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STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1970

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									
Athens, Limestone County	3	11:15 pm			0	0	4	0	Wind
Widespread damage in city from wind as a severe thunderstorm moved across city. Power and telephone lines down, trees and limbs blocked streets, plate glass windows broken and a few chimneys blown down.									
Clarke County	4	3:35 pm	Short Narrow	0	0	2	0	Tornado	
State Trooper observed a tornado touch down briefly 6 mile south of Grove Hill on Highway 43. Moved east.									
Bates Field, Mobile County	9	3:40 pm			0	0	3	2	Hail
Golf ball size hail fell briefly around Bates Field.									
West Blocton, Bibb County	9	5:35 pm							Funnel
Funnel cloud reported by public.									
Dothan, Houston County	10	5:30-5:45 pm			0	0	4	3	Wind, hail, electrical
A severe thunderstorm with high winds, lightning and hail over 1" in diameter caused damage to power lines and trees. 50% damage due to wind, 50% due to lightning, damage from hail negligible except to crops.									
West Blocton, Bibb County	11				0	0	4	0	Electrical
Lightning caused fire which destroyed house.									
North Alabama	20	Afternoon			0	0	5	3	Wind, electrical
Numerous thunderstorms with high winds and lightning caused scattered damage in many localities. Near Bessemer several mobile homes were overturned and movie screen blown down. Lightning destroyed house near Cherokee, church and barn near Allioeville. In Lawrence County power lines were blown down. 50% of property damage due to wind and 50% to lightning. All crop damage due to wind.									
Baldwin County	21	2:45-3:10 pm							Funnels
Three funnels reported 15 to 20 miles east of Mobile.									
Mobile County	22	1:10 pm							Funnel
Funnel sighted south of Brookley Field.									
Alaska									
None reported									
Arizona									
Tucson	6	4:30 p.			0	0	4	0	Wind
Strong winds unroofed a large lumber company and several other buildings. Trees were felled and utilities were damaged.									
Tucson	19	9:30 p.			0	1	5	0	Wind and rain
Strong winds damaged homes, businesses and utilities. Heavy rains flooded streets and arroyos but most of the property damage was caused by strong winds. A man was injured when wind ripped the roof off his house and a wall collapsed on him.									
Phoenix	19	7:30 p.			0	1	5	0	Wind, rain and lightning
While the storm affected most of Phoenix, heaviest damage occurred in South Phoenix where locally strong winds unroofed homes and toppled utility poles. A department store was unroofed by strong winds and heavy rains caused extensive damage to the store interior and merchandise. Lightning disrupted utilities and struck a South Phoenix man; he was given emergency hospital treatment and released.									
Paradise Valley	19	7:25 p.			0	0	0	0	Tornado
Funnel cloud touched ground in open desert country. Cloud moved toward the southwest but remained visible for only a few minutes.									
Seligman	21	1:40 p.			0	0	4	0	Rain and hail
Extremely heavy rains caused flooding of a number of homes. Hail up to one inch in diameter punctured roofs and broke windows.									
Arkansas									
Southwest and Central Lee County	3	7:00 p. to 9:00 p.					3		Hail and Wind
Considerable damage was done to cotton and soybeans in the vicinities of Rondo, Moro and Marianna. Plants were stripped of leaves and branches. Tree damage around Marianna interrupted power to about 170 customers.									
Moro - Lee County	3	7:00 p. to 8:00 p.					4		Lightning
Carver School badly burned after being struck by lightning during squall passage. Four classrooms, library and office demolished by fire.									
Cherry Hill - Polk County	10	3:30 p. to 3:35 p.	1 - 1/2 mile	1/2			4		Wind
One 12,000 capacity chicken house destroyed and two others damaged by strong squall. 540 broilers lost. "Roars" heard but no funnel seen. Telephone and power lines damaged in area.									
Arkansas (continued)									
Dixie and Shearerville - Crittenden and St. Francis Counties	11	3:15 p. to 4:00 p.							Funnel Aloft
A "rope-like" funnel was sighted by at least two persons. Funnel moved southeastward from a point just south of Dixie to about a mile northwest of Shearerville. No damage was done. 4.50 inches of rain fell and local flooding resulted in the Shell Lake vicinity.									
Carlisle - Lonoke County	23	Noon to 1:00 p.							Funnel Aloft
Funnel cloud observed and photographed moving to the north from a position over Carlisle to about two miles north. Thin rope-like funnel came near but did not touch ground.									
Wheatley - Monroe County	23	5:00 p.							Funnel Aloft
Funnel aloft observed over and just east of Wheatley. Tractor driver saw "tail" drop down within a few feet of ground.									
This funnel and the one at Carlisle, considered to be of "tropical" nature and to be on the remote west edge of remains of hurricane Becky.									
Magazine - Logan County	27	10:00 a.					4		Lightning
5 cows and 3 yearlings were killed by lightning on farm 3 miles east of Magazine.									
California									
Concord & SW	3	3:45 p.m.			0	0	0	0	Funnels aloft
Citizen reported by telephone to Buchanan Field that she observed two funnel clouds aloft; no other confirmation received.									
Colorado									
Arapahoe County	9	6:30PM							Funnel cloud
Reported about 30 miles east of Denver. Dissipated soon after forming.									
Kiowa County	10	Night	6	*3			4		Hail
Crops damaged in an area about 8 miles southeast of Eads.									
Denver	11	3:30PM					1	2	Lightning
A girl received eye and facial injuries when lightning struck near where she was walking in a park in southeast Denver. Lightning caused several power outages and heavy rain caused local flooding at several locations in the Denver vicinity.									
Lincoln County	12	4:30PM					3		Tornado
Touched down briefly 2 1/2 miles northeast of Hugo. Exact time not certain. Damaged power lines and fences.									
Otero County	14	6:00PM					2	4	Hail, wind, rain
Hail damaged crops in an area from about 4 miles west to 6 miles northwest of La Junta. Wind and heavy rain caused light damage from Rocky Ford to La Junta.									
Douglas County	22	4:05PM							Funnel clouds (3)
Small funnels formed and receded back into clouds, in area about 40 miles south of Denver.									
Jefferson County	24	1:25PM							Hail
Hail stones 1/4 inches in diameter reported in foothills area about 20 miles southwest of Denver. No report of damage.									
Custer County	24	Afternoon					?		Wind
Spruce trees up to nearly two feet in diameter were uprooted or broken off in an area of the San Isabel National Forest, about 10 miles southwest of Baulah. From two to five million board feet of timber were blown down. No definite indication of circular pattern. Exact time of occurrence uncertain.									
El Paso County	24	5:00 - 6:00PM					1	5	Heavy rain, hail
Heavy rain, estimated up to three inches in 45 minutes, caused flash flooding in the eastern and northeastern portions of Colorado Springs. A young man was drowned when the auto he was driving was swept from a roadway by a wall of water. Streets, roads, bridges, and other property were extensively damaged. Hail stones 3/4 inches in diameter fell in one area.									
Larimer County	27	3:00 - 3:30PM					3	3	Hail
Severe hail, with stones up to 1 1/2 inches in diameter, damaged trees, gardens, and other property in Fort Collins. Crops in areas southeast of Fort Collins received some hail damage.									
Lincoln County	27	7:45PM							Funnel cloud
Sighted 15 miles south-southeast of Limon.									
Denver	30	1:15PM							Funnel cloud
Observed over Denver. Later unconfirmed report of funnel north of Denver.									
Baca County	31	2:07PM							Tornado
In large thunderstorm. Touched down briefly with blowing dust, about 40 miles south of Lamar. No damage reported.									

See reference notes at end of table.

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					KILLED	INJURED	PROPERTY	CROPS	
Connecticut									
New Milford, Kent, Bridgewater, Roxbury, Litchfield Co.; New Fairfield, Sherman, Fairfield Co.	25	5-7 PM			0	0	5	0	Wind
									Strong winds in severe thunderstorms uprooted trees and downed power lines. Some sections were without electricity or phone for 24 hours. Most intense activity occurred in New Milford, where downed power lines started several fires and wind ripped off 100 square feet of the roof of an electronics factory.
Delaware									
		SEE DATA AT END OF TABLE							
Florida									
Palatka Putnam County	02	3:25p							Funnel aloft
S. Biscayne Bay 7 E. Miami	03	8:25a							Waterspout
W. Elliott Key 13 E. Homestead	03	9:00a							Waterspouts (2)
N. Bell Gilchrist County	03	3:00p	short narrow	0	0	3	3		Tornado
									Equipment building packed up and carried 100 yards away. 2 acre plot damaged.
Jacksonville	03	3:00p			0	4	0	0	Lightning
									Four people injured by lightning between 3:00 and 4:00 p EDT. People were picking beans in field West of Jacksonville.
Near Apopka Orange County	03	evening			0	0	4	4	Damaging Winds
									Destroyed Vine Acres Nursery. Part of loss was foliage plants. Total damage \$12,000.
Kissimmee Osceola County	03	Night			0	0	4	0	Lightning
									One building of apartment complex destroyed, damage estimated \$35,000.
40 SE West Palm Bch	04	6:20a							Waterspout
Ormond Beach Volusia County	04	2:15p			1	0	0	0	Lightning
									Lifeguard fatally struck, died on July 10.
Chipley Washington County	04	4:30p			0	0	4	0	Lightning
									House destroyed, \$14,000 damage.
New Smyrna Beach Volusia County	04	afternoon			0	1	0	0	Lightning
									Man hit, treated at local hospital and released.
Key West	04	6:36p							Funnel aloft
Near Yankeetown Levy County	05	afternoon			1	0	0	0	Lightning
									Man fatally struck while camping.
Bunnell Flagler county	05	5:30p	short narrow	0	0	4	0		Tornado
									One plane destroyed, 2 damaged. Weather and unicom equipment damaged, one mobile home destroyed, \$20,000 damage.
Near Skyway Bridge 220/23 FM Tampa	06	11:15a							Waterspout
2 Mi NW Key Haven Key West	06	afternoon							Waterspout
Ormond Beach Volusia County	06	2:00p			0	1	0	0	Lightning
									Man injured by lightning. Fair condition in hospital.
5 SW Tampa	06	6:44p							Waterspout
8 SW Marathon 32 ENE Key West	06	7:53p							Waterspout
Longboat Key Manatee County	07	8:00a							Waterspout
		9:00 to 10:00a							Funnel aloft (3)
Vicinity Key West	07								Waterspout
NW Tavernier 27 SSW Homestead	08	7:15a							Waterspout
Green Cove Springs Clay County	09	1:45p			1	2	0	0	Lightning
									One boy killed, two injured when lightning struck a tree near the city pier.
Egmont Key 25 SSW Tampa	09	9:45a							Waterspout
5 W Hudson, Fla. Pasco County	09	11:40a							Waterspout
Florida (continued)									
Fernandina Beach Nassau County	09	afternoon	short narrow	0	0	3	0		Tornadoes (4)
									Several small tornadoes knocked out utility lines.
Orlando and Vicinity	09	4:00p	short narrow	0	0	3	0		Tornado and hail
									Heavy thunderstorms, some of them severe produced one tornado, several funnel clouds, 3/4" hail and winds gusts to 50 knots this afternoon. Thunderstorms formed near the Orlando area and moved NE causing only light damage to utility poles.
Over Tampa Bay	09	6:30p							Funnel aloft
Apalachicola 15 M NW	10	12:15p			0	0	0	0	Tornado
									Tornado touched down briefly in an unpopulated area. No damage.
Winter Park Orange County	10	4:30p			1	0	0	0	Lightning
									Eight year old girl killed when hit by a two inch badminton net pole dislodged by lightning.
Over St. Johns River 20 Mi E Orlando Orange County	10	5:20p							Funnel aloft
Lake Placid Highland County	10	evening			0	1	0	0	Lightning
									Girl injured when lightning hit pick up truck where she was sitting.
Vero Beach Indian River County	11	2:00p			0	2	0	0	Lightning
									Two linemen were injured when lightning struck electric wires on which they were working.
Tamiami Airport 8 SW Miami	11	2:24p							Funnel aloft
Lake Okeechobee Glades County 10 NW Lk Okeechobee	11	5:00p			0	0	3	0	Tornadoes (2)
									Two waterspouts moving inland from Lake Okeechobee toppled trees and partially blocked SR 98 but no serious damage occurred.
WSW Pahokee 35 W Palm Beach	11	7:00p							Waterspout
40 WNW Tampa	12	9:30a							Waterspouts (13)
Tampa	12	12:43p							Funnel aloft
Near Ellenton 30 S Tampa	12	1:45p	1 mi narrow	0	0	4	0		Tornadoes (2)
									Two tornadoes touched down two miles North of Ellenton causing several thousand dollars worth of damage to a trailer park and felling power lines.
Vicinity Key West	15	5:58a							Funnel aloft
S Daytona	17	3:00p	short narrow	0	0	2	0		Tornado
									Small tornado touched down and destroyed metal lawn building. Damage \$150.00.
30 W Miami	18	5:35p							Funnel aloft (2)
7 NW Palm Beach	20	11:10a							Funnel aloft
12 NW Key West	20	7:02p							Funnel aloft
Port St. Joe 17 WNW Apalachicola	21	6:10a							Funnel aloft
10 W Cocoa Brevard County	21	3:50p							Funnel aloft
Florida Panhandle	22/23				0	0	5	5	Tropical Storm
									Tropical Storm Becky moved on shore in the vicinity of Point St. Joe at 7:00a on July 22, bringing locally heavy rain and squalls to the Florida Panhandle. Rainfall amounts ranged from 8.18 inches at Tallahassee and 9.88 at Crawfordville, to only one inch at Apalachicola with rainfall amounts of 3.00 inches or greater generally confined to Liberty, Gadsden, Franklin, Wakulla, and Leon Counties. Sustained winds of 32 mph with gusts to 39 mph were noted at Apalachicola. Highest winds were reported at Tallahassee with gusts to 43 mph and sustained winds of 31 mph. Storm tides ranged from 3 to 6 feet above normal. Local flooding caused the evacuation of some lowlying sections including 60 people from Santa Rosa Island (Navarre Beach). Damage generally was confined to Leon and Wakulla Counties with most estimates below \$500,000. Damage was due mainly to local flooding except several houses which were destroyed by a tornado in the vicinity of Hanacea (Wakulla County). Greatest damage appears to be in the Tallahassee area, although severe beach erosion was noted in the Alligator Point area of Franklin County. No injuries or deaths were reported in the storm area.

See reference notes at end of table.

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Florida (continued)									
8 WNW Titusville Brevard County	22	1:22p							Funnel aloft
W Lakeland Polk County	22	2:30p							Funnel aloft
Delray Beach 12 S Palm Beach	22	3:00p			0	0	4	0	Tornado
2 S Panama Wakulla County	23	1:23p							Waterspout moved in over Delray Beach causing \$25,000 damage.
Vicinity Panama City	24	10:30a							Waterspout
15 E Key West	26	10:45a							Funnel aloft
15 NNE Ft. Lauderdale	27	8:07a							Waterspout
8 WNW Key West	28	3:15p							Funnel aloft
W. Ft. Lauderdale	29	10:06a							Waterspout
12 N Cocoa Brevard County	29	12:01p							Funnel aloft
Georgia									
Southwest	3-4				0	0	4	0	Wind and lightning
					Several southwest Georgia communities were hit by heavy thunderstorms during the night and early morning. Telephone and electrical services were interrupted in Cairo and Thomasville as trees and branches fell on lines and lightning damaged numerous transformers. Several head of livestock were killed by lightning. It was reported that several hundred television sets were knocked out as lightning struck numerous homes and came in others on electrical wires.				
Colquitt-Worth County	4	10:00 a			0	1	4	4	Wind and lightning
					A severe thunderstorm caused heavy wind damage along the Colquitt-Worth County line north of Norman Park. A man was knocked down and lashed by lightning. Several fields of corn and tobacco were flattened and numerous trees were blown down. Several barns were unroofed or blown down.				
Oglethorpe County	4	pm			0	0	4	0	Wind and lightning
					A severe thunderstorm caused wind and lightning damage in the Crawford-Loxington area. Electrical service was out for as long as 8 hours in some areas. A church, under construction, was heavily damaged by wind and one house was destroyed by fire after being struck by lightning. The rains brought relief from several days of extreme heat and several weeks of dry weather.				
Wrightsville	9	pm			0	0	4	0	Windstorm
					Strong winds wrecked the gymnasium of the Johnson County High School and damaged roofs and trees throughout the community.				
North County	11	pm			0	0	4	4	Wind, hail and lightning
					Crops were heavily damaged by wind and hail west and southwest of Sylvester. Large ballstones damaged trees and shrubbery in Sylvester and lightning knocked out electrical service over a large area. Several pecan trees were uprooted and power poles were snapped off by the wind.				
Martinez, Richmond County	14	4:30 p			0	0	4	0	Windstorm
					A sudden windstorm overturned one occupied mobile home and damaged several camper trailers.				
Savannah, 22 miles south	15	pm							Funnel cloud
Savannah	15	1:15 p			0	0	4	0	Windstorm
					Trees were uprooted and electric and telephone services were interrupted in parts of the city as winds reached 50 mph or more. Hail fell in several areas.				
Washington	16	3:00 p			0	0	3	0	Windstorm
					One house was partially unroofed and the columned porch was torn away and demolished. Several trees were uprooted.				
Augusta	16	4:30 p			0	0	4	0	Wind and lightning
					A severe thunderstorm with wind gusts to 60 mph caused widespread tree and roof damage in parts of the city. Several house fires were started by lightning.				
Bartow County	19	2:00 p	1/2	20	0	2	4	0	Tornado
					Small storm dipped down briefly and demolished a building under construction. Two men suffered minor injuries when the roof dropped on them after the walls collapsed. Concrete blocks were carried 1/4 mile and a roaring sound was reported. Storm moved southeast.				
Jackson Lake	19	3:00 p			0	0	4	0	Windstorm
					Falling trees caused heavy damage to houses, cars and utility lines in the Jackson Lake area of Butts and Jasper Counties.				

