



U.S. DEPARTMENT OF COMMERCE

MAURICE H. STANS, Secretary

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
ENVIRONMENTAL DATA SERVICE

STORM DATA

Volume 11 No. 8

AUGUST 1969

STORM DATA AND UNUSUAL WEATHER PHENOMENA

AUGUST 1969

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									
Colbert and Lawrence Counties	1	Afternoon			0	0	3	4	Hail
		Marble size hail fell from Leighton area eastward into western portion of Lawrence County. About 10,000 acres of farmland hit with damage to cotton, soybeans, corn and pepper.							
Mobile, Mobile County	10	6:25 pm			0	0	3	1	Hail
		Hail, 1 1/2" in diameter, fell briefly about 6 miles east of Bates Field.							
Dauphin Island, Mobile County	10	8:15 pm			0	0	4	0	Hail, wind
		Wind overturned mobile home and damaged marina. Hail up to 1 3/4" in diameter fell. All damage due to wind.							
Loachapoka, Lee County	12	Afternoon			0	0	4	0	Electrical
		Lightning set fire to cotton gin destroying building and equipment.							
Gulf Shores, Baldwin County	14	Afternoon			0	0			Waterspout
		Sighted off shore just west of Gulf Shores.							
Mobile, Mobile County	17	11:45 pm							Funnel
		Four funnels sighted by State Troopers in Mobile vicinity.							
Mobile, Baldwin Counties	17-18	6:00 a.m. through 12 Noon			0	0	6	6	Hurricane
		The center of Hurricane Camille moved in on Mississippi Coast near Waveland. Highest sustained wind at Bates Field in Mobile was 44 mph with gusts to 74 mph. Hurricane force winds on Dauphin Island and along coast of Grand and Portersville Bay. Tides estimated at 10 feet above normal on night 17th-18th. Greatest rainfall about 6 inches from storm. Heaviest property damage on Dauphin Island, immediate coast, and Causeway across Mobile Bay due to tides. Crop damage mainly to pecans, soybeans and corn over entire area. Of property damage 50% due to wind and 50% to tides. Of crop damage 90% due to wind and 10% to rain.							
Mobile County	22	3:10 pm			0	0			Funnel
		Funnel cloud observed by Coast Guard helicopter about 8 miles northwest of Mobile and moving east.							
Spanish Fort, Baldwin County	22	4:15 pm	Short Narrow		0	0	1	1	Tornado
		Tornado dipped down and cut swath through pine trees. Observed by public and reported to have moved east.							
Alaska		No report received by printing deadline							
Arizona									
Sahuarita (near)	1	9:00 p.			0	0	0	0	Tornado
		Pilot observed a tornado on the ground in open desert country for 18 minutes before it retracted into the clouds.							
Sun City	1	7:20 p.			0	0	5	4	Wind
		Strong winds associated with a thunderstorm caused considerable damage to homes and levelled a number of houses under construction. Winds damaged stacked hay and knocked down several power poles.							
Tucson	5	8:00 p.			0	0	4	0	Wind and rain
		Wind damaged homes, buildings and utilities. Rain caused flood damage to streets.							
Casa Grande	7	7:10 p.			0	35	6	0	Wind
		Roofs were blown off homes. Power lines, poles and trees were downed. Most of the injuries occurred in mobile home parks, where wind damaged many trailers.							
Tucson	7	7:00 p.			0	2	4	0	Wind
		Strong winds disrupted utilities and unroofed several houses. Two occupants of an overturned house trailer were injured.							
Tucson	11	4:00 p.			0	10	4	0	Wind
		Wind damaged businesses and homes. Ten persons were injured by glass when a drug store window was shattered.							
Phoenix	13	7:00 p.			0	0	4	0	Wind
		North Phoenix was hit by strong winds associated with a thunderstorm. Most of the damage was to roofs and utilities. Several planes were overturned and hangars were damaged at Deer Valley Airport.							
Tucson (near)	16	7:00 p.			0	0	5	0	Tornado
		Tornado demolished several houses and damaged a number of others in the village of Santo Tomas.							
Apache Junction	17	11:00 p.			0	4	4	0	Wind
		Wind damaged a number of roofs and trailer homes. Four persons were injured slightly when a trailer overturned in the wind.							
Sahuaro Lake	28	7:00 p.			1	1	0	0	Lightning
		A man was struck and killed by lightning in a boat while heading for shore in a thunderstorm. His son was knocked unconscious.							
Arkansas									
Coy, Lonoke Co.	16	Afternoon			1				Lightning
		Farmer killed by lightning as replacing irrigation pipes in cotton field.							
Tano community - Jefferson County	16	8:30 p. to 9:00 p.	?	?			4		Tornado
		House trailer exploded by wind and totally demolished. Other damage to farm buildings and trees. Boy witnessed "elephant trunk" funnel.							
California									None reported
Colorado									
Las Animas County	5	3:50 PM					3	C	Hail
		Severe hail with heavy rain and high winds damaged property and crops in an area between Trinidad and Weston. Hailstones up to 1 inch diameter were reported.							
Arapahoe County	5	4:40 PM					0	0	Tornadoes (2)
		Two tornadoes were observed in an open field southeast of Buckley Field. They occurred about the same time and both dissipated 1 1/2 minutes after they touched down.							
Aurora	12	5:00 PM			1	1			Lightning
		A man and a 9 year old boy were injured when lightning struck a tree near which they were standing. The man revived after treatment. The boy was revived but later died of respiratory failure due to electrical shock.							
El Paso, Pueblo, and Otero Counties	21	Afternoon					4	C	Thunderstorms
		A series of thunderstorms caused light to moderate damage in scattered localities. Flash floods from heavy rains closed highways north of Colorado Springs, and between Colorado Springs and Pueblo. Local light flooding occurred in the La Junta area. Heavy rain in an area south of Pueblo caused local flooding along the Auerano River. Property was damaged by severe hail in the Black Forest area northeast of Colorado Springs, where hailstones up to 3/4" diameter were reported. Lightning caused power outages in several areas.							
Walsenburg	22	2:40-3:30 PM					3		Hail
		Heavy rain with hailstones up to 1 inch diameter caused damage in portions of the city area.							
Fremont County	22	7:00 PM					4	4	Hail
		A severe hail storm, stones 1 to 2 inches in diameter, caused moderate to heavy damage to roofs, windows, trees and automobiles in a section of Penrose, and damaged crops in apple orchard areas to the north and west.							
Kit Carson County	22	Night			2	0	4	C	Flash flood
		Heavy rains caused local flash flooding in areas north and east of Burlington. Two people were drowned near midnight when their car was washed off the highway two miles east of Stratton. Eight inches of rain in a few hours were recorded at a station two miles northeast of Stratton.							
Crowley and Otero Counties	24	Evening					0	4	Hail
		Hail damaged row and field crops in an area between Crowley and Ordway, and south to the Manzanola area. Hail was small sized, but driven by high winds.							
Douglas County	31	3:40 PM							Funnel
		A funnel cloud was observed in the Parker area, about 20 miles south-southeast of Denver.							
Connecticut									
Northwestern sections	4-5	AM-PM			0	0	6	4	Rain
		Following close on scattered heavy showers on August 2-3, drenching rains alternating with torrential downpours on August 4-5, caused brooks and rivers, including the Farmington and Housatonic, to rise over their banks, inundating roads and bridges, overtaxing dams and forcing the evacuation of many families from their homes. Precipitation for the 4-day period ranged from 3 to 7 1/2 inches. While some sections experienced flash flooding as early as August 2, most sections were affected on the morning of August 4 and some again that same evening. Greatest damage occurred immediately about a line from Torrington to Bulls Bridge Dam with New Hartford especially hard hit. Local flash flooding occurred as far south as Derby on the Housatonic and as far east as Windsor Locks on the Farmington. Road damage due to washouts was extensive and landslides occurred especially in New Preston. Some flat roofs in New Milford buckled under the weight of the water.							
Northern New Haven and southern Hartford Counties	16	5-6 PM			0	1	5	0	Thunderstorms
		Severe thunderstorms caused flash floods and extensive power failures. Numerous lightning strikes set fires in Waterbury, Naugatuck, Wolcott and Bristol, and in Wolcott severely burned one person. Heavy rains caused a gas main break in Southington. Overall greatest damage occurred in Waterbury where a metal roof was ripped from a warehouse by the force of the wind and one lightning-set fire destroyed a \$20,000 home.							

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

AUGUST 1969

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					KILLED	INJURED	PROPERTY	CROPS	
Delaware Ocean View	5	9:30 a.			0	2	4	0	Wind
									Strong winds, accompanied by heavy rain, struck a trailer park. Two trailers were overturned. Two occupants of one trailer were injured with one requiring hospitalization. Damage to the trailers was estimated at \$4,000 each.
Southern Portion	20	Morning							Rain
									Remains of Hurricane Camille brought minor flooding but not enough to stall traffic. Among the heaviest rain totals were: 3.31 inches at Georgetown (University of Delaware Research Farm) and 3.20 inches at Bridgeville (1 mile NW).
Florida Tampa (3 mis. NW)	1	4:55p							Funnels aloft (several)
St. Petersburg	1	5:00p			0	0	3	0	Severe storm and lightning
									Damage to power lines moderate. 4000-5000 people without power at peak of storm. Telephone service disrupted. Utilities damage estimated at \$4,500 to \$5,000.
Ft. Lauderdale (5 mis. E)	2	7:07a							Funnel aloft
Miami (5 mis. S)	2	9:10a							Funnel aloft
Pahokee (1 mi. W) Palm Beach County	2	10:10a							Waterspout
Key West (5-10 mis. NE)	2	10:16a							Funnels aloft (2)
Panama City (5 mis. S)	2	6:38p							Waterspout
Tampa (9 mis. SSW)	2	8:30p							Waterspouts (2)
Tampa (6 mis. SE)	3	4:17p							Funnel aloft
Orlando (5 mis. S)	3	5:10p							Funnel aloft
Orlando	3	5:30p			0	0	2	0	Thunderstorm and lightning
									Three homes struck by lightning during storm. Minor damage reported. Local flooding.
Jacksonville	3	6:00p							Winds and rain
									Low areas flooded. Rainfall measured up to 5" downtown.
Haines City Polk County	4	afternoon			0	0	3	0	Wind
									A house trailer was demolished by strong winds which witnesses described as a "funnel-shaped cloud". Debris from nearby junked cars was scattered in area.
Cocoa	4	afternoon	16	0	0	3	0	0	Winds
									Winds estimated at 65-70 mph overturned a trailer, awnings and sheds blown down. Twenty trailers had damage at Clear Lake trailer park in West Cocoa.
New Port Richey (12 mis. W) Pasco County	4	12:30p							Funnel aloft and wind
W. Palm Beach (18 mis. NW)	4	3:40p							Funnel aloft
Key West (7 mis. E)	5	7:12a							Waterspout
Miami (15 mis. N)	5	10:00a							Funnel aloft
Marathon (3 mis. S) Monroe County	5	2:39p							Waterspout
Homestead (11 mis. NE AFB)	5	5:30p							Funnel aloft (3)
Boynton Beach (8 mis. ENE) Palm Beach County	6	8:20a							Funnel aloft (2) and waterspout
Tampa	6	noon			1	0	0	0	Rain and lightning
									A 55-year old construction worker was killed while attempting to unclog a drain during storm.
Orlando (5 mis. E)	6	12:40p							Funnel aloft
Key West (3 mis. NW NAS)	6	5:35p							Waterspout
Orlando (20 mis. E)	7	2:22p							Funnel aloft
Pensacola (6 mis. S)	7	2:45p							Funnel aloft
Key West (5-6 mis. N)	7	6:20p							Waterspouts (3)
West Palm Beach (vicinity)	8	7:45a							Funnels aloft (2)
Florida (continued) Apollo Beach (18 mis. S. Tampa) Hillsborough County	8	2:30p							Funnels aloft (2)
Pensacola (15 mis. SW AFB)	9	12:35p							Waterspout
Port Myra Lake Palm Beach County	10	2:31p							Funnel aloft
Andytown Broward County	10	2:40 - 2:50p			0	0	4	0	Tornado
									Two mobile homes totally destroyed, two badly damaged, one with minor damage.
Ft. Lauderdale	10	3:28p			0	0	3	0	Tornado
									Tornado touched down in west Broward trailer park overturning one empty trailer and heavily damaging another.
Pensacola (8 mis. N)	10	7:05p							Funnel aloft
Miami Lakes Dade County	10	1:37p							Tornado
Key West (10 mis. NNE)	11	6:05p							Funnel aloft
Key West (5 mis. W)	12	5:50p							Waterspout
Key West (15 mis. NW)	12	4:00p							Waterspout
Key West (2 mis. E)	12	5:43p							Funnel aloft
Key West (5 mis. SE)	13	11:31a							Waterspout
St. Teresa Beach Franklin County	13	2:30p							Waterspout
Avon Park Highlands County	13	2:35p			0	0	4	0	Tornado
									Two mobile homes damaged, roofing torn from one home, and minor damage to local hospital. Winds 40-50 mph. Damages estimated at \$10-15,000 (private) and \$1-2,000 (public).
Melbourne (5 mis. NW) Brevard County	13	5:06p							Funnel aloft
Cocoa (Patrick AFB) Brevard County	13	5:28p							Funnel aloft
Lake Pickett (3 mis. N Bithlo) Orange County	14	9:10p	3		0	0	4	0	Tornado
									Extensive damage to boats and homes, trees uprooted with several set afire. One 16 foot boat deposited in top of tall tree.
Miami (20 mis. E)	14	9:16a							Waterspout
Pensacola NAS (3 mis. S)	14	6:16p							Waterspout
Lakeland	15	late afternoon			0	0	3	0	Lightning
									Room in home set afire when lightning hit television antenna, raced down pole and into room. Estimated damage \$2,500.
Tampa	15	night			0	0	3	0	Lightning
									Unoccupied home destroyed.
Pensacola (10 mis. S)	16	10:04a							Waterspout
Pensacola (9 mis. W)	17	12:15p							Tornado
Port St. Joe Gulf County	17	3:40p							Waterspouts (3)
Pensacola (9 mis. E)	17	4:26p			0	0	2	0	Tornado
									Auto and fish house damaged. Some power and telephone damage.
Pensacola	17	4:30p							Funnels aloft (5)
Cape San Blas Gulf County	17	9:00p							Waterspout
Escambia, Santa Rosa, Okaloosa, Walton, Bay, Gulf and Franklin Counties	17 and 18				0	0	5	0	Hurricane CAMILLE
									The effects of hurricane CAMILLE in Florida were relatively minor. No reporting station observed winds of hurricane force. Most property damages were caused by high tides which ranged from an estimated 6.3 feet above astronomical tide in the Pensacola area to generally less than 2.5 feet above the astronomical tide east of Apalachicola. Estimated tides in other coastal areas were: 4.5 feet above astronomical in Santa Rosa County; 4.0 feet above astronomical in Okaloosa County; 5.5 feet above normal in Bay County; 3.0 to 4.0 feet above normal in Gulf County; and 3.0 feet above the astronomical tide at Apalachicola. The tornadoes funnel clouds and waterspouts reported above (on the 17th) were associated with hurricane CAMILLE. Total property damages, including

See reference notes at end of table.

