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Storm Data

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Asheville, N.C.

1970

STORM DATA AND UNUSUAL WEATHER PHENOMENA

DECEMBER 1970

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
Alabama									
Damascus Community, Escambia County	16	2:30a			0	0	4	0	Wind
			High winds with a line of thunderstorms damaged 5 houses and damaged or demolished several garages and outbuildings.						
Alaska			None	Reported					
Arizona			None	Reported					
Arkansas			None	Reported					
California									
Napa Valley	3-4				0	0	4	0	Heavy Rain
		Heavy rains caused local flooding and damaged one highway bridge.							
Gorman	19				0	0	4	0	Heavy Snow
		Heavy snow with considerable drifting closed Interstate 5 south of Gorman, stranding 700 vehicles carrying 1,600 persons. Drifts in places exceeded 8 feet.							
Los Angeles 20 S	19	1:27 pm			0	0	0	0	Waterspout
		Waterspout reported by pilot.							
Los Angeles 10 W	21	9:45 - 10:00 am			0	0	0	0	Waterspout
		Waterspout reported by pilot.							
Colorado			None	Reported					
Connecticut									
Statewide	11-13	PM-PM			0	0	5	0	Snow, glaze
		Storm began as snow but turned to freezing rain before ending in flurries. New snowfall totals ranged from 2-8 inches along the coast to 10-13 inches in the north. The storm was notable because it caused a series of lengthy power failures in Berlin, Newington and New Britain and contributed to the demise of ten persons either shovelling snow or becoming involved in accidents while attempting to clear glazed windshields.							
	16-17	Eve-Eve			0	0	5	0	Snow, glaze, wind
		The second major storm of the month brought 2 to 4 inches of new snow along the coast and 6-14 inches in the interior before changing to sleet and freezing rain on the morning of the 17th and back again to snow before ending. Storm was accompanied by high winds which caused a 10-hour power failure in Mansfield and Coventry. High tides caused some flooding in New London. Storm memorable for contributing to 20 injuries and one death due to snow blower operation, many skidding accidents and many school closings.							
	22	AM-Eve			0	0	5	0	Glaze
		Although this storm produced only moderate snowfall, freezing rain in the late afternoon and early evening caused innumerable multi-car chain reaction accidents as wipers failed to clear windshields of glaze due to very low temperatures. This condition contributed to two deaths by motor vehicles.							
Delaware									
State	6	Afternoon			0	0	3	0	Wind
		Strong gusty winds tore down signs and inflicted other minor damage.							
Florida									
Venty Miami	15	10:40a							Funnel aloft
By 231 near 1k Butler Bradford County	16	4:45p					4		Damaging Winds
		Damaging winds out of the southwest destroyed two mobile homes, \$10,000 damage							
10 W Gainesville	25	5:40p							Funnel aloft
Venty Panama City	29	morning							Waterspouts
		Several waterspouts were sighted in Gulf of Mexico from Ft. Walton Beach to Panama City, one of which may have touched down briefly in a wooded area N of Panama City.							
Georgia									
Cartersville	15-16	Night			0	0	4	0	Windstorm
		The concrete block walls of a building under construction were blown over. Damage was heavy and the completion date of the carpet manufacturing plant was delayed by at least 3 weeks.							
Jackson	15-16	Night			0	0	4	0	Wind and rain
		Winds damaged the roof of a luggage manufacturing plant and heavy rains damaged finished luggage and raw materials.							
Americus, 9 miles south	16	7:45 a	Short	Narrow	0	1	4	0	Tornado
Georgia (continued)									
Whigham, 6 miles southwest	29	11:00 a	5	400	0	4	3	0	Tornado
		Storm hit a rural area near Sumter City and destroyed or heavily damaged 6 residences. One elderly lady was only slightly injured when trapped in her wrecked home. Trees and utility lines were also down.							
		Funnel observed by witnesses just touching ground. Residences heavily damaged. Trees and power lines down. Injuries minor. Storm moved east.							
Hawaii									
All Islands	25-29	7:30 a. Afternoon			2	2	5	4	Wind, Waves, Icing
		Strong northeast trade winds buffeted all islands with gusts estimated at 50 to 60 mph from high pressure cell approximately 800 to 1,200 miles north of the islands.							
		On Oahu, the winds ripped roofs off 3 homes, 2 apartments, and many garages and patios; toppled a 40-foot tree on a home, causing estimated \$3,000 damage; blew down trees, branches and spread debris onto roads making driving hazardous; snapped a power line, starting a brush fire in the Koolau Range; and caused scattered electricity outages.							
		On Maui, severe icing and strong winds knocked out power lines to TV transmitter atop 10,000-foot Mt. Haleakala. A light plane was flipped over by gusty winds while taking down a runway at Kahului Airport. In Lahaina, a roof was blown off a home, 2 persons treated for minor cuts from shattered plate glass restaurant window, tree branches snapped off, telephone poles tilted, signs knocked down and debris spread throughout town.							
		On Hawaii Island, a man knocked into the ocean by a giant wave while fishing off South Point, and his cousin, who jumped into the rough waters to rescue him, were swept out to sea and drowned.							
		Strong winds unroofed a home at Puako and a warehouse at Kawaihae and toppled 52 trees at Hapuna Beach Park and over 100 trees at Mauna Kea Beach Hotel. Falling tree branches knocked out power to over 100 homes mainly in the Kohala and Kai areas.							
		Vegetable crops suffered bruising damage and 7 acres of banana trees were toppled in Hawaii.							
Idaho									
NezPerce and Clearwater Counties southward	2-3	Noon to noon	Area	Area	0	0	?	0	Snowstorm
		Snowstorm of blizzard proportions caused drifting snow and low visibility conditions that stopped traffic, closed schools serving rural areas. State divisions hardest hit were the Central Mountain and Central Plains to the east. Winds to 60 mph were reported highland plains to the north and Upper Snake River Valley.							
Panhandle	4-5	Afternoon thru following day	Area	?	0	0	3	0	Snowstorm
		Snowstorm accompanied by lightning night of 4th that struck a tree and home at Dismet and area lightning display. 10-12 inches of snow accumulated.							
Pocatello, Bannock County	15	10:00 p.	1	50	0	0	3	0	Windstorm
		Winds estimated to 70 mph demolished steel building leaving it a total loss. Other damage adjacent areas limited.							
Southern Idaho	27-29	PM thru following day	Area	?	0	0	?	0	Snowstorm
		Twelve and more inches of new snow were left in Valley County 27th and eastward through night of 28th leaving many roads blocked at least temporarily, McCall eastward through the upper Snake River Valley. Winds to 45 mph made drifting worse upper Snake Valley.							
Lewiston to Moscow, NezPerce and Latah Counties	31	5:00 p.	?	?	0	0	?	0	Hailstorm
		An unseasonal hailstorm left roadways slick and treacherous for two hours south of Moscow.							
Illinois			None	Reported					
Indiana			None	Reported					
Iowa									
Sioux City, Woodbury County	3	9:00 a			1		4		Windstorm
Remsen, Plymouth County	3	3:00 p					4		Windstorm
Most of Iowa	10	Early a. m.					10	6	Ice Storm
		Worst in south central since 1961. 12 auto deaths due to ice.							
Ida Township, Grant County	10	1:00 p					4		Lightning
		About 5 miles south of Ida Grove.							
Keystone, Benton County	10	3:30 p					4		Lightning

See reference notes at end of table.

