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STORM DATA



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Kenneth D. Hadeen

Kenneth D. Hadeen
Director, National Climatic Data Center

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C O N T E N T S

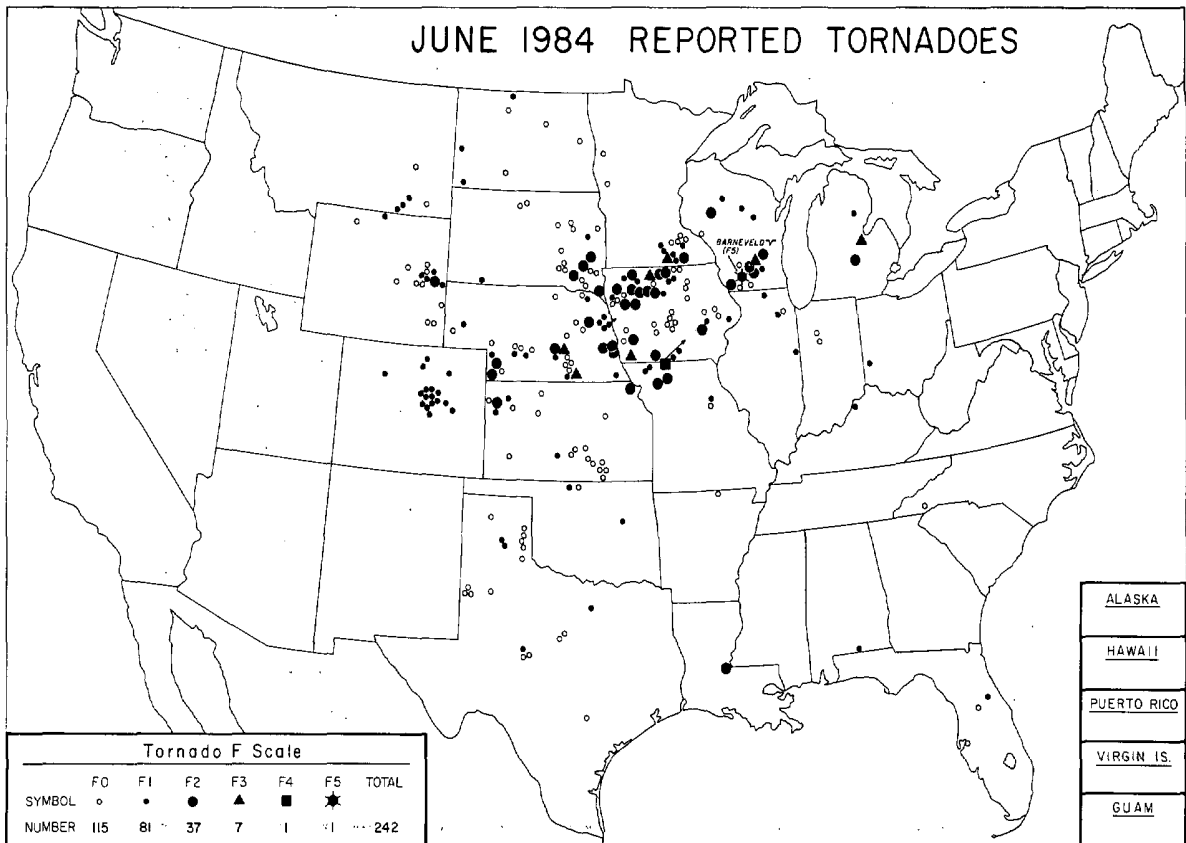
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Cover: A subdivision on the northeastern edge of Barneveld, Wisconsin that sustained F5 damage when a tornado struck the town shortly before midnight CST on June 7th. Most of the homes were totally removed from their foundations and disintegrated (see Tornadoes in Southern Wisconsin on pages 9 through 17). ---Photo by Rich Rygh, The Capital Times, Madison, Wisconsin.

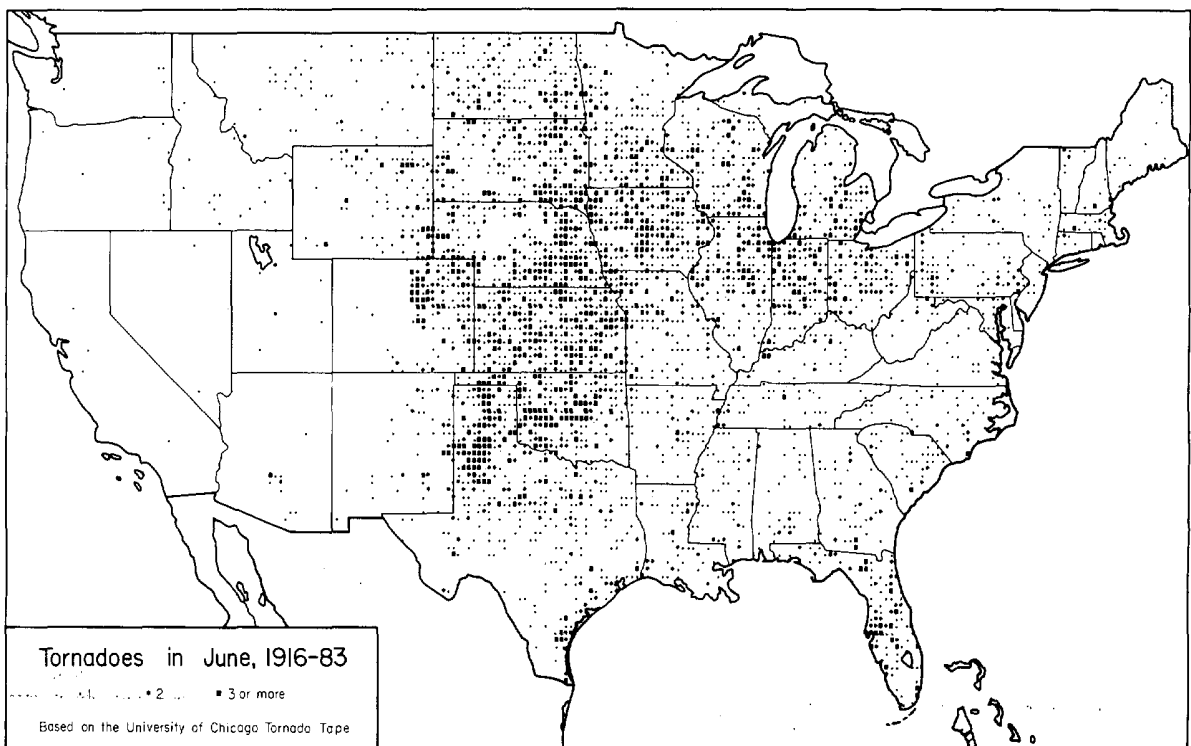
NOTE: The section on Outstanding Storms of the Month is prepared by Professor T. Theodore Fujita, editor, and Duane J. Stiegler, associate editor, University of Chicago. The narrative descriptions of Storms by State and Summaries of Hurricanes and Tropical Storms are prepared by the National Weather Service. The National Climatic Data Center compiles the statistics on deaths, injuries, and damage. 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.

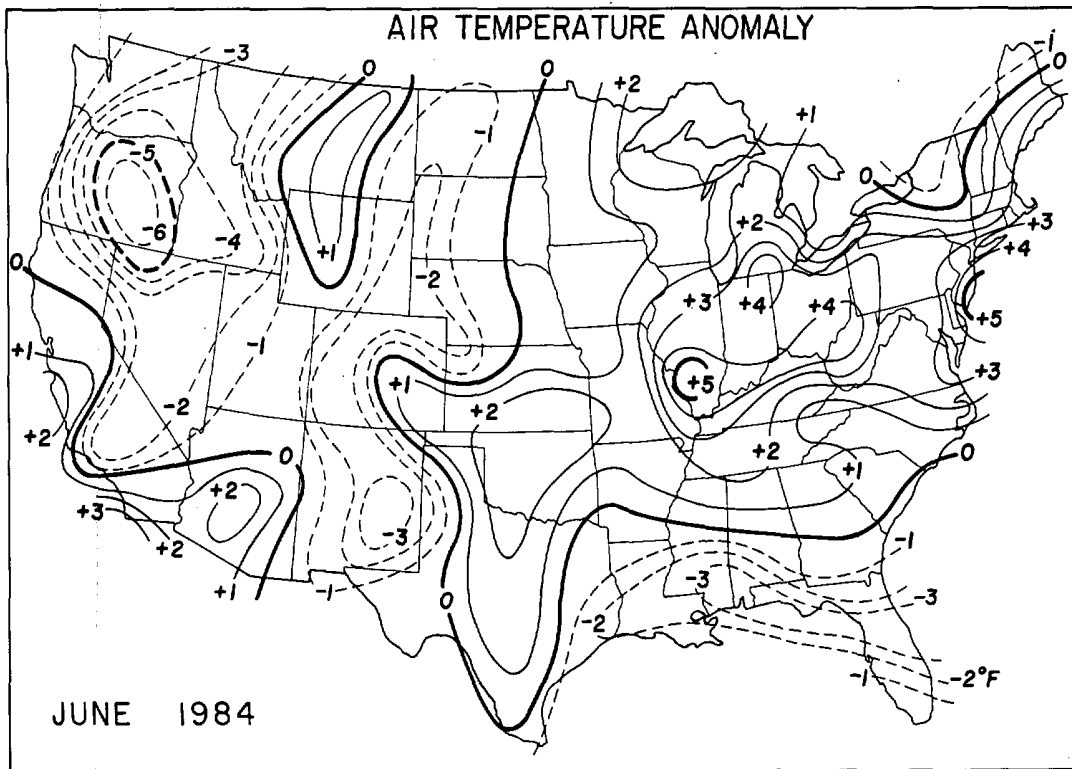
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OUTSTANDING STORMS OF THE MONTH



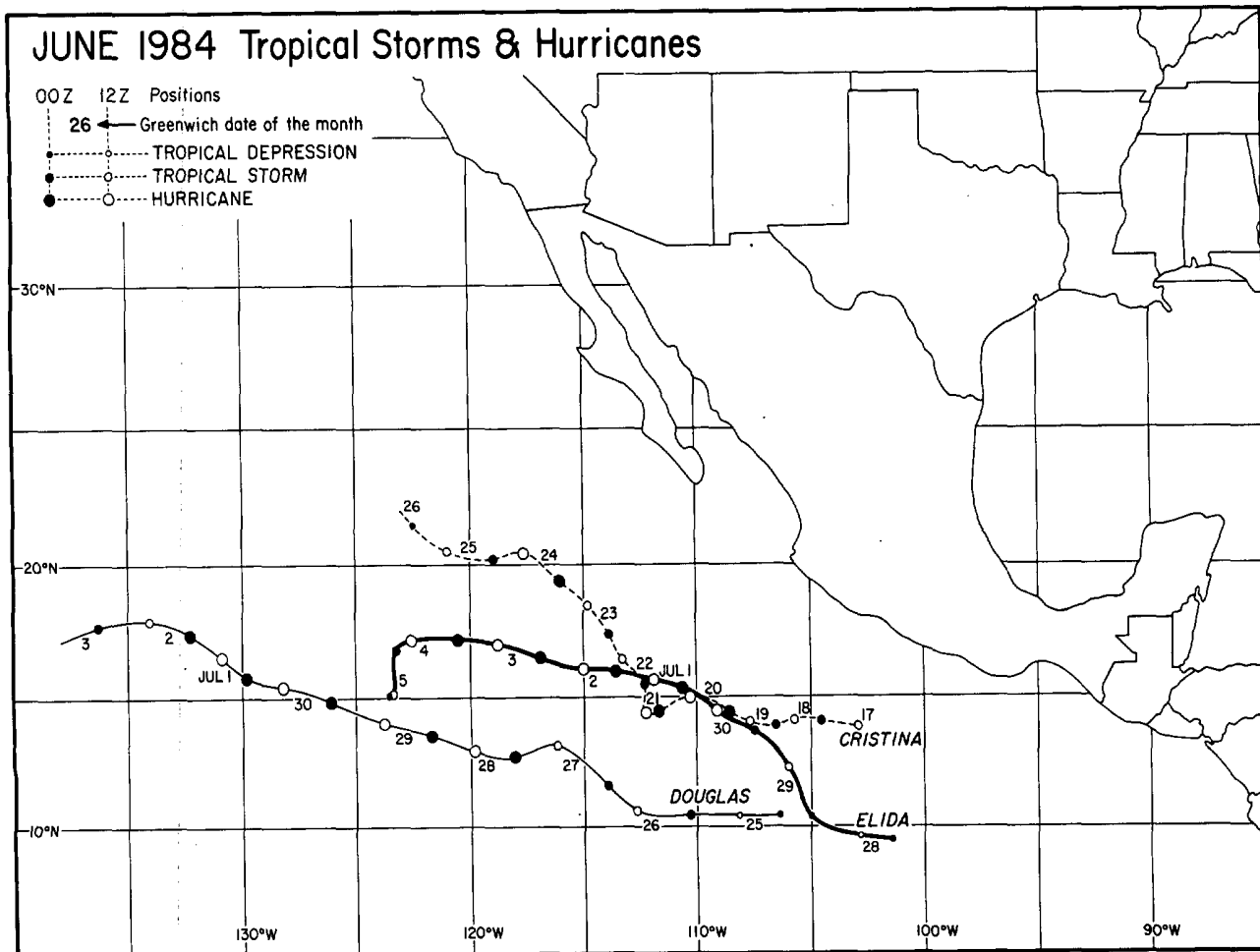
● COMPLETE REPORT RECEIVED	● 1AL	● 7DE	● 14KS	● 21MN	● 28NJ	● 33OH	● 39SD	● 44VA	● 49AK(SE)
○ PRELIMINARY REPORT RECEIVED	● 2AZ	● 8FL	● 15KY	● 22MS	● 29NM	● 34OK	● 40TN	● 45WA	● 50HI
○ REPORT NOT RECEIVED	● 3AR	● 9GA	● 16LA	● 23MO	● 30NY(O)	● 35OR	● 41TX(N)	● 46WV	● 51PR
(N) northern (W) western	● 4CA(N)	● 10ID	● 17ME	● 24MT	● 30NY(C)	● 36PA(E)	● 41TX(S)	● 47WI	● 52VI
(S) southern (C) central	● 4CA(S)	● 11IL	● 18MD	● 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)	





---Data base from NOAA/USDA Joint Agricultural Weather Facility.

TROPICAL STORMS AND HURRICANES



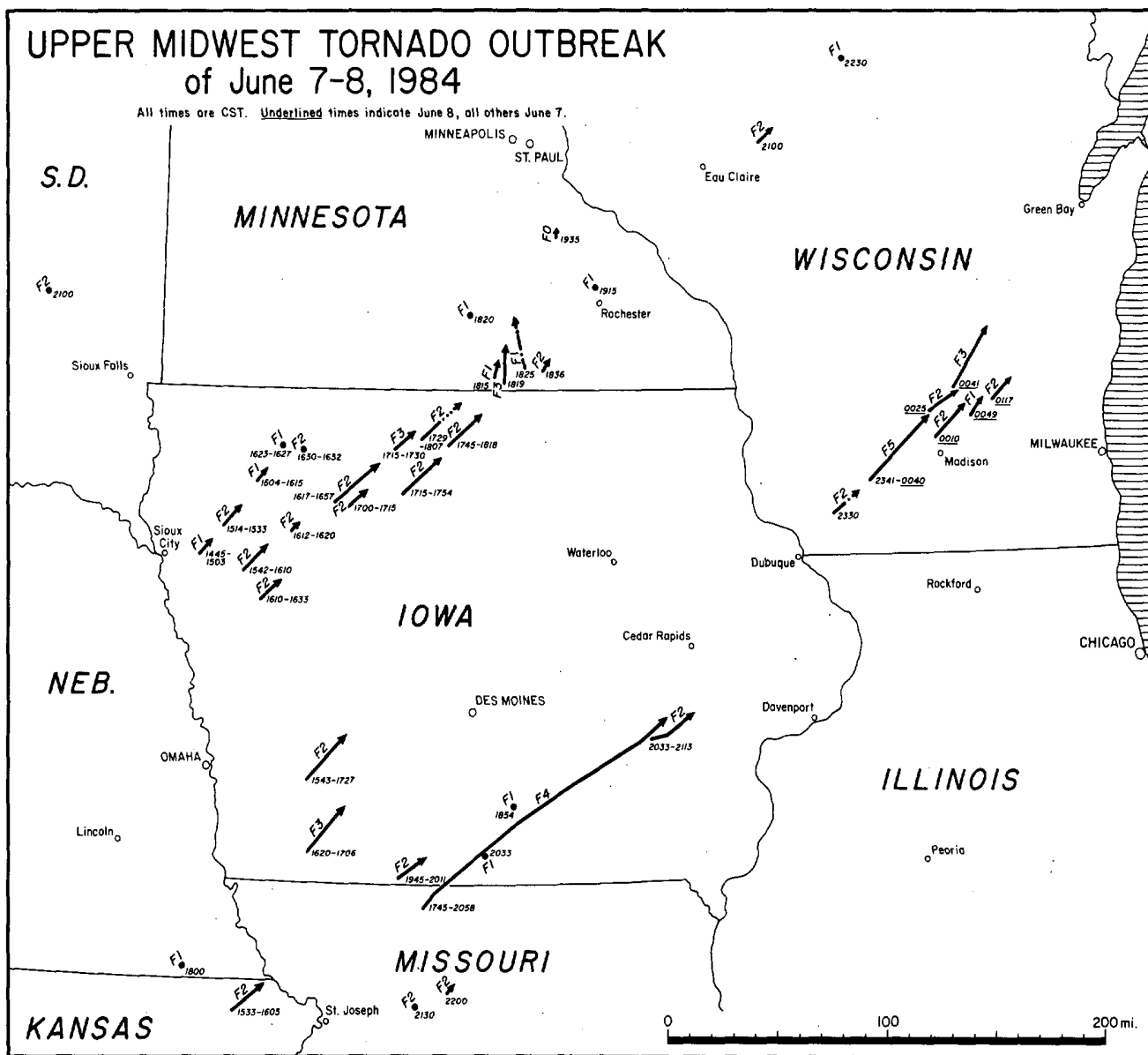
---Best track data from NWSFO San Francisco, California.

1. TORNADO OUTBREAK in the UPPER MIDWEST on June 7-8, 1984

During an 11-hour period from mid afternoon on June 7th to the early morning of the 8th, severe thunderstorms produced 42 tornadoes in the Upper Midwest, including the states of Kansas, Nebraska, South Dakota, Missouri, Iowa, Minnesota and Wisconsin (see map below). Most of the tornadoes moved in a northeasterly direction, and 21 (50%) tracked through Iowa. Many of the tornadoes occurred in two clusters, one extending from northwest Iowa into south-central Minnesota and the second through south-central Wisconsin near Madison.

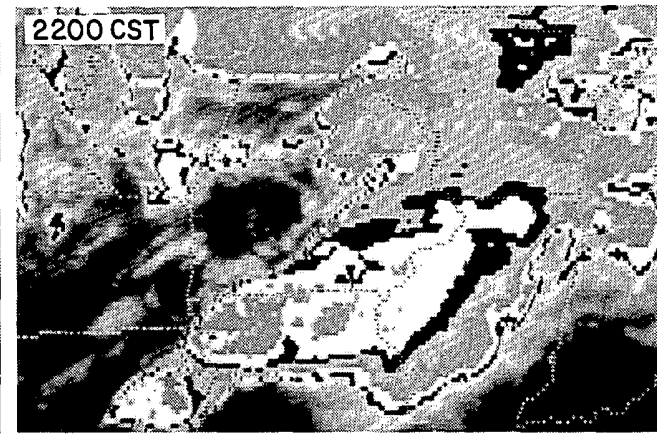
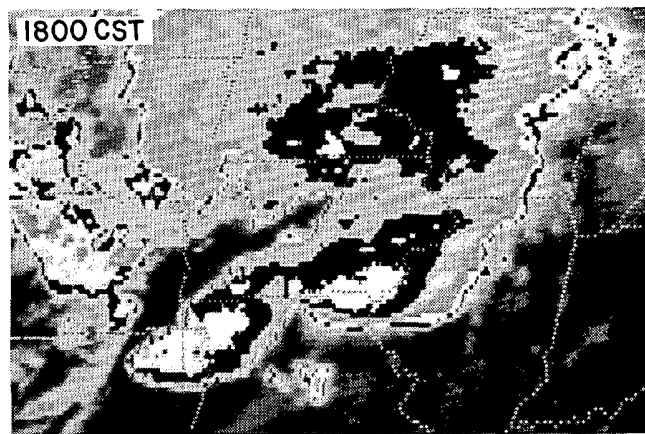
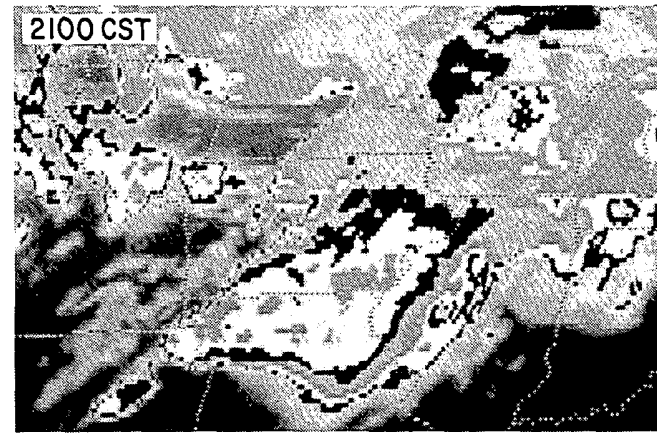
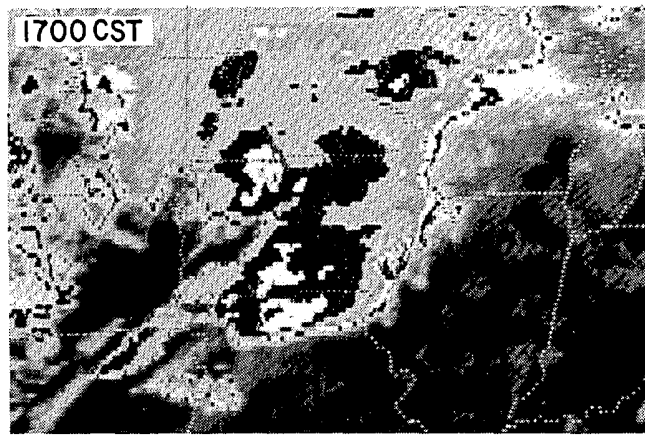
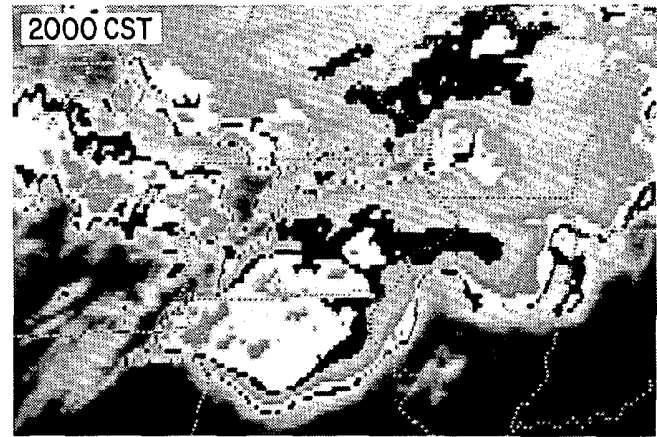
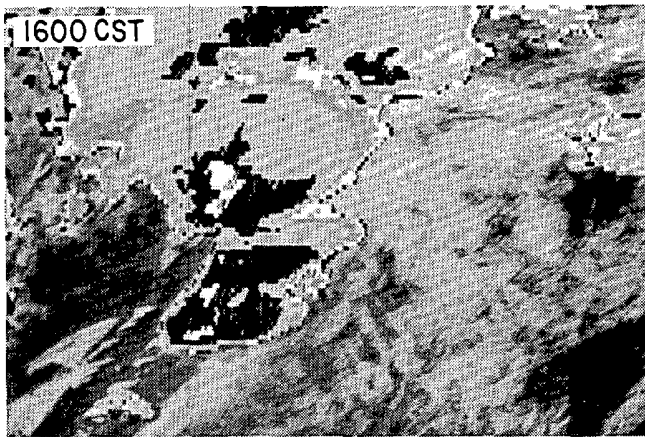
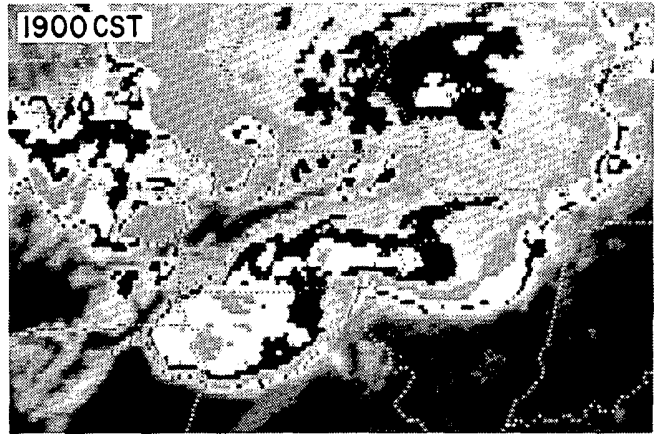
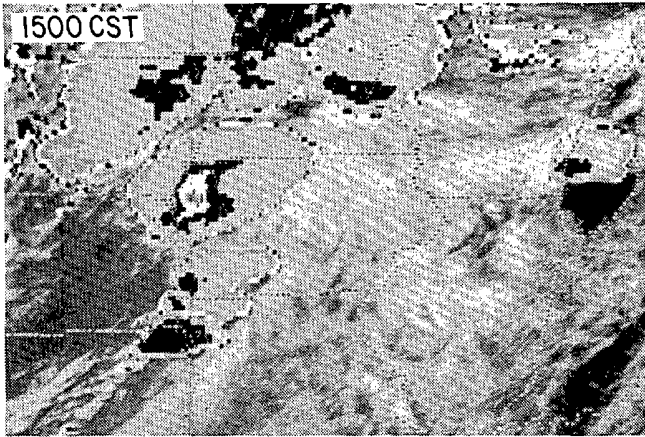
The tornado breakdown by F scale is: 1-F0, 12-F1, 23-F2, 4-F3, 1-F4 and 1-F5. The F4 tornado carved an extremely long, 127-mile path from near Eagleville, Missouri to about 25 miles southwest of Iowa City in east-central Iowa. The F5 tornado, rated in the highest F scale category attained by any tornado, devastated the small town of Barneveld, Wisconsin, and is featured on pages 9 through 17.

Together, the tornadoes caused 13 deaths and 319 injuries, and produced 584 miles of damage path.



---Data supplied by NWSFOs at Des Moines, Iowa; Topeka, Kansas; Minneapolis, Minnesota; St. Charles, Missouri; Omaha, Nebraska; Sioux Falls, South Dakota; and Milwaukee, Wisconsin. Mapped by the University of Chicago.

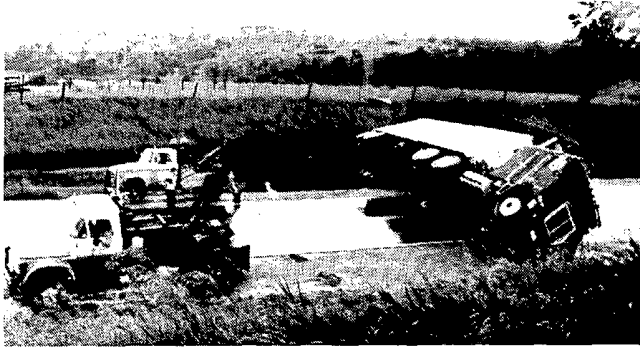
TORNADO OUTBREAK in the UPPER MIDWEST ---- continued



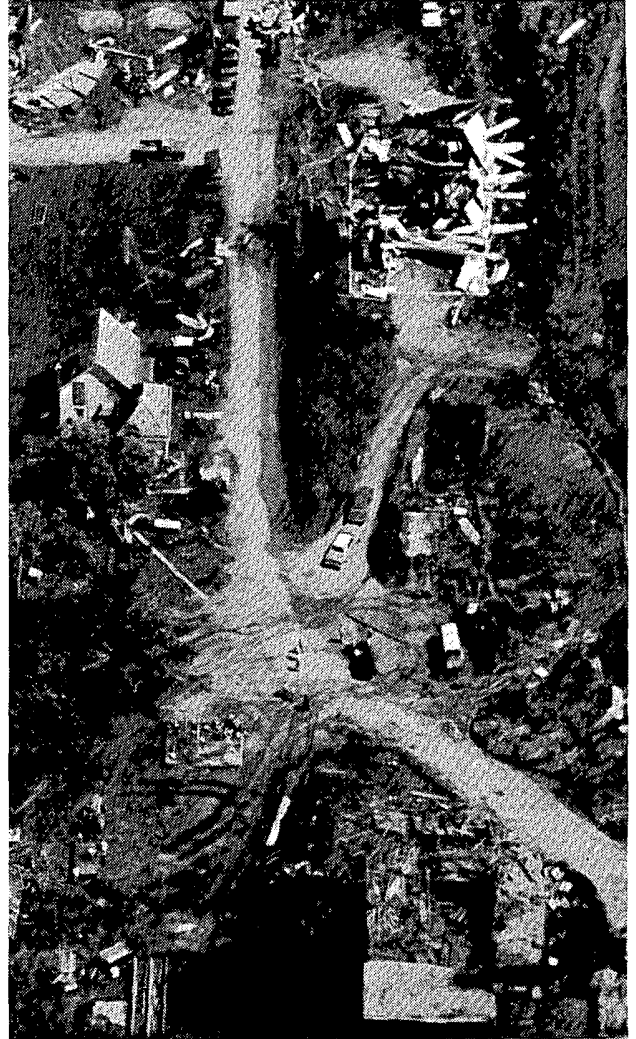
A sequence of GOES East satellite, infrared photos show the hourly change in the cloud-top temperature pattern of the storms as they were producing tornadoes on June 7th. Satellite photos during the Wisconsin Tornadoes are on page 9. (Photos from NESDIS)

1b. TORNADO at HIAWATHA, KANSAS on June 7, 1984

The only tornado to occur in Kansas, and the southwesternmost of the outbreak, carved an 18-mile, northeasterly path near Hiawatha in Brown County. The F2 tornado was responsible for a heart-attack death, 5 injuries and significant farm damage.



A semi-trailer truck overturned by the tornado on US Hwy 36, west of Hiawatha. (HDW)



(TCJ)

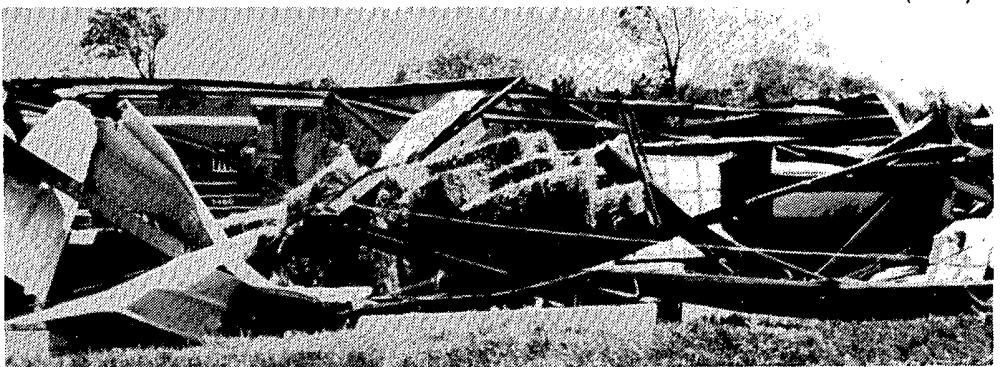


(HDW)

PHOTOS OTHER THAN TOP LEFT: Damage sustained by a farm 5 miles southwest of Hiawatha. A wooden barn and steel and sheet metal machinery building were totally destroyed, and two silos had their tops blown off. The house remained standing, but was heavily damaged. Only a milking parlor was left almost damage free.

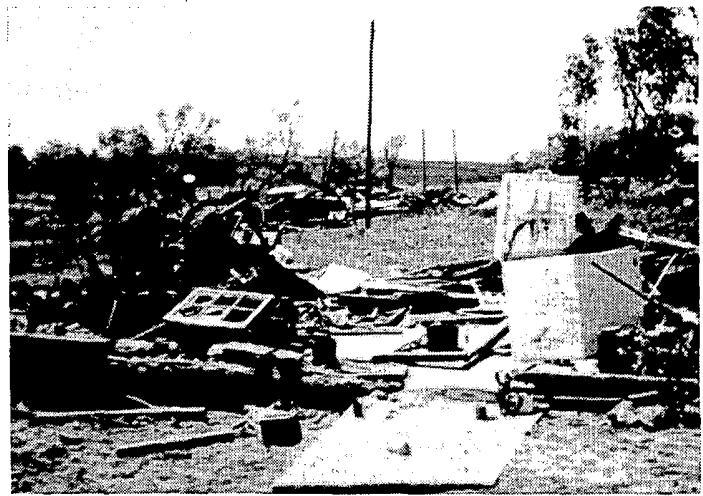
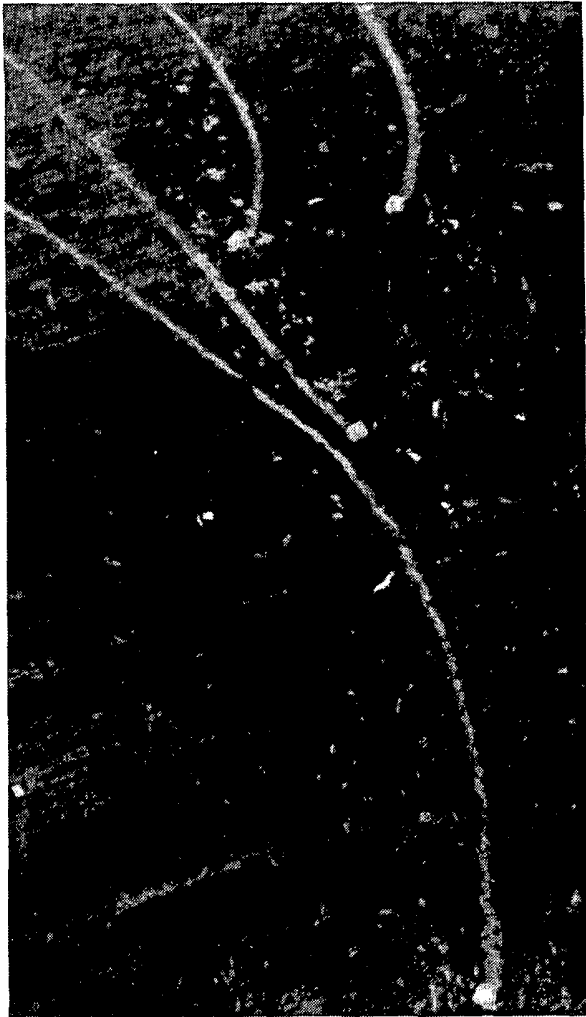


(NWS)



(NWS)

TORNADO at HIAWATHA, KANSAS ---- continued



5-foot diameter, hay bales that were rolled by the tornado just north of Hiawatha. (TCJ)

BOTH PHOTOS ABOVE: A damaged farm, 1.5 miles north of Hiawatha. (NWS)

---All photos supplied by Steven D. Schurr, NWSFO Topeka, Kansas. Credits as follows: (HDW) Hiawatha Daily World, (TCJ) Topeka Capital-Journal and (NWS) Phil Shideler, NWSFO Topeka, Kansas.

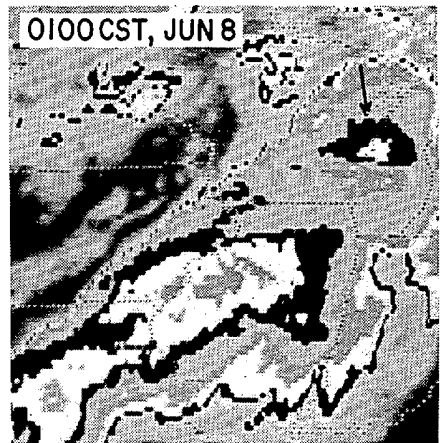
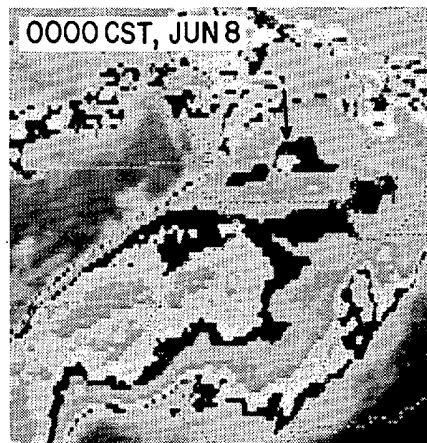
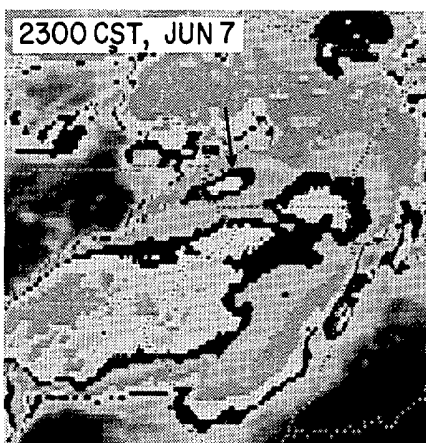
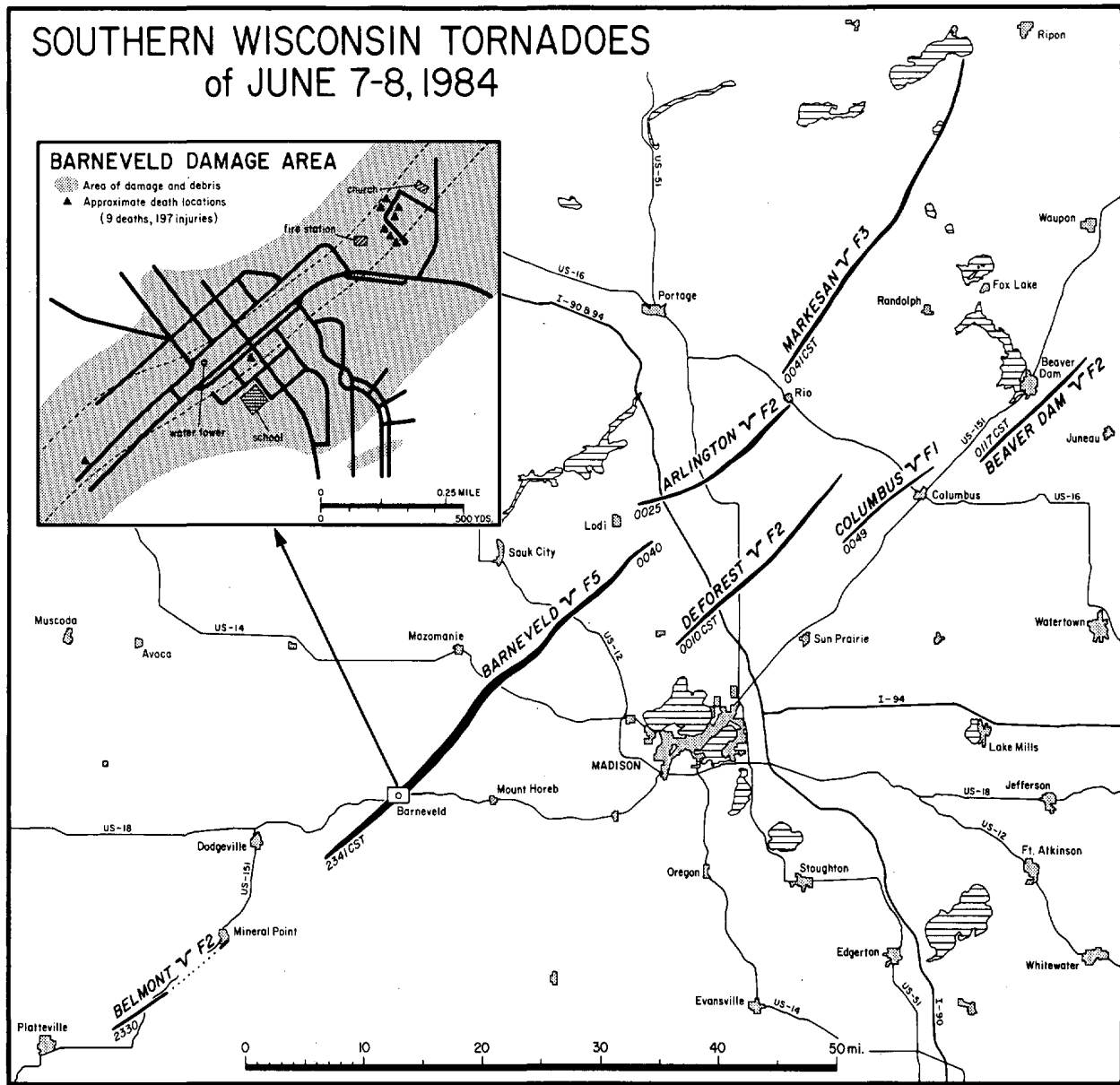
1b. DOWNBURST WINDS at WETMORE, KANSAS on June 7, 1984

The storms that produced the tornado outbreak on June 7th also caused downburst winds in many areas. The damage pictured at right is from a downburst that struck downtown Wetmore, Kansas at 1905 CST. ---Photo from the Topeka Capital-Journal.



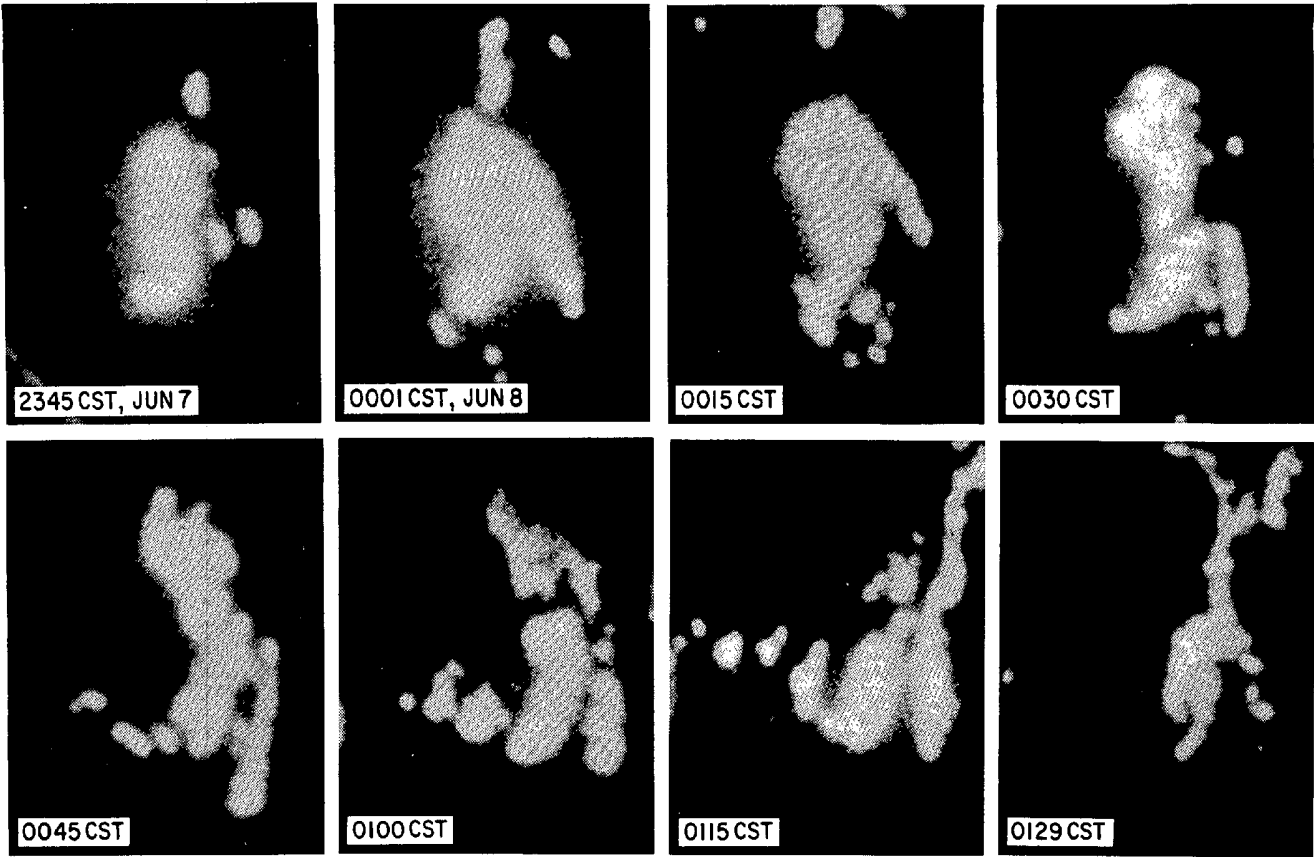
1c. TORNADOES in SOUTHERN WISCONSIN on June 7-8, 1984

Mapped below are the 7 tornadoes that occurred in southern Wisconsin during the June 7-8 outbreak, including an enlargement of the Barneveld area where F5 damage was sustained. ---Mapping from surveys conducted by the National Weather Service Office at Madison, WI, the Wisconsin State Climatologist Office and the University of Chicago.

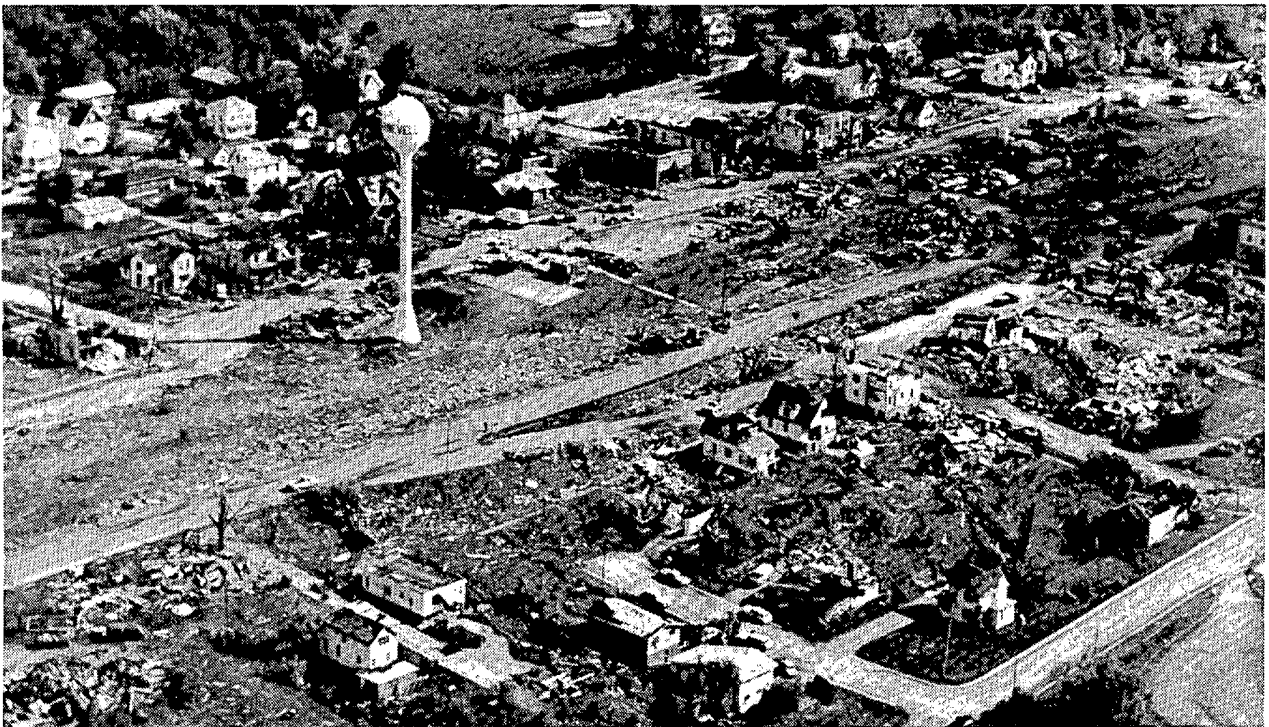


GOES East satellite, infrared photos taken during the period of tornado activity in southern Wisconsin. Note the fast-moving, cold cloud top indicated by the black arrow. ---Photos from NESDIS.

