



U.S. DEPARTMENT OF COMMERCE

MAURICE H. STANS, Secretary

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
ENVIRONMENTAL DATA SERVICE

STORM DATA

Volume 11 No. 11.
NOVEMBER 1969

STORM DATA AND UNUSUAL WEATHER PHENOMENA

NOVEMBER 1969

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
Alabama			None reported						
Alaska Ketchikan	28				0	0	6	0	Heavy rains and windstorm
									The Ketchikan Public Utilities Office advised that a massive landslide brought about by excessive rainfall and melting snow in the Beaver Falls area, buried one of their electrical generating units causing a loss in excess of one and one-half million dollars. A tug with a barge was hit by the storm about 40 miles north of Ketchikan, which ripped most of the load valued at about \$275,000 from the deck of the barge.
Metlakatla	26				0	0	4	0	Windstorm
									A trailerhouse at the trailer court was blown over, resulting in damages in excess of \$17,000.
Arizona			None reported						
Arkansas Sparkman - Dallas County	11	7:00 p. to 8:00 p.					2		Hail
									Hen egg size hail covered ground with only minor damage. Similar hail, with rain and wind occurred in Paris (Logan County) and Mena (Polk County) with the same weather system.
California Near Ft. Mugu	7	8:02 a.m.			0	0	0	0	Funnel Cloud
									Funnel cloud southeast of Ft. Mugu moving eastward reported on military communication circuit. Source of report unknown.
Near Santa Ana	7	9:30 a.m.			0	0	0	0	Funnel Cloud
									Funnel cloud near Orange County Airport, Santa Ana, reported by Palmdale weather station; source of information not reported. Palmdale radar unable to pick up any echoes related to this report.
Near El Toro	7	10:00 a.m.			0	0	0	0	Funnel Cloud
									Funnel cloud reported 8 miles west of El Toro moving northwest. Information on military communication circuit, but source of report not given.
Colorado			None reported						
Connecticut Southeast coast, northwest hills	5-6	late AM-early AM			0	0	4	0	Rain, wind
									Clogged drains and heavy rains combined to locally flood some parts of the southeast, notably sections of New London. In the higher hills of the northwest, rain combined with wind to cause considerable damage to young conifer stands.
Northern half	26	5-9 AM			?	?	5	0	Gleze
									Very light freezing rain of short duration directly responsible for about 450 vehicular accidents. A number of serious injuries resulted. Tolland, Windham and Litchfield counties were hardest hit.
Delaware Coastal area	2				0	0	0	0	Tidal flooding
									A low pressure system, moving north-northeastward along the coast, brought brisk easterly winds which, associated with tides 2 to 2 1/2 feet above normal, caused some minor flooding. The CHURN station at Indian River Inlet reported its highest sustained wind at 30 knots from the East-southeast and gusts to 45 knots.
Florida Fernandina Beach Nassau County	1	all day and night			0	0	4	0	Thunderstorm and flooding
									A continuation of the Oct 31st storm accounted for approximately 17 inches of rain in a 12-hour period and contributed to almost 22 inches for the storm total. Believed to be worst flood in local history. Many businesses and homes inundated. Estimated damages were \$20,000-\$30,000 in addition to the October 31st damages.
Coral Gables (5 mis. SW) Dade County	1	4:34p.							Funnel aloft
Belle Glade vicinity Palm Beach County	4	evening			0	0	3	3	Winds and flooding
									Winds of 50-60 mph and rain brought flooding to lower lying areas. Lake Okeechobee up 1 1/2 inches above normal. Several commercial fishing boats and a mobile home damaged. Several fishing camps flooded. More than 800 acres of sweet corn and 200 acres of sugar cane destroyed on Nov. 8 when dike gave way to rising waters on Perry Island.
Melbourne (8 mis. E) Brevard County	13	2:01p							Gusty winds
Glen St. Mary Baker County	13	unknown							Hail
									Hail up to 1 1/2 inches in diameter reported
Florida (continued) Melbourne (15 mis. S)	13	5:45p							Hail
									Hail up to 1 1/2 inches in diameter reported
Eithlo (11 mis ENE Orlando) Orange County	13	10:04p							Funnel aloft
