

STORM DATA



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C O N T E N T S

Cover: In a scene resembling the destruction caused by a wartime mortar attack, the chaotic remains of this structure are that of an Econo Lodge Motel near Newnan, Georgia, after it was struck on March 5th by a tornado bearing winds of F3 intensity. The new motel had little time to recoup on its investment as it had opened only three months prior to the tornado's onslaught. (See SEVERE THUNDERSTORMS in the SOUTH-CENTRAL U.S., pages 6 through 9.) ---Photo by Steve Hill, The Newnan Times Herald, Newnan, Georgia; and supplied through the NWSFO at Atlanta, Georgia.

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STORM DATA (ISSN 0039-1972)

The section on Outstanding Storms of the Month is prepared by Professor T. Theodore Fujita, editor, and Duane J. Stiegler, associate editor, the University of Chicago, with funding by the U. S. Office of Naval Research. The Storm Data and Unusual Weather Phenomena narratives, and summaries of Hurricanes/Tropical Storms are prepared by the National Weather Service. The National Climatic Data Center compiles statistics on deaths, injuries, damage and prepares the annual summaries of tornadoes and Lightning. 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. Maps of zones used in the Storm Data and Unusual Weather Phenomena will be published in all editions.

Storm Data is published monthly by the National Climatic Data Center.

Publication Staff

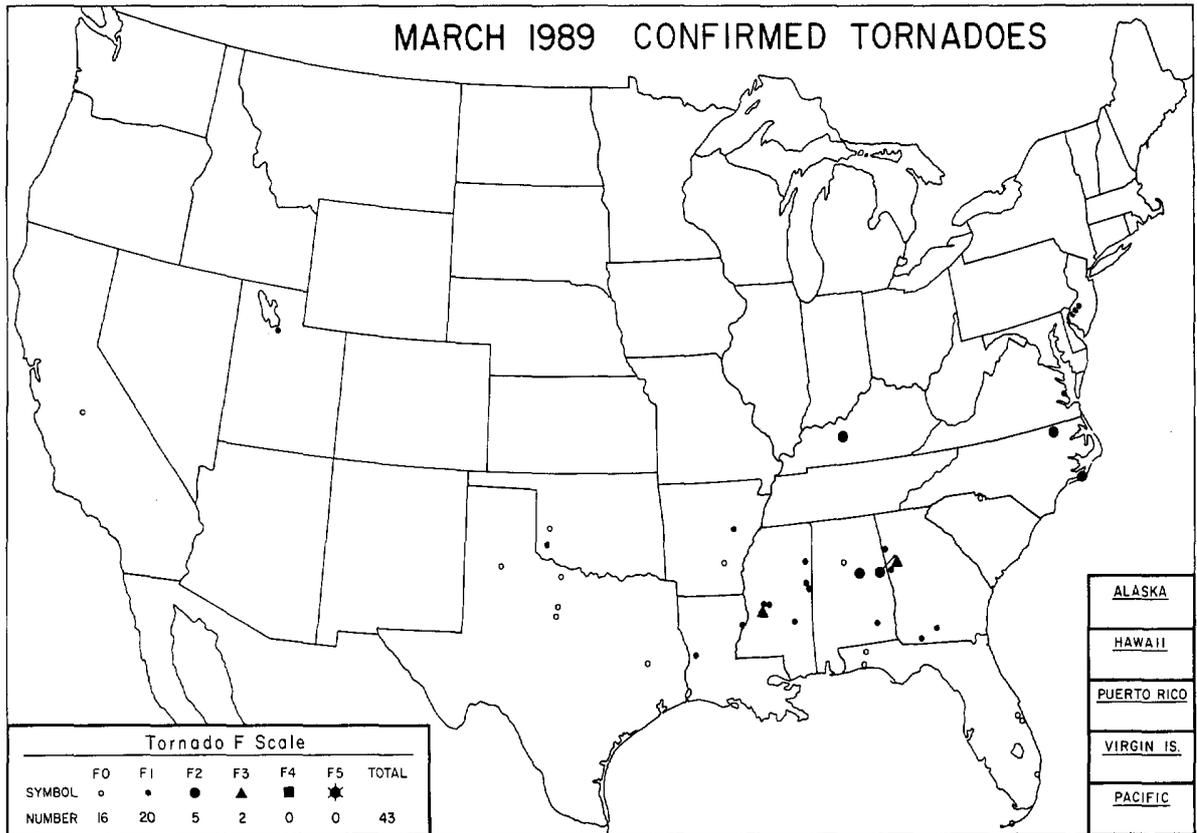
Jay Hollifield

S. C. Lackey

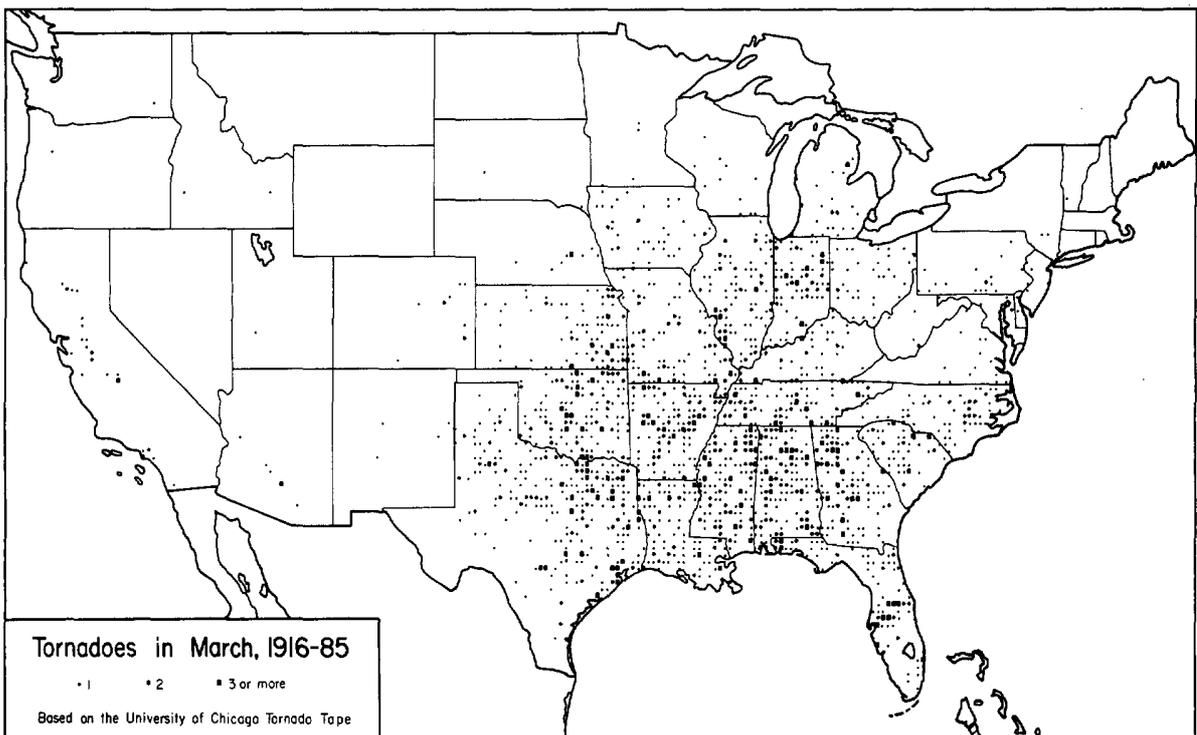
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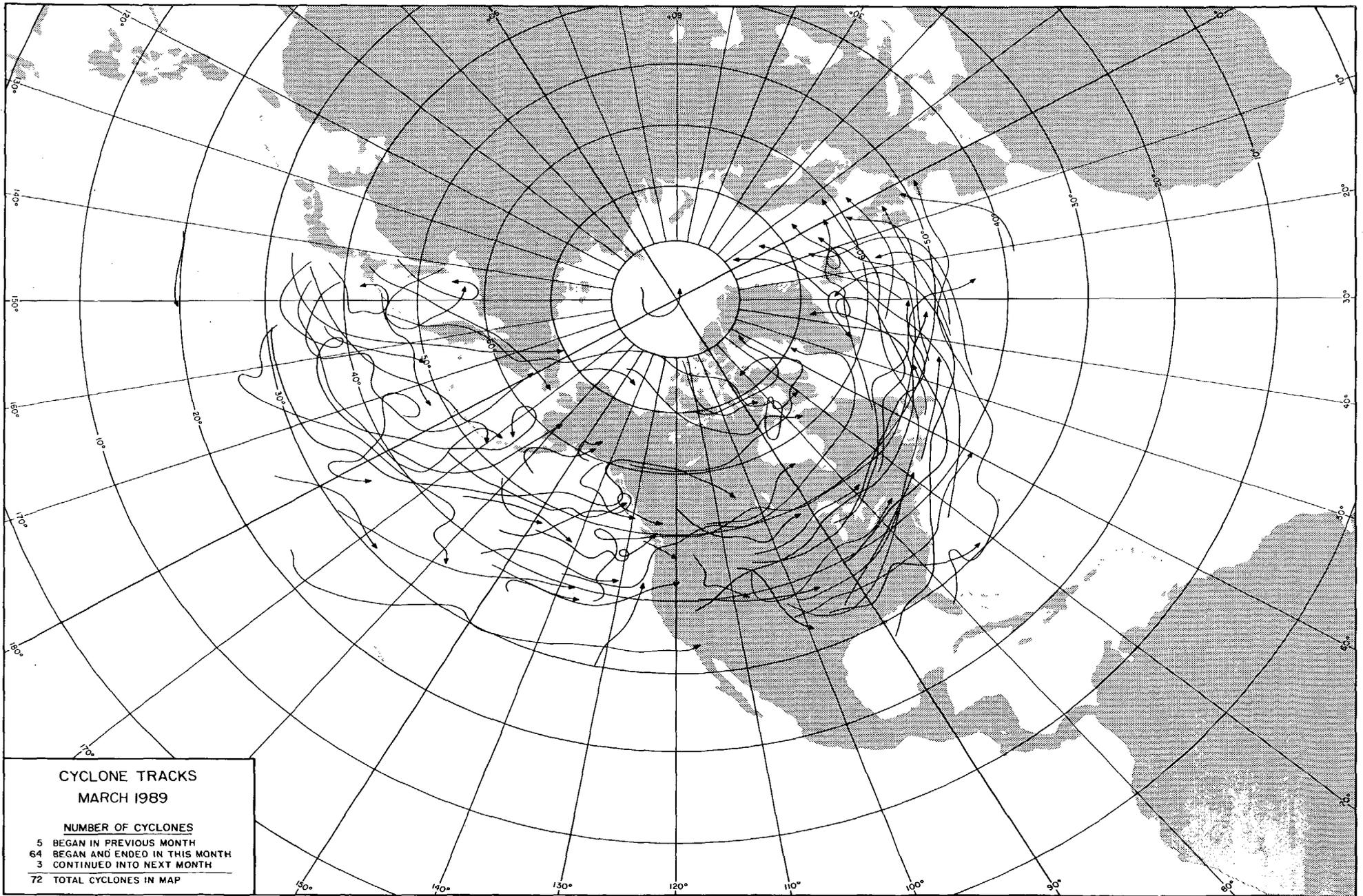
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OUTSTANDING STORMS OF THE MONTH



