

JULY 1978

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STORM DATA



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NATIONAL OCEANIC AND
ATMOSPHERIC ADMINISTRATION

ENVIRONMENTAL DATA AND
INFORMATION SERVICE

NATIONAL CLIMATIC CENTER
ASHEVILLE, N.C.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1978

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
ALABAMA Baldwin County	4	3:45p	-	-	0	0	0	0	Waterspout
	A waterspout was sighted over the eastern portion of Mobile Bay by the public. It was located off Point Clear moving south.								
Mobile County	12	8:00a	-	-	0	0	0	0	Waterspout
	A waterspout was sighted near the west end of Dauphin Island by the bridge tender at Dauphin Island bridge.								
Bullock County	12	6:00p	-	-	0	0	4	0	Flash flood
	Three to four inches of rain fell in and around Union Springs within a couple of hours. Many homes and other buildings were flooded and some areas were under a foot or more of water. Strong winds and lightning accompanied the rain, knocking out power in some areas.								
Mobile County	16	3:20p	-	-	0	0	0	0	Waterspout
	A pilot reported a waterspout two miles south of Bayou La Batre, moving southeast.								
Mobile County	21	8:15a	-	-	0	0	0	0	Waterspout
	A waterspout was sighted by the public and Coast Guard just off shore from Bayou La Batre.								
Baldwin County	21	12:15p	-	-	0	0	0	0	Waterspout
	The Coast Guard reported two waterspouts six miles east of Sand Island moving northwest.								
Mobile County	22	11:28a	3	50	0	0	0	0	Waterspout-Tornado
	A waterspout developed over the northern part of Mobile Bay. It was sighted by the Weather Service Office in Mobile and by the public as it moved northwest. The waterspout briefly became a tornado as it crossed the Battleship Parkway and U.S. highway 90, but no damage was reported.								
Mobile County	24	2:25p	-	-	0	0	0	0	Wind Gust
	A tugboat reported a 75 MPH wind gust during a thunderstorm, two miles west of Dauphin Island.								
Marshall County	24	p	-	-	0	0	5	0	Lightning
	A home burned to the ground after being hit by lightning from a late afternoon thunderstorm. It was located about 10 miles northwest of Gunterville in the community of Five Points.								
Baldwin County	26	a	-	-	1	0	6	6	Flash flood
	During a 24 hour period, more than 17 inches of rain fell on the eastern shore of Mobile Bay as thunderstorms remained nearly stationary over the area. Most of the rain fell between 2a and 7a near Fairhope. A Daphne man drowned when his van fell into a water-filled hole. There was damage to 25,000 acres of soybeans, corn and pecans; at least 25 homes and other buildings were damaged; some farm equipment and 25 boats were also damaged, and a swimming pool washed away. Numerous streets and three bridges were washed out and there was two to six feet of water in some places. Lightning from the thunderstorms destroyed one house, damaged another, and also caused damage to a power sub-station.								
Lawrence County	27	12:45p	-	-	0	0	4	0	Wind
	Severe thunderstorm winds caused damage in Moulton. Trees were uprooted; power knocked out; TV antennas, awnings, and roofs were damaged. Some streets in the city were under one foot of water due to the heavy rain from the thunderstorm.								
Jefferson County	31	12:15p	-	-	0	0	4	0	Wind/lightning
	Winds from a severe thunderstorm blew down numerous trees and powerlines in the Birmingham area, mainly on the south and east side of the city. One car and a house suffered minor damage from falling trees. Lightning also knocked out power and about 25,000 people were without electricity for a while.								
Etowah County	31	3:00p	-	-	0	0	4	0	Wind
	Winds from a severe thunderstorm blew off a garage roof, damaged two garages, and downed trees and powerlines about 10 miles east of Gadsden in Hokes Bluff.								
ALASKA Tanana Valley	14				0	0	3	?	Heavy rain and Flash flooding
	Unstable northwesterly flow aloft packed heavy thunderstorms up against the north slopes of the Alaska Range on the evening of July 14. The Delta River, which flows into the Tanana River at Big Delta, was reported bankfull and numerous small tributaries of the Delta River flooded. One such tributary went over its banks and was over the Richardson Highway near the Donnelly campground that evening. Similar rapid rises from heavy thunderstorm rains were reported that evening in McKinley Park. Damage was minor.								
Cook Inlet	22	9:45AM AST	-	-	0	0	0	0	Funnel Cloud
	On the morning of July 22, low-level flow in Cook Inlet was mostly offshore, while flow aloft was westerly, just ahead of a sharp trough aloft. There was cold air advection over the area with the approaching trough aloft. Satellite pictures showed a nearly solid mass of towering cumulus clouds over Cook Inlet. An observer reported a funnel cloud about 25 miles NNE of Ninihlichik at 9:45 AM AST; the cloud did not touch ground during its 17-minute lifetime.								
Copper River Basin	27	1630 AST	?	?	0	0	0	0	Funnel Cloud
	A cold low aloft in the northeast Gulf of Alaska caused unstable north to northeast flow aloft over the Copper River Basin on the afternoon of July 27. Surface temperatures were in the upper 60's to mid 70's. At 1630 AST, a funnel cloud was sighted north of Spawhose Lake; due to hills between the observer and the cloud, the observer could not determine if the funnel cloud touched the ground. Satellite pictures showed widespread cumulonimbus clouds over south central Alaska at the time. A thunderstorm and hail occurred at Spawhose Lake; at about 1700 AST, a thunderstorm was reported at Anchorage.								
ARIZONA Santa Catalina Mtns. Pima County	13	Afternoon			0	0	0	0	Hail
	Golf ball size hail fell during a severe thunderstorm near the Palisades Ranger Station in the Coronado National Forest.								
Greater Phoenix Area Maricopa County	24	6:30-7:30 p.			0	17	5	0	Wind, Lightning
	Winds gusting from 65 to 75 m.p.h. during a severe thunderstorm caused extensive damage in the Greater Phoenix Area. The hardest hit was Sky Harbor International Airport where 15 persons were injured by flying glass as 30 large windows were shattered. Several small planes were damaged and some of the larger ones were blown loose from their moorings. A DC 3 was blown 500 feet. A small plane crash-landed less than one mile from Scottsdale Airport, injuring 2 persons. There was considerable roof damage to terminal buildings and hangars. Elsewhere over the area, the storm knocked down power lines, uprooted trees, damaged roofs and mobile homes; flooded some streets and lightning caused numerous small fires.								
Maricopa County	26	2:10 a.			0	0	0	0	Hail
	Golf ball size hail fell during a severe thunderstorm about 15 miles south of Sky Harbor International Airport.								
Pinal County	26	2:45 a.			0	0	0	0	Funnel Cloud
	A funnel cloud was reported near Montezuma Peak by Maricopa Sheriff's Office. It was verified by radar with a hook echo 16 miles south-southwest of Sky Harbor International Airport, or just inside of Pinal County.								
ARKANSAS State of Arkansas	Late June to Mid-July				0	0	0	0	Heat and Drought
	Extremely hot and dry weather plagued the state, especially the southwestern sections from late June through the first half of July. Arkansas reported maximum temperatures of 100 degrees or more for nineteen consecutive days. Soybean and cotton crops and livestock, especially chickens, were the hardest hit. Damage estimates were expected to run over 100 million dollars. Several counties in the state were declared disaster areas due to the hot, dry conditions.								
North Little Rock - Pulaski County	2	2:10 p.			1	2	0	0	Lightning
	Three women were struck by lightning while attending a high school reunion at Burns Park. One woman was killed and the others were injured.								
Five Miles South of Scott - Lonoke County	2	Between 4:00 p. & 5:00 p.	1/2	200	0	0	2	0	Tornado
	A tornado moving east-southeastward touched down and damaged some boat docks, trees, and power lines.								
Clow - Hempstead County	3	2:40 p.			1	2	0	0	Lightning
	Three men sitting under a tree were struck by lightning. One man was killed and the other two were injured.								

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					KILLED	INJURED	PROPERTY	CROPS	
ARKANSAS (continued)									
Near Hazen to Carlisle - Lonoke and Prairie Counties	3	3:30 p. to 3:38 p.							Funnel Cloud
			A funnel cloud moving southwestward was seen by several people.						
Mineral Springs to Seven Miles South of Mineral Springs - Howard County	4	4:00 p. to 4:15 p.	7	440	0	0	3	0	Tornado
			A tornado touched down on the edge of town, and moved slowly southward through open country. Minor roof and window damage was reported in Mineral Springs.						
Batesville Country Club - Independence County	7	Mid-Afternoon							Funnel Cloud
			A funnel cloud moving eastward was spotted by the owner of the golf course pro. shop.						
Six Miles North of Center Ridge - Conway County	10	3:30 p.	** 200	25	0	0	3	0	Tornado
			A small tornado moving southeastward touched down briefly and destroyed a chicken house. Damage was estimated at 4 thousand dollars.						
Peach Orchard - Clay County	11	Morning			1	0	0	0	Lightning
			An eighteen-year old man was struck and killed by lightning as he walked from his house to his car.						
West Memphis - Crittenden County	11	6:00 p. to 6:30 p.			0	0	6	7	Wind/Rain
			Heavy thunderstorms moving through the area produced considerable wind and water damage. Southland Greyhound Racing Park suffered the most extensive damage. Property damage was estimated at around 2 million dollars. Crop damage had not been determined.						
Five Miles South of Prescott - Nevada County	14	2:45 p.			0	0	2	0	Wind
			Thunderstorms produced winds of up to 60 mph. A few buildings sustained minor damage.						
Five Miles Northeast of Magnolia - Columbia County	14	4:55 p.							Funnel Cloud
			A funnel cloud was sighted by an operator at the Magnolia Power Plant. No direction of movement was given.						
Fourteen Miles South-east of Forrest City - St. Francis County	20	Evening			0	0	5	5	Wind/Hail
			Thunderstorms produced hail and strong winds which inflicted heavy damage on crops and several farm buildings. Damage was estimated at 200 thousand dollars.						
Lake De Gray Marina - Clark County	25	1:45 p.			0	4	4	0	Wind
			Heavy thunderstorms produced strong winds which destroyed a set of boat docks. Four people were injured by flying debris. Damage was estimated at almost 50 thousand dollars.						
Conway and Perry Counties	26	8:55 p. to 9:22 p.							Funnel Clouds
			Three funnel clouds were sighted by the public; near Jerusalem, near Overcup, and 15 miles southwest of Morrilton. The funnels were all moving toward the southeast.						
Just South of DeWITT - Arkansas County	27	5:25 p.	** 100	25	0	0	0	0	Tornado/Funnel Clouds
			A small tornado touched down briefly in a wooded area. The tornado showed little or no movement. The funnel dipped down out of the clouds four times before it finally touched down.						
Three Miles West of Jonesboro - Craighead County	30	9:30 p.							Funnel Cloud
			A funnel cloud moving eastward was spotted by a police officer.						
CALIFORNIA									
NORTHERN & CENTRAL									
			NONE REPORTED						
CALIFORNIA SOUTHERN									
Southern California									
Bishop, Ca.	24								40 knot wind gust damaged Sierra Pacific hangar doors
COLORADO									
Northeast Foothills									
	3	1630-1720							Wind gusts
			A thunderstorm wind gust reached 60 MPH at Foothills campus in Fort Collins. Gusts of 69 MPH reported at Wellington. Wind damaged power lines and blew roof off a shed at Fort Collins.						
Salida	4	1300	0.3	30	0	0	3	0	Dust Devil
			A powerful twister ("Sondevil," or a dust devil from cloudless skies) tore off roof from a mobile home, scattering some rafters 200 feet into the air to the north. The twister skipped the area immediately north of the home, then touched down briefly, breaking a tree.						
Southeast Weld County	5	Evening							Hail
			Hail damaged crops near Roggen.						
Salida	5	1430	0.3	30	0	0	3	?	Dust Devil
			A "Sondevil" (dry twister) ripped away a plastic patio roof and five wrought iron posts.						
Northeast Foothills and Plains	6	Afternoon							Hail
			Hail 1 to 2 inches in diameter damaged crops in the vicinity of Berthoud, Greeley, and Roggen. Mobile homes were damaged in Platteville. Hail to golfball size fell in Arvada, northwest of Denver, and in Westminster, north of Denver.						
Colorado Springs	9	Afternoon							Hail
			Hail up to golfball size piled up to a depth of one foot in some parts of the city. Hail was 8 inches deep at the Air Force Academy, and 4 foot deep on Interstate 25 just north of Colorado Springs. Thousands of homes and autos sustained damage, estimated at 30 million dollars.						
Huerfano County	9	Evening							Heavy rains
			Flooding along Oak Creek and the Huerfano River caused loss of hay crop, irrigation ditches, headgates and livestock watering pipes.						
Walsenburg	10	1600	0.3	50	0	2	4	0	Tornado
			A tornado touched down briefly 20 miles east of Walsenburg, striking several homes. One house was unroofed and several homes had windows blown out. A 20-penny nail was driven into a radial tire. Glass, thistles and rock wool insulation were driven into walls and carpets. 2 doors were sucked out of one house. 12 persons sustained minor injuries from flying glass.						
Otero County	10	0100-0400							Heavy rains
			Extensive flooding from 3 to 6 inches of rainfall caused a loss of 12 pigs. There were crop losses along creeks and rivers near the Arkansas and Apesnapa Rivers and along Timpas Creek.						
Castle Rock	13	1450	0.3	50	0	0	3	0	Tornado
			Three homes and one garage were damaged by a tornado. Several funnel clouds were reported in the area.						
Northern Douglas County	13	1250	0.3	50	0	0	7	0	Funnel clouds
			Funnel clouds sighted just south of County Line Road near Broadway.						
Extreme Northwest Elbert County	13	1300	0.3	50	0	0	2	?	Tornado
			One barn unroofed, another metal barn damaged. A camper trailer was overturned.						
Colorado Springs	13	Afternoon							Heavy rain
			Rain from thunderstorms flooded the basement of a hotel, forcing evacuation for several hours. Mud and gravel slides covered some roads nearby.						
San Miguel County	16	1600			1	1	0	0	Lightning
			A woman hiker was killed while taking refuge from a thunderstorm under a poncho on a high point above timberline. A companion was grazed and unable to remember the event.						
Denver	20	1500							Lightning
			A girl was struck by lightning at a country club southwest of Denver. She was in good condition at a local hospital.						
Eads (Kiowa County)	21	1815-1900	0.3	50	0	0	3	0	Tornado
			A small tornado blew a roof off a house in Eads.						
Eads	21	1815-1900	0.3	50	0	0	0	0	Tornado
			Another small tornado was sighted 5 miles southeast of Eads.						
Northeast Foothills and Plains	21	Afternoon							Funnel clouds
			Funnel clouds were spotted near Wellington, east of Ault, east of Brighton, and 8 miles northeast of Fort Morgan.						
Colorado Springs	29	1430							Rain and hail
			1 to 1-1/2 inch hail fell over much of the same area hit by the storm on July 9. Damage would have been greater if the damage incurred on the 9th had been fully repaired. Some minor flooding occurred. Up to 2 inches of rain fell in 90 minutes in the northern part of the city.						

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COLORADO (continued)									
Douglas and Elbert Counties	29	Afternoon			0	0	4	?	Thunderstorms and heavy rain
									Normally dry creek beds overflowed, washing out culverts and a couple of bridges. Four inches of rain fell in one hour northeast of Elizabeth.
Fremont and Pueblo Counties	29	Afternoon			0	0	5	0	Heavy rain
									Heavy rain caused flooding in the St. Charles Mesa, Avondale and Vineland areas. Several creeks and irrigation ditches overflowed, pouring water and mud into numerous homes. Many culvert pipes were washed out, resulting in impassable roads and about \$70,000 damage. A rock slide closed US 50 between Salida and Canon City for several hours.
Parker	29	1445	0.3	30	0	0	0	0	Tornado
									A small tornado was sighted just east of Parker.
Colorado Springs	31	Evening			0	0	4	0	Rain and hail
									Small hail and 2 to 3 inches of rain pelted the north and west sections of the city. Some areas suffered power outages. Lightning struck several homes, causing minor damage. Several roads were washed out west of the city.
Northeast Foothills and Plains	31	Afternoon			0	0	?	?	Hail
									Hail piled up to a depth of 10 inches between Rockford and Carr.
CONNECTICUT									
New Hartford New Milford Norfolk Salisbury Thomaston Rocky Hill Waterbury Woodbury	10	7-8PM			0	0	3	0	Lightning
									Several lightning strikes broke trees and power lines. A house and an apartment building in Rocky Hill were struck, but only minor damage resulted.
Sharon	25	1:30AM			0	0	3	0	Lightning
									A bolt destroyed a large tree which then crashed through a house roof.
DELAWARE									
Kent County	31	11:00 p- Midnight			0	0	4	0	Wind, Lightning
									Violent thunderstorm caused extensive power outages over the area, with around 4,000 homes affected. Lightning struck the T-V antenna of home in Vidla, ripping a hole in the side of the house and damaging television set. In the Camden-Wyoming section another house was hit by lightning, scorching a heating duct on the wall. Wind blew mobile home off foundation west of Wyoming causing almost a complete loss. Rainfall measured 2 inches at Dover Air Force Base. Damage estimates: Wind: \$15,000; Lightning: \$1500.
FLORIDA									
Monroe County	1	10:30AM EST			0	0	0	0	Waterspout
									A waterspout moving westward was observed 3 miles north of Key West.
Orange County	1	8:43PM EST	1/10	10	0	0	2	0	Tornado
									A small tornado touched down briefly 2 miles southeast of Herndon Airport in Orlando. The only damage reported was a utility shed blown 200 yards from its original location. There were no injuries. Several witnesses reported seeing the tornado touch down.
Dade County	2	9:00AM EST			0	0	0	0	Funnel aloft
									A funnel cloud aloft was reported 10 miles east of Bakers Maulover Inlet near Miami.
Dade County	2	9:00AM EST			0	0	0	0	Funnel aloft
									A funnel cloud aloft was reported 7 miles east of Miami International Airport.
Volusia County	2	6:00PM EST			0	2	0	0	Lightning
									A 26-year-old woman was seriously injured when she and her twin sister were struck by lightning while jogging along the water at New Smyrna Beach. The woman was comatose, burned, and in critical condition after the lightning strike. She was struck in the head by the lightning bolt which caused one ear drum to rupture and resulted in burns down the front of her body. She remained in a coma for more than 10 days. The sister was knocked to her knees by the bolt but suffered only minor ear problems.
Monroe County	2	5:48PM EST			0	0	0	0	Waterspout
									A waterspout moving westward was reported 8 miles west of Key West.
Dade County	3	9:35AM EST			0	0	0	0	Waterspout
									A waterspout was reported about one mile east of 21st street on Miami Beach.
FLORIDA (continued)									
Dade/Broward County	3	3:05PM EST			0	0	0	0	Funnel aloft
									A funnel cloud aloft was reported by the public west of Highway 441 on County Line Road.
Monroe County	3	6:58PM EST			0	0	0	0	Waterspout
									A large waterspout indicating little movement was reported about 15 miles east-northeast of Key West.
Dade County	3	8:45PM EST			0	0	0	0	Waterspouts
									Two waterspouts moving northward were reported by the Coast Guard 2 miles north of Baker's Maulover Inlet near Miami.
	4	10:30AM EST			0	2	0	0	Lightning
									A 16-year-old boy and his 22-year-old sister, visiting from Connecticut were struck by lightning at the Chekika State Recreation Area near Homestead. The boy was critically injured and in a coma, while the girl's condition was satisfactory after emergency treatment. A park ranger and a nurse visiting the park administered mouth-to-mouth resuscitation and heart massage to the pair. The bolt of lightning apparently struck the boy in the forehead, ran to his left leg, and either brushed his sister or jumped from his body to hers. Lightning struck the brother and sister as they were walking across a wooden boardwalk away from trees. Witnesses said that lightning had not been observed prior to the incident.
Brevard County	4	2:10PM EST			0	0	0	0	Funnel aloft
									A funnel cloud aloft was reported near Cape Canaveral.
Volusia County	4	2:28PM EST			0	0	0	0	Funnel aloft
									A funnel cloud aloft was reported about 7 miles east of Ariel.
Palm Beach County	5	3:50PM EST			0	0	0	0	Funnel aloft
									A funnel cloud aloft was reported west of Delray Beach.
St. Lucie County	5	5:30PM EST	1/10	10	0	0	3	0	Tornado
									What was believed to be a small tornado associated with a thunderstorm was reported by the police in Port St. Lucie. High winds uprooted trees, damaged several roofs, porches, and fences, and blew down a few signs along U.S. 1. Rain and marble-sized hail accompanied the storm. No injuries were reported.
Manatee County	6	8:50AM EST			0	0	0	0	Waterspout
									A waterspout was reported by the Florida Highway Patrol along Anna Maria Island near Cortez Road.
Santa Rosa County	6	3:25PM CST			0	0	0	0	Funnel aloft
									A funnel cloud aloft near Jay was reported by County Sheriff's Ofc.
Hendry County	9	4:48PM EST	1/2	15	0	0	0	0	Tornado
									A tornado was observed in open country about 15 miles southwest of Clewiston. The funnel reportedly was touching the ground for at least 10 minutes. Movement, if any was unknown.
Pinellas County	10	11:28AM EST			0	0	0	0	Funnel aloft
									A funnel cloud aloft was reported in the vicinity of Safety Harbor.
Martin County	10	3:20PM EST			0	0	0	0	Funnel aloft
									A funnel cloud aloft was reported over Lake Okeechobee north of Port Mayaca.
Manatee County	10	7:45PM EST			0	0	0	0	Funnel aloft
									A funnel cloud aloft moving north was reported southwest of Terra Ceia.
Lee County	11	3:35PM EST			0	0	0	0	Wind, severe thunderstorm
									Wind gusts to around 60 mph were reported in Ft. Myers during a severe thunderstorm along with heavy rain and marble-sized hail. Some areas of town were littered with downed tree limbs, and localized street flooding and power outages were reported. There were no injuries or significant damage.
Franklin County	12	11:02AM EST			0	0	0	0	Waterspout
									A waterspout was reported 8 miles east of Apalachicola.
	12	11:21AM EST			0	0	0	0	Waterspout
									A waterspout was reported 2 miles east of Apalachicola.
Collier County	12	1:50PM EST			0	0	3	0	Wind, rain
									Wind gusts to 60 mph were reported at Naples Pier during a violent rainstorm. Several homes and commercial buildings were damaged, and traffic was stalled in some areas where up to two inches of rain fell within 30 minutes. The storm largely was confined to the Gulf Shore section and adjacent areas, though heavy rains lashed downtown Naples. No injuries were reported.

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FLORIDA (continued)									
Hillsborough County	12	2:10PM EST	1/2	10	0	0	0	0	Tornado
		The public reported that a tornado touched down at 30th and Medical Drive in Tampa and was moving slowly westward. No damage or injuries were reported.							
Pasco County	12	2:30PM EST	1/10	10	0	0	0	0	Tornado
		A tornado touch down was reported by the public near the intersection of I-75 and State Road 54. No damage was reported.							
Okaloosa County	12	3:30PM EST			1	0	0	0	Lightning
		A 17-year-old lifeguard was struck and killed by lightning while on duty at James Lee Park on Highway 98 in Destin. The victim and another lifeguard had just cleaned people out of the Gulf and were putting their gear away when the mishap occurred. Doctors reported that the boy was burned only in the groin, where lightning apparently entered his body. The other lifeguard, standing only about 4 feet away at the time, was uninjured.							
Osceola County	12	After-noon			1	0	0	0	Lightning
		A 37-year-old woman was struck and killed by lightning at the Holiday Inn Travel Park, 8 miles west of Kissimmee on Highway 192. Lightning also blew out a power transformer and split two trees in the area.							
Dade County	13	11:27AM EST			0	0	0	0	Waterspout
		A waterspout was reported just off Miami Beach.							
	13	12:28PM EST			0	0	0	0	Funnel aloft
		A funnel cloud aloft was reported about 8 miles northwest of Miami International Airport.							
Franklin County	13	12:41PM EST			0	0	0	0	Waterspout
		A waterspout was reported near Apalachicola.							
Broward County	14	7:10PM EST			0	0	0	0	Funnel aloft
		A funnel cloud aloft was reported by a pilot near Plantation.							
Palm Beach County	15	11:27AM EST			0	0	0	0	Waterspout
		A waterspout was reported near Palm Beach.							
Taylor County	15	1:30PM EST			0	0	0	0	Waterspout
		A waterspout was reported north of Keaton Beach.							
Duval County	15	6:50PM EST			0	0	0	0	Funnel aloft
		A funnel cloud aloft was reported near Mayport.							
Martin County	16	9:00AM EST			0	0	0	0	Waterspout
		A waterspout was reported offshore from Hole Sound Beach and dissipated shortly thereafter.							
Pasco County	16	6:25PM EST			0	0	0	0	Funnel aloft
		A funnel cloud aloft was reported by the public near State Road 52 and U.S. 19.							
Manatee County	17	11:35AM EST			0	0	0	0	Funnel aloft.
		A funnel cloud aloft was reported over West Bradenton.							
Orange County	17	11:45AM EST			0	0	0	0	Funnel aloft
		A funnel cloud aloft was reported 6 miles southeast of Herndon Airport, Orlando.							
Hillsborough County	17	1:20PM EST			0	0	0	0	Funnel aloft
		A funnel cloud aloft moving east-northeast was reported near Sydney.							
Duval County	17	2:20PM EST			0	0	0	0	Funnel aloft
		A funnel cloud aloft was reported 5 miles west of Mayport Naval Air Station.							
Broward County	17	After-noon			0	1	0	0	Lightning
		An 18-year-old aircraft worker was seriously injured when struck by lightning at Ft. Lauderdale-Hollywood International Airport. The injured man was driving a tug, used to move aircraft around the airport, when a bolt of lightning struck the ground near the vehicle knocking the victim from his seat.							
	18	6:20PM EST			0	0	0	0	Funnel aloft
		A funnel cloud aloft was reported by the public near Plantation.							

