

U. S. DEPARTMENT OF COMMERCE

LUTHER H. HODGES, Secretary

WEATHER BUREAU

ROBERT M. WHITE, Chief

STORM DATA

JUNE 1964

Volume 6 No. 6



ASHEVILLE: 1964

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1964

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									
Reid and Ripley Communities, Limestone County	17	6:30 p.			0	0	4		Thunderstorm
High winds associated with severe thunderstorms caused scattered damage over southwestern portion of county. Several houses damaged and trees uprooted.									
Neel Community, Morgan County	23	1:30 p.			0	0	4		Thunderstorm
High winds associated with a severe thunderstorm demolished a garage and service station, damaged several houses and out-buildings and uprooted trees.									
Bankston, Fayette County	24	1:30 p.			1				Electrical
Struck by lightning while sitting on a storm cellar.									
Ariton, Dale County	25	4:00 p.			1				Electrical
Struck by lightning while sitting in swing on porch.									
ALASKA									
None reported									
ARIZONA									
Tucson	2	Afternoon	?	?	0	2	4	0	Dust devil
Violent dust devil destroyed church under construction causing injuries to 2 workmen.									
Chino Valley	25	Afternoon	?	?	0	1	3	0	Wind
Strong winds hurled portions of a barn into an automobile injuring one of the occupants.									
Grand Canyon National Park	28	Evening	?	?	0	1	0	0	Lightning
A man was struck by lightning while standing on Powell Point west of Grand Canyon Village. He was burned over 18% of his body and both eardrums were ruptured. Nearly all of his clothes were destroyed, but doctors expect him to recover in several weeks.									
ARKANSAS									
See data at end of table									
CALIFORNIA									
None reported									
COLORADO									
Logan, Phillips and Sedgwick Counties	5	3:00PM			0	0	3	4	Hail
Hail sized hail did considerable damage to crops and property in the Crook, Dailey, Haxton area and extending eastward to areas south of Julesburg and Ovid. At Crook, hail piled up to 8 inches deep on the highway and snowplows were used to clear the road. At Dailey and Haxton, the storm was less severe, but did much damage to sugar beets, corn and alfalfa.									
Yuma County	6		6-7	*3	0	0	2	4	Hail
Hail caused 50% to 100% loss of wheat and other grain crops in an area east of Yuma.									
East portion	8	Morning Afternoon			0	2	4	5	Lightning, hail and wind
Lightning struck a building in Boulder starting a fire and burning two workmen. Winds were severe in southeast Colorado making replanting of some crops necessary. A house trailer was blown off Highway 85-87 about 5 miles north of Walsenburg, by high winds about 9:00AM. In the morning, golfball sized hail hit a large area southeast of Sterling and northwest of Sedgwick causing partial to total loss of crops. About 1:00PM, a hailstorm in Sedgwick County damaged wheat 20% to 100% over a strip 1 1/2 to 2 miles wide.									
Kit Carson County	13	4:00PM			0	0			Tornado
A pilot reported a tornado 29 miles northwest of Burlington.									
East portion	13	Afternoon Evening			0	0	3	5	Hail
Severe hailstorms damaged crops in scattered areas of eastern Colorado. In the afternoon around 4:30, hail went through an area 10 miles north of Burlington, causing losses up to 100% on crops. Large stones killed calves and hurt grown livestock. The same afternoon, hail struck an area in Morgan County damaging 5,625 acres of sugar beets. Later at 8:51PM, hail from 1 inch to 1 1/2 inch was reported 5 miles northwest of Colorado Springs. Around 9:30PM, a driving hailstorm caused 80-90% damage to fruit, garden truck and crops in some localities in the Canon City-Penrose areas.									
Elbert County	14	Morning			0	0	4	0	Hail and wind
A very destructive hail and wind storm damaged crops, gardens and buildings in the Kiowa area.									
Adams County	16	2:26PM			0	0			Funnel cloud
A pilot reported a possible tornado 39 miles east-northeast of Denver.									
Most of State	17 & 18				0	0	4		Wind
High winds of 50-60 MPH with gusts to 75MPH were general over much of the state the afternoon and night of the 17th, continuing into the 18th. Damage to homes, power lines and trees were reported at Delta, Montrose, Dove Creek, Ridgeway, Colorado Springs, Canon City and Boulder. Minor wind damage was reported at other places throughout the state.									
COLORADO (Cont'd)									
Denver	20	10:02PM			0	0		3	Hail
Hail up to 1 inch in diameter was observed 1 mile north of Denver. A 3 minute hailstorm at Stapleton and Lowry Fields piled hail 1/2 inch deep. Golfball sized hail also damaged sugar beets and other crops in Morgan County.									
Northeast	21 & 22	Night			0	0	4	4	Hail and rain
Scattered hail and rain caused damage to property and crops in the Boulder, Sterling, Holyoke, Ft. Morgan and Brush areas. Heavy rain accompanied the hail to cause flooding. Over 20,000 acres of sugarbeets were damaged in the Brush area. Hail as large as baseballs in the Sterling, LaRoy and Holyoke areas damaged buildings as well as crops.									
Denver	28	Afternoon			0	0	4		Rain and lightning
Lightning struck several homes in the Metropolitan area of Denver, causing fires. Some flooding was reported in the Stockyards area, at West 45th. Ave. and St. Paul and Harvard Gulch.									
CONNECTICUT									
Hartford and Tolland Counties	10	4:00 - 6:00 p.			0	0	4	4	Thunderstorms
Severe thunderstorms with high winds, short period heavy rain and hail spread damage over scattered areas. Trees and power lines were downed in many sections. Lightning strikes were common. At Ellington an inch of rain mixed with hail fell in less than 20 minutes and winds reached 70 mph in gusts. Hail with diameters of 1/4 to 1/2 inch occurred in many places and in some sections, between Farmington and Ellington, reached diameters as large as 3/4 inch.									
DELAWARE									
Kent County	15	8:30PM			0	0	4	0	Thunderstorms with high winds and lightning
Trees were uprooted, buildings damaged, plate glass windows shattered and power lines downed. Smyrna was the community most affected. At least 20 valuable trees at historic Belmont Hall were damaged or destroyed. Some minor lightning damage was also reported.									
FLORIDA									
Homestead Dade Co.	2	9:50 am							Funnel Cloud
Key West Monroe Co.	2	9:57 am							Waterspout
Miami Dade Co.	2	12:05 pm							Funnel Cloud
Port Pierce St. Lucie Co.	4	11:25 am							Funnel Cloud
Perry Taylor Co.	6	11:50 am	4	150	0	0	3		Tornado
Jacksonville Duval Co.	6	12:10 pm	3 1/2	25	0	0	5		Tornado
Tornado moved NW to ESE through Yonahandy, Avonhale and Lake Shree areas, lifting and lowering along path.									
Haines City Polk Co.	6	Afternoon	short	Narrow	0	0	4		Tornado
Waterspout over Lake Marion came ashore damaging several residences on lake shore.									
Pompano Beach Broward Co.	6	5:04 pm							Waterspouts (2)
Fort Pierce St. Lucie Co.	9	Afternoon			1	0			Lightning
Lightning killed horse and rider in open rangeland about 25 miles west of Fort Pierce.									
Key West Monroe Co.	9	4:05 pm							Funnel Cloud
Vero Beach, 35 W Cocoa Co.	9	5:45 pm							Funnel Cloud
Clewiston Hendry Co.	9	6:30 pm							Hail
Hail stones up to 1 1/2 inch in diameter reported in small area									
Homestead 25 SSE Dade Co.	10	9:12 am							Waterspout
Punta Gorda Charlotte Co.	10	12:45 pm							Funnel Cloud
Plant City Hillsborough Co.	10	2:50 pm							Funnel Cloud
Orlando Orange Co.	10	3:27 pm							Hail
Hail stones up to 3/4 inch in diameter reported in small area									
Vero Beach Indian River Co.	10	5:07 pm							Funnel Cloud
Key West Monroe Co.	10	6:45 pm							Waterspout

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1964

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					KILLED	INJURED	PROPERTY	CROPS								KILLED	INJURED	PROPERTY	CROPS													
FLORIDA (cont'd)											GEORGIA (Cont'd)																					
St. Petersburg Pinellas Co.	11	1:30 pm			1	0				Lightning											several fields of tobacco. A farm implement building was heavily damaged in Terrell County. Other areas reporting damage included Chattahoochee, Coffee and Bacon Counties.											
Lutz Hillsborough Co.	11	2:30 pm	short narrow		0	0	3			Tornado	Athens Area	23	6p.m.				4				Wind and Lightning											
Tampa Hillsborough Co.	19	7:15 am								Funnel Cloud											Lightning strikes during an unusually intense thunderstorm caused 18 fire calls with varying amounts of damage. Trees were uprooted and several utility poles were blown down by wind. A large manufacturing plant closed for 20 hours because of a burned out transformer. Light hail was reported in the area.											
St. Petersburg Pinellas Co.	19	9:40 am								waterspout																						
Kingsley Lake Resort Clay Co.	20	1:40 pm			0	26	4			Wind	Ashton, Ben Hill County	25	5p.m.				3	4			Hail and Wind											
					Strong surface winds accompanying violent thunderstorm hit resort area during an organizational picnic and outing. Numerous trees uprooted, several large shelters demolished and nearby buildings damaged.																Hail heavily damaged tobacco and other crops and wind damaged farm buildings, uprooted trees and interrupted utility service.											
Miami Dade Co.	22	11:20 am								Funnel Cloud	HAWAII None reported																					
Olga Lee Co.	22	4:15 pm			0	0	3			Wind	IDAHO 8 NW Malad	2	6 PM				1				Lightning											
Cape Coral Lee Co.	23	3:10 pm	short narrow		0	1	3			Tornado	Custer County	2	12:18 PM								Funnel Cloud											
					Funnel cloud dipped to ground briefly, damaging several automobiles and residences.																Fifteen year old boy struck as he was returning home from field on tractor.											
Tampa Hillsborough Co.	23	4:30 pm			1	0				Wind	Lewiston	5	1:24 PM				3	4			Hail and Rain											
					Strong winds during thunderstorm blew rider from truck bed. Injuries sustained proved fatal.																Storm struck Lewiston Orchards, inflicting damage to pea and grain crops, gardens and buildings. Weather Bureau Airport Station recorded 0.96 inch rain in 15 minutes. Hailstones "size of quarter or larger".											
Crestview Okaloosa Co.	24	1:28 pm								Funnel Cloud	4 S New Plymouth	7	Afternoon								Hail											
Fort Myers Lee Co.	24	3:05 pm								Funnel Cloud											Hailstones 2 1/2 to 3 1/2 inches in circumference stripped prunes from trees, flattened hay and stripped bushes.											
Tampa Hillsborough Co.	24	4:17 pm								Funnel Cloud	Emmett	12	Afternoon				4				Hail											
Cocoa Brevard Co.	25	6:18 am								Waterspouts (2)											Marble-size hail hit east slope orchards. Apples, prunes and plums damaged. One orchard of 5 acres of Golden Delicious considered nearly total loss.											
Miami Dade Co.	25	noon								Funnel Cloud (2)	Jefferson County	21									Pilot reported funnel cloud reaching ground about 35 miles north of Idaho Falls.											
Sarasota Sarasota Co.	25	5:58 pm								Funnel Cloud (2)	Most of State	26	Afternoon, evening				1	7			Wind, lightning											
St. Petersburg Pinellas Co.	25	6:30 pm								Waterspouts (6)											Scattered structural damage and widespread damage to trees throughout southern Idaho. Gusts up to 68 MPH reported at Boise and gusts estimated at 75 MPH in Mud Lake-Terreton area northwest of Idaho Falls. Airman at Mountain Home AFB stunned and temporarily paralyzed as bolt of lightning struck ground within 2 or 3 feet of him. Near Resperce two lightning strikes cut power to large part of Idaho County for 40 minutes.											
Tampa Hillsborough Co.	25	6:50 pm					4			Wind											Strong winds near airport unroofed one building and damaged several light aircraft.											
Eustis Lake Co.	26	4:45 pm								Funnel Cloud	ILLINOIS																					
Panama City Bay Co.	27	7:42 pm								Funnel Cloud	Hoopeston	7	1a			0	0	5	0		Lightning											
West Palm Beach Palm Beach Co.	28	2:16 pm								Funnel Cloud											Severe electrical storm in east-central Illinois with major damage complete burning of chain grocery in Hoopeston after lightning strike about 1 a.m. CST.											
Daytona Beach Volusia Co.	29	Afternoon			1	2				Lightning	North Central Illinois	19- 20	4p-10a			0	0	*6	C		Wind, lightning hail, local flooding											
St. Leo Pasco Co.	30	3:00 pm	short narrow		0	0	3			Tornado											Several periods of severe thunderstorms in north-central Illinois caused heavy damage to trees, utility lines, buildings and crops. Hail from 1/4" diameter to as large as "grapefruit" were reported. Rainfall occasionally exceeded 5" in 8 hours. Utility lines were damaged by broken limbs and transformers by lightning. Three squall lines contributed to damage, one about 5-8p CST on the 19th, the second about 1-3 a.m. CST on the 20th, and the third shortly after daylight on the 20th. Crops suffered hail damage in more than 50 counties, nearly every county from Whiteside-Lee-De Kalb-Kane on the north through Pike-Sangamon-Piatt-Vermillion on the south as well as several counties bordering this area.											
Palmetto Manatee Co.	30	Afternoon	short narrow		0	0	3			Tornado	Northern Illinois	21	10a-1p			0	0	*5	C		Heavy rain, wind, local flooding, hail											
					Waterspout came ashore near marina, deroofed boat shed and then dissipated a short distance inland.																Heavy rain began about 10 a.m. and continued until shortly after noon. Local flooding occurred during and after rain, especially in Ogle and Minnebago Counties and Chicago area. Crop damage was considerable with some property damage. Rockford WBAS had 2.07" of rain in one hour, 11 a.m.- 12 noon CST.											
GEORGIA																																
Atlanta Area	1	p.m.					3	3		Wind and Hail											A series of heavy thunderstorms in the Atlanta area caused wind damage to trees, power lines and roofs. Golf ball size hail reported some areas.											
Forsyth County	9	5 p					4			Wind											Several trailer houses wrecked and Big Creek School damaged.											
Cook County	12	a.m.					3	3		Wind and Hail											Buildings damaged by wind and falling trees. Several fields of tobacco damaged by hail.											
Claxton	20	2:30p					4			Wind and Rain											Severe thunderstorm with wind damage to trees, buildings and utility lines.											
Thomasville	20	6:30p					4			Wind and Rain											One building demolished, utility lines heavily damaged and trees blown down. Two and one-half inches of rain in one hour caused flooding many areas and required the evacuation of several people.											
South	21	p.m.					4	3		Wind											Winds damaged farm buildings, uprooted numerous trees and damaged											
					Winds damaged farm buildings, uprooted numerous trees and damaged																Nearly 1 1/2" rain in 20 minutes in Carroll County.											

