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# STORM DATA



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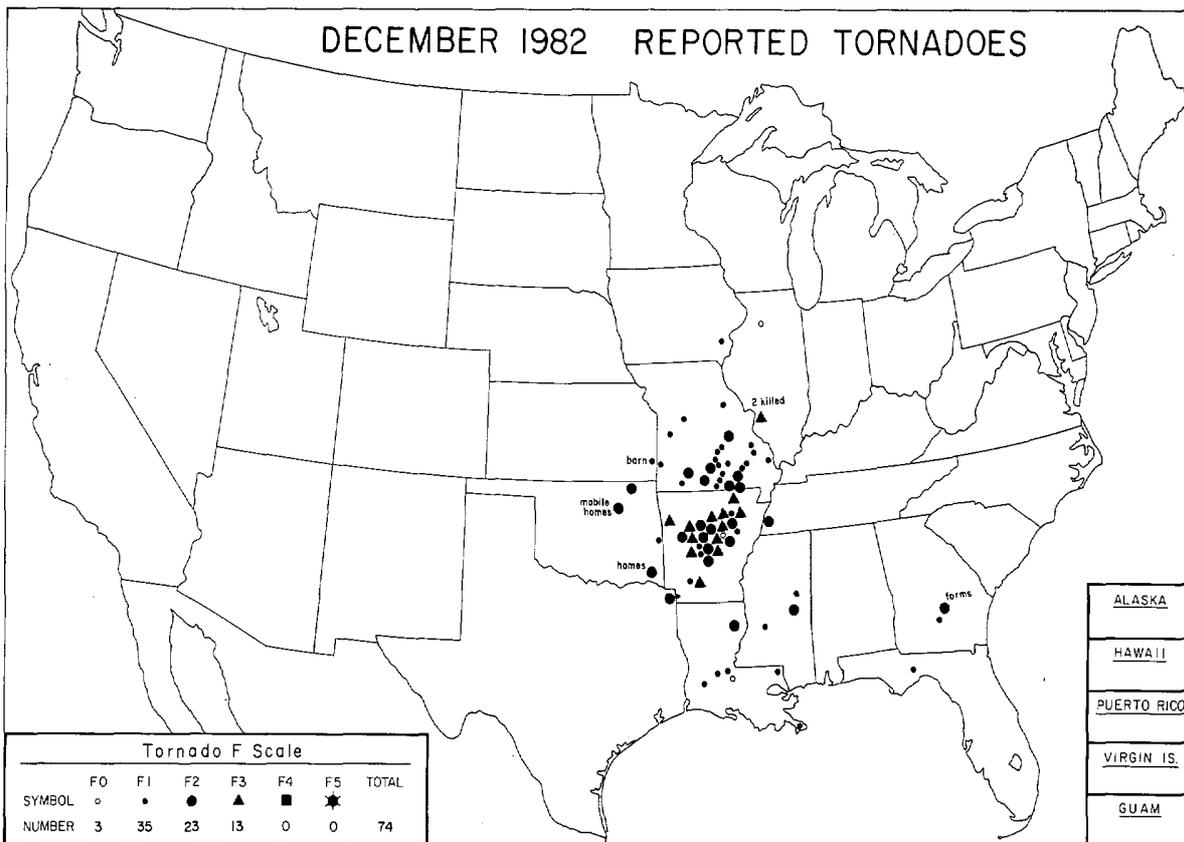
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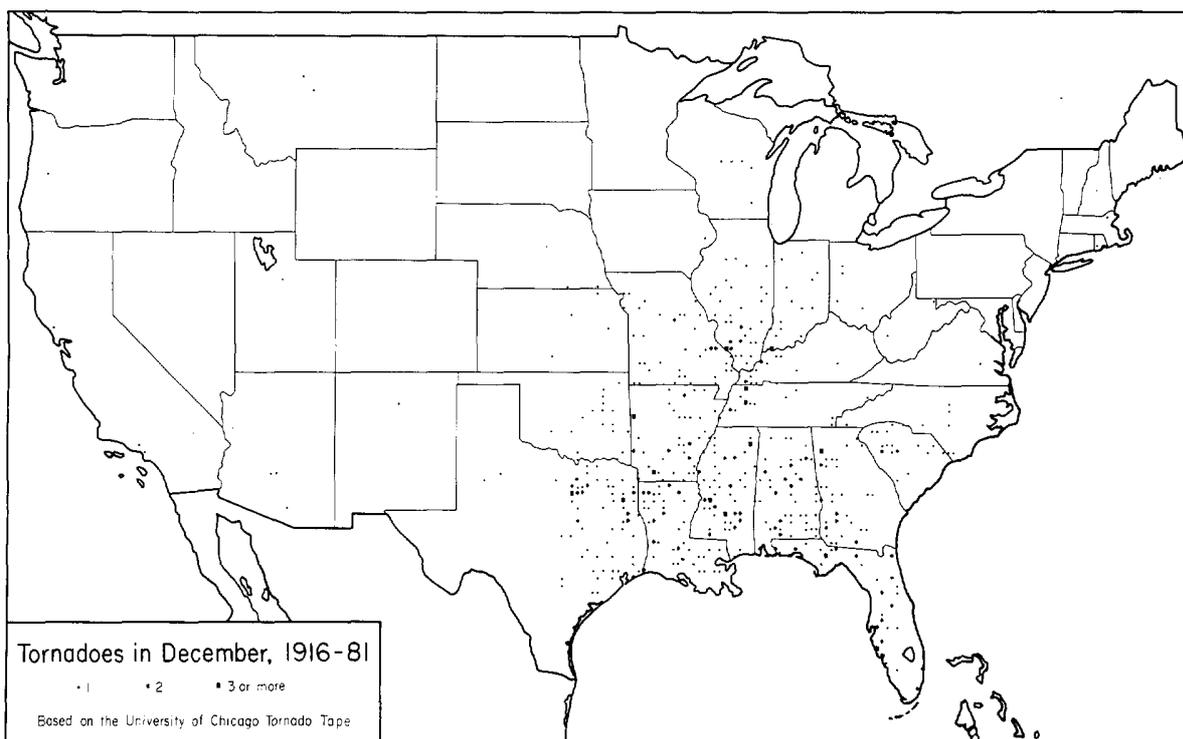
NOTE: The section on Outstanding Storms of the Month is prepared and edited by Professor T. Theodore Fujita, University of Chicago. The narrative descriptions of Storms by State and Summaries of Hurricanes and Tropical Storms are prepared by the National Weather Service. The National Climatic Data Center compiles the statistics on deaths, injuries, and damage. 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. Late Reports and Corrections will be carried quarterly.

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# OUTSTANDING STORMS OF THE MONTH

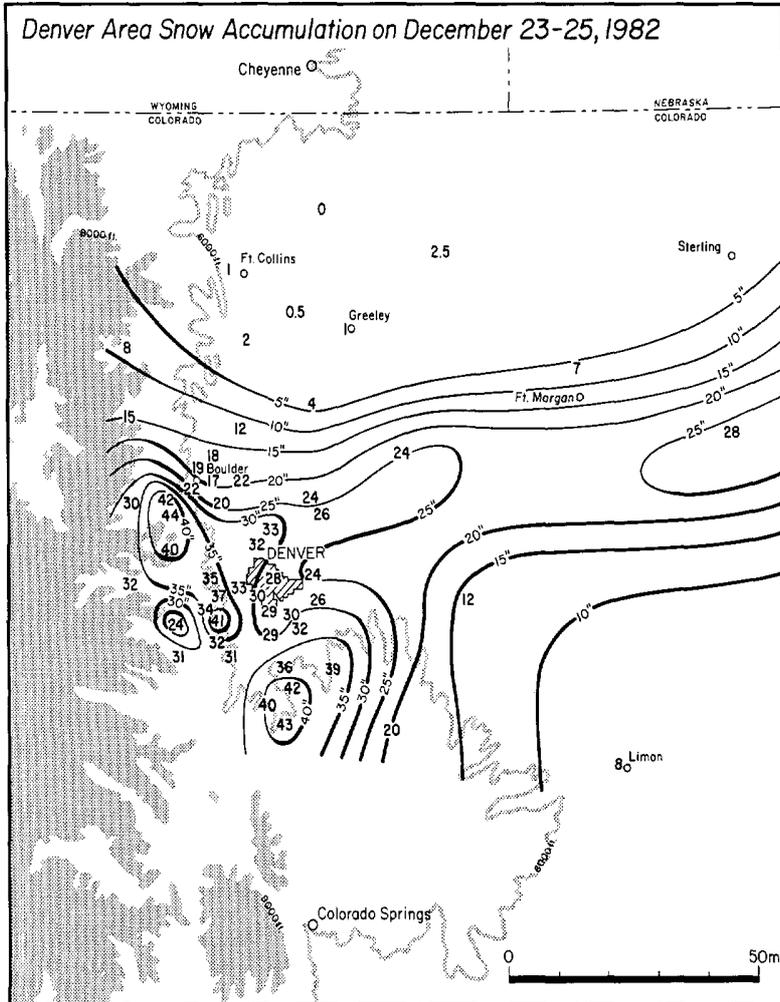


● TYPED REPORT RECEIVED	⊙ PRELIMINARY REPORT RECEIVED	○ NO REPORT RECEIVED	(N) northern (S) southern	(E) eastern (W) western	(C) central (O) coastal
● 1AL	● 5CO	● 10ID	● 15KY	● 20MI	● 25NE
● 2AZ	● 6CT	● 11IL	● 16LA	● 21MN	● 26NV
⊙ 3AR	● 7DE	● 12IN	● 17ME	● 22MS	● 27NH
● 4CA(N)	● 8FL	● 13IA	● 18MD	⊙ 23MO	● 28NJ
● 4CA(S)	● 9GA	● 14KS	● 19MA	● 24MT	● 29NM
● 30NY(O)	● 33OH	● 37RI	● 41TX(S)	● 45WA	● 50HI
● 30NY(C)	● 34OK	● 38SC	● 41TX(W)	● 46WV	● 51PR
○ 35OR	● 39SD	● 42UT	● 47WI	● 52VI	
● 36PA(E)	● 40TN	● 43VT	● 48WY	● 53GU	
● 36PA(W)	● 41TX(N)	● 44VA	● 49AK		

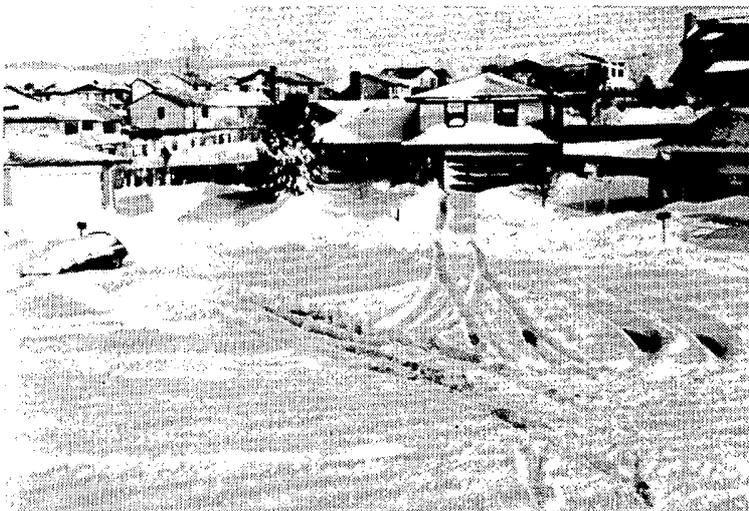


1. HEAVY SNOW and BLIZZARD in COLORADO on December 23-25, 1982

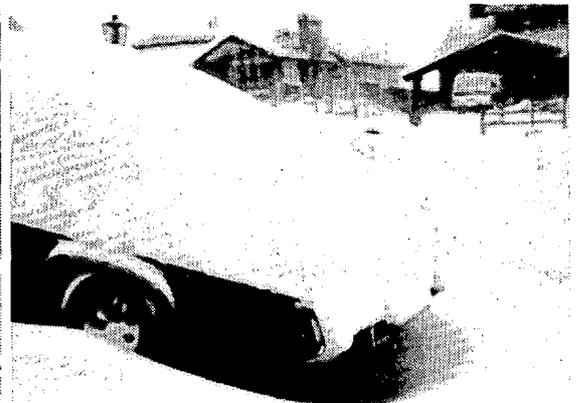
A heavy snow fell and blizzard conditions existed over much of Colorado on December 23rd to the 25th. Hardest hit was the Denver area and nearby foothills of which some areas received snowfall in excess of 3 feet (see map below) with 25 mph winds which often gusted over 40 mph. Low visibility and accumulating snow forced the closing of Stapleton International Airport on Christmas Eve, thereby stranding thousands of holiday travelers. ---Map by Tom Schlatter, PROFS.



Snow laden trees in northern Boulder on December 24th. ---Photo by Shirley M. Hoile.



Deep ruts in the snow on a Boulder street illustrate the difficulties encountered with vehicular travel shortly after the storm. ---Photo by Jose Meitin, ERL.

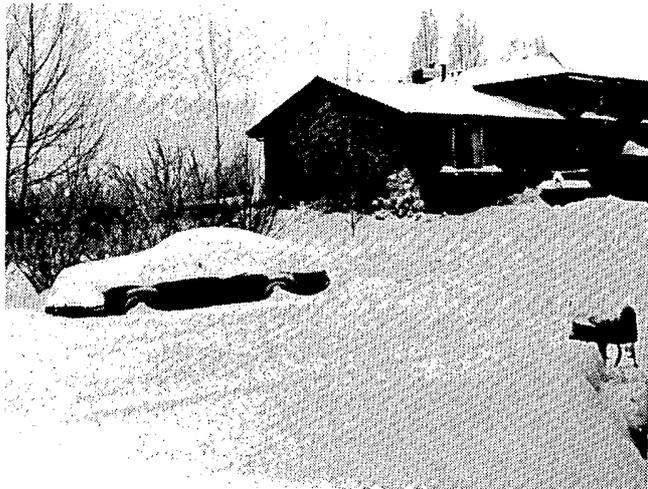


A car in the process of being buried by 18 inches of snow in Boulder on Christmas Eve. ---Photo by Joseph Golden, ERL.

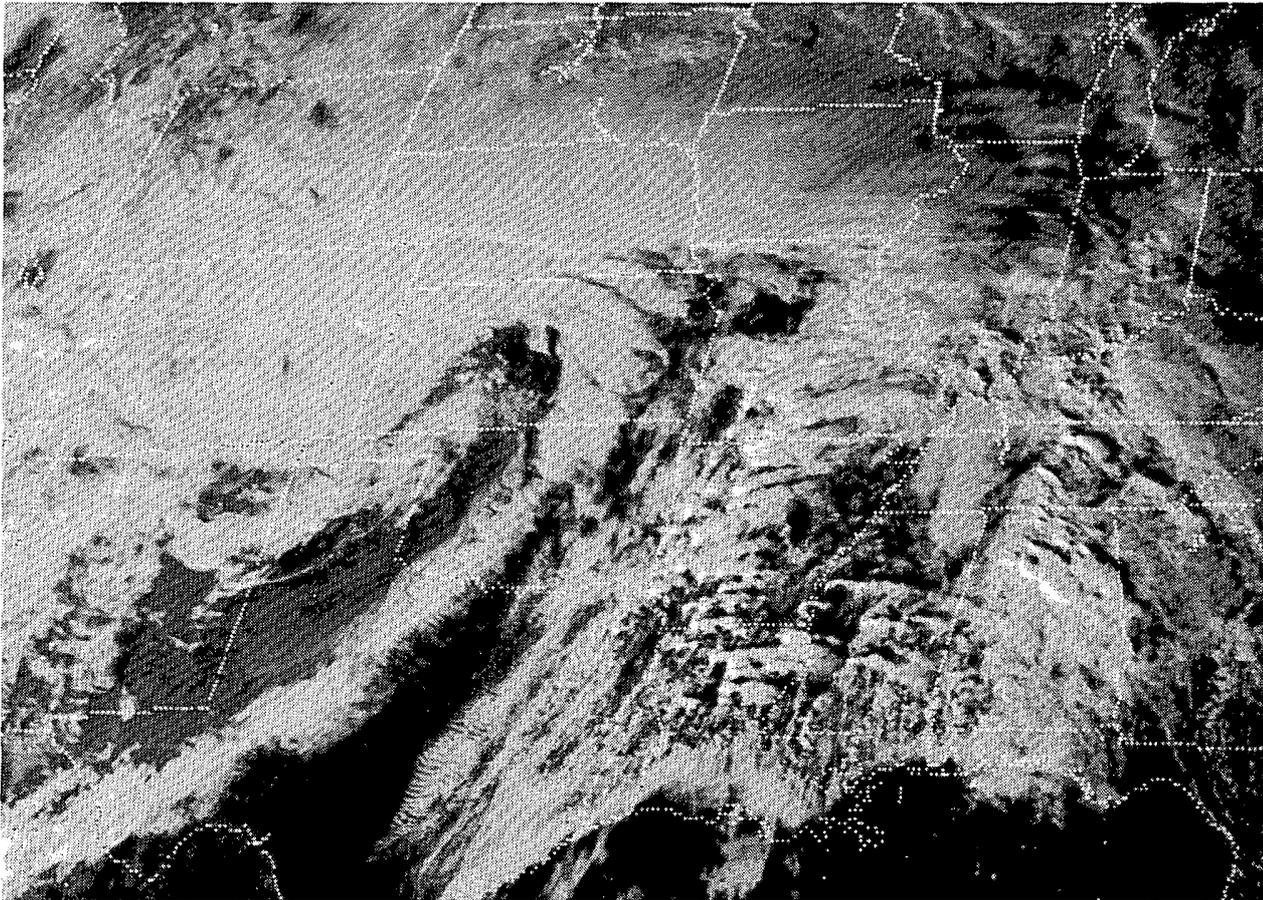
HEAVY SNOW and BLIZZARD in COLORADO ----Continued



A car receives a helping push in downtown Denver on December 24th. ---Photo by Anthony Suau, The Denver Post.



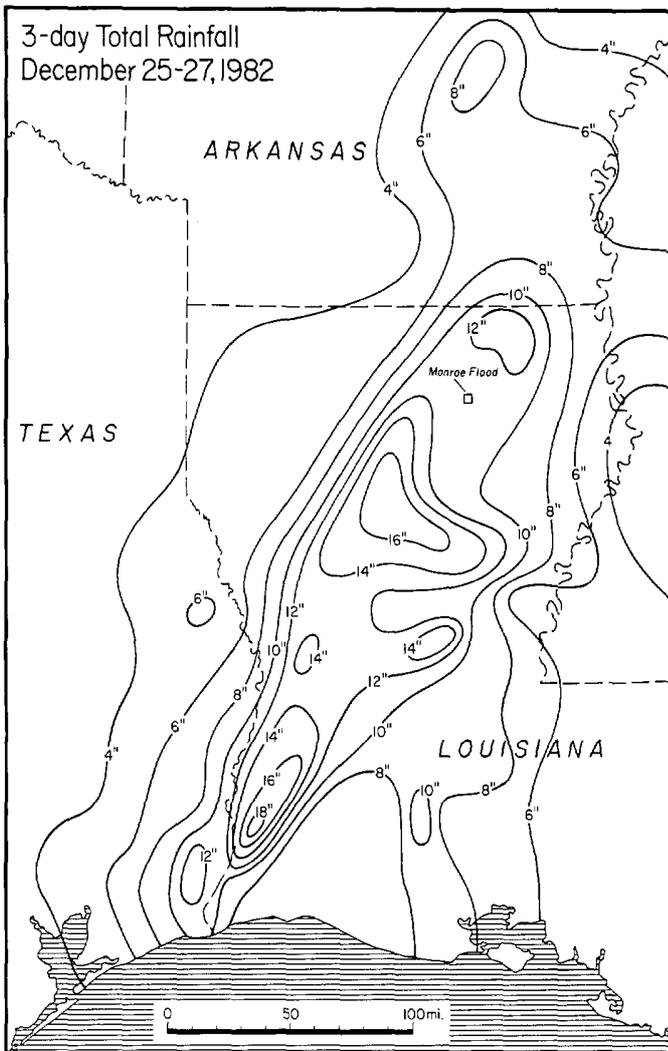
Snow accumulated on a Boulder street as the storm nears its end. ---Photo by Ronald L. Holle, ERL.



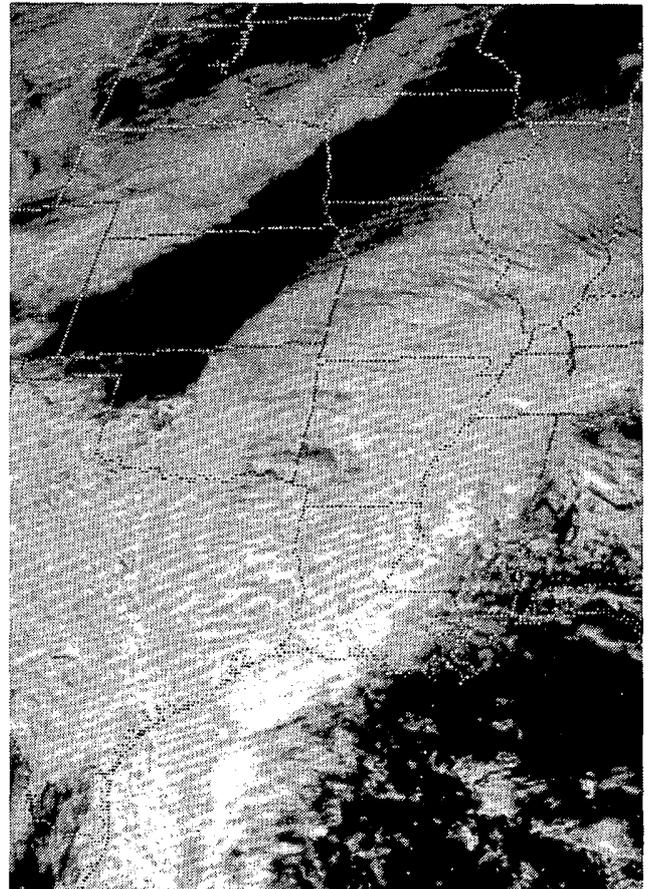
The visible GOES East picture above shows the dense, snow-producing clouds of the storm over eastern Colorado and most of Nebraska at 2100 GMT (1400 MST) on December 24th. The center of the cyclone was located over the Oklahoma Panhandle at this time. Note the numerous small rainstorms over the south central states, an area which received record-breaking amounts of rain for the month. ---Photo from NESS.

## 2. HEAVY RAIN and FLOODING in LOUISIANA on December 25-27, 1982

From December 25th to the 27th, heavy rains of up to 18 inches fell over Louisiana and portions of Arkansas, Mississippi and eastern Texas. Mapped below, the heaviest rains fell along a line extending from the extreme southeast corner of Texas, through Monroe, La., and ending along the Arkansas-Mississippi border. Largest amounts in Louisiana were 18.21" at Vinton, 17.25" at Winfield and 15.90" at Belah Fire Tower.



---Map by NWSFO Slide11, Louisiana with additional data supplied by NWSFOs at N. Little Rock, AR; Jackson, MS; Ft. Worth, TX; and San Antonio, TX.



A GOES East satellite picture taken at 1900 GMT (1300 CST) on December 26th, shows the cloud band with embedded thunderstorms which caused the heavy rains. The cloud band formed on a warm, moist flow from the Gulf of Mexico in advance of a developing cyclone in western Texas. This same cyclone was also responsible for heavy snow and freezing rain which later struck the northern plains (see item #4). ---Photo from NESS.

Widespread flooding resulted from the rains since most of the area had been saturated by previous rainfall throughout the month (more than two-thirds of Louisiana recorded monthly precipitation amounts of 15 inches or more for December 1982). Most notable was the flooding at Monroe (see pictures on following page) which prompted a visit from President Reagan. He declared 10 parishes in northeastern Louisiana national disaster areas.

HEAVY RAIN and FLOODING in LOUISIANA ----Continued



Flooding in west Monroe, Louisiana.  
---Photo by Margaret Croft.



President Reagan surveying the flood damage  
at Monroe. ---Photo by Stephan Savoia.



A boat is used as a shuttle service for  
stranded Monroe residents.



Residents flee as waters reach  
doorknob level of their townhouse.

---Both photos by Eddie Cox; all above photos from the Monroe News-Star-World.

3. STRONG WINDS in WASHINGTON on December 21-22, 1982

A small but intense Pacific storm brought high winds to coastal areas of Washington state and the Seattle-Tacoma area on December 21st and 22nd. Although producing mostly minor damage, the winds, with gusts up to 70 mph, did cause 2 deaths.

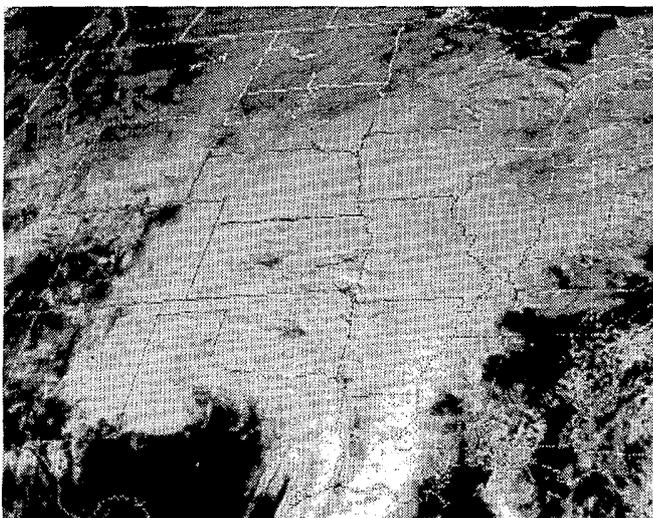
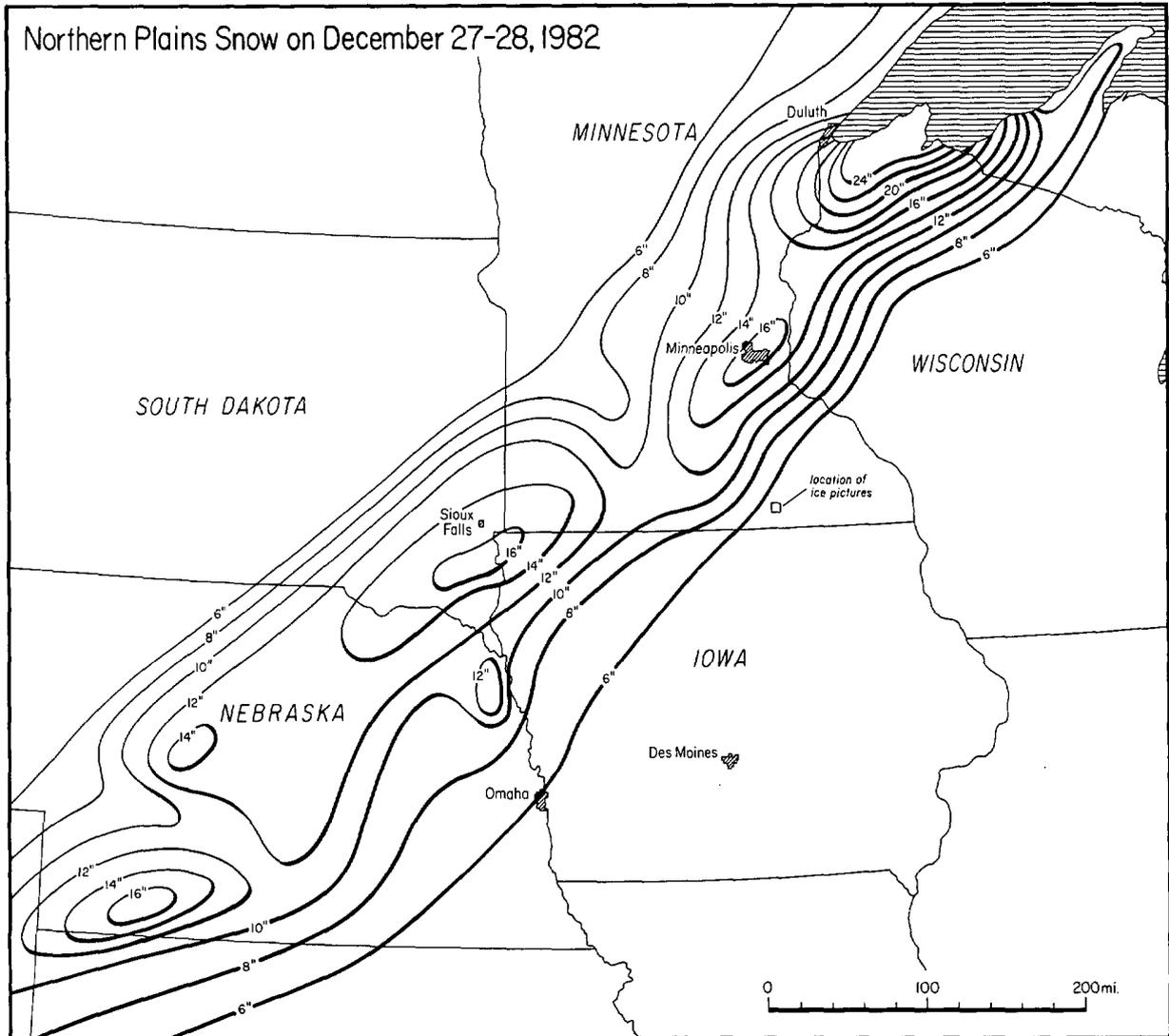
The photo at right shows a mobile home at Ocean Shores which was severed by a fallen tree. A woman inside was killed instantly and her husband was injured. The picture was taken after the tree had been temporarily lifted to free the occupants.