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					KILLED	INJURED	PROPERTY	CROPS	
Kansas Western two-thirds	3	Day			0	0	0	?	Dust
			Strong northwesterly winds caused considerable blowing dust. Wind gusts to 63 mph occurred at Russell just before noon and visibility was briefly reduced to 1/8 mile, or less, locally in the northwest portion.						
East central portion	15-16	night of 15-16			0	0	4	0	Snow
			Up to 7 inches of heavy, wet snow caused damage to power and communication lines from the Cottonwood Falls - Emporia area northeast to Topeka.						
Kentucky					None Reported				
Louisiana Plaquemines Parish	31	4:45-4:50p.			0	0	3	0	Tornado, funnel cloud
			Funnel sighted some 5 miles west of Coast Guard South Pass Light Station. Second funnel hit station at 4:48 pm. Winds estimated at west to northwest 100 m.p.h. and seas 4 to 6 feet. Minor damage: radio beacon antenna down; boom blown off dock; dock and catwalk handrails missing; 50-ft. pole with antenna blown down.						
Maine State	4				0	0	4	0	Snow, glaze, wind
			Snowfall totalled up to 6 to 12 inches in parts of north-central and northwestern portions, with blizzard or near-blizzard conditions in some areas. Freezing rain in the coastal section produced treacherous surfaces. Scattered damage from strong, gusty winds. Gusts to 35 mph reported at Rumford. Thunder heard in some areas.						
State	17-18				0	0	5	0	Snow, wind
			Snowfall totalled mostly 6 to 12 inches except 12 to 24 inches in the southwest and extreme west. Accompanying low temperature and strong wind caused near-blizzard to blizzard conditions. Many schools and businesses closed. Travel was slowed and brought near a standstill in the southwest. Wind toppled trees and limbs and caused utility failures. Some coastal flooding from high storm surge tides.						
Southwestern half	22-23				0	0	4	0	Snow
			Snowfall totalled mostly 4 to 10 inches but locally up to 15 inches. Transportation hampered.						
State	24				0	0	5	0	Blizzard, snow, wind
			Snowfall totals mostly 10 to 20 inches except up to two feet or more in southwest and locally in central portion and except only 3 to 6 inches in extreme north. Strong winds caused huge drifts. Full blizzard conditions for extended time within about 30 to 40 miles of the coast and near-blizzard conditions elsewhere. Falling trees and limbs caused utility outages. Travel hampered. Maine Turnpike closed. Many stranded motorists rescued by snow-mobiles. Storm extended into Christmas Day in northeast.						
Extreme southeast	26-27				0	0	4	0	Snow, wind
			Snowfall totalled about 12 inches along the eastern coastal area with strong winds again closing roads newly opened after the previous storm.						
Maryland Northeastern portion	4	Afternoon			0	0	4	0	Wind
			Winds, gusting reportedly to over 70 miles per hour, brought trees crashing down in more than 20 locations. A number of telephone and power interruptions were also attributed to the wind.						
Bethesda, Montgomery County	6	2:00 p.			1	1	3	0	Wind
			A 15-year old girl was killed when strong winds, reported gusting to over 50 miles per hour, toppled a large dead tree onto the roof of the convertible car she was driving. The other passenger, her 5-year old brother, was treated for minor injuries.						
State and District of Columbia	6	Afternoon			0	0	4	0	Wind
			Trees were uprooted and power poles snapped off. Scattered power blackouts were reported. Two ships attempting to dock in Baltimore Harbor were damaged by waves whipped up by wind. The White House Christmas Tree was blown down.						
Garrett County area	21-22	Evening-morning			0	0	4	0	Glaze
			A very severe ice storm toppled trees and downed many power and telephone lines. Glaze formed in the rain and near 30-degree temperatures. In western areas ice thickness was reported up to one-inch on wires and branches while in eastern areas it was up to two-inches. Rainfall, over two inches from the 21st through the 23rd, caused minor flooding.						
Hillington (near)	24	1:30 p.			1	1	3	0	Wind
Maryland (continued)									
			A small car, according to State Police investigators, apparently went out of control when struck by strong gusty winds, left the highway and overturned. The one passenger was killed while the driver was injured.						
Massachusetts State	4-5				0	0	4	0	Wind, lightning
			Strong gusty winds caused scattered damage to limbs, etc. Gusts to 65 mph at Chester on 5th. Scattered thunderstorms on 4th, accompanied by hail at Springfield.						
State	17				0	0	5	0	Snow, rain, wind glaze
			Snowfall totalled 6 to 12 inches inland but locally more in the western portion where heavily all fell as snow. Precipitation changed to freezing rain and to rain in most areas, with nearly all rain on Cape Cod. Schools closed in most areas and many activities were cancelled. Travel greatly hampered. Heavy rain and melting snow in the east caused much local flooding of roads and cellars. Storm surge tides up to 3 feet above normal also flooded and eroded some coastal roads and beaches. Many utility failures from flooded cables. Strong gusty winds broke windows, damaged roofs, felled trees and limbs, and caused utility outages. Gusts to 80 mph reported at Wings Neck, Pocomset. Several deaths attributed indirectly to storm.						
State	22-23				0	0	4	0	Snow, glaze
			Snowfall totalled mostly 2 to 6 inches with periods of freezing rain on afternoon of 22nd. Roads very slippery and skidding accidents numerous. Schools closed in some areas.						
State	23-24				0	0	5	0	Snow, glaze, wind
			Snowfall totalled 5 to 10 inches in most areas except tapering to little or none on Cape Cod. Glazing from freezing rain at times much of state. Scattered damage by strong wind. Travel very difficult and transportation schedules delayed or cancelled. Thousands of travellers stranded. Many activities cancelled, with last-minute Christmas shopping difficult or impossible.						
Cape Cod and Islands	26				0	0	4	0	Snow, wind
			The final storm of the month struck only a glancing blow, bringing heavy snow, generally 4 to 7 inches, to Cape Cod and the island area, where this was the heaviest snow for season to date. Transportation to the Islands was cut off by wind and high seas. Many utility failures. Roads treacherous, with many skidding accidents.						
Michigan State-wide	3-4				0	0	7	0	High wind - Snow
			Intense storm produced widespread precipitation, thunderstorms, and strong winds of 45 to 55 mph. High waves caused considerable damage to lakeshore property, including damage to beaches, docks, lawns, breakwater, etc. An estimate (preliminary) of \$8 million dollars in damage occurred to Detroit Water System's cofferdam in lower Lake Huron where 10 to 20-ft walls were reported. Other damage included toppled walls around outdoor theaters, numerous outdoor signs, and several storefronts caved in. Northern lower Michigan and central and western Upper Peninsula received from 10 to 20 inches of snow. Strong winds piled snow in 4 to 5-ft drifts, closing Interstate 75 for a period of time. Snow and wind caused power failures in many areas. Many schools in northern lower Michigan and the Upper Peninsula were closed. Thunderstorms accompanied the storm and at Onekama, in Manistee County, a cottage was destroyed by fire believed to have been started by lightning.						
Central Lower Michigan	10-11				0	0	4	0	Snow
			10 to 15 inches of snow fell in an east-west band from west central to east central lower Michigan. A storage shed roof of a lumber company in Holland, Michigan, collapsed because of the snow load. Estimated damage \$10,000.						
Minnesota Wadena-Grand Rapids-Duluth Areas	3	11:00 a 7:00 p			0	0	4	0	Small severe snowstorm
			Temperatures in mid 20's, winds between 40 and 50 mph, visibilities near zero and snowfalls of 12 inches in the Wadena-Grand Rapids-Duluth areas halted almost all forms of travel except snowmobiles from about 11:00 am to 7:00 pm on the 3rd and many streets and roads were not opened until the 4th. Duluth traffic was the worst because of wet snow and ice coated the hills and caused as many as 10 to 20 auto pile-ups. Minor damage to autos were numerous, however only a few persons received minor injuries. This condition was immediately followed by very heavy snowfall causing people to abandon their autos. Heavy lightning during the snowstorm also caused power outages at several locations. The snowstorm resulted from a fast moving low pressure system which dumped snow on a 100 mile wide line from Fargo through Duluth. The western part						

See reference notes at end of table.