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					KILLED	INJURED	PROPERTY	CROPS	
Florida (continued)									
									beach erosion and crop losses, were estimated near one-half million dollars with the major portion of the damages in Escambia and Santa Rosa Counties. Crop losses were mostly lodged corn and pecans blown from trees.
Key West (18 mis. N)	19	12:40p							Waterspout
Pensacola (6 mis. S)	20	2:10p							Waterspouts (2)
Apalachicola (3 mis. NNW)	22	10:30a							Funnel aloft
Big Pine Key Monroe County	23	7:15a							Funnels aloft (3)
West Palm Beach (5 mis. SW)	23	4:29p							Funnel aloft
Key West (8 mis. WSW)	23	5:01							Funnel aloft
Miami (7 mis. S)	24	11:21a							Funnel aloft
Key West (10 mis. S)	24	11:50a							Waterspout
Key West (7 mis. NNW)	24	2:08p							Waterspouts (2)
Melbourne (20 mis. W) Brevard County	24	5:44p							Funnel aloft
Ft. Lauderdale	24	6:02p							Funnel aloft
Tampa	25	6:26p							Funnel aloft
Runkin Hillsborough County	25	7:00p							Funnels aloft (3)
Middle and Upper Keys Monroe County	25	night			0	0	3	0	Waterspouts (2)
									One 24-foot cruiser was extensively damaged and two docked boats damaged by roof which was torn off nearby shed.
Key West (5 mis. S)	26	7:00a							Funnel aloft
Key West (8 mis. SW)	26	7:00a							Waterspouts (2)
Key West (7 mis. NNW)	26	10:11a							Waterspouts (3)
Key West (5 mis. WSW)	26	1:54							Waterspout
Mayo (7 mis. NNW) Lafayette County	27	6:30p			0	0	3	0	Tornado
									One hundred pine trees (20-25 years old) uprooted, pack house demolished, tobacco barn torn apart, pump house blown down and ventilator blown off another farm building. Power lines felled in rural area.
Ft. Lauderdale (16 mis. ENE)	28	6:45a							Funnels aloft (2)
Key West (11 mis. ESE)	28	6:58a							Waterspout
Ft. Lauderdale (vicinity)	28	8:15a							Funnels aloft (several)
Homestead (vicinity) Dade County	28	8:15 - 9:15a							Funnels aloft (2)
Ft. Lauderdale	28	8:46a			0	0	3	0	Waterspout
									Ripped through section of Lighthouse Point and Hillsboro Beach damaging some small boats and scattering debris from construction sites.
Stuart (10 mis. E) Martin County	28	9:20a							Waterspout
Key West (4 mis. W)	28	11:40a							Waterspout
Key West (1 mi. S)	29	2:12p							Waterspout
Key West (2 mis. ESE)	29	6:13p							Waterspout
St. Petersburg (27 mis. W)	31	7:05a							Funnel aloft
Pensacola (5 mis. S)	31	5:35p							Waterspout
Pensacola (6 mis. S)	31	6:00p							Funnels aloft
Dade City (7 mis. W)	31	7:00p			2	0	0	0	Lightning
									Two fishermen struck while seeking shelter from a storm under a tree.
Georgia									
Brunswick Airport, 21 miles NE	1	10:07 a							Funnel cloud
Douglas	1	pm			0	0	5	0	Heavy rains
									Almost 5 inches of rain within a short period of time caused flooding of streets and several businesses in downtown Douglas. Water surged into a tobacco warehouse ruining all the tobacco on the floor. The estimated loss was \$40,000. A furniture store and
Georgia (continued)									
Tallahassee	2	4:45 p			0	0	5	0	Heavy rains
									A local downpour, described by witnesses as a "waterspout" damaged the roof of a garment manufacturing plant. The sprinkler system was ruptured by the caved in roof and the plant was flooded by the rain and sprinkler water. Thousands of garments and some equipment were ruined or heavily damaged.
Lyons and Vidalia Area	2-3				0	0	5	3	Heavy rains
									Heavy rains over a period of 2 to 3 days caused extensive flooding in both Lyons and Vidalia. About 12 families were evacuated at Vidalia when water rose 1 foot inside their homes. Several businesses had water damage and streets were heavily damaged in both cities.
Alma, near Lithonia, DeKalb County	3	2:00 p							2 Funnel clouds
	12	9:30 p	1/2	200	0	0	5	0	Tornado
									Storm hit Gunn Airport and damage was generally confined to small area with some tree damage in vicinity. Five light planes were totally destroyed and numerous others suffered damage ranging from minor to major. A hangar was also damaged and trees were twisted off. Storm was accompanied by heavy rain, continuous lightning and hail.
Darien, McIntosh County	13	3:15 p			0	5	3	0	Lightning
									Five members of a family received minor cuts and burns and were temporarily stunned when lightning struck their house.
Gainesville	15-16				0	0	5	0	Heavy rains
									Torrential rains caused heavy damage to streets, homes and business property. Roofs of 2 buildings collapsed under the weight of water and some residences were flooded. Twenty-four hour rainfall was 5.62 inches, most of which fell in 3 or 4 hours. Several streets were closed because of washouts.
Royston	20	Mid.			0	0	5	0	Lightning
									Buildings housing 3 businesses were destroyed by fire after being struck by lightning.
Hawaii									None reported
Idaho Western Half of State	1-31	Every day			0	0	?	?	Dry spell, lightning
									Unusually dry conditions across Idaho during the entire month of August provided no precipitation in the western half of the State. This continuing dry spell had accumulated its 53 to 59 consecutive dry-day across the Panhandle and North Central Canyons while 63 to 65 such dry days had been observed by the 1st across the Central Plains, South Western Valleys and western half of the Central Mountains. The Bliss-Bruneau area had recorded 84 such days without measurable precipitation. The Boise Intergovernmental Fire Control Center reported that, although fire potential buildups in much of Idaho actually exceeded those in 1967, described as the worst in 50 years, there have been fewer forest and grassland fires. Dry thunderstorms in the State on the 11th, 12th, 19th, 22nd, 24th, and 26th caused scattered lightning-set fires. Hottest day of the summer occurred on the 23rd when temperatures soared to 100° and above across much of the western half of the State. The hotter stations ranged from 107° at Boise, Mountain Home, Emmett, and Orofino to 112° at Riggins.
Idaho Falls, Bonneville County	4	Late afternoon ?	?	?	0	0	3	0	Wind
									Brisk winds across eastern Idaho were particularly strong in the Idaho Falls area where gusts up to 52 mph were reported at Fanning Field. A homemade camper was blown from a pickup at the field and caused heavy damage to cowling of a Bonanza P-35 plane parked at the field. A mobile home was also damaged when blown from its foundation.
Illinois Union County	9	3:28p	?	?	0	0	3	0	Possible tornado
									Possible tornado reportedly struck four miles south-southeast of Anna. A barn was demolished and top section of an 18" diameter tree was cut off and carried about 600 feet before dropping to the ground. WFO, Cairo.
Union County	9	3:45p			0	0	4	5	Hail, high wind
									Fruit and vegetable crops badly damaged along with trees, roofs, and windows. Hail lasted 15 to 20 minutes with most stones 3/4" to 1 1/4" diameter but up to 1 1/2". Began approximately 3:45 p.m. Hail in general area about 10 miles long from north to south starting about 2 miles north of Anna. Width of path about 2 1/2 miles extending both sides of Anna. Peaches and apples suffered most.

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Illinois (continued)											
Chicago vicinity	11	3p - 5p							Funnel clouds		
			Funnel clouds were reported 10W of O'Hare Field at 3:13 p.m., 15 WSW of O'Hare Field at 3:36 p.m. and 35 WSW of Midway Airport at 4:45 p.m.								
West Central	15	aftn							Funnel clouds		
			Two funnel clouds were reported just west of Pekin at 2:15 p.m. One was reported 7 1/2 miles north of Rushville at 5:08 p.m.								
Northeast	16	5:40 p.							Funnel cloud		
			Sometime before 5:40 p.m. a pilot reported a funnel cloud over Starved Rock moving northeast.								
East-central	17	6 p							Funnel cloud		
			About 6 p.m. a pilot reported a thunderstorm in progress 26 miles northwest of Champaign with funnel cloud hanging down but not touching the ground.								
Indiana											
South Bend, 12 mi. SE	3	E.S.T. 6:40p.							Funnel cloud		
			Funnel reported by pilot.								
North Manchester, 27 miles W.	4	6:25p.							Funnel cloud		
			Funnel moving southeast reported by Police.								
Northwest Indianapolis (Marion County)	9	6:35a.	3-4 blocks	1 block	0	6	5	0	Tornado, wind		
			Principal damage just north of Speedway. Five homes totally demolished, 4, major damage, and 14, minor damage. Some damage to shopping center near Lafayette Road and Kessler Blvd. Church roof and apartment building roof blown off. Tornado seen by two area residents. Minor wind damage eastward from tornado touch-down.								
Shelbyville, 10 mi. NW (Shelby County)	9	4:30p.	Short	Narrow	0	0	5	0	Tornado		
			School gymnasium unroofed, two school buses damaged and 20 homes had minor damage.								
Syracuse, south (Kosciusko County)	9	4:45p.	Short	Narrow	0	0	0	0	Tornado		
			Brief touch-down in open field.								
Brookville (Franklin County)	9	5:30p.	10 blocks	Narrow	0	0	4	4	Tornado, wind		
			Lodge Hall deroofed. Garage demolished. Power lines, business signs, antenna and trees downed. Fifteen minutes earlier extensive crop damage occurred near Manilla in Rush County.								
Montgomery, 5 mi. S. (Davies County)	9	6:30p.	Short	Narrow	0	0	4	2	Tornado		
			Barn and grape arbor destroyed.								
Evansville	9	Evening	?	?	0	0	4	0	Thunderstorm		
			Three downtown business buildings had windows blown out. Some merchandise damaged.								
Metz, 2 mi. S. (Steuben County)	15	Late p.m.	Short	Narrow	0	0	4	0	Tornado		
			Sheriff gave damage estimate of \$30,000 from tornado which destroyed barn, hay, machinery and killed swine.								
Batesville, 6 mi. W.	16	4:15p.							Funnel cloud		
			State Police observed funnel moving north at 20 miles per hour.								
Iowa											
Corning, Adams County	2	5:15 p							Funnel clouds		
			Two funnels sighted. (Erroneously entered in July 1969 Storm Data)								
NW of Lenox, Taylor County	2	5:30 p (Erroneously entered in July 1969 Storm Data)							Funnel cloud		
Shelby & Audubon Counties	6	3:30 p					5	5	Windstorm Hail over		
			Damage extensive around Elk Horn area. 12 sections, losses about 40%.								
Woodbury County	6	7:30 p					5	4	Windstorm		
			Damage in Sioux City, Salix areas.								
Buena Vista County	6	8:30 p							Funnel cloud		
NE Woodbury County	6	8:45 p							Funnel cloud		
Logan, Harrison County	7	3:00 a					4		Windstorm		
Northwest & West Central Iowa	8	8:00 p					5	5	Windstorm		
			Considerable wind damage in Sioux City. Hail damage in Guthrie County. Scattered damage into central and south central Iowa.								
Sibley, Osceola County	8	8:20 p							Funnel cloud		
Hartley, O'Brien County	8	8:30 p							Funnel cloud		
Iowa (continued)											
Sioux City, Woodbury County	8	9:24 p					25	4	Tornado		
			Short path in western part of Sioux City.								
Sioux City, Woodbury County	8	9:25 p					25	4	Tornado		
			Touchdowns from northwest to southeast parts of city.								
Schleswig, Crawford County	8	10:00 p							Funnel cloud		
Storm Lake, Buena Vista Co.	8	10:00 p	2	70			5	4	Tornado		
Hamlin, Audubon County	8	10:00 p						4	Lightning		
Jefferson, Greene County	8	10:18 p						4	Hailstorm		
Granger, Dallas County	8	10:43 p							Funnel cloud		
Indianola, Warren County	8	11:05 p						5	5	Windstorm	
			Hail 1 1/2 inch diameter.								
SE Iowa	8	11:10 p						5	5	Windstorm	
			Also, lightning losses totaled about \$20,000. Flooding in Wapello area.								
Keokuk County	8	11:20 p						4	5	Hailstorm	
			About 200 square miles in northern part of county damaged, hailstones to 2 inches diameter.								
2NWW Clarence, Cedar County	16	2:35 p							Funnel cloud		
Fort Dodge, Webster County	20	1:00 a						4	Lightning		
			Severe thunderstorm, numerous lightning strikes and several losses. Heavy rain (4.16 inches in a few early morning hours).								
Kansas											
Western one-third	1	afternoon, evening					0	0	6	6	Hail, wind, rain
			One storm cell caused damage in Thomas County southward through Logan and Scott Counties into parts of Kearney and Finney Counties. Hail and wind damage to crops and property was especially severe in the Scott City area. Another storm hit Hamilton, southwestern Kearney, and Grant Counties. Hail damage also occurred in Graham County. Largest hail was about 4 inches diameter near Oakley and in the Bogie area. Rains unofficially reported at 7 to 10 inches occurred 4 miles west of Oakley.								
Marshall County	2	early a.					0	0	3	4	Wind, hail
			Wind damage occurred 7 miles NW of Marysville. Hail damage to crops was reported at scattered locations.								
Kiowa County	2	2:30-4:30 a.	23	?			0	0	4	5	Hail
			Hail damage extended from north of Haviland to Belvidere.								
Northern portion	20	morning					0	0	4	0	Lightning
			Lightning damage was reported locally in Nemaha, Cloud and Trego Counties.								
Eastern one-third	21	morning					0	0	4	0	Lightning
			Lightning damage occurred locally in Anderson, Bourbon, Franklin, Johnson and Miami Counties.								
Finney County	21	about 4:30 p.	?	?			0	0	3	4	Hail, wind
			Hail up to 1 1/2 inches diameter fell 17 miles north of Holcomb.								
Finney County	23	5:30-7:00 p.					0	0	3	4	Hail, rain
			Hail up to 1" diameter caused damage NW of Holcomb. Heavy rain, unofficially measured at 8 inches, was reported in that area.								
			SPECIAL HAIL SUMMARY								
			Hail Loss Clearing House reports indicate hail was especially severe on these dates in the following counties:								
	1	Finney, Scott									
Kentucky											
Laurel County	7	Afternoon					0	0	4	0	Electrical
			Lightning apparently set a barn afire, destroying it and 5,000 tobacco sticks, 2500 bales of hay and farm machinery.								
Blue Grass	8	p.m.					0	0	5	0	Wind, lightning, hail
			At 12:50 p.m. a fire apparently set by lightning destroyed a barn in Scott County, and contents including new lumber, farm machinery and 1,000 bales of hay. At night in Madison County, another barn was destroyed by fire apparently set by lightning. At 6 p.m. in Clark County, in the vicinity of Winchester, a storm moving from the northwest to the southeast was responsible for considerable damage. 9 barns were reported to have been damaged or destroyed by wind. A number of trees, utility lines and TV antennas were downed								

