

U. S. DEPARTMENT OF COMMERCE
FREDERICK H. MUELLER, Secretary
WEATHER BUREAU
F. W. REICHELDERFER, Chief

STORM DATA

OCTOBER 1960

Volume 2 No. 10



ASHEVILLE: 1960

STORM DATA AND UNUSUAL WEATHER PHENOMENA

OCTOBER 1960

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
ALABAMA									
Montgomery, Montgomery County	5	2:30 p			0	0	3	0	Wind
A thunderstorm with winds estimated at 50 to 60 miles per hour moved across the city blowing down trees and utility lines and causing minor damage to houses in a four block area.									
Birmingham, Jefferson County	8	2:00 - 2:30 p							Funnel clouds
Two funnel clouds about 20 miles north-northeast were reported by airline pilots. The first one reported about 2:00 p.m. and the second at 2:27 p.m. The second funnel cloud was observed to touch the ground.									
Central and Oakland Communities, Lauderdale County	19	3:15 p	3		0	1	4	0	Windstorm
Severe windstorm first struck at Oakland damaging a school building and demolishing one frame house, then moving northeastward to the Central Community where several houses were damaged and numerous trees blown down. One person injured by flying debris.									
ALASKA									
Norton Sound coastal area from Unalakleet to Nome	2-4	Noon of 2nd to 8 AM 4th (BST)	150	*50	0	?	5	0	Windstorm accompanied by strong wave action
A complex low, with centers along 60° Latitude on Oct. 2, deepened as its main center moved northeastward reaching the Kotzebue Sound area the next day. Strong gradient winds about the storm center affected the coastal area of Kotzebue Sound and the coastal area of northern Norton Sound from Unalakleet to Nome. Gusty southerly winds developed at Nome around 9 AM of the 2nd and peak gusts reached 44 mph just before midnight of that day. The following day peak gusts reached near 70 mph just before noon. Wind speeds noticeably increased around noon of the 2nd and continued with rapidly falling pressure through that afternoon and on until the occluded front passed the station shortly after 8 PM (BST) the following day. Peak gusts around 70 mph were observed at this station around noon Oct. 3. Unalakleet received damaging winds early afternoon of October 2 and peak gusts reached about 60 mph around noon of Oct. 3. It is quite probable that still stronger winds developed in the exposed coastal areas around Golovin Bay and unreported damage doubtlessly occurred all along the northern shores of Norton Sound.									
Damages in the Nome area were rather extensive, but confined chiefly to roadways and harbor facilities. High wave action accompanying the storm appears to have been the major source of damage, and considerable driftwood was strewn over a considerable distance inland from the shore. Most of the damage was realized during high tide in the early afternoon. Road shoulders were badly damaged but roads did not become impassable. A considerable amount of sand and gravel was swept into the jetty to close the channel. Much of the repair work will have to await the coming of spring so damages are a little difficult to estimate. Total repair cost may run near \$100,000 some of which, however, is routinely required after the spring break-up. Structural damage to buildings was relatively minor. The less populous area of Moses Point was hard hit by the storm's fury. The rough sea swept debris, including large pieces of driftwood, over most of the area occupied by FAA facilities. Roadways and buildings were damaged and over 5,000 gallons of gasoline were lost. Total damages at Moses Point were well in excess of \$10,000 with approximately \$8,500 suffered by FAA facilities. The strong winds and rough wave action brought widespread damage to the Unalakleet area; driftwood and other debris was strewn inland from the shore to residence areas and around areas utilized by the Alaska Airlines and government agencies. Some structures were removed from their foundations and a few were completely shattered and strewn along the beach. Food stores were lost by natives in the area including a considerable quantity of dried fish. The Postmaster at Unalakleet, a resident there for over 55 years, reported the storm the worst he had ever experienced in the area. Rescue work became difficult and hazardous -- particularly since much of it became necessary during hours of darkness. The village power plant was temporarily put out of operation. No specific estimates of damages in the Unalakleet area have been received. No specific reports of damage have been received from the Kotzebue area. Peak gusts around 53 mph at Kotzebue around 6 AM of October 3 indicate the storm had begun to fill somewhat before its center reached the Kotzebue Sound area.									
ARIZONA									
			None Reported						
ARKANSAS									
			No report received by printing deadline.						
CALIFORNIA									
Entire State	9				2	1	4	0	Wind
Wind downed utility lines, trees, and signs and damaged buildings. Numerous small boats sunk or damaged. One man blown from house-top, and another lost overboard from fishing boat. Rain and snow accompanying wind in the south temporarily closed some mountain highways. Unconfirmed report of funnel cloud in vicinity of Long Beach.									
Central and southern California	16				2	0	5	0	Wind
Strong winds damaged buildings and utility lines. Fires fanned by the winds burned a score of buildings in the San Francisco Bay area. Two persons were killed in Yosemite Park by falling trees. Blowing sand disrupted travel in the desert areas.									
COLORADO									
Las Animas, Huerfano and Custer Counties	16						3	0	Snow
Unusually heavy wet snow did considerable damage to trees still in full leaf. Falling tree limbs disrupted power and communication lines in several areas. Damage was particularly heavy in the Walsenburg area. Snowfall depths were between one and two feet over a wide area.									
CONNECTICUT									
Windsfield, Tolland County	24	5:30a			0	0	2	0	Lightning
Lightning strike caused a small blaze in a home.									
DELAWARE									
			None Reported						
FLORIDA									
Key West Monroe Co.	5	2:25 pm			0	0			Waterspout
Madison Madison Co.	6	3:20 pm			0	0			Funnel Cloud
Tampa Hillsborough Co.	6	5:00 pm			0	0			Waterspout
Fort Pierce St. Incie Co.	7	1:25 pm	Short Narrow		0	0	4	0	Tornado
Ocala Marion Co.	7	Afternoon			0	0	4	0	Lightning
Lightning killed 9 thoroughbred horses valued at near \$50,000.									
Pt. Myers Lee Co.	7	4:20 pm			0	0			Waterspout
Winnama Hillsborough Co.	7	4:10 pm			0	0			Funnel Cloud
Marlette Duval Co.	7	5:40 pm	Short Narrow		0	0	2	0	Tornado
West Palm Beach Palm Beach Co.	8	9:00 am			0	0			Funnel Cloud
Miami Dade Co.	9	4:10 pm			0	0			Funnel Cloud
St. Petersburg Pinellas Co.	9	12:45 pm			0	0			Waterspout
Tampa Hillsborough Co.	10	4:55 pm			0	0			Funnel Cloud
Sanibel Island Lee Co.	31	10:30 am	Short Narrow		1	0	3	0	Tornado
Waterspout, moving northward, touched land about 2 miles west of Point Isabel Light house, moved across island and demolished a small marina. Marina employee killed during storm.									
GEORGIA									
Carroll County	7	6:30 p.	Short Narrow		0	0	3	0	Tornado
An apparent small tornado dipped down briefly, ripping a porch from a residence and completely destroying it near the Carroll-Marlson County line. Witnesses reported seeing the black funnel.									
South of Savannah	15	8:20 a.							Waterspout
Large waterspout reported north of St. Catherine's Island. Moved southward.									
HAWAII									
			None Reported						
IDAHO									
			None Reported						