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Georgia (continued)									
Gray, Jones County	22	1:00 p			0	2	4	0	Windstorm
					One mobile home was overturned and another heavily damaged. Two children in the overturned trailer were only slightly injured.				
Essex County	22	3:00 p	2	300	1	1	4	3	Tornado
					Two houses and a barn were demolished and two other houses damaged 5 miles south of Wadley in northern Essex County. Two people were injured, one died 11 hours after the storm. Crops in the storm path were flattened.				
Jefferson County	22	4:15 p	?	?	0	0	?	?	Tornado
					Apparent tornado reported by skywarn observer 5 miles east northeast of Louisville moving northeast. No reports of damage.				
Tignall, Wilkes County	22	pm			0	2	3	0	Windstorm
					A mobile home was completely demolished but two occupants escaped with only minor injuries.				
Douglas	26	pm			0	1	3	0	Lightning
					A man was knocked unconscious and burned by lightning as he picked up eggs from a conveyor belt. The poultry house was damaged. A Douglas church was damaged by lightning during the same storm.				
Whigham, Grady County	28	4:15 p			3	3	0	0	Lightning
					Three children were killed and 3 other persons slightly injured when lightning struck a pecan tree under which they had taken refuge from a thunderstorm.				
Atlanta	29	4:00 p			1	0	0	0	Lightning
					A construction worker was killed by lightning at the Atlanta Airport.				
Hawaii					None reported				
Idaho									
Montpelier Area, Franklin County	9	6:00 p.- 6:40 p.	--	--	0	0	2	--	Thundershower
					Storm accompanied by lightning and heaviest rain in 24-hour period at Montpelier since September 6, 1965.				
Rexburg, Madison County	11	Early a.m.	--	--	0	0	2	--	Lightning
					Tree, building foundation and telephone extensively damaged.				
Richfield, Lincoln County	13	9:00 a.m.	--	--	0	1	3	--	Lightning
					All electrical wiring in residence burned out. Lady and two calves she was bottle feeding through fence were injured by lightning.				
Jefferson, Fremont and Clark Counties	13	Early a.m.	65	*25	0	0	3	--	Electrical storm
					A severe electrical storm caused considerable damage in Mud Lake-Roberts Area north eastward to Kilgore and eastward to Ashton. Electric power transformers and fuses were blown. Hail stones reported by local residents as near an inch in diameter fell in Ashton. A horse was killed by lightning east of Ashton. Local strong winds were reported.				
Sandpoint Area, Bonner County	13	4:00 p.	--	--	0	0	2	4	Thundershower
					Heavy rain measured .55 inch in less than an hour filling streets, backing up storm sewers. Forest hit were farmers and ranchers with hay still in fields. Strong winds were reported on Lake Pend Oreille.				
Ada, Canyon Counties Northward	16	Late Afternoon	--	--	0	0	4	6	Hail, lightning, wind
					Severe thunder broke out throughout SW Idaho, the North Central Prairies and the Panhandle. Hail 3/4 to 3/4 inch wiped out many crops in Nez Perce and Clark Counties with damage totaling about \$500,000. Localized strong winds and rain left extensive damage SW Valleys and especially north and west Boise where a 205-ft. radio station tower was damaged to the extent of \$10,000-15,000. Winds were estimated in excess of 50 mph. Numerous forest and range fires (at least 65) were set along with extensive lightning damage to grain fields, electric power facilities and several trees and buildings.				
Reubens-Melrose- Gifford Area, Nez Perce County	17	Afternoon	20	*5	0	0	3	5	Wind, hail, rain
					Heavy hail, 3/4 to 1 inch; high winds, 60-75 mph; and then rain damaged buildings, uprooted trees and left heavy damage to crops, mostly grain, in the path of the storm. Crop loss amounted to 100 per cent for some farmers.				
Twin Falls to Burley, Twin Falls and Cassia Counties	18	8:00 p.- 8:30 p.	--	--	0	0	4	3	Wind
					Strong wind recorded at 64 mph at Burley Airport downed power lines, trees, signs and damaged or removed several roofs Twin Falls to Burley.				
Shoshone and Hazelton Area, Lincoln and Jerome Counties	20	4:00 p.- 5:00 p.	--	--	0	0	3	2	Wind
					Strong winds estimated to 90 mph uprooted trees, overturned trailer on highway and caused power outages.				
Cassia and Minidoka Counties	21	4:00 p.- 5:00 p.	17	*5	0	0	4	6	Hail
					A devastating hail storm moved northward with greatest damage south of the Snake River from vicinity of Twin Falls to Burley				

See reference notes at end of table.

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Idaho (continued)									
									area and on the north side south of Paul eastward to near Rupert. Saffler area of hail were reported south of Hazelton, Jerome County and south of American Falls, Power County. Hail ranging 1 to 2 inches in diameter damaged some 55,000 to 60,000 acres of crops consisting of corn, beans, wheat, hay, peas, potatoes, and sugar beets. FMA Director estimated degree of damage as follows: Barley and wheat, 75-100 percent; sugar beets, 3-5 tons per acre; potatoes, 40 percent; corn 30 percent; beans, 25-30 percent. Many auto and building windows were broken and damage to roofs, building siding, and equipment. Damage estimates range 4-5 million dollars after a survey by the Idaho Governor and staff.
Lewiston and Cottonwood, Nez Perce and Idaho Counties	27	3:30 p.-4:30 p.	--	--	0	0	3	4	Thunderstorms
									Damaging wind, rain and hail battered several areas Cottonwood to the Lewiston area beginning about 4:30 p.m. Damage was principally to crops, trees, gardens, and overhead utility services. Hail reported to golf ball size and rain that followed resulted locally in brief flash flooding of streets in Lewiston.
Bathrum-Coeur d'Alene Area, Kootenai County	27	Evening	--	--	0	0	4	--	Wind
									Strong winds broke windows, tore loose steel granaries and moved them one-half mile or more, uprooted trees and damaged buildings. Eight Milwaukee railroad cars containing cement were overturned when they struck a tree limb on the track.
Albion Area, Cassia County	28	5:00 p.-7:00 p.	--	--	0	0	3	4	Heavy rain
									Flash flooding whipped through wheat fields and put parts of Albion under water for several hours. Roads, basements were flooded leaving mud washed from nearby land. Some grain was badly flattened.
Illinois									
DATA NOT RECEIVED									
Indiana									
La Porte County	2	E.S.T. 5:50p - 6:15p	?	?	0	0	5	3	Wind, lightning
									Trees and utility lines damaged throughout county. Eastern part of Michigan City hit by strong wind which demolished two planes and damaged hangars. Some homes damaged by lightning and falling trees. Heavy plate glass windows blown out and merchandise scattered in street. Two-ton bell blown from top of fire station. Tents of a carnival were flattened. Trailer court along SR 212 suffered extensive damage. In La Porte, heavy damage to trees, utility poles and lines occurred. Some fires resulted from lightning. Damage to Courthouse estimated at \$10,000.
Lafayette (Tippecanoe County)	2	7:00p	Short	Narrow	0	0	4	0	Wind, lightning
									Electrical and wind storm demolished two house-trailers in east section of city and toppled one wall of large concrete block building. Dry cleaning establishment damaged by lightning in west part of city.
Indiana	2	Late p.m.	?	?	0	2	5	4	Lightning, wind, hail
									Scattered light crop and property damage reported over the state. Two injuries reported. A man was hospitalized for electrical shock at Anderson and a woman was treated for head and arm injuries after her car was struck by falling tree branches at Crown Point. Wind damage to trees and utility lines reported in Porter, Starke, Marshall, Elkhart and Huntington Counties in the northern part of the state. In central Indiana, a lightning caused fire resulted in \$140,000 damage at an Indianapolis carpet store. Franklin reported tree and utility damage. In eastern Indiana, hail larger than marbles damaged crops near Centerville, and wind downed trees and utility lines over much of Wayne County.
Winchester (Randolph County)	3	3:30a	?	?	0	0	4	3	Lightning, hail, wind
									Home destroyed by fire when struck by lightning. Some crops damaged by wind and hail.
Terre Haute, 8 mi. N.	3	7:40a							Funnels (2)
									Pilot reported funnels.
Roachdale, near New Albany	3	8:20a							Funnel
									Funnel reported by State Police.
Richmond, Washington, Seymour, Terre Haute, Frankfort	3	Afternoon or evening	?	?	0	0	4	3	Hail, wind
									Dime size hail near Richmond, light hail south of Washington, some crop damage from hail around Seymour, and wind damage near Frankfort and Terre Haute.
Spencer	8	3:30p							Funnel
Bloomington	8	3:45p	?	?	0	0	?	0	Wind
									Barn reported damaged by wind.
Richmond, 20 mi. N.	9	11:40a							Funnel
Fort Wayne	9	12:15p							Funnel
									Funnel reported by Weather Bureau Observer.
Richmond, 40 mi. N.	9	1:40p							Funnel
Greensburg	27	?	?	?	0	0	?	?	Lightning, wind
									Weather Observer reported minor damage to a home struck by lightning and wind damage to garden plants and corn field.
Indiana (continued)									
Advance, near	31	?	?	?	0	0	4	3	Lightning
									Fire, sparked by lightning, destroyed barn, hogs, seed and implements. Loss estimated at \$20,000.
Elkhart County	31	7:35p	?	?	0	2	4	3	Lightning, wind
									Telephone employee fell from pole after lightning stroke. A woman was knocked about 12 feet from a picnic table when lightning struck a nearby tree. Numerous fires resulted from electrical storms in County. \$50,000 loss caused by one fire in paint shop at Elkhart. Damaging winds downed trees and power lines.
Waterloo	31	9:25p	Short	Narrow	0	0	3	3	Electrical, wind
									Weather Bureau Observer reported severe thunderstorm. Loud roar and strong wind, lasting about five minutes, left town strewn with uprooted trees and debris.
Iowa									
Floyd & Chickasaw Counties	1	7:00 p	15				5	5	Windstorm
									2,000 or more acres damaged, 35% damage by hail.
Dickinson County	1	7:40 p					5		Windstorm
									Moderate damage at West Okoboji and Spirit Lake and scattered elsewhere in NW Iowa.
Rock Rapids, Lyon County	2	12:10 a	3				4	4	Windstorm
Clinton, Clinton County	2	2:30 p					2	4	Windstorm
Charles City, Floyd County	2	7:00 p					4	4	Windstorm
									Also hail, 30% loss.
SE Iowa	3	12:05 a					3	6	Windstorm
									Line of thunderstorms struck Des Moines southward to Creston (Union Co.) shortly after midnight. In Des Moines losses about \$120,000 with winds 75 mph. Scattered areas with losses eastward across State. Three persons injured and considerable damage at camping areas near Solon (Johnson Co.). At Durant (2:30 a.) damages were extensive. Also damage reports at Grinnell, Washington, Keokuk, Muscatine, Burlington, Fairfield, Iowa City, Cedar Rapids and Davenport, as storm moved across eastern counties around 3:00 a.
NE Des Moines, Polk County	3	12:27 a							Funnel
NW of Newton, Jasper County	3	12:33 a							Funnels (2)
Montezuma, Poweshiek County	3	1:00 a	2	150			4		Tornado
Jesup, Buchanan County	3	2:30 a					4		Lightning
Chickasaw County	13	6:00 p					4	4	Windstorm
East Marshall County	13	7:00 p					4		Windstorm
									Most of damage near Dillon and Le Grand.
Cherokee County	14	4:00 p	10	1500			4	5	Hailstorm
NW to SE Iowa	14	4:00 p			2	19	7	7	Windstorm
									The zone extended the width from Sioux & Monona Counties on west side of State east southeast to the eastern Counties of Scott to Lee. Also scattered but mostly small losses in zone two or three counties wide either side of major storm zone. \$5 million corn crop damage in Sac County and nearly every home in Sac City damaged. Worst storm in Sac County in at least 65 years. Winds 70 to 100 mph. Two persons killed and seven injured when an auto hydroplaned during storm. 140,000 acres in Plymouth County estimated to have 50% to 100% wind and hail damage. 10% hail losses in southern Hamilton County estimated in excess of \$1 million. Winds at Cherokee reported 60 mph. Roofs off houses in Sioux County. Winds reported to 80 mph. in Webster County. 50 mph. winds recorded near Ames.
Kingsley, Plymouth County	14	4:02 p	1	100			4	4	Tornado
Hornick, Woodbury County	14	4:30 p	10	300			5	4	Tornado
									Two funnels observed west of Mapleton. Ended SE of Ticnic in Monona County. Moved SE.
Radcliffe, Hardin County	14	6:30 p	3	250			4	4	Tornado
Des Moines, Polk County	14	6:50 p							Funnel
Manly, Worth County	18	1:30 a					4		Lightning
South English, Keokuk County	18	6:00 a					1	3	Lightning
Sioux City, Woodbury County	18	7:30 p							Funnel

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1970

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		
Kentucky (continued)										
										heavy rains with some out-of-banks creeks near Nortonville, Hopkins County, which forced some residents along the banks to leave their homes, and some downed trees due to high winds; in Hart County, some wind damage to a church roof and some downed trees, and some hail damage to tobacco crops.
Lincoln County	26	1:00 p.			0	0	4	0		Lightning
										Fire apparently set by lightning extensively damaged a portion of a motel near Stanford.
Mason County	27	P.M.			0	0	4	0		Lightning
										Afternoon lightning strikes apparently were responsible for fires which destroyed two barns near Germantown.
Louisiana										
Orleans, Jefferson, Livingston, Tangipahoa, and St. Tammany Parishes	4	3:00-4:00p.			5	?	6	0		Winds, lightning, rain
										Heavy cluster of thunderstorms developed over and near Lake Ponchartrain north of New Orleans. Strong winds blew across the south shore of the lake, where many persons were in boats and on beaches for holiday. Gusts at Lakefront Airport reached 75 knots (5:12p.). Moisant Airport gusts 43 knots (5:07p.). WFOU, downtown New Orleans gusts 60 knots (5:10p.). NAS, Callender Field gusts 37 knots (5:42p.). Little or no rain accompanied the strong winds. A number of boats were overturned or swamped in high waves on Lake Ponchartrain. Four persons, including a father and his two children, drowned. Minor power failures throughout the city. Nine aircraft damaged at Lakefront Airport, including DC-3 and Twinbeech blown through fence. Seven total loss. Strong winds also swept portions of north shore around Mandeville, capsizing several boats and downing trees. Strong winds overturned trailer and demolished barn south of Denham Springs. Strong winds also caused minor damages in Hammond. A New Orleans man, 43, was struck and killed by lightning in woods east of Tikfaw.
Southwest and South Central Parishes	4	3:00-4:00p.			0	0	4	?		Winds, rain, hail
										Heavy rains and high winds struck several scattered areas. In Cameron Parish 60 mph winds were estimated at Big Lake, and hail occurred at Cameron. Rain and wind buffeted Lafayette area. Several cars reported blown off roads in Lafayette and St. Martin Parishes. Power lines down in Lafayette, Scott, Carencro, Youngsville and Broussard.
St. Tammany Parish	8	1:00p.			0	0	3	0		Tornado
										State Police reported small tornado destroyed barn and blew down trees near Covington.
St. Landry Parish	9	Afternoon			1	1	0	0		Lightning
										Girl, 19, struck directly and killed by lightning while hoeing cotton in field near home at Morrow. Father suffered brush burns on leg.
St. Charles Parish	18	Afternoon			1	0	0	0		Lightning
										Algers youth, 19, killed when lightning struck aluminum fishing boat on Bayou near Torco.
Cameron Parish	24	12:43-1:00P			0	0	0	0		Tornado
										Sighted from WBO, Lake Charles, estimated at 15 miles south-southwest. Also sighted from 8 miles south of Hollywood, from Sweet Lake and from Big Lake. No damage reported.
WATERSPOUTS REPORTED DURING JULY										
Jefferson Lake Pontchartrain	8	6:00a.								Off Grand Isle
	11	10:45a.								13 miles north of Moisant International Airport
Lake Pontchartrain	12	4:00p.								(2) 20 miles west-northwest of Moisant.
Lake Pontchartrain	13	2:43p.								1/2 mile north-northwest of Lakefront Airport
Lake Pontchartrain	22	6:45p.								18 miles north-northwest of Moisant
Lake Borgne	29	10:20-10:30a.								20 miles east-northeast of Moisant
FUNNEL CLOUDS REPORTED DURING JULY										
St. Martin	8	8:00a.								14 miles southeast of Lafayette
St. Mary	8	8:15a.								40 miles southeast of Lafayette
St. Martin	8	9:27a.								50 miles southeast of Lafayette
St. Bernard	8	10:30-10:34a.								15 miles northeast of NAS, New Orleans
Jefferson Lafourche	12	4:00p.								(2) 3 miles north of Moisant
Lafourche	13	6:45a.								6 miles southwest of Houma
Lafourche	13	6:48a.								12 miles southwest of Houma
Lake Pontchartrain	13	2:15p.								10 miles north-northwest of Moisant
Calcasieu	24	2:10p.								Sulphur
Orleans	24	4:00p.								Over New Orleans
Acsdia	25	7:00p.								Iota
Calcasieu	26	11:05a.								Westlake
Calcasieu	27	10:00a.								5 miles east of WBO, Lake Charles
St. Martin	31	3:47p.								23 miles east of Lafayette.
Maine										
Central and southwest	12	P.M.			0	0	3	3		Hail, wind, lightning
										Scattered thunderstorms, with hail in some localities. Hail to 3/4th inch diameter near Portland. Local lightning and wind damage.
Limestone	18	1:30 P.M.	*1		0	0	4	4		Wind, hail, possible tornado
										Hail mostly 1/4 to 1/2 inch size but some up to 1 1/4 inches and high wind damaged or destroyed extensive fields of potatoes and peas and destroyed gardens in a path generally southwest to northeast. Many buildings demolished or damaged, moved from foundations, deroofed, etc., in narrower path about 175 yards wide, suggestive of a tornado, though no definite confirmation found. Truck in gear blown 50 ft. Utility poles failed, causing service outages for some hours.
Near Bangor	29	P.M.			0	0	4	0		Lightning
										Lightning damage included loss of two homes set on fire.
Maryland										
Northeast portion, including Baltimore (City)	2	Early morning			0	0	4	0		Lightning, wind
										Lightning struck at least five farm buildings and eight houses. The greatest damage was apparently to a barn near Woodbine, Carroll County whose loss was an estimated \$85,000. Wind damage included three automobiles crushed by a falling tree.
Washington and Frederick Counties	2	1:00 p.-4:00 p.			0	0	4	0		Wind, hail
										Thunderstorm winds downed many trees and utility lines. Two trailers were overturned and damaged near Boonsboro. A trailer and an automobile were crushed when large trees crashed down upon them in Frederick County. Wind leveled a machine shed and a smaller building near Middletown. Power service was interrupted to about 2,000 homes. Pea-sized hail was reported by the Boonsboro cooperative weather observer.
Northcentral portion from Washington County eastward and including Washington, D. C.	9-10	AM - AM			0	3	5*	C		Rain, lightning, hail
										Thunderstorms, accompanied by heavy rain, brought flooding to many street, roads and low-lying areas. Many streams overflowed their banks. The 4:28 inches recorded on the 10th by the Frederick cooperative weather station was the greatest one-day July rainfall on record; the total for the entire storm period was 6.28 inches. This was the heaviest since September 1966. Other heavy one-day totals included 5.10 inches at the U.S. Soldiers Home, D. C. and 4.23 inches at Westminster. Flooded basements were quite common. Water, which flooded a basement of a clothing manufacturing company, caused a 100-foot section of wall to collapse; three employees were treated at a hospital and released. Water damage to an industrial hardware company was estimated at \$200,000. Bridges and roads were damaged by flash flooding. Flooding in the Washington metropolitan area caused traffic tie-ups during the afternoon and evening of the 9th; slippery roads and heavy rain was blamed for a large number of minor accidents and three fatal accidents. There were also scattered reports of lightning damage. Hail to marble size was reported at Manchester, Carroll County; no damage was indicated. Some minor crop damage was also noted.
Howard County	9	11:00 p.			0	0	4	0		Lightning
										Fire, attributed to lightning, destroyed the Turf Valley stables; horses and much of the equipment were saved.
Bel Air (near), Harford County	9-10	During night			0	0	3	0		Lightning
										Thirteen head of pure-bred cattle were killed by a lightning strike.
Washington and Frederick Counties	15	7:30 p.-9:30 p.			0	0	4	0		Wind, rain
										Severe thunderstorms crossed area with very strong winds and heavy rain. Flash flooding occurred in some low-lying areas and along streams. Near Fairplay, winds blew down a carnival ferris wheel and carnival tents; no one was injured as the area had just been evacuated.
Eastern portion	20	Evening			0	0	4	0		Wind, rain
										Thunderstorms with strong winds and heavy rain brought damage to scattered areas. Trees and utility lines were downed. In Baltimore power service was interrupted to 9700 customers. At Rock Hall a roof of a summer home was ripped off. Flash flooding was reported in the Rockville area.
Hagerstown-Middletown area	28	8:30 p.-10:30 p.			0	0	4	0		Wind, lightning
										Heaviest damage during the thunderstorms was a roof blown off a metals company in Hagerstown. At least two fires were blamed on lightning. Seven head of cattle were killed near Middletown by lightning; also, one was killed near Detour.