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

AUGUST 1969

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)									
State	9				1	16	5	?	Wind, electrical, hail
									over an area 15 miles long and 2 1/2 miles wide; starting at the southeast edge of Winchester. Hail 3/4 to 1/2 inch in diameter fell on most of this strip, damaging a number of tobacco crops. Three farms were reported to have had 100% damage and four others were reported to have had lesser damage.
									There were numerous thunderstorms over the State, chiefly in the afternoon and evening. A woman was killed by lightning at 3:45 p.m. CST at Windy Hollow Lakes near Owensboro in Daviess County. Five persons were injured when high winds badly damaged a cabin at Bluewater Estates on Lake Barkley in Trigg County. A man was injured by a falling tree at 5:45 p.m. CST at Water Valley, Graves County. Various sources reported from 10 to 30 injuries due to wind in the Paducah area of McCracken County. There were numerous instances of wind damage in many (if not most) sections of the State. This damage consisted mainly of tree limbs or trees blown down resulting in some roof and structural damage to buildings, mostly minor, downed utility lines with resulting power and telephone outages in some areas. Funnel clouds were reported by the public in several areas, but there were no confirmed tornadoes. Some of the heavier wind damage reported occurred in: Fulton County, 2 barns downed by wind; Christian County, 3 barns downed by wind; Shelby County, one barn downed by wind; Trigg County, one cabin badly damaged by wind and reported \$50,000 damage by wind to 4 marianas at Lake Barkley resort lodge; Clark, one or more barns downed by wind; Campbell County, wind damage to a house. Fires apparently set by lightning set several fires which destroyed buildings, several of these reported being a house in Boone County, a barn in Nelson County. Hail was reported at widely scattered locations to have caused some damage to tobacco crops in Nelson County and Spencer County; marble-size hail was reported in McCracken County.
Grayson County	15	Afternoon			0	1			Wind
									A man sustained extensive injuries when a sudden gust of wind toppled steel framework being erected.
Scott County	16	5:31 p.							Funnel cloud aloft
									A funnel cloud was reported to have been observed 15 miles northwest of Georgetown. There was no report that it ever touched the ground; no damage was reported.
South Central	17	p.m.			0	0	4	?	Wind, hail, rain
									In Casey County it was reported that 2 to 3 inches of rain washed roads badly; that wind downed some trees; that wind, rain and hail damaged tobacco crops. In the southern section of Pulaski County a storm beginning about 5:30 p.m. E.S.T. and ending about 6:15 p.m. damaged property and crops along a west-to-east path about 1 mile wide and 20 miles long. A mobile home was destroyed by high winds, trees, TV antennas and utility lines were downed, and there was wind damage to roofs of several buildings. There were several reports of persons having seen funnel clouds, but no accounts of persons actually having seen damage being done by a funnel. Hail the size of "bird eggs" or "large as a banty egg" was reported. The hail stripped some tobacco crops according to reports, leaving the stalks standing. Insurance companies reported heavy damage to tobacco, primarily in the Bourbon Road area and at Nancy.
Louisiana									
Gulf of Mexico	4	3:41 p.							Waterspout
									Pilot report 17 miles west of Grand Isle.
Lake Pontchartrain	8	7:10 a.							Waterspout
									Pilot report 15 miles north-northeast of Moisant International Airport
Jefferson Parish	9	12:40 p.							Funnel cloud
									Observed from WREFO, New Orleans; estimated 10 miles southwest.
Natchitoches Parish	10	7:00 p.			0	0	3	0	Wind
									Thunderstorm winds estimated at 65-75 mph uprooted trees, broke limbs, knocked down power lines. About 600 telephones put out of service. New mobile home demolished on Highway 1 south at Natchitoches.
Jefferson Parish	15	2:28 p.							Funnel cloud
									Observed from NAS-Callender Field; estimated 5 miles west; dissipated by 2:40 p.
Portions of Southeast and East Central Divisions	17-18				5	?	8	7	Hurricane CAMILLE
									Camille developed in NW Caribbean on Aug. 14, moved across western Cuba during late afternoon next day and NW through Gulf of Mexico on 15 th and 17 th before center reached Mississippi Coast near Hancock-Harrison County line about 10:30 p. Western quadrants of storm which was extremely small but of tremendous intensity, moved over lower Plaquemines and St. Bernard Parishes during afternoon and evening of August 17. Intense winds, estimated up to 160 mph at Pilottown at the mouth of the Mississippi, and a massive storm surge, with water levels 5 to 15 ft. above normal, almost totally destroyed communities in lower sections of Plaquemines Parish. In several places from Empire southward to Buras, Bothville, and Venice northerly winds pushed storm surge over east and west bank levees, inundating built up sections many feet deep when water trapped by back levees. More than 1500 homes destroyed or severely damaged. Three known dead, about 22 persons missing. Some 6,000 head of cattle lost, about three-quarters of Plaquemines citrus
Louisiana (continued)									
									groves destroyed. Offshore oil installations and onshore facilities and refineries and storage tanks suffered considerable damage. Almost 100 vessels, ranging from tugs, barges and crew boats to ocean freighters, grounded or sunk in lower Plaquemines. Lower sections of St. Bernard Parish and portions of eastern Orleans Parish inundated by tides ranging from 4.5 to 11 ft. St. Bernard oyster beds extensively damaged. Hurricane force winds extended into the eastern part of the New Orleans metropolitan area but left only minor damages. No casualties in these Parishes. Prompt, almost 100 percent evacuation of the delta areas reduced casualties. Winds in Camille's western quadrants estimated 160 mph in gusts in eastern part of St. Tammany Parish (Slidell) and 130 mph in gusts in Washington Parish (Bogalusa and Arnaud) during late evening of 17 th or early morning of 18 th as storm center passed a few miles to the east in Mississippi. Extensive wind damage to standing timber and widespread property damage to utility lines, homes and business facilities from wind and falling trees. At least 50 percent of tung trees destroyed. Rainfall totals 4 to over 6 inches eastern St. Tammany and Washington Parishes. Both wind and rain diminished sharply and rapidly westward. Little significant damage reported from western sections these Parishes. Elderly couple drowned when auto plunged into canal as they were attempting to leave during storm near Slidell.
Calcasieu Parish	19	8:45 a.							Funnel cloud
									Sighted 4 miles southwest of Vinton.
Orleans Parish	19	10:39 a.							Funnel cloud
									Observed from WREFO, New Orleans; west, moving west-southwest.
Lake Pontchartrain	19	10:41 a.							Waterspout
									Pilot report 1 1/2 miles north-northeast of Lakefront Airport.
Lake Pontchartrain	22	2:00 p.							Funnel cloud
									Funnel cloud moved over lake from east shore west of Slidell.
Lafourche Parish	22					1			Lightning
									Men killed by lightning while fishing at Little Lake, near Larose.
Gulf of Mexico	24	6:30 a.							Waterspouts
									Several waterspouts sighted offshore, in the Atchafalaya Bay area.
Gulf of Mexico	27	12:00 n.							Waterspout
									Offshore 10 miles southwest of a drilling rig and 50 miles southwest of Boothville.
Lake Pontchartrain	27	6:00 p.							Waterspout
									Sighted 3 miles west of Moisant International Airport.
Maine									
Spruce Head	8	11 p.m.	1	50	0	0	4	2	Tornado, hail, lightning
									Tornado damaged several buildings. A carport was found 3 miles away. Many trees toppled in clearly defined path in eastward movement. Hail confined to small area but accumulated up to 3 inches deep. Some lightning damage.
Southwestern	25	P.M.			0	0	4	4	Hail, wind, lightning
									Thundersqualls with hail up to golf ball size hit local areas. Newfield was especially hard hit, with hundreds of windows broken, and apples and other crops damaged. Considerable lightning damage to buildings. Wind toppled trees and limbs, with utility outages.
Maryland									
Pylesville, Harford County	1	6:00 a.			0	2	3	0	Fog
									Two automobiles were demolished in a crash during heavy fog; the two drivers were treated for injuries at a nearby hospital.
Southern Maryland	2	Late Evening			0	0	4	0	Wind, lightning, hail, rain
									Thunderstorms brought damage to roads, property and crops in scattered areas, especially of Prince Georges County. Some tobacco fields were damaged by wind and hail. Erosion was evident in many places. A fire, believed to have been set by lightning, destroyed a home near Welcome. Trees, electric and telephone lines were also downed by strong winds.
Havre de Grace-Port Deposit-Perryville	3	07:00 p. to Midnight			0	0	5	0	Rain, flooding
									Heavy thunderstorm rainfall brought flooding, washouts and cave-ins. Damage was estimated at \$100,000 in Port Deposit and \$50,000 in Havre de Grace. Unofficial reports of rainfall included: 4 inches in two hours, from 0830-1030 PM, at Havre de Grace and a storm total of 6 inches at Port Deposit. Nearby official stations reported generally light rainfall such as: 2.35 inches at Aberdeen, 0.72 inch at Belmont State Police Station and 0.41 inch at Elkton.
Central Eastern Shore	9-10	Late Evening to Early Morning			0	0	5	0	Rain, wind
									Thunderstorms, accompanied by heavy rain and strong gusty winds, brought damage to scattered areas. Flooding was reported in Kent

See reference notes at end of table.

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AUGUST 1969

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					KILLED	INJURED	PROPERTY	CROPS	
Maryland (continued)									
									County; a Chestertown storm reported as much as \$50,000 flood damage. A home near Fairlee has trecked by strong winds; trees were downed and other minor wind damage was reported.
Northern Prince Georges and nearby Counties	9-10	Late Evening to Early Morning			2	0	5	0	Rain, flooding
									Thunderstorms with very heavy local rain brought flash flooding along streams and low-lying areas. Two volunteer firemen lost their lives trying to rescue a harooned family whose station wagon was swept off the road along Sligo Creek. Roads and bridges were severely damaged. Flooding was also reported in other areas, including US Route 1 and Annandale Road between Laurel and Beltsville where the water was seven to eight feet deep; some automobiles were completely under water. Totals over three inches were recorded at many stations. Among the heaviest totals were 4.12 inches at Beltsville and 4.05 inches at Silver Spring.
Anne Arundel and Prince Georges Counties	18	1:00--2:00 a.			0	1	5	4	Wind, hail, lightning
									Intense thunderstorms brought damage to scattered areas, especially in northern Anne Arundel County. One garage near Crownsville was partly wrecked by strong winds. Many trees and power and telephone lines were toppled or broken off. Also in the Crownsville area, a tobacco farmer reported 18 acres destroyed by hail while another reported 10 acres destroyed. An Annapolis fireman was cut by flying glass when a tree fell across the cab of the firetruck that he was driving. Long-time residents reported the lightning as the most intense in many years; at least four fires were set by lightning.
Boonsboro	18	1:00--3:45 p.			0	0	4	0	Lightning
									Two barns, the one empty and the other filled with 1000 bushels of wheat and grain and 75 tons of hay and straw, were destroyed by fire after being struck by lightning. Three calves were also killed in the second barn.
Central Portion	18	Late Afternoon			0	0	3	0	Rain
									Thunderstorms brought heavy rainfall to scattered areas, especially in Anne Arundel County. Flooding was reported along some of the roads and low-lying areas.
Southern Maryland and Southern Eastern Shore	19-20	Late Evening to Early Morning			0	0	4	0	Rain
									Remains of Hurricane Camille brought heavy rainfall which caused some local flooding. Some roads and streets were reported closed or almost closed. Some commercial establishments and homes reported flooded basements. Damage to a junior high school in Princess Anne was estimated at \$9,000; water rose 15 feet in the boiler room. The following are rainfall totals in inches for selected weather stations: Princess Anne, 6.36; Solomons, 5.13; Snow Hill, 4.95; Assateague State Park, 4.50; and Leonardtown (3 miles NW), 4.20.
Massachusetts	2	3-5 a.m.			0	0	4	2	Rain
Malden, Medford and vicinity									Pre-dawn flash flooding rain filled many basements causing heavy damage before residents awoke to the trouble. Major loss of contents when furniture store basement and first floor flooded.
State	4				0	0	4	4	Rain, lightning
									Local areas hit by washing and flooding rain, especially in the Northampton and New Bedford areas, with washouts and cellar flooding. Much damage to crops in Connecticut Valley. Scattered lightning damage to buildings and utilities.
Southeastern	8-9	night			0	0	4	3	Lightning, hail, wind
									Numerous lightning strikes, some with resultant fires, especially in the Brockton area. Hail damaged commercial gladioli and garden crops. Scattered wind damage with some trees and limbs falling onto utility lines.
State	16	evening			0	0	5	4	Rain, lightning, wind
									Local thundersqualls hit various communities. Heaviest storm reported in Franklin Co., especially in the Greenfield-Turners Falls area where up to 5 inches of rain fell locally, mostly in less than one hour. Heavy washing and flooding with road washouts, cellar flooding, and crop losses. One house foundation was undermined. Wind felled trees and limbs, crushing an auto and damaging utility lines. Some lightning damage. Heavy wind and rain also downed trees and caused local flooding at Mansfield.
Michigan	3	5:30 PM			0	2	0	0	Lightning
East Tawas, Iosco County									Two men were temporarily paralyzed by a lightning bolt while fishing in back waters of Foote Dam. Both were hospitalized for treatment. Injuries were mostly burns on arms, hip, and legs.
Michigan (continued)									
Ontonagon, Ontonagon County	6-7	10PM-1AM			0	3	4	0	Thunderstorm - Heavy Rain, Seiche
									Heavy rain, caused flooding of basements and two blocks of Ontonagon business district, with up to 16 inches of water. Three persons were injured when two autos drove into a road washout on M-35 east of Mass. At Big Iron River, two boats were capsized and sank. When raised the next day, one (an 18-ft triple-hull runabout) was termed a total loss, the other suffered little damage. Wed. PM, a weak seiche was noted on Lake Superior which intermittently lowered and raised by 6 inches at periods of about 1 hour. The water rushed upstream carrying logs and debris from the Lake.
Escanaba, Delta County	6-7	11PM-2AM			1	1	4	0	Thunderstorms - Wind
									High gusty winds, heavy rain caused damage to trees, docks, and boats in the Escanaba to Garden Peninsula area. One tree toppled on a tent at Wells State Park near Escanaba, killing an 11-year old and injuring his brother. The father and another brother were uninjured in the incident.
Au Gres River Valley, Iosco-Arenac Counties	16	2-4 PM			0	0	4	5	Heavy Rain - Flooding
									Flooding in late June caused many area crops to be replanted. This storm added to the earlier loss. Pickle fields, ready to pick, were under 15 inches of water. Beans, replanted, are now covered with silt. Winds at Whittemore toppled trees on homes and blew over a camper. Some county roads were washed out.
Detroit, NW Suburbs, Oakland County	29	4-5 PM			0	9	4	0	Thunderstorms - Winds
									1/4 to 1/2-inch hail, gusty winds moved through the Southfield-Oak Park area causing mostly minor damage. Nine persons were injured by flying glass along the storm's path.
Minnesota									
									During the day and evening August 6, two relatively large storm areas (radar echoes 25-35 mile diameter, composed of several irregular cells) moved on a heading of 80° and parallel. The centers were about 60 miles apart. The northerly storm area moved in from North Dakota between Fargo and Grand Forks and the southerly storm area of concern developed rapidly north of Wadena about 2:30pm and both storms moved across the State. From these two storm areas were spawned two major wind-hailstorms, twelve tornadoes and one water spout. The storm killed 15 persons, injured 106 persons, caused 1.8 million dollars property and public utility damage, 1.2 million dollars timber loss, 2.0 million dollars crop loss. The varied and different behavior patterns of the twelve tornadoes are discussed more fully in Minnesota, August, 1969, "Climatological Data". Below in detail are each of the tornadoes and other storms occurring during the month.
St. Cloud, Stearns County	6	4:30am			0	0	5	0	Lightning
									Lightning struck and destroyed a large church on the corner of 14th St. and 14th Avenue in St. Cloud.
Polk, Red Lake, Clearwater & Beltrami Counties	6	Late Forenoon			0	0	6	6	Hail & Wind
									A large storm area about 30 miles in diameter spawned two damaging thunderstorm cells with hail and winds; first about 10 miles wide moved ENE for 35 miles out of North Dakota through Climax to Brooks area; second cell about 6 to 12 miles wide moved ENE for 50 miles from near McIntosh into northern Beltrami County. Hail crop damage was nearly 100% in many parts of the storm and hail caused window, roof and siding damage to many buildings in its path. Wind destroyed many farm outbuildings, several barns, major damage was received by an airplane near Lenox and an aircraft hangar near Fosston, and damage to farm machinery was common from being overturned or trees blown onto them. Crop hail damage was estimated near 2 million dollars and property damage at \$500,000.
Lake Bemidji, Beltrami County	6	12:15pm			0	0	0	0	Waterspout
									Waterspout touched down briefly on Lake Bemidji causing no damage.
Cass County	6	3:20pm 3:40pm	18	50-300	0	4	6	0	Tornado
									Backus tornado moved ENE at about 55 mph, touched down 15 miles due west of Pine River and lifted southeast edge of Big Portage Lake. It destroyed 13 farmsteads south and east of Backus, 11 homes in lake region east of Backus, 11 were persons hospitalized and numerous minor injuries were reported. Damage to property, timber and utilities estimated at \$850,000.