See reference notes at end of table.

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					KILLED	INJURED	PROPERTY	CROPS							KILLED	INJURED	PROPERTY	CROPS																					
INDIANA										IOWA (Cont'd)																													
Ft. Wayne (south)	2	5:45p. EST			0	0	0	0	Funnel cloud	Correctionville	16	6:00 p							1	Lightning																			
Indianapolis, 16 miles northeast	2	5:50p. EST							Funnel cloud	75 Ottumwa Airport	19	12:40 p	1 inch diameter.					4	Hail																				
Princeton	7	6:55p. EST	3	50	0	2	4	0	Tornado	Cedar Rapids	19	12:46 p	3/4 inch diameter.					4	Hail																				
Northwest Indiana	9				0	0	0	4	Wind	N of Fairfield	19	2:00 p	To 3 inch diameter.					4	Hail																				
Indianapolis	12	6:05p. EST			0	0	4	0	Wind, lightning	N Dubuque County	19	3:00 p	Also heavy rains	10 7000 inches.				5	5	Hail																			
Laporte	12				1	0	0	0	Lightning	Maquoketa	19	4:25 p								Funnel																			
Fort Wayne	12	6 p. EST			0	1	4	0	Wind	Fremont & western Page Counties	19	7:00 p						4	5	4	Windstorm and 4 Funnels																		
Fort Wayne	15	Noon			0	0	4	0	Wind, hail, rain	3S Shenandoah	19	7:10 p	9	350						6	4	Tornado																	
Mt. Vernon	15	2:17p. EST			0	0	4	0	Wind	Cedar Rapids	19	8:14 p	1 1/2 inch diameter.								4	4	Hail																
Lake, Porter, and Laporte Counties	19	8:30p. EST			1	1	4	0	Wind	IS Clarinda	19	8:21 p	10	300								5	4	Tornado															
Fort Wayne	19	7:20p. EST			0	0	3	3	Hail	S Adair County	19	9:00 p										5	5	Hail															
Allen County	19	10:05p.	40		0	0	0	0	Tornado	Cass County	19	9:00 p	2 to 3 inch diameter.									1	5	5	Hail														
South Bend	21	9:10p.			0	0	2	2	Hail	N of Iowa City	19	9:09 p														2	Funnels												
South Bend	22								Funnel cloud	Burlington	20	1:06 a	Gusts to 81 mph.														6	4	Windstorm										
Columbia City	27	4:20 p.			0	0	3	2	Hail, wind	Lyon County	22	2:00 a																4	5	Hail									
IOWA										KANSAS																													
25W of Davenport	4	3:55 p	1	200				4	Tornado	Cedar Rapids	22	2:05 p																	4	Windstorm									
25W of Davenport	4	4:15 p							Funnel	Sabula	22	2:30 p	1/2	100																4	Tornado								
Big Spirit Lake	9	7:00 a			1				High winds	Clinton	22	3:30 p																				Small Waterspout over Mississippi River.							
Clay County	9	9:00 p			1	5	4		Windstorm	Pottawattamie & Harrison Counties	22	4:00 p																				5	5	Hail					
Northwest Iowa	11	6:30 p						5	4	Windstorm	W of Shenandoah	22	5:00 p																					2	Funnels				
Storm Lake	11	10:00 p	2	200				4	Tornado	Perry	22	5:15 p																											
Elkader	11	10:00 p						4	Lightning	Perry	22	6:30 p																											
SW of Rensen	13	4:00 p	1/2	100				4	Tornado	Waukee	22	6:30 p	4	200																									
SW border of Iowa	13	6:00-7:00 p							5 Funnels	Decatur County	22	6:40 p																											
Riverton	13	6:30 p							Funnel	Central Fremont County	22	7:00 p	7	400																									
Moulton to 6SW Bloomfield	14	2:30 p	10	200				5	4	Tornado	6E Riverton	22	7:00 p	10	400																								
2W Winfield	14	Evening						4	Heavy rainstorm	Hopeville to near Osceola	22	7:00 p	10	400																									
N of Marshalltown Airport	15	3:20 p							2 Funnels	Gladbrook	22	7:15 p	2	300																									
3S Des Moines	15	6:00 p							4 Funnels	2SE Pella	22	7:30 p	4	200																									
See reference notes at end of table.										A tornado was reported 27 miles northwest of Dodge City by the Highway Patrol.																													
- 58 -										A line of thunderstorms moving northeast was accompanied by damaging hail in numerous localities, with some areas reporting stones from hen egg size to that of baseballs. Stones 7 to 9 inches in circumference were found near Salina. Wind damages were quite prominent over Cloud, Clay and Marshall counties. Local heavy rains caused some washing of fields. Crops and buildings were damaged by the wind and hail. Transmission lines were down in various places.																													

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					KILLED	INJURED	PROPERTY	CROPS	
KANSAS (Cont'd)									
Brown County	10	1:30 p. to 1:40 p.	3	*1			3	3	Hail
		The center of the hail damaged area was about 7 miles east and 2 miles north of Hiramtha. Little wind accompanied the storm. The ground was covered with stones up to 2 inches in diameter. There was much damage to cars, roofs, trees and crops.							
Finney County	10	5:00 p. to 5:15 p.					5		Hail
		Hail up to golf ball and tennis ball size fell over much of Garden City and the nearby area for about 15 minutes. Most of the damage was to roofs, cars were dented, windshields were cracked, storm windows were broken and lawn furniture was dented and cracked. Trees were stripped of leaves and small branches. Some transmission lines were broken. The storm moved from the southeast to the northwest.							
Rush, Barton and Rice Counties	10	6:00 p. to 8:00 p.							7 tornadoes, hail and wind
		A severe thunderstorm over this area spawned 7 tornadoes as follows: 6:15 p. A tornado damaged several houses and buildings at Shaffer in eastern Rush County. Shortly after this first tornado, another touched ground 5 miles west of Albert. 7:00 p. Two tornadoes dipped momentarily but with little damage; one was a few miles southeast of Great Bend and the other was 7 miles northwest of town. 7:00 p. Two tornadoes were sighted, one to the north and the other northwest of Chase. Neither lasted long. 7:40 p. A tornado struck the small community of Claflin in eastern Barton County, unroofing the recently completed high school and blowing 9 Missouri Pacific freight cars off the track. The cars were blown to the south. The path was one-half mile long and 150 yards wide. Some hail and strong wind damage were reported from other localities.							
Mitchell County	10	9:25 p.							Funnel Cloud
		A funnel cloud was sighted near Deloit.							
Central and Eastern Kansas	10	Evening							Wind, lightning and heavy rain
		This was a stormy evening over much of central and eastern Kansas with considerable local damage from high winds, lightning strikes and heavy rains.							
Butler County	11	Near 8:00 a.							Funnel Cloud
		Police in Eldorado reported a funnel cloud about 1 to 1-1/2 miles northwest of Eldorado. It moved toward the northeast.							
Brown County	11	10:58 a.							Tornado
		A tornado touched ground about 4-1/2 miles west of Horton, doing little damage.							
Osborne County	11	6:45 p.							Funnel Cloud
		A funnel cloud was reported by a pilot 25 miles north of Russell.							
Labette County	12	9:40 a.							Funnel Cloud
		A funnel cloud was sighted 2 miles southeast of Oswego.							
Wabancsee County	12	2:35 p.							Funnel Cloud
		The Highway Patrol reported a funnel about 8 miles northwest of Alma.							
Barton and Russell Counties	12	9:25 p. to 10:00 p.				1	4		Severe Winds
		Severe winds over these two counties caused considerable roof and other building damage. Major items were the loss of the junior high school roof in Boilington and several airplanes, a hangar and several trailer houses in Russell. The peak velocity at the Russell airport was 98 miles per hour from the southwest.							
KANSAS (Cont'd)									
Mitchell County	12	10:17 p.	4				200		Tornado
		A tornado cut a swath from the southwest of Cavalier City to the southeast corner of the town damaging a number of houses and a church.							
Morris County	13	About 3:00 a.							Tornado
		A tornado left a damaged swath through some timber about 3-1/2 miles northeast of Council Grove.							
Wallace and Sherman Counties	13	6:00 p. to 7:00 p.							Hail and funnel cloud
		A funnel cloud was sighted near Sharon Springs at 6:23 p. Hail up to golf ball size fell over both counties, especially in the western portions. There was considerable crop damage. Some livestock were cut by the hail.							
Roos County	14	4:00 p.							Hail
		A path of damage from many large stones was evident from the southwest to the northwest across the county. Severe damage was inflicted on houses in Aurich. Many wheat fields had 25 - 100 % loss.							
Marshall County	15	Evening					1		Wind squall
		A man was cut by glass at Beattie when a wind squall broke a window nearby.							
Wilson County	17	12:55 p.							Tornado
		A pilot reported a funnel touching ground and moving south about 10 miles west of Chamute.							
Northeast Kansas	18	6:00 p. to 11:30 p.							Tornado, 5 funnel clouds, electrical, hail, severe winds
		A severe thunderstorm fanned eastward from about Shawnee County to the Missouri line leaving various damaged areas. The first funnel was sighted about 5 miles west of Topeka at 6:00 p. It was long and slender but quickly retreated back into the clouds. A second funnel that touched ground was reported about 10 miles west southwest of Forbes Air Base about 6:10 p. Winds damaged some trees, fences and boats near Lake Shawnee about 6:30 p. Near Auburn, hail an inch in diameter was reported. In Leavenworth county funnels were sighted a mile south of Fairmont and 2-1/2 miles south of Lansing. About 11:30 p. a funnel cloud was observed by the Ottawa police 5 miles east of Baldwin. A number of lightning strikes occurred in an area near Kansas City.							
Cloud County	21	2:20 a. to 2:35 a.							Hail
		Hail up to 1-1/2 inches in diameter was reported at Concordia.							
Decatur and Norton Counties	21	4:00 a.							Hail
		Hail damaged crops severely across the southern parts of both counties from Dresden east through New Abilene area and north as far as Jennings and Slayton.							
North Central and Northeast Counties	21-22	Late afternoon and night							4 tornadoes, 8 funnel clouds, hail, severe winds, heavy rain, lightning
		Severe storm conditions covered a large area from Barton County northward to Shawnee and Nemaha Counties. Especially severe conditions were reported as follows: From 4:15 p. to 10:30 p., Cloud, Republic, Dickinson, Clay and Washington Counties suffered particular damage. At 7:10 p. a tornado was sighted on the ground southwest of Munden in northeastern Republic County. Also at 7:10 p. a second tornado struck 2 miles north of Solpon and traveled northeast about 9 miles to just west of Talmadge destroying or severely damaging a number of farm properties. Some livestock were also killed. Mattresses were pulled from beds and a farm pond was sucked dry. Four other funnels were sighted in connection with this tornado from 7:10 p. to 7:35 p. At 7:25 p. a tornado was tracked by the Highway Patrol 3 miles northeast of Abilene as it moved northeast. At 7:58 p. a funnel was reported by the Highway Patrol 8 miles northwest of Abilene near Talmadge. At 9:20 p. a funnel cloud was reported 10 miles south of Clay Center. At 9:25 p. a funnel was sighted 11 miles north of Great Bend. Hail, severe winds and local deluges of rain also caused damage in various areas. Baseball sized hail fell about 9 miles south							

