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1970

STORM DATA AND UNUSUAL WEATHER PHENOMENA

AUGUST 1970

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
Alabama									
Priceville, Morgan County	1	5:45 pm	Short	Narrow	0	0	4	0	Tornado
			Tornado touched down briefly destroying mobile home, unroofing house and uprooting trees.						
Elmore County	7	7:30 pm			0	0	4	0	Wind
			High winds demolished mobile home, uprooted trees and slightly damaged a house.						
Section, Jackson County	11	12 am - 3 a.m.					4	0	Wind, rain
			Heavy rain and strong wind caused a very large chicken house to collapse killing 4,000 chickens and demolishing house. 50% of damage due to wind and 50% to rain.						
Huntsville, Madison County	16	4:45 pm			0	0			Funnel
			Funnel cloud observed just north of Monte Sano Mountain.						
Alaska		None reported							
Arizona									
Sierra Vista	1	9:00 p.			0	0	4	0	Wind and rain
			Most of the damage was caused by high winds, which broke windows, tore off roofs and turned over several house trailers.						
Ajo	2	1:30 p.			0	0	4	0	Rain
			Heavy rains caused flooding of arroyos and streets. Pavement was broken in many places and bridges were washed out.						
Eloy (6 mis. E.)	8	10:30 p.			0	0	0	0	Tornado
			Pilot reported funnel cloud over open desert country.						
Bisbee	8	11:45 p.			0	0	4	0	Rain
			Heavy rains caused flooding of the residential and business districts of town. A number of homes were flooded and furnishings were badly damaged, mostly in the Warren area.						
Casa Grande	9	9:45 p.			0	0	4	0	Wind, rain and lightning
			Strong winds damaged homes and businesses. Heavy rains flooded several homes damaging furnishings. Lightning struck several buildings and started minor fires which were extinguished before causing extensive damage.						
Phoenix	11	10:15 p.			0	0	4	0	Wind and lightning
			Strong winds damaged roofs, uprooted trees and knocked down power poles. Considerable damage was done to utilities when lightning struck power poles and lines, interrupting power over a large portion of the metropolitan area.						
Lake Mary	12	1:15 p.			0	0	0	0	Funnel cloud
			Meteorologist reported funnel cloud aloft about 6 miles east of Flagstaff Airport. Funnel disappeared into clouds before reaching the ground.						
Flagstaff (near)	12	1:20 p.			0	0	0	0	Hail
			Large hail fell at Flagstaff Airport from 1:20 to 1:35 p. Biggest stones were measured at 3/4 inch diameter.						
Phoenix	14	11:30 p.			0	3	5	0	Wind and rain
			Winds unroofed several buildings and heavy rains flooded homes in west Phoenix. Four large storage buildings housing baled cotton were demolished by the wind. Three people suffered minor injuries when the wind overturned a house trailer.						
Globe	15	8:00 p.			0	0	4	0	Wind and hail
			Strong winds uprooted trees, damaged signs, awnings and roofs. Additional damage was done to many roofs by hail which had an average diameter of 1/2 inch with some stones as large as 1 inch reported. The eastern edge of the city was hardest hit.						
Tucson	18	1:20 p.			0	6	4	0	Wind and rain
			Strong winds knocked down signs, unroofed several buildings, and blew down power lines in a number of places. Winds also shattered four plate glass windows in a downtown drugstore and six people were treated for cuts.						
Tucson (near)	20	10:31 a.			0	0	0	0	Funnel cloud
			A funnel cloud aloft was sighted 15 miles southwest of Tucson International Airport. The funnel lasted for eleven minutes but did not touch ground at any time.						
Yuma	26	5:05 p.			0	0	3	4	Rain and wind
			Strong winds damaged utilities, but primary damage was to crops. Winds downed much cotton in fields. Heavy rains produced bollrot in cotton, with additional water damage to newly planted lettuce, sorghum, alfalfa and bermuda grass.						
Arkansas									
El Dorado - Union County	2	3:50 p.				1	4		Lightning
			Rusty Johnson, aged 19, killed and 4 others injured while playing golf at El Dorado Country Club.						
Brinkley - Monroe County	6	1:35 p.	2-3	100 - 150				3	Tornado
			Tornado touched down in open country and did some damage to bean fields. Funnel witnessed by a number of people and took an erratic (described by some as northeast to southwest) path just south of Brinkley.						
Mabelvale - Pulaski County	6	3:00 p.	1/4	200				4	Windstorm
			House trailer demolished and Texaco Truck Center roof and overhead doors badly damaged. Straight winds traveled from northeast to southwest.						
Fordyce - Cleveland County	6	5:00 p.	1/2	200				4	Windstorm
			Two business buildings, roofing and realty, damaged. Also damage done to homes and cars from falling limbs and toppled trees. Wind accompanied by about 5 inches of rain.						
Pine Bluff - Jefferson County	18	5:00 p. to 7:00 p.						4	Wind and heavy rain
			5 to 7 inches of rain fell in one hour's time. One to two feet of water collected in downtown stores and 3 feet of water in Civic Center. Winds and lightning did considerable damage throughout city. Motorists were stranded by flooded streets.						
California									
Western Riverside and San Bernardino Counties	26				0	0	4	0	Thunderstorm
			Widespread thunderstorm activity originated near Elsinore and moved northward to the vicinity of Victorville. Flash flooding disrupted traffic and damaged major highways. Forest and brush fires burned several hundred acres. Trees and power lines were downed.						
Colorado									
El Paso County	4	3:35 PM							Hail
			Hailstones 3/4" diameter reported 25 miles NW of Colorado Springs.						
Jefferson County	5	12:15-1:15 PM						5	Heavy rain, hail
			Heavy rain in the Indian Hills area, about 20 miles WSW of Denver, caused flash flooding which washed out roads, and damaged other property. Hail accumulated to 3 inch depth in some areas with stones up to golf ball size. Most damage was from flooding.						
Montezuma County	6	1:30 PM							Funnel cloud
			Reported about 5 miles SW of Cortez, base 500 to 1000 feet above ground, lasted about 5 minutes then dissipated.						
Weld County	10	8:30 PM							Hail
			Hail stones 1" in diameter reported in Fort Lupton area.						
Daca County	12	7:44 PM							Tornado
			Touched ground about 6 miles NW of Springfield, moved short distance toward SE, then lifted. No damage.						
Gunnison County	17	About 5:00 PM							Funnel cloud
			Reported by pilot near Crested Butte.						
El Paso County	20	5:00-8:00 PM						5	Heavy Rain
			Flash flooding from heavy rains caused extensive damage to roads and other property in the southern part of Colorado Springs and in mountain areas south and west of the city. Heaviest damage occurred in the Rock Creek Canyon area about 10 miles south of Colorado Springs, where unofficial measurements of rainfall varied from 9 to 11 inches. Local minor flooding also occurred in many other areas along and near the eastern slopes of the mountains, from near Waldenburg in the south to Estes Park in the north.						
Connecticut									
Voluntown, New London County	21	1:30 AM			0	0	4	0	Lightning
			Lightning strikes set fires which damaged a dwelling and completely destroyed a 75' long chicken house.						
Windsor Locks, Dan- field, East Windsor, South Windsor in Hartford County; Ellington, Coventry, Vernon, Andover, Mansfield in Tolland County; Windham and Ashford, Windham County	28	Even			0	0	5	0	Lightning, wind
			Severe thunderstorms with strong winds and intense lightning downed numerous trees and set fire to a tobacco shed in South Windsor and to homes in Andover and Windsor Locks. Except for Andover and Coventry, power failures were widespread.						

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					KILLED	INJURED	PROPERTY	CROPS							KILLED	INJURED	PROPERTY	CROPS			
Delaware										Florida (continued)											
Northern New Castle	31-1	11:00 p.-1:00 a.							Rain	Venty Tampa Hillsboro	17	5:15p							Funnel aloft		
		Rainfall, totaling between two and three inches, and some light hail occurred during severe thunderstorm activity. Minor flooding was reported.								157/2 FMV Pensacola	18	9:15a							Waterspout		
Newark	14	3:00 p.-4:00 p.			0	0	3	0	Wind	12 SSE Pensacola	19	7:05a							Waterspout		
		Strong thunderstorm winds toppled trees, knocking out power lines and creating traffic jams.								Cedar Hills, 10S Jay Santa Rosa County	19	5:30p							Funnel aloft (2)		
Florida										Venty Miami	20	10:00a							Waterspout		
Florida Panhandle	2/3				8	0	0	0	Tropical Storm										Large waterspout offshore vicinity Miami Beach was reported moving slowly to the northwest by several observers.		
		At least 8 persons were drowned in the Florida Panhandle on August 2nd and 3rd due to the effects of Hurricane Celia. Rip tides and heavy surf whipped by Hurricane Celia pounded the beaches of Escambia, Okaloosa and Santa Rosa Counties. Pensacola Beach was closed early Monday morning as lifeguards had been pulling people out of the rough water since early Sunday. The Escambia County Sheriff reported 25-30 emergency calls with lifeguards rescuing at least 12 people. Waves of 10 ft were observed as compared to usual Gulf waves of 2-3 ft even though the hurricane was a considerable distance to the southwest. Landfall was near Corpus Christi, Texas about 700 miles to the southwest. Tides ran about 1 foot above normal but there was no other significant meteorological features. No significant damage was reported.								25 S Tallahassee	20	10:25a								Waterspout	
Pensacola NAS	04	9:37a							Funnel aloft	Venty Eglin AFB Okaloosa County	20	1:30p	3/4 mi, narrow	0	0	0	0	0	Tornado		
11 SW PNS																			A large area of thunderstorms activity centered near Eglin AFB caused wind gusts to 94 knots, several waterspouts, at least 3 funnel clouds, and at least one tornado. A tornado touched down on the North end of Eglin AFB North-South runway at 1:30p and moved down the runway for 3/4 mile before lifting back into the clouds. No damage or injuries or deaths were reported.		
New Port Richey	05	1:22p							Funnel aloft	WNW Ft. Myers Lee County	20	2:33p								Waterspout	
23 NW Tampa										2 N Pahokee West Palm County	20	2:32p								Funnel aloft	
Boca Chica Bridge Southern Keys	07	6:00p							Waterspout										Pirep large funnel cloud almost touching ground		
Orlando Orange County	08	daytime			1	0	0	0	Lightning	Venty Miami	21	7:00a								Funnel aloft	
		Man was struck by lightning while working in yard, reported to be in serious condition.																		Several reports of funnel clouds south of Miami may have touched down	
Ft. Lauderdale	11	after 4:00p			0	4	0	0	High Winds	Pensacola	21	12:25p	short, narrow	0	0	4	0	0	Tornado (4)		
		Estimated damage at a custom built trailer manufacturer \$35,000.																		Four small tornadoes touched down briefly in Pensacola causing \$5-10,000 damage to a lumber company and an apartment complex.	
8 E Surfside 5 E Miami	11	5:15p							Waterspout	Panama City	21	4:05p								Waterspout	
5 E Miami Beach 5 E Miami	11	5:15p							Waterspout	2 N Pahokee W Palm County	21	4:25p								Waterspout	
7 NE Homestead	12	1:15p							Waterspout	20 NW Palm Beach	22	2:15p								Funnel aloft	
7 1/2 E Mc Coy AFB Orange County	12	12:07p							Funnel aloft	7 NW Palm Beach	23	8:44a								Funnel aloft	
10 E Miami	12	8:13a							Waterspouts (3)	2 1/2 N Eau Gallie Brevard County	23	3:21p								Waterspout	
Venty N Perry Apt 12 NNE Miami	13	4:15p							Funnel aloft	26 SSE Valpariso Eglin AFB Okaloosa County	24	10:25a								Waterspout	
3 NW Bartow Polk County	13	1:15p							Funnel aloft	30 N Tiami Airport Miami	24	12:20p								Funnel aloft	
Holmes Beach Manatee County	13	10:30a							Waterspout	5 WNW Eglin AFB Okaloosa County	24	2:38p								Funnel aloft	
Belle Glade Palm Bch County	13	4:15p	short narrow	0	0	0	0	0	Tornado	Venty St. Augustine St. Johns County	24	daytime			1	0	0	0	Lightning		
		A tornado touched down briefly about 2 miles northeast of Belle Glade.																		19 year old killed while swimming in ocean	
8 W Keywest	14	1:14p							Funnel aloft	Venty Vero Beach Indian River County	24	4:25p								Funnel aloft	
1 N Keywest NAS	14	3:30p							Waterspout	5 SW Sebastian Venty Indian River County	24	4:24p								Funnel aloft	
41 WSW Miami	14	6:20p							Funnel aloft	Brantford Lafayette County	25	8:00p	short narrow	0	0	4	0	0	Tornado		
		Pilot reported tornado but a touchdown was not confirmed.																		A freak tornado destroyed a mobile home just west of the Fourth District Community Center. Adjacent property was not damaged. Damage estimated at \$5,000.	
Venty Deland	14	evening			0	0	4	0	Wind & Lightning	4 SW Sarasota Sarasota County	25	9:55a								Funnel aloft	
		A violent storm caused about \$10,000 damage to several buildings in the vicinity of Deland. An eight year old Deland girl was knocked to the ground when lightning struck near her. She was not injured.								6 N Panama City Bay County	26	7:15a									Funnel aloft
Venty Jacksonville	15	10:30a							Funnel aloft	Georgia Oglethorpe County	1	pm			0	0	4	0	Windstorm		
Venty Pensacola	15	1:00p							Funnel aloft											Trees were uprooted, roofs were damaged and farm buildings were blown over in the eastern part of the County. Two automobiles and one or more houses were damaged by falling trees. Light hail was also reported.	
		Funnel cloud reported in several locations venty Pensacola. Reported as tornado on radar but touchdown unconfirmed.								Savannah	1	pm			0	0	4	0	Windstorm		
Titusville Orange County	17	10:26a							Funnel aloft (5)											Thunderstorm winds uprooted trees, damaged roofs and blew out plate glass windows in parts of Savannah. One house was unroofed and the wall of a building under construction collapsed on 4 automobiles. Electric and telephone service was off in several areas as trees and branches fell on lines and lightning hit transformers. Windows were blown out at a shopping center.	
10/20 SE Miami	17	1:20p							Funnel aloft	Savannah	8	pm			0	0	6	0	Heavy rains		

See reference notes at end of table.

