

U. S. DEPARTMENT OF COMMERCE

ALEXANDER B. TROWBRIDGE, Secretary

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION

ENVIRONMENTAL DATA SERVICE

STORM DATA

SEPTEMBER 1967

Volume 9 No. 9



ASHEVILLE: 1967

STORM DATA AND UNUSUAL WEATHER PHENOMENA

SEPTEMBER 1967

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									
Southern Portion Mobile and Baldwin Counties	5-7	Evening on 5th to afternoon 7th			0	0	5	4	Rain, wind, waterspout
									Extensive flooding in southern Mobile County mainly to Bayou La Estre area. About 30 houses damaged by water, boats torn loose from moorings and damaged, roads and bridges washed out. At Gulf Shores high winds drove dredge boat into fishing pier causing extensive damage. Rainfall estimated at 12 inches most of which fell in about 12 hours. A waterspout moved on shore near mouth of East Ford River and damaged 1 house. 75% of damage due to rain and 25% to wind.
ALASKA			None reported						
ARIZONA									
Buckeye	5	6:00 a.			0	0	4	3	Rain
									Locally heavy thunderstorm caused flooding of homes and businesses. Minor damage to farm lands.
Tucson (7 mi N)	25	2:30 p.			0	0	0	0	Funnel cloud
									Small funnel cloud moved from northwest to southeast near foothills of Catalina Mountains. Cloud remained aloft.
ARKANSAS			None reported						
CALIFORNIA									
Coachella Valley	1	Early morning hours.	0	0	4	0	0	0	Heavy Rain
									Cloudburst from severe thunderstorms caused flash flooding which damaged homes, swimming pools, streets, and businesses in Palm Desert area.
Los Angeles Basin, Coachella Valley and surrounding areas.	28	Early morning hours.	2	73	5	3	0	0	Lightning
									Lightning strikes from severe electrical storm started forest fires in 3 National Forests, struck and burned several homes, ruptured a chlorine tank whose gas killed two and injured 73, and caused many power failures. Locally heavy rains and high winds caused two traffic deaths and many injuries, and damaged the carrot crop near Palm Springs.
COLORADO									
Arapahoe County	1	5:02 PM							Funnel Cloud
									A funnel cloud was reported 16 miles SE of Denver.
Washington County	10	4:08 PM							Tornado
									A tornado was reported 9 miles east of Akron. No damage reported.
El Paso County	16	3:55 PM							Hail
									Hailstones 3/4" in diameter were reported in the Black Forest area about 10 miles north of Colorado Springs. Hail accumulated to 10 inches in drifts, and snow removal equipment was required to clear roads. Amount of damage not reported.
Lincoln, Kit Carson, Washington Counties	17	2:40 - 5:34 PM							Funnel Clouds
									Three funnel clouds were reported between 2:40 and 3:05 PM, one just south of Flagler, one 10 miles north of Hugo, and one 25 miles south of Limon. A fourth was reported at 5:34 PM 15 miles east-northeast of Akron. One or more may have touched ground, but none was confirmed as tornado.
CONNECTICUT			None reported						
DELAWARE									
Southern half	15-16	Evening to evening							Hurricane Doria
									Hurricane approached the Delaware-Maryland coast from the east. For a time, it appeared that this might be the first hurricane to make landfall in this area. Fortunately, it turned more southerly and weakened rapidly. Indian River Inlet reported maximum sustained winds 50 mph and tides 6 1/2 feet above normal. Rainfall ranged mostly from 1/2 inch to 1 1/2 inches. Damage was relatively minor and was mainly confined to the immediate coastal areas.
FLORIDA									
Lower Matecumbe Monroe County	2	5:00p.			0	0	3	0	Waterspout
									Waterspout formed far off the northern tip of the key and ran down the oceanside of the island before turning inland. The waterspout lifted as it moved ashore and damage was minor. It was described as the largest waterspout in the memory of long-time residents.
Homestead Dade County	2	5:53p.							Funnel aloft
Dunnedin Pinellas County	2	Evening			0	0	3	0	Hail
									Hail an inch and a half in diameter accompanied by strong wind gusts broke windows, knocked down a power line, and caused miscellaneous minor damage.
FLORIDA (Cont'd.)									
Hillsborough County	3	2:53p.			0	0	0	0	Hail
									Hail 3/4 inch in diameter 20 miles north of Saltpur Springs.
Palm Beach Palm Beach County	5	7:00a.							Funnel aloft
Pensacola Escambia County	7-8				0	0	4	4	Rain
									Heavy rains deluged the Pensacola area with the fourth greatest 24-hour rainfall since the beginning of records in 1879. Streets were washed out in the Beach Haven Subdivision and near Morano Courts. A bridge on State Road leading to George Stone School was also washed out. There was considerable local flooding and many stalled automobiles. Greatest 24-hour rainfall totals were 13.82 inches at the Sherman Field Naval Air Station and 10.02 inches at the Pensacola Weather Bureau Airport Station.
Panama City Bay County	8	6:13-6:30a.							Funnels aloft (3)
Monroe County	9	3:45p.			0	0	3	0	Wind
									Sheriff's car blown off Highway I at Jewfish Creek in strong wind and heavy rainshower.
Key West Monroe County	18	12:29p.							Funnel aloft
Gonado Palm Beach County	21	3:00a.							Tornado
									Fire Department reported five buildings damaged and/or destroyed.
Fort Myers Lee County	21	4:00p.							Funnel aloft
Monticello Jefferson County	29	Afternoon			0	0	3	0	Lightning
									Ten head of fine hogs struck while feeding from a metal feeder.
GEORGIA			None reported						
HAWAII			None reported						
IDAHO									
Meridian	1	9:15 p.			1				Lightning
									Eleven-year old boy apparently struck by lightning in yard of home in city as he removed garments from clothes line. Autopsy revealed death from coronary reflex shock with no evidence of burns.
South-Central and Eastern Areas	9	Afternoon & Evening					4		Thunderstorms
									Lightning struck Big Smokey Guard Station in Camas County about 4:00 p.m. with only minor damage, wind demolished a 28 x 36' shed on farm 3 miles south of Hansen in Tyn Falls County during the evening, and fire caused by lightning destroyed 150 tons of hay at Montevieu in Jefferson County about 8:00 p.m.
Minidoka	30	Afternoon			4				Hail
									Hail stones larger than marbles, stripped leaves from trees and plants, bruised fruit and tomatoes, but did little damage to field crops. Windows on west side of several buildings in Minidoka were broken by hail.
ILLINOIS			None reported						
INDIANA									
Wheatfield	26	9:10 p.	1/2	?	0	1	4	0	Tornado
									A tornado touched down on the south edge of Wheatfield and blew out the southeast wall of a gas station. A man outside the building was hurled against the building. A car going down the road was picked up and turned around. Sounds, like those of a train, were heard by residents of the area.
IOWA									
Dubuque	14				1	5	5	5	Heavy rains
									One farmer drowned, several injured in flood related accidents. Heaviest 24 hour rainfall of record at Dubuque.
KANSAS									
NE Portion	3	1:30 - 7:00 a.			0	0	5	4	Wind, hail, rain, lightning
									Most of wind damage occurred at Beloit. Hail was reported in Cloud, Mitchell, Ottawa, Rice and Saline counties; largest stones were 3/4" in diameter at Beloit. Over 7" of rain in portions of Ottawa County damaged some roads.
Winfield, near	12	Morning			0	0	4	0	Lightning
									House and oil tanks hit by lightning.
Central, west-central portions	12-13	Night of 12-13			0	0	4	4	Hail, wind, lightning
									Hail and wind damage occurred over northern Trego County. Lightning damage was reported near Holington and Abilene.