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1964

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INURED	PROPERTY	CROPS	
KANSAS (Cont'd)									
									of Concordia at 4:40 p. Hail stones the size of golf balls and baseballs fell at McDevill and Clifton about 4:15 p. to 4:50 p. Other localities reported small stones. Strong winds accompanied the hail and added to the crop and property damage. Lightning caused a number of damages. Heavy rains resulted in flash flooding and washing of fields.
									Also in connection with this storm, as it moved east a funnel cloud was reported southwest of Seneca at 8:36 p. and some wind damage about 9:13 p. A tornado was observed on the ground 8 miles north and 2 miles east of Mamego at 11:20 p. Some roof damage from 62 mph winds occurred in Topeka about 12:15 a. on June 22.
Butler County	21	5:40 p. to 9:00 p.			1				Tornadoes, funnel clouds, hail, strong winds, electrical
									A second severe storm cell developed over Butler County. One tornado touched ground near the cemetery southwest of Eldorado about 5:40 p. About 6:00 p. another tornado caused slight damage 1-1/2 to 2 miles northeast of Eldorado. Both were moving northeast. Three funnel clouds were plainly observed a little later about 10 miles north of Eldorado. Hail was reported in the vicinity near Eldorado at various times from 7:00 p. to 8:15 p.
McPherson, Saline and Dickinson Counties	22	Afternoon							Hail and high winds
									Numerous localities in these counties reported crop and property damage from wind, hail and, in some cases, both. McPherson was hit hard with hail, some stones almost 1 inch in diameter. A building or two were unroofed. Similar damage occurred over the county. In Dickinson County hail stones of marble size damaged corn in the vicinity of Kaweas about 2:45 p.
Pratt County	22	4:00 p.							Hail
									Hailstones up to 1-1/2 inches in diameter fell in the Coats vicinity in southwest Pratt County. Roofs were the principal damage.
Bourbon County	22	8:00 p.							Tornado
									A funnel dipped to earth in the north part of Bourbon doing considerable damage to trees, utilities, cars and buildings.
Northeast Kansas	22	Afternoon							2 tornadoes, 3 funnel clouds and wind
									Tornadoes and funnel clouds were sighted as a storm cell moved east across the northeast counties as follows:
									At 2:30 p., a tornado was sighted near Marysville. At 3:10 p., there was a tornado in the vicinity of Winona. A funnel cloud was reported 3 miles south of Sebets at 4:06 p. and at 4:15 p. there was a funnel cloud 7 miles southwest of Horton. A funnel cloud was sighted near Elwood, 6 miles west of St. Joseph, Missouri, at 5:10 p. About 5:00 p. wind caused damage in the Leavenworth area.
Finney County	29	5:45 p.							Tornado
									A tornado was reported moving in a northerly direction about 20 miles north of Garden City.
SPECIAL HAIL SUMMARY									
									Hail Loss Clearing House Reports indicate hail was especially severe on these dates in the following counties:
	3	Cheyenne and Ness							
	4	Marion, Sedgwick and Sumner							
	7	Cowley							
	8	Jewell, Republic, Washington, Marshall, McPherson, Riley, Clay, Cloud, Ellsworth, Saline, Dickinson and Cowley							
	10	Finney, Hodgeman, Edwards, Barton, Russell, Rice, Reno, Brown, and Doniphan							
	11	Logan, Wichita, Scott, Ness, Norton, Smith, Jewell, Republic, Nemaha, and Ellis							
	13	Cheyenne, Rawlins, Logan, Trego, Ellis, Russell, Lincoln, Mitchell, Republic, Washington, Ness and Lane							
	14	Sherman							Almost half of the counties in the state suffered some hail damage.
	20	Cheyenne, Decatur and Norton							
	21	Cheyenne, Rawlins, Thomas, Decatur, Norton, Phillips, Trego, Ellis, Embell, Cloud, Ottawa, Saline, Dickinson, Riley, Washington, Republic, Marshall, Nemaha, Brown, Jackson, Pottawatomie, Atchison and Dickinson							
	22								
									During the month of June hail less claims were written in all but 12 counties.
KENTUCKY									
Gallatin County	2	10:30 a.							Wind, hail
									High wind, and hail 3/4 to 1 inch diameter
KENTUCKY (Cont'd)									
North Central	2	6:00 p. - midnight							Wind, hail, electrical
									Local damage at scattered locations due chiefly to high wind, with damage to television aerials and other property. Some hail damage to tobacco beds and plants to corn crops and garden plants. Hail at one location reported to be marble size.
Central	12	4:30 p.	4	60	0	2	4	3	Tornado, electrical wind
									A tornado moving from the west-southwest to the east-northeast touched down in extreme southern Scott County, blew down trees, apparently lifted to come down about 15 minutes later 4 miles away, demolishing a barn and injuring 2 men working on the barn. A witness saw a black cloud approach the barn and said that, "the noise was terrific." High winds and lightning in several counties to the east and southeast of Scott County were responsible for damage to utility lines and other equipment.
State	15								Wind, hail, electrical
									High winds and hail associated with thunderstorms at widely scattered locations over the State caused local damage. Some hail damage to crops and some trees down.
Adair County	15	4:30 p.	3	400	0	0	4	?	Tornado
									A tornado moved from west to east, demolished 3 barns, did considerable damage to others, scattering pieces over a wide area. TV antennas downed and hickory trees 2 feet in diameter broken off or uprooted. Winds described as "rolling or sort of funnel-shaped, with dirt, trash and wreckage picked up making it easily seen."
Scott, Harrison, Fleming Counties	15	2:30 p.	50	?	0	1	4	?	Tornado, rain
									In Scott County, a tornado downed a number of trees in an unpopulated area near Skimmersburg, apparently skipped some 7 miles returning to earth near Turkey Foot, where it seriously damaged 2 farm homes and destroyed barns and other outbuildings. A witness saw a garage disappear over a hill, and another witness saw a funnel cloud approaching. Apparently the same storm moved eastward into Harrison County, downing about 200 trees and some farm buildings; moved eastward to the Flemingsburg area, Fleming County. There it touched down about 3:30 p.m., destroyed a concrete block building reinforced with steel beams, injuring a man working in the building. A funnel shaped cloud was seen approaching just prior to the destruction of the building.
Central	18	p.m.					4	4	Hail, wind, electrical
									Thunderstorms occurred over much of central Kentucky. High wind toppled trees, chimneys, billboards, and utility lines in some areas, partially unroofed a house in one locality. Lightning struck at a number of locations, apparently set fire to a barn, killed several livestock, damaged utility lines. Hail was reported at widely scattered locations, causing considerable damage to crops. The thunderstorms were accompanied by heavy rain in a number of areas.
Central	23	p.m.			1	0	4	5	Electrical, hail, wind
									Lightning killed a boy about 3:50 p.m. in Fayette County, and struck several other homes in the area; in other localities, killed some livestock and caused other damage. High wind was responsible for damage at widely scattered locations, unroofing several buildings, blowing down at least one farm building, downing trees and utility lines. Hail fell upon widely scattered locations, causing considerable damage to crops.
LOUISIANA									
Jefferson Parish	23	10:36 a. - 10:42 a.							Funnel cloud aloft
									Funnel cloud aloft 5 S Weather Bureau Airport Station, New Orleans, during thunderstorm to SW, which moved W.
Jefferson Davis Parish	24	10:15 a.			0	0	3	0	Wind
									Concrete block wall blown down, debris blown about; no other damage reported.
St. Bernard Parish	27	10:15 a.							Waterspout
									Two waterspouts in Mississippi River near Kaiser Aluminum plant.
Jefferson Parish	27	11:31 a. - 11:33 a.							Funnel cloud aloft
									Funnel cloud aloft to NW Weather Bureau Airport Station, New Orleans, during thunderstorm which moved NW.
Jefferson Parish	27	5:25 p.			1	0	0	0	Lightning
									As thunderstorm appeared about to break, 12-year old girl remained in shallow waters of the Gulf of Mexico a few feet off Grand Isle beach; was hit by lightning bolt and killed as she floated atop a small raft.
Jefferson Parish	29								Waterspouts
									Numerous waterspouts reported vicinity U.S. Coast Guard Station, Grand Isle.
Lake Pontchartrain	30	7:22 p.							Waterspout
									Reported in lake near Little Woods, Orleans Parish.

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1964

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		
MAINE Southwestern portion	24	Afternoon			0	0	4	0		Lightning
					Major damage from lightning was by resulting fires in houses and barns. Locally heavy rain exceeded one inch in an hour in some areas.					
MARYLAND Central and Eastern Sections, Central Eastern Shore and District of Columbia	15	Afternoon and Evening			0	0	5	?		Thunderstorms with high winds and lightning.
					Trees were uprooted, buildings damaged, roofs torn off, plate glass windows shattered, power and telephone lines downed in scattered areas such as Boonsboro in Washington County, Clarksville in Howard County, Ridge in St. Marys and Denton in Caroline County. Electrical service of nearly 6000 homes was interrupted in Baltimore area. At Boonsboro wind gusts were measured at 55MPH. Lightning caused the complete destruction of at least two homes by fire and damaged several other buildings.					
Frederick and Montgomery Counties	19-20	Near Midnight			0	0	4	0		Lightning
					Lightning destroyed one barn valued at \$15000 near Middletown and was believed to have caused the fire that destroyed a home valued at \$4000 near Clarksburg.					
Wicomico County	20	8:00-9:00PM			0	0	4	0		Thunderstorms with wind and lightning
					Winds caused extensive damage to utility lines. Trees were uprooted. Lightning killed four brood sows and 20 pigs.					
Patuxent Naval Station	24	Afternoon			0	4	0	0		Thunderstorm with high winds, hail and lightning.
					Four sailors suffered minor burns from a lightning strike while they were securing an airplane during storm. Gusts of 60MPH and a rainfall total of 1.17 inches within 20 minutes were reported.					
Baltimore	27	4:00PM			0	1	0	0		Thunderstorms with wind and lightning
					Violent thunderstorm caught a sailboat regatta on its final lap in Middle River, capsized between 20 and 25 and swamped 5 others of some 55 sailboats participating. Only presence of mind of sailors averted disaster. Only reported injury was minor burns to one of sailors aboard one of several boats hit by lightning.					
MASSACHUSETTS Boston and Vicinity	10	Evening			0	1	4	0		Lightning
					Lightning started a general fire in Chelsea, knocked a man unconscious in Danvers, and damaged many homes when a drenching thunderstorm broke over Greater Boston.					
Chester	10	1:41 p. to 2:02 p.			0	0	3	2		Thunder, squall, hail
					Nearly an inch of rain fell in 20 minutes. Wind gusted to 72 mph and hailstones, 3/4 inch in diameter, fell.					
State	16				0	0	4	0		Wind
					Northwest gales that gusted to 60 mph caused scattered, mostly minor, damage. Trees, branches, antennae, signs, etc., were downed or damaged. Several boats were torn from their moorings in Marblehead and Salem harbors. A number of smaller boats were driven onto the rocks.					
State	20	Afternoon			0	1	5	0		Lightning, rain, wind
					Thunderstorms ripped across the state causing fires, floods, and power and phone disruptions. In many sections the storms deposited an inch or more of rain in an hour. Traffic had to halt completely on many streets and some major highways because of flooding. In Framingham, a boy was slightly injured when lightning struck close by. Cellars were flooded in various localities. Winds gusting to more than 50 miles per hour caused widespread, mostly minor damage. Trees and large branches were downed, often taking power and phone lines with them. Lightning struck many homes and buildings and started fires in numerous instances. In Lawrence an especially severe wind tumbled a 50-foot section of an 18-foot high cinderblock wall, part of a new building under construction.					
State	24	Afternoon			0	0	4	0		Lightning, wind
					Widespread but mostly minor damage to utilities when wind felled trees and limbs. Franklin County was especially hard hit, with about 2000 power outages reported. Lightning damaged houses and utilities.					
Michigan All Lower Michigan and Eastern Upper Michigan	9	6:00 p., 11:30 p.			5	5		C		Thunderstorms with high winds, lightning, hail, and heavy rains
					High winds estimated up to 90 mph spread heavy damage throughout the entire area. Hundreds of wind felled trees caused damage to homes, buildings and cars and blocked streets and roads. House trailers were blown over					
Michigan (cont'd)										
					and damaged. Commercial signs blown down. High winds caused structural and roof damage to numerous buildings, barns and homes. In some instances the structures were a complete loss. Small boats and dock facilities on inland lakes received serious wind damage. Wind damage to light airplane parked at a small airport reported. Considerable window breakage damage due to high winds. Three children injured when high winds damaged home near Cedar Springs. Two people injured when wind toppled their house trailer at Mount Pleasant. Power service disrupted to hundreds of homes due to the storm. Hail and high winds damaged crops with amount of damage unknown. One and three fourth inch size hail reported 15 miles south of Flint and three fourth inch size hail fell near Houghton Lake. Roads, streets, highway underpasses and basements and contents flooded due to heavy rains with resultant damage					
Kalkaska	9	7:30 p.								Funnels aloft
					Two funnels aloft observed by sheriff.					
Merritt	9	8:30 p.								Funnel aloft
					Funnel aloft reported between Falmouth and Merritt.					
Alma	9	9:27 p.								Funnel aloft
					Funnel aloft observed 10 miles west of Alma.					
Entire State	19-20	4:00 p., 19th 4:00 a., 20th			2	5	5	C		Thunderstorms with high winds, hail, lightning, and heavy rains
					Heavy wind damage reported throughout the entire area with estimated velocity up to 75 mph. Numerous trees were felled with resultant damage to buildings, car and homes due to the high winds. Many buildings, homes and barns received structural wind damage to walls and roofs. TV antennas blown down. Wind felled trees blocked roads and streets. Two parked light airplanes capsized by high winds received damage in excess of 10 thousand dollars. Heavy window breakage damage reported. Lightning induced fires damaged homes, buildings and barns. Mother and daughter injured by flying glass in East Detroit. Girl suffered shock when struck by lightning at Owosso. Woman at Jackson received head injury when struck by wind felled pole. Two Detroit area men fatally electrocuted by severed high voltage power line due to the storm. Power service disrupted to thousands of homes and buildings due to lightning and high winds. Golf ball size hail caused 5 thousand dollar window breakage at a Harbor Beach greenhouse. Fireman injured by flying board due to high winds in Monroe County. Heavy rains flooded streets, roads, highway underpasses and basements with considerable damage reported.					
Central Lower Michigan	21	afternoon						4	C	Thunderstorms with heavy rains and lightning
					Heavy rains flooded farm fields, roads, streets and basements with considerable damage reported. Several homes damaged by lightning induced fires.					
Monroe	22	1:45 p.					1	3		High winds
					Small boy injured when struck by flying section of a porch screen due to the high winds. Few trees blown down with minor damage reported to homes and buildings. Some window breakage reported.					
Southwestern and Central Lower Michigan	22-23	7:00 p., 22nd 5:00 a., 23rd					4	5	C	Thunderstorms with heavy rains, high winds, hail, and lightning
					Three people injured when struck by lightning while eating at Muskegon State Park. Grand Rapids woman injured by lightning strike in her home. Wind felled trees caused damage to buildings and cars and blocked streets. Heavy rains flooded basements causing damage to buildings and contents. Power service disrupted to hundreds of homes and buildings due to the storm. Lightning induced fires damaged several homes, buildings and barns in the area.					
South Haven	22	7:00 p.								Funnel aloft
					About 5 to 10 miles south of South Haven along the interstate freeway, a funnel was sighted extending from black thunderstorm cloud downward toward the ground. Observer was unable to ascertain if the funnel cloud touched the ground due to the sand dunes in the area.					
MINNESOTA Most of State	1	Morning							?	Freeze
					Frost damage reported as far south as Rochester.					
Winthrop, Sibley County	7	6:00 p.	6	*1	0	0	5	5		Heavy rain, hail
					Rain measuring up to 5 inches and confined to Winthrop and nearby areas flooded 30 basements of homes, business establishments and streets. Accompanying hail with stones up to 2 1/2 inches in diameter damaged gardens and field crops.					
Baudette 225, Lake of the Woods County	8	2:00 p.	?	?	0	0	0	3		Hail
					Hail up to 2 inches in diameter fell for several minutes completely covering ground.					