TORNADOES in SOUTHERN WISCONSIN ---- continued

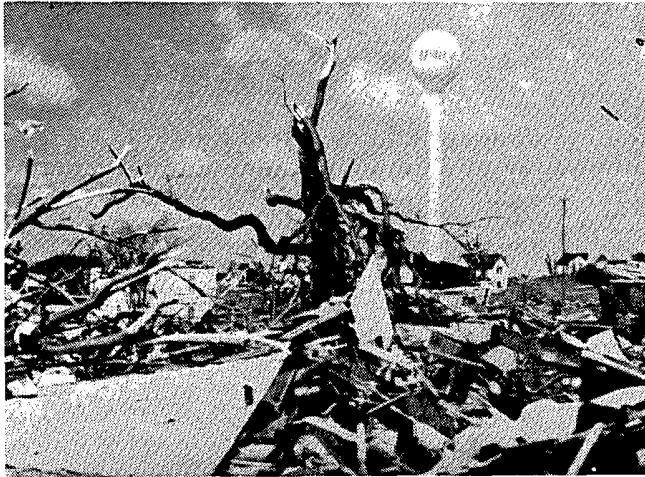


A Neenah, Wisconsin radar sequence depicting the line of echos associated with the storms that spawned the tornadoes in southern Wisconsin. Two bow echos were apparent as the storm line moved east-northeastward. ---Radar microfilm from NCDC.



An aerial view (looking north) of downtown Barneveld, Wisconsin on the morning following the tornado. The tornado moved from left to right. Nearly 90% of the town was damaged or destroyed and total damage estimates approached \$25 million. The water tower survived, although it was dented by the impact of numerous airborne objects. Since a rag was found wedged halfway under its base, it is believed to have flexed in the wind as the tornado passed over it, causing its base to lift momentarily. (CT)

TORNADOES in SOUTHERN WISCONSIN ---- continued



A demolished home and battered tree. (WSC)



A home that sank into its own basement as it was torn apart by the tornado. (WSC)

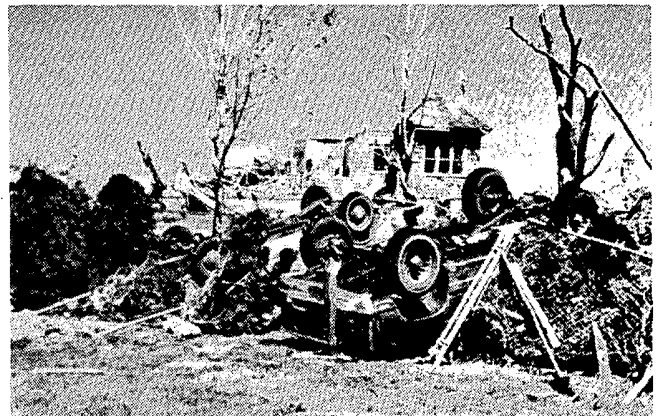


Debris cascades down the front of a two-story building in the business district of Barneveld. (WSC)

RIGHT: Two overturned pickup trucks that were blown at least 100 yards each. (WSC)



An aerial view, looking ESE at the southwest edge of town, shows varying degrees of damage to homes. (CT)



TORNADOES in SOUTHERN WISCONSIN ---- continued



A destroyed farm on the southwest end of town, and nearby foundations where homes once stood. (CT)



Damage to businesses in downtown Barneveld. (CT)

TORNADOES in SOUTHERN WISCONSIN ---- continued



Roof damage to the Barneveld High School. An impression was left in a gymnasium wall after it was struck by a flying auto. (CT)



Vehicles that wound up in basements after the homes were torn from their foundations. At least 100 vehicles were destroyed in Barneveld. LEFT: (WSC), RIGHT: (NWS)



A demolished gas station near the center of town. (NWS)



Remains of the Lutheran Church in north-east Barneveld. A car and truck were found inside. (NWS)

TORNADOES in SOUTHERN WISCONSIN ---- continued



Three views of damage to the Barneveld fire station. The concrete roof was flipped off by the winds, causing it to crumble as it struck the ground. The east, concrete block wall (lower left) also crumbled under the weight of the falling roof. A close-up of a portion of the roof is shown at lower right. Note the cars that were blown into the front of the station. TOP PHOTO: (CT), BOTTOM TWO PHOTOS: (UC)

TORNADOES in SOUTHERN WISCONSIN ---- continued



Debris strewn down the side of a hill from a foundation that was cleaned by the tornado. (WSC)



Large sections of this home were left resting in a pile directly behind the foundation. (NWS)



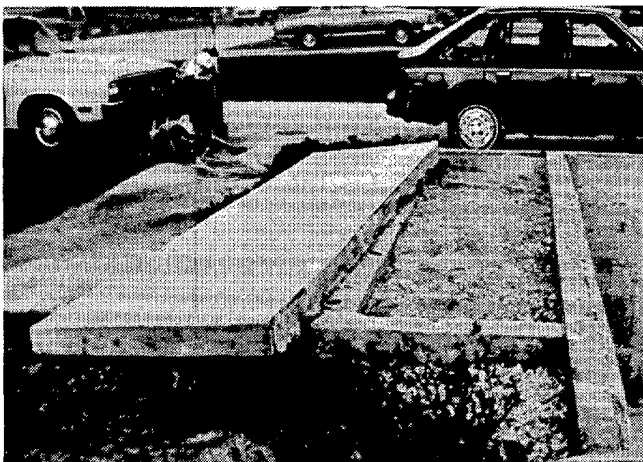
Destroyed autos litter the foreground of this northeast view of the subdivision in northeast Barneveld where 7 of the 9 deaths occurred. The same subdivision is shown below, looking north. ABOVE: (WSC), BELOW: (NWS)



TORNADOES in SOUTHERN WISCONSIN ---- continued



An aerial view of the subdivision which received F5 damage and where 7 deaths occurred. The homes were disintegrated by the tornado and debris was scattered for a considerable distance. The Lutheran Church appears at the left edge of the photo. (CT)

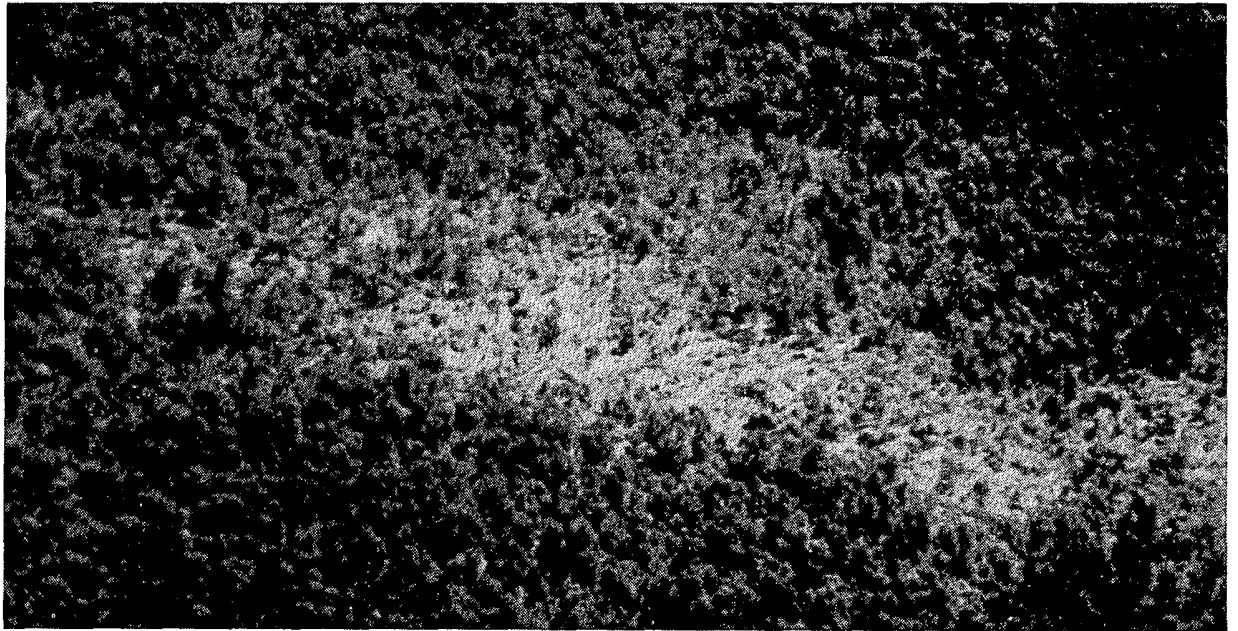


A concrete walkway along the front of one home, that was pushed as the house was ripped free of its foundation. The house site is shown by a white arrow in the top photo. (UC)



The southwest corner of the foundation of the same home described at left. The wall was broken off by the impact of an airborne object. (UC)

TORNADOES in SOUTHERN WISCONSIN ---- continued



Trees on the side of Blue Mound, about 2 miles northeast of Barneveld, that were mowed down by the tornado. The tornado moved from right to left across the photo. ---Photo by Eric Peterson, University of Chicago.



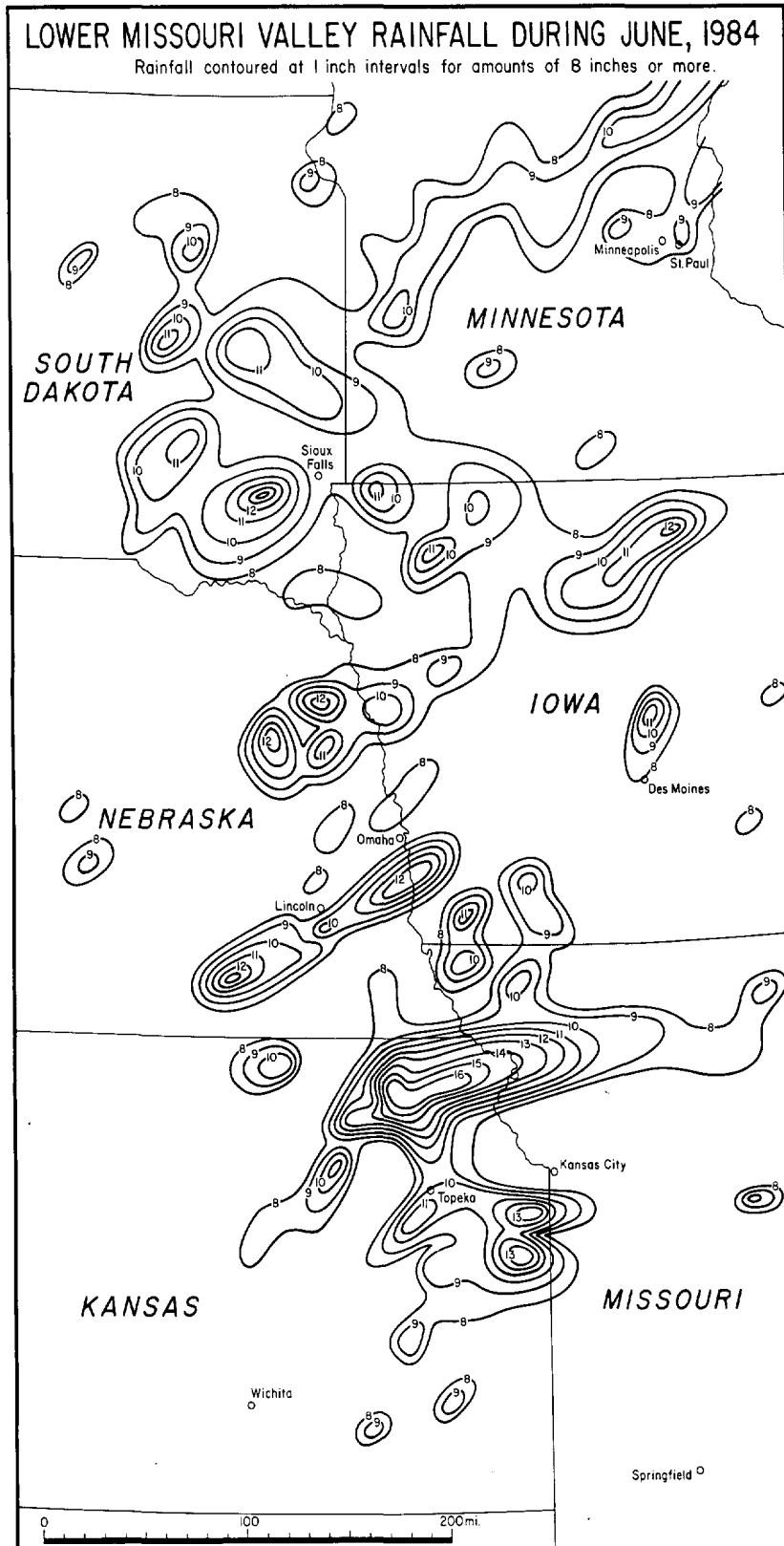
A grove of trees on the side of a hill about 7 miles northeast of Barneveld. Most of the trees, many of them birch, were broken off at ground level, many were uprooted, and some were stripped of their foliage. (UC)

---Credits for damage photos on pages 10 through 17 are as follows:

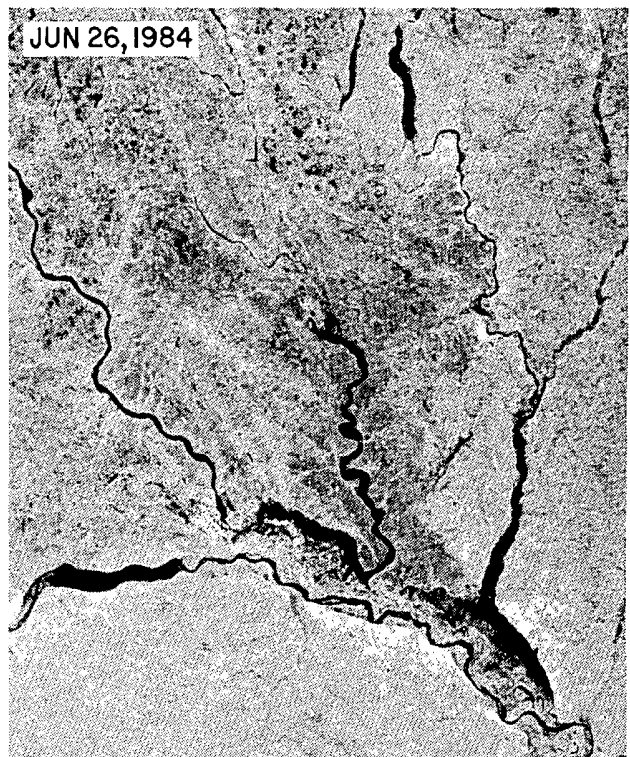
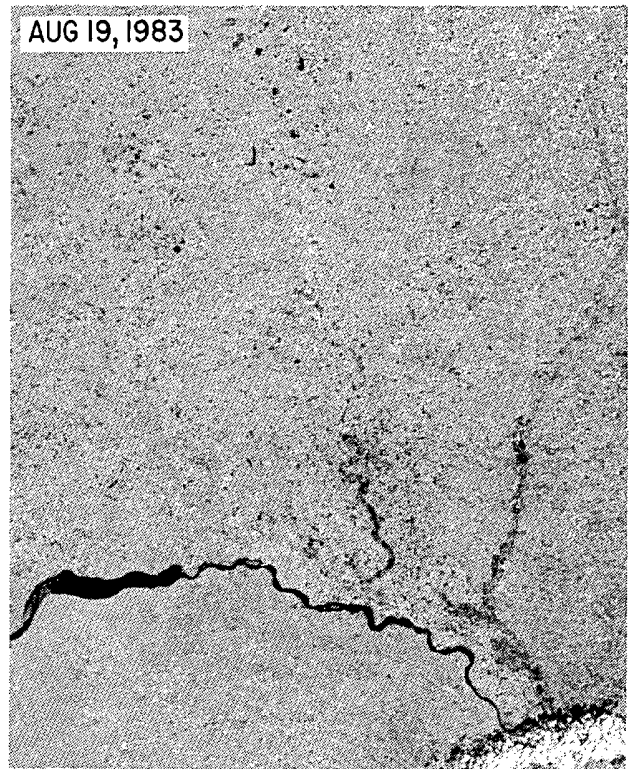
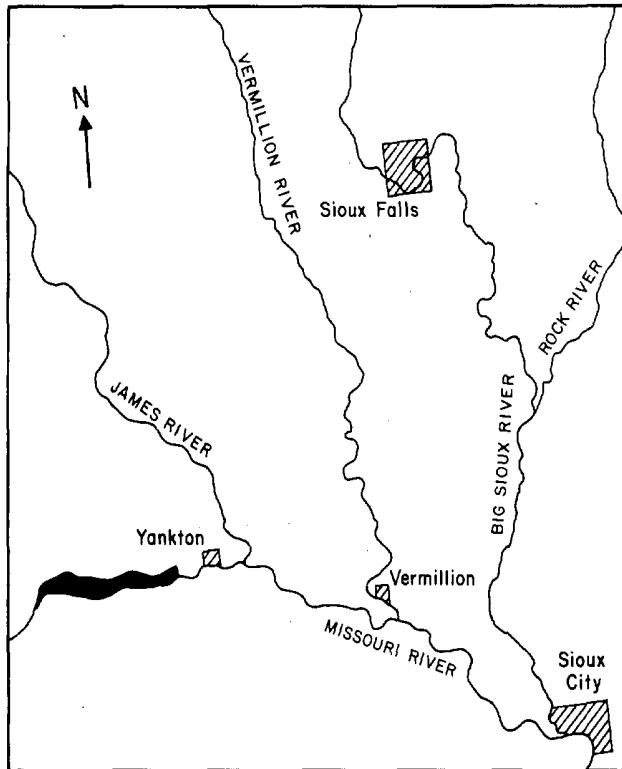
- (CT) Rich Rygh, The Capital Times, Madison, WI
- (NWS) Edwin S. Addison III, NWSO Madison, WI
- (WSC) Douglas Clark, Wisconsin State Climatologist Office, Madison, WI
- (UC) Duane Stiegler, University of Chicago, Chicago, IL

2. HEAVY RAIN and FLOODING in the LOWER MISSOURI VALLEY in June, 1984

Numerous and frequent thunderstorms dumped copious amounts of rain over the lower Missouri Valley in parts of South Dakota, Minnesota, Nebraska, Iowa, Kansas and Missouri during June, 1984. Many local areas received over a foot of rain, and flash floods were common. The maximum recorded rainfall was 16.84 inches at Horton, Kansas. Accumulating water from the heavy rains pushed most rivers in the region over their banks. The Missouri River crested at nearly 7 feet above flood stage at Atchison, KS on June 16th, and 9 feet above at Leavenworth on the 21st. ---Data from 920 cooperative observers, and supplied by NCDC. Mapping by the University of Chicago.

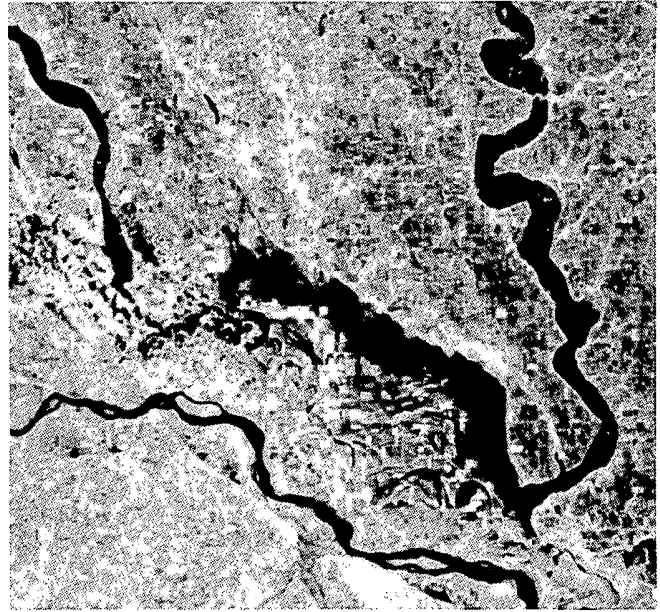
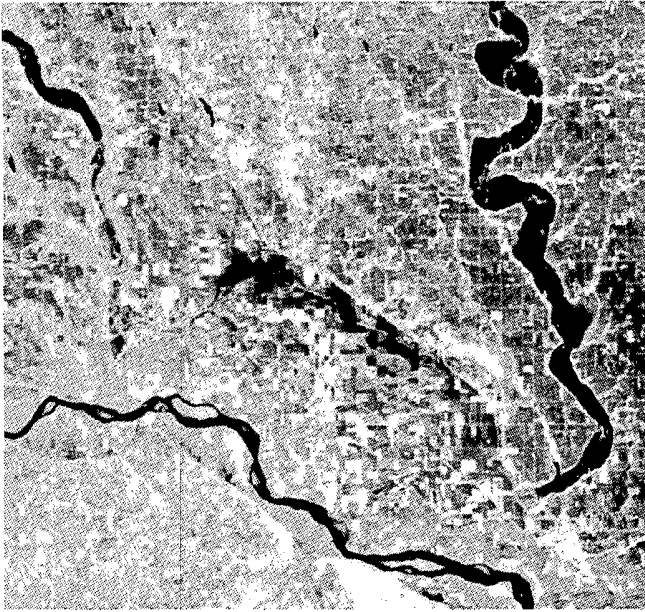


HEAVY RAIN and FLOODING in the LOWER MISSOURI VALLEY ---- continued



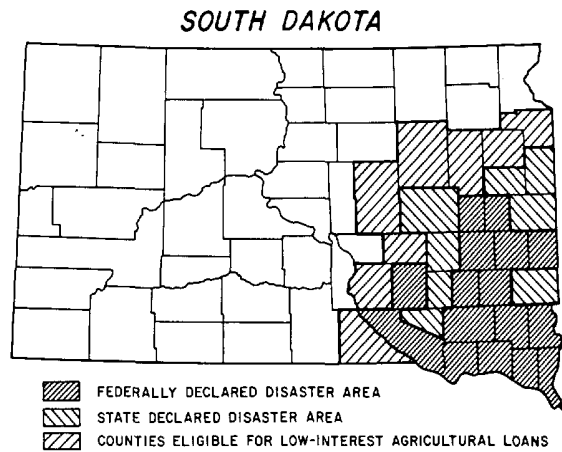
Three NOAA LANDSAT photos demonstrate the effect the heavy rains had on rivers in the extreme southeast corner of South Dakota and neighboring portions of Minnesota, Iowa and Nebraska. As shown in the accompanying map, the James, Vermillion and Big Sioux Rivers flow into the Missouri River in this region. Water areas, such as the Lewis & Clark Reservoir just west of Yankton in the lower left corner of each picture, appear dark on the photos. The top photo was taken in the summer of 1983, when flooding was not prevalent. The bottom left photo was taken as flooding began, and the bottom right photo was taken shortly after the highest flood crests. ---Photos supplied by Kay Meehan, NWSFO Sioux Falls, South Dakota.

HEAVY RAIN and FLOODING in the LOWER MISSOURI VALLEY ---- continued



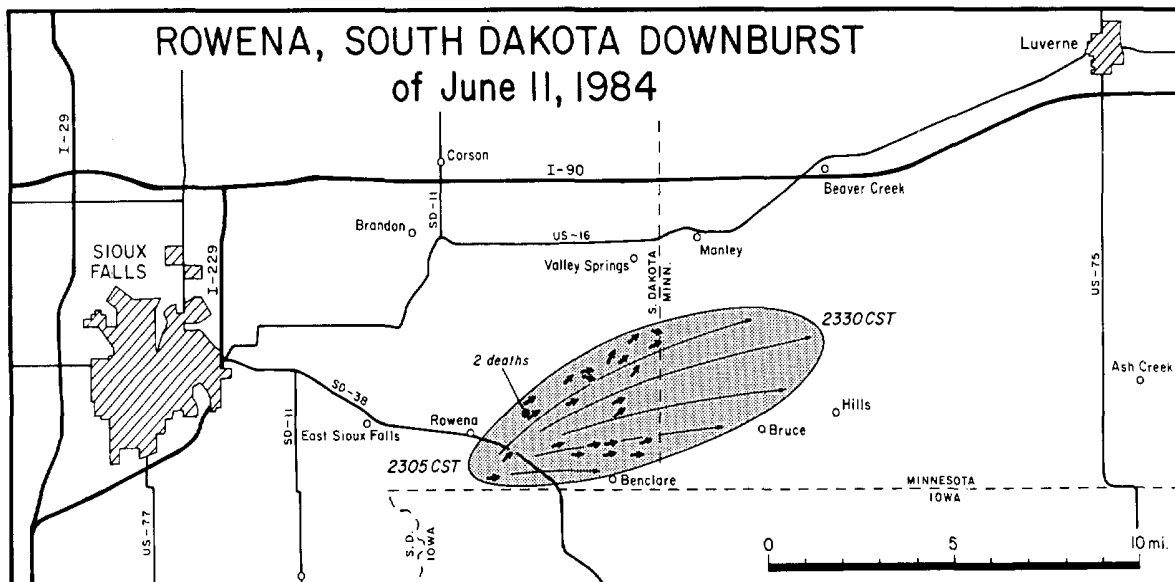
ABOVE: Two enlargements of the area where the James and Vermillion Rivers join the Missouri River as shown in the two photos at the bottom of the previous page. The James River jumped its banks and flowed along an old Missouri River meander into Clay Creek, which empties into the Vermillion River.

RIGHT: Flood disaster areas by county in South Dakota for June, 1984. ---Data supplied by the NWSFO at Sioux Falls, SD.

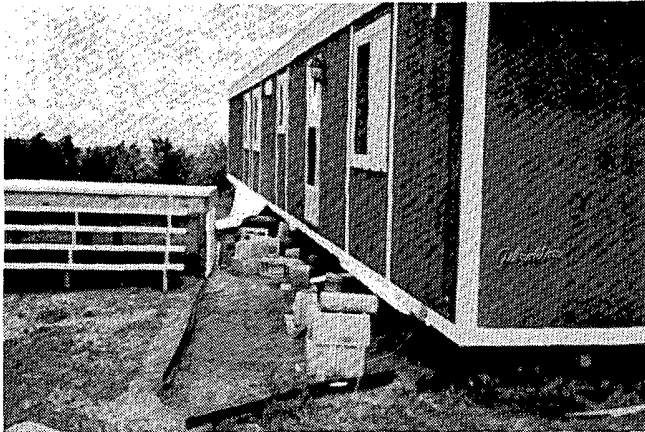


3. DOWNBURST at ROWENA, SOUTH DAKOTA on June 11, 1984

Shortly before midnight on June 11th, a severe thunderstorm produced downburst winds in a small portion of South Dakota and Minnesota, just north of the Iowa border. The strongest damage was concentrated in a half-mile wide band extending along the northern edge of the damage area mapped below. Two deaths occurred when one home was blown from its foundation. ---Mapped by Montie Horn, Minnehaha County Civil Defense.



DOWNBURST at ROWENA, SOUTH DAKOTA ---- continued



A mobile home blown off its resting blocks about 1.5 miles south-southwest of Rowena.



Debris scattered from a wooden barn located 3.5 miles east-northeast of Rowena.



The foundation of a farm home, viewed looking north, where 2 people died. Debris from the house, located 1.5 miles east-northeast of Rowena, was blown northeastward and ended up beyond the location of the electric company truck on the right edge of the photo.



Debris from the home described at left (looking northeast).



Damage to the rest of the farm where the two people died.



Trees on the farm, all of which were blown down toward the northeast.

---All above photos by Montie Horn, Minnehaha County Civil Defense.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1984

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	

1 ALABAMA

Citronelle, Mobile County	12	1710CST			0	0	5	0	Lightning A lightning strike to a vent line in a crude oil storage tank was the apparent cause of a fire that destroyed seven partially filled storage tanks.
Tanner area, Limestone County	12	1800CST			0	0	3	0	Wind Downburst winds demolished a metal building and downed some trees and powerlines. Some hail and very heavy rain accompanied the storm. Residents of the area reported hearing a loud roar.
Dothan area, Houston and Dale Counties	13	1500-1515CST			0	0	3	0	Wind Thunderstorm winds gusted to 77 mph at the Dothan Municipal Airport at 1501CST. Scattered wind damage was reported in the City of Dothan where some trees were downed, the roof of a storage building damaged and two second floor windows blown out of a vacant downtown building. Marble size hail accompanied the storm.
Floral, Covington County	13	1515CST	.2	70	0	0	4	0	Tornado (F1) A small tornado apparently first touched down near the high school where the press box and a 200 ft. canopy at the stadium were destroyed. One witness, whose residence is about 300 yards from the school, reported seeing the tornado as it approached his house from about 50 yards. Some trees were uprooted and the house was shifted on its foundation and sustained cracks in the roof. No one was at the school when the storm hit. Very heavy rain accompanied the tornado and witnesses reported that they could not hear the tornado because of the noise from the rain.
Madison area, Madison County	14	1445-1510CST			0	0	?	?	Wind/Hail Hail to 3/4 inch in diameter and power outages reported around 1445CST. One tree was reported uprooted and the tops blown out of two others around 1510CST.
East Limestone County	14	1510CST			0	0	?	?	Wind Thunderstorm winds uprooted some trees and damaged a building near U. S. 72E.
Falkville area, Morgan County	14	1515-1525CST			0	0	5	0	Wind/Lightning Several businesses and about 25 homes were damaged and eight cows were killed by lightning as a severe thunderstorm moved over the area. The most serious damage was apparently caused by falling trees. Large trees crashed into at least one home and one store.
Jasper area, Walker County	14	1700CST			0	0	3	0	Wind Damage from thunderstorm winds included trees downed, canopies and signs destroyed at two service stations and the front windows blown out of two stores.
15 NE Bay Minette, Baldwin County	14	1900CST			0	0	5	0	Lightning A home and most of the contents were destroyed by a fire that erupted following a lightning strike. The occupants of the home escaped without injury.
Grand Bay, Mobile County	20	1430CST			1	0	?	?	Lightning An eleven year old boy was killed by lightning. The victim was reported to have been playing inside a tree house when lightning struck the tree.
Birmingham area, Jefferson County	20	1508CST			0	0	3	0	Wind Trees were reported downed by thunderstorm winds in the Woodlawn area. One falling tree was reported to have struck the porch of a home and an automobile.
Morgan County	21	1120-1130CST			0	0	?	?	Thunderstorm Thunderstorm winds downed trees and powerlines on Alabama 67 near Burning Tree. Some windows were blown out of two buildings in the Decatur area where trees and powerlines were also downed and one home sustained minor roof damage around 1127CST. Hail to golf ball size was also reported in the Decatur area.
Muscle Shoals area, Colbert County	21	1145CST			0	0	?	?	Hail TVA reported hail to 3/4 inch in diameter falling for about 7 minutes. Wind gusts to 45 mph downed some tree limbs.
St. Clair and Talladega Counties	21	1300-1315CST			0	1	5	0	Wind Downburst winds from an intense thunderstorm produced scattered damage from around Odenville in St. Clair County past Riverside into northern Talladega County around Lincoln. Some trees were downed and mobile homes damaged. The most extensive damage appeared to be along the Coosa River in the Riverside area where a marina was destroyed and 6-8 ft. swells were reported on the water. One man who was reported to have been walking by the lake was slightly injured when he was blown into the water. A TV crew on hand to film a story on fishing escaped injury, although the dock on which they had sought shelter was destroyed. Part of the metal covering

ALABAMA

Limestone County	21	1314-1325CST			0	0	?	?	Thunderstorm Thunderstorm winds downed several trees in the Athens area. Lightning strikes were reported to have caused fires that damaged two homes. Lightning strikes and the winds caused several power outages. One power line was reported burned down by a lightning bolt.
Etowah County	21	1330CST			0	0	3	0	Wind Thunderstorm winds downed trees and powerlines on Lookout Mountain.
Dothan area, Houston County	21	1630-1700CST			0	0	?	?	Wind Thunderstorm winds downed one large tree and blew numerous tree limbs onto power lines causing power outages in several areas of the city. Marble size hail and some street flooding also occurred.
Madison County	22	1835-1930CST			0	0	?	?	Wind Thunderstorm winds downed trees and power lines in the New Market area around 1835CST. Four power line poles were reported down between Hazel Green and New Market. Around 1930CST power outages were reported in the Huntsville area and thunderstorm winds downed a large tree that blocked a highway east of Huntsville.
Mobile County	23	1705CST			0	0	?	?	Hail Hail 3/4 inch in diameter was reported 10 miles south of Mobile near Alabama Port.
Jefferson County	30	1705-1810CST			0	0	?	?	Hail/Wind Hail up to 3/4 inch in diameter fell for 11 minutes in the Huffman area of NE Birmingham and thunderstorm winds overturned two small aircraft at Birmingham Municipal Airport. The hail covered 2/3 of the ground before being washed away by torrential rains that produced some street flooding in the area. Tree limbs to 5 inches in diameter were blown down in Leeds around 1810CST where the NWS Cooperative Observer reported 1.25 inches of rain in 30 minutes and some street flooding.
St. Clair County	30	1830CST			0	1	?	?	Lightning One man was reported injured by lightning. The victim was reported conscious when rescue workers arrived at the scene at St. Clair 10 just off the Brompton exit of I-20. Marble size hail was also reported in the area.

2 ARIZONA

Gilbert-Queen Creek, Maricopa County	29	1830MST			0	0	5	0	Wind During a severe thunderstorm winds estimated to around 60 MPH, a house was blown down near Queen Creek and damage to a number of other houses, trees, power lines and signs.
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3 ARKANSAS

Columbia County	06	1300CST			0	0	3	-	Lightning Lightning damaged the roof and one window of a Magnolia residence, without starting a fire.
Fulton County	06	1710CST	0.5	100	0	0	3	-	Tornado (F0) A small tornado touched down briefly at Elizabeth, causing minor damage to a barn and taking off some shingles from the roof of a home. Other minor damage was done to the top of a well house, a smoke house, and to the door on a milking barn.
Desha County	13	about 1530CST			0	0	3	-	Lightning Lightning struck a Dumas residence. The strike damaged the carport's roof, the doorbell, several light switches, the telephone, and one television set. No fire resulted in the empty home.
Pulaski County	14	1425CST			0	0	3	-	Wind A thunderstorm gust knocked down a block wall under construction in North Little Rock. The 70' x 20' wall collapsed, denting an aluminum wall on a neighboring building.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1984

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										
Jackson County	14	about 1530CST		0	0	4	-	Wind	A home was unroofed and several power lines were knocked down in the small community of McFadden, a half mile east of Beedeville.	
Mississippi County	14	1730CST		0	0	3	-	Wind	Minor wind damage was reported in Black Oak. Trees were blown down and antennas were bent by thunderstorm gusts.	
Washington County	14	2145CST		0	0	3	-	Lightning	Lightning struck a Springdale home, damaging the motor on a fan. No fire resulted.	
Quachita County	15	1300CST		0	0	3	-	Lightning	Lightning started a minor fire at a Stephens residence.	
Jefferson County	15	1400 - 1430CST		0	0	3	-	Wind	Strong gusts from a thunderstorm uprooted many trees and damaged slightly the roof of a home in Pine Bluff.	
Sebastian County	15	1630CST		0	0	?	-	Lightning	Heavy damage was reported to a Fort Smith home from lightning.	
Jackson County	19	1434CST		0	0	3	-	Lightning	Lightning struck and damaged the chimney at a Newport home.	
Pulaski County	20	1215CST		0	0	4	-	Wind	Thunderstorm gusts knocked down 8 trees and damaged the roofs of the barracks, the auditorium, the recruiting office, and the golf building at Camp Joseph T. Robinson.	
Mississippi County	20	1630CST		0	0	4	-	Wind	Thunderstorm gusts unroofed a business and blew down some doors in Burdette.	
Jackson County	21	about 1425CST		0	0	4	-	Wind	Strong thunderstorm gusts blew from Swifton to Tuckerman. Winds were estimated between 45 and 50 MPH. Five residences had some wind damage, two in Tuckerman, and three in Swifton.	
Garland County	23	2230 - 2300CST		0	0	4	-	Wind	Thunderstorm gusts damaged boats and docks at Lake Catherine. One truck was overturned and a barn heavily damaged seven miles southwest of Hot Springs.	
Desha County	28	1445CST		0	0	5	-	Wind	Thunderstorm gusts struck 5 miles east of Dumas. One mobile home and two tractor sheds were destroyed. One mobile home and another tractor shed were damaged extensively.	
Desha County	28	1445CST		0	0	4	-	Wind	A mobile home was overturned by thunderstorm gusts 4 miles east of Dumas. Also a tractor shed was blown down.	
Desha County	28	about 2315CST		0	0	4	-	Lightning	A Dumas residence had extensive damage from a fire that was started by lightning.	
Jefferson County	29	1453CST		0	0	?	-	Hail	The Jefferson County Sheriff's Office reported hail up to half-dollar size in Pine Bluff.	
Cleveland County	29	1540CST		0	0	?	-	Hail	The Sheriff's Office reported hail as large as quarters (1 inch) in Rison.	
4 CALIFORNIA, Northern — NONE REPORTED										
4 CALIFORNIA, Southern — NONE REPORTED										
5 COLORADO										
Western Colorado	MAY/JUNE			0	0	7	7	Floods	An unusually deep snowpack combined with warmer than normal late spring temperatures to produce flooding in many areas of Colorado in May and early June. Most of the flooding occurred in the mountains and in western sections of the state. Mudslides were also a problem, causing extensive property damage in Vail. One slide threatened downtown Aspen, forcing the evacuation of about 500 residents. Damage from the floods and mudslides totaled 16 million dollars to public facilities, including highways; 12 million dollars to agricultural interests, mostly in Moffat County; and 4 to 5 million dollars in individual losses.	
Lincoln County	1	1230MST		0	0	0	0	Hail	1 inch hail fell 7 miles north of Karval.	
El Paso County	2	1930MST		0	0	0	0	Hail	Hail 2 inches in diameter fell near Palmer Lake.	
Arapahoe County	3	1208MST	2	100	0	0	0	Tornado (F1)	A fairly large tornado was sighted by a National Weather Service employee about 20 miles south of Buckley Field in Aurora. FPP112	
Elbert County	3	1210MST	1	50	0	0	0	Tornado (F1)	A tornado was sighted 10 miles northeast of Kiowa, moving northeast. FPP111	
Douglas County	3	1240MST	1	50	0	0	0	Tornado (F1)	A tornado touched down 1 mile south of Franktown. FPP101	
Elbert County	3	1242MST	1	50	0	0	0	Tornado (F1)	A tornado was sighted 10 miles east of Parker. FPP111	
Arapahoe County	3	1247MST	1	50	0	0	0	Tornado (F1)	A tornado was sighted 5 miles south of Watkins. FPP111	
Douglas County	3	1320MST	1	50	0	0	0	Tornado (F1)	Another tornado formed just southwest of Parker. FPP111	
Arapahoe County	3	1409MST	2	50	0	0	0	Tornado (F1)	The last of a series of twisters spawned by a large thunderstorm complex was observed just southwest of Deer Trail. FPP111	
El Paso County	3	1825MST		0	0	4	0	Lightning	Two homes were struck by lightning in Colorado Springs, and sustained damage totaling 6500 dollars.	
Morgan County	5	1535MST		0	0	0	0	Hail	One inch hail fell 5 miles northwest of Woodrow.	
Central Mountains	6-7			0	0	5	0	Heavy Snow	An unseasonal snowstorm buried much of the Colorado high country under a soggy white blanket. Around a foot of snow fell in Aspen, Vail, Leadville, and Breckenridge, with up to two feet on the higher peaks. The snow reached rather low elevations; Eagle, at an altitude of only 6500 feet, received 3 inches. The heavy wet snow overloaded many power lines, causing outages in many cities. In Snowmass, the buildup of snow collapsed two tents and a tennis bubble.	
Grand County	8	1427MST	1/4	30	0	0	3	0	Tornado (F1)	A brief tornado near Kremmling picked up four rubber rafts and smashed them. FPP101
El Paso County	10	1910MST	2	50	0	0	0	0	Tornado (F1)	A tornado touched down in a field near Calhan. FPP111
Lincoln County	10	1940MST		0	0	0	0	Heavy rain, Hail	Golfball size hail fell at Limon, accompanied by heavy rain. Five inches of rain drenched Hugo.	
El Paso County	10	2000-2100MST		0	0	4	0	Hail	Golfball size hail spread across El Paso County from Falcon, just northeast of Colorado Springs, through Peyton to Calhan. Many cars were dented, mainly near Falcon.	
Weld County	10	2250MST		0	0	4	0	Hail	Golfball size hail fell just west of Greeley, causing damage to roofs of some homes.	
Phillips County	11	evening		0	0	0	0	Hail	Two thunderstorms each dropped golfball size hail at Holyoke, first at 1855 MST, and again at 2026.	
Denver Area	12	1300-1530MST		0	0	5	0	Hail	Large hail pelted many parts of the southern Denver area. The worst reported damage occurred in Douglas County at Parker, where 15 aircraft were damaged by golfball size hail. Other reports of severe weather...	
	1322 MST	3/4							inch hail in Southwest Denver	
	1437								Golfball size hail in Southwest Denver	
	1446-1510								Golfball size hail in South and Southeast Denver	
	1507-1518	3/4							inch to mothball size hail in southeast Aurora (W. Arapahoe Co.)	
Elbert County	12	1625MST	1	75	0	0	0	0	Tornado (F1)	A tornado touched down just north of Elizabeth and moved east, accompanied by large hail. FPP112
Elbert County	12	1720MST	1	50	0	0	0	0	Tornado (F1)	A tornado touched down 5 miles east of the town of Elbert, and moved toward the east. FPP111

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1984

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

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

— COLORADO

Lincoln County	12	1807MST	1/4	50	0	0	0	0	Tornado (F1) A tornado was spotted 7 miles south of Limon. It only stayed on the ground for a minute or two, but destroyed a few outbuildings and ripped telephone poles from the ground. FPP101
Weld County	13	0020MST	1/2	50	0	0	3	0	Tornado (F1) A tornado just west of Windsor tore down two outbuildings, moved a horse trailer 30 feet, and damaged a tool box. The tornado was accompanied by small hail that wiped out an onion field. Heavy rain also occurred with the storm; 1.9 inches fell in about an hour just east of the town. FPP101
Morgan County	13	0840MST	1	50	0	0	4	0	Tornado (F1) The city of Fort Morgan was blacked out for 35 minutes after a tornado flattened a power plant near town. FPP111
Denver Area	13	1330-1730MST			1	20	8	?	Heavy rain, Hail The worst hailstorm ever experienced in the Denver area in terms of damage battered the region for several hours. The hardest hit cities were the northwestern suburbs of Arvada, Wheat Ridge, and Lakewood, but large hail also fell in Golden, Southeast Denver, and Aurora. Damage occurred in all of these areas, but by far the worst effects of the storms were in the northwestern suburbs. Homes and other buildings sustained roughly 200 million dollars worth of damage. Many thousands of cars were battered by giant hailstones, and total damage to vehicles was estimated at 100 million dollars. In some areas, golfball to baseball size hail fell continuously for 30 to 40 minutes; some spots were pelted with a few stones as large as grapefruits. Roofs on thousands of structures were severely damaged. Uncounted car windshields were broken; two thirds of Arvada's police cars were rendered inoperable. Torrential rain—as much as 4 3/4 inches in Lakewood—combined with the hail to clog drains and cause widespread damage from flooding. In some spots hail was washed into drifts several feet deep. About 20 people were injured by the giant hailstones; a couple were hospitalized. A woman drowned when she was trapped under a trailer by high water.
SEVERE WEATHER REPORTS IN THE DENVER AREA ON JULY 13...TIMES MST..									
1335									1 inch hail in Golden Gate Canyon (NW Jefferson Cy.)
1410									1 1/2 inch hail in Golden (N. Jefferson)
1419									3/4 inch hail 2 miles east of Littleton (W. Arapahoe)
1420									Golfball size hail in Arvada (NE Jefferson)
1422-1425									1 inch hail in Arvada
1428									Golfball size hail in Littleton (W. Arapahoe)
1433-1444									Golfball to baseball size hail in Arvada
1438									1 inch hail 2 miles east of Littleton
1459									1 1/2 inch hail in Thornton (W. Adams)
1503-1511									Golfball size hail in Westminster (W. Adams)
1523									Golfball size hail in extreme Southeast Denver
1541-1555									1 inch to golfball size hail in south and central Aurora (W. Arapahoe)
1541									1 inch hail just west of Golden
1554									1 1/4 inch hail in Wheatridge (NE Jefferson)
1556-1559									Golfball size hail in Northwest Denver
1557-1604									Golfball size hail in east Aurora
1606									2 inch hail at Golden
1608									Golfball size hail at Green Mountain (N. Jefferson)
1615									Golfball size hail in Lakewood (NE Jefferson)
1634									Golfball size hail in Westminster
1634-1639									1 to 1 1/2 inch hail in Wheatridge
1728									1 inch hail at Ken Caryl Ranch (E. Cntrl Jefferson)
Pueblo, Fremont Cys.	13	1500-1600MST			0	0	0	0	Heavy rain, hail Ping pong ball size hail fell in Canon City around 1600 MST. About an hour earlier, a thunderstorm dumped .92 inch of rain in just 15 minutes on Rye, in Pueblo County.
Weld County	13	1911MST			0	0	3	0	Lightning A house in Greeley suffered \$1000 in damage when struck by lightning.
Elbert County	15	1400MST	1	50	0	0	0	0	Tornado (F1) A tornado was sighted 17 miles west of Limon. FPP111
Arapahoe County	15	1530-1700MST			0	0	0	0	Heavy rain, hail Golfball size hail fell in the southern and central part of Aurora between 1530 and 1600 MST. One spot in central Aurora received 2.06 inches of rain in just over an hour, causing local street flooding.
Morgan County	15	1630-1730MST			0	0	0	0	Heavy rain, hail 3/4 inch hail was reported in Fort Morgan at 1649 MST. Up to two inches of rain fell in the city, causing local street flooding and piling hail almost a foot deep in some spots.
Douglas County	16	1310MST	1/4	50	0	0	0	0	Tornado (F1) A tornado touched down briefly near Parker. FPP101
Weld County	17	1440-1450 MST	1	50	0	0	0	0	Tornado (F1) A tornado touched down just southwest of Ault, raising a column of dust from the ground to the base of the cloud. FPP111
Jefferson County	21	1900MST			2	0	0	0	Lightning In Lakewood, lightning struck and killed two children standing near a tree in a backyard.

— COLORADO

Adams County	21	1950-2030MST	0	0	3	0	0	High winds Strong downbursts from a thunderstorm caused a wind gust of 58 mph at 2023 MST in Northglenn. A bit earlier, wind gusts knocked down two power poles near Brighton.	
El Paso County	23	1540-1730MST	0	0	4	0	0	Thunderstorm Hail, rain, and frequent lightning plagued the Colorado Springs area for almost two hours. Lightning struck three homes, causing \$3000 damage. There were many power outages, and one bridge was partially washed out.	
Arapahoe County	30	afternoon	0	0	0	0	0	Heavy rain Heavy rain caused some street and basement flooding in Littleton. One spot received 1.56 inches in just 75 minutes.	
Otero County	30	1707MST			0	0	0	0	High wind A gust of 59 mph was noted at La Junta.
Morgan County	30	1720MST			0	0	0	0	High wind A gust of 60 mph was measured at Fort Morgan.