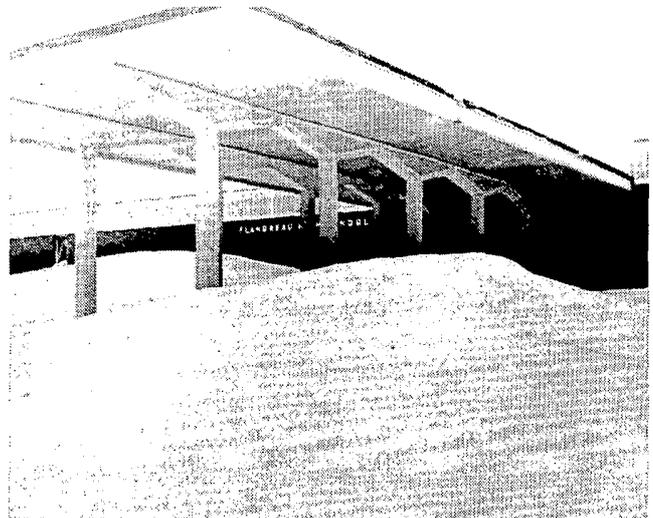
---Photo by Kathy Quigg, Aberdeen Daily World;  
supplied by NWSFO Seattle, Washington.

#### 4. SNOW and ICE STORM in the NORTHERN PLAINS on December 27-28, 1982

A snow and ice storm dumped up to 2 feet of snow from extreme southeastern Colorado to Lake Superior on December 27th and 28th. Some snow was preceded by freezing rain along the southern edge of the 6 inches or greater snowfall mapped below. ---Map from data supplied by NWSFOs at Des Moines, IA; Topeka, KS; Ann Arbor, MI; Minneapolis, MN; Omaha, NE; Sioux Falls, SD; and Milwaukee, WI.



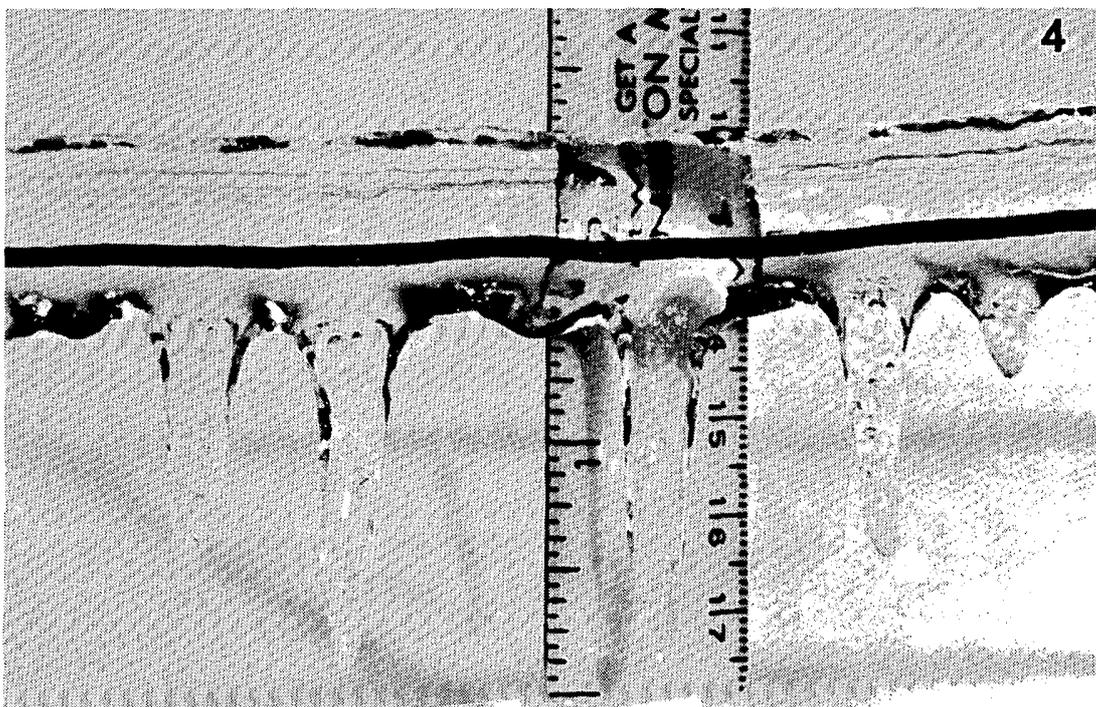
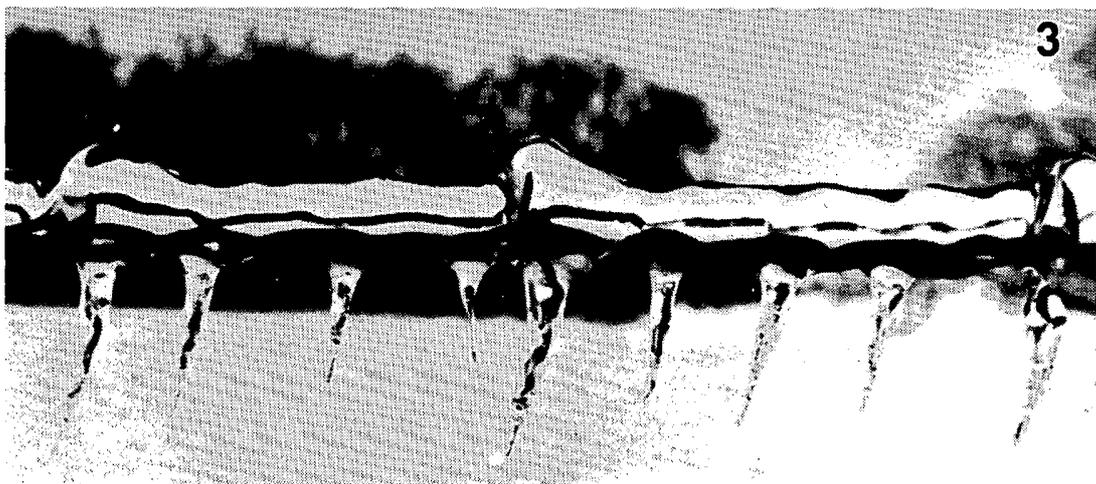
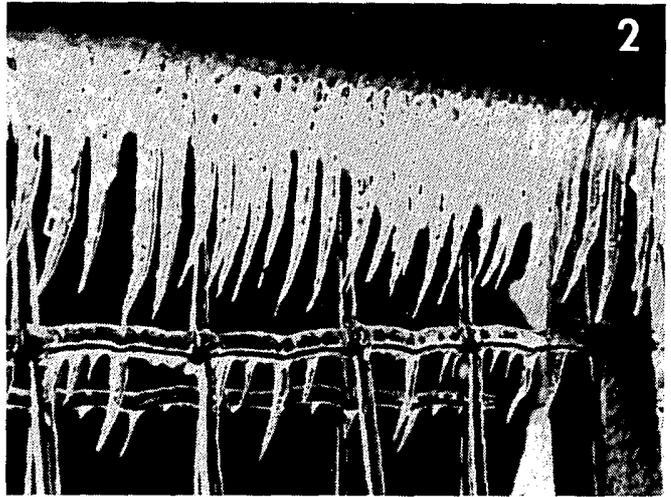
The storm as it appeared from the GOES East satellite at 1900 GMT (1300 CST) on December 27th. ---Photo from NESS.



Snowdrifts at the high school in Flandreau, South Dakota on December 28th. ---Photo from Moody County Enterprise.

SNOW and ICE STORM ----Continued

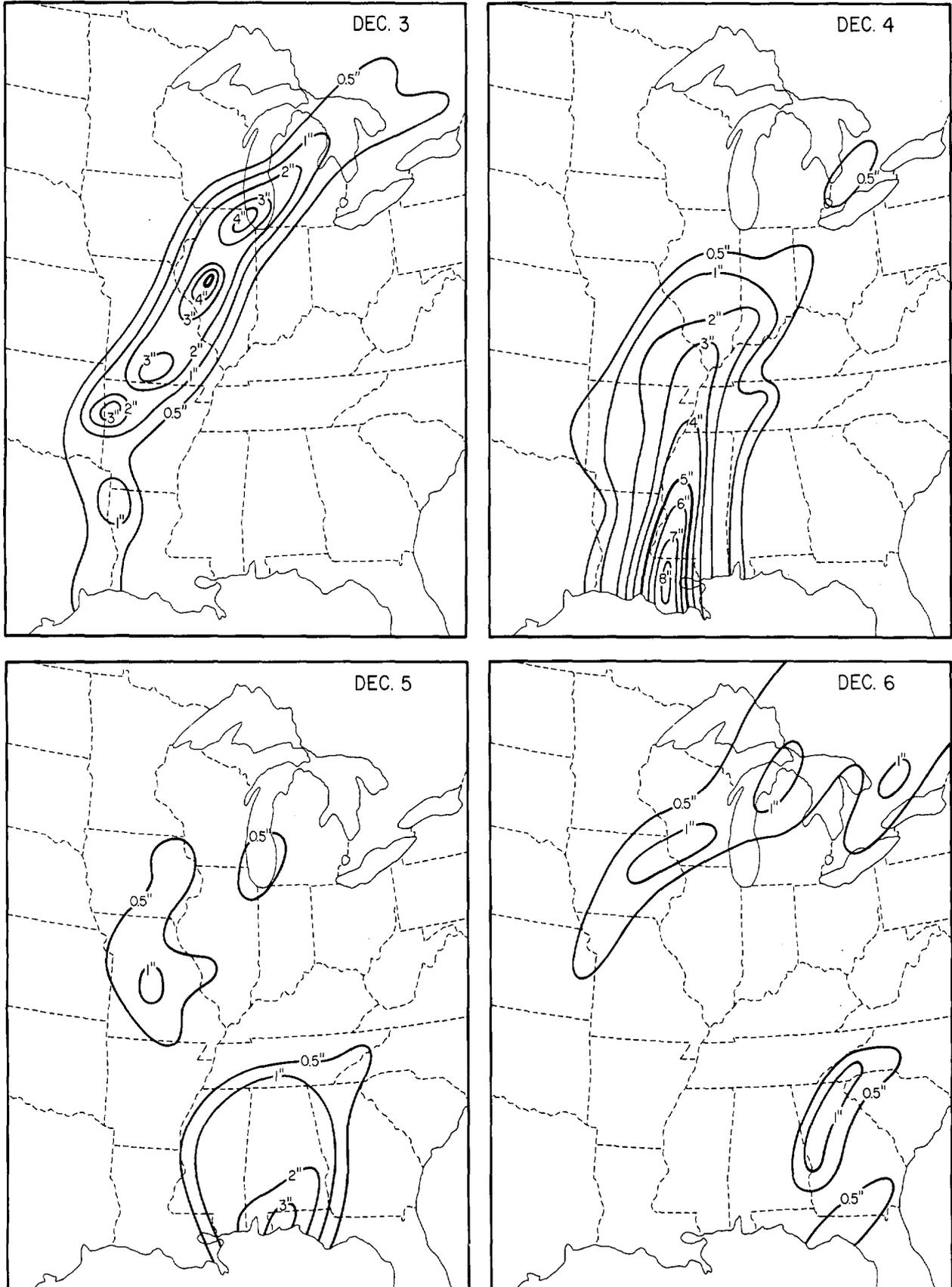
Pictures of the ice which formed from the freezing rain near Austin, Minnesota (see map). The rain began at 1445 CST on the 27th and changed to snow on the 28th. The ice thickness ranged from 1/4 to 3/4 inch. Shown is ice accumulated on: 1. tree branches, 2. a wood and wire fence, 3. barbed wire, and 4. a telephone wire. ---All photos by Jack Cooley, NWS Grand Rapids, Michigan.



5. HEAVY RAINS and FLOODING in the CENTRAL STATES on December 3-6, 1982

For many of the central states, December 1982 was one of the wettest Decembers of record. Heavy rains from the 3rd to the 6th, mapped below, created widespread flooding in areas which were pre-soaked by rains in late November. ---Data from NWS.

24-hour Precipitation ending 1200 GMT, December 3-6, 1982



5a. FLOODING in CENTRAL ILLINOIS

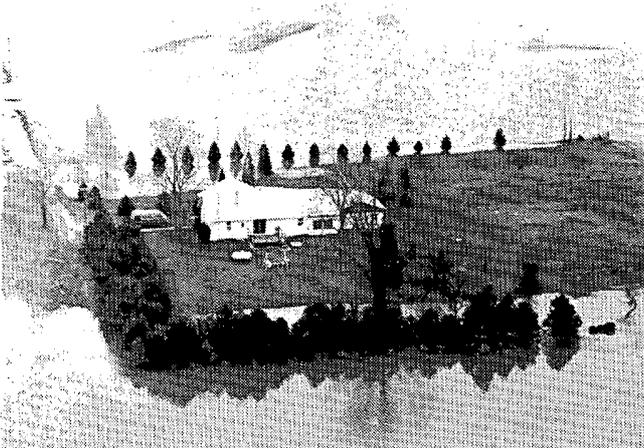
The pictures below are examples of flooding which occurred along the Vermillion River near Pontiac, Illinois. ---All photos from the Pontiac Daily Leader.



Looking west toward a trailer park along old US 66 from the partially submerged Pontiac Correctional Center.



Firemen plow through waters on West Reynolds Street in Pontiac.



This home east of Pontiac became an island of itself.



Part of IL Rt. 23 which was washed out when a dike broke. ---Photo by C. Kinas.

5b. MERAMEC RIVER FLOOD near ST. LOUIS, MISSOURI

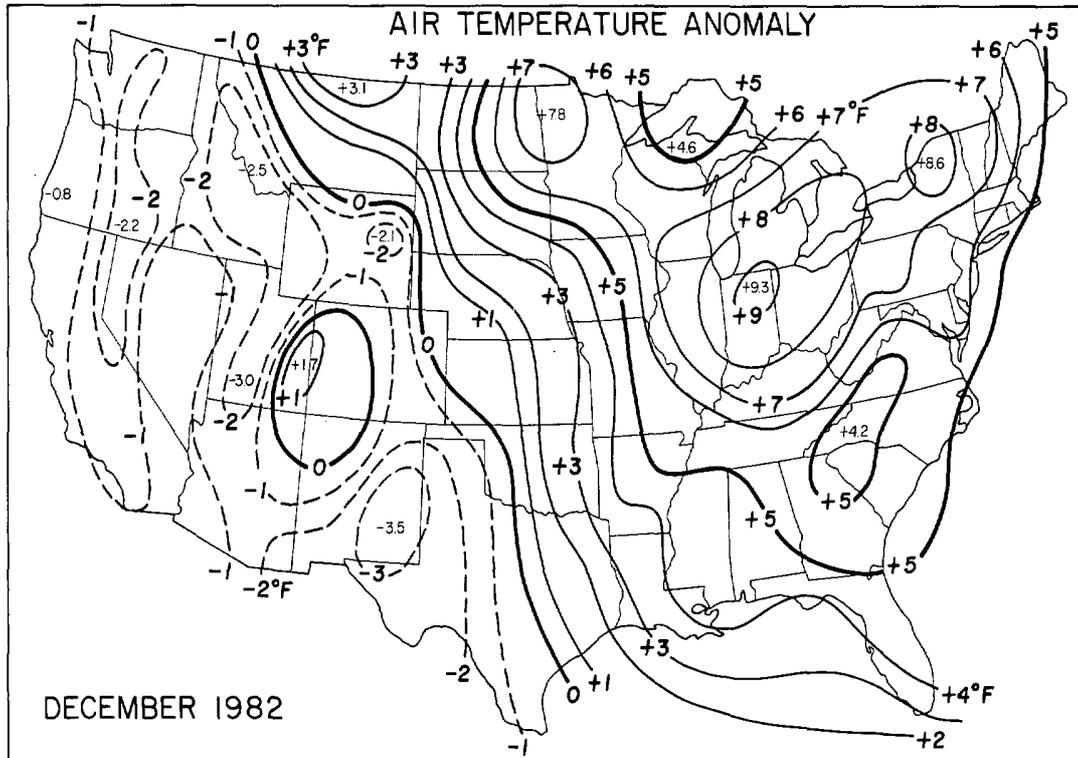
At right is pictured the small town of Valley Park, Mo. under floodwaters of the Meramec River southwest of St. Louis. Only 10 miles upstream is the town of Times Beach which was evacuated when the deadly chemical dioxin seeped into the floodwaters from waste heaps. ---Photo by Brian Smith, University of Chicago.



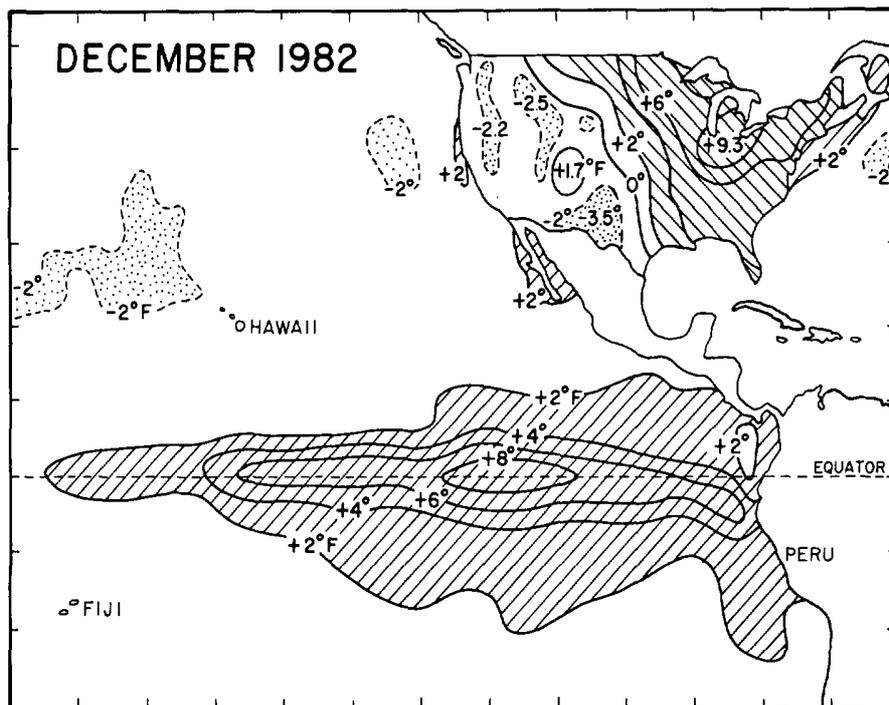
## 6. AIR and SEA-SURFACE TEMPERATURE ANOMALIES in December, 1982

Unusually warm weather, heavy rains, and many tornadoes were experienced in areas east of the Rocky Mountains during December. An air temperature anomaly of  $+9.3^{\circ}\text{F}$  occurred in northern Indiana while western states were relatively cool (see upper map).

Due to the El Niño, the sea-surface temperature over the equatorial Pacific was warm. The lower map depicts the anomaly (in  $^{\circ}\text{F}$ ) of both air and sea surface temperature.



Air temperature anomaly for December, 1982 contoured at intervals of  $1^{\circ}\text{F}$ . Anomaly values at 344 locations were used in the analysis. ---Data supplied by National Climatic Data Center; analysis by T. T. Fujita, University of Chicago.



Anomaly of sea-surface and air temperature contoured at intervals of  $2^{\circ}\text{F}$ . Areas of  $+2^{\circ}\text{F}$  or greater are hatched and those of  $-2^{\circ}\text{F}$  or less are stippled. The air temperature anomaly is reduced from the top map. ---Sea-surface temperature anomaly from Oceanographic Monthly Summary, December 1982 by NWS/NESS.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

DECEMBER 1982

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INURED	PROPERTY	CROPS	
<b>1 ALABAMA</b>									
Birmingham area, Jefferson County	01	0215CST			0	0	?	0	Flash Flood
	Heavy rainfall on the early morning of the 1st caused flash flooding in a small area in the northern third of Alabama. The most severe flooding was in the greater Birmingham area, where the Red Cross estimated that 80 single family dwellings, 12 mobile homes and 20 apartment buildings sustained flood damage. No monetary estimates of damage were available.								
<b>2 ARIZONA</b>									
Statewide	8-10				0	4	5	6	Heavy rain and snow, high wind
	A major, slow moving, winter storm, with sub-tropical moisture injected into it, caused prolonged heavy rain, heavy snow and strong winds over much of the state. The snow level was around 7000 feet at the beginning of the storm and lowered to 5000 feet by the end. Snowfall over the Mogollon Rim and White Mountains varied from 2 to 10 inches. The heaviest rainfall was in the southern half of the state with amounts mostly between 1 and 2-1/2 inches. Yuma received a little over 2 inches, or three-fourths of an average annual supply. There was considerable street and highway flooding, especially in the metropolitan areas. The remaining unpicked cotton crop suffered continued deterioration which began during the several rains in November. Winds of 40 to 50 MPH at times during the three-day storm caused damage to mobile homes, roofs, power lines, signs and trees. A number of accidents throughout the state resulted when drivers lost control of their vehicles due to strong winds.								
Statewide	30-31				4	10	5	5	Heavy snow, rain, wind
	A slow moving, very cold winter storm spread rain and considerable snow over the state, with the snow level reaching down to 2000 feet. Above 3000 feet 3 to 12 inches were common over the eastern two-thirds. There was flooding of streets and highways in the lower elevations. Snow and ice covered most of the highways above the 3000 feet level and some were impassable. Numerous accidents were the result of snow-packed, icy roads and blowing snow. Three deaths and ten injuries were reported. One man in Flagstaff died of hypothermia as the temperature dropped to 10 degrees below zero.								
<b>3 ARKANSAS</b>									
Most of Arkansas	2-6				6	4	8	8	Heavy rain, Flooding
	<p>A nearly stationary frontal boundary across extreme northwestern Arkansas into Texas and a strong influx of very moist, warm air from the South set the stage for flood-producing rainfall across much of Arkansas.</p> <p>Very heavy rainfall over much of the northwestern half of Arkansas from late on the 2nd of December through the 3rd produced serious flash flooding, subsequent small stream overflow, and flooding of most of the rivers. Rainfall exceeded eight inches in a band from Foreman and Ashdown northeastward through Clarksville and Morrilton to just north of Melbourne in the 24-hour period ending at 6 AM, December 3. Over ten inches fell at Mount Ida, Gravelly, Russellville, Hattiesville, Shirley, Mountain View, and Melbourne. Heaviest amount reported was 12.2 inches at New Hope. Evacuations were necessary in the following towns: Ashdown, DeQueen, Nashville, Dierks, Glenwood, Clinton, Russellville, Batesville, Heber Springs, Hot Springs, Dardanelle, Danville, Hardy, Plumerville, Parthenon, Perryville, Portia, Clover Bend, Black Rock and Morrilton.</p> <p>Flooding was more severe in many areas than had been experienced in 25 years or longer. Numerous bridges were washed out, and thousands of miles of county roads were badly eroded. A number of areas were cut off for twelve hours or longer by impassable roads. Thousands of homes and businesses were heavily damaged. Poultry losses were tremendous with over 300,000 chickens drowned. Thousands of pigs and cattle were missing, and hundreds of head of cattle were seen washed down creeks and rivers. A 30 per cent or greater reduction in winter wheat yields was projected. Thousands of acres of crop and pasture land suffered heavy erosion which would lower production for years to come. Disruption of municipal water and sewage treatment facilities and pollution of private wells posed a health threat in many areas.</p> <p>As the storms and floods hit about two-thirds of the counties in Arkansas, damages to public facilities, private property, and agriculture mounted to near \$400 million. Additional business and commercial losses could have boosted the total to over \$500 million. Flood damages far exceeded losses caused by tornadoes, high winds, and lightning. Flood damage exceeded \$1 million in each of the following counties: Baxter, Cleburne, Conway, Faulkner, Garland, Howard, Independence, Izard, Jackson, Johnson, Lawrence, Little River, Marion, Montgomery, Newton, Perry, Pike, Pope, Randolph, Searcy, Sevier, Sharp, Stone, Van Buren, White, and Yell. Fifteen more counties experienced less serious flooding.</p>								
<b>— ARKANSAS</b>									
	Garland, Independence, Sharp, and Van Buren were the four hardest hit counties, each with flood damages exceeding \$25 million. A brief recap of flooding in each of these counties illustrates emergency situations which could be described for numerous areas of the state.								
	At least 500 people evacuated homes near Lakes Hamilton and Catherine in Garland County. A number of boat docks and a Volkswagen sedan went through the flood gates of Renmel Dam as both lakes peaked 15 feet above normal.								
	Heavy rains the night of December 2 and the following morning caused widespread flash flooding in Independence County. Similar flooding hit mountainous areas of neighboring counties to the north and west of Independence County. The White River at Batesville, which had been at 7 feet at 5 PM December 2, rose to 21.2 feet by 6:30 AM December 3. The river would reach a near-record 39.5 feet, closing the White River Bridge before receding. Hundreds of people were rescued from stranded automobiles and flooded homes. Many people risked their lives just trying to get home. About 1,500 homes in Batesville were seriously damaged.								
	Eastern Independence County plus other areas along the Black and White rivers became a virtual ocean. Almost the entire town of Oil Trough was flooded. Combined flow of the White and Black Rivers topped and washed out the levee at Jacksonport in Jackson County early in the morning of December 5, flooding all of Jacksonport with up to 8 feet of water.								
	Numerous homes along the Spring River in Hardy, Sharp County, were floated or swept off their foundations. A number of potentially explosive butane tanks washed away causing concern as they bounced against bridges. Much of Hardy lost all telephone service. Telephone cables had been routed across a landmark bridge which gave away to the pressure of water and debris. Floodwaters washed over the city's new sewage treatment plant, built the previous summer well above the projected 100-year flood plain. The Spring River also washed out a railroad bridge at Mammoth Spring, cutting off Burlington Northern's main corridor from Springfield, MO to Memphis, TN.								
	Devastation in Clinton, Van Buren County, began about 9 PM, December 2, when waters from the south fork of the Little Red River and from Archie and Town Creeks began backing up into the business district. By midnight, merchants were fighting a losing battle to save their businesses from the rising water. By morning, the Clinton business district resembled a lake, dotted with the rooftops of submerged buildings.								
	Most of the roads in Van Buren County were washed out. At one point December 3, State Highways 254 and 110 were the only passable roads in the county. U.S. Highway 65, the major thoroughfare through the area was closed at Marshall, Clinton, and Leslie.								
	Four reported injuries involved vehicles washed off roads. Floods claimed the lives of six.								
	Near Oxford, Izard County, 1 AM on December 3: A couple were returning home when their pickup truck failed to ford a creek crossing the private road to their home. They took refuge on top of the cab until the truck washed off the road. The man was unsuccessful in attempts to help his wife, 64, wade out.								
	In Sharp County near the Lawrence County line about 9:30 PM, December 2: The car of a man, 49 was washed into overflowing Brown Creek on U.S. Highway 63.								
	Ravenden Springs, Randolph County: The body of a man, 70 was recovered a number of days later after his mobile home was swept away December 3 by overflowing James Creek.								
	Fouche River near the De Berry community in Perry County, Dec 3: A boy, 4 months old, was lost when the motor of a rescue boat stalled causing the boat to capsize in swift current. The boy's family of four had been rescued from their flooded home.								
	Clinton, Van Buren County, 1:30 PM, December 3: A man, 65 drove through a barricade and into the rushing waters of the South Fork of the Little Red River. His car stalled and was swept over an embankment into deep water before witnesses could launch a rescue boat.								
	About 15 miles east of Batesville, Independence County, early afternoon, Dec 3: A boy, 2, was washed from his mother's arms after their car was caught in rapidly rising water. The boy was recovered and died three days later in a Little Rock hospital.								
	Runoff from the heavy rains of December 2 and 3 caused very high flows on rivers throughout Arkansas. Rivers and streams in areas experiencing flash flooding crested within 24 to 36 hours. Lower reaches of the White River did not crest until up to a week later. Twenty-four barges broke moorings upstream from Lock and Dam 2 on the Arkansas River December 3 and 4. Ten of the barges sank. Others lodged against the lock and dam. The combination of swift flows and run-away barges disrupted river navigation traffic for several days.								
	Record high water levels along with White River and on tributaries of the White River were observed at St. Joe, Gilbert, Black Rock, Evening Shade, Shirley, and Gravelly.								