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

OCTOBER 1960

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS				ESTIMATED DAMAGE	CHARACTER OF STORM	PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS				ESTIMATED DAMAGE	CHARACTER OF STORM	
					KILLED	INJURED	PROPERTY	CROPS								KILLED	INJURED	PROPERTY	CROPS			
ILLINOIS											KANSAS (Cont'd.)											
Freeport	1	4:15 p			0	0	3	0		Electrical	Dickinson County	13	9:00pm								Electrical	
										Lightning damaged civil war statue and damaged several homes											▲ barn filled with hay east of Hope was destroyed when struck by lightning.	
Rockford	1	Afternoon			0	0	3	0		Electrical	Wilson County	13	8:45pm-11:00pm	6	3*		5				Hail and Electrical	
										3 homes damaged by same bolt of lightning. Power halted temporarily as fuses were blown in private homes. Lightning set fire to school causing about \$100 damage											A continuous but slow fall of hail in and around Fredonia caused much property damage. Almost 2,000 panes of glass were broken at 2 green houses. Some stones were 1 1/2 inches in diameter. Storm moved from northeast toward the southwest. Lightning started a fire in a barn 1/2 miles northeast of Fredonia at 8:45pm. Barn and contents of alfalfa hay and a large amount of grain were destroyed.	
Marissa	1	10:30 p			0	0	4	0		Wind	Montgomery County	13	late evening								Electrical	
										Windstorm blew down newly constructed concrete block wall which was about 400 feet long and 20 feet high. Loss was estimated at about \$12,000.											Lightning damaged the roof, interior walls and ceiling of a house in east Coffeyville. No fire resulted.	
Palestine	2	1:00 a			0	0	3	0		Electrical	Wyandotte County	13	late evening				1				Electrical	
										Lightning struck mill and elevator damaging machinery, chimney and did other damage.											A man was injured in Kansas City when a power line which had been struck by lightning fell on him.	
Berwyn	13	Evening			0	1	2	0		Electrical	Kingman County	15	early morning								Electrical	
										Lightning struck transformer and burned 13 year old boy standing nearby.											Lightning damaged much of the wiring in an appliance store in Kingman. Also a large hole 7 X 9 feet was made in the roof.	
Sterling	30	night			0	0	2	0		Electrical	Sumner County	25	9:00am				3				Electrical	
										Lightning damaged powerlines at several locations											Lightning started a fire in a large barn northwest of Wellington. Barn, some farm machinery, a large quantity of hay, and an automobile were destroyed in the resulting fire.	
INDIANA											Marion County											
Lowell, Lake County	2	early morning			0	0	5	0		Lightning		25	9:00am				4				Electrical	
										Lightning and resulting fire destroyed the building and contents of an implement company with a loss of \$150,000 in equipment and \$50,000 in the building.											Lightning struck a house in Marion with smoke and fire damage estimated at \$5,000. Paint was spalled and plastic fixtures melted by the intense heat of lightning in rooms not affected by the fire.	
IOWA											KIOWA COUNTY											
9NW Clinton	13	1230 p.	10		0	0	4	3		Wind		25	9:00am								Electrical	
										Farm home, buildings, trailer damaged considerably and 50% of a 60 acre field of corn flattened by strong southwest winds											A bowling alley in Iowa was struck by lightning with some damage to the brick facing.	
6NW Clermont	25	345 p.			0	0	4			Lightning	Marion County	25	Morning								Electrical	
																					Lightning damaged the T.V. and knocked a hole in the wall of a house in Burns. No fire resulted but there was a terrific heat in the house after the bolt struck.	
KANSAS											MONTGOMERY COUNTY											
Franklin County	2	3:35p and 3:50p						2		Electrical(4)		29	9:00am								Electrical	
										Two bolts of lightning, one on the south side and the other on the west side of a house in Wellsville, caused damage to the T.V., the house wiring, and knocked siding from the house.											As a result of lightning 2 houses and garages side by side in the north part of Coffeyville suffered damage to the wiring and some appliances. The garage walls were splintered by the bolt.	
Rutler County	2	11:04p						4		Electrical	Rutler County	29	4:45p-5:00pm	2	100		4				Tornado and funnel cloud.	
										Lightning touched off a fire that partially destroyed 5 oil storage tanks 1 1/2 miles north of Augusta.											Two funnel clouds were observed to develop west of Eldorado and move east-southeast. One came to the ground striking near the west edge of town. A number of filling stations, truck stops, and residences were damaged. A roof or two was torn from dwellings and a mobil home was over turned. Much debris was observed being carried aloft.	
Coffey County	3	morning						3	3	Electrical	KENTUCKY											
										A large hay barn and about 2,000 bales of hay were burned after lightning struck the barn 2 miles south of Gridley.	Anderson County	8	PM				4	3			Hail and Rain	
Labette County	3	7:15 pm						3	3	Electrical											Hail and heavy rain caused considerable damage to homes and farm land and blocked highways. The rain fell with such force that rocks, trees, and debris from hillsides were washed into highways. Considerable corn and cane was damaged in the fields. Damage by hail 40% by rain 60%.	
										A large barn and contents including 30 tons of hay were destroyed by fire when struck by lightning a mile northwest of Oswego.	LOUISIANA											
Wilson County	4	4:30p-5:00p								Electrical	MAINE											
										Lightning struck the porch of a home in Fredonia. Most damage was from the resulting fire.	MARYLAND											
Cherokee County	4	late afternoon								Wind and hail.	MASSACHUSETTS											
										Electric service was interrupted for 2 hours over a broad area in the western part of the county when a high wind broke 5 power poles. Little damage resulted from the hail.	Most of State	24-25	Day and during night	-	-	0	3	4	0			Electrical, snow, rain, sleet, hail, and wind.
Washington County	6	4:30a								Electrical	Thunderstorms on 24th over much of State with up to three separate thunderstorms the same day in some localities in eastern portion. Lightning burned out several power transformers and knocked out many telephone lines. Three men were injured by lightning in Boston and a home was set afire in Mattick. Hail occurred in many eastern Mass. communities, mostly near 1/4 inch diameter but reported up to 1/2 inch size in the Fitchburg area. No hail damage was noted. Heavy rain flooded a few underpasses. Sleet was observed in some areas during transition period from rain to snow. The heaviest October snowfall since 1934 fell in central and eastern Mass., accumulating mostly to from 1/2 to 2 1/2 inches deep but some reports were heavier with 3 to 6 inches locally in higher elevations of central and northern Worcester County. None or only traces of snow were observed at coastal and Cape Cod stations and over much of the western third of Massachusetts. Traffic was halted by slippery roads in many spots where motorists were caught without chains or snow tires. Many minor accidents were attributed to the sleet. Heavy wet snow cling to tree limbs and wires. Combined with strong winds, the snow load broke many limbs and utility poles, with service interruptions. Most seriously affected in this way were Bellingham, Foxboro, Franklin, Hopkinton, Milford, and Upton. At some stations thunder, hail, rain, sleet, and snow all occurred on the same day, the 24th.											
Reno County	11	Evening								Wind												
										High winds tore several utility poles loose and broke electric wires in the north part of Hutchinson. Service was interrupted for some time. Wind velocities reached 67 MPH.												
Rutler County	13	3:30a						3		Electrical												
										A stack of baled hay northeast of Eldorado was set afire by lightning. Approximately 3800 bales of hay were destroyed.												
Labette County	13	8:00a-8:30a						1		Electrical (2)												
										Lightning struck 2 houses in Oswego during a shower. Slight damage was done at each place. One woman was burned on her elbow and 2 others felt the shock.												
Kingman County	13	7:00pm								Wind and Electrical												
										Severe winds just east of Kingman damaged a number of trees. Lightning caused minor damage at a home on the east side of town.												