See reference notes at end of table;

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JUNE 1964

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					KILLED	INJURED	PROPERTY	CROPS	
MINNESOTA (Cont'd)									
Central Minnesota	8	7:00 p.			0	6	5	0	Wind
									Fast moving squall line moved across central part of state with winds gusting to 76 mph at Mpls.-St. Paul, 70 at Redwood Falls and 63 at St. Cloud. Damage to barns, outbuildings, trees and utility lines. Six persons injured, 2 seriously when a bowling alley demolished at Long Prairie.
Wadena 7 1/2 NE, Todd County	8	10:10 p.	6	6	0	0	3	0	Tornado
									Tornado observed to touch down briefly in farm yard, destroying a garage and several small outbuildings. Storm moved northeast.
Camp Ripley County	18	8:30 a.			1	3	0	0	Electrical
									A soldier training with National Guard killed when lightning struck a field telephone installation. Three others injured slightly.
Glenwood, Pope County and Douglas County	18	2:30 p.	6	150	0	6	5	0	Tornado, Funnel cloud aloft
									Tornado touched down in 3 areas between Starbuck and Glenwood as it swept across Lake Minnawaska into the Silver Beach resort area damaging or destroying 4 lake cottages and several trailer homes. Water was sucked up out of lake by funnel. Four people injured by flying debris and two when their automobile was blown off highway. A funnel cloud aloft reported 10 miles southeast of Alexandria, Douglas County, at 2:40 p.
Kandiyohi, Kandiyohi County	18	2:45 p.	5	75	0	0	4	0	Tornado
									Tornado touched down in village of Kandiyohi, pulled off several roofs and turned over large house trailer then moved northeastward destroying one barn and damaging several outbuildings on three farm sites. Livestock killed but no personal injuries.
New London 4W, Kandiyohi County	18	3:00 p.	10	100	0	2	5	0	Tornado
									Tornado path visible from 4 miles west of New London to 7 miles north then northward to near Georgeville. Two men injured as machine shed they sought shelter in demolished. Eight farms hit, six barns destroyed, two homes damaged, many trees uprooted.
Nicollet to St. Peter, Nicollet County and Cannon Falls, Goodhue County	18	3:30 p.	12	*4	0	0	4	4	Wind, hail, funnel cloud aloft
									A severe thunderstorm moved through area doing considerable heavy damage from Nicollet to St. Peter. Damage at farm locations mostly to trees and because of falling trees and branches. A 60 ft. windmill and numerous TV antennas blown over. At St. Peter hail 1 1/2 inches in diameter belted the downtown area for nearly 10 minutes. Heavy hail also reported St. Peter 4S and at Nicollet 2W. Storm moved ENE. Near Cannon Falls at 6:00 p. Highway Patrol reported a funnel cloud not touching ground.
MISSISSIPPI									
Lafayette County	11	7:30 p.	3	*1/2	0	0	4	0	Wind
									Mountain Grove Farm Community, near Oxford: Wind damage mainly to buildings, followed by approximately five or six inches rain. Tenant houses: destroyed two, unroofed seven; barns: destroyed two, unroofed one; outbuildings: destroyed five.
Madison County	12	Late evening			0	0	4	0	Wind
									Steel superstructure of warehouse under construction at Flora blown over; most of enameled metal siding and roof blown about 100 feet away.
Alcorn County	22	Shortly before 1:00 p.			0	0	4	0	Lightning
									3 E Corinth, lightning hit home which burned to ground.
Lauderdale County	22	1:00 p.	Narrow		0	0	3	0	Wind, heavy rain
									Trees uprooted and advertising signs downed at Meridian, winds estimated 60 m.p.h. Local three-inch rain produced minor flooding.
Lauderdale County	23	Early evening			1	0	0	0	Lightning
									In rural Meridian, wooded area, man killed by lightning as he reached for door handle of automobile.
Hinds County	24	2:00 p.			0	0	3	0	Wind
									NW Jackson, tree and sign damage; winds to 69 m.p.h.
George County	26	Afternoon			0	2	0	0	Lightning
									At Merrill, lightning struck large oak tree, bounced 100 feet to porch, where it knocked two boys, ages 9 and 10, unconscious and burned them.
MISSOURI									
Mountain Grove, Wright County	5	afternoon						4	Thunderstorm
									Heavy damage to fruit at State Experiment Station and in immediate surrounding area. Storm local in character. No damage at Cabool or Mansfield, and no damage a few miles north of Mountain Grove.
MISSOURI (Cont'd)									
Pleasant Hill, Cass County	7	12 - 1 pm						4	Thunderstorm
									Wind damage to several farms and homes. Several planes and buildings damaged at the airport west of town.
Clinton and DeKalb Counties	11	2:30 pm							Funnel Aloft
									Funnel reported near Cameron.
Chillicothe (NE), Livingston County	11	3:05 pm						4	Thunderstorms
									Damage to farm buildings. Very heavy rain and gusty winds up to 75 miles per hour.
Richmond, Ray County	11	2:30 pm			1			4	Thunderstorm
									Damage to trees, farm buildings, homes in Richmond vicinity. A man was killed when a power line blew down across his truck. Heavy power and telephone lines down.
Perry, Ralls County	11	evening						4	Thunderstorms
									Damage to trees, homes and power lines.
Fair Grove, Greene County	11	early morning						3	Funnels Aloft
									Minor wind damage in the Fair Grove area.
Waynesville, Pulaski County	11	7:30 pm						4	Thunderstorm
									Wind damage to several trailer homes on old Highway 66, east of Ft. Leonard Wood.
Parkville, Platte County	11	1:50 pm							Funnel Aloft
Dexter - Campbell, Stoddard - Dunklin Counties	11	afternoons and 12			2			4	Thunderstorms
									Lightning damage to radios and television sets, and hail damage to cotton. Two women killed when struck by lightning in a cotton field near Campbell.
Lawson, Clay and Ray Counties	11	2:30 pm	1/2						Tornado
									First touched ground north of Route D near Elaine, then moved 1/2 mile toward the southeast. Damage to trees, farm buildings. Metal roofing scattered 300 yards away from barn. Three inches of rain and hail in less than two hours.
Moberly - Paris, Randolph - Monroe Counties	11	early evening						4	Thunderstorm
									Wind and hail damage to homes, farm buildings. Hail damage to wheat. Heavy rains, up to 4.50 inches did heavy damage to some crops.
St. Louis County	11	evening						4	Thunderstorm
									Damage to homes and signs in Hazelwood area.
Cuba, Crawford County	12	11:30 am						4	Thunderstorm
									Damage from hail to trees, homes and gardens.
Seneca, Newton County	13	morning						6	Thunderstorm
									Flooding caused heavy damage in Seneca, many homes and businesses damaged and 150 persons evacuated.
Eldon - Jefferson City, Miller-Cole Counties	13 and 14							4	Thunderstorms
									Numerous thunderstorms caused flood in Jefferson City and Eldon. Several roads and bridges washed out in Lake of the Ozarks area.
Labadie - Gray Summit (East of Washington, Missouri)	14	evening						4	Thunderstorms
									House trailer was upset by wind. Damage to trees, homes. Wind damage to corn and wheat.
Marshall, Saline County	14	midnight						4	Thunderstorm
									Damage to trees, homes and power lines.
St. Louis County	14	evening						4	Thunderstorm
									More than 30,000 homes without electricity. Wind hit gusts of 65 miles per hour. Lightning hit Weather Bureau radar knocking it out of commission for thirty minutes. Many trees down in Florissant.
									The following was reported by a University of Chicago scientist at West Plains, Missouri: June 17, Tornado
									(1) Promise Land Boat Dock, 2.5 miles NW of the northern tip of Bull Shoals Dam. Touchdown time was approximately 11:45. Dock demolished, owner in hospital with severe back injuries.

See reference notes at end of table.

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JUNE 1964

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					KILLED	INURED	PROPERTY	CROPS	PROPERTY	CROPS	
MISSOURI (Cont'd)											
			(2) Trees downed at Orchard east of Three Brothers, Arkansas, in Baxter County.								
			(3) Fred Johnson Farm, .75 miles N. of Missouri Route 112 on Ozark and Howell County line. Tornado remained at rooftop level (approximately 15 feet) and splintered trees 18 to 24 inches diameter. Power line snapped; blocks stopped at 1550. 30 x 50 ft. barn lifted off foundation but not demolished.								
			(4) Maney Bales Farm, .7 miles NE (048°) Fred Johnson Farm. Two small buildings completely flattened, 18-inch healthy hickory tree snapped approximately 8 ft. from ground. Other smaller trees snapped or blown over. Approximately .5 miles NE of Bales saw many 20 to 40-ft. trees blown over with roots exposed.								
			(5) 1/2 mile S. Hugh Ponds farm, 7.4 miles (airmiles) 188° from Howell County Court House. Trees uprooted here. Unable to get touchdown time.								
			(6) Chicken hatchery 1.4 miles E. Thayer, City limits at 1550. Left section of 100 ft. building completely demolished. Many feathers.								
			(7) 20 ft. N. of Shangri-La Motel restaurant; approximately .25 miles S. Junction US 63 and Mo. Route W. Many trees blown over here. Unable to get time of touchdown.								
Bakersfield, Osark County	17	5-6:00 pm					3				Tornado
			Damage to farm buildings.								
Savannah, Andrew County	18	5:40 pm									Funnel Aloft
Farley, Platte County	18	6:55 pm									Funnel Aloft
Conception, Nodaway County	18	5:15 pm									Thunderstorm
			1.05 inches of rain in forty-five minutes, accompanied by strong winds.								
Concordia, Lafayette County	18	10:30 pm						4			Thunderstorm
			Wind damage to trees, homes and power lines. Three to four inches of rain fell.								
Kirksville, Adair County	19	10:05 am									Thunderstorm
			1-1/4 inch diameter hail reported 5 miles NW of Kirksville airport.								
Maryville, Nodaway County	20	7:00 pm						4			Thunderstorm
			Three-inch diameter hail at Maryville airport. Some reports of 5-inch hail at the edge of Maryville. Maryville Daily Forum dated June 22, 1964, carries a picture of a hailstone larger than a baseball.								
Tardic, 1 1/2 mi S, Atchison County	20	evening						"several"	4		Tornado
			Buildings destroyed on several farms and a number of cattle killed. "Several" people injured.								
Lawson (East), Ray County	20	night and 21					1		4	4	Thunderstorm
			Flooding in the Crooked River area east of Lawson caused heavy damage to crop land and to home and farm buildings. One boy drowned while wading near the river.								
Sullivan, Franklin County	21	6:00 pm							4		Thunderstorm
			Many large trees down. Heavy rain and lightning with some flooding in the area.								
Smithville, Clay County	21	night							6		Thunderstorm
			Every downtown business building had from 1 to 3 feet of water and dozens of homes were flooded, many for the first time. Major damage to water and sewer system. Rains up to 6-1/2 inches fell.								
St. Joseph, Buchanan County	21	night							5		Thunderstorm
			120 blocks in southeast St. Joseph and north of the downtown business area flooded. A car was washed off the highway east of St. Joseph, but the family in it reached safety. 5.80 inches of rain at St. Joseph.								
Owensville, Gasconade County	21	6:00 pm							4	4	Thunderstorm
			Damage to homes, trees and television antennas. Corn blown down in many fields. Many country roads blocked by fallen trees.								
Clinton County	21	early morning							6	5	Thunderstorm
			Very heavy rains caused flooding over most streams in county. An area south and west of Perrin received about 9-1/2 inches of rain. Many roads and bridges washed out. Heavy crop damage. Many streams reached highest stages in history.								
Agency, Buchanan County	21	night and 22							5	5	Thunderstorm
			5 feet of water in the main street of Agency. The worst flood since 1947.								
MISSOURI (Cont'd)											
Carrollton, Carroll County	21	night and 22								4	Thunderstorm
			Flooding west of Carrollton. Highway 65 closed 2 miles south of Chillicothe.								
St. Joseph, Buchanan County	22	late afternoon								4	Tornado
			A 12-block area in the central part of St. Joseph was hit by a tornado. A police sergeant saw the funnel approaching from the southwest. Many power lines and trees down. Damage to homes and business buildings.								
Columbia, Boone County	22	9:00 pm									Funnel Aloft
			5 miles north of Columbia airport.								
Vichy, Maries County	22	11:02 pm									Funnels Aloft
			2 funnels east and southeast of Vichy airport, moving southeast.								
Ste. Genevieve, St. Genevieve County	24	night and 25								4	Thunderstorm
			Flash flooding on many streams in the area.								
Chillicothe (11 West), Livingston County	29	7:00 pm								4	Thunderstorm
			Damage to several farm buildings in an area from Mooresville to the Blacksmith Corners area.								
St. Louis County	29	evening								5	Thunderstorm
			Damage to aircraft parked at Lambert field. Damage to buildings in Hazelwood area. Wind hit gusts of 75 miles per hour.								
MONTANA											
Western Montana	6-7		225	*175	36	?					Heavy Rain
			Heavy rain fell over all of Montana during the two day period. Rain was especially heavy from northern Lewis and Clark County to the Canadian border along the Continental Divide. Fourteen inches or more rain fell in the centers of this storm during the period. Major flooding occurred on the Sun, Teton, Marias, Dearborn, and Flathead drainages. Flooding also occurred on the Jefferson River East of the Divide, and the Bitterroot and Clark's Fork west. For further details see the June issue of Montana Climatological Data.								
Billings, Yellowstone County	7	6:58 P.	?	?	0	0	0	0	0	0	Tornado
			A funnel cloud was observed by WB and FAA personnel from 6:58 to 7:01 P which touched ground briefly. A second funnel cloud was observed by the general public to the southwest about 6:20 P. M.								
Laurel (2 miles west), Yellowstone County	10	2:30 P.	3	*2	0	0	0	0	0	0	Hail
			Beets were the only crop to suffer from the storm, other than being set back in growth there was no permanent damage. Hailstones up to 1 inch in diameter were reported.								
Lewistown, Fergus County	11	3:30 P.									Funnel Cloud
			Two funnel clouds were reported from 3:30 P to 3:45 P. One was estimated 5 miles southeast, and the other 20 to 25 miles north.								
Baker (1 mile west), Fallon County	11	2:45 P.									Funnel Cloud
			A pilot reported sighting a funnel cloud								
Manhattan (southwest), Gallatin County		2:30 P.	3	*1	0	0	0	0	4		Hail
			Hailstones were one-half inch diameter								
Northeast Corner	14	evening	120	*40	0	0	4	5			Hail and Heavy Rain
			The storm covered an area from near the Canadian border north of Scobey (Daniels County) to near Sidney (Richland County). Hail was spotted throughout area. Rains of 1 to 2 inches were measured, an unofficial report of 8 inches near Sioux Pass, which washed out about 50 feet of Great Northern Railway track. Some hailstones were golf ball size.								
Miles City (35 miles west), Custer County	15	8 P.									Funnel Cloud
			Sighted and reported by pilot.								
Cut Bank (15 miles north), Glacier County											Funnel Cloud
			A pilot reported sighting a funnel cloud								