6 CONNECTICUT

Central & Western portion	1-3	All Day	0	0	?	?	Flooding Major rivers began receding from the highest crests in thirty to fifty years. Six to nine inches of rain during the last week of May sent all rivers well past flood stage, and the flooding continued into the first week of June. Damage was in the millions of dollars; but flood control projects, especially along the Connecticut River, prevented even greater damage.	
Southwestern Connecticut	11	Late Afternoon	0	0	4	0	0	Thunderstorm Winds Severe thunderstorms knocked out power to 4,000 customers in Fairfield County. Numerous trees and tree limbs were felled in Weston, where a downburst wind occurred. A falling tree crushed an auto in Bridgeport. Trees were also reported down at Wilton, in the Westport area.
Statewide	13	Late Afternoon	0	0	4	0	0	Lightning and Thunderstorm Winds Scattered, severe thunderstorm struck at various locations across the state. Up to 15,000 electric customers lost power. In the town of Manchester, one of the hardest hit by the storms, a huge falling tree demolished six cars. Trees and limbs blocked roads in some areas.

7 DELAWARE ————— NONE REPORTED

8 FLORIDA

Tampa (16 SSE) Hillsborough County	11	1715EST	1	30	0	0	4	- Tornado (F0) Seven roofs were damaged, several tool sheds were destroyed, and trees were downed.
Dunnellion, Citrus County	11	1730EST	0	0	3	-	-	Thunderstorm wind A 12 foot travel trailer was destroyed and several trees were downed.
Hernando, Citrus County	14	1600EST	0	0	3	-	-	Thunderstorm wind A tool shed was destroyed and several trees were downed.
Santa Rosa County Airport, Santa Rosa County	14	1908EST	0	0	0	0	0	Thunderstorm wind A wind of 75MPH was recorded.
Fernandina Beach, Nassau County	21	1400EST	0	0	2	-	-	Thunderstorm wind Two beach houses were blown off their pilings.
Orange Park, Duval County	21	1855EST	0	4	0	0	0	Lightning One boy was critically injured and several others were burned when lightning struck during baseball practice.
Orange Park, Duval County	21	1900EST	0	0	3	-	-	Thunderstorm wind A carport was damaged when a large oak tree was blown down.

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JUNE 1984

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					KILLED	INJURED	PROPERTY	CROPS		
FLORIDA										
Live Oak, Suwannee County	21	1900EST			0	0	3	-		Thunderstorm wind
										Farm buildings were damaged and trees were downed.
Miami, Dade County	22	2100EST			1	0	-	-		Lightning
										A man standing under a tree was killed when lightning struck the tree.
Ft. Pierce, St. Lucie County	26	1338EST			0	0	2	-		Thunderstorm wind
										Several awnings were destroyed.
Tavares, Lake County	26	1700EST	0.5	10	0	0	5	-		Tornado(F0)
										Several roofs were damaged and a tool shed was destroyed.
Deland, Volusia County	27	1700EST	2.0	50	0	0	6	-		Tornado(F1)
										Twenty airplanes were damaged, the airport hanger roof was destroyed and a nearby dairy lost its roof.
9 GEORGIA										
Montgomery County	21	1540EST			0	0	3	0		Wind
										Thunderstorm winds downed several trees and power lines in the southern part of the county. The winds uprooted a few trees in Mount Vernon.
Houston County	21	1545EST			0	0	3	0		Wind
										Thunderstorm winds overturned a mobile home in the Piney Grove Community about 5 miles south of Warner Robins. A tree was blown onto a carport in the Kathleen Community; a tree was uprooted and blown onto a house in the same area.
Emanuel County	21	1630EST			0	0	2	0		Wind
										Thunderstorm winds downed a few trees 5 miles northeast of Swainsboro.
Chattooga County	21	1830EST			0	0	4	0		Wind
										Thunderstorm winds downed a few trees in Summerville. One large pine tree fell across two parked automobiles and a garage.
Stephens County	24	1800EST			0	1	0	0		Lightning
										One person was injured by a lightning strike.
10 IDAHO										
Marysville, Warm River, Fremont County	13	1800-1900MST			0	0	5	5		Thunderstorm, wind, hail
										A severe thunderstorm with golf ball sized hail and winds of 70 mph traveled the east bench from Rexburg up to Ashton. The area from Marysville to Warm River was the hardest hit. Sixty percent of the crops in this area was reported to have been damaged by hail. One ranch reported \$65,000 damage to structures due to strong winds and a grain elevator was blown down. A severe thunderstorm warning was issued at least one half hour before this storm hit the area.
Twin Falls, County	14	1700MST					4	4		Hail
										Hail the size of golf balls pounded Hollister, Twin Falls County. Several auto windshields were shattered and many cars were left with dented hoods and roofs. Crop damage was kept low because grain and hay were still in the early stages of growth. A severe thunderstorm warning had been issued for the area approximately 1/4 hour before the occurrence.
Grangeville	20	1330MST					3	3		Hail
										Hail 3/4 of an inch to one inch in diameter fell in the Grangeville area. This was followed by .93 of an inch of rain in about 15 minutes. No significant damage was reported.
Canyon, Gem Counties	20	1500-1530MST					3	6		Hail, wind
										Two thunderstorms battered an area four miles wide and 20 miles long. The damage started near Notus, Canyon County and extended northeastward into southwestern Gem County. Hail up to the size of golf balls damaged many acres of crops.
IDAHO										
Near Burley	24	1720MST					4	3		Thunderstorm, wind
										Wind gusts of 75 mph were recorded at the Burley airport where half of the roof of one hangar was torn up quite badly. A large barn near Paul, Minidoka County, was destroyed and several trees downed.
ILLINOIS										
20 W Rockford, Stephenson county	13	220 CST								Hail
										A severe thunderstorm dropped golf-ball size hail about 20 miles west of Rockford in Stephenson county at 320am CDT.
Romeoville-Will county	13	1322 CST	1 3/4	80	0	0	5	0		Tornado (F1)
										The first of two small tornadoes touched down in Romeoville, Will county, at 222pm CDT. The tornado produced an intermittent damage path 80 yards wide and 1 3/4 miles in length as it moved from west to east. Damage occurred mainly to roofs and walls of about 15 single-family homes on Murphy Drive and Haller Street in the southern part of the village.
Romeoville, Will county	13	1322 CST	.3/4	100	0	0	5	0		Tornado (FO)
										A second tornado was reported in Romeoville at about 222pm CDT. Damage was confined to the roofs and walls of about 20 homes in the Honey Tree subdivision on Abbey Wood Drive. The tornado moved from west to east for about 3/4 mile and had a path of about 100 yards.
Cami, White county	18	1720 CST								Wind
										At 620 pm CDT, strong thunderstorm winds downed some trees and power lines at Cami.
nr Caledonia, Boone county	22	1230 CST	0.6	200	0	0	4	0		Tornado (F1)
										A tornado touched down at approximately 130 pm CDT in the area 1 mile west of SR 76 and 3 miles north of Caledonia. Minor damage occurred as the tornado moved east-southeast through Livingston Cemetery and onto a private residence. Power lines and trees in the path of the storm were heavily damaged.
McHenry, Kane, DuPage, Will, and Kankakee counties	22	afternoon			0	0	5	5		Hail, Wind
										Severe thunderstorms with large hail, heavy rain, and some damaging winds move southeast across McHenry, Kane, DuPage, Will, and Kankakee counties during the afternoon hours. Between 200pm CDT and 230pm CDT golf-ball size hail fell in Marengo, Howard and Union in McHenry county. By 250pm CDT the storm was dropping golf-balls size hail near Burlington in Kane county while 1 inch hail was reported at Elgin. Damage was severe to plants and automobiles; some minor damage to roofs was noted. At 345pm CDT golf-ball size hail and winds to 60 mph were occurring at St. Charles, Kane County. The hail was up to 12 inches deep. Only minutes later (355pm CDT) 3/4 inch hail fell at DuPage County Airport along with gusts to 52 miles an hour. The severe thunderstorms continued southeast bringing golf-ball to baseball size hail to Naperville, DuPage county, at 415pm CDT. Golf-ball to baseball size hail also occurred at Plainfield (430pm CDT), Romeoville (437pm CDT) and Bollingbrook (438pm CDT). In Naperville over 1800 new cars were hammered by the hail. Reports of dented siding, heavy rain, and high winds were common. About 25,000 acres of Kankakee county crops were heavily damaged or destroyed by large hail, strong wind, and rain as the storms continued southeast. The heaviest crop damage occurred north of Bourbonnair from about 24 miles west of US45, east to as far as St. George and north to the county line.
Livingston, Ford, and Iroquois counties	22	1700 CST-2000 CST								Hail
										Severe thunderstorms with golf-ball to baseball size hail moved across southeast Livingston, Ford and Iroquois counties during the early evening. At 610pm CDT golf-ball size hail was reported at Strawn in southeast Livingston county. 1 3/4 inch hail was noted at Gibson City at 645pm CDT. Hail up to golf ball size fell in the Clifton and Ashburn areas of Iroquois county and just west of Watska about 815pm CDT.
Hoopeston, Vermillion county	22	1855 CST	1	300	0	0	5			Tornado (F1)
										A tornado touched down on the northeast side of Hoopeston at 755pm CDT. The tornado felled a grain elevator, demolished four house trailers, downed power lines and flattened several garages along its approximately 1 mile path. No one was injured.
Petersburg, Menard county	23	0010 CST								Wind
										A severe thunderstorm produced 50 to 60 mile an hour winds just east of Petersburg. Minor tree damage was noted.
Cook, DuPage, and Lake counties	23	1400-2000 CST								Wind, hail
										Severe thunderstorms moved across extreme northeast Illinois during the evening. Large hail and strong winds accompanied the storms. At 810pm CDT gusts to 70 miles an hour were reported at Lincolnshire. At the same time strong winds at Rolling Meadows caused minor tree and roof damage. One inch hail fell at Wooddale at 827pm CDT. Very strong winds tore portions of the roof from several factories in Streamwood at 830pm CDT. Small hail (1/4 to 1/2 inch) was reported at numerous locations in the three counties.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1984

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	

ILLINOIS

Lebanon, St. Clair county	23	1945 CST							Wind
A severe thunderstorm at Lebanon at 845pm CDT caused minor tree damage.									
Randolph, Perry, Franklin and Jackson counties	26	1500-1800 CST							Wind
Severe thunderstorms moved across the southwest portion of the state during the late afternoon hours. At 405pm CDT several trees were uprooted in a narrow path 2 miles south of Gorham. Trees were also downed 1/4 mile south of Sparta at 510pm CDT in gusts in excess of 60 mph. At 530pm CDT winds gusted to 60 mph in southwest Perry county near Cutler. Two old trailers in a trailer court 1/4 mile west of West Frankfort were damaged at 640pm CDT.									
Jo Davies and Carroll counties	26	2000-2100 CST							Wind
Thunderstorms winds caused scattered minor damage through the two counties. At 1135pm CDT minor tree and roof damage occurred at Stockton. Minor damage was also reported from strong winds at 7155pm CDT at Savanna, Thompson, and Mt. Carroll.									

12 INDIANA

IN Logansport, Cass County	12	1505EST	Short 10.0	0	0	0	2	0	Tornado (F0)
A tornado briefly touched down in a field, causing some damage to the crop.									
SW Winamac, Pulaski County	13	1615EST	Short 6.7	0	0	0	0	0	Tornado (F0)
A tornado briefly touched down but caused no damage.									
Northern Cass County	13	1640EST		0	0	2	0	0	Thunderstorm, Winds
Strong thunderstorm winds uprooted trees and downed powerlines. The damage was scattered throughout the northern part of Cass County.									
Wabash County	13	1715EST		0	0	2	0	0	Thunderstorm, Winds
Numerous tree limbs were downed and several trees were uprooted.									
Western Huntington County	13	1720EST		0	0	0	0	0	Thunderstorm, Winds
60 mile an hour winds were reported.									
Eastern Huntington County	13	1725EST		0	0	2	0	0	Thunderstorm, Winds
Numerous tree limbs, trees and powerlines were reported down.									
Wells County	13	1730EST		0	0	0	0	0	Thunderstorm, Winds
Several trees were reported uprooted by strong thunderstorm winds.									
Dunkirk, Jay County	13	1810EST		0	0	0	0	0	Thunderstorm, Winds
60 mile an hour winds were reported.									
Geneva, Adams County	13	1815EST		0	0	3	0	0	Thunderstorm, Winds
Strong thunderstorm winds uprooted trees and downed powerlines.									
Bryant, Jay County	13	1820EST		0	0	2	0	0	Thunderstorm, Winds
Strong thunderstorm winds uprooted several trees.									
Greensburg, Decatur County	16	1930EST		0	0	4	0	0	Thunderstorm, Winds
Strong thunderstorm winds caused structural damage to several buildings in the City of Greensburg. One barn lost its roof and about 8,000 customers were without power. The thunderstorm also dumped almost three inches of rain in the area.									
Greensburg, Decatur County	16	1945EST		0	0	4	3	0	Thunderstorm, Winds
Strong thunderstorm winds caused structural damage to several homes and farms in the northwest part of Greensburg as well as a blackout throughout most of the city due to downed power lines.									
3SW Kirksville, Monroe County	18	1533EST		0	0	4	0	0	Lightning
Lightning set a barn on fire, destroying it and its contents.									
Cynthiana, Posey County	18	1645EST		0	0	2	0	0	Thunderstorm, Winds
Thunderstorm winds estimated at 65 miles an hour downed trees and powerlines.									
Cassopolis, Cass County	20	1900EST		0	0	4	0	0	Lightning
Lightning started a fire in a body shop causing about \$6,000 damage.									

INDIANA

La Porte, La Porte County	22	1200EST							Lightning
Lightning started a fire which destroyed a warehouse full of fireworks.									
Terre Haute, Vigo County	22	1500EST		0	0	0	0	0	Hail
Golf ball size hail was reported on the north side of the city.									
3S Riley, Vigo County	22	1510EST		0	0	3	0	0	Thunderstorm, Winds
Strong thunderstorm winds uprooted trees, some of which fell across state road 159, closing the road between the towns of Riley and Blackhawk for a time.									
Coalmont, Clay County	22	1630EST		0	0	3	0	0	Thunderstorm, Winds
Strong thunderstorm winds uprooted several trees.									
Vicksburg, Sullivan County	22	1630EST		0	0	0	0	0	Thunderstorm, Winds
60 to 70 mile an hour winds were reported.									
Jasonville, Greene County	22	1640EST		0	0	3	0	0	Thunderstorm, Winds
Strong thunderstorm winds uprooted large trees.									
North Salem, Hendricks County	22	1806EST		0	0	3	0	0	Lightning
One residence was damaged by lightning.									
1SW Kentland, Newton County	22	1900EST		0	0	0	0	0	Hail
Golf ball size hail was reported.									
Northwest Warren County	22	2000EST		0	0	0	0	0	Hail
Hail 3/4 of an inch in diameter was reported.									
Redkey, Jay County	23	1020EST		0	1	4	0	0	Thunderstorm, Winds
A house trailer was damaged and four others were knocked off their foundations by strong thunderstorm winds estimated at 70 mph. One person received minor injuries. Numerous powerlines were down in a one square mile area.									
Anderson, Madison County	24	0030EST		0	0	3	0	0	Lightning
One home was struck by lightning. The small fire that resulted was quickly brought under control.									

13 IOWA

Emmet County	04	1430 CST							Thunderstorm and Winds
Winds in a thunderstorm reached up to 58 MPH at the Estherville Airport - but only minor damage occurred in the vicinity.									
Humboldt County	04	1630 CST		0	0	0	0	0	Funnel Cloud
A funnel cloud was spotted by the County Sheriff's Deputy but there was no touchdown and no damage.									
Statewide	07	Afternoon-Evening		1	2	6	5	0	Thunderstorm with Winds and Flash Floods
Strong thunderstorms moved into Iowa and wrought havoc from one end of the State to the other. Most of the stronger cells produced tornadoes that are detailed below (21 in all - a record number for a day in Iowa), but severe thunderstorms occurred in numbers that cannot be counted. Strong winds were the culprit, along with large hail. Flash Floods were also prevalent, with rainfall totals of 2 to 6 inches common. Mostly this just caused some water to flow over roads, but the collapse of some roadbeds and bridges brought expense to local governments that might preferably have been deferred.									
The death in a severe thunderstorm occurred at approximately 2000 CST in Ringgold County. A tree fell onto a car in Mt. Ayr, killing the driver and injuring the two passengers.									
Woodbury and Plymouth Counties	07	1445 CST-1503 CST	7	100	0	0	5	0	Tornado (F1)
A tornado touched down outside of Merville and moved Northeast (the general direction of all Tornado movements that day). It hit at least 4 farmsteads, doing major damage to three barns and other outbuildings and minor damage to the homes.									
Cherokee County	07	1514 CST-1533 CST	10	75	0	0	6	0	Tornado (F2)
This vortex was directly downwind of the previous tornado and likely derived from the same cell. Again farms were the target - 15 were hit - and outbuildings suffered most of the damage. Many trees were also uprooted.									
Ida County	07	1542 CST-1610 CST	16	150	0	1	6	0	Tornado (F2)
A tornado plowed through Northern Ida County, brushed by Holstein, and dissipated northeast of town. Again a great deal of damage was found on homesteads, but the most notable was in Holstein. A grain elevator was damaged and roofs were lost from a couple of homes. Roads were blocked by trees and power lines that were downed.									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1984

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	
IOWA									
Cass County	07	1543 CST- 1727 CST	23	150	0	8	6	0	Tornado (F2)
A tornado ripped through Cass County, injuring 8 and leaving a trail of devastated homes and farms. At least 29 farms were hit by the storm, and a fertilizer plant was destroyed. The storm tracked from about 5 miles Southeast of Griswold to 2 miles East of Anita. A great deal of farm equipment was damaged and a pickup was squashed by a falling tree. Damage was estimated at \$1.6 million.									
O'Brien County	07	1604 CST- 1615 CST	6	75	0	0	5	0	Tornado (F1)
About 7 farms saw damage from this tornado. Hog houses, milk sheds, corn cribs and feed bins were all flying in the whirlwinds. Many trees were destroyed and a barn that was almost 100 years old was flattened.									
Buena Vista County	07	1612 CST- 1620 CST	4	100	0	3	6	0	Tornado (F2)
Extensive damage occurred at a few farms near Storm Lake. Most of the outbuildings were destroyed and the homes suffered extensive damage. One home had structural damage, and two by foms were driven into the side of the house. In another, glass from broken windows was embedded into woodwork and a piano in the living room.									
Page, Taylor and Adams Counties	07	1620 CST- 1706 CST	25	100	0	3	6	0	Tornado (F3)
A tornado first touched down on the north side of Clarinda, continued Northeast into Taylor and Adams Counties past Corning. Twenty-five homes in Clarinda were damaged, including several that lost parts of roofs. About a dozen farm sheds in Page County were damaged, another half-dozen in Taylor and 6 more in Adams County. One mobile home was completely destroyed, and significant damage was caused to homes and not just outbuildings on these farms. One home, described by the owner as 'solidly built', was flattened - the four walls were down. Another farmer lost two horses, a goat and a mule.									
Clay County	07	1630 CST- 1632 CST	1	75	0	0	5	0	Tornado (F2)
A brief but strong tornado touched down in Spencer, damaging 5 homes including 2 that lost a roof. Trees and power lines were also felled by this storm									
Clay County	07	1623 CST- 1627 CST	2	75	0	0	5	0	Tornado (F1)
A tornado touched down in the vicinity of Everly, damaging several homes as well as a number of outbuildings. The homes received damage to the roofs, windows and exterior surfaces.									
Pocahontas and Palo Alto Counties	07	1617 CST- 1657 CST	25	100	0	2	6	0	Tornado (F2)
This tornado touched down near Laurens, crossed into Palo Alto County and damaged many farms before striking Rodman. In Laurens the roof came off a warehouse of a feed company. A mobile home was flipped over near Laurens. At the farms, it was a familiar story - all the exterior buildings were destroyed, and varying levels of damage inflicted on the farm homes. Often this meant broken windows, porches smashed, parts of the roof and other exteriors taken, glass and other debris embedded into carpets and the furniture. Livestock also fell victim to the storm, adding to the loss of rural residents. Because of the path of the damage, and the description of events by eyewitnesses, it appears as if the tornado was at times multiple vortex - perhaps as many as 4 vortices.									
Ida County	07	1610 CST- 1633 CST	12	100	0	1	6	0	Tornado (F2)
A tornado struck quickly at Arthur in Ida County, having struck some farmsteads to the Southwest and dissipating not far beyond town. A couple of large grain bins were hurled across the highway. One settled next to a garage and caused it to lean. The other bin flattened the roofs of two cars. Damage was sustained to the roof and the interior of the only restaurant in town - the Hard Times Cafe.									
Pocahontas County	07	1700 CST- 1715 CST	8	100	0	0	6	0	Tornado (F2)
A tornado caused major damage to three farms near Havelock. Every outbuilding - barns, bins, sheds and shelters - was destroyed or was extensively damaged. One home had torn roofs, sloping floors and foundation damage. About 24 pigs were killed, but the chickens and cattle survived.									
Humboldt, Kossuth and Hancock Counties	07	1715 CST- 1754 CST	21	150	0	0	6	0	Tornado (F2)
At least 40 farms were struck as a tornado moved across 3 Counties. The property damage, due to the storm, was established at \$800,000 in Humboldt County alone. Storage buildings, trailers, vehicles, grain bins and farm equipment - all this and more sustained damage. Livestock formed part of the loss.									
Kossuth County	07	1715 CST- 1730 CST	9	150	0	5	7	0	Tornado (F3)
Burt was struck the hardest of all the towns in Northern Iowa. The Presbyterian Church had major damage to the roof and serious structural damage. The school building lost the wall on one side on the second story, and various cracks and peels on the roof may make it unrepairable. Several mobile homes were destroyed - including the Mayor's. There was substantial damage to 25 homes - including one that was moved from its foundation. The tornado also inflicted serious damage outside of town, including felling half of a grove of 60 black walnut trees northeast of town.									
IOWA									
Kossuth and Winnebago Counties	07	1725 CST- 1807 CST	21	150	0	1	6	0	Tornado (F2)
A tornado touched down southwest of Titonka, moved into town and then past to Winnebago County. The tornado went back into the cloud for a few miles, touched down again in North Central Winnebago County, then dissipated before it reached the Minnesota border. Some important damage in Titonka included the school, which saw a torn up roof that allowed rain to leak down to all floors; a home was flattened by the storm, another house lost the roof, and papers of the owner were found 100 miles away in Minnesota. Still another home was punctured by a two-by-four, which was driven 3 feet into the side of the house.									
Hancock and Winnebago Counties	07	1745 CST- 1818 CST	18	125	0	0	6	0	Tornado (F2)
The tornado formed southwest of town and as it went through Crystal Lake, it struck a grain elevator and the high school. A large section of the school came off, and there was damage to the steel girders. A steel storage bin that can hold 10,000 bushels of grain was destroyed, as was a steel "leg" that is used to move the grain. A great deal of exterior damage occurred to a house adjacent to the school. Significant damage was inflicted on farms around Crystal Lake and extending northwest into Winnebago County. Barns, shelters, storage buildings, garages, as well as trees and vehicles, all fell victim to the storm. Mobile homes were also damaged near Crystal Lake and also Forest City.									
South Central, Southeast and East Central Iowa	07	1755 CST- 2058 CST	117	250	2	63	7	6	Tornado (F4)
This was the longest, strongest, deadliest and most destructive of all the tornadoes to strike in Iowa that day. The storm carried over from Missouri and entered in Decatur County near a State Park. It proceeded in a northeast direction into Wayne, Lucas, Monroe, Mahaska, Keokuk and Iowa Counties. The storm was very destructive over almost the entire path but did its worst in Wright, in Mahaska County. Wright is very small, but the few buildings that might define the town - the Community Center, the old Bank, the church were levelled by the tornado. Two homes were completely ruined and the remaining houses suffered significant damage. The farms between the two towns also suffered devastation - not just outbuildings but also farm homes were racked by the whirlwind. One house was moved about 10 feet off its foundation. Others were reduced to piles of rubble. In Delta, the destruction reached its peak. A savings bank, a feed store, the beauty shop, the grocery store and an ice cream business all suffered significant to complete damage. The estimate of total damage in Mahaska County was set at \$3.4 million, in Keokuk County, it was \$25 million. This included 50 homes destroyed and 150 with major damage; 600 farm service buildings levelled, many more damaged; and all kinds of destruction done to farm machinery and equipment. The two deaths occurred to a couple driving in their car. The auto was thrown more than 300 yards from the road and both people were lifted out of the car. The tornado apparently split near South English, the main portion continuing northeast into Iowa County. Though near the end of its life, this did not prevent the vortex from lifting a house completely off its foundation near South English. Even though most crops were early in their growth, debris from this tornado caused significant crop damage. (Border crosser - total path length was 127 miles)									
Lucas County	07	1854 CST	.5	50	0	0	4	0	Tornado (F1)
A tornado was spotted by a Sheriff's Deputy between Chariton and Lucas. Apparently this vortex reached down to the tree top level to do some damage before lifting back up.									
Ringgold County	07	1945 CST- 2011 CST	14	150	1	3	6	0	Tornado (F2)
The other death as a result of the tornadoes occurred at Kellerton, where a mobile home resident was apparently getting out to seek better shelter. The man's wife survived, and the mobile home was devastated - a pile of metal shards and timber remained. The storm first touched ground south of Mt. Ayr and continued toward Kellerton striking western and northern sections of town, and dissipating northeast of town. Six homes were destroyed, 12 had major damage, as did the City Park. Phones and power lines were knocked out due to the storm as well.									
Keokuk, Washington and Johnson Counties	07	2033 CST- 2113 CST	24	200	0	1	6	0	Tornado (F2)
This tornado split off from the powerful Wright-Delta tornado and veered east before turning northeast into Washington and Johnson Counties. Damage to trees, houses, buildings and vehicles was extensive, but no towns were struck - only rural areas. One home completely lost the roof, timber was driven into the sides and all windows were shattered. The English River Brethren Church near Kinross lost all the windows and most of the roof.									
Wayne County	07	2033 CST	.5	50	0	0	4	0	Tornado (F1)
Another tornado struck Nick's Cafe at the junction of Highways 2 and 65, about 2 hours after the first, which went on to strike Wright and Delta. Most of the damage was minor compared to the devastation the first tornado brought, but some of the things still standing were felled. This tornado came to "finish the job".									
Adair County	11	1823 CST Short Narrow	0	0	0	4	0	0	Tornado (FO)
A tornado was sighted about 5 miles south of Stuart. Damage to trees and power lines indicated a brief touchdown.									
Polk County	11	1850 CST Short Narrow	0	0	0	3	0	0	Tornado (FO)
A tornado touched down in West Des Moines and caused tree top damage.									
Polk County	11	1928 CST Short Narrow	0	0	0	0	0	0	Tornado (FO)
A tornado touched down north of Des Moines Airport and was spotted by the WSPFO Observers. No damage was reported - apparently the spot was away from developed areas of the City.									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1984

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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	

— IOWA									
Polk County	11	1955 CST	Short	Narrow	0	0	3	0	Tornado (FO) A tornado was spotted just east of the old power plant in Des Moines at the junction of the river and Highway 46.
Lyon County	11	2330 CST			0	0	4	0	Thunderstorm and Winds Strong winds in a thunderstorm blew over 3 campers, knocked down a couple of barns and destroyed a machine shed.
Polk County	12	1800 CST			0	1	0	0	Lightning A service station attendant was struck while pumping gas at a station on the north side. The man suffered no burns but was stunned and was taken to the hospital.
Mills County	12	1950 CST			0	0	0	0	Funnel Cloud Funnel clouds were reported south of Glenwood.
Polk County	12	1950 CST			0	0	0	0	Funnel Cloud A funnel cloud was sighted 3 miles west of Elkhart
Story County	12	1955 CST	Short	Narrow	0	0	0	0	Tornado (FO) A spotter observed a tornado near Maxwell. The touchdown was brief and no damage was reported.
Central Iowa	12- 13	Evening- Morning			0	0	5	4	Flash Floods Heavy rains - 2 inches or more - fell over Central Iowa. Flash flooding occurred along Squaw Creek, Lizard Creek and the Boone River. The worst flooding was in the city of Ames around Iowa State.
Mills, Shelby, Pottawattamie and Harrison Counties	14	1745 CST- 0000 CST			0	0	6	6	Flash Flood Pockets of heavy rain resulted in areas of lowland and urban flooding. Six and one-half inches of rain in the Harlan-Kirkman area forced 10 families to be evacuated from high waters. A number of bridges were washed out and heavy soil erosion occurred. Streets were reported flooded in Council Bluffs. At times Mosquito and Indian Creeks and portions of the Mishnabotna River were out of banks.
Western and Central Iowa	14	Evening			0	0	4	4	Flash Floods Thunderstorms with heavy rain caused streams in much of already saturated Iowa to rise. The most notable case was in Madison County where debris in a stream helped to knock out an old bridge.
Dallas County	14	1810 CST			0	0	0	0	Funnel Clouds A couple of funnel clouds were sighted near Adel.
Kossuth County	16	1530 CST	Short	Narrow	0	0	0	0	Tornado (FO) Several funnel clouds and at least one tornado were observed near the Radio Station in Algona.
Humboldt and Wright Counties	16	1643 CST- 1656 CST	7	75	0	0	4	0	Tornado (F1) A tornado touched down west of Goldfield and proceeded northeast. Only outbuildings were struck as it moved through farm areas.
Worth County	16	1756 CST	Short	Narrow	0	0	0	0	Tornado (FO) A tornado was reported over Fertile in the southwest part of the County. No damage reported.
Worth County	16	1820 CST	Short	Narrow	0	0	0	0	Tornado (FO) Law enforcement officials sighted a tornado near Manly. No damage reported.
Cerro Gordo County	16	1825 CST- 1836 CST	6	75	0	2	5	0	Tornado (F1) A tornado apparently touched down repeatedly in rural areas between Rockwell and Dougherty. The worst damaged farm suffered damage to all the outbuildings, dead livestock, and broken windows in the house. Two minor injuries at another farm resulted from stepping on broken glass while escaping to the basement.
Floyd County	16	1905 CST	Short	Narrow	0	0	0	0	Tornado (FO) The Charles City Police sighted a tornado two miles west of town. No damage reported.
Northern Iowa	16	Evening			0	0	5	6	Flash Flood Heavy thunderstorms produced flash flooding in several areas. At Clarion in Wright County, roads were closed as water started flowing across them. More than 6 inches of rain at Stacyville in Mitchell County quickly produced floods. Fields that were adjacent to streams were underwater and those that were recently planted lost the seedlings.
Iowa County	16	Evening			0	0			Lightning 15 stock cows and 7 calves were killed by lightning near Homestead. The cattle were struck while gathered in a circle in the middle of the pasture.
Grundy County	17	1435 CST			0	0	3	0	Thunderstorm with Wind and Hail Winds reached 60 MPH and hail up to 2 inches in size fell near Conrad. Many large trees were felled.
Black Hawk County	17	1505 CST			0	0	3	0	Thunderstorm Winds to 60 MPH were blowing at Cedar Falls. Minor damage occurred due to the winds.
Delaware County	17	1620 CST- 1630 CST			0	0	3	0	Thunderstorm and Wind Trees were downed all over the County, and near Dundee the roof of a shed was blown off.
Northwest Iowa	17	Afternoon- Evening			0	0	4	6	Flash Flood Heavy rains in thunderstorms caused creeks, streams and small rivers to flood as the water ran off the saturated soil. Flooding also occurred in the streets of several towns as the storm sewers filled.

— IOWA									
Woodbury County	17	1625 CST	Short	Narrow	0	0	0	0	Tornado (FO) A tornado touched down briefly 2 miles north of Branson. No damage was reported.
Woodbury County	17	1627 CST	Short	Narrow	0	0	0	0	Tornado (FO) A tornado was sighted north of Moville. No damage noted.
Cherokee County	17	1629 CST	Short	Narrow	0	0	0	0	Tornado (FO) A tornado was spotted by a citizen 8 miles south of Cleghorn. No damage was noted.
Woodbury County	17	1638 CST			0	4	4	0	Thunderstorm with Wind and Hail A man, his wife, and two children were injured when a tree fell in the wind in front of a moving automobile. At least 3 were hospitalized, and one of the children was in intensive care as a result. This occurred near Salix, and at approximately the same time as half-inch hail was falling in the vicinity.
Benton County	17	1647 CST			0	0	0	0	Funnel Cloud A member of the public reported a funnel cloud at Keystone.
Linn County	17	1726 CST			0	0	0	0	Funnel Cloud A funnel cloud was reported to be north of Cedar Rapids.
Linn County	17	1740 CST			0	0	0	0	Funnel Cloud A funnel was sighted over Hiawatha.
Harrison and Monona Counties	17	1750 CST- 1820 CST			0	0	5	0	Thunderstorm and Winds Strong winds in thunderstorms uprooted trees, destroyed some bins and sheds and damaged fences at area farms.
Harrison County	17	1814 CST	7.5	30	0	0	4	3	Tornado (F1) A tornado touched down at intervals 2 1/2 miles north of Tekamah, Nebraska, east to Pisgah, Iowa. A school building was damaged near Pisgah; otherwise, scattered damage to trees, utility lines and fences. (Border crosser - total path length was 15 miles)
Iowa County	17	1825 CST- 1830 CST	20	40	0	0	5	0	Tornado (F1) This storm destroyed two barns and grain bins, and extensively damaged the roof and windows of a house.
Harrison County	17	1843 CST	1/8	10	0	0	3	3	Tornado (FO) A tornado touched down briefly in a field 12 miles southeast of Logan with minor damage.
Pocahontas County	17	1930 CST			0	0	3	0	Thunderstorm with wind Winds at 60 to 70 MPH were reported north of the City of Pocahontas by the Sheriff's Department. Only minor damage ensued.
Cedar County	17	1935 CST	5	40	0	0	4	0	Tornado (F1) Two farms were damaged about 7 miles west of Sunbury. Power lines, outbuildings, and trees were the casualties of this storm.
Cerro Gordo County	17	2035 CST			0	0	0	0	Funnel Cloud A member of the public sighted a funnel cloud near Clear Lake.
Marion County	17	2140 CST			0	0	4	0	Thunderstorm and Winds Trees and power lines were downed in high winds in a thunderstorm at Pella.
Greene County	20	1300 CST- 1600 CST			0	0	5	6	Flash Flood Seven and one-half inches of rain in about 3 hours brought tremendous flooding to the area of Scranton. There was considerable damage to County roads. Seven culverts were washed away, cars and trucks stalled out and started floating in the water. In town, almost all basements were flooded - some to a depth of 5 or 6 feet. The farm fields that had been planted lost all the crop that had so that point survived.
Northwest Iowa	21	Afternoon- Evening			0	0	4	5	Flash Floods Heavy rains in thunderstorms caused extensive lowland flooding, especially around Sioux City. Damage was minimized by the fact that flooding had already occurred - the damage had already been done.
Woodbury County	21	1437 CST			0	0	3	0	Thunderstorm and Winds Winds gusted to 60 MPH at the Sioux City Airport. Little damage resulted.
Harrison County	21	1705 CST			0	0	0	0	Funnel Cloud A funnel cloud was reported just northeast of Modale.
Audubon County	21	1725 CST- 1725 CST	2.5	50	0	0	0	0	Tornado (FO) A tornado was spotted by a Sheriff's Deputy in Eastern Audubon County. It lifted without causing any noticeable damage.
Story County	21	1812 CST			0	0	0	0	Funnel Cloud A funnel was spotted near Slater.
Jasper County	21	1850 CST			0	0	0	0	Funnel Cloud A funnel was spotted by a County Sheriff's Deputy between Runnells and Monroe.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1984

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	
IOWA											
Statewide	22	Afternoon-Evening			0	0	6	5			Thunderstorm and Winds, Hail and Flash Floods
	A line of thunderstorms moved down out of Minnesota and brought a variety of storm features into Iowa. Strong winds sank boats on Spirit Lake in Dickinson County [1435 CST] and winds gusted to 103 MPH at Estherville Airport in Emmet County [1515 CST]. Hail up to the size of golf balls damaged 1,000 acres of corn and 4,000 acres of soybeans, causing an estimated \$1.7 million loss [1500-1530 CST]. Up to 4.5 inches of rain fell in an hour at Spirit Lake - causing flash floods. As these thunderstorms developed south and east into the State, some tornadoes (detailed below) were formed. The heavy rain, hail and wind pounded a number of counties, though most of the damage was minor.										
Cerro Gordo and Butler Counties	22	1745 CST-1811 CST	14	75	0	0	6	0			Tornado (F1)
	A tornado touched down in the vicinity of Rockwell and moved southeast. Trees were uprooted, garages and barns destroyed, and damage was sustained to the roofs, exteriors and windows of a few farm homes.										
Floyd County	22	1802 CST	Short	Narrow	0	0	0	0			Tornado (F0)
	A spotter sighted a tornado 5 miles south of Charles City. No damage was reported.										
Story County	22	1812 CST	Short	Narrow	0	0	0	0			Tornado (F0)
	A tornado was spotted on Highway 30 between Ames and Nevada. No damage reported.										
Butler County	22	1815 CST	Short	Narrow	0	0	0	0			Tornado (F0)
	A tornado was sighted 6 miles north of Parkersburg. No damage noted.										
Benton County	22	1922 CST	Short	Narrow	0	0	0	0			Tornado (F0)
	A spotter confirmed a tornado touchdown north of Newhall. No damage resulted.										
Linn County	22	1955 CST			0	0	0	0			Funnel Cloud
	A funnel was sighted south of Mt. Vernon. No touchdown.										
Jones County	22	2015 CST	Short	Narrow	0	0	0	0			Tornado (F0)
	A tornado was sighted by spotters between Fairview and Martelle. No damage.										
Cedar County	22	2055 CST	Short	Narrow	0	0	0	0			Tornado (F0)
	A brief touchdown of a tornado was reported by members of the Lowden Fire Department. No damage.										
Northern Iowa	26	Morning			0	0	0	4			Thunderstorms with Hail
	Heavy thunderstorms brought hail and heavy rains to much of Northern Iowa in the early morning hours. Hail fell in Butler County, and a hailstorm of 7 to 10 minute duration at Dike in Grundy County caused the ground to be covered [0430 CST].										
Statewide	26	Afternoon-Evening			0	0	5	4			Thunderstorms with Wind and Hail
	Thunderstorms developed across Iowa in the late afternoon and quickly grew into damaging storms. Strong winds and large hail helped bring down trees and power lines, barns, sheds and other outbuildings on farms. Several funnels were sighted (see below) and one tornado was observed. The largest hail fell at Newton in Jasper County - measuring 1 5/8 inches [approximately 1900 CST].										
Pottawattamie County	26	1755 CST			0	0	0	3			Hail
	Some minor crop damage was reported when 3/4 inch hail fell around Oakland.										
Pottawattamie County	26	1818 CST	1/8	20	0	0	2	3			Tornado (F0)
	A tornado was reported to have touched down briefly in a field 3 miles east and 2 miles north of Carson.										
Jasper County	26	1855 CST			0	0	0	0			Funnel Cloud
	A funnel cloud was sighted at Newton.										
Jasper County	26	1900 CST			0	0	4	0			Lightning
	The lights went out for approximately 45 minutes in Newton when lightning struck power lines and a couple of transformers.										
Linn County	26	1943 CST			0	0	0	0			Funnel Clouds
	Funnel clouds were spotted at Mt. Vernon, Marion and Viola.										
Jones County	26	2000 CST			0	0	0	0			Funnel Cloud
	Several funnel clouds were reported in the County at this time.										
Johnson County	26	2009 CST			0	0	0	0			Funnel Cloud
	A funnel cloud was reported to be just northeast of Iowa City, and then dissipated.										
Des Moines County	26	2230 CST			0	0	4	0			Lightning
	Power outages due to lightning strikes affected 3000 customers. Most had electricity back in a half hour but rural residents were affected for several hours.										
14 KANSAS											
West Central Kansas	01	1530-2000CST	170mi	60mi	0	0	6	6			Wind, Hail, Funnel
	A cluster of severe thunderstorms developed along the Colorado border near Tribune and moved east across a path 60 miles wide to around Larned. Winds downed power lines, overturned a few mobile homes and camping trailers, and damaged trees, vehicles and buildings. Hail caused widespread crop damage as well. Wind, hail and funnel reports included: 1600 Golfball size hail at Tribune. 1625 Two funnels seen in northern Kearny County. 1650 Golfball size hail and a funnel at Healy. 1730 58 mph wind gust measured at Garden City's Airport. 1735 70 mph winds at Garden City. 1755 70 mph winds in northwest Hodgeman County. 1820 3/4 inch hail and 70 mph wind 12 miles north of Jetmore. 1825 58 mph wind (but no thunderstorm) at Dodge City's Airport. 1930 Wind damage northeast of Ness City.										
Hays, Ellis County	01	1800CST			0	0	4	0			Wind
	Thunderstorm wind gusts estimated at 70 mph hit Hays. Minor damage resulted.										
Washington County	01	2220CST			0	0	3	0			Wind.
	A thunderstorm with wind gusts estimated at about 50 mph downed several power poles 2.5 miles south of Washington and at Greenleaf.										
Halstead, Harvey County	03	1945CST	.5	20	0	0	3	0			Tornado (F0)
	A small tornado touched ground briefly and damaged a farmstead 3 miles northwest of Halstead.										
Hays, Ellis County	05	1658CST			0	0	4	0			Wind
	Thunderstorm wind gusts estimated at 60 mph hit Hays. Minor damage resulted.										
Logan, Phillips County	05	1756CST			0	0	4	0			Hail
	Golfball size hail fell southeast of Logan.										
Derby, Sedgwick County	06	1730CST			0	0	3	0			Wind
	A thunderstorm with winds of 60-70 mph hit the area around Derby. A mobile home being transported on Interstate Highway 35 was blown off the road.										
Wichita, Sedgwick County	06	1807CST			0	0	2	0			Wind
	Thunderstorm winds estimated at 60 mph caused minor roof damage in northeast Wichita.										
El Dorado, Butler County	06	1955CST			0	0	0	0			Funnel
	A funnel was seen 9 miles south of El Dorado.										
Morris and Wabaunsee Counties	06-07	2300-0015CST			0	0	2	3			Hail, Wind
	A severe thunderstorm developed over Morris County and moved northeast into Wabaunsee County. Hailstones an inch in diameter fell in White City at 2310CST and winds estimated at 60 mph hit Alma at 0000CST.										
Summerfield, Marshall County	07	1430CST			0	0	3	0			Wind
	Thunderstorm winds ripped apart a barn and damaged a farm 1.5 miles west of Summerfield.										
Nemaha, Brown and Doniphan Counties	07	1500-1615CST			0	0	5	2			Wind
	A severe thunderstorm formed west of Corning and moved northeast to near White Cloud and on into Missouri. The storm caused damaging winds and also dropped a tornado (listed separately). Winds blew out windows and damaged roofs in Corning at 1510CST, lifted the roof from a hog barn and damaged sheds 3 miles east of Corning about 1515, and tore limbs from trees 4 miles south of Fairview at 1530CST.										
Hiawatha, Brown County	07	1533-1605CST	18	300	0	5	6	4			Tornado (F2)
	A tornado dropped to the ground 7 miles west and 2 south of Hiawatha and moved northeast. Four miles west of Hiawatha the twister turned straight east along U.S. Highway 36 and then turned north again a little more than a mile west of Hiawatha. It continued on a northeast course and lifted 9 miles north at 5 east of Hiawatha. Five people were injured in the storm; three required hospitalization. One woman died from a heart attack in Hiawatha while the tornado passed west of town. The storm destroyed 5 farm homes, 4 mobile homes, and 43 farm buildings. It damaged 33 other homes and 97 buildings. The twister turned over one semi-trailer truck on Highway 36 4 miles west of town and three others on U.S. 75 about 2 miles north of town.										
Northeast Kansas	07	1740-1945CST	80	15 mi	0	0	5	4			Wind, Hail
	A severe thunderstorm formed over the north part of Riley County west of Randolph and raced east to around Horton. The storm dropped one inch hail near Randolph at 1745CST. Tennis ball size hail and 70mph winds hit Olsburg at 1751. The roof was torn from the Wheaton Post Office at 1900 and downburst winds left three buildings demolished and widespread damage in the downtown area of Wetmore about 1905CST. Inch diameter hail fell in Blaine at 1910, and 3/4 inch fell at Onaga about 1850 and in southeast Brown County at 1945CST.										

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1984

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

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

— KANSAS

Clay County	07	1745CST			0	0	2	3	Hail
A thunderstorm dropped inch diameter hailstones in the east central part of Clay County.									
Northeast Kansas	07-09	Evgng- Evgng			0	0	7	7	Heavy Rain, Flash Flood, Flood
Thunderstorms dropped 4 inches to more than a foot of rain on that part of Kansas north and east of a line from Leavenworth to Manhattan and Marysville. Nine inches to more than a foot fell in a 20 mile wide band from Centralia to Troy. Runoff sent nearly all streams in the area out of their banks. Flood waters sent people from their homes at Louisville on Rock Creek, and at Robinson on Wolf Creek on the 9th. The Black Vermillion flooded some streets in Centralia on the 9th. The spillway was torn from the dam at the State Lake south of Seneca. Floods tore out a great many bridges, roadways and railbeds. The rushing water caused widespread erosion of cropland. Four to five inches of topsoil were washed away in some places.									
Fontana, Miami County	08	1730CST			0	0	4	2	Wind
Thunderstorm winds snapped trees, knocked down power lines and caused minor building damage in Fontana.									
Harper, Sumner, Cowley and Butler Counties	08	1800-2100CST			0	1	5	6	Wind, Hail, Funnels, Lightning
A series of severe thunderstorms spread from Harper east to Cowley and southern Butler counties. Hail and damaging winds accompanied the storms and 4 tornadoes (listed separately) dropped out of them. Hail, wind and funnel reports included: 1800 Golfball size hail at Manchester. 1825 Funnel 2 miles south of Augusta. 1830 Lightning set fire to oil tanks 20 miles east of Augusta. 1830 Inch diameter hailstones at Wellington. 1902 Golfball size hail at Anthony. 1911 Funnel 2.5 miles south of Oxford. 1920 3 funnels; 1 west, 2 northwest and 5 miles west of Winfield. 1930 75 mph winds damaged trees and buildings 4.5 miles south of Oxford. 1945 Wind damage at Burden Fairgrounds on west side of Winfield and minor wind damage throughout the city. 2000 Storm spotter struck by lightning and knocked into a ditch at Harper. Recovered from minor injuries. 2025 Inch diameter hail between Caldwell and Wellington. 2035 Large trees uprooted in Wellington. 2058 Funnel seen just west of Atlanta.									
Ruleton, Sherman County	08	1925CST	Short Narrow		0	0	3	0	Tornado (F0)
A small tornado touched down briefly 6 miles north of Ruleton and damaged several trees.									
Winfield, Cowley County	08	1926CST	Short Narrow		0	0	1	0	Tornado (F0)
A small tornado touched down briefly 1 mile south of Winfield.									
Winfield, Cowley County	08	1928CST	Short Narrow		0	0	1	0	Tornado (F0)
A small tornado touched down 5 miles west of Winfield.									
Rock, Cowley County	08	1930CST	Short Narrow		0	0	1	0	Tornado (F0)
A small tornado touched down 5 miles southeast of Rock.									
New Strawn, Cowley County	08	2000CST			0	0	2	2	Hail
Golfball size hail fell at New Strawn.									
Arkansas City, Cowley County	08	2046CST		1	50	0	0	1	0
A small tornado touched ground in open pasture 7 miles east of Arkansas City.									
East Central Kansas	08-09	Evgng- Evgng			0	0	5	5	Heavy Rain, Flash Flood, Flood
Thunderstorms dropped 4-8 inches of rain east of a line from Fort Scott to Winfield, Council Grove and Kansas City. The rain sent many small streams out of banks in the Marais Des Cygnes, Neosho and Verdigris drainage basins. The Marais Des Cygnes went above flood stage at Quenemo and Pomona on the 9th and the river finally went back in its banks at State Line on the 16th. The river crested between 5 and 11 feet above flood stage along its reach. The Neosho and Verdigris crested 1-2 feet above flood stage.									
Johnson County	08-09	Evgng- Evgng			0	1	7	4	Heavy Rain, Flash Flood, Hail
More than 8 inches of rain fell on much of Johnson County. Many streets and some homes were flooded in Overland Park. Flooding was especially damaging along Indian Creek. Two young women were stranded for eight hours on a median at 103rd and Lowell Streets. One was hospitalized following the ordeal. Hail 1.25 inches in diameter also fell from one of the thunderstorms in Lenexa at 2012CST on the 8th.									
Sheridan, Graham and Rooks Counties	08-09	2130- 0100CST			0	0	5	6	Wind, Hail
A severe thunderstorm packing damaging winds and hail moved from Hoxie to Stockton. Golfball size hail fell in Hill City at 0005CST. Crop damage was severe and widespread.									