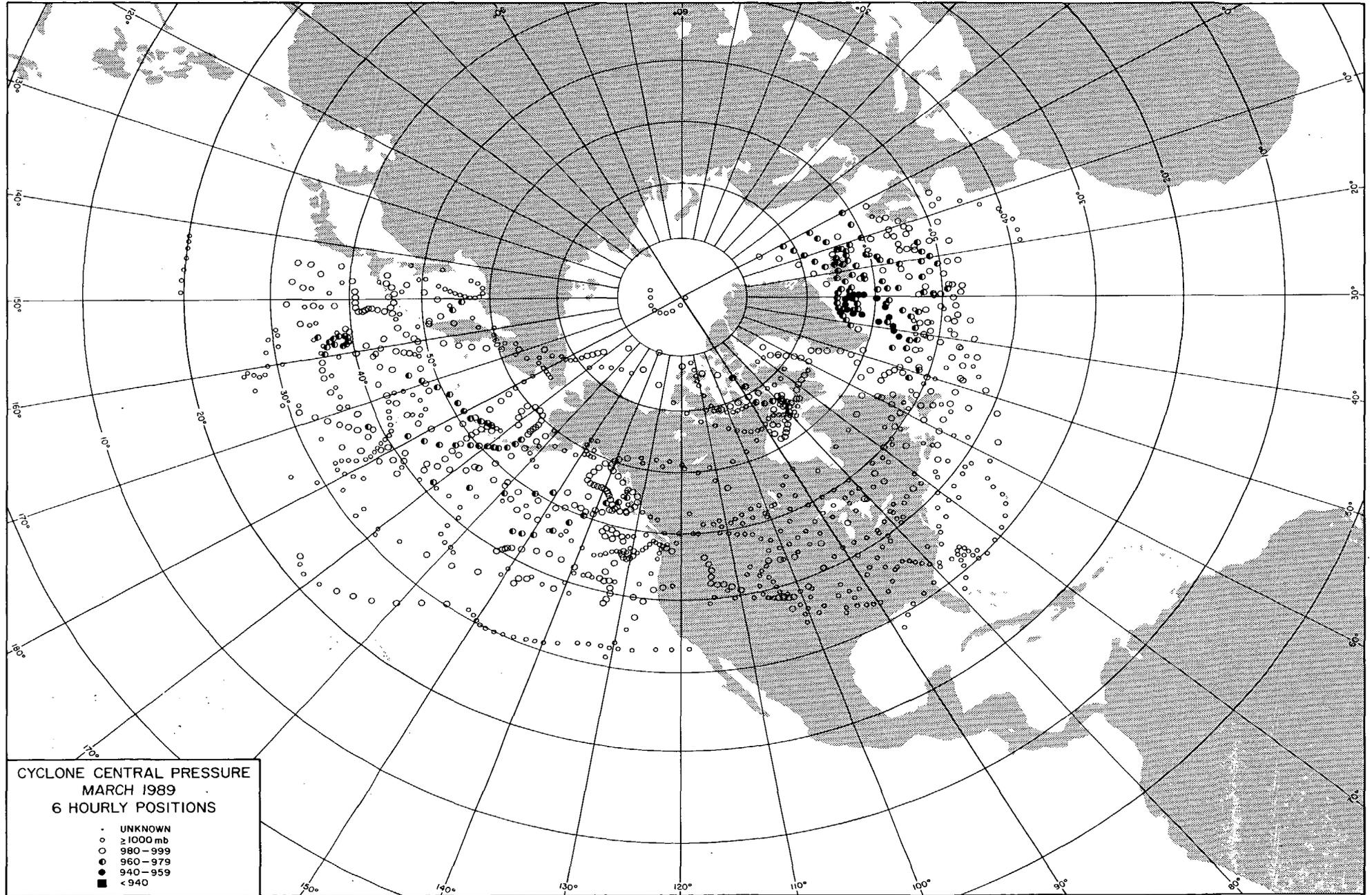
● COMPLETE REPORT RECEIVED	● 1AL	● 7DE	● 14KS	● 21MN	● 28NJ	● 33OH	● 39SD	● 44VA	● 49AK(SE)
○ PRELIMINARY REPORT RECEIVED	● 2AZ	● 8FL	● 15KY	● 22MS	● 29NM	● 34OK	● 40IN	● 45WA	● 50HI
○ REPORT NOT RECEIVED	● 3AR	● 9GA	● 16LA	● 23MO	● 30NY(O)	● 35OR	● 41TX(N)	● 46WV	● 51PR
(N) northern (W) western	● 4CA(N)	● 10ID	● 17ME	● 24MT	● 30NY(C)	● 36PA(E)	● 41TX(S)	● 47WI	● 52VI
(S) southern (C) central	● 4CA(S)	● 11IL	● 18MD	● 25NE	● 30NY(W)	● 36PA(W)	● 41TX(W)	● 48WY	● 53PC
(E) eastern (O) coastal	● 5CO	● 12IN	● 19MA	● 26NV	● 31NC	● 37RI	● 42UT	○ 49AK(N)	
(SE) southeastern	● 6CT	● 13IA	● 20MI	● 27NH	● 32ND	● 38SC	● 43VT	● 49AK(S)	





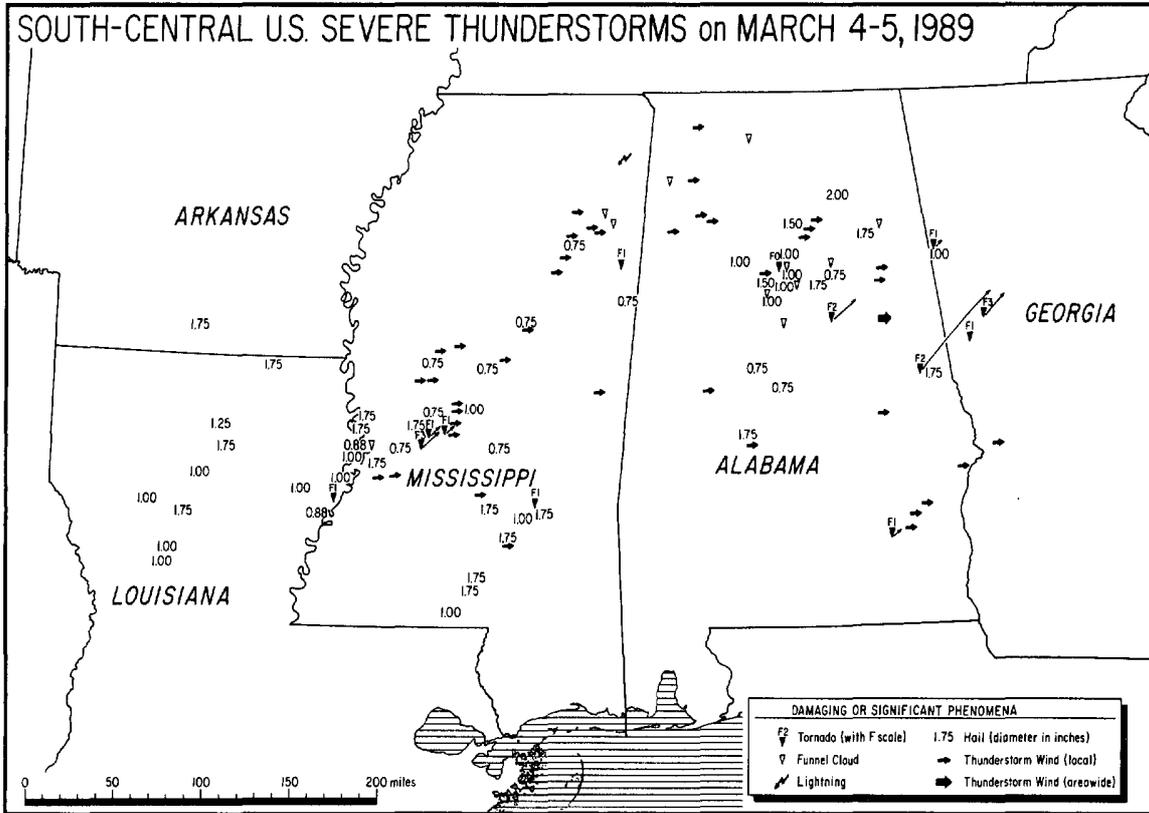
**CYCLONE TRACKS
MARCH 1989**

NUMBER OF CYCLONES
 5 BEGAN IN PREVIOUS MONTH
 64 BEGAN AND ENDED IN THIS MONTH
 3 CONTINUED INTO NEXT MONTH
 72 TOTAL CYCLONES IN MAP