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DECEMBER 1982

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS				ESTIMATED <sup>1</sup> DAMAGE	CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS		

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS				ESTIMATED <sup>1</sup> DAMAGE	CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS		

## ARKANSAS

Springdale, Washington County	02 0010CST	-	-	0	0	4	0	Lightning	Lightning caused a power surge resulting in a house fire with damage to kitchen and attic.
Benton County	02 0330CST	-	-	0	0	5	0	Lightning	Lightning strike killed 30 holstein dairy cows near Gravette.
Sebastian County	02 0500-0600CST	-	-	0	0	4	0	Thunderstorm	Strong winds and lightning with a large thunderstorm caused extensive power and telephone failures plus damages near \$20,000 to electrical and telephone utilities.
Bella Vista, Benton County	02 0830CST	-	-	0	1	0	0	Lightning	Lineman was treated at hospital and released after he or the cable television equipment he was working on was hit by lightning.
Alma, Crawford County	02 1236CST	1	1500	0	0	5	0	Tornado (F 3)	Tornado touched down 3 miles east of Alma on Red Hill Road. Damages included 8 to 10 homes destroyed, 8 homes with major structural damage, and at least 4 with window and roof-type damage. A dozen storage/service buildings and 3 miles of fence were damaged. Minutes after the tornado damage, the public reported a funnel cloud six miles northeast of Dyer.
Clark, Dallas, and Hot Spring Counties	02 1328-1416CST	19.7	660	0	0	5	6	Tornado (F 2)	Tornado traveled north-northeastward, mostly over sparsely populated areas, from just northeast of Whelen Springs (Clark County) across northwestern Dallas County to 5 miles southeast of Malvern (Hot Spring County). Several homes were damaged in eastern Clark County areas near Highway 7 and east of Highway 128. Several mobile homes, barns and out buildings were destroyed. Damage to man-made structures was small in comparison to the value of pine and oak stands along the Ouachita River. Some 4000 acres of damaged timber included numerous wild-growing hardwoods and pine plantations at the peak of their 30 year old cycle.
Saline and Pulaski Counties	02 1450-1520CST	18	700	2	53	7	0	Tornado (F3)	Tornado moved northeastward from near Bryant (Saline County) through residential areas of west Little Rock to Crystal Hill (Pulaski County). One man was killed at Alexander (Saline County) in a mobile home park where 28 people were injured. Eighty-six mobile homes were destroyed or received major damage in Saline County. The tornado damage path expanded to about 10 blocks wide in west Little Rock with some areas of wind damage up to 20 blocks wide. A small piece of sheet metal crashed through the windshield, killing a man stopped on Interstate 430. The man's wife was seriously injured. Twenty-five injuries were reported in Pulaski County. Over 100 houses in west Little Rock were destroyed or severely damaged. About 600 buildings in Pulaski County and 150 in Saline County were damaged.
North of Clinton, Van Buren County	02 1530CST	-	-	0	0	5	0	High Winds	High winds with a severe thunderstorm caused considerable timber and structural damage. An automobile repair garage was destroyed. Other buildings were heavily damaged, some beyond repair.
Faulkner, White, and Cleburne Counties	02 1550-1635CST	26	350	0	3	5	?	Tornado (F3)	Tornado moved rapidly north-northeastward with moderate to heavy damage marking about half of the track from Naylor, Faulkner County, through Rose Bud, White County, to 3 miles east of Greers Ferry Dam, Cleburne County. Several homes, barns and storage buildings between Naylor to Mount Vernon and in the west side of Rose Bud were heavily damaged or destroyed. A United Parcel Service driver received minor injury when winds overturned his truck in Faulkner County. Two injuries were reported in Rose Bud. Several trees were toppled as the storm crossed Highway 16 south of Heber Springs. Some rental trailers received extensive damage as they were scattered across Highway 25 east of Greers Ferry Dam.
Hot Spring County	02 1620CST	6	300	0	1	5	5	Tornado (F1)	Tornado moved north-northeastward from touchdown just north of Malvern to near Interstate 30 northwest of Glen Rose. A man in the Fairplay Community was injured when caught in wreckage of his mobile home. Six mobile homes were destroyed. A number of houses and mobile homes received major structural damage. Trees and utility lines, too numerous to count, were downed in a swath 5 miles long by up to 1/2 mile wide.
Yellville, Marion County	02 1630CST	-	-	0	0	5	0	Lightning	Separate lightning strikes on 3 homes caused serious fire damages to one and total losses of the others.

## ARKANSAS

Faulkner, White, and Cleburne Counties	02 1710-1810CST	36	300	0	7	6	?	Tornado (F3)	A strong tornado moved north-northeastward from south of Saltville, Faulkner County, to just south of Rose Bud, White County, then almost due north to just east of Heber Springs. Saltville was hit hard with 28 homes badly damaged or destroyed. The storm then grazed Enola, Naylor and Beryl along Highway 36 before smashing Rose Bud. A damage path 2 miles long and 300 yards wide through Rose Bud left only one business untouched as the town was virtually destroyed. Four of the seven injured in Rose Bud were hospitalized. Subsequent damage was mainly in the Hopewell Community on Highway 5 and in the Libby Route area east of Heber Springs.
Independence County	02 1830-1840CST	6	200	0	0	5	?	Tornado (F1)	A weak tornado moved north-northeastward from Bethesda to Cushman inflicting moderate to heavy damage to 14 houses and a small church building.
Sharp County	02 1845-1915CST	9	250	0	3	7	?	Tornado (F3)	Strong tornado moved northeast from near Ash Flat to just south of Hardy. Greatest damage was in a 1.3-mile touchdown through residential areas and a shopping center at Highland. Thirty-five to 40 businesses were destroyed or heavily damaged. Two tandem-axle trucks in a parking lot were overturned. At least 15 homes were destroyed or heavily damaged.
Van Buren and Stone Counties	02 2030-2045CST	23	400	0	0	6	?	Tornado (F3)	Tornado left several structures damaged and trees downed from near Crabtree past Bockinburg in Van Buren County. The northeastward track into Stone County consisted mainly of scattered timber damage through sparsely populated mountainous terrain before crashing into Timbo. The Timbo High School and Agriculture buildings had extensive damage exceeding \$350,000. Several farms south and north of Timbo received major damage. Some mobile homes were destroyed.
Izard County	02 2105CST	-	-	0	0	0	0	Funnel Cloud	Reports by the public indicated a funnel cloud moving northward over western Izard County.
Ouachita County	03 0810-0840CST	10	250	0	7	6	?	Tornado (F3)	Strong tornado moved northeastward from south shore of Mustin Lake through East Camden to Eagle Mills. About 70 homes were damaged, 13 beyond repair, in the Mustin Lake - East Camden area. Several cars were destroyed by toppled trees. Two house trailers were blown away, and a tree crushed the rear of a grocery store at Eagle Mills. Seven injuries, none serious, were reported at Mustin Lake.
Izard County	03 0820CST	-	-	0	0	4	0	High Winds	Strong thunderstorm winds uprooted several trees near Mount Olive.
Dallas County	03 0900CST	.2	30	0	0	0	0	Tornado (F0)	No damage was reported with a brief tornado touchdown 5 miles north of Fordyce.
Grant County	03 0910-0930CST	7.0	60	0	0	5	?	Tornado (F2)	A tornado first spotted crossing Highway 46 near Dogwood touched down intermittently as it moved northward through Prattsville. Several barns were destroyed. Eight homes and a business in Prattsville had roof damage. Numerous trees and power lines were down.
Pulaski County	03 1000 CST	0.6	50	0	0	3	0	Tornado (F0)	A brief small tornado near Woodson damaged one home and power lines. Winds gusted to 64 miles an hour at Little Rock Airport (Adams Field).
Pulaski and Lonoke Counties	03 1020-1035CST	9	180	0	0	4	0	Tornado (F1)	A small tornado touched down briefly in Pulaski County with minor damage in the housing area on Little Rock Air Force Base. As the storm moved northeastward into Lonoke, another brief touchdown caused minor structural damages, uprooted trees, and downed power and telephones in Cabot. A lumber storage shed and contents were destroyed in Cabot.
Newport, Jackson County	03 1145CST	-	-	0	0	4	0	Wind	High winds in a severe thunderstorm heavily damaged a truck stop and restaurant.
Phillips, Lee, and St. Francis Counties	03 1220-1245CST	12	150	0	0	4	0	Tornado (F0)	Spotters tracked a funnel cloud from near Marvel, Phillips County to Hughes, St. Francis County. Two brief touchdowns were reported about 1230CST as the storm moved northeastward across Lee County. A hog shed was destroyed and other minor damage occurred on a farm southwest of Aubrey. A crop dusting plane was totaled near Marianna.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

DECEMBER 1982

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	
<b>— ARKANSAS</b>									
Harrisburg, Poinsett County	03	1245CST			0	0	5	0	High Winds
High winds in a severe thunderstorm blew down an elevator damaging a seed company warehouse. Three grain bins also received wind damage resulting in water damage to the contents.									
Caraway, Craighead County	03	1320CST	-	-	0	0	4	0	Severe Thunderstorm
High winds in a severe thunderstorm demolished a mobile home and destroyed two farm implement sheds.									
Fulton County	03	1330CST	-	-	0	0	0	0	Funnel Clouds
No damages were reported with several funnel cloud sightings.									
Randolph County	03	1330CST	0.3	140	0	1	4	0	Tornado (F1)
A small tornado broke windows in a farm home and demolished a large barn west of Pocahontas. Falling barn timbers seriously injured an 18 year old employee who was helping rescue cattle from flood waters. Funnel clouds were reported at Ravenden Springs and Pocahontas.									
West Memphis, Crittenden County	03	1500 CST	-	-	0	0	4	0	High Winds
Strong thunderstorm winds damaged a car by toppling a large store sign onto the vehicle.									
FOR ADDITIONAL DECEMBER 1982 ARKANSAS STORM DATA, SEE LATE REPORTS SECTION OF FUTURE ISSUE.									
<b>4 CALIFORNIA, Northern</b>									
Shasta, Tehama, Glenn, Butte, Del Norte, Humboldt, Mendocino and Lake Counties	15 16	2330 to 2400PST			1	3	6	2	Wind
Strong gusty winds caused numerous trees to be blown down and power outages. Some roofs and homes damaged from wind gusts in excess of 70 MPH. Over 15,000 homes and businesses without power.									
Del Norte County Crescent City	16	1419 to 1650PST				1	5		Flood
High tides along with heavy rain and strong onshore winds caused coastal flooding. Front Street had up to 16 inches of water in some areas, flooding some businesses and homes.									
Northern and Central California	22	0600 to 1600PST			3	10	8	4	Wind
Strong winds knocked over many trees and power lines, over 1 million people were without power. Wind gusts of 90 MPH knocked over 75-ft towers and more than 2 million volts of electricity were cut off. The Golden Gate Bridge was closed because of high winds and bridge sway. A large truck and trailer were blown over on the bridge.									
Sierra Nevada	22 23	0600 to 0600PST				1	5		Snow
Two to four feet of snow fell in Sierra Nevada in less than 24 hours.									
Sacramento County Delta area	21 22						7		Flood
Two levees holding back water in the delta broke and flooded 7,000 of farm land. No crops had been planted. There was some damage to homes but most damage was to the levees.									
<b>4 CALIFORNIA, Southern</b>									
San Diego and Imperial Counties	8-9								Heavy Rains
Moderate to Heavy rains fell in eastern San Diego and western Imperial Counties causing general flooding in the area. Heavy flooding was reported in the vicinity of Octotillo. Flood waters receded late on the 9th.									
Inyo and Mono Counties	22								Heavy Rain and Snow
Heavy rains fell in the Bishop area in the evening with some flooding reported on Highway 6 to Tonopah, Nev. 21/2 inches of new snow was reported at Mammoth for a total of 100 inches on the ground.									
<b>5 COLORADO</b>									
Mountains		13-14			0	0	0	0	Heavy snow
6 to 18 inches of snow fell at many spots in the Colorado Rockies. The areas hardest hit were Aspen, Steamboat Springs, Beaver Creek, and Mesa Lakes, west of Grand Junction. 12 to 18 inches fell in these areas.									
Northern and Central Mountains, Northeastern Foothills		18-20			0	0	0	0	High winds
Strong northwest winds buffeted areas in the mountains and northeastern foothills from time to time through the period. Beaver Creek ski area recorded a gust of 60 mph on the morning of the 18th. At midday on the 19th, gusts of 75 to 80 mph blew in the Table Mesa area of Boulder, and a gust of 62 mph was noted at Boulder on the evening of the 20th.									
Statewide		23-24			5	?	8	6	Blizzard
The blizzard of '82 affected most of Colorado, but it will be remembered primarily as the storm that paralyzed holiday activities in Denver. Snow began falling at Stapleton Airport at 1125 PM on Thursday, December 23. Blizzard conditions developed by 5 AM on the 24th, and continued most of the time until about 9 PM. The snow ended at 135 AM on Saturday the 25th.									
Conditions were perfect for a momentous storm in Denver. The weather system that blasted the city wreaked havoc first in California on December 22...and by late evening on the 23rd a surface low pressure area had become very well developed in Southeast Colorado...the ideal position for heavy snow in Denver. The storm carried moisture from the Pacific Ocean as it crossed the Rockies...and then tapped more moisture from the gulf of Mexico as it moved into position east of the mountains. So, in effect, the blizzard of '82 delivered a double dose of snow to Denver.									
The storm intensified over Colorado because the associated upper air disturbance grew stronger as it moved southeastward into the state. Then, to make matters worse, the whole system became cut off from the main branch of the jetstream just as it reached Colorado. As a result, the storm stalled as the jetstream failed to carry it eastward, and the heavy snow lasted for 24 hours instead of 6 to 12 hours as it normally does.									
23.8 inches of snow were recorded at the airport during the storm, with 23.6 inches of the total on the 24th. This established a new record for the greatest 24 hour snowfall in Denver, breaking the old mark of 23.0 inches set long ago...on April 22, 1885.									
Snowfall amounts from the storm were 24 to 34 inches in the Denver area, with the greatest amounts recorded in the suburbs. Two to four feet fell in the foothills from west of Colorado Springs to the Wyoming border. Boulder received 18 to 24 inches, but snowfall tapered off dramatically to the north of that city with only 1 to 3 inches in Fort Collins. The area around Greeley received an inch or less...and golfers were out on Christmas Day while only 60 miles to the south, Denver was paralyzed. Strong winds blew in the Greeley area on the 24th...but they carried blowing dust instead of snow.									
To the south of Denver about two feet of snow buried Parker and Sedalia, but only 7 inches fell in Colorado Springs. South of that city, most spots on Interstate 25 received 2 to 6 inches. On the northeast plains snowfall generally varied from 8 to 15 inches, but Akron disappeared under 28 inches of wind blown powder. Most towns on the southeast plains escaped the brunt of the blizzard and measured 1 to 4 inches of snow.									
One to two feet fell in the mountains of Colorado, mostly on December 23 and the morning of the 24th. Snowfall in the western valleys ranged from 2 inches at Grand Junction to 15 inches at Durango.									
Weather conditions were brutal during the storm, especially in the Denver area. Visibility at Stapleton was one quarter mile or less for 17 consecutive hours beginning at 630 AM on the 24th, and was no higher than one eighth of a mile from 11 AM to 6 PM. Sustained winds of 25 mph or more blew for 15 consecutive hours starting at 630 AM, and gusts of over 40 mph were noted during 12 different hours. The peak gust of 51 mph occurred at 908 AM.									
Winds were even stronger in other areas. Gusts of over 60 mph were recorded at Pueblo, Akron, and Colorado Springs. Sustained speeds were mostly 25 to 45 mph on the eastern plains of Colorado, but only 10 to 25 mph in the foothills.									
The howling winds of the blizzard of '82 blew the snow into drifts 4 to 8 feet high, bringing holiday travel to a complete standstill. All highways leading out of Denver were closed. Stapleton Airport was completely shut down for 33 hours on the 24th and 25th, and operated only on a limited schedule for several days thereafter. Train and bus transportation also halted, and Denver was cut off from the outside world. Thousands of travelers were stranded at transportation centers on Christmas. Many people were stuck at Stapleton Airport for several days. Conditions were so bad that some cities in the Denver metro area banned traffic from the streets except for four wheel drive vehicles...and many of them also wound up stuck in the snow.									

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

DECEMBER 1982

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED <sup>1</sup> DAMAGE		CHARACTER OF STORM	
					KILLED	INJURED	PROPERTY	CROPS		
<b>— COLORADO</b>										
										<p>Damage from the blizzard was widespread, and assumed many forms. A number of roofs were collapsed by the weight of the snow; greenhouses were particularly hard hit as glass roofs broke, and the plants inside froze in temperatures that dropped below zero during several nights following the storm. Total damage to greenhouses and plants was estimated at 5 million dollars. The high winds of the storm damaged many fences and at least one trailer in the Pueblo area, and caused numerous power outages. The city of Denver alone spent an estimated 3 million dollars to clean up the snow, a job that lasted several weeks.</p> <p>The majority of people in the Denver area were unable to get to work for several days during and after the storm, and it was estimated that 12.5 million man hours of work were thus lost, mostly in the Denver area. That resulted in 95 million dollars in wages that were paid for which there was no work.</p> <p>Retail sales were stopped or curtailed for several days; even ski areas suffered as people could not get to the mountains from Denver to take advantage of the fresh powder. Colorado businesses could lose as much as 500 million dollars overall, as a result of the blizzard.</p> <p>Five people died as a direct result of the blizzard. A 60 year old man died of hypothermia on his screened in back porch; a 66 year old man froze to death after falling into a drift a few feet from his home. A 34 year old man froze just east of Denver after leaving his four wheel drive vehicle, which had become stuck in the snow.</p> <p>Near Stoneham, a 58 year old woman froze in the drifts after becoming lost trying to find her sons on the family farm. A 24 year old man left his car near Walsenburg during the storm, and had not been found two weeks later; he is presumed dead.</p> <p>The storm was a contributing factor in four other deaths. These included a skier killed in an avalanche; a man who died of a heart attack while shoveling snow; a woman who died of head injuries after falling on the ice; and a man who was electrocuted when his snow removal machine contacted a power line. With the heavy snow and wind chill temperatures of 20 to 30 degrees below zero, injuries from frostbite and falls were undoubtedly numerous.</p> <p>Temperatures remained below freezing continuously for almost a week following the storm, and by New Year's Day traffic in Denver was still moving at a snail's pace, while many side streets remained nearly impassable. Extreme congestion at Stapleton Airport did not completely ease until after New Year's Day.</p>
Southeastern Colorado	27-28				0	0	0	0	0	<p>Snow, wind, freezing rain.</p> <p>Up to 10 inches of snow fell in southeastern Colorado. Weather problems were compounded by freezing rain that fell in many places before the snow began. To make matters even worse, strong winds blew the snow already on the ground from the Blizzard of '82, reducing visibility to near zero and closing many highways, including Interstate 70 from east of Denver to the Kansas border. Some travelers were stranded for a while in extreme southeastern Colorado.</p>
<b>6 CONNECTICUT — NONE REPORTED</b>										
<b>7 DELAWARE</b>										
Statewide	12				0	0	0	0	0	<p>Snow</p> <p>The first snowstorm of the season began during the early morning hours and ended in early afternoon. Snow depths ranged from 2 to 4 inches in the coastal sections and 4 to 6 inches elsewhere. Some serious drifting affected roads, due to 20 to 30 MPH winds, otherwise no major difficulties developed.</p>
<b>8 FLORIDA</b>										
Ocalaosa County	04	1335EST	-	-	0	0	5	0	0	<p>Thunderstorm winds</p> <p>A squall line moved through the area around midday with most of the damaging winds reported in the southern half of the county. The cities of Crestview, Holt, Niceville, Ocean City-Wright reported scattered power outages due to utility lines being blown down. Light metal storage sheds were demolished, and some roof damage occurred. Christmas decorations were destroyed in Fort Walton Beach. Eglin Air Force Base near Valparaiso reported a wind gust to 39 knots shortly before 1100EST prior to the onset of the heaviest activity and damage.</p>
Blountstown, Calhoun County	05	0730EST	.1	10	0	0	4	0	0	<p>Tornado(F1)</p> <p>Two houses were slightly damaged, one house had half of its roof blown off. Substantial tree damage was reported in the area although damage was confined to a very small area.</p>
<b>9 GEORGIA</b>										
Dade and Whitfield Counties	01	0600-1200EST			0	0	4	0	0	<p>Flooding</p> <p>Heavy rains caused several streams to rise rapidly; a few families were evacuated in Trenton (Dade County) and in Dalton (Whitfield County). Several roads became impassable, and some damage to roads and bridges occurred in Dade County.</p>
Colquitt County	05	1330EST			0	0	4	0	0	<p>Wind</p> <p>Strong thunderstorm winds damaged two mobile homes, several barns, and the roofs of at least three houses.</p>
Ben Hill County	05	1415EST	0.2	20	0	3	4	0	0	<p>Tornado (F1)</p> <p>A tornado touched down briefly near Fitzgerald and destroyed a mobile home. All three people in the mobile home were injured; one woman suffered cuts that required more than 100 stitches.</p>
Telfair County	29	0215EST	2.0	35	0	0	4	0	0	<p>Tornado (F2)</p> <p>A tornado touched down 8 miles south of Milan. It uprooted several trees, tore part of the roof from a house, and heavily damaged several farm buildings.</p>
<b>10 IDAHO — NONE REPORTED</b>										
<b>11 ILLINOIS</b>										
Van-Orin, Bureau County	2	0200CST	?	?	0	0	5	0	0	<p>Tornado (F0)</p> <p>At 1400 a V-shaped tornado was observed 1 mile east of Van-Orin destroying a house and damaging several farm buildings.</p>
Southern half	2-3	1500-0300CST			0	0	5	0	0	<p>Wind</p> <p>Thunderstorms with strong gusty winds caused localized damage mainly in the southern two-thirds of the state. Damage to farm buildings and houses occurred in scattered areas. In the evening of the 3rd, half of a barn roof and a grain bin roof was blown off north of Oblong in Crawford County. In Cowden, Shelby County, a mobile home was destroyed by wind. Several buildings in the area were damaged. Utility poles were blown over in Mattoon, Coles County.</p>
New Baden, Clinton County	2	2110CST	15.3	500	2	70	6	0	0	<p>Tornado (F3)</p> <p>A tornado traveled more than 15 miles through the town of New Baden. As it entered the southwestern part of town it destroyed 44 apartments units of an apartment complex. As many as 74 mobile homes were destroyed as the tornado struck a mobile home park. Two persons were killed in their mobile homes when they were destroyed. Numerous gas lines were severed when the mobile homes were ripped from their concrete pads. Sixteen homes and several more mobile homes were also destroyed as the tornado turned eastward and traveled out of town. Most of the damage was confined to a 3 by 6 block area. The estimated damage was \$7.5 million.</p>
Entire State	2-6				3	0	7	6	0	<p>Flooding</p> <p>Periods of showers and thunderstorms gave most of the state very heavy rainfall amounts. Most of the heavy rain fell during the 2nd through the 3rd and set some new 24-hour record amounts. In Springfield, Sangamon County, 6.12 inches of rain fell setting a new 24-hour record. Lake Springfield rose 2 feet above the old record flooding nearby land. Spaulding dam at Lake Springfield suffered \$100,000 damage to the spillway apron due to the excessive amount of flood water release. The flood gates had to be opened releasing nearly 1 billion gallons of water per hour. In Logan County, roads were washed out and 3 persons were treated for exposure after being rescued from a swollen creek. Throughout the state 5 to 7 inches fell causing record or near record flooding. Most rivers, streams, and creeks in the state rose out of their banks causing roads and bridges to be washed away and causing major property damage. The Mackinaw River overflowed flooding about 40,000 acres of land in Tazewell County and damaging homes at Mackinaw Valley Park. Over 5.50 inches of rain caused swelling of the Vermillion River and Turtle Creek in Pontiac, Livingston County, forcing 200 persons from their homes. Extensive damage was reported in the town. The Vermillion River crested in this area at 12 feet at 2130 on the 3rd. Parts of Ottawa, LaSalle County, became a lake as the Illinois River overflowed its banks. Many buildings were severely damaged. In Du Quoin, Perry County, 8 inches of rain fell in 17-hours causing major flooding. Flooding also caused damage in West Frankfort, Franklin County, and in Carbondale, Jackson County, where streets and low lying areas became lakes. In Greene County 10,000 acres</p>

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

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					KILLED	INJURED	PROPERTY	CROPS		
<b>ILLINOIS</b>										
										of prime farm land was under as much as 17 feet of water when Apple Creek overflowed. Nearly eighty miles of the Illinois River between Grafton, Jersey County, and Beardstown, Cass County, was closed to navigation due to the high water. About 100 persons were evacuated from an apartment complex and a number of homes in Elgin, Kane County, as Poplar Creek rose above its banks. In Grundy County heavy flooding damage occurred to 111 homes and 10 business buildings. On the southeast side of Joliet and around New Lenox in Will County, 150 persons were evacuated from their homes as Hickory Creek overflowed. Severe flooding occurred in many south and southwestern suburbs of Chicago. For the first time in 25 years the Chicago Sanitary District opened all 3 of its locks to allow 536 million gallons of storm water flow from the Chicago River into Lake Michigan. In Rockford, Winnebago County, the heavy rains also caused flooding of streets and farmland. Three persons were killed by the flooding. A freight train crewman near Normal, McLean County was killed when a freight car jumped the tracks at a washout. One person in Harvey, Cook County, was washed away with his pick-up truck in Sugar Creek. A man in Petersburg, Menard County was also killed. Thirty-seven of the 102 counties in Illinois were declared disaster areas. The estimated damage was \$200 million.
Southern Half	3-4	1500 to 0300CST			0	0	5	0	Wind	Thunderstorms with strong gusty winds caused localized damage mainly in the southern two-thirds of the state. Damage to farm buildings and houses occurred in scattered areas. In the evening, half of a barn roof and a grain bin roof was blown off north of Oblong in Crawford County. In Cowden, Shelby County, a mobile home was destroyed by wind. Several buildings in the area were damaged. Utility poles were blown over in Mattoon, Coles County.
Entire State	27-28	1900-0300CST			0	2	6	0	Wind	During the afternoon and continuing through the night, strong winds caused wide-spread damage in the state. Winds as high as 60 knots caused damage to buildings, sheds, mobile homes and trees. In Alledo, Mercer County, and in Erie, Whiteside County, several mobile homes were overturned and damaged along with several out-buildings. One person was injured in a mobile home in Alledo. In Rock Island County and throughout the northwest portion of Illinois, extensive property damage and power failures occurred. In downtown Chicago, Cook County, two steel beams were blown from the top of a building under construction. Tree, tombstone, and fence damage was reported in Sheffield, in Bureau County. On interstate 74 north of Bloomington, McLean County, a semi-trailer was overturned by a gust of wind injuring the driver. In Kankakee, Kankakee County, 1 mobile home was overturned and several others damaged. A metal truck garage was blown apart in McComb, in McDonough County. In Monmouth, Warren County shed and building damage was noted.
<b>12 INDIANA</b> — NONE REPORTED										
<b>13 IOWA</b>										
Des Moines County (Southeast Iowa)	02	0013 CST	2 1/2	Narrow	0	0	4	0	Tornado (F1)	An apparent tornado damaged a house, destroyed the garage and a pole barn, and ripped the roof off a mobile home between Yarmouth and Morning Sun. Debris was scattered for a two and a half mile path.
Southeast Iowa	02	Morning			0	0	3	0	Heavy Rains	Rains of more than 3 inches fell in Burlington and 2 inches in Iowa City, New London, West Point, Ft. Madison, Mt. Pleasant, and Wapello. Minor flooding of streets and driveways ensued.
Southeast Iowa	27	Afternoon -Evening			0	0	5	0	Windstorm	Much damage was caused by a windstorm in Southeast Iowa. In Muscatine winds gusting to 90 miles an hour knocked down a 265 foot radio transmission tower; a barn was demolished, a home under construction collapsed, several roofs were damaged. Near Donnellson in Keokuk County, an airplane hanger was destroyed and seven planes damaged. Other damage included the destruction of barns, tool sheds, roofs, trees, poles, power lines and quonset huts.
<b>IOWA</b>										
Iowa	27-28	All day- Morning			0	0	6	0	Winter Storm	A major winter storm moved into Iowa and spread freezing rain over the Northwest half of the State during the day of the 27th. The freezing rain changed to snow and deposited several inches - up to 10 inches at Sioux City in the Northwest corner of the State and 2 to 8 inches in the Southwest, South Central and North Central portions of the State. High winds ensued and blizzard conditions were experienced in much of Iowa, but notably in the Northwest corner where the snow was the heaviest. The high winds also caused trees, poles and power lines coated with ice to crack and fall, and many power outages occurred, some lasting up to 3 days in the rural areas of Northwest Iowa. The greatest damages were incurred by the Rural Electric Cooperatives in the repair of their lines. Municipalities and Local Governments also spent large fractions of their entire snow removal budgets for this single storm. Also, the downed trees and lines caused individual property losses.
<b>14 KANSAS</b>										
Pittsburg, Crawford County	01	1900CST			0	0	4	0	Hail	Hail, 1-2 inches in diameter, fell near Pittsburg
Mulberry, Crawford County	01	1920CST	0.5	100	0	0	5	0	Tornado (F1)	A rare December Tornado touched down for about a minute 3.5 miles southwest of Mulberry. It destroyed a barn, mobile home, and garage, and pulled the side off a house. Three trucks and some farm machinery were damaged. A ten foot long 2X4 was driven through the tailgate of a pickup. The same storm dropped another tornado near Liberal, Missouri.
Walnut, Crawford County	01	2000CST			0	0	4	0	Hail, Funnel	Hail the size of golf balls fell at Walnut and a funnel was sighted 5 miles south of Walnut.
Northwest Kansas	24-25				0*	0*	5	0	Winter Storm	A severe winter storm dropped 8-12 inches of snow on Northwest Kansas, generally north and west of a line from Tribune to Norton. Winds of 50-60 mph accompanied the storm. Drifts closed most roads and highways, stranding hundreds of holiday travelers. *A woman was killed and two people injured in an auto accident near Wakeeney.
Northern Kansas	27-28				0	0	6	0	Winter Storm	A winter storm moved across the northern half of Kansas from early the 27th until the morning hours of the 28th. The storm dumped 4-8 inches of snow north and west of a line from Syracuse to Belleville. The snow fell atop the heavy snow of the 24th and 25th in the northwest corner. Precipitation began as freezing rain in a band about 50 miles wide from Tribune to Russell to Marysville. Wind gusts of 30-40 mph drifted nearly all roads and highways closed in the northwest quarter of the state. Interstate 70 was closed from Salina west to the Colorado Border the night of the 27th. The ice coating and wind combined to topple power poles and down lines. About 20,000 homes were without electricity for a time during the storm.
<b>15 KENTUCKY</b>										
Western	03	Afternoon			1	0	4	3	Heavy Rain, High Winds, Flooding	Torrential rains of up to 4 inches were accompanied by strong thunderstorm winds. Flooding and scattered debris were widespread over McCracken, Fulton, Carlisle, and Ballard Counties.
										Winds of 60 to 100 miles per hour were reported in the counties of Hickman and Fulton at 1530 EST. Damage was mainly confined to barns and debris scattered into telephone and electrical lines. Power poles were tilted and lines downed in Mayfield. Winds up to 45 miles per hour were recorded over Ballard County.
										Several areas reported brief power outages.
										Street flooding and lowland flooding were common in and around the Paducah (McCracken County) area. A Barlow (Ballard County) man died when his pickup truck slipped off a culvert on a road which was covered with three feet of water and plunged into an eight foot deep ditch.
Western	03	2045 EST			0	0	4	3	Flash Flooding	Flash flooding occurred over Fulton, Hickman, Ballard, Carlisle, Calloway, and Graves counties. Many roads were underwater and several side road bridges were washed out.