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1964

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	
MONTANA (Cont'd)									
Miles City (30 miles north) Ouster County	19	11:45 A.							Funnel Cloud
A public report of a funnel cloud									
Great Falls (35 miles south) Cascade County	21	11:36 A							Funnel Cloud
Reported by Air Force.									
Libby (8 miles west) Lincoln County	26	6 P.	?	?	1	0	2	0	High Wind
High gusty wind blew a roof off a building and killed a woman covering flowers in the yard.									
Southern Liberty and Western Hill counties	27	evening	60	*3	0	0	0	4	Hail
The storm covered a general area from east of Tiber Dam (Liberty County) northeastward to near Kramlin (Hill County). Hail damage was spotty. One report indicated hailstones of 1 1/2 inches diameter.									
NEBRASKA									
Gates vicinity	6	Night	?	?	0	0	3	4	Hail
1 1/2" to 2" stones damaged roofs, corn, and hay. Wheat was a total loss.									
SW of Stockville	6	9:00 p. - 9:30 p.	5	1 1/2"	0	0	3	4	Hail
Stones averaging 1" in diameter covered the ground to a depth of 1-2". Excessive rain (over 5 inches) accompanied hail, some stones were 2-3" in diameter. Wheat destroyed, pastures damaged.									
Gurley to Broadwater	8	8:00 a.	30	68"	0	0	4	5	Hail
Small stones and high winds gave way to large (2" diameter) stones with light wind as storm moved northeastward. Wheat total loss many places. Building damage in Dalton. Scattered areas of lighter hail elsewhere in Western Nebraska including Sidney and Ogallala during same morning.									
Nuckolls - Thayer Counties	8	4:30 - 5:00 p.	15	Narrow	0	0	5	0	Tornado
Sixteen farmsites damaged in the Ruskin-Deahler-Carleton area.									
Southeastern Nebraska	8	Evening	125	25"	0	0	5	5	Hail and high winds
Numerous strips of hail (3/4" to 1 1/2" diameter) in Thayer and Saline Counties (5:00 p. - 7:30 p.) with extensive damage to roofs, windows and crops. Lighter hail, but stronger winds were reported northeastward across Lancaster County to Douglas County later that evening (6 p. - 10 p.). Some damage from wind to trees, trailer houses, farms, etc. in Lincoln-Maverly area.									
Near Seward	8	5:25 p.			0	0	0	0	Funnel Cloud
Funnel cloud sighted 22 miles WNW of Lincoln.									
DeWitt - Cortland	8	Evening	15	Narrow	0	0	4	0	Tornado
Intermittent damage to farmsites along path.									
Cook	10	About 10 11 a.	Spot	Spot	1	0	0	0	Lightning
Man struck while operating tractor.									
South Central Nebraska	11	4 p.-8p.	100	25	0	0	4	5	Hail
Numerous strips up to 2 miles wide and 10 miles long in southern tier of counties from Red Willow to Webster. Stones mostly 1/2" - 3/4" but some up to 1 1/2" diameter.									
Central Nebraska	11	4:30 p. - 6:00 p.	?	?	0	0	4	4	Hail and Wind
Scattered areas of hail and damaging winds reported in Buffalo, Sherman, Howard, Hall, and Nance Counties. Most of the damage was from the hail but wind upset trailers and toppled trees.									
Southeastern Nebraska	11	5:45 p. - 8:35 p.			0	0	0	0	Tornadoes
Tornadoes (7) were sighted at or near Shelton, Sutton, York, Seward, Crete, Shickley, and Carleton. Apparently funnels had difficulty maintaining contact with the ground as only minor damage was reported.									
Vicinity of Grand Island and Wahoo	13	00 a. - 03 a.			0	0	0	0	Funnel Clouds
A number of funnel clouds sighted, none touching ground or causing damage.									
Near Wood River	14	1:35 a.	Short	Narrow	0	0	0	0	Tornado
Tornado sighted. Touched down briefly with damage to trees.									
50 miles NNW Grand Island	14	5:00 p.	Short	Narrow	0	0	0	0	Tornado
Tornado touched ground briefly, no damage.									
North Shelton	14	6:35 p.			0	0	0	0	Funnel Clouds
Two funnel clouds observed, did not touch ground.									
NEBRASKA (Cont'd)									
Near Hubbell and Daykin	14	5:15 p. - 6:15 p.	25	Narrow	0	0	4	4	Hail - Funnel Cloud
Funnel cloud, not touching ground observed near Hubbell about the time of a severe hail storm. Hail 1/2" to 1" diameter with some to 2". Storm moved northeastward to Daykin area where 3" stones (some to 4") damaged buildings and crops.									
Boone County	14	7:00 p.	20	2-3"	0	0	4	5	Hail
Jagged hail some up to 3" diameter from west of Primrose to east of Cedar Bluffs.									
Northwestern Nebraska	15	5 p. - 9p.	70	2-5"	0	0	5	5	Hail
From northeast of Chadron through Clinton and southeastward into the sandhills. Hail was accompanied by strong winds and heavy rain that did some damage. Stones were mostly 3/4" to 1 1/2" in diameter, but some were 2" to 3". Ground was covered at various depths ranging up to "8" deep on the level."									
Northeastern Nebraska	16	1:00 p. - 8:00 p.	180	10-20"	0	0	7	7	Hail, excessive rain, damaging winds
The storm path extended from northwestern Boyd County southeastward across portions of Holt, Knox, Antelope, Pierce, Madison, Stanton, Colfax, Dodge, Washington, Saunders, Douglas, Sarpy and Cass Counties. The excessive rains ranging up to 8-10 inches in some areas resulted in severe flooding and extensive property losses along some rivers. River flood losses including six Brownings, are reported elsewhere, and are not included here. Destruction to crops was complete and building damage high in the numerous strips of heavy hail. Norfolk was in the center of one strip. Stones were generally 3/4" to 1 1/4" in diameter, but ranged up to 3". Hail fell continuously for about 15 minutes at most sites, but exceeded 30 minutes at some. Depth on the ground ranged from 2 to 8" on the level." Some buildings were damaged and others blown down, but the nature of the destruction indicates strong gusty winds rather than tornado activity. There was considerable loss of livestock from the hail. Damage estimates are: hail 70%, rain 25%, winds 5%.									
17 SSE Harrison	17	6:40 p.	?	?	0	0	?	?	
Funnel did not touch ground. Hailstones 2 1/2" diameter.									
Chadron	17	8:30 p.	?	?	0	0	?	?	Hail
Hailstones 1 1/2" diameter.									
Southern Coding County	19	8 p. - 8:45 p.	15	5"	0	0	5	5	Hail
Hail averaging 3/4" diameter accumulated to a depth of 2". Some stones up to 2".									
Near Ravenna	19	10:24 p.			0	0	0	0	Funnel Cloud
Observed 2 miles NW of Ravenna.									
East - Central Nebraska	19-	11 p. - 20 2a.	90	40"	0	0	5	5	Damaging winds, hail, funnel cloud
Strong gusty winds measured up to 96 MPH uprooted trees and toppled barns and other farm buildings at various sites from Platte and Madison Counties eastward to Burt, Washington, and Douglas Counties. Hail, mostly small (1/8" - 1/2") was driven by the strong winds giving complete crop destruction in strips ranging up to 2-8 miles wide and 15-20 miles long. A funnel cloud was observed just west of Omaha at 0115 a.									
Near Brule	20	7:45 p.	Spot	Spot	1	2	0	0	Lightning
Lightning struck and killed a man hoeing sugar beets. Two other men about eight feet distant were rendered unconscious but recovered.									
26 NW of Imperial	21	0025 a.	Spot	Spot	0	0	0	0	Tornado
Sighted by police.									
Southern Nebraska	21	1 a. - 5 a.	180	30"	0	0	5	5	Hail, damaging winds
A series of hail storms broke out in Chase County about 1:00 a. and moved east-southeastward at 50 MPH to Nuckolls County by 5:00 a. Both the sizes of hail strips and the sizes of the stones varied greatly. Some hail was like buckshot, other measured up to 4" diameter. Accompanying wind also varied from very light with some hail to damaging speeds elsewhere. The tornado near McCook reported below occurred at the time the hail storms were passing.									
10-15 SE McCook	21	1:30 a.	5	Narrow	0	0	4	0	Tornado
Damaged four farm sites.									

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1964

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM	PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM	
					KILLED	INURED	PROPERTY	CROPS							KILLED	INURED	PROPERTY	CROPS		
NEBRASKA (Cont'd)										NEW JERSEY (Cont'd)										
Northeastern Nebraska	21	11:30 p. - 12:00 p.	20	5	0	0	4	5	Hail											low cloud, but there was not a funnel cloud visible as the storm approached. The two damaged motel buildings had balcony roofs projecting 6 feet on the west side into the wind. It appears that a strong horizontal wind peeled off sections of the roof. A trailer house on Crossha Road is reported to have been torn apart after an occupant opened the door into the wind. A neighbor was an eye witness there. He was sitting in his car. He reported no hail, but very poor visibility in driving rain.
Seward and Saline Counties	21	6:30 p.	?	?	0	0	4	4	Hail	NEW MEXICO										
										Glovis, Curry County	10	4:30 p.m.	1/5	50	1	2			Tornado	
																			Tornado moved from northwest to southeast with sound like train. One girl cut by flying glass. Shed and five trees damaged.	
Southwestern Nebraska	22	0000 a. - 0100 a.	120	30	0	0	6	6	Hail, damaging winds	Ramon, Lincoln County	10	6:00 p.m.	Short	Narrow		1			Tornado	
																			Tornado, during thunderstorm, moved towards northwest with loud roaring noise. Little damage to tree limbs and turkey coop.	
										San Jon, Quay County	10	Night				2			Tornado	
																			Tornado tore up outbuildings and phone poles northwest of San Jon.	
Near Chadron	22	2:30 p.			0	0	0	0	Funnel cloud	Curry County	11	4:30 p.m.	5	Narrow		4			Tornado	
Near Millard	22	3:15 p.			0	0	0	0	Funnel cloud										Tornado moved northeastward from about 4 miles east of Glovis to the north of Texico and into Texas towards Bovina. Three buildings and irrigation systems destroyed. Four show cattle and 20 head dairy cattle killed. Total damage in New Mexico estimated \$39,000.	
NEVADA										Glenrie, Quay County	11	5:20 p.m.				3			Tornado	
Extreme Southeastern Nevada, Clark County	7	2:10 P.M.	?	?	0	?	5	0	Tornado and wind storm										Tornado demolished trailer and deroofed service station; moved north.	
										Pleasant Hill, Curry County	12	Afternoon	12	Narrow		4			Tornado	
																			Tornado moving north destroyed hose and turned over trailer house near Pleasant Hill. Total damage \$7,000.	
										Curry County	13								Funnel aloft	
																			Funnel cloud sighted 2 miles northeast of Glovis. No damage.	
										Roosevelt County	13	Afternoon				3			Tornadoes	
																			Funnel cloud south of Floyd touched down in field. No damage. Tornado three miles east of Portales caved in quonset hut, and hit car and tool shed.	
Elko County, 10 miles east of Elko	16	9:30 A.M.							Funnel Cloud	Clayton, Union County	13	5:10 p.m.							Hail	
																			Hail stones to 1 inch in diameter, but mostly 1/4 to 1/2 inch, moved west to east at airport, one mile east of town.	
NEW HAMPSHIRE										Artesia, Eddy County	13	Evening				0			0	Heavy rain and flash flood
Bethlehem	4	4:49 p. to 4:55 p.			0	0	0	2	Hail										Rain of up to 5 inches unofficial measurement started at 6:30 p.m. in Eagle Draw watershed, just west of Artesia. Thirty automobiles washed down draw. Total property damage to area, \$1,235,000; greatest since 1911 in draw. Four houses destroyed, 369 damaged. Damage to livestock, crops, and loss of topsoil additional. Water started receding about 12:30 a.m., June 11, 1964.	
State	16				0	0	4	0	Wind	NEW YORK										
										Schuyler-Tompkins County line (near)	15	4:30 p.	2	100	0	0	4		Tornado	
																			Tornado moving from west to east first touched ground near village of Alpine, Schuyler County. Motorists and other witnesses near path described a funnel- or spiral-shaped cloud with much whirling and turbulent motion from cloud base to ground. Large barn demolished in this area. Funnel apparently left ground briefly to return about one mile east in the town of Newfield, Tompkins County, about 16 miles southwest of Ithaca. Two houses and two house trailers partially unroofed, three small sheds and porch destroyed. Several large trees blown over or snapped off some 20 feet above ground; witnesses said trees seemed to "jump up in the air". View from airplane showed funnel touched ground third time in an isolated wooded area about one mile east. Trees felled in different directions in area size of football field.	
Hampton Beach	20				1	0	3	0	Wind	Northern half	15-16	Late p. to early a.					4		Wind	
																			Passage of cold front beginning late on 15th brought winds of 40 to 50 mph. during night to areas east of Lake Ontario, St. Lawrence Valley, western Adirondacks and scattered areas of Mohawk and upper Hudson Valleys. Large rypin canopy destroyed at Alexandria Bay and hotel partially unroofed at Boonville. Numerous fallen trees and limbs damaged property and utility lines in Watertown, Ogdensburg, Utica, Troy and Glens Falls. Winds and rough surf stalled shipping on St. Lawrence Seaway.	
Woodsville	27	1:30 a.	1/2	narrow	0	0	4	0	Tornado	Ulster and Columbia Counties	24	2-3 p.m.				5			Electrical, wind	
																			Severe thunderstorms centered in two-county area of middle Hudson Valley. Lightning-caused fires destroyed dairy barn including contents of hay, machinery and one cow, at Kerkonson and heavily damaged home at Stratville, Columbia County. Phone and electrical services knocked out over wide area in city and suburbs of Kingston, Hudson and Chatham. Gusty winds also downed trees, limbs and wires.	
NEW JERSEY																				
Glenoda, Monmouth County	3	4:30 EDT P.M.	2	100	0	0	5	0	Funnel cloud, wind											
Elizabeth	3	1 pm EDT			0	2	0	0	Electrical storm											
Bordentown and Trenton	15	6 pm EDT					4	4	Hail, wind, electrical storm											
Willingboro to Wrightstown	24	4:20-4:55 pm EDT	20	100 to 1500	1	9	5		Wind.											