See reference notes at end of table.

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					KILLED	INJURED	PROPERTY	CROPS							KILLED	INJURED	PROPERTY	CROPS			
KANSAS (Cont'd.) Eastern portion	14	Early a.m.			0	0	4	4	Rain, lightning	MAINE Northeastern	2-4				0	0	4	0	Rain		
	Lightning losses were \$6,000 in Wyandotte County. Flash flooding occurred along parts of the Marais des Cygnes, Verdigris and Neosho rivers.										Washing and flooding from rains totalling mostly 2 to 3 inches in approximate triangle bounded by Clayton Lake, Ft. Fairfield, and Springfield-Vanceboro areas.										
	Central, north-central portions	17-18	Night of 17-18			0	0	4	3		Rain, lightning, wind	Eastern	22-25				0	0	4	0	Rain
		Rains up to 7" caused local damage to roads and bridges in Russell and Ottawa counties. Other damage occurred at scattered locations.									Washing and flooding from rains totalling mostly 2 to 4 inches in area from central Aroostock Co. southward to the Jonesboro-Machias coastal area.										
	Central one-third	18-19	Night of 18-19			0	0	5	4		Rain, lightning, hail	Southern	28-30				0	0	4	0	Rain
		Considerable flash flooding occurred at Ellsworth. Solomon and Smoky Hill Rivers also flooded in some areas.									Washing and flooding from rains totalling mostly 2 to 3 inches in much of southern half of state.										
Sherman, Thomas Counties	18-19	Night of 18-19			0	0	4	4	Lightning, hail	MARYLAND Southern half of Eastern Shore	15-16	Evening to evening							Hurricane Doria		
8 SE Jetmore	Lightning damage occurred in the Goddard area; hail was reported near Brewster.										Hurricane approached the Maryland coast from the east. For a time, it appeared that this might be the first hurricane to make landfall in this area. Fortunately, it turned more southerly and weakened rapidly. Ocean City reported maximum sustained winds 50-60 mph and tides 6 feet above normal. Rainfall ranged mostly from 1/4 inch to 1 1/2 inches. Damage was relatively minor and was mainly confined to the immediate coastal areas.										
	19	6:00 p.	?	?	0	0	2	0	Tornado		MASSACHUSETTS Eastern	2	Early PM			0	0	4	0	Wind, hail	
Tornado, verified by photograph, was "big on the ground and very small at the top"; tornado moved northeast and dissipated.									Scattered wind damage, including car in Cambridge crushed by fallen tree. Hail generally less than 1/4 inch size, falling in northeastern portion.												
Republic County	20	4:55 - 5:05 p.	3	?	0	0	3	3	Tornado		Central	14-17				0	1	3		Hurricane Doria	
Tornado, 7 miles northwest of Belleville, moved eastward for 3 miles. It became a funnel aloft and moved a distance of 10 miles to the east before dissipating.									Hurricane caused prolonged above normal tide levels and high swells and surf. Storm kept many craft in harbors, with some small boats capsized even in harbors. Ten persons rescued after two boats capsized in Ipswich Bay on 17th. One injury in incident. Doria caused very little rain on land but extensive fog hampered transportation at times. Some erosion damage on Nantucket beaches.												
Washington County	20	6:05 p.							Funnel aloft	Eastern half	28-30				0	0	4	0	Rain		
Funnel aloft, was sighted in western Washington County moving ESE to south of Linn.									Heavy rain, with greatest yield on 29th, produced storm totals mostly 2 to 4 inches over eastern half of state. Totals tapered to less than 2 inches along the New Hampshire border, at some coastal stations, and over Cape Cod. Considerable local flooding of streets and basements in areas of greatest rainfall.												
Washington, Riley Counties	20	Late afternoon	?	?	0	0	3	0	Hail	MICHIGAN 1 N Lansing, Clinton County	21	10:45am	1/10	15	0	0	2	0	Tornado		
Hail up to 1" in diameter occurred near Manhattan about 4:00 p. and at Linn at 6:15 p.									A funnel touchdown, damaged a garage and nearby trees moving towards the northeast.												
KENTUCKY Logan County	21	10 a.			0	1	0	0	Lightning	Near Maybee, Monroe County	21	1:30pm			0	0	4	0	Windstorm		
Near Adairsville "a sudden jolt of lightning inside the barn" was accompanied by a loud report. A man was knocked unconscious and fell from a tier to a wagon bed; there were no broken bones but the man remained in a hospital for further examination. Two other men felt some effects of the lightning strike but did not require examination; a man was knocked from his tier but managed to prevent a fall by grabbing his tier; a driver of a tractor stated that it felt to him as though he and the tractor were getting extremely hot.									Two large equipment sheds, some corn cribs and other small buildings were toppled by high winds. Some equipment was damaged and several trees were felled along a narrow 3 mile-long path from west of Maybee into the city limits.												
LOUISIANA										Lake Michigan, Near Frankfort, Benzie County	23	PM			7	?	4	0	Wind		
Plequemes Parish	.6	5:00 a.m.	Short	Narrow	0	0	4		Tornado	A gradual build up of southerly winds from 5-10 miles per hour in the early morning resulted to between 30 to 40 miles per hour by 1pm, resulted in 6-10 foot waves which swamped many fishing boats. Some were able to swim to shore, seven persons were drowned. Heaviest loss of life and damage to boats occurred in the 4 mile stretch from Pt. Betsie to the Frankfort harbor where many of the boats were launched earlier in the day.											
High winds reported from about 4 a.m. to 7:30 a.m. Metal roof 20 by 70 feet torn from school at Port Sulphur. Roofing loosened on store 500 ft. from school. Some trees uprooted. Primary damage from torrential rainfall.									Crystal and Platte Lake area, Benzie County												
Terrebonne and St. Mary Parishes	6	9:00 a.m.			0	0	4	0	Tornado	MINNESOTA Elmore Faribault County	16	4:30 p.			0	0	0	4	Hail		
	High winds reported from 9 a.m. to 11 a.m. Tractor barn about 15 miles north of Houma demolished by small tornado, debris scattered over path several hundred yards long. Funnel observed and roar heard. Utility lines blown down. Some 50 acres of sugarcane blown down in horseshoe-shaped path. Rains 3 inches or more in Terrebonne and St. Mary Parishes in as many hours during morning, over 5 inches in 30 hours on 5th and 6th.										Hail fell for 10 minutes destroying much of the crops in a 2x4 mile region.										
Calcasieu Parish	15	11:40 a.m.							Funnel cloud	Many new record low temperatures for month of September reported. Details in "Climatological Data, Louisiana" September 1967 issue.											
Orleans Parish	21	5:50 p.m.							Funnel cloud												
Rapides Parish	22	2:45 p.m.			0	0	4	0	Hail, wind, lightning												
State	29-30								Unusually cool temperatures												