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					KILLED	INJURED	PROPERTY	CROPS	
Minnesota (continued)									
Minnesota (continued) Cass & Aitken Counties	6	3:18pm 4:28pm	33	1 to 1 1/2 mi.	12	70	6	0	Tornado
Outing tornado moved between E and ENE at about 50 mph touched down east side of Stewart Lake and moved through the Outing area about 4:00pm and lifted just south of Hill City. On the north side of Outing 2 persons were killed on the west side of Roosevelt Lake, 9 were killed on the east side, and one person near Reservoir Lake. Damage to property, utilities and stumps estimated at \$150,000. The three damage showed circular winds on the ground with varying widths. Over Outing the tornado was nearly 1 1/2 miles wide. The general pattern was similar to the Floodwood tornado.									
St. Louis County	6	About 1:25 pm to 4:38pm	10 1/2	1 to 2 miles	0	9	6	0	Tornado
Dark Lake tornado moved east-northeast touching down 3 miles southwest of Dark Lake and lifted 1 mile north of Big Sandy Lake or over Auto Lake. Damage to property, roads, utilities and stumps estimated at \$475,000. Most trees were blown down to the northeast, however, on the northern side few trees layed to the south. One person in center of storm stated the winds blew with a jet-like roar about one to two minutes first from a southerly direction then a northerly direction.									
Aitken & Itasca Counties	6	About 5:50pm 5:03pm	11	?	1	?	5	0	Tornado
Jacobson tornado moved ENE at about 50 mph touched down west of Jacobson, lifting again near St. Louis County line. One person was killed in a small cabin west of Jacobson, several persons were injured, 2 farm homes and 7 farm outbuildings were destroyed. This tornado may have been the Outing tornado touching down again some 1 1/2 miles after its lifting. Damage to property and timber, estimated at \$250,000.									
St. Louis County	6	About 5:00pm	4	150	0	0	4	0	Tornado
Kugler South tornado moved east, touched down 4 miles NW of Wahlsten and lifted 1 1/2 miles WNE. Damage to property and stumps estimated at \$20,000. Most trees were laying to the northeast.									
St. Louis County	6	About 5:00pm	2	150	0	0	4	0	Tornado
Kugler North tornado moved east, parallel and lifted about 3 miles north where the Kugler South tornado lifted. Damage to property and stumps estimated at \$19,000. This tornado was very similar to the Kugler South tornado.									
St. Louis County	6	About 5:00pm	9	40 to 400	0	0	5	0	Tornado
Fower tornado moved about 1 1/2 miles to south-southeast then changed course and moved about 1 1/2 miles east-northeast, touched down southwest edge of Tower and lifted southwest edge of Eagle Lake Number 3. Damage to property and stumps estimated at \$110,000. When the tornado started it was about 100 feet in diameter and showed a circular rotation, but as it widened to about 1/2 mile trees were down generally to the northeast.									
St. Louis County	6	About 5:05 pm 5:29pm	18	1 to 2 1/2 mi.	0	20	6	?	Tornado
Floodwood tornado moved east to east-northeast at 50 mph touched down 3 miles northwest of Floodwood and lifted 1 mile northeast of Maple Leaf Lake. There were 39 head of livestock killed and damage to property and public utilities was estimated at \$345,000. This tornado was large and tree damage on the ground showed uniform circular rotation. The damage from center to a rather sharp southerly edge was generally 1/2 to 3/4 mile while damage on the north tapered off gradually with some trees blown down in a southerly direction nearly 2 miles from center.									
St. Louis County	6	About 5:15pm	5	100-400	0	0	5	0	Tornado
Eagle Nest Lake tornado moved east-southeast touching down just before the west shoreline of Eagle Nest Lake Number 2 and lifted east of Grassy Lake. Damage to property and stumps was estimated at \$60,000. Trees blown down in this tornado were mostly toward the northeast.									
St. Louis County	6	About 5:30pm	1/2	150	0	0	4	0	Tornado
Bear Island Lake tornado moved east, touched down just south of where Bear Island River enters into Bear Island Lake. Damage to property estimated at \$10,000.									
St. Louis County	6	About 5:35pm	3	70-300	0	0	4	0	Tornado
Ely tornado showed 2 paths coming together as one moving east and east-northeast, touched down about one mile SSW of Burnside and lifted at Mud									
Minnesota (continued)									
St. Louis and Lake Counties	6	About 5:50pm 6:15pm	21	50-400	2	3	5	0	Tornado
Boulder Lake tornado moved east at about 50 mph touched on east shore of Boulder Lake and lifted 1 1/2 miles west of Two Harbors. Two women in a cabin were killed on the east shore of Boulder Lake, 3 are known to have been injured and damage to property, roads, public utilities and stumps was estimated at \$128,000. When the tornado struck the shoreline of Boulder Lake, it was about 75 feet in diameter. Trees blown down showed a circular rotation, however, for most of its path it was about 200 to 400 yards wide with most trees downed to the northeast. The tornado skirted twice, once about one mile and again about 2 1/2 miles.									
Dodge, Olmsted, Winona & Fillmore Counties	6	About 9:00pm 10:15pm			0	0	4	4	Winds & hail
Thunderstorm cell moving east-southeast with wind and hail damaged or destroyed 5 buildings on a farm 3 1/2 SE of Kasson and caused crop hail damage in northern Fillmore, southwestern Winona and southeast Olmsted Counties. Gusts to 58 mph were recorded at Rochester Airport.									
Roseau County	28	?			0	0	0	4	Hail
Thunderstorm cell with hail caused some crop hail damage in Roseau County.									
Mississippi									
Jackson County	2	3:30 p.			1	0	0	0	Lightning
Man on Pascagoula County Club golf course apparently sought refuge from 5 minutes of rain near a cluster of 3 pine trees. Lightning hit trees as he was standing about a foot from one of them. All three trees were stripped; man's clothing was wet and electricity was conducted through his body and he was killed, part of right leg of his trousers was blown off.									
Mississippi Sound	8	Before 8:15 a.							Waterspout
Waterspout sighted off coast in vicinity of Standard Oil refinery in Bayou Casotte east of Pascagoula (lat. 30.4°N, long. 88.1°W).									
Jackson County	9	Night							Funnel Cloud aloft, Waterspouts
About 6:40 p.m. man followed funnel-like cloud in his car and reported it was moving toward NE. Said to have touched down near Newport Village, within Ocean Springs city limits. (lat. 30.4°N, long. 88.8°W). Ocean Springs Chamber of Commerce noted "no damage." A newspaper article with an Ocean Springs dateline locale indicated "Police reported. . . winds Saturday night damaged three trees here and caused at least two waterspouts in the Gulf. The funnel clouds were followed out of the area by police and apparently caused no other damage."									
Harrison County	10	6:30 p.- 7:30 p.			0	1	?	0	Thunderstorm
Severe thunderstorm activity over isolated sections of the Gulfport and Hattiesburg - Mississippi City area. Winds at 6:30 p.m. gusted to 81 mph. with heavy rain at Gulfport FAA control tower (lat. 30.4°N, long. 89.1°W) and it was abandoned. Some property damage to businesses and residences and interrupted electric and telephone service for brief periods. Hardest hit by rain and winds were the Woodlawn Subdivision in Mississippi City and the Hardy Court Shopping Center in Gulfport. The only injury reported was a small boy who lost some fingers when high winds slammed a drug store door on his hand.									
State	17-18				132	5571	9	7	Hurricane CAMILLE
Hurricane Camille crossed extreme western Cuba August 15, 1969 and moved into the Gulf of Mexico. Some people in Coastal Mississippi evacuated on August 16th and others on the 17th. At 2 p.m. CST on the 17th the center of Camille was reported about 120 miles south-east of New Orleans, La. The crew of a hurricane reconnaissance plane had estimated surface winds up to 190 mph, central air pressure 26.61 inches, hurricane force winds outward 60 miles from the center, and gales an additional 120 miles. As the hurricane approached Mississippi, damaging hurricane force winds and heavy rains preceded it. The central "eye" of Camille crossed the Mississippi coast around 9:50 to 10:20 p.m. over Clermont Harbor, Waveland and Bay St. Louis. The hurricane continued generally north-northwestward, filling and weakening as it moved over land. The peak gust pressure there was 28.94 inches at 6:56 a.m. as the eye of Camille passed about 10 miles to the east. The eye was followed by radar to the north of Greenwood, then became indistinguishable; Camille diminished to a tropical depression before reaching the northern Mississippi border. It has been estimated that wind gusts of at least 190 mph hit the Bay St. Louis area. The winds decreased on either side of the path but were of hurricane force for a distance further to the east than to the west. Gusts of 100 mph (or more) are estimated to have extended eastward to Horn Island, northward about 100 miles (near Prentiss) and westward into the eastern part									