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Minnesota (continued)										
Southern Minnesota	10	All Day								of State received 3 inches and central to eastern part 8 to 12 inches of snow. Heavy snows from 8 to 12 inches was common across all southern part of the State. Little to no snow north on a line through Minneapolis-St. Paul.
Mississippi Harrison County	15	10:15 p.			0	0	?	0		Heavy Rain
Leflore County	22	7:05 p.								Funnel Cloud Aloft
Simpson County	23	7:15 p.	4	up to 300	0	0	3	?		Tornado
Hinds County	23	About 7:20 p.			0	0	?	0		Wind
Hancock and Harrison Counties	29	9:55 a.-10:20 a.	19	?	0	0	4	3		Tornado, Funnel Clouds Aloft
Harrison County	30	1:59 p.								Funnel Clouds Aloft
Missouri			None	Reported						
Montana Park County	16				0	0	3	0		Strong wind
Park County	30	12 p.m.			0	0	4	0		Strong wind
Nebraska	1-3				0	0	5	6		Damaging Winds
Nebraska	10				0	0	5	0		Snow and Ice
Nevada Northern Nevada	2	A.M.-P.M.			0	5	?	0		Snowstorm
Pyramid Lake, Washoe County	7	P.M.			2	0	?	0		Windstorm
Gardnerville, Douglas County	15	P.M.			0	0	?	0		Windstorm
Northern Nevada	16-19	A.M.-P.M.			0	0	?	0		Snow and Windstorm
New Hampshire State	4				0	0	3	0		Snow, glaze, wind
State	17				0	0	5	0		Snow, wind
State	22-23				0	0	4	0		Snow
State	23-24				0	0	5	0		Snow, wind
New Jersey Northern third of State	12-13							4		Glaze
New Mexico Southeastern Counties	15	11:00 a.-3:00 p.			0	1	4	0		Windstorm

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New York																																																											
Buffalo	5	p.m.						4			Wind																																																
<p>During period of snow squalls strong gusts of wind caused localized property damage. Car in industrial parking lot was lifted by wind, blown several yards and dropped onto two other vehicles with considerable damage to all three. City transit bus forced into curb by gust and collided with light pole. Scattered power failures occurred in metropolitan area.</p>																																																											
State, except western quarter	16-17	p.m. to p.m.									Snow, rain																																																
<p>General storm of heavy snow most of upstate with rain totaling 1.0 to 1.8 inches in coastal sections. Snowfall of 8 to 14 inches prevailed upstate except 4 to 6 inches in lower Hudson Valley and 2 inches near Lake Erie; more than 15 inches fell in some northern areas. Ellensburg measured 22 inches, Booneville PO, Alexandria Bay 14, Binghamton 14, Albany 13, Syracuse 10, Amsterdam 10, and Norwich 9 inches. Main effects of storm were widespread closure of schools, curtailed industry and very hazardous driving conditions from Rochester and Genesee Valley eastward to the Hudson Valley and throughout northern half of the State. Snow was of high density. Lumber warehouse roof collapsed in Auburn. Fortunately, there was only minor occurrence of blowing and drifting of snow.</p>																																																											
Westchester County (southern)	17	a.m.						5			Wind																																																
<p>Winds gusting to 50 mph. affected coastal sections during heavy snowfall upstate, described above. Apartment complex in New Rochelle had 200 feet of roof ripped off, rendering 12 families homeless. Roof debris heavily damaged several parked automobiles. Wind also toppled large trees onto a home in Mount Vernon and another in White Plains with considerable structural damage resulting in both cases.</p>																																																											
Ancramdale, Columbia County	17	p.m.						4			Wind																																																
<p>Wind demolished a vacant mobile home near this rural village in southeastern part of county.</p>																																																											
State	22-24										Snow, freezing rain, sleet																																																
<p>A complex development of low pressure systems to the west and south of the State brought a variety of weather over most of a 3-day period. The eastern half was blanketed by 8 to 12 inches of snow with 15 inches or more occurring locally in the Adirondacks. The western half and coastal sections had a mixture of freezing rain, sleet and snow accumulations of 2 to 6 inches. Highway travel in all sections rendered very slippery and hazardous. Drifting and blowing of snow, however, was minor.</p>																																																											
North Carolina																																																											
Statewide	1-15	--						6	0		Dry weather, wind, low humidity																																																
<p>Persistent lack of rainfall, with frequent periods of unusually low humidity and high winds, caused periods of statewide fire hazard. Thousands of acres of forest and grasslands along with several houses were burned before rain came at mid-month.</p>																																																											
Forsyth, Wilson Counties	4	Noon			0	1	4	0			Wind																																																
<p>Two cement block walls blown down at Winston-Salem construction site. Worker buried in debris and received back injury. Carport ripped from home in Wilson County.</p>																																																											
Nash, Wake Counties	16	Aftn & evening						4	0		Wind																																																
<p>Strong, gusty winds blew down trees, disrupting power facilities. Several outbuildings demolished or damaged.</p>																																																											
Southern Coast	21	--						4	0		Wind																																																
<p>Low pressure storm moving up coast caused gales and high seas. Some beach erosion and damage to piers, roofs and utility lines. Sand storm caused snow, sleet, rain and freezing rain various parts of North Carolina.</p>																																																											
North Dakota																																																											
Ohio																																																											
Northern two thirds of State	3-4	2:00p-9:00a			0	0		5			Wind, electrical, and hail																																																
<p>Turbulent weather conditions were common over most of State. Wind gusts of 83 mph were recorded near Zanesville. Several areas reported small hail. Wind damage was common. At mid-morning on the 4th wind gusts of 45 to 50 mph were still being recorded through northern Ohio. Trees, roofs, utility lines, windows, TV antennas, and signs were the most common items which succumbed during this storm.</p>																																																											
North and Central areas	21	Evening			0	?					Freezing rain																																																
<p>Freezing rain resulted in poor road conditions in several areas.</p>																																																											