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MINNESOTA (Cont'd.) Edgerton Pipestone County	25	evening			0	0	3	0	Lightning	
									Knocked out a transformer. Electricity off throughout night in a wide rural area.	
MISSISSIPPI Mississippi Gulf Coast	5-7				0	0	5	0	Heavy rain	
									Rains flooded lowlands, damaged roads, bridges and homes along Mississippi Gulf Coast and for many miles north of the coastline. HANCOCK COUNTY: Some County schools closed 7th due to impassable roads. HARRISON COUNTY: Over 40 persons evacuated from flooded homes; pleasure craft reported sinking in harbors from weight of rainwater. JACKSON COUNTY: 16.26 inches of rain measured at 2ENE Pascagoula. Heavy rains and rising waters brought snakes into yards from woods and lakes. Most County schools put on 7th because of flood conditions.	
Jackson County	6	7:45 AM			0	0	3	0	Wind	
									Strong gusty winds snapped moorings several boats and damaged two others at a Pascagoula River seafood plant (lat. 30.4°N, Long. 88.6°W). One vessel crashed into dock, another rammed a sister boat. Damage listed as minor. Temporary interruption of telephone service reported scattered areas Pascagoula - Moss Point vicinity.	
Hancock County	13	5:30 AM			0	0	4	0	Thunderstorm, lightning	
									Early morning rains flooded several sections of Bay St. Louis - Waveland area. Waveland residents said lightning bolt struck about 5:30 AM, and houses shook miles away. Lightning struck transformer installation in front of plantation style home and followed line into rear of house where fire started. Electric power in Waveland was knocked out for more than an hour and the city water pumps were cut off causing shortage of water. Home burned and only front of structure left standing.	
State	29-30								Unusual Cold	
									Record or near record low temperatures for September reported in each Division of the State. Additional details in September 1967 issue of Climatological Data, Mississippi.	
MISSOURI MONTANA Eastern Montana	2	Forenoon			0	0	0	?	Lightning	
									"Dry thunderstorms" set fires in Phillips, Garfield, Rosebud, and Powder River counties. Between 150 and 200 fires were started by lightning strikes. Around 28,000 acres of range burned in Phillips County, and 10,000 in Garfield. Burned over areas were not so extensive elsewhere. The fires were confined to ranges and forests with very little property loss. Damage estimates are not available.	
Billings (25 miles NW), Yellowstone County	17	5:15 P.							Funnel Cloud	
									Several people out hunting north of Wolf, (Stillwater County) observed the cloud.	
NEBRASKA Stuckolls & Clay Counties	3	Midnight to 1 a	20	*4	0	0	4	5	Hail	
									Solid strip from near Superior to Edgar and occasional spots on northward another 20 miles. Stones generally 1/2" but ranged up to 1 1/2 inches diameter. Hail accumulated to 3" depth at Edgar and to 5" near Devesee.	
Near Phillips	17	5:30p	4	*1	0	0	0	4	Hail	
									Stones mostly 1/2 - 3/4" diameter but a few ranged up to 1 3/4". Ground covered by hail in storm center. Damage to corn and milo.	
Parton area	18	4 p - 5 p	8	*4	0	0	0	5	Hail	
									Heavy hail accumulated to depth of 2" in Parton and up to 12" southwest of town. Drifts accumulated in low places to depth of 4 to 6 feet and highways had to be cleared by snow plows the next day.	
Giltner area	20	Afternoon	?	?	0	0	0	4	Hail	
									Stones small but some fused into 1" pieces.	
5 N Hastings	20	2:42 p			0	0	0	0	Funnel cloud	
Hebron	20	5 p			?	?	0	0	Hail	
									Considerable hail 1/2 to 1" diameter with a few stones up to 1 1/2".	
SW of Byron	20	5:10 p	Spot		0	0	0	0	Tornado	
									Observed to touch down briefly and return to clouds.	
NEVADA White Pine County	8	13:40 p. - 14:00 p.	not known	not known	0	0	0	0	Tornado	
									A funnel cloud 15 miles WNW of Ely WBAS was sighted at 13:40 and observed for about 1 minute. Kimberley radar observer observed it for about 15 minutes and reported that it touched the ground along the side of the mountain for about 10 seconds. The cloud funnel formed and reformed about 3 times during the 15 minute period.	
NEW HAMPSHIRE									None reported	
NEW JERSEY									See data at end of table.	
NEW MEXICO Lea County	3	11:00 p.			0	2	0	0	Wind	
									Wind estimated to over 80 miles per hour caused \$20,000 damage in Lovington, and injured two persons when their trailer house blew over. Most damage was to roofs, windows, trees, signs, and some small buildings. Lightning struck in Jal, accompanied by rain and hail. Wind to 72 miles per hour 6 miles south of Roswell, Chaves County.	
Otero County	4	1:15 p.			0	0	?	?	Hail	
									Twenty minutes of hail in 5 mile radius near High Rolls, northeast of Alamogordo. Hail to 1-1/2 inch diameter. Car tops dented, windshields cracked, and vegetation damaged.	
Sierra County	4	8:00 p.			4	0	0	0	Flash flood, wind, hail	
									Four persons drowned in flash flooding of Monticello and Anias canyons resulting from heavy rains in the San Mateo Mountains, northwest of Truth or Conseques. Flood damaged irrigation ditches, farm land and equipment, and autos. Four families made homeless and 20 homes damaged. Wind and hail damage to roofs, windows and signs. Total damage estimated at \$500,000.	
Dona Ana County	17	Afternoon			0	0	3	3	Flash flood	
									Heavy rain in mountains above Lasburg, north of Las Cruces, caused flash flooding with \$15,000 damage to railroad bed and \$35,000 damage to cotton and other crops.	
Melrose	19	4:30 p. - 6:00 p.			0	0	?	?	Heavy rain	
									Localized heavy rain to over 2 inches in one hour caused up to 2 feet of water in places, with some damage.	
NEW YORK Western third	27-	p. m. to early a. m.			2	0	0	0	Rain, floods	
									Cold front moving slowly eastward evening of 27th became stalled over Genesee River basin morning of 28th, following which waves or low pressure centers moved northward along front until late hours of 28th. Precipitation continuing into early a. m. of 29th was very heavy during 24- to 28-hour period ending late evening of 28th. Heaviest storm totals 4.5 to 6.0 inches recorded in adjoining halves of Cattaraugus and Allegany Counties with an extension northward into mid Genesee River Valley; unofficial measurement of 6.0 inches near Olean. Elsewhere over nine westernmost counties rain totals of 3.0 to 4.5 inches were general. Floods quickly developed, particularly along the Allegany River and its tributaries. Some 90 families evacuated from homes in cities of Olean, Salamanca and Friendship on 30th as flood crest on Allegany River was third highest of record. Flood waters destroyed one railroad and 15 highway bridges in Cattaraugus County alone, inundated city streets, especially City of Salamanca, closed industries and schools. Many highway washouts. Two people missing in flooded area and presumed dead. Flood crest at mouth of Cattaraugus Creek destroyed docks and swept 150 pleasure boats into Lake Erie; boats later recovered with only minor loss. Heavy rains in Erie, Niagara, Orleans and Genesee Counties resulted in light flood damage to property but inundation of agricultural lands caused significant crop losses, especially to potato and vegetable crops in Elba area of Genesee County.	
NORTH CAROLINA Anson, Columbus, Hoke, Surry, Wayne Counties	9							5	5	Rain
									Heavy rains as tropical storm Doria approached caused flash floods and overflowed storm sewers in several widely separated areas. Some losses in tobacco, cotton and corn crops.	
Forsyth, Wake Counties	21	5-8 pm						4	0	Electrical, wind
									Thunderstorms in two widely separated areas caused locally gusty winds which blew down trees and broke power lines. Lightning set several fires and split a tree which fell and damaged a home.	
NORTH DAKOTA Near Jamestown	15	1:45 p			0	0	0	0	0	Funnel clouds
									Sighted 3 northeast and 10 north of Jamestown.	
Hazleton	15	2:42 p			0	0	0	0	0	Funnel cloud
OHIO										None reported