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	
FLORIDA (continued)									
Escambia County	19	8:02AM CST			0	0	0	0	Waterspout
		A waterspout was reported 8 miles south of Pensacola Naval Air Station.							
Franklin County	19	9:45AM EST			0	0	0	0	Waterspout
		A waterspout was reported off Alligator Point by the Florida Forestry Service.							
Lee County	20	Unknown			0	0	0	0	Funnel aloft
		A funnel aloft was reported 5 miles south of Ft. Myers.							
Escambia County	21	3:35AM CST	2/10	10	0	0	4	0	Tornado
		A small tornado was blamed for causing an estimated \$7,000 damage to a U.S. Environmental Protection Agency facility on Sabine Island near Pensacola. Several buildings were damaged, a light pole on the dock was bent, several trees were blown down, and two boats were blown over. There were no injuries.							
Marion County	25	2:40PM to 3:30PM EST			0	0	0	0	Hail
		Hailstones one inch in diameter were reported during a thunderstorm along with heavy rain in Dunnellon.							
Monroe County	26	12:15PM EST			0	0	0	0	Waterspout
		A waterspout moving westward was reported 10 miles east of Key West.							
Hillsborough County	26	1:10PM EST	1/10	10	0	1	3	0	Tornado
		A small tornado touched down 5 miles northwest of Tampa at the Three Lakes Mobile Home Park. Damage to 11 mobile homes was limited mainly to sheds and cabanas attached to the homes. A 49-year-old woman received minor injuries when she was struck in the back by flying debris.							
Pasco County	26	2:10PM EST	1/10	5	0	0	2	0	Tornado
		A small tornado touched down briefly during an afternoon thunderstorm near New Port Richey causing only minor damage. A utility shed was picked up and blown through a screened enclosure into a mobile home at Regency Park. There were no injuries.							
	26	2:30PM EST	1/10	7	0	0	2	0	Tornado
		A small tornado touched down briefly during an afternoon thunderstorm just north of Hudson causing only minor damage to two mobile homes at the Suncoast Highlands mobile home park. The damage path was reported to be about 20 feet wide, with the porch blown away from one trailer, its roof peeled back, and two television antennas and a pine tree blown down. There were no injuries.							
Alachua County	27	2:15PM EST			0	0	0	0	Funnel aloft
		A funnel cloud aloft was reported about 15 miles east of Gainesville.							
Volusia County	27	2:30PM EST	1/10	10	0	0	2	0	Tornado
		A small tornado was reported by the bridge tender at High Bridge, about 3 miles north of Ormond Beach. After damaging one boat, the tornado lifted back up into the clouds and continued moving northward at about 15 mph.							
Broward County	29	6:00PM EST	1/10	10	0	0	2	0	Tornado
		An apparent tornado touched down at or near Johnnie's Fish Camp turned over two campers. The camp is located 14 miles north of Andytown along Highway 27 near the Broward/Palm Beach County Line.							
St. Johns County	30	2:20PM EST			0	0	0	0	Funnel aloft
		A funnel cloud aloft was reported over St. Augustine Inlet by the County Sheriff's Office.							
	30	2:30PM EST			0	0	0	0	Waterspout
		A waterspout was reported on St. Augustine Inlet by the County Sheriff's Office. The waterspout dissipated before moving inland.							
Volusia County	30	2:30PM to 3:00PM EST			0	3	0	0	Lightning
		Three persons at Ormond Beach were knocked down during a thunderstorm when lightning struck near where they were standing on the beach. Their injuries were not serious.							
Palm Beach County	31	8:30AM EST			0	0	0	0	Waterspout
		A waterspout was reported by the public east of Boca Raton.							
Broward County	31	8:48AM EST			0	0	0	0	Waterspout
		A waterspout reported 5 miles southeast of Ft. Lauderdale dissipated within about two minutes.							

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1978

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	
GEORGIA Worth County	2	2:00 pm			0	0	4	0	Lightning
			50						Lightning killed a dog and blew up a head of cattle in Pokesville. It also killed a TV set in Sylvester.
Chatham County	3	1:30 pm			0	2	3	0	Lightning, Wind
									A thunderstorm caused a tree to fall onto a car injuring one man. Lightning injured another man about the same time in the Savannah area.
Polk County	9	4:00 pm			0	0	4	0	Wind
									Thunderstorm winds damaged trees and power lines in Cedartown.
Catoosa County	9	4:00 pm			0	3	3	0	Wind
									A mobile home was overturned by strong, thunderstorm winds in Keith. The three occupants sustained minor injuries.
Forsythe County	9	6:30 pm			0	0	4	0	Wind
									Thunderstorm winds damaged several businesses in Cumming.
DeKalb County	23	3:00 pm			0	0	5	0	Dowburst
									Strong thunderstorm winds damaged 14 aircraft at Peachtree. DeKalb Airport in the northeast section of Atlanta. A nearby wind instrument only measured gusts to 45 mph yet \$400,000 damage resulted. Roofs were blown off a few buildings at the airport, and trees were blown onto houses just outside the airport, causing considerable damage. Witnesses claimed that the strong winds lasted 20 minutes, and no funnel was seen.
DeKalb County	23	3:00 pm	1/10	50	0	0	5	0	Tornado
									A mini-tornado caused extensive damage to a warehouse construction site in the extreme northern part of the county. Concrete walls were blown in and debris was blown cyclonically. Damage estimates were \$200,000.
Jackson County	24	3:30 pm			0	0	4	0	Lightning
									Lightning set fire and destroyed a house in Dry Pond.
Barrow, Jackson Counties	25	5:00 pm			0	0	4	0	Lightning
									Lightning induced fires, severely damaged a church in Winder and destroyed a home in Arcade.
HAWAII Kapoho-Kalapana, East Hawaii Island	19	noon-night			0	0	5	0	Hurricane Pico
									Forming on 8th near 10N 10W east of Panama, tropical cyclone moved westward and strengthened to Hurricane Pico on 10th. Continuing westward, Pico passed 200 miles south of South Point, Hawaii on afternoon of 20th with maximum winds of 115 mph. It then turned NW and ended its career as one of the longest-lived hurricanes in the Eastern and Central Pacific just NE of Midway Island on 27th. Damage from hurricane was limited to high wave action along eastern Hawaii Island. Surf to 20 ft destroyed one house and heavily damaged three others. Eight other homes were water-damaged. Estimated damages to houses were \$140,000. Road in Kalapana suffered \$44,000 damage. Southern shores of other Hawaiian islands were not damaged from Pico's waves.
IDAHO Bonner and Benewah Counties	1	Evening			0	0	4	0	Wind, Lightning
									High winds during thunderstorms caused scattered damage to power lines around Sandpoint, Bonner County. A house near St. Maries, Benewah County, received moderate damage from a lightning strike.
Canyon and Gem Counties	3	Early Morning			0	0	4	4	Hail, rain and Lightning
									Hail with heavy rain estimated up to three inches in a half hour did extensive damage to several farms in the Notus area. Hail destroyed wheat nearly ready for harvest and damaged corn, beets, and potatoes. Rain over nearby hills came down as a flash flood onto two farms. Lightning set fire to a house that was nearly destroyed at Emmett, Gem County.
Dayton Area, Franklin County	6	Afternoon			0	0	0	5	Hail
									A hail storm damaged cabbage, hay, grain, bean and beet crops. A field of 30 acres of cabbage was a total loss.
Butte, Clark, Jefferson and Lemhi Counties	7	Evening			0	0	5	0	Wind and Lightning
									Strong winds and a fast moving electrical storm caused extensive damage to utilities and scattered light building damage mostly to sheds. Heaviest damage was in the Mud Lake area, Jefferson County. A number of farmers in the Montview area, Clark County, had hay swathed and ready to bale that was blown so badly it had to be raked before baling. Wind gusts to 58 m.p.h. were recorded at Salmon, Lemhi County.

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	
IDAHO (continued) Shoshone County	9	5:00 p			0	0	4	0	Wind
									A brief windstorm damaged utility lines, destroyed two camper trailers, knocked down thousands of trees, and caused other minor roof and building damage. Most damage was in the Kellogg area northward to the Coeur d'Alene River.
Lewis, Idaho, and Nez Perce Counties	9	6:00 p	10	*2	0	0	0	6	Hail
									Hail damage to grain and pea crops ranged from 10 percent to total loss. Heaviest damage was in the Westlake-Ferdinand area of Lewis and Idaho Counties. Hail 1 3/8 inch in diameter fell at Lewiston, Nez Perce County.
American Falls, Power County	10	4:22 p			0	?	5	0	Wind
									A windstorm blew down 14 power poles and caused trees to fall on power lines causing over \$50,000 damage. About \$6,000 damage was caused to a mobile home sales lot. Several persons were admitted to the Power County Hospital for treatment of minor facial and head cuts caused by flying debris.
Latah, Lewis, and Clearwater Counties	15	Evening			0	0	5	5	Wind, Rain, Hail, and Lightning
									Hail damaged grain and peas in a two mile-wide swath from southwest to northeast of Genesee, Latah County, and in parts of Lewis County. Utility lines were damaged by wind and lightning from Genesee north to Potlatch, Latah County and east to Elk River, Clearwater County. Trees were uprooted, a hay shed demolished, and a camper damaged. Mud slides and spotty flooding was reported in the Deary-Bovill area. Lightning started about 20 forest fires.
Bonnets Ferry, Boundary County	16	Afternoon			0	2	0	0	Lightning
									Lightning struck the electrical line leading into a barn. Two girls inside, using a curling iron, were sent to the hospital for minor treatment.
Bruneau Area, Owyhee County	28	Afternoon			0	0	2	5	Hail
									Hail, ranging in size from an inch up to golf ball size, caused heavy damage to crops on several farms. Several windows were broken and cars dented.
Buhl Area, Twin Falls County	28	4:10 p			0	0	2	5	Hail
									Hail reported up to two inches in diameter destroyed more than 2000 acres of farm crops including barley, beans, corn, beets, and potatoes. There was minor damage to campers and automobiles.
ILLINOIS Central and Extreme Southern	1	Afternoon and Evening			0	1	5	?	Windstorm, Lightning
									Severe thunderstorms skipped across central and extreme southern Illinois in the afternoon and evening, knocking out power and telephone lines and damaging numerous buildings. The strong winds blew down a grain bin and grain dryer at Westervelt, Shelby County, at about 2pm. Losses were estimated at about \$200,000. Hail the size of golf balls was seen in Shelbyville, Shelby County, at about 12:20pm. One injury was reported. A woman was hit by lightning as she was making a telephone call at Iuka, Marion County.
Northeastern Illinois	1-2				2	0	7	7	Heavy Rain, Lightning
									Very heavy rains accompanying thunderstorms caused flash flooding of wide areas of the northeastern quarter of the state, destroying crops, flooding basements, washing out bridges and ripping up streets and roads. McHenry, Grundy, LaSalle, Lee and Winnebago Counties were declared disaster areas. Rains of as much as 11 to 16 inches were common in the Rockford area. The Rock, Kishwaukee and Pecatonica Rivers were all at or near flood stage. A boy drowned when flood waters swept the inner tube he was floating on into a drain pipe at West Dundee, Kane County, on July 2. A man was electrocuted when struck by lightning as he played the 10th hole at the Burr Hill Country Club in St. Charles, Kane County on July 1, at about 7:30am. A lightning-caused fire destroyed the Pleasant Hill Community Church on Geneva Road, near Wheaton in DuPage County. An estimated \$500,000 loss resulted from the blaze, which started at about 6:15am, July 1.
Rockford, Winnebago County	7	Early Morning			1	0	?	0	Lightning
									Lightning struck a house in the early morning hours, touching off a fire which caused a man's death.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1978

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 (continued)									
East Central Illinois	7	Afternoon			0	0	5	?	Windstorm, Hail
Severe thunderstorms hit the east central portion of the state in the afternoon. In Vermillion County, crop damage resulted as high winds and hail cut a 3-mile swath through the county just south of Catlin. At about 4:30pm, severe damage was reported in Richland and Crawford Counties, as high winds hit. The most severe damage was in Crawford County, from just north of Oblong to west of the village of Porterville, along a 5-mile path. Half of the roof was ripped off a mobile home. Pieces of the roof were scattered up to a quarter mile to the east. About 2 1/2 miles west of Porterville, a garage was smashed by the fierce winds. Localized flooding resulted from heavy rains in the county, corn was bent over and tree limbs downed in an area ranging from 1 mile to 2 1/2 miles wide from Oblong to Porterville. Barns, sheds and windows were smashed by the strong winds.									
Central Illinois	9	About 2:30am-3:30am			0	0	5	?	Windstorm, Hailstorm
An early morning thunderstorm, packing strong winds, heavy rains and hail affected several counties in Central Illinois. Fulton, Peoria, Tazewell, western McLean, Logan and western DeWitt Counties all reported damage. A grain dryer was blown down in Atlanta, Logan County, a \$150,000 loss. Rains of up to 4 inches fell in the Peoria area, causing several stores in the Northwoods Mall shopping center to close because of water damage. Gustly winds and hail knocked down vast acreages of corn, much of which was in the critical period just prior to tasseling. Power lines, trees and tree limbs were down over much of the area, due to winds which gusted to as high as 50 knots during the storm.									
Manover Park, Cook County	14	About 6:00am			0	0	5	0	Lightning
A bolt of lightning ripped into a Manover Park townhouse building in the early morning hours, leaving 4 families homeless and causing an estimated \$350,000 damage. The lightning blew out the front and back walls of one townhouse and ignited the fire that gutted 3 others. No injuries were reported.									
Extreme Northeastern Illinois	20	Afternoon and Evening			0	0	5	?	Windstorm, Lightning, Heavy Rain, Hailstorm
Lightning, high winds and record heavy rains combined to cause flash flooding, power failures, a few fires and structural damage. Lake, Cook, Kane, DuPage, Kendall and Will Counties were affected. Numerous power outages resulted as tree limbs fell and flooding knocked out electrical lines. Intense and frequent lightning strikes started numerous small fires in homes and businesses. Wind damage was recorded at the Glenview Naval Station, at about 7pm, where a portion of the roof of an airplane hanger was torn off, an airplane was damaged and 3 mobile homes were overturned and battered by the winds which reached at least 50 knots. At 8:18pm, Midway Airport in Chicago reported hailstones 3/4 inch in diameter.									
Northern Half	26	Late Morning-Afternoon			1	5	5	?	Windstorm, Hailstorm, Lightning
A number of severe thunderstorms hit wide areas of the northern half of Illinois. Hail devastated crops. Lightning and strong winds shorted out power and telephone lines as trees and tree limbs crashed down on homes, cars and businesses. Several fires were started by lightning strikes. In the Chicago area, wind damage was concentrated in a zone near 103rd Street and Western Avenue. Several counties reported considerable crop damage, although dollar estimates of losses were not available. Damage described as complete to severe was noted in Carroll County fields in the late morning hours. Corn and soybeans were slashed by large hail over a 5-mile wide, 15-mile long path between Lanark and Hillsideville. Large hail was also reported in Tazewell County 4 miles south of Fremont at 2:20pm; at Mackinaw, and at Hopedale. In addition, hailstones 3/4 inch in diameter or larger were observed at Capron, Boone County, at 10:55am; at Cherry, Bureau County, at 12:38pm; and shortly after 1pm at Crest Hill, Will County. Large hail also occurred at Blackstone, Livingston County, at 1:45pm; and at Standard, Putnam County. Two aircraft were damaged when a gust of wind flipped one on top of the other at Beardstown Airport, Cass County. At the Capital Airport, Springfield, Sangamon County, another plane was damaged when it was dumped on its back by the strong winds. Part of the roof of the Sandridge School in Tipton Park, Cook County was ripped off by gusty winds. Most of the roof of the fire station in Oak Forest, Cook County, was torn up by strong winds. One death and 5 injuries were directly attributed to the storm. A man drowned in Lake Michigan near Wilmette, Cook County when he took out a small dinghy to try to retrieve a motorboat which was blown loose from its anchor. A man was injured when lightning hit the truck he was driving in Burbank, Cook County.									
ILLINOIS (continued)									
Northeastern Sangamon County	26	About 3:30pm	9.0	175	0	0	5	?	Tornado
In South Holland, Cook County, a construction worker was struck by a lightning bolt at a building site. Near Loami, Sangamon County, a woman suffered a broken leg when her trailer was tipped over by a strong wind gust. In Rushville, Schuyler County, 2 people were injured. A woman was hurt as her trailer was smashed by the force of the wind. A man was injured as a gust knocked over his tent trailer.									
At about 3:30pm, a tornado was spotted near Monroe Gardens, in west Springfield. A tree fell atop a pickup truck, damaging the truck bed. Hail and heavy rain accompanied the storm. The tornado travelled to the northeast, near Centraill, where it severely damaged a home and knocked down several trees. The path of the tornado passed 2 miles southeast of Centraill. Also damaged were 9 homes in Sherman.									
INDIANA									
Kokomo Howard County	1	1:17 PM	--	--	0	0	0	0	Funnel cloud
Funnel cloud reported on northern edge of Kokomo moving northeast.									
Evansville Vanderburgh County	1	2:30 PM	--	--	0	1	?	0	Heavy rain, severe lightning and flooding
Heavy thunderstorms moved through Evansville accompanied by severe lightning and heavy rain. Numerous lightning strikes set off fires and injured a 14-year-old boy. 3.84 inches of rain fell in a two-hour period producing some flooding.									
Central Hamilton County	1	2:45 PM	--	--	0	0	0	0	Strong wind
50-60 mph winds were reported by the State Police.									
Anderson Madison County	1	2:45 PM	--	--	0	0	0	0	Funnel cloud
State Police reported a funnel cloud over Anderson.									
Nashville Brown County	1	3:48 PM	--	--	0	0	0	0	Funnel cloud, hail and heavy rain
A funnel cloud was reported 3 miles east of Nashville moving southeast with golfball-size hail and heavy rain.									
Columbus Bartholomew County	1	4:45 PM	.50	50	0	6	4	0	Tornado
A tornado touchdown was reported just south of Columbus and moved east. Structural damage occurred at a golf course just south of Columbus. Six people were reported injured.									
Rockville Parke County	2	2:35 AM	--	--	0	0	?	0	High wind
Seven thunderstorms produced 60+ mph wind downing power lines.									
Monroe County	2	2:40 AM	--	--	0	0	0	0	Funnel cloud
State Highway Police reported a funnel cloud in the Lake Monroe area.									
Tiptecanoe County	2	1:15 PM	8	170	0	0	4	0	Tornado
A tornado was tracked across the northern part of West Lafayette and the northern part of Lafayette, moving in a southeasterly direction. Extensive tree damage to the Elks Country Club northwest of West Lafayette. Extensive tree damage to a nearby housing subdivision with one home receiving roof damage (approximately \$5,000). The storm moved southeast into the Vinton Woods subdivision on the northeast side of Lafayette, snapping off numerous trees with one home receiving considerable damage (approximately \$3,000).									
Rainville Warren County	7	3:08 PM	.25	50	0	0	4	0	Tornado
Sheriff Department reported a tornado touched down briefly at Rainville in northern Warren County. Several mobile homes were damaged.									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

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					KILLED	INJURED	PROPERTY	CROPS	
INDIANA (continued)									
Grissom AFB Miami County	7	3:10 PM	--	--	0	0	0	0	High wind and heavy rain
									63 mph wind and 3/4 inch rain were reported as a severe thunderstorm passed.
Crawfordsville Montgomery County	7	4:12 PM	--	--	0	0	?	0	High wind
									High wind damaged several signs and downed power lines over much of the city.
Clay and Vigo County Line	7	6:06 PM	--	--	0	0	0	0	Funnel cloud
									A funnel cloud was sighted in the vicinity of U. S. Highway 40 on Clay and Vigo County line.
Columbus Bartholomew County	7	8:24 PM	--	--	0	0	0	0	Funnel cloud
									A funnel cloud was reported by the County Sheriff 10 miles southeast of Columbus, moving southeast.
Putnam County	7	6:00 PM- 8:40 PM	--	--	0	0	?	0	Flooding
									Several county roads under water with one road washed out between Fincastle and Carpenterville.
Worthington Greene County	15	4:16 AM	--	--	0	0	0	0	High wind and large hail
									Police reported golfball-size hail and high wind.
Evansville Vanderburgh County	15	6:30 AM- 8:00 AM	--	--	0	0	?	0	High wind, heavy rain and minor flooding
									Strong thunderstorms hit Evansville, dumping up to 2 inches of rain. High winds blew down trees, knocked out power and blew in several large windows. Several streets were flooded during heavy rains.
Covington Fountain County	15	4:58 PM	--	--	0	0	0	0	Funnel cloud
									A cooperative river observer sighted a funnel cloud just north of Covington.
Hobart Lake County	21	6:38 PM	--	--	0	0	0	0	Funnel cloud
									Funnel cloud reported in the vicinity of I-65 and 37th Street.
Kouts Porter County	21	7:20 PM	--	--	0	0	0	0	Funnel cloud and strong wind
									State Police reported a funnel cloud near Kouts, moving southeast and wind to 71 mph.
Clinton County	24	5:59 PM	--	--	0	0	0	0	3 funnel clouds
									Police reported 3 funnel clouds in central Clinton County north of Frankfort.
Clinton County	24	6:09 PM	--	--	0	0	0	0	2 funnel clouds
									Police reported a funnel cloud west of Frankfort and one south of Frankfort.
New Carlisle St. Joseph County	26	2:50 PM	--	--	0	0	?	?	Hail
									Golfball-size hail was reported in New Carlisle.
Mishawaka St. Joseph County	26	4:45 PM	--	--	0	0	3	0	Straight line wind
									South of Mishawaka straight line wind damaged a greenhouse and blew trees and signs down.
Cayuga Vermillion County	26	6:10 PM	--	--	0	0	0	0	2 funnel clouds

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					KILLED	INJURED	PROPERTY	CROPS	
INDIANA (continued)									
Dugger Sullivan County	26	7:26 PM	--	--	0	0	0	0	Funnel cloud
									Sullivan County Sheriff sighted funnel 2 miles northwest of Dugger. Later watched the funnel recede back into the cloud.
Freedom Owen County	26	7:47 PM	--	--	0	0	0	0	Funnel cloud
									A funnel cloud was reported south of Freedom on Highway 67.
Elnora Davies County	26	7:52 PM	--	--	0	0	0	0	Funnel cloud
									A funnel was reported 1 mile southeast of Elnora.
Bloomington Monroe County	26	8:02 PM	--	--	0	0	?	0	Funnel cloud
									A funnel was reported 5 miles north of Bloomington. Trees were downed causing power outages in Bloomington.
Bargersville Johnson County	26	8:33 PM	--	--	0	0	0	0	Funnel cloud
									A funnel was reported 1 mile south of Bargersville.
Winchester Randolph County	26	8:46 PM	--	--	0	0	0	0	Funnel cloud
									A funnel cloud was reported west of Winchester.
Evansville Vanderburgh County	30	5:23 PM	0	0	0	0	?	?	Hail
									One and a half inch hail was reported at Newburgh Lock and Dam, 5 mile southeast of Evansville.
Evansville Vanderburgh County	30	5:22 PM	0	0	0	0	?	?	Hail
									Public reported golfball to hen egg size hail covering the ground 6 miles east of Evansville.
Newburgh Warrick County	30	5:28 PM	--	--	0	0	0	0	Funnel cloud
									Strong thunderstorm with funnel cloud reported south of Newburgh.
Perry County	30	6:15 PM	0	0	0	0	?	?	Hail
									Baseball-size hail reported near Bristow and Leopold.
IOWA									
Plainview Campground Dorchester, Allamakee County	1	12:30A- 3:00A			0	0	5	0	Heavy Rain
									Nearly 5 inches of rain fell in a three-hour period causing flash flooding at a campground which swept away 11 trailers and destroyed a bridge over the river.
3S Weaver Lee County	1	2:30P	5	30	0	0	4	4	Tornado
									A tornado touched down moving east, then east southeast. Tornado skipped wavered along path damaging farms, blowing down some corn fields and twisting off the tops of trees.
4 Mi. N. Akron to Bronsville to LeMars Plymouth County	5	4:20P	34	30	0	0	6	2	Tornado
									Tornado touched down in South Dakota 2 NW Akron crossed over the Big Sioux River and damaged the Oetken farm crossing Highway 12. The tornado drove thru through the side of the house and blew the barn roof on the farmhouse 30 feet away. Tornado also destroyed many trees by chopping off tops and uprooting them. The tornado skipped along a path moving ESE damaging several farms in its wake.
Northwest -North Central Iowa	5	5:10 P			0	0	7	7	Severe Thunderstorm Hail, Wind, Heavy Rain, Lightning
									A number of severe thunderstorms ravaged their way through much of the area mentioned doing considerable damage to property and crops. These storms produced wind of 80 MPH which knocked down trees that fell on power lines, houses and cars. Tennis ball sized hail flattened many crops. In O'Brien County from Pringler to Rysal (Clay County) hail devastated an area 4 miles wide by 15 miles long. Tornadoes formed (Reported separately) and many funnel clouds were sighted. A funnel was observed moving SE to Milford in Dickinson County at 5:30 P. Another funnel was observed at Hoster in Clay County at 6:00 P moving SE before going back into clouds. Heavy rains caused pools to form in many fields and caused many streets to flood when sewers could not handle the downpour.
11N Hawarden Sioux County	5	5:30P	8	100	0	0	4	2	Tornado
									Tornado touched down in Hudson, South Dakota moved ESE into Iowa. The tornado skipped along path uprooting trees, twisted a three story tall two-way radio antenna around garage and bent a metal flag pole to a 45 degree angle.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1978

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 (continued)									
5 NW Maurice to Carnes Sioux County	5	6:00P	11	200	0	0	6	4	Tornado
Tornado moved SSE for 8 miles then swung E for next 3 miles. The tornado skipped along path doing extensive damage to farms, lifting roofs, destroying out buildings and cement silos and uprooted several trees.									
1 SE Linn Grove Buena Vista County	5	6:30P	1	30	0	0	4	3	Tornado
Tornado touched down heading straight East, uprooting trees. The tornado skipped over a house but touched down again damaging crops and bearing out two large wooden highline electrical poles before lifting back into the clouds.									
2E Odeboldt Sac County	5	7:40P	1	225	0	0	4	0	Tornado
Tornado touched down moving SE just NW of a farm destroying most of the roof of the barn and two grain bins. The tornado lifted a short while later back into the clouds.									
Northwest Iowa	6	6-8P			0	0	6	5	Severe Thunderstorm Hail
For the second night in a row severe thunderstorms ravaged the area producing tornadoes (reported separately). High winds uprooted trees which fell on power lines, cars and houses.									
1 N Lester to 4 E Rock Rapids Lyon County	6	7:05P	14	200	0	0	6	3	Tornado
Tornado touched down near Lester and skipped along path moving SE. The tornado hit the south section of Rock Rapids tearing roof off, topping off trees and destroying homes. Tornado moved 4 miles SE and lifted back into the clouds.									
1/2 N Morrison Grundy County	7	1202A	1	60	0	0	4	2	Tornado
The tornado touched down 2000 feet SW of a farm in a willow grove moving NE. The tornado slammed into the farm damaging corn bins and machine sheds and then lifted back into the clouds.									
2 SW Dolliver Emmet County	14	4:00P	5	100	0	0	4	3	Tornado
The tornado touched down to the northwest of a farm. The tornado skipped along a path before coming down in a corn field and soybean field before lifting and dissipation. The tornado damaged trees and several buildings on the farm.									
2 NE Estherville Emmet County	14	4:30 P	.5	30	0	0	0	0	Tornado
Tornado touched down in a field doing little damage, then dissipated after one minute.									
3N Cylinder (Palo Alto County) to Whittemore (Kossuth County)	14	5:00P	6	100	0	0	4	3	2 Tornadoes
Two tornadoes varying 1/4 mi apart to side by side moving SE damaging crops and property. These two tornadoes skipped along a path each touching down separately.									
Creston Airport Union County	19	1:30A			0	0	5	0	Severe Thunderstorm Wind
Strong winds completely destroyed a new hangar at the airport.									
Unionville - Moravia- Udell (Appanoose County)	19	2-4A			0	0	4	5	Heavy Rain
Many thunderstorms produced up to 5.5 inches of rain. This rain flooded severely damaging soybean fields. The North and South Soap Creek flooded immediately washing out bridges and approachways.									
Cedar Rapids Linn County	20	12:10P			0	0	5	0	Severe Thunderstorm Wind
A severe thunderstorm produced a strong wind which lifted the roof off the Frito Lay building. The rain then soaked most of the stock sections. The roof from the Frito Lay building broke through other roofs nearby. The storm broke windows, uprooted trees which fell on power lines, cars, and houses.									
Van Horne and Newhall Area (Benton County)	20	12:30P			0	0	5	4	Heavy Rain
Heavy rain of up to 3 inches in an hour swelled creeks out of their banks, produced lakes in low areas in towns and filled many basements. Bridges over many sections of the County were washed out and businesses were flooded.									
Palo (Linn County)	26	7:30A			0	10	0	0	Lightning
A thunderstorm produced a bolt of lightning which injured 10 men while replacing a deteriorated pipe at a nuclear power plant.									
KANSAS									
Phillips County	5	3:50 p	?	?	0	0	0	0	Tornado
Tornado touched down briefly in open country 4 miles northwest of Logan. No damage was reported.									
Haskell and Seward Counties	5	4:00 to 4:40 p			0	0	5	0	Wind, funnel clouds
Strong thunderstorms moving northeast through these counties produced local damaging winds. Damage was to trees, roofs, and signs with greatest damage reported around Liberal. Funnel clouds were reported with the storms 18 miles southwest of Sublette and 15 miles north of Liberal.									
Ness County	5	5:28 p	?	?	0	0	0	0	Tornado
Tornado moving east touched down briefly in open country 2-1/2 miles west of Ransom. No damage was reported.									
Phillips, Rawlins, Decatur, and Norton Counties	5	Evening			0	0	5	6	Hail, wind
Strong thunderstorms moving east through these counties were accompanied by local hail and gusty winds. There were scattered reports of hailstones to 1-3/4 inches in diameter. There was considerable crop damage as well as damage to trees, utility lines, and farm buildings.									