Beville's Corner (9 mis. SW Leesburg) Sumter County	13	afternoon	3	150	0	1	5	0	Tornado
									Ten buildings, 3 homes, 11 mobile homes partially damaged. Communications and electrical power disrupted in 5 sq. mi. area. Two deaths attributed indirectly in 2-car collision on SR 476, a few miles from tornado area. Damage estimate is property \$60,000; utilities, \$20,000; another \$7,000 damage to a rare felins breeding compound where several rare animals were injured and/or killed; other \$3,000 in miscellaneous.
Inverness Citrus County	13	afternoon			0	0	3	0	Tornado
									Damages to a nursery near Lecanto reported and a trailer was destroyed with two trailers suffering moderate damage in Pine Lake development south of Floral City. No injuries. Damage estimate approximately \$1,000.
Lake Wales (3 mis. E) Polk County	13	6:20-9:30p			0	0	4	0	Lightning and thunderstorm
									Auto Parts Sales Co. destroyed by fire which was started by lightning. Also destroyed was an automobile which could not be saved by fire fighters. Damage estimate at \$30,000
Okeechobee (32 mis. SW Vero Beach) Okeechobee County	14	1:20p			0	2	4	0	Tornado
									Three trailers demolished and 2 persons injured about 7 miles north of Okeechobee. A few minutes earlier the tornado hit Dry Lake dairy area about 6 miles west of Okeechobee. Several losses at this location were damaged but there were no injuries. Also damaged were a dairy barn and a 14 foot boat.
Destin (6 mis. S Valparaiso) Okaloosa County	19	4:00a							Damaging wind
									A crane on Destin Bridge blown over onto Highway 90. Bridge was blocked several hours.
Georgia Southeast	31-1				0	2	0	0	Heavy rains
									Extremely heavy rainfall occurred in the southeast coastal area on October 31-November 1. The heaviest amounts were reported in Camden County where several unofficial measurements exceeded 10 inches. Many homes and businesses were flooded at Kingland and St. Marys and numerous bridges, roads, and streets were washed out. Two people were injured at St. Marys when the road gave way under their car. Charlton County had up to 8 inches of rain with an average over the County of 6 to 7 inches. Amounts decreased to the north and west but Savannah had just over 5 inches and Waycross received almost 5 inches. Street flooding was reported in these places and several other communities. Light wind damage was also reported in Savannah where speeds reached 33 miles per hour.
Hawaii Hawaiian Islands	5	Daytime			0	0	4	0	High winds
									Unusually strong high pressure 1,200 miles north Hawaiian Islands caused strong to gale force trade winds, strongest through mountain passes and to lee of mountains. Highest recorded wind east-northeast 46 miles an hour with gusts to 69 at Kameela Airport, Hawaii Island (elevation 2,665 feet) at 9:55 a.m. Many areas recorded gusts 40 to 45 miles an hour. Dust lifted from numerous construction sites along dry west Maui coast to hundreds of feet elevation blanketed sections of area, greatly reducing visibility. Newspaper reported that dust reached Kahoolawe Island, 15 miles to south. Several trees downed, utility poles and lines and 6 roofs damaged by wind on west Maui. Police damage estimate -- \$6,350.
Honolulu Airport, Oahu Island	12	4:53 p.-5:05 p.							Funnel cloud
									Observer at WFO Honolulu reported very thin, dark-grey pencil-like funnel cloud distant southeast and moving northward half hour prior to arrival of heavy thunderstorms accompanying cold frontal passage. Funnel, 1,000 feet below scattered cloud base at 2,500 feet at lowest extension, kept extending and retracting into cloud base and was visible until obscured by approaching showers. Wind at WFO Honolulu east-southeast 12 miles an hour.
Honolulu Airport, Oahu Island	13	11:25 a.-11:33 a.							Funnel cloud
									Greyish funnel cloud moving eastward in conjunction with rain-shower sighted to southeast over ocean about 5 miles from Diamond Head by observer at WFO Honolulu. Funnel extended to within 1,000 feet of sea surface from one of many scattered clouds with bases at 2,300 feet; wind at WFO Honolulu southeast 11 miles an hour.