Ohio (continued)																																																											
Northwest Ohio	12	Morning						0	2	?	Freezing rain																																																
<p>Freezing rain was particularly widespread in Fulton, Lucas, Hancock, and Wood Counties. Ice covered roads resulted in many traffic accidents. At least two persons went to hospitals with injuries after falling on ice.</p>																																																											
Oklahoma																																																											
											None Reported																																																
Oregon																																																											
Clatsop and Tillamook counties	1-7	all days-8:00a,7th	30	60	1	0		5	?		Rain																																																
<p>Daily rains along the northern coast of Oregon provided 4.00 to 5.25 inches of moisture across both counties with accumulation of 6 to 9 inches of snow on the upper slopes of the Coast Range by the 3rd. Melting of the snow pack by an additional 3 to 7 inches of rain during the last 48 hours ending about 8:00 a.m. on the 7th produced rapid runoff and local flooding along the coastal streams, particularly along the North Fork of the Nehalem River. Greatest daily rainfall of 4.40 inches fell at Tillamook 13 ENE by 8:00 a.m. on the 6th with a period total of 12.32 inches recorded. A farmer drowned near Nehalem when swept from his horse while fording the Nehalem River. Sections of U.S. 101 were flooded north of Tillamook. Two homes were damaged by flooding near Elsie with one shifted off its foundation. Slides were reported along SH 26 and a new highway grade sunk 8 inches from the heavy moisture. Additional details on the general flooding can be found in the December 1970 issue of CLIMATOLOGICAL DATA NATIONAL SUMMARY.</p>																																																											
Lane County	2-3	8:15p,2nd 10:00a,3rd	40	20	0	0		4	0		Wind																																																
<p>Wind blowing wet snow from power lines began a chain reaction that knocked out power service to about 1,000 customers in the Blachly-Highway 36 area at 8:15 p.m. The outages ranged from 3-1/2 to 20 hours. The storm passage in the morning of the 3rd produced wind gusts up to 48 miles per hour at the Eugene municipal airport at 6:30 a.m. and again at 8:30 a.m. Strong winds at sustained speed of 32 to 40 miles per hour began about 7 a.m. and caused spotty power outages from broken limbs in the Lorain area, Springfield, Junction City, and Eugene. About 100 homes were also without telephone service. Downed trees and branches also dented a few automobile roofs and hoods.</p>																																																											
Union and Wallowa counties	3	2:00a-2:00p	60	40	0	0		4	0		Wind																																																
<p>A passing storm caused damaging wind across the two county area with drifting snow in Wallowa County causing five-foot drifts on the Upper and Lower Prairie Creek roads east of Joseph. Schools closed two days at Joseph where windows were blown out of a tavern and hotel and roofs were blown off an insurance office building and several hay barns. Four light poles were toppled in Wallowa County and six primary lines knocked out causing outages up to 36 hours. Some 50 telephones were also affected by the storm. At Union, gusts reached 48 mph at 8:00 a.m. but higher winds were suspected earlier in the morning when trees blocked many streets and toppled on to power lines disrupting service all day. One toppled pine tree knocked a chimney from one home. Several utility buildings were blown over at a trailer park and a sheep building upended over a fence at the Union Experiment Station.</p>																																																											
Clatsop County	10	4:00p			0	0		3	0		Wind																																																
<p>A Pacific storm moving onshore caused gusty winds up to 67 miles per hour during two or three strong gusts. The highest one-minute wind velocity only reached 29 miles per hour. Wind toppled several trees and many branches causing downed lines, several power outages, and damaged cars. Lines were also downed in the Seaside area with 40 telephone customers out of service in the county.</p>																																																											
Western third of State	15-16	noon,15th-6:00a,16th			0	10		5	0		Wind																																																
<p>A strong Pacific storm developed off the Oregon-Washington coast and moved northward and weakened off the west coast of Vancouver Island by the end of the fourth day. The associated cold front of this storm crossed the Oregon coast at Newport at 12:55 p.m. with fast-mile of 60 mph when winds shifted from SSW to WSW. Gale force winds of 40 mph and above were sustained from 4:30 p.m. to 5:30 a.m. Sustained wind greater than 50 mph lasted from 6:00 p.m. to 1:00 a.m. The fastest observed mile was from the SSW at 66 mph at 6:49 p.m. Other locations recording high winds were:</p>																																																											
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>LOCATION</th> <th>FASTEST MILE</th> <th>FASTEST GUST</th> <th>TIME</th> </tr> </thead> <tbody> <tr> <td>North Bend FAA</td> <td>52</td> <td>--</td> <td>1:13 p.m.</td> </tr> <tr> <td>Klamath Falls WSO</td> <td>--</td> <td>50</td> <td>4:05 p.m.</td> </tr> <tr> <td>Medford WSO</td> <td>32</td> <td>63</td> <td>4:16 p.m.</td> </tr> <tr> <td>Pendleton WSO</td> <td>35</td> <td>49</td> <td>5:25 p.m.</td> </tr> <tr> <td>Salem WSO</td> <td>29</td> <td>41</td> <td>5:55 p.m.</td> </tr> <tr> <td>Sexton Summit WSO</td> <td>63</td> <td>--</td> <td>--</td> </tr> <tr> <td>Cape Blanco</td> <td>--</td> <td>86</td> <td>--</td> </tr> <tr> <td>Eugene WSO</td> <td>39</td> <td>46</td> <td>6:42 p.m.</td> </tr> <tr> <td>Portland WSPFO</td> <td>38</td> <td>54</td> <td>9:17 p.m.</td> </tr> <tr> <td>Portland Morrison Bridge</td> <td>36</td> <td>56</td> <td>--</td> </tr> <tr> <td>Astoria WSO</td> <td>29</td> <td>51</td> <td>12:01 a.m.</td> </tr> </tbody> </table>												LOCATION	FASTEST MILE	FASTEST GUST	TIME	North Bend FAA	52	--	1:13 p.m.	Klamath Falls WSO	--	50	4:05 p.m.	Medford WSO	32	63	4:16 p.m.	Pendleton WSO	35	49	5:25 p.m.	Salem WSO	29	41	5:55 p.m.	Sexton Summit WSO	63	--	--	Cape Blanco	--	86	--	Eugene WSO	39	46	6:42 p.m.	Portland WSPFO	38	54	9:17 p.m.	Portland Morrison Bridge	36	56	--	Astoria WSO	29	51	12:01 a.m.
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<p>Extensive scattered damage was reported west of the Cascade Mountains with numerous downed trees and limbs causing over 6,700 power outages and many phone outages. Several cars, trucks and trailer homes were smashed by falling trees. A loaded school bus near Silverton was forced over a four-foot embankment and 4 students re-</p>																																																											