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OKLAHOMA Major and Garfield Counties	3	2:15p.-3:00p.	5	*1	0	0	3	3	Rain, hail, and wind
									Heavy rain, damaging hail, and winds estimated at 70 MPH affected a path moving east-southeastward from 1 mile north of Meco to the Laboma area. Unofficial reports indicated 8 to 10 inches of rain deluged the area during the storm with Turkey Creek flooding onto U. S. 60 near Laboma. Hail averaged 3/4-inch size with largest of 1 1/2-inch size. It covered the ground in places 2 inches deep with some drifts up to 6 inches deep and caused complete loss of feed crops. The wind severely damaged buildings and toppled several electric poles and hay stacks.
Helena, near, Alfalfa County	3	2:30p.-3:45p.	4	?	0	0	?	?	Hail and wind
									An intense thunderstorm furnished heaviest hail east of Helena where it washed down in the ditches and piled up like snow drifts. Wind damaged trees, downed 4 electric poles 2 miles east of town, unroofed outbuildings, and destroyed some wind mills and buildings.
Woods County	3	4:00p.-4:35p.	9	*4	0	0	4	3	Hail
									Damaging hail storm began 8 miles east-northeast of Waynoka and moved southeastward at 20 to 25 MPH. Greatest damage to several farmsteads included loss of corn, peanuts, roofs and windows. Some automobiles were dented and cattle injured. Much of the hail was 1 1/2-inch size stones and covered the ground 4 inches deep at one farm. Similar size hail fell to the southwest of Waynoka with largest stones of 2 1/4-inch size.
Kingfisher County	3	After 5:00p.	?	?	0	0	?	?	Rain, hail, and wind
									The Okarche community unofficially received a heavy rain of about 4.5 inches which reportedly fell in less than an hour. Field terraces were washed out and one car was caught in seven feet of water in the underpass south of Okarche. The rain, wind, and hailstorm also did heavy damage to crops and buildings near Loyal and in the Lady area.
Buffalo, Harper County	3	About 6:00p.-6:15p.	?	?	0	0	?	?	Hail
									A hailstorm pelted the Buffalo area with stones of 1 1/2-inch size with some as large as 2 5/8-inch size. Damage reports were meager, but cars, roofs, and windows were believed hard hit. Lightning started a fire which destroyed an 80-foot long storage building at the County Fairgrounds.
Gage, Ellis County	3	7:20p.	?	?	0	0	2	0	Wind
									Local damaging winds were associated with a thunderstorm at Gage with gusts of 69 MPH recorded at the Gage airport. The wind blew off tree limbs and forced driving rain around windows and caused some roofs to leak.
Meers, Comanche County	3	8:45p.-9:15p.	?	?	0	0	0	0	Rain
									Light to moderate rain in the county was accompanied by a deluge at Meers where an unofficial report indicated 3 inches of rain fell in about a 30-minute period. Local flooding caused water to run over the Jimmy Creek bridge.
Bryan County	5-6	8:00p., 5th - 5:00p., 6th	25	*25	0	0	0	0	Rain
									Steady rain across most of the county furnished 5 to 7 inches of moisture. Heaviest rain fell during the early morning hours. No damage or flooding was reported.
Ponca City, Kay County	14	1:00a.-11:00a.	?	?	0	0	?	?	Rain Rain
									A large thunderstorm held stationary over the immediate Ponca City area causing the heaviest deluge during the late morning hours. Fire Station #1 recorded 4.47 inches of rain while 3.35 inches fell at the airport. Local flooding occurred throughout the city with worst conditions reported at Seventh and Little Lane, near Otee and Onage, South Oak, in areas along Lake Road, at Eighth and Highland, and on South Twelfth and Thirteenth Streets. Several persons were rescued from stalled cars and water entered some businesses on West Grand Avenue and temporarily flooded homes in various parts of the city. High water closed the Blackwell shortcut by afternoon and 6 to 8 inches of water was reportedly running over S.H. 11 at Lost Creek east of Blackwell.
Lake Creek area, Greer County	14	1:15a.-2:00a.	8	*5	0	0	0	0	Rain
									Locally heavy rain of 3 to 4 inches was unofficially reported in the area. No damage was indicated.
Tulsa, Tulsa County	14	?	?	?	0	1	0	0	Electrical