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

OCTOBER 1960

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
MICHIGAN Calhoun and Kalamazoo Counties	1	10:00 p. 1st 2:00 a., 2nd					4		Thunderstorms with lightning and heavy rains
									Lightning induced fires destroyed 2 farm barns and contents within Oshtemo and Cooper townships of Kalamazoo county. Electrical storm struck a number of transformers which disrupted electrical service in scattered city areas of Battle Creek. Lightning caused several fires which damaged homes at Battle Creek also. Lightning induced fire damaged a home in Emmett township of Calhoun county.
MINNESOTA									None Reported
MISSISSIPPI									None Reported
MISSOURI									None Reported
MONTANA Helena and vicinity Lewis & Clark County	24	10:00 am	?	?	0	0	3	0	Strong Wind
									Strong gusty wind did some damage to windows, storm doors, and signs. A house under construction collapsed. Damage was estimated at \$2000. At the Weather Bureau Airport Station the fastest mile was 40 MPH from the SW. Gusts reached 58 MPH.
NEBRASKA									None Reported
NEW JERSEY									None Reported
NEW HAMPSHIRE Most of State	24-25	Day and during night			0	0	3	0	Electrical, snow
									Lightning damaged several buildings and knocked out phone and/or electric service to hundreds of homes in extreme southern and southeastern New Hampshire. The heaviest October snow since 1934 fell in the southwest portion with amounts mostly 1-2 inches except up to 4-6 inches at higher elevations. Snow also fell in the north but mostly less than 1 inch at lower elevations; 6.9 inches fell at Cannon Mountain.
NEW MEXICO Lovington and vicinity	10	pm			0	0	3	4	Hail
									Hail reported the size of golf balls. Damaged several hundred acres of cotton. Windows and neon signs broken and roofs damaged.
Portales and vicinity	15	am			0	0	3	5	Hail
									Hail up to 1 inch in diameter damaged cotton, peanuts, castor beans and other crops in the field. 75% of windows on two greenhouses broken.
Las Cruces and vicinity	17	pm			0	0	3	4	Hail
									Hail damaged cotton and lettuce.
Central and eastern New Mexico	15-18				0	0	5	6	Heavy rains
									Heavy and almost continuous rains producing storm totals of 3 to 6 inches caught much of the cotton crop still in the field. Considerable cotton lost or down graded. Additional losses to peanuts, castor beans, broom corn, sorghums and feed crops. Some flooding of low lands and damage to streams and highways. Up to 30 inches of snow in northeastern mountains closed some highways and stranded hunters.
NEVADA									None Reported
NEW YORK									None Reported
NORTH CAROLINA Cumberland County	4	6:45 a.m.	1/2	200	0	0	4	0	Tornado
									Storm moved southwest to northeast along a short path about one mile east of Fayetteville. Carport ripped off brick home; storage building destroyed. Truck and several road building machines damaged. Power and telephone lines down.
NORTH DAKOTA									None Reported
OHIO									None Reported
OKLAHOMA West-central Area of State	11	p.m.			0	0	?	?	Rain, hail
									Heavy rains of 3 to 6 inches fell over a major portion of Roger Mills, Beckham, Custer, and Washita Counties. Some streams and rivers overflowed into lowlands but the main damage due to washing was to recently worked or planted fields. Some minor damage resulted to unharvested crops, such as cotton and sorghums. Some small hail accompanied the heavy rain.
Gordell, Washita County	11	5:00 p.	?	?	0	0	4	0	Hail
									Hail up to an inch in diameter caused damage to roofs. The area affected was confined primarily to that of the City.
Altus, 10 miles south, Jackson County	13	3:05 p.	8	4	0	0	5	5	Hail, rain, funnel aloft
									Hail as large as baseballs and some chunks as large as saucers nearly covered the ground over a large area of central Jackson County. About 5,000 acres of good cotton received 10 to 80 percent damage. The heavy hail beat the roofs off most buildings and homes. Heaviest damage was reported from Olustee. Autos were dented, windshields smashed and trees stripped. Heavy rain of up to 6 inches caused some flash flooding and newly worked land was badly gullied. A tornado funnel was sighted 10 miles south of Altus but evidently remained aloft as no damage was reported. Storm moved east-northeastward.
Tipton, Tillman County	13	5:00 p.	5	3	0	0	0	5	Hail, rain, funnel aloft
									Hail up to one inch in diameter caused up to 50% loss to cotton in parts of western and northern Tillman County. Heavy rain of up to 4 inches washed recently worked fields and damaged cotton quality. Public sighted funnel aloft near Tipton.
Lawton, Comanche County	13	6:00 p.	?	?	0	0	3	0	Hail, wind, rain
									Hail up to 1 1/2 inches in diameter caused only minor damage in the area. Winds up to 30 miles per hour caused some damage to buildings, trees and utilities. Heavy rain accompanied the storm and some flash flooding resulted.
Stillwater, Payne County	13	8:00 p.	?	?	0	0	5	0	Hail
									Considerable large hail chunks of up to 3 and 4 inches in diameter fell mostly in the Stillwater area. Reports of damage were indicated from as far as 8 miles south, 3 miles west, and 7 miles north. Tile roofs, copper trim and many windows were damaged at Oklahoma State University. Roofs, windows, autos, shrubs, etc. were damaged over and around the City.
Southwest One-Fourth of State	17-18				0	0	5	4	Rain
									Heavy rain of up to 5 inches fell over most of already water-logged southwestern Oklahoma. Flash flooding and some flooding occurred along most all streams and rivers. Bridges, culverts, and roads were washed out in places and road surfaces were badly damaged. The rain lowered the grade of cotton and many recently worked fields were badly washed.
Clinton-Sherman Air Force Base, Washita County	29	4:00 p.			0	0	0	0	Funnel aloft
									Pilot reported tornado funnel in the vicinity of the Base. The funnel appeared for 5 minutes.
El Reno, Canadian County	29	5:00 p.	?	?	0	0	0	0	Hail
									Hail 3/4 inch in diameter was reported. No apparent damage noted.
OREGON									None Reported
PENNSYLVANIA									None Reported
PUERTO RICO									None Reported
RHODE ISLAND Providence, Providence County	6	2:30p			0	0	3	0	Wind
									Wind gusts attending a squall line lifted roof of a lumber yard and tore a section off.
Chepocket, Providence County and Westerly, Washington County	24	Eve.			0	0	2	0	Lightning
									Some power lines knocked out for short periods.
North Kingston, Washington County	24	5:00p			0	0	1	0	Lightning
									Lightning strike started small fire which singed curtains in home.
Providence, Providence County	24	10:30p - 11:15p			0	0	2	0	Lightning
									Lightning strike ignited a box of plastics in a mercantile establishment.