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 (continued)									
Smith County	5	6:30 p			0	0	5	0	Wind
Thunderstorms moving east through the county were accompanied by strong damaging winds. Damage was to trees and farm buildings mostly in the south portion of the county.									
Clark County	6	2:10 p			0	0	5	0	Wind
Thunderstorms moving northeast were accompanied by strong damaging winds. Damage was to trees, signs, small buildings and roofs mostly in the vicinity of Abland.									
Shawnee, Douglas and Franklin Counties	6	4:20 to 5:20 p			0	0	4	0	Wind
Thunderstorms moving east through these counties produced heavy showers and strong gusty winds. Wind gusts estimated at 60 to 80 mph were reported 5 to 12 miles southwest of Topeka. Damage was to windows, roofs, trees, and utility lines.									
Washington County	6	4:45 p	?	?	0	0	4	0	Tornado
A tornado associated with a severe thunderstorm moving northeast touched down briefly about 7 miles north of Hanover. Minor damage was to a haystack and farm buildings.									
Smith County	6	Evening			0	0	5	4	Hail
Thunderstorms moving northeast produced local damaging hail across the county. Greatest damage was near Lebanon with hailstones of 1-3/4 to 2-3/4 inches in diameter reported. Damage was to trees and farm buildings. Crop damage was considered to be minor.									
Washington County	6	5:05 p							Funnel cloud
A funnel cloud was reported with a thunderstorm 4 miles west of Hanover.									
Sedgwick County	6	7:30 p			0	4	5	5	Wind, hail
Heavy thunderstorms moving northeast produced locally damaging wind and hail. Greatest wind damage was at a mobile home park in east Wichita where 12 mobile homes were destroyed and several others damaged. Four persons were injured in the mobile homes. Wind was measured at 65 mph at a near-by Air Force Base. Hail damage was mostly in the south part of the county to irrigated corn and soybeans.									
Wilson County	7	1:52 a			0	0	4	0	Wind
Strong winds in a decaying thunderstorm caused damage at Neodesha. Winds estimated at 60 to 70 mph damaged roofs, upset a camper-trailer, and downed tree limbs which in turn caused power lines to break.									
Butler County	7	6:14 p	**18	7	0	0	3	0	Tornado
A tornado touched down briefly just west of El Dorado along the Kansas turnpike. Minor damage was to power lines in open country.									
Montgomery County	8	5:30 a			0	0	5	0	Wind
Thunderstorms moving southeast caused damaging winds in northeast portion of the county. Greatest damage was reported at 4 farms about a mile east and a mile north of Cherryvale. Damage was to trees, roofs, barns, and a hay shed.									
Smith County	8	5:00 p			0	0	5	0	Wind
Thunderstorms accompanied by strong winds moved east-northeast across the county causing damage to trees, farm buildings, fences, and piled hay - mostly in the east portion of the county.									
Washington County	8	6:30 p			0	0	5	0	Wind
A thunderstorm with winds in excess of 60 mph moved northeast across the county causing extensive damage to trees, farm buildings, grain storage bins, and power lines.									
Marshall, Nemaha, Brown, Doniphan, Jackson, Shawnee, Jefferson, and Atchison Counties	8	6:50 to 9:20 p			0	0	6	4	Wind
A squall line moving east through these areas produced heavy rains, small hail, and damaging winds estimated at 60 to 80 mph. Scattered damage to homes, automobiles, and utility lines reported was mostly due to falling tree limbs, but trees blown down by the wind. Considerable damage was reported at 4 Yacht Club on Perry Lake where boats, docks, and a portion of the breakwater all sustained wind damage. Crop damage due to wind and rain was minor.									
Shawnee County	11	8:15 a			0	1	4	0	Lightning
Thunderstorms moved east through the county with considerable cloud to ground lightning. A workman was injured when lightning struck a bridge west of Topeka while repair work was in progress. Other workers reported feeling an electrical charge. Minor damage was to baled hay and farm buildings in south and west portions of the county as a result of fire caused by lightning strikes.									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1978

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 (continued)									
Wichita County	14	1:20 p							Funnel cloud
			A funnel cloud was reported by the sheriff about 10 miles southwest of Leoti.						
Reno County	14	7:30 p			0	0	4	0	Wind
			Heavy thunderstorms moving southeast produced gusty winds. Winds to 71 mph were reported near Hutchinson where trees were uprooted, power lines downed, and numerous plate glass windows were broken.						
Sedgwick County	15	8:47 p			0	0	4	0	Wind
			Strong winds with a thunderstorm in the Wichita area reached gusts of 70 mph. Damage was to trees and utility lines. Windows were broken by flying debris in about 70 rental cars parked at Mid-Continent Airport.						
Saline County	18	Early morning			0	0	5	0	Lightning
			Lightning struck a hay barn about 7 miles west of Salina. The resultant fire destroyed 3 to 4,000 bales of hay and two combines stored in the barn, as well as destroying the barn.						
Clay County	18	10 to 11:00 p			0	0	5	0	Wind
			Thunderstorms containing strong winds moved east across the county causing extensive damage to trees, farm buildings, and utility lines.						
Phillips, Rooks, and Trego Counties	19	6:00 to 8:00 p			0	0	5	6	Hail, wind
			Strong thunderstorms moving east through these counties produced considerable hail of 1/2 to 1-3/4 inches in diameter, gusty winds to over 50 mph, and heavy showers. Extensive crop damage was reported as well as damage to trees, utility lines, roofs, and farm buildings.						
Phillips County	21	2:45 p			0	0	4	5	Hail, wind
			Thunderstorms moving northeast slowly were accompanied by heavy showers, gusty winds, and hail of 1/8 to 2 inches in diameter. Heaviest damage was about 10 miles east of Phillipsburg. Damage was to corn, trees, and farm buildings.						
Russell County	21	7:30 p			0	2	5	0	Wind
			Strong winds with thunderstorms moving southeast produced gusts of 63 mph at the Russell Airport, and 90 mph at the Corps of Engineers office at Lake Wilson. Damage was to trees and utility lines in the Russell area. A marina was severely damaged at Lake Wilson and campers overturned. A man was injured when the trailer he was occupying overturned. A woman was injured 5 miles east of Russell when the camper in which she was a passenger was upset by wind.						
Greeley County	30	2:24 p	?	?	0	0	0	0	Tornado
			Tornado moving southeast touched down briefly in open country 10 miles southeast of Tribune. No damage was reported.						
<u>SPECIAL HAIL SUMMARY</u>									
			Hail loss clearing house reports indicate hail was especially severe on the following dates, and in the following counties:						
	2	Decatur, Rawlins, Sheridan			5	4			TSTM
KENTUCKY									
BATH, ROWAN, MENIFEE, MORGAN, AND WOLFE COUNTIES	2	2-5 PM EDT							TSTM
			A line of heavy thunderstorms moved thru these counties causing considerable damage. Many trees were blown down and two barns were leveled. Five persons were struck by lightning on Sky Bridge.						
SHELBY COUNTY	3	1 AM EDT					5		TSTM
			A TV repair shop and a private residence were struck by lightning. The shop was heavily damaged and the home burned to the ground.						
HARDIN COUNTY	30	EVE			2	1			TSTM
			Three people were walking to a car when lightning hit a nearby tree. Two people were killed and another was injured.						
FAYETTE COUNTY	30	5 AM EDT					5		TSTM
			A severe thunderstorm moved thru Lexington producing winds of 65mph at Bluegrass Field. There were numerous reports of trees down, and roof and barn damage.						
LEXINGTON, RICHMOND, FRANKFORT, & NICHOLASVILLE, KY	30	9 PM EDT					?		
			A line of severe thunderstorms caused considerable damage to trees, roofs, and barns. Rainfall was excessive with NWS Lexington reporting over 4 inches and reports in excess of 5 1/2 inches south of the Lexington area.						
LOUISIANA									
			SEE END OF TABLE						
MAINE									
Statewide	9	Evening			0	2	6	6	Severe thunderstorm
			Thunderstorms raked the state. They were especially severe in northern Aroostook County where heavy downpours (3 to 4 inches in 6 hours) and large hail damaged crops, washed out roads. Winds uprooted trees, raised havoc with power lines. Severe lightning caused fires and power outages. Golf ball sized hail at Sanford. \$100,000. damage to apple crop in central Maine. Continuous lightning and gusty winds in Portland. Apparent waterspout in Portland Harbor damaged boats at yacht club.						
Central	23	4 pm			0	1	5	4	Thunderstorms
			A line of thunderstorms roared across central Maine. Severe lightning injured man at New Gloucester. High winds, heavy rain, hail 1/4 to 3/8 inch. Damage very heavy near Bangor. Downed trees, utility lines flattened gardens, flooded basements and tore up pavements. Two waterspouts seen on Northley Pond.						
Kingfield	23	4 pm	1/4	40	0	0	3	3	Tornado
			A tornado touched down briefly near Kingfield, Bangalee Lakes, causing extensive tree damage, bore crops from gardens.						
			F P P 1 - 1						
MARYLAND & D.C.									
Garrett County	2-3				0	0	0	0	Rain
			Total of over 4 inches of rain measured during the two-day period. Potomac River and small streams in the area left their banks, forcing evacuation of about two dozen persons in the vicinity of Shalimar. No serious flooding reported.						
Garrett and Allegany Counties	10				0	0	3	0	Wind
			Series of thunderstorms during the day resulted in tree damage, minor flooding and power outages. One storm moved thru the Grantsville area about 5 AM. Another hit Cumberland about 2:45 PM.						
Central, Eastern Shore & District of Columbia	10	5:00 p-7:00 p			0	0	5	4	Hail, Lightning, Wind
			Area of thunderstorms associated with cold frontal system resulted in locally severe activity. In the Largo area, Prince Georges County, hail reported to range from two-inch diameter up to the size of tennis balls - causing dented autos, cracked or broken windows and considerable crop and garden damage. In Montgomery County a Kensington home was totally destroyed by a lightning-caused fire, with loss estimated at \$50,000. Similarly, on the Eastern Shore two lightning fires in Kent County gutted a house trailer and also the second floor of a home, both in the Tolchester area. On Tilghman Island, Talbot County, strong winds upset several boats on drydock causing minor damage and also knocked down a portion of an unfinished cinder block building. In Cambridge, Dorchester County, lightning damaged cable television equipment, while a "ball of fire" travelled down a T-V antenna and burned out a television set as homeowners were watching. Combination of wind and lightning interrupted electrical service to some 2,000 homes in the Washington D.C. area. Estimated damage from the storm: Lightning - \$75,000; Hail - \$30,000; and Wind - \$12,000.						
Glen Burnie area, Anne Arundel County	16	1:00 p			0	0	3	0	Lightning
			Lightning bolt struck major sewage pumping station, burning out a starter unit and causing 750,000 gallons of raw sewage to empty into adjoining creek and forcing it to be closed for water contact activity until further notice.						
Statewide & District of Columbia	20-24				0		6	0	Heat, Air Stagnation
			The combination of high temperatures and elevated air pollution levels sent dozens of persons in the Washington-Baltimore area to hospitals for treatment of respiratory and heart ailments, along with heat exhaustion. On the Eastern Shore the poultry industry reported some 800,000 chickens succumbed during the heat wave, representing around an \$800,000 loss.						
Eastern Shore	25				0	0	3	0	Rain
			Weak low pressure center formed on trailing edge of cold front, bringing over 1/2 inches of rain to some sections during the 24-hour period. Many roads and some ground floors were flooded over Kent, Queen Annes, Talbot and Caroline Counties for what some said was the worst flooding that they had ever seen in the area.						
Dentsville, Charles County	31	5:15 a			0	0	4	0	Lightning
			Barn struck by lightning and completely destroyed by resulting fire. Loss, including tractor, truck, fertilizer and hay stored inside, estimated at more than \$20,000.						
Eastern Shore	31	7:00 a			0	0	4	0	Lightning
			Lightning-caused fire destroyed barn and its contents of 2600 bales of hay in the vicinity of Goldsboro, Caroline County - loss estimated at \$4,000. In Salisbury lightning entered window and shot thru four apartment units, doing minor damage. In addition, a 252-year-old Bicentennial Oak in Salisbury may have been dealt a fatal blow by a lightning strike during the storm.						

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	PROPERTY	CROPS	
MARYLAND & D.C. (continued)											
Frederick County	31	7:15 p	1.5	100	0	0	4	0			Tornado
<p>Apparent small tornado touched down briefly and tore thru section at base of Sugar Loaf Mountain near Urbana. Many large trees within wooded area snapped off at varying heights. Several roads blocked by fallen trees and about 1,000 area homes were without electrical power. Tornado moved West to East along south slope of the mountain.</p>											
Central & Eastern Shore	31				0	7	6	4			Wind, Rain, Hail, Lightning
<p>Heavy damage inflicted upon several areas, as winds in excess of 70 mph accompanied explosive thunderstorm. Portion of Ft. Meade one of hardest hit sections with at least 250 trees damaged or knocked down, causing extensive damage to several housing units and old barracks buildings, and sending six persons to hospital for treatment of minor injuries. Motel in northern Anne Arundel County had roof ripped off five rooms, cars in parking lot whipped into the air, and one guest treated for minor hand injuries caused by flying glass. Over three and one half inches of rain was reported at Andrews Air Force Base and minor flooding occurred in many areas. Near Eastern, Talbot County, two chicken houses were levelled by wind. A variety of property, along with crop damage from fallen trees and/or wind, rain and hail reported in Howard Prince Georges and Baltimore Counties, with some 39,000 homes without power for a time.</p>											
MASSACHUSETTS											
Lakeville	15	1:30AM			0	0	4	0			Lightning
<p>Lightning struck a house causing a fire and complete destruction.</p>											
Sutton	23	10:30PM			0	0	3	0			Lightning
<p>A tree three feet in diameter was knocked onto a house, truck and boat each of which sustained damage.</p>											
Sandisfield	28	12:30AM	1/8	100	0	0	2	0			Tornado
<p>A small tornado uprooted several trees and snapped off light poles.</p>											
Western portions	28	Midnight -4AM			0	0	4	0			Lightning, wind, hail
<p>Several houses were struck, and one was 50% destroyed. Many trees, transformers and power lines were wrecked. 3/4 inch hail occurred at Pittsfield.</p>											
MICHIGAN											
3 W South Haven Lake Michigan	1	8:00 am			1	0	0				Thunderstorm
<p>A 61 year old man was swept out of his boat by wind and waves while attempting to free an anchor. Two others on board the boat witnessed the incident.</p>											
An area North of Berg- land, Gwin and St. Ignace in Upper Mich- igan.	19	3-9:30 pm			0	0	5	C			Thunderstorms
<p>Two or three large thunderstorm clusters moved through the area. Dropping large hail, four inch rains and whipping up winds of 80 MPH. Windows were blown out in stores and one building lost part of its roof in Ontonagon. Trees and power poles were down in scattered areas, with a tree falling on a house in Ontonagon and on three cars in Sault Ste. Marie. Hardest hit by winds were Ontonagon, Hancock, Hobbell, AuTrain and Sault Ste. Marie. Hail reports listed below were part of this storm.</p>											
1 W Troivola to 2 S Hubbell, Houghton	19	330-425p	13	17,000	0	0	5	C			Hail
<p>3/4 to 2 1/2 inch hail covered the ground. Heavy wind and roof damage sustained by homes and buildings over a wide area. Cars, tractors and trucks were dented with cars and trucks suffering broken windshields and tail lights, and tractors losing instrument glass. 150,000 damage was done to gardens and crops, particularly potatoes, oats, hay, corn, and millet fields in a 2 1/2 mile wide strip along paradise road between Chassell and Houghton.</p>											
2 W Chatham, to 1 NE Christmas, Alger	19	5:30 pm	11	4,500	0	0	6	C			Hail
<p>1 to 3/4 inch hail covered the ground in the area. Extensive damage was done to windows, aluminum siding, roofs and vehicles. Some buildings had all the windows on one side knocked out, others had hail go right through the roof surface. 200 cars and trucks were badly pitted and many suffered broken window glass. Home gardens, trees, and field crops were shredded. Most of the damage was in and around the town of Chatham.</p>											
An area south and west of Grand Haven, Mt. Pleasant, and Cold- water.	20- 21	Evening & Early Morning			0	0	5				Thunderstorms
<p>Winds, brief heavy rains and exceptionally intense lightning moved through the area. Wind damaged the roofs of four buildings, destroyed a barn and blew down trees over a two block area in Vestaburg. A grain wagon was blown over and the roof was ripped off a garage and barn complex near Schoolcraft. Lightning destroyed a TV set in portage, set fire to a cottage near Cassopolis and shattered a large box elder tree in Three Oakes. Parts of the tree were found 75 yards from the stump. Lightning also knocked out all the runway lights at Kent County Airport at Grand Rapids closing the airport. Scattered power outages were reported throughout the area. The lightning reports listed below was part of these storms.</p>											
MICHIGAN (continued)											
Paw Paw, Van Buren	20	5:45 pm			0	7	1				Lightning
<p>Struck seven soft ball players including a young girl who was running while holding an umbrella. All seven were at a ball field located behind the Paw Paw High School. The girl was hit directly and had to be revived using CPR. The others received minor jolts that entered through their hands and exited at their feet.</p>											
An area south of Musk- egon, Saginaw and Bad Axe.	21- 22	Evening & Early Morning			0	0	5				Thunderstorms
<p>Lightning and strong gusty winds moved through the area. Lightning triggered fires burned down a barn in Jackson another barn in Marquette and a home in Ann Arbor. Another home in Jackson was hit exploding the chimney breaking windows and cracking the ceiling plaster. Lightning also knocked a major Grand Rapids radio station off the air. Winds blew a tree on a car in Ypsilanti and damaged displays at an Ann Arbor art fair. Substantial tree damage also occurred at Fennville. Lightning damaged line fuses and transformers caused several thousand power outages throughout the area.</p>											
An area south and west of Holland, Battle Creek, and Coldwater.	22- 23	Evening & Early Morning			0	0	5				Thunderstorms
<p>Lightning and 55 MPH winds moved through the area. Numerous trees fell blocking roads, damaging several cars in Kalamazoo, and crushing a child's swing set in Bridgman. Lightning caused an 80,000 dollar fire near Millburg burning up a 1,400 sq. foot barn along with large amount of hay and some farm equipment.</p>											
An area south of Crystal Falls, Petoskey and East Tawas.	26	605-830p			0	1	6	C			Thunderstorms
<p>Two lines of thunderstorms moved across the area carving out three corridors of heavy tree and power line damage. One corridor extended from the Kingsford, Fathorn area near the Wisconsin-Michigan border to Bark River and Perronville just west of Escanaba. Another 5 to 10 miles wide corridor was cut from Silver Lake to Crystal Valley in Oceana county, and still another stretched from Bay City to Harbor Beach. Other heavily damaged areas include Saugatuck, Fennville, the Pine Lake area north of Marcellus and the entire eastern side of Detroit from Grasse Pointe woods to River Rouge. 200,000 dollars in damage was done to a parking structure in downtown Detroit when 80 MPH winds caused part of it to collapse. 115 large panes of glass were blown out of Detroit's Renaissance Center building and 10 boats were swamped or overturned in the Detroit River and the south end of Lake St. Clair. The Coast Guard rescued some 30 people from the water, following the storm. A boat was blown off its trailer north of Bay City and a 27 foot cabin cruiser was blown up on the beach west of Saugatuck. Destroyed or damaged by winds and fallen trees were 3 mobile homes, 13 homes, 2 barns, 1 garage, and a half dozen vehicles and tractors. The top was blown off a gas oil transfer tank in Sterling and several business buildings in Bad Axe suffered heavy roof damage. The only injury occurred when a tractor pulling a hay wagon near Ruth, Michigan was blown off the road crushing the head of the young boy that was driving it. Lightning and winds combined to cause power outages to 50,000 homes and businesses throughout the area. Including a radio and TV station in Cadillac and the entire police radio system in Kalamazoo. Hail and funnel cloud reports listed below are part of this storm.</p>											
4 W Holland and Zeel- and, Allegan and Ottawa counties.	26	1:35 pm			0	0	UNK				Hail
<p>1 inch hail reported along the Lake Michigan shore.</p>											
3 SW Jamestown, Ottawa	26	Early Afternoon			0	1	2	C			Hail
<p>1/2 to 3/4 inch hail damaged pickles and corn crops in the area. Hail in combination with wind broke windows in one farm house cutting the face of an eight year old girl.</p>											
2 S New Troy, Berrien	26	Early Afternoon			0	0					Funnel Cloud
<p>Reported by police.</p>											
Rockford, Kent	26	Afternoon			0	0					Funnel Cloud
<p>Sighted by the public.</p>											
Charlotte, Eaton	26	3:00 pm			0	0	UNK				Hail
<p>One inch hail reported.</p>											
Dimondale, Eaton	26	3:35 pm			0	0	UNK				Hail
<p>1 3/8 inch hail reported.</p>											
Fowlerville, Living- ston.	26	4:00 pm			0	0	UNK				Hail
<p>Softball sized hail reported by residents but no damage was reported.</p>											
Manchester, Washtenaw	26	6:20 pm			0	0	UNK				Hail
<p>Softball size hail reported.</p>											
Milan and S. Rockwood, Washtenaw, Monroe	26	7:00 pm			0	0	3				Hail
<p>Marble and some golf ball sized hail fell, denting cars and doing minor damage to homes and gardens. The hail lasted about 5 minutes.</p>											
Lake Orion, Oakland	26	Afternoon					UNK				Hail
<p>1 1/2 inch hail reported.</p>											
Armada, Macomb	26	Afternoon					UNK				Hail
<p>Golf ball sized hail fell during a downpour.</p>											