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					KILLED	INJURED	PROPERTY	CROPS	PROPERTY	CROPS	
Georgia (continued)											
											Heavy rainfall at the time of high tide and an east wind caused the flooding of large areas on the south side of Savannah. An estimated 700 persons were evacuated as at least 200 homes were hit by 6 inches to 10 feet of water. Automobiles suffered heavy damage as many were completely covered by flood waters. Numerous businesses were also flooded and streets were damaged extensively. Civil Defense estimated total direct and related damage at more than a million dollars. Almost 6 inches of rain fell at the Savannah Airport.
Homerville	8-11				0	0	4	0			Heavy rains
											More than 10 inches of rain over a 4 day period caused the flooding of several homes and heavy damage to streets in the Homerville area. 1.90 inches fell in a 30 minute period on the 8th and 3.40 inches fell in 4 hours on the 10th.
Colquitt County	8-11				0	0	4	3			Heavy rains
											Several bridges were washed out and roads were damaged in parts of the county following several days of heavy rainfall. Peanut harvest was delayed and cotton was damaged by the extended period of wet weather.
Fitzgerald, 7 1/2 miles northeast	17	2:45 p			0	0	3	0			Windstorm
											A mobile home was completely unroofed and additional minor damage was caused by a local windstorm.
Gobb County	22	6:05 p									Funnel cloud
											Reported by Dobbins Airforce Base observer about 15 miles NNW of Atlanta WFO.
Nacon	24	pm			1	0	0	0			Lightning
											A man was killed as he walked out the back door of his home.
Cairo	24	pm			0	0	4	0			Heavy rains
											A cloudburst that lasted about 90 minutes flooded the downtown area of Cairo. Numerous automobiles and several businesses were damaged.
Fitzgerald	25-26				0	0	4	0			Heavy rains
											Almost 6 inches of rain fell from late afternoon of the 25th until early afternoon of the 26th. Streets were flooded and several families were forced from their homes by flood waters.
Hawaii											
											None reported
Idaho											
Clearwater and Nez Perce National Forests North Idaho; Boise and Payette National Forests, SW Idaho, BLM lands	1	Afternoon and evening	--	--	0	0	5	--			Lightning
											Lightning storms set more than 100 fires on range land and in the National Forests requiring parachute jumpers and a number of fire protective districts to control.
Elkhorn Creek, Custer County	5	2:00 p.m.	5	*2	0	0	3	--			Flash Flood
											Flash flood covered Highway 93A 18 miles north of Mackay with 12 to 20 inches of mud and silt.
Pocatello, Bannock County	5	Afternoon	--	--	0	1	--	--			Lightning
											Lightning struck and hospitalized a man on an overpass in Pocatello.
Lincoln and Elmore Counties	5	Afternoon	--	--	0	0	4	--			Lightning
											Lightning killed 40 head of sheep under two trees on the Domingo Solosga sheep farm between Shoshone and Jerome. Strong winds gusting to 68 mph at Mountain Home AFB, 032010M, in moderate thundershower.
Montevieu, Camas, and Hamer Areas, Jefferson County	27	6:00 p.m.	15	*5	0	1	3	4			Thunderstorm, Hail
											Marble size to 1-inch hail destroyed standing grain and heavily damaged hay and potato crops. Windows and a few auto windshields were broken and a housewife was hospitalized from lightning strike.
Hazelton, Jerome County	27	8:00 a.m.	--	--	0	0	3	--			Lightning
											Lightning killed three cows and a calf, damaged several deep well irrigation pumps.
Southwest and South Central Idaho	30	7:00 a.m. to 9:00 p.m.	--	--	0	0	4	3			Thunderstorm
											Thunderstorms, with lightning, wind, and rain, caused \$10,000 damage to power substation at Richfield. 36 new spot fires were set in crackling dry forests and a major blaze 80 miles east of McCall was spread to over 1,000 acres by a lightning storm southwest Idaho. Strong winds to 59 mph at Mountain Home AFB, 301910M, in heavy thundershower.
Idaho (continued)											
Burley, Cassia County to Blackfoot, Bingham County	31	Afternoon	--	--	1	1	4	--			Thunderstorm, lightning, wind
											A Cassia County farm worker was killed by lightning southwest of Burley. Strong winds, Bingham County, toppled large trees, damaged buildings and utility lines; wind gusts estimated to 70 mph.
Illinois											
Massac County	9	5:30p									Funnel cloud
											Reported as tornado 2 NW Metropolis but no confirmation as such. Co. ld have been funnel cloud.
Chicago area	15-16				0	0	5	0			Lightning, rain, wind
											Severe thunderstorm late 15th and early 16th with up to 3" rain. Power lines damaged, local flooding, and lightning caused fire with \$75,000 damage.
Indiana											
Culver (Marshall County)	12	E.S.T. Afternoon			1	0	0	0			Lightning
											Girl taking refuge under tree was killed by lightning.
Iowa											
Epworth, Dubuque County	1	1:00 a						4			Lightning
Mills, Fremont, Taylor, Montgomery & Page Counties	2	9:28 p				3	5	5			Windstorm
											Line of intense thunderstorms. Heavy damage along a path about 29 miles wide in Mills County. Heavy damage and three injuries at Glenwood. Damage at Malvern, Hamburg, Emerson, Red Oak, Shenandoah & Bedford. Winds to 75 mph. in northern Page County.
Oakland, Pottawattamie County	2	10:00 p									Funnels (2)
Leon, Decatur County	3	0:30 a						4	4		Windstorm
8SW Oskaloosa, Mahaska County	5	0:30 a						4	4		Windstorm
SE Iowa	5							5	5		Heavy rains
											Several days of heavy rains caused flooding & crop inundation.
N of Allerton, Wayne County	8	4:00 a						4			Lightning
Creston, Union County	18	0:15 a						4	4		Hailstorm
											1 1/2" diameter hail.
Kansas											
Miami County	6	4:15 p.	1	?	0	1	4	0			Wind
											Damage occurred about 7 miles northwest of Osawatimie.
Western portion	7	afn.-evening			0	0	4	4			Wind, hail, lightning
											In the evening, hail up to 1 1/2 inches in diameter fell in the Quinter area and lightning resulted in the destruction of a house in northwest Haskell County. Wind damage occurred locally near Logan about 3:45 p.m.
Montgomery County	8	7:45 p.			0	0	5	0			Lightning
											Lightning resulted in estimated losses of \$150,000 at Caney.
Wallace County	12	evening			0	0	4	0			Wind, lightning
											Damage occurred at Sharon Springs.
South central	15-16	eve of 15; night of 15-16			0	0	4	0			Wind, lightning
											Heaviest wind damage was at the Pratt airport but some damage also occurred north of Haven about 7:00 p.m. Lightning damage was reported north of Pratt.
Eastern portion	18	eve			0	0	4	3			Wind, hail, lightning
											Wind and lightning damage occurred locally in Harper and Coffey Counties. Wind and hail losses were reported over parts of Marion and Douglas Counties. Thunderstorm winds caused some damage to power lines and television antennas at Manhattan.
Brown County	19-20	night			0	0	4	0			Lightning
											Damage occurred near Powhattan.
Coffey County	20	6:00 a.			0	0	4	0			Lightning
											Damage occurred between Waverly and Burlington.
Grant County	21	9:00 p.									Funnel aloft
											Funnel aloft observed about 6 1/2 miles NNW of Ulysses.

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					KILLED	INJURED	PROPERTY	CROPS		
Kansas (continued)										
Elk County	21	eve			0	0	4	0		Lightning
										Damage occurred south of Moline.
Grant County	21	9:50 p.	?	?	0	0	0	0		Tornado
										Tornado, moving northeast, touched down briefly in open country about 10 miles SW of Ulysses.
Cherokee County	22	about 1:10 p.			0	0	4	0		Lightning
										Damage occurred between Melrose and Chetopa.
Kentucky										
Southwest	1	p.m.			0	0	?	?		Rain, wind
										Thunderstorm activity was responsible for heavy rains in several counties and some wind damage in another. In the southeastern part of Caldwell County, about 5 p.m., several unofficial reports listed heavy rains falling in less than an hour, totals from four locations ranging from 2.9 to 4.5 inches. In Christian County in the Hopkinsville area, 2 inches of rain in the evening was responsible for flash flooding in some low-lying areas. About 5:30 p.m. in Allen County high winds uprooted 10 trees; camping equipment, autos and trucks were damaged by falling trees and/or tree limbs.
State	3				0	0	5 ⁰	C		Lightning, wind
										A line of thunderstorms in advance of a cool weather front moved southward across the State. In the late morning and early afternoon there was a variety of damage chiefly in the northern half of Kentucky. About 10 a.m., a home burned in Franklin County, apparently set afire by lightning. About 10:30 a.m. a barn burned in Mason County, probably set on fire by lightning. In the early afternoon in Boyle County a large barn together with farm machinery was burned, apparently set afire by lightning; in Johnson County in the Paintsville area roofing of a business firm was blown away, and there was some minor wind damage.
										In the late afternoon and early evening there was heavier damage, chiefly in the south central section. A barn burned in Calloway County, probably set afire by lightning. In Russell County a house burned, probably set afire by lightning, and a number of trees and utility lines were downed by high winds. In Wayne County wind damaged a roof. In Rockcastle County winds downed a barn and an airplane hangar and a number of trees; damaged several barns and houses, TV antennas, two mobile homes, corn and tobacco crops. In Metchie County winds downed 2 barns, trees and utility lines; damaged automobiles (fallen trees), several barns and houses; damaged several corn and tobacco crops. In Allen County wind damaged trees and utility lines and several houses; a barn burned, probably due to lightning, and there was some lightning damage to homes and appliances. Seven cattle were killed by lightning. A portion of a tobacco crop in the field was damaged by lightning.
Casey, Pulaski, Laurel, and Wayne counties	8				0	0	?	?		Rain
										Heavy rains during the period of the 8-10th totaled from 3 to 8 inches over much of the area and unofficial reports from news sources indicated unofficial totals from 12 to 15 inches in the vicinity of Skeubenville in northern Wayne County. A number of families had to leave their homes due to high water, especially in the Somerset area of Pulaski County. Business establishments were flooded, water covered a number of roads, and there was damage to farm crops and lands.
Shelby County	13	Afternoon			0	0	4 ⁰	C		Wind, Hail
										Hail stripped some tobacco crops in the area along U.S. 60 West, Chestnut Grove and Todd's Point. Wind broke windows of a furniture store, the glass damaging furniture; damage to building and furniture was estimated at about \$6,000.
Shelby County	17	Evening			0	0	4	0		Lightning
										Lightning killed two yearling mares and a four-year-old mare. The value of the mares was in excess of \$20,000.
Jefferson County	19	p.m.			0	0	?	?		Wind, lightning rain
										Wind downed trees and utility lines, blew out windows, damaged several roofs. Lightning struck several homes. Some basements were flooded.
Harrison County	19	Afternoon			0	0	4	0		Wind, rain
										High wind demolished a mobile home at Linn Station, 4 miles south of Lynthiana; the furnishings were heavily damaged by the winds and/or rain. Occupants were not injured, though damage was estimated at \$12,000.
McCracken County	20	Afternoon			0	0	4	0		Wind
										High winds damaged a building under construction, a gust toppling a block-and-brick wall onto the roof of an existing building.
Meade County	21	2:00 p.			1	0				Lightning
										A man was struck by lightning while standing in the doorway of a barn near Brandenburg.
Central, east	31	p.			0	0	5	0		Lightning
Kentucky (continued)										
There was a number of thunderstorms in the afternoon and evening hours, tops of some reported as 51,000 feet. At least two dozen cattle were killed by lightning, at least 4 barns were destroyed by fires apparently set by lightning, and several houses were victims of minor to heavy damage due to lightning strikes. There was some damage to utility lines and equipment in at least one location. Some of the counties from which damage reports were received were Ohio, Grayson, Hardin, Taylor, Green, Madison, and Harlan.										
Louisiana										
FUNNEL CLOUDS REPORTED DURING AUGUST										
	11	1:45p.	Orleans	3W	WFO					New Orleans
	15	9:07a.	St. Charles	6W	WBO					Moisant Intl. Airport
	16	11:15a.	St. Charles	5SW	WBO					Moisant Intl. Airport
	17	3:31-3:40p.	St. Charles	(2 funnels)	10S	WBO				Moisant Intl. Airport
	17	3:41-3:46p.	Jefferson	Fear	WBO					Moisant Intl. Airport
	18	12:45p.	Concordia	12SW	Natchez					Miss.
	18	1:00p.	Concordia	3SW	Natchez					Miss.
	23	3:10p.	Claborne	Year	Haynesville					(3 funnels)
	28	4:50p.	Cameron	Year	Cattfish Point					
	28	4:55p.	Cameron	Year	E of Lake Sabine					(3 funnels)
	28	5:15p.	Cameron	Cameron						
WATERSPOUTS REPORTED DURING AUGUST										
	17	3:50-4:00p.	Lake Pontchartrain	10NE	WBO					Moisant Intl. Airport
	22	1:50-2:00p.	Lake Pontchartrain	10S	WBO					Moisant Intl. Airport
	28	4:55p.	Lake Sabine							
Maine										
Southwest	1	evening			0	0	4	0		Rain, wind
										Thunderstorms brought locally damaging wind and rain. Falling trees and limbs caused utility outages, with several such incidents in Bath. Local excessive rain caused washouts, with the Acton area hard hit. One stretch of road about 1/2 mile long was washed out to a depth up to 10 to 15 feet. The roads from Acton to Milton Mills (N.H.) were completely cut off. Unofficial reports claimed over 6 inches of rain fell in about two hours near Acton.
Houlton	3	4 p.m.			0	0	4	0		Rain, lightning
										About two inches of rain in one hour caused much flooding of streets and cellars. Lightning caused utility failures.
Guilford - Dover Foxcroft, southeastward to near Old Town	26	about 4p.m.			0	0	3	3		Hail, wind
										Hail up to 3/4th inch size damaged tree leaves and crops. High wind felled trees and limbs along a generally southeasterly thundersquall path. Some roads blocked by fallen trees. Utility outages. An hour or two later a second storm followed much the same path. Local wind damage also occurred in other parts of Maine.
Maryland										
Frederick County	14	Late afternoon			0	0	4	0		Lightning, wind
										Lightning caused a fire which leveled a barn near Mount Airy. Several cows and much new down hay were lost in the blaze. There were scattered reports of interruptions to telephone and power service by strong winds which knocked down trees and lines and also by lightning.
Forest Hills - Rocks area, Harford County	20	4:00 p.-5:30 p.			0	0	4	0		Rain, flash flooding
										Heavy thunderstorm rainfall, reported unofficially as much as 4 inches in 1 1/2 hours, brought flash flooding to this area. A Rocks couple were forced to escape to the roof of their home when flood waters surrounded them to the depth of about 1/2 feet. Damage to home and contents was estimated at \$15,000. Some damage was also noted to roads and culverts.
Vienna-Salisbury area	20-21	During night								Rain
										Cooperative Weather Bureau stations at Vienna and at Salisbury reported 4.80 inches and 3.78 inches, respectively during severe thunderstorms. No damage was reported.
Frederick County	31	4:15 a.			0	0	3	0		Lightning
										Lightning was cited as the cause of a fire that destroyed a barn near Emmitsburg. Damage was estimated at about \$1,000.
Massachusetts										
New Bedford	1-2	11:30 p.m.-1:30 a.m.			0	0	3	0		Excessive rain
										Rain gage at the New Bedford Hurricane Barrier recorded 5 1/2 inches in two hours or about 50% more than the maximum 2-hour rainfall expected to fall only once in 100 years. Another 1/2 inch fell earlier, with a storm total of 5 3/4 inches. Other gages in the greater New Bedford area caught from 2 to 4 inches. Local flooding of streets and cellars.