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

OCTOBER 1960

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
SOUTH CAROLINA									
Richland and Lexington Counties (mostly at Columbia)	3	8:30 pm-9:30 pm	-	-	0	0	2	0	Windstorm
A squall line oriented east-west with gusty winds. Highest gust at the airport 48 mph.									
Donaldson Air Force Base, Greenville Cty.	5	3:28 pm	-	-	0	0	1	0	Hail
Hail size 3/4" in diameter.									
SOUTH DAKOTA									
Martin, Bennett County	11	8:45 p.m.	-	-	-	-	2	-	Electrical
Lightning bolt struck TV antenna and entered living room of home. TV set burned and some structural damage in living room. Damage set at \$350. Second time same home struck by lightning in 1960.									
TENNESSEE									
Bristol	3	2:30 p. (approx)	-	-	0	0	4	0	Lightning
Lightning ignited a barn containing 50 tons of hay, a tobacco crop and stored restaurant equipment.									
Knoxville & Vicinity	3	mid & late afternoon	-	-	0	1	5	0	Hail, rain and lightning
Hail, up to 2 inches in diameter, extensively damaged roofs, glass doors and windows. At one greenhouse 800 panes of glass were broken. Hailstones were generally 1/2 to 1 inches in diameter and sparsely covered the ground in most affected areas. Drifts of hailstones 4 to 6 inches deep were reported in south Knoxville. Accompanying heavy rain caused some flash flooding of low levels. A woman suffered shock and eye strain when lightning struck nearby.									
Maryville, Blount County	3	Afternoon	-	-	0	1	0	0	Lightning
A man, struck by lightning while standing on the porch of his home, suffered loss of hearing.									
Linden (near Perry County)	5	2:00 p.	-	-	0	0	4	0	Wind
Strong winds blew off 1/3 of the roof from a 2-classroom school building, caved in portions of the gymnasium wall and damaged other walls of the building. A piece of the roof demolished a car 25 feet from the school.									
Johnson City, Washington County	8	3:15 p.	-	-	0	0	?	0	Hail, wind and rain
Hail up to 3 inches in diameter damaged windows in homes and business houses. Accompanying wind blew apart numerous roofs, blew down many TV antennas, felled hundreds of trees and blew 800 window panes from a greenhouse. Heavy rain caused some minor flooding and \$1500 damage to furniture exposed by wind damage to a store.									
Stoney Creek Section, Carter County	8	Afternoon	-	-	0	0	?	0	Wind, hail and rain
Heavy wind broke or uprooted many trees, one of which damaged a house, and downed 2 power poles. Hail, 1 inch in size, covered the ground. Heavy rain accompanied the storm.									
TEXAS									
Brown County	4	8:10 p.	-	-	-	-	-	-	Funnel aloft
Galveston County	4	8:15 a.	-	-	-	-	-	-	Funnel aloft
Sighted just north of Galveston.									
Arcadia Galveston County	5	3:00 p.-3:20 p.	?	?	0	0	0	0	Hail
Average diameter of stones 3/4 inches. Storm moved from NNE toward S, accompanied by heavy rain.									
Matagorda County	5	10:00 a.	-	-	-	-	-	-	Funnel aloft
Sighted 10 E Palacios.									
San Antonio Bexar County	5	Afternoon	-	-	0	1	0	0	Lightning
One woman struck by lightning and paralyzed from the waist down, while playing golf at Canyon Creek Country Club. A companion estimated victim knocked about 20 feet when struck. Victim taken to hospital which listed her condition as critical.									
Willacy County	7	1:00 p.-1:30 p.	?	Narrow	0	1	4	0	Wind, hail, lightning.
Strong winds accompanied by lightning, hail, and heavy rains swept along a narrow path between Raymondville and Brownsville. One person was stunned when lightning struck the tractor he was driving. He was found in a semi-conscious condition. A few miles north of Raymondville, 18 x 40 metal building was demolished, and nine automobiles damaged by the debris. One house ripped from its foundation and turned completely upside down. Heavy rain and hailstones the size of golf balls were reported.									
Sudan Lamb County	10	6:00 p.-6:30 p.	12	*4	0	2	0	5	Hail
Hail covered the ground in a four mile square centered over Sudan before moving northward and diminishing in intensity, cutting a strip 12 miles long. Damage to cotton was estimated at from 85 to 100% on some farms north of Sudan, with some hailstones "hen egg" size. Two men riding in the open back of a truck were beaten by large hailstones, with one receiving several "lumps" on the head and the other suffering scalp cuts.									
TEXAS (Cont'd.)									
Castro County	11	5:00 p.-6:00 p.	?	?	0	0	0	6	Hail, wind, rain.