See reference notes at end of table.

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					KILLED	INJURED	PROPERTY	CROPS	
Hawaii (continued) Kona Airport, Hawaii Island	20	10:00 a.- 10:10							Funnel cloud
									Tower personnel reported funnel cloud 5 miles to northwest extending from scattered clouds with bases at 2,500 feet. Wind at Kona Airport, south 7 miles an hour.
Idaho			None reported						
Illinois			None reported						
Indiana			None reported						
Iowa			None reported						
Kansas			None reported						
Kentucky			None reported						
Louisiana Rapides Parish	4	Early morning			0	0	0	0	Smog
									City police closed some roads to traffic in north outskirts of Alexandria because of normal fog mixed with smoke from city dump to form smog which became very dense between 1:30 and 2:30 a.m. Deputy Sheriff said he could not see his hand stuck out at arm's length from patrol car. Two minor traffic accidents.
Jefferson Parish	13	Early morning			0	0	5	0	Lightning
									Lightning struck Washington Elementary School in Kenner before students arrived, causing fire which destroyed 12 classrooms; only library, cafeteria, and one classroom left standing. Damage estimated \$200,000.
North and Central Parishes	17-18	Morning-afternoon			0	0	4	0	Rain
									Unusually heavy rains—the first of any consequence at some places since last spring—particularly in the Northwest Division and northern portions of the North Central Division, resulted in outbreaks of minor traffic accidents in Shreveport, Minden, and Alexandria. Two-day precipitation totals of 5 to 9 inches reported over area from Cadee to Union Parish. Totals heaviest for duration since July 1933 several points. Little significant flooding, however, due to extended dry period.
Calcasieu Parish	18	1:12 p.			0	0	3	0	Wind
									Strong winds, accompanying squall line in advance of cold front, moved mobile home from blocks, knocked down another, damaged two sheds, downed powerlines, trees, and limbs in Westlake. Power and telephone service briefly disrupted. Milk truck damaged by falling tree.
Maine	5				1	0	5	0	Wind, rain
									Wind toppled many trees and limbs, blocking roads and knocking down utility lines. Outages in Bangor closed International Airport for about 1 1/2 hours. A falling tree smashed a van at Old Town. A tree damaged a home in Bangor. In Waterville a wall was blown down, damaging a car. In Belgrade a roof was blown off. In Castine a tree demolished a car and damaged a home. In Castine unofficial reports of wind reached about 75 mph, while estimates of 80 mph were given for Kittery Point. Many boats and coastal installations were damaged. A student was swept by high surf into the sea to drown at Great Head. Heavy rain caused road washouts and flooding of low areas and cellars.
Maryland Coastal area of Southern Eastern Shore	2				0	0	0	0	Tidal flooding
									A low pressure system, moving north-northeastward along the coast, brought brisk easterly winds which, associated with tides 2 to 2 1/2 feet above normal, caused some minor flooding along the Atlantic coast. A sustained wind of 40 miles per hour and wind gusts up to 55 miles per hour were reported at Assateague State Park. Also, high tides inundated parts of lower Dorchester County and made roads nearly impassable at Hooper Island.
North-central and north-eastern portions	14	Late afternoon			0	0	4	0	Wind, hail
									Strong gusty winds, hail to moth-ball size and locally heavy rainfall were associated with severe thunderstorm activity. Damage was mainly caused by wind. Two large buildings were unroofed near Darlington, Harford County.