STORM DATA AND UNUSUAL WEATHER PHENOMENA

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					KILLED	INJURED	PROPERTY	CROPS		
MINNESOTA										
Gary, Fosston, Norman, Mainmen, Polk, and Clearwater Counties	5	1:56AM	75	400	4	38	7	6		Tornado
<p>First report of funnel cloud in Perley Area of Norman County near North Dakota border where trailer was demolished. Moving southwest to northeast tornado touched down at Gary where clocks were stopped at 1:56 AM central time. One third of Gary flattened by tornado - 23 houses destroyed and 48 damaged - 10 mobile homes also destroyed, nursing home and school damaged, and extensive damage to crops and trees. Three killed and 35 injured, 20 seriously. 80 families left homeless. Gary completely without power through Wednesday. Tornado continued northeast touching down a second time at Fosston, where it destroyed county barn, 15 to 20 mobile homes, damaged a number of business places, houses and buildings. One killed, 9 hospitalized at Fosston. Storm continued northeast to Clearbrook demolishing trailer houses and felling many large trees. Temporary power outage and at least two injured at Clear Brook. During the 75 mile path of the tornado, extensive damage included flattened grain fields, and dozens of farm buildings including granaries, barns and machine sheds. Many cattle killed and destruction to timber was extensive. Several planes were destroyed and a new terminal building suffered heavy damage at the Norman County Airport near Twin Valley. Several distinct paths in the area of Twin Valley suggests a family type of tomadic activity. A twisting action to trees was indicated at the tornadoes path, and straight line and dowburst damage to an additional width of 2 to 4 miles. Also, a skipping of the tornado, with touchdowns mainly at Gary and Fosston. Counties of Mainmen, Norman, and Polk declared major disaster areas with 4 dead, 38 injured, 16 hospitalized and over 100 homeless. 27 homes destroyed, 67 with major damage, and 134 minor damage. 22 mobile homes destroyed and 10 damaged. An estimated 250 farm buildings and grain storage facilities destroyed in 3 counties.</p>										
Rochester, Olmsted County	5-6	6PM	-	-	15	0	8	5		Flood
<p>Torrential rains that began Wednesday evening July 5 at 6PM CST was more or less continuous til 2AM Thursday. River started rising during the evening and continued at a foot per hour during the night. Official measurement of 5.8 inches, most of which fell in 6 hours, was a new record for a 24 hour period. Zumbro river crested about 10AM Thursday July 6 at 22.5 ft. also a new record (flood stage 22 ft). Flood considered Rochester's worst natural disaster in almost 100 years and the worst flood in the city's history. One fourth of city, mainly south and northeast sections, inundated by turbulent flood waters 6 feet deep or more. 4 persons, a nurses aide and 3 wheelchair patients in nursing home trapped in elevator and drowned. A 5th died when her car plunged off a county road 10 southwest Rochester. Nearly 5000 residents forced to evacuate. Dozens of campers at Whitewater and Beaver Creek State Parks also evacuated. Flood waters whisked tons of uprooted trees and other debris through downtown Rochester. Several bridges swept away. Many cars overturned or swept away. Some carried for blocks. Basements flooded, a few with water above first floor with some foundations collapsing. Power and telephone lines out in central Rochester with no traffic lights in operation. 80% of city estimated without power with generators under water. Many businesses and shopping centers closed due flooding and lack of electricity to operate computers and cash registers. Sewage treatment plant out of commission.</p>										
Northwest Chippewa County	6	3:30PM	20	1	0	0	4	6		Hail
<p>Hail to 1 inch, heavy rain, and wind moved eastward over northwest sections of Chippewa County. Damage in towns was minor but crop losses were heavy with many areas a total loss.</p>										
Benton County	6-7	6:00PM	-	-	3	0	5	6		Flash flood
<p>A line of very intense thunderstorms produced flash flooding on Popple Creek. Three people drowned when the cars they were riding in plunged into washed-out culverts. Around 60 square miles were inundated by the flood waters. Much damage to culverts and bridges as well as farm and crop damage. County and township roads had 114 washouts. Five bridges were damaged along with 20 culverts.</p>										
SE Pipestone, Pipestone County	6	7:00PM	10	*5	0	0	4	6		Hail
<p>Extensive damage to corn, soy bean and small grain crops due to hail up to 2 inches in diameter. Damage up to 100 percent over most of area. Winds in excess of 70 miles per hour reported at Lake Wilson.</p>										
Pipestone, Rock, Murray, Cottonwood, Hanwood Counties	6	7:00PM	-	-	0	0	5	6		Wind
<p>Winds exceeding 70 mph buffeted southwest Minnesota Counties. Severe damage to corn and soybean as well as other small grains with many fields flattened due to effects of wind and heavy rain. Some damage to buildings and trees.</p>										
Nobles County	6	7:30PM	-	-	0	0	5	5		Wind
<p>Wind in excess of 70 mph caused extensive damage to farm buildings throughout county. Heaviest damage northwest two thirds of county. Damage to Adrian Co-Op elevator estimated at \$100,000. Many pigs, calves and milk cows killed. 69,000 volt power line feeding western Nobles County downed in high winds. Huge trees ripped from ground Adrian area with tree damage over much of County. Extensive damage to corn and small grains but heaviest damage to farm property.</p>										
MINNESOTA (continued)										
West Minneapolis Suburbs, Hennepin County	6	8:30PM	-	-	0	0	6	0		Flooding
<p>Massive flooding western suburbs due to heavy rain. 250 homes estimated with flooded basements in Crystal due to overworked sewer system. 5 1/4 inches of rain in 4 1/2 hours at Crystal. Power outage reported Mound and Minnetonka affecting 6000 customers. Some water damage to cars on Ridgedale car lot. Highway 12 traffic rerouted due to water 4 1/4 feet deep in some spots. Several flooded intersections of other streets and highways. Hennepin County declared disaster area.</p>										
Victoria and Waconia, Carver County	8	9:00PM	-	-	0	0	4	5		Heavy rain
<p>Between 9PM and 11:30PM CST Waconia received 5 1/2 inches of rain while Victoria received 3 1/2 inches. 240 basements in Waconia were flooded while 12 homes were flooded in Victoria. Considerable erosion of fields and roadways.</p>										
Rollag, Clay County	12	3:30PM	-	-	0	0	3	0		Tornado
<p>Tornado touched down briefly and damaged some trees and outbuildings on a farm.</p>										
South Pope County	12	5:00PM	-	-	0	0	4	0		Lightning
<p>Twelve head of cattle killed by lightning as they stood near a single tree.</p>										
Southern Beltrami County	12	5:45PM	-	-	0	0	4	6		Hail
<p>Hailstones 3/4 inch to 2 inches caused considerable damage to crops along with rain and strong winds. This storm was part of a larger storm system moving eastward through central Minnesota. Nearly 400 square miles were affected.</p>										
6S Eden Valley, Meeker County	12	6:00PM	9	90	0	0	5	4		Tornado
<p>The tornado sounded like a train coming right into the house. Within a few seconds eight buildings were destroyed on Klindt-Hoyer farm and 14 head of registered Holstein cattle were dead. The house and the silo were the only things left standing. Tornado skipped along a path 8 to 10 miles long doing minor damage to farm buildings and crops. Direction of travel was to the northeast.</p>										
12N Motley, Cass County	12	6:20PM	100 yds	50	0	0	2	2		Tornado
<p>Tornado touched in open country with little damage. Direction of travel was to the east.</p>										
Nimrod, Wadena County	12	6:30PM	90 yds	40	0	0	2	0		Tornado
<p>Tornado touched down briefly causing some tree damages. Direction of travel was to the east.</p>										
New Brighton, Ramsey County	12	7:00AM	-	-	0	0	4	4		Wind and hail
<p>Wind of 70 mph and hail the size of baseballs caused considerable damage to trees, gardens and windows in homes and autos.</p>										
Garrison, Crow Wing County	12	8:30PM	-	-	0	0	3	1		Hail
<p>Mike Femmer of the Blue Goose Resort reported that extensive hail fell in the Garrison area around 8:30PM CST. Hail stones the size of golf balls covered the ground. This storm was part of a larger storm system moving east through central Minnesota.</p>										
Isanti County	12	9:30PM	-	-	0	0	4	5		Heavy rain
<p>Rainfall ranged from one half inch in western 1/4 of county while remainder of county had up to five inches. An elderly couple had to be evacuated from low lying area of Cambridge. Spotty pea size hail caused considerable damage to crops. Considerable crop damage and land erosion due heavy rain and runoff. Wind direction made a complete circle during the storm. Value of crop loss undetermined at this time.</p>										
Alden and Albert Lea, Freeborn County	12	10:12PM	-	-	0	0	4	4		Hail
<p>Hailstones from pea size to 3/4 inch along with winds greater than 30mph and heavy rain showers with frequent lightning caused most damage to crops between Alden and Albert Lea.</p>										
NW Wells, NW Fairbault County	12	10:30PM	7	2000	0	0	4	5		Hail
<p>A seven mile long by one mile wide strip was hit by pea to golfball sized hail and wind. One to two inches of rain fell in storm and hail covered the ground to a depth of one inch. Unusual thing about storm was movement toward the northwest. Crop damage estimate ranges from 30 to 50 percent.</p>										
SW Blue Earth County	15	1:35AM	5	*3	0	0	4	5		Hail
<p>Hail the size of golfballs caused 0.30 to 40 percent crop loss to soybeans in the Mapleton and Daville area is 5 miles long and 3 miles wide. Two inches of rain fell in a short time during storm.</p>										
35W Chokio, Stevens County	15	3:15PM	2	75	0	0	4	4		Tornado
<p>Tornado cut a path 50 to 100 yards wide through several farms destroying a pole barn and nine acres of sunflowers plus other crops. Apparent movement was to the east.</p>										

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1978

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	
MINNESOTA (continued)									
Hayfield Dodge County	15	5:30PM	5	*5	0	0	4	5	Hail
Hail 1/2 to 3/4 inches with some larger stones caused considerable damage to crops in a five square mile area around Hayfield. Hail covered the ground for a time during storm. Two funnel clouds were reported near Dodge Center and Claremont.									
Faribault County	15	7:00PM	16	*2	0	0	4	5	Hail
A severe storm moving from North to South with strong winds that broke windows and fractured siding. Wind driven pea to golfball size hail caused considerable damage to crops along county road 19 in an area 16 miles long by 2 miles wide. One hundred percent loss north of highway I-90 and less south of highway. Hail covered the ground to more than one inch during storm and one to two inches of rain was reported.									
SE Steele County	15	7:30PM	6	*1	0	0	4	5	Hail
An area 6 miles long and one mile wide was hit by 1/2 inch to 3/4 inch hail with larger stones to one inch in diameter. Ground was only partially covered by hail. Considerable loss to corn and soybeans.									
Olmsted, Goodhue, Wabasha and Mower Counties	15	8:00PM	-	-	0	0	4	4	Hail and Wind
A storm system moving east during the evening produced hailstones from 3/4 inch to golfball size but did not cover the ground. Winds of 70 mph or more along with heavy rain caused considerable crop damage.									
Austin Mower County	16-17	4:00AM	-	-	0	0	6	5	Flood
For the second time in two weeks flooding occurred in Austin. Seven to eight inches of rain was reported the night of the 16th with light inches recorded at Brownsdale just northeast of Austin. Road and street flooding began in the north section of Austin about 4AM. The record surge of water came mostly from creeks flowing in from the east. The USGS gage recorded a crest of 20.35 feet, a new record. No deaths were reported and the clean-up goes on.									
Hayfield Dodge County	16	4:00PM	-	-	0	0	4	4	Hail
Brief hail 3/4 inch to 1 inch with precipitation of 2.10 inch caused only minor damage as storm system moved through Dodge county.									
Grand Meadow Mower County	16	10:30PM	-	-	0	0	5	5	Heavy Rain Flash flooding
The already saturated soil around Grand Meadow received an additional 3 inches to 6 inches of rain. All roads were under water for a time and many washouts reported with one bridge out. Most basements were flooded and much silt and debris deposited on yard and fields in the area. Crop damage and dollar cost to roads, bridges and culverts can only be estimated. Sewage ponds at Grand Meadow continued to overflow and little if anything could be done about it.									
Posston Polk County	17	5:00PM	-	-	0	0	4	0	Strong Winds
An apartment house and garage unit damaged by 65 mph winds. Direction was to the east and over 2 inches of rainfall occurred with the storm.									
NW Pennington County	17	11:00PM	1/4	100	0	0	3	4	Tornado
A small tornado touched down at the intersection of Highway 1 and county road 10. Movement was toward the east/northeast. Strong wind damage extended two miles to the east/northeast. Damage mostly to trees and crops.									
6N Goodland Itasca County	19	12:30PM	1	100	0	0	4	0	Tornado
A tornado along with heavy rain damaged mostly trees and one summer home. Path was a mile long in an easterly direction.									
3NW Wells Fairbault County	19	3:15PM	1/2	75	0	0	4	0	Tornado
A brief tornado destroyed one barn and seriously injured 2 head of cattle of the 15 head that were in the barn. A second barn was twisted or its foundation. No crop damage or other damage in area was reported. Direction of travel was to the east/southeast.									
Hills Rock County	20	6:30PM	-	-	0	1	5	4	Wind
Winds of 95 mph cause considerable roof and tree damage. One injury reported when worker fell from tree and chain saw struck him. Several barns and farm homes were damaged along with two silos. Two head of hogs were killed and a metal rood and auger system fell on seven head of cattle and they had to be destroyed.									
Climax Polk County	21	2:00PM	1/4	30	0	0	2	0	Tornado
Tornado came down in open field briefly then rose in a northeasterly direction and dissipated. Little if any damage reported.									
7N Crookston Polk County	24	9:20PM 9:25PM	- 1 1/2	- 100	0 0	0 0	0 4	0 4	(2) Tornadoes
One tornado touched down briefly in open field causing little if any damage. The second tornado caused most damage to crops as it moved southeast for a short distance.									
10NE McIntosh Polk County	24	9:30PM	-	-	0	0	4	0	Lightning
Sixteen Holstein heifers to freshen in August or September were struck by lightning as they looked for protection in thick timber from the storm.									
MINNESOTA (continued)									
Southern half Watonwan County	25	10:30PM	-	-	0	0	4	5	Strong Winds
Strong winds of 50 to 70 mph with local heavy rain caused damage to an area of crops 36 miles long and 17 miles wide. A funnel cloud was sighted in southwest corner of the county.									
Rochester Olmsted County	26	0540AM	-	-	0	0	3	0	Strong Wind
Strong winds of 53 mph hit the Rochester Airport and local area. Only minor damage with no damage to aircraft on the field.									
3NE McGregor Aitkin and Carlton Counties	28	6:40PM	18	*1/2	0	0	5	5	Tornado
A tornado skipped across three townships of McGregor, Clark, and Salo in a southeast direction damaging some 30 farms in all. At one point in its travels two small funnels were observed along with the tornado. Many farm buildings were destroyed or damaged but only a dog and a calf was killed. One trailer home was completely demolished. Golfball size hail reported at Moose Lake. Much of damage along county roads 12 and 18.									
8N Worthington Nobles County	6	8:00PM	-	-	-	-	-	-	Funnel Cloud
Perch Lake St. Louis County	12	8:47PM	-	-	-	-	-	-	Funnel Cloud
8W Garrison Crow Wing County	12	8:50PM	-	-	-	-	-	-	Funnel Cloud
SRN Morris Stevens County	15	4:15PM	-	-	-	-	-	-	Funnel Cloud
Claremont Dodge County	15	9:00PM	-	-	-	-	-	-	Funnel Cloud
Dodge Center Dodge County	15	9:00PM	-	-	-	-	-	-	Funnel Cloud
5W Crookston Polk County	17	10:47PM	-	-	-	-	-	-	Funnel Cloud
Climax Polk County	21	2:45PM	-	-	-	-	-	-	Funnel Cloud
2SW Warren Marshall County	24	7:05PM	-	-	-	-	-	-	Funnel Cloud
S Viking Marshall County	24	7:16PM	-	-	-	-	-	-	Funnel Cloud
5E Warren Marshall County	24	7:17PM	-	-	-	-	-	-	Funnel Cloud
5SW Ogema Becker County	24	10:00PM	-	-	-	-	-	-	Funnel Cloud
5SE Butterfield Watonwan County	25	11:07PM	-	-	-	-	-	-	Funnel Cloud
8W St. James Watonwan County	31	7:30PM	-	-	-	-	-	-	Funnel Cloud
MISSISSIPPI									
Hinds County	7	2:15PM	-	-	0	0	4	0	Thunderstorm, high winds
The outrush of air from a severe thunderstorm caused gusts to a reported 90 mph briefly at Hawkins Field airport in the city of Jackson. A hangar was partially derided and several small planes were blown about and sustained damage.									
Rankin County	10	5:30 PM	-	-	1	0	0	0	Thunderstorm, lightning
A resident of Pearl (near Jackson) was struck by lightning and killed while grilling steaks in his back yard.									
Madison County	10	5:30 PM	-	-	0	0	3	0	Thunderstorm, high winds
Winds of more than 50 knots were reported at the south end of Ross Barnett Reservoir. At least three boats sank where they were moored; one was a house boat. Several other small boats were battered against the piers where they were moored during the high wind period.									
Jackson County	29	10:30 AM	1/2	40	0	0	3	0	Waterspout/Tornado
A waterspout moved inland at Gautier, near Pascagoula. It blew a few backyard buildings around, knocked a tree onto some power lines, did minor damage to one home, a mobile home, and one automobile in the 2 to 4 minutes it lasted.									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1978

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	
MISSOURI									
Paris, Monroe County	1	3:30 pm	?	?	0	0	3	0	Wind
Strong gusts in a thunderstorm destroyed a 40 x 90-foot machine shed on the Berona Patton, Jr. farm and did an undetermined amount of damage to farm implements stored inside. Damage was reported to a combine, baler, auger wagon, and other small tools. Four hog houses and two hog huts were also destroyed in the storm.									
Marshall, Saline County	1	11 pm	?	?	0	0	3	0	Lightning
Four black Angus cows belonging to LeRoy Hall were killed while huddled beneath a lone tree which was struck by lightning.									
Monroe and Chariton Counties	1	10pm-12am	?	?	0	0	4	0	Wind
Strong winds in a thunderstorm destroyed four hog huts and a utility building, killing a hog on the J. W. Kendrick farm southwest of Santa Fe in Monroe County. In Chariton County, southwest of Salisbury, a back porch was destroyed and two windows broken at the Gandy home. A large limb damaged a garage at the James Bausher residence in Chariton County. Large limbs, power lines, and TV antennas were downed across the two counties.									
Walnut Grove, Greene County	4	6:45 pm	?	?	1	0	0	0	Lightning
A Fourth of July party turned into a tragedy for a Greene County family when a bolt of lightning struck and killed a nine year-old girl. The child's father said several members of his family had gathered at the home of his mother to celebrate Independence Day. A sudden storm came up and Brooks said he got everyone inside except Marty. "She came running across the yard just as the lightning struck a tree by the corner of the house."									
Grundy County	6	9:15 pm	?	?	0	0	4	0	Lightning
Lightning was responsible for a fire which destroyed a barn on the Clifford McKay farm two miles southeast of Humphreys. Also destroyed in the barn were 1500 bales of new hay.									
Foplar Bluff, Butler County	7	11:10am	?	?	0	0	3	0	Wind
High winds in a thunderstorm swept off part of the roof of the R-1 School District's George Longhead Learning Center (the Old Tiffany Building), knocked over a tree into a house, and tore off tree limbs which downed power lines.									
Northwest and North Central Missouri	8	10pm-12am	?	?	0	0	4	0	Severe Thunderstorm
An area of thunderstorms moved eastward through north central Missouri causing many power outages when trees and limbs fell on wires and lightning struck transformers. In several instances, trees blown over by strong winds or struck by lightning damaged property. In Edgerton, Platte County, Chillicothe, Livingston County, and Independence, Jackson County, houses were heavily damaged by falling trees. Lightning caused a total of \$15,000 when it started a fire on the roof of a three-story apartment building in Kansas City, Jackson County.									
Columbia, Boone County	9	12:30 am	?	?	1	0	0	0	Lightning
Mark Crawford was killed when struck by lightning while staying overnight at his grandparents' home. Mark was in bed inside the home when lightning entered the house and struck him. Mark had just completed the fourth grade.									
Benton, Camden, Miller, Moniteau, and Morgan Counties	9	7:15 pm	?	?	0	0	4	0	Severe Thunderstorm
A thunderstorm with golf-ball sized hail and strong gusty winds moved over Lake of the Ozarks, causing extensive damage to numerous boats and docks. Several docks were flipped over, some on top of boats moored inside them. At Lakeside Resort owned by John Gruber, a gas house was torn away from a dock and landed across the lake. Gas lines were ruptured, but the owner managed to turn them off before there was a major gasoline loss. Numerous trees and power lines were downed, and lightning struck a transformer at the Tan-Tar-A Resort. A couple of unoccupied cabins at Russ's Resort sustained heavy wind damage.									
Malden, Dunklin County	10	7:35 am	?	?	0	0	4	0	Wind
High winds in an early morning thunderstorm inflicted some damage to the city of Malden. Many trees and limbs were downed, one house lost a few shingles, and half of the large sign atop the Western Auto Shop was toppled. Winds ripped about 45 feet off the Evans' Big Star front canopy, flipped it up onto the roof, and punched two holes in the roof. Rain poured down through the holes onto the supermarket floor. Winds also tore a 30-foot long metal canopy from A. C. Shunway's Super-Quick. Falling limbs damaged the roof of the C. L. Mitchell residence and shattered the windshield, crushed the dashboard, and caved in the hood of an automobile belonging to W. R. Barnheart.									
MISSOURI (continued)									
Entire State	14	2-11 pm	?	?	0	6	6	6	Severe Thunderstorms
A large area of thunderstorms moved east southeastward over the entire state of Missouri ahead of a cold front, causing extensive wind, lightning, and hail damage. In Clinton, Henry County, Wanda Plumlee, a ticket window staffer at the 52 Drive-In suffered forehead cuts and bruises when the glass was shattered in the ticket window. Mr. & Mrs. Ralph Boxell were watching the storm through the front door when the 36 x 36 glass door was blown in. Mrs. Boxell suffered a laceration of the right ear and head bruises, while Mr. Boxell had minor cuts on his arms. A mobile home at the Bill Tate trailer court in northeast Odessa, Lafayette County, was blown from its foundation and two persons injured. Rhonda Tate sustained cuts and bruises on her arms, and Steve Cordell received a shoulder injury. At the garment factory in Odessa, Bruce Katchmarik received bruises and lacerations when the roof at the east end of the building caved in as part of the side wall was blown on top of it. Many trees and limbs were downed, taking their toll as they fell on power lines, vehicles, buildings, and fences. Wind damaged or destroyed numerous farm and out-buildings, roofs, buildings under construction, signs, TV antennas, chimneys, and windows. Wind completely destroyed a 300-foot three-story barn at the turkey farm of Maude and Ernest Wall near Swedesburg in Pulaski County. The company contracting the turkeys sent trucks to pick up what turkeys could be salvaged and rounded up. In St. Ann, St. Louis County, gusting winds collapsed a 50 x 50-foot section of Francis Chevrolet's showroom, burying at least six automobiles. Areas hardest hit where damage was quite concentrate were Holden in Johnson County and Lake of the Ozarks. The Missouri State Water Patrol in Jefferson City estimated damage to boats and docks on the Lake as the storm hit from Warsaw to Bagwell Dam at \$3/4 million or more. A few minor injuries were reported, but no serious injuries. Winds tore the roof off a newly decorated wing of the Osage House, causing an estimated \$250,000 damage. Lightning also took its toll. A house and its contents burned to the ground in West Plains, Howell County, and fire extensively damaged a house in Chillicothe in Livingston County. Several barns were reportedly burned, and the power equipment in the Chillicothe substation was extensively damaged. Hail damaged gardens and over 12,000 acres of corn and soybeans in numerous counties. Some local flooding was reported, and in Miller County, a big chunk of concrete was washed out of a low water crossing of Shut-in Branch on the old Tusculum-Kidron road west out of Tusculum. A few culverts were damaged, ditches stopped up, and roads washed.									
St. Louis County	14	8-11 pm	?	?	0	0	6	0	Flash Flood
Thunderstorms that moved through the St. Louis area Friday night dumped up to three inches in a three-hour period, turning roads into streams and flooding basements. Waters from the River Des Peres and other streams overflowed their banks in University City, Overland, and St. John. Hardest hit was central St. Louis County, especially University City, where the rising River Des Peres forced the evacuation of about 50 persons. There, the University Square Apartments and the roller skating rink in Heman Park were flooded in a matter of minutes, and receding waters left a coat of silt and mud. Several families reported much of their household possessions ruined. Firemen said that the water reached chest level in some areas. Rescuers handwalked across lifelines extended to the apartment buildings because the water was too swift to use boats.									
Southern Half of Missouri	26	5-7 pm	?	?	0	0	4	0	Severe Thunderstorms
Thunderstorms developed ahead of a cold front in the afternoon northeast through southwest over the state. As the storms moved southeastward, the south half of the state received scattered wind and lightning damage. Most damage was to trees, power lines, and transformers. In Webb City, Jasper County, a large tree crashed down on a mobile home which was considered a total loss. Other property damaged by falling trees were two cars in Carl Junction, Jasper County, and houses in Rolla, Phelps County, Festus, Jefferson County, and Sikeston, Scott County. In Jefferson City, Cole County, 100 or more trees were either downed or damaged at Memorial Park, and some cars were damaged by flying debris. Two walls of the Environmental Sanitation Management Inc. transfer station were blown down.									
North Dunklin and New Madrid Counties	30	6:45 pm	?	?	0	0	4	0	Severe Thunderstorm
A strong thunderstorm with high winds and golf-ball sized hail damaged cars and trees, including one that fell on a house in Malden and others that knocked down power lines.									
MONTANA									
Fergus	2	evening	?	?	0	0	0	5	Funnel, Hail
Thunderstorms with hail and heavy rains caused extensive damage to crops 30 miles northwest of Lewistown. Hail size was up to two inches in diameter.									
Carbon	2	afternoon	?	?	1	2	0	0	Lightning
A woman was killed by lightning as she sought shelter under a tree.									
Central	3	1 AM	?	?	0	0	—	6	Tornado, flash flood, hail, rain
Two to four inches of rain fell in central Montana area. A tornado uprooted trees and destroyed some sheds near Winnett. Hail caused extensive crop damage.									
Cascade	3	4:30 PM	1	300	0	2	5	5	Tornado
Several tornadoes destroyed 200 acres of timber and a campground. A school bus with 20 occupants was lifted from the ground.									
Cascade	3	5:30 PM	?	?	0	0	0	0	Funnels
Air Force personnel sighted two funnels north of Great Falls at Fairfield.									
Fallon County	4	Night	?	?	0	0	0	0	Tornado
A tornado was observed at a ranch 25 miles northwest of Baker.									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1978