Small hail, strong winds, and heavy rain damaged crops over most of County. Average diameter hailstones 1/16 inch with largest 1/2 inch. Damage varied from light to heavy on cotton and grain sorghum.									
Friena Farmer County	11	4:45 p.-4:50 p.	1	100	0	1	5	5	Tornado
Tornado destroyed two drive-in theatres, and stacked 7 trailer houses in a pile on outskirts of Friena. About 1 mile west of Friena, one farm home damaged and several outbuildings destroyed. One-fourth mile farther west, another farm home and outbuildings damaged. One person injured when truck he was driving was rolled 45 feet off the highway. One-quarter inch hail and heavy rain accompanied the storm which moved from west to east. The tornado funnel moved up and down. Hail accounted for an estimated \$100,000 to crops in the area, while the strong winds caused an additional \$100,000 damage to crops.									
Vega Oldham County	11	10:30 a.-10:40 a.	1	*1	0	0	0	0	Hail
Hail confined to City of Vega. Average diameter of stones, 1/2 inch; diameter largest, 3/4 inches.									
Abbott Freestone County	13	Afternoon	short narrow	0	0	?	0	?	Tornado
Tornado destroyed 1 trailer home, wrecked 15 large cotton trailers, and destroyed utility lines. The funnel stayed on the ground for 250 yards, then rose into the sky.									
Brownwood Brown County	13	4:45 p.-5:30 p.	4	25	0	1	6	5	Tornado, wind, hail.
Small tornado struck NE corner of Brownwood Municipal Airport building, causing \$5000 damage, 12 telephone poles were sheared off. One injury was reported, but the location of the person is not known. Between 4:45 p. and 5:30 p. heavy hail and strong winds cut a path 30 miles long and 1 1/2 miles wide across Brownwood. Hailstones averaged 2 inches in diameter with largest 4-5 inches, the largest on record at Brownwood. Damage was heavy to roofs, window panes, automobiles, and crops in the surrounding area. Damage to property estimated one million dollars in Brownwood, with \$300,000 damage to crops.									
Corbet Navarro County	13	4:00 p.	3	*1	0	0	?	?	Hail
Roofs of houses damaged and many windows were broken in automobiles by hailstones averaging 2 1/2 inches in diameter, with largest 3 inches. The ground was 75% covered.									
Fairfield Freestone County	13	10:00 p.	-	-	0	0	4	0	Wind
Strong winds unroofed 3 buildings, damaged several new automobiles inside one of the buildings, and blew out more than a dozen plate glass windows.									
Milan County	14	2:00 a.	-	-	-	-	3	0	Lightning
35 young steers were killed when lightning struck a wire fence against which the cattle were grazing.									
1 E Rockport Refugio County	14	9:10 a.	-	-	-	-	-	-	Waterspout
Clarendon (near Donley County)	15	6:30 a.-7:30 a.	2	*1	0	0	0	?	Hail
Heavy damage to crops resulted from pea size hail in a narrow strip 2.5 N. of Clarendon that drifted to depths from 6 to 24 inches.									
Floyd County	15	7:30 a.-11:30 a.	60	*20	0	0	4	7	Hail
Small hail, described as "falling like gravel" severely damaged the cotton and maize crops in a large area from Milesheo, Texas, to Southeast of Floydada. Cotton was defoliated with damage varying from 20 to 90%. Small hail drifted to depths of 1 1/2 inches, with some "golf ball" size stones reported. Some communities received roof, window pane, and automobile damage from the larger stones. More than 1000 head of sheep were killed by the hail or drowned in the heavy rain. 3-5 inches of rain fell during the storm which moved from NW to SE. Wind gusts were estimated at 40-50 mph.									
Floydada Floyd County	15	11:00 a.	*300	67	0	0	4	0	Tornado
Small tornado struck Floydada Airport, destroying 1 small hanger and 2 airplanes. The storm moved from the NW, accompanied by 3.31 inches of rain falling in a period of 50 minutes. The roar from the tornado was heard one mile away.									
Jones County	15	12:28 p.	Sighted 20 NW	Abilene.	-	-	-	-	Funnel aloft
Jones County	15	Afternoon	?	?	0	0	0	6	Hail
Damage to crops in the NW part of the county from hail was estimated at 3/4 million dollars. Losses varied from 25% to 100%. 310 cotton farms were involved, comprising 25,000 acres.									
Karnes County	15	12:00 p.-12:30 p.	2	*1/2	0	0	4	0	Tornado
Small tornado, moving from SE toward NW, ripped off several roofs in the Peggy Community. One 50,000 bu. granary destroyed, one tower blown down, several power line poles blown down, and trees uprooted.									