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1964

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 (Cont'd)									
Rome, Oneida County	24	4:45 p.							Funnel cloud
		Reported 9 miles south southeast of Rome.							
Northwest	26-27	Late p. to early a.m.					4		Electrical, wind
		Area from Syracuse northward to St. Lawrence Valley struck by late evening and early morning thunderstorms. Restaurant heavily damaged by lightning-caused fire at Pulaski, Oswego County and barn destroyed at Potsdam, St. Lawrence County. Some ten houses reported struck by lightning in Syracuse area but total damage apparently minor. Wind-felled tree damaged home at Fulton, Oswego County. Power failures scattered throughout four-county area.							
NORTH CAROLINA									
Beaufort, Columbus, Guilford, Jones, Lincoln, Montgomery, Pitt, Rowan Counties	1	morning						5 5	Electrical, Wind, Hail
		Lightning killed some livestock and caused several fires, destroying a motel and damaging homes and outbuildings. High winds damaged a school and demolished several tobacco barns. Hail damaged tobacco in fields.							
Northampton County	6	4:45 p.						0 4	Hail
		Scattered damage over a 4 square mile area.							
Yadkin County	9	3:45 p.						4 4	Hail
		Scattered damage to crops in fields, mostly tobacco. Several roofs damaged.							
Madison County	12	3:30 p.						0 4	Hail
		Scattered damage to tobacco and vegetables.							
Beaufort, Caswell, Catawba, Hertford, Lee, Northampton Counties	13	2-6 p.						4 5	Hail, Wind, Electrical
		Hail damaged tobacco in fields several areas. Wind upset house-trailers, unroofed buildings, blew down trees and power lines. Lightning burned out several transformers.							
Onslow County	14	9:20 p.						4 0	Wind
		Wind unroofed home, demolished two barns, blew down trees, damaged power facilities.							
Durham, Forsyth, Guilford, Henderson, Iredell, Rockingham Counties	15	7-10 p.						5 0	Electrical
		Lightning caused several fires, damaging an office building and a supermarket, and destroying a home and outbuildings; disrupted power and telephone service. A single bolt killed seven cattle in Iredell County.							
Caldwell, Davidson, Guilford, Iredell, Lincoln Counties	18	afn & evening			1	1		5 0	Electrical
		Lightning struck among a group of golfers who had taken shelter under a tree near Statesville; one killed, one hospitalized, others severely stunned. Lightning several other areas killed two cattle, burned two homes and a garage, damaged a school and several smaller buildings.							
Bladen, Cumberland, Franklin, Granville, Surry, Vance Counties	19	afn & evening						4 5	Hail, Electrical
		Hail did considerable damage to tobacco fields in Bladen, Franklin and Surry Counties, scattered minor damage elsewhere. Lightning burned home, barn and other outbuildings in widely separated areas.							
Pender County	20	2:30 p.						0 4	Hail
		Hail damaged tobacco in scattered fields over a 10 sq. mi. area.							
Alamance, Bladen, Columbus, Durham, Franklin, Halifax, Harnett, Johnston, Lee, Nash, New Hanover, Pender, Pitt, Robeson, Surry, Wake Counties	21	afn & evening			1	2		5 5	Electrical, Hail, Wind
		Very widespread thunderstorm activity. One man killed, two injured, when struck by lightning on pier at White Lake. Several buildings burned or partially burned by lightning-set fires. Wind of 70 mph damaged small craft at Wrightsville Beach. Numerous widely separated areas of hail damage to crops, and of minor wind damage to buildings, trees, power and telephone lines.							
Alexander, Caswell, Cleveland, Davidson, Guilford, Lenoir, Martin, Mecklenburg, Montgomery, Moore, Person, Pitt, Richmond, Surry, Union Counties	22	5a.-8p.						5 5	Hail, Rain, Wind, Electrical
		Stormy weather was going on in some part of the Piedmont or Coastal Plain all day. Hail hit Lenoir and Martin Counties in the early morning, and over six inches of rain fell at Kinston between sunrise and noon. Heavy damage to crops and drainage facilities, some damage to houses and autos. High winds and hail struck several Piedmont counties in the afternoon and lightning struck and damaged a school, a church and several homes in Cleveland County in the early evening.							
NORTH CAROLINA (Cont'd)									
Gaston, Henderson, Iredell, Rutherford, Stokes, Warren Counties	24	3-5 p.						4 4	Electrical, Wind, Hail
		Lightning killed 13 dairy cattle grouped under trees in Iredell County; burned outbuildings, damaged homes in several widely separated areas. Wind blew down trees, damaged corn crop in Rutherford County. Hail damaged apples in Henderson County, tobacco in Warren.							
NORTH DAKOTA									
No report received by printing deadline									
OHIO									
Toledo	12	Evening	Short	Narrow	0	2	5	0	Windstorm
		A severe localized storm which could have been a weak tornado struck in the 4900 block of Monroe Street during the evening. The roof and east wall of a store building were removed, while lesser damage was sustained by adjacent buildings.							
Ottawa	15	1:15 PM			0	0	5	5	Tornado and Hail
		What appears to have been heavy thunderstorm activity accompanied by spotty tornadoes covered a mile-wide area from just east of Kalida eastward to well past Ottawa during early afternoon. Severe damage to crops by wind rain and hail resulted as large fields of corn, soybeans, wheat, and tomatoes were flattened. Property damage to farm buildings and to a large building in Ottawa appears attributable to one and possibly more small tornadoes. At least one funnel cloud was sighted.							
Findlay	15	1:11 PM							Funnel Cloud
		A funnel cloud was sighted 15 miles southeast of Findlay Airport.							
Wharton	15	2:05 PM	2	100	0	0	0	0	C Tornado
		At least one and probably several funnel clouds occurred in northwestern Wyandot County. One touched down 3 miles northwest of Wharton and followed County Route #6 for some distance. Several groups of farm buildings along this road were severely damaged; and there was considerable crop damage.							
Carey	15	2:10 PM	Short	Narrow	0	7	0	0	C Tornado
		Miscellaneous property damage was caused by a small-scale tornado which struck in Carey about 2 PM. Most severe damage was to a supermarket whose roof was lifted off. While many customers were present, only 7 were injured. Walnut-size hail accompanied this storm.							
Columbus	15	2:30 PM							Large Hail
		Hailstones ranging upward to 1-inch in diameter are reported to have fallen 9 miles southwest of Columbus.							
Columbus	15	4:40 PM							Funnel Cloud
		A funnel cloud which failed to touch the ground was observed by airport tower personnel.							
Piqua	19	11:30 PM			0	0	5	0	Windstorm
		A violent thunderstorm which may have been a typical immature tornado blew down one hangar at the Piqua Airport while leaving other buildings untouched. Although the hangar was practically a total loss, damage sustained by two light planes inside was minor.							
Xenia	23	6 PM	1/4	Narrow	0	0	0	0	C Tornado
		A small-scale tornado struck on the Earley farm on U. S. #35 east of Xenia where it unroofed a new home, demolished several outbuildings, scattering the debris over adjacent fields.							
OKLAHOMA									
Ellis County	3	10:00p.-11:30p.	10	*2-3	0	0	?	?	Hail
		Hail up to 1-inch size fell along path from 6 miles north of Shattuck to just north of Gage. The ground was covered in places, with wheat damage reported on 5 farms.							
Beckham and Greer Counties	4	4:00p.-4:30p.			0	0	0	0	Rain, funnel aloft, and tornado
		Heavy rain fell in the Plainview community, Greer County, unofficially totaling 2 1/2 inches during the 30-minute storm. A pilot sighted a funnel aloft which moved northeast across the Plainview area for 4 minutes before pulling back into the cloud base at 4:27 PM. A small tornado touched down briefly about 4:30 PM in open range 8 miles southeast of Brick, Beckham County. It moved northeast without damage.							
Tonkawa, near, Kay County	4	6:00p.-6:10p.	Short	50	0	0	4	?	Tornado and hail
		Tonkawa police sighted a small tornado on the ground 10 miles southwest of town. Debris path indicated northeastward movement. A light amount of large hailstones fell just to the east of the path.							

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JUNE 1964

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	
OKLAHOMA (Cont'd)									
Garfield County	4	6:45p.-7:45p.	15	?	0	0	?	?	Rain
Heavy thunderstorms moved northeast across the Carrier-Kremlin area where rainfall from the hour-long storm measured 4 1/2 to 5 inches unofficially. Local flooding near Kremlin closed highway US 81 and caused up to 40% crop loss in limited areas.									
Blackwell, Kay County	7	5:30a.			0	0	0	0	Hail
A few 3/4-inch size hail fell in the City.									
Cleveland, near, Pawnee County	7	About 7:15a.			0	0	5	0	Electrical
Lightning struck and exploded a 55,000-barrel oil storage tank at a refinery near Cleveland. The explosion blew off the top of the tank while the resulting fire burned about 5,500 barrels of bottom oil and totally destroyed the tank.									
Tulsa, Tulsa County	7	10:00a.-10:15a.	4	1800	0	0	*5	C	Hail
Hail averaging 1 1/4-inch size with largest stones up to 2-inch size caused extensive roof damage to residential and industrial property on the north side of Tulsa. The 4-square-mile area extended eastward from N. Cincinnati Ave. to N. Yale Ave. and northward from Pine Street to Apache Street. A 50% ground cover completely damaged roofs of 1200 homes and partially damaged 500 others. Flowers and gardens were beaten into the ground and fruit trees stripped. Marble-size hail covered half the ground at Tulsa International Airport while smaller hail also fell in other sections of the City. Property loss was set at \$450,000.									
Blackwell, Kay County	9	8:22p.			0	0	0	0	Hail
Hail up to 3/4-inch size fell in the vicinity of Blackwell for a few minutes. No damage was reported.									
Ottawa, Delaware, and Mayes Counties	12-13	10:30a.-12th - 11:00p., 13th			0	0	5	?	Rain
Torrential rains of 4 to 7 inches fell over the 3-county area of northeast Oklahoma. Heavier unofficial amounts totaling near 11 inches were indicated in the bordering areas of Missouri. Heaviest downpour came between 2:00 AM and 11:30 AM on the 13th when the east-central part of Ottawa County was hardest hit. Most intense rain fell in the bordering area of Seneca, Missouri where 2.60 inches fell in a 55-minute period ending at 5:00 AM. Hard rains and localized flash flooding heavily damaged gravel roads in Ottawa County, caused washouts, damaged bridges and caused closure of a road near Wyandotte when 150 feet of hillside slid into the road. Considerable general flooding also occurred along rivers and creeks in Ottawa County.									
Northwest Washita County	13	5:40p.							Funnel aloft
A funnel aloft was reported just to the southwest of Clinton-Sherman Air Force Base. The funnel moved east.									
Fryor, Mayes County	13	About 7:00p.			0	0	4	0	Electrical
Lightning struck a utility pole near the Osage School building 5 miles west of Fryor on SH 20. The lightning traveled into the building on the power lines, starting a fire in the kitchen area which caused \$10,000 damage.									
Western half of Beckham County	13	p.m.			0	0	?	?	Rain, hail, and wind
Heavy rains totaled 3.71 inches at Erick. Unofficial reports varied from 3.5 inches at Sweetwater up to 4.7 and 7 inches of rain in the area 2 to 6 miles south of Erick. Rain and hail damaged about 1000 acres of cotton and wheat with up to 30% wheat damage in spotty areas. Quick runoff on local streams caused loss of many fences along creeks, washout of about 20 bridge approaches, and loss of several bridges. High winds blew down a barn, many trees, utility lines, and damaged roofs and outbuildings.									
Sand Springs, near, Osage County	14	About 4:15p.	1/4	50	0	0	4	0	Tornado
A tornado touched down on a farm 4 miles north of Sand Springs along Highway 97 and moved northeast destroying a large hay barn, uprooting numerous trees, and causing minor damage to neighborhood homes.									
Texas County	14-15	8:00p., 14th - 1:00a., 15th			0	0	0	?	Rain
Locally heavy rains over parts of the County. 2 storms in the Hooker area lasting 3 hours totaled 3.02 inches and some wheat was reported haled out. Unofficial totals reported near 6 inches in some areas. Heavy rains were also indicated in the extreme southwest part of the County where runoff caused a wall of water 8 to 10 feet high at one time to come roaring down Sand Creek.									
West-Central Logan County	15	4:00p.-4:10p.							Funnels aloft
3 funnels aloft reported 5 miles south-southwest of Crescent. 2 of the funnels formed a mile apart, while a third appeared several									
OKLAHOMA (Cont'd)									
Marshall, Johnston, Atoka, Bryan, and Choctaw Counties	16	5:00a.	65	*20-35	0	0	0	4	Rain
Heavy rains ended mostly by midnight as totals varied from 3 1/2 to 4 1/2 inches. The Durant area was wettest with its 5.84-inch downpour flattening alfalfa and causing an estimated \$35,000 damage to hay.									
Hughes, Pittsburg, and McIntosh Counties	16-17	10:00p., 16th - 7:10a., 17th	35	*15-20	0	0	0	0	Rain
A heavy thunderstorm about 20 miles in diameter moved northeast from the central part of Hughes County to the western part of McIntosh County. Heaviest rain fell during the last 3 hours of the period totaling 6.86 inches at Calvin and 5.38 inches at Hanna.									
Greer, Jackson, and Kiowa Counties	20	7:00p.-8:00p.	35	*20	0	1	5	4	Hail, rain, wind, tornado, and electrical
Severe thunderstorms moved northeastward along storm path across northern Jackson County, southeast half of Greer County, and into the western part of Kiowa County. Hail up to 1 1/2-inch size and high wind and up to 1.8 inches of rain damaged cotton and feed crops on 6 farms northwest of Elair along with many farms in the Duke and Martha areas. 100 acres of cotton were damaged 60% in the Russell area along with other farms in southeast Greer County where 1-inch size hail up to 2 inches deep in places haled out some cotton fields completely. High winds along the path blew down several barns and outbuildings, partially unroofed numerous barns and sheds. Several cotton trailers, a cafe and liquor store were damaged at Granite. Heaviest damage in the Lake Altus area was to an amusement park, cabins, boat stalls, and several boats were sunk. The roof of a dining parlor at Lone Wolf was blown off and landed on a tavern next door. Wind gusts were recorded up to 67 MPH at Hobart Airport by 7:55 PM. A tornado touched down 9 1/2 miles east of Mangum along Highway US 28 and moved northeast along a short and narrow path. An empty 24,000-pound semi truck and trailer was picked up and blown from the roadway. The driver upon fleeing from the truck was carried across the highway and injured when dumped in a ditch. A pickup preceding the truck was also blown into the ditch, while an automobile following the truck was blown 300 yards back to the east and also landed in a ditch. Lightning killed 6 head of cattle near the Fairview Community and 16 head near Mangum. Hail damage 30% of \$100,800 total, rain 10%, wind 50%, tornado 2%, and electrical 8%.									
Major County	22	8:30p.			0	1	4	0	Wind
Strong straight wind blew over a completion rig at an oil field drilling site 6 miles northwest of Ringwood. The rig fell across a truck causing minor injury to the driver who was pinned in the smashed cab.									
Tulsa, Tulsa County	28	6:00p.-8:00p.			0	0	4	0	Electrical and wind
Heavy lightning over the City developed electrical line trouble in 30 different locations. One home was heavily damaged when fired in the south part of the City. Gusty winds were registered up to 60 MPH at Tulsa International Airport near 6:00 PM.									
Turkey Creek area, Garfield and Kingfisher Counties	30	6:00p.-7:00p.	11	*5	0	0	?	0	Rain
Torrential rain provided unofficial totals of 2 to 5 1/2 inches along Turkey Creek valley from just west of Edison in southwest Garfield County to the area west of Hennessey. Damage was limited to washing of newly plowed fields.									
OREGON									None reported
PACIFIC AREA									None reported
PENNSYLVANIA									
Near Elizabethtown	3	1:30 P.M.						5	Lightning
Lightning fired a barn which destroyed the structure valued at \$65,000. and its contents valued at \$25,000.									
Newville R.D.	3	Afternoon	Short	Narrow				4	Twister
The baby tornado which moved primarily over open farmland did unroof a barn in its path and lifted practically the entire contents out of the structure.									
Southern two-thirds of the State	15	Afternoon & Evening						6	Thunderstorms
Strong winds from thunderstorms, accompanying cold frontal passage, demolished several barns, unroofed a number of homes and barns, overturned and demolished house trailers, and felled many trees and utility lines. Attendant lightning fired several buildings and killed 22 cows. Much of the damage occurred in Herks and Lefgh Counties where wind gusts were clocked at 109 mph.									