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					KILLED	INJURED	PROPERTY	CROPS	
MONTANA (continued)									
Valley	4	4-8 PM	?	?	0	0	0	0	Tornado, Funnels
		A tornado was spotted 25 miles northwest of Wolf Point. Funnels were reported near Scooby.							
Custer and Garfield	4	Evening			0	0	0	6	Hail
		Baseball size hail cut a swath across southeast portions destroying or damaging 10,000 acres of wheat, barley and oats. Hail was reported up to two feet deep in ditches along the road.							
Cascade	5	1 PM	?	?	0	0	0	0	Funnel
		FAA Tower observed a funnel north of Great Falls.							
Sanders	9	evening	?	?	0	0	0	0	Tornado
		A small tornado uprooted and twisted off tops of trees 3 miles west of Thompson Falls.							
Custer	18	5:50 PM			0	2	6	0	Hail, Wind
		Golfball size hail accompanied by 40 to 70 mile an hour winds broke hundreds of windows and damaged automobiles in Miles City.							
Carter	18	Evening	?	?	0	0	5	0	Tornado
		A tornado demolished a mobile home, destroyed an aircraft in a hangar and uprooted trees 40 miles south of Ekalaka.							
Central Montana	30	Evening			0	0	?	?	Hail
		Hail destroyed thousands of acres of crops.							
NEBRASKA									
Box Butte County	1	5:45 PM			0	0	2	6	Hail
		Hail severely damaged crops in a 1 to 2 mile swath from 5 miles west of Hemingford to 8 miles south.							
Lincoln County	2	5:15 PM			0	0	2	4	Hail
		Hail to 1 1/2 inches in diameter fell 10 miles south of North Platte.							
Frontier, Hitchcock, Red Willow and Furnas Counties	2	7-8 PM			0	0	4	5	Hail and Damaging Winds
		Hail damaged crops particularly in a swath from near Trenton to Culbertson. Winds gusted to 70 m.p.h. felling trees and damaging campers at Hugh Butler Lake.							
Red Willow County	2	7:15 PM			0	0	0	0	Funnel Cloud
		Funnel cloud was reported 10 miles southeast of McCook.							
Lincoln County	3	Late Evening			0	0	3	0	Damaging Winds
		Strong winds in thunderstorm damaged roof of home 10 miles southwest of North Platte.							
Keya Paha County	3	10:45 PM			0	0	3	0	Damaging Winds
		Winds gusting to near 70 m.p.h. in thunderstorm damaged trees and blew out windows in a trailer home at Norden.							
Knox County	4	10:25 PM			0	0	0	0	Funnel Cloud
		A funnel cloud was reported between Lindsay and Santee.							
Holt County	4	11:00 PM			0	0	2	0	Lightning
		Lightning started a small fire and damaged wiring at two homes at Inman.							
Webster County	5	4:05 PM			0	0	2	5	Hail
		One and a half inch hail fell near Bladen causing crop damage.							
Hall and Merrick Counties	5	5:10 PM			0	0	0	0	Funnel Clouds
		Funnel clouds were sighted in and around Grand Island.							
Hall, Adams, Merrick and Hamilton Counties	5	5:15 PM - 6:05 PM			0	0	6	0	Damaging Winds
		Winds in a thunderstorm reached 70 m.p.h., knocked down trees and damaged utilities. A roof was partially torn off a building in Grand Island. A roof was blown off a building in Central City along with broken windows in the business district. A mobile home was overturned at Kenesaw along with a barn damaged at Apr.							
Hall County	5	5:20 PM			0	0	3	0	Lightning
		Lightning set fire to roof of church in Grand Island.							
NEBRASKA (continued)									
Buffalo, Phelps, Kearney, Harlan, and Franklin Counties	5	7:30 PM - 8:00 PM			0	0	5	3	Damaging Winds
		Strong winds in thunderstorms downed trees and damaged utility lines and buildings. Hardest hit was Kearney area trailer court where 4 mobile homes were blown over, windows were blown out and 30 storage sheds destroyed. A barn was destroyed south of Hildreth.							
Platte, Polk, Colfax, and Butler Counties	5	7:00 PM - 8:15 PM			0	0	6	5	Damaging Winds
		Fifty to seventy-five m.p.h. winds in thunderstorms felled trees and damaged utilities and buildings. The most extensive damage occurred near and west of Bellwood where a roof was torn off a lumber mill and machine shop. Two nearby homes had roof damage and a garage was destroyed. Winds damaged some crops.							
Cuming, Burt, Dodge and Washington Counties	5	8:15 PM - 9:00 PM			0	0	4	3	Damaging Winds
		Sixty to seventy m.p.h. winds in thunderstorms damaged utilities, blew down trees, and damaged some farm buildings. A small barn was blown down southwest of Wisner and wires were down in Blair.							
Cuming County	5	9:00 PM			0	0	3	0	Lightning
		Lightning set fire to a home 6 miles southwest of Wisner.							
Scottsbluff County	5	11:25 PM - 12:30 AM			0	0	3	5	Hail and Damaging Winds
		Hail up to 1 1/2 inches in diameter damaged crops in a 4 to 5 mile strip south of Lyman. Wind damaged a patio cover west of Scottsbluff.							
Kimball County	6	12:30 AM			0	0	4	6	Hail
		Hail up to 1 1/2 inches in diameter severely damaged wheat crop near and to 12 miles south of Bushnell. Hail also damaged roofs, ranch buildings and some equipment.							
Keith County	6	2:00 AM			0	0	4	0	Damaging Winds
		Strong winds in thunderstorms caused damage in the Martin Bay area on Lake McConaughy. A mobile home was blown over. Windows were broken, boats blown about and roofs damaged.							
Grant and Arthur Counties	6	3:45 AM			0	0	4	0	Damaging Winds
		Strong winds in thunderstorms downed trees and utility lines and turned over a mobile home. Most of the damage was concentrated at Hyannis.							
Cherry County	6	2:30 PM			0	0	0	0	Funnel Clouds
		Funnel clouds were sighted 15 miles south of Wood Lake.							
Jefferson and Gage Counties	6	4:45 PM - 5:00 PM	3	100	0	0	6	5	Tornado
		Tornado touched down 2 miles south and 3 miles east of Steele City and moved northeast 1 1/2 miles then southeast 1 1/2 miles. Four farmsteads sustained major damage. Trees were uprooted, utilities damaged and six head of livestock were killed.							
Gage County	6	4:55 PM			0	0	0	0	Funnel Cloud
		A funnel cloud was sighted southwest of Beatrice.							
Gage County	6	5:00 PM	1	30	0	0	4	3	Tornado
		Tornado down 3 miles east and 2 miles south of Odell, damaging sheds, storage bins, barns and chicken houses on three farmsteads.							
Buffalo, Hall, Hamilton, Merrick, York, Adams, Clay and Fillmore Counties	6	5:50 PM - 7:30 PM			0	0	3	6	Damaging Winds and Hail
		Hail caused extensive crop damage along with strong gusty winds. Heaviest damage along with 1 1/2 inch in diameter hail was around Wood River, Blue Hill and from Giltner to Henderson. Some storage bins were damaged.							
Otoe, Johnson, Nemaha and Pawnee Counties	6	8:00 PM - 9:45 PM			0	0	4	3	Damaging Winds
		Winds to 60 m.p.h. knocked down trees and damaged utilities particularly around Nebraska City.							

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1978

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 (continued)									
Otoe County	6	8:15 PM			0	0	4	0	Lightning
									Lightning set fire and heavily damaged a home in Syracuse.
Dixon County	6	Evening			0	0	3	0	Damaging Winds
									Strong winds toppled trees and damaged several buildings near Newcastle.
Dawson, Buffalo, Hall, Phelps, Adams, Clay and Kearney Counties	8	7:30 AM - 10:00 AM			0	0	5	7	Hail
									Hail averaging 1 1/2 inches in diameter fell from north of Lexington to southeast of Clay Center causing extensive crop damage, breaking auto and building windows and damaging roofs. Most extensive damage was in the Kearney, Gibbon, Wood River and Kearsaw areas. Largest hail was 3 3/4 inches at Wood River.
Grant County	8	5:00 PM			0	0	0	2	Hail
									Three quarter inch hail was reported at Ashby causing minor damage.
Thayer County	8	6:25 PM			0	0	0	0	Funnel Cloud
									A funnel cloud was reported 6 miles southwest of Hebron.
Jefferson County	8	6:30 PM			0	0	4	0	Damaging Winds
									Winds in thunderstorms to 70 m.p.h. downed trees and utility lines and broke windows at Fairbury.
Loup County	9	12:35 AM			0	0	3	5	Hail
									Hail to 3 inches in diameter fell around Taylor breaking windows and vehicle windshields.
Garden County	10	Evening			0	0	0	3	Lightning
									Fire started by lightning burnt about 100 acres northeast of Lewellen.
Nemaha County	11	9:00 AM			0	0	3	0	Lightning
									Lightning set fire to an attic in a home at Johnson.
Webster County	13	Early Morning			0	0	0	5	Hail
									Hail damaged crops from north of Inavale to south of Red Cloud.
Butler, Saunders, Lancaster, Cass, and Otoe Counties	14	11:35 AM - 2:15 PM			0	0	4	7	Hail
									Hail to 1 1/2 inches in diameter fell in a band from northwest of David City through northeast Lincoln to the Nebraska City area. Some crops were total losses. Hail broke car windows and damaged some roofs in northeast Lincoln and windows in Nebraska City.
Kimball County	15	7:30 PM			0	0	0	0	Funnel Cloud
									A funnel cloud was sighted 3 miles west of Kimball.
Franklin and Webster Counties	17	6:30 PM - 7:30 PM			0	0	4	0	Damaging Winds
									Strong winds in thunderstorms damaged grain bins and an elevator and barn 9 miles south of Wilcox and west of Campbell. Tree damage was reported at Red Cloud.
Boyd County	17	8:00 PM			0	0	2	0	Damaging Winds
									Sixty m.p.h. winds occurred at Naper.
Webster County	17	8:30 PM	1/4	20	0	0	4	0	Tornado
									Tornado touched down briefly destroying a barn 5 miles north and one mile west of Red Cloud.
Scottsbluff County	18	5:45 PM			0	0	5	6	Damaging Winds and Hail
									Winds to 80 m.p.h. and 1/2 inch hail in thunderstorms downed trees, severed utility lines and damaged buildings. Most damage was in Scottsbluff and Gering where a lumber yard had roofs torn off buildings. Hail damage was in the Morrill area.
Arthur County	18	7:00 PM			0	0	3	0	Damaging Winds
									Strong winds in a thunderstorm blew the roof off a trailer 1 mile south of Arthur.

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					KILLED	INJURED	PROPERTY	CROPS	
NEBRASKA (continued)									
Gage County	18	10:30 PM	1/4	25	0	0	5	0	Tornado
									Tornado touched down on the north side of Beatrice removing the roof from the Holiday Villa Motel, uprooting trees, downing power lines and damaging ten cars.
Gage and Johnson Counties	18	10:40 PM			0	0	4	3	Hail and Damaging Winds
									One and a half inch hail fell briefly in Beatrice area. Strong winds damaged a barn and storage bins southeast of Sterling.
Seward County	18	Late Evening			0	0	3	0	Lightning
									Lightning killed six head of cattle standing near a tree in rural Seward.
Kimball County	19	5:10 PM			0	0	2	4	Hail
									One inch hail fell around Kimball causing minor damage.
Cheyenne County	19	5:45 PM	1/2	20	0	0	0	0	Tornado
									A tornado touched down briefly 2 1/2 miles west of Sidney in open country.
Keith County	19	7:10 PM			0	0	0	0	Funnel Cloud
									A funnel cloud was observed 2 miles south of Gallala.
Phelps County	19	Evening			0	0	3	0	Lightning
									Lightning struck home in Bertrand damaging roof, radio equipment and starting a fire in kitchen.
Lancaster County	20	1:00 AM			0	1	2	0	Lightning
									A woman was injured in Lincoln when she was struck by lightning while listening to a stereo through earphones.
Johnson County	20	1:30 AM			0	0	4	0	Lightning
									Fire started by lightning destroyed a trailer home at Tecumseh.
Sioux and Box Butte Counties	20	8:05 PM - 9:50 PM	50	25	0	0	5	4	Tornado
									Tornado touched at intervals in a path from 10 miles north of Henry to around 5 miles west of Alliance. Most of touchdowns were in open ranch country but some sheds and irrigation systems were damaged 1 1/2 miles west of Alliance.
Jefferson County	21	5:00 PM	1/2	25	0	0	4	3	Tornado
									Tornado touched down on a farm 2 miles south of Hildreth uprooting 15 trees and destroying outbuildings and a car.
Jefferson County	21	5:10 PM			0	0	1	3	Hail
									One inch hail fell 5 miles east of Fairbury causing minor damage.
Johnson and Pawnee Counties	21	6:00 PM			0	0	2	3	Hail and Damaging Winds
									Strong winds downed trees in Sterling and hail broke windows at Lewiston.
Greeley County	21	8:00 PM			0	0	0	3	Lightning
									Fire started by lightning destroyed ten large hay piles near Scotia.
Sherman County	30	2:20 PM			0	0	3	5	Hail
									One and a half inch hail damaged crops and broke windows in the Lithfield and Hazard areas.
Dawson and Phelps Counties	30	4:15 PM			0	0	5	6	Hail and Damaging Winds
									Wind driven hail to 1 1/2 inches fell from north of Overton southeast through Holdrege. Severely damaged crops, broke windows and dented cars. A trailer was blown over in Holdrege along with some trees.
Box Butte County	31	6:15 AM			0	0	2	1	Damaging Winds
									Winds gusts to 65 m.p.h. in thunderstorms at Alliance causing minor damage.
McPherson County	31	9:00 AM			0	0	3	0	Lightning
									Fire started by lightning damaged a cafe at Tyron.

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					KILLED	INJURED	PROPERTY	CROPS	
Lincoln County	31	9:05 AM			0	0	0	0	Funnel Cloud
									Funnel cloud was sighted 1 mile southeast of Hershey.
NEVADA									
TUSCARORA	28	1700					4		Thunderstorm
									Flash flooding - 2" rain in one hour. Minor damage.
LAS VEGAS	28	unknown					4		Severe Thunderstorm
									Flash floods - heavy rain in mountains.
ELKO	28	unknown					3		Thunderstorm
									Flash flooding caused minor damage.
NEW HAMPSHIRE									
southern	9	Aftn			0	0	4	3	Thunderstorms
									Heavy downpours, high winds, and lightning accompanied severe thunderstorms across southern New Hampshire. Harshest hit was Rochester, where lightning caused fires; Milford and Nashua where washouts were reported and heavy wind damage was caused to trees and structures.
Statewide	23	3:30 pm			1	3	5	4	Thunderstorms
									High winds, heavy rain, severe lightning accompanied thunderstorms across the state. Unverified report of winds more than 100 mph uprooted trees. Boats overturned at Lancaster and man drowned.
New Hampton	23	4 pm	1/2	100	0	0	4	3	Tornado
									Tornado touched down briefly cutting a swath through a sparsely settled area. Snapped trees off and uprooted them. Cloudbursts, more than 1 inch in a brief period. Woman native to Arkansas stated it was a tornado.
									F P P 1 - 2
NEW JERSEY									NONE REPORTED
NEW MEXICO									
Glencoe, Lincoln County	3	1:30 p.			0	0	4	?	Heavy Rain, Flash Flood
									Three- to four-inch rain in localized area flooded church structure and some residences and roadside business. Flooding accentuated by inadequate highway drainage.
Near Portales, Roosevelt County	5	3:10-4:45 p.			0	0	3	?	Tornado, Hail
									A small tornado was sighted over open country. One barn unroofed. Golf ball sized hail reported.
Crews Field near Raton, Colfax County	9	2:00 p.			0	0	5	?	Large Hail
									Hailstorm severely damaged seven airplanes and demolished one helicopter.
Near Sanostee, San Juan County	10	1:00 p.			1	0	0	0	Lightning
									Man killed by lightning strike while changing flat tire on truck. No rain at the time and sunshine visible.
La Mesilla, Rio Arriba County	30	Afternoon			0	0	3	?	Flash Flooding
									Heavy local rain washed out bridge on NM 899 over normally dry arroyo and isolated Village of La Mesilla.
NEW YORK									
COASTAL									NONE REPORTED
NEW YORK									
CENTRAL									
COLUMBIA COUNTY	10	4:45P	.7	5	0	0	4	°C	TORNADO
									In Hudson, Columbia County, a tornado accompanied by marble size hail, downed fifty large trees, several power lines, and a few fences. Two trees were also struck by lightning. The main damage was confined to the Snowberry Farm near Bells Pond. Strong winds also downed many trees, one landing on a two story residence and another on a mobile home. A brush fire was also believed to have been caused by lightning.
HERKIMER, ONEIDA, AND LEWIS COUNTIES AND THE MOHAWK VALLEY	27	3P-9P			1	0	5	°C	THUNDERSTORMS
									Numerous downed trees and powerlines caused power outages. Winds were recorded up to 65MPH at Utica, Oneida County, and also hail up to 1/2 inch diameter. Several structures were struck by lightning causing fires. Heavy rain totaling about three inches overall created clogged catch basins and caused flooding. A 19 year old man was killed when lightning struck a tree he was standing under in Rome, Oneida County.
NEW YORK (continued)									
WESTERN									
Seneca Lake Area, Ontario Co.	27	12:30 PM			0	0	4		Funnel aloft, wind, hail, rain
									Thunderstorms moved east across Ontario Co. crossing the northern end of Seneca Lake. A 100 foot tree crashed into a boat at Kashong on western shore of Seneca Lake. Seven homes were damaged by high winds. Eye witnesses described a possible funnel coming from the Lake. Large hail was also reported.
Italy Hills, Yates Co.	27	1:42 PM			0	0	?		Hail
									Thunderstorm crossed northern portion of Keuka Lake as it moved east over southern Yates Co. Golf ball size Hail was reported at Italy Hills.
NORTH CAROLINA									
Sampson County	1	3:05	?	?	0	0	?	?	Large Hail
									Large hail reported in the Salemburg area.
Robeson County	2	Afternoon					1		Lightning
									A young man was killed in the Magnolia community on U.S. 301 near Lumberton when hit by lightning.
Pamlico Sound	1	2:30 P							Waterspout
									Two waterspouts sighted in Pamlico Sound. One off Hatteras and the second near the Octacoke Inlet.
Onslow County	3rd	4:45 P							Funnel Cloud
									A funnel cloud was sighted on the New River, SE of Jacksonville.
Off Wrightsville Beach	7	10:50 A							Waterspout
									A waterspout was sighted offshore.
Off Cape Fear	9	6:50 A							Waterspout
									A waterspout was sighted offshore.
Onslow County	11	Afternoon			1	1			Lightning
									One person was killed and another seriously injured when struck by lightning in two separate instances.
Mecklenburg County	14	7:00 P					6		Thunderstorm
									Heavy rain from a thunderstorm caused a roof to collapse. Damage about 1 million dollars.
Burke County	23	1:30 P					2		Lightning
									Two persons were injured when hit by lightning while walking along Rose Creek Mountain Road near Table Rock Mountain.
Rowan County	24	4:15 P					6		Lightning
									The roof of a Livingstone College Building was destroyed when lightning buckled the steel beams and knocked out a brick wall. Damage over \$500,000.
Stokes & Rockingham Counties	25	Afternoon					5	6	Thunderstorm
									Soon at midday thunderstorms spread from north central Stokes County and moved east and southpast through Rockingham County. Over 600 acres of tobacco were ruined along with damage to other crops, farm buildings, trees and utility lines. Damage was done over a period of 3 to 4 hours as the thunderstorms moved east.
Rowan County	25	2:00 P					4	4	Thunderstorm
									Strong winds and large hail hit an area between Rockwell and Guld Hill. There was damage to crops, trees, a few mobile homes and utility lines. Hail over penny size was noted.
Randolph County	25	2:15 P					4		Wind
									Strong winds damaged the roofs of two factories, a mobile home and several airplanes in the Asheboro area. Wind equipment was damaged when the winds exceeded 80 mph.
Orange County	25	3:00 P					3	5	Thunderstorm
									A thunderstorm with strong winds and hail damaged about 1/4 million dollars of tobacco along with some corn and soybeans. Also, there was damage to trees and a few farm buildings.
Rockingham County	25	5:30 P					1		Lightning
									A man near Reidsville was treated for electrical shock after being hit by lightning.
Dare County	31	12:30 P	2	50	1	4	5		Tornado
									A waterspout moved inland into Kill Devil Hills doing considerable damage, killing a woman and slightly injuring four others.

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					KILLED	INJURED	PROPERTY	CROPS	PROPERTY	CROPS	
NORTH DAKOTA											
15NW Adams (Walsh County)	2	7:30 p			0	0	0	0			Hail
		Dime and nickel size hail. No damage reported.									
3W Pillsbury (Barnes County)	3	12:30 p	?	?	0	0	0	0			Tornado
		Public report of tornado. No damage reported.									
Sentinel Butte (Golden Valley County)	4	2:15 a			0	0	0	0			Wind
		Wind gust to 69 mph. No damage reported.									
Williston (Williams County)	4	2:15 a			0	0	5	0			Wind
		Winds gusting to 67 mph destroyed two mobile homes and one outdoor movie screen. Heavy rains caused street flooding in Williston and flooding around the Blacktail Dam near Williston.									
30E Williston (Williams County)	4	3:10 a			0	0	*5	C			Wind
		High winds destroyed four campers, overturned several other campers, damaged farm buildings, and destroyed two granaries.									
Dickinson (Stark County)	4	3:26 a			0	0	0	0			Wind
		Winds gusting to 75 mph. No damage reported.									
Stanley (Mountrail County)	4	3:45 a			0	0	5	0			Wind
		High winds damaged hanger at Stanley airport, sheds, the Community Building and rodeo grandstand.									
Douglas (Ward County)	4	4:22 a									Funnel
Westhope (Bottineau County)	4	5:00 a									Funnel
7S Beach (Golden Valley County)	4	6:12 p									Funnels (3)
Bowman (Bowman County)	4	6:50 p			0	0	0	0			Wind
		Winds to 60 mph. No damage reported.									
Watford City (McKenzie County)	4	8:00 p			0	0	0	0			Wind, Hail
		Wind gusts to 60 mph and marble size hail. No damage reported.									
8NW Taylor (Stark County)	4	8:08 p	?	?	0	0	0	0			Tornado
		Cooperative observer reported a tornado moving rapidly east. No damage reported.									
Glen Ullin (Morton County)	4	8:14 p			0	0	0	0			Hail
		One inch in diameter. No reports of damage.									
Elgin (Grant County)	4	8:34 p	27.9	200 to 300	5	35	6	6			Tornado
		Tornado touched down one mile west of Elgin and proceeded to move northeast through Elgin killing five people, injuring 35 and doing extensive damage. After hitting Elgin, the tornado followed Highway 21 for 27 miles doing tremendous damage before dissipating south of Carson. Although there was some skipping, the tornado was on the ground for about an hour.									
Carson (Grant County)	4	9:14 p			0	0	0	0			Wind, Hail
		Winds of 60 to 65 mph and one inch diameter hail. No damage reported.									
Flasher (Morton County)	4	9:37 p			0	0	0	0			Hail
		Large marble size hail. No damage reported.									
1N Surrey (Ward County)	4	9:40 p	?	?							Tornado, Funnel
		Tornado touched down briefly. No damage reported. Funnel also sighted 1S of Surrey.									
15SW Lansford (Renville County)	4	9:45 p									Funnel
Velva (McHenry County)	4	9:50 p			0	0	0	0			Hail, Wind
		Winds of 60 mph and hail one inch in diameter. No damage reported.									
5NW Mandan (Morton County)	4	9:53 p									Funnel
5S Bismarck (Burleigh County)	4	10:14 p			0	0	0	0			Wind
		Winds of 60 mph. No damage reported.									
9WSW Rugby (Pierce County)	4	10:15 p	8.2	?	0	0	0	0			Tornado, Funnel
		Tornado spotted 8WSW of Rugby moving to the east at 15 to 25 mph. Tornado lifted before doing any damage. Second funnel sighted shortly after tornado lifted.									
NORTH DAKOTA (continued)											
Fort Yates (Sioux County)	4	10:20 p									Funnels (2)
Turtle Lake (McLean County)	4	10:23 p			0	0	0	0			Hail
		Large hail. No damage reported.									
Regan (Burleigh County)	4	10:42 p									Funnel
Linton (Emmons County)	4	11:03 p			0	0	0	0			Wind
		Winds of 75 mph. No damage reported.									
15NW Devils Lake (Ramsey County)	4	11:23 p	?	?	0	0	0	0			Tornado
		Touched down briefly - no damage.									
2S Napoleon (Logan County)	4	11:27 p			0	0	0	0			Hail
		Walnut to golf ball size hail. No reports of damage.									
Munich (Cavalier County)	4	11:30 p			0	0	0	0			Wind
		High wind. No damage reported.									
Toina (Nelson County)	5	12:20 a	?	?	0	0	0	0			Tornado
		Touched down briefly. No damage reported.									
15E Langdon (Cavalier County)	5	12:30 a			0	0	0	0			Wind
		Winds of 60 mph. No damage reported.									
Cavalier (Pembina County)	5	12:30 a			0	0	4	0			Wind
		Winds of 60 mph destroyed a garage and knocked over trees.									
Jamestown (Stutsman County)	5	12:30 a			0	0	0	0			Wind
		Winds of 59 mph. No damage reported.									
Ashley (McIntosh County)	5	12:40 a			0	0	0	0			Hail
		Marble to golf ball size. No damage reported.									
Walhalla (Pembina County)	5	12:50 a			0	0	4	0			Wind
		Winds of 70 mph flipped over a trailer house, knocked over fences, and uprooted many trees.									
5N Grand Forks AFB (Grand Forks County)	5	12:55 a			0	0	0	0			Funnel, Wind
		Winds of 70 mph. No reports of damage.									
5N Verona (LaMoure County)	5	12:55 a	?	?	0	0	0	0			Tornado
		Touched down briefly. No damage reported.									
1W Sheyenne (Eddy County)	5	12:58 a									Funnel
Valley City (Barnes County)	5	1:00 a			0	0	2	0			Wind
		High winds knocked down trees.									
Fargo Area (Cass County)	5	1:05 a			0	0	*5	C			Hail, Wind
		High winds damaged steel bins, toppled trees, and knocked out power. One inch hail also reported.									
Enderlin (Ransom County)	5	1:18 a			0	0	4	0			Wind
		Winds of 70 to 80 mph, toppled trees, broke windows, and downed power lines.									
Millerton (Stutsman County)	6	11:45 a									Funnel
5SW Flasher (Morton County)	6	4:05 p									Funnel
12ENE Hazelton (Emmons County)	6	5:52 p									Funnel
Jamestown (Stutsman County)	7	Evening			0	0	5	0			Heavy Rain
		Heavy rain caused flooding of streets and basements, and a few mudslides.									
New Rockford (Eddy County)	8	2:30 p			0	0	3	0			Wind
		High winds uprooted trees.									
Bowman (Bowman County)	11	8:25 p			0	0	0	0			Wind
		Winds of 75 mph. No damage reported.									
Dickinson (Stark County)	11	9:25 p			0	2	5	0			Wind
		Winds of 75 mph blew roofs off houses, shattered plate glass windows and knocked tree branches off. Two persons were injured by flying debris.									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