Garrett County area	14	Most of day			0	0	0	0	Snow
									The season's first heavy snowfall totaled as much as 7 inches.
Massachusetts Eastern	3				0	0	5	0	Rain, wind
									Wind toppled trees, limbs during early a.m. hours, breaking utility lines and causing service outages in many communities. Thousands of homes were affected. Heavy rain, from 1 to 4 inches, caused local flash flooding of cellars, streets, and underpasses, disrupting morning rush-hour traffic. A dock and boat at Hyannis were damaged. A 28-ft. boat was grounded near Salem. Coast battered by high storm tides.
State	4				0	0	3	0	Lightning, hail
									Thunderstorms caused scattered lightning damage. Scattered hail, but no damage reported.
State	5				0	0	4	0	Wind, rain, snow
									Wind and high storm tides damaged boats and installations along the coast. Some tree limbs toppled by wind. Some minor flooding by heavy rain. Heavy snow in some higher Berkshire County elevations, with up to 9 inches reported at Mt. Washington, where snow and fallen branches made roads impassable.
Chester	19-20	11:30 pm-midnight			0	0	2	0	Wind, lightning
									Thundersquall wind measured at 60 mph. Heavy local rain.
Central and southern	26	7-9 am			0	0	0	0	Glaze
									Glaze caused very hazardous road conditions over extensive areas. Numerous accidents and three deaths resulted from skidding on icy roads.
Michigan			None reported						
Minnesota			None reported						
Mississippi NW Mississippi	11-12		?	?	0	0	?	0	Rain, Hail
									A cold front moved SE and brought some locally heavy thunderstorms; little if any damage reported. COAHOMA COUNTY: Clarksdale paper noted rain began on 11th about 4:30 p.m., "continued until nearly midnight" and "frequent flashes of lightning." The Clarksdale Water and Light Department measured 2.04 inches of rain, the heaviest in almost a year (3.30 inches recorded Nov. 28, 1968). Local insurance companies indicated few rain or water damage claims; Assistant City Engineer reported leaves stopped up some storm drains and a few sections of city streets flooded. WASHINGTON COUNTY: Hail soon after midnight in parts of Leland; it fell about 15 minutes accompanied by big drops of rain, was preceded and followed by light rain. Man in Leland was awoken by hail hitting glass and he went out on house terrace; he reported there was no round hail stones, all were small cylindrical shaped, the majority the size of a little finger or smaller, "they were from one to two inches long," and partially covered terrace. No hail damage reported.
Missouri			None reported						
Montana			None reported						
Nebraska			None reported						
Nevada			None reported						
New Hampshire Southern	5				0	0	4	0	Wind
									Wind and high storm tides battered boats and coastal installations. Wind toppled tree limbs, causing utility outages. In Hampton a car was damaged by a fallen limb.
New Jersey			None reported						
New Mexico			None reported						
New York East Central and Central	5-6	late a.m. to late a.m.					5		Snow, wind, rain
									Heavy wet snow caused havoc to utility wires, poles and tree limbs in a 9-county area from Cortland and Broome Counties eastward to the Catskill Region. Retrogression northwesterly of coastal low to central New York produced from 6 inches of snow in lower elevations up to 15 to 20 inches in parts of Chenango, Delaware and Ulster Counties. Power and phone outages from broken wires and poles were general over area and lasted from 12 to as much as 60 hours before restored. Schools and businesses closed, some dairy farmers forced to dump milk and food spoilage at supermarkets re-