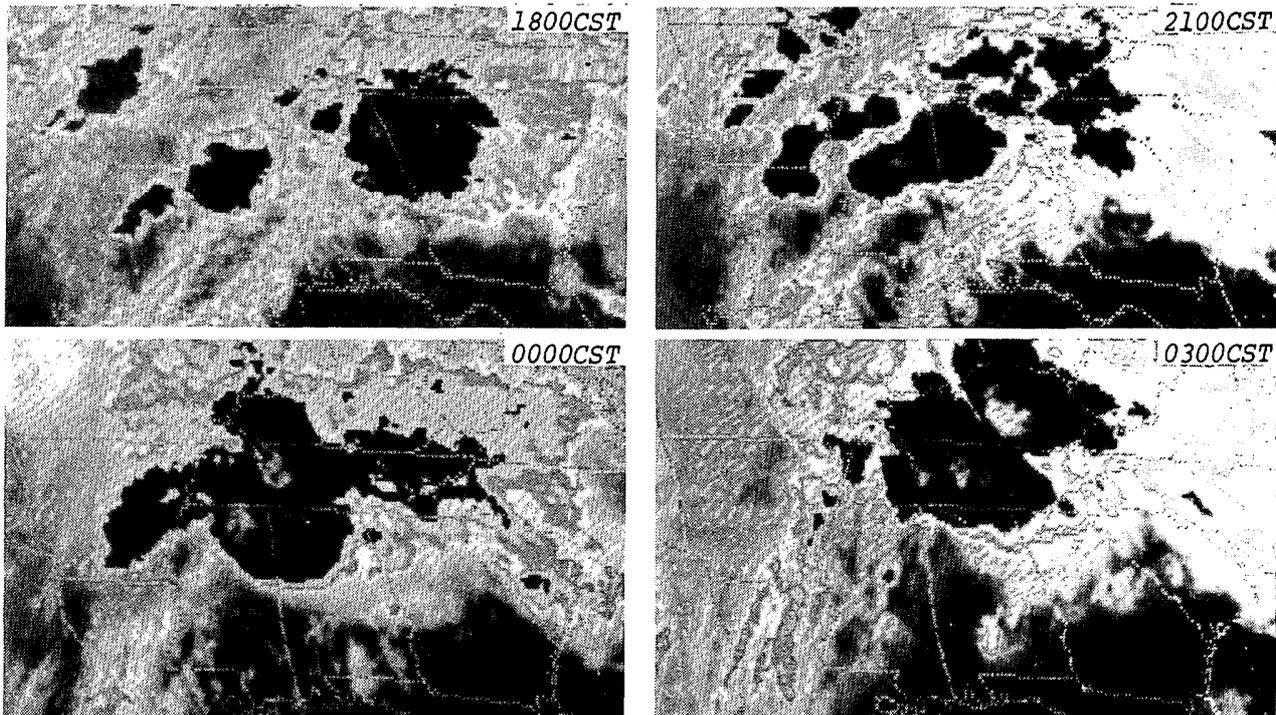


1. SEVERE THUNDERSTORMS in the SOUTH-CENTRAL U.S. on March 4-5, 1989

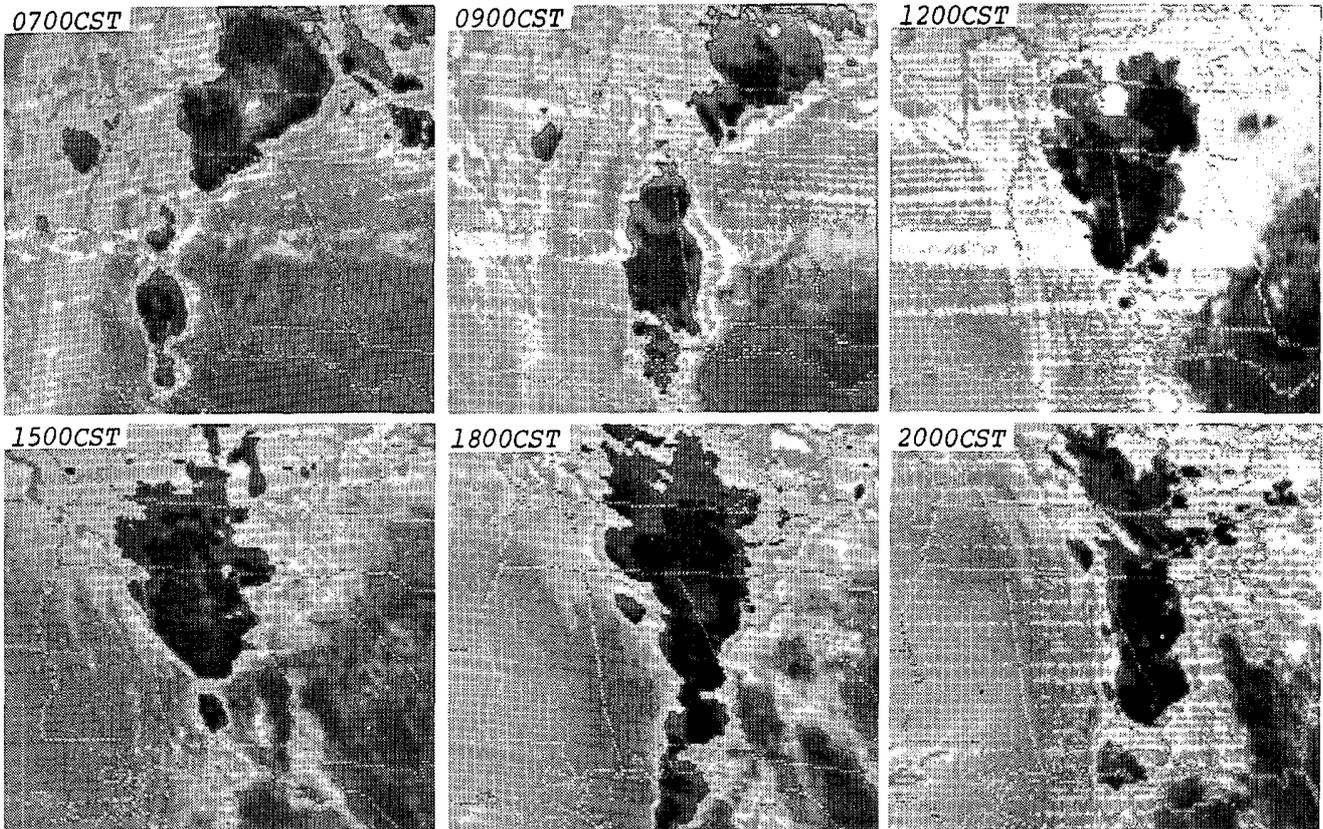
Late on March 4th and throughout the following night, severe thunderstorms moved northeastward from northern Louisiana and central Mississippi into Tennessee and Kentucky. As the cells began to weaken, a new north-south line of storms formed in their wake in Mississippi on the morning of the 5th, and then trekked eastward across Alabama and Georgia during the day on the 5th. Combined, the two storm systems brought the south-central states the worst thunderstorm-related, severe weather outbreak of the month. The episode included widespread large hail, damaging thunderstorm winds, and 13 tornadoes of which two reached F3 intensity. Additionally, the storms' heavy rains were responsible for extensive flooding and flash flooding in a large portion of Tennessee and parts of Kentucky, Georgia and Alabama.



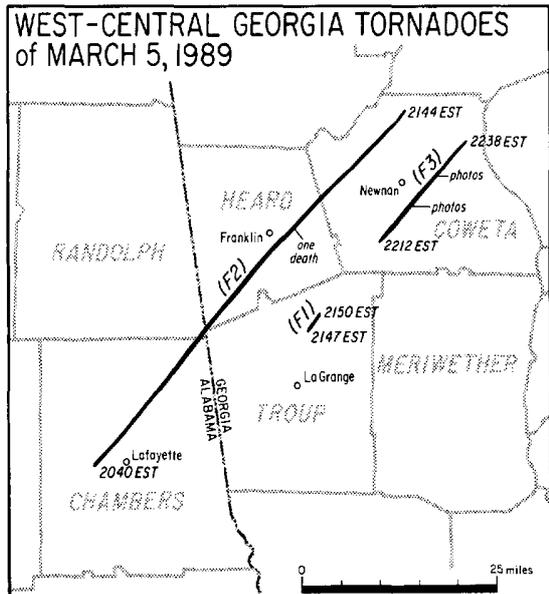
Distribution of severe thunderstorm phenomena reported in the South-Central U.S. on March 4th and 5th, 1989. ---Graphic by the University of Chicago from data supplied by NWSFO's at Birmingham, Alabama; Little Rock, Arkansas; Atlanta, Georgia; Slidell, Louisiana; and Jackson, Mississippi.