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1970

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	
Maryland (continued)									
Southern Harford County	29	3:00 p.-5:00 p.			0	0	4	0	Rain
									Heavy rain, as much as 4.35 inches between 3:25 p. and 4:10 p. at Edgewood, caused considerable flash flooding in the area. During the period of heavy rainfall and poor visibility, a truck was demolished when struck by a diesel engine at an unmarked crossing; one young man was killed and two others were injured.
Clinton, Prince Georges County	29	5:40 p.							Funnel cloud
									Off-duty Weather Bureau forecaster reported a funnel cloud which lasted five minutes and then disappeared into clouds.
Croom-Naylor area, Prince Georges County	29	5:00 p.-6:00 p.			0	0	5*	C	Wind, hail, rain
									Thunderstorms with devastating winds cut a five-mile swath through this area. Winds were estimated over 70 to 80 miles per hour. Seventeen tobacco barns were blown down as well as scores of trees. Direction of fall of the barns was from east to west. Very heavy rain and some pea-sized hail accompanied the storm. Crop damage was reported but no estimate was given. Many home owners reported that the rain was driven into their homes around windows and doors.
Massachusetts									
Eastern	11				0	0	4	2	Lightning, wind, hail, possible tornado
									Scattered thunderstorms. Lightning, about 2:15 A.M., extensively damaged a home in Middleboro. A home was badly damaged by a lightning fire in Norwood in the evening. At 4:45 P.M., a west to east path 0.1 mile long and 50 yards wide was cut in Townsend, uprooting and breaking trees and flipping a doghouse (with dog) into the air; wind estimated at 100 mph was accompanied by roar like jet engine; hail and heavy rain fell; light objects such as a beach ball near path unaffected; though no funnel was seen, a tornado vortex may have been present. At Haverhill near 5:30 P.M., falling trees and limbs caused power outages and brushed an auto.
Central	16				0	0	4	0	Lightning, wind
									Scattered lightning and wind damage in a wide path through Hampshire and Hampden Counties and into western Worcester County. A barn in Wilbraham burned after a lightning strike. A falling limb crushed a car in Warren. A theatre screen blew down in Palmer. Falling trees and limbs caused utility failures. Scattered lightning damage also reported in late forenoon in eastern Massachusetts.
Central	26	P.M.			1	9	5	2	Lightning, rain, Wind, hail
									Lightning killed one at Greenfield and injured two there, five in Leominster, one in Ayer, and one in Chelmsford. Much damage from lightning set fires. Considerable flooding from locally very heavy rain. Flooding damage especially heavy in Leominster, where store basements were flooded and streets closed by up to four feet of water. Flooding elsewhere included Chelmsford, Concord, and Holyoke. Wind blew out store windows in Holyoke and felled trees and limbs in many areas, with utility outages resulting.
Northeastern	30	P.M.			0	0	4	0	Lightning, rain, wind
									Heaviest thunderstorm activity from a Bedford-Lowell line eastward. Many lightning set fires in the Reading, North Reading, and Stoneham area. Local flooding in Wakefield and North Reading. Trees and limbs blown onto utility lines.
Michigan									
Holland, 13 S Allegan County	2	7:30-8 AM			0	0	0	5	High Winds
									Squall line, gusty winds estimated at 50-60 mph moved through southwest Michigan. Heavy damage to fruit trees concentrated in southern Canges township. Path of damage, 2 miles long and 1 mile wide in west-east direction, included many older trees partially rotted near base. Tree loss may approach 1000. Wind bruised most of fruit on trees left standing.
Kalamazoo, 25 W Van Buren County	2	7 PM			0	0	0	3	Hail
									Civil Defense reported 3/4 inch hail and 50 mph winds at Bangor. Minor damage reported.
Pontiac, Oakland County	2	7:30 PM			1	2	0	0	Lightning
									Lightning struck tree where three golfers had sought shelter. One was killed, one severely injured and the third received minor burns. A fourth partner, under a nearby tree was uninjured.
Michigan (continued)									
Southern Michigan	2	AM-PM			0	0	5	0	Thunderstorms-Lightning
									Series of thunderstorms moved across Michigan, toppling trees, setting fires and causing localized flooding. Areas hardest hit by losses include: Hydes Orchards near Fenton, \$30,000 fire to warehouse; 13 steers killed near Coldwater; 2 barns burned near Hillsdale; 24 Holstein cows killed near Hastings, loss \$12,000.
Kalamazoo, 23 SW Van Buren County	3	6:10 PM			1	1	0	0	Lightning
									Father was killed and his son received minor burns while covering a boat when lightning struck. The boat was at a pier on Christie lake, 4 miles southeast of Lawrence.
Southeast Lower Michigan	3	PM			0	0	5	3	Thunderstorms-Hail
									Series of thunderstorms caused scattered fires and wind damage. Small hail damaged corn near Caro; wind caused \$3,000 damage to Ford's Saline plant while wind losses estimated at \$250,000 occurred at Detroit's Metropolitan airport where 1 1/2 inch hail and gusty winds damaged buildings and some aircraft between 8:50-9:40 PM.
Western Upper Michigan	7	6-8 PM			0	0	?	0	Hail - Wind
									Thunderstorms and gusty winds moved eastward, toppling trees and causing localized heavy rain. Near Marquette 1 inch hailstones were reported.
Evart, Osceola County	8	3:10 AM			0	0	5	0	Lightning
									Lightning set fire destroyed a church, loss \$100,000. Barn struck and destroyed near Ravenna in Muskegan county. Many reports of minor damage mid Michigan area.
Gladwin, Gladwin County	11	4-5 PM			0	0	4	0	Lightning - Wind
									Thunderstorms, gusty winds destroyed a 12x52 foot trailer in Beaverton township. Lightning set fire heavily damaged farm home near Gladwin.
Midland, 9 W Midland County	12	PM			0	0	0	6	Heavy Rain - Hail
									Golfball sized hail fell in Lee, Homer, and Mt Haley townships. Heavy rain during period of July 2-12 caused local flooding and sun scald to the bean crop. Tuscola county losses were set at \$1 million.
Southern-Southeast Michigan	14	PM			0	0	5	0	Wind - Lightning
									Series of thunderstorms moved eastward causing scattered damage. Lightning destroyed a 40x58 foot barn near Cass City; wind toppled trees on power lines, cars and homes causing extensive damage at Albion. Wind damage totaled \$5,000 at the Milan Dragway where several small buildings were destroyed.
Alpena, 10 S Alpena County	15	12:30 PM			0	0	4	0	Wind
									Severe thunderstorm at Ossineke, Mickilson Hill-road area destroyed a \$4,000 mobile home, tore the breeze way and garage from one home and demolished a barn.
Harrisville, 3 SW Alcona County	17	2:23 PM			0	0	4	?	Wind
									Large hail followed by gusty winds, estimated at 80-100 mph damaged one house, 7 barns, 2 airplanes and 2 cement silos. Damage was confined to eastern Alcona county.
Adrian, 10 NE Lenawee County	18	PM			0	0	4	0	Lightning
									Lightning destroyed a 30x90 foot barn near Britton. Killed in the blaze were 32 milk cows and 10 calves.
Southwest Lower Michigan	19	3-6 PM			0	0	4	0	Heavy Rain - Lightning
									Heavy rain, over 5 inches in some areas, caused flooding, road wash outs at twelve locations and collapsed the basement wall of one home. Lightning destroyed one barn in Barry county.
Southern Lower Michigan	28				1	1	5	?	Thunderstorms-Lightning
									Heavy rain caused local flooding as 7.64 inches fell at Paw Paw. Wind moved a house trailer 21 1/2 feet off its foundation at Marysville. A youth was critically injured by lightning at 3:44 PM in Battle Creek while operating a power mower; at 8:58 a fisherman was killed by lightning on Forked lake in Cass county. A second man in the boat, his back turned said he only felt the heat from the lightning bolt. Lightning destroyed a 40x60 foot barn, 600 bales of hay, killed one horse and injured another near Battle Creek.

See reference notes at end of table.

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JULY 1970

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					KILLED	INJURED	PROPERTY	CROPS	
Michigan (continued)									
Caro, 10 NE Tuscola County	29	4:45 PM			0	0	4	0	Lightning
									Lightning destroyed a large tool shed at Deford. The shed, 27 pigs, a combine and several pieces of machinery lost were valued at \$50,000. Several reports of minor damage resulted from the thunderstorms in southern Michigan.
Minnesota									
West Central, Central & South Central	1	Evening			0	2	5	0	Wind, Hail, Tornadoes
									Thunderstorm cells with wind and hail during the evening formed and reformed across west central and central areas of the State. Tornadoes will be reported separately. Considerable crop hail damage occurred in isolated areas in the following counties: Grant, Traverse, Big Stone, Lac Qui Parle, Yellow Medicine, Lincoln, Swift, Meeker (the greatest) and Wright. Winds destroyed or caused damage to many city and farm outbuildings; destroyed one mobile home and 5 barns. One man at Albany 3-1/2SW, about 8:00pm was injured as barn was blown down and girl at Dassel SSW, south shore of Lake Washington received severe cuts as mobile home was blown apart.
Bellingham, Lac Qui Parle County	1	6:55pm	1/4	20	0	0	3	0	Tornado
									Very small tornado funnel was observed to touch down in the south-east edge of Bellingham causing minor damage.
Porter 2-1/2SW, Lincoln County	1	8:30pm	1-1/2	50	0	0	4	0	Tornado
									Small tornado touched down in farmland causing some damage to sheds and trees. Two other funnels aloft were observed. Heavy 1/2" hail occurred about 15 minutes before the tornado.
South Central	7	8:45am-10:45am			0	0	0	5	Hail
									Thunderstorm cells with hail moving generally from northwest caused crop damage in Martin, Faribault, and Freeborn Counties. Some hail crop damage was reported between 4:00 and 5:00pm west and south of Hutchinson.
Moose Lake, Pine, Carlton Counties	7	4:00pm-5:00pm	28	50-150	0	2	5	?	Tornado
									Tornado touched down 2 miles SSW of Moose Lake, skipped along and moved easterly along the Carlton-Pine County line about 8 miles then moved east-southeast for about 20 miles lifting about 5 miles inside Wisconsin. It destroyed or heavily damaged many outbuildings on 6 farmsteads and about a 12 mile path of trees through the State Forest in Minnesota & Wisconsin. One farmer opened all doors and windows but this did not prevent severe damage to home. Golf ball hail proceeded the tornado. Moose Lake GESE, one farmer laying down in field was injured from flying boards and planks and at Nickerson 1-1/2S, small girl was injured as fence post blew through window. Several funnels aloft formed and dissipated near the tornado.
North Central	7	Late Afternoon			0	0	5	0	Strong Winds & Hail
									Strong thunderstorm cells with winds and some hail. Winds of 81mph were reported at Hibbing at 3:10pm. Strong winds were common across area causing major damage to aircraft and hangars, boats and an apartment building at Orr about 3:00pm; some damage to houses was reported in North Duluth and Hibbing areas particularly from trees. A house blew down at Barnum.
West Central	12	Afternoon Thru Late Afternoon			0	0	0	5	Hail, Lightning Wind
									Thunderstorm with hail caused crop hail damage in Wilkin, Traverse, Big Stone, Pope, Nicollet, and Blue Earth Counties. Lightning destroyed barns east of Montevideo at 10:00pm and St. George 7W, at 4:30pm. Local thunderstorm winds blew down a barn at Litchfield during afternoon. Lightning struck a large spruce tree near Staples during the night and 52 head of sheep under the tree were killed.
Northwest and West Central thru Central	14	Afternoon & Late Afternoon			0	0	0	4	Hail
									Thunderstorm with hail caused some crop hail damage in Polk, Yellow-Medicine, Renville, Sibley and Nicollet Counties.
Miltons, Douglas County	18	6:02pm	4	100	0	5	6	0	Tornado
									Tornado formed over Lake Miltons moved easterly direction over town of Miltons. It destroyed: 4 businesses, 8 homes, 1 mobile home and one farmstead. Caused major damage to: one business, 18 homes, and 6 farmsteads. Minor damage to: 7 businesses, 10 homes and several farmsteads. Five persons were injured. Estimated damage-\$500,000. Comment: An observer noted an occasional cloud to ground lightning during tornado and that was some distance to the south.
Rice, Benton County	18	7:10pm	2	50 yds to one mile	0	0	5	0	Tornado
									Tornado funnels were observed but track where tornado touched down was very diffused. Trees, buildings and debris showed winds were from all directions, particularly from southwest and northeast. It destroyed one home, 3 mobile homes, large commercial chicken barn and damaged many other buildings in the general area of Rice.
St. Cloud, Stearns County	18	7:10pm			0	0	5	0	Strong Winds
									Winds to 69 mph at St. Cloud Airport destroyed 5 aircraft, caused some damage to hangars, minor damage to many buildings and
See reference notes at end of table.									
Minnesota (continued)									
Soderville 1-1/2E Anoka County	18	8:35pm	1	100	0	2	4	0	Tornado
									Small tornado touched down in Hamm Lake Township in center of section 3 and moved south about 1 mile. Destroyed one small home and damaged 3 others. Injured one person in the house that was destroyed and one woman from flying debris in one of the damaged homes.
West Central and Central	18	Afternoon and Evening			0	0	5	5	Wind & Hail
									Damaging thunderstorms moved from the northwest generally on two parallel lines about 45 miles apart from the northern part of the West Central District. This started about 5:00pm and moved out of the southeastern part of State about midnite. Hail crop damage generally on a line from southeastern Wilkin County into central Renville County. The heaviest damage to the north of Benson. Some light hail was reported in southwest part of State and an irregular line through Long Prairie and St. Cloud. Winds destroyed a warehouse and also killed 600 young turkeys northeast of Benson; mobile home overturned at Willmar and several campers; barn blown down and one cow killed 3N of Norwood; oat crop suffered damage from lodging and from shelling of the ripe grain. Minor property damage, trees blown down and power outages were common throughout the path of thunderstorms. See tornadoes, these occurred in the path of the most northerly line of thunderstorms
West Central	26	Evening			0	1	4	4	Wind & Hail
									Thunderstorms with wind and hail caused some crop damage in Big-Stone, Stevens and Pope Counties. Winds reported to 80mph at Browns Valley and 100mph at Hancock. Two barn-roofs blown off east and north of Ottonville and one barn roof southwest of Hancock, one boy was injured at Broten as mobile home tumbled over. Many trees down throughout the area and power and telephone outages were common.
Vermillion 1W, Dakota County	28	3:30pm			0	0	4	0	Lightning
									Lightning struck large tree and killed 19 cows beneath it.
West and Southwest	29	Evening			0	0	0	5	Hail
									Thunderstorms produced hail crop damage in Big Stone, Lac Qui Parle, Lyon, Redwood, Pipestone and Murray Counties. Severe crop losses in the Cottonwood to Hanley Falls area.
FUNNEL CLOUDS REPORTED DURING JULY									
Douglas	1	7:00pm							Alexandria-south
Kandiyohi	1	8:40pm							Spicer 4W
Blue Earth	1	8:55pm							Delavan 10NE
Blue Earth	1	9:16pm							Lake Crystal-east
Blue Earth	1	10:45pm							Mapleton
Dakota	1	10:37pm							Mendota-suburb of St. Paul
Hennepin	1	10:57							Brooklyn Park-suburb of Minneapolis
Anoka	1	11:00pm							Anoka 10E
Pine	1	11:00pm							Sandstone
Itasca	7	2:50pm							Hibbing 30W PIREP
Kandiyohi	12	5:20pm							Redwood Falls 38W-waterspout
Norman	13	8:15pm							Borup
Rock	18	6:50pm							Edgerton-south
Benson	18	6:56pm							St. Cloud 10N(over Little Rock Lake
Nobles	18	7:14pm							Worthington 4W (4 funnels)
Nobles	18	7:51pm							Worthington 2E (2 funnels)
Millie Lacs	18	8:10pm							Milaca
McLeod	18	8:15pm							Silver Lake-east
Washington	18	8:38pm							Prescott, Wisconsin 4N
Kandiyohi	26	7:15pm							Willmar 10W & 15NE
Benson	26	8:17pm							St. Cloud 10N
Freeborn	26	9:57pm							Albert Lea 10S
Traverse	29	4:55pm							Wheaton 3SE
Dakota	29	10:10pm							Burnsville-suburb of South Mpls.
Ottertail	30	8:12pm							Pelican Rapids
Mississippi									
North Central Division	3-4				0	0	?	0	Wind
									Scattered severe thunderstorm activity occurred. Some minor wind damage. TATE COUNTY: About 11:41 p.m. of 3rd, a small storm was reported at Senatobia; marble size hail and wind; no damage reports received. PANDLA COUNTY: At 12:10 a.m. of 4th on Highway 310, at 5 W Cone (lat. 34.5° N, long. 90.0° W), Highway Patrol reported quite a few small trees blown over and several larger trees down; no property damage reports received. About 2:23 a.m. at Sardi's Reservoir (lat. 34.1° N, long. 89.0° W) quite a few trees down and broken; 1 car damaged by falling tree; no injuries.
Coahoma County	4	About 1:20 a.m.-2:30 a.m.			1	2	?	0	Wind
									Clarksdale (lat. 34.2° N, long. 90.6° W) Police had a patrol car report of very high wind about 1:20 a.m., shifting signs around and as of 1:25 a.m. estimated winds 50 to 55 m.p.h.; at 2:18 a.m. continuous lightning and small hail was reported. Considerable minor damage from the severe thunderstorm in an area 5 to 7 miles wide and 10 miles long; most of the damage was to the west of Clarksdale. Newspaper notes, "Unofficial reports said the winds were clocked at up to 60 miles per hour. Most of the roofing damage centered around the Northwest section of the city with 15 to 20 home owners reporting damage. . . . Insurance claims were received for "broken windows in homes and cars and roofing damage. . . utility rooms blown off and columns blown out from under houses." On Highway 1,