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					KILLED	INJURED	PROPERTY	CROPS			
New York (continued)											
									ported due to power failure. One barn burned when ignited by downed live wires; another had roof collapse due to weight of heavy snow. Winds up to 50 mph, caused scattered damage to utility lines, trees and limbs in central counties from Tompkins and Cayuga northward to Jefferson. Heavy rains of up to 2.5 inches occurred in the Hudson Valley with light glaze reported in the higher elevations east of river. Damage from ice accumulations was minor.		
Lake Erie Counties	15-16	p.m. to early a.m.							Snow		
									Lake-effect produced 10 to 14 inches of snow in narrow band from the Erie peninsula of Ontario (province) across Grand Island and northern Erie County to Lockport, Niagara County. Highway travel became very hazardous with many auto accidents, a few fatal. Chautauque County areas near Lake Erie also hampered by 5 to 10 inches of snow. Tug Hill section to eastern lee of Lake Ontario reported local snowfall of 12 to 20 inches. Storm damage limited to very widely scattered breaks in power lines.		
State, except southeast	19-20	p.m. to late a.m.			2	5			Wind, snow		
									Gale winds preceding and accompanying passage of sharp cold front buffeted all sections, except for diminished strength in the southeast. Short duration winds or gusts of 50 to 65 mph prevailed in western, central and northern sections, decreasing to 40 mph, or less in lower Hudson Valley and coastal counties, as temperatures in 50s late on 19th dropped to 30s by morning of 20th after frontal passage. Most communities from western half of State to St. Lawrence Valley and Adirondacks reported extensive breakage of utility lines and tree limbs. Mobile homes or camp trailers were overturned and variously damaged in Chautauque, Wyoming, Yates and Jefferson Counties. Buildings unroofed at Batavia and Malone and 100-ft. radio tower blown over near Oneonta. Cars or homes damaged by falling limbs in scattered communities. Structures under construction at Arcade and Medina had brick or block walls blown down. Two persons sustained minor injuries from flying glass in Buffalo as ship activity hampered in harbor by level of Lake Erie up to five feet above normal. Snowfall of up to 6 inches in most upstate areas followed frontal passage but lake-effect generated up to 12 inches in suburbs north of Buffalo. Wind damage to power lines and trees widely scattered in upper Hudson Valley and Lake Champlain region.		
State, except coastal	30-1	late p.m. to late a.m.							Snow		
									Low pressure system moving southeast from central Ontario across New York produced moderately heavy snowfall all sections except immediate coast. Main effect of storm was creation of extremely hazardous driving conditions on many highways clogged with heavy Thanksgiving weekend traffic. Rash of auto and bus accidents occurred all sections with some fatalities and numerous persons injured. Air travel hampered near Great Lakes. Schools closed on 1st in St. Lawrence Valley. Snowfall yields 7 to 10 inches along Great Lakes to northern valleys and Adirondacks with 3 to 6 inches generally southern half of State.		
North Carolina Coast - & scattered inland areas.	1-2				1	0	5	4	Wind, rain		
									A low pressure storm passed northeastward through the coastal waters, its center moving from near Jacksonville, Florida, on the morning of the 1st to near Hatteras on the morning of the 2nd. Winds reached about 60 miles per hour in highest gusts recorded on the beaches, and highest tides reported were about three feet above normal. A young college student, male, drowned when a boat capsized in the Neuse River below New Bern. Several ocean front piers were damaged. Moderate beach erosion. Scattered areas inland to the center of the state also had high winds, blowing down trees, causing power and telephone outages, and damaging roofs. Heavy rain with the storm caused some flash flooding and depreciation of crop quality, but was mostly beneficial.		
Statewide	19						4	0	Wind		
									A sharp cold front passage caused wind gusts to about 50 miles per hour in scattered areas. Some tree limbs broken, and power and telephone outages.		
North Dakota									None reported		
Ohio Poland Area, Mahoning County	18	Before 11:00a					4		Wind		