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

AUGUST 1969

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)																
										of Walthall County. Tides of 10 ft. m.s.l. or more occurred from the Alabama border westward, from about 15-20 feet from near ocean Springs westward to near Clearmont Harbor. Preliminary high water mark surveys show some instances of a few feet higher. In Bay St. Louis, near the west end of the U. S. Highway 90 Bridge, a pressure reading of 26.85 inches was noted when the eastern edge of the eye passed over. There was widespread loss of electrical power and communications which persisted in some cases for a number of days. In most of the Mississippi area affected, the heavy damages were associated with extreme winds and heavy rains; in the low-lying sections of the Gulf Coast high waters contributed their share of damage. For Mississippi, the Red Cross reported 5,237 persons injured or ill, 334 hospitalized, and 132 dead (all in Harrison County). In all about 64,154 families suffered losses (around 70% in Harrison County). Some 15,991 dwellings were destroyed or suffered major damage (about 8/11ths in Harrison County). Approximately 113,616 Mississippi telephones were out of service; of these, about 70% were in the coastal area where 12 of the exchanges were operating on emergency power, 5 exchanges had no long distance service, and 727 long distance circuits were out. Loss of electrical power extended from the coast inland to central Mississippi with interruptions further north. One of the results was a large volume of milk being ruined because of souring as far upstate as Rankin County. A small part of the damage in a few counties is believed by some to be due to tornadoes (not the hurricane). No sightings of a rotating funnel cloud (tornado-type) have been received. In progress studies of initial surveys (aerial photographs, etc.) show hurricane damage but we do not have proof positive of tornado occurrence at the moment. Stores, offices, homes, docks, shipping, utility and other companies suffered damage varying from moderate to severe with considerable destruction near the coast. In many sections the wind and rain combined to do damage to standing crops and timber. Nearly 2,000,000 acres of commercial forest lands in 12 counties were damaged. About 10,000,000 pounds of pecans were lost. Near 35,000 acres of tung trees were flattened and about 18,000 tons of the tung crop lost.						
Copiah County	20				0	1	0	0	Lightning	At Crystal Springs a 7-year old boy was struck by lightning while reportedly standing on a rock near a pond. His father administered artificial respiration at the scene.						
Lauderdale County	20	Late Afternoon			1	2	0	0	Lightning	Woman age 53, (of Route 1, Bailey - the Godiah community) husband and granddaughter age 6 were fishing on a small pond when a storm arose. They moved to shelter under a tree; lightning struck - killed woman, injured others and granddaughter was admitted to hospital.						
Lowndes County	20	6:09 p.m.							Funnel Cloud Aloft	Pilot 15 SSW Columbus AFB (Lat. 33.4°N, long. 88.6°W) reported funnel cloud SSE moving NE. No damages attributable to a tornado reported.						
Harrison County	22				0	0	?	0	Heavy Rain	A driving rainstorm struck Gulfport and flooded streets where drainage systems were already clogged with hurricane residue; several buildings and trees previously weakened by the hurricane were toppled; a precarious telephone system that 1,000 linemen had worked 4 days to set up was knocked out. Some 3 hours after the storm hit, the only telephone circuit reopened was to Biloxi.						
Missouri																
Troy, Lincoln County	8	7:30 AM							Wind, Rain	Strong thunderstorm winds accompanied by 2 to 3 inches of rain uprooted and damaged many trees, power lines and several roofs.						
Sikeston to Bertrand Scott and Mississippi Counties	9	4:40 PM			1	4			Wind, Rain	Severe thunderstorm winds estimated in places up to 90 miles per hour raked an area from the east edge of Sikeston through Miner and eastnortheast to the Bertrand-Diehlstadt area. About one-half of the steel roofs of a supermarket and a service station in Miner were blown off. A sixteen-year-old boy was "blown like a tumbleweed" for about 300 feet before lodging against a fence with only minor cuts and bruises. Two barns were destroyed and several damaged in the Bertrand-Diehlstadt area.						
Kansas City Metropolitan area	15-	1:40 AM - 6:15 AM							Record Rain	A new record one-day rainfall of 7.44 inches and a new record total storm accumulation of 7.74 inches were recorded at the Kansas City Municipal Airport Station. Of the storm total which fell between 1:40 A.M. on the 15th and 6:15 A.M. on the 16th, 5.79 inches fell by 6:00 A.M., 6.19 inches by 12 noon, 7:05 inches by 6:00 P.M. and 7.44 inches by midnight. Total storm accumulations between 8 and 9 inches occurred in a narrow ten-mile long strip just to the west-southwest over the Kansas City, Kansas area. Streets, storm sewers and drainage systems were overloaded and local flash flooding occurred but since the heaviest rains were over and adjacent to the Kansas and Missouri Rivers large scale flooding was averted.						
North Kansas City, Clay County	19	4:00 PM							Funnel Aloft	A funnel aloft about 6 miles north of the airport was observed by Weather Bureau personnel and reported from several locations in North Kansas City and Gladstone.						
Missouri (continued)																
Rolla, Phelps County	20	1:00 PM							4	Tornado	A funnel cloud was observed to dip down briefly on the southwest edge of Rolla and unroof the U.S. Geologic Survey warehouse and then dissipate. Other lesser wind and rain damage to trees and structures also occurred in the southwest sections of Rolla. The tornado occurred during a sudden and momentary lull during a "driving wind and rain storm". What may have been the same parent thunderstorm produced a funnel aloft southwest of Steelville, Crawford County, a short time later and downed trees about 12 miles east of Steelville at 2:05 P.M.					
Fort Leonard Wood 7 NB, Pulaski County	20	3:37 PM								3/4	Hail	inch hail reported by public.				
Montana	1	?	?	?	0	0	0	4			Hail	Hail fell in scattered areas north and east of Bainsville causing about \$20,000 damage to crops.				
Pondera County	4	11:30 p.m.	14	1 mile	0	0	0	4			Hail	Marble size hail fell from a northeasterly moving storm in a strip from six miles southwest of Conrad to eight miles northeast.				
Sheridan County	20	5:30 - 6:00 p.m.	12	3 miles	0	0	?	0			Hail	A southeasterly moving storm with hail up to two inches in diameter caused considerable damage to property and crops from northwest to southeast of Medicine Lake.				
Central and Eastern Montana	24				0	0	?	?			Lightning	A large number of range fires were started by lightning.				
Nebraska																
Scottsbluff County	1	Evening	15	2*	0	0	4	5			Hail	From 7 miles north of Mitchell southeastward to Scottsbluff. Hail and high winds brought up to 100% damage to corn, sugar beets, and beans in center of strip. Windows broken.				
Scottsbluff County	1	4:15p			0	0	0	0			Tornado	Observed to touch down briefly and uproot a tree before dissipating.				
Northeast Custer, and Loup Counties	1	Night	?	?	0	0	4	4			Hail, wind	Scattered hail and wind damage in the Sargent to Almeria area. Buildings unroofed, trees down, and crops severely damaged in small areas.				
Douglas, Saunders, and Lancaster Counties	2	1-2:30p	30	15*	0	0	4	5			Hail, wind	Scattered areas from Valley to Waverly. Heaviest damage in area from Valley to Yutan. Individual strips ranged up to 1 1/2 miles wide and 10 miles long. Stones mostly 2" to 3", but some up to 3 1/2" were wind driven and accumulated in drifts. Crop loss complete in center of hail strips. Building damage to windows, roofs, siding.				
Jefferson County	4	4:30p	5	1*	0	0	0	4			Hail	Small area north and east of Plymouth. Stones ranged up to 1 1/2" diameter.				
Southeastern Nebraska	4	4p-5:30p	60	1-3*	0	2	5	5			Damaging winds, hail	Storm moved southward from Cass to Pawnee and Richardson Counties. Damage was greatest from the winds, but local areas received severe hail and excessive rates of rainfall. Barns unroofed, sheds blown over, trees and power lines damaged, etc. Hail was mostly small and wind driven, but some 3/4" stones were reported. Storm path crossed the vicinities of Richfield, Avoca, Nehawka, Dunbar, Lorton, Graf and Table Rock.				
Platte County	6	7:40p			0	0	0	0			Tornado	Touched down briefly northwest of Monroe.				
Stanton County	8	6:30-6:45p			2	2*	0	0	4		Hail	Wind driven 1/2" hail damaged crops in four section area.				
Dakota County	8	9:25p-9:32p			8	Narrow	0	1	4	0	Damaging winds	Severe thunderstorms with damaging winds struck South Sioux City and Dakota City overturning house trailers, damaging trees, and roofs, etc. These thunderstorms were a part of the same storm system that brought tornado activity to Sioux City; see Iowa Storm Data this date.				
McPherson County	18	8:30p									0	0	0	0	Funnel cloud	Pilot sighted funnel cloud 30 miles west of Stapleton.

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

AUGUST 1969

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					KILLED	INJURED	PROPERTY	CROPS			
Nevada Las Vegas Valley	9,	PM			0	0	4	0	Thunderstorm, wind		
	A severe thunderstorm produced a flash flood in the Las Vegas Valley. Damage was not extensive. In the Lake Mead area, roads were washed away. A dock in Lake Mead was blown 100 ft. into the lake.										
New Hampshire Central	16	evening			0	0	5	2	Rain, lightning		
	Washing and flooding rain in various localities, especially hard in the Meredith-Laconia area. Many major road washouts, isolating some families. Many cellars flooded. Heavy erosion damage at Weira Beach. Lightning set fires, destroying a 200-year old house completely.										
Thornton-Woodstock	25	4 p.m.	5	narrow	0	0	4	4	Tornado, hail		
	Tornado funnel may have only barely touched the ground. Large hail with many stones 1 1/2 inch size and some over 2 inches in diameter in an area 7 to 8 miles long and about 2 miles wide stripped leaves from trees, littering ground with matted leaves up to 2 inches and more deep. Many windows broken. Gardens and crops destroyed. Wind uprooted and broke many trees and damaged buildings. Four cars damaged by falling trees.										
New Jersey West Milford	4						4		Heavy rains, flooding.		
	Heavy rains caused minor flooding, with a threat of serious flooding. Around 200 people were evacuated from the West Milford area by Civil Defense personnel because of this threat. No serious damage was reported.										
North-central and northeastern counties	15	Evening					5		Heavy rains, flooding, high winds, funnel clouds.		
	Torrential rains were reported as a line of thunderstorms, accompanied by funnel clouds, passed eastward over New Jersey from northern Somerset County to the Hudson River and Upper New York Bay. Approximately seven inches of rainfall was reported at Warren Township, Plainfield, and Clark. Plainfield reported 6.90 inches of rain in 2 1/2 hours. The Paterson and Rutherford areas reported four inches of rainfall. Funnel clouds were reported over northeastern Somerset County and over southern Bergen County. Three aircraft were overturned by high winds at Teterboro Airport. Wind damage was spotty, and damage to roofs and trees was reported in several communities.										
New Mexico Española	5	Night					0 1/2	0	Flash flood		
	Heavy rains, with some hail, caused flash flooding with damage and killing to roads, fields, orchards, and chili crop.										
Gallup	9	12:30 p.					2		Flash flood		
	Two children drowned in ravine as flash flood from severe thunderstorm in Pinehaven area washed them into a large arroyo.										
Colfax County	13	1:30 p.					2	2	Lightning		
	Lightning stroke killed two and injured two others hiking along ridge in remote area of Philmont Scout Camp.										
Deming	13	Night					4		Wind		
	High winds damaged glass, roofs and trees and caused power outage. At airport, winds were measured at 40 knots.										
Tucumcari	18	5:29 p.					?		Wind		
	Barn and shed destroyed 7 miles east of Tucumcari. Wind gusts to 54 knots at airport.										
Glovis	25	5:55 p. & 7:10 p.							Funnel clouds		
	Two funnel clouds reported 35 miles south-southeast of Cannon AFB. First funnel cloud of 5 minutes duration; second, of 20 minutes duration, moved toward south-southeast. Wind gusts at AFB to 50mph.										
New York State, except southeast	2	p.m.					4	4	Electrical, hail, wind		
	Afternoon and evening showers and thundershowers ranged over all but the southeastern quarter with damage occurring in a half-dozen widely scattered areas. Lightning-caused fires destroyed dairy barns, including contents of hay and machinery, at Canandaigua, Ontario County and Champlain, Clinton County. Storage shed containing furniture destroyed at Palaski, Oswego County, while home in Syracuse was heavily damaged by fire. Hail destroyed 25 acres of truck crops near Elba, Genesee County, where high winds also uprooted numerous trees. Wind flattened some 20 acres of corn and hay near Vernon, Oneida County.										
Hudson Valley (lower)	4-5	a.m. to 2 a.m.					5	5	Rain, flooding		
	Heavy rains, totaling up to 4.5 inches, fell in wide areas of Ulster, Orange, Dutchess, Putnam and northern Westchester Counties. About 1000 acres of cropland flooded in southern Orange County by Walkill River. Flooding elsewhere in Orange County included low-										
New York (continued)											
									Lying housing area near Chester and parts of Westport after 4 inches of rain. Dam break in Town of LaGrange, Dutchess County, inundated highway and endangered 20 homes with flood waters. Additional road washouts and other flooding near Millbrook, Dutchess County. Heavy rains occurred mostly on 14th.		
East Central and Champlain Valley	8	p.m.					5	4	Wind, hail, electrical		
	Passage of cold front triggered thunderstorms with damaging winds and hail in east central counties and locally in the upper Champlain Valley. Winds demolished large barn, killing 3 head of cattle, in Saratoga County; silk unspooled, barn damaged and trees toppled at Whallonburg, Essex County. Tree and porline damage in scattered areas of Oneida, Otsego, Columbia and Greene Counties as well as the Albany metropolitan area where wind gusts measured at 45 mph. Many acres of corn and hay flattened by wind and 2-inch hail in local areas of Oneida, Otsego and Columbia Counties. Lightning fire destroyed dairy barn and contents at Bridgewater, Oneida County.										
Erie County	10	early p.m.							Waterspouts		
	Several waterspouts observed on Lake Erie, about 20 miles southwest of Buffalo.										
New York City	15	p.m.					1		Electrical		
	Elderly woman injured when lightning struck home on Staten Island. Flooding from brief, heavy showers caused electric train and subway stoppage in local areas of the city.										
Niagara, Orleans, Genesee and Wyoming Counties	16	a.m. to p.m.					1	4	Electrical, rain		
	Thunderstorms between 9 a.m. and mid-afternoon affected parts of four counties in the Niagara Frontier section of the State. Man badly burned by lightning bolt at Albion, Orleans County. Barn and contents of hay destroyed by fire in Town of Alabama, Genesee County; poultry coop heavily damaged by lightning fire in northern Wyoming County but 4,000 chickens saved. Downpour of 2.6 inches in one hour at Lockport, Niagara County, caused extensive flooding of basements, yards and low-lying areas, including a golf course which was extensively eroded.										
Southern Tier and Southeast	17	p.m.					0 1/2	0	Electrical, wind, hail		
	Thunderstorms with damaging winds and hail hit widely scattered local areas along the southern tier from Cattaraugus County to Ulster and Westchester Counties in the lower Hudson Valley. Dairy barn destroyed by lightning fire near Starburg, Cattaraugus County. Winds with gusts measured at 54 mph. caused considerable damage to trees and utility lines in the Elmira area and, along with hail, flattened many acres of corn at Horseheads, Chemung County. Winds also damaged trees and utility lines locally around Ellenville, Ulster County, and Portrose, Westchester County. Power failures scattered on Staten Island, where wind overturned large sailboat in Great Kills Harbor, endangering lives of four people.										
Plattsburg, Clinton County (near)	18	5 p.m.						3	Wind		
	Freakish wind, possible waterspout, struck Cumberland Head, a narrow neck of land protruding into Lake Champlain, about 5 miles northeast of Plattsburgh. A 14-foot boat, tied to 150-lb. anchor, was blown 150 feet, damaging a cabin in its flight. Large tree toppled and another snapped off three feet above ground. Winds accompanied by "a wall of water". Disturbance part of severe storm which affected areas immediately to the east in Vermont.										
Glens Falls, Warren County	25	5 to 6 p.m.					4		Wind, hail, electrical		
	Localized heavy wind and hail damage hit the city of Glens Falls and neighboring villages of southern Warren and western Washington Counties. Winds up to 40 mph. toppled numerous large trees, broke limbs and downed utility lines in all sections of city with attendant damage to roofs, porches, stall sheds and cars. Mailstones of softball size covered ground but damage light, mostly to gardens, flowers and shrubs. Power and telephone failures widespread and lasting many hours before being restored.										
North Carolina Brunswick, Lee and Richmond Counties	1	Late morning & aftn					0	1	4	3	Electrical, rain
	Woman in grocery store injured, auto and television set damaged, by lightning. Flash floods damaged basements, storm drains & crops.										
Scattered areas throughout State	1-5							4	4	Rain	
	Daily rains fell in most of North Carolina in connection with slow-moving front; scattered occurrences of several inches in a few hours. Numerous areas of flash-flooding with damage to storm sewers and basements, and erosion of farms, streets and roads.										
Pender County	5	5 am	1/4	50	0	0	4	0	Tornado		
	Small early morning storm moved northeastward in vicinity of slow-moving front. Loud roar heard. Two homes and several outbuildings severely damaged. Three large trees uprooted and a fourth stripped of limbs; auto damaged by falling tree. Furniture carried 1/4 mile.										