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1970

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	
Mississippi (continued)									
Lincoln County	4	11:30 a.m.			0	0	?	0	Thunderstorm
Southeast and South Central Divisions	4	Afternoon			0	0	?	?	Wind, Hail, Heavy Rain
	4	3:00 p.							Waterspout
Warren to Rankin County	9	p.			0	0	?	0	Thunderstorms, Funnel Clouds Aloft

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	
Mississippi (continued)									
Hinds County	9	3:36 p.	Short	Narrow	0	0	?	0	Tornado
Copiah County	9	About 5:00 p.-5:15 p.			0	0	?	0	Wind
Leflore County	10	Afternoon			1	0	?	0	Wind
Rankin County	10	7:15 p.-7:20 p.			0	0	4	0	Wind
Washington County	10	11:34 p.							Funnel Cloud Aloft
Yazoo and Hinds Counties	17	About 2:15 p.							Funnel Clouds Aloft
Madison County	23	6:40 p.							Funnel Cloud Aloft
Lauderdale County	29	2:50 p.							Funnel Cloud Aloft
Franklin County	31	4:30 p.			0	0	?	0	Wind
Missouri									
NE Dunklin County	3	12:20-1:20 PM					1		Thunderstorm Winds

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1970

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 (continued)									
Marston, New Madrid County	3	1:15 PM	2				4		Tornado
to the tornado activity reported separately, a woman was injured and hospitalized as strong winds blew two cars off of I-55, two miles south of Marston at about 1:00 P.M.									
Watson, Atchison County	7	7:45 PM							Hail
A tornado remaining for the most part at treetop height moved from the north edge of Marston to the Mississippi River. At the Noranda Industrial Complex just northeast of Marston, the steel-work of a new power plant under construction was sufficiently damaged to require some replacement. Debris from the industrial site was seen falling into the Mississippi River.									
Alton, Oregon County	19	7:45 PM	5	200	7	5			Tornado
This was a large, severe tornado. The witness who first sighted it described it as "having the appearance of a vertical washing machine wringer" suggesting twin funnels. The path of the storm was from just north of Alton, Missouri to about 5 miles north of Alton (1 mile west of Missouri Highway 19). There were 10 homes and 4 mobile homes destroyed, many barns and farm buildings destroyed, 186 farm animals killed, 4 injured persons requiring hospital care, and 3 minor injuries.									
Southern Missouri	31	evening					4		Isolated Severe Thunderstorms
Straight wind damage: Sikeston, Scott County 8:35 PM Warrensburg, Johnson County 9:00 PM Holden, Johnson County 9:15 PM Lee's Summit Jackson County 10:00 PM									
Montana									
Rosebud, Custer, Wibaux Counties	13	Evening			0	0	?	?	Hail, strong winds
A large thunderstorm accompanied by strong winds and scattered areas of hail formed west of Forsyth and moved northeastward. Hail up to 1 1/2 inch diameter fell in an area 2 to 3 miles wide and 20 miles long causing extensive crop damage through the Forsyth area. Wind gusts reached 68 mph at Miles City and electric power was off for 10 hours. The storm then moved into southern Wibaux County where baseball size hail and strong winds caused considerable damage to farm buildings and crops.									
Daniels County	13	Afternoon	?	?	0	0	?	?	Hail, strong winds
Small hail accompanied by strong winds caused extensive damage to grain crops along the northern Montana border.									
Victor, Ravalli County	20	7:45 p.m.			0	0	4	0	Lightning
Lightning started a fire that completely destroyed a trailer house.									
Livingston, Park County	21	13:50 p.m.			0	0	?	0	Hail
Thunderstorm accompanied by 3/4 inch hail and 1.69 inch rain caused very minor damage.									
Billings, Yellowstone County	21	3-5 p.m.			0	0	?	?	Hail, strong winds
Thunderstorm with 3/4 inch hail and strong winds caused minor damage and brief power outages.									
Ravalli County	27	2:45 p.m.	?	1-2*	0	0	?	?	Hail, strong winds
Strong wind with marble size hail caused crop and minor property damage north of Corvallis.									
Yellowstone County	27	8 p.m.							Funnel cloud
Military aircraft reported funnel cloud 40NE Billings.									
Flathead Valley	21-28							5	Rain
Repeated showers followed by sunshine caused the loss of two-thirds of the cherry crop. About 1.5 million pounds of the 4.5 million pound crop had been harvested before the rainy spell caused the cherries to split.									
Havre, Hill County	28	8:50 p.m.			0	0	0	0	Wind
Thunderstorm accompanied by winds gusts to 83 mph caused no reported damage.									
Dillon, Beaverhead County	28	Afternoon	?	?	0	0	0	0	Hail
Thunderstorm with 1 inch hail. No reported damage.									
Butte, Silver Bow County	28	Afternoon	?	?	0	0	?	0	Hail, heavy rain
A thunderstorm accompanied by heavy rain and a heavy fall of hail flooded a number of basements. Water reached a depth of									
Montana (continued)									
Pondera County	28	Afternoon	10	8*	0	0	0	?	Hail
8 feet in the basement of an automobile company submerging 5 or 6 cars.									
Alberton, Mineral County	28	3 p.m.	?	?	0	0	3	0	Hail
One-half to 1 inch hail caused up to 50% damage of grain crops west of Conrad.									
Nebraska									
Nance County	1	?	-	-	0	0	0	0	Hail
Hail larger than golf balls caused minor damage in the east part of town.									
Burwell	10	4:30p	Spot	Spot	0	1	0	0	Lightning
Woman struck while holding onto iron porch railing. Rendered unconscious									
McCook	10	6:30p	Spot	Spot	0	1	0	0	Lightning
Man struck while checking irrigation canal.									
Box Butte Co.	13	10:37p	Short	Narrow	0	0	0	0	Tornado
Observed to touch down briefly in open area 10 miles northwest of Alliance.									
Burt-Washington Counties	14	4:30p-4:52p	20	--	0	0	0	0	Funnel Cloud
First sighted near Craig moving southeastward and later sighted near Blair.									
Eastern Nebraska	14	About 6p to 7p	--	--	0	0	4	5	Hail
Numerous small areas of hail in Douglas, Sarpy, Cass, and Lancaster Counties. Most of the stones were from 3/4" in diameter, but some 2" or larger fell in Murray vicinity. The areas with hail included, but were not limited to, Bellevue, Plattsmouth, Papillion, Eagle and Lincoln.									
Gage County	14	6:30p - 6:45p	10	Narrow	0	0	4	0	Tornado-Hail
Funnel cloud moved from approximately 5 miles east of Wilber to 4 miles west of Cortland. Touched down intermittently. Destroyed farmsite 2 1/2 miles north of Clatonia. Some 1" hail stones fell in Cortland about the time the tornado was passing west of the town.									
Cass County	14	7:30p	1	100	0	2	4	0	Damaging winds
Brief high winds struck a trailer camp 5 miles south of Plattsmouth about an hour after the hail reported above. Additional hail fell after the windstorm. Several trailers were damaged and one was demolished.									
Webster County	17	Late Afternoon	5	2*	0	0	4	4	Hail, wind
Near Blue Hill. Considerable crop damage from hail. Roof and building damage from winds.									
Thurston County	18	7:20p	--	--	0	0	0	0	Funnel cloud
Sighted between Wakefield and Pender.									
Scottsbluff County	18	11:13p	--	--	0	0	0	0	Funnel clouds
Three funnel clouds sighted near Morrill.									
Red Willow County	26	Evening	10	1*	0	0	4	4	Hail, wind, lightning
Severe thunderstorm accompanied by high winds, hail and lightning moved from Indianola to Bartley. Corn severely damaged by hail and wind. Roof and tree damage from wind. Several fires were set by lightning.									
Cheyenne County	27	7:12p	?	?	0	0	0	0	Hail
Three-fourths inch hailstones reported at Sidney Airport.									
Keith and Perkins Counties	28	8:15p-8:30p	--	--	0	0	0	0	Funnel clouds
Funnel clouds sighted near Brule and near Grant.									
Nevada									
Pioche	21-22	5 P.M.-2 A.M.			0	0	?	2	Thunderstorm
Heavy rain, 3.16 inches in nine hours, produced some local flooding. Small hail, associated with the thunderstorm produced damage to garden crops.									
Duckwater, Nye County	22	5:30 P.M.			0	0	5	3	Flood
Rain from thunderstorms in the morning produced a flashflood which flooded the valley of Duckwater. In some locations, water reached up to 2 1/2 feet. Fences, bridges and culverts were ripped; approximately 450 tons of was lost. An additional 450 tons was damaged. Witnesses indicate that this flood was the worst in approximately 50 years.									
Las Vegas, Lake Mead	24-25	P.M.			0	0	?	0	Thunderstorm, Wind
Heavy thunderstorms, accompanied by strong winds damaged a few boats at Lake Mead. Rain amounts of one-inch in two to three hours in some areas contributed to local flooding. Strong winds knocked down power lines leading to some power outage.									

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

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					KILLED	INJURED	PROPERTY	CROPS		
New Hampshire Central and south	12	P.M.			0	0	4	5		Hail, wind, lightning
		Scattered severe thunderstorms, Large hail in some areas, up to 2 inches in diameter in Laconia. Extensive damage to fruit and vegetables in Peterboro, where hail accumulated to 1 1/2 inches deep on ground. Scattered wind and lightning damage, including utility outages.								
Milford	16	6:17 PM	13		0	0	4	0		Tornado
		Funnel appeared as a gray, whirling, smoky rather transparent mass. Somewhat sinuous path in easterly direction. Trees felled and homes damaged. Path near George and Dean Streets.								
Southern	16	evening			0	0	5	0		Lightning, rain
		Scattered lightning damage and local flooding from heavy rain. Garage and car in Manchester burned after lightning strike.								
Southern	18	P.M.			0	0	4	0		Lightning, wind
		Thunderstorms produced locally strong winds with gusts to over 60 mph with some utility outages from falling trees and limbs. Scattered lightning damage included loss of a commercial building burned in Somersworth. Some hail reported.								
Extreme southern	26	P.M.			0	0	4	2		Wind, lightning, hail
		Mostly minor damage in many areas from scattered thunderstorms.								
Southern	28	P.M.			0	0	4	0		Lightning, wind
		Scattered instances of mostly minor damage. A mobile home was set on fire by lightning at Claremont.								
New Jersey Atlantic City and Linwood	4	0800CEST					1	4		Electrical
		Lightning struck two homes, one in Atlantic City, and the other in Linwood. In the first home fire resulting from the lightning strike caused a boy sleeping in his bedroom to be overcome by smoke and be hospitalized. Both homes suffered major fire damage.								
Bergen and Essex Counties	10	Morning and afternoon						4		Electrical, heavy rains
		Heavy thunderstorms caused several power failures and the flooding of underpasses on major highways. Some 3,500 customers were without power for two hours in North Bergen and northern Jersey City. Bloomfield and Glen Ridge reported the most severe local flooding.								
Paranus and River Edge	15	2330CEST	2	50				4		Tornado
		A small tornado struck the Bergen Mall in Paranus, lifted aloft, and then touched down at River Edge, about 1 1/2 miles to the east/northeast. A metal roof was lifted off an ice cream store, and other damage was reported at Paranus. Some trees were uprooted in the River Edge area.								
Statewide	25	Afternoon			2			5		Electrical, heavy rains
		Two persons were killed by lightning in the Hamonton area. Considerable damage was done to utility lines, and streets and highway underpasses were flooded in many areas of the State. Six dwellings were struck by lightning in the Marlton area.								
Statewide	29	Afternoon			2	16		5		Electrical, heavy rains
		One soldier was killed and 16 injured when struck by lightning while undergoing basic training at Fort Dix. A boy was killed when he rode his bicycle into a puddle into which an electric wire had fallen, in Edison. Much damage occurred to utility lines, and numerous fires were reported due to lightning. Considerable flooding of streets and underpasses took place.								
New Mexico Albuquerque	15	Afternoon						5		Heavy rain
		Heavy thunderstorm with over one inch of rain caused flooding in low lying areas of Albuquerque, especially the south. Damage to streets estimated at \$10,000 and to homes and property, \$50,000.								
Otero County	20	4:00 p.								Funnel cloud
		Funnel cloud reported by pilot, 11 miles south of Ruidoso.								
Northern Santa Fe County	21-22	10:00 p.-00:15 a.						5		Heavy rain
		Heavy rains of two inches in two hours, or greater, in area of Pojoaque, Tesuque, Chndlyo, and Namba, between Santa Fe and Espanola, caused extensive damage to highways, roads, culverts and dikes, and some flooding of buildings.								
Sierra County	21	9:00 p.								Tornado
		Tornado reported 38 miles northwest of Alamogordo. No damage reported.								

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS				ESTIMATED ¹ DAMAGE	CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS		
New York Elmira, Chemung County	1	evening						5		Lightning
		Five young people injured by lightning near large tree on city street. Two knocked unconscious, suffered body burns and temporary paralysis; injuries minor to other three in group.								
Tompkins and Schuyler Counties; Syracuse area	3	early evening						6 ^c	C	Heavy rain, flooding, wind
		Early evening cloudburst struck adjoining portions of Tompkins and Schuyler Counties, between Ithaca and Watkins Glen. Standard rain gages located between 4 to 8 miles southwest of Ithaca measured from 3.9 to 5.1 inches of rain in approximately 90 minutes (5:20 to 6:50 p.m., E. S. Time). Rapid rise and flash flooding of brooks and streams caused widespread washouts of bridges, culverts, highways, rural roads and recreation areas. Principally affected were villages of Newfield and Enfield, Tompkins County, and Odesa, Montour Falls and Watkins Glen, Schuyler County. Railroad tracks blocked several places in both counties by mud slides, flood debris or washout. Campers and rural residents marooned and one or two cars carried some distance by flood waters in Connecticut Hill section of southwestern Tompkins County. Treman State Park, near Ithaca, damaged by washouts of picnic area and deposits of mud and rock in swimming pool. Streets in Watkins Glen and Montour Falls badly flooded and littered by wires, trees and limbs. Intermittent showers on Ith brought 2 1/2-hour precipitation total of 5.97 inches in standard gage just west of village of Newfield. Unofficial storm total of 6.5 inches in Watkins Glen. Two counties declared federal disaster area with flood damage estimated at \$350,000 in Tompkins County and \$450,000 in Schuyler County. High gusty winds accompanied storm, unroofed barn and overturned silo in Newfield area. Man injured near Watkins Glen when large tree crushed his parked station wagon. Thunderstorms also struck Syracuse area where Weather Bureau Airport Station measured 1.3 inches of rain in 37 minutes. Scattered power failures in city and suburbs; high voltage power line falling onto automobile trapped man inside. Streets and expressway flooded with cars stalled by two feet of water in places.								
Broome and Delaware Counties	3	late evening						6	5	Heavy rain, flooding
		Cloudbursts in the southeastern Finger Lakes region (described above) were repeated later in the evening some 70 miles to the east in adjoining portions of Broome and Delaware Counties. Rains of from 3.0 to 5.0 inches in less than two hours (08:30 to 10:30 p.m., E. S. Time) reported at Deposit as much of community ravaged by flash flooding of two brooks and surface runoff. Streets clogged with mud, rock and trees or large sections washed out and numerous commercial establishments and homes flooded in basements or street-level floors. One home heavily damaged by flood waters when stream culvert became blocked. Parked cars carried by flood waters in city streets as some buildings battered by floating trees; trailer homes flooded in trailer park on edge of Deposit. Damage in city estimated in excess of \$2 million. Towns of Sanford, Windsor and McClure in eastern Broome County also affected by flash floods. Four highway bridges lost in Windsor area. Large dairy farm in Town of Sanford sustained heavy loss to barn, farm sheds, machinery and several hundred acres of corn, pasture and other crops. Flash flood on Gilly Creek poured several feet of water through barn; several head of cows drowned, others battered by force of water. Barn and yard left with deep blanket of mud and debris as was much of cropland. Loss at farm estimated in excess of \$150,000. Two counties declared federal disaster area.								
Hudson Valley	4	late afternoon						4		Wind, electrical
		Winds accompanied wide ranging thunderstorms in central and northern portions of the Hudson River Valley with gusts to 50 m.p.h. in local areas. Home near Poughkeepsie heavily damaged when large tree crashed through second story. Trees and limbs blocked highways elsewhere with scattered power failures from Dutchess to Schenectady Counties. Local damage from winds in Rensselaer County where silo and several large trees toppled on farm near Vermont border.								
New York City and vicinity	10	early a.m. and early p.m.						5	3	Lightning
		In two separate incidents lightning resulted in minor injury to five persons during a day of intermittent thunderstorm activity. Man stunned in Bronxville when bolt struck roof of building he was working in about 6 a.m. Bakery and hospital building also struck in same area with structural damage resulting. Commuter trains into Manhattan delayed when lightning destroyed signal lights in Harlem section. In early afternoon fire companies investigated a lightning strike at home on Staten Island when second bolt struck house, causing minor injuries to four firemen. House sustained a large hole in the roof but no fire.								
St. Lawrence Valley	11	5 a.m. to 1 p.m.						5		Heavy rain, flooding
		St. Lawrence River Valley in St. Lawrence and northern Franklin County received a series of heavy showers during morning and early afternoon. Totals of 2.5 to 3.0 inches or more extended from Alexandria Bay northeast to Malone area in northern Franklin County. Near record storm totals for July at Ogdensburg with 4.9 inches and at Massena with 3.1 inches. City Hall, dozens of stores and newspaper offices damaged in basements and street level floors by water in Massena. Similar kinds of flood damage in Ogdensburg where one home had part of basement wall collapse from high water. Lesser								