— KANSAS

Howard, Elk County	08	2145CST			0	0	3	0	Wind
Thunderstorm winds damaged a roof, porch and garage at a home 2 miles northwest of Howard.									
Wichita, Sedgwick County	08	2225CST			0	0	1	0	Hail
Golfball size hail fell at 44th and Seneca in South Wichita.									
Lyons, Rice County	08	2230-2330CST			0	0	3	4	Hail
A severe thunderstorm moved northeast across Rice County. It dropped 3/4 inch hail at Lyons at 2306CST.									
Clafin, Barton County	08	2330CST			0	0	3	4	Hail
A severe thunderstorm dumped .75 to 1.5 inch hail in the east part of Barton County near Clafin.									
Saline, Ottawa and Dickinson Counties	08-09	2340-0025CST			0	0	3	5	Hail
A severe thunderstorm formed in the southwest part of Saline County and moved east northeast to near Abilene. It dropped golfball size hail in the north part of Saline and south part of Ottawa counties about 0000CST and northwest of Abilene at 0020CST. Considerable crop damage resulted.									
North Central Kansas	09	0000-0330CST			0	0	5	6	Hail, Wind
A group of severe thunderstorms formed from Smith Center to Osborne and moved east to Washington and Clay Center. Hail from the storms caused severe and widespread crop damage. A good many windows were also broken. Hail and wind reports included: 0005 Inch diameter hail at Smith Center. 0020 70 mph wind at Osborne. 0038 Golfball size hail at Esbon. 0057 3/4 inch hail at Lebanon. 0104 1.5 inch hail at Burr Oak and Esbon. 0110 65-75 mph wind and 3/4 inch hail at Alton. 0112 60-70 mph wind and 3/4 inch hail 1 mile west of Bloomington. 0130 Golfball size hail 2 miles west of Randall and 2 north of Glen Elder. 0200 Golfball size hail 2 miles northeast of Norway. 0215 3/4 inch hail 5 miles west of Concordia. 0230 3/4 inch hail at the Concordia Airport. 0240 3/4 inch hail at Clyde. 0245 Golfball size hail in south central Washington County. 0300 Golfball size hail in east central Clay County.									
Dickinson, Geary and Morris Counties	09	1320-1400CST			0	0	0	0	Funnels
Funnel clouds were seen near Chapman at 1320CST, south of Fort Riley and near Latimer at 1335CST, and southwest of Wilsey at 1400CST.									
White City, Morris County	09	1345CST	Short Narrow		0	0	0	0	Tornado (F0)
A tornado touched down briefly 2 miles south of White City.									
Topeka, Shawnee County	09	1520CST			0	0	0	2	Hail
Hailstones 3/4 inch in diameter fell southwest of Topeka at 50th and Auburn Road.									
Osage City, Osage County	09	1605-1715CST			0	0	3	3	Wind, Hail, Funnel
A severe thunderstorm formed west of Osage City and moved east across Pomona Lake. A funnel was seen west of Osage City at 1605, and golfball size hail fell at Lyndon and Pomona Dam at 1715CST.									
Edgerton, Johnson County	09	1826CST			0	0	3	0	Wind
Thunderstorm winds downed trees and caused minor damage to a few homes in Edgerton.									
Doniphan, Atchison, Leavenworth and Wyandotte Counties	09-30				0	0	6	6	Flood
Heavy rains in Nebraska and Iowa sent the Missouri River above flood stage all along the Kansas border from White Cloud to Kansas City on the 9th. The river began to fall during the last part of the month. It crested nearly 7 feet above flood stage at Atchison on the 16th and 9 feet above at Leavenworth on the 21st. The river flooded lowland fields all along its reach. Parts of Elwood were also flooded for a time. More damaging flooding occurred on the Missouri side of the river.									
Ruleton, Sherman County	11	1906CST			0	0	0	4	Hail
Three-quarter inch hail fell 2 miles west and 5 south of Ruleton.									
Goodland, Sherman County	11	1940-2010CST		9	300	0	0	5	0
A tornado touched down 8 miles southwest of Goodland and moved along an intermittent track before ending 1 mile north of Goodland. Damage was mainly to trees, power lines and fences.									
Goodland, Sherman County	11	2001CST		12	400	0	0	5	4
A tornado touched down 5 miles east of Goodland and moved north for 12 miles before lifting. One farmstead was completely destroyed and another heavily damaged. Power lines, trees, fences, irrigation equipment and a gas pumping station were also damaged.									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1984

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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	

— KANSAS

Thomas and Rawlins Counties	11 2200CST	25 200	0 0	5 0	Tornado (F)	A tornado touched down 18 miles northwest of Colby and skipped along an intermittent path and ended 5 miles north of Atwood. Trees, power lines and fences were damaged.			
Gove, Gove County	12 1605CST		0 0	0 0	Funnels	Two funnels were sighted 10 miles southwest of Gove.			
Hoxie, Sheridan County	12 1645CST		0 0	4 2	Hail	Three-quarter inch hail fell at Hoxie.			
Grant and Kearny Counties	12 1645CST		0 0	3 5	Hail	Hailstones 3/4 inch in diameter fell along the Grant-Kearny line north of Ulysses. Widespread crop damage resulted.			
Gove, Gove County	12 1705CST		0 0	3 5	Hail	Golfball size hail fell at Gove. Widespread crop damage resulted.			
Natoma, Osborne County	12 1738CST		0 0	0 0	Funnel	A funnel was sighted near Natoma.			
Speed, Phillips County	12 1820CST	Short Narrow	0 0	0 0	Tornado (FO)	A tornado touched down briefly 3 miles southwest of Speed.			
Garden City, Finney County	12 1830CST	Short Narrow	0 0	0 0	Tornado (FO)	A tornado touched ground briefly 16 miles south of Garden City.			
Osborne, Russell, Mitchell, and Lincoln Counties	12 1840-2040CST		0 0	3 4	Wind, Funnels	A severe thunderstorm formed near Natoma and spread east toward Lincoln and Beloit. Winds estimated at 70mph were reported at Natoma at 1850CST, 8 miles west of Osborne at 1905, and in Cawker City and Glen Elder at 1948. The roof was blown from a mobile home in Osborne at 1950 and 60mph winds hit Sylvan Grove at 2010. Funnels were sighted near Fairport at 1856 and northwest of Glen Elder at 2008CST.			
Finney and Haskell Counties	12 1855CST		0 0	0 0	Funnels	Five funnels were seen near the Finney-Haskell county border west of U.S. highway 83. Some of the funnels may have touched ground momentarily but no damage resulted.			
Leoti, Wichita County	12 1935CST		0 0	3 4	Hail	Baseball size hail fell 3 miles east and 5 north of Leoti			
Trego County	12 1940CST		0 0	0 0	Funnel	A funnel was seen 10 miles west of Ellis.			
Stanton, Grant and Haskell Counties	12 1940-2100CST		0 0	4 5	Hail	A severe thunderstorm formed near Johnson and spread east toward Sublette. It dropped large hail and caused widespread crop damage. Three quarter inch to golfball size hail began falling in Johnson at 1940 and continued for nearly an hour.			
Concordia, Cloud County	12 2023CST		0 0	0 0	Funnel	A funnel cloud was sighted 2 miles northwest of Concordia.			
Rush Center, Rush County	12 2055CST		0 0	4 5	Hail	Golfball size hail fell at Rush Center. Widespread crop damage resulted.			
Garden City, Finney County	12 2118CST		0 0	3 0	Wind	A thunderstorm wind gust was measured at 58mph at the Garden City Airport.			
Finney, Haskell, Kearny and Grant Counties	12- Evng-13 Mrg		0 0	4 5	Flood	One to three inch rains caused minor flooding of small creeks, washes, fields and low areas in the listed counties.			
Marshall and Washington Counties	13- Aftn-16 Mrg		0 0	4 5	Flood	Heavy rains in Nebraska sent the Big and Little Blue Rivers out of their banks. Agricultural flooding was widespread from the Nebraska border to Tuttle Creek Reservoir along both streams. The Big Blue also flooded the west side of Marysville and closed U.S. highway 36 most of the day on the 15th. The Big Blue crested 4.6 feet above flood stage the afternoon of the 15th in Marysville, and the Little Blue crested 9.5 feet above at Barnes that evening. Runoff sent the lake level at Tuttle Creek 35 feet above conservation pool.			
Halstead, Harvey County	13 1755CST		0 0	0 4	Hail	Golfball size hail fell half a mile north of Halstead and caused a good deal of crop damage.			
Elkhart, Morton County	13 1810CST		0 0	3 3	Hail	Golfball size hail fell at Elkhart.			
Reno County	13 1815-1830CST		0 0	0 0	Funnels	Numerous funnels were seen near Yoder and Cheney Lake.			
Yoder, Reno County	13 1835CST	0.5 50	0 0	1 0	Tornado (FO)	A small tornado touched down briefly 1 mile south of Yoder.			

— KANSAS

Pretty Prairie, Reno County	13 1935CST	Short Narrow	0 0	1 0	Tornado (FO)	A small tornado touched down in a pasture 3 miles west of Pretty Prairie.			
Pretty Prairie, Reno County	13 1935CST		0 0	3 0	Wind	Thunderstorm winds caused minor roof and tree damage in Pretty Prairie.			
Marion, Marion County	13 2029CST		0 0	0 0	Funnel	A funnel was seen just west of Marion.			
Scott City, Scott County	13 2200CST		0 0	3 4	Hail	Golfball size hail fell 12 miles east of Scott City.			
Pratt, Pratt County	13- Evng-14 Mrg		0 0	4 3	Flash Flood	More than 4 inches of rain fell in the Pratt area. Low lying areas and small creeks flooded for a short time and a good many basements in Pratt had water in them.			
Salina, Saline County	14 1533CST		0 0	0 0	Funnel	A funnel was sighted over Salina.			
Northeast Kansas	14- Night-15 Aftn		0 0	5 4	Heavy Rain, Flash Flood	Thunderstorms dropped 2-4 inch rains upon that part of Northeast Kansas north and east of a line from Kansas City to Frankfort and Sabetha. Soil was saturated from earlier rains so runoff sent small creeks out of their banks. About 30 residents were evacuated from lowlands near Wolf Creek at Robinson.			
Phillips and Rooks Counties	15 Evng		0 0	5 5	Rain, Flash Flood	Torrential rains of more than 4 inches sent Bow Creek 3 feet out of its banks. Overflow washed out a few country roads in northern Rooks and southern Phillips Counties.			
Topeka, Shawnee County	17 1627CST		0 0	2 0	Wind	A thunderstorm wind gust was measured at 63mph at Topeka's Billard Airport.			
Russell, Russell County	17 1630CST		0 0	0 0	Funnel	A funnel was sighted over Russell.			
Russell County	17 1728CST		0 0	0 0	Funnel	A funnel was seen over southeast Russell County.			
Wathena and Elwood, Doniphan County	17 1730CST		0 0	4 2	Wind	Damaging thunderstorm winds hit the east part of Doniphan County. They ripped the roof from the Elwood Firehouse and broke windows in the Wathena area. A few outbuildings were torn up and several trees were toppled.			
East Central Kansas	21 0000-1200CST	70 30 mi.	0 0	5 5	Heavy Rain, Flood	Thunderstorms dropped 4-8 inches of rain in a 30 mile wide area from northwest of Topeka to Paola. Basements, streets and lowland areas were flooded in Topeka, Lawrence and Paola. Fields were flooded and washed as well.			
Prairie View, Phillips County	21 1755CST		0 0	4 4	Hail	Baseball size hail fell 2 miles west of Prairie View.			
Thomas County	21 1806CST	Short Narrow	0 0	0 0	Tornado (FO)	A small tornado touched down briefly 5 miles northeast of Oakley. No damage resulted.			
Ellis and Rooks Counties	21 1900-2200CST		0 6	6 6	Wind, Hail, Heavy Rain	A series of severe thunderstorms with strong winds and large hail caused extensive damage in Hays and the surrounding area. A number of mobile homes were upset and heavily damaged. Six people sustained minor injuries. A number of other homes and businesses were also damaged. Heavy rains flooded streets and basements in Hays. Crop damage was extensive and severe. Golfball size hail fell near Zurich at 1905CST, near Plainville at 1920 and in Hays at 2125CST.			
Gorham, Russell County	21 2115CST		0 0	0 0	Funnel	A funnel was sighted 4 miles north and 3 east of Gorham.			
Lincoln, Ellsworth, Saline, Ottawa and Dickinson Counties	21 2130-2330CST		0 0	3 5	Wind, Hail, Funnel	A line of severe thunderstorms formed between Wilson and Lincoln then moved east through Abilene. The storms packed damaging winds and some large hail. Winds estimated at 60-65mph hit Sylvan Grove at 2140, Ellsworth at 2220, northern Saline and southern Ottawa Counties at 2225, and eastern Dickinson County at 2317CST. A funnel was seen at Wilson at 2143 and 3/4 inch hail fell 8 miles northeast of Abilene at 2256CST.			
Wichita, Sedgwick County	22 1445CST	.75 50	0 0	0 1	Tornado (FO)	A small tornado touched down for a short time in a wheat field 7 miles south of Wichita's Mid-Continent Airport.			
Wichita, Sedgwick County	22 1455CST	Short Narrow	0 0	0 1	Tornado (FO)	A small tornado touched down briefly in a wheat field 6 miles southwest of Wichita's Mid-Continent Airport.			

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1984

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

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KANSAS

Segwick and Butler Counties	22 1500-1615CST	A severe thunderstorm developed over the south part of Wichita and moved through El Dorado. Wind and hail reports included: 1510 Tree and power line damage in South Wichita at 95th & Ridge Road 1515 3/4 inch hail and 50-60mph winds at Haysville 1519 1 inch hail and 64mph winds measured at McConnell Air Force Base and adjacent Boenig Plant in Southeast Wichita. 1522 Golfball size hail in Southeast Wichita at K-15 and 55th Street South. 1544 50-60mph winds at Andover 1600 Funnel sighted 3 miles southwest of El Dorado.	0	0	4	4	Wind, Hail
Ellis, Ellis County	22 1610CST	Short Narrow A small tornado touched down briefly a mile south of Ellis. No damage resulted.	0	0	0	0	Tornado (F0)
Hays, Ellis County	22 1615-1700CST	Strong thunderstorm winds and large hail caused scattered property damage in Hays. The hail also caused a good deal of crop damage in the area around Hays. Winds estimated at 60mph and golfball size hail hit Hays at 1630 and 70mph winds were reported in the city at 1650CST.	0	0	5	4	Wind, Hail
Southern Russell County	22 1645-1730CST	A severe thunderstorm crossed the south half of Russell County. Winds were estimated at 60-70mph just west of Gorham at 1645CST, 70mph winds hit Russell at 1700, and a gust was measured at 63mph at the Russell Airport at 1705CST.	0	0	3	4	Wind
Cottonwood Falls, Chase County	22 1745CST	Thunderstorm winds estimated at 70mph caused minor roof and tree damage in Cottonwood Falls.	0	0	2	0	Wind
Melvern Lake, Osage County	22 1900CST	Thunderstorm winds measured at 58mph pushed a sailboat into the dam, blew down tents and pushed campers off their stands at Melvern Lake.	0	0	3	0	Winds
Kingman, Kingman County	23 1345CST	Thunderstorm winds damaged a mobile home and barn 2.5 miles south of Kingman.	0	0	3	0	Wind
Turon, Reno County	23 1400CST	1 30 A tornado destroyed a barn, took the roofs off two houses and twisted a circle irrigation system 3.5 miles south of Turon.	0	0	4	0	Tornado (F1)
Goddard, Segwick County	23 1411CST	A funnel was seen 1.5 miles south of Goddard.	0	0	0	0	Funnel
Sumner County	23 1430-1500CST	A severe thunderstorm moved east across Sumner County. Winds estimated at 60-70mph hit Argonia at 1430CST and destroyed a machine shed 3 miles east of Wellington at 1438. The Wellington Airport recorded a wind gust of 60mph at 1447.	0	0	3	0	Wind
Sherman County	24 1740-1900CST	A severe thunderstorm dropped large hail in parts of Sherman County. Golfball size hail in Ruleton at 1750CST and 7 miles north of Goodland at 1841.	0	0	4	4	Hail
Cloud and Ottawa Counties	25 1830-1930CST	A severe thunderstorm crossed the north part of Ottawa and south part of Cloud Counties. Inch diameter hailstones fell in southern Cloud County at 1845CST and in northern Ottawa County at 1920.	0	0	3	5	Hail
Republic and Washington Counties	25 1930-2030CST	A severe thunderstorm formed east of Belleville and moved east through Washington. Inch diameter hail fell in Cuba at 1933CST, 1.5 inch fell near Agenda at 1955 and golfball size fell in eastern Washington County at 2015CST.	0	0	3	5	Hail
Osborne and Mitchell Counties	25 1950-2100CST	A severe thunderstorm formed around Downs and moved toward Beloit. Inch diameter hailstones fell in the north part of Mitchell County at 2020CST.	0	0	3	5	Hail
Russell, Russell County	25 2100-2200CST	A severe thunderstorm crossed the north part of Russell County. Golfball size hail fell 10 miles north of Russell at 2155CST.	0	0	3	5	Hail
Hays, Ellis County	25 2105CST	Thunderstorm winds estimated at 60mph hit Hays.	0	0	4	0	Wind
Nemaha County	26 2130CST	Hail the size of marbles and a little larger dropped on the north and west sections of Nemaha County. Widespread crop damage resulted.	0	0	2	5	Hail

KANSAS

Lincoln County	26 2300-2400CST	A severe thunderstorm dropped large hail on parts of Lincoln County. Hailstones 3/4 inch in diameter fell in Denmark at 2315CST. Considerable crop damage occurred around Vesper.	0	0	3	5	Hail		
Ellsworth, Ellsworth County	26 2330-27 0030CST	A severe thunderstorm accompanied by large hail and damaging winds crossed Ellsworth County. Inch diameter hail fell in Ellsworth at 2345CST. A barn was blown down near Ellsworth.	0	0	4	5	Wind, Hail		
Geneseo, Rice County	27 0010-0100CST	A thunderstorm dropped large hail on parts of Rice County. Hailstones 3/4 inch in diameter fell in Geneseo at 0038CST.	0	0	2	4	Hail		
Greensburg, Kiowa County	28 1630CST	Hail the size of golfballs fell in Greensburg. A considerable amount of drop damage resulted in the area near the town.	0	0	2	4	Hail		
Northeast and East Central Kansas	28 1630-1900CST	100 30 mi A cluster of severe thunderstorms moved from Nebraska into Northeast Kansas between Marysville and Hiawatha. They continued south into Osage County around Melvern Lake. The storms packed winds of 60-80mph and a great deal of golfball size hail. The hail shredded crops all along its path. A home in rural Emmett also burned as a result of a lightning strike. A brief heavy rain flooded streets briefly in South Topeka around 1840CST. Reports included: 1630 70-80mph wind at Sabetha 1645 Golfball size hail and 70mph wind at Fairview 1735 Golfball size hail at Holton 1755 1.5 inch hail and 60mph wind at Hoyt 1820 60mph wind 15 miles north of Topeka 1825 Golfball size hail west of Topeka at I-70 and Valencia Rd. 1832 60mph wind at Rossville 1838 Golfball size hail southwest of Topeka at 61st and Wanamaker 1840 Golfball size hail in the central part of Topeka 1845 1 inch hail at Auburn 1900 2 inch hail at Scranton	0	0	5	6	Wind, Hail, Lightning		
Washington, Clay and Dickinson Counties	28 1720-2130CST	A cluster of severe thunderstorms moved out of Nebraska north of Washington and drifted south through Herington. The storms packed strong winds and large hail. Widespread crop damage resulted. Reports included: 1749 3/4 inch hail at Hanover 1759 1 inch hail a mile south of Washington 1907 3/4 inch hail at Green 1918 60mph wind and 1 inch hail 10 miles southeast of Clay Center 1950 3/4 inch hail at Wakefield 2000 60mph winds downed power lines north of Abilene 2015 1 inch hail at Woodbine 2043 Golfball size hail near Hope 2100 Funnel sighted near Moonlight 2110 Golfball size hail near Herington	0	0	3	5	Hail, Wind		
South Central Kansas	28 1845-2200CST	A series of severe thunderstorms moved north to south across Reno, Kingman, Sedgwick, Butler, Sumner and Cowley Counties. Winds of 75-90mph tore through two mobile home parks in Mulvane at 1945CST and damaged more than 100 mobile homes and a nearby warehouse. Most other wind damage was minor. Some hail also fell from the storms and caused a good amount of crop damage. Lightning hit a hay barn 2 miles south of Winfield about 2030 and the resulting fire left it a total loss. Other reports included: 1845 Golfball size hail flattened a wheat field north of Sylvia 1907 3/4 inch hail at Kingman 1915 Wind damaged outbuildings and a pickup 2 miles west of Conway Springs 1928 50-60mph winds at Cheney 1945 Funnel sighted at Peck 2008 Golfball size hail at Udall 2013 Funnel sighted just south of Belle Plaine 2028 Funnel sighted 5 miles south of Winfield 2200 1/2 to 3 inch hail covered the ground in Augusta	0	0	5	4	Wind, Hail, Lightning, Funnels		
SPECIAL HAIL SUMMARY									
Kansas-Oklahoma Hail Loss Service reports indicate hail was especially damaging to crops on the following dates in the listed counties.									
01 Barton, Finney, Greeley, Hodgeman, Kearny, Lane, Ness, Pawnee, Scott, Wichita									
05 Kiowa, Morris									
06 Dickinson, McPherson									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

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					KILLED	INJURED	PROPERTY	CROPS	

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KANSAS

07	Dickinson, Doniphan, Marion, Morris								
08	Barber, Butler, Cowley, Dickinson, Graham, Harper, Jewell, Kingman, McPherson, Marion, Nemaha, Pratt, Reno, Republic, Rooks, Saline, Sedgwick, Sheridan, Smith, Sumner, Thomas								
09	Cloud, Graham, Harper, Jewell, Osborne, Phillips, Reno, Republic, Rooks, Sheridan, Smith, Thomas								
10	Reno, Stanton								
12	Barton, Finney, Gove, Grant, Gray, Hamilton, Haskell, Hodgeman, Kearny, Ness, Rush, Stanton								
13	Harvey, Haskell, Pawnee, Scott, Stevens								
16	Rawlins, Rush								
21	Ellis, Graham, Norton, Rooks, Saline, Trego								
22	Dickinson, Ellis, Lincoln, Marion, Morris, Ottawa, Republic, Saline, Sedgwick, Trego, Washington, Wichita								
23	Edwards, Kingman, Pratt, Reno, Stafford								
25	Cloud, Ford, Grant, Gray, Lincoln, Mitchell, Osborne, Ottawa, Republic, Russell, Scott, Stevens, Trego								
26	Atchison, Brown, Ellsworth, Lincoln, Mitchell, Nemaha, Rice								
27	Clay, Dickinson, Edwards, Ellsworth, Hodgeman, Jackson, Lincoln, Pawnee								
28	Anderson, Brown, Clay, Comanche, Cowley, Dickinson, Geary, Jackson, Jefferson, Kiowa, McPherson, Marion, Marshall, Morris, Nemaha, Osage, Reno, Riley, Shawnee, Stafford, Sumner, Wabaunsee, Washington								

15 KENTUCKY

Laurel County	17	Uncertain	0	4	0	0	Thunderstorm/ Lightning	
			Four golfers were injured (none seriously) at the London Country Club when lightning struck a nearby tree then jumped to where the four were standing.					
Southwest Hopkins County	19	1530CST	0	0	4	0	Thunderstorm/ Lightning	
			At Dawson Springs lightning hit an air conditioner and furnace and caused a fire in a mobile home. The trailer was ruined. Lightning caused an attic fire in another home but caused little damage.					
Shelby County	19	Late Aftn	0	0	3	0	Thunderstorm/ Lightning	
			In Shelbyville fire destroyed the roof and ceilings of a home struck by lightning.					
Wolfe County	20	After Dark	0	0	2	3	Thunderstorm/ Wind	
			Near Baptist, Kentucky high winds and heavy rain toppled trees and ruined crops in several farms.					
Edmonson County	20	Uncertain	0	0	3	2	Thunderstorm/ Lightning	
			Fire caused by lightning destroyed a barn full of hay near Windyville.					
Marshall County	22	1530CST	0	0	4	0	Thunderstorm/ Winds	
			At Hardin extremely high winds lifted a mobile home from its foundation and flipped it four times onto a busy highway. Numerous large trees were split at their bases.					
Southern Fulton County	22	After Dark	0	0	3	0	Thunderstorm/ Winds	
			At Fulton high winds blew the roof off a public works building. The storm also uprooted several trees in the area.					
Trimble County	23	2015EST 1/8	50	0	1	3	0	Tornado (F1)
			In Bedford a small tornado produced damage to parts of roofs, a few windows and one large antenna on top of the school. Several trees were uprooted along the path of the tornado. One tree fell immediately in front of a truck slightly injuring its driver.					

KENTUCKY

Calloway County	28	1800CST	0	0	2	0	Thunderstorm/ Winds	
			At Murray city police reported high winds caused minor damage to two homes in town.					
16 LOUISIANA								
Rapides and Evangeline	07	Early Mrgng			6		Flash Flooding	
			Rainfall amounts of 7 to 11 inches fell over these two parishes beginning around midnight and ending by mid-morning. Severe local flooding was reported in Alexandria and the northern portion of Evangeline Parish in the Turkey Creek area. Between 100 and 200 homes were reported to have received water damage along with a number of businesses. There were no reports of injuries or deaths.					
Avoyelles Parish	07	0055CST 1	100	3	5		Tornado (F2)	
			A tornado touched down in Moreauville destroying two homes, downing power lines and destroying numerous trees and outbuildings. Three persons received minor injuries.					
Terrebonne Parish	10	Aftn			5		Lightning	
			Lightning struck an oil storage tank causing a large fire that destroyed the tank, an oil rig, and a portion of pipeline.					
Assumption Parish	12	1540CST					Funnel Cloud	
			A funnel cloud was sighted near Napoleonville.					
Assumption Parish	14	1430CST			5		SVR TSTM	
			A severe thunderstorm produced high winds that severely damaged 3 homes and uprooted numerous trees in the Brule and St. Vincent areas. No reported injuries.					
Evangeline Parish	15	Night			4		SVR TSTM	
			A severe thunderstorm produced high winds at Basile that destroyed several city owned buildings.					
Plaquemines Parish	15	AFTN			4		SVR TSTM	
			A severe thunderstorm snapped power poles and unroofed several buildings in Buras.					
Catahoula Parish	18	1300CST			?		SVR TSTM	
			A severe thunderstorm produced scattered areas of wind damage in Jonesville.					
St. Tammany Parish	23	1445CST			4		SVR TSTM	
			A severe thunderstorm produced hail .75 inch in diameter and 5 inches of rain in 90 minutes causing severe street flooding in Slidell. Lightning also caused one house to catch fire.					
Tangipahoa Parish	29	1310CST			?		SVR TSTM	
			A severe thunderstorm produced what was described as large hail and violent winds that uprooted numerous trees near Hammond.					
17 MAINE								
Lewiston & Auburn Androscoggin County	04	1040EST			0	0	? ? Severe Thunderstorm	
			A severe thunderstorm produced hail one-inch in diameter.					
Turner & Minot, Androscoggin County	04	1048EST			0	0	? ? Severe Thunderstorm	
			A severe thunderstorm produced golf-ball size hail.					
Poland Spring, Androscoggin County	04	1055EST			0	0	? ? Severe Thunderstorm	
			A severe thunderstorm produced hail one inch in diameter.					
New Gloucester, Cumberland County	04	1055EST			0	0	? ? Severe Thunderstorm	
			A severe thunderstorm produced hail one inch in diameter.					
Waterville, Kennebec County	11	1300EST			0	0	2 0 Severe Thunderstorm	
			A severe thunderstorm produced high winds that took down trees and power lines.					
Ellsworth, Hancock County	11	1420EST			0	0	2 0 Severe Thunderstorm	
			A severe thunderstorm produced high winds, taking down trees and power lines.					
Wells, York County	14	1745EST			0	0	3 0 Severe Thunderstorm	
			A severe thunderstorm produced very strong winds. Trees and power lines were downed. One tree landed on a new car. Power was out for 5 hours.					

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18 MARYLAND and D.C.

Eldersburg	6 1430EST	Two Eldersburg homes were struck by lightning. Only light damage was inflicted.	0	0	3	0	Lightning
Eastern Shore	6 Evening	Lightning caused a farm building fire near Royal Oak, Talbot County. Elsewhere, a power surge by a nearby lightning strike also set fire to a trailer near the community of Queen Anne, close to the Talbot-Queen Annes county line. Damage was minor.	0	0	3	0	Lightning
Anne Arundel County	7 2200EST	Thunderstorms moved through central and southern portions of the county downing trees and interrupting electrical service. At least 15 trees had to be removed from county roads. At Cape St. Claire a home was extensively damaged when a large tree was uprooted and crashed through the roof and one side.	0	0	4	0	Wind, Lightning
Wye Mills	10 Morning	Scattered thunderstorms brought locally strong winds to the mid Eastern Shore region. This caused irreparable damage to the historic Wye Oak tree...said to be 444-years old. A supporting cable snapped, sending a huge 20- to 30-ton limb of the ancient tree crashing to the ground.	0	0	?	0	Wind
Montgomery County, Washington, D.C. & Prince Georges County	18 1530EST	A series of thunderstorms, outstanding for the amount of lightning contained in them, moved across the area causing power outages and a number of lightning strikes upon homes. No damage of significance was reported.	0	0	0	0	Lightning, Wind
Frederick County	18 Late Afternoon & Evening	Two separate thunderstorms, one at 1630E and the other at around 2200E, produced a number of electrical interruptions in and around Frederick and vicinity.	0	0	0	0	Wind, Lightning
Hagerstown	18 1700EST	A 16-year-old youth was listed in fair condition after being struck while he was listening to a radio in a barn next to his house.	0	1	0	0	Lightning
Baltimore	18 2320EST	Thunderstorm wind gusts to near 40 mph knocked out power to over six thousand homes in the Baltimore metropolitan area.	0	0	3	0	Wind
Eastern Shore	18 2300-2400EST	An apparent downburst wind associated with thunderstorm activity uprooted a number of 16-inch diameter trees near a home in Royal Oak, Wicomico County. More than 500 homes lost electricity for a time in the community of Trappe, Talbot County. Damage was light.	0	0	3	0	Wind
Washington, D.C., Prince Georges & Charles Counties	28 1545-1800EST	A weak cold front set off locally severe thunderstorms as it moved southeastward through the area. In Prince Georges County hail ranging from pea-size to around one inch in diameter fell in the Landover area at 1545E...and in Largo and Camp Springs around 1615E...while about 10,000 homes in the Washington area were temporarily without power. Waldorf, in Charles County, reported hail at 1700E. Hail through the region damaged local gardens and tobacco fields.	0	0	3	0	Hail, Wind
Cecil, Harford & Baltimore Counties	30 Afternoon-Evening	Heavy showers accompanied a slow-moving cold front and resulted in some local flooding late in the evening. (Flooding was to become more serious as downpours continued into the early hours of July 1st.)	0	0	3	0	Rain

19 MASSACHUSETTS

Western, Central & Northeastern portion	1-2 All Day	Serious flooding continued along all rivers and many farmlands remained flooded from very heavy rainfall that totaled between 6 and 9 inches since May 28th. Flood control projects saved many millions of dollars in damage along the major rivers as reservoirs reached just about the highest levels on record. The more than 4,000 people evacuated from their homes slowly returned to their homes during the first week of the month. The Governor asked for federal aid to farmers in five western counties. Rivers gradually receded from the highest levels in thirty to fifty years during the first week of June.	0	0	?	?	Flooding
Taunton-Attleboro area	7 1315-1515EST	A motorcyclist was struck and injured by lightning when he stopped to wait out a storm under a tree in Norton. Several hundred electric customers lost electricity. Lightning ignited a closet afire in a home in Taunton and thunderstorm winds knocked down several large trees.	0	1	3	0	Lightning, Wind

MASSACHUSETTS

Harvard-Ayer area	7 1640-1700EST	Numerous lightning strikes and gusty thunderstorm winds knocked out most of the electric power as many tree limbs and some trees were felled. Power was restored in several hours.	0	0	3	0	Lightning, Thunderstorm Winds and Heavy Rain		
North Quincy	11 1630-1640EST	Two trailers were overturned, a few trees uprooted, and stones were blown off the roof of a building, damaging autos in a parking lot. Damage was confined to a quite small area.	0	0	3	0	Downburst Wind		
Western and Central portion	13 Late Afternoon	Numerous power outages were reported from communities across the area as a scattering of severe thunderstorms moved through the region. A motorist was injured in Southboro when a tree limb crashed through the windshield of his car. In Palmer, a house was damaged by a falling tree. About 10,000 electric customers lost power in the Northampton area and lightning killed a cow and two calves in South Hadley.	0	1	4	0	Thunderstorm Winds		
2 mi. north of Gera, Saginaw Co.	05 0900EST	Industrial building and contents burned.	0	0	5	0	Lightning		
Menominee, Menominee Co.	08 1330EST	Girl Struck by falling branch.	0	1	0	0	Thunderstorm		
1 mi. NE of Bennington, Shiawassee Co.	10 1443EST	Roof torn from house. Considerable damage to several nearby buildings.	0.2	20	0	4	0	Tornado (F2)	
1 mi. N. of Perry and near Lenon, Shiawassee Co.	10 2008-2016EST	2 sightings, 15 miles apart.	0	0	0	0	0	Funnel cloud	
3 mi. SW of Bay City to 1-mi. NW of Pinnebog, Huron Co.	12 1820-1900EST	Funnel cloud aloft observed by 4 spotters during 10 minutes prior to touchdown. Semi-trailer turned over and blown through warehouse wall at first touchdown. Lifted as it moved into Bay City. Many trees down and autos damaged but path became indistinct. Coast Guard at mouth of Saginaw river reported gust at 81mph. Sailboat capsized on Bay. Touched down again on Saginaw Bay. Apparently reached maximum intensity as it moved. Onshore at south edge of Bay Port at 1850 EST. Track very narrow for about 5 miles, then broadened and gradually became indistinct. Swath of debris 3 1/2 wide at end of track. 4 houses, 21 barns, 5 silos, 12 outbuildings, 2 mobile homes, 3 farm machines destroyed. Thousands of trees down. Two men driving tractors cut by broken glass.	48	500	0	2	6	0	Tornado (F3)
2mi. S of Caseville, Huron Co.	12 1855EST	2 occupants injured when car was struck by 3 successive bolts of lightning. Tornado was about 1 mile to the south.	0	2	0	0	0	Lightning	
Uby, Sanilac Co.	12 2004EST	Man connecting TV antenna wire seriously injured.	0	1	0	0	0	Lightning	
Jonesville area, Hillsdale Co.	13 1050-1130EST	3/4" hail 4mi. west of Jonesville, trees down blocking road 3 mi. east.	0	0	0	0	0	Thunderstorm	
7 mi. ENE of Selkirk, Ogemaw Co.	13 1510EST	Touched down on southeast corner of Sage Lake. Boats and docks thrown onto shore. Two cottages unroofed. Funnel seen. Narrow path of destruction 1/2 mi. southeastward through woods to another house where the occupant heard a roaring noise and a garage was destroyed.	0.8	35	0	0	5	0	Tornado (F1)
Wayne Co.	13 1605-1700EST	3/4" hail and gusts to 48 mph at Metropolitan Airport. Airliner crash landed, injuring 5 persons. Trees and wires down throughout county. 5000 customers lost power.	0	0	5	0	0	Thunderstorm	

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					KILLED	INJURED	PROPERTY	CROPS	PROPERTY	CROPS	
— MICHIGAN											
Lenawee and Monroe Counties	13	1700-1800EST			0	0	4	0			Thunderstorm
											Many trees and powerlines down. 4500 customers lost power.
Norton Shores, Muskegon Co.	17	2245EST			-0	0	5	0			Lightning
											Restaurant destroyed by fire.
Monroe Co.	18	1245-1500EST			0	0	4	0			Thunderstorm
											Wind and lightning caused widespread minor power outages.
Sebewaing, Huron Co.	23	1715EST			0	2	0	0			Lightning
											Woman carrying an umbrella, which was struck, hurt seriously. Another woman standing nearby was hurt slightly.
Gogebic Co.	26	1700EST			0	0	3	0			Thunderstorm
											Many trees down. 2 vehicles damaged. Minor power outage. Gusts to 52 mph at Ironwood Airport.
Escanaba, Delta Co.	26	1710EST			0	0	3	0			Thunderstorm
											Many large trees blown down or split by lightning.
Marquette, Marquette Co.	26	1815EST			0	0	0	0			Hail
											3/4" hail stones.
21 MINNESOTA											
Rice County	4	1245-1342CST			0	0	4	0			Wind
											Thunderstorm winds hit the southeast section of Rice County. Trees and power lines were knocked down near County Road 15 east of Morristown.
Janesville (Waseca County)	4	1437CST	1.5	200	0	0	5	0			Tornado (F1)
											The tornado began just northeast of Janesville off Highway 14 and moved northeast. One barn was knocked down and the roofs of two hog confinement buildings were damaged. Debris was scattered for 1/2 mile.
Waseca County	4	1440-1510CST			0	0	4	0			Wind
											Thunderstorm winds moved from southeast of Janesville to near Reeds Lake. Roofs were torn off at several locations.
Rice County	4	1545CST	Short Narrow		0	0	0	0			Tornado (F0)
											Tornado touched down briefly in a field off Highway 46 three miles north of Faribault.
Wendell (Grant County)	4	1550CST	Short Narrow		0	0	0	0			Tornado (F0)
											Tornado touched down briefly 1 1/2 miles north of Wendell.
Ottertail County	4	1612CST			0	0	0	0			Funnel
											Funnel observed 10 miles south of Fergus Falls.
Glyndon (Clay County)	4	1632CST	Short Narrow		0	0	0	0			Tornado (F0)
											Tornado touched down briefly 2 miles northeast of Glyndon.
Le Center (Le Sueur County)	4	1700-1730CST			0	0	3	0			Wind
											Thunderstorm winds destroyed a garage 2 1/2 miles southeast of Le Center and another 4 1/2 miles southeast of Le Center. Automobiles at both sites were damaged from flying debris.
Clay County	4	1729CST			0	0	0	0			Funnel
											Funnel Observed in Kragnes area.
Ellsworth (Nobles County)	4	1942CST			0	0	3	0			Wind
											Thunderstorm winds uprooted trees and damaged buildings in Ellsworth.
— MINNESOTA											
Jackson County and Cottonwood County	4	2028CST			0	0	0	0			Funnel
											Funnel observed just west of Windom on Jackson and Cottonwood County Line.
Benson (Swift County)	5	1928CST			0	0	0	0			Hail
											Golfball size hail reported in the city of Benson.
Hennepin County	5	2037CST			0	0	0	0			Hail
											Golfball size hail reported just east of Lake Calhoun.
Becker (Sherburne County)	5	2220CST			0	0	4	0			Wind
											Thunderstorm winds caused extensive tree damage and knocked down power lines in the city of Becker.
Lake Henry (Stearns County)	5	2250CST			0	0	0	0			Funnel
Eden Valley (Meeker County)	6	0334CST			0	0	4	0			Wind
											Thunderstorm winds moved two trailer homes off their foundations and broke many windows in the city.
Hennepin County	6	1525-1545CST			1	0	4	0			Wind
											Thunderstorm winds knocked down numerous branches and power lines in Wayzata, Deephaven, Excelsior, Long Lake and on the east side of Lake Minnetonka. A golfer was struck and killed by a falling limb on a golf course in Orono.
Elk River (Sherburne County)	6	1548CST			0	0	0	0			Wind
											Thunderstorm winds reached 60 miles per hour in Elk River.
Wright County	6	1605CST			0	0	4	0			Wind
											Thunderstorm winds downed trees and damaged homes 10 miles east of Buffalo.
Crow Wing County	6	1630CST			0	0	3	0			Wind
											Numerous trees and power lines were knocked down from Brainerd to Deerwood.
Aitkin (Aitkin County)	6	1725CST			0	0	3	0			Wind
											Thunderstorm winds knocked down trees and power lines in the vicinity of Aitkin.
Hoffman (Grant County)	7	1310CST			0	0	0	0			Funnel
											Funnel sited 1 1/2 miles southwest of Hoffman.
Sibley County	7	1330CST			0	0	4	0			Wind
											Thunderstorm winds hit and destroyed a trailer home 4 miles east of Gaylord. The trailer home was lifted and dropped 40 feet from its original position.
Northeast Douglas County	7	1500-1545CST			0	0	0	6			Hail, Wind
											Marble to golfball size hail damaged a 12 square mile area in the northeast corner of Douglas County. Strong thunderstorm winds drifted hail into rows a foot high.
Edina (Hennepin County)	7	1505CST			0	0	0	0			Wind
											Thunderstorm winds reached 70 mph at the Southdale Shopping Center.
Anoka County	7	1510CST			1	0	0	0			Lightning
											Construction worker killed by lightning on the roof of a house in Oak Grove Township.
Hubbard County	7	1515CST			0	0	0	0			Funnel
											Funnel sited in rural area of northern Hubbard County moving northeast in the direction of Bemidji.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1984

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	

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MINNESOTA

Stevens County	7	1525CST								Funnel
Funnel sited 20 miles west of Morris moving north.										
White Bear Lake (Ramsey County)	7	1527CST								Wind
Thunderstorm winds reached 60 mph along Highway 694.										
Grant County	7	1530CST								Funnel
Funnel sited 20 miles north of Morris.										
Stevens County	7	1532CST								Funnel
Funnel sited 3 miles west of Donnelly.										
Blue Earth (Faribault County)	7	1735CST					4			Lightning
Lightning struck a power transformer and shattered several porcelain switches.										
Southeast	7	1735-2015CST			0	2	5			Wind
An area of thunderstorms that spawned tornadoes initially moved into Faribault County from Iowa. This area of thunderstorms moved east along the Iowa border but also surged northeast. Numerous reports of wind damage were received east of a line from Blue Earth to Waldorf to Faribault to Cannon Falls. Gusts were reported to 81 mph in Albert Lea at 1825CST, 70 mph in Faribault at 1851CST, 68 mph in Rochester at 1905CST and 75 mph near Stockton at 1950CST. Two women were injured five miles east of Blue Earth when winds knocked their camper pickup off Highway 90. Two airplanes and three hangars were damaged and a trailer home was demolished east of Dodge Center. Buildings and airplanes also received wind damage at an airport near Blooming Prairie. There were numerous reports of damage to homes and farm sites across southeast Minnesota from thunderstorm winds. Power outages were also common. Five 60 ft. transmission poles were snapped near Bixby and a mile of transmission poles near Claremont were knocked over to a 45 degree angle.										
Freeborn County	7	1815CST	6	80	0	0	5			Tornado (F1)
A tornado began 3 miles southeast of Albert Lea and skipped across the ground as it moved northeast through Pickereel Lake township into Manchester township. Damage occurred to trees, homes and farm sites at 13 locations before the tornado dissipated three miles south of Manchester.										
Albert Lea (Freeborn County)	7	1819CST	14	100	0	12	7			Tornado (F3)
The tornado struck near an industrial park southeast of Albert Lea near Highway 65 then moved north. The tornado moved across Highway 35 & 65 near their intersection and across Albert Lea Lake. After crossing Albert Lea Lake the tornado continued to move north through Bancroft township. The tornado's damage path ended two miles south of Clark's Grove. The tornado ripped houses from their foundations, destroyed the Albert Lea Ambulance Service building on the south side of town and tossed cars and trucks around at numerous locations. Thirteen houses and four businesses were totally destroyed. Damage also occurred to an additional 51 houses, 8 commercial properties and 16 farms.										
Waldorf (Waseca County)	7	1820CST	1	50	0	0	3			Tornado (F1)
A tornado knocked down trees and flying debris caused minor building damage at two farm sites two miles east of Waldorf. Residents reported seeing a funnel cloud from their farm house before the damage occurred. Large trees were twisted off and knocked down.										
Freeborn and Steele Counties	7	1825CST	18	80	0	0	6			Tornado (F1)
A tornado began 10 miles east of Albert Lea and one mile south of Highway 90 in Dakland township. The tornado moved north causing damage to four home and farm sites along a four mile damage path. The tornado touched down again two miles south of Hollandale and caused a six mile long damage path before lifting again just east of Geneva. The hangar at a crop dusting airport in Hollandale and nearby grain bins were destroyed. The tornado touched down again briefly at a farm site between Geneva and Ellendale in Steele County. The farm house was damaged and several farm buildings destroyed.										

MINNESOTA

Austin (Mower County)	7	1836CST	5	100	0	7	6	0		Tornado (F2)
A tornado struck in the southern outskirts of Austin knocking down trees and farm buildings then moved northeast. The heaviest damage occurred at a bowling alley in southeast Austin off Highway 218. The roof on the east side of the bowling alley as well as a wall was knocked down. Debris was blown inside the building as well as across the street. Three cars in the parking lot were tossed about and a truck driver broke a collarbone when his truck was blown off Highway 218. The tornado also destroyed a home and TV repair shop across the street from the bowling alley before crossing an open field. The tornado went on to cause damage to the Austin Country Club and flipped over a mobile home east of Austin before dissipating although there were 45 people in the bowling alley only 6 received injuries.										
Austin	7	1844CST			0	0	0	0		Funnels
Several funnels were sited south of the Austin Airport.										
Grant County	7	1855CST			0	0	0	0		Funnel
Funnel sited four miles west of Elbow Lake.										
Douglas (Olmsted County)	7	1915CST	1	50	0	0	5			Tornado (F1)
A tornado touched down at a farm site three miles east of Douglas and moved north. The tornado ripped one barn apart and scattered the debris for 300 yards. A second barn was lifted from its foundation and destroyed. Trees were uprooted at the farm site and debris was found twisted.										
Fillmore and Winona Counties	7	1926CST			0	0	0	0		Funnel
Funnel observed near Spring Valley moving northeast toward Chatfield.										
Douglas (Goodhue County)	7	1935CST	2.5	50	0	0	4			Tornado (F0)
A tornado struck a farm site near the intersection of Highways 52 & 1 in Leon township. The tornado blew the windows out of a car, uprooted trees, drove a steel post from a highway sign into a camper and damaged a home. The tornado moved north and ripped the roof off a barn at another farm site a few miles away.										
Springfield (Brown County)	12	0045CST			0	0	0	0		Wind
Thunderstorm winds reached 60 miles per hour at Springfield.										
Little Falls (Morrison County)	12	0330CST			0	0	4			Lightning
Lightning started a house fire which resulted in extensive damage.										
Polk County	12	1500-1730CST			0	0	0	5		Hail
Hail damaged crops over a 30 mile long path through Polk County. The largest hail was 2 inches in diameter.										
Dorothy (Red Lake County)	12	1730CST			0	0	0	0		Hail
Golfball size hail fell at Dorothy.										
Red Lake (Beltrami County)	12	1945CST			0	0	3			Wind
Thunderstorm winds knocked down trees and power lines and damaged the roof of a home at the Red Lake Indian Agency.										
Red Lake (Beltrami County)	12	2049CST			0	0	3			Wind
Thunderstorm winds knocked trees and power lines down just south of Red Lake.										
Mizpah (Koochiching County)	12	2110CST			0	0	0	0		Hail
Hail 1 inch in diameter fell at Mizpah.										
Hendricks (Lincoln County)	14	0959CST			0	0	0	0		Funnels
Three funnels observed in the vicinity of Hendricks.										