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					KILLED	INJURED	PROPERTY	CROPS							KILLED	INJURED	PROPERTY	CROPS	
PENNSYLVANIA (Cont'd)										SOUTH DAKOTA (Cont'd)									
Near Greensburg	15	Evening	2	800	4	5			Tornado	Hoven to 8 NNW Bowdle	18 12:30-1:15 A	25	200	0	2	4	0		Tornado and Heavy Rain
The northeastward-moving tornado destroyed 4 barns, a 55-ft. house trailer, turned another on its side, badly damaged 3 farm homes and 6 garages and leveled other out-buildings. Several automobiles were trapped in collapsed enclosures. The 4 injured persons were all occupants of a trailer, overturned by the strong winds.										Tornado moved from SSW to NNE damaging three farmsteads. Five inches of rain fell in three hours near Bowdle causing soil erosion just before tornado hit.									
2 Miles North of Mercer	15	4:00 P.M.	Short	400		5			Tornado	12 SE Ipswich	18 10:00 A								Tornado
The tornado destroyed 2 barns and carried away a quantity of hay stored inside one of the barns. Trees in the area were also felled by the wind.										Damage included below.									
Jonestown Area	15	3:20 P.M.	Short	Narrow	2	5			Tornado	WRN Beadle, Hand, Faulk, Edmunds, McPherson and NRW Brown Counties	18 9:30 A-3:00 P			0	10	6	6		Wind, Hail, and Heavy Rain
The southward-moving storm demolished or extensively damaged barns, trailers, and homes. One person was injured when the house trailer in which she was residing was lifted from its foundation and moved about 75 feet where it lifted from its foundation and moved about 75 feet, where it disintegrated when striking the ground. A nearby resident was injured when the porch roof under which he was standing was torn loose from the house and fell on top of him.										Storm moved from S to N and intensified as it moved N. Winds estimated 50 to 100 MPH with 52 MPH reported at Huron. Greatest damage in McPherson County where it was estimated at \$2,000,000 to crops and \$2-3,000,000 to property. At Eureka 6.14 inches of rain fell in five hours. Next greatest loss was in Edmunds County where 46 farmers filed loss claims. Hail was reported in scattered areas of Hand County with most in the southwestern part of the county. Other counties reported spotty hail but caused only a small part of the storm damage. Strong winds caused most of the damage.									
PUERTO RICO										6 W and 5 NW Sioux Falls									
None reported										22 Early AM									
RHODE ISLAND										Parts of Minnehaha, Turner, Lincoln, Yankton, Clay, and Union Counties									
None reported										22 About 1:00 A-1:30 A									
SOUTH CAROLINA										TENNESSEE									
Shaw Field, 8 mi. ESE, Sumter County	1	1:12 pm			0	0			Hail	Chattanooga, Hamilton County	1 9:00 p.			0	6	4	0		Rain, lightning and wind
Air Force reported hail $\frac{1}{4}$ " in diameter.										Heavy rain during a thunderstorm caused the roof of an automobile showroom to collapse injuring 6 persons, some seriously, and damaging 4 new automobiles. Wind and lightning did minor damage to trees and utilities.									
Conway and Vicinity, Horry County	6-7	Early 6th Late 7th			0	0	5	6	Heavy rain	West Tennessee	11 Afternoon			0	0	5	3		Rain, wind, lightning and hail
Tropical depression off the coast responsible for unusually heavy rain, with over 10 inches of rain in 24 hours at Conway. Heavy flash flooding caused interruptions in road traffic and substantial damage to roads and cars. Heavy damage done to tobacco.										Heaviest damage in Obion, Gibson, and Lake Counties; scattered damage other locations. Rain flooded farmlands, highways and a few houses and businesses. Wind damaged trees, utilities, barns, automobiles, and miscellaneous structures. Lightning damaged trees, homes, utilities, and killed livestock. Hail, a bit smaller than golf balls, was reported in parts of Memphis.									
Columbia, 30 mi. West Saluda County	18	3:30 pm			0	0			Hail	Campbell County	28 Afternoon			0	0	3	3		Wind and hail
Hail $\frac{1}{2}$ to $\frac{3}{4}$ " in diameter.										Hail reported the size of half-dollars fell during a brief thunderstorm. Tobacco crops, oats, and wheat were damaged, trees uprooted, a barn destroyed, and a house damaged in the Dendry-Coolidge section.									
Graham Crossroads, Sumter County	18	6:00 pm			0	0	3	0	Tornado	Near Nashville, Davidson County	29 2:00 p.			1	0	0	0		Lightning
Heavy trees uprooted. Roaring noise, tornado probably descending for a short contact, subsequently rising with tree branches shorn.										A man working on the Interstate Highway 40 project near Whites Creek Pike was killed instantly when struck by lightning.									
Simpsonville, Greenville County	21	11:30 pm			0	0	4	0	Tornado	TEXAS									
Roaring sounds heard.										20 SE Post Garza Co.									
York, York County	22	7:20 pm			0	0	4	0	Tornado	4 3:30 p.-4:30 p.	?	?	0	1	4	0			Wind
Fire, caused by lightning, destroyed installations at former Air Base at Donaldsonville, S. C.										An oilfield worker was critically injured when a wind gust associated with a thunderstorm toppled an 80-foot derrick. The worker reportedly rode the derrick to the ground. Damage to the structure was estimated at \$22,000.									
Greenville, Greenville County	23	1:15 am			0	0	4	0	Electrical	Wall Tom Green Co.	4 afternoon	$\frac{1}{2}$	narrow	0	0	0	0		Tornado
Base at Donaldsonville, S. C.										Tornado touched ground on farmland in the Wall area about 15 miles east of San Angelo. It moved along the ground for about $\frac{1}{2}$ mile then lifted.									
Myrtle Beach, Horry County	25	11:50 pm-11:51 pm			0	0	0	0	Funnel Cloud	Big Spring Howard Co.	7 ?			0	6	0	0		Lightning
Funnel cloud reported.										Lightning struck a parking lot at Webb Air Force Base in Big Spring, injuring six airmen working nearby. None was hurt seriously.									
SOUTH DAKOTA										Pringle Hutchinson Co.									
Much of State	8	PM			0	?	5	4	Wind	10 evening	?	?	0	0	0	?			Hail, rain
Winds of up to 50 MPH or more reported over much of state. Wide spread damage to trees and utility lines. Buildings damaged in scattered areas. Additional storm data for this date is listed below.										Marble size hail caused extensive damage to ripened wheat in the Pringle Community area. Largest hailstones were estimated to be golf-ball size. Two inches of rain contributed to the wheat damage.									
30 WSW Pierre	8	1410 P			0	0	0	0	Tornado	Farmer Co.	11 4:30 p.	20	?	0	0	4	?		Tornado
Touched down in open country.										A tornado touched ground about four miles east of Clovis, New Mexico, and moved east-northeastward into Texas to near Bovina. Streets in Texico, New Mexico, Farwell, Texas, and Bovina, Texas were littered with debris. Damage to ranch property and livestock along the tornado path was estimated at \$50,000. Four show cattle valued at \$1000 were killed on the E. C. Wheeler farm about two miles north and a mile west of Texico. A \$12,000									
20 W Pierre	8	About 1500 P			0	0	0	0	Tornado										
Touched down in open country.																			
Near Ridgeview	8	4:00-4:30 P			0	0	4	0	2 Tornadoes										
Tornadoes moved from SW to NE damaging power lines and ranch property. New mobile home destroyed while being towed on Highway 212.																			
15 WSW and 20 NE Moberge	8	About 1830 P			0	0	4	0	2 Tornadoes										
Tornadoes moved from SE to NW. Damage limited mostly to power lines.																			
NE Clark County	8	1805-1835 P			0	0	4	0	3 Tornadoes										
Three tornadoes moved from SW to NE. Each damaged a farmstead.																			
W Codrington County	8	1830 P							2 Funnel Clouds										
NRW Black Hills	8-9	PM 8th AM 9th			0	0	5	4	Heavy Rain										
Some 24 hour amounts: Sturgis 6.10, Deadwood 5.69, Lead 5.24, and Spearfish 4.30 inches. Roads and bridges washed out, numerous landslides and much flooding of property reported.																			
15 N Watertown	14	Before 4:00 P							Funnel Cloud										

See reference notes at end of table.