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					KILLED	INJURED	PROPERTY	CROPS	PROPERTY	CROPS			
New York (continued)													
		Flooding and damage reported in Malone area. Some wind damage in Ogdensburg as limbs and trees downed, one car demolished by falling tree. Silo blown over on farm in Lisbon area.											
Southwest	15	a.m. to p.m.						5			Heavy rain, wind		
		Southwestern tier sections from Chautauque to Steuben Counties experienced heavy rains and damaging winds in morning, afternoon and early evening thunderstorms. Precipitation totals 1.5 to 3.0 inches with heaviest amounts mostly from Lake Erie to Allegany Counties. Widespread flooding of streets and roads in Salamanca, Olean and Bolivar areas. Extensive damage from wind to trees and power lines in Wellsville, Alfred, Arkport and Hornell. Corning also hard hit as homes, garages, porches and cars damaged by falling trees. Scattered power failures throughout farm-country area. Textile plant in Salamanca closed for day when lightning blew transformer. Storm effects included tornado in Bemis Point, described below.											
Bemis Point, Chautauque County	15	5 p.m.	1/2	Narrow	0	0	4				Tornado		
		Funnel cloud observed forming over Lake Chautauque moved eastward into village of Bemis Point and travelled several blocks. Witness described "trees shaken violently with branches and leaves sucked upward." Village streets littered with large trees toppled or portions sheared off high above ground. One residence had shingles ripped off garage roof, some rafters and windows broken. Another house partially unroofed. Some trees observed twisted at ground level but left standing.											
Glens Falls-Hudson Falls area	16	3 p.m.						4			Wind, electrical		
		Locally severe thunderstorm struck neighboring communities of Glens Falls and Hudson Falls in upper Hudson Valley. Winds demolished screen at drive-in movie in Hudson Falls and brought widespread damage to trees, limbs and utility lines in both communities. Many streets blocked by downed trees and wires for several hours. Observers at Warren County Airport measured 0.54 inches of rain in 15 minutes.											
East Avon, Livingston County	19	6 p.m.						4			Wind		
		Homes in Trailer Park at East Avon damaged by localized high winds during thunderstorm activity. One unoccupied trailer home had walls and roof demolished while second home nearby was moved several feet sideways off foundation. No persons injured. Damage totaled \$10,000. Wind damage to trees and power lines occurred in scattered areas of northern Livingston and eastern Monroe Counties.											
South central and east central sections	20	a.m. to p.m.						5			Heavy rain, flooding, wind		
		Heavy early morning rains in sections of eastern Broome County caused a return of flooding in Windsor and Deposit areas. Occamum Creek and tributaries rose rapidly and overflowed banks in Windsor with severe flood and erosion damage to highways and community park along banks. Three bridges lost. Flash flooding also on Bone Creek in Deposit flooded some streets and basements. Mud and debris also covered streets and nearby railroad yard. Thunderstorms ranged elsewhere over the State during the day with generally minor damage, except in the Sacandaga Lake area of Fulton County. Locally high winds over the Lake raised havoc to boats and docks. One large house boat sunk and numerous smaller boats torn from moorings, driven ashore or sunk. Docks ripped by action of wind-driven waves.											
Central and south-east	29	afternoon						5			Heavy rain, flooding, lightning		
		Heavy short-duration rains, local flooding and lightning damage accompanied afternoon thunderstorms over wide area from central counties to lower Hudson Valley. Deposit, eastern Broome County, struck by flooding for fourth time in a month as 1.4 inches of rain in 50 minutes caused Bone Creek to overflow but runoff and debris confined to nearby railroad yard. Monticello, Sullivan County struck by 1.7 inches in less than 60 minutes as winds and lightning caused widespread power failures and streets littered with fallen trees and limbs. Similar damage and street flooding by heavy rains repeated in southern Westchester County. Lightning bolt carried into two adjacent homes at McCormellsville, Oneida County damaged electrical appliances and caused some fire damage in both. Scattered power failures and downed trees occurred in parts of Madison and Oneida Counties. Lightning fire destroyed dairy barn near Vestal, Broome County, with loss of hay, machinery and 4 head of livestock.											
North Carolina													
Montgomery, Moore and Richmond Counties	1-3	--						5	0		Heat		
		Thousands of poultry died during three-day period when temperatures rose above 100°F each day.											
Northern Coastal Plain	2	7-10pm						4	0		Wind, electrical		
		Scattered occurrences of wind damage to roofs and outbuildings; trees down. Lightning burned at abandoned school building, damaged several homes.											
North Carolina (continued)													
New Hanover, Pender Counties	3	2-5am							4	0	Electrical		
		Two homes severely damaged by lightning.											
Randolph, Union Counties	3	3-5 pm						0	1	4	0	Wind	
		Mobile home and two warehouses demolished. Child in mobile home injured, requiring hospitalization. Several trees blown down.											
Piedmont; a few places Mountains & Coastal Plain	4	aftn & evening						1	1	5	5	Wind, electrical, hail, rain	
		Widespread thunderstorms with passing low pressure trough and cold front. Two separate cases of casualties when car-wash shelters blew down: man killed and car crushed at Madison; man injured and cars crushed near Denver. Numerous cases of mobile homes, roofs and outbuildings destroyed or damaged by wind. Two churches and a school burned by lightning, several other buildings damaged. Hail destroyed crops several areas. Trees and power lines blown down. Boats damaged on inland lakes.											
Columbus County	5	6:05pm							0	0		Funnel cloud	
		Observed to form and dissipate over Lake Waccamaw. Reported by aircraft and also by ground observer.											
Greene, Pitt, and Sampson Counties	9	4-8pm							4	5		Electrical, hail, wind	
		Lightning set several fires, disrupted power. Hail damaged tobacco crop, wind damaged outbuildings, mostly in Sampson County.											
Central North Carolina	10	1-6pm							4	4		Electrical, rain, wind, hail	
		Widespread thunderstorms caused hail damage to tobacco crop in Durham, Granville and Warren Counties. Lightning damaged houses in several areas. Mobile homes blown over, trees and limbs down, power and telephone lines broken. Washouts and flash-flooding.											
Surry, Yadkin Counties	11	night							0	4		Hail	
		75 acres of tobacco destroyed.											
Piedmont & Coastal Plain	20	11a-5p							4	5		Hail, electrical, wind	
		Widespread thunderstorms again caused a variety of damage. Lightning killed a valuable dairy cow; wind destroyed two barns and a large chicken house, killing much poultry; damaged roofs, broke limbs from trees. Gusts to 65 knots reported at Raleigh-Durham Airport. Hail damaged tobacco crop four counties.											
Martin, Richmond, Surry and Wayne Counties	21	4-5pm							5	4		Electrical, hail, wind, rain	
		Widely separated thunderstorms caused a variety of damage to crops and property. Tobacco crop damaged by hail in Surry and by wind in Wayne. Lightning damaged homes and buildings; transformers blown out. Flash flood damaged church in Richmond County. Flying Pan Light Ship reported 50 knot gusts offshore.											
Beaufort, Forsyth Counties	26	aftn & evening							0	1	5	0	Electrical
		Lightning knocked boy in Washington unconscious; required artificial respiration and heart massage. Two homes and a furniture factory burned in Winston-Salem.											
Ashe, Pender, Richmond Scotland, Stanly, Surry and Wilkes Counties	28	4-7pm							1	0	4	5	Electrical, hail
		Electric lineman killed by lightning in Scotland County. Lightning burned buildings in Stanly and Pender. Hail damaged crops in Ashe, Richmond, Surry and Wilkes.											
Cabarrus, Davidson, Edgecombe, Forsyth, Hoke, Lenoir, and Rockingham Counties	29	aftn & evening							0	1	4	5	Electrical, hail, rain
		Boy hospitalized when struck by lightning in Hoke County. Power facilities and several homes damaged by lightning. Flash flood damage in Winston-Salem. Hail hit crops in five counties.											
Cabarrus, Cleveland, Durham, Haywood and Mecklenburg Counties	30	3-5pm								4	0		Electrical, wind
		Home, church and chair factory partially burned by lightning. Trees blown down, roofs damaged power disrupted.											
Durham, Granville Counties	31	5-6pm								4	4		Electrical, hail
		Home destroyed by lightning in Durham. Hail damaged tobacco crop in Granville County.											
North Dakota													
Walhalla, Pembina County	9	Evening							4				Wind storm, heavy rain
		Wind estimated at 60 mph with gusts to 75 mph caused considerable damage to trees and granaries. Rains up to 4 inches fell west and north of city. 5900 turkeys, weighing between 8-9 pounds, were lost on Lawrence Williams farm, during storm.											
West and north portion of state	13-14												Wind storm, hail, heavy wind
		A low pressure system moving along a stationary front produced many areas of damaging winds, hail, and heavy rains over western and northern parts of state. Winds which damaged trees and buildings were reported at Hebron at 5:30 p., at Tower at 7:00 p., at Garrison at 8:00 p., at Stanley about 10:00 p., and in the Langdon and Tower areas. Hail hit area north of Golsva about 8:30 p. causing damage to buildings as well as 50% crop damage. At Dickinson Airport high wind wrecked hangar and 3 planes when winds gusted 70-85											

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1970

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
North Dakota (continued)									
Minto, Walsh County	18		4	*1.5					Hail Up to 100% crop damage in some fields in area about 1.5 miles wide extending from about a mile west to about 3 miles east of Minto.
Pembina County	20	Afternoon							Hail Hail two inches deep on the level and ranging in size from peas to marbles leveled crops on a number of farms in area bounded by Hallson, Milton and Mt. Carmel.
10SW Hurdsfield, Wells County	25	7:30 p.	5	20					Tornado Tornado touching down about 10 miles southwest of Hurdsfield moved northeastward causing extensive damage to several farmsteads in path. After lifting storm continued northeastward causing wind and hail damage in Maddock, Minnewauken, and Churchs Ferry areas.
Central and north central	28	Evening							Tornado, Funnel cloud, hail, lightning Tornado struck Addison Hedberg farm south of Parshall 6:00 p. causing damage to several buildings estimated at \$50,000. Hail in same area caused 50-60% crop damage. Funnel cloud was reported by Weather Bureau observer SNW Bismarck at 7:25 p. 150NW Bismarck 3/4 inch hail reported in heavy thunderstorm. Golf ball size hail fell in Regan and 50% crop damage occurred 4SE Regan. Further north, 5.05 inches of rain fell at Velva. Lightning struck radio station KHRT in Minot at 2:45 p burning out a meter and knocking out telephone and news lines.
Ohio									
Western Two Thirds Of State	2	1:00a-9:00p			1	?	0	5	C Wind, electrical, rain, and hail Violent winds accompanied by lightning and rain did extensive damage to trees and public utilities over the western two thirds of the State. Wind speeds of up to 70 mph were reported at numerous locations. Most of the damage was a result of trees falling across utility lines or on buildings and vehicles. Lightning set fires were common. A Mansfield area man was electrocuted when lightning struck while he was talking on the telephone. Some crop losses due to hail were reported in Putnam, Lucas, and Scioto Counties.
Belville Area, Richland County	2	1:30p	2.3	30	0	0	0	4	Tornado and hail A tornado touched down near the intersection of Ross Road and State Route 13. The storm moved southeast at 45 mph. One barn lost its roof and two trailers were destroyed but otherwise damage was confined to trailers and farm land. Several reports of marble size hail were received. A woman reported hearing a noise similar to a loud train. Over 100 trees were sheared off 15 feet above the ground.
Lorain, Lorain County	4	6:15p							Waterspout Many residents watched a funnel cloud hover over Lake Erie for about 15 minutes. The funnel touched down on lake waters briefly, causing a waterspout.
Scattered Areas	8	Afternoon evening			0	0	0	5	Wind, electrical and rain Wind gusts of up to 60 mph accompanied locally severe thunderstorms. These storms were most numerous in the northeast portion of the state. Trees were downed and power outages were common. Lightning set fires were common but most caused only minor damages. Rainfalls exceeding one-inch were common in central and southwest areas.
Marysville Area, Union County	9	Evening			0	0	0	4	Hail and rain Hail several inches high covered the ground a mile west of the city on Route 33 causing motorists to pull off the road while large trucks made paths through the slush. It hailed for 15 minutes. Crops in the area were completely destroyed.
Kossuth Area, Auglaize County	10	Morning			0	0	?	?	Rain Three inches of rain flooded fields and caused the Prairie Creek to overflow its banks. The heavy down-pour brought the rainfall to 4.5 inches since July 8.
Cleveland, Cuyahoga County	10	11:45a			0	0	?	?	Hail Hail 1.75 inches in diameter fell 5 miles north of the Cleveland Hopkins Airport.

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	
Ohio (continued)									
Waynesburg Area, Stark County	10	4:28p							Funnel aloft
Wooster Area, Wayne County	10	7:45p							Funnel aloft
Cleveland Area, Cuyahoga County	15	3:10a	Narrow	Short	0	2	5		Tornado A tornado tore the roof off an apartment, the roof from a maintenance garage and damaged 20 other homes in the suburbs of Garfield Heights and Maple Heights. Witnesses saw water being sucked upwards from a swimming pool to a height of 25 feet. A resident told of two 16 ft. 2"x 10 ft. boards being driven into his yard. Two persons were treated for cuts. Damages were set at \$250,000.
Alliance, Stark County	18	6:00p			0	0	5		Rain Flash flooding caused an estimated \$300,000. damage after 3.5 inches of rain fell in one hour. Heaviest damage was in a five-block area located near Mount Union College. Water reached a depth of over 6 feet in some areas. At least 75 homes sustained damages.
Northern Area	28	Afternoon-evening			0	3	5		Electrical, rain, and wind Two Copley residents were injured, one seriously, as lightning struck a tree and the two people beneath the tree. The bolt blew off a man's shoe, fractured his right leg in 15 places, injured an arm and burned his chair. Lightning set fires caused more than \$20,000 in damages in the Cleveland area. Orange Village, a Cleveland suburb, reported 2.5 inches of rain in less than one hour. A severe storm near Clyde caused one injury and considerable water damage, and shut down operations at Whirlpool, Inc. An estimated 3 inches of rain fell during a two-hour period in the afternoon and nearly an additional 2-inches fell during an evening storm in the Clyde area.
Dalton Area, Wayne County	28	12:55p							Funnel aloft
Scattered Area	29	Afternoon evening			1	2	5		Rain, electrical and wind Up to 3.5 inches of rain fell on Cleveland's east side in less than one hour. The suburbs of Lyndhurst, Mayfield Heights, Pepper Pike and Hunting Valley were hardest hit. One youth drowned in a Brooklyn Creek. Lightning set fires destroyed 3 barns in Holmes and Wayne Counties. A mobile home was demolished by wind near Belpre, Washington County. Two men were injured by lightning near Lewisburg, Preble County.
Oklahoma									
Weatherford, Custer County	3	Late Afternoon	2	*2	0	0	4	0	Wind, rain A brief but damaging wind and rain storm struck the area causing extensive damage to one trailer-house and minor damage to several others. An apartment house suffered roof damage and the walls of a new building under construction were blown down. In less than one hour, 1.66 inches of rain fell which resulted in minor flooding in several areas of the town.
Crawford, Roger Mills County	3	Night			0	0	4	0	Lightning Home and contents destroyed by fire which was caused by lightning.
SW and NE of Corn, Washita County	10	5:30p.	5	*2	0	0	3	0	Wind, funnel aloft Strong winds, estimated at 70 MPH, damaged farm buildings and trees. One funnel cloud was sighted, but did not touch the ground.
Seminole County	11	Evening	?	?	0	0	4	0	Wind, hail, rain Strong winds, estimated up to 90 or 100 MPH, damaged several buildings in county, toppled 33 utility poles, and caused extensive damage to trees. Several plate glass windows were blown out and a large number of TV antennas damaged. Small hail broke out some windows and damaged some roofs. Rain up to 5 inches reported in the county.
Tulsa, Tulsa County	15	About 3:00p.			1	1	4	0	Lightning Lightning set a 10,000-gallon fuel storage tank on fire causing \$35,000 damage. Lightning also struck and killed one man at a construction site and injured another.
Fayne and Creek Counties	15	4:00p.-4:30p.	?	?	0	1	4	0	Wind, lightning, rain Winds, estimated at 75 MPH, caused mostly minor damage to power lines, roofs, trees, and outbuildings in the area. Heaviest damage was 1 mile west of Cushing, where a gas well derrick was toppled, a small building unroofed, and a trailer-house blown from its