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

DECEMBER 1970

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS				ESTIMATED ¹ DAMAGE		CHARACTER OF STORM
					KILLED	INURED	PROPERTY	CROPS	PROPERTY	CROPS	
Oregon (continued)											
											ceived minor injuries. Six other persons were injured by wind-caused accidents. One home was demolished by a falling tree at Grants Pass. Greatest loss was \$4,000 square feet of roofing blown from a large industrial building on the north side of Medford. The loss included damage to 1 million feet of lumber, 100,000 feet of veneer and 450,000 feet of plywood.
Coquille, Coos County	16	noon			0	0	4	0			Electrical
											A large home located three miles east of Coquille was destroyed by a lightning set fire. Lightning struck a tree at the rear of the house and ran into the building causing the fire.
Coast, Coastal Range and Northern Cascades	27-31	all days- 8:00a, 31st			2	0	5	0			Rain, Wind and Snow
											Two major Pacific storms moved into Oregon, one on the 28th and another on the 30th causing heavy rains along the coast and in the Coastal Range. Four-day rainfall totals ranged mostly 5.50 to 7.00 inches with 8.00 to 11.00 inches in the Coastal Range. Port Orford was wettest with 13.54 inches. The 30th was generally the wettest day with 3.00 to 4.00 inches reported at most stations and up to 5.81 inches at Vaisetz and 4.91 inches at Port Orford. Many Coast Range streams produced substantial rises on the 30th-31st. A few coastal roads were closed for a while on the 30th and several landslides were reported in Clatsop County. Two climbers were stranded on Mt. Hood for 5 days during the storm which provided 32 inches of snowfall (5.30 inches of moisture) at Government Camp. Rescue attempts were thwarted on repeated days by blinding snow and 40-60 mph winds. The climbers returned safely on New Years day. Two fishermen were presumed drowned when their 38-foot boat broke up and washed ashore at Otter Rock. Their last radio contact was 10:35 a.m. on the 27th when they were lost in winds of 58 to 69 mph and swells of 18 to 20 feet. Three other fishermen were rescued near Florence. Their 58-foot boat went aground about 200 yards from shore in heavy surf at about 5:00 a.m. on the 27th. The boat and \$5,000 catch of crab were a loss.
Astoria, Clatsop County	28	early afternoon			0	1	3	0			Wind and Lightning
											Gusting winds up to 51 miles per hour ripped the northern coast of Oregon. Wind at Astoria blew off the front glass door of an office building at 8th and Commercial. It knocked over a secretary causing her minor injury. Lightning that accompanied the storm struck a radio station tower. It burned out the transmitter's tuner and severed the station's ground system. The box containing the tuner was virtually blown apart and paint was burned off the lower three feet of the tower.
Pacific											None Reported
Pennsylvania											
Erie County	3-4	Night			0	0	4	0			Wind, rain
											High winds and high water associated with a severe thunderstorm seriously damaged portions of Presque Isle State Park.
Fayette County	3-4	Night and early morning			0	0	4	0			Wind, rain, hail
											High winds, heavy rains, and hail caused extensive property damage throughout the county. Two mobile homes were extensively damaged when high winds knocked them about 10 feet from their foundations. A large oak tree was uprooted near Normalville crushing a car and damaging the porch and a corner of a four-room frame structure.
Adams County	4	8:50 AM			0	1	4	0			Wind
											Gusty winds overturned a large house trailer two miles west of McKnightstown. Damage was estimated at \$5,000. The truck-tractor driver was slightly injured.
Montgomery County	6	5:05 AM			0	0	4	0			Wind
											40 miles per hour winds uprooted a 70-foot oak tree and sent it crashing into an Upper Pottsgrove home. Damage was confined to the upstairs of the house.
Northampton and Monroe counties	11-12				0	10	5	4			Ice storm
											Interstate Route 80 was the scene of 23 accidents involving more than 40 vehicles and caused damage of more than \$45,000. In the northern part of Monroe County ice built up to an inch in thickness. About 10 persons were treated at Monroe County General Hospital for injuries received from falls. In Easton an ice-laden tree fell against a home, damaging two cars in the process. Power, telephone, and cable television interruptions were general throughout the counties.
Fayette County	16	1:30 PM			0	0	4	0			Wind
											High winds caused a house trailer to roll down a 20-foot embankment along Route 119 near Mount Braddock. Damage was set at \$6,000.
Lancaster County	23	Evening			0	0	3	0			Lightning
											Lightning struck two homes along Slackwater Road near Millersville around 11 PM. Total damages were estimated at \$3,700.
Puerto Rico											
North Central Coast	8-9				2	0	0	0	5	C	Heavy Rains
											A slow moving cold front brought heavy rains along the northern section of Puerto Rico during the 8th and 9th. The highest rainfall amounts were centered in the Dorado-Manati-Toa Baja area with the highest 48-hour total of 9.40 inches reported at Dorado. One man drowned while fording the La Plata River in Toa Alta, another was drowned in the Cibuco River. Lightning struck a building in Vega Baja and burned it down. A total of 500 people were evacuated from their homes in Arecibo, Vega Baja, Vega Alta and Manati. Gusty winds blew down ripe coffee beans and some banana trees. Nineteen homes in Toa Baja and a new bridge over the Turabo River in Caguas were damaged. Seven highways into the interior were closed or damaged by landslides and washouts.
Rhode Island											
Cumberland, Providence Co.	4	11:55 a			0	0	3	0			Lightning
											Single lightning strike set fire which caused considerable damage to a residence in Ashton section of town.
Statewide	11-13	PM-PM			0	0	5	0			Snow, glaze
											Storm began and ended as snow with freezing rain and sleet between except rain in the south and at Block Island. New snowfall totals varied from 2 inches off-shore to 10 inches in the northwest. Some drifting and glazing added materially to expense of snow removal.
Statewide	16-17	Eve-Eve			0	0	5	0			Snow, wind, glaze
											Major northeaster began as snow with accumulations over the mainland of 2 to 6 inches and trace amounts off-shore before changing to sleet and rain on the morning of the 17th. Precipitation changed back to snow before ending. Storm produced high winds and tides. At Block Island and along the mainland coast shore roads were flooded as tides and waves topped sea walls and moved sand dunes. Some roads were washed out and local flooding was common especially in Westerly. Several buildings and stores in Pawtucket suffered structural and plate glass damage. Most schools and some factories were shut down. Several power failures occurred in parts of Providence County late on the 17th. The storm was responsible for many minor accidents.
South Carolina											
Georgetown County	16	5:15 p.			0	0	4	0			Cyclone, highwinds
											A cyclone developing on a warm front brought winds and rain to the coastal area from 4 to 5:30 p.m. Very strong winds developed locally at the southern end of Garden City Beach shortly after 5 p.m. Several beach homes had minor damage and two suffered major damage. Damage was mostly to roofs, porches, TV aerials and shingled portions of homes.
Coastline	31	6:30 a. -10:30 a.	150		0	0	6	0			Cyclone, high wind, tides
											An intense cyclone developed off the coast a little to the southwest of Charleston, moved parallel to the coast and increased in intensity until it passed Myrtle Beach. Wind speeds exceeded 60 m.p.h. all along the coast and record high tides were measured as the time of the storm coincided with the time of high tide. Most of the damage to property was due to high winds. Many piers, porches, roofs, shingles, TV antennas, signs, etc., were damaged or destroyed. Severe beach erosion took place in Georgetown and Horry counties and moderate erosion elsewhere. At some places 30 to 40 feet of beach was lost. No deaths or injuries were reported but two teenage boys had to be rescued by helicopter from a fishing pier, the landward part of which had been washed away.
South Dakota											None Reported
Tennessee											
Halls, Lauderdale County	3	p.m.			0	0	4	0			Lightning
											Electrical storm confined to small area caused scattered damage to a house on Jaynes Drive.
Eastern 2/3 of State	31				0	0	0	0			Snow
											One to 2 inches of snow, except for greater amounts in the mountains, caused exceptionally hazardous driving conditions. Several injuries in highway skidding accidents were attributed to the storm.
Texas											
West Texas	15				0	0	?	?			Duststorm
											Sustained winds of 40 to 65 miles-per-hour whipped up one of the worst duststorms in many years in West Texas. The most severe conditions were in the High Plains, Low Rolling Plains, Trans-Pecos and Edwards Plateau. The visibility was reduced to less than one-eighth mile over large areas. Visibility of one-eighth mile was reported as far east as Eastland and as low as three-quarters of a mile in Montague County. The National Weather Service Office at El Paso reported a peak gust of 74 miles-per-hour, the highest ever recorded there during the month of December. The El Paso office reported a "fastest mile" of 66 miles-per-hour.

