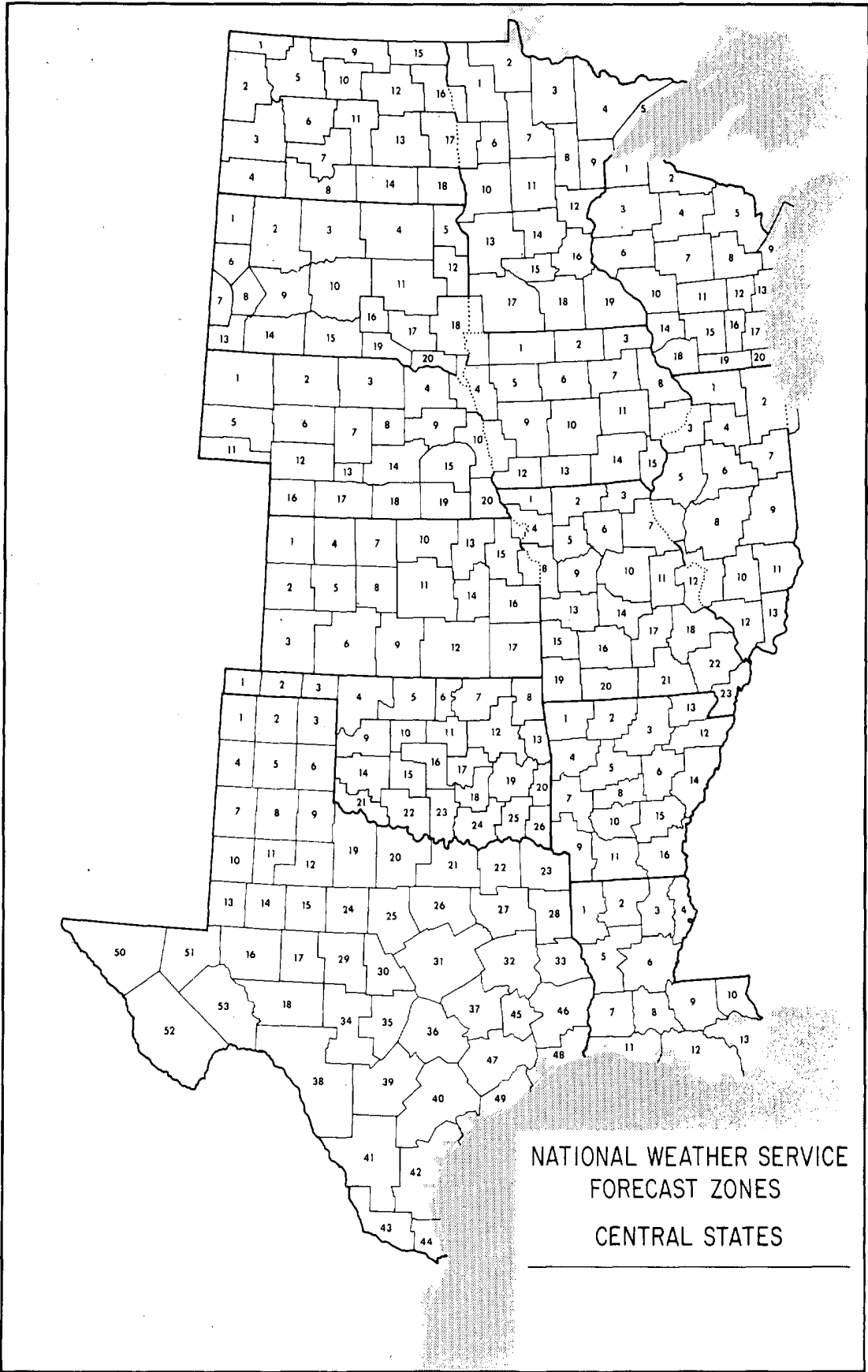


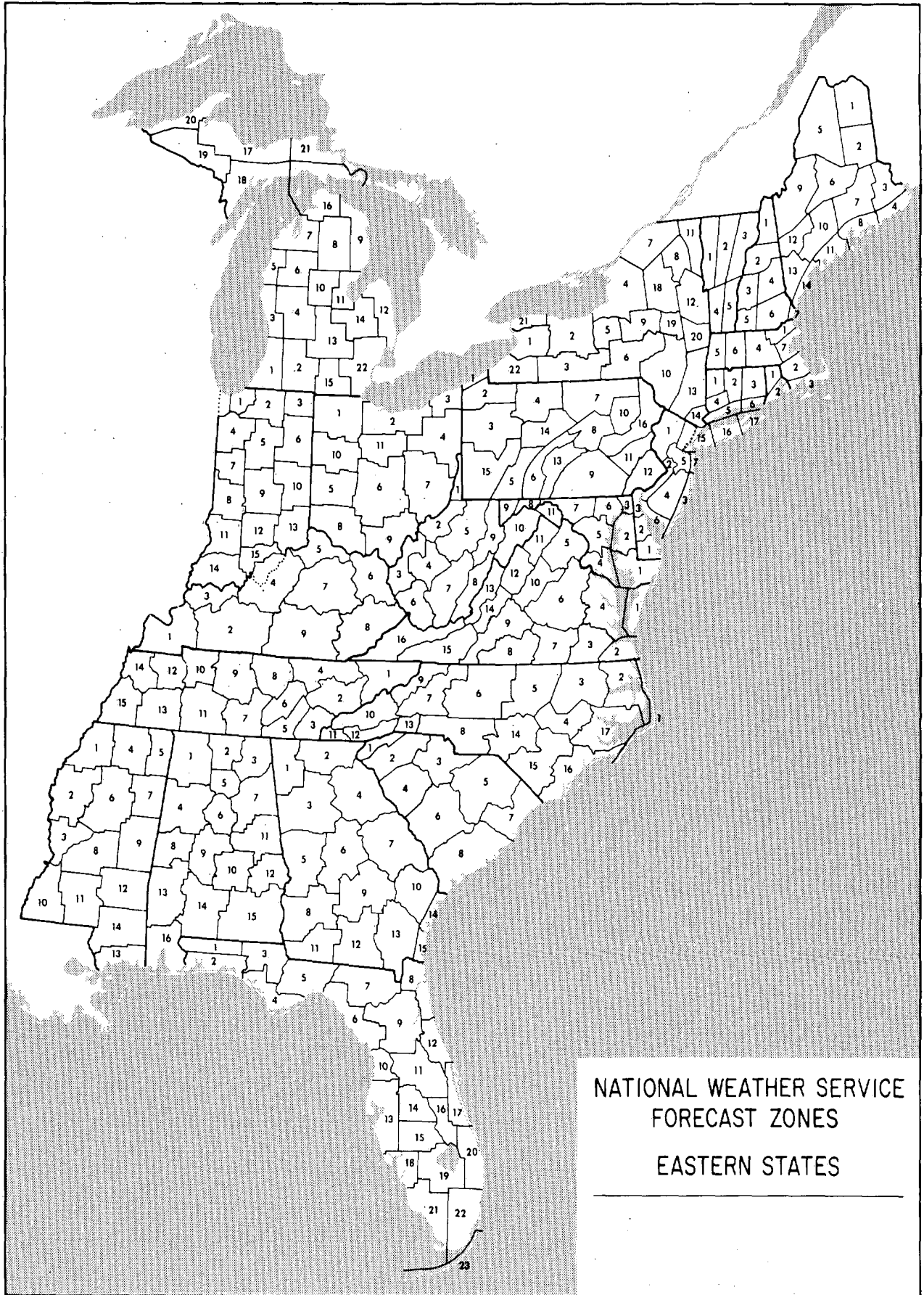
(F6-F12) (319 mph to Mach 1, the speed of sound):
 The maximum wind speeds of tornadoes are not expected to reach the F6 wind speeds.

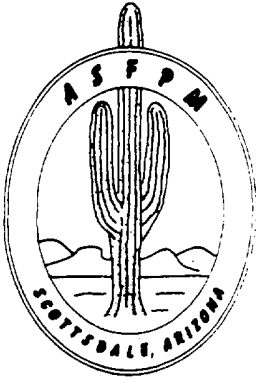
(F0+F1) Weak Tornado
 (F2+F3) Strong Tornado
 (F4+F5) Violent Tornado

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









Association of State Floodplain Managers 13th Annual Conference

Scottsdale, Arizona
May 22-25, 1989



PARTNERSHIPS: Effective Flood Hazard Management

Most effective efforts involve **Partnerships**. The formulation and functioning of these partnerships are important to understand in order to build good relationships for better projects with the best results. This year's conference theme focuses on the effectiveness of networking and partnerships to create and implement solutions, programs, and projects to reduce flooding hazards and damages.