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1970

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	
Oklahoma (continued)											
											Foundation. At Drumright, in Creek County, a police dispatcher was injured slightly when lightning struck the radio equipment. Unofficial rains up to 6 inches fell at Stillwater in Payne County.
2 1/2 N Forgan, Beaver County	16	6:00p.									Funnel aloft
Cleveland area, Pawnee County	16	6:00p.	4	*1 1/2	0	0	?	?			Wind, hail
											Strong winds, estimated at 60 MPH, and hailstones up to 3/4 inch in diameter did minor damage to gardens and trees.
Woodward County	16	6:00p.-7:00p.	25	*10	0	0	4	0			Tornado, wind, lightning
											A tornado touched ground briefly in open country causing no damage. Strong winds, estimated up to 75 MPH, damaged roofs, trees, and utility lines. Most of the damage was about 10 miles south of Woodward and near Quinlan east of Woodward. Lightning snapped several utility lines and blew out a fuse in an electric Co-op sub-station.
23 S Alva, Woods County	28	4:43p.	3/4	440	0	0	3	0			Tornado
											A tornado caused minor property damage before lifting.
Oregon											
North Powder near, Union County	3	1:00-3:00p	10	*5	0	0	4	4			Rain
											Intense rain accompanied thunderstorms across the North Powder area. Greatest downpour occurred in the foothills west of North Powder where unofficial reports of 3.2 inches of rain fell in one hour and 40 minutes. Flash flooding along Wolf Creek washed away three stacks of baled hay containing 35 tons. It carried the hay about two miles and deposited it at the junction of Wolf Creek Highway and Highway US 30. Flood waters up to three feet deep stopped traffic more than an hour along US 30 and caused one-way traffic about five hours. Trees were washed out and precious soil and summer fallow washed in many fields. Up to three feet of water flooded the lower floor of one residence along the North Powder River. An estimated \$5,000 damage was reported to the Anthony Lakes road grade, not yet paved.
Northern Wheeler County	4	4:30-6:30p	40	*5	0	0	5	4			Rain
											Heavy thunderstorms moving northeastward across the northern half of Wheeler County caused spotty damage. Locally heavy rain caused rock and mud debris to cover a four mile stretch of the Fossil-Clarno road. The deluge flattened summerfallow fields. The storm struck with hardest force in the Spray area where flash flooding followed 1.50 inches of rain between 5:00 and 5:30 P.M. The Bologna Creek bridge was washed out on SH 19 just west of Kimberly and roads were covered with mud and debris in Winlock Canyon, Kahler Creek Canyon and Parrish Creek Canyon. One farm 2.5 miles up Parrish Creek had a large stock trailer carried away, forty pigs drowned and farm equipment and a trailer home damaged. A deep freeze was also floated off a four foot high porch and disappeared completely. One farm on SH 207 near Spray lost 1100 bales of hay which were down the road. During the flash flooding, the business section of Spray was inundated and water poured into the basements of homes, the school and a church. Crop damage totaled about 10 percent of the \$250,000 loss from the flooding.
Klamath Falls, Klamath County	5	About 2:10p	Short	Narrow	0	1	5	0			Wind
											Strong isolated wind gusts during the afternoon thunderstorm activity toppled a double ferris wheel on top of a truck and trailer at the West Coast Shows carnival operating in the city during the Fourth of July weekend. An employee standing nearby was injured when she was blown against a car ride in an amusement device. Strong wind blew the roof off a nearby golf range near South Sixth Street. The roof sailed over two rows of cars and damaged three parked vehicles. A boat also blew off the roof of Tackle and Saw Shop in the 600 block of East Main Street and damaged a nearby car. The wind blew the roof from a trailer home in the 3700 block of Shasta Way. Lightning caused minor damage to two homes in the City. The Weather Bureau Office at the Municipal Airport reported strongest gusts of 30 miles per hour at 2:33p.m. and blowing from the south-southwest.
Rome near, Malheur County	28-29	Noon 28th -5:00a 29th	3	*3	0	0	?	?			Electrical
											A lightning-sparked range fire burned across approximately 4,000 acres of grass and brush land in the Jackies Butte area, located eight miles south of Rome. Moderate southerly winds associated with a cold front approaching the area from the west made the task of halting the fire more difficult. Retardant drops by airplanes permitted safe removal of cattle from the fire path.
Baker, Baker County	28	12:30-1:15p	10	*6	0	0	2	4			Rain and Hail
											An intense thunderstorm moved eastward across the southern two-thirds of the Baker valley. Intense rain totaled .35 inch at Baker and .81 inch at the Baker Airport and fell within a 10 to 15 minute period. In Baker, hailstones ranged from 1/2- to 3/4-inch size and varied from white round balls to angular chunks of clear ice. Hail was reported to be piled six inches deep along one fence after the storm. About 900 acres of potatoes, barley, grain and peas were damaged. One 130-acre potato field received
Oregon (continued)											
Pacific											a 50 percent loss. Gardens, ornamental shrubs and flowers were damaged in Baker and paint was marred on one home in the Cedar Acres area. Hail loss was estimated at \$25,000.
Kwajalein Atoll, Marshall Islands	25	6:53 p.-6:59 p.	?	?	0	0	0	0			Waterspout
											Waterspout moving westward 14 miles an hour sighted about 4 1/2 miles east of Weather Bureau station. Funnel dipped out of "very dark" towering cumulus (tops 21 thousand feet) and next to shower area, touched ocean for few minutes, then retracted slowly into cloud base. Scattered cumulus clouds, bases 1400 feet, surface winds east-northeast 7 miles an hour.
Pennsylvania											
York County	2	Afternoon			0	0	5	3			Lightning
											In Red Lion a three-story building was damaged by fire after lightning struck about 4:30 PM. Lightning hit a home in York RD 2, west of Spry at 2:30 PM, damaging the electrical fuse box. In Eppers RD 2, about a mile and one-half north of Newberrytown, lightning struck a barn. The ensuing fire destroyed the 120-year-old barn and damaged two other properties nearby. Lost in the blaze was a tractor, baler, 70 tons of hay and straw and an undetermined number of farm tools and equipment. In Dover some smoke and water damage resulted to the top floor of a sandblasting firm. Near Weigelstown \$1,000 damage resulted when a bolt of lightning hit a garage and storage area.
Lancaster County	2	3:15 PM EDT	1/2 mile wide 1 mile long		0	0	5	4			Tornado
											A thunderstorm developed in the Elizabethtown area and tracked southeastward. Between Columbia and Mountville it turned south. A tornado spawned by the thunderstorm hit Washington Boro at 3:15 PM EDT. The storm then touched into the Creswell area where straight wind damage was experienced. In its path it snapped power lines, damaged roofs and tossed anchored boats ashore along the Susquehanna River. In Washington Boro a tree fell on a parked car, the roof of a church was damaged, a camping trailer was upset, and several metal tool sheds were blown down. At Long Level high winds loosened boats from their anchorage, ripped shingles from the roofs of cottages and numerous trees and power lines were blown down. At Creswell, south of Washington Boro, trees were toppled and corn flattened.
Columbia, Luzerne & Montgomery Counties	1-2	Night			0	0	4	0			Lightning
											In Pottstown lightning blew a hole in the roof of a house, starting a fire in the insulation between the walls. Damage was estimated to be in the thousands of dollars. Considerable damage was caused by a bolt of lightning in Coaxville when it hit a house and followed the wiring into the television set, shattering the picture tube and setting the set afire. At 1:30 lightning struck the roof of a two-family dwelling in Hazleton. There was no fire. A Bloomsburg R.D. 5 home was badly damaged by fire apparently caused by a bolt of lightning. Damage was estimated at \$3,000. The Benton-Millville area was without electricity; the substation of the light company at Rohrsburg was hit by lightning.
Lawrence County	3	Early morning			0	0	4	0			Wind
											Tornado-like winds smashed through an area along McGary Road in Meshanock Township in New Castle about 6 AM and downed well-established trees as well as telephone lines.
Lebanon County	3	Evening			0	0	4	0			Wind, rain
											In Jonestown winds lifted a 25 by 16 foot section of roof off a garage and tore a slate roof from a nearby house.
Luzerne County	4	5 PM			0	0	2	0			Wind
											A strong gust of wind damaged a patio roof severely in Hughestown.
Schuylkill County	8	5:02 PM			0	0	3	0			Lightning
											Lightning struck in the New Ringgold area and in the Glenn Dover and Buck Run sections causing interruptions of electrical service to 1100 customers.
Southeastern Pennsylvania	9-10				2	1	5	5			Rain, lightning wind
											Portions of Cumberland County were inundated during the night and early morning. Streets, basements and all low lying areas were effected, especially Mt. Holly Springs. In some places the force of the water washed away pavement. Some foundations of homes were reported badly damaged by the flood water. A food plant at Peach Glen was flooded causing much damage to the offices and plant. In Biglerville damage was set at \$5,000 when a basement wall of a home collapsed under the pressure of the rain water. Firemen were called to pump out numerous basements throughout the area. A Waynesboro woman received hospital treatment for injuries inflicted in the flooding of a car. At 7:15 PM in Robesonia R.D. 1, Berks County, lightning destroyed a potato chip plant with damage estimated at \$10,000. Furnace Creek washed out roads, flooded lowlands and yards. Extensive power failures were reported in Boyertown, Wyomissing, Reading and Ephrata. Lightning struck the

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JULY 1970

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					KILLED	INJURED	PROPERTY	CROPS	

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

Pennsylvania (continued)										
										bell tower of a church in Ephrata; damage was estimated at \$10,000. In the Denver-Ephrata area water seeped into city homes when storm sewers were unable to handle the large volume of rain. Water covered the Denver Park; picnic tables were floating over the baseball diamond. On Business Route 15 north of Emmitsburg in Lancaster County flood waters swept a car from the road and turned it on its top. A bridge was washed out between Mount Airy and Schoenack. All three bridges over the Cocalico at Denver were flooded from 8 PM to about midnight. In Elizabethtown fire believed to have been started by lightning destroyed a warehouse. Damage to the building was estimated at \$18,000; to the stock of artificial flowers and small appliances at \$40,000; and to the stored potatoes at \$4,000. At Hickory Run, about three miles northwest of Denver, three camping trailers were flooded and the road to the camping grounds washed out. Lancaster reported a sewer cave-in due to the rain. The Quitapahila Creek became a raging torrent on the evening of the 10th and two Lebanon boys drowned in the creek. Lebanon County reported serious localized flooding, especially in Cleona and Annville. In Palmyra at least three house foundations crumbled under the pressure of the excessive downpours. The light, water, and telephone companies in that county reported extensive trouble throughout. Damage was set at \$3,000 when the cellar walls of a house collapsed one and a half miles south of Campbeltown on route 117. In Hershey, Dauphin County firemen had to pump water from basements; sink-holes were reported on several streets. In Columbia County the rainfall ranged from 1.85 inches to 7 inches in the Rothsville area. Most of the county's streams overflowed their banks, flooding the lower areas and also flattened shrubbery, flowers, and vegetable crops in gardens. A barn fire was reported near Ravlinsville and power failures caused by lightning and accompanied by high winds. Power failures delayed about 5,000 passengers between Doylestown and Philadelphia. Franklin County closed highway 23 temporarily and reported numerous basements flooded. In Hellertown, Northampton County high winds ripped a 72 x 24 foot strip of roof from a lumber shed, toppled trees and walls, and damaged parked cars in the process. In Schnecksville a barn containing large quantities of hay and straw was hit by lightning. Damage was estimated at \$25,000. At Letort a gasoline pump was damaged by fire, apparently set off by lightning. In York about 700 customers were without telephone service as of 8:30 PM.
Warren County	15	Early morning			0	1	0	0	Lightning	A man camping in the Hooks Brooks camping area near Warren was struck by lightning and paralyzed.
Erie County	15	1 PM EDT	500 wide 1/2 mile long		0	0	4	0	Tornado	A tornado struck the farm of Mr. Korman Taylor located 7 miles west of Albion, Pa. on Route 226 in southeastern Erie County. The storm broke several tree tops, moved eastward across an open field, then demolished 3 substantial farm buildings, causing damage in excess of \$15,000. The roofs of all 3 buildings had been lifted off and the walls had buckled outward. Two of the buildings had been twisted off their foundations. Heavy rain accompanied the storm. None were injured and no funnel was actually sighted.
Erie County	15	Afternoon			1	1	5	4	Rain, lightning, wind	Early afternoon, a 10-year-old boy drowned in Walnut Creek near the Cherry St. Extension in Erie, as he was swinging from a rope across the raging waters. At 2:20 PM a 15-year-old boy was critically injured as he jumped into a drainage ditch near Walnut Creek to rescue his pet dog. Millcreek reported many flooded cellars and Presque Isle State Park had several downed trees. On Interstate Route 90 the flooded underpass on Route 97 was closed to traffic from 3 PM to 6 PM. Damage to crops, mostly fruit still on the trees, was moderate. Erie firemen answered at least 20 calls during a one-period in the early afternoon, mostly from lightning started fires and flooded basements. The most damaging fires resulted in losses of \$7,000 and \$4,000. The local utility companies were busy making minor repairs throughout the day and night. In some cellars the water was as deep as 6 feet.
Pittsburgh	15	Afternoon			0	0	4	0	Lightning	Afternoon storms resulted in temporary power failures in Trafford, Monroeville, Wilmerding, Verona, and the Brighton Road area. A Munhall apartment building was set afire by lightning about 4 PM, leaving the second and third floors of the three-story frame building extensively damaged.
Franklin County	15	Afternoon			0	0	4	4	Rain, wind, lightning	Farmers suffered some damage as a result of the rain and wind. A number of roads were washed out and numerous trees and limbs downed. The radio system of the district was out of service after being struck by lightning. Near Chambersburg two large limbs fell onto a new corn crib and wind caused some minor damage at neighboring farms.
Washington County	15	Afternoon			0	0	3	0	Wind	During a thunderstorm several trees were felled in the Washington district. At West Middletown a car was struck by a fallen tree.
Westmoreland County	15	Late afternoon and evening			0	0	3	0	Wind, lightning	At Monessen lightning and wind damage occurred during two thunder-

Pennsylvania (continued)										
										storms which happened around 4:30 PM and shortly after midnight. Overall damage was minor.
Delaware County	15	Evening			0	0	3	0	Lightning	Lightning was the cause of a fire at a Concord home. Damage was slight. There were scattered reports of power failure in the western part of the county.
Warren County	15	Shortly after 4 PM	500 ft. wide 1 mile long		0	0	4	0	Tornado	A tornado touched down for 2 minutes along Route 6 just west of Youngsville and then down Main Street. In its path trees were uprooted and several large limbs were broken off, one of which flattened the hood of a car. In at least two instances damage to buildings occurred. A utility pole was snapped off and television cable installations ripped from homes. The front room of a home was flooded by the wind-blown downpour and trees fell over a home causing extensive damage.
York County	15	Evening			0	0	4	0	Rain, wind	Heavy winds and torrential rains tore a metal roof from a large building, disrupted electric service, flooded some roadways and swapped countless basements in Hanover. The airborne roof downed a 4,800-volt power line and shattered a 13,000-volt line also. Tree damage occurred throughout the county.
Adams County	15	Evening			0	0	4	4	Wind, rain, hail, lightning	Rainfall brought new flooding to basements in the Cashtown, McSherrystown, Fairfield, Gettysburg, Kingsdale and Midway areas. Lightning caused "scattered damage to the electric power lines." The roof of the Gettysburg School District administration building along the Biglerville Road was damaged. Wind ripped off slates from the roof and lightning split two rafters. There was water damage to at least one office. In Hummasburg winds ripped out six large trees within a quarter-mile radius. One of the trees demolished a new car in its fall. Reports from Orrtanna indicated hail as big as marbles, causing further damage to the fruit crop.
Danville, Montour Counties	15	Evening			0	0	4	0	Wind	A thunderstorm which developed over Milton, traveled in the direction of Mooresburg along Route 642 and then moved off in the direction of the Keystone Shortway destroying a barn and several small outbuildings as well as inflicting damage on a home. A woman observed a funnel approaching from a hilltop. A sliver of wood no bigger than the shaft of an arrow was hurled through the air and poked one wall of a garage, a boat was moved several hundred feet, a mobile home overturned at the exit of Route 80, and two cars were slightly damaged from fallen branches. Damage was in evidence throughout an area between Montandon, Washingtonville and Jerseytown.
Wilkes-Barre, Luzerne Counties	15-16				0	0	4	0	Rain, lightning	Some minor flooding occurred in the area and lightning struck a main electrical cable line of a gas company in the Wyoming area.
Blair County	19	Late afternoon			5	4	0	0	Wind and rain	Five persons received minor lacerations when a large window at a food service stand blew inward. Damage was estimated at about \$700. There were several reports of blown out picture windows in the area between Altoona-Blair County Airport and Williamsburg from McKee to the southern limits of Martinsburg. In Roaring Spring some trees were uprooted and a few basements flooded.
Lebanon County	20	Afternoon			0	0	4	0	Lightning, wind	In Myerstown lightning caused a fire at the Myerstown Hide and Tallow Co. which resulted in several thousand dollars damage. At a nearby farm a cow had to be destroyed after it was hit by a falling tree. Reports of trees and shrubs snapped at the trunk were numerous. A traffic tie-up resulted when several poles were blown over on Route 422 between Annville and Cleona. The electric company estimated its damages at \$7,000 and the telephone company at \$10,000.
Luzerne, Northampton, Montgomery Berks Counties	20	Late afternoon and evening			0	0	5	4	Wind, rain, lightning	At a home in Plymouth lightning apparently struck an outside gas tank causing a kitchen fire with damage estimated at \$1,500. In the Easton area electrical disruptions, minor flooding and some mud slides were reported. In Allentown lightning struck a fuse leaving the entire area in darkness. Damages amounting to \$500 occurred in a skidding accident near Bethlehem. In the Quaker-town area trees were uprooted, electric and telephone service disrupted, a store window at a Quakerdown Shopping Center was blown in, and the entrance sign at route 309 pushed over. Across from the shopping center the marquee of the Starlite Drive-In was shattered and the movie screen knocked full of holes. At a farm on West End Blvd. three-fourth of a barn roof was blown away. In Landale, lightning set fire to a house causing an estimated