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1984

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MINNESOTA

Taopi (Mower County)	16 1920- 1930CST								0 0 4 0	Wind
Thunderstorm winds caused a narrow damage path through two farm sites to the south and east of Taopi. Winds destroyed two cattle sheds and blew farm equipment and debris around the farm sites.										
Howard Lake (Wright County)	17 1546CST								0 0 0 0	Funnel
Wabasha (Wabasha County)	17 1610CST								0 0 0 0	Funnel
Mantorville (Dodge County)	17 1645CST								0 0 0 0	Funnel
Funnel sited northwest of Mantorville.										
Maple Plain (Hennepin County)	17 1658CST								0 0 0 0	Funnel
Pine Island (Goodhue County)	17 1715CST								0 0 0 0	Funnel
Funnel sited southwest of Pine Island moving east northeast.										
Rochester (Olmsted County)	17 1747CST								0 0 0 0	Funnel
Funnel sited in northern portion of Rochester.										
Roscoe (Goodhue County)	17 1800CST	Short Narrow							0 0 0 0	Tornado (F0)
Tornado touched down briefly near the town of Roscoe.										
Springfield (Brown County)	17 1830CST								0 0 0 0	Funnel
Funnel sited near Springfield.										
Goodhue and Wabasha Counties	17 1831CST	Short Narrow							0 0 0 0	Tornado (F0)
Tornado touched down briefly near Goodhue and Wabasha county line between Zumbrota and Mazeppa.										
Racine (Fillmore County)	17 1844CST								0 0 0 0	Funnel
Funnel sited east of Racine.										
Mazeppa (Wabasha County)	17 1845CST								0 0 0 0	Funnel
Zumbro Falls (Wabasha County)	17 1847CST								0 0 0 0	Funnel
Funnel sited south of Zumbro Falls.										
Truman (Martin County)	17 2102CST								0 0 0 0	Funnel
Adrian (Nobles County)	19 2055CST								0 0 0 0	Wind
Thunderstorm winds reached 60 miles per hour at Adrian.										
West Central (Big Stone, Traverse, Grant, Otter Tail Counties)	22 0915- 1015CST								0 0 0 0	Wind, hail, funnels
Thunderstorms with strong winds and hail moved across west central Minnesota during the late morning. Winds reaching to 60-70 mph accompanied by hail struck the Beardsley area in Big Stone county about 0915CST. At 0940CST, large hail and very strong winds were reported between Wheaton and Dumont in Traverse County. Funnel clouds were reported near Herman (Grant County) at 0958CST and south of Fergus Falls (Otter Tail County) at 1015CST.										
Cottonwood, Marshall (Lyon County)	22 1145- 1157CST								0 0 0 0	Hail
Golfball sized hail pelted Cottonwood at 1145CST and 1" hail hit Marshall at 1157CST.										
Eden Valley, 3 West (Meeker County)	22 1224CST								0 0 0 0	Funnel
Just south of Pipestone (Pipestone County)	22 1225CST								0 0 0 0	Funnel

MINNESOTA

Southwest and South Central (Redwood, Nobles, Jackson, Freeborn Counties)	22 1215- 1544CST								0 0 4 6	Wind, funnel, hail, lightning
Reports were received of 60-70 mph winds eight miles west of Redwood Falls at 1215CST. Hail 3/4" in diameter driven by strong winds damaged crops across south sections of Redwood County, especially near Lamberton and between Wanda and Sanborn at about 1245CST. "Pretty good size" hail knocked out several windows in a farm house west of Rushmore at 1330CST. Golfball size hail fell near Wilmont at 1335CST. At 1425CST, hail up to golfball size, driven by winds estimated to 85 mph broke windows, dented cars, destroyed a grain bin and ravaged crops southwest and southeast of Jackson. Four grain bins were ripped from their foundation by straight-line winds at Lismore about 1300CST. A lightning strike caused a fire which destroyed a barn 5 miles southeast of Windom about 1500 CST. At 1525CST a funnel was spotted near Alden. Winds of 60 mph were reported just west of Albert Lea at 1544 CST.										
Southwest and South Central (Redwood, Blue Earth, Jackson, Pipestone, Roch Counties)	22 Afternoon								0 0 0 6	Very heavy rains, flash flooding
Torrential rains of 3"-5" on saturated ground caused flash flooding and closed some roads. Near Lamberton, the Cottonwood River closed U.S. Hwy 14 for 24 hours. Roads were also closed due to high water near Lake Crystal and Lakefield. Large areas of crop and pastureland were inundated, including more than 30,000 acres in Rock County. Up to 5" of rail fell near Jackson in about one-half hour.										
Cook County	25 2000CST								0 0 3 0	Hail
Hail up to 3" in diameter stripped trees and damaged cars 33 miles to the northwest of Grand Marais. The ground became covered with hail.										
Bemidji (Beltrami County)	25 2328CST								0 0 3 0	Wind
Thunderstorm winds caused tree damage and overturned trailers at Bemidji.										
Carlton County	26 1320- 1335CST								0 0 0 0	Wind
A thunderstorm moving east through Carlton County generated winds that damaged trees in Moose Lake and at the Kettle River.										
Lake County	26 1330- 1350CST								0 0 0 0	Wind, hail
Hail to 1" in diameter fell from the Knife River to Two Harbors. Heavy rain, strong winds and golfball size hail was also reported 20 miles north of Two Harbors.										
Polk and Marshall Counties	26 1830- 2130CST								0 0 0 0	Hail
Hail up to 1" in diameter fell from East Grand Forks through northern Polk County and into southwestern Marshall County. Hail covered the ground to a depth of 2" at some locations. Golfball size hail was reported at Oslo and Alvarado.										

22 MISSISSIPPI

Washington County	13 1330CST								0 0 4 0	High Winds
Severe thunderstorm winds damaged the roof of a school, blew down trees and produced urban flooding in Greenville.										
Alcorn County	20 1300CST								0 0 4 0	High Winds
Thunderstorm winds knocked down trees and destroyed small buildings in Farmington.										
Lafayette County	22 1400CST								1 0 0 0	Lightning
A man was struck and killed by lightning while fishing from a small boat at the upper end of Sardis Lake.										
Harrison County	22 1530CST								0 0 4 0	High Winds
Two small aircraft received severe damage when they were over turned by strong thunderstorm winds at the Gulfport-Biloxi Regional Airport.										

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1984

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23 MISSOURI

Bates	3	1623CST			0	0	0	0	Large Hail
Hail to one inch diameter and wind 50 to 60 mph in Butler.									
Harrison (Crossed state line into Iowa)	7	1745CST	10	200	1	1	6	5	Tornado (F3) (F4 in Iowa)
A tornado touched down just southwest of Eagleville, Missouri and crossed into Iowa. The tornado killed a man and injured his wife as it destroyed their mobile home. The storm touched down near the junction of County Routes W and M and moved in a direction along US 69 to Decatur County in Iowa. The storm produced extensive damage to farms in Harrison County before moving into Iowa where the destructive storm produced more injuries and deaths as well as very extensive damage. The storm continued for more than a hundred miles in Iowa. (See Iowa storm report for further information. Total path length was 127 miles.)									
Atchison	7	1830CST			0	0	4	3	Damaging Wind
Wind severely damaged a barn and blew down signs, trees and crops at Rock Port.									
Buchanan	7	2000-0000CST			1	0	7	5	Flash Flooding
Seven inches of rain fell in St. Joseph and produced extensive flooding across the town. The heavy rain turned streets into rivers and caused the Blacksnake Creek to overflow. The damage to homes and to businesses was widespread and some mobile homes were washed away. The damage is expected to run into the tens of millions.									
Davies	7	2130CST	1	100	0	0	5	5	Tornado (F2)
A tornado touched down south of Altamont and produced considerable damage to agriculture. Most of the damage was along Route J. Nearly a mile of utility poles were snapped. Some minor structural damage was also produced by the tornado.									
Davies	7	2200CST	3	100	0	1	6	5	Tornado (F2)
A tornado touched down just south of Jamesport and moved to just east of Jamesport along Route F. The storm damaged private homes, farm buildings and mobile homes. Some mobile homes were destroyed. Numerous other buildings were damaged. The storm produced a cut to a woman's leg.									
Holt	8	1605CST			0	0	0	0	Large Hail
Hail to 3/4 inch diameter and high wind in Mound City.									
Holt	8	1621CST			0	0	3	0	Damaging Wind
Wind blew the roof off a fertilizer plant in Naplar.									
Boone	8	1639CST			0	0	0	0	Large Hail
Hail to 3/4 inch diameter in Columbia.									
Nodaway	8	1650CST	1/2	50	0	0	0	4	Tornado (F1)
A tornado touched down near Graham along US 71. No structural damage reported but damage to crops was heavy.									
Nodaway	8	1700CST			0	0	5	?	Damaging Wind
Wind totally destroyed one home 4 miles east of Ravenwood. Outbuildings were destroyed, roof and windows damaged just east of Bedison. A number of power lines downed in the area.									
Nodaway	8	1702CST	1	50	0	0	4	4	Tornado (F1)
A tornado touched down in Ravenwood at Pumpkin Center. Minor structural damage and agricultural damage was reported.									
Worth	8	1735CST			0	0	0	0	Funnel Cloud High Wind
The Missouri Highway Patrol reported a funnel cloud and high wind at Denver.									
Audrain	8	1805CST			0	0	0	0	High Wind
Wind to 60 mph reported just north of Mexico.									
Audrain	8	1815CST	1/4	50	0	0	0	0	Tornado (F0)
A tornado touched down briefly 3 miles south of Mexico.									
Audrain	8	1830CST	1	75	0	0	5	4	Tornado (F1)
A tornado destroyed two barns about 10 miles northeast of Mexico.									
Buchanan	8	1945CST			0	0	0	0	High Wind
St. Joseph Police estimated wind to 60 mph.									
Buchanan	8	2004CST			0	0	0	0	3 Funnel Clouds
St. Joseph Police reported three funnel clouds over St. Joseph.									

MISSOURI

Buchanan	8	2050CST			0	0	?	3	Large Hail
Hail to 2 inch diameter reported in Northridge at St. Joseph. Some crop damage.									
Pettis	15	1610CST			0	0	0	0	High Wind
Wind to 60 mph reported in Sedalia.									
Saline	15	1700CST			0	0	4	0	Damaging Wind
Wind to 70 mph uprooted trees and damaged a small utility building at Emma. The utility building was reported to be blown away.									
Boone	15	1755CST			0	0	5	5	Flash Flooding
Very heavy rain produced flash flooding in Columbia. Two feet of water cover some roads.									
Cass	20	1400CST			1	0	6	5	Flash Flooding
A cloudburst produced severe flash flooding and one drowning in Belton. Four and one half inches of rain fell in 15 minutes, turning streets into rivers. One fire fighter was rescued from the flooding.									

24 MONTANA

Ashland Rosebud Co.	13	1900 MST	1.0	50	0	0	4	0	Tornado (F1)
A tornado touched down 20 miles east of Ashland and destroyed a pole building. The debris was thrown approximately 100 yards leaving building contents untouched.									
Ingomar Rosebud Co.	15	1310 MST			0	0	?	?	Hail
3/4" hail reported 11 miles northeast of Ingomar.									
Miles City Custer Co.	15	1500 MST	0.1	20	0	0	0	0	Tornado (F0)
A tornado was reported 8 miles west of Miles City in a rural area. No damage reported.									
Miles City Custer Co.	15	1505 MST			0	0	3	?	Hail
Golf ball size hail reported in Miles City. Local street flooding.									
Rock Springs Rosebud Co.	15	afternoon			0	0	3	?	Hail and Rain
4 miles east of Rock Springs received 1" of rain in a short period of time. Gravel was stripped from 200 ft. of roadway. Two days after this storm an observer reported hail knee deep in drainage ditches 8 miles north of Rock Springs.									
Birney Rosebud Co.	17	1815 MST			0	0	?	?	Hail
Golf ball sized hail in and around Birney.									
McLeod Sweetgrass Co.	20	1600 MST			0	0	?	?	Hail
One inch hail reported.									
Beaverhead Co.	20	afternoon			0	0	4	0	Flash Flood
A small earth dam (Browns) near Glen failed, washing out bridges and roadways from the dam to the Big Hole River 7.3 miles.									
Decker Big Horn Co.	21	1611 MST	2.0	50	0	0	5	0	Tornado (F1)
A tornado touched down near the town of Decker and moved northeast. A highway patrolman reported multiple vortices at times. The Spring Creek mine was struck and caused approximately \$100,000 damage to buildings, automobiles, equipment and power lines.									
Birney Rosebud Co.	21	1655 MST	1.0	50	0	0	?	?	Tornado (F1)
A tornado was spotted moving up the Tongue River Valley towards Birney. No damage reported in rural area.									
Broadus Powder River Co.	21	1810 MST	0.1	20	0	0	?	?	Tornado (F0)
Public reported tornado 30 miles west of Broadus moving northeast. No damage reported in rural area.									
Coalwood Powder River Co.	21	1855 MST			0	0	?	?	Hail
1" hail covered the ground.									

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25 NEBRASKA

Pierce County	01 0000CST				0	0	4	0	Lightning Lightning killed seven steers on a farm south of Osmond.
Morrill County	03 1717CST	1/8	30	0	0	0	4	0	Tornado (F1) Tornado touched down briefly 8 miles northeast of Bayard, damaging farm buildings and taking a roof off a trailer. FPP101
Box Butte County	03 1930CST				0	0	4	4	Flash Flooding Four to six inches of rain 16 miles north of Alliance resulted in flooding which damaged crops, fences and roads.
Hall County	04 1633CST				0	0	0	0	Funnel Cloud Public reported a funnel cloud east of the Stuhr Museum just south of Grand Island.
Hall County	04 1700CST				0	0	0	0	Funnel Cloud Spotter reported a funnel cloud near Doniphan.
Adams County	04 1740CST				0	0	0	0	Funnel Cloud Numerous reports of funnel clouds just north of Hastings by the public.
Hamilton County	04 1758CST				0	0	0	0	Funnel Cloud Highway Patrol reported funnel cloud near I-80 interchange in the vicinity of Phillips.
Clay County	04 1803CST	1/8	10	0	0	0	0	0	Tornado (F0) Tornado touched down briefly in Trumbull with no damage. FPP000
Adams County	04 1833CST				0	0	3	3	Hail One and a quarter inch hail fell in Holstein.
Hamilton County	04 1849CST				0	0	0	0	Funnel Cloud Funnel cloud reported west and south of the Phillips I-80 interchange.
Hall County	04 1850CST				0	0	0	0	Funnel Cloud Funnel cloud reported south of Alda.
Hall County	04 1850CST -1911CST				0	0	3	3	Hail One and a half inch hail fell briefly just southwest of Grand Island. Two inch hail fell at Camp Augustine south of Grand Island.
Hall County	04 1911CST	1/8	10	0	0	?	0	0	Tornado (F0) Tornado touched down briefly 8 miles south of Grand Island with no reported damage. FPP000
Adams County	04 1911CST	1/8	10	0	0	?	0	0	Tornado (F0) Tornado touched down briefly 6 miles north of Hastings with no damage. FPP000
Buffalo County	05 1710CST				0	0	4	0	Damaging Winds Strong thunderstorm winds hit Kearney overturning 2 campers, destroying a greenhouse and downing power lines and tree limbs.
Holt County	05 1728CST	1/16	15	0	0	?	0	0	Tornado (F0) Tornado touched down briefly 10 miles northwest of O'Neill with no damage reported. FPP000
Rock County	05 1730CST				0	0	4	3	Damaging Winds Buildings, power lines and trees were damaged by thunderstorm winds about 25 miles south of Bassett.
Holt and Boyd Counties	05 1830CST -1930CST				0	0	5	5	Hail One and a half inch hail from Atkinson to Lynch northeast to the South Dakota border destroyed crops and damaged buildings and cars.
Rock County	05 1900CST				0	0	6	4	Damaging Winds and Flash Flooding Thunderstorm winds damaged several homes, buildings, center pivots, trees and power lines around Bassett. Heavy rains washed out roads and damaged several rooms at the Bassett high school.
Adams County	05 1905CST				0	0	2	3	Hail Hail 1 1/2 inches in diameter covered the ground at Holstein.
Boyd County	05 1915CST				0	0	3	0	Flash Flooding Nearly 4 inches of rain flooded roads near Lynch and Monowi.
Merrick County	05 2000CST				0	0	3	2	Damaging Winds Thunderstorm wind gusts to 74 m.p.h. were clocked in Central City causing some roof and tree damage.
Platte County	05 2100CST				0	0	4	4	Hail One and a quarter inch hail damaged crops, buildings and cars 3 miles south of Monroe.

NEBRASKA

Eastern Nebraska	07 1400CST -1700CST				0	12	6	0	High Winds Strong south winds gusting 50 to 60 m.p.h. generally east of a line from Sioux City to Grand Island to Red Cloud broke tree limbs, damaged utility lines, blew out some windows and raised large clouds of dust in rural areas. Peak gusts of 61 m.p.h. were measured at Lincoln and 56 m.p.h. at Omaha. The dust reduced visibility to near zero at times in open farm areas resulting in a number of multivehicle accidents. Twelve people were injured in a six vehicle accident near Bruning. Another major accident occurred 15 miles south of Columbus.
Thurston County	07 1420CST				0	0	4	4	Flash Flooding Nearly 4 inches of rain in a short period of time resulted in flooding around Pender and Walthill with extensive soil erosion. Some creeks went out of banks. Basements flooded and water ran 3 to 4 feet deep in parts of Pender.
Thurston and Burt Counties	07 1420CST				0	0	5	0	Damaging Winds Thunderstorm winds blew out house windows, damaged a mobile home, barn and grain bins 4 miles north of Walthill. A garage was also damaged just northeast of Lyons. Many trees and power lines were also damaged in Thurston County.
Stanton County	07 1440CST				0	0	3	4	Hail and Flash Flooding Three quarter inch hail and 5 to 6 inches of rain in 45 minutes damaged crops, fields and roads at Pilger.
Knox County	07 1550CST				0	0	4	4	Hail Three quarter inch hail damaged property and homes in Niobrara.
Richardson County	07 1550CST				0	0	0	0	Funnel Cloud A funnel cloud was reported 3 miles south of Rufo.
Otoe County	07 1630CST				0	0	4	0	Damaging Winds Thunderstorm wind gusts damaged storage and hay sheds and blew the windows out of one home on two farmsteads 4 miles south of Nebraska City. Other tree and utility line damage occurred in the county.
Richardson County	07 1745CST				0	0	4	0	Damaging Winds Thunderstorm wind gusts damaged machine shed and other out-buildings on three farmsteads southwest of Humboldt. Other scattered tree and utility line damage on farms.
Boone, Platte and Colfax Counties	07 1800CST -1900CST				0	0	5	5	Hail Hail up to 3 inches damaged property and crops at St. Edward, Creston, 8 miles northeast of Columbus and near Clarkson.
Pawnee County	07 1800CST	1/4	50	0	0	3	2	0	Tornado (F1) Tornado touched down 2 miles southeast of Pawnee City destroying 3 farm outbuildings. FPP101
Dodge County	07 1920CST				0	0	3	4	Damaging Winds and Hail One inch hail at Scribner and Uehling and winds estimated to 70 m.p.h. at Dodge caused scattered property and crop damage.
Nuckolls County	09 0001CST				0	0	0	0	Hail Police reported 1 1/2 inch hail in Superior.
Webster County	09 0100CST	1/8	10	0	0	3	0	0	Tornado (F1) A small tornado damaged a camper and boat in Blue Hill. FPP100
Cuming County	09 1500CST -1600CST				0	0	3	3	Flash Flooding Heavy rains flooded roads between Wisner and Beemer, water was over the junction of highways 275 and 51.
Keith County	10 2301CST				0	0	4	4	Hail One and a half inch hail south of Ogallala broke windows and damaged 5 grain bins, two center pivots and crops.
Perkins and Chase Counties	11 0100CST -0200CST				0	0	6	0	Damaging Winds Strong south winds estimated 70 to 100 m.p.h. caused numerous structural damage along with damage to trees, signs and power lines. At Grant, a large brick building was leveled, windows were blown out of structures and the roof was blown off a large garage allowing the walls to fall on road equipment and trucks. Large grain bins were damaged at Lamar.
Keith County	11 0300CST				0	0	4	0	Damaging Winds Strong south winds estimated 75 to 90 m.p.h. downed trees and power lines around Ogallala.
Dundy County	11 1430CST	1	30	0	0	5	3	0	Tornado (F2) Tornado touched down 15 miles north-northwest of Haigler and moved northeast 1 mile damaging a tractor, sheds, power lines, fence and hay bales. FPP211
Chase County	11 1455CST	2	30	0	0	4	0	0	Tornado (F2) A tornado touched 9 miles south of Imperial and moved northeast 2 miles damaging five center pivot irrigation systems and fence. FPP211

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 ¹ DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	

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

NEBRASKA

Chase County	11	1455CST			0	0	3	4	Hail	Hail to near 3 inches in diameter damaged a truck and crops south of Champion.
Chase County	11	1612CST	1/16	20	0	0	?	0	Tornado (F0)	A tornado touched down briefly just west of Mauneta. No reported damage. FPP001
Chase County	11	1612CST			0	0	3	0	Lightning	Lightning set fire to a home in Mauneta.
Dawson County	11	1710CST	1/8	10	0	0	0	0	Tornado (F0)	Tornado touched down briefly near Lexington. FPP000
Phelps County	11	1712CST			0	0	0	0	Funnel Clouds	Funnel clouds reported 2 miles north of Bertrand, 7 and 10 miles north of Loomis and on Highway 23 between Holdrege and Loomis.
Dawson County	11	1725CST			0	0	0	0	Funnel Clouds	Funnel clouds reported south of Overton and 4 miles south of Lexington.
Phelps County	11	1735CST			0	0	0	0	Funnel Cloud	Police reported a funnel cloud 5 miles north of Holdrege.
Buffalo County	11	1754CST			0	0	0	0	Funnel Cloud	Police reported funnel cloud just south of Amherst.
Cedar County	11	1800CST	19	30	0	0	4	3	Tornado (F1)	Tornado touched down for brief periods from 5 miles west of Coleridge northeast to 5 miles east of Wymot. Scattered damage to crops, utility lines and fence. FPP131
Buffalo County	11	1802CST			0	0	0	0	Funnel Clouds	State Patrol reported 3 funnel clouds over Amherst.
Buffalo County	11	1815CST			0	0	0	3	Hail	One and a half inch hail caused some crop damage southeast of Kearney.
Hayes County	11	1840CST			0	0	0	0	Funnel Cloud	Funnel cloud reported in the vicinity of Hayes Center.
Hayes County	11	1840CST			0	0	3	3	Hail	One and a half inch hail caused scattered crop and property damage around Hayes Center.
Buffalo County	11	1848CST	1/2	30	0	0	4	0	Tornado (F1)	Tornado touched down just east of the Gibbon I-80 interchange damaging 8 outbuildings and power lines. FPP101
Lincoln County	11	1850CST			0	0	0	0	Funnel Cloud	A funnel cloud was reported south-southwest of Wellfleet.
Lincoln and Frontier Counties	11	1850CST			0	0	5	0	Damaging Winds	Thunderstorm winds in the Wellfleet and Maywood areas damaged a few houses and sheds, uprooted trees and overturned a combine.
Lincoln County	11	1851CST			0	0	0	0	Funnel Cloud	A funnel cloud was reported 5 miles northeast of Maxwell.
Lincoln and Hayes Counties	11	1915CST			0	0	4	3	Flash Flooding	Four inches of rain in a short period caused a road to wash out 4 1/2 miles west of Hayes Center. Flooding also caused a road to be partially washed out south of Maxwell.
Dawson County	11	1930CST	1/4	20	0	0	5	3	Tornado (F1)	Tornado touched down 4 miles northeast of Farnam causing major damage to farmhouse and two outbuildings. FPP101
Dawson, Buffalo, Sherman, Howard and Hall Counties	11	1945CST			0	0	6	6	Flash Flooding	A band of 8 inch rains fell between Cairo, Dannebrog and St. Libory with another 15 to 20 mile wide path of 3 to 7 inch rains from around Cozad and Amherst to near Boelus. Extensive topsoil losses to farmlands occurred and many county roads and several bridges suffered washouts. Three to four feet of water ran down the streets of Ravenna as Mud Creek went out of banks. Urban flooding was reported at Cairo from Dry Creek and at Dannebrog from Oak Creek. Street flooding was also reported at Gothenburg and Cozad.
Dawson County	11	1955CST			0	0	0	0	Funnel Cloud	Funnel cloud reported 2 miles south of Gothenburg.
Dawson County	11	1955CST			0	0	4	0	Damaging Winds	Sixty to seventy m.p.h. thunderstorm winds in the area between Gothenburg through Cozad damaged trees, utility lines and farm outbuildings.
Howard County	11	2015CST			0	0	3	4	Hail	One and a half inch hail caused property and crop damage around Dannebrog.

NEBRASKA

Hall and Howard Counties	11	2020CST	14	200	0	0	6	4	Tornado (F3)	Tornado touched down near Cairo and moved northeast through St. Libory. Extensive damage to outbuildings, power lines and trees. Hardest hit was St. Libory with several homes and buildings receiving major damage and railroad cars blown off of tracks. Many trees down and some buildings damaged at Cairo. FPP333
Buffalo County	11	2020CST	1/2	20	0	0	4	4	Tornado (F2)	Tornado touched down 2 miles east and 10 miles north of Gibbon destroying 8 buildings and causing heavy damage to trees. FPP201
Hayes County	11	2040CST			0	0	0	0	Funnel Clouds	Funnel clouds were reported 11 miles southwest of Wellfleet.
Nance and Merrick Counties	11	2050CST			0	0	3	5	Hail and Heavy Rain	Large hail and heavy rain caused extensive crop damage from Palmer to 20 miles northeast of Palmer and from Fullerton to north of Genoa.
Nance County	11	2050CST			0	0	4	0	Lightning	Lightning strike killed 10 cattle north of Fullerton.
Perkins County	11	2050CST	14	20	0	0	3	0	Tornado (F1)	Tornado touched down briefly at intervals from 4 miles south of Grant to 5 miles southwest of Elsie with some damage to fence and power lines. FPP131
Knox County	11	2130CST			0	0	3	3	Hail	One inch hail damaged property and crops around Verdel.
Lincoln County	11	2140CST	1	30	0	0	0	3	Tornado (F1)	A tornado was sighted by the National Weather Service 20 miles southwest of North Platte moving east-northeast. Tornado moved up and down several times in open country with some crop damage. FPP111
Hall County	11	2150CST			0	0	0	0	Funnel Cloud	State Patrol reported funnel cloud 8 miles northwest of Grand Island.
Lincoln County	11	2204CST	1/16	20	0	0	?	0	Tornado (F0)	Tornado touched down briefly 5 miles south-southwest of North Platte with no reported damage. FPP001
Hall County	11	2213CST			0	0	2	0	Damaging Winds	Fifty to sixty m.p.h. thunderstorm winds were reported northeast of Cairo with some tree limb damage.
Lincoln County	11	2220CST			0	0	0	0	Funnel Cloud	Funnel cloud was reported 10 miles southeast of Brady.
Custer County	11	2235CST			0	0	0	0	Funnel Cloud	A funnel cloud was reported 10 miles north of Gothenburg.
Madison County	11	2240CST			0	0	3	3	Damaging Winds and Hail	Fifty to sixty m.p.h. winds broke tree limbs and damaged property 4 miles west of Norfolk. Three quarter inch hail damaged property and crops 3 miles west and 2 miles south of Norfolk.
Lincoln County	11	2250CST			0	0	0	0	Funnel Cloud	Public reported a funnel cloud 11 miles southeast of Hershey.
Lincoln County	11	2256CST			0	0	?	?	Hail	One and a half inch hail reported at Lake Maloney, 11 miles south of North Platte. No damage reported.
Platte and Colfax Counties	11	2300CST			0	0	4	4	Damaging Winds and Hail	Hail caused scattered property and crop damage from near Columbus to Richland while heavy rain caused some flooding. High winds damaged tree limbs and utility lines around Duncan and Columbus.
Hayes County	11	2315CST			0	0	0	0	Funnel Cloud	A funnel cloud was reported 10 miles northwest of Hayes Center.
Thayer County	12	1657CST	13	200	0	5	6	5	Tornado (F3)	Tornado touched down 3 miles south of Davenport and moved east to 2 miles south of Bruning. Five farms were heavily damaged southwest and south of Bruning injuring 5 people. Many power lines, trees, fences and outbuildings were heavily damaged on other farmsteads along the path. FPP333

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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		
NEBRASKA										
Fillmore, Saline, Thayer and Jefferson Counties	12	1800CST								Flash Flooding
	-13	-0100CST			0	0	7	7		Eleven inches of rain fell at Ohlawa in southeast Fillmore County. An average of 8 to 10 inches fell in southeast Fillmore and southwest Saline Counties with 4 inch rains the average in the four county area. Destructive flooding occurred with scores of bridges and county roads with washout damage and enormous losses of topsoil from erosion. Residents reported the worst flood ever on Dry Sandy Creek, Little Sandy Creek and much of Turkey and Swan Creek. Flooding entered homes and buildings in Ohlawa, Swanton, Alexandria and completely inundated the 700 population of Dewitt. All residents of Dewitt were evacuated for 3 days as water ran 2 to 5 feet deep in town. Hundreds of cattle and hogs were lost.
Lancaster County	12	1803CST	15	150	0	0	6	5		Tornado (F2)
										Tornado touched down 3 miles south of Raymond and skipped along east to just southeast of Haverly. Farm buildings were destroyed, some cattle were killed and 5 homes were damaged, other damage to trees and power lines. FPP232
Lancaster County	12	1803CST			0	0	0	4		Hail
										One and a half inch hail fell southeast of Raymond causing crop damage.
Cass County	12	1820CST	11	100	0	0	6	4		Tornado (F2)
										Tornado touched down 2 miles west of Avoca and moved northeast lifting 6 miles north of Nehawka. Homes, outbuildings, equipment and grain bins were damaged or destroyed on six farms. A hundred and five hogs and 4 cattle were killed. Also heavy damages to trees and utility lines. FPP232
Cass County	12	1830CST	1/2	50	0	0	3	3		Tornado (F2)
										Tornado touched down in open field 3 miles south of Murray and moved northeast a short distance before lifting. Damage to trees and fences. FPP201
Lancaster, Otoe, Sarpy, Cass and Saunders Counties	12	1830CST								Flash Flooding
	-13	-0100CST			2	1	7	7		Seven to eight inches of rain fell in the town of Weeping Water. In the Weeping Water Creek basin in Cass County, urban damages took place in parts of Weeping Water, Nehawka and Union. Thirty to forty bridges and culverts were washed out and 70 road locations suffered damage. Three to four inch rains were common in the remainder of the counties with areas of flash flooding. In the Lincoln area, many streets, viaducts and basements flooded. Around 2045CST, 2 people drowned just east of Lincoln when flood waters from Stevens Creek swept their car off the road on U.S. Highway 34 and south 134th Street. Around 2050CST, another man was injured at 72nd Street and O Street in Lincoln when he was sucked into an open manhole by flood waters and carried underground until he emerged into a creek. He was able to cling to a tree and was rescued by firemen. Other flooding was reported along Wahoo, Rock, Silver, Cottonwood and Sand Creeks in Saunders County. Downstream of Lincoln from Waverly to its mouth near Ashland, Salt Creek caused the worst flooding since 1908. Water up to 4 to 8 feet deep entered homes and trailers and 5 businesses in Ashland. The Highway 6 Bridge collapsed. Many roads and rail lines in the counties were damaged. Severe topsoil erosion occurred.
Cass County	12	1830CST			0	0	5	0		Lightning
										Fire started by lightning destroyed a barn east of Weeping Water. Two cows were also killed by a lightning strike near Avoca.
Polk County	12	1830CST			0	0	0	0		Funnel Cloud
										Storm spotter reported a funnel cloud 3 miles southwest of Osceola.
Adams County	12	1843CST			0	0	3	3		Hail
										One and a half inch hail was reported just south of Hastings.
Sarpy County	12	1845CST			0	0	3	0		Hail
										One and half inch hail fell in the base housing area at Offutt Air Force Base with some property damage.
Butler County	12	1900CST			0	0	4	4		Hail
										Hail to one and three quarters inches damaged property and crops 5 miles south of Columbus.
Boone, Platte, Colfax and Cuming Counties	12	1900CST			0	0	4	4		Flash Flooding
	-2100CST									Heavy rain caused flooding along smaller streams with water over several highways. Considerable erosion with water over fences in bottomlands was reported.
Kearney County	12	1908CST			0	0	0	0		Funnel Clouds
										Numerous funnel clouds reported 5 miles south and 5 miles west of Minden.
Clay County	12	1910CST			0	0	0	0		Funnel Cloud
										Funnel cloud reported 3 miles west of Trumbull.
Hamilton County	12	1910CST			0	0	0	0		Funnel Cloud
										Funnel cloud reported 3 miles east of Hampton.
NEBRASKA										
Adams County	12	1910CST	1/16	30	0	0	0	0		Tornado (FO)
										Tornado touched down briefly just south of KHAS-TV tower north of Hastings. No reported damage. FPP001
Franklin County	12	1915CST			0	0	3	3		Hail
										One inch hail reported by a storm spotter in Riverton.
Cass County	12	1945CST			0	0	0	0		Funnel Cloud
										A funnel cloud was reported between Elmwood and Avoca.
Howard County	12	1959CST			0	0	0	3		Hail
										One and a half inch hail reported 3 miles southeast of Dannebrog.
Kimball County	12	2000CST			0	0	0	4		Hail and Heavy Rain
										Small hail accumulated 3 inches deep and in combination with up to 3 inches of rain damaged crops in southern Kimball County.
Washington County	12	2005CST			0	0	0	0		Funnel Cloud
										Funnel cloud was reported near Kennard.
Jefferson County	12	2100CST			0	1	6	3		Damaging Winds
										Eighty-eight m.p.h. winds in thunderstorms caused widespread damage at Fairbury and farms to the southwest. Buildings damaged, windows were blown out and considerable damage reported to trees and power lines. One person was cut by flying glass at Fairbury.
Otoe County	12	2100CST			0	0	3	0		Damaging Winds
										Thunderstorm winds downed some tree limbs and power lines around Nebraska City.
Dodge County	12	2150CST			0	0	3	4		Flash Flooding
										Heavy rains flooded bottomlands causing topsoil erosion and crop damage around Hooper and Nickerson. Some road flooding also reported.
Sioux and Dawes Counties	13	2033CST			0	0	0	0		Funnel Clouds
	-2217CST									Funnel clouds were reported 15 miles north of Harrison, 15 miles northwest of Crawford and 12 miles north of Whitney.
Box Butte County	13	2330CST			0	0	4	0		Lightning
										Lightning started fire that destroyed 200 tons of hay 4 miles north of Alliance. Lightning also knocked out two transformers in Alliance.
Dodge, Washington, Douglas and Sarpy Counties	14	1915CST			0	0	6	6		Flash Flooding
	-15	-0300CST								Four to six inches of rain around Arlington and 4 to 5 1/2 inch rains around Hooper and Uehling fell on saturated soil resulting in flash flooding, roads and bridges were washed out and severe soil erosion was reported. Bell Creek flooded several homes near Arlington. In Douglas and Sarpy Counties, areas of urban and lowland flooding occurred and a number of drivers had to be rescued from vehicles stalled in water. The Big Papio Creek had some of the highest water levels since 1962 with some urban damages along the flood plain in the Omaha metro area from Bennington through 84th Street.
Stanton and Cuming Counties	14	1930CST			0	0	4	4		Flash Flooding
										Heavy rain caused flash flooding over Highway 275, 7 miles east of Norfolk and south of Westpoint. Several cars were washed off the highways covered with mud and water.
Scottsbluff County	15	1518CST			0	0	0	0		Funnel Cloud
										Funnel cloud reported 15 miles northwest of Scottsbluff.
Banner County	15	1555CST	1/16	30	0	0	0	0		Tornado (FO)
										Tornado touched down briefly 5 miles north of Harrisburg with no damage reported. FPP001
Banner County	15	1640CST			0	0	0	0		Hail
										One inch hail fell 5 miles northwest of Harrisburg.
Stanton, Cuming, Burt, Colfax, Dodge, Washington, and Douglas Counties	15	1900CST			0	0	7	7		Flash Flooding
	-16	-0400CST								Four to six inches of rain fell across portions of Cuming, Burt, Dodge, Stanton and Colfax Counties on saturated ground resulting in heavy runoff and flash flooding. Four and a half to five inches fell in Hooper and Winslow and 4 inches at Howell. A flow crest was generated at Westpoint on the Elkhorn augmented by flooding on Shell Creek at Howells. Pebble Creek at Scribner, Logan Creek near Winslow and Howells Creek near Nickerson. A twelve foot dam also broke north of Howells around 0200CST, flooding the town as water rose 4 feet in 30 minutes forcing evacuations. The worst flooding since 1944 took place in the following days downstream in the Elkhorn basin as urban flooding hit Crowell, Scribner, Hooper, Winslow, Arlington, Kings Lake and Vancils Island. Flood damages occurred to many roads, bridges and rail lines. Crop damage was very high. Livestock drowned and heavy topsoil erosion took place.
Keith County	15	2000CST			0	0	?	0		High Wind
										Sixty m.p.h. winds were reported by the public in a thunderstorm on the west edge of Lake McConaughy. No damage reported.

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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	

NEBRASKA

Lincoln County	15 2045CST	1/16	30	0	0	0	0	0	Tornado (F0) Tornado touched down briefly 6 miles south of North Platte. No reported damage. FPP001
Lincoln County	15 2045CST			0	0	0	0	3	Hail One and a half inch hail fell just north of Wallace with some crop damage.
Chase and Hayes Counties	15 2215CST -16 -0300CST			0	0	5	5		Flash Flooding Four to eight inches of rain resulted in flash flooding. Stinking Water Creek northwest of Palisade rose 8 feet in a number of hours with water over road. Water in canyons north of Hamlet ragged tearing down trees and fences and carrying vehicles. Frenchman Creek flooded Highway 6 east of Mauneta. Water was to the top of car tires in Mauneta and one basement caved in.
Keith County	16 1900CST	1/16	20	0	0	?	?		Tornado (F0) Tornado reported by sheriff 4 miles northwest of Ogallala. No damages reported. FPP001
Antelope County	17 1545CST	1/8	40	0	0	?	?		Tornado (F0) Tornado touched down 9 miles west and 2½ miles north of Elgin in open country with no reported damage. FPP001
Howard County	17 1545CST	1/16	20	0	0	0	0	0	Tornado (F0) Sheriff reported tornado touched down briefly 4 miles north of Elba with no apparent damage. FPP001
Thurston County	17 1550CST			0	0	0	0	0	Funnel Cloud Funnel cloud was sighted in extreme northeast Thurston County about 10 miles south of Sergeant Bluff, Iowa.
Wheeler and Antelope Counties	17 1605CST			0	0	6	6		Damaging Winds and Hail Winds up to 80 m.p.h. damaged buildings, trees, power lines, grain bins, overturned a semitractor and trailer. Worst hail damage was at Elgin where damage to homes, businesses and St. Boniface Church was estimated at over \$1 million. Hail up to 3 inches damaged crops and property also.
Platte County	17 1610CST	1/8	30	0	0	?	?	0	Tornado (F0) Tornado touched down briefly 1½ miles southwest of Lindsay with no reported damage. FPP001
Stanton County	17 1630CST	1	50	0	0	5	0	0	Tornado (F2) Tornado touched down 4 miles southwest of Stanton and moved northeast 1 mile destroying two irrigation systems and uprooting many large trees. FPP211
Madison County	17 1630CST			0	0	0	0	0	Funnel Clouds Numerous funnel clouds were reported around Norfolk.
Stanton, Madison, Antelope, and Cumming Counties	17 1630CST -1830CST			0	0	5	6		Flash Flooding Five to seven inch rains washed out many county roads, bridges, portions of Highway 275 and crops. Shell, Union, Taylor, Logan and Pebble Creeks all went out of banks.
Cumming County	17 1700CST	7	40	0	0	6	4		Tornado (F1) Tornado touched down 5 miles southwest of Wisner and moved northeast to 1½ miles north of Wisner, uprooting trees and damaging farm buildings, utility lines and irrigation systems. FPP121
Cumming County	17 1700CST			0	0	5	3		Hail Hail up to 3 inches damaged crops and some property around Wisner.
Butler County	17 1710CST			0	0	5	0		Damaging Winds Thunderstorm wind gusts blew a horse barn apart 10 miles northwest of David City. Large trees and power lines were damaged in David City.
Colfax County	17 1715CST			0	0	0	0		Funnel Clouds Funnel clouds were reported north of Schuyler.
Cumming County	17 1720CST	¼	40	0	0	4	0		Tornado (F1) An irrigation system was destroyed as a tornado touched down 6 miles south of Pender. FPP101
Thurston County	17 1730CST			0	0	6	6		Damaging Winds and Hail Thunderstorm winds damaged irrigation systems southeast of Macy and uprooted trees. Windows were blown out of a church at Rosalie. Hail up to 1½ inches was reported at Pender and Rosalie with crop and property damage. Three to four inches of rain in a short time eroded crops and damaged roads.
Saunders County	17 1735CST -1800CST			0	0	0	0		Funnel Clouds Funnel clouds were reported by the public near Morse Bluff, Ceresco and Ashland.

NEBRASKA

Saunders and Dodge Counties	17 1735CST			0	0	5	0		Damaging Winds Sixty to seventy m.p.h. winds took the roof off a building at Uehling. Other damage to tree limbs and utility lines were reported around Memphis, Cedar Bluffs, Dodge, Uehling and Ceresco. The fallen tree limbs also damaged a number of vehicles and homes.
Burt and Washington Counties	17 1745CST			0	0	5	4		Damaging Winds Sixty to seventy m.p.h. thunderstorm winds downed numerous trees and caused power outages. Fallen trees damaged vehicles and structures. Windows were blown out of a home northeast of Lyons and a home and farm buildings suffered damage 5 miles northwest of Tekamah. Farm buildings and equipment were damaged west and northwest of Craig.
Cumming and Burt Counties	17 1755CST	6	20	0	0	4	3		Tornado (F1) Tornado touched down at intervals from 9 miles southeast of Westpoint east to 4 miles south of Oakland. Scattered damage mainly to trees, fence and utility lines. FPP121
Burt County	17 1814CST	7.5	30	0	0	5	3		Tornado (F1) Tornado touched down at intervals from about 2½ miles north of Tekamah east to near Pisgah, Iowa. Scattered damage mainly to trees and power lines. However, vehicles were damaged north of Tekamah and a school building near Pisgah. FPP131 (Border crosser - total path length was 15 miles)
Scottsbluff County	18 1820CST			0	0	5	5		Flash Flooding Four inches of rain in and north of Mitchell washed bridges out east of town and caused urban and field flooding. The heavy rain along with half inch hail damaged thousands of acres of crops.
Pierce and Cedar Counties	21 1300CST -1500CST			0	0	6	5		Flash Flooding Heavy rains of 4 to 5 inches washed out 5 bridges in Cedar County. Many fields along Logan, Pearl and Bow Creeks were flooded with several head of livestock drowned. Lowland flooding also covered fields and roads along the north fork of the Elkhorn River and its tributaries in Pierce County.
Dakota County	21 1415CST			0	0	3	0		Damaging Winds Thunderstorm gusts to 60 m.p.h. caused scattered tree limb and property damage around Dakota City.
Harlan County	21 1840CST			0	0	0	4		Hail Hail to near 3 inches in diameter fell briefly south of Alma with crop damage.
Knox County	22 2000CST	1/16	20	0	0	?	?	0	Tornado (F0) Tornado touched down briefly 2 miles east and 5 miles north of Bloomfield with no damage reported. FPP001
Knox, Cedar and Pierce Counties	22 2030CST -2200CST			0	0	5	5		Flash Flooding Heavy rains flooded streets in Bloomfield with small stream flooding lowlands in eastern Knox, north and west Cedar and north Pierce Counties.
Lincoln County	22 2115CST			0	0	0	?		Hail Three quarter inch hail fell in Hershey with no reported damage.
Perkins County	22 2220CST			0	0	0	0		Funnel Cloud A funnel cloud was reported near Madrid by a deputy sheriff.
Lincoln County	22 2350CST			0	0	0	0		Funnel Cloud A funnel cloud was reported 10 miles west of Wallace.
Dodge County	23 0330CST			0	0	3	0		Damaging Winds Sixty-five m.p.h. thunderstorm winds toppled trees and caused power outages around Fremont.
Madison, Platte, Stanton, Colfax, and Cumming Counties	23 0400CST -0600CST			0	0	5	5		Flash Flooding Heavy rains caused small stream flooding of lowlands. Shell Creek near Newman Grove flooded Highway 91.
Brown County	24 1640CST			0	0	0	4		Hail One and a half inch hail damaged crops 9 miles west of Ainsworth.
Knox County	24 2035CST			0	0	0	4		Hail One and three quarter inch hail damaged crops north of Crofton.
Holt County	24 2315CST			0	0	5	5		Hail One and three quarter inch hail knocked out windows in homes and businesses at Stuart and destroyed crops between Stuart, Atkinson and Emmett.
Sherman County	25 0030CST			0	0	3	5		Damaging Winds and Hail Hail and strong winds caused extensive crop damage along a narrow path from 2 miles south of Hazard to 8 miles north of Loup City.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1984

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	
NEBRASKA									
Cass and Otoe Counties	26	1845CST -1915CST			0	0	0	4	Hail
			Three quarter inch hail fell 2 miles southwest of Union and just west of Nebraska City.						
Nemaha County	26	1930CST			0	0	0	3	Hail
			Three quarter inch hail fell around Johnson with minor crop damage.						
Dawson County	26	1930CST			0	0	4	4	Winds
			Eighty m.p.h. winds downed trees and power lines around Lexington. One house had extensive damage from a fallen tree.						
Adams County	26	2225CST			0	2	5	4	Damaging Winds and Hail
			One and a half inch hail and winds clocked at 71 m.p.h. caused considerable tree and power line damage in Hastings. Two occupants of a Civil Defense vehicle suffered minor injuries when the windows were broken by hail.						
Nemaha County	28	1455CST			0	0	4	4	Hail
			One and a half inch hail was reported around Auburn with some crop and property damage.						
Cass and Otoe Counties	28	1527CST			0	0	3	4	Hail
			One and a half inch hail was reported from around Nehawka south into north Otoe County. Scattered crop and property damage.						
Johnson, Pawnee, Jefferson, and Gage Counties	28	1600CST -1700CST			0	0	5	6	Damaging Winds and Hail
			Thunderstorms with hail up to 1/4 inches and strong winds caused crop and property damage. The most extensive crop damage was in Johnson County.						
Richardson County	28	1600CST -1635CST			0	0	5	6	Damaging Winds and Hail
			Thunderstorm winds damaged farm outbuildings around Salem and a barn southwest of Falls City. Numerous reports of wind damage to trees. One and a half inch hail damaged an estimated 25,000 acres of crops and caused some damage to vehicles and buildings.						
Cheyenne County	30	1836CST			0	0	4	0	Damaging Winds
			Thunderstorm winds gusted to 81 m.p.h. at Sidney with scattered damage to trees and utility lines.						
26 NEVADA									
Mineral County, Hawthorne	06	1435PST			0	0	2	?	High Wind
			Strong winds developed in the lee of the Sierra, producing winds of 50 kts gusting to 60 kts at the Hawthorne airport. Tree damage in both Yerington and Carson City.						
Elko County, Elko	14	1515PST			0	0	0	0	Thunderstorm Winds
			Strong thunderstorms moved across Elko County with a wind gust at the Elko airport to 61 mph.						
Lander and Eureka Counties	14	1530PST			0	0	?	?	Hail
			The observer in Austin reported 3/4 inch hail during a thunderstorm. Other unofficial reports of hail this size were reported in Eureka Co.						
Washoe County, Sparks	17	1530PST			0	0	4	?	Flash Flood
			A heavy thunderstorm moved across Sparks dropping 0.60 inches in 20 min. and unofficial reports of over an inch of rain in less than an hour. Caused substantial flooding of a neighborhood.						
Clark County, Las Vegas and Lake Mead area	30	2118PST			0	0	?	?	Thunderstorm Winds
			Strong thunderstorms produced outflow winds of 59 mph at the Mc Carran airport. Winds in the Lake Mead area were estimated to over 75 mph with telephone poles uprooted.						
Lincoln County	30	Evening			0	0	?	?	Flash Flood
			Strong thunderstorms produced rainfall amounts ranging from 1.5 to 3.0 inches in the Caliente/Fioche/Eagle Valley areas, resulting in many highways closed due to high water.						
27 NEW HAMPSHIRE ————— NO REPORT RECEIVED									
28 NEW JERSEY									
Areawide	13	1450- 2300EST			0	0	?	0	Thunderstorm with High Wind
			Lightning bolts and high winds downed trees and overhead electric lines. A maximum wind speed of 83 mph was logged at Newark International Airport. Departing flights were delayed for more than two hours due to the storm. The storm extended 10 miles into the sky. The wind was so severe that tree limbs were knocked onto power lines, causing power outages.						
29 NEW MEXICO ————— NONE REPORTED									
30 NEW YORK, Coastal									
Extreme SE, Nassau County, New York City and Westchester	13	1450- 2300EST			0	1	?	0	Thunderstorm
			A thunderstorm lashed through the City and Long Island, causing wide and general destruction. Lightning blasted a six-foot hole in an apartment building in the Queens. It briefly knocked out radio communications by striking an antenna on top of a station house in the Bronx. Police-linked burglar alarms were also set off at the same station house. A nurse, on her way home from work, while passing a tree on the way to her car, was struck by a bolt of lightning. She was thrown by the lightning and was reported disoriented. Her legs were momentarily numb. The torrential thunderstorm also caused departing flights to be delayed for more than two hours at La Guardia Airport. Power outages were reported and, during the storm, services on a BMT line were briefly halted when a tree fell across the tracks. The storm also delayed the news editions for several hours by striking a microwave dish on top of the Daily News printing plant in Brooklyn. A noteworthy climatological condition occurred when the fast-moving storm caused temperatures to plummet nearly 25 degrees in some areas. It also caused an 8 degree drop in temperature in just one hour for Manhattan.						
30 NEW YORK, Central									
WASHINGTON COUNTY	06	PM			0	0	4	4	Flood
			Heavy rain over the past week had pushed the Battenkill River over its banks Wednesday evening. Damage was minor with one road being washed out and several cellars needing pumping out.						
			In Whitehall sandbags were used to control flooding along the Champlain Canal. This was an ongoing flood event from late May.						
FULTON, MONTGOMERY & SCHENECTADY COUNTIES	06	PM			0	0	3	0	Thunderstorm
			A freak thunderstorm barreled through the Montgomery/Fulton County area Wednesday night. Power lines were knocked down along with some small tree limbs.						
			Violent winds hit the Fort Plain area around 7:30 p.m. EDT. The winds knocked over a woodshed, uprooted trees and dragged them up to 60 yards. Persons in the area reported seeing a funnel. No site observations were done. A second funnel was reported in Startkville, Herkimer County, but no damage was reported or site survey made.						
			Street flooding was reported in Schenectady County from heavy, local downpours.						
EASTERN NEW YORK	11				3	UNK	0	0	Heat Wave
			Oppressive heat during the past week was the cause of death of a 75-year old woman in Amsterdam, Montgomery County. An 8-year old boy drowned in the Hudson River, Saratoga County trying to find relief from the heat. In Saratoga Lake, Saratoga County, a 42-year old man drowned escaping from the heat. Hospitals in Eastern New York all report an increase of heat related injuries.						
SULLIVAN, DUTCHESS, ULSTER, ORANGE & PUTNAM COUNTIES	13	1500EST			0	9	5	4	Thunderstorm
			Lightning struck a barn in Callicoon Wednesday afternoon. A second bolt hit a herd of cows, killing 11 and injuring 9. Some trees, in Callicoon were blown over during the thunderstorm. Lightning also struck several homes in Dutchess and Putnam Counties.						
			In Poughkeepsie, Dutchess County, the storm packed winds estimated at well over 50 mph and 3/4 inch hail. Poor visibility during this period also caused at least five car accidents.						
ULSTER COUNTY	18	1430EST			0	0	0	4	Hail
			Golf ball size hail damaged orchards and vineyards in Marlboro.						