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

OCTOBER 1960

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
TEXAS (Cont'd.)									
Enox County	15	3:00 p.-4:00 p.	15	*6	0	0	4	5	Wind, hail
									Hail, average 1/2" diameter, with largest stones 3/4" diameter, damaged cattle and roofs of buildings, with damage to cotton from hail and wind. Storm moved from NE toward SW, from Benjamin to Munday.
10 NW McCaulley Fisher County	15	12:50 p.							Funnel aloft
Parmer County	15	5:30 a.-9:00 a.	?	?	0	0	0	?	Hail
									Hail fell over "several" square miles with wide spread damage to cotton and maize crops. Damage ranged from slight to near total.
Rowena Rummels County	15	7:05 p.-8:00 p.	7	*2	0	0	5	4	Rain, hail
									10 1/2" of rain fell in a 55 minute period with hail falling for 20 minutes. The hail covered the ground to a depth of 1", with average diameter of stones 1/2", and largest 2" diameter. Damage to property resulted from hail, and to crops, from rain and hail. Strong winds accompanied the storm which moved from NW toward SE.
Sterling City Sterling County	15	3:00 p.-5:30 p.	2 1/2	*2	0	0	4	0	Hail, wind
									This storm occurred over open range country in the NW part of the county which reduced the amount of damage that would have otherwise occurred. Hailstones averaged 2" in diameter, with largest 3" in diameter. Drifts of hail were 2 1/2" deep. The storm moved from north toward the south.
Throckmorton Throckmorton County	15	Afternoon	short narrow	0	1	5	0		Hail
									Hailstones ranging in size up to that of baseballs severely damaged roofs, knocked out window panes, and damaged 50 to 75 automobiles. 200 windows were broken out in school buildings. One person suffered a 4 inch cut on his head when struck by a hailstone. Nearly all homes within the city were damaged at an estimated \$500 per home. Observers reported that "three storm clouds apparently collided virtually over the town."
Calallen Nueces County	16	12:00 p.	?	?	0	0	4	0	Tornado
									Tornado blew over 300 foot radio transmitting tower of State Department of Public Safety at Calallen.
Corpus Christi Nueces County	16	1:10 p.	5	35	0	1	5	0	Tornado
									50 houses, all within one subdivision, in the SW part of the city were damaged, varying from a broken window to complete destruction. One person suffered minor injuries from flying glass. The tornado moved from NW toward SE accompanied by heavy rain.
Jim Wells County	16	8:50 a.							Funnel aloft
									Sighted vicinity of Orange Grove.
Seguin Guadalupe County	16	5:30 a.-5:40 a.	1	30	0	1	5	0	Wind
									Strong winds estimated at 80 mph, accompanying a thunderstorm, destroyed the clock tower at the high school building, destroyed a small commercial building, severely damaged roofs of several homes and commercial buildings, blew out plate glass windows, overturned several trailer houses, and ripped apart a number of trees. One person was injured in "breaking out" of his overturned trailer house. 5.61" of rain accompanied the storm.
Sinton San Patricio County	16	3:10 a.	7	100	0	11	4	0	Tornado
									Tornado path from 3 S of Sinton to 4 NW of Sinton, 11 persons injured. 2 houses demolished, 4 others damaged, and 1 large barn demolished. One trailer house damaged. Nine of the injured were in one house. Heavy rain in tornado area estimated 3 inches, with 7.13 inches at Sinto during the 24 hour period.
Kleberg, Nueces, San Patricio, Refugio and Aransas Counties	16-17				0	0	5	?	Rain & flooding
									High intensity rains, averaging 6-8 inches over the lower Nueces, the Aransas, and Mission rivers, and creeks in the above counties flooded farmlands, streets, and highways. Over 500 persons were evacuated from their homes; 7.13 inches at Sinton and 5.10 inches at Corpus Christi fell in 3 hours. Total amounts ranged up to 15.15 inches at Chapman ranch and 14.16 inches at Refugio.
8 NE Corpus Christi San Patricio County	18	3:10 p.							Funnel aloft
Georgetown Williamson County	18	9:00 p.-10:00 p.	35	*2	0	0	5	0	Hail
									Hailstorm, moving in from West, knocked out window panes and did extensive damage to roofs. Average size hailstones 1/2-inch diameter, with largest 2-inch diameter. Frequent lightning and strong winds accompanied the storm. 3.28 inches of rain fell during the storm.