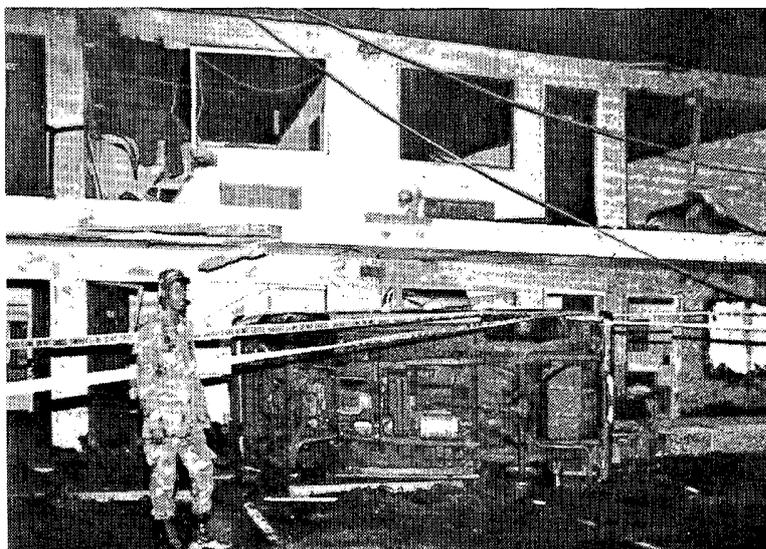
The northwestward movement of the first series of storms in the outbreak can be observed in this sequence of GOES 7 satellite, infrared images taken every three hours between 1800CST of March 4th and 0300CST of the 5th. ---Photos from NESDIS, Washington, DC.

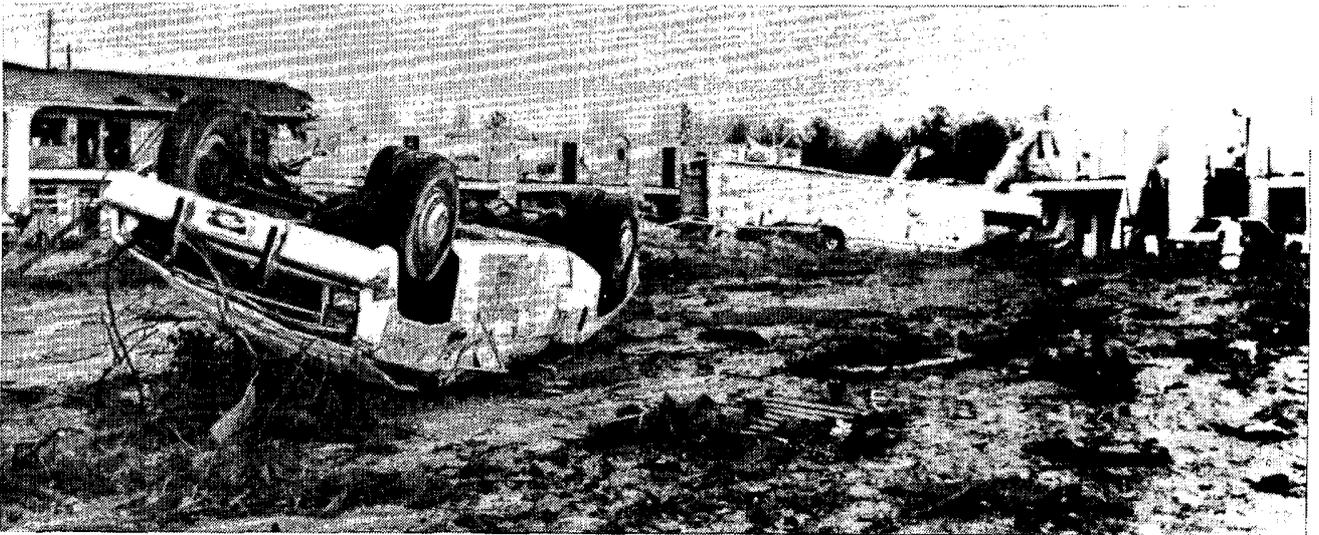
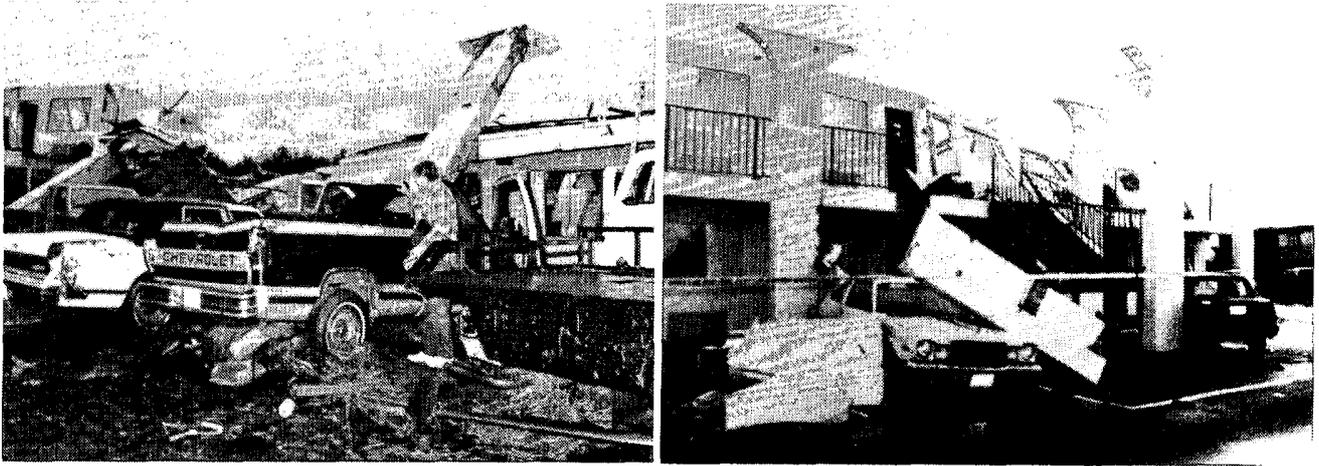


This sequence of GOES 7 satellite, infrared images taken between 0700 and 2000 CST on March 5th shows the formation of the second series of storms and its eastward movement from Mississippi to Georgia. Note how the enhanced, cold cloud-top area of the dissipating first series of storms over Tennessee and Kentucky rapidly warmed between 0700 and 0900 CST, concurrent with heavy rains that led to flooding and flash flooding in those states. ---Photos from the National Environmental Satellite Data and Information Service, Washington, DC.

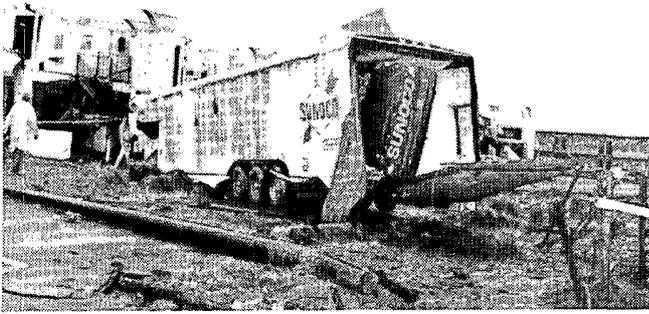


Paths of three tornadoes that struck west-central Georgia during the evening of March 5th, some of the last and most significant phenomena associated with the two-day outbreak. The longest-tracking tornado, an F2 with a 53 mile long path that began in east-central Alabama and extended northeastward into the state, caused the first tornado-related death in Georgia since 1977 when a 68 year old man was killed in his mobile home as it was destroyed east of Franklin. More powerful was the last tornado of the outbreak, which inflicted F3 intensity damage south and east of Newnan, Georgia, including at an Econolodge Motel as seen in nighttime photos at right. ---Mapping from ground and aerial surveys conducted on March 6-8, and 13 by Max Blood, Gary Beeley and Frank Taylor, NWSFO at Atlanta, Georgia.