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

DECEMBER 1970

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS				ESTIMATED DAMAGE	CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS		
Texas (continued)										
										Roofs were blown off at Courtesy Chevrolet, 5919 Montana Avenue, in the Bassett area of El Paso, at the Zork Hardware Company, 1000 East Robert E. Lee Road and at the House of Flowers in the 8100 block of Dyer Street. A large chunk of concrete fell down from the 11th story of the Mills Building and landed on top of an automobile. A trailer at the Starlight Mobile Home Sales, 994 Dyer Street, also in El Paso, was blown over by the high wind.
Jefferson County	30	10:50 a - 12:20 p	?	?	0	0	5	0		Windstorm
										Severe thunderstorm winds swept across South Jefferson County causing an estimated \$300,000 damage to property in the area of the Jefferson County Airport, Nederland and the northern section of Fort Arthur. One of the places hardest hit was the Duckworth Supply at 644 Gulfway in Port Arthur, where the roof was ripped off a 50-by-180 foot carpentry shed. Damage was heavy in the 9- and 10-hundred blocks of 29th Street in Nederland, and at Lloyds Trailer Park, where four trailers were damaged. About \$15,000 damage was reported to property at 4703 Rice Farm Road by owner Lionel J. Arsenment. A peak wind gust of 75 miles-per-hour was observed at the National Weather Service Office, Nederland. Doors were ripped off a hanger at Jefferson County Airport.
Texas City, Galveston County	30	10:30 a - 11:00 a	25	200	0	0	4	0		Tornado
										A tornado dipped down in Texas City causing damage to several shops and businesses on Texas Avenue and Fourth Street. Numerous windows were broken, including the front window of Dave's Jewelry and Loan, 331 Texas Avenue.
										Several witnesses said they actually saw the tornado come fumbling down Texas Avenue. "I saw this long black cloud-like formation --- it was making lots of noise and heading toward me", said one man. "I ducked down when a huge metal sign came at me", he said.
										A woman who was in Dave's Jewelry at the time said, "A thin funnel coming down --- it was kind of yellow in the middle and making lots of noise".
										The tornado reportedly hit the Monsanto Chemical Plant, where it struck a tower being constructed. Some scaffolding around the tower was blown away.
										The tornado skipped along in an east-northeasterly direction, and struck again at Gilchrist, about 25 miles away, where it damaged mobile homes, roofs of homes, power lines and signs. The total damage was estimated at \$5,000 at Texas City and \$10,000 at Gilchrist.
25 SW Nederland, Jefferson County	30	11:00 a	Short	Narrow	0	0	0	0	2	Tornadoes
										Two tornadoes touched earth briefly in a marshland about 25 miles southwest of Nederland. There was no known damage.
Utah										
Timpanogos Divide	2	3:03 pm	1	400	0	0	0	0	0	Tornado
										A tornado occurred about a mile below the Timpanogos divide summit. The funnel cloud traveled from Northeast to Southwest and snapped off trees up to a foot in diameter. As it moved across the 38 inch deep snowfield it picked up snow and carried it to over 1000 feet above the surface. Two men observed the tornado while on their way to read out the strage gage. One of them was knocked over by the wind as the storm swept by them but no injuries were sustained.
Wasatch front counties	16 and 17				2	unk	5	0		Heavy snow
										Record snowfall was reported on the 16th and 17th along the Wasatch front as over 35 inches in 24 hours accumulated in the mountains and 12 to 24 inches in the valleys. Two deaths were attributed to the snow. The first was caused by a heart attack brought on by over-exercision of shovelling the heavy snow and the second a fatal traffic accident caused by blinding snow. Numerous non-fatal accidents were reported and some roofs collapsed under the weight of snow.
Vermont										
State	4				0	0	3	0		Wind, snow
										Strong gusty winds with scattered minor damage. Snowfall of 6 to 12 inches in extreme north with near-blizzard conditions at times.
State	17				0	0	4	0		Snow, wind
										Snowfall totalled mostly 6 to 12 inches but locally to 15 to 20 inches. Much drifting and blowing from strong winds, with near-blizzard conditions at times in north where temperatures were low. Wind broke windows, signs, etc. Schools closed and many activities were cancelled. All forms of transportation hampered.
Vermont (continued)										
State	22-23				0	0	4	0		Snow
										Snowfall totalled mostly 4 to 6 inches but up to a foot in the extreme north. Roads very hazardous.
State	23-24				0	0	5	0		Snow, wind
										Snowfall totalled mostly 8 to 16 inches. Much drifting and blowing snow but wind generally not up to blizzard velocities. Transportation hampered and some roads blocked. Many business and social activities cancelled.
Virgin Islands										None Reported
Virginia West	4	All Day			0	0	4	0		High Winds
										High winds with gusts up to 60 m.p.h. caused branches and trees to fall and also caused some power outages. High winds caused a truck carrying a mobile home to overturn near Fancy Gap and a similar cargo slid off a truck in Botetourt County. A metal building and traffic pole blew down in Roanoke and a plate glass window blew out in Winchester. A fruitstand and novelty shop near Waynesboro lost its roof. A number of wood fires were reported with some nearly out of control.
State	31	All Day			0	0	4	0		Snow, Sleet, Freezing Rain
										Heavy snow in the west and snow, sleet and freezing rain was a factor in numerous mostly minor automobile accidents. Scattered utility failures occurred mainly due to trees and branches falling on the lines. Most main highways remained open but hazardous while some secondary roads in the northern counties were blocked for one or two days.
Washington										None Reported
West Virginia										
Martinsburg, Berkeley County	6	Afternoon			0	0	3	0		Windstorm
										Gusty winds associated with a cold front caused widespread damage to homes and building roofs, toppled some trees and TV antennas, downed wires and damaged awnings. Heaviest damage in the city was sustained by 4 hardware stores on Winchester Avenue which had some dislodged bricks blow into the street. The Martinsburg Airport recorded winds above 60 miles per hour.
Spencer, Roane County	22	2 p.m.			0	0	3	0		Floods
										Floodwaters, which were quite general in the northern and central parts of the State, covered some streets in Spencer to a depth of 4 feet. The floods resulted from a 2-inch rainfall over much of the State on December 21-22. One automobile was swept away by the rampaging waters of Spring Creek. Water also covered city streets in Glenville, and some residents were evacuated from their homes in Parsons, Philippi, Spencer and Creston.
Devon, Mingo County	22	6 p.m.			1	0	0	0		Floods
										A 10-year old boy was drowned after he accidentally stepped into lower Beech Creek near its confluence with the Tug River shortly after dark. A sheriff's department spokesman said he stepped into the swollen stream apparently blinded by lights from a house across the creek, as he was attempting to cross over a small one-lane car bridge.
Wisconsin										
Eau Claire County	1	am			0	0	0	0		Funnel cloud aloft
Jackson County	1	am			0	0	4	0		Wind, hail
										Wind and hail damage in Hixton and Alma Center area.
Wood County	1	am	2	200	0	0	3	0		Tornado
										Several farm buildings destroyed or damaged on Fred Oehler farm 2 SE Arpin or 12 SE Marshfield. Moved NE.
Portage County	1	am	3	200	0	0	3	0		Tornado
										Tornado moving NE damaged building and uprooted trees on Richard Rutta farm in town of Hull north of Stevens Point.
Waupaca, Shawano Counties	1	9:45 a	30	200	0	0	5	0		Tornado
										Tornado moving NEward touched down on Heschke farm 1 W Iola severely damaging buildings. Additional damage occurred in the Marion and Pella area. Mrs. Lorents and her 3 small children were in a mobile home which was lifted up by the funnel and exploded with debris scattered over the field. Luckily all escaped injury.
Outagamie, Shawano Counties	1	9:45a	30	200	0	0	6	0		Tornado
										A large tornado moving NEward at approximately 50 mph destroyed about 20 barns and 5 homes and damaged additional property along track from Medina in SW Outagamie County to Black Creek and beyond to near County Truck C in southeastern Shawano County. Damage to farm buildings estimated at \$500,000. Damage to 345 KV transmission line at 1-1/2 E. Stephenville estimated at \$100,000.
State	1				0	0	5	0		Wind
										Strong, gusty winds throughout state caused scattered damage.
Dodge County	3	3:45 p	5	50	0	0	4	0		Tornado
										Small tornado moving NEward damaged one barn on Braunschweig's farm at Sugar Island along C.T. "D" between Lebban and Ashippun. Another barn to the northeast sustained minor damage at 2-1/2 N Ashippun. A funnel aloft reported in neighboring Washington County near Hartford was same storm.

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

DECEMBER 1970

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
Wisconsin (continued)									
Northern Counties	3	pm			0	0	5	0	Snow, wind
	Very heavy snowfall accompanied by 50 MPH winds and intense thunder caused scattered wind damage in Lake Superior shore counties. Ashland received 20.5 inches of wet snow with a water equivalent of nearly 3 inches. Many people stranded at work or in schools over night.								
Entire State	5				0	0	5	0	Wind
	Scattered minor wind damage with 40 MPH winds.								
Southern Counties	10-11				0	0	5	0	Snow
	Heavy snowfall across south cause some roofs to collapse. Record 16 inch snowfall at Madison. Many indirect fatalities from heart attacks and traffic mishaps.								
Wyoming			None	Reported					

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

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

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STORM DATA AND UNUSUAL WEATHER PHENOMENA