Goliad Goliad County	18	Evening			0	0	5	5	Rain & flooding
									Heavy rains occurred over the lower portions of the San Antonio and Guadalupe River watersheds with Goliad receiving 8 inches of rain within a few hours. Considerable flooding occurred in Goliad, mostly from runoff rather than flooding of the river.
TEXAS (Cont'd.)									
Katy Harris County	18	5:00 p.	short narrow	0	3	?	0		Tornado
									Tornado severely damaged 2 homes, destroyed 1 garage, and caused minor damage to 2 other homes. One person injured by flying glass, two others received bruises. One home lifted off blocks and moved 10 feet farther north. Half of roof, including rafters, blown away. A 2 x 6 inch timber was blown through the side of one home. One automobile was picked up, turned around and placed on the lawn beside the garage.
Navasota Grimes County	18	11:15 a.-11:30 a.	1/2	*2	0	1	5	0	Wind
									Strong winds unroofed one house and blew the windows out of several houses and some commercial buildings. One trailer house was blown over. The storm moved from SW toward NE, accompanied by heavy rain.
3 S Schulenburg Fayette County	18	1:10 p.-1:15 p.	6	150	0	3	5	0	Tornado
									Tornado touched ground 3 miles S of Schulenburg, destroying 10 unit tourist court and cafe. Three persons in the cafe were injured; one suffered a broken leg, the other two suffered cuts and bruises. The storm, moving from SW to NE, crossed U. S. Highway 77, picked up one farm home and moved it into a pasture. Two other houses were moved from their foundations, one was moved a distance of 75 feet. A 4-inch rainfall accompanied the storm.
8 NW Vega Oldham County	18	2:05 p.							Funnel aloft
Victoria Victoria County	18	6:30 p.-11:45 p.			0	0	4	0	Rain
									Heavy rain, with 8 inches falling within a period of 15 hours, flooded streets and a number of homes on the south side of the city. Total 24-hour rainfall amounted to 8.30. The storm was approximately 12 miles in diameter and moved from west toward the east.
1 S Victoria Victoria County	18	11:45 a.-11:50 a.	1/4	40	0	0	0	0	Tornado
									Tornado moved from SW toward NE and was witnessed by Weather Bureau observer. The storm did not cause any damage.
9 SE Beeville Bee County	19	5:15 p.							Funnel aloft
Nueces County	19	4:55 p.							Funnel aloft
									Sighted between Edroy and Odem.
Rio Grande City Starr County	23-24	Night			0	0	6	5	Rain & flooding
									A flash rise on the normally dry Los Olmos Creek caused by 3-8 inch rains over this watershed flooded Rio Grande City and 5000 acres of farmland. 322 homes and 146 business houses damaged, and 400 families suffered losses. Water was 8 feet deep in some homes, with 100 homes estimated to be a total loss. This was probably the worst flood of record on the Los Olmos.
Kenedy Karnes County	25	Afternoon			2	0	6	4	Rain & flooding
									Flash flooding of creeks from locally heavy rains caused what was described as the worst flood in the history of the city. Every business house was flooded with the exception of one block. Water ranged from 6 inches to 5 feet deep in stores. Many homes were flooded and some automobiles were swept off the streets. Two persons drowned when their automobile was swept 150 yards off the highway. 5.45 inches of rain fell within the city with heavier amounts in the surrounding area.
Pettus Bee County	25	Night			0	0	5	0	Rain & flooding
									A flash flood swept through the city, driving 100 persons from their homes and flooding about 20 business firms. Water was 4 feet deep in some stores. Only 2 inches of rain fell in Pettus; the flood waters came from 8-10 inch rains on the upper reaches of Medio Creek. Damage was confined to the business district, 70 homes and about one mile of railroad track. Long time residents compared this flood to the one of July 3, 1903. They could not determine which one was worst.
Wichita County	25	2:41 p.							Funnel aloft
									Sighted 30 NW Wichita Falls.
Jefferson County	26	11:23 a.-11:26 a.							Funnel aloft
									Sighted 6 W Beaumont Airport.
Matagorda County	27	3:25 p.							Funnel aloft
									Sighted 15 NE Palacios.
San Angelo	28	1:46 p.	10	*10	0	0	0	0	Hail
									Hail stones averaged 1/2" diameter with a very few 1 1/4" diameter. Hailstones were widely separated.