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PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS				ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	PROPERTY	CROPS	
NORTH DAKOTA (continued)											
Mott (Hettinger County)	11	9:33 p			0	0	0	0			Wind
		Winds of 69 mph.	No damage reported.								
Taylor (Stark County)	11	9:40 p			0	0	0	0			Wind
		Winds of 80 mph.	No damage reported.								
Elgin (Grant County)	11	10:08 p			0	0	2	0			Wind
		Winds of 70 mph	knocked out power lines.								
Hazen/Beulah Area (Mercer County)	11	10:28 p			0	0	*5	C			Wind, Funnel
		Winds of 80 mph	damaged or overturned more than a dozen trailer homes, and damaged many trees and some small farm buildings. Funnel observed during the storm.								
Garrison Area (McLean County)	11	11:00 p			0	0	*5	C			Wind
		Winds of over 70 mph	destroyed a mobile home, damaged a boat, downed large trees, broke windows, and caused some crop damage.								
Driscoll (Burleigh County)	11	11:48 p			0	0	0	0			Wind
		Winds of 70 mph.	No damage reported.								
Berthold (Ward County)	11	11:53 p	?	?	0	0	3	0			Wind, Tornado
		Tornado touched down briefly.	High winds with storm broke branches and twisted trees.								
25W Minot (Ward County)	12	12:05 a	?	?	0	0	5	0			Tornado Wind
		Tornado touched down briefly.	High winds damaged antennas, trees and a greenhouse.								
Velva (McHenry County)	12	12:15 a			0	0	5	0			Wind
		High wind blew over semitrailer.	uprooted trees and damaged power lines.								
Fargo (Cass County)	12	Evening			0	0	3	0			Heavy rain
		Heavy rains caused local flooding.									
New Leipzig (Grant County)	16	6:00 p			0	0	4	0			Wind
		High winds took the roof off one building	and damaged others.								
3E Michigan (Nelson County)	16	7:00 p			0	0	0	0			Hail
		Golf ball size hail.	No damage reported.								
55W Ellendale (Dickey County)	16	8:29 p	?	?	0	0	0	0			Tornado
		Touched down briefly.	No damage reported.								
Valley City (Barnes County)	17	4:20 p									Funnels (2)
8W Gwinner (Sargent County)	17	5:15 p									Funnel
Rugby (Pierce County)	17	8:18 p			0	0	*5	C			Hail, Wind, Heavy Rain
		Hail the size of golf balls	destroyed some small grain fields and battered buildings. High winds damaged newly stacked hay, broke windows and damaged steel grain bins. Rushing water ran over area roads.								
Beach (Golden Valley County)	18	8:40 p			0	0	0	0			Wind
		Winds of 60 mph.	No damage reported.								
Bowman (Bowman County)	18	9:20 p			0	0	0	0			Funnel, Wind
		Winds to 85 mph and funnel	No damage reported.								
10S Reeder (Adams County)	18	10:00 p									Funnel
South Heart (Stark County)	20	10:55 a									Funnel
Underwood (McLean County)	20	11:38 a									Funnel
Beach (Golden Valley County)	20	11:50 a									Funnels (2)
12NE Burt (Grant County)	20	12:30 p									Funnels (2)
Tioga (Williams County)	20	1:12 p									Funnel
10NE Wilton (McLean County)	20	2:04 p									Funnel
5N Mott (Hettinger County)	20	2:12 p									Funnel
NORTH DAKOTA (continued)											
St. Thomas (Pembina County)	20	5:41 p									Funnel
30 NNE Hillsboro (Traill County)	21	1:23 p									Funnel
Oriska (Barnes County)	21	3:30 p									Funnel
Alice (Cass County)	21	4:16 p									Funnel
Fairdale (Walsh County)	24	4:15 p									Funnels
Grafton Area (Walsh County)	24	5:05 p									Funnels (6)
7N Whitman (Walsh County)	24	5:10 p			0	0	0	5			Funnel, Hail
		Walnut size hail	damaged some area crops.								
Edinburg (Walsh County)	24	5:15 p									Funnel
Crystal (Pembina County)	24	5:15 p									Funnel
Hoopie (Walsh County)	24	5:15 p			0	0	0	5			Funnel Hail
		Hail	damaged some area crops.								
Nash (Walsh County)	24	5:15 p									Funnel
Park River (Walsh County)	24	5:15 p									Funnels (2)
14W Milton (Cavalier County)	24	5:17 p	12.0	100	0	0	*5	C			Tornado
		Tornado destroyed a new gunset hut,	blew a roof off a house, destroyed a machine shed, destroyed a combine, ripped out trees, destroyed part of Highway 46, and toppled power lines.								
5N Niagra (Grand Forks County)	24	5:20 p	?	?	0	0	0	0			Tornado
		Pilot reported a brief tornado	touchdown.								
3N Cavalier (Pembina County)	24	7:00 p			0	0	0	5			Hail
		Hail	the size of baseballs	severely damaged crops.							
St. Thomas (Pembina County)	24	7:20 p			0	0	0	0			Hail
		Hail	the size of golf balls.	No damage reported.							
Enderlin (Ransom County)	30	3:45 p			0	0	0	0			Wind
		Winds of 70 mph.	No damage reported.								
OHIO											
Shelby County	1	330PM	-	-	0	9	4	0			High Wind, Heavy Rain, Funnel Cloud
		Heavy thunderstorms	moved through the county with damaging winds and heavy rain. A funnel cloud was spotted just north of Newport. At Hickory Hills Lake campground several tents and camping trailers were upset with four people in one of the trailers being injured.								
Darke and Miami Counties	2	542-6PM	3/4	50	0	0	4*	C			Tornado
		A small tornado	skipped through these counties touching down mostly in rural areas. It first touched down 5 miles east of Greenville in Darke county damaging some farm outbuildings. The tornado touched down again in a rural area about 10 miles west of Xenia in Miami county.								
Brown County	2	645PM	3/4	35	0	1	4	0			Tornado
		A small tornado	touched down in rural areas near Wahlsburg and then near Decatur. Damage was done to farm outbuildings and some camping trailers. One camper was injured.								
Fulton County	2	-	-	-	0	0	3*	C			Heavy Rain
		Heavy rain	during this time caused extensive damage to tomato and bean crops. Estimates run as high as 80% of the tomato crop being lost.								
Putnam County	5	530PM	2 1/2	30	0	0	5	0			Tornado
		A small tornado	touched down 3 miles east of Fort Jennings and passed over Columbus Grove as a funnel cloud. Considerable damage was done to farms in the area.								
Groveport, Franklin County	23	410PM	-	-	1	0	3	0			Lightning, High Wind
		A thunderstorm	with gusty winds downed a number of trees and utility lines. A bolt of lightning struck and killed a 26 year old man working on his farm.								

STORM DATA AND UNUSUAL WEATHER PHENOMENA

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					KILLED	INJURED	PROPERTY	CROPS	
OHIO (continued) Northeast	27	Afternoon	-	-	0	0	6	0	High Wind
									Thunderstorms with wind gusts over 60 mph did considerable property damage as well as down trees and utility lines. A number of planes were overturned at Kent State Airport.
Lorain	28	1 AM	-	-	1	5	3	0	High Wind
									Gusty winds and waves slammed a disabled boat into the breakwall off Lorain Harbor. One man drowned and five others were treated at hospitals for injuries.
OKLAHOMA Near Alva, Woods County	1	4:25 p			0	2	3	0	Wind
									A couple driving in their car 14 miles south of Alva were forced off the road by high winds and heavy rains during a thunderstorm. They sought shelter beneath a large cottonwood tree. A wind gust knocked the tree down across the vehicle's cab injuring the two occupants.
Stillwater, Payne County	13	11:00 p			0	1	4	0	Wind
									Strong winds from a thunderstorm blew over a mobile home in southwest Stillwater injuring the lone occupant. It was unanchored.
Near Thomas, Custer County	14	6:15 p			0	1	0	0	Wind
									A man 7 miles west of Thomas was struck and injured by flying sheet metal as he was attempting to seek shelter in a barn from high winds produced by a thunderstorm.
Woodward, Woodward County	18	10:30 p			0	3	4	0	Wind
									Strong winds from a thunderstorm demolished a mobile home in Woodward. The three family occupants were injured, two seriously. The woman was blown about 200 feet from the destroyed home breaking her pelvis and her teenage son suffered a collapsed lung from falling debris.
Washita County	26	3:00 p 4:00 p			0	0	5	5	Wind, Hail, Heavy Rain
									Strong thunderstorms moved across Washita County producing 60 mph winds, 1/2 inch hail, and rainfall from 2 and 1/2 inches up to 5 inches. The heavy rains and hail did extensive damage to the agricultural crops particularly cotton. Several barns and other rural buildings around the county were damaged by the high winds.
Near Grove, Mayes County	26	5:45 p			0	1	2	0	Wind
									Southwest of Grove winds in a thunderstorm shattered several windows in a glassed-in porch. The flying glass injured a woman who was attempting to close the windows at the time.
Oklahoma City, Oklahoma County	26	evening			0	0	5	0	Wind
									60 mph winds produced by thunderstorms moved across Oklahoma City doing extensive damage to trees, power lines, and buildings. Roof and window damage was reported by many home owners and businesses. 17 planes at Wiley Post Airport were damaged by the winds. 3 of the planes were flipped over and destroyed.
OREGON Gilliam County) Wheeler County) Grant County) Morrow County)	7/1 7/2	UNK UNK			0	0	5	5	Flash Floods
Malheur County	7/3	6:00 PM			0	0	4	4	Flash Floods
Umatilla County	7/7	5:00 PM			0	0	4	4	Flash Floods
Klamath County	7/25	Evening			0	0	3	UNK	Wind
PACIFIC 7 mi. ENE and 5 mi. W of Naval Air Station, Guam	11	11:20a- 11:43a and 11:56a- 12:10p							Funnel clouds
									Two funnel clouds extended about 800 ft down from thunderstorm cloud but did not reach ground or ocean. Heavy thunderstorm rain in vicinity of funnel clouds. Funnel clouds moved westward.
PENNSYLVANIA EASTERN Chester, Montgomery Counties		10 AM to 3 16 PM EDT			0	0	4	0	Heavy Rain
									Rain that had been falling since the day before became heavy between 10 AM and 6 PM and did not end until midnight. Precipitation amounts ranged from 2 to 4 inches. Widespread flooding occurred on roadways, in fields and other low-lying areas. Some stream flooding also occurred. The saturated ground caused the basement walls of a home under construction to collapse and the house to fall into the basement.
PENNSYLVANIA WESTERN									NO REPORT RECEIVED
PUERTO RICO									NO REPORT RECEIVED
RHODE ISLAND									NONE REPORTED
PENNSYLVANIA (continued) EASTERN Perry, Juniata Counties		10 13 PM EDT			0	0	0	4	Hail
									A hail storm, which covered the ground with hail in spots, caused considerable crop damage with some fields completely destroyed.
Berks, Lebanon, North Lancaster Counties		10 13 PM to 4:30 PM EDT			1	4	4	0	Wind, Electrical
									Wind gusts accompanying thunderstorms downed many trees and utility lines. Some of the falling trees damaged buildings and automobiles. Lightning strikes contributed to the power outages to at least 4,000 customers, in part by splintering utility poles. Lightning hit near a tent at Indiantown Gap military reservation killing one Army reservist, and injuring 4 others.
Hunlock Creek, Sweet Valley and Pikes Creek in Luzerne County		3 PM to 10 4 PM EDT			0	0	3	0	Wind
									Thunderstorm winds downed trees and overturned a heavy loaded camping trailer.
Biglerville, Adams County		14 4:30 PM to 7:00 PM EDT			0	0	4	0	Heavy rain electrical
									Heavy rain caused roadway flooding with one highway closed for a time. At least 8 basements were flooded along with the firehouse. Lightning struck one house and also burned out a transformer.
Mifflin and Lycoming Counties		14 8:30 PM to 9:30 PM EDT			0	0	4	0	Heavy rain, electrical
									Heavy rain which lasted about 1 hour ranged up to 3.10 inches at Lewistown. Roadway flooding resulted with at least one automobile left stranded. Numerous lightning strikes caused minor fires.
Collegeville, Montgomery County and Bowmansville, Lancaster County		15 5 AM to 5 AM EDT			0	0	3	0	Electrical
									Lightning strikes caused a number of fires and otherwise damaged buildings.
Sunbury to Shamokin, North- umberland County		15 Midnight to 1 AM EDT			0	0	4	0	Heavy rain, Electrical
									Heavy downpours caused widespread roadway and basement flooding. Some basements had water 4 to 5 feet deep. Lightning strikes caused minor fires and damage.
Eastern Penna.		27 7 PM to 11 PM EDT			0	0	5	0	Wind, Electrical Heavy Rain
									Thunderstorm wind gusts downed many trees across Eastern Pennsylvania, some of them being uprooted or snapped off. Trees fell on power lines, against buildings, on vehicles and across roads. The wind damaged roofs and siding and toppled a parking lot photo booth. West Chester was especially hard hit with traffic lights down and several buildings with roofs ripped off or caved in and the upper level of the building destroyed. Lightning strikes caused numerous fires and other damage but most of it was minor. The lightning and wind gusts resulted in power outage to about 25,000 customers. Although the rainfall was generally not a problem, roadway flooding did occur in the Reading and Shamokin areas.

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					KILLED	INJURED	PROPERTY	CROPS	
SOUTH CAROLINA									
Charleston, S.C.	11	6 P.M.	-	-	0	0	5	0	Severe Thunderstorm High Wind Lightning
									Unofficial wind speed of 70 MPH at S.C. Ports Authority. Extensive damage to plate glass windows, roofs, trees, and utilities. Heavy rains, flooded stores, and some houses.
Orangeburg, Cherokee S.C.	25	5:30 P.M.	0	0	2	1	3	0	Lightning
									Lightning killed 2 boys and injured one in Springfield area. Mobile home damaged in Cherokee and Woodruff.
Jamison, Orangeburg County, S.C.	25	5 P.M.	1	25	0	0	3	0	Tornado
									Small tornado caused damage over a 1/2 mile path. Destroyed shed and trees.
Neese, Orangeburg Co., S.C.	25	5:30 P.M.	.1	10	0	0	3	0	Tornado
									Small tornado uprooted trees and damaged one building near Neese.
SOUTH DAKOTA									
Todd County	1	6:25 PM MDT			0	0	0	0	Funnel Cloud
									Funnel cloud was sighted in the vicinity of Rosebud.
Bennett County	2	7:30 PM CDT			0	0	0	0	Tornado
									Tornado was reported eight miles west of Martin but receded into the clouds. No damage.
Eastern Bennett and Western Todd Counties	2	11:05 PM MDT			0	0	0	3	Funnel Cloud High Winds, Hail
									Severe thunderstorms developed producing hail, high winds and a funnel cloud. No injuries but crop damage was reported.
Southern Beadle and Northeast Jerauld Counties	4	5:40 AM CDT			0	0	4	4	High Winds
									Several thunderstorms moved through the area producing winds near 90 MPH. A number of farm buildings were destroyed. No injuries.
Southeast Brule, Southwest Aurora and Northern Charles Mix Counties	4	7:10 PM CDT			0	0	4	3	Tornado, Hail High Winds
									Severe thunderstorms with hail and strong winds moved along the boundaries of these counties with a tornado occasionally touching down.
Southern Minnehaha and Northern Lincoln Counties	4	9:40 PM CDT			0	0	5	5	Tornado, Hail High Winds
									Numerous severe thunderstorms with hail and high winds occurred with a tornado occasionally touching down. No injuries reported.
Sanborn County	4	10:05 PM CDT			0	0	5	5	Tornado, Hail High Winds
									Severe thunderstorms produced hail, high winds and a tornado causing considerable property and crop damage. No injuries were reported.
Bon Homme County	4	11:25 PM CDT			0	0	5	5	Tornado, Hail High Winds
									Severe thunderstorms produced hail, high winds and a tornado resulting in considerable property and crop damage. No injuries reported.
Jerauld, Sanborn, Lake, Beadle, Miner, Kingsbury, Brookings, Hamlin, Deuel, Moody, Davison, Hanson, McCook, Minnehaha, Turner and Lincoln Counties	4	Night Early Morning			0	0	6	6	High Winds, Hail
									A squall line developed in east central South Dakota during the late afternoon of July 4th, then moved eastward producing widespread severe thunderstorms. All tornadoes listed above for July 4th and the hail and wind damage for that same evening and early morning of July 5th were associated with the squall line. Total damage was estimated near 7.5 million dollars. There were no injuries reported.
Eastern Clay, Southern Lincoln and Northern Union Counties	5	10:30 AM CDT			0	0	4	5	Tornado, Hail High Wind
									A severe thunderstorm produced a tornado, hail, high winds and heavy rain. Major damage to crops. No injuries reported.
Northern Union and Southern Lincoln Counties	5	6:15 PM CDT			0	0	5	5	Tornado
Moody, Minnehaha, Lincoln, Turner, Southern Hutchinson, Yankton, Clay & Union Counties	5	4-11 PM CDT			0	0	5	5	High Wind, Hail
									Scattered severe thunderstorms produced areas of hail, high wind and heavy rain causing widespread crop and property damage.
SOUTH DAKOTA (continued)									
Brown and Western Marshall Counties	6	3:45 PM CDT			0	0	4	4	High Wind, Hail
McCook County	6	5:25 PM CDT			0	0	5	5	High Wind, Hail
Minnehaha, Lake and Moody Counties	6	6:40 PM CDT			0	0	7	7	High Wind, Hail
Deuel, Southern Grant, Eastern Hamlin and Northern Brookings Counties	6	6:45 PM CDT			0	0	6	6	Funnel Cloud, Hail High Winds
Yankton County	6	7:07 PM CDT			0	0	4	3	High Winds, Hail
Lincoln County	6	7:55 PM CDT			0	0	4	3	High Winds, Hail
Northern Minnehaha and Moody Counties	6	7:40 PM CDT			0	0	5	5	High Winds, Hail
Lincoln, Clay & Union Counties	6	8:20 PM CDT			0	0	6	6	High Winds, Hail
Turner & Lincoln Counties	6	8:30 PM CDT			0	0	7	7	Tornado
									Severe thunderstorms developed over eastern South Dakota during the afternoon and moved northeast with additional thunderstorms redeveloping. High winds gusted to near 80 MPH and hail, up to baseball size, occurred. A tornado produced widespread damage to crops, personal property and utility lines. All the buildings on one farm were destroyed. Crop and personal property damage was estimated near 20 million dollars.
Southern Lake, Southern Moody, Northeast McCook & Northern Minnehaha Counties	8	2:55 PM CDT			0	0	4	4	Hail
Washabaugh, Bennett, Mellette and Todd Counties	8	5:45 PM CDT			0	0	4	4	Hail, High Winds
Mellette, Todd & Tripp Counties	8	6:45 PM CDT			0	0	3	4	Hail, High Winds
Eastern Todd & Southern Tripp Counties	8	7:45 PM CDT			0	0	3	4	Hail, High Winds
Brule & Aurora Counties	8	10:30 PM CDT			0	0	4	3	Hail, High Winds
									Widely scattered severe thunderstorms developed during the afternoon and night. Damage was light. No injuries were reported.
Southern Harding and Northern Butte Counties	11	6 PM, MDT			0	0	0	0	High Wind
									Wind gusts to near 60 MPH were reported.
Haakon County	11	8:10 PM MDT			0	0	0	0	Tornado
									A tornado was sighted 18 miles west of Philip, SD in open country. No injuries or damage were reported.
Haakon County	11	9:30 PM MDT			0	0	0	0	Tornado
									Tornado in open country reported 15 miles north of Philip, SD.
Eastern Washabaugh, Eastern Bennett, Mellette & Todd Counties	11	9:30 PM MDT			0	0	0	0	High Wind
									Wind gusts to near 60 MPH were reported.
Bon Homme County	14	2:10 AM CDT			0	0	0	0	Funnel Cloud
Southern Hand, Northeast Buffalo and Northwest Jerauld Counties	14	2:30 AM CDT			0	0	0	0	Funnel Cloud
Southern Bon Homme & Southern Yankton Counties	16	9:30 PM CDT			0	2	6	5	Hail, High Winds
									A severe thunderstorm moved east along the Missouri River. Property damage totaled 1.5 million dollars. Wind and hail damaged 11,700 acres of crops resulting in a \$300,000 loss. Two people were injured when a tree fell on car.

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					KILLED	INJURED	PROPERTY	CROPS	
SOUTH DAKOTA (continued)									
Southeastern Meade & Northeast Pennington Counties	16	11 PM	MDT		0	0	0	0	Tornado
		A tornado touched down in open rangeland area. No damage or injuries were reported.							
Bennett County	16	5:10 PM	MDT		0	0	4	4	Hail
		Hail, up to one and one-quarter inch in diameter, was reported.							
Eastern Bennett, Southern Mellette and Todd Counties	17	6 PM	MDT		0	0	6	6	Funnel Cloud, Hail, High Wind
Southeastern Mellette, Eastern Todd & Western Tripp Counties	17	6:25 PM	MDT		0	0	6	6	High Winds, Hail
Southern Tripp County	17	7:07 PM	MDT		0	0	6	6	High Winds, Hail
Southern Tripp County	17	7:35 PM	MDT		0	0	5	5	Funnel Cloud, Hail, High Winds
Gregory & Western Charles Mix Counties	17	7:50 PM	MDT		0	0	6	6	High Winds, Hail
Charles Mix & Southern Douglas Counties	17	9:10 PM	CDT		0	0	5	5	Tornado, Hail
Yankton, Clay and Turner Counties	17	10:56 PM	CDT		0	0	6	6	High Winds, Hail
		Severe thunderstorms developed in the southwest and moved eastward. Hailstones, up to two inches in diameter, winds gusting to near 80 MPH, a funnel cloud and a tornado occurred as this storm moved through the above listed counties. This was estimated as one of the most destructive storms in several of the western counties. Bennett county alone lost 20,000 acres and 600,000 bushels of unharvested winter wheat. Considerable personal property and utility property damage was left in the wake of this storm. Total damage was estimated near 28 million dollars. No injuries were reported.							
Southern Minnehaha, Lincoln & Northern Union Counties	17	11:35 PM	CDT		0	0	4	4	High Wind, Hail
Southern Custer & Northern Fall River Counties	18	10:15 PM	MDT		0	0	0	0	Tornado
		A tornado was reported in the southern portion of the Black Hills. No damage or injuries were reported.							
Southern Haakon County	18	10:30 PM	MDT		0	0	5	0	Funnel Cloud, Lightning
		A funnel cloud was reported near Philip. Lightning set fire to a number of hay stacks and several buildings.							
Western Harding County	19	9:17 PM	MDT		0	0	5	4	High Wind, Hail, Lightning
		A severe thunderstorm moved through the Camp Crook area destroying crops and buildings. Lightning set fire to a number of hay stacks. Estimated damage is near one-quarter million dollars.							
Southeastern Charles Mix, Southern Douglas, Bon Homme and Yankton Counties	25	7:25 PM	CDT		0	0	5	5	High Wind, Hail
Southeastern Charles Mix & Bon Homme Counties	25	7:30 PM	CDT		0	0	5	5	Funnel Cloud, Hail, High Wind
Hutchinson & Turner Counties	25	7:45 PM	CDT		0	0	5	5	High Wind, Hail
Western Meade County	25	6:42 PM	MDT		0	0	?	?	High Wind, Hail
Minnehaha, Lincoln, Clay & Union Counties	25, 26	Night, Early AM			0	0	5	5	High Wind, Hail
		Severe thunderstorms developed in the southeast producing numerous reports of wind gusts to near 80 MPH and hail up to tow and one-half inches in diameter.							
Western Butte County	29	9:45 PM	MDT		0	0	?	?	Hail, High Wind
TENNESSEE									
Franklin, Williamson County	2	7:00 p.						4	Severe thunderstorm
		Violent winds hit Franklin and the worst damage occurred within about 15 minutes as trees, limbs and debris were scattered causing property damage. The roof of the Durango Boot Company in downtown Franklin was blown off. High winds ripped away the roof of a house under construction. Several cars were destroyed by falling trees.							
Tullahoma, Coffee County	6	1:15 p.						1	Lightning.
		A teen-aged employee of the Air Force's Commissary Store at Arnold Center was treated at the Center's Dispensary after being injured by lightning. The incident occurred when the youth was pushing a grocery cart.							
Memphis, Shelby County	10	1:00 p.						4	High winds.
		High winds during a thunderstorm shattered several large plate glass windows in a furniture store. Merchandise was damaged by the rain. Numerous power and telephone lines were blown down.							
Martin, Weakley County	10	11:30 a.						5	Lightning
		A bolt of lightning that sounded like a sonic blast struck the Kellwood Company Warehouse. The fire that followed completely destroyed the warehouse and its contents.							
Clarksville, Montgomery County	13	12:40 p.						4	High winds and heavy rain
		Heavy rain and strong winds caused flooding and damage to several buildings. 2.76 inches of rain in a short period of time flooded a tobacco warehouse in downtown Clarksville. A warehouse and a house under construction were destroyed by the high winds.							
Memphis, Shelby County	13	6:10 p.						5	High winds and heavy rain
		Roof damage to the Roach Paper Company allowed heavy rain to pour into the warehouse destroying much of the contents within. Another steel beam building under construction was leveled.							
Southern portion of Polk County	23	5:45 p.							Large hail
		Power lines were down in this rural area and a large amount of hail some the size of golf balls.							
Cosby, Cocke County	24	Afternoon						4	Wind and large hail
		The tobacco crop in parts of the area was destroyed by the wind, rain and hail, some measuring 3/4 of an inch in diameter.							
Blountville, Sullivan County	24	5:30 p.						2	Lightning
		Two persons were struck by lightning when a severe thunderstorm hit the area. Both are employees of the Tri-City Airport. They were struck by lightning as they were servicing and airline jet.							
Smryna, Rutherford County	27	Afternoon						4	High winds.
		A mid-day storm accompanied by high winds caused damage to the Fate Sanders Boat Dock on Percy Priest Lake. Storage docks broke loose from their moorings forcing the evacuation of the facility's floating restaurant.							
TEXAS									
NORTHERN									
Fannin and Grayson Counties	2	5:15 p						0 0 4 ?	Windstorm
		A heavy thunderstorm developed over northern Grayson and Fannin County. Straight-line winds gusting to 50 MPH blew out tree limbs in Northern Fannin County and blew over some boats in Southern Lake Texoma.							
1 1/2 North of Tye, Taylor County	3	3:50 p	1-3/4	.75	0	0	5	0	Tornado
		A tornado touched down briefly, damaging two mobile homes at the K-Bar-M Mobile Home Park. It also damaged some barns, carports, and twisted arms on utility poles.							
Jones and Taylor Counties	3	4:20 p						0 0 5 ?	Windstorm, Lightning Strike
		Straight-line winds from the same thunderstorm blew off the porch of a mobile home in Elmdale and lightning started a fire in a house 3 miles north of Abilene, heavily damaging the attic. Wind up to 60 MPH was reported in the Fort Phantom Hill area north of Abilene.							
Longview, Gregg County	3	5:10 p						0 0 0 0	Funnel Aloft
		Observed near Longview in a heavy thunderstorm.							
Dallas and Tarrant Counties	2-19							21 53 ? ?	Heat Wave
		Temperatures during the afternoon equalled or exceeded 100 degrees during an eighteen day period beginning July 2 and ending July 19. Most victims were elderly.							