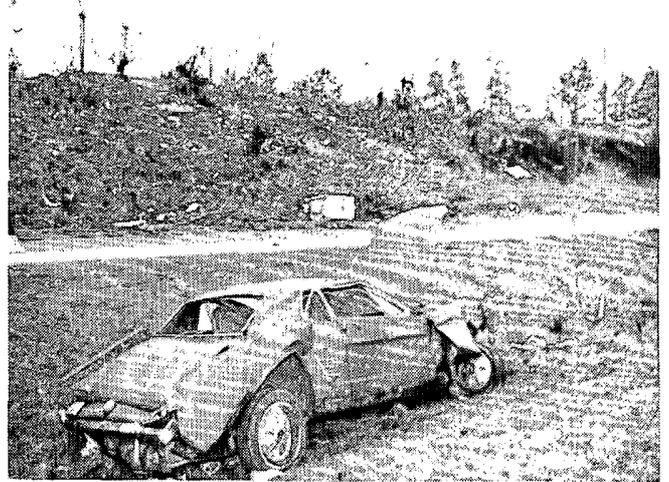




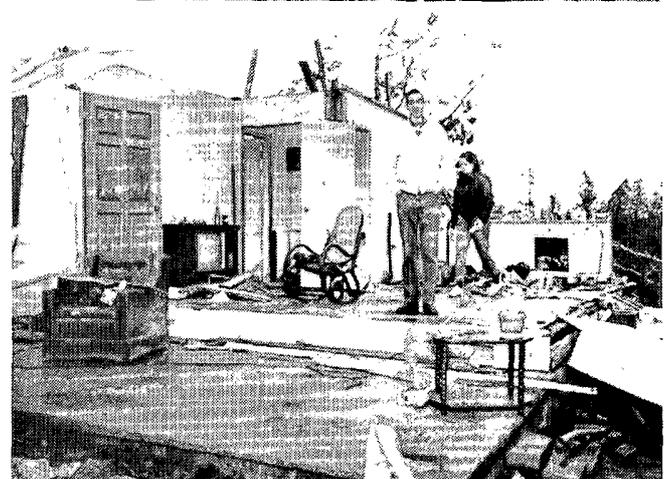
Above are four daytime views of the damage caused by the F3 tornado to the 3 month old. Econo Lodge Motel located just west of the Interstate 85 - U.S. 29 interchange south of Newnan. The roof was completely torn off of the east wing of the two-story motel, and walls collapsed or were torn down on both levels on a portion of the wing. Several support columns for the roof overhang toppled over onto the building or onto cars in the adjacent parking lot. Several cars in the lot were overturned and/or thrown into the building; some were racing vehicles associated with drivers and crews that were staying at the motel. The entire motel area was enshrouded in a shower of mud, straw and other small debris as the tornado passed, much of it ending up in the motel's pool (bottom photo). Eight of the motels occupants received injuries.



Some vehicles destroyed by the tornado included, counterclockwise from left, a trailer and enclosed racing car at the Econo Lodge; a smashed Southern Bell service vehicle, also at the motel; and a Ford Mustang that was bounced and rolled by the tornado near the White Oaks subdivision east of Newnan. In all, the tornado damaged or destroyed 61 cars.



Below are examples of destroyed homes at the White Oaks subdivision about 5 miles east of Newnan. Many of substantial construction lost roofs and a combination of exterior and interior walls. A total of 86 homes were damaged or destroyed along the tornado's entire 14 mile long path, and 25 outbuildings were destroyed as well. Luckily no one was killed, but there were 23 injuries.

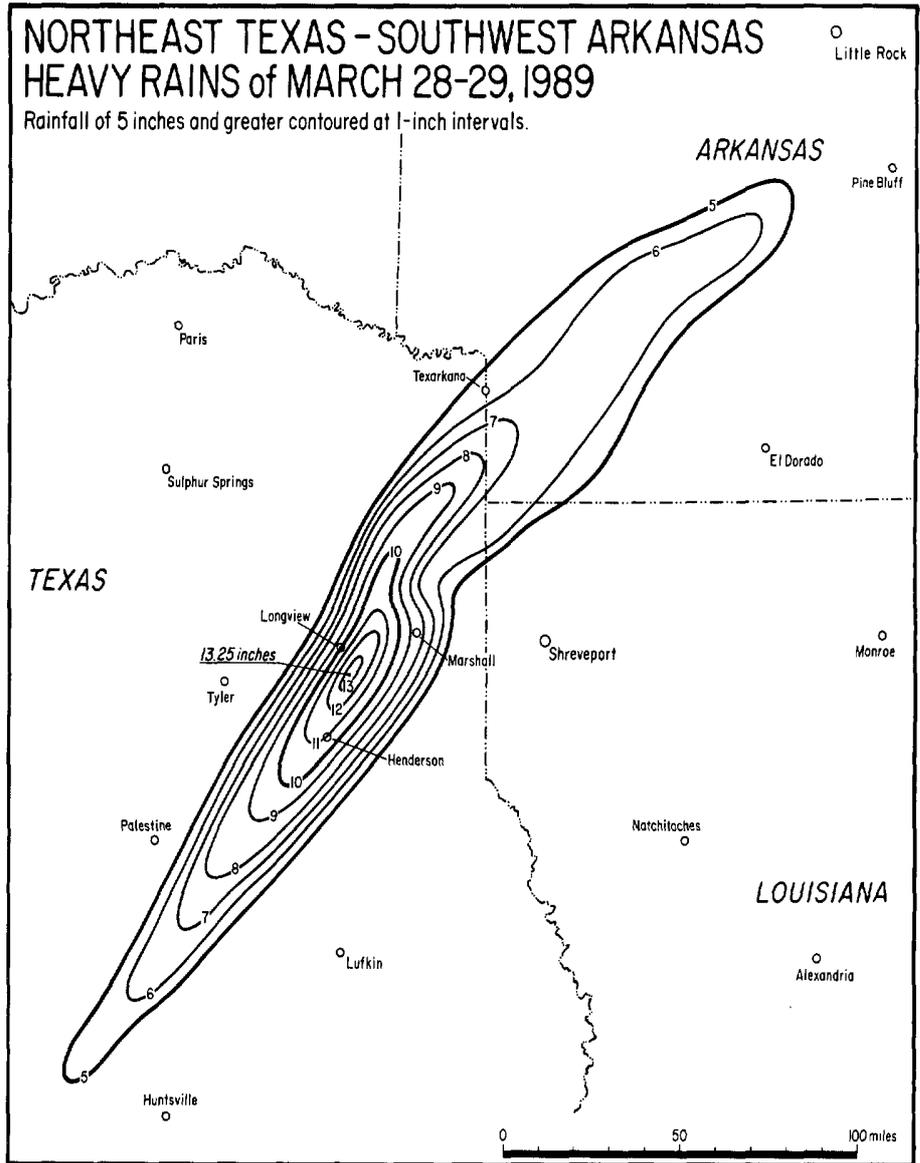


---All damage photos on pages 7 through 9 are by Steve Hill, The Newnan Times Herald, Newnan, Georgia; and supplied through the NWSFO at Atlanta, Georgia.