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

AUGUST 1970

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
Massachusetts (continued)									
Southeast and Cape Cod	2				0	2	4	0	Lightning, wind
Lightning injured one in Middleboro and a sailor in Plymouth Harbor. Lightning set fires and knocked out utility service in many Cape areas and on Martha's Vineyard. Wind felled trees in some areas and capsized seven boats in Plymouth Harbor. Topped poles in the Bridgewater area blocked weekend traffic returning from the Cape for several hours. Hail fell at Plymouth but damage was reported.									
Mansfield	2	12:30p.m.	2	100	0	0	4	2	Tornado
Poorly developed tornado with funnel appearing as swirling mist. Maximum damage path less than 100 yards wide but minor damage extended to about 500 yards wide. Storm moved easterly before turning southerly along Main St. Several homes damaged by falling trees. A garage was demolished.									
Florida	8	p.m.			0	0	3	1	Lightning, hail
Damage to home by fire from lightning. Large hail reported.									
Nantucket and coastal	11-12				0	0	4	0	Wind
A number of boats were capsized or damaged by strong winds, with major effect at Nantucket.									
Northern	17	6:45-7:30 a.m.			0	0	5	4	Thundersquall, tornado, hail
Squall winds cut a path of scattered damage varying from one to several miles wide near the New Hampshire border eastward from Northfield for about 40 miles, with greatest damage in Warwick, Royalston and Winchendon. Many trees uprooted, others sheared off at various heights. Some buildings damaged or demolished by wind and by falling trees. Many roads blocked. Some cars hit by trees. Roar of tornado funnel reportedly heard by many but actual contact with ground believed limited to a few small spots. Major damage appeared to be from straight winds. The accompanying hail mostly 1/2 to 3/4th inch size, some larger. Much crop damage in Winchendon area. Heavy rain accompanied squall but lasted only a few minutes with small totals, mostly under 1/2 inch. Some areas received 1/2 to 1 inch, with minor local flooding.									
Southeastern	17	p.m.			0	3	5	0	Lightning, rain, hail, waterspouts
Many cases of lightning strikes setting fires and damaging buildings and utility lines. One injured by lightning in Oxford, one in Westboro, and one in Provincetown. Street and cellar flooding from local heavy rain in some areas. Hail, some in large chunks, fell in the Truro area; where wind gusts of 60 mph were reported. Waterspouts were reported offshore near Race Point.									
Eastern	20-21	night			0	0	4	0	Lightning, rain
Many cases of lightning damage with fires set, mostly of minor extent, and utility outages. Heavy rain caused street and cellar flooding in many areas and road washouts in some.									
State	23				0	0	4	0	Rain, wind
Rain, totalling mostly 1 to 3 inches, caused local flooding and washing in many localities. Wind toppled tree limbs in local areas, with some utility outages resulting.									
State	28	p.m.			0	2	5	0	Lightning, wind
Locally severe thundersqualls with much lightning damage. Lightning injured one in South Deerfield and one in Orange. Much damage from lightning fires. Scattered wind damage to trees and limbs, with utility outages. The Cape Cod Canal lights were knocked out by lightning.									
South Dartmouth (Padanarum Harbor area)	28	10 p.m.	1/2-1	narrow	0	0	4	0	Tornado
No funnel seen in darkness but explosive effect on damaged buildings and the nature of path indicated this to be probably a tornado. Many boats in harbor tipped over. Nearly boat anemometers indicated wind to 100 mph.									
State	31	a.m.			0	3	4	0	Wind, lightning
Scattered wind and lightning damage. Three hurt in Marlboro when struck by flywood blown by wind. A large dairy barn in Middleboro burned after a lightning strike.									
Michigan									
Niles, Berrien County	1	1:45 AM			0	0	4	0	Thunderstorms
Heavy thunderstorms passed through the Buchanan-Niles area, toppling trees and power lines. Largest single loss, \$9000, occurred at Buchanan when a tree smashed into a home. Isolated damage was reported in many areas of southern Michigan as the storms moved eastward.									
Dearborn, Wayne County	12	6 PM			0	2	0	0	Lightning
Lightning struck two baseball players near second base. One, his shirt burned off his chest, was hospitalized for treatment of burns and shock. The second player was treated for shock and released.									
Michigan (continued)									
Jackson, 15 SW Jackson County	18	11:55 PM			0	0	4	0	Lightning
Lightning blew tops off two oil storage tanks. Tops were found 700 feet from the tanks, oil inside burned for 4 hours. Loss estimated at \$8000. At 10:45 PM a lightning-set fire destroyed one barn near Keeler in Van Buren County.									
East Central Lower Michigan	19	Midnight-3 AM			0	0	4	0	Lightning
Lightning-set fires destroyed; 2 barns, milkhouse, 4000 bales of hay and killed 5 calves near Owosso; 1 barn near Cass City; damaged a church at Bay City; and set some smaller fires as they moved eastward to the Thumb area.									
Grand Rapids, Kent County	19	2 PM			0	0	2	0	Lightning
Lightning bolt splintered carport roof, metal clothes-line pole, damaged color TV, and popped the TV antennae-lightning-conductor off the house. Fifteen-year-old son, working on motorbike under carport said white sparks filled the air as from a welding torch and his motorbike turned white for several seconds. He was holding a rubber tire and was uninjured by the incident. The bike did run without problems after it cooled off.									
Saginaw, Saginaw County	26	5:15 PM			0	0	3	4	Hail - Heavy Rain
Hail, 3/4 to 1 inch in diameter caused almost total loss of crops in an area one mile wide just north of Tri-county Airport. Some autos were dented, windows broken in homes and vegetable gardens ruined. Heavy rain caused flooded basements in the area.									
Minnesota									
Jackson and Nobles Counties	7	5:00am-9:00am			0	0	0	?	Heavy Rains
Local thunderstorms with heavy rains. Unofficial reports of 7 inches at Round Lake with 4.75 inches 6-1/2 miles northeast of Round Lake.									
Byron, Goodhue County	11	2:20pm			0	0	0	0	Hail
Golf ball size hail reported.									
Cass County	11	4:15pm-4:45pm	8	1000	0	0	3	0	Wind and Hail
Strong winds and hail caused some tree damage in southern Wabedo Township.									
Northern Part of State	14	10:45am-4:30pm			2	0	5	5	Severe Winds and Hail
Severe thunderstorms with hail and severe winds occurred on an easterly moving cold front caused damage across the area, wind particularly along south shore of Lake Kahetogama, where one person was drowned when a boat capsized and another person was killed when wind blew a tree onto his car, about 50 houseboats received damage and many reports in area received some damage. Ash River in Township 67 and Range 29 reported considerable tree damage. Hail crop damage was reported in northern Clay and southern Norman Counties, though some hail was reported across the entire area.									
Central and Southern Minnesota	14	7:00pm-11:00pm			0	0	0	0	Hail and Wind
Thunderstorms with localized hail and winds along an easterly moving cold front caused some light wind damage mostly to trees. Heavy crop hail damage was reported in eastern Lac Qui Parle, western Chippeka and southeastern Swift Counties. Light amounts of hail was reported in several other counties.									
Renville County	19	1:00am-3:00am			0	0	0	4	Hail
Eastern Renville County reported crop hail damage with some scattered amounts in other near by counties.									
Central Minnesota	28	10:00pm			0	0	5	?	Winds
A line of thunderstorms 80 miles wide from Madison through Red Wing moved across the central part of the State with rain, scattered hail, strong lightning and some locally strong winds. Straight winds generally from northwest between 1:00pm to 5:30am in the Faribault-Owatonna to Rochester-Plainview areas; caused major damage to a mobile home as it rolled over at Owatonna; broke off many trees and large branches which damaged roofs and caused many power outages; blew down a barn 5 miles southwest of Elgin; rolled over 10 campers 6 miles north of Rochester. Severe lightning was common across the southern part of the thunderstorm line and caused minor damages at several locations. Rainfall amounts were generally from 1 inch to more than 3 inches.									
Northwest Minnesota	29	Evening			0	0	4	4	Hail and Winds
Thunderstorms with hail and local winds between 7:00 and 8:00pm caused crop hail damage 10 miles northwest of Ada and 15 miles south of Moorhead. In Roseau County, a strong thunderstorm cell 5 miles southeast of Greenbush at 7:00pm left a hail and wind strip about one-half mile wide and 10 miles in length. The hail destroyed some small grain and the wind caused minor damage to									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

AUGUST 1970

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM	
					KILLED	INJURED	PROPERTY	CROPS		
Minnesota (continued)										
									Several farm outbuildings and blew down many trees. In Pennington County, another thunderstorm cell 5 miles northeast of Thief River Falls at 10:15pm left a damaging wind strip from several hundred feet to one-half mile wide and about 4 miles in length. The wind destroyed a small barn and several small outbuildings on two farms and blew over several hay bale piles.	
									FUNNEL CLOUDS REPORTED IN AUGUST	
									Freeborn County 11 2:20pm Glenville 3 Funnels Carlton County 14 7:45pm Cromwell 2 Funnels	
Mississippi										
Hinds County	4	8:25 p.			0	0	?	0	Wind	
									Sheriff's unit reported high winds at 8:25 p.m. CST in NW Jackson, some trees down (Forest Ave. and Pochontas St.) (lat. 32.3° N, long. 90.1° W).	
Coahoma County	10	About 3:30 p.			1	0	0	0	Lightning	
									While lady and 12-year-old daughter were removing clothing from line on lawn of a Rena Lara home, lightning struck a tree to which the line was attached. The child was killed; newspaper noted, "it is thought the charge traveled along the clothes line."	
Coahoma to Ialobusha Counties	9-10				0	0	?	?	Heavy Rain	
									Heavy to torrential rains were reported at some locations; minor damage to some streets and some crops. COAHOMA COUNTY: Evaporation observer at Clarksdale at 6 a.m. measured 5.30 inches rain. County agent reported different areas of the county varied in need for the rainfall. "A few areas in the county, . . . were short . . ." he explained soybean crops benefited, for the most part, though the rains were detrimental to some cotton. Clarksdale newspaper headlined "Street Damage Heavy." QUIMAN COUNTY: Precipitation observer at Lambert at 9 a.m. measured 6.75 inches rain. YALOBUSHA COUNTY: Precipitation observer at Bald Dam at 7 a.m. measured 5.76 inches rain since 8:30 p.m. CST of 9th.	
Walthall County	12	Afternoon			0	2	0	0	Lightning	
									Newspaper noted, "Two members of the county road crew were hit by lightning, Wednesday afternoon as they were working east of Tyler-town. . . . They "were not seriously injured. . . ."	
Mississippi Sound	15	10:15 a.							Waterspouts	
									Harrison County Sheriff's office reported two waterspouts in Gulf moving towards land 1/2 mile S of Handston (lat. 30.1° N, long. 89.0° W).	
Warren County	17	About 3 p.			1	0	0	0	Lightning	
									At Eagle Lake a thunderstorm came up about 3 p.m. CST. A 60-year-old man apparently tied a boat at bank and sought shelter in a clump of trees. Lightning struck one of the trees and his body was found there.	
Okibbeha County	17	12:50 p.							Funnel Cloud Aloft	
									Man reported during cloudy weather he observed one funnel aloft, it was "a wide funnel cloud. . ." observed approximately 1/2 miles away . . ." and SE Starkville (lat. 33.4° N, long. 88.7° W). It was seen about 5 minutes. Highway Patrol at 1415 p.m. reported thunderstorm S of Starkville is the only weather noted.	
Scott County	18	About 4 p.	Under **250	?	0	0	?	0	Tornado	
									During rainy weather, one funnel cloud was reported to have reached the ground "not very near ground" briefly at a small farm in Oakdale Community, 5 N Forest (lat. 32.5° N, long. 89.5° W). Storm moved towards NE; roof off 2 chicken houses and tarp blown off house.	
Alcorn County	20	Afternoon			0	1	0	0	Lightning	
									Near Corinth on Waukonis Road, a 10-year-old girl was on a swing set when lightning hit the ground nearby and ran to one of the posts holding the swings. The bolt knocked her to the ground but she was not seriously injured.	
Hancock County	21	2:10 p.-2:15 p.							Funnel Cloud Aloft	
									A funnel cloud, not touching ground, was reported by Gulfport Police Department as 10 W Bay St. Louis (lat. 30.13° N, long. 89.1° W). The funnel cloud disappeared at 2:15 p.m. Radar noted heavy thunderstorm cell with top 54,000 ft.	
Mississippi Sound	21	3:20 p.							Waterspout	
									Pilot reported waterspout 15 SW Gulfport (lat. 30.2° N, long. 89.3° W).	
Missouri										
St. Clair, Franklin County	4	1:20 PM							Thunderstorm Winds gusting to 58 miles-per-hour caused tree damage.	
Missouri (continued)										
Arthur, Vernon County	6	About 2:00 PM						4	Thunderstorm Winds	
									Strong thunderstorm winds overturned two mobile homes and a tractor trailer unit and caused scattered roof damage in Arthur, on U.S. 71, 12 miles north of Nevada, Missouri.	
Greene & Christian Counties	8	9:15 - 10:15 PM						4	Thunderstorm Winds	
									Thunderstorms caused scattered moderate wind damage in Greene and Christian Counties. Eleven pickup type camper units were rolled and badly damaged at a sales lot in Glidwell on Mo. Highway 13, 3 miles north of Springfield. Peak gusts at the Springfield Airport were 62 miles per hour at 9:27 P.M.. Two mobile homes were rolled over in a rural area near Highlandville in west central Christian County.	
Festus-Crystal City area, Jefferson County	9	1:10 A.M.						4	Thunderstorm Winds	
									Thunderstorm winds accompanied by torrential rain, and local flash flooding caused considerable tree, power line and minor structural damage in the Festus-Crystal City area and at a few other locations in east central Jefferson County.	
Newtown, 3 E, Sullivan County	15	About 6:30 PM						4	Thunderstorm Winds	
									A mobile home was literally torn to pieces by strong winds from a thunderstorm 3 miles east of Newtown in extreme northern Sullivan County. The occupants took refuge at a nearby home as the storm approached.	
Nodaway County	17	8:00-9:00 PM						4	Wind, Hail, Lightning	
									A severe thunderstorm crossed north central Nodaway County producing reports of hail to golfball size in Maryville at 8:10 PM at Burlington Junction and in a strip to six miles to the northeast. Three homes were struck by lightning and burned to the ground. One home was 2 miles north of Maryville and the other two about 7 miles northwest. Scattered trees and power line damage due to strong winds occurred in the same areas.	
Kirkville, Adair County	18	1:50 AM						1	Thunderstorm Winds	
									Six mobile homes were destroyed and six others damaged by strong thunderstorm winds at a trailer park on U.S. 63, 1 mile north of the Kirkville City Limits.	
Indian Point, Table Rock Lake, Stone County	19	1:55 PM	1/2	100				3	4	Tornado
										A small tornado destroyed one 118'x18' section of the Indian Point boat dock on Table Rock Lake in eastern Stone County. Witnesses said the dock was lifted 16 feet out of the water before the roof was taken off and the dock slammed back into the water in pieces. Twenty boats were sunk but damage to boats was not too extensive. The tornado was preceded by light rain and some wind which stopped suddenly producing a quiet calm with light drizzle just before the roar of the approaching tornado could be heard coming across the lake. The tornado apparently lifted to tree top level in a camping area adjacent to the lake. Prior lesser wind damage at the Kimberling Cove Marina and the Highway 13 Public Boat Dock about 4 miles to the west southwest at 1:50 PM was thought by most witnesses to be due to straight wind gusts from a thunderstorm.
Montana										
Fergus County	2	Evening			0	0	0	0	4	Hail, strong winds
										A strong thunderstorm accompanied by strong winds and hail moved northward through the Winifred area. Hail destroyed an estimated 1000 acres of wheat and barley.
Valley County	6	10:00 a.m.			0	0	?	0	0	Tornado
										Tornado was observed 25 miles south of Pearless. A granary and hogshed were reported to have been moved two to three hundred feet.
Dawson County	13	3:30 p.m.			0	0	?	?	?	Strong winds
										Strong winds moving from the south into Buffalo Rapids uprooted trees, destroyed sheds and corrals. One airplane hangar disappeared and has yet to be found. A piece of wood six inches long, one inch diameter was reported to have been driven into a 2' x 4' board.
Nebraska										
Blaine County	1	5:15p	15	2*	0	0	4	4	4	Wind, hail
										Trees, antennae, windmills, blown down, campers overturned, etc. Hail 1 1/2" diameter and high winds flattened corn crop and damaged hay.
Boone County	1	Night	20	1*	0	0	0	0	5	Hail
										Scattered areas of hail reported in strip clear across the county. Some stones as large as 2" in diameter fell southwest of Albion.
Hamilton County	1	Evening	--	--	0	0	4	0	0	Lightning
										Farm home near Marquette burned to ground.
Hamilton County	1	9p-10p	2	1 1/2*	0	0	0	0	5	Hail
										Corn crop destroyed in an area located south and east of Marquette.