STORM DATA AND UNUSUAL WEATHER PHENOMENA

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PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
TEXAS (continued)									
NORTHERN									
Merkle, Taylor County	15	5:45 p			0	3	6	?	Windstorm
Winds from a severe thunderstorm demolished a mobile home, blew off the roof of the Big Country Inn Motel and a building in downtown Merkle. Winds caused roof damage to the roof of the Merkle City Hall and to numerous other buildings in the town. Three persons were injured in the demolished mobile home, one requiring hospitalization.									
Southern Smith County	15	5:45 p			0	0	5	?	Windstorm
Straight-line thunderstorm winds damaged four lumber storage sheds in Whitehouse. The winds also damaged a boathouse in Willingham Bay at Old Lake Tyler. Other damage in the immediate area included antennae and trees blown down.									
Gregg County	15	6:00 p			0	0	5	?	Windstorm
Straight-line thunderstorm winds destroyed a mobile home in Lansing Acres, between Longview and Hallsville. The winds blew down power lines and damaged barns and the roofs of other buildings in the area.									
Foard and Baylor Counties	26	7:45 p			0	0	3	?	Windstorm
Straight-line thunderstorm winds to 55 MPH were reported at Seymour in Baylor County and to 60 MPH at Crowell in Foard County. Some power lines were blown down.									
Jacksboro, Jack County	30	5:20 p			0	0	4	?	Windstorm
Straight-line thunderstorm winds blew off a steeple on a church in Jacksboro, power lines and several trees down. Ranch sheds four miles north of Jacksboro were also damaged by the winds.									
TEXAS SOUTHERN									
Sabine Lake, Jefferson Co.	2	1:50 pm							Funnel clouds
Two funnel clouds formed and dissipated over the northern end of the lake.									
Sabine Lake, Orange Co.	5	12:28 pm	1	20	0	0	2	0	Waterspout-tornado
A waterspout formed on the lake just east of the Rainbow Bridge. It moved slowly northward and went ashore near the bridge where it quickly dissipated. Only minor damage to communications lines resulted.									
Beaumont, Jefferson Co.	5	1:41 pm							Funnel cloud
The funnel cloud lasted briefly over the north part of the city.									
Lovell Lake, Jefferson Co.	5	1:58 pm	Short	Narrow	0	0	3	0	Tornado
A small tornado formed briefly during a thunderstorm over the Hillebrand Acres Subdivision on LaBelle Road west of Lovell Lake. Minor damage occurred to one home.									
Houston, Harris Co. Harris Co.	5	3:20 pm	?	?	0	0	3	?	Wind, hail
A thunderstorm moved from just west of downtown toward the northwest. Slight damage occurred as high winds toppled trees onto house roofs in northwest Houston. Some hail was observed but no significant damage was reported from it.									
Lake Sabine, Jefferson Co.	6	10:52 am							Funnel cloud
National Weather Service personnel observed the brief funnel cloud over the western side of the lake.									
Port Acres, Jefferson Co.	10	11:25 am							Funnel cloud
The funnel clouds moved northward over marshlands southeast of Port Acres.									
Humble, Harris Co.	16	9:00 pm	Short	Narrow	0	0	0	0	Tornado
This small tornado was observed and verified by a sheriff's deputy to have touched ground briefly in an open area near Humble. No damage resulted from the short-lived twister.									
Galveston Island	17	8:30 am	?	?	0	0	0	0	Waterspout
The waterspout occurred in the Gulf 5 miles offshore from Galveston city. It caused no damage.									
Sabine Lake, Jefferson Co.	19	11:30 am							Funnel clouds
Several funnels formed over the lake during heavy thunderstorms.									
Beeville, Bee Co.	19	12:30 pm							Funnel cloud
The funnel lasted briefly overhead Highway 181 bypass.									
Banquete, Nueces Co.	19	1:00 pm							Funnel cloud
The funnel moved slowly toward the northwest near Banquete and dissipated.									
TEXAS (continued)									
SOUTHERN									
Robstown, Nueces Co.	19	1:38 pm							Funnel cloud
This funnel lasted briefly just north of Robstown.									
Combes, Willacy Co.	23	11:40 am							Funnel cloud
The funnel moved northward near Combes then dissipated.									
Sabine Pass, Jefferson Co.	24	5:15 am							Funnel Cloud
The funnel cloud moved northwestward over the town of Sabine Pass.									
Llano, Llano Co.	26	3:55 pm	**100	30	0	0	4	0	Tornado
This small tornado touched ground over a ranch 4 miles west of Llano off Highway 29. It destroyed a small building and a barn and heavily damaged a mobile home before going aloft.									
Beaumont, Jefferson Co.	27	10:27 am							Funnel cloud
The funnel cloud moved northward across the west side of the city.									
Hitchcock, Galveston Island	27	3:08 pm	**60	20	0	0	4	0	Tornado
This small short-lived tornado spun out of a coastal thunderstorm over the town of Hitchcock. Along its short path it lifted and destroyed a garage, damaged a house, and twisted large trees. No injuries resulted.									
Lake Travis, Travis Co.	27	3:15 pm	?	?	0	0	7	0	Wind
A thunderstorm produced wind gusts to 60 mph as it moved southward over Lake Travis. Damage was unknown.									
Thrall, Williamson Co.	28	2:15 pm	1/2	30	0	0	4	3	Tornado
The small tornado was observed to move over countryside just west of Thrall. During its 5 minute duration it destroyed two barns and uprooted several large trees.									
Lower Texas Coast	30	All day	Coastal		0	0	5	?	Wind
Tropical Storm Amelia formed very near the extreme lower Texas Coast and moved inland north of Brownsville. Winds and associated heavy seas damaged 5 shrimp boats but injuries were limited to minor exposure effects.									
Nueces and San Patricio Counties	30-31		Area-wide		0	0	5	6	Heavy rain, wind
Tropical Storm Amelia produced 4 to 5 inches of rain and winds of 38 mph gusting to 50 mph over the Texas Coastal Bend area as it moved inland south of Corpus Christi. Scattered light property damage occurred mainly to buildings and boats and was due entirely to wind. Agricultural losses were largely to cotton with 10 percent of the crop damaged by wind and another 45 percent damaged by rain.									
Portland, San Patricio Co.	31	1:30 pm	Short	Narrow	0	0	0	0	Tornado
A funnel was seen to briefly touch ground in open pastures not far from Portland High School. Unsettled weather in the area was caused by dying Tropical Storm Amelia some 80 miles to the NNW at time.									
Corpus Christi, Nueces Co.	31	1:30 pm							Funnel clouds
Two funnels were seen over the old Nueces County Courthouse.									
Corpus Christi, Nueces Co.	31	3:15 pm							Funnel cloud
The funnel occurred over the 2800 block of Leopard Street.									
TEXAS WESTERN									
Stratford, Sherman County	1	4:20 p	Short	Narrow	0	0	0	0	Tornado
A tornado was spotted by Department of Public Safety Officers in open country 4 miles southwest of Stratford. The tornado touched down only briefly and caused no known damage.									
Post, Garza County	3	3:34 p	Short	Narrow	0	0	2	0	Tornado
An apparent tornado destroyed 4 power poles 10 miles northwest of Post. Hail measuring 5 inches in diameter and strong winds were observed at the same time 15 miles northwest of Post. No other damage was reported.									
Seminole, Gaines County	3	9:30 p			0	0	0	0	Funnel
A funnel cloud was sighted 15 miles west of Seminole by a commercial aircraft while in flight. The sighting was over open country with no other confirmation available.									
Crosbyton, Crosby County	4	7:05 p	1	50	0	0	4	0	Tornado
A tornado tore the roof off a porch of a vacant home 10 miles east of Crosbyton. The tornado also caused extensive damage to trees around the home. High winds and 2-inch rains accompanied the storm. No other damage was noted.									

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					KILLED	INJURED	PROPERTY	CROPS	
TEXAS (continued)									
WESTERN Muleshoe, Bailey County	5	6:30 p			0	0	?	?	Hailstorm
									Hail measuring as large as 1.75 inches in diameter fell just to the south and east of Muleshoe. The hailstorm also brought rains of up to 2.5 inches just south and east of the town. Some minor flooding was reported. Damages due to the hail were not known.
Lake Meredith/Borger, Hutchinson County	6	6:00 a			0	0	3	0	Windstorm
									Winds gusting to an estimated 60 to 80 miles an hour caused minor damages in the Lake Meredith/Borger area of southwest Hutchinson County. Street lights were down in the Borger area and power was reported to be off in parts of the city.
Vega, Oldham County	6	8:07 p			0	0	3	0	Windstorm
									Strong straight-line winds damaged a grain elevator southeast of Vega. The speed of the wind is not known and no further damages were reported.
Amarillo, Randall County	6	8:25 p			0	0	?	?	Hail, Windstorm
									Hail measuring as large as 1.75 inches in diameter fell in portions of western Amarillo. The hail was accompanied by heavy rain and strong winds. No amounts are available concerning damages.
Darrouzett, Lipscomb County	7	5:05 p			0	0	0	0	Windstorm
									Winds gusting to an estimated 70 miles an hour were reported by the Police Department at Darrouzett. No damages were indicated.
Stegall, Bailey County	18	2:45 p	Short	Narrow	0	0	0	0	Tornado
									A narrow, short-lived tornado was reported in open country 2 miles southwest of Stegall. No damage was reported.
Stratford, Sherman County	18	7:00 p			0	0	0	0	Windstorm
									Winds gusting to an estimated 80 miles an hour were reported by the Sheriff's Department. No damages were indicated.
Sundown, Hockley County	22	3:30 p			0	0	0	3	Hailstorm
									Hail measuring as large as 2 inches in diameter caused minor damage to crops 8 miles southeast of Sundown. The hail was accompanied by strong winds and heavy rain.
Lorenzo, Crosby County	23	11:50 a			0	0	0	0	Funnel
									A short-lived funnel was observed 2 miles northwest of Lorenzo. The funnel was visible only briefly and caused no damage.
Tahoka, Lynn County	26	7:30 p			0	0	4	5	Hailstorm
									A large thunderstorm complex that developed near Wilson in northern Lynn County caused damage over an extensive area of northeastern Lynn County. The hail measured .5 inches in diameter and caused \$10,000 damage to corn, sorghum, plate glass and other windows. Over 12,000 acres of crops sustained damages estimated at \$75,000.
Finney, King County	26	8:00 p			0	0	0	5	Hailstorm
									A large hailstorm formed north of Finney and began moving slowly toward the south. Heavy rain and spotty small hail fell for approximately 15 minutes in an area from 1 mile north of Finney to 5 miles south of Finney. Width of the damage area was approximately 4 miles. The hail was from .25 to .5 inches in diameter with 1.4 inches of rain being reported. In all, some 5,500 acres of cotton were damaged with total destruction of 3,000 acres. No property damage occurred. Total damage was \$55,000.
Alpine, Brewster County	31	1:45 p			0	0	0	0	Funnel
									A funnel was observed 5 miles north of the town of Alpine drifting slowly toward the southeast. The funnel was very narrow but remained visible for almost 20 minutes. It returned to the cloud before it reached the town.
UTAH									NONE REPORTED

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					KILLED	INJURED	PROPERTY	CROPS	
VERMONT									
Chittenden County	16	3:30P			1	2	2	0	THUNDERSTORM
									Lightning struck two men walking from a soccer field, killing one and injuring another during a thunderstorm near Burlington. A 12 year old girl was also struck by lightning in Hyde Park and suffered electrical burns. Severe power outages were also reported due to the lightning.
VIRGINIA									
Stuart, Patrick County	1-3				0	0	3	0	Rain
									Rain totaled nearly 4 inches during the period. Three bridges in local park damaged by high water.
Henry County	2	10:30 p			0	0	3	0	Rain, Lightning, Wind
									Over two inches of rain reported in Martinsville area, and this combined with lightning and wind to disrupt power to 2,500 homes. A few trees were downed and minor flooding occurred on some roads.
South Central	3	Late Evening			0	0	4	5	Rain, Wind
									Up to two inches of rain in less than an hour in some sections. A bridge was washed out near Brookneal, Campbell County. Small grains, tobacco and corn crops also heavily damaged by rain in the area. Locally high winds caused some trees to be snapped off and also inflicted minor property damage in the vicinity of Danville.
Charlottesville, Albemarle County	8	4:15 p			0	0	4	0	Lightning, Wind
									Charlottesville home had second floor attic and roof destroyed by fire sparked by lightning strike. At Monticello several large trees snapped by wind, including one planted during Jefferson's time.
North Central	10	4:00 p-5:00 p			0	0	4	4	Hail, Lightning, Wind
									Severe thunderstorm associated with cold frontal passage. Marble-sized hail ruined soybeans, corn crops and gardens in sections of Fauquier and Green Counties. Also in Fauquier County, wind pushed hay barn 12 feet off its foundation, near Onal. Wind-downed branches damaged several homes and automobiles near Catlett. A Warrenton church steeple had numerous shingles knocked off by lightning strike. Orange County reported rather widespread power outages caused by what power company official called the most severe electrical storm in some time.
Pittsylvania County	24	7:30 p			0	0	4	4	Hail, Wind
									Tobacco farms in the Whitwell community suffered extensive damage from hail. In addition, strong winds overturned two mobile homes, took roofs off two barns and destroyed a \$4,000 shed. Some damage also reported due to fallen tree limbs.
Norfolk	25-26				0	0	0	0	Rain
									Torrential rainfall reported in a small section of northern Norfolk with an unofficial 24-hour total of 9.50 inches. Nearby Old Dominion University measured nearly five inches of rain between 7:30PM and midnight of the 25th. Some flooding occurred, mainly in low spots.
Culpeper County	31	Early Morning			0	0	4	0	Wind, Lightning
									Barn near Lignum had one side caved in by wind and was then lifted and moved back several feet from its foundation. Power was interrupted in town of Culpeper, along with some minor lightning damage.
James City County	31	2:30 a			0	0	4	0	Wind
									Wind struck trailer court in Lightfoot community. One trailer was overturned with occupant pinned for a time by mattress. Damage was estimated at \$8,000. Another nearby trailer had its roof ripped off with damage estimated at around \$2,000.
Ellen Wilton (nr), Botetourt County	31	1:00 p			0	0	4	4	Wind, Hail
									Large barn had side pushed in and almost half of roof taken off with parts landing more than one-quarter mile away - damage estimated at \$25,000. Hail also did near \$50,000 damage to two corn crops in the vicinity.
Fauquier County	31	Night			0	0	3	4	Wind, Hail, Rain, Lightning
									Many trees blown down and scattered damage reported in Midland, Calverton, and The Plains areas as winds blew some roofs loose on buildings and took down fences. Some minor lightning damage to one home. Around 15 percent of corn crop in the county also knocked down.
VIRGIN ISLANDS									
									NO REPORT RECEIVED

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					KILLED	INJURED	PROPERTY	CROPS	
WASHINGTON Yakima, Grant, Adams, Okanogan, Franklin, Spokane, Lincoln Counties	1	PM			0	8		C	Heavy Thunder-showers
	Heavy showers and hail occurred in many parts of the Columbia Basin. Summer fallow fields were hard hit. Heavy rains caused soil erosion and local flooding in many areas. Some County roads were damaged and many culverts could not handle the water runoff.								
Franklin, Adams Counties; SE of Hatton	1	3:30PM				6			Tornado
	A tornado hit two tall BPA transmission towers. In northern Franklin County these towers in turn knocked down six other towers. Seven steel towers on a 500 Kilovolt line from the Lower Monumental Dam on the Snake River to Hanford were toppled and fell on a 230 kilovolt line knocking down six towers. Winds were estimated at near 100 mph. Some footings were on irrigated land, and could have added to the damage. Some farm buildings near Hatton had roof damage.								
Lincoln County	3	PM			0	5		C	Heavy Thunder-showers
	Heavy thundershowers occurred in southeastern Lincoln County. Rainfall estimates of over one (1) inch in one hour from Sprague northwest to Harrington, and east of Odessa to the Adams County line. Heavy damage occurred to fields and crops from runoff.								
Whitman, Garfield Columbia, Walla Walla Counties	7	6-7PM			0	6		C	Heavy Showers
	Summer fallow fields and county roads were flooded and damaged by heavy showers in southeastern Washington. Rainfall estimated of over one inch in one hour was reported near Dayton and Prescott. Local flooding occurred in many areas.								
Pend Oreille County	17	PM				?			Tornado
	A home west of Newport had the roof blown off by a tornado which lasted a few minutes. The insulation and parts of a roof were reported to be scattered over several miles.								
King, Pierce, Thurston Counties	26	8AM - 9PM			5	5			Lightning
	A surge of unstable air covered most of Washington State. The southerly flow brought the heaviest lightning activity to western Washington. Thunderstorms started in the morning, and redeveloped in the afternoon and evening. Four men were hit by lightning in King County; one of the men was in critical condition. Two homes were damaged by lightning in the Seattle area, while an unoccupied police car was also hit. A home was struck by lightning in Tacoma and a woman inside was knocked to the floor apparently unhurt. Lightning caused a house fire in Tenino where damage was extensive. Over 400 small forest fires were ignited in Western Washington. Hardest hit was the Gifford Pinchot National Forest, where 63 lightning fires occurred.								
WEST VIRGINIA Roanoke, Lewis Co.	8	3:15PM	?	?	0	0	0	0	Funnel Cloud
	Funnel cloud reported by state police near Roanoke moving east.								
Pinegrove, Harrison Co.	10	2:25PM	?	?	0	0	1	0	Tornado
	Tornado spotted by public at Pinegrove, just west of Claykeburg.								
Ripley, Jackson Co.	10	4:10PM	?	?	0	0	0	0	Funnel Cloud
	Funnel cloud reported by public at Ripley moving southeast.								
Excelsior, Upshur Co.	10	4:43PM	?	?	0	0	0	0	Funnel Cloud
	Funnel reported by public.								
Jackson Mill, Lewis Co.	10	5:20PM	?	?	0	0	0	0	Funnel Cloud
	Funnel spotted by state police.								
Hurricane, Putnam Co.	10	5:15PM			1	0	0	0	Lightning
	A 59-year old woman was killed four miles east of Hurricane as she left her car to walk to her house. Lightning struck a tree next to her and she was killed instantly.								
Southern half of State	31	Mtd. to 2:00AM			0	0	3	?	Thunderstorms
	Strong thunderstorms moved across central and southern WV during the early morning hours with numerous reports of uprooted trees, downed power lines and local urban flooding.								
WISCONSIN Vernon	1	8:02 p	1/2	100	0	0	?	?	Three Tornadoes One Funnel Cloud
	As many as three tornadoes were sighted on the ground near Virgona in Vernon County the evening of July 1. Several trailers were destroyed as well as farm buildings, and the roof of a local radio station was blown off.								
La Crosse Co.	5	5:30 p	-	-	0	0	?	?	Hail
	One-inch hail was reported at Arcadia.								
Trempealeau and Buffalo Co.	5	Late aft	12	100	0	2	?	?	Tornado Heavy rain & flooding & evening
	A tornado passed through several farms downing trees and destroying crops and several farm buildings, around 5:00 pm, 6 miles northwest of Arcadia. A home under construction was also reportedly destroyed. Two injuries were reported due to flying glass. Up to 7 inches of rain fell in Buffalo county during the evening, induced flash flooding with several roads and bridges reportedly washed out.								
St. Croix Co.	12	9:40 p	-	-	0	0	?	?	Hail
	Hail ranging from 1-1/4 to 2-1/2 inches was reported in St. Croix County. Extensive crop damage was reported.								
Dunn Co.	12	10:40 p	-	-	0	0	?	?	Wind
	60 mph winds were reported at Menomonie in Dunn County during a thunderstorm.								
Ashland	18	2:40 a	-	-	0	0	?	?	Wind
	Powerlines were reportedly blown down over portions of Ashland County as severe thunderstorms moved through the area.								
Vilas	18	Early morning	-	-	0	1	?	?	Severe thunderstorms
	High winds downed trees and powerlines at Phelps, Boulder Junction and Conover in Vilas County. A Phelps woman was cut by flying glass when a tree fell on her cabin. A bathroom was also destroyed in Phelps.								
Eau Claire	18	10:29 a	-	-	0	0	?	?	Wind
	Trees uprooted and lines were downed in the town of Wheeler.								
Green Co.	20	1:45 p	1/2	100	0	0	?	?	Tornado and severe thunderstorms
	Tornado touched down on a farm near Albany tossing a hog feeder against a fence and shifting a car garage off its foundation. In southern Green County, afternoon thunderstorms reportedly downed power lines and tree limbs.								
Rock and Jefferson Co.	20	Afternoon	-	-	0	0	?	?	Wind
	Trees and powerlines were downed in Janesville in Rock County during afternoon thunderstorm activity. In Fort Atkinson in Jefferson County thunderstorm winds downed tree limbs on several automobiles.								
Racine Co.	20	Afternoon	-	-	0	0	?	?	Flooding
	Heavy rains in severe afternoon thunderstorms caused runoff flooding. Rainfall totals of 8.17 inches for Burlington and 3.34 inches for Union Grove, both in Racine County, were reported in a 2 hour period. Extensive basement flooding was reported in Union Grove with 2 to 4 feet of water reportedly isolating some buildings.								
Outagamie	22	2:58 p	-	-	0	0	0	0	Funnel cloud
	A funnel cloud was sighted near Appleton.								
Racine Co.	22	5:00 p	-	-	0	0	0	0	Wind
	High winds downed trees and powerlines in Racine during a thunderstorm.								
Polk	26	Early morning	-	-	0	0	?	?	Hail
	Hail reportedly damaged crops on 10 to 15 farms northwest of Farmington during the early morning hours of the 26th.								
Kenosha Co.	26	11:40 a	-	-	0	0	?	?	Severe thunderstorms
	High winds downed trees and powerlines in Kenosha around 11:40 am on the 26th. The roof of an apartment building was also reportedly blown off.								
Washburn	28	evening	-	-	0	0	?	?	High winds
	a severe thunderstorm downed trees and demolished a trailer in the Trego area during the evening.								