									Trees were downed and a roof was blown off a motel on Route 7 west of Poland. Wind gusts which caused the damage were apparently associated with an active cold front which passed through the area.		
Southern Ohio	19	8:00p							Earth tremor		
									An earthquake was felt over southern Ohio. No damage was reported from the tremor.		
Oklahoma											
Tulsa, Creek, Okmulgee, Wagoner, and Muskogee Counties	11	6:15a.-8:00a.					7	0	Hail and sleet		
									A storm, producing hail and sleet, developed in northern Creek and western Tulsa Counties and moved southeastward across southern Wagoner County, northern Okmulgee County, and northern Muskogee County. Hail, mixed with sleet, was reported 3 to 5 inches deep in some areas and made the ground look as if covered by snow. Although most of the hail was pea size, golf ball size stones were reported in Tulsa, Broken Arrow, and Muskogee. The only damage reported was minor damage to roofs and autos in scattered areas.		
Oregon									None reported		
Pacific									None reported		
Pennsylvania Monroe, Lackawanna, Pike, Susquehanna, Wayne Counties	5-6	Night					3		Rain, Snow		
									Heavy snow disrupted electrical power and telephone service for some 10,000 customers. Trees were broken off.		
York, Lancaster, & Chester Counties	14	Early evening					4	3	Lightning		
									Near West Chester a barn was set on fire by lightning. The total damage was estimated at \$35,000. Power failures occurred in York as well as Lancaster County.		
Northwestern Pa.	19	Day					4	3	Wind		
									High winds caused extensive damage in many locales, interrupting telephone services, felling trees, and short-circuiting power lines. At Kittanning, Armstrong Co., part of the roof of a warehouse was torn loose, causing extensive water damage to the merchandise as the rain entered the building. At Philipsburg, Centre Co. the wind tore off signs and broke store windows. In the same county a silo was damaged by high winds with damage estimated at \$1,300. In Crawford County part of the grandstand roof at the fairgrounds was blown away with \$100 damage resulting.		
Puerto Rico Eastern Portion	9	9:00 a.-7:00 p.					3	0	6 C	Heavy Rain	
									A fast moving squall line moved across Puerto Rico early in the morning causing heavy rains mostly in the eastern half of the island. The higher level interior sections received up to 7 inches most of which fell in a six hour period during the morning. At one time 17 rivers were in flood stage or above. The more serious floodings occurred in the areas of Pajardo-Ceiba, Gayry-Coamo, Morovis-Manatí, and Mayaguez. The bridge from Juana Diaz to Ponce was destroyed. Heavy land slides damaged and blocked roads in most of the eastern interior sections. Civil Defense reported an estimated 13 houses destroyed, 123 houses damaged, 6 bridges destroyed and 10 bridges damaged. Crop losses, mostly in the minor crop and tobacco areas, resulted from flooded fields and rain erosion.		
Eastern and Central Portions	22-23	Morning					1	0	5 C	Rain	
									Steady moderate to heavy rains continued all day on the 22nd and thru the morning of the 23rd with the passage of a slow moving westerly trough over the island. Flooding again occurred in various barrios of Bayamon, Toa Alta (where one person drowned while crossing a bridge), Carolina, Aguadilla, Maunabo, San Lorenzo, Comerio, Pajardo, Canovanas, Ponce and San Juan. Landslides and washouts occurred in many of the interior roads. Some crop damage again occurred in south coast minor crop zones and interior tobacco seed beds.		
Rhode Island Statewide	3	1-8 AM					0	0	5	0	Rain, wind
									Rain from mid-afternoon of 2nd until noon on 3rd combined with wind to inundate coastal areas with 3 foot waves and to locally flood interior sections. Storm rainfall totals ranged from 1 1/2 to 4 inches with the heaviest amounts at Block Island and in areas about Narragansett Bay where some beach erosion occurred.		
Statewide	5-6	late AM-early AM					0	0	4	0	Rain
									Coming close behind the heavy rains of Nov. 2-3, additional falls of 1-1 1/4 inches caused considerable local flooding.		
Coastal areas	9-10	AM - AM					0	0	4	0	Rain and wind
									Major storm produced 8th consecutive day with significant rain which caused considerable flooding ashore in areas round-about Narragansett Bay; but wind caused considerable damage afloat in the Bay as several sloops were demasted or sunk by action of wind and wave.		