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AUGUST 1969

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					KILLED	INJURED	PROPERTY	CROPS	
North Carolina (continued)									
Bladen, Lenoir, Mecklenburg, Union, Wake and Wayne Counties	10	9am - 8pm					4	3	Wind, electrical, hail
									Scattered occurrences of damaging wind at different times as a front moved eastward across the State. Scout camp and beach houses damaged Lake Norman in morning; trees and houses damaged Mount Olive, Kinston and Lumberton afternoon; trees broken, roofs damaged and tobacco crop hurt in Bladen County early evening. Gusts to 50 knots reported at Raleigh-Durham Airport at 2:48 pm.
Caldwell County	11	4 pm					0	4	Hail
									Corn crop damaged over 2 sq. mi. area.
Jackson County	12	5:15 pm					0	4	Hail
									Tobacco and other crops damaged over one sq. mi. area.
Guilford County	27	3:30 pm					3	0	Dust Devil
									Path of new brick home demolished by small fair-weather whirlwind described by child witness as a "white tornado". Greensboro Airport reported only high thin clouds and wind 6 knots at the time.
North Dakota									
McLean Co.	3	11:00 p	2-3	40	0	0	?	?	Hail, heavy rain
									Hail caused 63-75% crop damage in area from near Garrison to Mercer. The storm also dropped 2 1/2 inches rain in 15 minutes over a wide area.
Central & South Central	3-4	6:15 p - 3:00 a							Tornado, hail, wind
									Line of thunderstorms moved through central and south central portions during evening and early morning hours. Severest activity appeared to be centered on two strips, one extending from near Golden Valley to Ashley and the other from 10 miles west of Garrison to Jamestown. Severe hail, reportedly as large as gallon jugs and weighing 30 pounds, caused 100% crop damage and injured livestock in 4 mile wide swath from near Golden Valley to 5 miles north of New Salem. 55 mph winds were reported in Bismarck about 9:00 p, and wind damaged docks and boats on Lake Hoskins near Ashley about 3:00 p. A tornado destroyed farm buildings 6 miles NE of New Salem about 8:30 p. Golf ball size hail fell 10 miles west of Garrison about 8:00 p causing little damage and winds of 66 mph hit Jamestown at 11:20 p.
State	5-6	Late afternoon to mid-morning			0	0	4	5	Tornadoes, hail storms, funnel clouds, windstorms
									A cold front moved across state afternoon of 5th and morning of 6th spawning severe storms in several areas across the state. A tornado touched down 5 miles north of Columbus about 6:00 p destroying a barn and a windmill. Another tornado touched down about 6:30 p southwest of Northgate destroying 2 farms about 2 miles southwest of Northgate before moving across the International Boundary where it reportedly damaged several farms. The tornado was reported to be on the ground for 20 minutes. Another tornado was sighted by Minot AFB weather personnel at 7:39 p 18 miles northwest of base. The tornado moved southeastward at about 30mph before lifting about 7 miles north of base. No reports of damage were received. Funnel clouds were also reported at Antler, Lansford and Deering during the late afternoon. Strong winds at 11:55 p covered an area about 3 miles wide for a distance of up to eight miles eastward from N.D. Highway 41 about 8 miles north of Turtle Lake destroying 3 large barns, 4 steel grain bins and uprooting trees. Several cattle and horses were killed or injured. Hail the size of golf balls occurred at 1:30 a in LaFore area causing considerable crop damage. Crop damage ranging from 4-100% occurred at Beulah at 1:00 a from jagged hail stones the size of marbles which "were swept through the air like small rockets" by the strong winds. Hail also caused upwards to 100% crop damage at 10:00 a in McHenry area in a strip 2 miles wide and 4-5 miles long. Another hail storm at 10:45 a caused upwards to 100% crop damage in a 2-5 mile wide by 15 to 18 mile long stretch extending from just west of Cummings northeastward to Minnesota border. The golf ball size hail also caused building and window damage and lightning and resulting fire caused damage to barn 5 southeast of Suxton.
Butte, 10 south	12	11:55 p	6	?	0	0	4	4	Tornado, windstorm, hail
									A tornado with associated peripheral straight wind damage struck several farms in area 10 miles south of Butte. Heaviest damage occurred on Dennis Schott farm where all buildings destroyed and house severely damaged. Several head of livestock were also injured or killed including 2 quarter horses on Ivon Boe farm. Hail accompanying the storm wiped out wheat fields so completely that "it even took the straw" and "left trees leafless and barkless".
Ward & Bottineau Co.	21	Afternoon					3	4	Tornado, funnel cloud, hail, wind
									Tornado touched down briefly in area between Makoti and Berthold kicking up big clouds of dust but causing no damage. Funnel cloud also observed in Maxbass area. Hail and wind combined to flatten crops in area from Russell to Rdt and breaking windows at several farms. Hail was also reported in area 10 to 12 miles south of DeLacs causing 80-100% crop damage.
Cass County	29	Evening			0	0	4		Wind storm
									Windstorm uprooted trees and downed power lines on south edge of Leonard. At Marion a barn and another out building on Gerald Danuser farm was destroyed at 8:15 p. Strong winds, near tornadoic in strength, struck 4 block area of Casselton at 8:00 p, damaging 2 trailers, blowing the roof of a grain sweater through a bedroom wall and destroying 2 sheds.
Ohio									
Helena Area, Sandusky County	1	2:34p							Funnel aloft
									A funnel cloud was sighted about 2 miles south of Helena but was not observed touching the ground.
Southern Half of Ohio	9	Morning - Late Evening						5	Rain, wind, and electrical
									Very heavy rain fell over the southern half of Ohio causing widespread but relatively minor flooding. Along and 15 miles either side of a Greenville (Darke County) to Marietta (Washington County) line the rainfall was mostly in the 3 to 5 inch range. Springfield reported 5.38 inches while Greenville recorded 5.18 inches. Lightning caused the disruption of power in many areas. Wind damage was reported at New Carlisle in Clark County. Several roads were blocked by high water in Miami County. Lightning set fires were common. Greatest single loss was \$15,000.
Cincinnati Area, Hamilton and Clermont Counties	9	5:57p	22	300-500	4	247	7		Tornado, hail and rain
									Moving east-southeastward at 50 mph, this tornado first touched ground 8 miles north-northeast of Cincinnati's downtown area. It then passed through portions of Hartwell, Arlington Heights, Reading, Amberly, Deer Park, Silverton, Madeira, Indian Hill, and Terrace Park in Hamilton County and near or through portions of Milford, Perintown, Owensville, and Williamsburg in Clermont County. The greatest damage and most injuries were from Hartwell to Reading. Within this area there are numerous apartment complexes, motels and restaurants. However, major damage and injuries also occurred between Reading and Indian Hill. The area from Indian Hill to Williamsburg is more rural so damages between these points were more scattered. Total storm damage was estimated at 10 to 12 million in Hamilton County and \$200,000. in Clermont County. Within the first mile of the storm's path one restaurant was demolished; part of a large motel was destroyed; an apartment complex of 400 units had to be evacuated because of severe damage estimated at over \$1,000,000. A railroad freight car was derailed and many automobiles were crushed by trees, overturned, or picked up and dashed to the ground. Totally, the twister left approximately 1500 persons homeless. Within the tornado's path, 27 homes were demolished, 200 were heavily damaged, and about 2300 others had minor damage. Twenty-five businesses and about 100 mobile homes also were damaged or destroyed.
Cheviot Area, Hamilton County	9	6:45p							Funnel aloft
									A funnel cloud was sighted 10 miles northwest of the Greater Cincinnati Airport. The funnel did not touch the ground.
Toledo, Lucas County	16	Afternoon						2	Electrical
									Two east Toledo boys were temporarily knocked unconscious when a tree under which they played was struck by lightning.
Peebles Area, Adams County	17	Afternoon			0	0	4	C	Wind, rain, and hail
									One home and two barns were heavily damaged by winds along a mile stretch of Route 41 between Jacksonville and Peebles. One of the barns was completely destroyed. Hail damage to some crops was reported within Adams County.
Doanville Area, Athens County	17	7:30p			0	0	3		Wind and rain
									At least 6 buildings sustained minor wind damage, trees were uprooted, and utility lines were downed in and around Doanville.
Hamilton Area, Butler County	18	12:00p							Funnel aloft
									Police reported a funnel cloud aloft over Hamilton moving toward the northeast.
Shelby Area, Richland County	19	4:00p							Funnel aloft
									Public sighted a funnel cloud aloft over the city.
Oklahoma									
W Adams, Texas County	1	8:45p.-9:25p.	12	*2	0	0	?	?	Hail, wind, and rain
									The area west of Adams was struck by hailstones measuring up to 2 1/2 inches in diameter, strong wind, and heavy rain causing considerable damage to the corn and grain sorghum crop. From 1 1/2 to 2 1/2 inches of rain fell in a few minutes. Some roofs were damaged and windows broken.

See reference notes at end of table.

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					KILLED	INJURED	PROPERTY	CROPS	
Oklahoma (continued)									
Boise City area, Cimarron County	1	Evening			0	0	7	6	Hail, wind, and rain
					Large hail measuring up to 1 3/4 inches in diameter, strong winds, and heavy rain struck the area northeast, east, and southeast of Boise City causing considerable damage to the grain sorghum and corn crop. Several farm buildings were damaged by the hail and strong wind and large tree limbs were ripped away. There was some evidence of a twisting effect by the strong wind, but no funnel cloud was reported sighted.				
Bartlesville, Washington County	14	Morning			0	1	0	0	Lightning
					Man injured slightly in kitchen of home during electrical storm. No damage reported to the home.				
Elk City, Beckham County	15	1:20a.			0	0	4	0	Lightning
					Lightning struck building belonging to a motor company setting it afire. Blaze caused extensive damage to building and its contents.				
5NNE Afton, Ottawa County	15	7:20p.							Funnel aloft
Sallisaw, Sequoyah County	21	4:10p.			0	0	0	0	Hail, wind, and rain
					Hailstones up to 1 3/4 inches in diameter, winds of 30 to 40 MPH, and heavy rain hit the area, but there was no reported damage.				
18 SW Guymon, Texas County	22	8:05p.							Funnel aloft
Randlett area, Cotton County	22	Night			0	2	7	0	Wind
					Strong wind struck area during night causing considerable property damage. Two men were injured when trailer home they were in overturned. Roofs were damaged and windows blown out of several homes. Several farm buildings were damaged or destroyed. Trees had limbs torn away and one power line was blown down.				
Oregon									
Klanath County	4	A.M.			0	0	0	6	Heavy Freeze
					Unusually low temperatures caused heavy damage in large acreage of potatoes.				
Pacific									
					None reported				
Pennsylvania									
Blair, Snyder, and Cumberland Counties	1	Afternoon					3	3	Rain, hail, lightning
					2 persons were injured as their car was forced off the west barn of Route 36 due to heavy rain with damage to the car of \$300.00. In Snyder County a man was hit by lightning. One inch hail was reported in the Mechanicsburg - Germ Hill area. Lightning damaged a home in Roaring Spring.				
East-Central Pa.	1	Afternoon			10	6	5	5	Rain, lightning
					Heavy rains caused flooding and washouts in many sections of Schuylkill County. An amusement park at Knoebels Grove was covered by water. Damage due to flooding was estimated at \$750,000 in Elm Thorpe and \$1,000,000 in Tamaqua. Damage to the Quartzite Creative Corporation was \$50,000. A large amount of poultry was lost through drowning at a poultry plant near Shamokin. Several persons were injured due to the flooding. In Pike and Monroe Counties floods caused damages at \$805,050. Lightning damaged a home. At Sunbury lightning struck a 12,000 volt power line.				
Armstrong County	2	Morning					3		Lightning
					Smoke damage resulted from a lightning fire at a home in Cadogan.				
Allegheny and Beaver Counties	2	Evening and night					5	4	Hail, wind
					Hailstones as big as golf balls damaged gardens and cars extensively. Damages to new trailers near New Alexandria were estimated at \$50,000. In Elmwillard trees were felled, utility poles downed, and garages moved on their foundations.				
Mercer County	8	Morning					3		Lightning
					Six dairy cows were killed by lightning and a pony paralyzed at a farm near Sharon.				
Bradford County	8	Late afternoon					4		Wind
					Strong winds blew down trees and damaged a car in Myersburg. The damage to the car was about \$200. At the same time a barn roof was torn off.				
Luzerne County	15	Night					4		Rain
					Heavy thundershowers caused local flooding of basements in Scranton.				
Lehigh County	16	Morning					5		Lightning
					A lightning bolt set an Allentown cement company on fire causing estimated damage of \$150,000.				
Blair County	16	Day				1	3		Lightning
					Lightning damaged a house in Bellwood.				
Pennsylvania (continued)									
Crawford County	17	Afternoon					4	2	Lightning
					Lightning destroyed a barn, 400 bales of hay and two head of cattle at a farm 2 1/2 miles east of Conneautville.				
Harrisburg	17	Night					1	3	Lightning
					A man was injured when trying to answer a fire call. In Hummelstown a lightning bolt struck a parsonage causing \$500 damage.				
Clearfield	18	Morning					2		Lightning
					\$300 damage resulted when a home was hit by lightning.				
Northumberland	18	Morning					4		Lightning
					Lightning bolt set fire to a dwelling. The loss was estimated at \$15,000.				
Lehigh County	19	Day					1		Lightning
					A man was killed by lightning at the North Catasquequa golf course.				
Southwest Pa.	19						7	5	Rain
					Heavy rains caused considerable flooding which damaged numerous homes, lawns and hampered traffic. Extensive damage to summer cabins, fishing dams, and the Fayette Furnace near Normalville was reported. A rod and run club fishing dam was completely washed out. The cost to repair the Mill Run dykes and replacement of 5 bridges was estimated at \$70,000. As a result of a heavy downpour 7 persons were injured in a 3-car accident on the Pennsylvania turnpike in Somerset County. Total damages were \$8,500. An estimated \$10,000 damage occurred at the roller skating rink in Canonsburg. The pumps at a gas station were ruined due to flooding.				
Lycoming County	19	Afternoon					4		Lightning
					Lightning struck a half dozen houses and utility poles in Jersey Shore.				
Dauphin County	21						2		Lightning
					Lightning struck a parsonage in Hummelstown causing an estimated \$500 damage.				
Puerto Rico									
					None reported				
Rhode Island									
Fawtuxet, Providence, Scituate, Providence Co.; West Warwick, Warwick, Kent Co.; Newport, Portsmouth and Jamestown, Newport Co.	9	1-3 AM			0	0	4	0	Wind, lightning
					Sudden, brief thunderstorms caused extensive power outages as utility lines were felled by trees felled by lightning and wind.				
South Carolina									
Dillon County	1-2				1	0	4	0	Rain
					Several inches of rain fell in twenty-four hours in the town of Dillon. Extensive flooding occurred with water up to three feet deep in some streets. Principal damage was to homes, stores and automobiles. A six-year old boy was drowned when he slipped into a drainage ditch and was carried through a culvert by the swift-moving water.				
Charleston County	5	7 p.			0	0	0	0	Waterspout
					A waterspout was sighted four miles north of the Cooper River bridge in the city of Charleston.				
Greenville County	15	3:20 p.			0	0	0	0	Tornadoes
					Two small tornadoes were observed about 3 miles southwest of the Greenville-Spartanburg Airport. Their lifetime was only a few minutes and no damage was reported.				
South Dakota									
Hereford vicinity, Meade County	1	4:30 - 5:30 p	25	*2	0	0	?	?	Hail and funnel aloft
					Hail averaged 1 inch with largest to 3 inches. Storm moved from NW to SE.				
Winner, Tripp County	1	6:50 p	?	?	?	?	?	?	Hail
					Hail up to golf ball size reported.				
18 N Hayes, Stanley County	3	11:35	**15	10	0	3	4	0	Tornado
					A mobile home was destroyed but other buildings on farmstead received little or no damage. One party in home was hospitalized with injuries and two others received less serious injuries.				
McPherson and eastern Campbell Counties	3-4	10:00p-3:00a			0	0	4	4	Wind, hail and lightning
					Hail averaging 1/2 inch damaged crops in an area near Eureka 8 miles long and one mile wide. Wind damaged crops and buildings in area. A few buildings were also destroyed or damaged by fire caused by lightning.				