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1970

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS				ESTIMATED DAMAGE	CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS		
Pennsylvania (continued)										
			\$3,000 damage. Small rock slides occurred on Route 209 at the Jim Thorpe Bridge and on Route 895 near Andreas. Tamaqua reported minor flooding of basements in a number of stores and homes. Northampton County was partially covered with dirt and mud from runoff. In the Perkiomen Valley in Montgomery County dozens of trees were uprooted in a path about 50 yards long within Lower Frederick and Upper Salford Townships. At Lenhartsville on old Route 22 winds unroofed a barn damaging a grain loader and the telephone cable in its fall.							
Armstrong County	24	3:55 PM			1	2	0	0		Lightning
			Lightning killed one teenage boy and injured two others on the VanDergrift Golf Course.							
Philadelphia County	26	Afternoon			0	0	4	0		Wind, rain
			A thunderstorm gusts felled trees, broke windows and flooded streets in the Philadelphia area. One tree fell onto a house and another one damaged two parked vehicles.							
Cambria County	27	5:10 PM			0	0	3	0		Lightning
			Lightning caused minor damage to the Lily town clock and knocked some bricks from the chimney of a Portage home.							
Westmoreland, Washington, Somerset and Bedford Counties	28	Afternoon			0	0	4	3		Lightning
			During a thunderstorm lightning struck transformers and a house chimney in Ligonier. The blackout lasted for about 2 1/2 hours and damage to the house was estimated at \$200. Lightning struck a barn near Bealsville around 4:30 PM, the resulting flames scarred the side of the barn and destroyed three bales of hay. In Jerome lightning started a fire in a house causing an estimated \$5,000 damage. In Bedford flooding occurred when Texas Run overflowed, with the most severe damage in the Poorhouse area.							
Crawford County	29	Afternoon			0	0	3	0		Lightning
			Lightning struck a television antenna at 4:02 and went into a home in Frenchtown causing damage to the television and wiring.							
Delaware County	29	1:30 - 3:10 PM EDT			0	1	4	0		Lightning, rain
			Lightning struck a branch bank in Springfield and a church steeple in Chester. A Springfield man was injured as the result of an accident at the intersection of State and Sprout Roads where the traffic light was out of operation. Flash flooding occurred at various low-lying points.							
Luzerne County	29	1:50 PM			0	0	4	0		Lightning
			A bolt of lightning struck the roof of a home in Hazleton, igniting rafters and a mattress in the attic. Considerable smoke damage was reported.							
Schuylkill County	29	Afternoon			0	0	4	4		Lightning
			A bolt of lightning started a fire in a barn at Still Creek, destroying the structure and its contents. A barn at a farm near Andreas was slightly damaged after lightning hit it.							
Franklin County	29	Afternoon			0	1	4	0		Wind, rain, lightning
			At Waynesboro a man was treated for cuts suffered when lightning struck his home. In Center Square much damage resulted at a department store when rain seeped from a skylight area and penetrated a false ceiling. At another building a large plate glass show window was blown in by the force of a gust of wind. Dozens of cellars were flooded and tree limbs and branches cluttered streets and lawns in some open sections of southern Franklin County. Some 4,000 customers were without electricity and about 213 telephone lines were out of service.							
Montgomery County	29	Day			0	0	3	0		Lightning
			There were reports of lightning hitting several places but damage was minimal.							
Leigh County	29	Day			0	0	4	4		Lightning
			A two-story frame barn near Fogelsville was heavily damaged after lightning ignited grain and feed stored there.							
Lawrence County	29	Evening			0	0	4	0		Lightning, wind, rain
			Lightning caused an estimated damage of \$4,000 to a house in Slippery Rock. At another home lightning caused \$100 damage. Rainwater pushed dirt and rocks onto many streets and there were some downed trees.							
Huntingdon County	29	Evening			0	0	4	0		Lightning
			At 8:30 PM a barn 10 1/2 miles north of Huntingdon along Route 26 was struck by lightning causing estimated damages of \$5,000.							
Blair County	29	Evening			0	0	3	4		Wind, lightning
Pennsylvania (continued)										
			Several trees and some crops were damaged by wind during a thunderstorm in the Martinsburg area. Lightning damaged some cables, interrupting power lines to about 200 customers.							
Mercer County	30	Evening			0	1	4	4		Wind
			A trailer home near Grove City was lifted 10 feet off the ground by strong winds and then turned over. The trailer and contents were considered a total loss, amounting to \$3,500. The occupant received minor injuries. The roof of a nearby house had several holes punched in it, sections of the rain spouting torn loose, and windows broken. Some trees were also damaged. At another house the awning was destroyed and a bulldozer damaged. Adjacent grain fields were flattened.							
Lawrence, Beaver, and Warren Counties	31	Evening			0	1	4	4		Rain, lightning
			Much of Lawrence County was inundated by heavy rains, lifting blacktop, washing out dirt roads, and flooding old U.S. 224 at the Harbor Road intersection. In Mahoningtown \$300 damages resulted when lightning struck an antenna setting a television set afire. In Beaver Falls a boy was struck by a car during heavy rainfall and received minor injuries. In New Sewickley at the intersection on Routes 98B and 956 lightning struck a house causing minor damage. Traffic lights were out at various locations. Warren County reported scattered power interruptions. In Tarentum a portable television set was burned after lightning struck it with damages estimated at \$500. The New Kensington police received over 100 calls of storm damage. In one instance lightning struck a garage used to house automobiles and store furniture.							
Southeastern quarter	31	Evening			0	2	5	4		Rain, lightning
			A part of Tuberville in Northumberland County experienced flooding of roads. Sewers backed up in some sections of Montgomery, flooding basements of homes and factories. Damage was reported in the basement of Montgomery Mills when water backed up and some homes reported as much as six inches of water in basements. A section of Route 54 was under water as was Route 147 northwest of Turbotville. There were reports of damage to berms and drain tiles. Some telephone lines were out of order and some crop damage was reported. Berwick reported disruption of power lines when at least one utility pole was struck by lightning. Columbia was without electricity from 9:40 PM till 10:45 PM. In Maytown an estimated \$2,000 damage occurred when lightning struck the roof of a house. Other areas affected by the power failure included Marietta, Florin, Mount Joy, Rheems, Neffsville, Elizabethtown and points along Route 30 east of Lancaster. A barn was destroyed at Narvon. Damage was estimated at \$30,000. Some traffic accidents were attributed to the rain and flooding was reported in many areas. Two fires in Elizabethtown which were started by lightning caused an estimated damage of \$200. In Franklin County lightning set two barns afire. One in St. Thomas was destroyed along with large quantities of hay and straw at 5:50 PM and the other at New Franklin at 6:40 PM. Two firemen had to be treated for burns, one for burns of the eyes and the other of the chest. Franklin County experienced much flashflooding as did the Hershey-Hummelstown area.							
Puerto Rico										
Aguada	9	afternoon			0	0	4	0		Wind, Rain
			A local wind squall struck the Rio Grande Barrio during the afternoon damaging houses, power lines and crops. About ten homes suffered damage to their roofs, balconies and sanitary facilities. Power lines were blown down. Minor crops and new plantings were damaged on several farms.							
Rhode Island										
South Carolina										
Georgetown County	2	Evening			0	0	4	0		Lightning
			Lightning struck a 460 ft. tower of the cablevision system in the city of Georgetown, blowing about 200 fuses and damaging the system severely. Other lightning strikes did considerable damage to the city's fuses, transformers and water pumps.							
North Spartanburg County and Cherokee County										
	3	4:00 to 7:00 p.			0	1	4	0		Thunderstorms with high winds
			Thunderstorms with rain, hail and damaging winds struck in several localities. Wind damage at about 4 p.m. in the Grassy Pond community about 5 miles north of Gaffney included a few small farm buildings and sheds demolished. In the city of Gaffney between 6 and 7 p.m., winds felled trees, downed power lines, broke windows in downtown stores and did other minor damage. At about 6:30 p.m. just southwest of Baling Springs (about 6 miles north of Spartanburg) a house trailer was blown over and suffered extensive damage. A woman occupant of the trailer was only slightly injured. Other damage was done to trees, a peach orchard and a chimney.							
Chester County	3	6:00 p.			0	0	4	0		Thunderstorm with high winds
			Strong winds struck a small area near Lowrys about 7 miles north of Chester. A large barn was demolished and due to the weight of several tons of hay in the loft, the upper part dropped straight down, killing two cows and injuring several others. Another building lost its roof and a house trailer was moved but not turned over.							

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1970

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	
South Carolina (continued)									
Aiken County	3	4:00 to 7:00 p.			0	2	4	0	Thunderstorms, high winds, hail
									High winds demolished a house trailer near Aiken about 4 p.m. A woman and her nine year old daughter were in the trailer and had to be extricated by a law officer. They were taken to a hospital for treatment but were apparently not injured seriously. At about 7 p.m. a hailstorm struck Aiken with stones as large as golfballs. Some roofs were damaged by the hail and it knocked tree limbs onto power lines. Some limbs and live power lines blocked a few roads for a short period of time. The roof of a county owned building was damaged extensively.
Greenwood County	4	4:30 p.			1	0	0	0	Lightning
									A woman was struck by lightning as she got out of her car at her home in Greenwood. She was dead on arrival at a hospital a few minutes later.
York County	4	5:00 p.			0	0	4	2	Thunderstorm with high winds, rain
									A variety of damage was caused by high winds in and a few miles east of the town of Clover in northern York county. Several house trailers in a trailer park suffered minor to extensive damage, some by trees which were blown down and fell on them. Minor roof damage was widespread and many TV antennae were damaged or demolished. Power was disrupted in the eastern part of Clover for two hours. Some crop damage was reported, principally to corn.
Spartanburg County	8	4:45 p.			0	0	5	0	Thunderstorm with high winds, rain, hail
									High winds struck the sales lots of two mobile home dealers in Spartanburg. At one location, five new mobile homes were destroyed and others damaged. At the other location, two mobile homes were badly damaged. The office of a state senator was badly damaged and a nearby storage building was deroofed.
Orangeburg County	8	Afternoon			0	0	4	0	Lightning
									A fire caused by lightning destroyed the upper floor of a large Orangeburg home. The first floor was damaged extensively by water used to put out the fire.
Horry County and Georgetown County	15 & 16				0	0	0	5	Thunderstorms, hail wind, rain
									Hail, wind and rain caused spotty but extensive damage to the tobacco crop in Horry and northeastern Georgetown counties over a two-day period. On the 16th, high winds in a thunderstorm knocked over a giant slide and overturned three small house trailers at Sherwood Forest campground in North Myrtle Beach.
Newberry County	16				0	0	3	1	Thunderstorm with high winds, hail
									A rural home near Jalapa had a small barn demolished by high winds. Several trees were uprooted and some broken off. Hail covered the ground for a short time. The largest hailstones were a little smaller than a golfball.
Bamberg County	16	5:00 p.			0	0	4	0	Lightning
									Lightning struck and set fire to two buildings in the town of Denmark. One, a double structure of house and store was completely destroyed. The other was a house and it was partially damaged.
Darlington County	16	Evening			0	0	4	0	Thunderstorms with high winds
									High winds struck the Syracuse community area about 7 miles southwest of Darlington. Some pine trees were bent to the ground, others uprooted as they fell over. Several roofs were damaged. A tobacco barn was demolished, a porch torn off and a trailer was moved to a new site by the strong winds.
Aiken County	22	8:00 p.			0	0	4	0	Windstorm, rain-storm
									Two large sheds were flattened by high winds which struck the property of a manufacturer of prefabricated homes on U.S. Highway 78 at the southeastern edge of Aiken county. An unoccupied two room home lost two of its walls, the rest of it remaining standing. Some damage was done to a home in the same area. Torrential rains were falling at the time of the wind damage.
Charleston County	25	5:00 p.			0	0	0	0	Waterspout
									A waterspout touched down briefly 3 miles west of Charleston but did no damage.
Darlington County	28	Afternoon			0	0	0	4	Thunderstorms with high winds, hail, rain
									Tobacco fields in an area about 5 miles northeast of Darlington were pelted by marble-sized hail which was driven by high winds. Some 150 to 200 acres of tobacco was damaged extensively on fields belonging to 15 to 20 different farmers. Some damage was done also to cotton and soybeans.

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	
South Carolina (continued)									
Horry County	28	3:30 p.			0	3	0	0	Lightning
									A thunderstorm with considerable lightning struck the Surfside Beach area a few miles south of Myrtle Beach. It knocked out most of the water pumping equipment and caused a two day water shortage. Two lifeguards were struck by lightning or shocked by the excessive static electricity but neither was seriously injured. Another lifeguard, off duty and in his room, was struck or shocked by lightning which apparently entered through a window. He was hospitalized for four days but apparently recovered completely.
South Dakota									
Near Hudson, Lincoln County	1	5:30 - 5:45 p	?	?	0	0	4	0	Tornado
									The tornado moved from NW to SE damaging several farmsteads.
Parker, Beresford, Hudson area, Lincoln and eastern Turner Counties	1	5:30 - 6:00 p	35	4400	0	0	4	5	Hail and wind
									Hail averaging 1 inch with largest to 3 inches caused up to 100% crop damage over a spotty path about 35 miles long and 2 to 3 miles wide.
6SE Hudson, Lincoln Co	1	6:00 p							Funnel cloud aloft
Deuel County	1	6:15 - 9:00 p	20	*1 1/2- 3	0	0	4	6	Hail and wind
									Hail averaging 1 inch with largest to 3 inches and wind caused intermittent heavy damage to crops and some buildings along a path from SW corner of county to NE corner.
5N Groton, Brown County	6	Late	?	?	0	0	0	4	Hail and locally heavy rain
									Hail of undetermined size caused up to 100% crop damage in a local area. Unofficial rainfall of 5 1/2 inches reported.
Davison, Hanson, Hutchinson, McCook, Turner, Clay, Lincoln, Minnehaha, Yankton and Union Counties	14	About 12:00 - 4:00 p			1	2	7	7	Tornado, funnel aloft, hail and wind
									A line of severe thunderstorms moved across the area from NW to SE with strong winds and large hail. The hail averaging 1 to 2 inches with largest to 5 inches caused widespread crop damage and considerable damage to buildings and automobiles. The largest hail was in the Marion and Parker area. There were many automobiles in this area that had an average body damage by the large hail of about \$300 each. The large hail went through a 3/4 inch plywood roof in Marion. Apparently the most extensive damage from this storm was along a broad band from Mitchell through Parker and Beresford. Spotty areas reported up to 100% crop damage by the hail. Numerous windows were broken and roofs damaged. The hail caused an estimated \$1,000,000 crop damage and \$75,000 property damage in Turner County. In Lincoln County, the hail caused an estimated \$8,000,000 crop damage and \$2,000,000 property damage. A tornado 6 miles north of Beresford on Interstate 29 picked up a pickup truck totally wrecking it, fatally injuring the driver and a passenger at 2:30 p.m. A funnel cloud aloft was sighted at 12:15 p.m. 6 miles SW of Mitchell. A farmer was hospitalized with injuries when high winds blew him from a haystack near Yankton at about 2:40 p.m. Gusts of 70 MPH were reported at the Yankton airport at 2:30 p.m.
Near Clear Lake, Deuel County	14	2:15 - 2:45 p	4	*2	0	0	3	5	Hail
									Hail up to 3 inches caused extensive damage to crops in area. Storm moved from SW to NE.
Tyndall-Scotland area, Bon Homme County	17	7:00 - 10:00 p	40	*15	0	0	4	5	Wind and hail
									Hail from pea to marble size accompanied by strong winds damaged crops in portions of area. Wind caused damage to buildings on several farmsteads and considerable damage to trees.
40N Pierre, Hughes County	18	2:10 p			0	0	4	0	Tornado and funnel cloud aloft
									Two funnel clouds were sighted, one touched down briefly destroying a mobile home at Swift Bird Training Center. A houseboat anchored nearby was tipped over by the storm with 8 people aboard but they escaped serious injury.
40NE Pierre, Hughes County	18	2:10 p			0	0	0	0	Tornado
									Apparently tornado touched down in open country with no reported damage.
Near Watertown, Codington County	18	3:50 p			0	0	0	0	Hail
									Hail from pea size up to 1 3/4 inch fell but no damage reported.
Near Huron, Beadle County	18	About 4:30 p							2 Funnel clouds aloft
Near Castle Rock, Butte County	21	Night			0	0	4	0	Lightning
									Lightning struck a rural schoolhouse. It was full of grain and fertilizer and burned to the ground.
Day, Grant, Marshall and Roberts Counties	26	About 4:00 - 6:00 p			0	0	5	4	Wind and hail

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					KILLED	INJURED	PROPERTY	CROPS	
South Dakota (continued)									
75E Rosholt, Roberts County	29	5:00 - 6:00 p	7	*3	0	0	?	?	Hail and funnel cloud aloft
		Damaging winds occurred in the area with the greatest damage reported at Milbank and Enemy Swim Lake. Two hangars were destroyed and 2 airplanes were damaged at the Milbank airport. Wind gusts of up to 100 MPH were reported at the Milbank airport at about 4:30 p.m. Hail caused spotty damage to crops in area. A number of boats were swamped and damaged on Enemy Swim Lake.							
15S Selby, Walworth County	29	5:10 p			0	0	4	0	Tornado
		Hail from 1/4 to 1 1/4 inches caused undetermined damage to crops in area. Exact time of funnel cloud sighting not reported.							
30SE Watertown, Deuel County	29	5:15 p			0	0	0	0	Tornado
		The tornado destroyed a grain bin and a pole barn.							
Eastern half S. D., Harding, Perkins and Corson Counties	30	About 3:30 - 10:00 p			0	0	5	6	Severe thunderstorms with hail, wind and 4 funnel clouds
		Tornado apparently touched down in open country with no reported damage.							
		Up to golfball size hail was reported in a 5 mile square area near Onaka causing an estimated \$50,000 damage to crops at about 3:30 p.m. Hail up to 2 inches caused extensive damage to crops in an area 20 miles long and 5 miles wide north of Eureka and also in an area 10 miles long and 3 miles wide south of Eureka. Spotty areas received damage to buildings from hail and wind. Funnel clouds aloft were reported as follows: Two-BSE Forestburg at 6:53 p.m., one-SW Yankton at 7:11 p.m. and one-BWSW Sioux Falls at 8:50 p.m. Hail up to baseball size destroyed thousands of acres of wheat that was ready to harvest, corn and feed crops in the northwest counties. Cloud seeding to suppress hail was being conducted in the area during the storm.							
Tennessee									
Bristol, Sullivan County	2	8:30 pm			0	2	0	0	Lightning
		Two Bristol youths reported hospitalized after lightning struck at Virginia Intermont College.							
State	3-4				1	0	4	0	Wind, lightning, funnel aloft
		Locally severe thunderstorms. Damage mostly confined to broken tree limbs and power lines. Police sighted funnel cloud two miles north of Fairview in Williamson County on the 3rd. The body of Seth Fields was found presumably drowned in capsized fishing boat following a thunderstorm on Reelfoot Lake in Lake County.							
Clarksville, Montgomery County	3	6:50pm			0	1	4	0	Tornado
		A funnel-shaped cloud was observed to dip down briefly ten miles west of Clarksville. One person was injured in an overturned mobile home. Several trees had limbs torn away by the twister. Property damage was estimated at \$5,000.							
Old Hickory Lake, Davidson County	3	8:00-9:00p			4	2	5	0	Wind, lightning
		Four persons, O. A. Maddux, 56, Thomas J. McEen, Jr., 20, Harold W. Hamntree, Jr., 20, and his brother, Bill Hamntree, 16, were drowned when their 47-foot cabin cruiser capsized on Old Hickory Lake during a violent thunderstorm. Four other persons managed to cling to the boat until rescued. Considered to be the worst boating tragedy on the lake, the survivors told of the deck being lashed by high waves just before the boat capsized. Across Old Hickory Lake on the north shore, winds overturned and severely damaged five mobile homes at Driftwood Trailer Park in Hendersonville.							
Memphis, Shelby County	20	3:00a.m			0	0	4	0	Lightning
		Lightning probably cause of fire to house.							
Shelbyville, Bedford County	22	p.m.			1	0	0	0	Lightning
		Lightning which struck house, killed a 17-year old girl as she answered the telephone.							
Rockwood, Roane County	22	p.m.			0	0	3	0	Lightning
		Lightning set fire destroyed barn of Clyde Thurman near Rockwood.							
Coffee County	22	5:00p.m.			0	0	4	0	Wind, lightning
		Severe thunderstorms caused considerable damage in different parts of the county. Roofs were damaged, trees uprooted, cornfields leveled and power lines blown down.							
Memphis, Shelby County	27	3:10p.m.							Funnel aloft
		Small funnel cloud on edge of thunderstorm reported by pilot twenty five miles north of Memphis.							
Greene County	29	p.m.			0	0	4	0	Hail, heavy rains
		Hail damage occurred in the Mohawk and Midway Communities. Largest stones were 3/4"-1", or larger. Heavy rains also damaged crops, washed out gravel roads and eroded fields.							
Tennessee (continued)									
Blount County	29	4:00p.m.			0	0	3	0	Wind
		Strong winds damaged Louisville Boat Dock on Fort Loudon Lake and caused scattered other damage over the county.							
Texas									
West Orange, Orange County	4	4:45 p	Short	Narrow	0	0	3	0	Tornado
		A small tornado struck the 4800 block of Westmore Avenue in West Orange. There was heavy damage to roofs of homes, fences, and trees in the 4800 and 4900 blocks. A metal storage building was ripped off a wooden base and deposited in a tree.							
Baytown, Harris County	4	5:30 p	?	?	0	0	4	0	Windstorm
		High thunderstorm winds knocked down power lines in Baytown and did an estimated \$10,000 damage to a shopping center and other businesses under construction in a four-block area on State Highway 116. Four boats capsized in Lake Houston and half a dozen were swamped along the upper Galveston Bay shore.							
15 NW Austin, Travis County	4	6:00 p - 6:20 p	Short	Narrow	1	4	4	0	Tornado, windstorm
		A small tornado and high thunderstorm winds ripped through resort areas on Lake Travis northwest of Austin, resulting in the death of one person while injuring four others. The Hurst Creek boat dock was reduced to a twisted mass of metal by the storm. Mr. C. Wesley Collier drowned when he and his wife were caught underneath the 100 foot long dock. Although injured, Collier's wife came to the surface and was rescued. Three other persons were injured at the Hurst Creek docks. The storm also hit the Lakeway area, two miles east of the Hurst Creek dock, ripping the roofs off several houses and damaging a dock at the marina. Several persons were injured by flying glass but none required hospitalization. Lirring the height of the storm, an iron pipe was driven through the roof of the Richard Gant lakeside home near the Hurst Creek docks. The pipe dropped into the Gant's living room but injured no one.							
Crosby, Harris County	4	6:25 p	Short	Narrow	0	1	4	0	Tornado
		A small tornado overturned a trailer home, knocked down several utility poles, and damaged the roofs of several houses in the Crosby community in eastern Harris County, near Lake Houston. Mrs. Shirley Stone, who was in the trailer home when the tornado struck, suffered multiple lacerations of the face, and bruises of chest, shoulders, and back.							
15 NE Nederland, Orange County	8	9:26 a							Funnel aloft
Vidor, Orange County	8	5:00 p	?	?	0	0	0	0	Hailstorm
		Hail up to 1 3/4 inches in diameter fell at Vidor in Orange County. No damage was reported.							
10 E Nederland, Orange County	12	5:45 a							Funnel aloft
		Near Bridge City.							
Galveston Bay-Trinity Bay, Galveston and Chambers Counties	12	9:30 a - 10:15 a							2 Waterspouts
		Several waterspouts observed in Galveston Bay-Trinity Bay area. Two funnels aloft observed near Dickinson.							
4 ESE Danbury, Brazoria County	12	11:35 p							Funnel aloft
12 S Nederland, Jefferson County	13	10:45 a - 11:05 a	Short	Narrow	0	0	0	0	Tornado
		A small tornado touched earth briefly near the drawbridge spanning the Intercoastal Canal on U. S. Highway 87. The funnel lifted without causing any damage.							
14 WW Galveston, Galveston County	13	1:25 p							Funnel aloft
10 ENE Palacios, Matagorda County	14	6:25 a							Funnel aloft
SW Galveston, Galveston County	14	8:32a							Waterspout
Brazoria County	14	9:10 a							2 funnels aloft
		Two funnels aloft were sighted in the Lake Jackson-Angleton area of Brazoria County; neither funnel touched earth.							
Jim Wells County	14	11:40 a							Funnel aloft
Near San Benito, Cameron County	15	10:40 a							Funnel aloft
12 W Henderson, Rusk County	20	Night			0	0	4	0	Lightning
		Fire caused by lightning destroyed a large barn on the Miller Farm about 12 miles west of Henderson. In addition to the barn, 1,000 bales of hay, a tractor, a two ton truck loaded with sacks of feed, a feed mill and a variety of tools burned. Total loss was estimated at \$20,000.							