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

AUGUST 1970

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					KILLED	INURED	PROPERTY	CROPS		
Nebraska (continued)										
York County	2	Midnight-1a	8	2*	0	0	4	5		Hail, damaging winds
			Hail, 1/2" diameter, and strong winds damaged corn in 16-section area south and east of Henderson. Winds uprooted trees, destroyed grain bins, damaged roofs and plate glass windows, etc. in the Henderson-Lushton area.							
Lancaster County	2	Midnight-1a		Spot	Spot	1	0	0	0	Lightning
			Man killed while seeking shelter under a tree.							
Eastern Nebraska	2	7p-10p	200	60*	0	15	6	6		Severe thunderstorms, damaging winds
			Thunderstorms developed in southern Antelope and Northern Boone Counties about 7p CST. The system was composed of numerous closely packed cells as it moved rapidly east-southeastward crossing Sarpy County between 9p and 10p, moving into Iowa in a direction towards Glenwood. The center of the path of strongest winds and greatest damage was along the Petersburg-Columbus-Mahood-Springfield-Plattsmouth line. Major wind damage extended about 20 miles north and 30-40 miles south of this line. Isolated winds and lightning strikes extended even further resulting in fires and power line damage.							
			The damage was extensive, covering entire counties and was mostly from excessive winds rather than from tornado action, although the tornado reported below was associated with the system. Damage from the winds included trailer homes, plate glass windows, farm buildings, radio transmitting towers, roofs from substantial buildings, etc. Very large trees were principal targets of the winds over broad areas doing considerable damage to power lines, automobiles, and buildings as they fell.							
			Some hail accompanied the storms, but it was not extensive or large. Crop damage was attributable more to the wind than to the hail.							
			Minor injuries occurred overturning trailer homes, flying glass from plate windows, falling trees, etc. No major injuries or deaths were reported.							
Eastern Nebraska	2	7p-10p	?	?	0	0	5	0		Tornado
			Evidence indicates a tornado touched down intermittently as the severe storm described above moved across eastern Nebraska, but it did not remain in contact with the ground very long. Considerable damage was done at Petersburg by the tornado. It was sighted again northeast of Cedar Rapids and as funnel clouds near Eagle.							
Dawson County	2	10:30p	--	--	0	0	0	0		Tornado
			Sighted by Highway Patrol. No damage reported.							
Platte County	2	11p	7	2*	0	0	0	5		Hail
			80% loss to crops in a strip from Humphrey to Creston. Stones ranged from 1/2" to 3/4" in diameter.							
Panhandle	11	About 5p	15	1-3*	0	0	4	5		Hail
			Hail 1 1/2" in diameter fell at Agate and in a 1 to 3 mile wide strip from 8 miles north of Scottsbluff to Kelbeta. Sugar beets, corn, and beans severely damaged but not completely destroyed.							
Keith and Perkins Counties	12	2:20p	15	?	0	0	4	5		Hail
			Moved from Sarben southwest through Paxton and on into Perkins County. Hail covered ground to three inch depth at some sites. Roof and automobile damage. Corn damaged beyond recovery and was cut for silage.							
Boone County	29	Afternoon	--	--	1	0	2	0		Wind
			Seven miles northeast of Petersburg. Man killed when wall of farm building blew over onto him.							
Nevada										
Ely	18	3:00 PM			0	0	?	0		Flood
			A sudden thundershower caused water to run out of the canyons and into the streets. Basements of buildings were flooded from three to four inches on the floor. No major damage was reported.							
Elko	27	P.M.			0	0	5	0		Flood
			A downpour associated with an intense thunderstorm dropped 4.13 inches of rainfall over the Elko Airport in two hours. In one hour, 3.64 inches fell. This was the greatest precipitation recorded since records began in 1870. The water flooded streets and basements. The storm was confined in a small area in and immediately around Elko. Most severe damage was along a low area between Fifth and Sixth streets in the north portion of Elko. The water dislodged large chunks of asphalt. Heavy damage was reported at the Southside Wash flood control dam project. The storm disrupted telephone service. The flood did an estimated \$100,000 in property damage.							
Nevada (continued)										
Battle Mountain	30	P. M.			0	0	0	0		Hail
			Hailstones, approximately 1/2 inches in size reported fell in the vicinity of Battle Mountain. The hail was associated with a large thunderstorm. No damage was reported.							
Las Vegas	26	P. M.			0	0	?	0		Flood, Lightning
			Rain from thunderstorms flooded parts of Las Vegas with rain estimated to 2 inches in parts of the town. Kidney-sized hail with strong gusty winds was associated with the thunderstorms. Four feet of water rushed down Mohave Avenue between Charleston and Bonanza roads. Traffic jams developed due to minor accidents and stalled automobiles. A few power poles were downed by lightning or wind. Power outage was reported in some areas. In one case lightning took six feet of bark off a tree.							
Henderson, Boulder City	29	P. M.			0	0	?	0		Flood, Thunderstorm
			A violent thunderstorm across southern Nevada flooded homes, affected power and swept down trees. Some damage was reported at the Marina in Lake Mead. Wind was estimated at 50 to 60 mph.							
New Hampshire										
Melvin Village	4	p.m.		narrow	0	?	4	0		Thundersquall
			Considered to be possibly a small tornado but heavy rain obscured chance of seeing any funnel. Mobile homes were overturned. No serious injuries reported. Roads blocked and utility wires downed by fallen trees. Path narrow.							
Winchester, Hollis, Nashua	17	a.m.		narrow	0	0	5	3		Thundersquall, tornado, lightning, hail, rain
			Associated with the Massachusetts thundersquall, a small tornado at about 6:50 a.m. cut a 30-yard path eastward for about 1 mile in Winchester, very near the Mass. border. All trees in path were uprooted or broken near ground. The path swerved just in time to prevent destruction of a house, which was only damaged by falling debris. The accompanying hail fell in chunks over two inches long, denting autos. The thundersquall path reentered New Hampshire at about 7:30 a.m. and continued through Hollis and southern sections of Nashua. Only a few reports of funnel sightings in this area. Most damage apparently from straight winds though funnel may have touched down in a few places. Typical loud roar heard. Visibility restricted by heavy rain. Falling trees damaged homes and crushed some cars. Lightning damage included the starting of 28 fires, with one home nearly a total loss. Many utility failures. Some areas flooded by heavy rain. Some crops flattened by rain, wind, and hail.							
New Jersey										
Newark	17	2 p.m.			1	6	4			Electrical, wind.
			One ironworker was killed and six others injured when struck by a bolt of lightning at Newark Airport. The thunderstorm, accompanied by high winds with gusts unofficially reported as high as 60 miles per hour, knocked down a steel frame building and caused damage to several aircraft.							
New Mexico										
San Juan County	2	7:30 p.				1	?			Lightning and injured in horse's fall.
			Horse killed by lightning stroke and rider burned.							
Albuquerque	3	Afternoon				1				Lightning
			One man burned and injured when struck by lightning on golf course.							
Hobbs	19	5:00 p.				1				Lightning
			One golfer killed when struck by lightning.							
Jordan	20	5:15 p.				?	?			Hail
			Golf ball size hail damaged some row crops and electric lines.							
Albuquerque	31	1:45 p.				1				Lightning
			One surveyor injured when transit struck by lightning.							
New York										
Dunkirk, Chautauqua County	3	7 a.m.					4			Wind
			Severe local winds struck city of Dunkirk during morning thunderstorm activity. Damage confined to trees, many of which were blown over but some broken off at heights of 10 to 15 feet above ground. A dozen or more streets in city blocked by fallen trees, limbs and utility wires as roofs, porches and sides of buildings as well as a few cars were damaged thereby. Power outages affected some 1500 customers. Relatively little direct wind damage to buildings, roofs, windows, etc. was evident, thus discounting press reports that storm was a tornado.							
Constable, Franklin County	3	1 p.m.					2			Lightning
			Two boys stunned and badly burned by lightning bolt as they hid under tree during thunderstorm. One boy suffered temporary paralysis of his legs. Their dog companion was killed.							