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1984

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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	

NEW YORK, Central

CORTLAND, ONIEDA & HERKIMER COUNTIES

18 1645EST 0 0 5 0 Thunderstorm

Thunderstorms accompanied by gust winds and lightning hit East Central New York. At 7:00 p.m. wind gusts of 61 mph were recorded at Onieda County Airport. Winds were strong enough to blow an iron cross off a church steeple and crashed into the ground 150 feet below.

Around 6:00 p.m. EDT trees and power lines were blown down in parts of Onieda County. Lightning was listed as the cause of fires in a church in Onieda County and also a barn in Cortland County. In Oriskany, Onieda County, two men were struck by lightning while working on a stalled car.

Heavy rains, over 2 inches in 45 minutes, caused extensive street flooding and popped manhole covers 4-5 feet into the air.

30 NEW YORK, Western

Elmira, Chemung County

09 Evening - - 3 - Lightning

A lightning bolt ignited a house, charred its electrical circuits, and burned a television set along with other appliances.

Westfield, Chautauqua County; Cicero, Onondaga; & Rochester, Monroe County

13-14 - - 4 - Wind, Lightning & Rain

Strong winds tore a barn's roof in Westfield, Chautauqua County.

In the City of Rochester, heavy rains soaked underground electric lines. There was a power blackout to hundreds of homes for up to 12 hours.

In Cicero, Onondaga County, a lightning bolt set a house on fire. The house sustained substantial losses.

Parts of Allegany, Chautauqua, Cattaraugus, Steuben, Erie County, Wayne, Oswego and other Western New York Counties.

18-19 - - 6 - Rain & Wind

Numerous showers and thunderstorms produced up to 5 inches of rain. Small streams spilled their banks. Approaches to about a dozen bridges in Chautauqua and Allegany County were washed out.

In Angelica, Allegany County, town firemen spent more than a day pumping out water from basements. Segments of Routes 2 and 11 between Angelica and Almond were inundated and closed to traffic. In the township of Hartsville, Steuben County, basements and roads were also flooded.

Reports of basement and road flooding were also received from Southern Erie and Chautauqua County.

In the town of Savannah, Wayne County, strong winds stripped the roof of the U.S. Post Office. A piece of wood was blown into the windshield of a car. A car's door was torn off and flung 10 yards away. A fallen, large tree squashed the facade of a house.

The villages of West Monroe and Constantia, in Oswego County, were ravaged by the strong winds. Numerous tall trees were downed. About a dozen homes sustained light to moderate damages.

Large outflow from Warner Dam at the outlet of Chautauqua Lake joined with Cassadaga Creek floodwaters to inundate backyards and basements of a number of homes in Levant, Chautauqua County.

A few light structures in Randolph, Cattaraugus County, were damaged by the strong wind. The roof of a barn was peeled off. A large silo was shattered to small pieces. The debris was strewn over an area 1/4 mile away.

Power outages occurred at many locations in Western and Central New York.

Parts of Erie County

23-24 - - 4 - Rain

Heavy rainfall produced up to 3 inches of rain. Many basements and streets in West Seneca, Lackawanna, and other Southern Erie County towns were flooded.

Parts of Steuben County

29 Evening - - 5 - Rain & Wind

Strong winds toppled a silo in Troupsburg. Electric lines were severed by fallen trees in the villages of Addison and Cameron. In Lindley, a house was swept 30 feet away from its foundation by floodwaters. Some flooding was also observed at Presho.

Many parts of Western and Central New York

June and May - - 70 C Rain

Rainfall in Western and Central New York in May and June had been well above normal. Some sites got more than twice the normal monthly rainfall.

The excessive rainfall caused the fields to be soggy and unworkable. Crops that were planted in early spring, such as onion and winter wheat, rotted in the ground.

NEW YORK, Western

Only a small portion of the usual, annual corn seed was planted on time. Beans, which are usually planted in overlapping times to provide steady supply to food processors, are predicted to be in short supply. They could not be planted at the scheduled time.

31 NORTH CAROLINA

Lenoir, Caldwell County

04 1730EST 0 0 4 0 Thunderstorm Winds

Trees were uprooted and blown onto houses, storage sheds, vehicles and several roofs damaged. Power lines were downed and 4-hour outages resulted.

Mt. Airy, Surry County

06 1800EST 0 0 4 0 Thunderstorm Winds

A severe thunderstorm swept through Mt. Airy downing trees and damaging homes. Approximately 700-800 homes were without power when trees fell on a substation.

Brown Mountain, Stokes County

11 1230-1330EST 0 0 4 5 Thunderstorm Winds, Hail

A thunderstorm uprooted trees and tore roofs off several barns in the community. About 15 acres of tobacco were ruined by the wind and marble size hail, as well as numerous garden crops.

Cedar Mountain, Transylvania County

14 1300EST 0 0 5 0 Lightning

Fire started by lightning burned a doublewide mobile home and contents.

Mayodan-Eden Areas, Rockingham County

1450-1500EST 0 0 4 ? Thunderstorm Winds

A severe thunderstorm moved through the towns of Mayodan and Eden, blowing trees down onto automobiles. Some small hail was also reported.

Craven County, Carteret County

15 1500-1555EST 0 0 0 0 Waterspouts

Waterspouts were observed by boaters on the lower Neuse River and on the Intercoastal Waterway near Back Creek and Oriental.

North Wilkesboro, Wilkes County

15 1640EST 0 0 5 0 Lightning

A home and contents were destroyed by fire caused by lightning strike.

Jacksonville, Onslow County

15 1650EST 0 0 ? ? Hail

Hail up to 1 3/4 inches fell in south Jacksonville along Highway 17.

Teachey, Duplin County

15 1800EST 0 0 ? 5 Hail

Hail of unknown size caused extensive damage to crops.

East Laurinburg, Scotland County

15 1800EST 0 0 4 0 Thunderstorm Winds

A mobile home was blown off its foundation, numerous trees were blown down, cotton trailers were blown over and some roofs were blown off outbuildings.

Lake Norman

16 1400EST 0 1 0 0 Lightning

A fisherman was struck and injured by lightning while in a boat. Another person in the boat was not injured.

Bethlehem, Alexander County

17 1430EST 0 0 5 0 Lightning

A furniture factory was destroyed by fire when lightning struck. The building was valued at \$50,000 and its contents \$30,000.

Oriental, Pamlico County

19 1900EST 0 0 5 0 Lightning

A home was destroyed by fire after being struck by lightning.

Wilmington, Near Hanover County

20 0130EST 2 0 4 0 Lightning

A couple died when their house burned after being struck by lightning.

3 1/2 Miles North of Benson, Johnson County

20 1400EST 0 0 4 0 Thunderstorm Winds

A pavilion at Scott Lake was destroyed by a downburst.

Just South of Brevard, Transylvania County

20 1400EST 1/4 100 0 0 5 ? Tornado (F0)

Aircraft were destroyed at Brevard Airport. Numerous large trees were downed across US 276. Five power poles and trees were downed on Gallimore Street.

Cary, Wake County

20 1430EST 0 0 5 0 Lightning

Lightning struck one house and four condominiums in Cary. Damage to the house was over \$50,000.

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JUNE 1984

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					KILLED	INJURED	PROPERTY	CROPS	
— NORTH CAROLINA									
Carvers Creek Bladen County	20	1600EST			0	0	4	4	Thunderstorm Winds, Hail
									High winds and hail of unknown size destroyed several tobacco fields, damaged some corn fields, blew down trees and destroyed a tobacco barn.
Charlotte Mecklenburg County	20	1700EST					0	0	Hail
									Three-quarter inch hail was observed.
Between Lumberton and Fairmont, Robeson County	20	1740EST			0	0	3	0	Thunderstorm Winds
									Thunderstorm winds downed trees and power lines leaving 600 customers without power for two hours.
Raleigh Wake County	28	1535EST			1	0	0	0	Lightning
									A construction worker under a house was killed when lightning struck a tree beside the house.
Dudley Wayne County	28	PM			1	0	0	0	Lightning
									A 26 year old woman was killed by lightning while talking on the telephone and peeling potatoes at the kitchen sink.
Ashe County	28	PM			0	0	0	5	Hail
									Marble sized hail was widespread across the county, destroying tobacco crops of at least 35 farmers. Potato crops and gardens were also wiped out. Hardest hit area was near Grassy Creek.
Center Roans Area Bladen County	29	1100-1900EST			0	0	0	?	Rain
									Up to nine inches of rain ruined at least ten acres of tobacco.
32 NORTH DAKOTA									
Colfax 10W (Richland County)	04	1630CST							Funnel
Colfax 3W (Richland County)	04	1708CST							Funnel
Ellendale (Dickey County)	04	1835CST			0	0	4	0	Thunderstorm Winds
									Strong thunderstorm winds damaged the roof of a ball park grandstand and pole barn, and uprooted trees.
LaMoure (LaMoure County)	04	1850CST			0	0	4	0	Thunderstorm Winds
									Strong thunderstorm winds tore the roof off of a utility building.
Fargo 5SW (Cass County)	07	1445CST							Funnels (2)
Carson 1SE (Grant County)	07	1530CST	Short	5-15	0	0	0	0	Tornado (F0)
									A tornado touched down briefly in a field. No damage reported.
Minot AFB 10SW (Ward County)	07	1631CST							Funnels (2)
Burlington 3W (Ward County)	07	1637CST	Short	5-15	0	0	0	0	Tornado (F0)
									A tornado touched down briefly. No damage reported.
Fessenden (Wells County)	07	1727CST							Funnel
Hamburg 1W (Wells County)	07	1759CST	Short	5-15	0	0	0	2	Tornado (F0)
									A tornado touched down briefly in a field. No damage reported.
McHenry (Foster County)	07	1805CST			0	0	0	0	Hail
									Hail one inch in diameter. No damage reported.
Glenfield (Foster County)	07	1908CST							Funnel
Beach 30N (Golden Valley County)	11	1720CST							Funnel
Medora 22N (Billings County)	11	1800CST	Short	400	0	0	3	0	Tornado (F1)
									A tornado toppled trees onto a fence line.
Medora 10N (Billings County)	11	1800CST			0	0	3	0	Hail
									Hail up to 2½ inches in diameter dented cars.
Grand Forks (Grand Forks County)	13	1547CST			0	0	0	0	Hail
									Hail 3/4 inch to baseball sized occurred. No damage was reported.
— NORTH DAKOTA									
Trotters 2S (Golden Valley County)	15	1435CST			0	0	0	0	Hail
									Hail 3/4 inch in diameter occurred. No damage was reported.
Beach 25N (Golden Valley County)	15	1455CST							Funnel
Fairfield 7W (Billings County)	15	Afternoon			0	0	5	0	Lightning
									A fire, started by lightning, destroyed two oil tank batteries.
Sentinel Butte (Golden Valley County)	15	1500CST			0	0	0	4	Hail
									Hail 3/4 inch in diameter damaged area crops.
Medora (Billings County)	15	1640CST			0	0	0	0	Hail
									Golfball-sized hail occurred. No damage reported.
Fryburg (Billings County)	15	1740CST			0	0	3	0	Hail
									Egg-sized hail broke windows.
Killdeer 6W (Dunn County)	16	1940CST			0	0	0	0	Thunderstorm Winds
									Strong thunderstorm winds of up to 70mph occurred. No damage reported.
Halliday 6W (Dunn County)	16	2015CST							Funnel
Beach 5E (Golden Valley County)	18	1855CST			0	0	0	4	Hail
									Hail up to 3/4 inch in diameter damaged crops.
Dickinson 20S (Stark County)	18	1935CST							Funnel
Dunn Center 8S (Dunn County)	18	1953CST							Funnel
Hebron (Morton County)	18	2130CST			0	0	3	0	Lightning
									A fire, started by lightning, damaged a house.
Mott 13S (Hettinger County)	18	2150CST			0	0	0	0	Thunderstorm Winds
									Strong thunderstorm winds of 50 to 60mph occurred. No damage reported.
Bowman 10S (Bowman County)	20	1910CST	Short	100	0	0	4	0	Tornado F(1)
									A tornado blew the roof off a house and knocked down 19 power poles.
Cartwright (McKenzie County)	20	Evening			0	0	5	0	Lightning
									A fire, started by lightning, destroyed a REC substation.
Maxbass (Bottineau County)	20	Evening			0	0	4	0	Lightning
									A fire, started by lightning, burned a steel tank, a fiberglass storage tank, and a pump hose.
Minot (Ward County)	22	0155CST							Funnel
Medina (Stutsman County)	22	0545CST			0	0	0	0	Thunderstorm Winds
									Strong thunderstorm winds of 60mph occurred. No damage reported.
Gackle 7S (Logan County)	22	Morning			0	0	3	0	Lightning
									Lightning struck an old church and blew out a side wall.
Montpelier (Stutsman County)	22	0625CST			0	0	3	0	Thunderstorm Winds
									Strong thunderstorm winds caused extensive tree damage and rolled over a semi-trailer.
Jamestown (Stutsman County)	22	0633CST			0	0	5	0	Thunderstorm Winds
									Strong thunderstorm winds of 81mph uprooted trees, damaged buildings and two small planes, and toppled three grain bins.
Marion (LaMoure County)	22	0638CST			0	0	0	0	Thunderstorm Winds
									Strong thunderstorm winds of 50 to 60mph occurred. No damage reported.
Fingal (Barnes County)	22	0730CST			0	0	5	5	Hail, Thunderstorm Winds
									Hail up to one inch in diameter damaged crops while strong thunderstorm winds damaged trees and blew over an old barn.
Lidgerwood (Richland County)	22	0800CST			0	0	0	0	Thunderstorm Winds
									Strong thunderstorm winds of 60mph occurred. No damage reported.

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JUNE 1984

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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 ¹ DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	

NORTH DAKOTA

Hesthopte 7NW (Bottineau County)	22'	1440CST	Short	20	0	0	4	0	Tornado (F1)
A tornado destroyed two barns and a quonset hut, and snapped off a number of poles.									
Hettinger (Adams County)	25	1447CST		0	0	0	0	0	Hail
Golfball-sized hail occurred. No damage was reported.									
Taylor (Stark County)	25	1520CST		0	0	0	0	0	Thunderstorm Winds
Strong thunderstorm winds of 66mph occurred. No damage reported.									
McHenry (Foster County)	25	1842CST		0	0	0	0	0	Hail
Hail up to 3/4 inch occurred. No damage reported.									
Cooperstown SSE (Griggs County)	25	1920CST	Short	5-15	0	0	0	0	Tornado (F0)
A tornado touched down briefly. No damage reported.									
Cooperstown (Griggs County)	25	1950CST		0	0	0	3	0	Hail
Golfball-sized hail damaged crops.									
Selfridge (Sioux County)	27	1858CST		0	0	0	0	0	Hail
Golfball-sized hail occurred. No damage was reported.									

33 OHIO

Lake County	05	1500EST		1	0	0	0	0	Lightning
A 77 year old man was struck and killed by lightning while working in his garden at his home in Willoughby.									
Portage County	05	1900EST		0	0	4	0	0	High Wind
Thunderstorm winds downed trees and utility lines in the Ravenna area. Structural damage was minor.									
Holmes County	05	1915EST		0	0	5	0	0	High Wind
A thunderstorm produced 65 MPH winds 5 miles northeast of Millersburg. Trees and lines were downed and farm buildings damaged.									
Stark County	05	2000EST		0	0	4	0	0	High Wind
Thunderstorm winds downed trees and utility lines and caused minor structural damage in Wilnot.									
Lake County	06	1620EST		0	4	0	0	0	Lightning
Lightning struck and injured four golfers while standing beneath a 40 foot tree during a thunderstorm.									
Lake County	06	1630EST		0	1	0	0	0	Lightning
A 14 year old boy was struck by lightning as he walked across his backyard in Kirtland.									
Geauga County	06	1705EST		0	0	4	0	0	High Wind
A severe thunderstorm moved across the northern half of the county with 60 MPH winds downing trees and utility lines. Some minor roof damage also occurred.									
Montgomery County	13	1400EST		0	0	4	0	0	High Wind
Thunderstorm winds blew the roof off a dentist's office in Brookville and overturned several tractor trailer trucks on Interstate 70.									
Henry County	13	1730EST		1	0	0	0	0	Lightning
Lightning struck and killed a man riding on a tractor in a field near Hamler.									
Mercer County	13	1830EST		0	0	4	0	0	High Wind
Thunderstorm winds blew down trees and did minor structural damage in Celina.									
Lorain County	13	1910EST		0	0	4	0	0	High Wind
Thunderstorm winds as high as 70 MPH were recorded at Lorain County Airport. Some trees and utility lines were downed in Elyria.									
Union County	13	1930EST- 2000EST		0	0	5	0	0	High Wind
A thunderstorm produced damaging winds in Marysville. Farm buildings were damaged and trees and utility poles snapped off.									
Cuyahoga County	13	1935EST		0	0	5	0	0	High Wind Lightning
A thunderstorm moved through the east side of Cleveland and the eastern suburbs producing damaging winds. Trees and lines were downed. Several lightning strikes started fires.									

OHIO

Champaign County	13	1950EST		0	0	4	0	0	High Wind
Thunderstorms did minor structural damage in several areas in the county. Some trees and utility lines were downed.									
Logan County	13	2003EST		0	0	5	0	0	High Wind
Thunderstorm winds damaged buildings and downed trees in Bellefontaine.									
Delaware County	13	2030EST		0	0	5	0	0	High Wind
Thunderstorm winds of 50 to 70 MPH damaged homes in the south part of the county.									
Marion County	13	2030EST		0	0	4	0	0	High Wind Lightning
Winds from a thunderstorm downed trees and utility poles. Several lightning strikes started minor fires.									
Cuyahoga County	18	1526EST		0	4	5	0	0	High Wind
A thunderstorm downed trees and did structural damage in the northeast quarter of the county. Winds of 60 MPH were recorded at the Lakefront Airport. Pieces of metal were blown off a large construction project. The flying debris injured four workmen in downtown Cleveland.									
Wood County	18	1533EST		0	2	0	0	0	Lightning
Lightning struck and injured two golfers in Perrysburg.									
Montgomery County	18	1542EST		0	0	4	0	0	High Wind
A thunderstorm with winds to 60 MPH passed over the Dayton Airport and did minor damage in the county.									
Clark County	18	1555EST		0	0	4	0	0	High Wind
Sixty MPH winds downed trees and utility poles in the Springfield area.									
Geauga County	18	1610EST		0	0	4	0	0	High Wind
Thunderstorm winds downed trees and utility lines in Newberry Township.									
Madison County	18	1640EST		0	0	4	0	0	High Wind
A thunderstorm moved across the northern part of the county and did minor structural damage in Plain City.									
Trumbull County	18	1640EST		1	10	6	0	0	High Wind
A thunderstorm downburst produced 90 MPH winds just south of the Youngstown Airport. Winds at the airport were as high as 58 MPH. The winds did severe damage to a Days Inn Motel in Liberty Township. An 8 year old girl died of a fractured skull and ten others were injured. Other structural damage occurred in the county and trees and utility lines were downed.									
Franklin County	18	1654EST		1	2	5	0	0	High Wind
Thunderstorm winds caused structural damage in the northern part of the county. A concrete wall at a construction site was blown over on three workmen. One worker was killed and the other two injured. Trees and utility lines were downed along Interstate 270.									
Mahoning County	18	1655EST		0	0	4	0	0	High Wind
Thunderstorm winds downed trees in many areas of the county.									
Franklin County	18	1700EST		0	1	0	0	0	Lightning
Lightning struck and injured a worker at OSU airport as he was tying down a plane during a thunderstorm.									
Carroll County	18	1730EST		0	0	4	0	0	High Wind
Trees and utility poles were snapped off by strong thunderstorm winds.									
Hamilton County	18	1752EST		0	0	4	0	0	High Wind
A thunderstorm produced 70 MPH winds as it passed over Cincinnati Lunken Airport. Some trees were blown down in the Cincinnati area.									
Tuscarawas County	18	1803EST		0	0	4	0	0	High Wind
Trees were blown down and building damaged by a thunderstorm which passed through Urichville.									
Pickaway County	18	1810EST		0	0	4	0	0	High Wind
A thunderstorm downed trees and utility lines south of Circleville.									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1984

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	
OHIO									
Fayette County	18	1813EST			0	0	4	0	High Wind
									Thunderstorm winds damaged a hardware store and blew a roof off a garage in New Holland. Trees and utility lines were also downed.
Muskingum County	18	1827EST			0	0	4	0	High Wind
									Winds higher than 70 MPH were recorded as a thunderstorm crossed Zanesville Airport. Trees and utility lines were downed.
Ross County	18	1840EST			0	0	4	0	High Wind
									Thunderstorm winds blew down trees and utility lines in Greenfield.
Montgomery County	20	1245EST	1	40	0	0	4	0	Tornado (F1)
									A mini-tornado touched down at U.S. Route 40 and Arlington Road west of the Dayton Airport. The storm did minor damage to a farm complex and was viewed by several people.
Montgomery County	20	1330EST			1	0	0	0	Lightning
									A retired military officer was struck and killed by lightning while golfing at Wright-Patterson golf course.
Hardin County	20	1358EST			0	0	3 ⁰	0	Hail
									Golf ball sized hail fell 2 miles west of Kenton. The storm damaged crops in the area.
Logan County	23	1430EST			0	0	5	0	High Winds
									Thunderstorm winds destroyed a mobile home 6 miles north of Bellefontaine. Other building in the area were also damaged.
Tuscarawas County	29	1610EST			0	0	3 ⁰	0	Hail
									Hail 3/4 inch in diameter fell in Newcomerstown. The hail did minor crop damage.
34 OKLAHOMA									
Oklahoma City, Oklahoma County	04	1600CST			0	0	?	?	Wind
									Strong winds uprooted several trees and damaged a barn in Northeastern Oklahoma City.
Paoli, Garvin County	04	1650CST			0	0	?	?	Hail/Wind
									3/4 inch hail and winds up to 60 mph occurred.
Walters, Cotton County	04	1920CST			0	0	?	?	Wind
									Strong winds caused 7 power poles to be blown down just south of Walters.
Marlow, Stephens County	04	Evening			0	0	3	?	Lightning
									Lightning struck a church causing \$2,000 damage.
Claremore, Rogers County	05	0930CST			0	0	3	?	Lightning
									Lightning struck a home causing \$1,000 damage.
Cache, Comanche County	05	1600CST			0	0	?	?	Hail
									Golfball size hail fell 3 miles east of Cache.
Lawton, Comanche County	05	1630CST			0	0	4	?	Wind/Hail
									Winds up to 70 mph overturned a trailer and picked up gravel and blew them breaking out windshields on 14 autos. Damage estimated at \$15,000. One inch size hail also fell.
Fort Cobb, Caddo County	05	1645CST			0	0	?	?	Wind
									Winds 50 to 60 mph were reported near Fort Cobb.
Anadarko, Caddo County	05	1648CST			0	0	?	?	Hail
									3/4 inch size hail fell.
Walters, Cotton County	05	1648CST			0	0	?	?	Wind/Hail
									Winds 50 to 60 mph blew a tree down on to a house and hail near 3/4 of an inch fell.
OKLAHOMA									
Lawton, Comanche County	05	1659CST			0	0	?	?	Wind
									Strong winds downed power lines east of Lawton.
Tuttle, Grady County	05	1715CST			0	0	?	?	Wind
									Winds up to 60 mph occurred 5 miles east of Tuttle.
Oluskee, Jackson County	05	1915CST			0	0	3	?	Lightning
									Lightning struck a home 4 miles west of Oluskee causing \$2,000 damage.
Altus, Jackson County	05	1929CST			0	0	5	0	Lightning
									Lightning struck a home causing it to burn six miles northeast of Altus. Damage was estimated at \$150,000.
Norman, Cleveland County	05	2045CST			0	0	?	?	Hail
									3/4 inch size hail fell.
Seminole, Seminole County	06	0045CST			0	0	5	?	Lightning
									Lightning struck an oil battery. Fire destroyed 8 tanks. Damage estimated at \$100,000.
Owasso, Tulsa County	06	0305CST			0	0	5	?	Lightning
									Lightning struck a home causing it to burn. Damage was \$81,000.
Cherokee, Alfalfa County	08	1605CST			0	0	?	?	Hail
									Golfball size hail fell.
Sharon, Woodward County	08	1630CST			0	0	?	?	Hail/Wind
									3/4 inch size hail fell and strong winds downed trees 3 miles southeast of Sharon.
Burlington, Alfalfa County	08	1630CST			0	0	?	?	Hail
									Two inch size hail fell 1 1/2 miles west of Burlington.
Alva, Woods County	08	1700CST			0	0	?	?	Hail
									Golfball size hail fell 8 miles NW of Alva.
Manchester, Grant County	08	1715CST			0	0	?	?	Hail
									Golfball size hail fell.
Byron, Alfalfa County	08	1715CST			0	0	?	?	Hail
									Tennis ball size hail fell.
Burlington, Alfalfa County	08	1800CST	Short Narrow	0	0	4	?	?	Tornado (F1)
									A tornado touched down briefly destroying a barn and several outbuildings 1/2 mile west and 1 1/2 miles south of Burlington. Damage estimated at \$14,000.
Wakita, Grant County	08	1805CST	Short Narrow	0	0	0	0	0	Tornado (F0)
									A tornado touched down 3 miles east of Wakita causing no damage.
Hennessey, Kingfisher County	09	1616CST			0	0	?	?	Hail
									3/4 inch size hail fell.
El Reno, Canadian County	09	1730CST			0	0	?	?	Wind
									Winds of 69 mph occurred.
El Reno, Canadian County	09	1852CST			0	0	?	?	Wind
									Winds of 50 to 60 mph occurred across southern Canadian County just south of El Reno.
Yukon, Canadian County	09	1901 CST			0	0	4	?	Lightning
									Lightning struck an oil tank battery near Yukon causing it to burn. Damage estimated at \$25,000.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1984

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

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

OKLAHOMA

Yukon, Canadian County	09	1935CST			0	0	4	?	Lightning
Lightning struck an oil tank battery near Yukon causing it to burn. Damage was estimated at \$20,000.									
Anadarko, Caddo County	09	2015CST			0	0	?	?	Hail
Golfball size hail fell 5 miles southwest of Anadarko.									
Meers, Comanche County	09	2112CST			0	0	?	?	Hail
3/4 inch size hail fell.									
Lawton, Comanche County	09	2131CST			0	0	?	?	Hail
Golfball size hail fell near Lake Latonka, 5 miles north of Lawton.									
Freedom, Woods County	10	1655CST			0	0	?	?	Hail
Ping-pong ball size hail fell.									
Sharon, Woodward County	10	1743CST			0	0	?	?	Hail
Golfball size hail fell 3 miles south of Sharon.									
Vici, Dewey County	10	1745CST			0	0	?	?	Hail
3/4 inch size hail fell.									
Vici, Dewey County	10	1805CST			0	0	?	?	Wind/Hail
60 mph winds and marble size hail occurred.									
Mutual, Woodward County	10	1810CST			0	0	?	?	Wind/Hail
Golfball size hail and 70 mph winds occurred 4 miles southeast of Mutual.									
Lavern, Harper County	10	2100CST			0	0	?	?	Wind
50 to 60 mph winds occurred downing tree limbs and power lines.									
Elk City, Beckham County	10	2100- 2300CST			0	0	?	?	Flash Flooding
Three to four inches of rain caused flooding of streets and washed out two bridges near Elk City.									
Beaver, Beaver County	10	2130CST			0	0	?	?	Wind
70 mph winds occurred.									
Sayre, Beckham County	10	2135CST			0	0	?	?	Wind
60 mph winds occurred.									
Sayre, Beckham County	10	2212CST			0	0	?	?	Hail
Hail near golfball size fell.									
Clinton, Custer County	10	2230CST			0	0	?	?	Wind
70 mph winds downed tree limbs and power lines.									
Harmon, Ellis County	13	1815CST			0	0	?	?	Hail/wind
Golfball size hail fell and strong winds broke off a 2 foot diameter tree 17 miles south of Harmon.									
Elgin, Comanche County	18	1530CST			0	0	4	?	Wind
Strong winds overturned a mobile home which landed on top of a pickup. Damage estimated at \$15,000.									
Duke, Jackson County	18	1645CST			0	0	4	?	Wind
Winds of 70 to 80 mph destroyed a mobile home and took the roof off of a grain elevator. Many storage sheds were destroyed along with tree limbs and power lines being downed. Damage was estimated at \$20,000.									

OKLAHOMA

Morris, Okmulgee County	18	1700CST	Short Narrow		0	0	4	?	Tornado (F1)
A tornado destroyed a barn and damaged other buildings 1 1/2 miles north of Morris. Damage estimated at \$20,000.									
Oklahoma City, Oklahoma County	18	1730CST			0	0	?	?	Hail
Hail the size of nickles fell.									
Union City, Canadian County	18	1803CST			0	0	?	?	Hail
3/4 inch size hail fell five miles north of Union City.									
Dibble, McClain County	19	1414CST			0	0	?	?	Hail
Golfball size hail fell.									
Washington, McClain County	19	1427 CST			0	0	?	?	Hail
One to 1 1/2 inch size hail fell.									
Crescent, Logan County	19	1630CST			0	0	?	?	Wind
Strong winds took the roof off of a convenience store and downed tree limbs and power lines.									
Crescent, Logan County	20	1300CST			0	0	3	?	Wind
Strong winds uprooted several trees and downed power lines. Roofs of 3 homes were also damaged. Damage estimated at \$5,000. Heavy rain at the same time caused street flooding which washing 2 cars off the road.									
El Reno, Canadian County	20	1700CST			0	0	?	?	Wind
Winds up to 60 mph occurred.									
Chelsea, Rogers County	20	1858 CST			0	0	?	?	Wind/Hail
80 mph winds and large hail were reported. No estimate of damage.									
Carnegie, Caddo County	23	1330CST			0	0	?	?	Hail
Golfball size hail fell 8 miles east of Carnegie.									
Eakly, Caddo County	23	1400CST			0	0	4	?	Wind
Strong winds destroyed a mobile home 6 miles south of Eakly. Damage estimated at \$10,000.									
Gotebo, Kiowa County	23	1415CST			0	0	?	?	Hail
Golfball size hail fell 4 miles east of Gotebo.									
Hollis, Harman County	23	1420CST			0	0	5	?	Wind
70 to 80 mph winds took parts of roofs off of 3 buildings, uprooted several trees and downed tree limbs and power lines. Damage is estimated at \$50,000.									
Camute, Washita County	23	1608CST			0	0	?	?	Wind
Winds up to 60 mph occurred 2 miles south of Camute.									
Okarche, Kingfisher County	23	1635CST			0	0	?	?	Wind
70 mph winds occurred.									
Okarche, Kingfisher County	23	1700CST			0	0	?	?	Hail
3/4 inch size hail fell just southeast of Okarche.									
Tulsa, Tulsa County	23	1715CST			0	0	?	?	Wind
70 mph winds occurred between Tulsa and Sand Springs downing tree limbs and power lines.									
El Reno, Canadian County	23	1730CST			0	0	?	?	Wind/Hail
70 mph winds occurred and hail the size of nickles fell.									
Okarche, Kingfisher County	23	1730- 1940CST			0	0	?	?	Flash/Flooding
4 to 5 inches of rain caused flooding in Okarche as well as Little Johns Creek. No estimate of damage was estimated.									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

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					KILLED	INJURED	PROPERTY	CROPS							KILLED	INJURED	PROPERTY	CROPS	
OKLAHOMA																			
Norman, Cleveland County	23	1850CST			0	0	?	?	Wind	Cushing, Payne County	28	2335CST			0	0	?	?	Wind
									Winds clocked up to 75 mph uprooted several trees.										60 mph winds downed trees and power lines.
Noble, Cleveland County	23	1900CST			0	0	?	?	Wind	Okmulgee, Okmulgee County	28	2335CST			0	0	?	?	Wind
									Strong winds up to 70 mph broke off 10-inch diameter limbs.										Strong winds downed large tree limbs and power lines.
Purcell, McClain County	23	1900CST			0	0	?	?	Wind	Bristow, Creek County	28	2340CST			0	0	?	?	Wind
									60 mph winds occurred.										Strong winds broke off large tree limbs and downed power lines.
Wynnewood, Garvin County	23	1940CST			0	0	4	?	Wind/Hail	Stroud, Lincoln County	28	2355CST			0	0	?	?	Hail
									60 to 70 mph winds damaged several roofs and uprooted many trees and downed power lines. Damage estimated at \$15,000. Hail the size of nickles also fell.										3/4 inch size hail fell.
Sulphur, Murray County	23	2015CST			0	0	?	?	Hail	Okemah, Okfuskee County	29	0005CST			0	0	?	?	Wind
									3/4 inch size hail fell.										Strong winds downed tree limbs and power lines. Many signs were also blown down.
Kingston, Marshall County	23	2015CST			0	0	?	?	Hail	McAlester, Pittsburg County	29	0055CST			0	0	?	?	Wind
									3/4 inch size hail fell.										Strong winds uprooted several trees and downed many large tree limbs.
Kingston, Marshall County	23	2100CST			0	0	4	?	Wind	Wiley Post Airport, Oklahoma County	29	0103CST			0	0	5	?	Wind
									Strong winds took the roof off of the city hall and a portion of the fire station. Damage was estimated at \$25,000.										75 mph winds damaged roofs of 2 hangers and overturned one aircraft. Damages estimated at \$80,000.
Oklahoma City, Oklahoma County	26	0600CST			0	0	5	?	Lightning	Oklahoma City, Oklahoma County	29	0110-0120CST			0	0	?	?	Hail
									Lightning struck a house causing it to burn. Damage set at \$110,000.										Hail up to golfball size struck portions of northwest Oklahoma City.
Seminole, Seminole County	26	0745CST			0	0	5	?	Lightning	Moore, Cleveland County	29	0135CST			0	0	5	?	Wind
									Lightning caused a home to burn 4 miles east of Seminole. Damage was estimated at \$50,000.										Strong winds destroyed a mobile home, took part of the roof off of a Moore school, and downed many power lines. Damage estimated at \$50,000.
Ponca City, Kay County	27	1426CST			0	0	?	?	Hail	Norman, Cleveland County	29	0145CST			0	0	?	?	Wind
									Golfball size hail fell.										70 mph winds occurred in northwest Norman.
Ponca City, Kay County	27	1435CST			0	0	4	?	Lightning	Norman, Cleveland County	29	0210CST			0	0	?	?	Wind
									Lightning caused a hay barn to burn. Damage was \$30,000.										65 mph winds occurred in southwest Norman.
Crescent, Logan County	27	1605CST			0	0	?	?	Hail	Byars, McClain County	29	0210CST			0	0	?	?	Wind
									3/4 inch size hail fell. Two inches of rain falling in an hour caused street flooding.										60 to 70 mph winds occurred.
Cashion, Kingfisher County	27	1610CST			0	0	?	?	Hail	Yale, Payne County	29	0330CST			0	0	?	?	Wind
									Hail the size of nickles fell 2 miles west of Cashion.										Strong winds blew down several large trees and power lines.
Stillwater, Payne County	27	1610CST			0	0	?	?	Hail										
									3/4 inch size hail fell 5 miles north of Stillwater.										
Blackwell, Kay County	28	2104CST			0	0	4	?	Wind										
									Strong winds downed trees, power lines and rolled a mobile home over. Damage estimated at \$12,000.										
Pawhuska, Osage County	28	2130CST			0	0	?	?	Wind										
									Strong winds downed trees and power lines knocking out power across the city.										
Tulsa, Tulsa County	28	2205CST			0	0	?	?	Wind										
									Winds over 60 mph downed large tree limbs and power lines causing power outages across the city.										
Ponca City, Kay County	28	2206CST			0	0	?	?	Wind/Hail										
									3/4 inch size hail fell and strong winds downed trees and power lines and destroyed a hay barn.										
Marland, Noble County	28	2210CST			0	0	?	?	Wind										
									Strong winds downed tree limbs and power lines and destroyed several out-buildings.										
Tulsa, Tulsa County	28	2330CST			0	0	5	?	Lightning										
									Lightning caused a house to burn causing \$75,000 damages.										
35 OREGON																			
										Marion County	7				0	0	3	4	Flood
																			Four large storms during the first week of June caused water to spill over the already swollen flood control dams. High water washed away newly planted crops from low-lying farms. Irrigation pumps were swamped. Chemical fertilizers were leached from the soil. High rainfall amounts kept the Willamette River two times higher than normal this Spring.
										Morrow & Union Counties	13				0	0	4	4	Thunderstorms
																			Thunderstorms were accompanied by hail and heavy rain showers. Water nearly washed away a portion of highway in Hardmen and inundated one home, causing evacuation.
																			High water from thundershowers also forced closure of the Hot Lake North Bridge crossing Catherine Creek.
																			Showers also caused crop damage.
										Union County	20	1030PST			0	0	2	0	Lightning
																			A lightning bolt struck a power pole, shutting down the local LaGrande newspaper.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1984

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	

36 PENNSYLVANIA, Eastern										
York, Lancaster, Northumberland and Montour Counties	06	1530EST						5	0	Lightning, Wind
<p>Thunderstorms brought down trees with gusty winds and lightning strikes. The falling trees damaged houses and automobiles and brought down utility lines.</p> <p>Thousands of customers had service interrupted. Lightning caused fires that destroyed a barn and also some chicken coops, killing 6800 chickens. The storm damage was mostly in the southern half of York County, the southwest part of Lancaster County and the southern part of Montour County; but scattered around Northumberland County.</p>										
Eastern Penna.	06	1200 EST								
	14	1500 EST			4	?	4	0		Heat Wave
<p>High temperatures reached the upper 80s and 90s through this period and reached the 90s on five consecutive days (7th thru 11th). The heat and humidity resulted in 4 deaths and no numbers are available for those that needed treatment. The heat caused quite a few roadways to buckle and at least 25 buses were out of service due to break down of air conditioners. Quite a number of schools were forced to release their students early from schools without air-conditioning. Utility companies in the area set record demand for electrical power.</p>										
Chester County	11	1630EST						0	0	5 0 Lightning, Wind
<p>Thunderstorms caused damage in the West Chester area. Lightning hit a brick smokestack at a junior high school severely damaging the stack and bringing bricks down on the building and on automobiles. Wind gusts destroyed two houses under construction.</p>										
Eastern Penna.	13	1400EST						0	7	5 0 Lightning, Wind
		2130EST								Heavy Rain
<p>Thunderstorms developed and moved across Eastern Pennsylvania at several different times, occurring over some sections more than once. The thunderstorms produced an unusual amount of lightning. At least 4 people were injured by lightning strikes in scattered locations. Lightning hit trees, utility poles and equipment, and buildings of all kinds. Lightning caused fires, destroyed one barn and damaged others. Also destroyed sheds and a garage containing 3 cars including a classic Rolls Royce. A number of houses and at least one mobile home were damaged in fires. Killed in the fires were 2 cows, 2 bulls and 2 dogs. Many more fires and other damage resulted from lightning with 22 storm related fires being reported in Reading alone. Lightning striking in a field killed five cows and injured five others. Heavy downpours caused widespread drainage flooding with many roadways flooded. Wind gusts tore part of the roof off a restaurant, an apartment house and a few other buildings. Also damaged 3 airplanes at Reading Airport and injured 3 people by toppling a platform at a rock concert. The highest recorded gust was 55 MPH at Harrisburg.</p>										
Mifflin, Juniata and Centre Counties	17	0900EST						0	0	6 6 Flash Flooding
	18	0600EST								Heavy Rain
<p>Rain which was heavy at times in thunderstorm downpours resulted in rainfall amounts of up to 5 inches. Flash flooding resulted with many houses, roadways and farms inundated. Land damage to 52,000 acres was over \$500,000 and damage to homes, farms and equipment was also over \$500,000.</p>										

36 PENNSYLVANIA, Eastern										
Franklin and Lancaster Counties	18	1600EST								Lightning
<p>Thunderstorms moving across the area produced lightning that disrupted electrical service to several thousand customers and destroyed two barns. Lightning strikes caused fires which destroyed the barns; one around 5 PM EDT near Orrstown, Franklin County, and one around 11 PM EDT in Pequea Township, Lancaster County.</p>										
Lehigh County	24	2330EST						0	0	5 0 Flash flooding
	25	0130EST								Heavy Rain
<p>Thunderstorm downpours caused small streams to flash flood in Lower Macungie, Upper Milford, Lower Milford, and Upper Saucon Townships. An unofficial measurement of 3.7 inches of rain was reported. Roadways, parks and building were flooded with a large portion off one building wall washed out. Roads were undermined, stream banks washed out, portions of bridges washed out and paving on roads and playgrounds washed away.</p>										
36 PENNSYLVANIA, Western										
Erie County	05	1830EST						4	4	Strong Winds
<p>Thunderstorms caused wind gusts up to 60 mph uprooting trees and damaging several houses. A grape farm was severely damaged. Damage was most severe in the area between Edinboro, Waterford and North East.</p>										
Beaver and Westmoreland Counties	13	?							3	Lightning
<p>Two Hempfield Township youths were seriously injured, one critically, when they were struck by lightning. At Beaver Falls City Park another youth was critically injured when struck by lightning.</p>										
Centre County	18	morning							3 5	Heavy Rain
<p>Up to 5 1/2 inches of rain fell in the Marsh Creek area (northeast Centre County), causing it to go out of its banks and damage 25 houses. Three people were also slightly injured. Some roads in the area were also damaged and a bridge sunk.</p>										
37 RHODE ISLAND										
Barrinton and East Providence area	26	1430-1445EST						0	0	0 0 Lightning
<p>About 8,000 electric customers lost power when lightning struck a major power line.</p>										
38 SOUTH CAROLINA										
Statewide	1-20	-						0	0	0 5 Drought
<p>No rain over much of the state during the first 3 weeks of June caused considerable damage to crops maturing during this period as early corn. This was the driest first 3 weeks of June since 1889 at many points in central, northeast and southeastern South Carolina.</p>										
Statewide	20	p.m.						0	0	5 4 Wind, hail, Lightning, rain
<p>Scattered thunderstorms mostly during the late afternoon and evening caused considerable localized damage including:</p> <p><u>1425EST Orangeburg, Orangeburg County</u> Lightning damaged a home.</p> <p><u>1500EST Wadmalaw Island, Charleston County</u> Winds heavily damaged a mobile home.</p> <p><u>1530EST Greenville, Greenville County</u> Winds blew down several trees on Broadus Avenue, 7,000 homes without power due to lightning and winds.</p>										

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1984

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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— SOUTH CAROLINA

			<u>1600EST Lake Keowee Marina, Oconee County</u> Winds measured to 75 m.p.h. damaged a dock and several boats. Pea size hail and some lightning damaged reported.						
			<u>1645EST Branchville, Orangeburg County</u> Winds blew down trees, blocking highway south of Branchville. Barn destroyed in Boyer, S.C.						
			<u>1830EST Florence, Florence County</u> Trees down, caused power outages. Dime size hail reported, but no hail damage reported.						
			<u>1920EST Eastern Columbia, Richland County</u> Lightning and wind disrupted electrical power. Golf ball size hail in Shandon area and also on Leesburg Road in eastern Columbia.						
			<u>2030EST West Columbia, Richland County</u> Lightning sparked fire, destroyed a large office building.						
Lynchburg, Lee County	20	1600EST	0	0	0	1	0	0	Lightning
			Lightning struck a lady talking on the telephone.						
Antreville, Abbeville County	21	p.m.			0	0	5	0	Lightning, wind
			Lightning struck and burned a home. Also, minor wind damage in Abbeville.						
Columbia Area, Richland and Lexington Counties	21	1400EST			0	6	5	4	Rain, flooding and lightning
			Heavy rains caused the roof of a factory in Cayce to collapse. Street flooding reported in areas of poor drainage throughout Columbia metropolitan area. Stores in Five Points flooded. Scattered power outages across metropolitan area.						
Clover, York County	27	1515EST	0	0	0	0	4	0	Wind, lightning
			Thunderstorm winds caused minor damage. Some lightning damage to utilities reported.						
Greenville, Greenville	29	1300EST	0	0	0	0	4	3	Rain, flooding
			Heavy rains of more than four inches caused considerable flooding. The Reedy River crested well above flood stage or about 12.2 ft. at 1 p.m. Worst hit areas in Greenville were Terrace Street, Cleveland Park and West Washington Street. Two families evacuated. Considerable flooding also on small streams in surrounding areas, but damage mostly minor.						