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					KILLED	INJURED	PROPERTY	CROPS	
<b>KENTUCKY</b>									
Southeast	11-12	night-early morning			0	0	4	0	Snowstorm
	A snowstorm dumped 4 to 11 inches of snow over parts of southeast Kentucky. Roads became extremely hazardous. A few highways were temporarily closed. Motorists became stranded. Power outages were extensive leaving 9,755 customers without electricity. Letcher County was hardest hit of any one area. Big Black Mountain reported snow drifts up to three feet.								
Western	24-26	early morning/late eve			0	0	3	3	Heavy Rain, Flooding
	Continuous rainfall of 3 to 4 inches caused minor flooding over low-lying areas. Several roads and rural bridges were underwater. Some roads were closed.								
Calloway County	25	Afternoon			1	0	3	0	Flash Flooding
	High water was blamed for a death in western Calloway County. An 85 year old man from Murray was trying to drive through rushing water 2 1/2 miles south of Lyon Grove when his vehicle was swept off the road into a ditch.								
<b>16 LOUISIANA</b>									
Southern Half of state	04-05	night			1		7		Heavy rain/flash flooding
	An intense surface low pressure system moved from west to east across southern Louisiana. Very heavy rains occurred over almost the entire southern half of the state. Twenty four hour rainfall amounts ranged from 6 inches in the southwest parishes to in excess of 9 inches over portions of southeast Louisiana. The area around Baton Rouge was hardest hit by flood waters. Severe urban flooding in Baton Rouge affected many dwellings and automobiles. The Amite River produced widespread flooding near Denham Springs. The parishes most adversely effected were East Baton Rouge and Livingston. To the east areas of major flooding were noted in Orleans, St. Bernard, Jefferson, St. Tammany, and Washington Parishes. Severe urban flooding occurred in the New Orleans metropolitan area but damage was unusually low due to precautions taken by the local officials and residents. Less than 1,000 automobiles and 100 dwellings were damaged. With a storm of this magnitude normally 5,000 automobiles and 2,000 dwellings would have been damaged. In southwest Louisiana, numerous fishing camps and automobiles received water damage. Statewide, damage was estimated to be in the 5 to 10 million dollar range.								
St. Landry Parish	04	1030CST					5		Tornado (F1)
	A tornado struck the town of Eunice. The main damage was in the western sections of the town. Police witnessed the funnel dipping down, traveling about a mile then lifting. Severe damage occurred to several houses along with uprooted trees and downed power lines. There were not known injuries or deaths.								
Washington Parish	05	0130CST					5		Tornado (F1)
	A tornado touched down on a farm 3 miles north of Franklinton during the early morning hours. Several well constructed buildings on the farm were severely damaged. Although a funnel was not observed, the debris was very chopped up. Path was about 1 mile long and 50 yards wide. There were not known injuries or deaths.								
Madison Parish	05	AFTN					4		High Wind
	High winds accompanying a thunderstorm uprooted trees and downed numerous power lines in Tallulah. No injuries or deaths reported.								
Avoyelles Parish	05	AFTN					4		High Wind
	High winds accompanying a thunderstorm destroyed several large barns, one which was well constructed. Also, several utility poles were blown down.								
Plaquemines Parish	15	0745CST	?	?			4		Tornado (F1)
	A tornado which began as a waterspout moved inland and struck a residential area of Venice. Two mobile homes were destroyed with others receiving lesser amounts of damage. There were no known injuries or deaths.								
<b>LOUISIANA</b>									
Statewide	25-28				5	200	8	7	Heavy rain/Flash flooding
	The largest rainfall event to strike Louisiana in over 100 years began on the 25th during the late afternoon continuing into the early morning hours on the 28th. Storm total rainfall amounts averaged 15 inches over a 100 mile wide band extending from Lake Charles in far southwest Louisiana to Monroe in the northeast portion of the state. Several locations recorded storm total rainfall amounts in excess of 18 inches with as much as 13 inches falling in a 24 hour period on the 26th. Severe flooding was observed on almost every river in the state. In fact the main stem Mississippi River rose to above flood stage from Baton Rouge to New Orleans. The rivers which produced the most damage were the Calcasieu, Little, Black, Red, and Ouachita. Severe backwater flooding was noted in the areas in Rapides, Avoyelles, and Grant Parishes. Dwellings that received water damage numbered into the hundreds near Alexandria. At one time, several hundred roadways throughout the state were closed due to high water. This included many major highways. A large railroad bridge was totally washed away and endangered several other bridges in the same area including the heavily traveled I10 bridge. The severe flooding continued into January, 1983. Total damage was estimated at 100 to 200 million dollars and 5 deaths were attributed to flooding. A breakdown of damage by parishes will be included in January, 1983 Storm Data.								
Franklin Parish	27	MRNG	1	50			5		Tornado (F2)
	A tornado struck the area 8 miles southeast of Winnsboro. Five houses received major damage. There were no deaths or injuries.								
Rapides Parish	27	MRNG	?	?			1		Tornado (F1)
	A tornado was observed near the town of Echo located 10 miles southeast of Alexandria. There was no known damage.								
Avoyelles Parish	27	1130CST	1	50			5		Tornado (F1)
	A tornado severely damaged several buildings near the town of Mansura. A farm service center received damage in excess of 100,000 dollars. The path was short and narrow.								
Avoyelles Parish	27	1200CST	2	50			1		Tornado (F0)
	Tornado damage was noted along a 2 mile long path near the town of Plaqueville. Damage was mainly to trees. Late reports indicated a funnel was observed near where the damage occurred.								
Madison Parish	27	1255CST					3		High Wind
	Wind damage to trees and power lines was observed southeast of Tenda.								
East Carroll Parish	27	1315CST					3		High Wind
	Extensive tree damage caused by high wind was observed by the NWS co-operative observer at Lake Providence.								
<b>17 MAINE</b>									
Eastport, Washington County	09	Evening EST			0	0	4	0	Strong Winds
	Gale force winds blew down a partially constructed 50 foot high cylinder at Eastport Fish Pier site. The nearly completed structure was composed of 68 one-ton steel sheets of which some 50 or 60 ended up submerged in the bay.								
Statewide	26	Late Morning EST			0	0	5	0	Strong Winds
	Strong winds with repeated gusts in excess of 50 mph were commonplace statewide late Sunday morning into the early evening. The winds blew over several utility poles, snapped power lines and downed trees and branches on or through power lines. Power outages were widespread throughout the state for up to 7 hours. Road signs, billboards, and a tennis court wire link fence were blown over, as well as roofing torn from buildings. Sugarloaf Mountain estimated wind gusts up to 100 mph. Other peak gusts recorded were: Limestone, 51 mph; Caribou, 61 mph; Houlton, 52 mph; Bangor, 65 mph; Augusta, 68 mph; Portland, 48 mph; and Greenville, 48 mph before the AMOS lost its power shortly after 1 pm.								

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

DECEMBER 1982

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	
<b>18 MARYLAND and D.C.</b>									
Statewide and District of Columbia	11-12				1	2	0	0	Snow
	<p>The first snow of the season turned out to be heavy over much of the area. The mid-Eastern Shore sections, with a 6 to 8 inch accumulation, had the first significant snowfall in 15 years. Snow began falling around 11PM of the 11th in the western counties and continued into late morning or early afternoon, on the 12th. Depths of 4 to 6 inches were prevalent, with upwards of 10 to 12 inches reported in Montgomery County. The far western counties of Maryland measured 2 inches or less. In the District of Columbia, where 6 to 7 inches fell, the death of a man found in a reflecting pool near the Capitol building was attributed to exposure. In St. Marys County two persons were injured by a skidding automobile, as they walked along a roadway near Lexington Park. In addition, the running of the Maryland Marathon in Baltimore was cancelled due to poor road conditions.</p>								
Turkey Point (nr), Anne Arundel County	28 Evening				3	0	0	0	Wind
	<p>Tragedy struck three men who had been oystering, as their boat sprung a leak in rough waters, and became stranded on a shoal only 100 yards off Turkey Point - where the South River enters Chesapeake Bay. It was theorized that the men were too numb and dis-oriented by the chill factor, in 45-degree water, to try to make it to shore. They succumbed not long before help arrived.</p>								
<b>19 MASSACHUSETTS</b>									
Cape Cod & Islands	12 All Day				0	0	0	0	Snow
	<p>Heavy snow fell over the Cape and Islands and strong to gale force winds caused considerable drifting. Amounts of about one foot were reported from the Outer Cape and Nantucket. WSO Chatham measured 13 inches. Some 500 visitors to Nantucket Island were stranded overnight when ferry and airline service to the Island was disrupted to the storm.</p>								
<b>20 MICHIGAN</b>									
Lower Peninsula	28 All Day				0	8	6	0	Wind
	<p>Injuries: Owosso - man struck by flying debris, woman knocked down; Flint - wall collapsed on man; Port Huron - man blown off roof; Royal Oak - 3 persons knocked down, 2 cut by flying glass.</p> <p>Temperature fell from record high (Detroit, Lansing and Grand Rapids 60, Alpena 56) with cold front passage early in the day. Gusty winds followed front. Peak gusts Alpena 38 MPH, Grand Rapids 62, St Joseph 57, Lansing 65, Flint 68, Pontiac 69. Trees, signs, and power lines down throughout area. 96,000 customers without electricity. Large buildings partially unroofed in Battle Creek, Jackson, Waterford, Madison Heights, Mt. Clemens, and Marine City. Many buildings and vehicles damaged by falling trees. Chimney blown off downtown building into street at Grand Rapids. Small aircraft torn from moorings and damaged at Pontiac. Mobile homes blown over at Flint and Ypsilanti. Small fire became uncontrollable and destroyed house in Saline. Partial ice cover on Houghton Lake, Lake Cadillac, and other inland lakes blown onto shore. 8 to 15 foot waves on Lake Michigan near Ludington.</p>								
<b>21 MINNESOTA</b>									
South and East Central	24/25				0	0	0	0	Heavy Snow
	<p>Snow and freezing rain spread from southwest through east central Minnesota and rain began to fall in the southeast late during the morning of December 24th. The precipitation continued through a 24-hour period with the heaviest amounts occurring in the east on the 25th during the early morning hours. Thunder was observed in the southeast before the rain changed to snow. In Minneapolis a 24-hour record for the greatest amount of precipitation in December was broken. A total of 3 to 7 inches of snow fell in the southwest and a band of snow from 6 to 12 inches fell from St. Cloud to Duluth. The heaviest snowfall was 12 inches at Carlton, Minnesota.</p>								
<b>MINNESOTA</b>									
South and East Central	27/28				1	0	4	0	Blizzard/Ice Storm
	<p>Snowfall of 8 inches or more fell from southwest Minnesota northeast through east central Minnesota as far north as Duluth. The southwest corner of the state received in excess of 14 inches of snow as did east central Minnesota from Mankato through Minneapolis and St. Paul into northwest Wisconsin. The greatest snowfall recorded was 16.5 inches in Minneapolis which was the fourth largest snowfall on record for that city. The southeast corner of Minnesota received freezing rain Monday, December 27th before changing to snow on the morning of the 28th. Glaze up to 1 inch in thickness accumulated in the southeast beginning on the afternoon of December 27th. Many power lines and trees became coated with ice which resulted in extended power outages. Winds increased across Minnesota on the morning of December 27th to 40-50 mph causing blizzard conditions. Gusts to 74 mph were reported from Luverne and 60 mph from Edgerton in the southwest. Blowing and drifting snow reduced visibilities and made it impossible to clear many roads until late on the 28th. Drifts from 6 to 10 feet were common. An elderly Lakeville man exposed to the blizzard conditions perished on the 27th. A cable TV tower toppled due to high winds early on the 27th near Fulda, MN. Thunder and lightning were observed early Tuesday morning during the heaviest snowfall in the southeast and east central portions of the state. A radio transmitter near Fairmont was struck by lightning and damaged. The Minneapolis/St. Paul International Airport was closed for an extended period of time due to blowing and drifting snow.</p>								
<b>22 MISSISSIPPI</b>									
Statewide					1	0	7	7	Flooding
	<p>December was a record month for rainfall at almost every rain gage in the state. Over 20 inches of rain fell for the month in a large area of the central Delta and parts of the north central and northeast Mississippi hills, causing widespread flooding. The two biggest rainfall events occurred on December 3-5 and December 25-26. The ground was already saturated from heavy rains in late November. By the end of the month 212 homes in Grenada County alone had been flooded, with widespread flooding also occurring in Sunflower, Washington, Bolivar, Carroll and Tallahatchie Counties. In northeast Mississippi along the Tombigbee River Basin up to 175 houses were flooded or left inaccessible due to flooded roads after the Christmas storm. Thousands of acres of farm land were inundated by the flood waters. The flooding claimed one life. A Monroe County man drove his pickup truck into the swift moving flood waters of Town Creek as it flowed over Slitic Road. His car stalled. He was swept away when he tried to walk to safety.</p>								
Pearl, Rankin Co.	3 1845CST				0	0	5	0	Flash Flood
	<p>Over 6 inches of rain fell in Rankin County on the 3rd causing widespread flash flooding in the City of Pearl. About 25 homes were flooded along with numerous vehicles and businesses along Highway 80. One third of Pearl's streets were flooded.</p>								
Greenville, Washington Co.	3 1900CST				0	0	4	0	High Wind
	<p>Severe thunderstorm winds produced widespread wind damage in Greenville. Parts of a roof and siding were blown off of an apartment building. One small building was destroyed and there were numerous reports of trees down and power outages.</p>								
Improve, Marion Co.	7 1830CST				0	0	3	0	High Wind
	<p>Winds from a severe thunderstorm blew down large trees and destroyed a barn roof in the Improve Community.</p>								
Copiah Co.	22 1615CST	.3	75	0	0	4	0	0	Tornado (F1)
	<p>A small tornado touched down briefly 1 1/2 miles north of Crystal Springs. A warehouse roof was damaged and windows were blown out of three cars.</p>								
Copiah Co.	24 0745CST				0	3	4	0	High Winds
	<p>Strong thunderstorm winds destroyed a mobil home slightly injuring three people in the Rockport-Georgetown area of Copiah County.</p>								
Sturgis, Oktibbeha Co.	24 1630CST	.7	75	0	0	5	0	0	Tornado (F1)
	<p>A small tornado touched down briefly in the town of Sturgis destroying a portable classroom, the football bleachers, press box and lights at Sturgis High School. Three mobil homes and a barn were destroyed in the northern part of town. There were no injuries.</p>								
Robinsonville, Tunica Co.	24 2200CST				0	0	4	0	High Winds
	<p>High winds from a severe thunderstorm destroyed a work shed and caused major damage to a old house in Robinsonville on Christmas eve.</p>								
Muscussco, Attala Co.	25 1400CST				0	0	4	0	High Winds
	<p>Severe thunderstorm winds lifted a camper trailer over the corner of a house and dropped it in the in the back yard, completely destroying the camper. Numerous windows in cars and businesses were blown out by the storm.</p>								

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

DECEMBER 1982

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	
<b>MISSISSIPPI</b>									
Jackson, Hinds Co.	25	1400CST			0	0	3	U	Flash Flood About six families in Jackson were forced to evacuate their homes due to rapid rising creeks and street flooding. Numerous cars were flooded. One car was completely submerged.
Verona, Lee Co.	25	2200CST			0	0	4	U	Flash Flooding Heavy thunderstorm rains caused flash flooding in Verona. Two small bridges were washed out and one grocery store was flooded.
Neshoba Co.	26	1430CST	.7	75	0	0	4	0	Tornado(F2) A tornado touched down briefly in western Neshoba County just north of Highway 488 destroying a house and uprooting trees. No other damage was reported.
Vaiden, Carroll Co.	26	2130CST			0	0	4	U	Flash Flooding Heavy thunderstorm rains produced fast rising water along a creek flowing into the Black River in Vaiden. Five families were forced to evacuate their homes. Three homes were flooded.
Jackson, Hinds Co	27	1430CST			0	0	4	0	Flash Flood Heavy thunderstorm rains produced flash flooding in the City of Jackson. Many small streams were out of their banks, blocking numerous roads and highways. Two residences reported flooding.
<b>23 MISSOURI</b> ————— NO REPORT RECEIVED									
<b>24 MONTANA</b> ————— NONE REPORTED									
<b>25 NEBRASKA</b>									
South Panhandle, Southeast, Central, North Central, and Northeast Nebraska	24	Midday thru -25 Morning			0	0	4	0	Blizzard A blizzard spread from the southern panhandle and southwest Nebraska on Christmas Eve day to northeast Nebraska by Christmas morning. At the peak of the storm, winds gusted 55 to 70 m.p.h. reducing visibility to near zero at times in blowing snow. Snowfall of 5 to 15 inches was pushed into 3 to 6 foot drifts. Many travelers were stranded along the interstate from North Platte to Kimball. The winds blew down a TV relay tower at Elwood. Some reported snow depths from the storm included 15 inches at Broken Bow, 12 at Burwell and Elsmere, 8 at Verdigre, Lynch, Taylor and Imperial, 7 at Elgin and Sidney, and 6 at Kimball.
East Central, Southeast and South Central Nebraska	27	Daytime			0	0	6	0	Ice Storm Freezing rain coated the area with a layer of ice. Travel was extremely hazardous with numerous accidents. Twenty-five people were injured when a bus slid off of I-80 in south central Nebraska. As high winds with a blizzard moved into the area by late afternoon and night, major power outages affecting thousands occurred as ice laden trees, utility lines and poles broke. Outages were particularly bad around Lincoln, Beatrice, Omaha and Blair. At one time, an estimated sixty percent of Lincoln was without power. Some rural areas were without power 3 to 5 days after the storm. Buildings and vehicles were also damaged by falling trees.
Entire State except Panhandle and North Central	27	Daytime thru -28 Morning			0	0	4	0	Blizzard Blizzard conditions developed in central and southwest Nebraska and spread eastward to eastern Nebraska during the night into the morning of the 28th. During the peak of the storm, winds gusted 40 to 60 m.p.h. and visibilities were frequently below a quarter of a mile in snow and blowing snow. The winds formed 4 to 8 foot drifts in areas. Thousands of travelers were stranded across central and eastern Nebraska. In the Imperial area, a rancher was stranded almost 8 hours as he attempted to feed cattle. Some reported heavier snowfalls included 18 inches at McCook, 15 at Stapleton and Walthill, 14 at Bloomfield, 12 at Gibbon, Pierce, Broken Bow and Kearney, 8 to 10 at Lexington and Grand Island, and 5 to 7 around Omaha, Lincoln, and Norfolk.
<b>26 NEVADA</b> ————— NONE REPORTED									
<b>27 NEW HAMPSHIRE</b>									
Statewide	26	Morning EST			0	0	5	0	Strong Winds Strong winds with repeated gusts in excess of 50 mph were commonplace statewide Sunday morning and afternoon. The winds snapped power lines. Power outages were widespread throughout the state. Hardest hit areas appeared to be in the Conway area with 3500 customers left powerless for a few hours. In the Pittsburg to Dalton region, about 1300 customers were without power for 14 hours. Peak gusts recorded were: Portsmouth, 41 mph; Concord 53 mph; Mt. Washington (elev. 6262 ft) 123 mph with frequent gusts over 100 mph throughout the day.
<b>28 NEW JERSEY</b> ————— NONE REPORTED									
<b>29 NEW MEXICO</b>									
East and Southeast Plains	9	Early Morning Hours			0	0	6	0	Ice Storm "The worst ice storm in 22 years," as reported by the residents of of the East and Southeast Plains. The storm moved into the area shortly after midnight, causing damage in the millions. Power lines, poles, and other utilities suffered the worst damage. Some homes were damaged by falling trees. Cleanup continued for days. No deaths were directly attributed to the storm.
Central and North-eastern New Mexico	25	Afternoon and Evening			0	0	5	0	Heavy Snow Storm and High Winds Shortly after noon Christmas Day heavy snow began to fall from Las Cruces north to Raton. Up to 15 inches was recorded with wind gusts to 75 miles per hour in the Raton area. Traffic in and out of Albuquerque, both air and highway, was halted. Most damage was reported in the Raton area. Many holiday travelers were stranded for days at the Albuquerque airport. No deaths were directly attributed to the storm.
<b>30 NEW YORK, Coastal</b> ————— NONE REPORTED									
<b>30 NEW YORK, Central</b>									
All Eastern New York Counties	10-12				0	3	?	0	Major Snowstorm The first major snowstorm of the year gave eastern New York a dose of heavy snow...in some parts of the Capital District area of New York. The storm covered all of eastern New York from New York City into the Adirondacks, and west into the southern tier and Mohawk Valley. Heavy snow amounts were also reported in southern Vermont. This storm was followed by near zero temperatures.
Eastern Southern Tier, Western Mohawk Valley	15-16				4	15	?	0	Rain, Freezing Rain and Glaze Rain, and temperatures near freezing in parts of Eastern New York resulted in many automobile accidents and accounted for the four deaths and 15 people injured, plus one horse injured. Several school districts shut down for the day. Rain resulted in a rock slide along Route 9D in Phillipstown. 1800 homes were without power in Northern Westchester and Putnam Counties.
Adirondack Mountains	26				0	0	6	0	Rain 1.25 inches of rain fell in the Mohawk Valley and Adirondacks. High winds accompanied the storm, which resulted in moderate wind damage to portions of St. Lawrence, Franklin, Essex, and Clinton Counties. Power lines and trees were the most seriously affected. A few fires which broke out during the afternoon were difficult for local firefighters to put out. Winds in Rouses Point were clocked at over 50 MPH. Prior to the wind and rain, temperatures were in the 50s and 60s as reported by several NWS stations.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

DECEMBER 1982

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					KILLED	INJURED	PROPERTY	CROPS		
<b>30 NEW YORK, Western</b>										
Olean, Cold Springs, Cattaraugus County	21	Morning					4		Snow	
									Heavy snow build-up on tree branches caused them to sag and break power lines.	
Parts of Lewis and Oneida Counties	26	Morning					4		Wind	
									Wind gusting to above 50 MPH broke trees and snapped power lines. A few trees fell on homes and caused some damages.	
Medina, Orleans County; Middleport and Niagara Falls, Niagara County; Dunkirk, Chautauqua County	28	Evening					4		Wind	
									Strong winds broke glass at the Niagara Falls Festival of Lights. Tree limbs fell and broke on power lines in Middleport and Dunkirk.	
<b>31 NORTH CAROLINA</b> — NONE REPORTED										
<b>32 NORTH DAKOTA</b>										
Extreme Northwest	01 02					0	0	0	0	Heavy Snow
										Heavy snow (6.7 inches at Williston in Williams County and 6.0 inches at Ambrose and Crosby in Divide County) occurred over parts of the northwest.
<b>33 OHIO</b>										
ENTIRE STATE	28	0400-1700EST				0	1	5	0	High Winds
										A cold front moved through the state with strong southerly winds ahead of the front gusting as high as 70 MPH. Frequent gusts in excess of 50 MPH were reported in all sections of the state. Power outages affected thousands of people and several trees were downed. Considerable structural damage also occurred, mainly in the form of roofs coming off and windows being broken. A man was injured in Mantua when roofing material that was blown loose struck him in the face and chest.
<b>34 OKLAHOMA</b>										
Wellston, Lincoln County	01	1715CST				0	0	?	?	Wind
										High winds blew down telephone and power lines.
Harrah, Oklahoma County	01	1747CST				0	0	?	?	Wind
										Wind described as very strong blew a Police car off the road.
Broken Arrow, Tulsa County	02	0045CST				0	0	3	0	Lightning
										Lightning struck a house causing a large hole in the ceiling and some bricks fell into the house. Damage was estimated at \$3 to 5,000.
McAlester, Pittsburg County	02	Morning				0	0	4	0	Lightning
										Lightning struck a house causing a large hole in the roof and starting a fire. Damage was estimated at \$10,000.
Payne County	13	Afternoon				0	0	4	0	Wind
										Wind blew over and destroyed a mobile home. The "double wide" mobile home was being transported in sections on Highway 51 west of Stillwater. The half with the open side to the wind, although covered for transportation, was caught by a gust and rolled. Damage was estimated at \$25-30,000.
Monroe, LeFlore County	23	2200CST	0.5	50		0	0	?	?	Tornado (F1)
										A small tornado destroyed a barn on a farm near Monroe.
Wright City, McCurtain County	23	2345CST	3.0	100		0	1	5	0	Tornado (F2)
										A tornado damaged a school, a park, a couple of businesses, and about 30 houses. One man in a mobile home was injured. Damage was estimated near \$300,000.
<b>— OKLAHOMA</b>										
Sallisaw, Sequoyah County	24	0008CST				0	0	?	?	Hail
										Golfball sized hail was reported.
Haskell, Muskogee County	24	Morning				0	0	4	0	Wind
										High winds destroyed a mobile home, it was vacant and not tied down.
Jennings, Pawnee County	24	0700CST				0	0	?	?	Wind
										High winds damaged a work shop, a church, and a couple of houses.
Tulsa, Tulsa County	24	0807CST	3.0	100		0	7	6	0	Tornado (F2) and Wind
										A tornado accompanied by high winds destroyed 5 mobile homes, did major damage to 4 houses, and minor damage to 20 houses. There was also a lot of tree and power line damage. A volunteer fire department building was destroyed. Damage was expected to exceed \$2 million. Seven people were injured.
Ketchum, Craig County	24	0940CST	0.5	50		0	10	5	0	Tornado (F2)
										A small tornado struck a trailer park; destroying 15 mobile homes and injuring 10 people. A total of 28 people were left homeless. Damages were expected to be near \$100,000.
Okemah, Okfuskee County	24	Afternoon				0	1	2	0	Lightning
										A lightning discharge killed two cows and injured a man that was feeding the cattle.
<b>35 OREGON</b> — NO REPORT RECEIVED										
<b>36 PENNSYLVANIA, Eastern</b>										
Philadelphia	12	0100-1200EST				0	0	2	0	Heavy Snow
										Although some snow fell over most of southeastern Pennsylvania, the heavy snowfall was over Philadelphia and vicinity. Accumulation in this area were 3 to 7 inches with the lightest amounts over the northern and western suburbs. Philadelphia International Airport received 7 inches accumulation.
<b>36 PENNSYLVANIA, Western</b> — NONE REPORTED										
<b>37 RHODE ISLAND</b> — NONE REPORTED										
<b>38 SOUTH CAROLINA</b>										
Georgetown, Georgetown County	12	0545 EST				0	0	4	0	High Winds
										High winds following a strong cold front broke a plate glass window, tossed a boat 25 feet into a parking lot, tore off a roof from a home and caused considerable minor damage.
Greenwood, Greenwood County	15	2300 EST				0	0	3	0	High Winds
										Caused numerous power outages in Greenwood.
Northwestern, S. C.	19	0400 EST to 1000 EST				0	0	3	0	Freezing Rain
										Glaze from freezing rain made bridges and some roads over northwestern South Carolina hazardous. A number of accidents were reported.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