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

AUGUST 1970

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM	
					KILLED	INJURED	PROPERTY	CROPS		
New York (continued) Duane Lake, Schenectady County	3	3 p.m.					3		Waterspout	
									Disturbance over lake moved close to shore causing damage to small boats, trees and small buildings.	
Gallupville, Schoharie County	3	afternoon					4		Lightning	
									Fire, resulting from lightning strikes, destroyed two large barns with contents of 2,000 bales of new hay and several small pieces of farm machinery.	
St. Lawrence Valley	11	evening					4		Electrical	
									During evening thunderstorms lightning knocked out communication equipment at main fire station in city of Malone, Franklin County, forcing a sudden emergency upon a system that depended on call-firmen. Thunderstorm damage to trees and utility wires occurred in widely scattered sections of Malone and elsewhere in St. Lawrence Valley. Especially hard hit were villages of Horriestown and Heuvelton, St. Lawrence County.	
Fort Salonga, Suffolk County	15	early p.m.					3		Lightning	
									Young girl critically injured by lightning at beach picnic near Northport. Two boys nearby also stunned by bolt but otherwise unharmed.	
Eden, Erie County	19	2:45 p.m.	3	300	0	3	5°	C	Tornado	
									Tornado moving from west to east completely destroyed home. Entire structure was apparently lifted off foundation, exploded by pressure differential, and smashed into small fragments within 150 yards to the west of original position. Other pieces of house structure, furniture and debris scattered along path of twister for a distance of a mile or more. Woman in house, seeing threatening clouds to the northwest, wisely grabbed her three small children, rushed to basement and huddled against west wall as house was blown away over their heads moments later. They sustained only minor injuries from broken glass swirling around them in basement. Part of cinder block basement wall collapsed on east side, opposite where woman and children sought and obtained safety. Elsewhere along tornado path another farm lost roof of barn, half of house roof, most of glass in greenhouse and a 2-ton farm truck carried 500 yards away. Several small buildings were demolished at other farms. Numerous trees were toppled, twisted off well above ground level or, in one case, had much of bark skinned off. Crops, especially corn, were scoured and twisted by winds as melon vines in one field were noted to have been pulled out of ground and deposited in a well defined pile.	
Southwestern	19	11 a.m. to 4 p.m.					5		Electrical	
									Midday and afternoon thunderstorms in southwestern sections resulted in several damaging fires from lightning strikes. Church destroyed at Dayton and dairy barn burned at Nappli, both in Cattaraugus County. Another barn and contents of hay, straw, oats and farm machinery destroyed near Climer, Chautauque County. Home for Aged at Fredonia heavily damaged by fire as 16 elderly residents were safely evacuated. Lightning-caused fire extensively damaged home at Gowlesville, Wyoming County and bolt destroyed TV set and splintered large section of wall in home at Jamestown.	
Niagara and Genesee Counties and Northern Valleys	20	p.m.					4		Wind, lightning, hail	
									Half-section of pre-built home was overturned by high winds near Batavia, Genesee County. Structure and contents of appliances and furniture heavily damaged. Associated thunderstorms produced hail up to 2-inch diameter in Niagara County as lightning bolts caused some structural damage to each of several homes in Lewiston and Lockport areas. Thunderstorm activity in St. Lawrence and Lake Champlain Valleys resulted in trees and utility wires downed at Ogdensburg, wind gusts of 45 mph. and 3/4-inch hail at Massena and lightning damage to power substation in Plattsburgh area.	
Albany County	21	early a.m.							Hail	
									Hail of golfball size reported 7 miles west southwest of Albany.	
Chautauque and Cattaraugus Counties	22-23	6 p.m. to early a.m.					5	C	Heavy rains, flooding	
									Nighttime thunderstorms produced intense downpours of rain in southwestern New York with totals of 2.0 to 3.1 inches in wide areas of Chautauque and Cattaraugus Counties. Flash flooding of streams forced evacuation of some 500 persons in the villages of Hartfield and Dewittville as many streets flooded by deep water in city of Mayville, all near Lake Chautauque. Stream flooding in Singairville knocked out section of village water system. Three bridges washed out and many roads flooded in central Chautauque County as flooding affected Little Valley and other communities in western Cattaraugus County. Low lying crop lands also inundated and eroded in scattered areas of both counties.	
Massena, St. Lawrence County	28	10 a.m.							Hail	
New York (continued)									Hail up to 1 3/4-inch diameter at Snell Locks of St. Lawrence Seaway, 3 miles north of Massena.	
Western and south central	30	all day					1	0	5	Electrical, wind
										Thunderstorms and heavy rains ranged widely over the State with damage from wind and lightning occurring in scattered areas from Lake Erie east to the Binghamton, Ithaca and Cortland areas. Summer cottage destroyed by lightning fire at Silver Creek and two homes heavily damaged at Ripley, Chautauque County. Localized winds damaged a marina on Lake Chautauque and scattered boats (up to 16-footers) onto the beach. Narrow section of Olean sustained extensive wind damage to trees and wooden fences. Man electrocuted near Jamestown as he contacted railroad track draped with high tension wire downed by winds. Winds overturned trailer-home at Cinchtatus, Cortland County but two children caught inside were unharmed. Another trailer-home blown over at Newark, Wayne County. Downed trees, utility lines and power outages reported in scattered areas of Genesee, Ontario, Wayne and Cortland Counties. Storm precipitation totals of 2.0 to 2.6 inches occurred widely from western Lake Ontario Counties across Finger Lakes to western Catskills.
North Carolina										
Union County	1	8 pm	2	100	0	1	4	4		Tornado, hail
										Traveled northward along a skipping path near Marshville. Mobile home completely demolished, woman occupant sustained a back injury. Church, home and outbuildings damaged. Large trees uprooted, broken off and stripped of limbs. Hail damaged crops in area.
Cumberland, Duplin, Pender, Stanly Counties	1	8 pm						4	4	Wind, hail, electrical
										Scattered wind damage to homes and outbuildings Duplin and Pender Counties. Hail damaged tobacco crop 10 sq. mi. area of Cumberland County. Wind and lightning damaged buildings Stanly County.
Cleveland, Mecklenburg Counties	2	3-4 pm			(2)	0	4	0		Wind
										Two mobile homes overturned, five others moved from foundations. Roofs to store and homes damaged, some trees down. Two persons drowned on Lake Norman in storm-related boating accidents.
Ashe, Guilford, Lenoir, Rockingham, Wake, Watauga, Wilkes Counties	3	Evening						4	4	Electrical, hail, wind
										Nighttime thunderstorms did a variety of damage in widely separated areas. Eight cattle killed by lightning in Ashe County. Barn burned and power substation damaged at High Point. Power facilities damaged at Boone, Kinston and Reidsville. House trailer overturned by wind near Raleigh. Hail damaged fruit in Wilkes County.
Gaston, Hoke Counties	5	Evening			0	3	4	4		Electrical, rain, wind, hail
										Thunderstorms caused strong winds, lightning and rain up to five inches, with some hail, in two different widely separated areas. Homes damaged by both wind and lightning. Trees and power lines down. One person struck by lightning, two others shocked by fallen power lines. Rain and hail damaged crops; some flooding of streets and basements.
Davidson, Forsyth, Guilford, Rockingham Counties	6	Early am						4	0	Rain, wind, electrical
										Pre-dawn thunderstorms several areas. Wind gusts above 60 mph reported at Winston-Salem. Aircraft and hangar damaged. Streets and basements flooded. Several lightning fires. Power, telephones out.
Northwest portion; Central and Southern foothills	8-12	--			1	0	5	6		Rain
										Portions of twenty counties affected by heaviest rains and highest streamflow in 20-25 years. Rains totaling six to twelve inches in 48 hours on 9th and 10th, and lesser amounts other days. Much flash flooding. Heavy damage to roads, bridges and crops. Some flooding of buildings in low places. One man drowned.
Henderson County	14	1 pm						0	4	Hail
										Apple and vegetable crops damaged.
Wayne County	15	Afternoon						3	0	Electrical
										Several farm animals taking shelter under trees killed by lightning.
Coast	16-17	--			(4)	0	5	0		Wind, riptides
										Stormy weather offshore caused dangerous riptides and eight foot waves; winds up to 70 mph reported. Four drownings in weather-associated accidents. Heavy water damage to park equipment at Selvo due to high tides. Approximately 20 boats sunk, including a 68 foot yacht.
Henderson County	17	1 pm						0	4	Hail
										Fruit and vegetables again hit by hail; 2 sq. mi. affected.
Randolph County	18	4:45 pm	short narrow		0	0	4	0		Tornado, hail
										Very small storm heavily damaged new brick home and auto, and slightly damaged another home, at Trinity. Blew trees down. Funnel seen. Some hail.
Statewide	18	Aftn & Evening			1	1	5	4		Electrical, wind, hail

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AUGUST 1970

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					KILLED	INJURED	PROPERTY	CROPS	
North Carolina (continued)									
									Widespread thunderstorms caused scattered wind damage affecting homes, businesses and outbuildings. Heavy losses in poultry in Wilkes County. Man killed by lightning at Fort Bragg; boy knocked unconscious in Johnston County, at tobacco barn. Several others at barn said to have been "stunned". Hail damaged tobacco crop.
Guilford, Mecklenburg, Rockingham, Transylvania, Union, Wake, & Wayne Counties	19	Aftn & evening			0	1	5	4	Hail, Electrical, wind, rain
Anson, Greene, Pender, Wake and Wayne Counties	23	Afternoon			2	0	4	0	Electrical
North Dakota									
Near Cando, Towner County	11	Evening							Wind
Rolette & Pierce Co.	17	6:45 p							Hail
6W Langdon, Cavalier County	21	4:30 p							Tornado
Perth, Towner County	21	Evening							Hail
Edgeley	24	8:40 p							Hail
Edinburg	29	4:00 p							Hail
10N Valley City, Barnes County	29	6:00 p							Tornado, hail
Lisbon, Ransom County	29	6:35 p	12	10	0	7	4	0	Tornado
Ohio									
Marietta Area, Washington County	9-10	Morning			0	0	4		Rain
Waterford Area, Knox County	12	5:00p			0	0	?	C	Rain, hail and wind
Heath, Licking County	13	5:03p			0	0	3		Dust devil
Scattered Areas	19	Afternoon evening			0	0	4		Electrical, rain, wind and hail
Ohio (continued)									
Portsmouth and Nelsonville Areas	22	Afternoon evening			2	1			Electrical
Lima Area, Allen County	22	6:30p	Short	Narrow	0	0	3		Tornado
Cleveland Area, Cuyahoga County	23	11:18a							Waterspout
Oklahoma	8	7:00p-7:15p.	1/4	440	0	0	0	3	Hail, rain
5 SE Mangum, Greer County	9	4:50p.	?	?	0	0	4	0	Wind
9 SW Kingfisher, Kingfisher County	13	Night			0	0	4	0	Lightning
About 3 NW Blackwell, Kay County	17	2:00p.	4	440	0	0	4	0	Wind
2 NE Wagoner, Wagoner County	17	About 5:00p.	Short	Narrow	0	0	5	0	Tornado
Cherokee area, Alfalfa County	18	4:00p.-5:15p.	15	*6	0	0	4	3	Wind, lightning
Frederick, Tillman County	18	5:15p.-5:45p.	?	?	0	0	4	5	Wind, hail
Okeene, Elaine County	18	6:00p.-6:30p.	1	*1	0	1	4	0	Wind, hail
Drummond, Waukomis, and Enid Area, Garfield County	18	6:20p.-7:00p.	15	*20	0	0	4	0	Wind, rain
Oregon Entire State	All Days				0	0	0	?	Drought
Central Cascade Mountains, Lane and Deschutes Counties	21	evening	30	*15	0	0	?	?	Lightning

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					KILLED	INJURED	PROPERTY	CROPS	PROPERTY	CROPS	
Oregon (continued)											
Linn, Lane, Deschutes and Lake Counties	22	evening			0	0	?	?			Lightning
<p>Dry thunderstorms forming over the Cascade Mountains caused 20 lightning-set fires in the McKenzie Ranger District of the Willamette National Forest. Fire control crews kept all blazes small, less than two-tenths of an acre in size. Lightning also caused 39 fires in the Deschutes National Forest. The biggest of these was only 1-1/2 acres in size. The largest fire of 91 acres occurred 13 miles southwest of Silver Lake in Lake County in the Fremont National Forest.</p>											
Most of State except Northwest and Southeast	29-31	pm each day			0	0	?	?			Lightning
<p>Dry thunderstorms developed during the afternoon of the 29th with lightning starting 43 fires in National forests of southwestern Oregon. On the evening of the 30th, lightning-set fires totaled 117 in State lands and National forests. Primary areas included the Willamette National Forest and areas near John Day, Spray and Monument. Lightning caused electrical power outages for 2,000 customers at Springfield lasting 2 to 13 hours and for 100 customers at Florence. Most fires consumed very small acreage except for the Elkhorn fire west of Crater Lake which totaled 200 acres. Lightning activity again on the 31st set 119 fires on State and Federal lands extending Statewide from Josephine County to Wallbwa County.</p>											
Pacific				None reported							
Pennsylvania											
Cumberland County	1	Day						3			Lightning
<p>A riding horse was struck and killed by lightning while grazing in a pasture near Carlisle.</p>											
Lycoming County	1	Day			1			4			Rain
<p>Localized flashflooding occurred as a result of excessive rains and caused the death of a one year old child. The child drowned as it was thrown from a car which was travelling across a stream-covered bridge.</p>											
Columbia County	2	1 AM						2			Lightning
<p>In Bloomsburg a lightning bolt struck and damaged a home, blowing out fuses and disrupting telephone service.</p>											
Bedford County	7	8:15 PM			1						Lightning
<p>An employee of the Standard Register Co. was killed by lightning while returning to the plant after closing the windows of his car during a thunderstorm.</p>											
Montgomery Co.	9	Evening						2			Lightning
<p>Two men were injured while waiting out a thunderstorm under a tree on a golf course near Morrilstown.</p>											
Chester County	16	Afternoon			1			4			Lightning
<p>A frame barn on Clay Creek Road south of Avondale was destroyed by fire after being struck by lightning. Three wagons and some hay were destroyed with the barn. Three miles north of Avondale a lightning bolt struck a radio and scorched the inside of a kitchen. The owner of the radio had his feet burnt while trying to extinguish the fire.</p>											
Fayette County	17	Morning 8:30 AM						4			Lightning
<p>Lightning hit and destroyed a barn near Old Frame. 2000 bales of hay and several pieces of farm machinery were destroyed in the fire.</p>											
Luzerne County	17	4:54 AM						3			Lightning
<p>In the Hazleton area 1160 customers were without power as a 12,000 volt line was snapped by a bolt of lightning. The sizzling wire set the macadam road surface on fire.</p>											
Indiana County	19	9 AM						1			Lightning
<p>A bolt of lightning hit a radio inside an Indiana home and caused slight damage.</p>											
Butler County	19	Day				1		2			Lightning
<p>A man received minor injuries as he was leaning on an aluminum railing of a patrol boat at Moraine State Park. The boat was struck by lightning.</p>											
Lawrence and Beaver counties	19	Late afternoon				2		4			Wind, lightning
<p>At the Pomona fair near New Castle high winds tore four large tents from their moorings and injured two women slightly. Damage was reported to trailers on exhibit and cars and campers which were hit by flying debris. In Beaver County lightning caused an estimated \$5,000 damage to a home and minor damage to another.</p>											
Elk County	19	Evening						3			Lightning
<p>An electrical storm left a large area of St. Marys without electricity from 6:02 to 6:54 PM. Lightning struck the TV tower near Red Hill Summit and caused power failure in that section.</p>											
Pennsylvania (continued)											
Cambria, Blair, and Huntingdon counties	19	Afternoon-evening							5		Lightning, rain
<p>A severe electrical storm and heavy rains hit Blair County early in the evening causing power failures and high waters in several sections. Lightning tore a hole in the roof of an Altoona residence. Some damage was reported to the new bridge construction at 31st Street and 6th Avenue in Altoona and to a WVM transmitting tower. A rock slide was reported on Route 22 near Yellow Springs. In Huntingdon lightning struck a church on the Juniata College campus. Damage was estimated to be \$2,000. Hundreds of cellars filled with water as 5.1 inches of rain fell during the storm. Lightning started a blaze that destroyed a barn on a farm near St. Boniface.</p>											
Crawford County	20	Afternoon							5		Rain, wind
<p>The Titusville area reported flooding of many homes and businesses. At least four trees were reported down on cars, two trees had fallen on homes and many streets were blocked by downed limbs and trees. Damage to trees, electric and telephone and television cables was extremely heavy.</p>											
Venango County	20	Afternoon							3		Hail, wind
<p>Minor hail and wind damage was reported in Oil City.</p>											
Indiana County	30	Morning							4		Lightning
<p>At 3 AM the fire fighters were called to extinguish a barn fire near Rochester Mills. The structure had been struck by lightning. Loss was estimated at \$5,000.</p>											
Elk County	30	Afternoon							4		Lightning
<p>In Ridgeway lightning caused an attic fire at 4 PM EDT. Lightning struck the Brockport Army & Navy Club and the whole front of the building was blown out, with \$5,000 damages resulting.</p>											
Indiana County	30	Afternoon			1			5	4		Rain, wind
<p>Roads and basements were flooded and extensive damage was reported throughout the county. Rushing flood water smashed through a store plate glass window located on route 119 south of Indiana. One person was slightly injured when a fallen metal telephone cable came in contact with her while she was making a phone call in a store on route 286 South. At Indiana University of Pennsylvania the overflow from Marsh Run caused extensive damage to locker rooms. A motel 1/4 mile south of Indiana on route 119 was flooded. At a nearby roller rink flooding damaged the oak flooring severely.</p>											
Erie County	30	Afternoon							4		Wind
<p>Erie reported winds up to 54 mph resulting in uprooted trees, damaged roofs, and downed power lines. In the Dutch Road area north of Route 5 considerable damage was reported to trees as high winds cut a swath of damage through half a dozen properties.</p>											
Clearfield County	30	Evening							4		Wind
<p>In DuBois a tree fell onto a car and house.</p>											
Cambria County	30	Evening							4		Wind
<p>In Nicktown a barn was flattened by winds with damages estimated at \$5,000. There were reports of flash flooding, streams overflowing, uprooted trees, damaged buildings, and electrical power failures throughout the county. Many highways had the berms washed out. Basements were flooded, some had as much as 4 feet of water.</p>											
Sonerset County	30	Evening							3		Lightning
<p>In Paint, a mobile home caught fire after it apparently had been struck by lightning. The trailer was a total loss.</p>											
Bedford County	30	Evening							4		Wind
<p>In Pleasantville, wind lifted part of the roof off a building and dropped it onto a car parked nearby.</p>											
Allegheny County	30	Evening							4		Lightning
<p>In Natrona Heights lightning set fire to the mattress in a house. Damage was confined to the room and a radio. Other reports of damage caused by lightning came from Arnold where a bolt blew lights off the ceiling and walls and at another residence damaged a television set. In Allegheny Township the electrical wiring in the basement of a home was set afire. In Bridgeville lightning caused heavy damage to a home.</p>											
Blair County	30	Evening				1			4		Lightning
<p>A man was injured while fighting a fire in the attic after a bolt of lightning struck his home in Roaring Spring. The Altoona area experienced washouts and blockages by silt and debris of some streets and highways.</p>											
Columbia County	30								3		Lightning
<p>A bolt of lightning tore a hole in a metal roof over the kitchen of a Berwick house and damaged several television sets in neighboring homes.</p>											
Luzerne County	30	Evening							3		Lightning
<p>Wilkes-Barre reported minor flooding on streets and falling trees which caused the interruption of power lines and telephone cables.</p>											