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					KILLED	INURED	PROPERTY	CROPS	
TEXAS (Cont'd)									
									irrigation system was destroyed on the Jack Givens property about a mile west of the Wheeler farm. The tornado moved east-northeast at about 25 miles per hour.
Hockley Co.	11	5:30 p.	15	*10	0	0	0	6	Hail, rain Hail and heavy rain caused an estimated \$2 million damage to crops in northwest Hockley County. The hardest hit portion of the county apparently included the area from approximately the roadside park north of Levelland on Highway 385 west to about the Pettit Highway, north to Pap and back toward Whitharral. Approximately 50 per cent of the crops in the Whitharral vicinity were destroyed. Approximately 3.5 inches of rain fell within one hour.
Presidio Presidio Co.	11	7:00 p.- 8:00 p.	?	?	0	0	4	3	Wind, hail Thunderstorm winds estimated at 60 miles per hour caused roof damage to school buildings, businesses and several residences totalling \$20,000. Small hail caused an estimated \$1,000 damage to field crops in the area.
13 SW Tulia Swisher Co.	11	7:30 p.	?	?	0	4	?	0	Tornado A tornado which struck the Albert Devin farm tumbled a trailer house containing the four members of the Bruce Farmer family into a nearby pasture. All received cuts and bruises but the injuries were not believed to be serious.
Near Farwell Farmer Co.	12	5:00 p.- 6:00 p.	2-10	?	0	0	?	?	2 tornadoes Two tornadoes touched ground in open farm land near Farwell. The only damaging tornado as far as property is concerned demolished a trailer house about five miles north of Farwell. The other tornado struck the ground several times about three miles northeast of Farwell. Field crops in the tornado paths were damaged from 10 to 65 per cent. The length of paths of damage were estimated at two to ten miles. The tornadoes moved from southwest to northeast accompanied by hail averaging one inch in diameter, and up to 5.75 inches of rainfall.
Near Dawn Deaf Smith Co.	12	afternoon	short narrow	0	0	0	0	0	Tornado A tornado touched ground on open farm land near Dawn but caused no damage.
Bailey Co.	12	afternoon							3 funnels aloft
Amarillo Potter Co.	12	7:55 p.							Funnel aloft
Near Farwell Farmer Co.	13	3:00 p.- 4:00 p.							Funnels aloft Three funnel clouds were sighted aloft in the Farwell area, none of which touched ground.
Lasbuddie Farmer Co.	13	6:45 p.- 7:15 p.	1 1/2	50	0	0	4	5	Tornado, hail A tornado destroyed a 9x11 foot frame sheet iron building at the North Lasbuddie farm. A wooden cattle feeder and three cotton trailers in the gin yard were also destroyed. Utility poles in the vicinity were knocked down. Property damage was estimated at \$5,000. Small hail averaging one-half inch in diameter completely covered the ground, and caused an estimated \$100,000 damage to young cotton in the area.
4 N Canyon Randall Co.	14	3:02 p.							Funnel aloft
S Farnsworth Ochiltree Co.	14	afternoon							Funnels aloft
Wharton Wharton Co.	15	9:30 a.- 9:40 a.	1 1/2	17	0	0	3	0	Tornado A small tornado swirled across the southeast section of Wharton causing minor damage to the Spaho residence on Stavens Street, and the water pump house. It also uprooted several small and one large tree. The tornado then struck an abandoned airport hangar about a mile away, ripping off the roof. Several utility poles in the tornado path were blown down. Property damage was estimated at \$2000. The storm moved from east to west.
20 N San Antonio Bexar Co.	15	?							Funnel aloft
Bell, Coryell, and McLennan Counties	15- 17		30	*20	0	0	5	?	Heavy rains, flooding Torrential rains up to nearly 14 inches drenched southern McLennan County, northern Bell County, and eastern Coryell County. McGregor was hardest hit with a storm total of 19.98 inches, of which 13.08 inches fell between 1:00 a.m. and 3:00 p.m. on the 16th. Stillhouse Hollow Dam in Bell County reported a storm total of 10.46 inches of which 9.56 fell within 24-hours. No serious damage or injuries were reported except for property damage from minor flooding in Belton. By the afternoon of the 16th many of the creeks that had overflowed began to recede. Runoff was heaviest in the area along the highway from Moody to Spring Valley. Damage to streets and public property in Belton was estimated at \$100,000. Several downtown streets in Belton were flooded because of overloaded storm sewers. Water flowed into several business establishments on North East Street causing only minor damage. In McGregor, the Water Works and Sewer Disposal Plant were inundated. Several houses in the low area just north of the Cotton Belt Railroad were flooded. The Dipping Springs bridge was reported washed away between McGregor and Waco and several wooden bridges and fences were swept away. Crop losses in the area were expected to be more than offset by the benefits from the badly needed rain.
TEXAS (Cont')									
Near Corsicana Navarro Co.	16	1:10 p.- 1:27 p.							2 funnels aloft
SW Emis Ellis Co.	16	afternoon							Funnel aloft
Near Lubbock Lubbock Co.	17	afternoon	?	?	0	1	?	?	Wind Thunderstorm winds flipped over a two-bedroom house trailer 1 1/2 miles east of the Keton Cattle Company near Lubbock. Mrs. Bob Hammonds, her husband, and 10-year old son were all inside. The 43-foot structure, blown onto its side, weighs an estimated 10,000. Mrs. Hammonds suffered minor injuries to an arm.
14 SE Brownfield Terry Co.	17	6:00 p.	?	?	0	0	3	0	Tornado A tornado destroyed a trailer home on the Townsend farm and a farm laborer's house on the Riley Lucker place near the Union community about 14 miles southeast of Brownfield. Several barns and sheds were also damaged or destroyed. The tornado moved from southwest to northeast. Property damage was estimated at about \$3,000.
Near Lamesa Gaines Co.	20	6:18 p.							Funnel aloft
10 W Big Spring Howard Co.	20	6:45 p.	?	?	0	0	?	?	Tornado Barns and sheds were unroofed, trees blown down and powerlines damaged by a small tornado that touched ground about 10 miles west of Big Spring. Hardest hit were the Farmer and Simons farms. At the Farmer farm the tornado unroofed one barn, picked up a 30-foot portion of another, and carried the structure one-fourth mile before depositing it intact in a field.
Hall Co.	20- 21		20	*10	0	0	0	6	Sandstorm, hail Approximately 40,000 acres of young cotton were destroyed by a sandstorm and hail. Hail and hard rain lashed Hall County the night of the 20th, destroying cotton fields in the Pliska, Lakeview and Lesley areas. Then on the night of 21st, high winds whipped up large amounts of sand causing damage to those fields lightly hit or missed by the hail. The total damage was estimated at approximately 95 per cent of crops in these three areas.
Near Canadian Hemphill Co.	22	5:30 p.- 6:10 p.	?	?	0	0	0	0	Tornado A tornado touched ground on open ranch land about 10 miles west of Canadian. It then lifted and moved in a northeasterly direction and was observed as a funnel aloft north of the city.
Near Galveston Galveston Co.	24	?							Waterspout
Ozona Crockett Co.	24	3:30 p.	?	?	0	1	?	0	Windstorm Thunderstorm winds ripped a roof section from a ballpark in south Ozona and hurled it onto a slow-moving automobile on Highway 163. A passenger in the car, 16-year old Helen Hayes, suffered cuts on her back and arm when the timbers shattered a window on the right side of the vehicle.
UTAH Utah, Salt Lake, Davis and Weber Counties	3	Afternoon			0	1	4	?	Wind and lightning A rather severe electrical windstorm during the afternoon shorted power lines, blew trees down and shingles off from roofs. Lightning shattered a tree which seriously damaged a late model car and knocked out five transformers. No serious injuries reported.
Salt Lake and Weber Counties	6-7				0	0	4	?	Moderate rains and flooding
Ephraim, Sanpete Co.	17	11:25 to 11:50 AM			0	0	4	4	Funnel cloud, hail Severe hail storm swept across area shredding crops and resulting in death of over 1,000 turkey bantams by smothering. Hail up to 3/4 inch diameter. Tore shingles from roofs. Funnel cloud sited by several people, but did not appear to touch ground.
Hill Field, Weber Co.	21	2:35-55 PM			0	0	?	?	Funnel Cloud Funnel cloud sited by airport personnel. Did not touch ground, but lasted about 20 minutes. Moved in from west of station in northeast direction.
VERMONT									
Central sections	16				0	0	4	0	Wind Rural utility lines were damaged by blustery northwest gales that gusted to around 50 mph. Many towns lost electric service when trees and large limbs blew across power lines. A number of trees blew down against houses.
North-central counties	27	Early a.m.			0	0	4	0	Wind Widespread occurrences of thundersqualls in the counties of Chittenden, Washington and Orange. Heavier wind damage was reported in local areas along a rather narrow route stretching from Burlington to Barre.

See reference notes at end of table.

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U. S. VIRGIN IS.			None reported						
VIRGINIA									
Loudoun County	15	6-7 PM	1				*3	C	Wind and Hail
		A thunderstorm moved eastward across the mid section of the county during the early evening hours. One inch hail reported at Leesburg and numerous large trees downed at Purcellville.							
King William County & Richmond Area	24	PM			1	2	*3	C	Wind and Lightning
		Person struck and killed by lightning at Aylett in King William County. Two persons injured by falling limbs in Richmond.							
WASHINGTON									
Southern counties in eastern Washington	1	afternoon			0	0	4	4	Rain and hail.
		Heavy rain and hail associated with thunderstorms over the southern half of the State resulted in crop damage and severe erosion in some localities. The most extensive damage to highways occurred in the Horse Heaven Hills in the vicinity of Finley where unofficial estimates of precipitation indicated 1 1/2 to 2 inches of rainfall in less than one hour.							
Okanogan Valley in vicinity of Oroville	11	afternoon						4	Hail
		Hail storm covering a comparatively small area in the vicinity of Oroville caused extensive damage to several orchards.							
WEST VIRGINIA									
Statewide	15	1500-2100					4		Thunderstorms
		A strong cold front moved through the State and caused considerable wind and lightning damage. Many mature trees were uprooted in Charleston, a hospital basement was flooded in Elkins, a car and truck were lost in West Union, and a building was hit by lightning in Huntington.							
Ohio Valley	19	2230-2315					2		Thunderstorm winds
Martinsburg	19	2230					2		Thunderstorm winds
Berkeley Springs	19	2230-2400					3		Electrical
		Worst electrical storm in many years in Berkeley Springs area lasted 1 1/2 hours.							
Clarksburg	20	1700					2		Thunderstorm
Elkins and vicinity	20	1500-2200				5	4		Flash flood
		Thunderstorms in a violent squall line set off flash floods on the Tygart Valley River and Leading Creek watersheds and resulted in damage estimated at \$150,000 in an area north of Elkins including the communities of Belington, Crystal Springs, Gilman, Kerens and Montrose.							
Sistersville	21	2100				3			Cloudburst
WISCONSIN									
Madison 10 SE	2	9:12 PM							Hail
		Up to 1" diameter and reports of 2" depth on ground.							
Shawano	9	2:30 PM			0	0	4	0	Wind
Shawano County	9	2:30 PM			0	0	4	0	Tornado
		Adams Beach area in Town of Belle Plaine							
Marathon County	9	2:30 PM							Hail
		Up to 1 1/2" diameter. Towns of Reed and Belmont							
Mariette County	9	3:00 PM			0	0	4	0	Tornado
		Near Pound. Touched down several times.							
Barren County	18	6:00 PM	7 1/2	12	0	2	4	0	Tornado
		Began 1/2 miles south of Cameron and ended 5 1/2 miles east of Cameron. Traveled to northeast.							
Southeast Counties	19	late afternoon			0	3	5	4	Wind
		Hardest hit were Dane, Milwaukee, Waukesha, Racine, Kenosha and Jefferson Counties.							
West Central Counties	20	8:00 PM-9:50 PM	65	up 8 miles	0	0	5	6	Hail, wind
		From central Pepin County across northern portion of Buffalo, Trempealeau and Jackson Counties. Direction towards ESE to SE. Hail diameters up to 1 1/2". Hail on ground 15" deep at Alma Center.							
Monroe	20	8:10 PM			0	0	0	0	Tornado
		Funnel touched down briefly.							
Madison 6 NE	20	evening							Hail
		Up to 1 1/2" diameter.							
Madison	22	2:40 PM			0	0	4	0	Hail
		Up to 1 3/4" diameter.							
Blue River	22	11:30 PM							Funnel
Near Laona	30	late evening			0	0	4	0	Lightning
		Barn destroyed by fire.							
Wood County	30	3:00 PM			1	1	0	0	Lightning
WYOMING									
Tensleep 30 NE	5	2:10 p.	2	100	0	0	4	0	Tornado
		Tornado did damage to resort lodge and forest by Meadowlark Lake. Storm moved from southeast to northwest.							
Crazy Woman 12 N	11	11:55 a.							Funnel aloft
		Pilot reported a funnel cloud aloft, did not touch ground.							
Wheatland 12 NNE	14	2:20 p.							Funnel aloft.
		Pilot and highway patrolman reported funnel cloud aloft, did not touch ground, moved east-northeast.							
Wheatland 18 NE	21	4:30 p.	?	?	0	0	4	0	Tornado
		Tornado struck Albert Fisher farmstead while no one home, did much damage to house and farm buildings.							
Sheridan 70 E	21	2:10 p.							Funnels aloft
		Pilot reported two funnels aloft, did not touch ground.							
Medicine Bow	21	4:10 p.							Funnel aloft
		Pilot reported funnel cloud west of Medicine Bow, did not touch ground.							
Powell	26	2:45 p.	?	?	0	0	4	0	Tornado
		Tornado struck Ronnie Decker farmstead while no one home, did damage to house, farm buildings and machinery. The Decker farm is in the Willwood irrigation area.							
Powell	29	Afternoon					0	4	Hail
		One to two-inch hail did considerable crop damage along a line from lower Heart Mountain to the North End. The area covered averaged one to two miles wide.							
ARKANSAS									
Oseola area, Mississippi County	11	12:30 p. to 2:30 p.	16	* 5	0	0	0	4	Hail and rain
		Thunderstorms moved northeast with hail 1 1/2 inch in diameter from 6 miles south of Oseola to Dell. Hail covered as much as 20% of the ground for a time. Oseola had 3 inches of rain.							
Blytheville area, Mississippi County	11	3:15 p. to 4:30 p.	5	* 1 1/2	0	0	0	4	Hail and rain
		Thunderstorms moved northwest with hail averaging 1 1/2 inches in diameter, some 2 to 3 inches in diameter, from 1 mile southeast to 3 miles southwest of Blytheville. Some areas had 3 inches of hail on the ground.							
Walnut Ridge area, Lawrence County	11	4:30 p.	?	?	1	0	0	0	Lightning
		Men struck by lightning while standing under a tree with a tractor. Fatality took place near Delaplane, northeast of Walnut Ridge.							
Siloam Springs, Benton County	12	4:30 p. to 6:05 p.	?	* 1/2	0	0	4	3	Tornado
		Tornado reported at 4:30 p.m. between Springdale and Siloam Springs, 15 miles northwest of Fayetteville, and lifted after a short distance. A second tornado was reported at 6:05 p.m. 1 1/2 miles east of Centry, 20 miles northwest of Fayetteville, and moved northeast into the Mason Valley area.							
Mountain Home area, Baxter County	17	3:00 p. to 3:15 p.	11	150	0	3	3	0	Tornado
		Tornado hit boat dock at Premiered Land on Bull Shoals Reservoir, 11 miles northwest of Mountain Home. Tornado east-northeast and moved into Theyer, Missouri area, over the Clark's Ridge, Arkansas area.							
El Dorado area, Union County	28	1:45 p. to 2:50 p.	?	?	0	0	4	0	Rain and lightning
		Marble sized hail fell north of El Dorado at 1:45 p.m. with wind gusts 40 mph. There was some light flash flooding in the city. One home struck by lightning at Smadover, north of El Dorado.							
Morrilton area, Conway County	27	Afternoon	?	?	1	0	0	3	Lightning
		Lightning believed to have struck house at Oppelo, 2 miles southwest of Morrilton. Man died in house as a result of the fire.							

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

DELAYED DATA

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	
OKLAHOMA MAY 1964									
Southern Muskogee County	1	3:00p.- 4:30p.	30	*3-5	0	0	4	0	Hail
Hailstorm moved northeast across the Porus area damaging 295 roofs. Storms varied from 1/2- to 1-inch size and piled up 4 inches deep in places along the path. No crop damage indicated.									
Onapa area, McIntosh County	1	11:00p.- 11:15p.	15	*3/4	0	0	4	0	Hail
Hail averaging 1-inch size covered the ground up to 6 inches deep in places along the narrow path moving northeast. The hail damaged roofs on 27 homes, including nearly all the homes in Onapa.									

* Miles instead of yards.

† Includes crop damage.

C Crop damage.

† 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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