DECEMBER 1982

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					KILLED	INJURED	PROPERTY	CROPS		
<b>39 SOUTH DAKOTA</b>										
Gregory and Brule Counties	24	Afternoon	-	-	0	0	4	0		Ice
	Ice accumulation resulted in scattered power outages and downed telephone poles.									
Southeast Corner	27-28	Late Afternoon	-	-	0	0	4	0		Blizzard
	A blizzard paralyzed the extreme southeast corner with up to one and one-half feet of snow and winds gusting over 50 mph. A gust to 64 mph was reported at Yankton. Heaviest snowfall total reported was over 18 inches at Irene, while several other locations received a foot or more. Most roads were unpassable and numerous automobile accidents occurred, including a 14-car pileup east of Sioux Falls.									
<b>40 TENNESSEE</b>										
Anderson County	1	AM CST						5	0	Flash Flooding
	The northwest portion of Anderson County received heavy rains early Wednesday which caused flash flooding. The rainfall began Tuesday (Nov. 30), but was heavy early Wednesday. Rainfall was estimated at more than 2 inches. By late afternoon water had receded from inundated highways.									
	Oliver Springs and Briceville were hardest hit. Two families were evacuated from their homes in Briceville and most secondary roads were closed. County schools closed at 10 a.m. to assure that buses could return the children.									
	Much of the damage occurred to bridges and roads. Damage to these was estimated at \$100,000.									
East Tennessee	11-12	PM-AMCST						?	?	Ice and Snow
	Precipitation in the form of freezing rain and then snow caused problems for much of East Tennessee. Power was disrupted in many sections due either to lines falling because of ice or because of tree limbs falling on the lines. Travel was messy due to the wintry weather. Snowfall amounts ranged from around 1 inch in the southeast corner of the state to reports of 6 to 10 inches along North Carolina-Tennessee line.									
5 Miles Southwest of Millington	25	0400CST	2.0	75	0	0	5	0		Tornado (F2)
	A small tornado touched down about 5 miles southwest of Millington on U.S. Highway 51. The tornado moved on a south to north track actually beginning on the east side of U.S. 51 and gradually crossing the highway which angles southwest to northeast. Two buildings sustained heavy damage with 10 to 15 others receiving some damage. One building a concrete block building used as a body shop, was completely demolished. One automobile on the highway was turned around and put into a ditch.									
Near Whitehouse, Montgomery County	25	1800CST					4	0		High Winds
	High winds with a thunderstorm destroyed a large tool shed on one farm and blew the porch off the house of a neighboring farm. Witnesses reported a whirling motion to the clouds, but no funnel was seen.									
West Tennessee	25-26-27							6	7	Heavy Rains
	A front moved into West Tennessee on Christmas Day bringing with it thunderstorms and rain. The front became stationary through the 26th and 27th with rains continuing for much of the 72-hour period, some of the rain heavy. Total rainfall amounts for the three days were in the 4 to 8 inch category. This caused streams, creeks, and rivers to swell to bankful and beyond; however flooding was restricted primarily to lowlands with very little property damage except to roads, bridges, and agricultural lands. A summary of known information about various counties follows.									
	Gibson County: Roads closed included U.S. 45 in Trenton, TN, 152 west of Humboldt, TN, 152 east of Humboldt (bridge out), U.S. 45E at Cades, TN, 5 north of Trenton, U.S. 79 between Milan and Atwood.									
	Weakley County: Roads closed included Old Highway 22, Austin Springs Road, Prospect Church Road, Boydsville Road just outside Dresden, and Calico Barn Road east of Sharon. Numerous telephone outages reported. About 3000 acres of remaining bean crop was damaged or destroyed.									
	Dyer County: Forked Deer and Obion Rivers out of banks and into adjacent lowlands. Highway 20, one mile west of Obion River bridge, was closed due to one foot of water on road. Problems in Dyer County aggravated due to heavy flow on Mississippi River.									
	Crockett County: TN 152 closed east of Alamo.									
	Fayette County: County road between Macon and Rossville closed. Several other secondary county roads were closed due to high water.									
<b>TENNESSEE</b>										
	Hardeman County: TN 138 closed near Cloverport.									
	Carroll County: TN 22 closed between McKenzie and Huntingdon.									
	Henry County: TN 77 south of Paris was closed.									
	Haywood County: TN 54 closed north of Brownsville.									
Wayne County	27-28							5	?	Heavy Rain
	Heavy rains created flooding in Wayne County which washed out 40 bridges according to County Road supervisor. Worst destruction was on Indian Creek. The Buffalo River was out of its banks.									
Grund County	28	0440CST						?	?	Heavy Rains
	Heavy rains caused some lowland flooding in the county; however, there were no reports of serious property damage. The Elk River flooded a good deal of bottom land around Pelham as a result of heavy runoff from several small creeks that empty into the river around Pelham.									
<b>41 TEXAS, Northern</b>										
Bowie County	2-3	Evening-Morning						0	0	Flash Flooding
	Five to 6 inches of rain caused mostly rural flash flooding in Bowie County. Most of the flooding occurred late on the second through the morning of the third. Many rural roads were flooded and some of them damaged, necessitating the closing of schools in Hooks and Leary.									
Titus County	2-3	Evening-Morning						0	0	Flash Flooding
	Rural roads were flooded by over 5 inches of rain in Titus County. Highway 67 between Mt. Pleasant and Winfield was inundated. One woman was rescued after her car was washed off of a road 5 miles west of Mt. Pleasant.									
Camp, Upshur, Freestone, Wood, Kaufman, Henderson, and Navarro Counties	2-3	Evening-Morning						0	0	Flash Flooding
	Rural flash flooding occurred in all 7 counties. Some damage occurred to rural roads in all of the counties and high water necessitated the closing of a number of roads. Minor flash flood damage occurred at Mabank and Kemp in Kaufman County. Most of the rainfall amounts were from 3 to 5 inches, but over 7 inches fell 10 miles west of Tyler.									
Montague County area	11	1400CST-1600CST						0	0	Snowstorm
	A generally light snowfall occurred throughout the northwestern 1/2 of North Texas, mostly north of a Brownwood/Port Worth line. Brief, heavy snow occurred in Montague County, however, where from 3 to 6 inches fell from 1400 to 1600CST.									
Northeastern Cass and Eastern Bowie Counties	23	1237CST	14	125	0	1	4	0		Tornado F2
	The tornado touched down about 1 mile west of Queen City, along Farm Road 96 in Cass County. The tornado damaged several homes and uprooted about 50 trees west of Queen City before moving north-northeast and causing additional minor damage along Highway 59 north of Queen City. After traveling about 10 miles through Cass County, the tornado moved through 4 miles of Bowie County and entered Arkansas about 5 miles south of downtown Texarkana. Heavy damage then occurred in Eastern Texarkana, Arkansas. One minor injury occurred in Bowie County as the tornado destroyed a mobile home.									
Trenton, Fannin County	23	2145CST						0	0	Flash Flooding
	The Fannin County Sheriff reported golf ball size hail as a severe thunderstorm moved northeast across Fannin County.									
Nacogdoches, Nacogdoches County	26	2049CST						0	0	Flash Flooding
	One inch diameter hail occurred in Nacogdoches. The amount of any damage was not known.									

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

DECEMBER 1982

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		
<b>41 TEXAS, Southern</b>										
Hardin, Jasper, Jefferson, Orange, Newton, Tyler Counties	25	2200CST-			0	0	7	?		Flooding
	27	1600CST								
<p>An upper level low that formed over northern Mexico early on the 25th moved northeastward, entering southwestern Texas early on the morning of the 27th. Rains developed during the morning of the 25th in advance of the disturbance, along a stationary frontal boundary that stretched along the Upper Texas Gulf Coast. Heavy rain had first developed to the north of this front during the afternoon of the 25th, and continued through the 27th. Flash flooding developed near 2200CST on the evening of the 25th and continued as flooding through the morning of the 27th.</p> <p>The heaviest rainfall developed across the Golden Triangle on the evening of the 26th and continued through the morning of the 27th. The rainfall through the morning of the 26th averaged 3 to 4 inches over Hardin, Jasper, Liberty, Tyler, Newton, Jefferson and Orange Counties. This was sufficient to saturate the soil in the seven county area as well as bring the Sabine River and its immediate tributaries to flood stage.</p> <p>Hillebrandt Bayou went out of its banks near 0600CST on the 25th and flooded several hundred homes in the rural part of the county. The community of Port Acres, near the Bayou, was evacuated. FM 365 was closed with some parts under as much as 5 feet of water. Especially hard hit also were homes in Hillebrandt Acres.</p> <p>By the following morning, additional heavy rains had produced rainfall amounts averaging 4 to 7 inches over Newton County and 5 to 9 inches across Jefferson and Orange Counties. Rainfall amounts of 2 to 3 inches over the additional four counties produced only minor flooding.</p> <p>About 2300CST on the 26th, widespread flooding developed over Jefferson and Orange Counties and was generally confined to the southeastern quarter of Newton County. Some 60 homes were under water just to the west of Port Arthur with the water reported near 5 feet deep in some locations. Bridge City was cut off for a short time during the early morning hours as SH 87 flooded.</p> <p>Flooding in Orange County involved all county roads. Water was reported in homes in Kinard Estates and Mauriceville and telephone and power lines were out over much of the county during the morning hours. Among the highways reported to be under water were SH 62, SH 87, FM 105, FM 408, FM 1078, FM 1130, FM 1136, FM 2802, and several of the frontage roads along I-10.</p>										
<b>41 TEXAS, Western</b>										
West Mountains	01	Most all day			0	0	?	?		Heavy Snow
<p>Amounts of snow ranging to 5 inches fell in the western mountains, including El Paso. The snow created considerable traffic problems in El Paso. Schools closed and businesses sent employees home early. About 750 residents of the El Paso's Upper Valley were left without telephone service due to water (from melting snow) filling a manhole containing the telephone cables.</p>										
West Mountains	25-	Much of the time			0	0	?	?		Heavy Snow
<p>It was a white Christmas Holiday weekend in El Paso and surrounding areas, but the snow created considerable problems. Hundreds of cars were abandoned and there were unaccountable traffic accidents. Twenty five vehicles slid off Interstate 10 and got stuck in the vicinity of Sierra Blanca. The 6-inch snow in El Paso failed to produce major tragedies; but disrupted city and cross-country bus service, caused a small power failure and closed one of the city's two airport runways briefly. Some sections of the highway from El Paso to Carlsbad, New Mexico, were impassable for awhile. The snow and ice kept most residents in their houses. Other snow amounts ... Sierra Blanca 4 to 5 inches, Balmorhea 6 inches, Guadalupe National Park 4 to 6 inches, Pine Springs 4 to 5 inches and heavy snow in Panther Junction and Chisos Mountains.</p>										
Western Third of Panhandle & Western Half of South Plains	26	All day			0	0	?	?		Heavy Snow
<p>The winter storm struck with full force the day after Christmas disrupting Christmas Holiday Festivities. Snow amounts ranged up to 9 inches from Muleshoe to Friona. Littlefield reported 8 inches. Many other locations measured from 4 to 7 inches. Ample warnings probably kept people home and prevented major injuries. However, ice and snow snarled traffic and created a rash of automobile accidents. Nearly 200 motorists were stranded in Dalhart.</p>										
<b>TEXAS, Western</b>										
Western Mountains	31	Nearly all day			0	0	?	?		Heavy Snow
<p>Another winter storm struck leaving another thick blanket of snow over the Western Mountains, including El Paso. Snowfall amount records tumbled easily after the 7 inches (official) for the day buried El Paso. The 18.2 inches for the month of December 1982 eclipsed the old mark of 10.1 inches set in 1960.</p> <p>This storm created traffic havoc. The Police Department was unable to count the innumerable automobile accidents. The "spin-and-hit-the-guardrails" syndrome set in on the freeways. The snow disrupted broadcasting of several television and radio stations due to the location of their transmitters on top of the Franklin Mountains. Hospitals reported no major weather-related accidents.</p>										
<b>42 UTAH</b> ————— NONE REPORTED										
<b>43 VERMONT</b> ————— NONE REPORTED										
<b>44 VIRGINIA</b>										
Statewide	11-12				1	0	5	0		Snow
<p>A low pressure disturbance moved from the Gulf coast northeastward along the coastal Carolinas and on out to sea, bringing heavy snow to much of the state. Snow began falling the evening of the 11th over the far western counties, ending during the early morning of the 12th. In the east portion, it began near midnight of the 11th and tapered off during early afternoon of the 12th. Amounts of 4 to 6 inches were common, with upwards of one foot in the higher elevations to the west. Southeastern coastal sections measured under 4 inches. Power outages and property damage affected widespread areas of the southern half of the state, as the heavy wet snow brought down electrical lines and snapped off tree limbs. An Albemarle County man was an apparent victim of exposure, succumbing during a one-mile trek to his home at the height of the storm. Elsewhere, on the morning of the 12th, the Nansemond Bridge in Portsmouth was closed for a time due to winds and high water. Of the damage total, a significant part was due to the cost of restoring and repairing electrical service...an estimated \$150,000.</p>										
South and Central	19				0	0	0	0		Snow
<p>Although not a prolonged storm, 2 inches of snow fell in a short time between mid-morning and early afternoon. The snowstorm, falling on the second Sunday in a row, resulted in localized traffic snarls and accidents. Hazardous secondary roads made it necessary to close many schools the following day.</p>										
<b>45 WASHINGTON</b>										
King, Kitsap, Pacific, Skagit and Whatcom Counties	3-4				0	?	6	C		Heavy Rain, Wind and Tidal Flooding
<p>An intense front with moist subtropical moved north from Hawaii, strengthened and then moved into Western Washington. High winds, heavy rains plus low pressure combined to raise tides several feet above tide table predicted values, causing tidal flooding in many waterfront areas, mainly along the coast. Raymond in Pacific County had water over most of the downtown area from 6 inches to 3 feet deep. The tide at Raymond was 8 inches lower than the record high tide of 16.8 feet that occurred in November 1981. Heavy snowfall in the previous days was melted by the warm temperatures increasing the mountain runoff and producing additional flooding. Larger rainfall totals for the two day period include 7.0 inches at Snoqualmie Pass, and 5.8 inches at upper Baker and Paradise Ranger Station on Mount Rainier. While lowland area rainfall totals averaged between 2 and 4 inches, flood warnings were issued for ten Western Washington rivers and several rivers crested 2 to 3 feet above flood stage. The Skykomish River near Index rose about 16 feet in less than 12 hours. Many homes across the area reported at least minor flooding. The rains also caused numerous mudslides destroying private and public property. One by-pass under construction in Skagit County suffered \$100,000 worth of damage. Several roads were also washed out by the heavy rains. Winds on the morning of the 3rd were sustained 30 to 40 MPH throughout most areas of Western Washington with gusts near 60 MPH mainly along the coast.</p>										

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

DECEMBER 1982

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	
<b>WASHINGTON</b>									
Clallam, Grays Harbor Island, Jefferson, King, Kitsap, Lewis, Mason, Pacific, Skagit, Snohomish, Thurston and Whatcom Counties	15-18	pm of 15th thru pm of 18th			1	?	?	0	Heavy Rain, Wind and Tidal Flooding
<p>A series of strong storms moved through Washington from the Eastern Pacific during the four day period. Most of the damage occurred when high winds and low pressure combined to cause severe damage from tidal flooding. The three communities hardest hit were Camano Island in Island County, Hansville in Kitsap County and Raymond in Pacific County. The worst damage occurred in Island County which was later declared a disaster area by the Washington State Governor. In Island County alone, 440 houses and 50 condominiums were damaged with estimates of damage to private and public property set at \$20 million. Many bulkheads and dikes along the coast and in the Strait of Juan de Fuca were destroyed by the high tides. On the 16th, the high tide was recorded at 14.4 feet at the Washington State Ferry Terminal in Seattle, setting a new all-time record high tide. The waves were even strong enough to knock a few houses off of their foundations. The strongest wind reported during the period was an unofficial gust of 80 MPH at the Bellingham Courthouse at 2250PST on the 15th. The only death reported for the series of storms occurred in Clallam County on the 16th. A five year old boy was crossing a log bridge over a rain-swollen creek west of Port Angeles, when he slipped and fell and was carried downstream. According to County officials, the creek is normally only six inches deep but was up to 5 feet deep in some spots on the 16th. Almost 9 inches of rain was reported over the 4 day period near Frances in Pacific County.</p>									
Clallam, Grays Harbor King, Pacific Pierce and Snohomish Counties	21-22	pm of 21st thru 0200PST of 22nd			2	?	5	0	Wind
<p>Strong, gusty winds and heavy rain occurred over the area when a small but intense low pressure center moved into Southwest Washington. At Hoquiam, the maximum wind gust was 68 MPH at 2124PST on the 21st. At Seattle-Tacoma Airport, the maximum wind was 49 MPH at 2245PST with a peak gust of 55 MPH at 2214PST. At Pacific Beach Naval Facility, winds were sustained at 50 MPH with gusts to 60 MPH at 2200PST on the 21st. In Long Beach in Pacific County at the Surfside Inn Condominiums, strong winds tore off an awning which then tore off several metal chimney units, each weighing 500 pounds. The interior of the structure was also damaged by the accompanying rains. A nearby resident with a digital wind gauge unofficially registered three peak gusts over 100 MPH between 1930 and 2230PST. The average wind speed that night during the storm according to his gauge was 65 to 70 MPH. Two deaths occurred on the night of the 21st. One woman was killed in Ocean Shores when a tree, blown down by winds about 70 MPH fell on her mobile home. She was killed instantly. Her husband who was also in the mobile home was trapped an hour and a half until the tree could be removed. He suffered an ankle injury. Another woman was killed near Tacoma when a tree struck the car she was riding in. The driver suffered a broken hip and other injuries.</p>									
<b>46 WEST VIRGINIA</b> ————— NONE REPORTED									
<b>47 WISCONSIN</b>									
Southern Wisconsin	02	0130CST			0	0	4	0	Lightning
<p>Heavy thunderstorms moved northeast across southern Wisconsin shortly after midnight, leaving more than 2 inches of rain and producing numerous lightning strikes. Homes in the Town of Windsor and Blanchardville were struck by lightning. In McFarland, a cabin burned to the ground after being struck by lightning. Lightning also knocked out a DeForest power substation.</p>									
Southeast Wisconsin	02	.1700CST			0	0	?	0	Flooding
<p>Heavy rains during the morning and afternoon led to numerous incidents of street and basement flooding in the City of Milwaukee and in surrounding communities.</p>									
Northwest Wisconsin	27-28				0	0	4	0	Near blizzard, ice storm
<p>A major ice storm and snowstorm struck the northwest quarter of the state beginning on the eve of the 27th with several hours of freezing rain, glazing roads with up to a 1/2 inch of ice. By midnight, heavy snow was falling at the rate of 1 to 3 inches per hour. On the 28th, the storm center moved northeast through Wisconsin, leaving 1 to 2 feet of new snow in the northwest. The heaviest accumulations occurred in the Lake Superior "snowbelt". Winds gusting over 40 mph piled snow in drifts up to 6 feet high. Businesses were closed as roads became impassable. Power outages to thousands of customers occurred during the height of the storm. Heavy snow collapsed a barn roof near Mason, killing and injuring livestock inside.</p>									
<b>WISCONSIN</b>									
Southern Wisconsin	28	0100-1400CST			0	0	?	0	High winds
<p>The intense low pressure system producing a major winter storm in the northwest also generated strong westerly winds in the south. Winds blowing at 40 to 50 mph with occasional gusts to 69 mph downed trees, limbs and power lines in southern counties. The school roof in Mayville was extensively damaged by high winds at approximately 0400CST. The roof was blown off of a barn in Edgerton and numerous farm sheds were blown down in Green Co. At 1000CST wind gusts to 69 mph were recorded at the Janesville airport. Power was disrupted to over 25,000 customers as tree limbs brought down numerous electrical lines. In Evansville, a toppled tree limb fell onto a automobile.</p>									
<b>48 WYOMING</b>									
Counties: Fremont, Hot Springs, Carbon, Albany, Natrona, Converse, Sheridan, Johnson, Campbell, Platte, Goshen, Laramie, Niobrara	1	Day			1	0	?	0	Blizzard
<p>A major winter storm dumped heavy snows in the state Wednesday and Thursday morning. Casper was the hardest hit with 24 inches of snow, breaking the previous 24-hour total. The Wind River Canyon between Shoshoni and Thermopolis also reported 24 inches. Elsewhere in the basins and plains, amounts varied from 5 to 11 inches. Winds to 40 mph caused blizzard conditions in the central and northeast areas causing drifts of 5 to 8 feet deep. One death was attributed to the storm.</p>									
Counties: Fremont, Natrona, Converse, Albany, Platte, Goshen, Laramie	23	Day			0	0	?	0	Blizzard
<p>A major winter storm raged through central and southeast Wyoming packing strong winds and moderate to heavy snow. Shoshoni experienced winds that exceeded 60 mph causing over turned trailers and a boat at the Boysen Lake Marina. Casper recorded a record 29 inches of snow from the storm. Lander and Cheyenne accumulated around 6 inches each. Strong winds gusting into the 40 mph range caused blizzard conditions which forced the closure of many highways in central and southeast areas stranding holiday travelers.</p>									
<b>49 ALASKA</b>									
South Central	26-29				2	?	6	0	High Wind
<p>Strong foehn winds blew across east Anchorage for 3 and 1/2 days. Winds during that period were generally from 30 to 60 mph. The strongest winds occurred on the 27th with gusts to 100 mph reported. A three story steel girder building under construction collapsed killing two workmen. There was local severe damage and widespread light to moderate damage throughout east Anchorage.</p>									
<b>50 HAWAII</b>									
Oahu and Maui	3	1600-1700							Waterspouts
<p>Several waterspouts reported over the open waters south of Oahu and Maui.</p>									
Kauai	6-7				0	0	3	3	Heavy Rain
<p>Minor flooding along north shore of Kauai.</p>									
Statewide	18-19				0	0	5	4	Wind
<p>Strong gusty winds from the trade wind direction caused scattered wind damage on all islands. A number of power poles down on Kauai and roofs blown off buildings at Kawaihae and Keaukaha on the Big Islands. Some crop damage in the Waimea area as winds gusted at 60 MPH across the saddle area down towards north Kona and Kawaihae.</p>									
Statewide	23-24				0	0	5	0	Heavy Rain, Wind
<p>A weak low pressure system developing north of the islands caused locally gusty southerly winds and heavy showers. Widespread mostly minor flooding mainly on Oahu and Maui. Street flooding in Honolulu ties up rush hour traffic during late afternoon on 23rd. Rainfall amounts in normally dry areas of Maui locally 3 to 5 inches.</p>									
<b>51 PUERTO RICO</b> ————— NONE REPORTED									
<b>52 VIRGIN ISLANDS</b> ————— NONE REPORTED									
<b>53 PACIFIC</b> ————— NONE REPORTED									



# GENERAL SUMMARY OF TORNADES, 1982

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 NATIONAL CLIMATIC DATA CENTER

During 1982, 1,033 tornadoes were reported in the United States (the second highest ever recorded). Tornadoes occurred on 182 days, killed 64 people, injured 1,246 others, and caused property losses in excess of one billion dollars. Thirty-one of these storms were classified as killer tornadoes. In 1982 tornadoes damaged or destroyed about 1,100 mobile homes resulting in 20 deaths and injuries to 308 people. The following seven states recorded no tornadoes during 1982: Alaska, Delaware, Maine, Massachusetts, New Hampshire, Oregon and Rhode Island. The following three tables depict location of killer tornadoes, state to state border crossings, and new monthly records by state and nation:

## LOCATION OF KILLER TORNADES

<u>DATE</u>	<u>STATE</u>	<u>COUNTY</u>	<u>TOTAL DEATH</u>
January 3	Mississippi	Newton	1
March 15	Kansas	Cherokee	1
March 15	Kansas	Crawford	1
March 15	Kansas	Montgomery	1
	Missouri	Cedar	1
March 15	Oklahoma	Pontotoc	1
March 30	Illinois	Jefferson	1
April 2	Arkansas	Faulkner	2
April 2	Arkansas	Fulton	2
April 2	Arkansas	Hempstead	5
April 2	Arkansas	Howard	3
April 2	Arkansas	Little River	1
April 2	Arkansas	Saint Francis	1
April 2	Mississippi	Neshoba	3
April 2	Missouri	Howell	2
April 2	Texas	Fannin	1
April 2	Texas	Lamar	10
May 11	Oklahoma	Jackson	2
May 13	Texas	Jasper	1
May 28	Arkansas	Conway	1
May 29	Illinois	Williamson	10
June 13	North Carolina	Wake	1
June 15	Michigan	Washtenaw	1
June 16	West Virginia	Monongalia	1
June 17	Florida	Hendry	1
September 3	Texas	Harris	1
September 26	Florida	Okeechobee	1
December 2	Arkansas	Pulaski	2
December 2	Illinois	Clinton	2
December 24	Arkansas	Faulkner	1
December 24	Arkansas	Woodruff	1
December 24	Missouri	Carter	1

## STATE TO STATE BORDER CROSSINGS

<u>DATE</u>	<u>STATE</u>		<u>STATE</u>
March 15	Kansas	into	Missouri
March 15	Kansas	into	Missouri
March 19	Texas	into	Oklahoma
April 2	Texas	into	Oklahoma and into Arkansas
May 17	Minnesota	into	Wisconsin
May 17	Minnesota	into	Wisconsin

# GENERAL SUMMARY OF TORNADOES

June 16	Kentucky	into	Ohio
December 23	Texas	into	Arkansas
December 24	Arkansas	into	Missouri
December 24	Arkansas	into	Missouri

## NEW MONTHLY RECORDS

<u>MONTH</u>	<u>STATE OR NATION</u>	<u>NEW RECORD</u>	<u>PREVIOUS RECORD</u>
February	Hawaii	2	( 1 ) 1963
March	Utah	1	( 0 )
May	United States	327*	(275) 1965
	Illinois	15	( 11 ) 1960
	Texas	123	( 71 ) 1981
June	Colorado	31	( 16 ) 1965
	Florida	23	( 21 ) 1972
	North Carolina	6	( 5 ) 1978
August	South Dakota	6	( 5 ) 1973
September	Mississippi	4	( 3 ) 1974
	North Carolina	4	( 3 ) 1963
November	California	7	( 4 ) 1966
December	United States	82*	( 61 ) 1967
	Arkansas	33	( 10 ) 1978
	Missouri	29	( 8 ) 1967

\* Adjusted for state to state border crossings.

On January 3rd, at 2:55 p.m., the first tornado of the 1982 season touched down 4 miles (6.4 km) south of Newton and traveled to 4 miles (6.4 km) northeast of Hickory, Mississippi. Thirty homes, 27 service buildings, 40 units of farm equipment and 1,200 acres of timber were destroyed. Total damage was estimated over two million dollars. One man was killed and 17 people were injured.

At 7:45 p.m., on March 15th, a tornado with the distinction of having the longest path of the 1982 tornado season touched down four miles (6.4 km) east of Girard, Kansas and left a 700 yard (640 m) wide path of destruction through Mulberry, Kansas. Fifty homes were destroyed and another 90 were damaged. One person was killed and eight others injured. A grocery store 1/2 mile (.8 km) south of the tornado path was demolished by downburst winds. After leaving a nine mile (14.5 km) path of destruction in Kansas, at 7:55 p.m., the twister crossed the state line into Missouri, leaving in its wake an additional 60 mile (96.6 km) path of devastation. Damages included 30 homes destroyed and another 70 damaged. One woman was killed in Cedar Springs, Missouri.

Arkansas recorded 14 tornadoes on April 2nd. One tornado traveled through portions of Texas and Oklahoma, prior to crossing the Arkansas state boundary. The outbreak caused 14 deaths and inflicted injuries to 91 people. Property damage was estimated to be in excess of 23 million dollars. The most powerful tornado of the outbreak touched down three miles (4.8 km) east of Horatio and moved east to three miles (4.8 km) east of Blevins. Maximum wind speed was estimated to be between 207 to 260 mph (333 to 418 km/h). Damages exceeded 2.5 million dollars. Three people were killed and 23 injured.

The most powerful tornado of the season, with estimated winds exceeding 261 mph (420 km/h) occurred on April 2nd, when it touched down south of Speer, Oklahoma, and moved east-southeast to near Messer, Oklahoma. It then turned due east and moved to four miles (6.4 km) southeast of Eagletown, Oklahoma. The path length was 53 miles (85.3 km). Near Golden, Oklahoma, the twister had a maximum path width of 1.5 miles (2.4 km). At various times multiple vortices were sighted. Forty houses and barns, 15 chicken houses, 10 mobile homes, one motel, a lumber yard, a church, an airplane, various vehicles and farm equipment, and timber were destroyed. Damages to property and crops were estimated over eight million dollars. A sign belonging to the Tri-State Motel of Broken Bow, Oklahoma, was found 30 miles (48.3 km) from the motel site. Twenty-nine people were injured.

At 4 p.m., on April 2nd, a tornado touched down northeast of Paris, Texas. Undoubtedly numerous lives were saved in Paris, because of the timely storm warning provided by National Weather Service. The storm

# GENERAL SUMMARY OF TORNADOES

moved east across Paris, devastating 465 homes and apartment units, leaving over 1,000 people homeless. After leaving Paris, the tornado continued an east course leaving a path of destruction through northern sections of Reno and Blossom, Texas. Unfortunately 10 people lost their lives and 170 people were injured. At about the same time another tornado touched down six miles (9.7 km) northeast of English, Texas, and traveled 29 miles (46.7 km) east crossing the Red River into Oklahoma. After traveling 3.5 miles (5.6 km) through Oklahoma, the twister traveled an additional 15.5 miles (24.9 km) in Arkansas. One fatality and two injuries were reported in Arkansas, and two injuries were recorded in Oklahoma.

During May, 327 tornadoes were recorded in the United States, establishing a new record for the month. Eighty-six percent of these twisters were reported to have occurred in the following eight states; Illinois (15), Iowa (17), Kansas (28), Minnesota (7), Missouri (19), Nebraska (15), Oklahoma (56) and Texas (123).

A destructive tornado touched down on May 11th, in southeast Altus, Oklahoma, and moved northeast across the western edge of the city and crossed Altus Air Force Base before dissipating 1/2 mile (.8 km) northeast of the base. Hail accompanied the tornado, and was described as being the shape of charcoal briquettes measuring approximately four inches (10.2 cm) square by one inch (2.5 cm) thick. In Altus the tornado destroyed six houses and 11 mobile homes, and damaged 22 homes. Almost every home in Altus was damaged by hail, and the school's 258 skylights were destroyed. Eighty-five buildings were damaged or destroyed on Altus Air Force Base with structural damage estimated at 12.5 million dollars. Also, thirty-three airplanes were damaged. Over 6,000 vehicles were damaged either by the tornado or hail. Total damage in the city and on the Air Force Base was estimated to exceed 200 million dollars. Forty-one injuries were reported.

On the 29th of May, 10 people were killed in Marion, Illinois, when a violent tornado with three separate vortices rotating around the main storm center left a path of destruction through the towns of Carterville, Crainville, and Marion, Illinois. Heaviest destruction was concentrated in Marion; destroyed were 161 homes, 47 businesses, a 190 unit apartment complex and a truck plaza. A motel, three shopping centers, 59 homes, 29 businesses and two schools were damaged. In Williamson County an additional 648 homes, 89 businesses and over 200 automobiles were either damaged or destroyed. Over 1,000 people were left homeless and 181 were injured. Property damage was assessed at 100 million dollars.

During the night of June 17th and the morning of the 18th, a subtropical storm which developed in the Gulf of Mexico moved across central Florida, and prior to moving into the Atlantic Ocean spawned 12 tornadoes. As a result of the storm three deaths and 13 injuries were recorded. One fatality and four injuries were attributed to tornadoes. Damages due to flooding, beach erosion, and tornadoes were in excess of six million dollars.