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

OCTOBER 1960

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED ¹ DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
<u>TEXAS (Cont'd.)</u>									
South Central	28	Night			11	0	6	0	Rain & flooding
	Torrential rains of 7-10 inches fell in South Central Texas with the heaviest amounts in the Austin area. Eleven persons died from drowning as they were caught in flash floods of normally small streams. Two persons were trapped in their automobile at a normally dry creek crossing one mile west of Austin. Four persons drowned when their automobile was swept off a farm road 75 miles west of Austin. Three persons drowned near Giddings, and two near Brackettville when their automobiles were swept into rivers. In Austin, about 300 families were driven from their homes when creeks sent 4 to 6 feet of water into houses and business establishments in low lying sections. Property damage in Austin was estimated at 2.5 million dollars.								
San Marcos (vicinity) Hays County	28-29				0	0	5	4	Rain & flooding
	Nearly 5 inches fell in the San Marcos area causing some damage from runoff and from flash flooding of small creeks in the area.								
<u>UTAH</u>					None Reported				
<u>VERMONT</u>					None Reported				
<u>VIRGIN ISLANDS</u>					None Reported				
<u>VIRGINIA</u>					None Reported				
<u>WASHINGTON</u>									
Northern Puget Sound Area	6				0	0	3		Wind
	Utility lines and a few buildings were damaged by limbs blown from trees.								
West of Cascades	23				0	0	3	0	Rain-wind
	Storm drainage sewers were unable to carry runoff in some localities of Seattle and other areas causing water to back up in few residences in low areas. High wind damaged utility lines in few localities in northern Puget Sound area.								
<u>WEST VIRGINIA</u>									
					None Reported				
<u>WISCONSIN</u>									
Antigo 10 NE	12	9:00 a.m.						4	Lightning
	Eight room house destroyed.								
Neillsville 6 S	25	afternoon						4	Lightning
	Barn, crops, and machinery destroyed by fire caused by lightning.								
<u>WYOMING</u>									
Casper	19	1:20 p.							Funnel aloft

* Miles instead of yards.

** Yards instead of miles.

† Storm damages are placed in categories varying from 1 to 9 as follows:

- 1 Less than \$50
- 2 \$50 to \$500
- 3 \$500 to \$5,000
- 4 \$5,000 to \$50,000
- 5 \$50,000 to \$500,000
- 6 \$500,000 to \$5,000,000
- 7 \$5,000,000 to \$50,000,000
- 8 \$50,000,000 to \$500,000,000
- 9 \$500,000,000 to \$5,000,000,000.

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

SUBSCRIPTION PRICE: 15 cents per copy; yearly subscription \$1.50 domestic, \$2.00 foreign. Checks and money orders should be made payable to the Superintendent of Documents. Remittance and correspondence regarding subscriptions should be sent to "Superintendent of Documents, Government Printing Office, Washington 25, D. C."

USCOMM-WB-Asheville - 11/30/60 - 1050