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					KILLED	INJURED	PROPERTY	CROPS	
Pennsylvania (continued)									
Butler County	30	5:15 PM EDT	1 1/2 miles	300 yards			5		Tornado
A tornado hit at Herman about 5 miles southeast of Butler. Residents reported hearing a noise like a diesel engine and saw trees flying through the air. The storm passed just south of St. Fidelis College and Seminar. The path was not continuous indicating a hit-skip pattern. Trees were lying in all directions, an old barn was destroyed, and the roof and windows of a home were damaged. Damages were estimated at \$100,000.									
Jefferson County	30	7:30 PM EDT	7 miles	200 yards			4	4	Tornado
A tornado touched down in a wooded area on the George Krill farm some 8 miles west-northwest of Brockway. The storm skipped a few hundred feet, hit in the yard where several trees were uprooted, the house and several outbuildings damaged, and a tool shed was destroyed. The tornado then crossed the road moving east-southeastward and tore a 200 yard wide and a 2 mile long path through a wooded area. In this wooded area a definite cyclonic circulation was discernible. The storm next hit the Travis farm uprooting trees and damaging the home and barn. A hit-skip pattern was then followed with an east-southeastward movement continuing before lifting a final time at the Brockway city limits. Much of the area hit was wooded and sparsely populated. No injuries or deaths were reported.									
Cambridia County	30	6:30 PM EDT	1 1/2 miles	300 yards			4	4	Tornado
A tornado hit Duman Lake Park about 5 miles north of Belsano and the park was badly damaged. An eyewitness sighted a funnel cloud approaching the park area. Several large trees were uprooted, a pavilion smashed, and a concrete block restroom facility was extensively damaged. Other buildings in the park either had the roofs blown off or were damaged by falling trees. Total losses were estimated at \$30,000. The tornado skipped eastward - last hitting at the Fred Stiles farm about a mile east of the park. The Stiles home was extensively damaged with much of the roof torn off and numerous windows broken. Damages to the home were estimated at \$5,000. A large barn about 300 feet from the Stiles' home had much of the corrugated steel roofing and large timber supports torn from the structure.									
Tioga County	30	11:30 PM EDT	1/4 mile	200 yards			4		Tornado
A tornado hit a farm near Thumtstown shortly before midnight. Thumtstown is approximately 6 miles southwest of Wellsboro. A block and steel two-story barn 35x55 feet was smashed and debris scattered more than 1000 feet. A large wooden corn crib was also destroyed. Shingles were torn from the house roof and windows smashed out on the northside of the home. The force of the winds drove pieces of wood and steel more than 2 feet into the ground. Damages were estimated at \$30,000. The storm apparently moved from the west-northwest to the east-southeast.									
Puerto Rico									
Bayamon	8	afternoon			0	6	5	0	Heavy Rain
A heavy and highly concentrated rainstorm caused flash floods in the center of Bayamon and in a number of nearby urbanizations. About 5 inches of rain fell in a four hour period causing the Rio Hondo, Quebrada Santa Catalina and Rio de Bayamon to flood. About 50 families were evacuated from roofs by volunteers on rafts. Worst hit sections were Magtolia Gardens and Pueblo Nuevo near the center of town. Other urbanizations affected were Planboyan, Santa Rda, Royal Palm, Sierra Linda and Lomas Verdes. Geological Survey estimated the flood severity in the order of about a 50 year frequency.									
Eastern Puerto Rico	27	Late afternoon			3	?	06	0	Heavy Rain
The eastern half of the island was hit with torrential rain showers and thunderstorms which produced rainfall up to 8.85 inches (Aibonito) within a six to twelve hour period. Severe flooding affected the following towns: Caguas, Gurabo, Juncos, Las Piedras, Yabucoa, Naguabo, Ceiba, Manati, Bayamon, Vega Baja, Vega Alta, Dorado, Toa Baja, Juana Diaz, Guayama, Santa Isabel, Salinas, Aibonito, Ponce, Cataño and the San Juan Metropolitan area. A total of 200 people were evacuated by Civil Defense from their homes. A boy was washed off a bridge and drowned on road 185 from Gurabo to Canovanas. A young man was dragged into the Bucana River and drowned in Ponce. In Juncos one man drowned trying to rescue some boys trapped in trees in the Valenciano river. The major rivers overflowing their banks were the Humacao, Loiza, Guanise, Plata, Bayamon, Valenciano, Portugues, Cibico and Gurabo Rivers. Numerous landslides blocked highways in the interior and traffic was blocked by many sections of highway under several feet of water.									
Mayaguez	31				1	0	0	0	Heavy Rain
Flash floods in the western part of the island between Mayaguez and Las Marias caused the death of one man when his car was swept off a bridge.									
Rhode Island									
Central Sections	11	PM			0	0	4	0	Wind
Coastal storm moving northeastwardly about 150 miles off shore caused tides 4 feet above normal and wind gusts to 60 mph. Many small boats were swamped or damaged.									
South Carolina									
Oconee County	1	6:30 p.			0	0	4	0	Thunderstorm, high winds.
High winds blew down two large chicken houses in the Poplar Springs area between Seneca and Walhalla. Fortunately no chickens were in the building at the time but two cows had entered one of the buildings for shelter from the storm. The cows were injured slightly and the buildings were demolished.									
Greenville County	2	afternoon			0	0	4	0	Thunderstorm, high winds.
Four light aircraft were overturned by high winds at the Greenville downtown airport. Damage was light to moderate. The winds also disrupted telephone service in parts of the city.									
Anderson County	5	early evening			0	0	4	0	Thunderstorms, high winds.
About 10 miles east of Anderson, near Belton, a mobile home was overturned by high winds. It was a total loss. Tree limbs fell on an automobile near Starr inflicting minor damage. Lightning set several fires in different localities but no serious damage was caused. Two hen-houses were deroofed about 1 mile west of Starr but none of the 5,000 chickens were hurt. Four transformers burned out due to lightning strikes near Anderson and brief power outages were common. Many tree limbs were down and one large cedar blocked state highway 412 near Starr for several hours, but was finally removed.									
Georgetown County	10	morning			0	0	4	0	Heavy rain.
Flooding in the city of Georgetown resulted from a combination of heavy rain, high tide and a drainage bottleneck. Water stood 30 to 40 inches deep in business establishments, streets and parking lots in a small section of town. Greatest damage was to places of business and automobiles.									
York County	12-13	11:00 p. to 1:45 a.			0	0	4	0	Heavy rain.
More than 4 1/2 inches of rain in a few hours caused serious flooding in Rock Hill. Some persons had to leave their homes, a few needed help in leaving. Small business establishments suffered damaged merchandise and buildings. Homes and home furnishings also suffered considerable damage. The rain fell during the night and the flooding caught most residents by surprise. One large tractor-trailer rig was ditched on a by-pass around town.									
Anderson County	18	4:50 p.			0	0	4	0	Thunderstorm, high winds.
Winds up to 75 m.p.h. flipped small airplanes around at the Anderson city airport during a brief but violent thunderstorm. Several planes suffered damage; one was considered a total loss. One hangar suffered considerable roof damage.									
Lee County	23	late evening			0	0	5	0	Heavy rain.
Several inches of rain caused flooding which damaged several low-lying homes and businesses in Bishopville. Hundreds of thousands of yards of finished and unfinished materials stored at a textile finishing plant and in a warehouse were soaked and electrical wiring and motors were put out of order. Automobiles parked in low areas also were damaged by water.									
South Dakota									
9SW Huron, Beadle County	3	10:50 a							Funnel cloud aloft
32WSW Rapid City Airport, Meade County	5	1:40 p							Funnel cloud aloft
25WSW Ellsworth Air Force Base, Meade County	5	2:11 p							Funnel cloud aloft
20WSW Rapid City, Pennington County	6	6:00 p			0	0	0	0	Hail
55SW Ellsworth Air Force Base, Butte County	6	9:30 p							Funnel cloud aloft