In contrast to the previous three months, tornadic activity during July dropped dramatically. Ninety-five tornadoes were reported causing only 13 injuries. Total property damages were estimated at 3.5 million dollars. Tornado activity continued its sharp decline during August through November. One hundred tornadoes were recorded resulting in the deaths of two people and 33 injuries.

On August 24th, a tornado generating winds estimated at 113 to 157 mph (182 to 253 km/h) touched down 3 miles (4.8 km) west of Merna, Illinois, and traveled east-northeast to the southern edge of Cooksville. It then turned and traveled about 10 miles (16.1 km) southeast before curving east and lifted 1/2 mile (.8 km) north of Sibley, Illinois. Property destroyed or damaged included; 130 homes, nine mobile homes, 235 service buildings and 291 pieces of farm equipment. Estimated property damage was 2.4 million dollars.

A tornado touched down in Humble, Texas, on September 3rd, and left a one mile (1.6 km) path of damaged homes. Four workmen building a garage noticed the approaching twister and attempted to seek shelter in the building under construction. The force of the tornado collapsed the structure killing one man and injuring two others.

A tornado struck Oldsmar, Florida, on September 21st, damaging 17 homes. A 78 year old man was picked up by the tornado which moved him several feet through the air and deposited him gently on the ground without injury.

A twister touched down on September 26th, southwest of Basinger, Florida, demolishing an unoccupied double wide mobile home. It then left an intermittent 3 mile (4.8 km) path of minor damages prior to entering the New Convent Christian Outreach Camp. Here the tornado destroyed numerous mobile homes; flying trailer debris caused considerable damage to a church roof and one wall. Trailer parts and contents were picked up and thrown into tree tops. Three trailer frames were twisted around trees as high as 20 feet (6.1 m) above the ground. One woman was killed and seven people were injured.

## GENERAL SUMMARY OF TORNADES

A record number of 82 tornadoes were recorded in December, a total which exceeds the previous December record of 61 established in 1967. The twisters claimed seven lives and caused 214 injuries. Property damages were estimated in excess of 100 million dollars.

At 2:55 p.m., on December 2nd, a tornado touched down near Bryant, Arkansas, moved northeast through residential areas of western Little Rock to Crystal Hill, Arkansas. Eighty-six mobile homes were destroyed in Alexander. One man was killed and 28 people were injured. Another man was killed when a piece of sheet metal crashed through the windshield of his parked car. In western Little Rock, an additional 25 people were injured. Also, over 100 houses were destroyed and about 750 buildings were damaged. On the same day another tornado left a path of havoc through New Baden, Illinois. The twister razed 44 apartment units, 16 homes and 74 mobile homes. Two persons were killed in their mobile home, and 70 people were reported to have been injured at various other locations. Estimated property damage was 7.5 million dollars.

On Christmas Eve a tornado touched down in Randolph County, Arkansas and crossed the state boundary into Missouri and moved northeast to about 6 miles (9.7 km) southeast of Van Buren, Missouri. On Barren Creek, 4 miles (6.4 km) south of Eastwood, Missouri, the tornado devastated a mobile home, killing Mr. J. Leon Morgan and seriously injured his wife. Ironically a previous tornado demolished their home on December 2nd; the mobile home was a replacement located on the same site of their former home.

The final tornado of the 1982 season touched down at 2:15 a.m., on December 29th, eight miles (12.9 km) south of Milan, Georgia. Several trees were uprooted, a house roof was partially ripped off and several farm buildings were severely damaged.

Additional information is presented in the following tables and charts. Continuing efforts of the National Severe Storms Forecast Center, Weather Service Forecast Offices, University of Chicago and the National Climatic Data Center have resulted in several corrections to previous tables.

More detailed information about tornadic activity can be obtained from monthly Storm Data publications. The National Severe Storms Forecast Center has developed a magnetic tape containing tornado statistics for the period 1950-1982. A copy of this tape can be obtained by contacting the National Climatic Data Center, Federal Building, Asheville, North Carolina 28801.

## TORNADO SUMMARY, 1982

STATE	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANN
ALABAMA													
Number	8		1	7	1	2	2				1		22
Days	2		1	3	1	2	2				1		12
Deaths													0
Injuries	11					1							12
ARIZONA													
Number								1					1
Days								1					1
Deaths													0
Injuries													0
ARKANSAS													
Number	3		1	22	6					1		33	66
Days	2		1	3	3					1		4	14
Deaths				14	1							4	19
Injuries	1			91								75	167
CALIFORNIA													
Number	1		4			1			1		7		14
Days	1		2			1			1		1		6
Deaths													0
Injuries			1										1
COLORADO													
Number					8	31	12	6	1				58
Days					6	12	5	4	1				28
Deaths													0
Injuries													0
CONNECTICUT													
Number							1						1
Days							1						1
Deaths													0
Injuries													0
FLORIDA													
Number	2	1	5	10	3	23	13	2	7	1	1	1	69
Days	1	1	3	8	3	12	12	2	4	1	1	1	49
Deaths						1			1				2
Injuries			5	13		13		1	7				39
GEORGIA													
Number	1		1	9		1	1					2	15
Days	1		1	5		1	1					2	11
Deaths													0
Injuries				11								3	14
HAWAII													
Number		2	1										3
Days		1	1										2
Deaths													0
Injuries													0
IDAHO													
Number						1							1
Days						1							1
Deaths													0
Injuries													0
ILLINOIS													
Number			3	6	15		3	6				2	35
Days			2	2	7		3	2				1	17
Deaths			1		10							2	13
Injuries			3	20	189		5					70	287

## TORNADO SUMMARY, 1982

STATE	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANN
INDIANA													
Number			1		2		1						4
Days			1		2		1						4
Deaths													0
Injuries													0
IOWA													
Number			1	1	17	6	4		1	2	1	1	34
Days			1	1	6	4	2		1	1	1	1	18
Deaths													0
Injuries						1	1						2
KANSAS													
Number			11	4	28	8	3	1		1	1	1	58
Days			2	3	11	3	3	1		1	1	1	26
Deaths			3										3
Injuries			18				3						21
KENTUCKY													
Number			3	3	1	3							10
Days			2	3	1	1							7
Deaths													0
Injuries			10			8							18
LOUISIANA													
Number	1		1	14	3	2	5		5	1		7	39
Days	1		1	5	3	1	4		2	1		4	22
Deaths													0
Injuries	1			1									2
MARYLAND													
Number					1								1
Days					1								1
Deaths													0
Injuries													0
MICHIGAN													
Number				1	1	14	4						20
Days				1	1	5	2						9
Deaths						1							1
Injuries						7							7
MINNESOTA													
Number					7		3	1	2	1			14
Days					2		3	1	1	1			8
Deaths													0
Injuries							1						1
MISSISSIPPI													
Number	2			5	2				4		1	3	17
Days	2			5	1				1		1	3	13
Deaths	1			3									4
Injuries	17			43	1				5				66
MISSOURI													
Number			6	18	19	2	1			1		29	76
Days			1	2	4	2	1			1		4	15
Deaths			1	2								1	4
Injuries			1	28								47	76
MONTANA													
Number					2	1							3
Days					1	1							2
Deaths													0
Injuries													0

## TORNADO SUMMARY, 1982

STATE	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANN
NEBRASKA													
Number				2	15	13	1	2		1			34
Days				1	8	5	1	1		1			17
Deaths													0
Injuries													0
NEVADA													
Number								1					1
Days								1					1
Deaths													0
Injuries													0
NEW JERSEY													
Number						1							1
Days						1							1
Deaths													0
Injuries													0
NEW MEXICO													
Number			1		2	4							7
Days			1		1	4							6
Deaths													0
Injuries													0
NEW YORK													
Number							2	1					3
Days							2	1					3
Deaths													0
Injuries							1						1
NORTH CAROLINA													
Number				1		6		1	4				12
Days				1		5		1	3				10
Deaths						1			3				1
Injuries				1		1			2				4
NORTH DAKOTA													
Number				1	1	3	12	1					18
Days				1	1	3	5	1					11
Deaths													0
Injuries													0
OHIO													
Number			2	2	3	2		1					10
Days			2	1	2	2		1					8
Deaths													0
Injuries			4	10	1			5					20
OKLAHOMA													
Number			11	11	56	11	1	3	2		2	4	101
Days			2	2	12	5	1	2	2		2	2	30
Deaths			1		2								3
Injuries			101	30	74			2				18	225
PENNSYLVANIA													
Number				2	1	1							4
Days				2	1	1							4
Deaths													0
Injuries				1	3								4
SOUTH CAROLINA													
Number				2		3	1				2		8
Days				1		3	1				1		6
Deaths													0
Injuries						16							16

## TORNADO SUMMARY, 1982

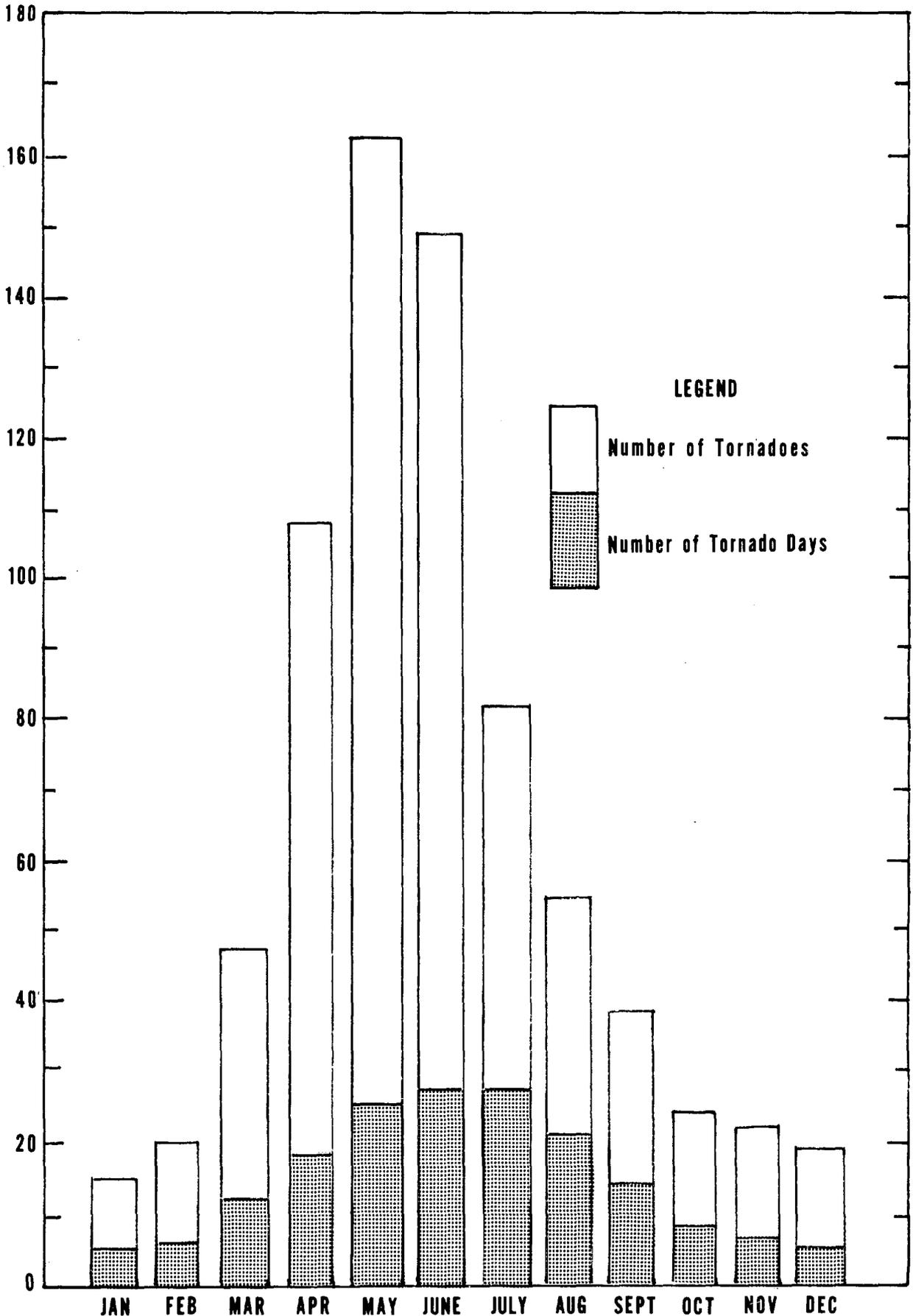
STATE	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANN
SOUTH DAKOTA													
Number			1		4	6	16	6					33
Days			1		2	5	6	4					18
Deaths													0
Injuries			1			1	2						4
TENNESSEE													
Number			1	4		1						1	7
Days			1	2		1						1	5
Deaths													0
Injuries				1									1
TEXAS													
Number			6	27	123	36	4		3		3	1	203
Days			2	8	17	17	4		3		1	1	53
Deaths				11	1				1				13
Injuries			14	174	30	16			11			1	246
UTAH													
Number			1		1				1				3
Days			1		1				1				3
Deaths													0
Injuries													0
VERMONT													
Number					1								1
Days					1								1
Deaths													0
Injuries													0
VIRGINIA													
Number						1							1
Days						1							1
Deaths													0
Injuries													0
WASHINGTON													
Number					1			1					2
Days					1			1					2
Deaths													0
Injuries													0
WEST VIRGINIA													
Number						2							2
Days						1							1
Deaths						1							1
Injuries													0
WISCONSIN													
Number			1		5		3		7				16
Days			1		3		3		1				8
Deaths													0
Injuries			2		3								5
WYOMING													
Number						14	2						16
Days						4	2						6
Deaths													0
Injuries						7							7
UNITED STATES													
Number	18	3	60*	150*	327*	198*	95	34	38	9	19	82*	1033*
Days†	8	2	15	20	28	30	29	15	12	4	6	13	182
Deaths	1	0	6	30	14	4	0	0	2	0	0	7	64
Injuries	30	0	160	424	301	71	13	8	25	0	0	214	1246

NUMBER OF TORNADES, TORNADO DAYS, AND DEATHS BY MONTHS, 1953-82

YEAR	JANUARY			FEBRUARY			MARCH			APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER			ANNUAL		
	NUMBER	DAYS	DEATHS	NUMBER	DAYS	DEATHS	NUMBER	DAYS	DEATHS	NUMBER	DAYS	DEATHS	NUMBER	DAYS	DEATHS	NUMBER	DAYS	DEATHS	NUMBER	DAYS	DEATHS	NUMBER	DAYS	DEATHS	NUMBER	DAYS	DEATHS	NUMBER	DAYS	DEATHS	NUMBER	DAYS	DEATHS	NUMBER	DAYS	DEATHS			
1953	14	6	0	16	3	3	40	10	24	47	16	34	94	21	161	111	24	244	31	19	0	24	15	0	5	4	0	6	4	0	12	6	0	21	8	49	421	136	515
1954	2	1	0	17	9	2	63	13	10	112	22	3	101	22	9	107	26	5	45	23	0	49	21	1	21	10	3	14	8	2	2	2	0	17	3	1	550	160	36
1955	3	2	0	4	3	0	43	15	5	99	18	7	147	26	103	154	28	2	49	21	5	33	18	0	15	8	2	23	7	1	20	4	1	3	2	0	593	152	126
1956	2	2	0	47	12	8	31	7	1	85	15	67	79	24	4	65	21	0	91	26	1	43	20	2	16	10	0	29	8	0	7	6	0	9	4	0	504	155	83
1957	17	3	13	3	3	0	38	7	1	216	21	29	227	26	87	147	25	14	55	19	0	20	14	0	17	10	2	18	11	2	58	11	25	38	4	19	856	154	192
1958	12	7	0	20	5	13	15	10	0	76	19	4	68	21	0	127	27	42	121	30	1	46	20	1	24	14	1	9	6	4	45	6	0	1	1	0	564	166	66
1959	16	2	3	20	5	21	43	11	9	30	12	1	226	28	8	73	25	2	63	24	0	38	18	0	58	15	14	24	10	0	11	4	0	2	2	0	604	156	58
1960	9	4	0	28	10	0	28	10	0	70	20	7	201	26	34	124	27	3	43	22	0	47	23	1	22	13	0	18	10	1	25	6	0	1	1	0	616	172	46
1961	1	1	0	31	8	0	124	17	7	74	19	3	137	25	23	107	23	2	77	27	0	27	16	0	53	16	15	14	5	0	36	7	1	16	5	0	697	169	51
1962	12	3	1	25	7	0	37	9	17	41	8	1	200	22	3	171	29	0	78	26	0	51	21	6	24	11	0	11	10	0	5	4	0	2	2	0	657	152	28
1963	15	5	1	6	3	0	48	12	8	84	14	16	71	21	1	91	23	0	62	26	0	26	13	2	33	13	3	13	5	0	15	6	0	0	0	0	464	141	31
1964	14	3	10	2	2	0	36	11	6	157	23	15	135	20	16	136	24	0	63	23	0	79	23	2	25	10	0	22	4	1	17	8	0	18	5	2	704	156	73
1965	21	11	0	32	4	0	34	9	2	129	20	264	275	25	17	147	28	6	86	26	0	61	23	1	64	21	0	16	4	1	34	6	5	7	4	0	906	181	296
1966	1	1	0	28	5	0	12	6	58	80	20	12	98	17	0	126	28	19	100	27	3	58	21	0	22	13	0	29	6	6	20	3	0	11	3	0	585	150	98
1967	39	4	7	8	5	0	42	14	3	149	18	73	116	25	3	210	28	6	90	25	1	28	16	2	139	16	5	36	7	4	8	5	0	61	10	10	926	173	114
1968	5	3	0	7	3	0	28	8	0	102	15	40	145	26	72	136	27	11	56	22	2	66	23	2	25	14	0	14	9	0	44	12	3	32	9	1	660	171	131
1969	3	1	32	5	5	0	8	2	1	68	15	2	145	25	4	137	28	7	99	27	0	69	21	19	20	11	0	26	10	0	5	3	0	23	7	1	608	155	66
1970	9	5	0	16	3	0	25	12	2	117	16	29	88	19	26	134	24	6	81	26	3	55	21	0	54	20	0	50	13	6	10	4	0	14	8	0	653	171	72
1971	18	7	1	83	12	131	40	13	2	75	14	11	166	24	7	199	28	1	100	30	1	50	21	0	47	15	0	38	12	0	16	7	0	56	9	2	888	192	156
1972	33	10	5	7	4	0	69	17	0	96	20	16	140	27	0	114	25	2	115	29	0	59	23	2	49	19	0	34	10	0	17	4	2	8	6	0	741	194	27
1973	33	7	1	10	4	0	80	16	17	150	22	10	250	26	35	224	26	2	80	26	0	51	23	4	69	22	3	25	11	0	81	11	12	49	12	3	1102	206	87
1974	24	8	2	23	9	0	36	12	1	269	22	313	144	28	10	194	26	31	59	19	0	107	26	0	25	11	0	45	10	4	13	8	0	8	5	0	947	184	361
1975	52	7	12	45	12	7	84	16	12	108	20	13	188	30	5	196	28	6	79	26	2	60	25	2	34	17	0	12	7	0	40	8	0	22	8	1	920	204	60
1976	12	5	0	37	6	5	180	18	21	113	23	1	155	24	8	169	26	3	84	28	2	38	18	1	35	15	3	11	5	0	0	0	1	1	0	835	169	44	
1977	5	4	0	17	3	2	64	15	0	88	15	26	228	29	4	132	27	0	99	27	1	82	26	6	65	21	1	25	5	1	24	10	0	23	7	2	852	189	43
1978	23	7	2	6	3	0	17	8	0	107	17	4	213	27	7	148	28	17	143	30	11	65	24	1	20	10	6	7	5	0	9	5	0	30	9	5	788	173	53
1979	16	9	0	4	3	0	53	13	1	120	17	58	112	23	2	150	24	8	132	30	1	127	27	5	68	19	2	47	12	7	21	8	0	2	1	0	852	186	84
1980	5	4	0	11	9	0	41	15	2	137	16	4	203	25	8	217	30	7	95	26	5	73	27	0	37	14	1	43	7	1	3	2	0	1	1	0	866	176	28
1981	3	3	0	25	5	2	33	13	1	84	18	13	187	24	0	223	29	8	98	27	0	64	22	0	26	16	0	32	12	0	7	5	0	1	1	0	783	175	24
1982	18	8	1	3	2	0	60	15	6	150	20	30	327	28	14	198	30	4	95	29	0	34	15	0	38	12	2	9	4	0	19	6	0	82	13	7	1033	182	64
1953-1982 TOTAL	437	143	91	588	167	194	1452	354	217	3233	535	1106	4866	734	671	4467	792	458	2469	766	39	1630	624	60	1150	420	63	700	237	62	624	177	49	559	151	103	22175	5100	3113
MEAN	15	5	3	20	6	6	48	12	7	108	18	37	162	24	22	149	26	15	82	26	1	54	21	2	38	14	2	23	8	2	21	6	2	19	5	3	739	170	104

# AVERAGE NUMBER OF TORNADOES AND TORNADO DAYS EACH MONTH IN THE UNITED STATES

(BASED ON 22,175 TORNADOES THAT OCCURRED FROM 1953-1982)



**NUMBER OF TORNADES, TORNADO DAYS, DEATHS, AND RESULTING LOSSES BY YEARS, 1916-82**

YEAR	Number Tornadoes	Tornado Days	Total Deaths	Most Deaths in Single Tornado	Total Property Losses †	PROPERTY LOSS FREQUENCY*		
						Category 5	Category 6	Category 7 and Over
1916	90	36	150	30	6	7	1	0
1917	121	38	551	101	7	21	9	0
1918	81	45	136	36	7	20	5	0
1919	64	35	206	59	7	10	2	0
1920	87	50	499	87	7	14	10	0
1921	105	55	202	61	7	22	3	0
1922	108	64	135	16	7	27	5	0
1923	102	59	110	23	6	21	1	0
1924	130	57	376	85	7	26	11	1
1925	119	65	794	689	7	34	2	1
1926	111	57	144	23	6	28	0	0
1927	163	62	540	92	7	42	9	1
1928	203	79	95	14	7	40	7	0
1929	197	74	274	40	7	48	4	0
1930	192	72	179	41	7	38	6	0
1931	94	57	36	6	6	14	1	0
1932	151	67	394	37	7	23	1	1
1933	258	96	362	34	7	46	9	0
1934	147	77	47	6	6	10	3	0
1935	180	77	71	11	6	29	0	0
1936	151	71	552	216	7	17	5	1
1937	147	75	29	5	6	24	0	0
1938	213	76	183	32	7	29	6	0
1939	152	75	91	27	7	21	3	0
1940	124	62	65	18	7	13	2	0
1941	118	57	53	25	6	24	1	0
1942	167	66	384	65	7	42	10	0
1943	152	61	58	5	7	28	8	0
1944	169	68	275	100	7	50	9	0
1945	121	66	210	69	7	21	10	1
1946	106	65	78	15	7	29	7	0
1947	165	78	313	169	7	46	7	1
1948	183	68	139	33	7	62	11	2
1949	249	80	211	58	7	54	13	0
1950	200	88	70	18	7	47	9	0
1951	262	113	34	6	7	35	11	2
1952	240	98	229	57	7	53	19	0
1953	421	136	515	116	8	63	18	7
1954	550	160	36	6	7	63	8	1
1955	593	152	126	80	7	74	13	1
1956	504	155	83	25	7	83	24	1
1957	856	154	192	44	8	129	26	3
1958	564	166	66	19	7	70	8	1
1959	604	156	58	21	7	70	4	1
1960	616	172	46	16	7	65	11	1
1961	697	169	51	16	7	103	21	1
1962	657	152	28	17	7	51	10	0
1963	464	141	31	5	7	77	15	1
1964	704	156	73	22	7	113	17	5
1965	906	181	296	44	8	126	30	11
1966	585	150	98	58	8	79	13	4
1967	926	173	114	33	8	125	33	8
1968	660	171	131	34	8	82	26	6
1969	608	155	66	32	8	98	16	3
1970	653	171	72	26	8	97	24	6
1971	888	192	156	58	8	71	30	5
1972	741	194	27	6	8	100	28	1
1973	1102	206	87	7	9	219	67	9
1974	947	184	361	34	9	166	82	25
1975	920	204	60	9	9	189	31	11
1976	835	169	44	5	8	145	41	5
1977	852	189	43	22	8	173	40	6
1978	788	173	53	16	9	153	53	6
1979	852	186	84	42	9	169	62	11
1980	866	176	28	5	9	201	79	13
1981	783	175	24	5	9	144	43	12
1982	1033	182	64	10	9	237	77	12
Means: 1953- 1982	739	170	104	---	---	118	32	6

NOTE: -- The above estimated losses are based on values at time of occurrence.

†Storm damages in categories:

- 5. \$50,000 to \$500,000
- 6. \$500,000 to \$5 million
- 7. \$5 million to \$50 million
- 8. \$50 million to \$500 million
- 9. \$500 million and over

\*Number of times property losses reported in Storm Data in Categories 5, 6, 7, and over.

## NUMBER OF TORNADES, TORNADE DAYS, AND DEATHS BY STATES, 1953-82

STATE	TORNADES							DAYS		DEATHS		
	TOTAL	AVER- AGE	GREAT- EST	YEAR	LEAST	YEAR	Per # 10,000 Sq. Mi.	TOTAL	AVER- AGE	TOTAL	AVER- AGE	Per @ 10,000 Sq. Mi.
ALABAMA	599	20	45	1973+	5	1956	3.87	328	11	204	7	40
ALASKA	1	0	1	1959	0	1982+	.00	1	0	0	0	0
ARIZONA	104	3	17	1972	0	1965+	.30	85	3	3	0	0
ARKANSAS	647	22	66	1982	2	1969+	4.06	293	10	141	5	27
CALIFORNIA	113	4	14	1982	0	1968+	.24	81	3	0	0	0
COLORADO	543	18	58	1982	1	1959	1.74	345	12	2	0	0
CONNECTICUT	42	1	8	1973	0	1981+	2.79	38	1	4	0	8
DELAWARE	26	1	5	1975	0	1982+	4.21	24	1	0	0	0
DISTRICT OF COLUMBIA	0	0	0	--	0	1982+	.00	0	0	0	0	0
FLORIDA	1285	43	97	1975	10	1956	7.31	828	28	54	2	9
GEORGIA	617	21	46	1971+	7	1960	3.49	357	12	72	2	12
HAWAII	20	1	4	1971	0	1981+	1.04	16	1	0	0	0
IDAHO	40	1	5	1967+	0	1977+	.16	32	1	0	0	0
ILLINOIS	818	27	107	1974	4	1953	4.83	381	13	143	5	25
INDIANA	653	22	48	1973	4	1982	6.00	316	11	205	7	56
IOWA	830	28	54	1964	7	1956	4.92	386	13	54	2	10
KANSAS	1309	44	97	1955	14	1976	5.30	613	20	166	6	20
KENTUCKY	240	8	34	1974	0	1953	1.98	138	5	101	3	25
LOUISIANA	606	20	55	1974	3	1955	4.16	381	13	88	3	18
MAINE	71	2	11	1971	0	1982+	.71	63	2	1	0	0
MARYLAND	81	3	10	1975	0	1970+	2.55	65	2	1	0	1
MASSACHUSETTS	108	4	12	1958	0	1982+	4.36	78	3	99	3	120
MICHIGAN	467	16	39	1974	2	1959	2.67	271	9	232	8	40
MINNESOTA	524	17	41	1981	5	1972	2.08	302	10	75	3	9
MISSISSIPPI	636	21	44	1973	1	1979	4.44	341	11	320	11	67
MISSOURI	867	29	79	1973	6	1953	4.15	389	13	127	4	18
MONTANA	122	4	13	1978	0	1974+	.28	91	3	0	0	0
NEBRASKA	1038	35	78	1975	10	1966	4.48	515	17	49	2	6
NEVADA	19	1	4	1964	0	1981+	.06	18	1	0	0	0
NEW HAMPSHIRE	61	2	9	1963	0	1982+	2.19	55	2	0	0	0
NEW JERSEY	48	2	8	1973	0	1978+	2.04	40	1	0	0	0
NEW MEXICO	247	8	18	1972	0	1953	.68	189	6	3	0	0
NEW YORK	106	4	8	1978	0	1953	.71	90	3	2	0	0
NORTH CAROLINA	351	12	38	1973	2	1970	2.22	224	7	25	1	5
NORTH DAKOTA	505	17	52	1976	2	1961	2.38	291	10	21	1	3
OHIO	437	15	43	1973	3	1966+	3.53	234	8	151	5	37
OKLAHOMA	1654	55	107	1957	21	1978	7.89	690	23	186	6	27
OREGON	24	1	3	1975+	0	1982+	.08	20	1	0	0	0
PACIFIC	2	0	1	1981+	0	1982+	--	2	0	0	0	--
PENNSYLVANIA	239	8	23	1976	0	1959	1.76	170	6	8	0	2
PUERTO RICO	9	0	2	1979+	0	1982+	.88	8	0	0	0	0
RHODE ISLAND	1	0	1	1972	0	1982+	.27	1	0	0	0	0
SOUTH CAROLINA	274	9	23	1973	1	1970+	2.94	189	6	24	1	8
SOUTH DAKOTA	735	25	64	1965	1	1958	3.18	362	12	8	0	1
TENNESSEE	331	11	44	1974	1	1962	2.61	182	6	74	2	18
TEXAS	3723	124	232	1967	32	1953	4.64	1489	50	385	13	14
UTAH	37	1	5	1970+	0	1980+	.15	30	1	0	0	0
VERMONT	25	1	5	1962	0	1981+	.87	22	1	0	0	0
VIRGINIA	168	6	22	1975	1	1982+	1.37	118	4	16	1	4
VIRGIN ISLANDS	2	0	1	1979+	0	1982+	--	2	0	0	0	--
WASHINGTON	36	1	4	1978	0	1977+	.18	30	1	6	0	1
WEST VIRGINIA	65	2	6	1980+	0	1960+	.90	50	2	2	0	1
WISCONSIN	551	18	43	1980	3	1953	3.27	307	10	59	2	11
WYOMING	273	9	42	1979	0	1970	.93	189	6	2	0	0
TOTAL: UNITED STATES	22175*	739	1102	1973	421	1953	2.04	5100†	170	3113	104	9

+ Also in earlier year(s).