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

AUGUST 1969

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
South Dakota (continued)									
Corson, Halworth, Potter, Jerauld, Sanborn, Davison, Hanson, McCook, Minnehaha, Turner, Lincoln, Clay and Union Counties	8	4:10 - 9:00 p			0	3	5	6	Wind, Hail, locally heavy rain and funnel clouds
									Storm with damaging wind and scattered large hail moved from NW to SE causing extensive damage to crops and buildings. Golf ball size hail was reported 16 miles west of Mabrige at 4:10 p. Tennis ball size hail was reported in Messington Springs at 6:35 p. Other areas reported various size hail. Two people were injured when a plate glass window at a drug store in Sioux Falls was blown in. Another person was injured 6 miles west of Canton at 8:33 p when a trailer house was blown over. The greatest damage occurred in the southern half of McCook County where wind and hail damage to crops was estimated at \$550,000. Numerous utility lines were downed by the strong winds with the greatest line damage reported in the Mitchell area. Funnel clouds were reported at Hurley and Parker.
Near Mitchell, Davison County	8	6:00 p	?	?	0	0	4	0	Tornado
									A barn seemed to explode and parts of the roof could not be found. A steel grainery was carried a half mile. Storm moved from NE to SW.
Near Jefferson, Union County	8	9:00 p	?	?	0	0	0	0	Tornado
									Apparently touched down in open country with no damage reported.
Near Meadow, Perkins County	12	5:00 p	?	?	0	1	4	0	Tornado
									A woman was hospitalized with a broken arm when the tornado destroyed a trailer home she occupied.
30SW Winner, Tripp County	19	6:37 p	?	?	0	0	0	0	Tornado
									Funnel touched down in open country with no damage reported.
Tennessee									
Fort Loudon Lake, Loudon County	2	9:00p.m.			3	1	4	0	Wind
									Thunderstorm capsized small houseboat on lake southwest of Knoxville. Injured survivor was trapped in the boat for about six hours before being rescued. Damage reported to several boats that broke loose from their moorings.
Knoxville, Knox County	2	9:30p.m.			0	0	4	0	Wind
									Heavy thunderstorms moved through City, damaging trees, utilities, highway signs and roofs of buildings. Damage reported to autos and mobile homes. Several trees were reported down in the Hedgewood, Seven Oaks and Cumberland Estates subdivisions.
Statewide	9	p.m.			0	0	5°	0	Heavy rain, wind
									Thunderstorms which began late on the 9th, spread eastward and continued into the early morning of the 10th. Strong winds on the evening of the 9th downed many trees. Power was interrupted in a number of communities scattered throughout the State. Torrential rains blocked highways and flooded farmlands in a number of places.
Shelby County	16	4:50p.m.	?	?	0	0	?	?	Hail
									3/4 inch hail. Reported five miles north of Memphis by off-duty Weather Bureau Meteorologist.
West Tennessee	18	All day							Heavy rain, wind
									Hurricane Camille: The weakening storm, "Camille", moved northward across Mississippi and West Tennessee during the 18th and early on the 19th. Heavy rain fell for several hours with accumulations generally between two and four inches. The greatest amount in Tennessee was 4.5 inches at Bolivar. In the Memphis area, 2.99 inches were measured at International Airport, 3.48 inches at Millington. Rainfall storm totals ranged between two and three inches in the midstate area and decreased to less than one inch in parts of East Tennessee. No major flooding was reported, but some local flooding of streets and roads in the west part of the State occurred when storm sewers and drainage ditches were unable to handle the run-off. Agricultural damage has yet to be assessed, but it is certain that the rains eliminated drought conditions in the State. Highest winds observed at Memphis International Airport was 25 mph with gusts to 32 mph. Property damage in Memphis was minor, but there was a case or two of a falling tree damaging power lines. No tornadoes were observed with this storm in Tennessee.
Texas									
Near Gregory, San Patricio County	1	10:09 a							Funnel aloft
Near Oak Hill community, Travis County	1	7:05 p							Funnel aloft
Jefferson County	8	10:27 a - 11:25 a							Funnels aloft
									A funnel cloud was observed in the vicinity of the Cheek community, about 12 miles west of Jefferson County Airport. Earlier in the morning a funnel cloud was observed aloft over Lake Sabine.
Texas (continued)									
Bryan-College Station, Brazos County	11	6:00 p - 7:00 p	6	3/8	0	0	4	0	Windstorm
									High thunderstorm winds broke off four utility poles, ripped sheet steel siding and roofing from storage buildings at Southland Lumber Company on Pease Street in Bryan, damaged a number of mobile homes, and caused miscellaneous other damage in the Bryan-College Station area. Total damage was estimated at more than \$10,000. One portable building at the Cardwell Portable Building Company was picked up, and appeared to explode. One other portable building was destroyed and six damaged. Three mobile homes were damaged when struck by the portable buildings. Five plate glass windows at the Corbasiar Chevrolet Company were blown out. On Eden Street, the wind apparently picked up two automobiles and gently placed them down again but on a sheet of steel siding blown from the lumber yard about one city block away. The highest wind speed recorded at the Flight Service Station at Eastwood Field was 35 knots (peak gust).
Nolanville, Bell County	12	6:45 p - 7:00 p	?	?	0	3	4	0	Windstorm, hail
									High thunderstorm winds demolished a mobile home in Nolanville and caused minor injuries to the three occupants. Spec. 4 and Mrs. James Longhorn, and Miss Louise Pizaro were treated for minor injuries after their mobile home on U. S. Highway 190, east of Nolanville, was rolled over several times by the wind. Total damage to the mobile home and a small house near by was estimated at \$6,500. In Nolanville, wind damage to windows, roofs, trees, and utility lines was estimated at \$15,000. Hailstones up to 3/4 inches in diameter were reported during the storm.
Jefferson County	13	6:00 p							Funnel aloft
									Observed about 12 miles west of Jefferson County Airport.
Motley County	13	6:00 p			0	0	?	?	Lightning
									A bolt of lightning set off one of the most destructive prairie fires known to have occurred in Motley County. The fire started on the Adams Ranch in the Teepee City area. The ranch lost 10,000 acres of grass in five pastures. In addition to a track-type bulldozer that toppled into a canyon and burned, a new pickup truck owned by Vann Francis, miles of fencing, and other property in the path of the fire were destroyed.
Tyler, Smith County	14	2:00 p - 4:00 p	3	3	0	0	?	?	Windstorm
									Vicious thunderstorm winds lashed a three-by-three mile area near the center of Tyler and caused widespread, but mostly minor property damage. Roofs, plate glass windows and signs were damaged. Some trees were uprooted.
Possum Kingdom Reservoir, Palo Pinto County	14	3:00 p	?	?	0	0	?	?	Hailstorm
									Hailstones ranging in size from 3/8 inch to 3/4 inches in diameter were reported at Possum Kingdom Reservoir in northwest Palo Pinto County. There was no report of any damage.
Waco and vicinity, McLennan County	14	6:00 p	?	?	0	0	5	?	Windstorm
									Thunderstorm winds inflicted an estimated \$200,000 in damages to a large hangar and other buildings at James Connally Technical Institute near Waco. Most of the damage was done to a large hangar and adjoining building on the north side of the campus. The winds ripped off part of the roof and the front of each building and the interiors were drenched with rain. Other structures on the campus suffered damage to windows, doors, roofs and ventilators. No one was reported injured. In Waco utility lines were knocked down, and there was widespread but minor damage to other property. A single-engine airplane was blown over at the airport. Considerable damage was done to the fuselage and tail section.
Killeen and vicinity, Bell County	14	6:00 p - 6:20 p	?	?	0	4	?	?	Tornado, windstorm, hail, funnel aloft
									A tornado dipped to the ground at 6:00 p.m., seven and one-half miles south of Killeen. Power lines were knocked down and one house was damaged. At 6:15 p.m., a funnel cloud was observed aloft four and one-half miles west of Killeen moving northward. Accompanying windstorms caused considerable damage in the Killeen area. Hardest hit was the Mobile Manor Trailer Park in Harker Heights, four miles east of Killeen, where one mobile home was demolished and one was overturned. Four persons received minor injuries as a result. Mid-Texas Telephone officials reported 42 poles downed on Ranch Road 443 south of Killeen. At Spray's Auto Parts, near Killeen, the roof of the building was blown almost a mile. Three airplanes owned by Skylark Flying Service at the Killeen Municipal Airport were slightly damaged while one privately owned aircraft received minor damage. Plate glass windows on Show World, located on Avenue D, and the Killeen USO on Gray Street, were broken as a result of the winds and hail. Hailstones one inch in diameter were reported.