39 SOUTH DAKOTA

Walworth County	03	1130 CST			0	0	2	0	Lightning
			Lightning struck a transformer in Mobridge, causing a power outage for nearly two hours. A home also received lightning damage, as several small appliances were knocked out.						
Stanley County	03	1928 CST			0	0	0	0	Funnel
			A funnel cloud was observed for several minutes west of Pierre.						
Walworth & Potter Counties	03	2200 CST			0	0	3	0	Winds
			Strong winds around Hoven damaged numerous trees and outbuildings and destroyed a shed.						
Stanley County	04	0230-0630 CST			0	0	?	?	Flash Flood
			Heavy rains of up to seven inches overnight caused the Bad River to rise over 23 feet in six hours at Fort Pierre. Flash flooding resulted as a dam, seventeen miles west of Fort Pierre, gave way and an irrigation dam near Fort Pierre was damaged. Some roads and bridges were covered by water, resulting in damage. Many homes had water in them and one home, five miles west of Fort Pierre, was evacuated.						
Faulk, Edmunds, McPherson & Brown Counties	04	1700-1815 CST			0	0	2	0	Thunderstorm Winds
			Heavy thunderstorms with strong gusty winds up to 60 mph reduced visibility to a mile or less and downed numerous branches and several signs.						
Jerauld County	04	1800 CST			0	0	?	?	Hail
			Hail, one inch in diameter, fell in Messington Springs.						
Brown County	04	1819 CST			0	0	0	0	Funnel Clouds
			Two funnels were reported by a sheriff just west and one mile north of Frederick.						

— SOUTH DAKOTA

Clark County	05	1854 CST	short narrow	0	0	0	0	0	Tornado (F0)
			The public reported a tornado just west of Carpenter. No damage.						
Charles Mix County	05	1915 CST			0	0	4	0	Severe Thunderstorm
			A severe thunderstorm at Wagner resulted in brief heavy rains and winds up to 70 mph. Numerous limbs were downed, shingles and TV antennas blown off, a garage destroyed, a building blown off its foundation and roof panels torn off. As the thunderstorm moved through the area, the temperature dropped 20 degrees in ten minutes.						
Hanson County	05	2015 CST	short narrow	0	0	4	0	0	Tornado (F2)
			A tornado, twelve miles east of Alexandria, destroyed a barn, tore the roofs from a home and two machine sheds and wrapped a feed auger around a bulk tank. The tornado immediately followed a 3-4 inch rainfall that occurred in less than 30 minutes.						
Day County	05	2015-2050 CST			0	0	0	0	Funnel Cloud
			A funnel was spotted near Webster and moved northeast to just west of Waubay. No damage was reported.						
Hutchinson County	05	2020 CST			0	0	0	0	Thunderstorm
			A thunderstorm dumped two and one-half inches of rain in 20-30 minutes at Parkston. Several limbs were downed and sewers backed up into homes and businesses.						
Hutchinson County	05	2030 CST	short narrow	0	0	4	0	0	Tornado (F2)
			A tornado, ten miles east and one mile south of Parkston, destroyed a large barn and grain bin. A car shed and shop building were damaged. Two 70 foot trees were uprooted and fell on a cutter and destroyed it. Several windows were broken and screens were blown from windows.						
Brule County	05	2035-2050 CST			0	0	4	0	Thunderstorm
			Rain, three to five inches, and winds up to 45 mph struck Kimball, incurring some damage. Shingles were blown off four buildings, a hay barn, garage, chimney and another barn were destroyed, a steel corn crib was blown away and some TV antennas and numerous trees were downed.						
Beadle County	05	2110 CST			0	0	?	?	Hail
			Three-quarters inch diameter hail fell ten miles north of Huron.						
Hamlin County	05	2130 CST			0	0	0	0	Wind
			Strong winds damaged and uprooted trees in Bryant.						
Kingsbury County	05	2145 CST			0	0	3	0	Wind
			Strong winds southwest of Hetland uprooted trees and downed power lines.						
Codington County	05	2155 CST			0	0	?	?	Hail
			Hail, one and three-quarters inch in diameter, fell at Lake Kempeska.						
Kingsbury County	05	2220 CST	short narrow	0	0	3	0	0	Tornado (F1)
			Five miles east of Lake Preston, a tornado uprooted trees and downed power lines.						
Deuel County	05	2223 CST	short narrow	0	0	0	0	0	Tornado (F0)
			A tornado near Toronto was reported. No damage.						
Clark County	07	1335 CST			0	0	?	?	Hail
			One and three-quarters inch hail fell at Clark.						
Roberts County	07	1405 CST			0	0	0	0	Funnel
			The public reported a funnel cloud just south of Peever.						
Beadle County	07	1435 CST			0	0	?	?	Hail
			Three-quarters inch hail fell around Huron.						
Sanborn County	07	1435 CST			0	0	?	?	Hail
			Three-quarters inch hail fell northwest of Forestburg and fifteen miles south of Huron.						
Minnehaha County	07	1615 CST			0	0	?	?	Hail
			Three-quarters inch hail fell near Sioux Falls.						

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1984

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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
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SOUTH DAKOTA

Brule County	07	Late Afternoon			0	0	2	0	Lightning, Hail
<p>One and three-quarters inch hail fell just north of Kimball, with no damage reported. Lightning struck a home in Kimball and damaged some appliances.</p>									
Moody County	07	Early Evening			0	0	3	0	Lightning
<p>Lightning struck a power line in Flandreau and knocked out a TV set, some lights and power for a short time to a small area. An electrical water meter was also severely damaged.</p>									
Miner County	07	2100 CST	1/8	60	0	0	5	0	Tornado (F2)
<p>A tornado at Howard moved northeast, taking the roof off an antique shop, considerably damaging an auto store and truck, uprooting several signs and approximately twenty trees and breaking numerous windows. Electrical power was interrupted for about an hour.</p>									
Clay County	09	1410 CST			0	0	0	0	Lightning
<p>Lightning in Vermillion caused power outages of less than an hour.</p>									
Southeast Third of State	11-26	Entire Period			0	0	7	8	Floods Flash Floods
<p>Widespread damaging flooding and flash flooding occurred in most of southeastern third of South Dakota. This flooding resulted in 16 South Dakota Counties being declared Federal Disaster areas. These counties were: Aurora, Bon Homme, Charles Mix, Clay, Davison, Hanson, Hutchinson, Kingsbury, Lake, Lincoln, McCook, Miner, Moody, Turner Union and Yankton. Seven additional counties were declared disaster areas by the Governor of South Dakota. These counties were: Beadle, Brookings, Deuel, Douglas, Hamlin, Minnehaha, and Sanborn. There was an estimated \$8.1 million in property damage and \$283 million in crop damage.</p> <p>Conditions for this disaster were set up as heavy snows during the winter of 1983-84 caused severe snowmelt flooding in the region beginning in late March 1984. This caused near-record flooding on the Big Sioux, Vermillion and Lower James Rivers.</p> <p>June 1984 was the wettest June on record in southeastern South Dakota. The fact that January through June 1984 was the wettest six month period on record at Sioux Falls shows the degree of saturation in the region.</p> <p>These heavy rains over the already saturated ground were the cause of the disastrous flooding and flash flooding. Each torrential rainstorm initially created flash flood conditions, then small stream flooding and finally river flooding, with conditions worsening with each successive storm.</p> <p>June's first heavy rains (1-4 inches) in the region fell on June 4-5 and caused some lowland and urban flooding and were the impetus to raise the Vermillion and upper Big Sioux Rivers above flood stage. The rains wet down the entire region and were an important precursor to the flooding later in the month.</p> <p>The next heavy rains occurred on June 7th and 8th, and again on the 9th and 10th as 1-3 inches fell in both storms, causing more local flooding and river stages to rise.</p> <p>A very dangerous storm moved into the area late on June 11th with very heavy rains - up to five inches - reported. Flash flooding occurred over much of the region and river flooding soon followed on the Big Sioux, Vermillion and lower James Rivers. Over four inches of rainfall in one hour in the region caused extensive flash flood damage as basement walls collapsed. Many roads and bridges were closed and heavily damaged. The dam on Lake Nemo in Hutchinson County broke destroying the dam, emptying the lake and destroying a farm directly downstream.</p> <p>Scattered heavy rains, (1-4 inches) again occurred over the area on the 14th, 15th, 16th and 17th causing some additional flash flooding and keeping river levels high. By late on the 16th, one to three feet of water was going through downtown Davis (Turner County) due to flooding on the Vermillion River. Record stages were already being forecast for the Vermillion River and the Vermillion Lake Dam (McCook County) along with many other smaller ones starting to concern officials as the high water was causing severe erosion problems.</p> <p>On the 17th, more rain fell (up to two inches). Fulton Lake Dam (Hanson County) was severely weakened and was in serious danger of failing.</p> <p>Early on the 18th, a train was derailed at Parker (Turner County) due to washed-out tracks in the area. Parker reported more than fifteen inches of rain in the ten days previous.</p> <p>Very heavy rains (up to 7 inches) again deluged the region on the 19th. Flash flooding was occurring in much of the region and continued through the morning of the 20th. Heavy rains (up to 4 inches) again fell on the 20th with more flash flooding resulting.</p>									

SOUTH DAKOTA

									<p>An emergency situation was developing as the widespread flash flooding was causing severe erosion, washing out or weakening many roads, bridges and culverts, in addition to washing away crops in low lying areas and flooding many basements (Basement walls were collapsing in some areas). Record or near record stages were expected on the Big Sioux, Vermillion and lower James Rivers and many of their tributaries. In some areas, cars were being washed off roads and into ditches where drivers attempted to cross deep water. Many small stock dams were collapsing, washing out roads, bridges and culverts beneath them. In Mount Vernon (Davison County), there was 3-4 feet of water in homes and many basements were crumbling. Twenty homes were evacuated along Dry Run Creek in Mitchell (Davison County). Sewage was 5-6 feet deep in parts of Mitchell.</p> <p>The dam at Lake Carthage (Miner County) was severely threatened due to the rising water on Redstone Creek. Massive sandbagging (400 yards - 3-4 feet high) proved successful in preventing the dam from breaking.</p> <p>At about noon on June 30, Dimock Lake Dam (Hutchinson County) gave way destroying the dam, emptying the lake and causing flooding in Milltown (Hutchinson County).</p> <p>More rain, up to four inches, fell on the 21st and again on the 22nd creating disastrous flash flooding resulting in flood emergencies throughout the region. Widespread flash flooding was occurring again and record or near record stages were occurring or expected on the area's rivers and streams. Most tributaries had their highest crests on the 21st or 22nd, while the mainstreams crested between the 21st and 24th.</p> <p>On the 21st, in Yankton (Yankton County), the shopping mall was flooded due to the flooding on Marne Creek. Some streets had up to five feet of water. Many families were evacuated in both Yankton and Mission Hill. Many families were also evacuated in Sioux Falls, Dell Rapids, Baltic and Renner in Minnehaha County and Trent and Flandreau in Moody County. Over 1,000 miles of roads were damaged or under water. Many cattle and other livestock were swept away by floodwaters. There was an incredible amount of erosion and crops that washed away. A flood emergency was declared the afternoon of the 21st in Sioux Falls after two inches of rain fell in twenty minutes, causing extensive flash flooding in the city. Many roads were under water and evacuation was taking place. Sewage and water lines were broken in Vermillion (Clay County) and sewage lagoons were washed away in Yankton (Yankton County).</p> <p>Every reporting point on the Big Sioux, Vermillion and lower James Rivers (including all their tributaries) crested well in excess of flood stage. Estimates by the U. S. Geological Survey place the flooding on the Big Sioux River at about a 30 year recurrence interval; the Vermillion River, about 100-500 year recurrence interval; the lower James River, about a 300 year recurrence interval. These numbers show the magnitude and rarity of this flooding. New record stages were set on the James River at Scotland (Bon Homme County) and on the Vermillion River at Davis (Turner County) and Wakonda and Vermillion (Clay County). A portion of the James River jumped its banks about four miles north of its mouth at the Missouri River and flowed overland (through an old Missouri River Channel) into Clay Creek (a tributary of the Vermillion River) near Meckling (Clay County). This is the first time this has happened in recent history.</p> <p>By June 22, over one million acres of cropland were under water in the region with Hutchinson (218,000 acres or 55% of cropland), Bon Homme (123,000 acres or 46% of cropland) and Turner (114,000 acres or 35% of cropland) were the counties hit the hardest.</p> <p>Overall, the greatest property damage occurred in Bon Homme, Lake, Yankton, Clay, Minnehaha and Turner Counties.</p>
Clay County	11	1900 CST short narrow			0	0	4	0	Tornado (F2)
<p>A tornado was reported two and one-half miles west of Vermillion on a farm. A hog barn and two cattle sheds were destroyed, several grain bins, a grain auger and two cattle sheds were damaged, the roof blown off a hog barn and a home slightly damaged. A corn crib was also lifted off its foundation. Electrical power was interrupted for 1-2 hours.</p>									
Clay County	11	1900 CST			0	0	3	0	Winds
<p>Strong thunderstorm winds in Vermillion tipped over a van and blew out two business display windows, damaging ceiling and floor tile inside.</p>									
Clay County	11	1900-1930 CST			0	0	0	0	Funnel Clouds
<p>Four funnels were sighted around Vermillion, all moving north to north northeast.</p>									
Minnehaha County	11	2300 CST			0	0	0	0	Thunderstorm
<p>In Sioux Falls, a thunderstorm with gusts up to 50 mph and heavy rains caused some street and basement floodings.</p>									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1984

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— SOUTH DAKOTA									
Lincoln County	11	2300 CST			0	0	4	0	Winds
									Strong thunderstorm winds destroyed a mobile home, four miles north and two miles west of Canton. Several surrounding farm buildings were also damaged.
Bon Homme County	11	2305 CST			0	0	4	0	Flash Flood
									More than four inches of rain fell in an hour in Scotland, Tyndall, and Avon producing some basement and considerable lowland flooding. In Scotland, three homes received extensive damage when basement walls gave way. Many roads and bridges were closed and heavily damaged.
Minnehaha County	11	2305-2330 CST			2	0	6	0	Downburst
									A severe thunderstorm, with estimated high winds of 160 mph, swept from two miles south and one-half mile east of Rowena northeast into Minnesota to two miles north of Hills (in Minnesota). The downburst caused the majority of the damage, and was followed immediately by very heavy rains. The affected area was approximately one-half mile wide to eight miles long. Damage included several destroyed outbuildings, roofs, machine and animal sheds, several barns, two trailer homes and several grain bins. Two deaths occurred as a home was completely blown off its foundation and debris scattered for several miles. The same farm also had most of its buildings, machine sheds and barns destroyed or severely damaged. As the storm progressed northeast, a power cable and pole were blown over, still held in place by concrete footings, showing no evidence of a twisting nature. Numerous trees in the path were sheared off and windows were blown out in many places. Overall, more than twenty homes on seventeen farms were affected.
Hutchinson County	12	0540 CST			0	0	6	0	Flash Flood
									The dam on Lake Menno broke due to heavy rains and high water, resulting in the drainage of a 45 acre lake. A farm just southwest of the dam was directly in the path of the water and extreme damage occurred. A home was moved 75 feet off its foundation, a new hog confinement was destroyed, 450 hogs were killed, one car was destroyed, two cars were severely damaged and machinery was scattered and missing. Grain bins were also swept away, as well as a machinery shed.
Fall River County	13	2120-0000 CST			0	0	3	0	Thunderstorm, Hail
									Four inches of rain and hail, ranging from three-quarters to one and three-quarters inch in diameter, fell in the Ardmore area, northwest to fifteen miles south of Edgemont. Fences were torn out, two garage doors blown off, trees uprooted, several outbuildings damaged and livestock hurt.
Beadle County	14	0820 CST			0	4	0	0	Lightning
									Four railroad employees were hurt, two with burns and muscle injuries, when lightning struck near a piece of machinery they were repairing in Huron.
Lake County	14	1019 CST			0	0	3	0	Lightning
									Lightning struck a home in Madison, fusing a clock radio to a radiator, ruining a TV set, burning out two telephones and damaging a stereo. Two holes, the size of a quarter, were burned in the carpet, several light bulbs were burned out, a 2' x 4' in the attic was charred, an insulator was split and some nails were melted.
Minnehaha County	14	1020-1125 CST			0	0	0	0	Heavy Rains
									Up to two inches of rain at Humboldt, Hartford and Sioux Falls produced some flash flooding. Water was found on many city streets and county highways and widespread lowland flooding occurred.
Minnehaha County	14	Early Afternoon			0	0	4	0	Lightning
									Lightning struck two homes in Sioux Falls, a barn near Hartford and a house under construction in Valley Springs causing some damage. A house trailer in Sioux Falls received severe exterior and interior damage and the TV antenna at another home was hit. A barn roof was burned just west of Hartford.
Pennington County	14	2341 CST			0	0	0	0	Lightning
									A lightning-related three hour power outage occurred in Hill City.
Dewey County	15	0415 CST			0	0	0	0	Heavy Rains
									Two inches of rain fell in 20-25 minutes at Eagle Butte. No damage reported.
— SOUTH DAKOTA									
Lyman County	15	1225-1250 CST			0	0	0	0	Flash Flood
									Thunderstorms that moved through western Lyman County dumped up to three inches of rain in an hour over the Medicine Creek drainage near Vivian and Presho. Runoff washed out a county road north of Vivian and produced an eight foot rise in an hour to Medicine Creek, which remained in its banks.
Pennington, Lawrence & Meade Counties	15	1458-1545 CST			0	0	?	0	Hail Heavy Rain
									Heavy rain and hail battered portions of the Black Hills. Up to two and three-quarters inch hail fell just west of Rapid City (Pennington County) even though the average diameter hail was one and three quarters inches. Hail fell in an area from Piedmont to Black Hawk (Meade County) to Rapid City. Heavy rains flooded many streets stalling several cars in Rapid City. In Spearfish (Lawrence County) rains washed out 200 feet of road, damaged several homes and produced a few minor power outages.
Brule County	15	1500 CST			0	0	?	?	Hail
									Hail, one and three fourths inch in diameter, fell from 10 miles south of Chamberlain north to Chamberlain.
Lawrence County	15	Evening			0	0	3	0	Lightning
									Lightning struck and killed two horses at Crow Peak.
Lincoln County	16	0345 CST			0	0	3	0	Lightning
									Lightning struck a home in Lennox through the TV antenna. Some shingles were destroyed and several rafters were shattered. Wiring and phones also received considerable damage.
Kingsbury County	16	1320 CST			0	0	0	0	Funnel Clouds
									Several small funnels were sighted around Lake Preston.
Pennington & Meade Counties	16	1340-1530 CST			0	0	6	0	Hail
									A hailstorm cut from Sturgis (Meade County) south to Rapid City (Pennington County) shredding roofs, denting cars and smashing windshields and windows. Hail sizes varied from one and three-quarters inches on up to four and one-half inches in diameter. Approximately 800 homes in Sturgis and Rapid City had substantial damage, although the majority of damage was to vehicles.
Butte & Meade Counties	16	2017-2054 CST			0	0	?	?	Hail
									One and three-quarters inch hail fell from twelve miles north of Newell (Butte County) to two miles south of Sturgis (Meade County).
Faulk County	17	0145 CST			0	0	0	0	High Winds
									Winds gusted to 60 mph at Wecota with no damage reported.
Lincoln County	17	1143-1152 CST			0	0	0	0	Funnel Cloud
									A funnel cloud was sighted nine miles southwest of Sioux Falls.
Jones County	17	1700 CST			0	0	0	0	Funnel Cloud
									A funnel cloud was reported by the public fifteen miles west of Murdo.
Lawrence County	17	2130 CST			0	1	0	0	Lightning
									Lightning injured a teenage boy working on a Ferris Wheel in Spearfish. The boy was struck on his right side and thrown fifteen feet.
Beadle County	19	1445 CST			0	0	0	0	Funnel Cloud
									A funnel cloud, moving east, was reported by police just east of Huron.
Spink County	19	1520 CST short narrow			0	0	0	0	Tornado (F0)
									A tornado was reported by the public just north of Doland. No damage reported.
Beadle County	19	1532 CST			0	0	?	?	Hail
									Hail, one and three-quarters inch in diameter, fell fifteen miles north of Huron.
Kingsbury & Beadle Counties	19	1710-1730 CST			0	0	?	?	Hail
									Hail, varying from three-fourths inch on up to one and three-fourths inches in diameter, fell from ten miles north of Huron (Beadle County) to De Smet and north to Erwin (Kingsbury County). Hail was up to five inches deep on the ground near Erwin.

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JUNE 1984

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					KILLED	INJURED	PROPERTY	CROPS	

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— SOUTH DAKOTA

Kingsbury County	19	1730 CST			0	0	2	0	High Winds
			In DeSmet, high winds slightly damaged several trees and a windmill.						
Brookings County	19	1815-1845 CST			0	0	4	0	Severe Thunderstorm
			A severe thunderstorm pounded Brookings County with high wind gusts and heavy rains. Winds gusted up to 85 mph east of Brookings and rains of almost an inch in an hour produced local flooding in many areas. A home near Arlington was hit by a falling tree. Numerous large trees were blown over, causing 15-18 power outages in Brookings, along with a van being pushed several feet by winds. In Aurora, a 60-foot grain bin was destroyed by strong winds.						
Lake County	19	1845 CST			0	0	?	?	Hail
			Pea-sized hail covered the ground at Rutland.						
Beadle County	19	1900 CST			0	0	0	0	High Wind
			Winds gusted to 70 mph at Lake Bryon.						
Minnehaha County	19	2010-2055 CST			0	0	0	0	High Winds Rain
			Winds gusted to 60 mph at Hartford and Renner and strong winds blew down numerous trees at Baltic. Over two inches of rain fell in many areas, causing local flooding.						
Kingsbury, Hamlin & northern Beadle Counties	19	2115 CST			0	0	5	0	Flash Flood
			Heavy thunderstorms produced rains of 5-7 inches in a 3-4 hour period, causing severe erosion and flash flooding. Roads and bridges were washed out in many areas and four culverts on a county road south of Bryant (Hamlin County), were washed out. In Hamlin County, Highway 28, south of Hayti, was under water, bridges over township roads were washed out and several other roads were under water. State crews blocked off an area west of Lake Norden where water flooded the intersection of State Highways 21 and 28. To the west of Lake Norden and to the south of Bryant, travel was considered hazardous as many roads were damaged by flood waters. In Beadle County, several roads were washed out, fields flooded and Lake Cavour was filling up for the first time in many years. In Kingsbury County, a car was washed into a ditch near DeSmet, many roads were impassable, at rural Erwin, 165 chickens drowned and south of Bancroft, culverts (102" x 70") were washed out on the Redstone Creek.						
Aurora County	19	2200-0000 CST			0	0	3	0	Flash Flood
			Rains of over four inches in a four hour period produced flash flooding. The side of a stock dam, ten miles northwest of White Lake, collapsed releasing a six-foot wall of water that washed out several culverts and bridges.						
Hutchinson County	19	2300 CST			0	0	?	?	Hail
			Just east of Parkston, hail (one-half inch in diameter) pounded an area 2-3 miles wide and 10-15 miles long. Corn, beans and small grains were severely damaged. Knee-high crops were reduced to a height of six inches by the hail. Several fences were also knocked down by the hail.						
Jackson County	20	1345 CST			0	0	?	?	Hail
			Hail, one inch to one and one-half inch in diameter, fell at Interior.						
Jones County	20	1720 CST			0	0	?	?	Hail
			One and three-quarters inch hail fell at Draper.						
Yankton County	20	1955 CST			0	0	0	0	High Winds
			Winds gusted to 65 mph at Yankton; however, no damage reported.						
Davison County	20	2237 CST			0	0	0	0	Funnel Cloud
			The public reported a funnel cloud five miles southwest of Mitchell.						
Yankton County	21	Early a.m. Afternoon			0	0	?	?	Flash Flooding
			Heavy rains and runoff caused the Marne Creek in Yankton to rise rapidly, causing extensive damage to home, property and cropland. Several families were evacuated and the walls collapsed on two basements. In Utica, the water was up to thirteen feet deep in places.						
Grant County	21	Morning			0	0	3	0	Lightning
			In Millbank, lightning hit a tree near a garage and followed a wire into the garage and damaged a wall and several tools.						

— SOUTH DAKOTA

Brookings County	21	Morning			0	0	3	0	Lightning
			In Brookings, lightning hit a building and blew bricks off a wall, leaving a 2 x 3 foot hole.						
Union County	21	1201 CST			0	0	0	0	Funnel Clouds
			A few finger funnels were reported in Beresford.						
Southeast Counties	21	Early Afternoon			0	0	4	0	Flash Flooding
			Rains of up to two inches in twenty minutes produced flash flooding in many areas. In Sioux Falls. (Minnehaha County) many streets were closed due to water, 20 families were evacuated, a basement wall collapsed and well over a thousand homes were without phone service. At Renner (Minnehaha County), 8-10 families were evacuated. Overall, many highways were closed and basement and lowland flooding prevailed.						
Shannon County	21	2330 CST short narrow			0	2	4	0	Tornado (F1)
			Two mobile homes were destroyed in Pine Ridge by a tornado, and a third mobile home was destroyed by one of the previously damaged. Two occupants in one of the trailers was injured as it overturned.						
Todd County	22	Early a.m.			0	0	4	0	High Winds
			High winds tore shingles off homes in Mission, blew over TV antennas and broke numerous limbs and windows.						
Brown County	22	0625 CST			0	0	?	?	Hail
			Hail, one and three-quarters inch in diameter, fell five miles southwest of Groton.						
Brown County	22	Morning			0	0	0	0	Funnel Clouds
			Several funnel clouds were observed along the James River in Stratford.						
Codington County	22	0925 CST			0	0	0	0	Funnel Cloud
			A funnel cloud was reported at Florence.						
Davison County	22	1530 CST			0	0	0	0	Funnel Clouds
			Several funnel clouds were reported seven miles southeast of Letcher.						
Jerauld County	22	1645-1655 CST	short narrow		0	0	0	0	Tornado (F0)
			A tornado, moving southeast, touched down just to the west of Wessington Springs. No damage was reported. Hail, up to one and three-fourths inch in diameter was also reported.						
Davison County	22	1743 CST			0	0	0	0	High Winds
			Gusts to 60 mph were reported north of Mount Vernon.						
Douglas County	22	1758 CST short narrow			0	0	0	0	Tornado (F0)
			A tornado moving south briefly touched down four miles northeast of Corsica. No damage was reported.						
Spink County	22	1813 CST			0	0	0	0	Funnel Clouds
			Several funnel clouds were reported near Tulare moving to the east.						
Hutchinson County	22	1815-1839 CST	7 narrow		0	0	0	0	Tornado (F0)
			A tornado moved from seven miles west-northwest of Parkston to one-half mile west of Parkston before dissipating. No damage occurred.						
Douglas County	22	1815 CST short narrow			0	0	0	0	Tornado (F0)
			A tornado briefly touched down twelve miles west of Dismock with no damage.						
Hutchinson County	22	1825 CST			0	0	2	0	Lightning
			Lightning struck and burned a few hay bales near Parkston.						
Hand County	22	1830 CST short narrow			0	0	0	0	Tornado (F0)
			A tornado touched down briefly 12 miles west of Tulare with no damage.						
Hutchinson County	22	1839-1900 CST			0	0	3	0	Severe Thunderstorm
			Gusts to 60 mph in Parkston and Tripp produced downed limbs and wires and resulted in a number of power outages. Several traffic signs were broken in Tripp due to the strong winds. Hail, one and three-quarters inches in diameter, fell in Parkston.						

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1984

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	
— SOUTH DAKOTA									
Bon Homme County	22	1900 CST	short narrow	0	0	0	0	0	Tornado (FO)
			A tornado briefly touched down three and one-half miles southwest of Scotland with no damage reported.						
Yankton County	22	1923-1950 CST		0	0	0	0	0	Funnel Clouds
			Several funnels, moving south-southeast, were reported north of Yankton.						
Clay, Union and Yankton Counties	22	2000-2110 CST		0	0	?	?		Hail
			A thunderstorm dumped hail up to one and three-fourths inches in diameter, from Yankton north to Nora (Union County) and east into Iowa. Damage to oats, corn and beans ranged from slight to complete.						
Turner County	22	2035 CST		0	0	2	0		High Winds
			High winds, three miles northeast of Parker, blew the roof from a barn.						
Yankton County	24	1920 CST		0	0	0	0		Funnel Cloud
			A funnel cloud was reported west of Yankton.						
Yankton County	24	2035 CST		0	0	0	0		Hail
			One and three-quarters inch hail fell at Gavins Point Dam.						
Perkins & Harding Counties	25	1445 CST		0	0	0	0	0	Funnel Clouds
			Several funnel clouds, moving southeast, were reported around Lodgepole and just northwest and southwest of Lemmon (Perkins County) and around Buffalo and eight miles northwest of Ralph (Harding County).						
Butte County	25	1530 CST		0	0	?	?		Hail
			Hail, one and three-quarters inch in diameter, fell at Nisland.						
Corson County	25	1550 CST		0	0	0	0		Lightning
			Lightning started several prairie fires near McIntosh.						
Dewey, Walworth and Edmunds Counties	25	1733-1837 CST		0	0	0	0	0	Funnel Cloud
			A funnel cloud was first observed over the Missouri River, three miles southwest of Mobridge (Dewey County), moving east-southeast and finally dissipating south of Bowdle (Edmunds County).						
Tripp County	25	2058 CST		0	0	0	0	0	High Winds
			Gust to 60 mph at Winner downed limbs and power lines.						
Corson County	27	1845 CST	short narrow	0	0	0	0	0	Tornado (FO)
			1905 CST	short narrow	0	0	0	0	Tornado (FO)
			A tornado was on the ground for less than a minute at Little Eagle with no damage. A second tornado touched down briefly from the same thunderstorm, five miles northwest of Mobridge.						
Corson & Walworth Counties	27	1915-2000 CST		0	0	?	?		Hail
			Hail, varying from a quarter inch to one and three-quarters inch in diameter, fell from Mahto (Corson County) to Mobridge (Walworth County). The hail was up to 4-5 inches deep in an area five miles wide.						
Minnehaha County	28	0600 CST		0	0	?	4		Hail
			Hail ripped a two mile wide strip from Garretson east into Minnesota, causing damage to windows, crops and siding. The worst damage resulted around Garretson. In all, 200 acres of corn and 100 acres of beans were damaged.						
Moody County	28	1030 CST		0	0	?	?		Hail
			One-half inch to one and three-quarters inch diameter hail fell at Interstate 29 and Highway 32, west of Flandreau. Road crews could not drive due to hail accumulation and they had to shovel the hail from truck beds.						
McCook County	28	1700 CST	short narrow	0	0	0	0	0	Tornado (FO)
			A tornado was reported around Stanley Corner, moving southeast. No damage was reported.						
McCook & Hutchinson Counties	28	1700-1711 CST	11 narrow	0	0	0	0	0	Tornado (FO)
			A tornado moved from two miles south and one mile west of Bridge-water (McCook County) to two miles north of Freeman, with no damage occurring.						
— SOUTH DAKOTA									
Hutchinson County	28	1705 CST	short narrow	0	0	0	0	0	Tornado (FO)
			A tornado was reported eight miles north of Olivet, moving south-east. No damage was reported.						
40 TENNESSEE									
South Blount County	12	1530cst				4	?		Wind, hail, heavy rain
			Hail and high winds accompanied a thunder storm which dumped an estimated two to three inches of rain in 45 minutes in the Greenwood Subdivision. The wind damaged a number of storage sheds and outbuildings including a couple of small buildings at businesses on Old Niles Ferry. A plate glass window at the 411 Restaurant was knocked out. A number of trees were also downed causing power outages. Lightning also damaged several transformers. Hail, size not reported, destroyed gardens.						
Knoxville, Knox County	12	1615cst				4	?		Wind, heavy rain
			Strong wind with a thunderstorm demolished a recently constructed storage shed and part of another at Witt Building Materials on Dale Avenue. Traffic was blocked on Dale for about 5 hours until all of the debris could be removed. Trees also fell on some lines causing power outages. Heavy rain caused street flooding in some sections of Knoxville.						
Knoxville, Knox County	12	1629cst				1	4		Lightning
			A partially blind 85-year-old died of smoke inhalation after lightning struck her house starting a fire. Lightning struck the south end of the one-story house and entered through an electrical outlet located behind a couch. The sparks ignited the couch eventually engulfing the living room in flame.						
Macon County	12	evening				?	?		Heavy rain, hail
			A Lafayette weather observer reported 2.45 inches of rain for the 12th, most of that falling with a thunderstorm during the evening. A number of sheds, barns, and crops in the Frogpond area northeast of Lafayette were damaged by hail. On specific size was given for the hail, however, the county agent described the storm with "hail heavy enough to beat paint off the barn."						
Estill Springs, Franklin County	14	1600cst				4	?		Wind
			A thunderstorm produced strong wind which downed trees and caused roof damage to several buildings. The wind came out of the northwest moving east-southeast according to witnesses. The damaged area was about 1-mile wide and 1-mile long. Besides tree damage, one house lost some shingles, the roof on a mobile home was partially peeled away, and a number of sheds and storage buildings were blown around.						
Lewisburg, Marshall County	15	aftn				2			Wind
			Wind took the roof off a dug-out at Folk Lambert Field. Several concrete blocks from the wall were also scattered.						
Oak Ridge, Anderson County	15	1400cst				4	?		Wind, hail
			A thunderstorm lashed Oak Ridge with 1.15 inches of rain which broke a 17-day dry spell, but high wind with the storm ripped up part of the roof at the school maintenance building. Store fronts were also blown out at a couple of downtown stores. Hail was reported with the thunderstorm but no size was given.						
Bolivar, Hardeman County	22	?				4			Wind
			Wind blew over an unanchored mobile home damaging the home and its contents.						
Brick Church area, Giles County	22	?				4			Wind
			Strong thunderstorm winds toppled many trees and knocked out power lines. A house sustained damage to one wall, and there were numerous reports of minor damage to outbuildings in the northeast part of Giles County.						
Carroll County	22	1930cst				?	?		Flash flooding
			Two motorists became stranded on US 70A between McLeoresville and Huntington after a 3-inch rainfall flooded the roadway. The two vehicles hydroplaned on standing water and landed in field.						
McKenzie, Carroll County	22	?				4			Lightning
			Lightning struck a mobile home causing a fire which completely destroyed the trailer.						
Concord Community, Carroll County	22	2100cst				4			Lightning
			Lightning was believed responsible for starting a fire in a 3-bedroom split level house. The lightning struck an air conditioner starting a fire in the kitchen area.						
Mt. Hebron Church, Greene County	24	aftn				3			Wind
			Wind destroyed the roof on a storage barn in a late afternoon thunderstorm.						
Mosheim, Greene County	28	aftn				?	?		Hail
			Hail beat cabbage into instant cole slaw and destroyed at least 20 acres of corn. The hail reportedly lasted for 45 minutes.						

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— TENNESSEE

Henry County	28 night	?	?	?	?	Wind	A number of trees were downed by wind during a thunderstorm. Some of the trees fell on houses causing additional property damage.		
McMinnville, Warren County	29 aftn	?	?	?	?	Wind, flash flooding	Wind with a late afternoon thunderstorm broke tree limbs and downed several trees. Flash flooding was reported in several sections of the city due to the heavy downpour. Power service was disrupted about two hours.		
Mowbray Mountain, Hamilton County	30 1610cst	?	?	?	?	Hail	One inch hail was reported on Mowbray Mountain. Small hail was also reported in East Ridge and Red Bank.		
Chattanooga, Hamilton County	30 1625cst	1				Lightning	A 16-year-old boy who stopped his bicycle under a tree to avoid the rain was killed when lightning struck the tree.		

41 TEXAS, Northern

McLennan County	04 1550CST	0	0	?	?	Wind	The Sheriff's Office reported winds estimated at 60 MPH downed tree limbs and power lines in the Waco area.				
Tarrant County	04 1625CST-1645CST	0	0	?	?	Wind	Thunderstorm winds estimated at near 60 MPH struck the Meadowbrook addition of Fort Worth at 1625CST. Spotters clocked winds to 60 MPH in eastern Tarrant County at 1645CST.				
Baylor County	05 1455CST	0	0	?	?	Hail	Pea to golf ball size hail was reported at Lake Kemp Dam.				
Eastland and Comanche Counties	05 2015CST 2030CST 2240CST	Short	Narrow	0	0	?	?	Tornado FO Wind Flooding	Spotters observed a small tornado touch down briefly in a field several miles west of DeLeon at 2015CST. Intense thunderstorms moved through the area during the next several hours, with resultant heavy rains. Rising Star received 5.4 inches rain, with Gorman reporting 4.5 inches, both being representative of amounts falling in Eastland County. Rising Star had some flooding from the rains, with water 3-5 feet deep over some streets for a short time. Several homes and businesses also had water inside for a short time. Comanche also reported 2.5 inches of rain and 60 MPH winds at 2030CST. Trees were uprooted by the thunderstorm winds, and several buildings sustained roof damage.		
Comanche County	06 0315CST 0330CST	Short	Narrow	0	0	0	0	Tornado FO Winds	A tornado touched down briefly about 9 miles west of Comanche, with no reported damage. At about 0330CST, the same thunderstorm struck the City of Comanche, with winds estimated at 70 MPH. Several buildings and mobile homes were heavily damaged, with estimates placed at \$200,000.		
Foard County	09 2030CST	0	0	?	?	Hail	Hail from marble to near golf ball size was reported at Thalia.				
Montague and Wise Counties	10 0620CST-0700CST	0	0	5	?	Winds	At 0620CST, Bridgeport Police reported 60 MPH winds and pea size hail causing minor damage in the City. The thunderstorm increased in strength and by 0633CST, Bridgeport Civil Defense officials were reporting winds estimated at 80 MPH or higher. Several roofs were torn off buildings, windows broken, signs and power lines were downed, and electric power was off for nearly five hours. At about 0700CST, rural Southern Montague County was struck by the storm, with numerous trees and power lines being downed.				
Hunt County	26 1035CST-1110CST	0	0	0	0	Winds	Spotters reported 60 MPH winds in Greenville at 1035CST.				

— TEXAS, Northern

Johnson County	27 1545CST-1605CST	0	0	0	0	Wind, Hail	Thunderstorm winds blew down a small outbuilding 4 miles south-east of Godley at 1545CST. Spotters reported pea to dime size hail and heavy rains at Bono at 1605CST.		
Parker County	28 1815CST 200 yd 50 yd 1815CST	0	0	4	0	Tornado F1 Hail	Spotters observed a tornado, about 50 yards wide, touch down between Pooleville and Peaster. The tornado traveled about 200 yards across the field and damaged a barn before lifting. Golfball size hail was also reported at 1815CST in Pooleville.		
Palo Pinto County	28 1850CST-1918CST	0	0	0	0	Wind	Thunderstorm winds estimated at 50 MPH were reported about 5 miles north of Mineral Wells at 1850CST. As the storm neared the city, spotters on the north side reported gusts to 70 MPH at 1908CST. Department of Public Safety officers tracked the storm as it left the city and reported winds to 60 MPH at 1918CST.		
Tarrant County	29 1619CST	0	0	0	0	Funnel	Carswell Air Force Base weather personnel observed a funnel southwest of the base for several minutes.		
Hood County	29 1630CST	0	0	0	0	Winds	Spotters reported marble size hail and 60 MPH winds in Cresson.		
Freestone County	30 0450CST	0	0	?	?	Flooding	The Sheriff's Office reported flooding along Highway 84 near its intersection with I-45.		

41 TEXAS, Southern

Travis County	5 1615CST	0	0	0	0	Hail	One inch hail fell just northwest of Austin along US Hwy 183 near the Williamson County line. No damage reported.				
Gonzales County	6 0715CST	.5	20	0	1	5	0	Tornado (FO)	A small tornado skipped across the northern portions of the town of Gonzales moving from west to east. The path of the damage was not continuous. A local patrolman, whose car was spun around into a tree by the high winds, described the event as very high winds trying to develop into a tornado, however he said there was rotation. A large National Guard Armory quonset building was damaged severely as one end of the building was blown in creating a wind tunnel so that the other end was blown outward. Northeast of the armory, a food store and a laundry building lost portions of their roofs. There was other roof and awning damage in the area. Several trees were snapped off and blown over. A few utility lines were downed. The damage scene was reviewed by National Weather Service Personnel.		
Harris County	6 1045CST	0	0	4	0	0	0	Wind	High winds from a thunderstorm destroyed a warehouse building behind the Spring Branch Shopping Center in Houston. The winds also shattered window panes, knocked down signs and snapped at least one utility pole in two.		
Atacosa County	12 1510CST	0	0	4	0	0	0	Wind	Thunderstorm winds blew down utility poles, trees and destroyed a barn 6 mi west of Jourdanton near State Hwy 97. The winds were estimated near 75MPH.		
Bexar County	13 1500CST	0	0	5	0	0	0	Wind	Thunderstorm winds gusting up to an estimated 75MPH hit on the eastern side of Bexar County near Kirby and Converse. More than 100 homes suffered minor damage to roofs and fences. Most of the damaged homes were located in the Mission Hills and Woodlake Estates sub-divisions. Woodlake Country Club suffered major damage to the golf course with many trees being uprooted. There was major damage to the roof of the club house.		
Brazos County	30 0600CST	0	0	5	0	0	0	Hail & Wind	In the eastern part of the county near the town of Kurten, thunderstorm winds destroyed 4 barns and blew over numerous trees. Large hail also fell.		