\* Corrected for boundary-crossing tornadoes.

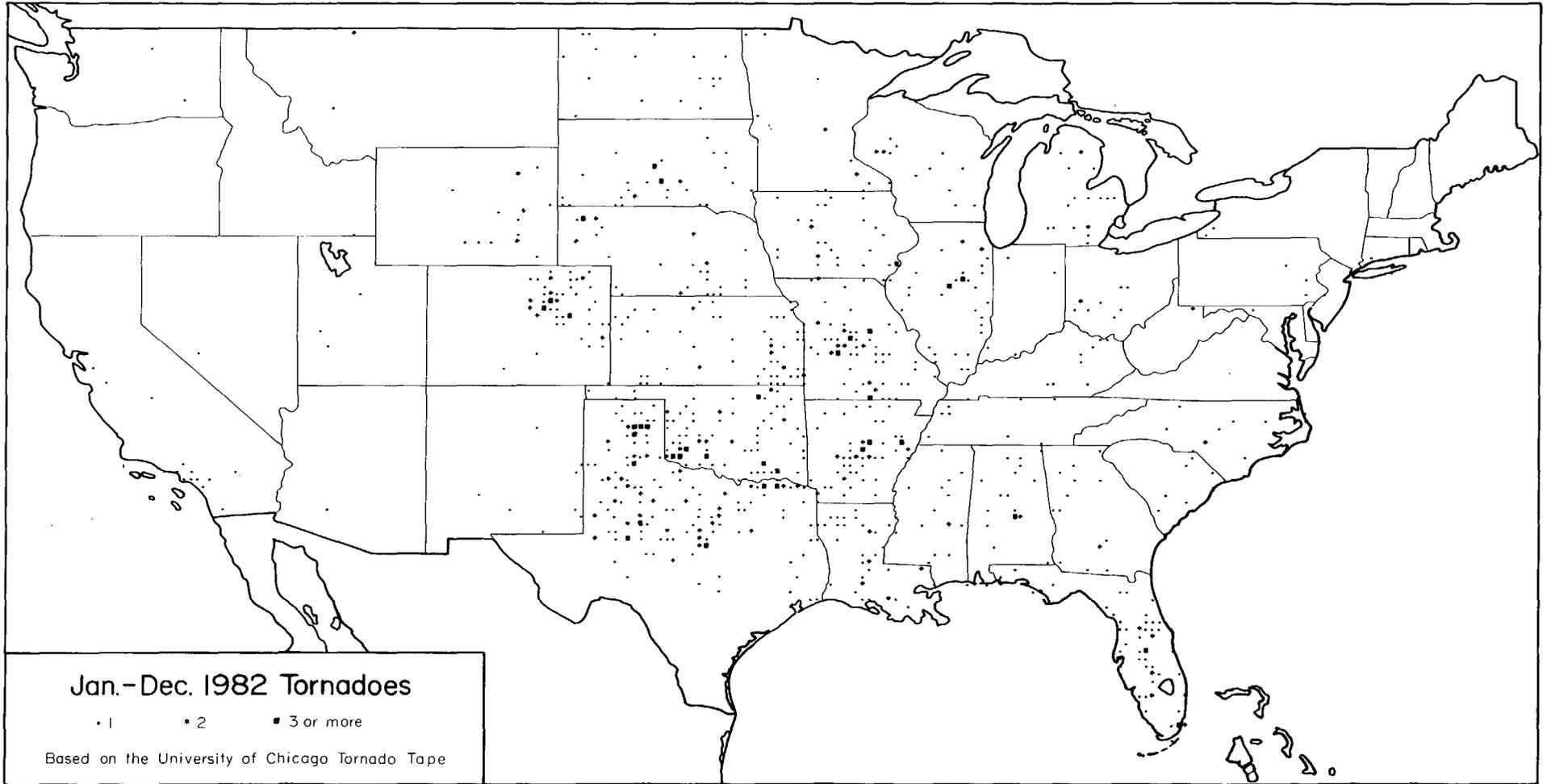
† Tornado days for country as a whole.

# Mean annual tornadoes per 10,000 square miles.

@ Number of deaths per 10,000 square miles.

## NUMBER OF FUNNEL CLOUDS, 1982

STATE	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANN
ALABAMA	2	1		1		3	1	3					11
ALASKA							2						2
ARIZONA					2			4					6
ARKANSAS	3		2	12	14	25	7				4	4	71
CALIFORNIA			4			1			4		3		12
COLORADO						5							5
CONNECTICUT													0
DELAWARE													0
DISTRICT OF COLUMBIA													0
FLORIDA				2		9		8	6	1			26
GEORGIA			1	5	4			1					11
HAWAII													0
IDAHO							7						7
ILLINOIS					3								3
INDIANA					11	6							17
IOWA				6	20	11	7	8	4				56
KANSAS					53	5	7					1	66
KENTUCKY													0
LOUISIANA				14	2	1	1	2		1			21
MAINE													0
MARYLAND													0
MASSACHUSETTS													0
MICHIGAN			4		5	14		2					25
MINNESOTA					11	3	40		2				56
MISSISSIPPI			1	16	2	1	2				1		23
MISSOURI					2							1	3
MONTANA						1							1
NEBRASKA			1	1	43	23	5	4	1				78
NEVADA								1					1
NEW HAMPSHIRE													0
NEW JERSEY													0
NEW MEXICO													0
NEW YORK													0
NORTH CAROLINA				1	1	1		1					4
NORTH DAKOTA				5	8	14	31	2	1				61
OHIO			1		2								3
OKLAHOMA	1		3	9	53	7	3	2	5				83
OREGON													0
PACIFIC													0
PENNSYLVANIA													0
PUERTO RICO													0
RHODE ISLAND													0
SOUTH CAROLINA													0
SOUTH DAKOTA					6	15	29	9					59
TENNESSEE				2			2		1				5
TEXAS			12	25	120	16	7	10		1	1		192
UTAH													0
VERMONT													0
VIRGINIA					2								2
VIRGIN ISLANDS													0
WASHINGTON													0
WEST VIRGINIA													0
WISCONSIN													0
WYOMING						5	1						6
TOTAL: UNITED STATES	6	1	29	99	364	166	152	57	24	3	9	6	916



# GENERAL SUMMARY OF LIGHTNING, 1982

HENRY N. VIGANSKY  
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 NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE  
 NATIONAL CLIMATIC DATA CENTER

Seventy-seven people were killed by lightning, and another 174 were injured in the United States, during 1982. These figures are well below the national annual average of 101 deaths and 245 injuries. A marked increase in fatalities was noted on golf courses; eight percent of the 1982 fatalities occurred on golf courses versus the national average of four percent. Also, 45 percent of the 1982 fatalities occurred in open fields, ball fields, etc., which is a dramatic increase above the national average of 27 percent. For comparative purposes, the location and percentage frequency of lightning deaths and injuries are depicted in table I.

TABLE I

LOCATION AND PERCENTAGE FREQUENCY OF LIGHTNING DEATHS AND INJURIES

LOCATIONS	1959-1982		1982	
	<u>PERCENTAGE FREQUENCY</u>		<u>PERCENTAGE FREQUENCY</u>	
	<u>DEATHS</u>	<u>INJURIES</u>	<u>DEATHS</u>	<u>INJURIES</u>
Open fields, ball field, etc.	27	28	45	43
Under trees	17	14	15	7
Boating, fishing and water related	12	5	9	4
Tractors and heavy road equipment	6	3	5	2
Golfing	4	4	8	8
Telephones	1	3	0	2
Various other or unknown locations	33	43	18	34
TOTALS	100%	100%	100%	100%

Some unusual lightning incidents are described briefly in the following annual summary.

JANUARY -- Fifteen miles (24.1 km) southwest of Idabel, Oklahoma, two hunters were struck by lightning. One man was killed and the other was seriously injured. In Murfreesboro, Tennessee, a mobile home and a house were struck by lightning. As a result of the lightning strikes, both units were destroyed by fire. Lightning entered the mobile home via the television antenna cable and entered the house via the electric lines.

FEBRUARY--A large barn used as a commercial outlet for crickets, located west of Crestview, Florida, was struck and destroyed by lightning. Also destroyed by the fire were several tons of feed, three tractors, a trailer, various types of shop equipment, heating and air conditioning equipment, and about one million crickets. Total damage was estimated at \$100,000.

MARCH--Lightning caused a fire which destroyed a machine shop located in Wagoner, Oklahoma. The property was valued at \$500,000. A battery of oil tanks located three miles (4.8 km) southwest of Indianola, Nebraska, was struck by lightning. The ensuing fire destroyed two storage tanks and damaged the third.

APRIL--A 10-year-old softball player and her coach were struck by lightning as a thunderstorm developed rapidly over Arlington, Texas. The two were running to seek shelter in a car, which was parked under a tree. The coach recovered from her injuries but the girl died.

MAY--At the Lincoln Country Club, in Lancaster County, Nebraska, four golfers were struck and injured by lightning. Severe thunderstorms crossed Warren and Butler Counties, Ohio, with frequent lightning strikes starting fires and injuring several people. Fourteen golfers in Middletown, Ohio were injured when lightning struck the shelter in which they sought protection from the storm. At about the same time in Warren County, a motorist on I-75 was critically injured by lightning while attempting to put a tarp over a boat he was transporting. A tobacco barn in the Lawsonville Community, near Stuart, Virginia, was struck by lightning and burned along with 50 bales of hay stored inside. Ironically, the owner stated that earlier on the same day, his workshop was struck by lightning, causing minor damages. A maintenance man at a school in New Lima, Oklahoma, was burned over 80 percent of his body and died several days later. Lightning ignited gasoline he was using to remove tile and glue from the floor. Near New Knoxville, Ohio, during a severe thunderstorm, a man was struck and killed by lightning, while

## GENERAL SUMMARY OF LIGHTNING

riding a motorcycle. One man was killed and two others injured in Denver, Colorado, when lightning struck the tree they were standing under.

JUNE--In Florence, Mississippi, a lightning bolt struck and killed one man and injured another as they were leaving a softball field. Light rain had just started prior to the lightning strike. During a severe thunderstorm, near Naples, Florida, two construction workers sought shelter under a piece of heavy road equipment. Lightning struck the machinery injuring both workers. The same storm knocked out the Naples Police Department radio. Six miles (9.7 km) southwest of South Fork, Colorado, lightning struck and killed three people and injured one. In the same area, lightning bolts split apart numerous trees. Lightning struck and exploded a crude oil storage tank in Natchez, Mississippi. As a result of the explosion, 12 additional tanks were destroyed. A fashionable home in Rush, Texas was struck by lightning and destroyed by the resulting fire. Property damage, including the home and contents, was estimated in excess of \$300,000. On a ranch five miles (8 km) south of Frankston, Texas, a ranch foreman riding a horse was killed by lightning. His wife and children riding beside him were not injured. North of Archer, Florida, three men harvesting watermelons were taking refuge from a severe thunderstorm under a tree. Lightning struck the tree killing one man and injuring the other two.

JULY--At the Miami Springs Country Club, two golfers took shelter under a tree from an electrical storm. One man was killed and the other injured when lightning struck the tree. On a golf course in Charlotte, North Carolina, another man was killed and two were injured by a lightning bolt. In Orleans Parish, Louisiana, one person was killed by lightning while searching for a lost golf ball under a tree. Eye-witnesses reported that only one bolt of lightning was noticed from that particular storm. Lightning struck amid 10 hikers killing one woman and injuring two other hikers. They were above the tree line near the summit of Mount Lincoln, New Hampshire. In Montgomery, Alabama, one person was killed and another knocked unconscious when lightning struck the tree they were standing under. Scraps of the victim's clothing were blown 30 feet (9.1 m) from his body. An officer at the scene was quoted as saying: "The victim's clothes were just blown off of him." A park employee of the Oak Mountain State Park, Alabama, was struck and injured by lightning while returning from the parking lot after closing her car windows. Lightning struck a tree 30 feet (9.1 m) from the victim and the charge passed through the ground to her. As a result of the lightning strike, it stopped her breathing and heart. A nearby golfer was credited with saving her life by immediately applying cardiopulmonary resuscitation to the victim.

AUGUST--Lightning continued to be a plague to golfers. Fort Carson, Colorado and Oconto, Wisconsin each recorded one lightning fatality which occurred on a golf course. On a golf course near Whitesboro, New York, two golfers standing under a tree were injured by lightning. One suffered minor injuries while the other one was knocked unconscious. The force of the lightning strike blew off most of his clothing and one shoe. Friends revived him immediately by applying cardiopulmonary resuscitation. In Arlington, Massachusetts, a woman was hospitalized after lightning passed through the telephone lines and through the telephone she was using; the electrical charge blasted her across the room. At about the same time, a house across the street was hit by lightning and the upper floor was gutted by fire. A group of Boy Scouts were canoeing along the Arkansas River on a prearranged route between Ponca City and Lake Keystone, Oklahoma. Near Cleveland, Oklahoma, lightning struck and killed one boy and injured another.

SEPTEMBER--On September 9, on a golf course in Tucson, Arizona, a man was struck in the chest by lightning and knocked unconscious. He was revived and taken to a burn center and remained in critical condition until his death on October 14. Eight miles (12.9 km) northwest of Key West, Florida, a father and son snorkle team was struck by lightning as they were climbing back into a wooden boat. The son was killed and the father was slightly stunned. The high school in Delaware, Oklahoma was struck by lightning and destroyed by fire. Damages were estimated at about \$600,000.

OCTOBER--In Vicksburg, Mississippi, a 12-year-old boy was injured by lightning while removing clothes from a clothesline. The youngster was hospitalized with burns to the feet and hands. Lightning struck a hanger at Sheppard Air Force Base, Texas, then jumped to the ground striking two airmen. One airman was dead at the scene, the other was critically injured and died several days later.

NOVEMBER--In Oil City, Louisiana, lightning struck an oil storage tank and the resulting fire destroyed five additional storage tanks. In an open field near Adair, Missouri, lightning struck and injured four men. One man was knocked unconscious and was revived by friends.

Additional information is presented in the following tables.

More detailed information about lightning data can be obtained from the monthly Storm Data publications. The National Climatic Data Center has lightning data available on magnetic tape for the period 1959-1982. The tape contains the date/time (year, month, day and hour), location (state and county), number of fatalities, number of injuries, and amount of property damage. A copy of this tape can be obtained by contacting the National Climatic Data Center, Federal Building, Asheville, North Carolina 28801.

## LIGHTNING FATALITIES, 1982

STATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
ALABAMA	0	0	0	0	0	0	1	0	0	0	0	0	1
ALASKA	0	0	0	0	0	0	0	0	0	0	0	0	0
ARIZONA	0	0	0	0	0	0	2	0	1	0	0	0	3
ARKANSAS	0	0	0	0	0	0	2	0	0	0	0	0	2
CALIFORNIA	0	0	0	0	0	0	0	0	0	0	0	0	0
COLORADO	0	0	0	0	2	3	0	1	0	0	0	0	6
CONNECTICUT	0	0	0	0	0	0	0	0	0	0	0	0	0
DELAWARE	0	0	0	0	0	0	0	0	0	0	0	0	0
DISTRICT OF COLUMBIA	0	0	0	0	0	0	0	0	0	0	0	0	0
FLORIDA	0	0	0	0	1	1	2	1	1	0	0	0	6
GEORGIA	0	0	0	0	0	0	2	0	0	0	0	0	2
HAWAII	0	0	0	0	0	0	0	0	0	0	0	0	0
IDAHO	0	0	0	0	0	0	0	0	0	0	0	0	0
ILLINOIS	0	0	0	0	0	0	0	0	0	0	0	0	0
INDIANA	0	0	0	0	0	0	0	0	0	0	0	0	0
IOWA	0	0	0	0	0	0	0	2	0	0	0	0	2
KANSAS	0	0	0	0	0	0	2	0	0	0	0	0	2
KENTUCKY	0	0	0	0	0	1	0	1	0	0	0	0	2
LOUISIANA	0	0	0	0	0	0	3	0	0	0	0	0	3
MAINE	0	0	0	0	0	0	0	0	0	0	0	0	0
MARYLAND	0	0	0	0	0	0	0	0	0	0	0	0	0
MASSACHUSETTS	0	0	0	0	0	0	0	0	0	0	0	0	0
MICHIGAN	0	0	0	0	0	1	3	0	0	0	0	0	4
MINNESOTA	0	0	0	0	0	0	0	2	0	0	0	0	2
MISSISSIPPI	0	0	0	1	0	1	3	0	0	0	0	0	5
MISSOURI	0	0	0	0	0	1	0	0	0	0	0	0	1
MONTANA	0	0	0	0	0	0	0	0	0	0	0	0	0
NEBRASKA	0	0	0	0	0	1	0	0	0	0	0	0	1
NEVADA	0	0	0	0	0	0	0	0	0	0	0	0	0
NEW HAMPSHIRE	0	0	0	0	0	0	1	0	0	0	0	0	1
NEW JERSEY	0	0	0	0	0	2	1	0	0	0	0	0	3
NEW MEXICO	0	0	0	0	0	0	0	0	0	0	0	0	0
NEW YORK	0	0	0	0	0	0	0	0	0	0	0	0	0
NORTH CAROLINA	0	0	0	0	0	0	2	0	1	0	0	0	3
NORTH DAKOTA	0	0	0	0	0	0	0	0	0	0	0	0	0
OHIO	0	0	0	0	1	0	0	0	0	0	0	0	1
OKLAHOMA	1	0	0	0	1	0	0	1	0	0	0	0	3
OREGON	0	0	0	0	0	0	0	0	0	0	0	0	0
PENNSYLVANIA	0	0	0	0	0	0	0	1	0	0	0	0	1
PUERTO RICO	0	0	0	0	0	0	3	4	0	0	0	0	7
RHODE ISLAND	0	0	0	0	0	0	0	0	0	0	0	0	0
SOUTH CAROLINA	0	0	0	0	0	0	1	2	0	0	0	0	3
SOUTH DAKOTA	0	0	0	0	0	0	0	1	0	1	0	0	2
TENNESSEE	0	0	0	0	0	0	1	0	0	0	0	0	1
TEXAS	0	0	0	2	0	2	0	0	1	2	0	0	7
UTAH	0	0	0	0	0	0	0	0	0	0	0	0	0
VERMONT	0	0	0	0	0	0	0	0	0	0	0	0	0
VIRGINIA	0	0	0	0	0	0	0	0	0	0	0	0	0
WASHINGTON	0	0	0	0	0	0	0	0	0	0	0	0	0
WEST VIRGINIA	0	0	0	0	0	0	0	0	0	0	0	0	0
WISCONSIN	0	0	0	0	0	0	0	2	0	0	0	0	2
WYOMING	0	0	0	0	0	1	0	0	0	0	0	0	1
TOTAL	1	0	0	3	5	14	29	18	4	3	0	0	77

## LIGHTNING INJURIES, 1982

STATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
ALABAMA	0	0	0	0	1	0	3	0	0	0	0	0	4
ALASKA	0	0	0	0	0	0	0	0	0	0	0	0	0
ARIZONA	0	0	0	0	0	0	0	0	0	0	0	0	0
ARKANSAS	0	0	0	0	2	0	0	0	0	0	0	1	3
CALIFORNIA	0	0	0	0	0	0	0	0	0	0	0	0	0
COLORADO	0	0	0	0	2	5	0	3	0	0	0	0	10
CONNECTICUT	0	0	1	0	0	0	0	0	0	0	0	0	1
DELAWARE	0	0	0	0	0	0	0	0	0	0	0	0	0
DISTRICT OF COLUMBIA	0	0	0	0	0	0	0	0	0	0	0	0	0
FLORIDA	0	0	0	1	1	4	2	2	6	0	0	0	16
GEORGIA	0	0	0	0	3	0	8	0	0	0	0	0	11
HAWAII	0	0	0	0	0	0	0	0	0	0	0	0	0
IDAHO	0	0	0	0	0	0	0	0	0	0	0	0	0
ILLINOIS	0	0	0	0	1	0	1	0	0	0	0	0	2
INDIANA	0	0	0	0	0	0	0	0	0	0	0	0	0
IOWA	0	0	0	0	0	0	0	2	0	0	0	0	2
KANSAS	0	0	1	0	0	1	1	0	1	0	0	0	4
KENTUCKY	0	0	0	0	0	0	0	0	0	0	0	0	0
LOUISIANA	0	0	0	0	0	0	4	0	0	0	0	0	4
MAINE	0	0	0	0	0	0	0	0	0	0	0	0	0
MARYLAND	0	0	0	0	2	0	5	0	1	0	0	0	8
MASSACHUSETTS	0	0	0	0	0	0	2	1	0	0	0	0	3
MICHIGAN	0	0	0	0	0	0	2	2	0	0	0	0	4
MINNESOTA	0	0	0	0	0	0	2	0	0	0	0	0	2
MISSISSIPPI	0	0	0	0	0	1	5	0	0	1	0	0	7
MISSOURI	0	0	0	0	2	0	0	0	0	0	4	0	6
MONTANA	0	0	0	0	0	0	0	0	0	0	0	0	0
NEBRASKA	0	0	0	2	4	0	0	1	0	0	0	0	7
NEVADA	0	0	0	0	0	0	0	0	0	0	0	0	0
NEW HAMPSHIRE	0	0	0	0	0	0	2	0	0	0	0	0	2
NEW JERSEY	0	0	0	0	0	0	1	0	0	0	0	0	1
NEW MEXICO	0	0	0	0	0	0	0	2	0	0	0	0	2
NEW YORK	0	0	0	0	0	3	2	9	0	0	0	0	14
NORTH CAROLINA	0	0	0	0	1	1	3	0	0	0	0	0	5
NORTH DAKOTA	0	0	0	0	0	0	0	1	0	0	0	0	1
OHIO	0	0	0	0	15	0	0	0	0	1	0	0	16
OKLAHOMA	1	0	0	2	2	0	0	2	1	0	0	1	9
OREGON	0	0	0	0	0	0	0	0	0	0	0	0	0
PENNSYLVANIA	0	0	0	0	0	1	2	2	0	0	0	0	5
PUERTO RICO	0	0	0	0	0	0	0	0	0	0	0	0	0
RHODE ISLAND	0	0	0	0	0	0	1	0	0	0	0	0	1
SOUTH CAROLINA	0	0	0	0	0	1	2	0	2	0	0	0	5
SOUTH DAKOTA	0	0	0	0	0	1	0	1	0	2	0	0	4
TENNESSEE	0	0	0	0	0	0	1	0	0	0	0	0	1
TEXAS	0	0	0	1	0	2	1	0	0	0	0	0	4
UTAH	0	0	0	0	0	0	0	2	0	0	0	0	2
VERMONT	0	0	0	0	0	0	0	0	0	0	0	0	0
VIRGINIA	0	0	0	0	2	0	4	0	0	0	0	0	6
WASHINGTON	0	0	0	0	0	0	0	0	0	0	0	0	0
WEST VIRGINIA	0	0	0	0	0	0	0	0	0	0	0	0	0
WISCONSIN	0	0	0	0	0	0	0	2	0	0	0	0	2
WYOMING	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	1	0	2	6	38	20	54	32	11	4	4	2	174

## TOTAL LIGHTNING FATALITIES BY STATE FOR PERIOD, 1959-82

STATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
ALABAMA	0	0	2	2	4	15	23	13	1	1	0	0	61
ALASKA	0	0	0	0	0	0	0	0	0	0	0	0	0
ARIZONA	0	0	0	0	1	1	14	12	7	0	0	0	35
ARKANSAS	0	0	8	0	10	28	23	18	3	0	0	0	90
CALIFORNIA	0	0	0	0	0	2	2	5	3	0	0	0	12
COLORADO	0	0	0	0	9	12	28	14	0	1	0	0	64
CONNECTICUT	0	0	0	0	0	3	5	3	1	0	0	0	12
DELAWARE	0	0	0	0	0	2	3	3	0	0	0	0	8
DISTRICT OF COLUMBIA	0	0	0	0	0	1	1	1	0	0	0	0	3
FLORIDA	0	0	3	3	18	60	64	53	30	2	1	1	235
GEORGIA	0	0	2	3	4	15	23	9	2	1	0	0	59
HAWAII	0	0	0	0	0	0	0	0	0	0	0	0	0
IDAHO	0	0	0	1	1	5	5	5	1	0	0	0	18
ILLINOIS	0	0	0	4	7	21	12	10	7	2	0	0	63
INDIANA	0	0	1	2	6	20	15	12	4	2	0	0	62
IOWA	0	0	1	3	9	14	6	13	4	4	0	0	54
KANSAS	0	0	0	3	8	5	12	6	4	1	1	0	40
KENTUCKY	1	0	0	2	7	16	15	8	10	0	0	0	59
LOUISIANA	0	0	1	5	7	19	33	12	11	0	1	1	90
MAINE	0	0	0	0	0	3	4	6	0	3	0	0	16
MARYLAND	0	0	0	0	1	5	5	6	1	0	0	81	99
MASSACHUSETTS	0	0	0	1	3	2	5	7	1	0	0	0	19
MICHIGAN	0	0	0	1	6	19	18	19	5	0	0	0	68
MINNESOTA	0	0	0	2	2	7	5	12	8	1	0	0	37
MISSISSIPPI	1	0	4	1	10	8	20	17	5	0	0	0	66
MISSOURI	0	0	5	4	19	18	10	7	3	1	0	0	67
MONTANA	0	0	0	0	2	8	6	2	0	0	0	0	18
NEBRASKA	0	0	0	1	3	13	8	6	4	0	0	0	35
NEVADA	0	0	0	0	0	1	0	2	0	0	0	0	3
NEW HAMPSHIRE	0	0	0	0	0	3	2	0	0	0	0	0	5
NEW JERSEY	0	0	0	1	2	7	17	14	3	0	0	0	44
NEW MEXICO	0	0	0	1	3	8	20	22	3	0	0	0	57
NEW YORK	0	0	0	0	5	18	38	23	4	2	0	0	90
NORTH CAROLINA	0	1	3	2	18	23	44	31	3	0	0	0	125
NORTH DAKOTA	0	0	0	0	0	4	3	3	0	0	0	0	10
OHIO	0	0	0	3	7	17	37	14	7	2	2	0	89
OKLAHOMA	1	1	1	9	12	11	7	15	11	2	1	0	71
OREGON	0	0	0	0	1	0	0	1	2	0	0	0	4
PENNSYLVANIA	0	1	0	0	7	24	26	25	7	1	0	0	91
PUERTO RICO	0	0	0	0	0	3	5	8	5	3	0	0	24
RHODE ISLAND	0	0	0	0	0	0	1	0	2	0	0	0	3
SOUTH CAROLINA	0	0	1	0	5	9	28	11	4	0	0	0	58
SOUTH DAKOTA	0	0	0	0	2	1	4	1	3	3	0	0	14
TENNESSEE	0	1	1	4	12	29	15	12	11	2	2	0	89
TEXAS	0	0	0	12	24	13	35	21	14	7	1	0	127
UTAH	0	0	0	0	0	5	2	6	2	0	0	0	15
VERMONT	0	0	0	0	0	4	5	4	0	0	0	0	13
VIRGINIA	0	0	0	0	9	6	8	8	2	0	0	0	33
WASHINGTON	0	0	0	0	0	1	0	0	0	0	0	0	1
WEST VIRGINIA	0	0	0	0	4	2	8	2	1	0	0	0	17
WISCONSIN	0	0	0	1	0	8	12	10	2	1	1	1	36
WYOMING	0	0	0	0	2	4	7	6	2	0	0	0	21
TOTAL	3	4	33	71	250	523	689	518	203	42	10	84	2430