DELAYED DATA

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
Oregon Sheaville 13 W, Malheur County	June 1967	21 Afternoon	1/2	Narrow	0	0	0	0	Tornado and Hail
		A funnel aloft was observed by several employees of the Bureau of Sport Fisheries and Wildlife working at Upper Cow Creek Lake, located 13 miles west-southwest of Sheaville. The funnel was first sighted 1 mile southwest of the lake and moved northeastward. The lower end of the funnel swung in all directions and even lowered to the ground as a tornado for about 30 seconds. Considerable sage brush was carried aloft before the tornado raised from the ground. It was visible for about 20 minutes as it covered an eight mile path before disappearing back into the cloud base. Considerable hail covered the ground during the storm passage. Many stones were up to 3/4 inch in diameter and larger.							
Florida Apalachicola (vicinity) Franklin County	January 1970	1 Night			0	0	4	0	Damaging Winds
		Seventy small oyster boats, docks at numerous oyster houses from East Point to about 13 miles west of Apalachicola damaged. Two shrimp boats beached. Estimate of damage at \$50,000.							
Texas Donley, Gray, Armstrong, Swisher and Briscoe Counties	April 1970	18 1:00 a- 3:15 a	65	1/2	17	42	6	?	Tornado
		Jerry Pennington, age 61, died July 9, 1970, bringing to 17 the total number of deaths caused by the tornado which struck near Clarendon, Texas, April 18, 1970.							
Hawaii Maui Valley, Oahu	May 1970	19 about 2:20 p.	7	?	0	0	2	0	Dust Devil
		Unusually well-developed dust devil swept seaward blowing down house TV antenna (\$300.00) and flipping pickup truck-sized fishing boat upside down. Weather sunny with alternating calms and gusts.							
Kilauea Pt., Kauai	23	about 6:45 p.	?	?	0	0	0	0	Waterspout
		Waterspout observed moving westward about 10 miles from Kilauea Pt. light.							
Oregon Southwestern Wasco County	May 1970	11 2:15 pm	Short	Narrow	0	0	0	0	Tornado
		A small tornado was sighted by a Weather Bureau man and two Forest Service employees as it touched down just east of Highway US-26 about 0.5 miles northwest of Warm Springs. The funnel was watched from three miles away as it lowered from a dark ragged cloud base. They saw the tornado pick up dust for two minutes as it moved northeastward across open sagebrush land before withdrawing back into the cloud base. No damage was reported.							
Texas Poteet, Atascosa County	May 1970	30 8:30 p			0	0	?	0	Lightning
		Four homes in Poteet were struck by lightning, and at least one, that occupied by S. Manriquez, sustained considerable damage. At the Manriquez home, the bolt apparently traveled down the television antenna and killed the family dog lying near the television set. The electrical force burst out windows and shattered the television set. All electrical appliances in the house were burned out and the wiring in the house was ruined. None of the Manriquez family was injured.							
California Gridley 5 WSW	June 1970	28 2:15 p.m.	3	200	0	0	4	4	Tornado
		Small tornado skipped along over a path of about 3 miles. Several hundred orchard trees were damaged or uprooted, and several barns suffered damage.							
Oregon Sheaville 13 WSW, Malheur County	June 1970	21 4:50p- 5:15p	6						Funnel Aloft and Hail
		Members of a farm family watched a funnel aloft form west of their farm about 2 miles east of Lower Cow Creek Lake. The funnel aloft moved east-northeastward above the Cow Creek Valley for about 6 miles during a 25-minute period. The tail remained 1200-1500 feet off the ground and pulled back into the cloud base about 3 miles west of the observers. The funnel aloft was also sighted by a pilot who encountered 1-inch size hail. No hail damage was reported in this remote grazing area.							
Tennessee Bedford County	June 1970	18 6:30p.m.			0	0	?	0	Wind
		Some property damage in southern portion of county was reported due to strong winds.							
Texas Near Levelland, Hockley County	June 1970	8 7:30 p- 8:22 p	?	?	0	1	?	?	Tornado
		Mr. and Mrs. James Snow and their grandson, Parrish Ray were traveling west on the Sundown Road, southwest of Levelland, when about 7:30 p.m., their pick-up truck was lifted up off the road by a tornado. The pick-up was carried into a field, barely missing a pole, whirled around in a circle twice, then set back down on the road. Mrs. Snow stated that their grandson Parrish kept saying, "I don't want to go around anymore" while they were in the field. Mrs. Snow hurt her elbow but there were no other injuries. The pick-up truck lost a hub cap in the rounds. The Snows said they didn't see anything, it was raining so hard. The tornado moved toward Levelland where it tore the roofs off two chicken houses and a horse barn on the J. J. Graham farm one and one fourth mile south of the Levelland Rodeo grounds about 8:22 p.m.							
NW Plainview, Hale County	17 Evening	Short	Narrow		0	0	0	0	Tornado
		A small tornado touched ground briefly in open country northeast of Plainview, then retreated into the parent cloud without causing any damage.							
Virginia Accomac County	June 1970	21 1 p.m.			0	0	4	0	Wind
		High winds caved in the roof of a house in Saxis and demolished a garage next to the house. A 1/4 ton truck inside the garage was burned over. One house trailer lost its roof and another was moved off its base. Two trees were twisted off several feet above the ground.							
Accomac County	21 1 p.m.				0	0	4	0	Lightning
		Lightning damaged a greenhouse containing azaleas.							
West Virginia Near Franklin, Pendleton County	June 1970	2 4:25 p.m.	?	?	0	0	0	0	Tornado
		A TWA pilot reported a small tornado 25 miles southeast of Elkins. There were no reports of ground damage.							
Pickens, Randolph County	18 2:45 p.m.				0	0	0	?	Hailstorm
		Hail of golf-ball size (1 3/4 inches) was reported by the cooperative weather observer at Pickens, 24 miles southwest of Elkins, which occurred during a thunderstorm associated with a cold frontal passage. At Pickens, 2.32 inches of rain fell between 2:45 and 6 p.m.							
Illinois Whiteside & Lee Cos.	July 1970	2 4p			0	0	9	C	High wind
		High wind and moderate to heavy rain. Two churches and auto dealership in Sterling-Rock Falls suffered major damage.							
Alexander County	3 3:24p								Hail
		3/4" hail reported at Thebes							
Lawrence County	3 5:10p								Hail
		1 3/4" hail reported at Lawrenceville							
Alexander County	8 6:30a	1/2	20		0	1	9	C	Tornado
		Tornado moved east damaging two mobile homes, two autos, and small portion of a cornfield. One woman cut on legs and back. WBO, Cairo.							
Sanganon County	19 4:44p				0	0	3	0	Funnel cld, wind
		A funnel was seen, and photographed, over SPI from 4:44p to 4:49p and receded into clouds without touching ground. Wind damage to trees, fences, awnings and minor roof damage. WBO, SPI.							
Champaign County	19 abt 6:15p	1/10	20		0	0	0	1	Tornado
		A small tornado touched briefly in corn field about 2 miles NW Champaign. Rotary motion evident in corn field. Viewers termed storm "white tornado" as it never picked up enough debris to color.							
Mostly north & south	19 12:30p-8p								Funnel clouds
		Funnel clouds were reported at Galesburg at 12:52p; 13 NNE ORD at 1:10p; 28 SSW MLI and 40 SSE MLI before 1:35p; 5 NW ORD and 11 ENE ORD about 1:45p; 11 SW ORD at 3:10p; 12 SE MWM at 3:40p; 24 NNE VLA at 5:45p and 25 SSE VLA at 7:45p.							
Northern	29 3p-9p								Funnel clouds
		Funnel cloud reported 20 SSW MLI at 3:08p rotating for 5 minutes before returning to cloud; funnel clouds also 2 SW Galesburg at 3:36p; 12 SSW MWM at 7:09p; and 7 WNW Chicago Loop at 8:16p.							
Pennsylvania Allegheny County	July 1970	31 6:00 PM	1/2	200			3		Tornado
		EDT mile yards							