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South Carolina Coastal Area	1	All day	185	*75	1	2	5	2	Wind, rain.
<p>A small but violent frontal cyclone moved northeastward along the entire coastline of the state. Wind gusts up to 55 knots were experienced in many locations. Rainfall rates reached and perhaps exceeded 1.50 inches per hour. Storm totals ranged from nearly 8 inches at Myrtle Beach to almost 14 inches at Edisto Island between Charleston and Savannah. Tides reached 8 feet above mean low water and flooding due to tides and rain was widespread along the coast as was beach erosion. The wind damage was mainly to tree limbs and roofs of buildings although some trees were blown down, store windows blown in and numerous light objects were blown around. Power outages occurred in many areas and were caused mostly by limbs and trees falling on lines. A steel pole supporting power lines fell on a bridge in Charleston blacking out sizeable sections of the city and county for 15 or 16 hours. There were many storm related minor auto accidents. A woman drowned in a yard in Charleston in one to two feet of water. Heavy seas caused the cargo to shift in the ship "Singapore Triumph" and she came into Charleston harbor with a 12 degree list. Two persons were injured on highway 61, northwest of Charleston, when a heavy branch fell on their car.</p>									
South Dakota	None reported								
Tennessee Eastern Tennessee	14				0	0	4	0	Snow, glaze
<p>Snowfall accumulation mostly traces to 1 inch, with a few greater falls locally over highest elevations. Precipitation fell mostly as light rain over rest of state. Weather was a contributing factor to several auto accidents.</p>									
Texas Jacksonville and vicinity, Cherokee County	18	3:30 p- 3:35 p	5	200	0	0	?	?	Windstorm, heavy rain
<p>A violent windstorm accompanied by torrential rain damaged property along a narrow path about 100 to 200 yards wide and three to five miles long across Jacksonville and extending east to northeast about three or four miles. The wind unroofed a portion of the D. L. Dotson residence on McNally Lane located three miles from the city. One witness reported that he saw a "black rolling cloud" drop down just ahead of him and said, "it became very dark and the wind was very violent." However, no actual funnel cloud or tornado was seen or heard. A total of 10.74 inches fell at Jacksonville on the 17th and 18th, of which 8.30 inches fell within 24 hours between 7:00 a.m. on the 17th and 7:00 a.m. on the 18th. High water threatened some houses in the vicinity of a creek near Brookside Drive, and large chunks of pavement, some as large as a foot or more in diameter, were washed from nearby San Marcos Street. The water entered at least one house on San Marcos Street.</p>									
Aransas Pass and vicinity, San Patricio County	26	10:45 p	?	*1	0	0	5	?	Windstorm, hail and rain
<p>A violent thunderstorm accompanied by winds measured at 78 miles per hour or higher, hail up to 1 3/4 inches in diameter, and 4.32 inches of rain battered the Aransas Pass area along a path estimated at one mile wide, and caused damage to property estimated at \$100,000. At 10:50 p.m., the Aransas Pass weather observation station recorded a peak wind gust of 78 miles per hour. Higher wind speeds were estimated in other parts of the city. At the Magobar Lodge on the sea wall, the wind speed indicator needle was bent when it hit the top of the scale on the dial type anemometer. The wind was estimated at 100 miles per hour. During the storm, the wind appeared to be blowing from "all directions". A total of 4.32 inches of rain fell during the storm, of which 3.50 inches fell within a 15-minute period between 10:45 p.m. and 11:00 p.m. Hail covered the ground in places, varying in size from 1/4 inch to 1 3/4 inches in diameter. The weather observer reported that the winds "seemed much stronger than during Hurricane Beulah (September, 1967)."</p>									
Nueces, Jim Wells, and San Patricio Counties	26	10:20 p- 11:50 p	50	1	0	0	4	0	Tornado, rain, windstorm
<p>Thunderstorms caused mostly minor wind damage along a path about 50 miles long, extending from Corpus Christi in Nueces County westward to Orange Grove in Jim Wells County. In most places the path of the damaged areas were 1/2 to 1 mile wide. Total wind damage was estimated at \$5,000, most of which was in the city of Corpus Christi. Property damage due to excessive rains, also mostly in Corpus Christi, was estimated at \$10,000. A small tornado touched ground in San Patricio County, one mile south of Taft on U. S. Highway 181. An unoccupied trailer home was overturned. Damage from the tornado was estimated at \$3,000.</p>									
Utah	None reported								
Vermont State	5				0	0	4	0	Wind
<p>Many instances of minor damage, mostly from falling limbs. Many utility outages. A tree fell on a home in Burlington.</p>									
Northern	20				0	0	4	0	Wind, snow
<p>Wind and snow broke tree limbs and caused utility outages in a number of communities.</p>									
U. S. Virgin Islands St. John	22	Afternoon			0	0	4	0	Rain
<p>A slow moving westerly trough caused heavy rains mostly in the afternoon which caused considerable washing out of roads and beach areas along the north coast of St. John especially in the Francis Bay area.</p>									
Virginia	None reported								
Washington	None reported								
West Virginia	None reported								
Wisconsin	None reported								
Wyoming	None reported								

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

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

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