## TOTAL LIGHTNING INJURIES BY STATE FOR PERIOD, 1959-82

STATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
ALABAMA	6	1	7	2	2	12	51	27	0	2	0	0	110
ALASKA	0	0	0	0	0	0	0	0	0	0	0	0	0
ARIZONA	2	0	0	0	6	1	25	18	12	0	0	0	64
ARKANSAS	1	2	2	9	25	15	28	53	9	0	0	1	145
CALIFORNIA	1	0	0	3	0	0	6	7	1	0	1	1	20
COLORADO	0	0	0	0	21	37	40	41	4	0	0	0	143
CONNECTICUT	0	0	2	0	3	14	10	11	6	0	0	0	46
DELAWARE	0	0	0	0	1	9	0	1	2	0	0	0	13
DISTRICT OF COLUMBIA	0	0	0	0	0	4	1	1	0	0	1	0	7
FLORIDA	0	1	12	12	23	154	150	151	113	14	0	1	631
GEORGIA	0	0	2	2	16	38	89	29	3	5	0	0	184
HAWAII	0	0	0	0	0	0	0	0	0	0	0	0	0
IDAHO	0	0	0	1	6	15	13	15	4	1	0	0	55
ILLINOIS	0	0	0	2	13	37	23	25	9	1	0	0	110
INDIANA	0	0	0	4	18	31	26	21	1	0	0	0	101
IOWA	0	0	1	7	21	39	32	17	16	2	1	0	136
KANSAS	0	0	5	10	11	22	37	19	21	4	1	0	130
KENTUCKY	0	0	0	2	19	45	45	13	10	1	0	0	135
LOUISIANA	1	0	6	2	13	13	90	32	13	0	1	1	172
MAINE	0	0	0	0	3	5	17	46	0	0	1	0	72
MARYLAND	0	0	0	0	17	15	30	15	5	0	0	0	82
MASSACHUSETTS	0	0	1	11	16	30	99	66	26	4	2	1	256
MICHIGAN	0	0	1	8	33	120	75	182	18	6	0	0	443
MINNESOTA	0	0	0	0	6	17	14	13	5	3	0	0	58
MISSISSIPPI	1	2	3	2	10	10	96	30	6	2	1	1	164
MISSOURI	0	1	1	8	15	16	4	13	3	2	4	0	67
MONTANA	0	0	0	0	5	9	10	8	0	0	0	0	32
NEBRASKA	0	0	0	4	14	6	7	11	5	0	0	0	47
NEVADA	0	0	0	0	0	0	0	2	0	0	0	0	2
NEW HAMPSHIRE	0	0	0	0	2	17	26	2	2	0	0	0	49
NEW JERSEY	0	0	0	0	3	11	49	18	14	0	0	0	95
NEW MEXICO	0	0	0	1	17	9	29	17	6	0	0	0	79
NEW YORK	0	0	0	0	4	48	65	112	20	3	1	0	253
NORTH CAROLINA	0	2	8	12	38	54	85	69	16	2	1	0	287
NORTH DAKOTA	0	0	0	0	1	0	0	4	2	0	0	0	7
OHIO	0	0	0	3	29	36	35	83	42	4	11	0	243
OKLAHOMA	1	1	3	14	26	36	30	32	19	2	5	2	171
OREGON	0	0	0	0	2	2	0	9	3	0	0	0	16
PENNSYLVANIA	0	5	0	0	9	67	67	127	12	2	0	0	289
PUERTO RICO	0	0	0	0	0	0	1	0	2	1	0	0	4
RHODE ISLAND	0	2	0	0	1	5	4	11	2	0	1	0	26
SOUTH CAROLINA	0	0	0	1	15	6	73	16	16	0	0	0	127
SOUTH DAKOTA	0	0	0	1	2	13	6	6	1	2	0	0	31
TENNESSEE	0	1	4	2	23	49	57	30	16	4	0	0	186
TEXAS	0	2	4	28	40	38	32	33	23	7	2	0	209
UTAH	0	0	0	0	1	18	6	11	4	0	0	0	40
VERMONT	0	0	0	0	0	3	10	2	0	0	0	0	15
VIRGINIA	0	0	0	2	7	12	39	21	1	0	0	0	82
WASHINGTON	0	0	0	0	4	1	5	7	0	0	0	0	17
WEST VIRGINIA	0	0	0	0	0	2	22	25	1	1	0	0	51
WISCONSIN	0	1	2	2	4	25	47	11	6	1	2	0	101
WYOMING	0	0	0	0	4	32	16	21	6	0	0	0	79
TOTAL	13	21	64	155	549	1198	1722	1534	506	76	36	8	5882

# LIGHTNING FATALITIES AND INJURIES BY YEAR 1959-82

## LIGHTNING FATALITIES

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
1959	1	0	1	4	18	25	50	39	13	7	0	0	158
1960	0	0	1	5	7	33	25	17	9	0	0	0	97
1961	0	0	1	2	9	23	47	20	10	1	0	0	113
1962	0	0	3	6	27	20	26	28	9	1	0	0	120
1963	0	0	4	3	11	37	42	20	10	2	0	81	210
1964	0	0	9	6	15	21	29	19	7	1	1	0	108
1965	0	0	2	4	12	34	39	28	4	2	0	0	125
1966	0	0	1	1	8	15	21	16	11	3	0	0	76
1967	1	0	1	2	3	26	21	14	1	2	1	1	73
1968	0	0	0	1	5	24	30	29	9	3	1	1	103
1969	0	0	1	5	13	17	27	13	14	3	0	0	93
1970	0	0	0	1	17	25	27	19	21	1	0	0	111
1971	0	0	2	1	12	27	33	19	19	0	0	0	113
1972	0	0	1	1	5	21	31	28	3	1	0	0	91
1973	0	1	2	3	10	24	31	18	13	2	1	0	105
1974	0	2	0	7	12	21	28	24	6	0	2	0	102
1975	0	1	3	3	11	19	28	18	6	2	0	0	91
1976	0	0	0	1	9	19	19	19	3	2	0	0	72
1977	0	0	0	4	9	19	16	35	14	1	0	0	98
1978	0	0	1	1	9	26	24	22	3	1	0	1	88
1979	0	0	0	3	11	4	20	16	4	3	2	0	63
1980	0	0	0	0	7	16	27	20	5	1	0	0	76
1981	0	0	0	4	5	13	19	19	5	0	2	0	67
1982	1	0	0	3	5	14	29	18	4	3	0	0	77
TOTAL	5	4	33	71	250	523	689	518	203	42	10	84	2430
AVERAGE	0	0	1	3	10	22	29	22	8	2	0	4	101

## LIGHTNING INJURIES

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
1959	0	0	0	5	27	52	110	103	23	3	1	1	325
1960	0	0	2	11	12	70	28	50	16	9	4	0	202
1961	0	0	7	14	15	49	83	50	31	5	1	1	256
1962	0	0	3	5	39	38	90	49	12	6	0	0	242
1963	7	0	0	6	14	64	55	44	18	1	0	0	209
1964	0	0	10	15	14	38	99	53	8	1	1	0	239
1965	3	2	2	4	26	42	59	59	19	1	0	0	217
1966	0	2	1	2	37	39	42	44	15	1	0	0	183
1967	0	0	0	4	7	35	59	33	4	2	0	1	145
1968	0	0	4	2	16	52	117	155	14	9	1	0	370
1969	0	0	0	4	19	75	39	23	12	0	0	1	173
1970	0	0	1	5	40	40	82	43	43	4	1	0	259
1971	0	1	0	1	24	71	79	54	22	1	1	0	254
1972	0	0	6	6	12	24	72	54	24	2	1	0	203
1973	0	0	10	2	20	23	74	59	29	9	2	0	228
1974	1	9	1	3	12	27	56	51	12	1	0	0	173
1975	0	3	0	1	30	60	107	154	42	1	0	1	399
1976	0	1	0	7	16	39	73	68	13	1	0	1	219
1977	0	0	0	3	35	58	58	67	62	4	4	0	291
1978	0	0	5	3	19	100	73	54	42	5	0	0	301
1979	0	2	4	26	32	73	55	49	9	2	2	0	254
1980	0	1	2	11	11	49	50	134	16	1	0	0	275
1981	1	0	2	9	34	60	108	52	9	3	13	0	291
1982	1	0	2	6	38	20	54	32	11	4	4	2	174
TOTAL	13	21	64	155	549	1198	1722	1534	506	76	36	8	5882
AVERAGE	1	1	3	6	23	50	72	64	21	3	2	0	245

# NORTH ATLANTIC TROPICAL CYCLONES, 1982

Gilbert B. Clark  
 NOAA National Hurricane Center  
 Miami, Florida

There were five named tropical cyclones in the Atlantic-Caribbean, Gulf of Mexico region (fig. 1). Three of these were tropical storms (wind speeds in the 34-63 kn range), and only two attained hurricane status (winds greater than 63 kn). Considering the number of hurricanes (2), and the number of days (6) a hurricane was on the weather map, this was the quietest season in more than 50 yrs.

By comparison, the average number of named storms each year (based on the past 35 yr of record) is ten, with six becoming hurricanes. The last recorded season with only two hurricanes was 1931 and since that time only one other year,

1972, had fewer tropical storms (4), but three of these became hurricanes. A summary of the 1982 cyclone statistics is given in table 1.

The major shipping lanes in the North Atlantic were affected by only two systems--a subtropical storm in mid-June, and hurricane Debby in mid-September. However, there were several strong low-pressure systems in late October and November that possessed some of the characteristics found in tropical cyclones. The unusually tranquil summer and early fall can be attributed to unseasonable westerly winds in the upper atmosphere overlying the lower atmospheric easterly trades. The shearing effect of this pattern

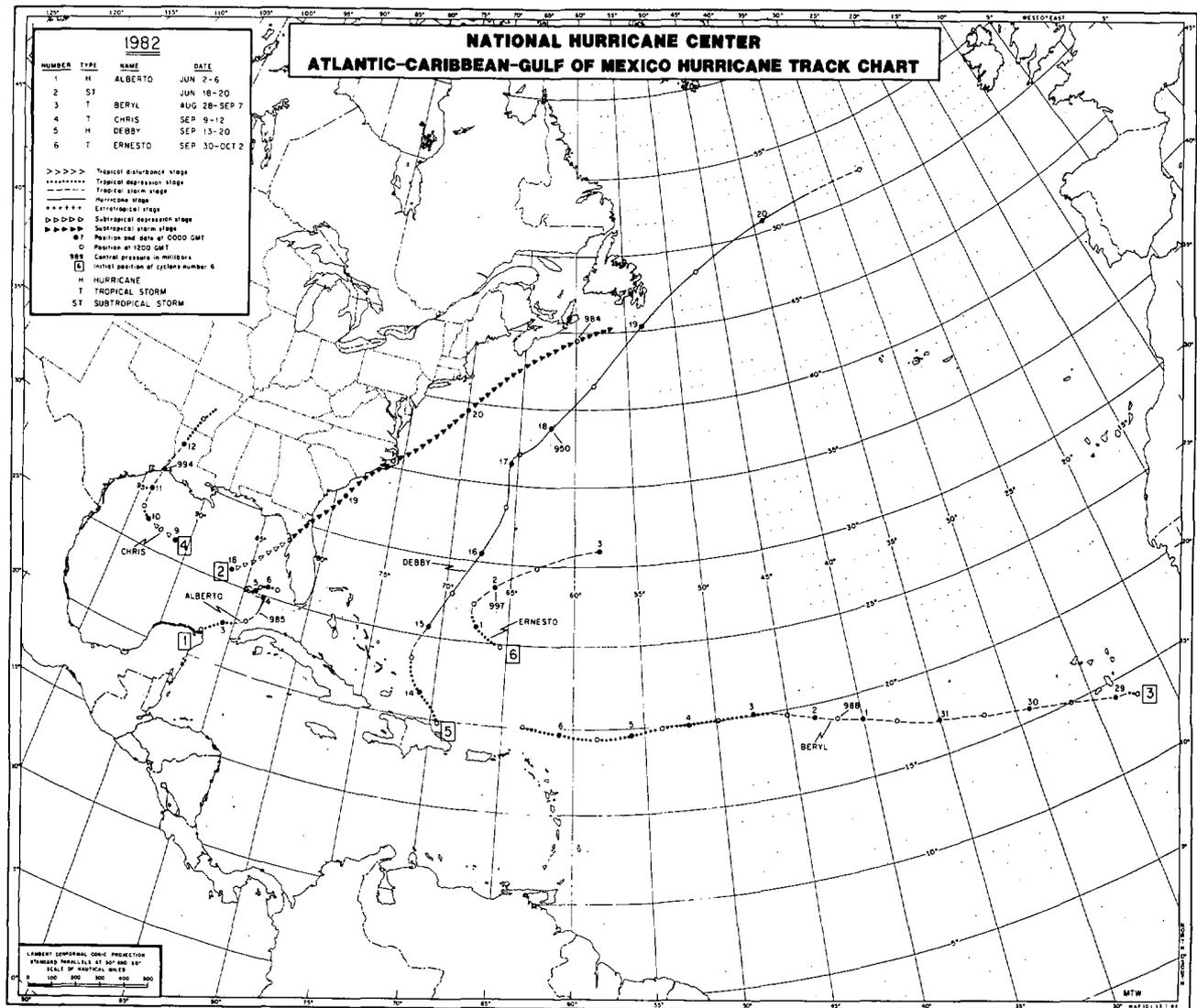


Figure 1.-- North Atlantic tropical cyclone tracks, 1982.

Table 1.--Summary of 1982 North Atlantic Tropical and Subtropical Cyclone Statistics

Cyclone Number	Name	Class	Dates	Maximum Sustained Winds (kn)	Lowest Pressure (mb)	U.S. \$ Damage (millions)	Deaths
1	Alberto	H	2-6 Jun	75	985	Minor	23 (Cuba)
2	---	ST	18-20 Jun	60	984	10	3 (FL)
3	Beryl	T	28 Aug-6 Sep	60	988		
4	Chris	T	8-12 Sep	55	994	2	
5	Debby	H	13-20 Sep	115	950		
6	Ernesto	T	30 Sep-2 Oct	60	997		

T = Tropical storm (winds 34-63 kn)  
H = Hurricane (winds 64 kn or higher)  
ST = Subtropical storm (34-63 kn)

inhibited the process of tropical cyclone development during most the 1982 hurricane season.

HURRICANE ALBERTO, JUNE 2-6

Ship reports and satellite pictures received on June 2 indicated a tropical depression was forming in the southeastern Gulf of Mexico, and this was confirmed by a reconnaissance aircraft that afternoon. The system moved slowly east-northeastward and developed into hurricane Alberto on June 3 as winds increased to 75 kn (fig. 2). Alberto was a hurricane for only 12 hr then rapidly lost strength early on June 4 as the upper level pattern necessary to sustain a hurricane was destroyed by a high-level westerly jet. The remaining low-level cloud circulation remained visible on satellite pictures (fig. 3), as it drifted aimlessly around the southeast Gulf of Mexico before finally dissipating on June 6.

The only gale force winds reported by shipping was a 40 kn observation from the U.S. Coast Guard vessel DILIGENCE at 0600 June 3 in the Yucatan Channel. Gale winds and heavy rains were reported

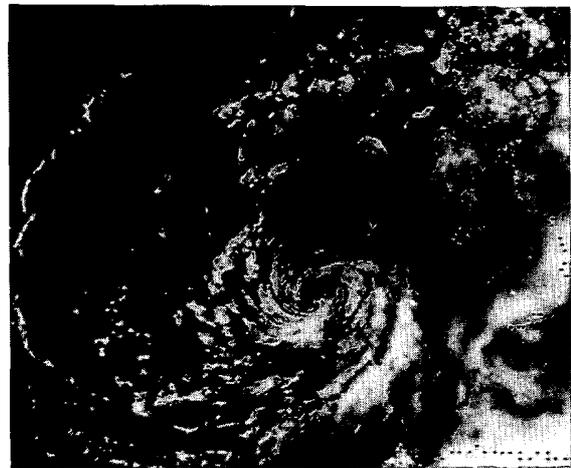


Figure 3.-- Low-level circulation of Alberto 27-hrs after figure 2.

in the Lower Florida Keys, but damage was minor. Flash floods in western Cuba caused 23 deaths.

SUBTROPICAL STORM, JUNE 18-20

A tropical disturbance moving northward into the central Gulf of Mexico on June 17 interacted with a strong upper-level trough and moved rapidly northeastward across northern Florida as a developing subtropical storm on the morning of June 18. The storm skirted the U.S. mid-Atlantic States coastline on June 19 (fig. 4) and raced

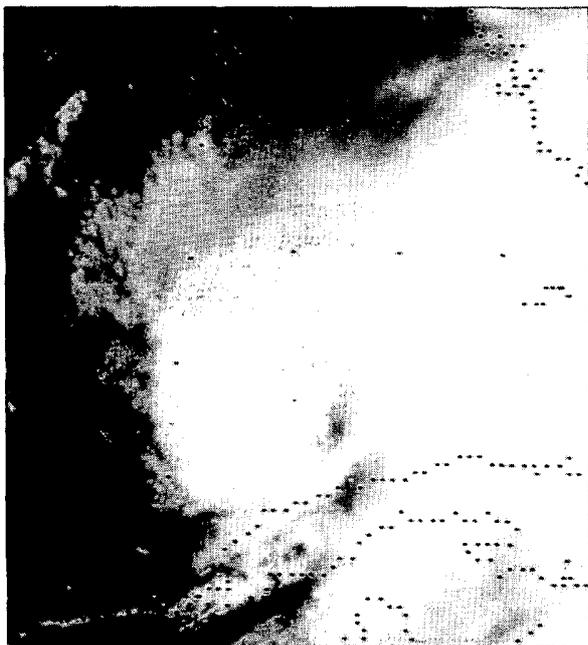


Figure 2.-- Alberto at 1531, June 3, 1982.

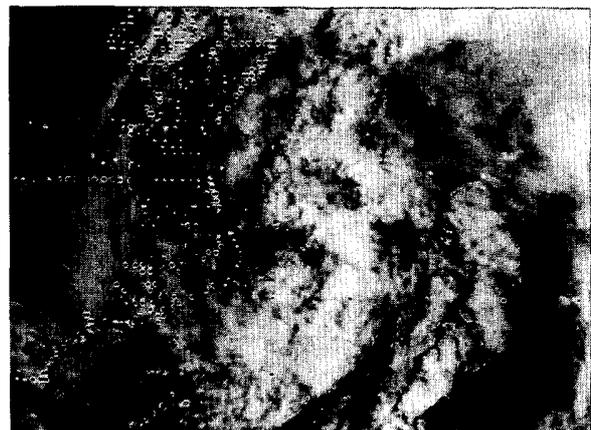


Figure 4.--The subtropical storm off Cape Hatteras at 1331 June 19.

northeastward, passing south of Nova Scotia on June 20. Similar situations occurred in June 1959 and 1974 when there was also minimal tropical storm activity. This type system can be especially dangerous to shipping as winds occasionally approach hurricane force.

The Bi-Annual Newport, Rhode Island to Bermuda sailboat race was scheduled to begin on June 18 about the same time the subtropical storm was forming in the northeast Gulf of Mexico. The forecast track of the storm would intersect the projected course of the sailboats, so it definitely posed a threat to the estimated 185 boats in the race. After much debate, the race was postponed for only the second time since it was inaugurated in 1926. On the morning of June 19 reports of hurricane-force gusts and seas of 30 to 35 ft were received from the tug PATRIARCH, located about 100 mi east of Cape Hatteras, N.C. This information so influenced the racing committee that an unprecedented second postponement was made and the race did not begin until the 20th. Subsequently, reports from ships in the projected track of the race indicated a potential marine disaster was prevented by the delay of the race.

Several other ships off the southeast United States coast reported gales and high seas. The Exxon HUNTINGTON (KEAJ) observed winds gusting to 70 kns and seas of 25 to 30 ft at 1800 June 18. Gale warnings were issued over north Florida on the 18th of June and extended to Rhode Island during the passage of the storm. High tides and waves produced considerable beach erosion and damage to waterfront buildings along the Florida west coast from Naples to Tampa. Severe thunderstorms accompanying the low triggered several tornadoes and produced heavy rains resulting in three deaths in central Florida. The storm's effects on land areas north of Florida were relatively minor. Total damage estimates were around \$10 million.

#### TROPICAL STORM BERYL, AUGUST 28-SEPTEMBER 6

For almost 3 mo after hurricane Alberto formed none of the many disturbances tracked by the National Hurricane Center developed into tropical cyclones. Finally, in late August a well organized weather system moved westward into the Atlantic from Northwest Africa. By the evening of August 28 satellite pictures indicated tropi-

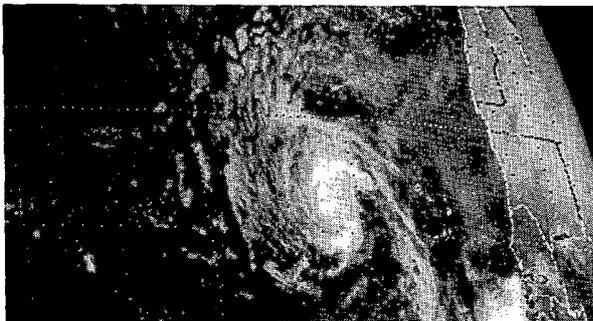


Figure 5.-- Tropical storm Beryl spinning over the data sparse southeast North Atlantic like a galaxy in space.

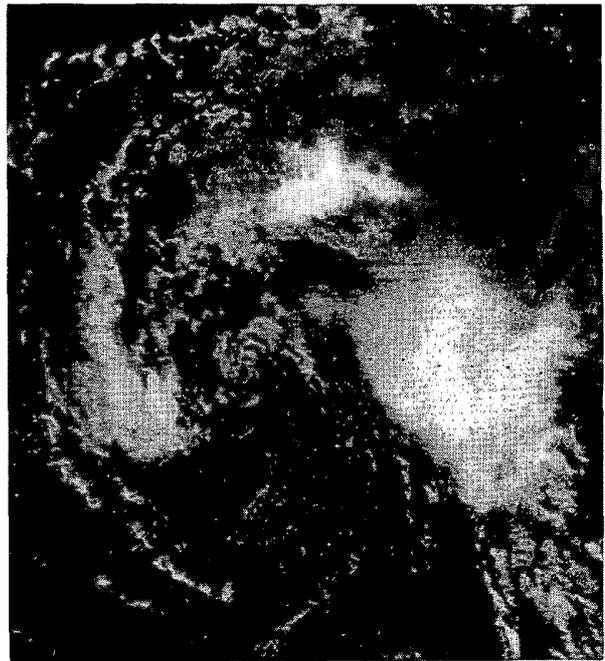


Figure 6.-- Tropical storm Beryl 1501 September 2, probably after peak intensity. Note the high cloud shield has already been blown east of the surface center near 20°N, 46°W.

cal storm Beryl had formed. The storm passed just south of the Cape Verde Islands on August 29 and continued westward into the central Atlantic (fig. 5), where Beryl reached maximum strength of 60 kn on September 2. Thereafter, as the storm moved westward, it encountered the persistent high level westerlies. This destroyed the upper level portion of the circulation, causing the storm to rapidly weaken (fig. 6). The system lost all signs of circulation north-east of the Leeward Islands on September 6. Even though Beryl approached hurricane status, it quite likely would have gone undetected in pre-satellite days because of its course and dissipation over sparsely traveled ocean areas. There were no reports of damage in the Cape Verde Islands or from shipping.

#### TROPICAL STORM CHRIS, SEPTEMBER 9-12

On September 9, a low-pressure area forming over the central Gulf of Mexico began to exhibit tropical characteristics as it moved westward. By the morning of September 10 the system had developed into tropical storm Chris as it turned to the north. The U.S. Navy ship SEALIFT CHINA SEA (NHAR) reported southwest winds of 45 kn southeast of Galveston at 0600 September 11, giving the forecasters an early indication that Chris was strengthening. The storm moved into southwestern Louisiana on the morning of September 11 (fig. 7) with its maximum winds of 55 kn reached just prior to landfall.

Offshore oil rigs observed wind gusts up to 70 kn, and tides in excess of 6 ft were reported on the Louisiana coast. There were no casualties reported, and damage estimates were less than \$2 million.

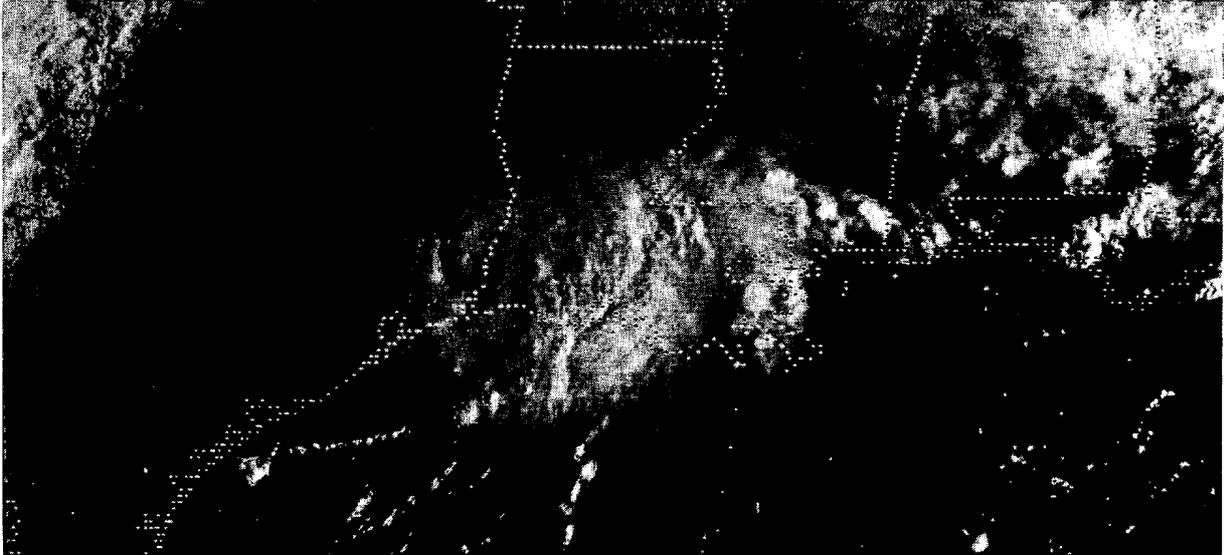


Figure 7.-- Tropical storm Chris over-Orange, Texas on the 11th at 1133L. Note the thunderstorms embedded in the storm to the south and east.

**HURRICANE DEBBY, SEPTEMBER 13-20**

The only major hurricane of the 1982 season developed from a tropical depression that formed just north of the Dominican Republic on September 13. The depression was upgraded to tropical storm Debby on September 14, as it moved slowly northward away from the Bahamas. Debby strengthened to a hurricane by the evening of the 14th and began a north-northeastward course that would take the center just west of Bermuda on September 16 (fig. 8). At this time winds had reached 95 kn near the center. Fortunately, the strong winds remained west of the island and there was only minor damage reported from the winds gusting to 60 kn.

After passing Bermuda, Debby slowed until it became stationary early on September 17. Debby reached maximum strength with peak winds of 115 kn as it accelerated northeastward during the afternoon. The hurricane passed just south of Cape Race, Newfoundland, on the evening of September 18, producing gusty winds and heavy rains. Debby moved rapidly eastward toward Europe on the 19th and was enveloped by a major storm system over the British Isles on the 20th.

Although Debby passed through the main shipping lanes, none of the weather observations from ships had more than 50-kn winds. The EXPORT CHAMPION (WLCG) reported northeast winds of 50 kn at 1200 September 18, while skirting the storm's center south of Nova Scotia.

**TROPICAL STORM ERNESTO, SEPTEMBER 30-OCTOBER 2**

The last storm of the season developed from a tropical depression that formed some 400 mi north of Puerto Rico on September 30. As the system turned from a northwest to a northeast heading on October 1, the low was designated tropical storm Ernesto. A maximum wind of 60 kn was reported by reconnaissance aircraft late that day. On October

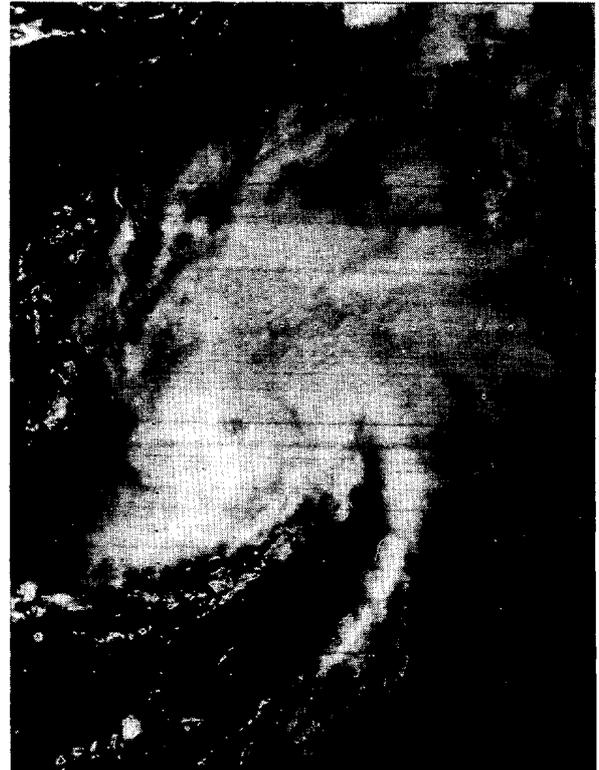


Figure 8.-- Hurricane Debby near 28.5°N, 69°W, southwest of Bermuda.

2 Ernesto accelerated toward the east-northeast and slowly weakened until finally merging with a frontal low several hundred miles east of Bermuda. The only ship reporting gale-force winds was the motor vessel ANDRIOTIS. At 1700 on October 2 she reported southerly winds of 35 kn, while located about 75 mi southeast of the storm's now weakening center.

### REFERENCE NOTES

Storm damage categories are from	*	Miles instead of yards
1 to 9 as follows:	**	Yards instead of miles
1 Less than \$50	@	Includes heavy sleet storm
2 \$50 to \$500	#	Freezing drizzle and freezing rain, commonly known as glaze
3 \$500 to \$5,000	≠	Not received or incomplete
4 \$5,000 to \$50,000	o/c	Under Estimated Damage, Property/Crops, indicates crop damage amount is included in the figure given
5 \$50,000 to \$500,000		
6 \$500,000 to \$5 Million		
7 \$5 Million to \$50 Million		
8 \$50 Million to \$500 Million		
9 \$500 Million to \$5 Billion		

### "F" SCALE DEFINITIONS

0 = 40-72	MPH	Breaks branches off trees; signboards damaged.
1 = 73-112	MPH	Peels surface off roofs; trailer houses pushed or damaged.
2 = 113-157	MPH	Tears roofs off frame houses and outbuildings; cars blown off highway.
3 = 158-206	MPH	Windows of skyscrapers smashed; frame houses destroyed; cars lifted off ground..
4 = 207-260	MPH	Skyscrapers twisted; frame houses leveled; cars blown some distance.
5 = 261-	MPH	or greater.

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