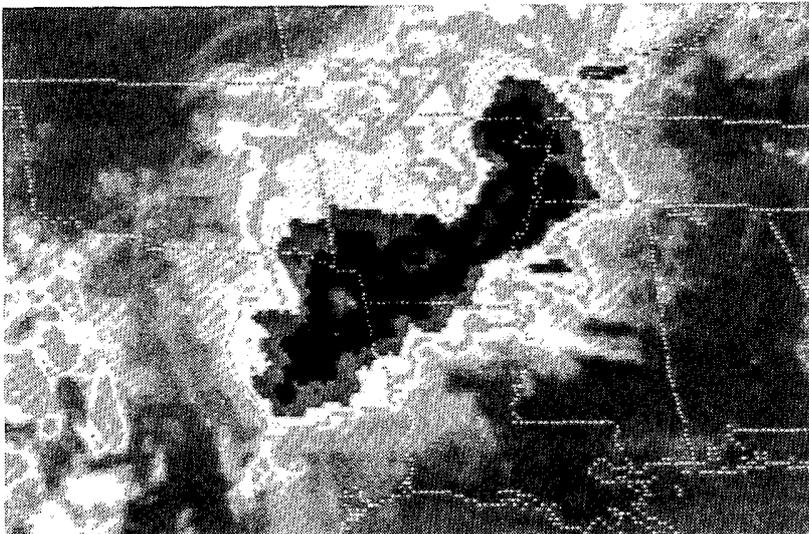
2. HEAVY RAINS and FLASH FLOODING

In NORTHEAST TEXAS and SOUTHWEST ARKANSAS on March 28-29, 1989

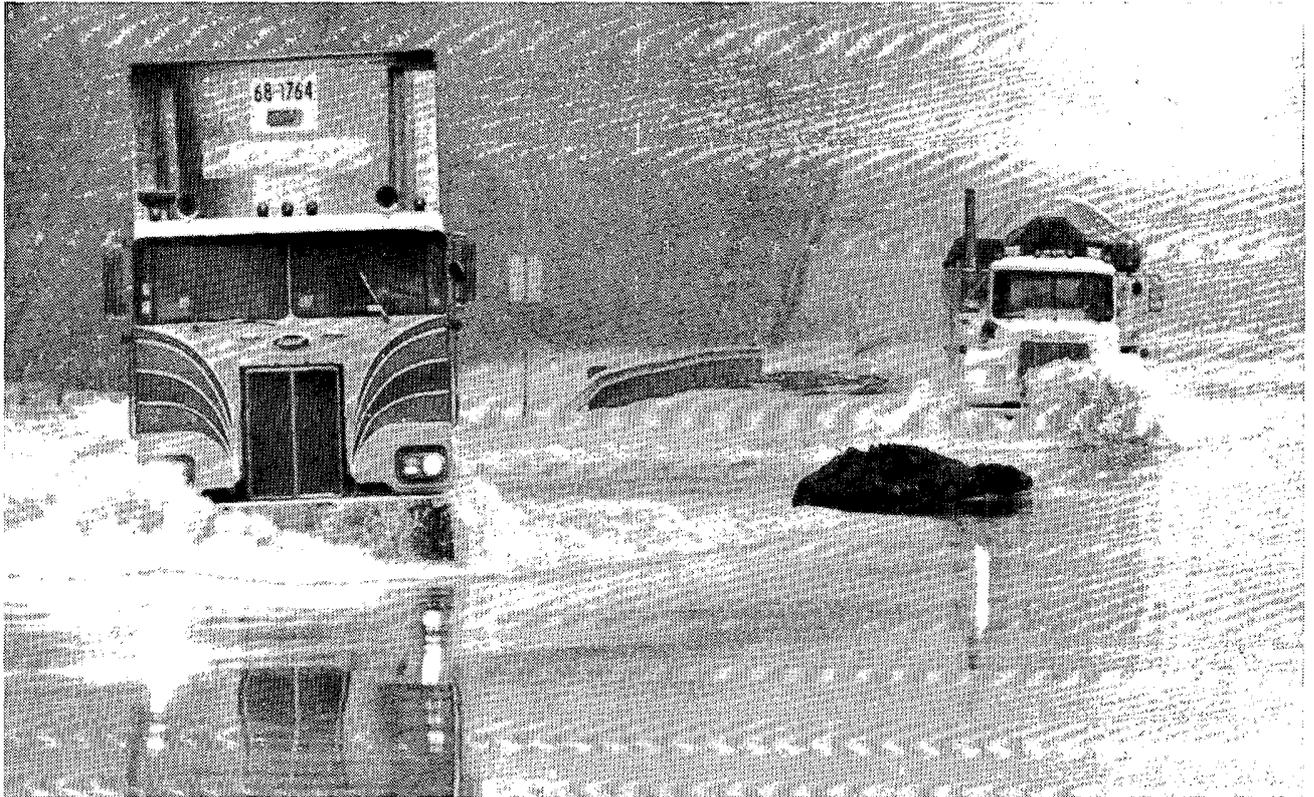
During the evening of March 28th and the morning of the 29th, thunderstorms dropped heavy rains in a southwest-northeast band across northeast Texas and southwest Arkansas. Rains of 5 inches and greater covered an area 300 miles long and averaging 35 miles wide through the region, with the highest amounts in the area of 14 inches having fallen near Longview, Texas. The deluge quickly initiated flash flooding in the areas of heaviest rainfall, with the more-than-abundant runoff engulfing homes, farms, businesses and schools, and covering or washing out roads and bridges. Subsequent creek, river and lake flooding caused additional damages in downstream locations to the southeast of the main rainfall band. In northeast Texas alone more than 70 bridges were washed out or damaged beyond repair, over 200 people had to be evacuated from their homes, mainly in Texarkana, Longview and Henderson, and total damages were estimated to be between 10 and 16 million dollars. In southwest Arkansas damages were far less, but still reached 115,000 dollars in estimated loss in Nevada and Hempstead counties due in most part to road and bridge damage. One fatality occurred in Rusk County, Texas when a 48 year old man drowned as his car was washed off Texas Highway 43 northeast of Henderson, the incident occurring after a dam on Nix Lake broke and sent floodwater over the highway. Elsewhere the flooding affected Louisiana when Caddo Lake on the Texas-Louisiana border 30 miles northwest of Shreveport reached its fourth highest level ever of 177.2 feet on April 2nd, 4.7 feet above flood stage.



Analysis of total rainfall of 5 inches and greater at official recording stations in the northeast Texas - southwest Arkansas area on March 28-29, 1989. The maximum two-day amount of 13.25 inches was received at the Longview, Texas airport. Other reports included 14.16 inches at Longview and 12.17 inches at Atlanta, although the validity of these reports is uncertain. ---Mapping by the University of Chicago from Cooperative Observer data supplied by the National Climatic Data Center, Asheville, North Carolina.



---On pages 11 and 12, (LNJ) photos are courtesy of the Longview News Journal, Longview, Texas; and (HDN) photos are courtesy of the Henderson Daily News, Henderson, Texas. All of the photos are provided through Ernest S. Ethridge, NWSO at Shreveport, Louisiana.



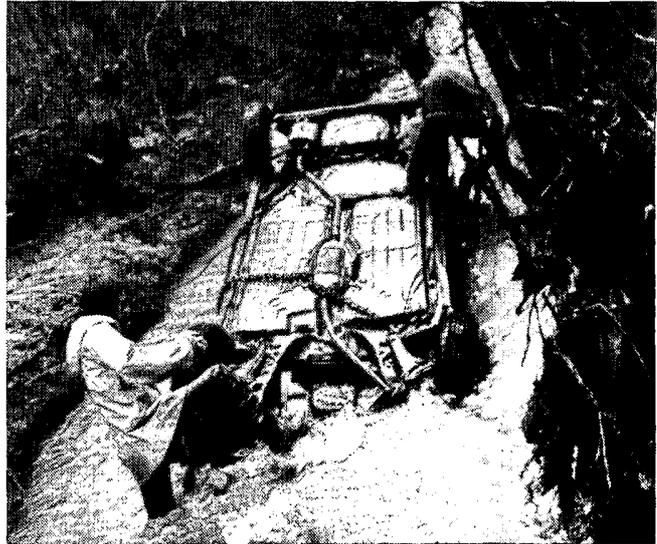
Eighteen-wheelers negotiate the water overrunning Texas Highway 149 south of Longview. At the time the water level was still 3 to 4 feet above the road surface in spots, but had been 5 feet above earlier. ---(LNJ)



Rusk County officials examine the car in which one person drowned after being washed downstream from Texas Highway 43 in floodwater from Nix Lake after the failure of its 50 foot high, 200 foot wide earthen dam. The location is between Henderson and Tatum. This photo was taken on the afternoon following the day of the incident; on March 29th the water had been well above the top of the car at this site. ---(HDN)



The bed of Nix Lake as seen after the reservoir was completely drained by the failure of its earthen dam on March 29th during the height of flooding. The dam, just out of view off the top of the photo, is situated about midway between Henderson and Tatum. The lake had a surface area of 102 acres at normal pool. --- (HDN)



An overturned sports car lies in a streambed between Longview and Hallsville, Texas several hours after the vehicle, with two women inside, plunged into the then-flooded stream during a bridge failure and was carried one-quarter mile downstream. The occupants were rescued by two passing motorists who observed the incident and followed the floating car from alongside the stream. When the overturned vehicle became lodged, they extracted the passengers by breaking the windows and cutting the seatbelts. --- (LNJ)



Rescue workers check houses in south Longview for evacuees. The water rose to a depth of 4 feet in the homes pictured in the background. --- (LNJ)



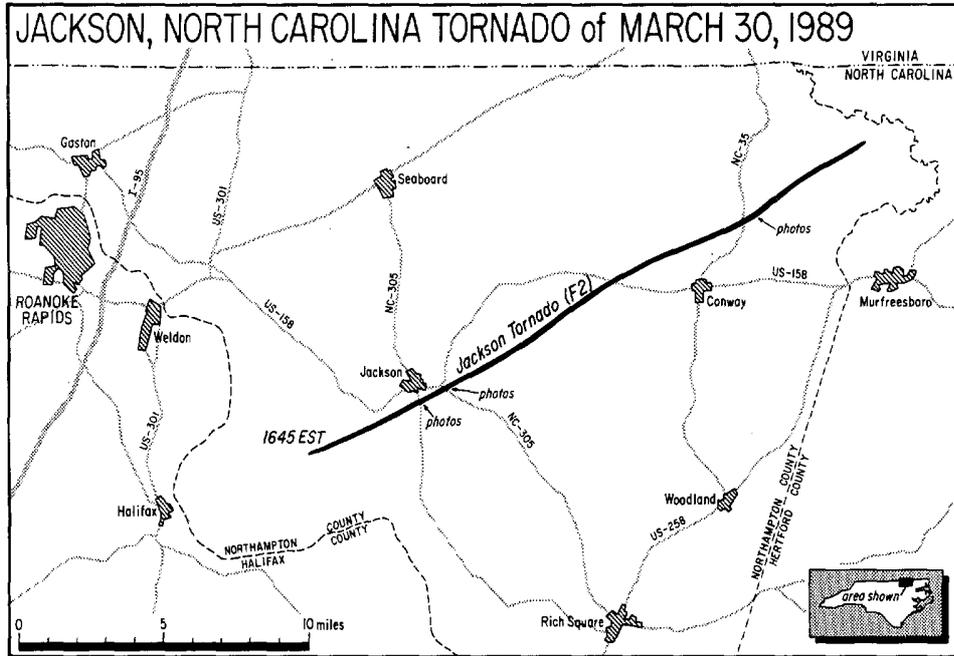
A man struggles to right a small boat on Cherokee Lake just south of Longview near the airport. The lake rose to its highest stage of record, and many boats and boathouses were damaged. --- (LNJ)



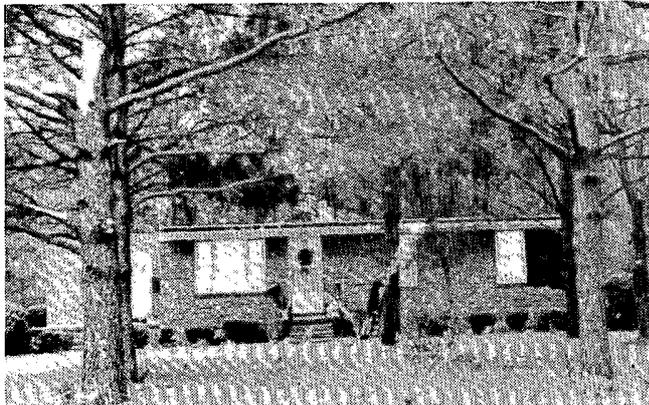
Belongings from this Longview home are set out in the yard to dry during the cleanup. At the height of the flooding the water was three feet deep in the house. --- (LNJ)

3. TORNADO near JACKSON, NORTH CAROLINA on March 30, 1989

On the afternoon of March 30th, a tornado skirted through the southern portion of Jackson, North Carolina after touching down four miles west-southwest of the town at 1645 EST. One could say that the tornado took over where the Raleigh tornado of November 28, 1988 left off, as its touchdown came not far from where the Raleigh tornado's 83 mile long path had ended four months earlier. Also, both tornadoes moved in the same direction, east-northeast. The March 30th tornado traveled 22 miles and reached a maximum intensity of F2. No one was killed, but 11 people were injured as 10 weak homes and mobile homes were destroyed and 40 others were damaged. Two elementary schools also received heavy damage, one just east of Jackson and the other near Pendleton about three miles northeast of Conway.