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

AUGUST 1969

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					KILLED	INJURED	PROPERTY	CROPS	
Texas (continued) Temple-Belton area, Ball County	14	6:30 p- 6:45 p	?	?	0	0	5	?	2 Tornadoes, funnel aloft, windstorm
									Two tornadoes ripped through the Draghon-Miller Airport at Temple, removing most of the roofing on the terminal and restaurant building. The first tornado was observed east of the building moving northward. Waiting passengers and airport personnel took shelter in the men's and women's restrooms. The second tornado was sighted to the west of the terminal and it knocked down power poles and blew the doors off all the hangers. One airplane was demolished and several others damaged. The roar of a third funnel was heard, but no one actually saw it. This funnel may have remained aloft. Windows were blown out of several cars parked around the terminal but the front glass of the terminal building withstood the storm. In the Temple-Belton area the windstorm peeled roofs off their frames; many windows were either popped out or smashed; trees were cracked and splintered; and many signs were damaged. In Temple, the brick veneer on the end of one unit of the Armstrong Apartments was blown off. the KRON Belton Radio Mobile Studio, parked at the Youngstown Shopping Center was overturned. Several homes, buildings and barns had their roofs blown off. Total property damage from the tornadoes and high thunderstorm winds was estimated at \$200,000.
Burleson County	14	7:25 p							Funnel aloft
Taylor, Williamson County	14	9:02 p			0	0	?	0	Lightning
									Lightning caused a fire at 525 West 10th Street in Taylor. The fire originated when the current was carried through the wiring connected to an electric stove.
Shamrock and vicinity, Wheeler County	15	1:45 a	?	?	0	0	4	?	Windstorm, funnel aloft
									Vicious thunderstorm winds blew three-quarters of the roof from the new Shamrock General Hospital, took half the roof from the KBYT Radio Station studio and broke many plate glass windows in the business section of the city. Damage to the hospital was estimated at \$50,000. Earlier, high winds unroofed two farm buildings about eight miles southwest of Shamrock at 12:40 a.m. A funnel cloud was reported sighted in this area, but it is not known if the funnel touched ground.
Hunt, Kerr County	17	?	?	?	0	0	0	?	Lightning
									Fire that was apparently caused by lightning burned 15,000 acres of rangeland near Hunt.
Nacogdoches, Nacogdoches County	18	2:12 p			0	1	0	0	Lightning
									Neil Maness, 11, son of Mr. and Mrs. E. G. Maness, was critically injured when struck by lightning. The child and his mother were standing outside near a barn at the Maness home when the lightning struck. Mrs. Maness was not injured although she was standing only a few feet from her son. The child's belt was blown off by the force of the lightning; he suffered burns around the waist, and his pants were partially blown from his body. The child was not breathing when picked up by the ambulance.
Houston, Harris County	19	9:55 a							Funnel aloft
Jefferson County	19	2:19 p- 2:24 p							Funnel aloft
									A funnel cloud was observed aloft about two miles south-southwest of Jefferson County Airport.
Groves, Jefferson County	20	7:45 a							Funnel aloft
Jefferson County	20	8:45 a							Funnel aloft
									Observed near Jefferson County Airport
Near Beeville, Bee County	20	9:15 a							2 Funnels aloft
Near Beeville, Bee County	20	11:53 a							Funnel aloft
Corpus Christi vicinity, Nueces County	22	9:15 a- 9:20 a							3 Funnels aloft
									Two funnels were observed aloft about 13 miles east of Corpus Christi and another funnel was observed about 10 miles southeast.
Rhineland, Knox County	22	3:50 p- 3:51 p	1/4	60	0	0	5	4	Tornado, hailstorm
									A small tornado dipped down on the southeast corner of the Rhineland community and caused an estimated \$55,000 damage to property and \$1,400 damage to crops. Hail that fell during the storm caused an additional \$10,000 damage to crops. Heaviest property damage resulting from the tornado was at the Rhineland Co-op Gin where losses were estimated at \$40,000. The burr hopper suffered the worst damage. Approximately 30 cotton trailers were stored on the gin lot and at least 16 were completely destroyed. Only two trailers escaped damage. A garage belonging to Louis Redder was ripped off its foundation and tossed into the home of Mrs. Vince Orsak, damaging the roof considerably. The carport was torn off the John Ed Wilde home.
Texas (continued)	23	2:32 p- 2:50 p	Short	Narrow	0	0	0	?	Tornado
									A tornado was observed by Lubbock Weather Bureau personnel about four miles northwest of the Municipal Airport.
Roundup, Hockley County	23	2:33 p	?	?	0	0	?	?	Tornado
									A tornado caused minor damage to crops in the Roundup community south of Anton, and about 40 miles northwest of Lubbock. The funnel picked up water from a lake about three miles south of Anton. The storm moved from west to east.
2 NW Ballinger, Runnels County	23	4:15 p							Funnel aloft
									Observed over Ballinger Lake.
Near Aransas Pass, San Patricio and Aransas Counties	24	6:25 a							Funnel aloft
15 NE Friona, Parker County	24	6:50 p							Funnel aloft
W Pampa, Gray County	24	Before 7:00 p							Funnel aloft
Near Crosbyton, Crosby County	24	8:00 p							Funnel aloft
Near Taft, San Patricio County	25	9:54 a							Funnel aloft
15 NE Corpus Christi, San Patricio County	26	9:50 a							Funnel aloft
15 S Sabine Pass, Jefferson County	26	4:20 p							Waterspout, 2 funnels aloft
Near Jonestown, Travis County	27				1	0	?	?	Flooding
									Mrs. Jayne Hill Acklin drowned when high water caused by heavy rains swept the automobile in which she was riding off a bridge on Farm Road 1432 and into Lenton Creek near Jonestown. A Department of Public Safety spokesman said the automobile tumbled end over end into the swift-flowing waters, and came to rest in low water one and one-half miles downstream. The woman's body was found two miles from the automobile.
Port Arthur, Jefferson County	27	8:00 a	Short	Narrow	0	0	?	0	Tornado
									A small tornado touched down briefly in the vicinity of the Gulf and Texaco Oil Companies refineries in southwest Port Arthur. There was no significant damage.
Near Lubbock, Hockley County	27	12:40 p							Funnel aloft
									Observed about 19 miles west of Reese Air Force Base.
Near Gilchrist, Galveston County	28	10:40 a							Funnel aloft
Jefferson County	28	12:03 p							Funnel aloft
									Observed four miles east of the Jefferson County Airport
Near Sinton, San Patricio County	29	2:35 p							Funnel aloft
Utah Northwest counties	2	Evening			0	0	4	3	Winds and lightning
									A series of thunderstorms accompanied by winds up to 70 miles an hour swept across northwestern Utah during the evening toppling trees onto automobiles and homes, breaking windows and power lines. Lightning struck a home in East Salt Lake splitting a chimney and damaging the roof. The Davis County sheriff's office radio was seriously damaged when lightning struck the antenna.
25 miles northwest of Salt Lake City	4	7:02 p.			0	0	0	0	Funnel cloud
									A funnel cloud which did not strike the ground was observed by an airlines pilot about 25 miles northwest of Salt Lake City Airport.
Davis and Weber Counties	11	Evening			0	0	5	0	Lightning
									Lightning struck Utah Power and Light El Monte distribution plant about 7:22 p. causing over \$50,000 damage. Other strikes were observed in Northern Davis and Weber Counties but damage from these was small.
Utah County	16	Afternoon			0	0	4	0	Lightning
									Electrical straps caused power outages and fires with losses into the thousands of dollars during the afternoon. A 30 x 50 foot onion shed was burned, and an equipment shed with several automobiles, a boat and tools, were destroyed by fire which was of lightning origin.

See reference notes at end of table.

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AUGUST 1969

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	
Utah (continued)									
Salt Lake East Bench	17	Afternoon			0	0	5	3	Floods
		An inch and a half to two inches of rain in as many hours accompanied by 80 mile per hour winds produced serious flooding along the East Bench of Salt Lake City. At least 15 homes were damaged by flood water with damage estimates between 5000 and 10,000 dollars per home.							
Vermont									
Lowell and vicinity	2	5 p.m.			0	0	4	3	Rain, hail
		Washing and flooding rain from sudden thunderstorm caused road washouts with chasms up to 12 feet deep. Cellars flooded and crops washed out. Some hail damage to crops also.							
Northwest	18	P.M.			0	0	4	5	Hail, lightning, wind, rain
		Thundersquall with hail frequently golf ball size and some to 2 inches in diameter on a path generally a mile or less in width from Grand Isle east-southeastward to Morrisville. Large cornfields completely destroyed. Many windows broken and siding dented. Considerable wind damage to buildings and trees. Power out completely in Grand Isle Co. Lightning damage included a church in Groton. The storm arrived at Morrisville at about 4 p.m. The storm track might be an extension of that which struck the Plattsburgh, N.Y., area, where a waterspout had been reported on Cumberland Bay.							
State	25	P.M.			0	0	3	2	Hail, wind, lightning, rain
		Scattered thunderstorms with locally heavy hail, strong wind, and heavy rain. Hail of 3/4 inch size reported 12 miles east-northeast of Burlington Airport at 2:30 p.m. Heavy squall hit Rutland near 4 p.m. with hail, wind, lightning, and heavy rain. Wind destroyed a metal shed, damaging a car with the debris. Trees were felled on utility lines. Local areas flooded and eroded in Rutland. Scattered lightning damage.							
U. S. Virgin Islands									
			None reported						
Virginia									
Alexandria, Arlington, and Fairfax County	2	Night					4		Heavy rain, lightning
		Four Mile Run flooded covering several blocks of Mount Vernon Avenue and other parts of Alexandria, and caused Shirley Highway and George Washington Parkway to be closed for a short time. Stores, apartments, and residences had water up to 6 feet deep in the lower floors and basements with some residents having to be evacuated. An apartment house in Arlington was struck by lightning with \$8000 damage.							
Richmond Area	9	Afternoon					?		Hail, Wind
		Hail 2 inches in diameter reported in Richmond with tops of cars being dented. High winds knocked down trees and utility lines.							
Northumberland County	10	Morning	1/7	Narrow			2		Tornado
		Tornado observed in Wicomico but with slight damage except to trees.							
Fairfax County	10	11-11:15 A.M.	?	Narrow			5		Tornado
		Funnel cloud moved in an easterly direction for about 300 yards and then to the southeast. The initial damage area was quite narrow but increased as the storm moved toward the East and South-east. Numerous trees were uprooted, a number of roofs damaged or blown away and a side of a two-story building was demolished. Nearby in the same general area a number of apartments were destroyed and one house completely destroyed. Twenty to twenty-five thousand electric users were without service, some for 12 hours.							
Louise County	18	4 P.M.					4		Lightning
		Fire caused by lightning damaged two houses and burned one hay-filled barn.							
James and York River Basins	19-20	Night			109	102	8	7	Rain, Floods
		Torrential rainfall from the remnants of Hurricane Camille fell in the James River Basin resulting in the most serious flooding of the James River for nearly a century. Totals ranged from 2 to 12 inches at regular stations with substantiated amounts up to 31 inches at other locations. The extreme amounts falling mainly in Nelson and adjacent counties soaked and lubricated the soil to such an extent that the resulting landslides along with the flood water caused an exceptional number of fatalities and maximum property damage.							
		Nelson County has 88 dead and 42 missing almost a month after the disaster. The communities of Messies Mill, Davis Creek, Roseland, Rockfish, and Woods Mill were partially or completely destroyed along with highways, bridges, crops and buildings.							
Virginia (continued)									
		To the west of the Blue Ridge, Buena Vista, Glasgow, and Waynesboro were flooded with major damage to homes and businesses. Other areas in southern Augusta, Rockbridge, and Alleghany Counties had flood waters with maximum damage and fatalities occurring just west of the Blue Ridge, near the Maury and South Rivers. The number of dead in this area has risen to eighteen, mainly in Rockbridge County.							
		Most river towns on the James from Richmond west to the Blue Ridge experienced widespread property and crop damage. The flood crested in Buena Vista early on the 20th and down river in Richmond early on the 22nd. Fatalities were at a minimum but with maximum property and crop damage as the James became almost a mile wider at many places inundating cropland and towns.							
		The tributaries of the York River also flooded with a few fatalities and serious property and crop damage. The major damage occurred in Louisa, Caroline, Hanover and King William Counties.							
		Damage to highways and bridges was estimated at 19 million dollars. One hundred and thirty-three bridges were destroyed or damaged and 200 miles of highway was washed out or obliterated. Almost all north-south highways were flooded at some time due to high waters. Several railroad bridges and sections of track were washed away and many lines were still put of operation a week later.							
		A breakdown of total damage is as follows: Agriculture 21 million, business and industry 54 million, residential 10 million, highways and bridges 19 million. These figures are only educated guesses and final damage totals may be appreciably different.							
		44 persons are still missing almost a month after the disaster and will probably never be found as many are buried under tons of mud and debris.							
Richmond Area	26	5:30 P.M.						3	Lightning, Wind
		Lightning struck one of four air conditioning units on top of a department store on Route 40 in West Richmond. The unit was a total loss and the other three had slight damage. Wind also took some roofing depositing it about 100 yards away.							
Washington									
			None reported						
West Virginia									
Mill Creek, Randolph County	8	6 p.m.			0	0	3	0	Windstorm
		What was termed by residents as a freak windstorm destroyed a barn, uprooted trees, temporarily closed a highway and cut off electricity at Mill Creek, 15 miles southwest of Elkins. This occurred during a heavy rainstorm.							
Elkins, Randolph County	9	6:30 p.m.			0	0	3	0	Rainstorm
		Many basements reliant on electric pumps to remain dry were flooded, due to power outages by fallen trees and limbs on the lines. Rain-fall totalled 3.2 inches from 7 a.m. August 9 to 7 a.m. August 10, and was the greatest 24-hour rainfall at Elkins since October 15, 1954. Wind gusts to 64 miles per hour were recorded at Elkins airport also during the storm.							
Hurricane, Putnam County	9	8 p.m.	?	?	0	3	5	0	Tornado and Windstorm
		A severe and prolonged thunderstorm raged through Teays and the lower Kanawha Valleys Saturday night and early Sunday morning August 10. Near Hurricane, a storage building on a golf course and a brick home about 1000 feet from the golf course were destroyed, injuring three people in the home. The largest single damage was at the Scott-Teays school, where winds ripped the roof, sheathing, and framing off the building, with damage estimated at \$45,000. Numerous other buildings and homes received roof and other minor damage from the storm. One witness said he saw a piece of two-by-six board jammed 18 inches into the ground and another piece hurled through a house. A newspaper picture showed the man unable to loosen the board from the ground, which is indicative of the force of the wind. Six planes were damaged at Kanawha Airport. In general, the most heavily damaged area appeared to be in the Teays Valley, which stretches from near Hurricane, about 20 miles west of Charleston, to St. Albans, which is about 5 miles west of Charleston. The Weather Bureau at Kanawha Airport measured 3.07 inches of rainfall and winds up to 56 miles per hour.							
Ripley, Jackson County	17	5 p.m.			0	0	3	3	Lightning
		Three cows were killed and a barn full of hay was destroyed when lightning struck the barn during a storm, about two miles east of Watts Chapel, near Ripley.							
Renick, Greenbrier County	19-20				21	?	5	?	Rainstorm
		Torrential rains from the remnants of Hurricane Camille caused extensive flooding in Greenbrier and Nicholas Counties. At Renick, 12 miles north of White Sulphur Springs, a 91-year-old woman and her 66-year-old daughter were drowned early on August 20 when flood waters trapped them against the beiling of their home. Many sections of the flood-mangled valleys of the Greenbrier, Gauley and Meadow Rivers were declared disaster areas. The weather station at Renick measured 3.95 inches of rain in a 24-hour period. At Anjean, 25 miles northwest of White Sulphur Springs, 30 homes were destroyed by the floodwaters.							

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

AUGUST 1969

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	
Wisconsin									
Dane County	3	am			0	0	0	0	Funnel clouds
	Several funnel clouds observed with isolated afternoon thunderstorms.								
Rock County near Janesville	4	12:15			0	0	0	0	Funnel cloud
Marinette County	5	5:50 p			0	0	3	3	Wind, hail
	Mobile home upended by gusty winds in thunderstorm 2 ¹ / ₂ Peshtigo. Some crop damage due to hail in nearby town of Crover.								
State	6-7	night			0	0	5	0	Wind, lightning
	A line of strong thunderstorms crossed the state during the night. Trees and wires downed in several communities. Trailer home at Sparta severely damaged as large tree falls on it. Lightning fire destroyed barn near Rolling Ground. Wiring damaged in Sturgeon Bay home by lightning.								
Milwaukee County	11	2:30 p	1/4	200	0	146	5	0	Tornado
	Small tornado moving from the NNE tore through the State Fair Park at West Allis at the height of the festivities. Three large tents destroyed. 146 persons received slight injuries.								
Milwaukee, Waukesha, Racine and Kenosha Counties	11	3:30 p			0	0	4	5	Hail
	Severe damage to field and truck garden crops as heavy hail showers pound area. 1 inch hail at Muskego and Waterford while ground was covered up to a depth of 3 feet locally.								
Oconto County	11	pm			0	0	4	4	Hail
	Heavy fall of hail at Townsend.								
Douglas, Bayfield and Ashland Counties	28	6-10 p			0	0	4	0	Wind, lightning
	Severe thunderstorms caused scattered wind damage along Lake Superior shores. Garage and repair shop at Washburn destroyed by lightning fire.								
Wyoming									None reported

^c Includes crop damage.
^C Crop damage.
^{*} Miles instead of yards.
^{**} Yards instead of miles.
[†] Storm damages are placed in categories varying from 1 to 9 as follows:
 1 Less than \$50
 2 \$50 to \$500
 3 \$500 to \$5,000
 4 \$5,000 to \$50,000
 5 \$50,000 to \$500,000
 6 \$500,000 to \$5,000,000
 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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USCOMM-ESSA-Asheville, N. C. 10/1/69-1150