									An eight-year-old boy was struck by lightning while playing on a school yard jungle gym at 523 S. 65th West Avenue. He was thrown to the ground unconscious and received burns about the face and upper part of his body.
OKLAHOMA (Cont'd.) Langley, Mayes County	18	4:10p.	1/2	300	0	0	2	3	Tornado and funnel aloft
									A small tornado was observed by a Grand River Dam Authority employee as it dipped to tree top level in east side of Langley. It moved south-southeastward through Grand River Heights before raising aloft. A funnel aloft was sighted at the same time. Path was marked by large limbs of trees twisted together and trees felled in different directions. All fruit was blown off 3 apple trees and 5 pear trees.
Nowata, Nowata County	19	4:20p.			0	0	4	0	Electrical
									A rural home was struck by lightning 4 miles north and 3/4 mile east of Nowata. The resulting fire destroyed the home and contents.
Tonkawa, Kay County	26	About 2:30p.-2:55p.	Short	Narrow	0	0	0	0	Tornado
									Two Oklahoma Highway Patrol Troopers observed a tornado touch down for 3 minutes in open fields 2 miles south and 2 miles west of the city. No damage was reported.
OREGON									None reported
PACIFIC AREA Eniwetok	1	Morning			0	0	0	0	Thunderstorms, wind, rain
									Severe thunder squalls accompanied by torrential rains and gale winds swept across Eniwetok dumping 8.45 inches of rain, most of which fell within a 6-hour period. Winds reached 68 miles an hour in gusts.
Wake Island	16-	Night			0	7	6	0	Typhoon
									Typhoon SARAH moved westward across island leaving trail of destruction. Eye reached Wake at about 10:40 p.m. with central pressure of 27.55 inches. Gusts reached 133 miles an hour before anemometer failed. Many roofs lifted from buildings, leaving them open to drenching rains. Flying debris denuded all trees left standing. Damage to installations, housing, water, power, telephone and communications by wind, rain and storm surge estimated in excess of \$1 million and so extensive as to require evacuation of dependents and other non-essential personnel.
Marcus Island	20	Morning			0	0	?	0	Typhoon
									Weakening Typhoon SARAH passed 30 miles east of Marcus during early morning with peak gusts to 86 miles an hour. Only minor damage reported.
PENNSYLVANIA									
Lansdale, Bucks Co.	2	night					3		Thunderstorm
									Lightning fired the roof of an inn, causing \$1500-\$2000 damage.
Bucks and Montgomery Counties	18	4:00 p.					4		Lightning & Wind
									A lightning-sparked \$20,000 fire destroyed a barn and its hay and grain contents. Wind inflicted minor damage on a Montgomery County property, leaving in its wake broken window-glass, an overturned toolshed, and flattened fence.
Bedford	20	6:30 p.					4		Rain
									Intensive downpour washed out sections of road in the county.
Franklin County	21	5:00 p.					4		Lightning
									Destruction of a barn and loss of an undetermined amount of hay and straw was blamed on a lightning strike in the Welsh Run area.
Perry County	21	6:00 p. short	30				5		Tornado
									An apparent tornado touched down in New Bloomfield where it practically unroofed a home, tipped over an automobile, peeled copper roofing off a gymnasium, reportedly moved a barn off its foundations, and damaged an unknown number of buildings.
Cumberland County	21	6:30 p.					4		Wind
									The roof of a barn was torn off and several mobile homes near Carlisle were damaged by high winds.
Shanokin Area	21	7:00 p.			5		5		Wind
									Shanokin and Nuridia were hit with 60-mph gusts of wind which tore off a cement roof, flattened a lumber company building, disrupted electrical, telephone, and television service, felled trees and threw limbs onto three homes and five vehicles, causing extensive damage, moved a small barn 20 feet from its foundation, twisted a garage, and collapsed a pavillion atop five teenagers.
Chester County	21	8:30 p.					5		Lightning
									Lightning started a fire that destroyed a dairy barn, farm machinery, and an undetermined amount of hay near Cochranville. Damages were set at \$60,000.