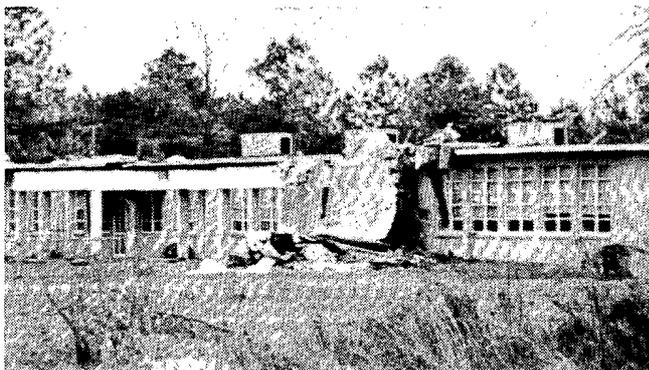
Path of the F2 tornado that passed south of Jackson in Northampton County, North Carolina on March 30, 1989. ---Mapping from ground survey by Roy L. Britt of Richmond, Virginia.



A house located on Route 1108 south of Jackson that lost its roof to the tornado.



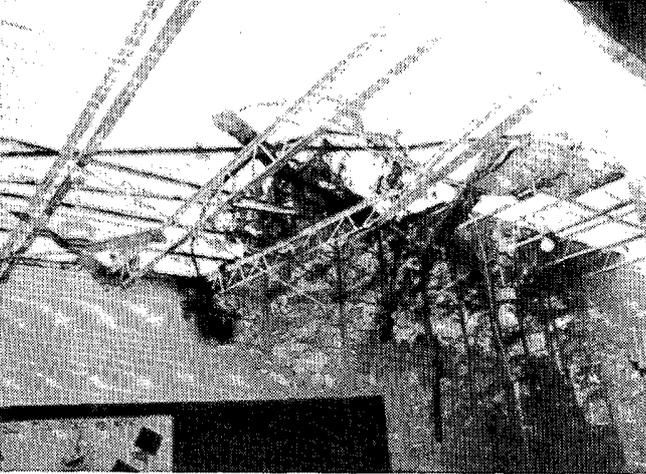
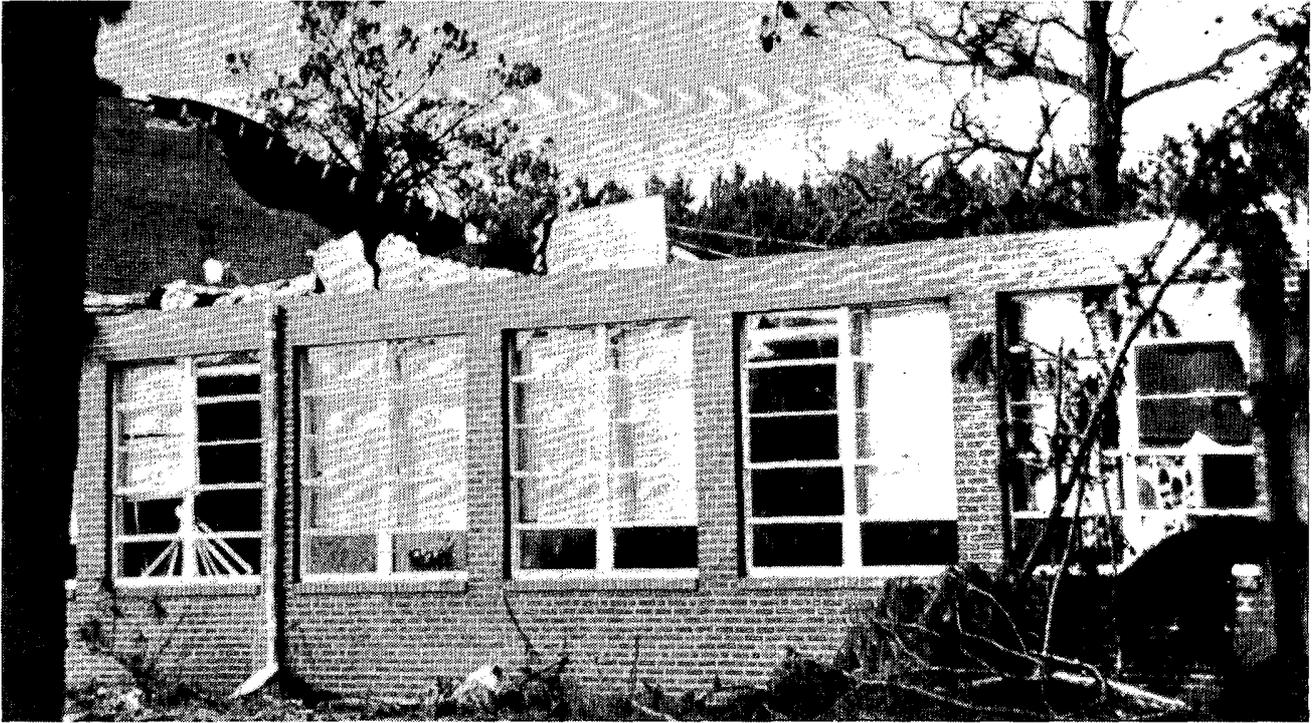
A damaged RV beside a destroyed garage, also on Route 1108 south of Jackson.



A portion of the roof of the Eastside School on Route 305 east of Jackson drapes over the building's side after being peeled off by the tornado.



Damage to a house also along Route 305, just west of the Eastside School.



Above are examples of the damage done at the Willis-Hare Elementary School near Pendleton in northeast Northampton County. The building sustained the loss of portions of roof from both the southeast and southwest wings, and the gymnasium. Shown are views of the exterior along the southeast wing (top), the missing roof from within the southwest wing (middle left), snapped trees on the school grounds (middle right), and the gymnasium (bottom).

---All photos on pages 13 through 15 are by Roy L. Britt of Richmond, Virginia.



Remnants of a mobile home near the Willis-Hare School were strewn into the distance in this photo from the home's original site in the foreground.

4. THUNDERSTORM WINDS at COLONIAL HEIGHTS, VIRGINIA on March 31, 1989

Only one day after the Jackson, North Carolina tornado, thunderstorms again rumbled their way across eastern portions of Virginia and North Carolina, bringing a variety of phenomena including large hail, funnel clouds and damaging winds during the afternoon of March 31st. At Colonial Heights, Virginia between Richmond and Petersburg, winds estimated at 52 knots downed trees and destroyed two construction trailers, one of which ended up in a lake. A third trailer at the site survived with only minor damage.



Two views of one of the destroyed construction trailers at Colonial Heights, Virginia.



The remains of the second destroyed trailer after most of it had been blown into an adjacent lake. The third trailer at the site appears in the background on the right edge of the photo.

---All three photos are by Roy L. Britt of Richmond, Virginia.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