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

AUGUST 1970

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
South Dakota (continued)									
1/2W Belle Fourche, Butte County	6	Night			0	0	3	0	Lightning
					Lightning struck a tall pine tree killing 9 yearling cattle standing under it.				
10NW Mitchell, Davison County	7	Morning			0	0	3	0	Lightning
					Six head of cattle in a pasture were killed by lightning.				
Mansfield, Brown County	11	11:15 p			0	0	?	?	Hail
					Hail 1 3/4 inch was reported with undetermined damage.				
Tennessee									
Blount County	1	3:01 p.m.	2	1/2	0	2	4	0	Windstorm
					Violent thunderstorm winds caused considerable damage to rural property along a narrow path in the northern portion of Blount County. About 8 miles southwest of Maryville, Harold Nachols and his wife received surprisingly minor injuries while huddled in a mobile home that was completely demolished. Nachols' five-month old son was uninjured. Four buildings, including two residences were damaged. Several trees were uprooted or blown down. The wind followed a straight line through the area.				
Winchester, Franklin County	3	2:30 p.m.			0	0	3	0	Lightning
					Lightning hit house.				
Nashville, Davidson County	3	6:00 p.m.			0	0	?	?	Windstorm
					Thunderstorms moved across city but no major damage or injuries reported. A few buildings were damaged mainly by falling trees.				
Lebanon, Wilson County	3	7:30 p.m.			0	0	4	0	Windstorm
					Scattered thunderstorms with locally high winds. About 7 miles south of Lebanon, metal roofing and timbers from a 180-foot barn were scattered over a dairy farm.				
Anderson County	10-12				0	0	?	?	Flooding
					Periods of heavy showers August 10 through August 11 resulted in flooding of several small rivers and streams. Anderson County Rescue Squad moved several families in the Briceville, Beech Grove and Wind Rock Communities, when high water reached their homes.				
Paris, Henry County	9	p.m.			0	0	3	0	Lightning
					Lightning killed 12 head of cattle at Cottage Grove, Route #3, near Paris.				
Lawrenceburg, Lawrence County	19	3:00 p.m.			0	0	3	0	Lightning
					Scattered reports of lightning damage. Included were 12 head of cattle killed in the Deerfield section of Lawrence County.				
Millington, Shelby County	21	2:10 p.m.							Funnel Cloud
					Funnel cloud sighted by pilot 5 miles southeast of Millington Navy Base.				
Hanblen County	31	p.m.			0	0	4	0	Lightning
					Lightning occurring during evening thunderstorm is believed to be the cause of fire which destroyed two large barns in the Talbott area of Hanblen County. Total property damage with livestock, machinery, and other contents was estimated in excess of \$25,000.				
Texas									
Southcentral and Southwest	7/31-8/5				11	466	3	7	Hurricane Celia
					Extreme Hurricane Celia was a unique but severe storm. Measured in dollars, it was the costliest in the state's history. Sustained wind speeds reached 130 miles per hour, but it was great bursts of kinetic energy of short duration that appeared to cause the severe damage. Wind gusts of 161 miles per hour were measured at the Corpus Christi Weather Bureau Office. At Aransas Pass, peak wind gusts were estimated as high as 180 miles per hour, after the wind equipment had been blown away. Celia caused 11 deaths in Texas, at least 466 injuries, not including hundreds of minor cuts, scratches and bruises. Total property and crop damage in Texas is estimated at \$453,773,000.				
					Hardest hit was the metropolitan area of Corpus Christi, including Robstown, Aransas Pass, Port Aransas, and small towns on the north side of Corpus Christi Bay. The American Red Cross estimated \$5,000 Texas families suffered losses. In the Texas Coastal Bend, where Celia unleashed its greatest fury, 8,950 homes were destroyed, 13,870 homes suffered major damage and 41,800 suffered minor damage. Destroyed or damaged were 252 small businesses, 331 boats and 110 farm buildings. President Nixon declared Nueces and 11 other Texas counties disaster areas so that federal funds could be available for relief. The other counties were: San Patricio, Aransas, Refugio, Jim Wells, Live Oak, Bee, Atascosa, McMullen, Goliad, Karnes and Wilson.				
					Hurricane Celia, which began as a tropical depression south of Cuba on the morning of July 31, crossed the Texas coastline midway				
					See reference notes at end of table.				
Texas (continued)									
					between Corpus Christi and Aransas Pass about 3:30 p.m., CST, on August 3rd. Hurricane Celia moved west-northwestward across southern Texas with the storm center passing near Mathis, Fowlerton, Cotulla, Carrizo Springs, Eagle Pass and Del Rio. Shortly after 10:00 p.m., CST, of the 3rd, with the storm center over the west central portion of McMullen County, sustained winds most likely were no longer of hurricane force, although peak gusts reached 89 miles per hour as far west as Del Rio. Reduced to a tropical storm, the lower portion of Celia broke up over the mountains of northern Mexico around noon of August 4th. The tropical depression continued to meander westward across the Big Bend while the upper circulation moved northwestward into southwestern New Mexico.				
					Although there was some minor flooding in Fort Aransas, no significant damage occurred as a result of inundation from storm tides. Most damage resulted from extreme gusts of wind occurring to the left of the hurricane's center and following passage of the center. Normally, highest winds are observed in the right semicircle of the storm and are easterly to northeasterly in direction.				
					At 1:45 p.m., CST, August 3rd, coastal radar indicated the hurricane "eye" to be about 18 statute miles in diameter. By 3:30 p.m., CST, with one half the "eye" over land, the diameter was about 30 miles, and enclosed Aransas Pass and part of Corpus Christi.				
					Monetarily, Celia was the fourth costliest hurricane in United States history, exceeded only by Betty (1965), \$1.42 billion; Camille (1969), also \$1.42 billion; and Diane (1955) \$831.7 million. In Texas, total property damage was estimated at \$444,924,000 and crop damage at \$8,849,000. Property losses were heavy due to the fact that the hurricane unleashed its greatest fury on a major urban area. Celia in 1961 wrought devastation primarily with mountainous storm tides; Beulah in 1967 inundated thousands of square miles with 20 to 30 inch rains; Celia did it all with winds.				
					Nueces and San Patricio Counties and the southern tip of Aransas County bore the brunt of the storm. Damage was severe in these areas. Heavy damage extended northward to include most of Aransas County, and the southern halves of Refugio and Bee Counties, and westward to include George West in Live Oak County and Orange Grove in Jim Wells County. To the south, the northern portion of Kleberg County suffered only light damage.				
					It was Corpus Christi that really caught it. Eighty five percent of the total property damage occurred in this coastal city. Nueces County bore 74 percent of the total storm damage (property and crops), while Nueces and San Patricio Counties combined accounted for 91 percent of the total storm damage in Texas.				
					At Corpus Christi an estimated 90 percent of the downtown buildings suffered major damage. Some were destroyed. Few if any residences escaped some damage; about one third suffered major damage or were destroyed.				
					Damage was severe at Port Aransas, Aransas Pass, Gregory, Ingleside, Portland and Taft. Portland was probably the worst hit of the small towns on the north side of Corpus Christi Bay, with about 90 percent of the town damaged. At Gregory, the wind blew six rail-road cars off the track, some 150 feet or more. Two trains were derailed by the winds. Railroad tracks were peeled from their roadbeds - tracks with ties attached were twisted bottom side up.				
					Port Aransas, on Mustang Island, which took the full brunt of Hurricane Celia, suffered damage to at least 75 percent of its buildings. Most of the damage was caused by wind, not water. Fifteen shrimp trawlers sank in the harbor.				
					Padre Island, often the hardest hit area when a hurricane wallops the Coastal Bend, again took a beating but nothing to compare with Hurricanes Carla and Beulah. Water damage caused by high tides was not there. A few buildings on the Padre Island gateway were demolished; others were almost untouched, and still others had mostly roof damage and pier and boat breakage. One of the most heavily damaged buildings on Padre Island was the large Million Dollar Inn. Wind blew out the glass walls and doors and water damage (wind blown) was heavy in virtually every room. Permanent and vacation island homes appeared generally better off than those on the mainland, percentage-wise at least, as the main damage was to a few roofs.				
					Damage to Southwestern Bell Telephone facilities in the Corpus Christi area was estimated at \$10,000,000. Property losses of General Telephone Company, which serves about seven small towns in the Corpus Christi metropolitan area was estimated at \$700,000.				
					Military installation damage of \$5,000,000 occurred at the U. S. Army's helicopter repair center in Corpus Christi and damage to the Naval Air Station was estimated at \$5,000,000. Around 800 of the 900 family housing units at the Naval Air Station were rendered unusable.				
					At Ingleside, two large Sun Oil Company storage tanks burned, as did one belonging to the Humble Oil and Refining Company - all were believed to be hit by lightning. Loss to oil companies was estimated at \$7,300,000.				
					Damage to rural property was heavy in Nueces and San Patricio Counties, totalling \$20,100,000 in Nueces and \$15,285,000 in San Patricio. Heavy combines were thrown over on their sides, or turned upside down. Farm tractors were overturned by the force of the wind.				
					Beyond McMullen County, hurricane Celia caused relatively little damage in its trek across southern Texas - with two exceptions - moderate damage occurred in southern Frio County and at Del Rio.				

STORM DATA AND UNUSUAL WEATHER PHENOMENA

AUGUST 1970

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS				ESTIMATED DAMAGE	CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS		
Texas (continued)										
										Winds that reached 89 miles per hour in gusts caused property damage of \$1,000,000 at Del Rio.
										The damage to mobile homes was fantastic. All over the coastal area, in the path of the hurricane, mobile homes were found split open, lying on their sides. Some were twisted into corkscrew shapes. Perhaps the nearest to total destruction of mobile home parks was to those northeast of the Corpus Christi International Airport where several hundred homes-on-wheels were ripped into small fragments and scattered hundreds of yards. One mobile home was lifted clearly off its moorings and smashed into the ground on its end a hundred yards away.
										Crop damage ran from light on the fringe areas to total in the path of the hurricane. Total crop damage was estimated at \$6,849,000 - a figure much lower than expected. Hardest hit crops were corn, sorghum and cotton. Much of the sorghum had been harvested but the remaining crop was extensively damaged. Both corn and cotton suffered heavy damage along the path of the storm. Most of the damage was inflicted on the open cotton with lesser damage being registered on large unopened bolls. Destruction of the corn crop was complete in some areas.
										San Patricio County suffered the most crop damage - a total of \$2,624,000. San Patricio, Nueces and Live Oak Counties accounted for 71 percent of the total crop damage. Crops in the vicinity of Candelaria, in far away Presidio County, suffered heavy damage due to flooding from heavy rains. Rains of 2.43 inches broke levees which resulted in crops on about 450 acres being totally destroyed. Another 50 acres sustained partial damage.
										The highest sustained wind speed measured during hurricane Celia was 130 miles per hour from the north-northeast and occurred from 1502 to 1505 CST, on August 3rd at Aransas Pass. A peak gust of 161 miles per hour from the southwest was observed at the Corpus Christi Weather Bureau Office, Corpus Christi International Airport, at 1628, CST. Peak gusts estimated at 180 miles per hour were reported at both Aransas Pass and Robstown.
										Robert L. Herndon, Cooperative Weather Observer at Aransas Pass, observed wind gusts to 150 miles per hour from the north-northeast prior to the passage of the hurricane "eye". At 1505 CST, his anemometer blew away. He reported that the "second half" of the storm had much higher winds, and estimated the peak gusts at 180 miles per hour from the southwest at 1600 CST. He observed tremendous destruction during this period of extreme southwest winds that did not exist during the first half of the storm. Mr. Herndon stated also, that after the passage of the eye, many "durations of wind speed" (sustained speeds) could have exceeded the 130 miles per hour measured to the right of the storm's center.
										At Robstown peak wind gusts were estimated at 180 miles per hour from the west-southwest. This estimate was based on the fact that one of four oil derricks erected at the Robstown High School stadium for lighting towers, was blown down. The derricks were new, having just been erected during the summer (1970) and were engineered to withstand winds of 175 miles per hour. The tower blown down was at the southwest corner of the stadium.
										The highest tides generated along the Texas coast by hurricane Celia were 9.2 feet mean sea level and 9.0 feet mean sea level, at Ford Aransas Beach and Port Aransas Jetty, respectively. These occurred about 1340 CST on August 3rd. One other tide gage on Mustang Island recorded a high tide of 7.9 feet mean sea level. Elsewhere, highest tides were generally four to six feet along the Texas coast from Corpus Christi Bay to Galveston Bay. In Corpus Christi Bay, a high tide of 4.9 feet mean sea level was recorded at the Ship Channel at 1730 CST.
										Minor flooding occurred at Port Aransas, and in low lying areas from Corpus Christi Bay to Galveston Bay. Property damage caused by these relatively low storm surges was mostly to boats and piers. The damage was insignificant when compared to that caused by wind.
										The lowest sea level pressure recorded on land, in Texas, was 27.89 inches of mercury, at Ingleside. This low pressure was obtained from an aneroid barometer owned by Percy Kennedy, 612 San Angelo Street, in Ingleside, who reported that Ingleside was in the "eye" of the hurricane for approximately 40 minutes.
										The torrential rains and massive flooding over thousands of square miles that so often accompanies tropical storms did not occur with hurricane Celia. Heavy rains of six to eight inches were confined to Nueces and San Patricio Counties and to the southern portion of Aransas County, and fell in a period of less than 24-hours. A storm total of 8.00 inches fell at the U. S. Naval Air Station at Corpus Christi; 7.24 inches fell at Robstown; 7.00 inches at Gregory; 6.50 inches at Aransas Pass, and 6.38 inches fell at the Weather Bureau Station at Corpus Christi International Airport.
										Across southern Texas the band of moderately heavy rains was unusually narrow. With few exceptions, rains of 2.00 inches or more were confined to an area only 50 miles to either side of the hurricane center.
										A total of eight tornadoes are known to have occurred in Texas in association with hurricane Celia. A review of the information available reveals that most of the tornadoes, at least, appeared to be small funnels that remained on the ground for only a short time. One of the tornadoes was responsible for one of the deaths attributed to hurricane Celia. A tabulation of tornadoes and funnel clouds aloft associated with hurricane Celia follows:
Texas (continued)										
10 NW Canado, Jackson County	3	Morning								2 funnels aloft (Hurricane Celia)
DeWitt County	3	1:00 p	?	?	0	0	0	0	0	Tornado (Hurricane Celia)
										A tornado struck near the intersection of U.S. Highway 77 and State Highway 111, in northern DeWitt County, one mile west of Yoakum.
Fort O'Connor, Calhoun County	3	2:45 p	?	?	0	0	#	0	0	Tornado (Hurricane Celia)
										A tornado struck the State boat ramp destroying a 30' by 230' dry boat storage shed owned by Bill H. Young, Cooperative Weather Observer, who witnessed the tornado.
										#Damage included in total for hurricane Celia.
h SE Refugio, Refugio County	3	3:00 p	?	?	0	0	0	0	0	Tornado (Hurricane Celia)
										A tornado struck four miles southeast of Refugio. Movement was from northeast to southwest.
10 SE Yoakum, Lavaca County	3	4:30 p								Funnel aloft (Hurricane Celia)
Near Dilley, Frio County	3	11:00 p - 11:59 p	?	?	0	0	#	0	0	2 Tornadoes (Hurricane Celia)
										Two tornadoes struck near Dilley between 11:00 p.m. and 11:59 p.m. One occurred about 10 miles west of Dilley, just north of State Highway 85. The roof of one house was blown 200-300 yards; several chicken houses were demolished; and utility poles were blown down. Two other farm houses suffered roof damage and several outhouses were damaged. The second tornado crossed Interstate Highway 35 about one and one half to two miles south of Dilley. The tornado caused considerable damage to the Dilley Civic Center building, demolished machine sheds, utility poles, unroofed outbuildings, and drove a 4"x4" timber through the wall of a house.
										#Damage included in total for hurricane Celia.
Lake Corpus Christi, Jim Wells and Live Oak Counties	3	?	?	?	#	#	#	0	0	Tornado, 2 funnels aloft (Hurricane Celia)
										Bill Goff, owner of Bill's Marina, at Lake Corpus Christi, sighted three funnels and reported, "the last one dipped down, picked up my trailer house and it exploded before my eyes".
										One man was fatally injured when the tornado struck his home, and he was hit in the head by flying debris. Two other persons were injured. Several homes were demolished.
										What may have been the same tornado, or one of the other funnels, struck one mile north of Sandia at 4:25 p.m. The tornado moved from north to south.
										#The one death, two injured, and property damage are included in the totals for hurricane Celia.
15 N Katy, Harris County	4	12:12 a	?	?	0	0	0	0	0	Tornado (Hurricane Celia)
Alvin, Brazoria County	4	6:45 p	?	?	0	0	#	0	0	Tornado (Hurricane Celia)
										A small tornado touched earth in the south part of Alvin, destroying a 2'x4' fence and moving a pickup truck. The tornado moved from north to south.
										#Damage included in total for hurricane Celia.
Corsicana, Navarro County	3	3:15 p			0	0	4	0	0	Lightning
										A fire started by lightning destroyed the building housing the Van Zandt Surplus Company and a barber shop at 209 and 209-A North Commerce Street in Corsicana. Total damage was estimated at \$30,000.
Near Aransas Pass, Aransas County	5	9:45 p								2 Funnels aloft
										Sighted between Aransas Pass and Rockport.
Port Arthur, Jefferson County	5	12:20 p - 12:30 p								Funnel aloft
										A funnel cloud aloft was observed over the Gulf Oil Company refinery at Port Arthur.
Near Taft, San Patricio County	6	12:12 p								Funnel aloft
5 N Corpus Christi, Nueces County	6	12:25 p								Funnel aloft
Aransas Bay, Aransas County	7	11:25 a								Waterspout
										Waterspout moved in a northerly direction.
10 NW Paducah, Cottle County	9	4:00 p								Funnel aloft
Alvin, Brazoria County	11	6:30 p - 7:00 p	2	167	0	0	3	0	0	Tornado
										A small tornado touched down three times in Brazoria County causing minor property damage. The funnel first touched earth about two miles south of Alvin. After dipping down a second time it then skipped to the southern city limit of Alvin where it

See reference notes at end of table.