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					KILLED	INJURED	PROPERTY	CROPS	
WYOMING									
Big Horn County	4	1:30 p.	5	200	0	1	5	3	Tornado
	A tornado uprooted numerous trees in over 800 acres of forest near Greybull as it traveled northeastward in a 5 mile path of destruction. One woman was injured in a camper as it was rolled over by winds. Damages to a lodge at a dude ranch were also noted.								
Washakie County	4	1:30 p.	10	400	0	0	5	5	Hail
	Tennis-ball sized hail from a heavy thunderstorm was dumped near Orchard Bench doing extensive damage to crops of beans, beets and grain, as well as to homes, sheds, and vehicles. One resident said that it hit so hard "... we watched some hailstones hit the grass and bounce back onto the roof."								
Converse and northern Platte Counties	9	1:30 p.	15	2500	0	0	4	5	Hail
	Golf-ball sized hail was dumped by a thunderstorm between Douglas and Glendo in a storm path nearly two miles wide at times. Major damage to crops, as well as minor damages to buildings, mobile homes, and vehicles was reported.								
Natrona County	9	Early Morning	5	300	0	0	4	2	Hail
	A brief 15-minute hailstorm sometime early Sunday morning dropped "golf ball sized and larger hail" in portions of Casper. Vehicle and house damages were reported.								
Park County	11	3:20 p.	0.4	200	0	0	4	2	Tornado
	A funnel cloud briefly touched down at a ranch southwest of Powell destroying a barn and other property. Rancher said that the "... structure was twisted clockwise by the tornado from the apparent look of the damage."								
Big Horn County	16	11 a.			0	1	1	0	Lightning
	A 63 year old man was struck by a bolt of lightning from a thunderstorm at Barry's Landing in the Big Horn Canyon National Recreation area. As the man was walking up the boat ramp toward his car a bolt of lightning hit him near the shoulders and exited through his feet. His wife claimed it "... blew the clothes off of him and burned holes in his socks." He was reported in "good condition" and expected to recover fully.								
Laramie County	19	3 p.	32	6000	0	0	4	4	Hail
	An afternoon thunderstorm dumped 1-inch and larger hail in the Pine Bluffs area damaging roofs and windows of several homes and also damaging crops in its path. Area of damage was 4 miles wide by nearly 32 miles in length.								
Natrona County	20	2 p.	30	1200	0	0	5	4	Hail, winds, and funnel clouds
	Severe thunderstorms with golf-ball sized hail and wind gusts in excess of 66 mph did considerable damage in Casper. Damage to windows, motor homes, commercial power equipment, mobile homes, boats and vehicles was reported. Localized damage to crops and vegetation was also received. Funnel clouds were reportedly seen in the area also.								
Natrona County	20	5:30 p.	20	900	0	0	4	2	Hail
	Late afternoon thunderstorms dumped additional 1-1/2-inch sized hail east of Casper. Damage to houses, trailers, vehicles and crops was reported.								
Natrona County	20	5:40 p.	1	100	0	1	4	1	Tornado
	The late afternoon tornado hit the Gas Hills mining district doing considerable damage to buildings and equipment as well as a dozen cars. One man was injured when broken glass was blown into his eye. Observers said the "winds first came from the southwest, stirring up a terrific amount of dust... then it sorta gasped and quit- and then whipped in from the other direction and everything started to fly."								
Goshen County	20	7:30 p.	20	800	0	0	4	4	Hail
	Evening thunderstorms dumped golf-ball sized hail on a portion of northeastern Goshen County. Some vehicles and homes were damaged as well as crops in the area.								
Albany County	21	1:45 p.	5	100	0	0	0	0	Tornado
	A pilot reported seeing a "small whitish colored funnel cloud 5 miles northwest of Laramie moving eastward." The funnel cloud reportedly touched the ground very briefly with no damage incurred.								
Niobrara County	28	6 p.	5	700	0	0	5	2	Tornado
	Severe thunderstorms with an associated tornado and severe winds did considerable damage to the lance Creek area. Damage included one steel building, several houses and trailers, campers, private and commercial television antennae, and hay.								
WYOMING (continued)									
Goshen County	28	6:30 p.	1	200	0	0	5	1	Tornado
	Tornado touched down 21 miles north northeast of Torrington, destroying one trailer home, and damaging other equipment in the immediate area. A 400-gallon gas truck was "tossed around," and a tractor moved some 30 yards.								
Laramie County	31	7 p.	15	3000	0	0	7	1	Hail
	Two severe thunderstorms did considerable damage to portions of Cheyenne. Several funnel clouds were reportedly seen south of Cheyenne after the thunderstorms had moved through town. Hail up to 3 inches in diameter did an estimated \$9 million damages to homes, property and vehicles. Wind gusts in excess of 50 mph were recorded.								
Sweetwater County	31	7:45 p.	1	100	0	0	0	0	Tornado
	A man reported seeing a funnel cloud touch down for almost two minutes doing no damage in the remote area southwest of Rock Springs. Brush and vegetation were torn up in the area and a roaring type sound was evident.								
LOUISIANA									
Lafourche Parish	6	afternoon			1	0	0	0	Lightning
	A man catching crabs along the beach at Fourchon was struck and killed by lightning.								
Lafourche Parish	7	9:30AM							Waterspout
	Pilot reported waterspout south of Lakeville								
Lake Pontchartrain	10	5:47AM							Waterspout
	Spotted northeast of Lakefront Airport								
Pointe Coupee Parish	10	afternoon			0	0	4	0	Severe thunderstorm
	High winds from thunderstorms downed power lines and trees in New Roads. Rains up to six inches caused some flooding.								
Lake Pontchartrain	14	5:50AM							Waterspout
	Two funnel clouds were reported over the lake. One became a waterspout north of Lakefront Airport.								
Caddo Parish	14	7:25PM			0	0	3	0	Severe thunder storm
	High winds caused damage to power lines and roofs in Shreveport. Some flooding of streets also occurred.								
DeSota Parish	15	3:30PM	3/4	50	0	0	4	0	Tornado
	Frierson was hit by a tornado that twisted trees and power lines and unroofed houses. One of several barns destroyed was scattered for a quarter of a mile. A house was shifted from its foundation.								
Tangipahoa Parish	15	6:40PM			0	0	4	0	Severe thunder-storm
	Police reported roof blown off house about ten miles north of Hammond. Power was knocked out in parts of Hammond.								
Cameron Parish	19	9:45AM							Waterspout
	Sheriff reported funnel cloud over Johnson's Bayou and at 10:40 AM civil defense office reported a waterspout or tornado two miles north of Cameron								
Coastal Waters	19	11:00AM							Waterspouts
	Waterspouts were reported in Lake Pontchartrain near Lakefront Airport and also two miles from Southwest Pass of the Mississippi River.								
Coastal Waters	20	1:30 PM							Waterspouts
	Two waterspouts in East Cote Blanche Bay								
Coastal Waters	21	10:15AM							Waterspouts
	Waterspouts reported in West Cote Blanche Bay and one near Grand Isle.								
Lake Pontchartrain	21	10:55 AM							Waterspout
	Reported three miles northwest of Lakefront Airport.								
Concordia Parish	23	2:30 PM			0	0	4	0	Severe thunder-storm and wind
	High winds with a thunderstorm caused considerable damage on both sides of Lake St. John. One house trailer was turned upside down on an auto. A boat dock was over turned. Roofs of houses and barns were damaged and power lines were broken by falling tree limbs.								
Coastal Waters	24	8:50 AM							Waterspout
	Reported by Coast Guard near Southwest Pass.								
Plaquemines Parish	25	11:00 AM							Waterspout
	Pilot spotted waterspout five miles south of Delacroix Island.								
Lake Pontchartrain	26	6:10 PM							Waterspout
	Reported over east end of lake.								

STORM DATA AND UNUSUAL WEATHER PHENOMENA

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INURED	PROPERTY	CROPS	
THE FOLLOWING ARE LATE REPORTS, CORRECTIONS, AND DELETIONS:									
LATE REPORTS									
IOWA									
JUNE 1978									
4NE Ft. Madison, Lee County	7	4:48p	2	30	0	0	4	5	Tornado, Hail
Tornado touched down in a field near Highway 61 crossing the highway moving southeast. The tornado skipped along path twisting several trees and damaging house roofs before lifting and going into the clouds. The hail accompanying the tornado severely damaged several bean fields.									
5S Tiffin, Johnson County	10	2:20a			0	0	5	0	Lightning
Lightning struck a lightning rod. A propane gas line was located close to the lightning rod. The line apparently ignited the southwest corner of the garage. Flames then spread engulfing the entire house.									
4W Bancroft, Kossuth County	14	11:20p	1	15	0	0	4	0	Tornado
Tornado touched down moving south taking a path 15 yards wide destroying trees, barn and trailer house but leaving corn cribs on either side of path.									
2E Eagle Grove, Wright County	15	1:00a	1/2	10	0	0	0	0	Tornado
Police reported funnel cloud touched down in an open field, moving south, then went back into clouds.									
North Central and Central Iowa	14-15	11:00p-3:00a			0	2	7	7	Severe thunderstorms, Hail, Heavy rain, Lightning
Several severe thunderstorms developed over the area mentioned in a four hour period. These storms did considerable damage to both crops and property and also produced two tornadoes which are recorded separately. Hail up to golf ball size destroyed acres of crops. High winds of up to 80 mph uprooted trees, downed power lines, damaged autos, blew down barns and out-buildings and damaged roofs of many houses. Lightning was a factor in causing fires and personal injury... lightning struck the ground which traveled along a sprinkler system and struck a man on a golf course in Mason City. His heart stopped but was revived by mouth to mouth resuscitation and heart massage. The man has suffered no apparent heart damage. Lightning struck several buildings doing extensive damage. One building 2SE Independence (Buchanan Co.) was struck and destroyed. A barn was lost along with machinery and tractor 5NE Maxwell (Story Co.) A farm house 6NE Webster City was destroyed when lightning struck an ungrounded TV antenna. A barn and cattle shed 6NE Parkersburg in Butler County were destroyed. Flooding also occurred with rains of 2-4 inches. At Mason City a golf course was under water. A stream 15N Mason City swelled into a river stranding 41 head of cattle.									
Ames, Story County	15	7:15p			0	5	0	0	Lightning
A bolt of lightning came out of the side of a thunderstorm striking a baseball field between center and left field. Five little league players were injured, but none seriously.									
8N Estherville to NE Armstrong, Emmet County	16	5:00-6:00p			0	0	4	7	Hail, Wind, Funnel
Hail up to the size of baseballs devastated a 2 mile wide by 1/2 mile long area. An estimated 10,000 acres of corn and soybeans were severely damaged. A funnel cloud was also reported 3/4 of mile long moving east. High winds accompanied the storm uprooting trees which fell on power lines, cars and houses.									
Sioux City (Woodbury Co.) to Rockwell City (Hamilton Co.)	17	4:05-7:30a			0	0	7	7	Severe thunderstorm, Hail, wind
A severe thunderstorm ravaged its way through six counties bringing strong wind, softball size hail and heavy rain. This storm uprooted trees which fell on power lines, cars and houses. The hail broke thousands of windows, damaged cars and destroyed acres of crops. In Ida Grove (Ida Co.) large hail damaged the local golf course by putting hundreds of holes 4 inches wide by 2 inches deep. In Hamilton County hail destroyed crops in a 2 mile wide by 1/2 mile long area from Webster City to Northwood (North Co.). In Newell (Buena Vista Co.) 3 1/2 inches of rain fell in one hour flooding many basements, swelling creeks over their banks, washing out crops and flooding fields.									
Allamakee, Howard, Winneshiek and Black Hawk Counties	17	8:30-11:00a			0	0	6	5	Heavy rain
Heavy rains of 2 to 4 inches falling in an hour or less flooded many streets and basements. Many streams swelled out of their banks washing out many roads and bridges. Crops were also washed away.									
5N Oskaloosa near Highway 63, Mahaska County	17	5:00p	.1	10	0	0	4	0	Tornado
Tornado touched down briefly moving NE and cutting off trees and twisting the tops. The tornado ripped a hole in the middle of the roof of a machine shed while the rest of the roof was left standing.									
LATE REPORTS									
IOWA (continued)									
JUNE 1978									
Belvo-Deer Park - 5NE Sigourney, Keokuk County	17	5:30p			0	2	0	0	Lightning
A couple was struck by lightning while preparing supper on an outdoor grill under a tree, about 20 feet from a camper. Both were knocked unconscious and remained so for about 20 minutes.									
5N Lynnville, Jasper County	17	4:30p			0	0	0	5	Hail
A large thunderstorm moved over the area producing large hail the size of golf balls to severely damage corn and soybeans.									
2SE Farragut, Fremont County	19	10:15p	.1	10	0	0	4	0	Tornado
Tornado touched down briefly hitting machine shed and chopping off trees with broken tops twisted. Debris was found over a mile to the southwest.									
8E Rock Rapids, Lyon County	19	5:50p	.1	10	0	0	0	0	Tornado
Tornado touched down briefly in a pasture and then lifted back into the clouds. The tornado was moving SE.									
Dedham, Carroll County	22	12:10p			1	1	0	0	Lightning
Lightning killed a boy when it struck a tree he was standing under. His brother was also under the tree and knocked unconscious, but revived minutes later.									
3NE Cherokee, Cherokee County	24	8:30p			0	0	4	6	Hail
A severe thunderstorm produced hail that destroyed a one mile by 4 mile area of corn and soybeans. Cars were damaged as well as windows broken. Siding on houses was also damaged.									
St. Ansgar, Mitchell County	25	9:30a			0	0	5	0	Severe thunderstorm, Wind
A severe thunderstorm demolished a welding shop damaging much of the equipment inside. The roof of a lumber yard was considerably damaged, as well as equipment in a grain elevator. Many trees were uprooted, falling on power lines, cars and houses.									
2W Rockwell City, Calhoun County	25	3:30p							Funnels
3 funnels were sighted west of Rockwell City moving west. Several times they dipped but did not touch ground.									
1S Lohrville, Calhoun County	25	5:30p	.1	10	0	0	0	0	Tornado
A tornado touched down briefly in a pasture moving east. The tornado then went back into the clouds.									
2W Rocklyn, Webster County	25	5:45p							Funnels
3 funnels, 100 yards apart were moving SE. The three dipped intermittently but did not touch ground.									
Southwest, Central and Eastern Iowa	26	1:00-4:00a			0	2	7	5	Severe thunderstorms, Funnel, High winds
Severe thunderstorms ravaged through many sections of the State causing considerable damage to property and crops. A funnel cloud was observed at 1:00 a.m. from Lakewood (Warren Co.) moving east. The funnel dipped several times in and out of the clouds before dissipating. Winds of 77 mph at Des Moines and 92 mph at Cedar Rapids were recorded. In Des Moines many trees were uprooted that fell on power lines, houses and cars. The wind also blew out many windows. In Cedar Rapids many airplanes were flipped over with considerable damage to the hangars. In Atholston in Taylor County a mobile home was overturned injuring a man. The man's father was also injured at his farm when wind broke glass striking the farmer in the head. In other areas the wind uprooted trees falling on power lines, cars and houses. Some barns and out-buildings were blown down. A large mobile home in Wilton (Muscatine Co.) was tossed to its side... however there wasn't anyone in the home at the time.									
Montezuma, Poweshiek County	26	1:41a	3/4	100	0	1	6	0	Tornado
The tornado skipped along its path traveling from northwest to southeast. Trees sustained most of the damage at tops. The tornado struck the courthouse damaging the roof. A new house was then destroyed. At this time a man was injured near the new house when a tree fell on his head as he went outside to retrieve some scuba diving gear.									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

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	
LATE REPORTS									
IOWA (continued)									
JUNE 1978									
Northwest, North Central, Central, Southeast and Eastern Iowa	28	11:30a			0	0	7	7	Severe Thunderstorms, Hail, Wind, Heavy rain
					Many severe thunderstorms ravaged through many sections of the State causing extensive damage to property and crops. In Humboldt (Humboldt Co.) 4 1/2 inches of rain fell in 45 minutes. This rain flooded the city where water was up to the fire hydrants. Many road and road shoulders were washed away. Many basements were flooded including the local radio station. The tower of the radio station was also hit by lightning. In Morning Sun (Lousia County) high winds blew a portion of the high school roof off. In Ottumwa (Wapello Co.) winds of 73 mph were observed. Those winds blew in windows in addition to blowing down trees. 1.4 inches of rain fell in 1/2 hour which caused much urban flooding. In Penton (Kassuth Co.) all 30 windows on the west of the senior high school were broken. In Iowa City (Johnson Co.) 2 to 4 inches of rain fell in 1 1/2 hours. These rains caused much urban flooding which stranded cars, flooded basements and backed up sewers. In Marengo (Iowa Co.) another 3.75 inches fell. In Boone (Boone Co.) golf ball size hail covered streets damaging cars and breaking windows. The hail also damaged crops near the city.				
PENNSYLVANIA									
EASTERN									
Chester County	29	4 to 5 PM EDT			0	0	4	0	Wind
					Very strong wind gusts left a path of damage from Lewisville to Homeville in southwest Chester County. Many trees were uprooted or broken off, roofs were damaged and power lines downed. Many of the downed trees were large and one caused extensive damage to an automobile.				
PENNSYLVANIA									
WESTERN									
Sugar Hill and Brockway	7	9pm	?	?	0	0	5	?	Tornado
					Windows were sucked out on one side of a house and the front porch destroyed near the town of Sugar Hill. Three nearby barns were flattened. The tornado uprooted trees along Elushia and Game School roads. The Penelec substation in Sugar Hill was wrecked. Five horses were reported missing after the storm.				
Rochester Mills (Indiana County)	7	9pm	?	?	0	0	?	?	Tornado
					One home and two barns were damaged by a tornado. Several trees were uprooted.				
Kittanning	7	9pm	?	?	0	1	?	?	Tornado
					A mobile home was demolished, trees were uprooted, and a metal garage sustained heavy damage when a tornado roared through the area along a stretch of Route 422. Heavy rains fell during the evening hours, and a portion of North Jefferson St. in Kittanning was under one and one-half feet of water for a time.				
Upper Harmony (Butler County)	16	10:20pm	?	?	0	1	5	?	Tornado
					Three mobile homes were destroyed when a tornado struck. Several other mobile homes and a nearby house also sustained damage.				
Johnstown	17	Early am			0	0	?	?	Heavy Rains
					Nearly 2 1/2 inches of rain fell in the vicinity of Johnstown. Elk Run backed-up in Morferville causing some basement and first-floor flooding; several feet of water flooded D Street and a dozen residents were evacuated. Two temporary bridges were washed out in the Scalp Level area.				
Greenville (Mercer County)	18	?			0	0	?	0	Thunderstorm
					A portion of the roof of the Shenango Valley Mall was torn off by high wind gusts. Trees were downed also.				
Franklin	18	4pm			0	0	?	?	Thunderstorm and Lightning
					Two houses in the area were struck by lightning and sustained minor damage. Another house was damaged when a tree was blown down and struck the house.				
Warren	18	3:35pm			0	0	?	?	Thunderstorm and Lightning
					Lightning struck a house and started a small fire. Wind gusts downed small trees.				
Sharon	18	4pm			0	0	?	?	Thunderstorm
					At least 400 trees were blown down or damaged in the area. A number of cars were crushed by felled trees. One mobile home on Nichols Street was blown over. Some 50 to 60 electrical lines were downed. A large plate-glass window at a furniture store was blown in.				

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		
LATE REPORTS										
PENNSYLVANIA (continued)										
JUNE 1978										
WESTERN										
Lewistown	21	Aftn.			0	0	4	0	Lightning	
					Two homes and a church were struck by lightning during heavy thunderstorms. The church steeple suffered extensive damage.					
Bedford	22	1am			0	0	?	0	Lightning	
					One home was struck by lightning and suffered heavy damage due to fire thereafter.					
Carmichaels (Greene County)	26	3:30pm			0	0	?	0	Lightning	
					Two houses were struck by lightning.					
Rochester Twnshp. (Beaver County)	26	6:30pm			0	0	?	0	Lightning	
					Lightning struck a brick tower and hurled bricks from the tower through an adjacent building roof.					
White Oak (Allegheny Co.)	27	Eve.			0	0	?	0	Lightning	
					Lightning struck a house and set it ablaze.					
Chalk Hill	27	4:45pm			0	1	?	0	Lightning	
					A youth was injured when struck by lightning. Two homes in the area were also hit by lightning.					
North Beaver Township	27	3pm			0	0	4	0	Lightning	
					A wood-frame barn burned to the ground after a lightning strike triggered a fire.					
Johnstown	27	4pm			0	1	?	?	Thunderstorm	
					One man was injured when an outside table was blown through a window at a restaurant.					
Wimmerton (Westmoreland Co)	27	4:30pm			0	0	?	?	Thunderstorm	
					An outer wall of a duplex in a housing project collapsed due to strong thunderstorm winds. A second wall was pulled from the frame of a house. Wind gusts of 74 mph were recorded at the Latrobe Airport.					
Youngstown (Westmoreland Co)	27	?			0	0	?	0	Thunderstorm	
					Strong winds in thunderstorms hurled a mobile home against a telephone pole. A transformer fell from the pole onto the mobile home roof.					
Markleton (Somerset Co.)	27	4pm			0	3	?	0	Thunderstorm	
					High winds in thunderstorms overturned a mobile home. A second mobile home was moved off its foundation.					
Punxsutawney	27	3pm			0	0	?	0	Lightning	
					Lightning struck a warehouse, started a small fire, and damaged phone lines in the warehouse.					
Latrobe	27	4:15pm			0	0	?	0	Lightning	
					Lightning struck a barn causing a fire which destroyed the barn and farm machinery within.					
Orchardville	27	3:15pm			0	0	?	0	Thunderstorm	
					Strong thunderstorm winds tripped the roof and porch from a mobile home.					
Guilford Twnshp. (Franklin Co.)	27	?			0	3	?	0	Lightning	
					Three Girls were treated and released from a local hospital after their cabin at Camp Robin Hood was struck by lightning. Campers suffered numbness of extremities.					
Buena Vista (Butler County)	27	3:30pm			?	?	0	1	5	Tornado
					A tornado cut one house in half, damaged the roofs and sidings of two other homes, and downed large trees. One boy suffered minor hand lacerations inflicted by flying debris as he was heading for the basement of his home.					
Titusville	27	1pm			0	0	?	0	Lightning	
					Two cows were killed when struck by lightning as they stood under a tree at a Gilson Ridge farm.					
Huntingdon	27	?			?	?	?	0	0	Tornado
					A tornado touched down briefly near the rural area of Wesley Chapel. The tops of seven large pine trees were twisted off. Nearby, a tree was toppled onto a mobile home.					

STORM DATA AND UNUSUAL WEATHER PHENOMENA

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	
CORRECTIONS									
TEXAS									
NORTHERN									
Tarrant County	11	4:00 p - 5:00 p	Short	Narrow	0	0	3	?	Tornado Hailstorm
<p>The northern edge of the thunderstorms entered southwest Tarrant County. Three-fourths inch hail fell in Mansfield around 4:50 p.m. A small tornado ripped up trees in Arlington around 5:00 p.m.</p>									
SOUTH DAKOTA									
JUNE 1978									
McPherson County	6	548 PM CDT			0	0	6	4	Tornado, Hail, High Wind
McPherson County	6	620 PM CDT			0	0	6	4	Tornado, Hail, High Wind
McPherson County	6	630 PM CDT			0	0	6	4	Tornado, Hail, High Wind
Hughes County	6	755 PM CDT			0	0	4	4	High Wind
Meade County	6	911 PM MDT			0	0	4	3	High Wind
Jerauld County	6	1040 PM CDT			0	0	4	4	Hail
Haakon County	6	1015 PM MDT			0	0	4	3	High Wind
Perkins, Meade, Corson, Haakon, Stanley, Hughes, Sulley, Potter, Faulk, Walworth, Edmunds, Campbell, McPherson, Brown and Marshall Counties	6-7	4:00 PM to 5:00 AM							
<p>Severe thunderstorms developed along a cold front during the afternoon of the 6th and continued into the morning of the 7th. Hail, one and three-quarters inch in diameter, winds gusting to 70 MPH and tornadoes were reported in a large section of the state ranging from Marshall County in the northeast to Perkins and Meade Counties in the west. No fatalities or injuries were reported. Total property and crop damage was placed near seven million dollars. The length and width of the paths are unknown.</p>									
Jerauld County	10	1040 PM CDT			0	0	0	0	Hail
Kingsbury County	11	1230 AM to 0115 AM CDT			0	0	3	4	Hail
<p>Hailstones, one and three-quarters inches in diameter, were reported; however, there was no damage or injuries reported.</p>									
Meade County	14	1043 PM MDT			0	0	0	?	High Winds
<p>Several hail storms occurred dropping hailstones, tennis ball size. The ground was covered. Many trees, windows and automobiles were damaged.</p>									
Perkins County	15	650 PM MDT			0	0	5		Tornado High Wind, Hail
<p>Wind gusts to 61 MPH were reported at Ellsworth AFB near Rapid City. No damage or injuries were reported.</p>									
Sulley County	15	725 PM CDT			0	0	5	4	Tornado
Hand County	15	730 PM CDT			0	0	5	3	Tornado
Walworth County	15	855 PM CDT			0	0	5	4	Tornado
Brown County	15	1145 PM CDT			0	15	5	4	Tornado, High Winds Hail
Marshall County	16	220 AM CDT			0	0	5	4	Tornado
Hughes County	15	710 PM CDT			0	0	4	4	Hail
Potter County	15	740 PM CDT			0	0	4	3	Hail
Brown County	15	700 PM CDT			0	0	5	4	Hail
SOUTH DAKOTA (continued)									
JUNE 1978									
Potter County	15	1040 PM CDT			0	0	4	3	High Wind
Campbell County	15	1040 PM CDT			0	0	4	3	High Wind
Edmunds County	15	1050 PM CDT			0	0	3	3	High Wind
McPherson County	15	1050 PM CDT			0	0	3	3	High Wind
Corson, Campbell, Walworth, Potter, Sulley, Hughes, McPherson, Edmunds, Faulk, Hyde, Hand, Buffalo, Jerauld, Spink, Marshall Counties	15	Evening to 16 Early Morning							
<p>Numerous severe thunderstorms developed over all of central South Dakota. Tornadoes, hail ranging to baseball size, and wind gusts to near 80 MPH caused widespread destruction, estimated near 20-25 million dollars. The Governor of South Dakota declared some of these counties disaster areas. Fifteen persons were injured. (See above)</p>									
Meade County	24	730 PM MDT			0	0	4	4	Hail, High Wind
Gregory, Douglas and Charles Mix Counties	21	400 PM to 630 PM CDT			0	0	4	3	High Winds, Hail Funnel Clouds
<p>Several severe thunderstorms produced winds to near 60 MPH, hail, three-quarters inch in size and several funnel clouds. No injuries or deaths were reported; however, there was property damage.</p>									
Stanley, Hughes, Sulley, Potter, Faulk, Edmunds, Brown, Day & Marshall Counties	22	400 PM to 930 PM CDT			0	0	4	6	High Winds, Hail Funnel Clouds
<p>A late afternoon line of thunderstorms produced winds near 70 MPH, widespread hail up to golf ball size and funnel clouds. Crop damage totaled near two million dollars.</p>									
Potter, Walworth, Lincoln, Union and Beadle Counties	24	Afternoon and Evening			0	0	4	5	Hail, High Winds
<p>Scattered severe thunderstorms caused crop and property damage in these counties. No injuries were reported.</p>									
Hanson County	24	752 AM CDT			0	0	4	5	Tornado
Sanborn County	24	750 PM CDT			0	0	4	5	Tornado
Hanson, Sanborn, Davison, Turner Counties	24-25	600 PM to 230 AM CDT			0	1	4	6	High Wind, Hail
<p>Severe thunderstorms produced high winds, hail and a tornado in the four county area. One person was injured. Property damage totaled near four million dollars.</p>									
Charles Mix County	24	752 PM CDT			0	0	3	4	Tornado
Lincoln County	25	1215 AM CDT			0	0	3	4	High Wind, Hail
Meade County	25	340 PM MDT			0	0	3	3	High Wind
Bon Homme, Yankton, Union, Lincoln and Clay Counties	25-26	800 PM to 1230 AM CDT			0	3	4	4	Hail, High Wind
<p>A tornado and wind gusts to 100 MPH moved eastward through these counties. Several persons received minor injuries. A 450 foot radio tower at Yankton was blown over. Property and crop damage was estimated as high as six million dollars.</p>									
Bon Homme County	25	930 PM CDT			0	0	6	6	Tornado
Perkins County	30	440 PM MDT			0	0	0	0	Tornado
<p>A tornado was reported by law enforcement spotters. No damage or injuries were reported.</p>									
WASHINGTON									
Pierce County	12	3:30 PM	1½				4		Tornado

STORM DATA AND UNUSUAL WEATHER PHENOMENA

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	

- o Includes crop damage.
- C Crop damage.
- * Miles instead of yards.
- ** Yards instead of miles.
- † Storm damages are placed in categories varying 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

Note: This publication contains our best information on storms but, due to the difficulties inherent in collection of the type of data, it is not all-inclusive. Late Reports and Corrections will be carried in the month following receipt of these data.

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