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TEXAS, Southern											
Karnes County	30	2000CST			0	0	5	0			Hail & Wind
											High winds from a thunderstorm demolished one mobile home as it was flipped over and severely damaged a second one. At least two roofs of homes were damaged as well as breakage of window panes. High winds also blew over several large trees. The location of the damage was near the by-pass around Kennedy near the intersection of State Hwy 72 and US Hwy 181. Large hail fell also.
Jim Wells County	30	2300CST			0	0	0	0			Wind
											Thunderstorm winds were estimated to be near 70MPH near the town Premont. Falfurrias in nearby Brooks County reported winds near 55MPH at about the same time. No damage was reported from either location.
41 TEXAS, Western											
Goodfellow AFB, Tom Green County	04	0820CST									Funnels
											The Security Police at Goodfellow Air Force Base spotted two funnel clouds in the vicinity of the base moving to the southeast.
Mareta and Wall, Tom Green County	04	0820CST	short	15	0	0	0	0	0	0	Tornado (FO)
	04	0950CST	short	15	0	0	0	0	0	0	Tornado (FO)
											A tornado between Mareta and Wall touched down briefly in open field at 0820CST. Another tornado moving toward Mareta also touched down briefly in open field at 0950CST.
Orient, Tom Green County	05	2330CST	1	35	1	0	4	0	0	0	Tornado (F1)
											A tornado hit the Murray Ranch (4 miles southeast of Orient) about a half hour before midnight, killing a man housed in a mobile home, and causing additional destruction as it traveled about a mile going north.
											The owner of the ranch said he heard a loud whining sound as his house started to shake. "I heard the noise and screamed at my wife to get the kids on the floor. I looked out the window, but it was all white with a black glare," he said. "It was all over in a flash of an eye." Murray said he ran to the front door, but it was too dark to see anything. "The wind was calm and a sprinkle of rain was falling. Then there was a flash of lightning and I could see the house (mobile home) was completely destroyed and that there was other damage," he said. The mobile home was blown off its foundation.
											According to Mrs. Murray the power failed and the thunderstorm was very intense with a continuous display of all forms of lightning. This lightning helped a neighbor rancher spot the tornado.
											There were two occupants in the mobile home. One, sensing the intensity of the storm, tried to wake up his companion, but could not do so. He grabbed several blankets and left. Moments later the home was hit. Many other buildings surrounding the mobile home were left untouched.
											Another ranch, about one mile north of the Murray Ranch, also suffered damage. Five power poles were sheared off about 4 feet from their base, three barns had corrugated steel stripped off its sides and roofs were blown off. Nearby structures, including the home, were left untouched.
Busby, Fisher County	06	0140CST			0	0	?	0			Hail
											Golfball-sized hail fell about 3 miles south of Busby.
											A complex severe weather system developed in the Panhandle creating a number of tornadoes, hailstorms, high winds and flash flooding on June 10th. A weak front accompanied the system. Following are the severe weather reports....
Exell, Moore County	10	1313CST	9	?	0	0	?	0	0	0	Tornado (FO) Hail
											A tornado about one mile west of Exell was observed for 30 minutes. It moved east but it appeared to have caused little if any damage. It was difficult to obtain the size and intensity of the tornado. The thunderstorm dropped golfball-sized hail which covered the ground.
Magic City, Wheeler County	10	1447CST	?	?	0	0	?	0	0	0	Tornado (FO)
											The pilot of an aircraft flying near Magic City observed a tornado about 3 miles southeast of the City. It appeared to have touched down briefly.
TEXAS, Western											
Amarillo, Potter and Carson Counties	10	Afternoon and Evening			0	0	5	?	?	?	Hail and Wind
											The storm complex entered northeast Amarillo and adjacent areas, causing considerable damage. Power and telephone lines were blown down, roofs were blown off and windows, outbuildings and trees were destroyed on the old air force base. An overhead door and truck trailers were destroyed at the Iowa Beef Packing Plant. In Carson County the Department of Energy Plant had considerable hail and wind damage...all their guard houses were damaged and one was totally destroyed. Every vehicle sustained hail damage. Two mobile homes were turned over near I-40 and 287, and two more about 2 miles east of Amarillo. There were numerous reports of hail with some to golfball size and one to baseball size in north-east Amarillo. The slow moving storms caused some local flash flooding with damage. Near 5 inches of rain fell in Amarillo.
Masterson, Moore County	10	1517CST			0	0	0	?	?	?	Hail
											Golfball-sized hail fell in Masterson.
Deaf Smith, Randall, and Armstrong Counties	10	Evening			0	0	?	?	?	?	Flash Flooding
											Heavy thunderstorms from eastern Deaf Smith County moved slowly across Randall County and Armstrong County creating flash flooding. In Amarillo underpasses and streets were flooded with up to 4 feet of water at South Western near I-27, up to a dozen vehicles were stranded in an underpass at I-40 and Washington. In Canyon water washed out some brick walls and entered some houses in Huntsley Hills. In Palo Duro State Park water was up to and estimated 8 feet over the first water crossing.
Claude, Armstrong County	10	1620CST	Less than 0.1 mile less than 0.1 mile		20	0	0	3	0	0	Tornado (F1)
		1650CST	Less than 0.1 mile		20	0	0	4	0	0	Tornado (F1)
											A tornado touched down briefly about 5 miles southwest of Claude destroying a barn. Another tornado, 6 miles west of Claude, ripped off the roof of a house while the residents were in the basement.
Washburn, Armstrong County	10	1748CST			0	0	?	0	0	0	Wind
											Very strong wind broke all the windows out of a house and a mobile home in Washburn.
Sundown, Hockley County	14	1420CST	short	4	0	0	0	0	0	0	Tornado (FO)
		1426CST	short	4	0	0	0	0	0	0	Tornado (FO)
		1440CST	short	4	0	0	0	0	0	0	Tornado (FO)
											Three very weak tornadoes struck near Sundown. The first was about 4 miles southwest followed by another 1 and 1/2 miles west of the City and then another only 1/2 mile west. The thunderstorms developed within a very moist and warm airmass of tropical origin. These storms were rather weak with relatively low tops. It is not unusual, of course, to get rope-like tornadoes not wider than a couple of dozen feet, as these were, out of this kind of airmass and synoptic pattern.
Slaton, Lubbock County	15	1710CST	0.2	16	0	0	0	0	0	0	Tornado (FO) Funnel Funnels
		1720CST									
		1725CST									
											A small tornado touched down 3 miles northwest of Slaton and moved slowly to the north. Several minutes later 3 funnel clouds just southeast of Slaton were observed by the Slaton Police. The tornado and funnel clouds came out of essentially the same kind of airmass as described in the above report.
Follett, Lipscomb County	25	1700CST			0	0	?	0	0	0	Hail
											Golfball-sized hail fell in Follett.
O'Donnell and Wilson, Lynn County	27	1325CST			0	0	2	0	0	0	Wind
		1400CST			0	0	2	0	0	0	Wind
											Severe thunderstorm wind in O'Donnell damaged buildings and blew down some trees. The same kind of wind destroyed a barn in Wilson. Both towns are in Lynn County.
Perryton, Ochiltree County	27	1340CST			0	0	?	0	0	0	Hail
											Golfball-sized hail fell in Perryton.
Shamrock, Wheeler County	27	1602CST	short narrow	0	0	?	0	0	0	0	Tornado (FO)
											A tornado touched down briefly 1 mile northwest of Shamrock.
Quail, Collingsworth County	27	1630CST	short narrow	0	0	?	0	0	0	0	Tornado (FO)
											A tornado made a brief appearance near Quail.
Samnorwood, Collingsworth County	27	1630CST	short narrow	0	0	?	0	0	0	0	Tornado (FO)
											A small tornado touched down briefly near Samnorwood.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1984

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	

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					KILLED	INJURED	PROPERTY	CROPS	

— TEXAS, Western									
El Dorado, Schleicher County	27	1700CST			0	0	2	0	Wind
Wind gusted to 70 mph two miles east of El Dorado causing tree damage.									
Estelline, Hall County	27	1725CST	short narrow		0	0	?	0	Tornado (F0)
A tornado touched down briefly 4 miles south of Estelline.									
42 UTAH									
Utah County	02	2045MST			0	0	3	0	Thunderstorm Downburst
A severe thunderstorm produced downdraft gusts to 71 mph at Brigham Young University in Provo on this Saturday evening. The winds caused flying debris which damaged two cars.									
Salt Lake County	03	0745MST			0	0	0	0	Hail
A thunderstorm over the Salt Lake Valley produced 1/2 inch diameter hail, mainly in the southern half of the valley. Surrounding counties reported pea size hail.									
Salt Lake County	19	2030MST			0	0	4	0	Thunderstorm Downburst
A thunderstorm downburst blew over trees and knocked out the power for many residents of the southern portion of the Salt Lake Valley on this Tuesday evening. Wind gusts were estimated at 70 mph and confined to a localized area. The strongest winds occurred in the Holladay/Cottonwood area of the city.									
Duchesne, Garfield, Millard, and Sevier Counties	30	1600MST			0	0	3	0	Hail, Heavy Rain
Heavy thunderstorms dumped heavy rainfall and hail on portions of southern and eastern Utah. 1/2 to 3/4 inch hail in the Duchesne area dented cars and trucks, knocked fruit off trees and broke windows. Hail accumulated to a depth of 4 inches in the Cove Fort area. Rainfall totals in inches/minutes included: .31/10 in Delta; .70/30 in Panguitch; .45/30 in Henrieville; .65/45 in Sigurd; and .56/45 in Duchesne.									
43 VERMONT									
WASHINGTON, LAMOILLE, FRANKLIN & ORANGE COUNTIES	07	AM			0	0	8	7	Flood
Heavy rain created major flooding which ravaged Northern Vermont. Local officials stated this was the worst flooding since 1927. The Lamoille River swelled to its second highest stage ever, well above the 100 year flood. In Stowe, Vermont three mobile homes were reported floating down river. All persons escaped before the river took their homes. There were several reports of near drownings and close calls. Damage to some towns was lessened due to sandbagging of structures. Well over 100 families had to be evacuated during the storm.									
Rainfall for the storm exceeded 5 inches. Pictures of roads washed out covered local papers. Quite a few stories of persons being cut off from others, by road washouts, were featured in the news. In Brush Hill, near Stowe, more than 300,000 yards of dirt slid downhill to block State Rte. 100. In Newbury, town officials said all Class II and III roads were destroyed.									
State figures are now running over 12 million dollars, just to State facilities. The Towns of Stowe, Calais, Morristown and Plainsfield each had 1 million dollars plus in damages alone. More than 170 families were given shelter by the time the flood was over. Damage to farms amounted to over 2,000 acres flooded, with crop damage now at 3 million dollars and still rising.									
44 VIRGINIA									
Rockingham County	06	1500EST			0	0	4	0	Lightning
Lightning struck and set fire to a large barn totally destroying it and its contents.									
Prince William County	14	1300 - 1400EST			0	0	4	0	Lightning
A slow moving thunderstorm with intense lightning caused widespread power outages and struck at least two houses in the Woodbridge area.									

— VIRGINIA									
Dinwiddie County	14	1800 - 1900EST			0	0	4	3	Wind, rain
Thunderstorms with damaging winds and very heavy downpours moved through the area downing large trees and causing widespread power outages in the Petersburg, Hopewell and Colonial Heights areas. Heavy downpours with strong gusty winds damaged tobacco crops in the southeastern section of the county									
Statewide	28								Wind, rain, hail
A slow moving cold front triggered numerous thunderstorms throughout the day with locally high winds and very heavy downpours Details...									
Isle of Wight County Chesapeake Virginia beach	28	1205 - 1225EST			0	0	4	0	Wind, rain
Strong thunderstorm moved across the region with wind gusts to 50 mph. Large trees were toppled and several small outbuildings were destroyed. Heavy rains caused localized street flooding.									
Lynchburg	28	1500 - 1600EST			0	0	3	0	Hail, rain
A thunderstorm with very heavy rain and marble sized hail spread across the city causing power outages and several automobile accidents. Heavy rain caused some localized street flooding and several minor fires were blamed on lightning.									
Stafford County Eastern Prince William county	28	1630 - 1700EST			0	1	5	0	Hail, wind
A violent thunderstorm with winds to 50 mph moved through the area felling large trees especially in the Aquia Harbor and Garrisonville areas. Several trees toppled over onto autos, houses and campers. One woman was injured when a tree fell on her car. Hail completely covered the ground up to several inches deep and knocked the rear windows out of some automobiles.									
45 WASHINGTON									
5 South of Pullman Whitman County	12	1640 PST			0	0	0	0	Funnel Cloud
1 Southwest of Pullman Whitman County	12	1655 PST			0	0	0	0	Funnel Cloud
20 North of Yakima Yakima County	13	1510 PST			0	0	0	0	Funnel Cloud
Chelan and Okanogan Counties	20-21				0	0	0	?	Heavy Rains
Cherry growers reported damage from heavy rains which caused cherries to swell and split open. Rainfall at Wenatchee was 1.39 inches and at Omak 1.88 inches.									
46 WEST VIRGINIA									
Summers County	16	1300- 1500EST			0	0	0	0	Hail
A severe thunderstorm moved across Summers County from 1300-1500EST, producing heavy rain and hail. Nimitz reported hail 3/4 inches in diameter at 1342EST and 2.10 inches of rainfall in a 55 minute period. Jumping Branch reported 3/4 inch hail and 1.50 inches of rainfall in a 45 minute period. Hinton reported small hail at 1420EST.									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1984

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					KILLED	INJURED	PROPERTY	CROPS	

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47 WISCONSIN										
Rock County	06	1604CST								4 0 Wind
<p>The leading edge of a line of severe thunderstorms expanded northward into the county. 98 mph wind gusts were recorded at the Rock County Airport. 65 power lines and at least 25 large trees were downed in Janesville, trapping two people in cars.</p>										
Southeast Counties	06	1615-1800CST								0 2 5 0 Wind
<p>The line of severe thunderstorms continued to expand northward, then moved eastward through Fond du Lac, Dodge, Jefferson, Walworth, Washington, Waukesha, Racine, Kenosha, Calumet, Sheboygan, Ozaukee and Milwaukee counties. Numerous reports of wind gusts of 60-70 mph along with large trees and power lines downed were received from these counties as the line moved through. Also, a mobile home was blown off the road in Dodge County, and a flight attendant was struck by lightning causing minor injuries at Mitchell Field in Milwaukee. Roofs were peeled off homes and silos near Fond du Lac, at Richfield in Washington County, and at Hayton in Calumet County. Winds also caused \$40,000 damage to a home and garage near West Bend in Washington County. And \$25,000 lightning-related damage was reported in Racine County.</p>										
Waupaca County	07	0950CST								0 0 3 0 Wind
<p>Thunderstorm winds, gusting to 60 mph, flipped over one mobile home and blew another off its foundation at Manawa, causing \$3,000 to \$4,000 damage. Some power lines and trees were also downed.</p>										
Trempeleau County	07	1930CST								0 0 5 0 Lightning
<p>Lightning struck a barn near Arcadia, burning the barn and killing 126 cows trapped inside.</p>										
Pierce County	07	2020CST								0 0 4 0 Wind
<p>Strong winds in Beidenville overturned and crushed one mobile home and toppled two trees onto another. The storm also uprooted several other large trees.</p>										
Chippewa and Clark Counties	07	2100CST	9	150	0	0	5	2		Tornado (F2)
<p>A tornado touched down near Stanley in Chippewa County and moved east-northeast to the Township of Withee in Clark County. On one farm it flattened two barns, some machine sheds, and snapped a silo in half. The tornado destroyed two other barns and sheds along the way. Some house damage was also reported. Several large trees were snapped or uprooted, including 13 in one yard.</p>										
Marathon County	07-08	2200-0010CST								5 0 Wind
<p>A severe thunderstorm, packing winds above 60 mph, cut a 20-30 mile long swath through Marathon County. It caused approximately \$80,000 in damage to a barn and silo in the Township of Day, then moved northeast to Maine downing trees and causing power failures. 50 trees were toppled or snapped at a nursing home in Stettin and a mobile home was moved off its foundation. The same happened to a garage in Maine.</p>										
Oneida County	07	2230CST								4 0 Wind
<p>Thunderstorm winds, clocked at 58 mph, toppled a tree onto a trailer and freed some animals at a zoo in Minocqua when their pens were crushed.</p>										
Price County	07	2230CST	1	50	0	0	4	0		Tornado (F1)
<p>A tornado touched down briefly in the Town of Hill in Price County. It downed a large tree, crushing a mobile home. A barn was shifted off its foundation, a machine shed was flattened, and the top of a silo was blown off.</p>										
<p>In the early morning hours of the 8th, a cluster of severe thunderstorms moved into southern Wisconsin from Iowa, spawning a family of tornadoes that ripped through the south central part of the state. One tornado devastated the village of Barneveld, population 600, with officials calling it the "Deadliest tornado in Wisconsin since April 4, 1958".</p>										

WISCONSIN										
Lafayette and Iowa Counties	07	2330CST	11	40	0	0	5	4		Tornado (F2)
<p>A tornado touched down just north of Belmont in Lafayette County. It stayed on the ground for 5 miles, destroying some sheds and tearing a roof and a chimney from a home. It then skipped northeastward to Mineral Point, flattening a barn and garage and uprooting 20 trees.</p>										
Iowa and Dane Counties	07-08	2341-0040CST	36	450	9	200	7	6		Tornado (F5)
<p>This killer tornado began a 36-mile path of destruction by knocking down farm buildings south of Ridgeway. It then strengthened and slammed into Barneveld in Iowa County at 2347CST, tearing up nearly 90% of the village. 93 homes were destroyed, 64 damaged and 17 of the 18 businesses and public buildings were leveled. Nine people were killed and 197 injured. Total damage estimates approached \$25 million. Overall, about 170 of the village's 225 buildings were either destroyed or heavily damaged. The tornado then continued northeast, ripping up another 24 houses in 12 miles before reaching Black Earth at 0007CST. There it destroyed 8 more homes and damaged 16 others along with numerous farm buildings, injuring 3 people. The tornado then continued northeast to Lodi near the Columbia County border, damaging 5 more homes and uprooting trees along the way. At Lodi, it shattered two barns and several sheds before finally lifting and dissipating. Total damage from this storm has exceeded \$40 million.</p>										
Columbia County	08	0025CST	16	50	0	0	5	5		Tornado (F2)
<p>A tornado touched down just northwest of Arlington, uprooting trees and leveling a barn and several sheds. It continued northeast, passing through the southern and eastern outskirts of Poyntette, downing three silos and demolishing some farm buildings and a garage. It lifted back into the clouds near Rio.</p>										
Columbia and Green Lake Counties	08	0041CST	29	200	0	1	6	5		Tornado (F3)
<p>A tornado touched down just north of Rio in Columbia County. Most of the damage was reported at two farms near Cambria. A house and house trailer were demolished, and all buildings were down on one farm. Ten cows were crushed, and one person was injured. The tornado leveled five other barns on the way to Markesan in Green Lake County, where it claimed another barn and silo and uprooted trees before lifting.</p>										
Dane and Columbia Counties	08	0010CST	18	50	0	0	6	5		Tornado (F2)
<p>A tornado destroyed 22 of the 24 grain bins at a grain company just northeast of DeForest in northern Dane County, resulting in over \$2 million damage. This was reported to be the largest total of any farm, residential, or rural site of the June 8th tornado outbreak. Trees were uprooted and roofs were taken off two houses in DeForest.</p>										
Columbia County	08	0049CST	9	30	0	0	5	4		Tornado (F1)
<p>This tornado touched down near East Bristol about five miles southwest of Columbus. It downed all trees on one farm and took the roof off a barn. One other outbuilding was destroyed and several more trees were uprooted along the route.</p>										
Dodge County	08	0117CST	11	50	0	1	6	5		Tornado (F2)
<p>The tornado caused \$640,000 damage to 30 buildings near Beaver Dam. Three barns, two garages and one business building were destroyed. There was also extensive damage to at least 5 homes in the area.</p>										
Columbia County	08	0040CST			0	0	?	0		Wind
<p>Thunderstorm winds downed several large oak trees along a ¼ mile stretch in Doylestown.</p>										
Green County	09	1902CST	0.2	25	0	0	0	0		Tornado (F0)
<p>A small tornado touched down briefly in an open field just outside of Albany.</p>										
<p>During the evening of the 9th, a series of thunderstorms moved through southeast Wisconsin producing wind gusts of 40-50 mph and up to three inches of rain, causing localized flooding problems.</p>										

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1984

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WISCONSIN

Polk, Burnett, Washburn and Barron Counties	11-12	2200-0300CST	0	0	5	6	Heavy Rain	<p>Numerous strong thunderstorms moved across these counties, dumping up to six inches of rain and causing flash flooding. There were flooded basements and several highway washouts. Pieces of farm equipment fell into a washed out highway at Grantsburg in Burnett County, which recorded 5.28 inches of rain. Twelve cows were swept away by flood waters. Docks and boats floated away on area lakes. Crop damage estimates were \$1.1 million in Burnett County. \$1.5 million worth of topsoil washed away in Polk County.</p>		
Dane County	13	0305CST	0	0	4	0	Lightning	<p>Lightning fire caused an estimated \$30,000 damage to a west side Madison home.</p>		
Vernon, Richland, Monroe, LaCrosse and Juneau County	16-17	2000-2400CST	0	0	6	6	Heavy Rain	<p>A series of heavy thunderstorms dumped up to 6.1 inches of rain within a two-hour period in some places. The hardest hit areas were southern Vernon, southern LaCrosse, and northern Vernon Counties, with numerous road and bridge washouts and closings, causing \$350,000 damage, over \$1.5 million in crop losses, and over \$630,000 in property damage, including flooded basements. Just after 2200 CST, flood waters of Timber Coulee Creek swept away 64 cars parked at a gathering four miles north of Westby in northern Vernon County. The cars sustained nearly \$300,000 damage and ended up 1/4 mile to one mile downstream. Some people "just hung on" as they climbed on top of cars caught in trees. Most were moved to higher ground. One person exclaimed, "I had no idea anything like that happened around here". Eight buses, a pick-up, and tractor were damaged in a mudslide in LaCrosse County, and flooded basements, streets and highways were common as far away as Juneau County. Some lowland flooding and temporary highway closings were reported further east during the night across south central Wisconsin to Fond du Lac County.</p>		
Sheboygan County	17	0115CST	0	0	4	0	Lightning	<p>Lightning fire consumed a barn, 10 tons of hay, equipment and personal items near Plymouth.</p>		
Kenosha County	17	1430-1545CST	0	0	5	0	Wind	<p>Strong thunderstorm winds swept eastward through the county, blowing a mobile home 100 feet and tipping it over on the roof, downing trees and power lines, and wrapping a shed around a tree, then uprooting another tree and blowing it 175 feet into a garage. The storm also flattened a garage and blew it into a neighbor's yard, and peeled part of the roof off a building.</p>		
Buffalo County	17	1630CST	1	25	0	0	3	0	Tornado (F0)	<p>Several witnesses described the tail of a small tornado dipping down to a marina at Alma, lifting large metal docks and tossing them around, ramming a covered dock into the bank, and pushing a 40 foot ramp to the top of the roadway.</p> <p>On the evening of the 17th, a squall line moved through south central and southeast Wisconsin. 50-70 mph wind gusts were common throughout the area along with some downed trees and power lines. There were numerous confirmed funnel cloud sightings, 11 in Dodge County alone, but no confirmed touchdowns.</p>
Grant and Lafayette Counties	17	1700CST	0	0	4	0	Wind	<p>Strong thunderstorm winds peeled roof sections off a church and one other building at Platteville. It also uprooted several trees south and west of the church. The storm then continued northeastward to Belmont, downing more trees and causing power outages.</p>		
Dane County	17	1813CST	0	0	?	0	Wind	<p>Wind gusts to 70 mph were recorded at the Dane County Airport in Madison.</p>		
Dane County	17	1815CST	0	0	4	0	Lightning	<p>A lightning fire destroyed a barn and damaged a silo at Rutland, located 14 miles south of Madison.</p>		

WISCONSIN

Dane County	17	1830CST	0	0	5	0	Lightning	<p>A fire started by lightning destroyed a \$70,000 home at Columbus.</p>		
Lafayette County	22	0956CST	1	50	0	0	3	0	Tornado (F0)	<p>Three families and a fireman saw a tornado touch down three miles southeast of Blanchardville in the northeast corner of the county. It uprooted trees, tore off a barn door, and blew out some windows before lifting near the Green County line.</p>
Door County	22	2000CST	0	0	0	5	Wind	<p>Thunderstorm winds downed a few trees and power lines in Sturgeon Bay and caused an estimated \$80,000 crop damage in the county.</p> <p>In the early afternoon of the 26th, a line of severe thunderstorms developed in eastern Minnesota. Between then and 2300 CST, the squall line swept southeastward across the entire state of Wisconsin, affecting every county in the state. Coverage of storms in the line was nearly solid. Numerous reports of downed trees and power lines, quarter and golf-ball size hail, and wind gusts to 60 mph were received from throughout the state. There were many funnel sightings during the evening and four confirmed touchdowns.</p>		
Price and Vilas Counties	26	1530CST	0	0	0	0	0	0	Wind	<p>Strong thunderstorm winds took down numerous trees in a 20 mile long swath from the Sawyer County line to Park Falls. Boulder Junction in Vilas County also reported numerous trees down.</p>
Clark County	26	1645CST	0	0	4	0	0	0	Wind	<p>Strong winds caused \$40,000 damage to a farm located three miles east of Christie, toppling a silo, tipping over farm equipment and taking the roof off a shack.</p>
Marathon County	26	1655CST	8	100	0	0	4	0	Tornado (F1)	<p>A tornado touched down in the northern part of the county about 13 miles north of Wausau and skipped eastward to the town of Texas. It caused an estimated \$30,000 damage to 4 houses and 3 farm buildings. It also destroyed a few sheds and uprooted trees.</p>
Monroe and Jackson Counties	26	1830CST	0	0	4	0	0	0	Wind	<p>Thunderstorm winds knocked down or uprooted 100 trees at a campground located 6 miles east of Sparta in Monroe County. Winds knocked a tree down on top of a mobile home near Millston in Jackson County, and also damaged another mobile home near Knapp. Downed trees crushed portions of two cars in Tomah in Monroe County.</p>
Shawano County	26	1900CST	4	50	0	0	5	0	Tornado (F1)	<p>A tornado touched down on the west side of Caroline, flattening sheds and knocking over several large trees and gravestones in a cemetery. It then ripped the roof off a church on the east side. The entire town was without power for three hours.</p>
Sauk County	26	1957CST	10	50	0	0	4	0	Tornado (F0)	<p>A tornado touched down about three miles east of Line Ridge, destroying a corn crib and pole barn. It then moved eastward to Rock Springs. It was last sighted on the outskirts of Baraboo, causing minor damage.</p>
Milwaukee County	26	2200CST	0	0	0	0	0	0	Wind	<p>Strong winds uprooted 3 large trees east of Muskego. Several funnel clouds were also sighted in the area.</p>

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48 WYOMING

Casper	03	1400MST			0	0	0	0	High winds
			Strong thunderstorms produced gusts up to 60 mph and marble sized hail in the Casper area. No damage was reported.						
Campbell County	05	1210MST			0	0	0	0	Funnel cloud
			A brief funnel cloud was reported 35 miles northeast of Gillette.						
Campbell County	08	1840MST			0	0	0	0	Funnel cloud
			Another brief funnel cloud was reported 20 miles southwest of Gillette.						
Lincoln County	10	1000-1300 MST			0	1	3	0	High winds
			Localized gusty winds forced down an airplane near the Afton airport, injuring the pilot slightly. Winds also damaged farm outbuildings near Cokeville.						
Rawlins, Carbon County	10	1555MST			0	0	0	0	High winds
			A thunderstorm gust to 55 mph was recorded at the Rawlins airport. No damage was reported.						
Powell, Park County	13	Early aftn			0	0	0	4	Hail
			Golf-ball sized hail heavily damaged grain crops in the Powell area.						
Northwest Converse County	13	1510MST	.5	10	0	0	0	0	Tornado (F0)
			A small tornado touched down briefly in the Powder River mining district. Golf-ball sized hail also fell. No damage occurred as the storm was in open country.						
Near Bill, Niobrara County	13	1540MST	.5	10	0	0	0	0	Tornado (F0)
			A small tornado touched down briefly in open country about seven miles east of Bill.						
Near Bill, Converse County	13	1545MST	2	20	0	0	4	0	Tornado (F1) Hail
			A tornado touched down about three miles southwest of Bill, damaging ranch outbuildings, barns, and some mobile homes. Quite a few electricity and telephone poles were knocked down. A few cars were damaged by the tennis-ball sized hail that accompanied the storm.						
Eastern Converse County	13	1645MST			0	0	0	0	Hail
			Baseball sized hail fell 25 miles northeast of Glenrock with no damage reported.						
Near Bill, Niobrara	13	1655MST	1	15	0	0	0	0	Tornado (F0)
			A weak tornado touched down briefly about seven miles northeast of Bill over open country.						
Hawk Springs, Goshen County	13	Late Aftn			0	0	2	3	Hail
			Hail up to the size of golf balls fell over a small strip centered on Hawk Springs. Most of the damage was to grain crops near the town, with some cars receiving window damage.						
Northeast Wyoming	13	Late Aftn			0	0	3	0	Winds, hail
			Strong thunderstorms scattered throughout northeast Wyoming produced widespread minor damage to ranch outbuildings and mobile homes as marble size hail and winds up to 50 mph struck the area. Some hail as large as golf balls fell near Ranchester, 20 miles northwest of Sheridan. Winds were also reported to be near 60 mph in the Upton and Sundance areas.						
Near Douglas, Converse County	13	1700MST	.5-1	10-20	0	0	3	0	Tornado (F0)
			A weak tornado briefly touched down in a trailer court 20 miles north of Douglas, causing minor damage to some mobile homes.						
Lance Creek, Niobrara County	13	1800MST	3-4	20-30	0	1	5	0	Tornado (F2)
			The strongest tornado of the outbreak on the 13th touched down about two miles south of Lance Creek and moved through the south end of town. A small house addition was completely demolished, and several other outbuildings were destroyed. Hail up to tennis-ball size fell also, damaging some cars and injuring one person in a car.						
Near Lance Creek, Niobrara County	13	1600MST	.5-1	10-20	0	0	4*	0	Tornado (F1)
			.5-1	10-20	0	0	-	0	Tornado (F1)
			.5-1	10-20	0	0	-	0	Tornado (F1)
			Three other tornadoes were also observed in the Lance Creek area. Damage was mostly to ranch buildings and to some mobile homes.						
			*All tornadoes combined.						

WYOMING

Southern Johnson County	13	2000MST			0	0	0	0	Hail
			One-inch diameter hail fell between Kaycee and Sussex with no damage reported.						
Laramie County	14	1500-1600 MST			0	0	0	0	Funnel clouds
			Two funnel clouds were sighted about 15 to 20 miles north of Cheyenne. They both lasted about five minutes before retreating into the parent cloud.						
Northwest Natrona County	14	1620MST			0	0	2	0	Hail
			Golf-ball sized hail fell northeast of Arminto causing some damage to a few cars.						
Natrona County	14	1800MST			0	0	0	0	Funnel clouds
			Two funnel clouds were reported 15 miles north of Casper.						
Gillette, Campbell County	14	2045MST			0	0	2	0	High winds
			Winds up to 65 mph struck the Gillette area in a thunderstorm, producing little damage.						
Fremont County	14	2100-2200 MST			0	0	3	0	Hail
			Hail as large as golf balls pelted parts of northwest Fremont County from Fort Washakie to Kinneare. A few vehicles were damaged.						
Chugwater, Platte County	15	1245MST	.5-1	10-15	0	0	0	0	Tornado (F0)
			.5-1	10-15	0	0	0	0	Tornado (F0)
			Two weak tornadoes briefly churned through open country just northeast of Chugwater with no damage.						
Northwest Sheridan County	15	Aftn	.5-1	20	0	0	0	3	Tornado (F1)
			An unusual tornado formed near the ridge of the northern Big Horn Mountains west of Dayton and dropped down briefly along a slope. Over 30 acres of trees were broken off about six feet off the ground.						
Eastern Converse County	18	1230MST	.5	10	0	0	0	0	Tornado (F0)
			A small tornado briefly touched down in open country about 20 miles west of Douglas.						
Natrona County	18	1355MST	.5	10	0	0	0	0	Tornado (F0)
			A small tornado touched down briefly in open country about 13 miles west of Casper.						
Near Rawlins, Carbon County	18	1415MST			0	0	0	0	Funnel cloud
			A funnel cloud was sighted about six miles west of Rawlins.						
Near Cody, Park County	20	Aftn	.5-1	10	0	0	2	0	Tornado (F0)
			A weak tornado touched down a few miles southwest of Cody, damaging a barn and some outbuildings on a ranch.						
Campbell County	20	1500MST			0	0	0	0	Funnel cloud
			A brief funnel cloud was sighted about 30 miles northwest of Gillette.						
Torrington, Goshen County	22	2200-2235 MST	.5	10	0	0	0	0	Tornado (F0)
					0	0	6	5	Hail
			All of the damage occurred due to the heavy fall of hail up to 1 1/2 inches in diameter. Extensive damage to cars and buildings occurred, and 10,000 acres of crops were severely smashed. A weak tornado formed as the storm went northeast of the city, briefly touching down outside town and then dissipating.						
Near Lovell, Big Horn County	25	1500MST			0	0	2	0	High winds
			Thunderstorm winds lifted a roof off a large shed a few miles east of Lovell.						
Lovell, Big Horn County	29	1700MST			0	0	3	0	High winds
			Winds up to 60 mph toppled trees and ripped up roofs in Lovell.						

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1984

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED ¹ DAMAGE		CHARACTER OF STORM	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							KILLED	INJURED	PROPERTY	CROPS	
49 ALASKA, Northern																			
Central Tanana Valley and Yukon/Tanana Uplands	15-18				0	0	6	3	Flooding										
<p>An unstable airmass, with scattered showers associated, covered the eastern Interior of Alaska on June 12 and 13. On the evening of June 13, a slow-moving frontal system entered the Gulf of Alaska. As the occluded portion of the front pivoted up over the Tanana Valley on June 14, rainshowers became more general, especially over the eastern Tanana Valley. On June 15, the stalled out portion of the front became nearly stationary over the western Copper River Basin and the central Tanana Valley, where rainfall became heavy. Storm totals in the northeast Chena River basin approached 3 inches while the western Chena Basin, around Fairbanks, had less than a quarter inch. The rain continued on June 16, and tapered off June 17 and 18. Late on the evening of June 15, the Upper Chena River washed out the bridge at Chena Hot Springs. On the Steese Highway, in the Yukon/Tanana Uplands, the bridge at Miller Creek was washed out, some homes in Central flooded, and the road from Central to Circle City washed out. On June 16, the Upper Chena River rose and flowed over the road between mile 38 and mile 43 on Chena Hot Springs Road. There were mudslides in Isabell Pass, south of Big Delta and 20 miles west of Tok. The river rose and flowed over the Alaska Highway 7 miles east of Big Delta. On June 17, the Salcha River flooded, and just downstream, minor flooding occurred early in the day around Salcha Slough, on the Tanana River. Later during the day, flooding commenced off Rosie Creek Road, just downstream from Fairbanks on the Tanana River. 2 homes and several stretches of three roads were flooded out by midnight. On June 18, minor flooding occurred downstream on the Tanana River at Nenana; no homes were actually flooded, but water was high in some basements and on some roads near the river. The high water went down late on June 18.</p>																			
49 ALASKA, Southern ————— NONE REPORTED																			
49 ALASKA, Southeastern																			
Ketchikan	03	Evening					5		Wind										
<p>Gusty 25 kt winds in Ketchikan caught Alaska Ferry M/V Columbia broadside, ramming it into a loading dock and damaging its ramp.</p>																			
50 HAWAII ————— NONE REPORTED																			
51 PUERTO RICO ————— NONE REPORTED																			
52 VIRGIN ISLANDS ————— NONE REPORTED																			
53 PACIFIC ————— NONE REPORTED																			

STORM SUMMARY

JUNE 1984

STATE	TORNADOES					HAILSTORMS			WINDSTORMS			LIGHTNING			FLOODING			@HEAVY SNOWSTORMS AND BLIZZARDS			# ICE STORMS			◇ ALL OTHER						
	NUMBER	DAYS	DEATHS	INJURIES	†DAMAGE	DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		
								PROP. ERTY	CROPS			PROP. ERTY	CROPS			PROP. ERTY	CROPS			PROP. ERTY	CROPS			PROP. ERTY	CROPS			PROP. ERTY	CROPS	PROP. ERTY
Alabama	1	1			4		?	?		1	5	?	1	1	5															
Arizona											5																			
Arkansas	1	1			3		?				5																			
California																														
Colorado	17	8			4		20	8	?		3		2		4		1		8			5								
Connecticut											5				4				?	?										
Delaware																														
Florida	3	3			6						4		1	4																
Georgia											4			1																
Idaho								5	6		5	3																		
Illinois	4	2			5		5	5			5	5																		
Indiana	2	2			2					1	4	3			4															
Iowa	48	8	3	93	7		5	5	1	6	6	3		1	5			6	7											
Kansas	20	10			5	7		5	7		6	4		1	1	5		1	8	7										
Kentucky	1	1			1	3					5	3		4	4	2														
Louisiana	1	1			3	5					5				5				6											
Maine											3																			
Maryland & DC								3	4					1	4			3												
Massachusetts										1	5			1	4			?	?											
Michigan	3	3			2	6				1	5			5	5															
Minnesota	13	3			19	7		4	6	1	2	5		1	4						6									
Mississippi											5			1																
Missouri	8	2	1		2	7		?	?		6	5			?	?	2	?	7	7										
Montana	5	3			5	5		4	4						4				4											
Nebraska	36	11			5	7		2	6	7	13	7	5		5		2	1	8	8										
Nevada								?	?			4	?					?	?											
New Hampshire																														
New Jersey											?				?															
New Mexico																														
New York									4		6	4		1	?			6	4						3	?			7	
North Carolina	1	1			5		?	5			4	?	4	1	5				4											
North Dakota	7	5			5		4	5			5				5															
Ohio	1	1			4		4	4		2	16			3	8															
Oklahoma	3	2			4		4	?			5	?			6	?		?	?											
Oregon								2				1			2			4	5											
Pennsylvania											3	5	4		7	6		3	6	6							4	?	4	
Rhode Island																														
South Carolina							3	4			3				5			4	3											
South Dakota							?	?		2	6				5			7	8							6	5		5	
Tennessee							?	?			5	?	2		5			?	?											
Texas	19	8	1		1	5		5	?		6	?			5			5	?											
Utah								3			4																			
Vermont																		8	7											
Virginia							3				1	5	3		4				3											
Washington																														
West Virginia																														
Wisconsin	15	6	9	202	8					1	6	5		1	5			6	6											
Wyoming	16	5			5		1	6	6		1	4																		
Alaska												5						6	3											
Hawaii																														
Pacific																														
Puerto Rico																														
Virgin Islands																														

REFERENCE NOTES

Storm damage categories are from 1 to 9 as follows:

- 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

- * Miles instead of yards
- ** Yards instead of miles
- @ Includes heavy sleet storm
- # Freezing drizzle and freezing rain, commonly known as glaze
- ≠ Not received or incomplete
- o/c Under Estimated Damage, Property/Crops, indicates crop damage amount is included in the figure given

Definition of Fujita Tornado Scale (F scale)

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

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

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

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

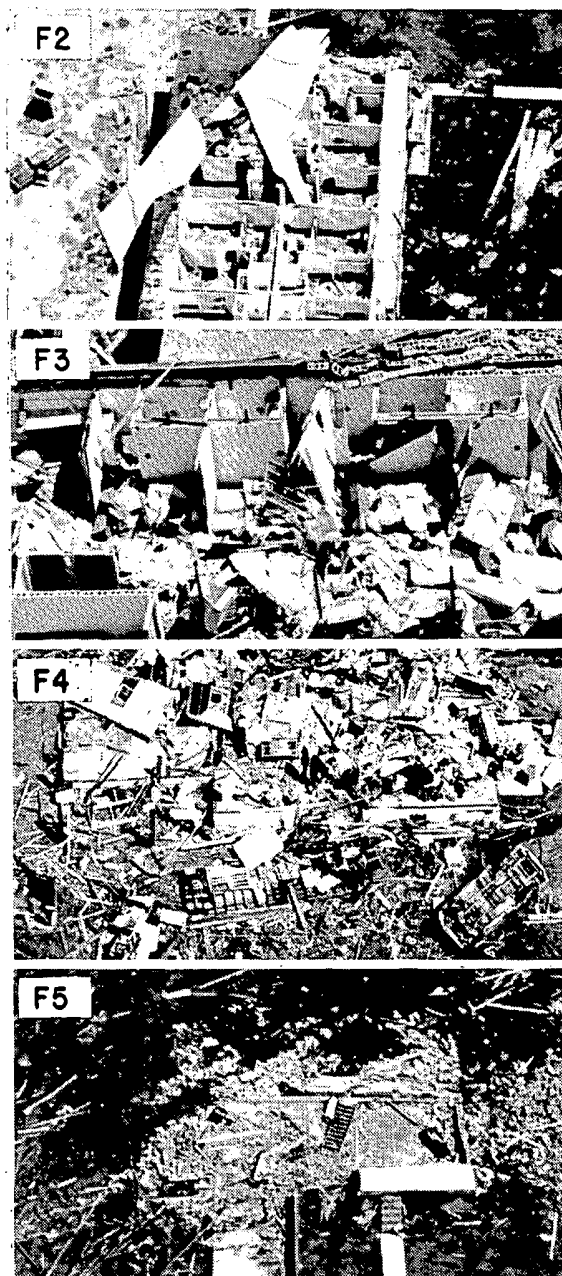
(F4) Devastating tornado (207-260 mph): Devastating damage
Well-constructed houses leveled; structure with weak foundation blown off some distance; cars thrown and large missiles generated.

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

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

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

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



USCOMM-NOAA-ASHEVILLE, NC 1984-2500

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Monthly issue presents daily, hourly and maximum short duration data for the recording gage stations for each state except Alaska. The annual issue tabulates monthly and annual totals, and annual maximum precipitation data by selected time categories.

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Annual Summary With Comparative Data
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Comparative Climatic Data
For the United States
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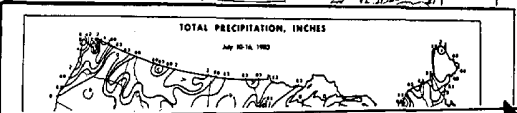
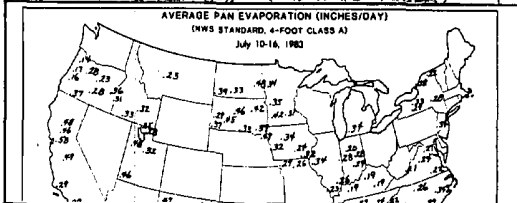
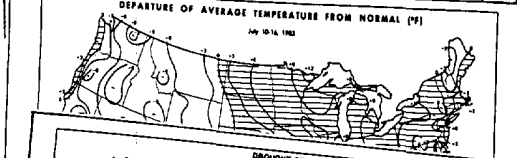
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Weather Data for the Week Ending July 16, 1983

STATE	TEMPERATURE °F				PRECIPITATION IN.				RELATIVE HUMIDITY %	WIND SPEED MPH	NUMBER OF DAYS WITH RAIN
	MAX	MIN	AVERAGE	DEPARTURE FROM NORMAL	TOTAL	DEPARTURE FROM NORMAL	PERCENT	DEPARTURE FROM NORMAL			
AL	88	68	78	+1.0	0.00	-0.5	65	-10	10	1	
AK	65	45	55	-1.0	0.00	-0.5	65	-10	10	1	
AZ	95	75	85	+2.0	0.00	-0.5	65	-10	10	1	
CA	85	65	75	+1.0	0.00	-0.5	65	-10	10	1	
CO	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
CT	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
DC	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
DE	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
FL	85	65	75	+1.0	0.00	-0.5	65	-10	10	1	
GA	85	65	75	+1.0	0.00	-0.5	65	-10	10	1	
HI	85	65	75	+1.0	0.00	-0.5	65	-10	10	1	
IA	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
ID	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
IL	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
IN	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
KS	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
KY	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
LA	85	65	75	+1.0	0.00	-0.5	65	-10	10	1	
MA	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
MD	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
ME	75	55	65	-1.0	0.00	-0.5	65	-10	10	1	
MI	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
MN	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
MO	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
MS	85	65	75	+1.0	0.00	-0.5	65	-10	10	1	
MT	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
NC	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
ND	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
NH	75	55	65	-1.0	0.00	-0.5	65	-10	10	1	
NJ	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
NM	85	65	75	+1.0	0.00	-0.5	65	-10	10	1	
NY	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
OH	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
OK	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
OR	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
PA	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
RI	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
SC	85	65	75	+1.0	0.00	-0.5	65	-10	10	1	
SD	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
TN	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
TX	85	65	75	+1.0	0.00	-0.5	65	-10	10	1	
UT	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
VA	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
VT	75	55	65	-1.0	0.00	-0.5	65	-10	10	1	
WA	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
WI	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
WV	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	
WY	80	60	70	+1.0	0.00	-0.5	65	-10	10	1	

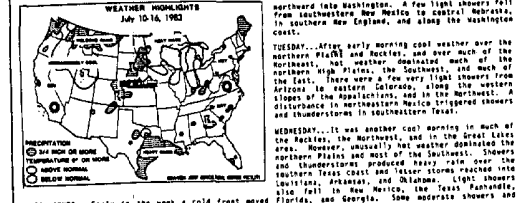


WEEKLY WEATHER AND CROP BULLETIN

U.S. DEPARTMENT OF COMMERCE, National Oceanic and Atmospheric Administration, National Weather Service
 U.S. DEPARTMENT OF AGRICULTURE, Statistical Reporting Service and World Agricultural Outlook Board

Volume 70, No. 29 WASHINGTON, D.C. July 19, 1983

National Weather Summary
 July 10-16



WEATHER HIGHLIGHTS
 July 10-16, 1983

PRECIPITATION: Early in the week a cold front moved across the Northwest and dropped 2 to 3 inches of rain in northern Idaho and Montana. The rain was especially beneficial in the very dry northwestern section of Montana. Later, another system moved through the same area producing light rain, and as the week ended, triggered moderate to heavy rain along a line from west-central Nevada to the northeastern New Mexico. A tropical system in the Gulf of Mexico triggered heavy downpours in southeastern Texas, and light to moderate showers in the northward into southern Missouri. A few light showers over parts of the upper Ohio Valley but, in general, little rain fell in the Corn Belt. Highest temperatures over the Corn Belt were near 80 which was 4-6° above-normal.

SUNBATH: A disturbance moving through Montana and southern Canada triggered severe weather through most of the State including heavy rain in the northeast, which has been extremely dry. The Southeast had very little rain. Both the northeastern and northwestern parts of the West were unusually cloudy, but afternoon high temperatures in the central portion reached into the high 80s.

ROBUST: Unusually cool weather continued in the northeast and over the Plateau and the Rockies. The cool weather began moving over the northern Plains. Very warm weather pushed northward through the central Mississippi Valley and into Michigan. Hot weather was in central California and reached

northward into Washington. A few light showers fell from southeastern New Mexico to central Nebraska, in southern New England, and along the Washington coast.

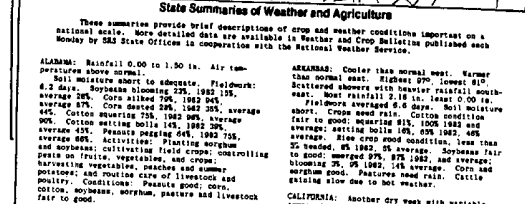
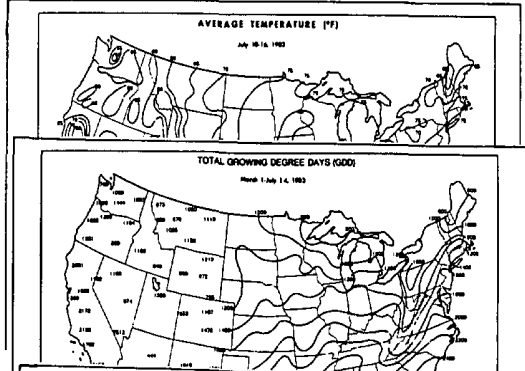
TOBACCO: After early morning cool weather over the northern Plains and Rockies, and over much of the northern High Plains, the Southwest, and much of the East, there were a few very light showers from Arizona to eastern Colorado, along the western slopes of the Appalachians, and in the Northwest. A disturbance in northeastern Mexico triggered showers and thunderstorms in southeastern Texas.

HIGHLIGHTS: It was another cool spring in much of the Rockies, the Northwest, and in the Great Lakes area. However, unusually hot weather dominated the northern Plains and most of the Southeast. Showers and thunderstorms produced heavy rain over the eastern Texas coast and later storms reached into Louisiana, Arkansas, and Oklahoma. Light showers, also fell in New Mexico, Texas Panhandle, Florida, and Georgia. Some moderate showers and thunderstorms began in the Northwest.

THUNDER: Heavy rain continued in southeastern Texas, while lighter showers and thunderstorms were scattered through the Southeast to the northward into Missouri. Light showers scattered through the Northwest and the Northeast and reached the Ohio Valley. Showers and thunderstorms were generally light in the Northeast and reached through Montana. High temperatures were 100° or higher in the Northwest and the Northeast and the northward into southern Missouri. A few light showers over parts of the upper Ohio Valley but, in general, little rain fell in the Corn Belt. Highest temperatures over the Corn Belt were near 80 which was 4-6° above-normal.

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State Summaries of Weather and Agriculture

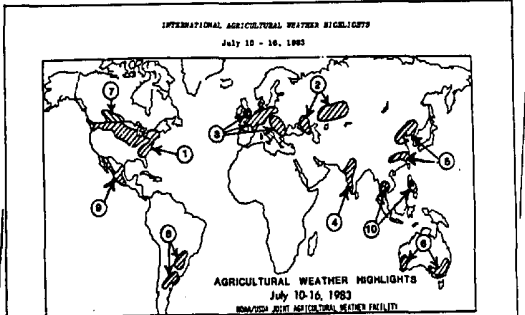
These summaries provide brief descriptions of crop and weather conditions important on a national scale. More detailed data are available in Weather and Crop Bulletins published each Monday by SRS State Offices in cooperation with the National Weather Service.

ALABAMA: Rainfall 0.00 to 1.50 in. Air temperatures above normal. Soil moisture short to adequate. Plowdown: 4.5 days. Corn silage 275, 1982 105, average 275. Corn silage 176, 1982 66, average 176. Cotton bolls 235, 1982 205, average 235. Cotton bolls 145, 1982 205, average 145. Peanut picking 64, 1982 105, average 64. Activities: Planting sorghum and soybeans; cultivation of crops; controlling pests on fruits, vegetables, and crops; harvesting vegetables, peaches and apples; potatoes; and routine care of livestock and poultry. Conditions: Peanut good; corn, cotton, soybeans, sorghum, pasture and livestock fair to good.

ARKANSAS: Cooler than normal heat. Farms than normal heat. Highest 87°, lowest 61°. Scattered showers with heavier rainfall northward. Most rainfall 2.18 in. less 0.00 in. short. Crops need rain. Cotton conditions fair to good; harvesting 81%, 100% 1982 and average; setting bolls 140, 49% 1982, 49% 3% needed. Rice crop good condition. Less than average. Activities: 1982, 45 average. Soybeans fair to good; weeded 97%, 97% 1982, and average; blowing 7%, 0% 1982, 45 average. Corn and sorghum good. Pasture need rain. Cattle raising also due to hot weather.

CALIFORNIA: Another dry week with variable temperatures. The Central Coast was 4° above normal and the South Coast was 7° above normal. Conversely, the Sierra Nevada was 2° below normal. Temperatures were warm early in the week, cooling greatly late in the week. Rainfall was near weather benefited all crops.

ALASKA: Clouds and rain across northern valleys with moderate sea and clouds across southern coast.



- UNITED STATES** ... Hot, dry weather in the Corn Belt and eastern states is causing soil moisture shortages and localized crop stress, as the critical reproductive stage begins. Rains over the Northwest are finally relieving dryness in eastern Montana. Abundant sunshine favors wheat harvest in the central and northern Plains.
- USSR** ... In European USSR, showers are benefiting crops in many areas, but more rain is needed in the southeast for corn in the reproductive stage. In the New Lands, scattered precipitation and unseasonably warm temperatures are stressing spring wheat in the heading stage.
- EUROPE** ... Crop
- MEXICO** ... southern relief to upper north orchards, crops, and livestock as the rest of the north remains mostly dry.
- SOUTHEAST ASIA** ... Moderate rain benefited the south-central rice area of Thailand. Two tropical storms, bringing needed moisture to the Philippines, also caused some crop damage.

Keep current. If you would like to keep up to date on weather and crop progress all year, subscribe to the Weekly Weather and Crop Bulletin. Send a \$25 check payable to the Department of Commerce-NOAA to: Agricultural Weather Facility, USDA, South Building, Room 5844, Washington, DC 20250.

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