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

SEPTEMBER 1967

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
PENNSYLVANIA (Cont'd.)									
Bedford	28	5:00 a.					3		Rain
									Numerous cellars were flooded in Buffalo Hills and Bedford when drenching rains hit the area.
Central Mountains	28	early morning					4		Rain
									Heavy rains flooded basements of many homes, particularly at Du Bois; at Lock Haven the rains affected a sharp rise in the Susquehanna River, causing several boats and private docks to be swept downstream over a dam.
Southcentral Areas	28	6:00 p.					4		Wind
									A windstorm blew over a machinery shed and damaged a house, barn, and silo near Gettysburg. At Millersburg wind blew several boats into trees and damaged a chicken house, several small outbuildings, and two houses on a local farm property.
PUERTO RICO									
Ponce - Cabo Rojo	9-10	8:00 p., 9th - 6:00 a., 10th			1	0	5		Hurricane Beulah, tides, winds, rain
									Hurricane Beulah moved to within 100 miles south of Ponce by 8:00PM on September 9th on a west-northwest course. The Hurricane passed just south of Mona Passage on the 10th and took on a westerly course just south of Dominican Republic. In Puerto Rico there was one death by a man falling from the roof of his house. Most storm damage occurred in the coastal area between Cabo Rojo and the city of Ponce. About 16 shacks were demolished by the rough sea and some 20 others damaged. Three small craft were destroyed and a number of others damaged or swept to sea. Flood waters destroyed a bridge and damaged several cars. About 40 persons were evacuated and given shelter. No money estimate is available for the area as a whole, but newspapers have estimated damages in the city of Ponce at \$50,000. Along the south coast of Puerto Rico the highest recorded wind was a sustained 23 m. p. h. with a maximum gust to 36 m. p. h. at the Union Carbide Plant at Tallaboa Bay. Undoubtedly higher winds and gusts were experienced farther west between the bay of Cabo Rojo. The Puerto Rico Telephone Company reported various poles and wires down in the Cabo Rojo area.
RHODE ISLAND									
None reported									
SOUTH CAROLINA									
None reported									
SOUTH DAKOTA									
Rapid City 15E	2	7:19 P	?	?	0	0	0	0	Tornado
									Tornado apparently touched down in open country moving from W to E with no reported damage.
Cavour 4SE	12	3:35 P	5	15	0	0	3	3	Tornado and funnel aloft
									Two funnels were sighted. One touched down several times destroying a chicken house and hay stack while moving from SW to NE.
Harrington and Vicinity	17	4:00 - 5:00 P	15-20	*3-5	0	0	3	5	Hail
									Hail averaged 3/4 inch with largest to 1 1/2 inch covered ground to 6 inches in spots. Corn, potatoes and alfalfa crops were damaged. Storm moved from SW to NE.
TENNESSEE									
None reported									
TEXAS									
Hutchinson, Carson, Potter and Randall Counties	3	5:00 p - 7:30 p	56	10	0	0	6	4	Hail and windstorm
									A severe wind and hailstorm caused an estimated \$1.5 million damage at the Pantex Ordnance Plant 10 miles east of Amarillo. An anemometer at the plant indicated peak winds over 100 m.p.h. The storm cut a 10-mile wide path from Borger to Canyon. At Borger the heaviest damage was to the high school stadium where part of the bleachers were destroyed. Lesser damage occurred throughout the town to glass, antennas, roofs, power lines, trees, and automobiles. An airplane at the county airport was flipped over. The winds knocked down five 100-foot transmitter towers 20 miles northeast of Amarillo. Two-inch hail was reported at the airport in Amarillo and a hailstone measuring 11 inches in circumference was found at Lake Tangierwood. The hail and high winds also caused extensive crop damage along their path.
Sudan Lamb County	3	8:45 p			0	2	5	?	Windstorm
									A windstorm that struck Sudan causing \$500,000 damage injured Mr. and Mrs. Joel Thompson at their home three miles west of Sudan. The storm, part of the widespread severe weather pattern that hit other Panhandle and High Plains areas, moved into Sudan at 8:45 p.m. Winds up to 100 m.p.h. blew away a 22,000 square foot sheet metal warehouse and caused other widespread damage throughout the town.
Castro County	3	night			0	0	?	6	Hailstorm, tornado
									A devastating hail, rain, and windstorm did at least \$3 million damage to crops in Castro County. Hail ranging up to golf-ball size and winds estimated as high as 100 m.p.h. did up to 100% damage to cotton, beans, tomatoes, potatoes, carrots, and cucumbers at mid-harvest. The wind and hail flattened sorghum, corn, soybeans, canner beans and maize almost ready for harvesting. The storm cut the county's 1967 agricultural production by 10-15%. A tornado was reported eight miles northeast of Nazareth. Buildings were damaged and power and telephone lines downed at Sunnyside.
TEXAS (Cont'd.)									
LONE Georgetown Williamson County	4	7:35 p	short	narrow	0	0	0	0	Tornado
									Tornado dipped down briefly in open field causing no damage.
Near Big Spring Howard County	15	5:00 p - 7:00 p			0	0	0	0	Funnels aloft
Upper Coast, South Central, Southern and Lower Valley	8-21				13	35	8	7	Hurricane Beulah