ABOUT THE CONFERENCE

The technical conference will be held Tuesday, Wednesday, and Thursday and will include a field trip in the Phoenix-Scottsdale area. The conference will feature one track of concurrent sessions dealing specifically with the floodplain management problems of the Arid West. The ASFPM will conduct its committee and general membership meetings on Monday. All members and prospective members are invited to participate. A technical field trip including dinner is scheduled one evening. Optional field trips and spouse activities will be available.

REGISTRATION RATES

Registration prior to April 15, 1989 will be \$150 for members, \$165 for non-members, and \$65 for students and local government officials from the State of Arizona.

EXHIBIT SPACE

Exhibit space will be made available for a fee to individuals and organizations who wish to display a product or service to conference attendees. Information on exhibit space can be acquired from Susan Josheff, Exhibits Coordinator, at the address below.

ABOUT SCOTTSDALE

Scottsdale is noted throughout the country for its creative approach to city planning. Running the length of the City is the Indian Bend Wash Greenbelt, a 7.5 mile long flood control project that uses a system of parks, lakes, and golf courses as an alternative to a conventional concrete channel. This greenbelt offers endless recreational opportunities including fishing, sailing and other sports.

Scottsdale's quality lifestyle includes well-planned living, working and shopping areas, pleasant neighborhoods and residential areas protected from traffic and noise. The City's emphasis on mountain conservation and protection of its rich desert areas is reknown nationally. Scottsdale is also recognized for its architectural and landscape design excellence and rich cultural, business and recreational environments. The City is proud of its vital downtown areas. The ambiance of Scottsdale reflects a unique blend of traditional Western and modern living.

The conference will be held at the Wyndham Paradise Valley Resort in Scottsdale, Arizona. Conference room rates are \$53 single, and \$63 double. Paradise Valley Resort is an exceptional facility which showcases Scottsdale's best features.

CONFERENCE HOST: Arizona Department of Water Resources

CONFERENCE DIRECTOR

Jim Morris
Arizona Department
of Water Resources
15 S. 15th Avenue
Phoenix, Arizona 85007
(602) 255-1566

PROGRAM CHAIR

Rebecca Q. Hughes
Maryland DNR
Water Resources Admin.
Tawes State Office Bldg. D-3
Annapolic, Maryland 21401
(301) 974-3825

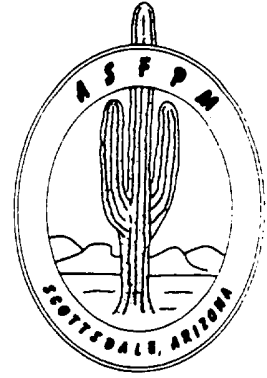
EXHIBITS COORDINATOR

Susan Josheff
Wisconsin DNR
P.O. Box 7921 (WZ/6)
Madison, Wisconsin 53707
(608) 266-2151



Association of State Floodplain Managers 13th Annual Conference

Scottsdale, Arizona
May 22-25, 1989



PARTNERSHIPS: Effective Flood Hazard Management

The Association of State Floodplain Managers (ASFP) is a national organization. Its goal is the reduction of flood damages and hazards through sound floodplain management. Its members include representatives of local, state, and federal governments as well as those of the private and non-profit communities. The Association sponsors an annual conference on the state-of-the-art in flood damage and hazard reduction. Conference topics always span a broad spectrum of issues of interest to those involved in floodplain management, including the following:

- Effectively integrating watershed-wide floodplain management concerns with local planning and zoning.
- Status of "temporary taking" and other legal issues: what's happening in the courts?
- Case histories of communities under sanction for non-compliance with the NFIP.
- A decade of Section 406 Hazard Mitigation Planning: have we made progress?
- Reducing flood loss potential: what works?
- Do federal programs adequately address state and local needs?
- Multi-objective projects: what makes them successful?
- Improving flood prevention and awareness programs aimed at local officials and private property owners.
- How can we improve technical assistance to small communities?
- What's new and improved in the field of floodproofing?

* * * MORE INFORMATION INSIDE * * *

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