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

DELAYED DATA AND CORRECTIONS

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 (continued)									
		A tornado touched down 1 1/2 miles south of Warrendale and ripped out several trees and caused over \$700 damage to the roof and porch of a house. A tree four feet in diameter was twisted and dragged to the side of the house. There was a cleared-out path of trees in the woods behind the property. An eyewitness saw the tornado.							
Texas									
Hitchcock, Galveston County	July 1970	21 2:45 p	Short	Narrow	0	0	4	0	Tornado
		A small tornado cut through Hitchcock in the vicinity of FM 2004 where one mobile home was completely destroyed and three others were turned over. Jim Fowler, owner of Wanderland Mobile Home Park, was one of several persons in Hitchcock who actually spotted the small, black funnel which passed through the area around 2:45 p.m. The worst damage inflicted by the tornado was to one of Fowler's mobile homes which was on display for sale. Fowler said the funnel, which he described as about six feet across the bottom and 40 feet at its top, lifted the 12-by-60 foot mobile home 15 feet into the air before throwing it back to the ground. Parts of the trailer, valued at \$5,000 by Fowler, were found as far away as a mile and one-half from the trailer park. Another mobile home in Fowler's park which housed the family of Candelaria Hinojosa, was lifted off the ground by the funnel and turned completely over on top of a parked car. Five persons, including two small babies were in the Hinojosa trailer when it turned over, but apparently escaped injury. A mobile home across FM 2004 from Fowler's park, and owned by Frank Edwards was lifted off the ground before coming to rest on its side. Two campers were blown down and several trees were uprooted by the storm. A fence belonging to Hitchcock Chief of Police, Archie Phillips, was ripped up by the small tornado. Total property damage was estimated at \$14,000.							
New York									
Wayne County	August 1970	30 Evening				4	5		Wind
		Violent winds struck the Palmyra and Newark areas of southwestern Wayne County during thunderstorms and heavy rains that raked wide areas of western and central New York. In Palmyra furniture stores was unroofed with resulting damage to contents from rains. Another business block of several stores was partially unroofed, part of brick wall blown in and most of windows smashed. Sections of roof blown off church. Estimated 100 trees broken or toppled in community as streets, parks and lawns littered with fallen limbs and other debris. Heavy wind damage localized in trailer park south of Newark. One mobile home blown apart and two occupants injured. Another mobile home overturned, heavily damaged and two persons sustained injuries. Four additional trailer homes plus several campers blown over and variously damaged.							
North Carolina									
Sampson County	AUGUST 1970	31 5 pm			1	0	0	0	Electrical
		Lightning struck and killed man on tractor near Parkersburg.							
Texas									
Plainview, Hale County	AUGUST 1970	20 Night			0	1	?	0	Lightning
		J. B. Bratcher was injured when he was struck by lightning at his home. Bratcher reportedly was talking on the telephone when lightning struck him partially through the electrical connections of the telephone.							
2 E Anderson, Grimes County		23 3:45 p			1	0	0	0	Lightning
		Will W. Wehmeyer, 57, was killed when struck by lightning in a pasture at his dairy farm located two miles east of Anderson. He apparently had dismounted and was standing beside his horse holding the reins when the bolt struck.							
Queenado, Maverick County		24 5:30 p	?	?	0	0	3	0	Tornado, funnel aloft
		A tornado dipped down and hit the A. J. Smith grocery store at Queenado and caused "several thousand dollars" damage. Smith saw the funnel as it dipped down. It took the roof off the market portion of the store and the house adjoining the store at the rear. A garage was destroyed also. Another funnel was sighted at night near the Val Verde Industrial Farm, but it did not touch ground.							
10 S Fort Worth, Tarrant County		31 Night	?	?	0	0	?	0	Tornado
		A tornado demolished two mobile homes and one storage house, and damaged a third mobile home at a trailer park on U. S. Highway 81, about 10 miles south of Fort Worth. A number of trees were knocked down. Witnesses reported the funnel traveled from south to north.							
Iowa									
Dyersville, Dubuque County	SEPTEMBER 1970	9 4:40 p	1	100		5	4		Tornado
		\$500,000 loss. Hundreds of trees uprooted. Narrow path about one-fourth mile long in city, tornado then lifted and touched down again northeast of Dyersville. Tornado originally reported in September 1970 Storm Data as a windstorm.							
Iowa (continued)									
Dubuque, Dubuque County		9 5:25 p	5*	300		16	7	5	Tornado
		Losses in excess of five million dollars. The tornado struck a new shopping center in southwest Dubuque, then lifted to about tree top level across the city and touched ground again in extreme northwest Illinois before moving into southwest Wisconsin. This tornado previously reported as a wind storm in the September 1970 Storm Data.							
		*tornado path length in Iowa.							
Oklahoma									
September 1970	September 1970								
Near Kemp, Bryan County		1 5:15 p.							Funnel aloft
September 1970									
Near Miami, Ottawa County		4 ?			1	0	0	0	Lightning
		Man's body found near a barbed wire fence. Medical examiner said death was due to cosmic electricity.							
Alaska									
Kotzebue	NOVEMBER 1970	26-28 1100BST			0	0	4	0	Blizzard
		Winds in excess of 60 knots from the east and switching to southwest caused damage to roof tops on at least three buildings, including a new school building not completed. West winds caused an influx of water, rising of ice, and flooding in a few basements through the sewer system. At least one house was completely surrounded by water.							
<h2>CORRECTIONS</h2>									
Colorado									
	FEBRUARY 1970								
		Wind storm reported on February 2 should be on February 3.							
Missouri									
Jewett to Zion, Madison	April 1970	12	Location should be 11 miles south of Fredericktown rather than 11 miles north.						
St. Joseph, Buchanan County		18	Change time to 5:30 a. m.						
South half of State		23	Change Arnov to Arnold.						
North Carolina									
Cherokee County	April 1970	23	Change date to 9:30 a.m. April 24.						
Tennessee									
State	April 1970		Wind speed shown in knots instead of miles per hour. No other change in description of storm.						
Florida									
Ft. Lauderdale (vicinity)	May 1970	25	Correct time from night to 2:00PM.						
Big Pine Key (20 NE EYW)		25	Correct twister to read wind damage and funnel aloft						
Iowa									
Des Moines, Polk County	MAY 1970	13 8:08 p							
5W Redfield, Dallas County		13 8:50 p	Time correction for previously published data.						
Oregon									
Albany near, Linn County	MAY 1970	11 2:45p							Funnel aloft
		(The previously documented time of 11:45a as provided by the airport operator at Albany, Oregon should be corrected to the proper time of 2:45p.)							
Texas									
10 W Tulia Swisher County	May 1970	25	Correct time from 7:10 AM to 7:10 PM.						
10 ESE Amarillo Randall County		31	At 2:20 PM should read 16 S Amarillo, Randall County at 3:25 PM.						
20 SE Amarillo Armstrong		31	At 3:25 PM should read 10 ESE Amarillo, Armstrong County at 2:20 PM.						

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

CORRECTIONS

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
Minnesota Southwest and South Central	JUNE 15-16	1970	Delete: & the two	tornadoes	in	Character	of	Storm	Column and listed below in 1st. paragraph.
Washington 15 miles SW Bellingham (Whatcom county)	JUNE 29	1970 2:24PM	Pilot reported sighting	funnel aloft.			0	0	Funnel cloud.
South Dakota Davison, Hanson, Hutchinson, McCook, Turner, Clay, Lincoln, Minnehaha, Yankton and Union Counties	JULY 14	1970 About 12:00 - 4:00 p	Correction to sentence starting line 15. A tornado 6 miles north of Beresford on Interstate 29 picked up a pickup truck totalling wrecking it, fatally injuring the driver and injuring a passenger at 2:30 p.m.		1	2	7	7	Tornado, funnel aloft, hail and wind
Florida Titusville, Orange County	August 17, 1970								Titusville, Brevard County.
Arizona Central and south-central sections of State	SEPTEMBER 4, 5 & 6	1970			23	0	6	4	Rain
<p>Tropical storm Norma, located in the Pacific Ocean below Baja California, initiated a flow of moist tropical air over the Gulf of California toward the desert Southwest on the afternoon of the 1st. This surge of moisture entered the State on the 2nd, over-spreading the State and increasing in depth during the next two days. On the morning of the 4th a convergent flow of air developed in the lower levels of the atmosphere in the Tucson area and south-southwestward to near Sasabe. This produced heavy precipitation along and east of the Babquivari Mountains and northward to Tucson and the Avra Valley on that day. This heavy rainfall caused rapid runoff that washed out roads and several bridges near Tucson and flooded homes. On the 5th, strong southerly winds developed over much of Arizona causing heavy orographic precipitation, with heaviest amounts along south slopes of natural barriers in the southern part of the</p>									
Arizona (continued)	<p>State. Precipitation along and to the south of the Mogollon Rim in Gila County and along the south slopes of the Bradshaw Mountains in Yavapai County was especially heavy on the 5th. Severe flooding in Christopher Creek, Tonto Creek and Sycamore Creek caused extensive damage to roads, bridges and property along those tributaries. Rainfall was also heavy in the Scottsdale area, where many homes were severely damaged by floodwaters. Flood damage in other parts of Maricopa County was scattered as far west as Wickenburg, where the Hassayampa River overflowed its banks and flooded residential areas. Flooding also occurred along the Little Colorado River from Winslow to the Navajo Reservation. Agricultural damage was reported to range from improvements such as fences, wells, stock tanks, and corrals. Loss of cattle was light, as was damage to field crops. By the 6th, precipitation was limited mostly to the mountains in the southeastern part of the State, but reported damage on that date was light relative to that occurring on the previous two days.</p>								
<p>* 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.</p>									
<p>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.</p>									
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