									In size, Hurricane Beulah was the third largest hurricane of record, after Hurricane Carla of 1961 and the great New England storm of 1938. This storm reached hurricane intensity in the Caribbean Sea near the Windward Islands on September 8th. The hurricane entered the Texas coast near the mouth of the Rio Grande River at 8:00 a.m. on the 20th, then, losing strength gradually, followed a path paralleling the Texas coast. On the morning of the 21st, the hurricane was downgraded to a tropical storm near Alice; the storm then took a southwesterly course to her death near Monterey, Mexico on the morning of the 22nd. When the center entered the mainland, the lowest pressure recorded at Brownsville WBAS was 28.07 inches. The peak gust recorded at Brownsville WBAS was 109 m.p.h. from the northeast at 3:19 a.m.; however, the anemometer was discovered damaged after the storm, so the actual wind speed experienced may have been higher. The S S Shirley Lykes, docked at the Port of Brownsville, recorded a peak gust of 136 m.p.h. during the passage of the hurricane. Hurricane force winds extended as far north as Corpus Christi, where peak gusts of 86 m.p.h. were recorded at 8:35 p.m. on the 20th. High water marks on South Padre Island left evidence of tides as high as 20 feet. Tides as high as 7 feet were reported at Rockport. The greatest concentration of damage was in the Lower Rio Grande Valley. Port Isabel was very severely damaged; only the lighthouse and a new bank escaped damage. The \$750,000 Fort Isabel High School was destroyed. Brownsville received substantial wind damage, and lesser wind damage occurred in other valley and coastal cities. Citrus fruit and tree damage in the Lower Rio Grande Valley is estimated at \$15 million. More damaging than the wind or tides, was the torrential rainfall unleashed by the hurricane which resulted in mammoth flooding of all streams and rivers south of San Antonio. The heaviest storm rainfall was reported at Pecos in Bee County where 27.38 inches fell in the five-day period September 20-24th. At Fairburn, in Brooks County, more than 25 inches of rain fell during the same period - more than the yearly normal for that station. Ten to twenty inches of rain fell during the storm period in the Lower Valley and Coastal Bend sections. Rainfall decreased gradually inland, but totals of over 7 inches occurred as far inland as Frisco and Comal Counties. Record-breaking floods resulted from the hurricane rainfall. The San Antonio River reached a record crest of 53.4 feet near Coliad; flood stage at that point is 35 feet. The Nueces River crested at 46 feet; the previous record crest on that river was 44 feet. The Lavaca River crested at 28.2 feet at Edna, 5.2 feet over flood stage, and the Navidad River crested at 21.9 feet at Ganado, 10.9 feet over flood stage. Most of the area south and east of a Iaredo-San Antonio-Matagorda arc was isolated for over a week because of flooded roads. The Arroyo Colorado, swollen with water from a broken flood-control waterway, left its banks and caused extensive damage to an exclusive residential section in Harlingen. The flooding in the Lower Rio Grande Valley destroyed all fall vegetables in the fields. At Sinton, Three Rivers, and George West, flooding was the heaviest in the history of the towns. To compound the misery at Three Rivers, the floodwaters brought a smelly film of oil from nearby oil fields that left a stain on all city structures, marking the high water level. The number of tornadoes generated by Hurricane Beulah was record breaking - 85 at last count. Hurricane Beulah of October 1964 had the previous record of 17. These tornadoes were confined mostly to the Upper Coast, South Central, and Coastal Bend sections; however, tornadoes occurred as far north as Burleson in Johnson County. Most of these tornadoes were small in size and occurred in rural areas where they dipped down just long enough to cause very minor damage. One tragic exception was the tornado that struck Palacios on the morning of the 20th, killing four persons and injuring six others. Another tornado struck Louise in Wharton County the same day, causing one death. Other tornadoes that resulted in heavy damage occurred at Burnet, New Braunfels, at Fulton Beach near Rockport, and at Sweet Home in Lavaca County. Thirteen persons died in Texas as a result of Hurricane Beulah. Five of these deaths were caused by tornadoes; 8 were the result of flooding. Only 35 injuries were reported. Property losses over the state are conservatively estimated at \$100 million and crop losses at \$50 million. The Red Cross gave the following breakdown of storm damage to property: homes: 512 destroyed, 25,890 damaged; mobile homes: 198 destroyed, 477 damaged; farm buildings: 607 destroyed, 1,116 damaged; boats: 110 destroyed or major damage; small businesses: 520 destroyed or major damage. A Red Cross official said 31,263 families in Texas suffered losses of property of all categories.
W Terminal Midland County	26	5:50 p	short	narrow	0	0	0	0	Tornado
									Tornado caused no damage.
UTAH									None reported
VERMONT									None reported
U. S. VIRGIN IS.									None reported