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					KILLED	INJURED	PROPERTY	CROPS	
Texas (continued)									
16 W Houston, Harris County	21	1:13 p							Funnel aloft
3 W Chase Field NAS, Bee County	21	8:10 p							Funnel aloft
16 SE Corpus Christi, Nueces County	22	12:09 p							Funnel aloft
Palestine Anderson County	25	Afternoon	?	?	0	2	?	0	Windstorm
									High thunderstorm winds blew out a large plate glass window at the Meadowbrook Country Club near Palestine. Two women suffered minor cuts. Several trees bordering the club's property were also blown down. Two large trees near the club's entrance were split down the middle and fell across the roadway. A cart shed was damaged.
5 SE San Juan, Hidalgo County	26	11:55 a							Funnel aloft
7 NW Gruver, Hansford County	30	6:40 p							Funnel aloft
Utah									
Monroe Canyon Sevier County	9	4 p.			0	0	5	2	Heavy rains and flooding
									A flash flood resulting from heavy rains above Monroe Canyon caused extensive damage to the local power plant, a culinary water line, about 20,000 dollars damage to the park and highway and flooding of local farmland. Total damage estimated at near 75,000 dollars.
Salt Lake County	21	4:20 p.							Funnel clouds
									A pilot reported 2 funnel clouds, one retracting and one extending about 5 miles south of Riverton. They did not touch the ground.
Weber County	22	8:20 p.							Funnel cloud
									A funnel cloud was observed about 25 miles north of Salt Lake City. It did not appear to touch the ground.
Vermont									
Central and south	12	P.M.			0	0	4	4	Hail, wind, lightning
									Scattered severe thunderstorms. Hail up to 3/4th inch diameter in many localities and up to 1 1/2 inches near Middlebury. Some damage by wind and lightning, with local utility outages.
Central and south	26	P.M.			0	0	4	2	Wind, lightning
									Scattered damage from thunderstorms, with considerable in the Orwell and Bridport area.
Central and south	28	P.M.			0	0	4	2	Lightning, wind, hail
									Scattered instances of mostly minor damage.
U. S. Virgin Islands									
NONE REPORTED									
Virginia									
Fluvanna County	2	4-5:45 p.m.	7	2000	0	0	3	3	Tornado
									Path began in the central plains area then forked Union and along route 6 to Columbia. Many trees were downed with some on buildings. Some trees 2 feet in diameter twisted off. Some minor damage to crops.
Central Virginia	2	Aftn and Evening			0	0	0	C	Wind, Lightning, Hail, Rain
									Areas from the Blue Ridge to east of Richmond were affected by numerous storms. Most of the area was without power for various lengths of time mainly due to lightning strikes and trees on the lines. Many house fires were reported in the Richmond area. The Creke Christian Church was struck by lightning and partially collapsed by high winds. Heavy rain was a contributing factor in dozens of traffic accidents. Some crop damage due to hail occurred in the Ringgold area of Pittsylvania County. Numerous trees were downed with some falling on utility lines, houses and cars.
Pittsylvania County	4	Aftn			0	1	0	C	Wind, Hail
									High winds downed many trees, took the roofs from a stable and three tobacco barns, blew over a mobile home injuring slightly Mrs. Connie Guilliams who was inside. A protective barrier around the old Stonwall Jackson hotel in Danville was demolished by the wind. County-wide utility service was interrupted and some crop damage due to hail occurred in the Sandy Level area.
King William County	9	4 p.m.							Wind
Virginia (continued)									
Warren County	9	About 5 p.m.	Short	25	0	0	3	0	Tornado
									Utility lines and many trees down with some of the trees up to 3 feet in diameter.
Northern Virginia	9,10				0	0	3	0	Rain
									A small tornado destroyed a filtering house to a swimming pool, a fence, two mail boxes and several trees at the Massnutten Camp Forest grounds.
Louisa County	15	Aftn			0	0	0	C	Wind, Hail
									Heavy rain fell over the area with minor damage and a small amount of flooding. Four Mile Run near Washington had water four feet above flood stage with about 200 people being evacuated. A number of streets in Richmond were under water on the 10th. Scattered utility outages were reported and some highways were blocked by high water.
Danville	15	1:30 p.m.							Hail
									Hail one-half to three-quarters inch in diameter reported
Franklin County	19	Aftn			0	0	0	4	Hail
									An estimated 15 farms in the Glade Hill area had crop damage, mainly tobacco due to hail. Farms in the vicinity of Rocky Mount and Burnt Chimney also reported hail damage.
Northern Virginia	20	Aftn			0	0	3	0	Wind
									High wind unroofed a gasoline station and blew down numerous trees. A TWA Jet reported funnel-like clouds in the vicinity of Ashburn.
Shenandoah County	27	Aftn			0	0	4	0	Wind, Rain
									Strong winds near New Market demolished a shed and part of a barn roof, turned over a large truck and a silo, and uprooted a tree onto a dwelling.
Roanoke	29	Aftn			0	0	3	0	Wind, Rain, Lightning
									High winds downed numerous trees, one street signal light, and utility lines. Heavy rain flooded streets and lightning caused seven fires. One large department store had to close due to damage to its electrical system.
Franklin County	29-30				0	0	0	4	Hail
									Crop damage reported due to hail. These hail storms along with hail damage on the 3rd and 4th and the 19th caused the most crop damage in the county since 1962.
Washington									
Benton County	4	8:30 PM	4					4	Hail
									Hailstones up to 1 inch in diameter were reported on the slope of the Rattle Snake Mountains damaging an estimated 1000 acres of wheat.
Benton County	25	4:07 - 4:16 PM							Funnel cloud
									A funnel cloud was observed over the Rattle Snake Mountains, about 9 miles SSW of the Battelle Meteorological Station and 20 miles NNW of Kennewick, Richland and Pasco. Funnel did not reach ground. Severe thunderstorm activity in area. Seven grass fires started by lightning.
Whitman County	27	5 PM						4	Thunderstorm-rain-wind-hail
Pullman area								5	
									A severe thunderstorm, rain and hail in the Pullman and Colfax areas of eastern Whitman county resulted in extensive damage to crops, severe soil erosion, power outages and some damage to other property.
West Virginia									
Quinwood, Greenbrier County	1	early morning			0	0	4	0	Rainstorm
									Flash floods hit the communities of Quinwood and Leslie as 3 to 4 inches of rain fell within about 6 hours. The rain first began falling about 10:30 p.m. June 30 with the first flooding reported about one hour later. About 40 homes and 20 vehicles were damaged by the high waters.
Jaeger, McDowell County	2	evening			3	0	0	0	Thunderstorm
									Three persons, a mother and her two daughters, were electrocuted by a fallen high voltage wire when they got out of their car to investigate their burning tires, which had run over the line.
Morgantown	15	evening			0	2	4	0	Lightning
									Lightning set fire and destroyed a church several miles south of Morgantown. A volunteer fireman from Westover was struck by a "ball of lightning" as he attempted to answer the call from the church. A six-year-old boy was burned the following day in the same area when he climbed a tree and came in contact with a downed high voltage line.
Huntington	21	4 p.m.			1	0	0	0	Lightning
									A fisherman was killed on the West Virginia side of the Ohio River near West 13th Street as he sought shelter from a thunderstorm under a tree about 20 feet from the water's edge.

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1970

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		
West Virginia (continued)										
Beckley	30	6 p.m.			0	0	3	0	Windstorm	High winds preceding a thunderstorm broke a heavy limb off of a tree which crushed the roof of a residence.
Wisconsin										
Western and Central Counties										
	1-2	Night			0	0	5	0	Wind	Strong thunderstorms caused considerable wind damage around Cumberland, Rice Lake, Barron, Cornell, Gillsantop and Pittsville. Funnel clouds aloft sighted at Eau Claire and Alma Center around midnight and near Marshfield at 3 am. Many farm buildings and house trailers damaged. Radio tower blown down on Gary Bluff.
Iron County	2	2 am			0	0	4	0	Lightning	Lightning fire destroys home south of Hurley.
Sheboygan County	2	4 am			0	0	4	0	Wind	Minor wind damage in Plymouth area.
Oconto County	3	10:25 a			0	0	0	0	Funnel aloft	Reported by Sheriff near Oconto.
Douglas County	7	4:45 p	5	100	0	0	0	0	Tornado	Tornado moving ESEward out of Minnesota from near the Carlton - Pine County line intersection with the Wisconsin border. No damage except to trees.
Portage County	7	3:00 p	2	100	0	0	4	0	Tornado	Tornado moving ESEward dipped down briefly west of Bancroft and destroyed a machine shed and tore the roof off new school.
Iron, Vilas Counties										
	7	7:00 p	skipping		0	0	5	0	Tornado	Tornado moving ESEward did extensive damage to woods and lake property roughly along line from Winchester through Boulder Junction to Conover.
Barron County	7	6:30 p			0	0	0	4	Hail	Egg sized hail fell at Cumberland W.
Marathon County	7	9:00 p			0	0	4	0	Lightning	Large barn with some livestock and machinery and a milkhouse burned on Boths farm near north of Stratford.
Clark County	7	Evening			0	0	4	0	Lightning	Barn and machine shed destroyed by lightning fire on Syth farm near Greenwood.
Vilas County	7	9:00 p			0	0	4	0	Lightning	Garage with snowmobiles destroyed in lightning fire at Land O'Lakes.
Lafayette County	8	12:30 a			0	0	3	0	Lightning	Lightning damages Argyle house and appliances.
Washington County	8	6:30 p			0	0	0	0	Funnel cloud	Pilot report of funnel aloft.
Grant County	13	1:30 p			0	0	4	0	Wind	Trailer home demolished and drive-in damaged in thunderstorm at Hazel Green.
Polk County	14	1:30 a					4	0	Lightning	Barn with machinery on Berg farm at Eureka W burned in lightning fire. Other fire almost simultaneously on Asper farm in Waketon destroyed barn and shed.
Waupaca County	14	12:30 p	short		0	0	4	0	Tornado	Small tornado dipped down briefly tearing doors off factory, flipping over a car and damaging truck and signs at Marion.
Marinette County	14	2:00 p	short		0	0	4	0	Tornado	Small tornado dipped down briefly in McAllister area damaging home and uprooting trees.
Waupaca County	17	5:00 p			0	0	4	0	Wind	Severe thunderstorm destroyed large house trailer, damaged several farms and toppled many trees north of Iola.
Washington County	17	8:00 p			0	0	0	0	Funnel aloft	Reported by pilot.
Pierce County	18	9:00 p			0	0	4	0	Tornado	Small tornado moving SEward destroyed or damaged several farm buildings in El Paso township near Ellsworth 10E.
Barron County	18	9:30 p			0	0	4	0	Funnel cloud aloft	Reported by Sheriff.
Northeast Counties										
	19	pm			0	0	4	0	Wind	Strong northerly winds along the Lake Michigan and Green Bay shore lines cause wave damage to piers and boats.
Bayfield County	26	9:00 p			0	0	4	0	Lightning	Lightning fire destroyed barn on Jarecki farm.
Pierce County	26	11 p			0	0	3	0	Lightning	Six Holstein cows killed by lightning on pasture at Spring Valley 2S.
St. Croix County	27	11:00 a			0	0	4	0	Lightning	Lightning fire destroyed barn on Hurtgen farm in town of Emerald.
Washington and Osaake Counties										
	27	11:50 a	3	100	0	0	0	0	Tornado	Brief touchdown in open fields near Newburg. Moved ENEward.
Dane and Columbia Counties										
	28	7:00 p			0	0	4	0	Wind, funnel aloft	Scattered wind, rain and hail damage mostly in eastern Dane and
See reference notes at end of table.										
Wisconsin (continued)										
Columbia Counties. Funnel aloft sighted near Deerfield.										
Grant County	29	5 am			0	0	4	0	Lightning	Barr on Murley farm near Blue River destroyed by lightning.
Brown County	30	12:05 p			0	0	0	0	Tornado	Brief touchdown in open country 10NW Green Bay.
Southern Counties										
	31	pm			1	0	6	5	Wind, rain, hail	Severe thunderstorms moved into Wisconsin in the Winona and LaCrosse areas early afternoon and continued ESEward just north-east of Madison into Waukesha and Racine Counties by late evening. Wind gusts reached a record of 87 miles per hour at Madison Airport with winds considerably stronger just northeast of Airport where several barns were flattened and half a dozen mobile homes upended. Considerable damage occurred to many oats and tobacco fields. One woman camper killed near Baraboo as tree fell on her. Funnel cloud aloft reported at LaCrosse. Another cell farther south produced 1 inch hail at Appleville in Grant County.
Price	31	pm			1	0	0	0	Lightning	A young Brantwood mother of four, Mrs. Gerald Steinbach, 29, killed instantly when struck by lightning. She had gone to the basement with her children during a severe thunderstorm and was sweeping the floor near a drainpipe when lightning struck her after tearing out a chunk of the concrete foundation.
Wyoming										
NONE REPORTED										
Delaware										
Bridgeville	2	5:30 a.			0	0	3	0	Lightning	Lightning-sparked fire caused considerable damage to a roadside ice cream shop.
Southern portion										
	4	4:30 p.-6:30 p.			0	3	5	0	Wind, rain	Thunderstorms, accompanied by very strong winds and heavy rain, brought damage to scattered areas. Winds struck a trailer park near Lewis, damaging several tents, campers, travel trailers and destroying at least two mobile homes; three persons required hospital treatment. Between 50 and 60 were left homeless but were provided shelter by local civic organizations. It was remembered that last year, on July 3rd, another damaging windstorm struck a seaside camp in Sussex County. At Rehoboth Airport three light airplanes were damaged and a two-seat helicopter overturned. Large, sturdy trees were toppled in the Milford area, damaging houses and automobiles; glass windows in several stores were blown out. Older citizens in Milford said that this was one of the worst storms in year. Three barns were blown down in the Harrington-Farmington area. At Cape Henlopen State Park heavy rain turned camping areas into seas of mud and collapsed many tents.
Sussex and Kent Counties	4	5:30 p.-6:30 p.			0	0	4	0	Lightning	Several fires, caused by lightning strikes, occurred during severe thunderstorms. The most serious fire was at Riddan State Forest where a large state-maintained lodge was destroyed and the surrounding wooded area damaged. Lightning killed a harness horse near Harrington.
Dewey Beach (1 1/2 miles south)	10	1:20 p.			0	0	3	0	Wind	High winds struck down an 81,000-volt power line which pinned down six or seven cars on Delaware Highway 14; fortunately, no one was injured. As the first pole came crashing down, it dragged others down in domino-fashion.
New Castle County	15	9:00 p.-11:00 p.			0	0	3	0	Wind, lightning	Thunderstorm damage included downed trees and utility lines and several houses struck by lightning.
Kansas (continued)										
Cheyenne County	28-29	night of 28-29			0	0	0	4	Hail	Hail damage occurred in scattered areas from north of St. Francis to west of St. Francis southward to the county line.
Hodgeman, Rice, Ellsworth, Rush Counties	31	eve			0	0	4	0	Wind, lightning	Wind damage occurred north and east of Little River, at La Crosse, and 5 1/2 miles southwest of Burdette. Lightning damage was reported about 8 miles east of Holyrood.
Marshall County	31	unknown			0	1	0	0	Lightning	A man was injured at Blue Rapids.

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					KILLED	INJURED	PROPERTY	CROPS	

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

* Miles instead of yards.

† 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 \$5,000,000
- 7 \$5,000,000 to \$50,000,000
- 8 \$50,000,000 to \$500,000,000
- 9 \$500,000,000 to \$5,000,000,000.

Note: This publication contains our best information on storms but, due to the difficulties inherent in collection of this type of data, it is not all-inclusive. Delayed data and corrections will be carried in the June and December issues of this publication.

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