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AUGUST 1970

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					KILLED	INJURED	PROPERTY	CROPS	
Texas (continued)									
18 NW Galveston, Brazoria County	14	9:25 a							Funnel aloft
Goodlet, Hardeman County	18	3:30 p-4:00 p	3/4	*1/4	0	1	4	0	Tornado
			A tornado cut through the Goodlet Community from southwest to northeast and completely destroyed a sheet-metal garage building owned by W. L. Wilson, and the A. L. Mayfield home just south of the old bank building. Mrs. Mayfield was injured when struck by flying glass. Also damaged were the post office building, telephone and power lines and some 10 to 14 cotton trailers owned mostly by the Goodlet Farmers Co-operative Society. Two other residences, in addition to the Mayfield home, suffered minor damage. Total property damage was estimated at \$15,000.						
Fisher County	18	Night	?	?	0	0	?	?	Hail and windstorm
			Hail and high winds caused extensive damage to crops, mostly cotton, in an area of Fisher County beginning southwest of Rotan and extending northeastward to the Royston Community. Among the heaviest damaged farms were those belonging to Walter Byrd, Dan Park, Emory Keener, Ardie Keener and Gene Terry. A hay barn and the sprinkler system on the Terry farm were damaged. Several homes, barns and outbuildings suffered roof damage from the wind; some of the smaller buildings were destroyed. Several RGA and telephone company poles were blown down by the wind. About 600 acres of crops were destroyed.						
6 W Nederland, Jefferson County	19	10:36 a-10:39 a							Funnel aloft
Orange, Orange County	23	5:40 p			0	0	3	0	Lightning
			Lightning struck the home of William M. Bell, 801 Miller Avenue in Orange. It knocked some of the wall loose inside the kitchen and broke two or three rafters on the top of the house. It followed some of the studs in the wall and burned some of the wood. The wiring to an electric clock in the kitchen was burned in two. Total damage was estimated at less than \$1,000.						
Texarkana, Bowie County	20, 21		?	?	0	0	?	?	Flooding, high winds
			A total of 4.67 inches of rain fell at Texarkana in slightly more than 12 hours resulting in the flooding of low lying sections on the Texas side of the city. This occurred on the 20th. Much of the flooding came from Swamp Poodle Creek. High thunderstorm winds uprooted a few trees and caused minor property damage in some areas. More heavy rains fell between 1:00 a.m. and 12:30 p.m. on the 21st. The amount within this period totalled 3.14 inches, and was in addition to the total of 4.97 inches that fell on the 20th. About 12 houses were flooded and 10 to 12 major streets were made impassable.						
Near Brady, McCulloch County	22	?	20	*10	0	0	4	4	Lightning
			Fires started by lightning burned an implement barn on the I.O.K. Kothman place. The barn was filled with hay and completely destroyed. Four pasture fires were attributed to lightning also. The pasture fires were at the Camp Billy Gibbons, Noonan Ranch, Brady Creek Ranch and the Sessions Ranch. Rains finally helped to extinguish the blazes. Property damaged was estimated at \$9,000 and grass damage at \$6,000.						
Yoakum, Lavaca County	23	?	?	?	0	0	?	0	Tornado
			A small tornado touched earth near the Yoakum Airport then moved northward toward the Shiner-Breslaw area. It caused some minor damage to cow sheds.						
Near NAS Chase Field, Bee County	23	8:40 p-9:30 p	?	?	0	0	?	?	3 Tornadoes
			Three tornadoes suspended from a single cloud base touched earth 5 to 17 miles west to west-northwest of NAS Chase Field. There was no report of any damage.						
Rachal, Brooks County	24	2:30 p-2:40 p	1/2	Narrow	0	0	3	0	Tornado
			A small tornado damaged the roof of the M. E. Cantu residence at Rachal and also roofs of two commercial buildings. Two unoccupied buildings collapsed. The funnel hovered within about eight feet of the ground. It crossed U.S. Highway 281 then made a right-angle turn and moved southward through the community.						
15 NE Galveston, Galveston County	24	2:55 p							Funnel aloft
5 NE Riviera, Kleberg County	24	3:15 p	?	?	0	0	0	0	Tornado
			Reported by the U. S. Border Patrol.						
Near La Porte, Harris County	24	3:17 p							Waterspout
Texas (continued)									
1 N Hamshire, Jefferson County	24	4:45 p	Short	Narrow	0	0	?	0	Tornado
			A tornado hit a pond in the Herbert Lee Clubb pasture one mile north of Hamshire tearing up trees and scattering debris. The funnel moved from north-northwest to south-southeast. It caused only minor damage.						
3 SW Hamshire, Jefferson County	24	5:00 p							2 Funnels aloft
Near Corpus Christi NAS, Nueces County	26	6:10 a-8:15 a							Several waterspouts
Near Orange and Lake Sabine, Orange County	28	12:30 p							Funnel aloft
Lake Sabine, Jefferson County	28	4:55 p							Waterspout
2 SE Corpus Christi NAS, Nueces County	29	11:15 a							Waterspout
6 N Waco, McLennan County	29	4:00 p	1/2	50	0	0	3	0	Tornado
			A small tornado ripped the roof off a riding stable on the Cholson Road about six miles north of downtown Waco and quickly ascended. A neighbor heard the roar of the funnel as it went aloft and missed his house. Total damage was estimated at \$2,500.						
Anahuac and Trinity Bay, Chambers County	30	10:30 a							3 Funnels aloft
15 NW Galveston, Galveston County	30	9:15 a							Funnel aloft
10 NW Houston, Harris County	30	1:00 p							Funnel aloft
Near Alvin, Brazoria County	30	4:00 p							Funnel aloft
NE of Vidor, Orange County	31	4:45 p							Funnel aloft
Utah									
Ogden	4	aftn			0	0	4	0	Heavy thunderstorm and flooding
			A heavy thunderstorm moved across Ogden east bench dumping nearly 2 inches of moisture, flooded basements and businesses in downtown Ogden. Raw gasoline carried by the flood in one area produced several small fires. Damage estimates into the thousands of dollars.						
Saint George	14, 15	aftns			0	0	4	0	Heavy tsms and flooding
			A heavy thunderstorm on the east side of town deposited 1.25 inches in an hour on the 14th and .45 inches in a half hour on the 15th produced minor damage to streets, irrigation works and machinery plants. Damage estimates 22,300 dollars.						
Modena	16	7:42 p.							Funnel cloud
			Small funnel cloud south of Modena reported by cooperative observer at 7:42 pm did not touch ground.						
Salina	20	Evening			0	0	3	0	Heavy tsms and flooding
			Two evening floods occurred from separate events about a week apart. The first flood on August 20 produced substantial damage when heavy rains fell on two ravines east of town. About 40 homes were damaged in a residential district with estimates in excess of \$100,000. Rainfall of 1-1/2 inches occurred in town between 10:30 and 11:00 pm with estimates of over 2 inches in the foothills in a 20 to 40 minute period.						
Salina	26				0	0	4	0	Heavy tsms and flooding
			The second flood resulted in only minor damage, about \$13,000 to urban and commercial dwellings when rain swollen Salina Creek moved through town with a peak flow of 3,900 sf.						
Vermont									
St. Albans Town	3	3:25 p.m.	5	150	0	7	4	2	Tornado
			First seen as waterspout on Lake Champlain. Two boats damaged on Maquam Bay. Moved on land and hit						

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

AUGUST 1970

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS				ESTIMATED* DAMAGE	CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS		
Vermont (continued)										
										a camp home in St. Albans Town, injuring 7 occupants. Funnel lifted then dipped again farther inland to demolish a set of farm buildings, including a new barn. A heifer was killed. Path in general east-northeast direction. Funnel lifted several times. A second funnel was sighted in the area but did not touch ground. Radar indicated a possible funnel later 30 miles to the east, but no further reports of damage.
Windsor	13	2 p.m.			0	0	4	0		Wind, lightning
										Thunder: small winds and lightning toppled trees and poles and caused utility outages in narrow path. A tree fell on an auto but occupants were not injured. Wind also blew out a plate glass window.
U. S. Virgin Islands										None reported
Virginia										
Patrick County	1	Aftn			0	0	0	4		Hail, Wind
										Approximately 30 farmers in the southeast part of the county suffered crop damage, mainly tobacco, from hail and wind.
Bedford County	3	Aftn			0	0	4	0		Wind
										High winds demolished one large barn, took off the roof of another, snapped off large trees at ground level, and blew out windows of a house trailer.
Amherst County	7	Evening			0	0	0	4		Lightning, Rain
										Fire caused by lightning destroyed a barn and 2500 bales of hay near Monroe. Heavy rain, near 5 inches total, was reported in the general area causing minor damage.
Richmond Area	19	Evening			0	0	4	0		Wind, Rain, Lightning
										Water damage occurred to the contents of two buildings due to heavy rain and wind. Numerous trees were blown down, streets were flooded, and electric power was interrupted to 50,000 customers. One bridge was damaged and 13 fire calls were answered with two houses receiving substantial damage.
Washington Eastern Slope Northern Cascades	23-24							5	8	Thunderstorm
										Thunderstorms with little or no rain began in western Washington before midnight, the 23rd, spreading across the State and into Idaho during the 24th. Several forest fires were started in western Washington. The greatest number of lightning strikes were along the eastern slope of the Cascades in the Wenatchee and Okanogan National Forests. An estimated 100 or more fires were started. Hot, dry weather with considerable wind provided ideal conditions for fires to spread. Several fires were out of control until the end of the month burning 100,000 acres or more of timber and range land. Numerous summer cabins were destroyed.
East Slope Cascades	30-31									Thunderstorm
										Thunderstorms with little or no rain resulted in several additional forest fires being started by lightning in the Okanogan and Wenatchee National Forests. The last of the fires were not under control until the second week in September. This has been the most destructive fire season in recent years in the Okanogan and Wenatchee National Forests.
West Virginia										
Charleston	16	2:05 to 5:40 p.m.			0	0	3	0		Rainstorm
										Many businesses and basements were flooded in low areas, traffic flow was interrupted on two local roads, and scattered power outages occurred in Kanawha County as 1.58 inches of rain fell in this short period. Wind gusts to 75 miles per hour were recorded at 3:26 p.m. at Kanawha Airport during this heavy thunderstorm.
Bridgeport, Harrison County	22	10:08 p.m.	1	125	0	0	6	0		Tornado
										A severe thunderstorm associated with cooler air moving across the State from the north, spawned a tornado which struck a residential area of Bridgeport, 5 miles east of Clarksburg. Five homes were destroyed, 112 homes and 2 businesses substantially damaged, and total damages were estimated at \$1.36 million. Power and telephone lines sustained heavy damage, and hundreds of trees were uprooted or broken off. No fatalities occurred and no significant injuries were reported. Bridgeport is just 6 miles south-southeast of Shinnston, where the most devastating tornado in West Virginia struck June 22, 1944 and killed 103 persons and uprooted over 1000 homes.
Williamstown, Hood County	30	6:15 p.m.			0	0	3	3		Lightning
										Lightning struck a barn 5 miles northeast of Parkersburg. The fire destroyed the barn, 2500 bales of hay and some farm equipment.
Wisconsin										
Price County	11	11:00 a			0	0	3	0		Lightning
										Five cows killed by lightning on farm near Phillips.
Winneshago County	11	4:30 p			0	0	3	0		Lightning
										Church steeple in Oshkosh damaged by lightning fire.
Dunn, Pepin, Eau Claire Counties	12	noon			0	0	4	0		Wind
										Scattered wind damage in Chippewa Valley. Winds gusted at 65 mph at Eau Claire.
Monroe County	12				0	0	3	0		Lightning
										Six purebred cows killed by lightning on Gashton farm.
Ozaukee County	12	2 p			0	0	4	0		Lightning
										Fire ignited by lightning destroyed barn on Harvey Thill farm near Holy Cross.
Burnett County	14-15	Night			0	0	4	0		Lightning
										Lightning fire caused blazes in two buildings on Siren farm.
Burnett County	14-15	Night			0	1	3	0		Lightning
										Cabin on Clam Lake struck by lightning. A child's hand burned when lightning came through roof and burned curtains and mattress of bed where child was lying.
Fond du Lac, Sheboygan County	25	5-6 p			0	0	4	0		Wind
										Wind accompanying local severe thunderstorm did damage to trees and overhead wires mostly in Plymouth area.
Washington, Ozaukee and Milwaukee Counties	26	4:30 p			0	0	4	4		Hail
										Hail, 1-3/4 inch in diameter, reported at Grafton along with winds at 50 mph. Some orchard and car damage. Storms moved from a northerly direction.
State	29	am			0	0	5	0		Wind, lightning
										Thunderstorms which moved ESE ward across state from the Minneapolis area to Sheboygan caused scattered wind damage along track. High winds caused some damage to trees and buildings in portions of LaCrosse and Monroe county around 5 a.m. Several fires set by lightning occurred in Barron and Pierce Counties about 2:30 am and in the Oconomowoc area of Waukesha County at 6:30 a.m.
Wyoming										NONE REPORTED

- * Includes crop damage.
- C Crop damage.
- * Miles instead of yards.
- † Storm damages are placed in categories varying from 1 to 9 as follows:
 - 1 Less than \$50
 - 2 \$50 to \$500
 - 3 \$500 to \$5,000
 - 4 \$5,000 to \$50,000
 - 5 \$50,000 to \$500,000
 - 6 \$500,000 to \$5,000,000
 - 7 \$5,000,000 to \$50,000,000
 - 8 \$50,000,000 to \$500,000,000
 - 9 \$500,000,000 to \$5,000,000,000.

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

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