STORM DATA AND UNUSUAL WEATHER PHENOMENA

SEPTEMBER 1967

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED ¹ DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
VIRGINIA Eastern Shore	15-16				0	0	4	0	Hurricane
	Hurricane Doria moved from the north-northeast very close to Southeast Virginia. Cape Henry observatory had winds of 46 m.p.h. and gusts reached 55 m.p.h. at WBAF Norfolk. Minimum sea level pressure was 29.53 inches at Cape Henry and 29.60 inches at Norfolk. Highest tides were 4 feet above normal at Virginia Beach and 2.7 feet above normal at Norfolk. Damage was generally light and consisted of numerous minor damages mostly in or near the Norfolk area. Wind damaged trees, roofs, awnings, signs and billboards. Tidal flooding caused light to moderate beach erosion and other miscellaneous minor damage.								
WASHINGTON			None reported						
WEST VIRGINIA			None reported						
WISCONSIN			None reported						
WYOMING Jackson 10 S	11	afternoon			0	2	0	0	Lightning
	Lightning struck two road construction workers causing minor injuries.								
Casper 5 E	17	4:05 p.							Funnel aloft
	Public reported a funnel cloud near Flat Six road area just east of Casper.								
Casper 60 W	17	5:08 p.							Funnel aloft
	Public reported a funnel cloud near Hiland.								
NEW JERSEY Ocean City	16	morning			3	1			Hurricane Doria
	A mother and 2 small sons were drowned when high waves grounded and demolished their cabin cruiser off Ocean City, N. J. The mother died in the arms of her husband who was the sole survivor.								

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

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

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USCOMM-ESSA-Asheville, N. C. 10/31/67-1080