MARCH 1989

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	

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

ALABAMA

Etowah County	04 1508CST	0	0	0	0	0	0	0	Hail(1.75)	Golfball size hail fell at Southside.
Jefferson and Shelby Counties	04 1715CST	0	0	?	0	0	0	0	Flash Flooding	Heavy rains of two to four inches caused flash flooding in southern Jefferson and north Shelby counties. Water rose to the windows of automobiles parked at a bowling alley and a dinner theater at Vestavia Hills, causing some of the vehicles to float away. About 40 people in the bowling alley became stranded and needed to be rescued by boat. Flooding was also reported on roadways throughout the southern Birmingham Metropolitan area in both Jefferson and Shelby counties. Twelve homes were inundated by water from local creek flooding, while the water rose to the doors of 50 homes in Cahaba Heights. Also at a mobile home park in the Irondale area the water rose to the doorsteps of many of the mobile homes. There were no injuries.
Saint Clair County	04 1830CST	0	0	?	0	0	0	0	Flash Flooding	Two to four inches of rain caused water to rise over many roads and into cars in the Pell City area.
Franklin County	05 0115CST	0	0	-	-	-	-	-	Funnel Cloud	A funnel cloud was spotted at Hodges.
Colbert County	05 0210CST	0	0	?	0	0	0	0	TSTM Wind	A mobile home was blown off its foundation at Muscle Shoals.
Colbert and Lauderdale Counties	05 0300CST	0	0	?	0	0	0	0	Flash Flooding	Flash flooding occurred at numerous locations in the Florence area. Some homes required evacuation by boat when the water rose to 3 to 7 feet. Several major roads were under water including Alabama Highway 157.
Franklin County	05 0615CST	0	0	?	0	0	0	0	TSTM Wind	Trees and power lines were blown down at Phil Campbell.
Lawrence County	05 0634CST	0	0	-	-	-	-	-	Funnel Cloud	A funnel cloud was spotted by a sheriff near Sulfur Springs in northeast Lawrence County.
Marion County	05 1000CST	0	0	?	0	0	0	0	TSTM Wind	Trees were blown down at the Wayside Community near Guin.
Winston County	05 1100CST	0	0	?	0	0	0	0	TSTM Wind	Trees were blown down in the Natural Bridge and Lynn areas.
Jefferson County	05 1250CST	0	0	?	0	0	0	0	Hail (1.00)	Hail the size of quarters fell at Hueytown, Gardendale, and Forestdale. There were many sightings of funnel clouds as a severe thunderstorm moved northeast around the west, north and northeast edge of the City of Birmingham. At Mount Olive near Interstate 65 a small tornado touched down at 1300CST and moved a very short distance, destroying a business. Also at 1300 CST thunderstorm winds blew the roof off a service station at Graysville.
	05 1300CST	0.3	20	0	0	3	0	0	Tornado (F0)	
	05 1300CST	0	0	?	0	0	0	0	TSTM Wind	
	05 1250CST-1330CST	0	0	-	-	-	-	-	Funnel Clouds	
Dallas County	05 1350CST	0	0	?	0	0	0	0	TSTM Wind	At 1525CST golfball size hail fell at Marion Junction. At 1350CST several trees were downed at Orrville about 14 miles southwest of Selma.
	05 1525CST	0	0	?	0	0	0	0	Hail (1.75)	
Blount County	05 1355CST	0	0	?	0	0	0	0	TSTM Wind	At 1350CST trees and power lines were blown down at Locust Fork. Also at 1530CST three houses were damaged in the Hendrix and Cleveland communities. The damage was mostly to roofs and siding.
	05 1530CST	0	0	?	0	0	0	0	TSTM Wind	
Hale County	05 1415CST	0	0	?	0	0	0	0	TSTM Wind	Several trees were blown across the road about 5 miles north of Greensboro.
Tuscaloosa County	05 1415CST	0	0	?	0	0	0	0	TSTM Wind	A few trees were blown across power lines at Windham Springs.
Marshall County	05 1423CST	0	0	?	0	0	0	0	Hail (2.00)	Hen egg size hail fell at Horton.
Walker County	05 1430CST	0	0	?	0	0	0	0	Hail (1.00)	Quarter size hail fell at Parrish.
Jefferson County	05 1430CST	0	0	-	-	-	-	-	Funnel Cloud	
	05 1500CST	0	0	-	-	-	-	-	Funnel Cloud	
	05 1500CST	0	0	?	0	0	0	0	Hail (1.00)	
	05 1525CST	0	0	?	0	0	0	0	Hail (1.00)	
	At 1430CST a funnel cloud was sighted near Hueytown. At 1500CST a funnel cloud was seen at Mount Olive while quarter size hail fell around the same time at Morris. At 1525CST quarter size hail fell at Adamsville.									
Chilton County	05 1440CST	0	0	?	0	0	0	0	Hail (0.75)	Dime size hail fell at Maplesville.

ALABAMA

Shelby County	05 1440CST	0	0	-	-	-	-	-	Funnel Cloud	A funnel cloud was seen in the Pelham/Alabaster area.
Bibb County	05 1500CST	0	0	0	0	0	0	0	Hail (0.75)	Dime size hail fell at Centreville.
Saint Clair County	05 1535CST	0	0	-	-	-	-	-	Funnel Cloud	
	05 1535CST	0	0	0	0	0	0	0	Hail (0.75)	
	05 1540CST	0	0	?	0	0	0	0	Hail (1.75)	At 1535CST dime size hail fell and a funnel cloud was seen at Odenville. At 1540CST golfball size hail completely covered the ground at Brompton.
Etowah County	05 1645CST	0	0	-	-	-	-	-	Funnel Cloud	A funnel cloud was spotted at Hokes Bluff.
Talladega County	05 1716CST-1735CST	20	100	0	2	6	0	0	Tornado (F2)	A tornado touched down at Childersburg and moved northeast about 20 miles to Talladega. Two mobile homes were turned over at Childersburg. In Talladega 19 unoccupied mobile homes were destroyed. Two houses in Talladega were destroyed and 22 houses received major damage, mostly to roofs. 55 other homes in Talladega received minor damage. Several businesses, a car dealership, and a hospital also received major damage at Talladega. There were no deaths, but two people received minor injuries. Damage estimates were placed at two million dollars.
Calhoun County	05 1719CST	0	0	?	0	0	0	0	TSTM Wind(G54)	Wind gusts to 62 mph were recorded in downtown Anniston and to 63 mph at the Anniston airport. The wind damaged some roofs, a few store windows were blown out, and trees and power lines were blown down in the Anniston area.
Clay County	05 1730CST	0	0	0	0	0	0	0	TSTM Wind	Trees were blown down at scattered locations throughout Clay County.
Cullman County	05 1815CST	0	0	?	0	0	0	0	Hail (1.50)	Walnut size hail fell at Garden City.
Tallapoosa County	05 1853CST	0	0	0	0	0	0	0	TSTM Wind	Trees were blown across State Highway 49 six miles northeast of Tallassee.
Pike County	05 1930CST	5	200	0	0	6	0	0	Tornado (F1)	A tornado touched down 5 miles south of Brundidge on U.S. Highway 231 then moved northeast 5 miles. A manufacturing company and four other buildings were destroyed. Three tractor-trailers were turned over. One mobile home was damaged. Damage estimates were placed at one million dollars. There were no injuries.
Chambers County	05 2010CST	0	0	?	0	0	0	0	Hail (1.75)	
Chambers and Randolph Counties	05 1940CST-2000CST	20	100	0	0	6	0	0	Tornado (F2)	At 2010CST golfball size hail fell at Lafayette. A tornado touched down 7 miles west of Lafayette then moved northeast near Buffalo and White Plains into the extreme northeast corner of Chambers County and across the southeast tip of Randolph County. The tornado then crossed into Georgia. Fourteen buildings were affected. One was totally destroyed. Two were severely damaged. The remainder suffered mostly roof damage. Three or four large barns were destroyed. Numerous trees were blown down or uprooted. Damage estimates were placed at 750 thousand dollars. There were no injuries.
Russell County	05 2110CST	0	0	?	0	0	0	0	TSTM Wind	Several large trees were blown down which blocked County Road 4 at Cottonton.
Barbour County	05 2110CST	0	0	?	0	0	0	0	TSTM Wind	
	05 2115CST	0	0	?	0	0	0	0	TSTM Wind	
	05 2125CST	0	0	?	0	0	0	0	TSTM Wind	
	At 2110CST trees were blown down at Cllo. At 2115CST trees were blown down two miles northwest of Louisville. At 2125CST trees and power lines were blown down at Clayton.									
Dallas County	15 2040CST	0	0	?	0	0	0	0	Hail (1.75)	
	15 2100CST	0	0	?	0	0	0	0	Hail (1.75)	At 2040CST golfball size hail fell at Marion Junction and at 2100CST golfball size hail fell at Selma.
Autauga County	15 2115CST	0	0	0	0	0	0	0	TSTM Wind	Trees and power lines were blown down at Autaugaville.
Elmore County	15 2155CST	0	0	?	0	0	0	0	TSTM Wind	
	15 2215CST	0	0	?	0	0	0	0	TSTM Wind	
	15 2225CST	0	0	?	0	0	0	0	TSTM Wind	
	At 2155CST a large permanent sign was blown down and an ice storage cover was blown away at Millbrook. At 2215CST trees were blown onto power lines at Fort Toulouse. At 2225CST a hay barn was damaged at Ware in southeast Elmore County.									
Montgomery County	15 2219CST	0	0	-	-	-	-	-	Funnel Cloud	A funnel cloud was sighted 4 miles northeast of the City of Montgomery. Also, a few trees were uprooted in the same area.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

MARCH 1989

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	PROPERTY	CROPS	

ALABAMA

Greene County	20 1735CST	0	0	0	0	TSTM Wind	Trees were blown down at Eutaw.
Tuscaloosa County	20 1813CST	0	0	?	0	TSTM Wind	In the Taylorwood Estates and Bear Creek areas about 8 miles south of the City of Tuscaloosa trees and power lines were blown down. Also, one house was unroofed and a tree fell onto a car in the same area.
Dallas County	20 1845CST	0	0	?	0	Hail (1.75)	Golfball size hail fell at Marion Junction.
Jefferson County	20 1855CST 20 1910CST	0	0	?	0	TSTM Wind	At 1855CST trees were blown down in Homewood. At 1910CST many large trees were uprooted and blown down on Birmingham's south side. Also in the same area a two-story building that was under construction was blown down.
Shelby County	20 1920CST	0	0	?	0	TSTM Wind	Many large trees were blown down in western and northern Shelby County, especially in the Riverchase and Pelham areas.
Coosa County	20 1955CST	0	0	?	0	TSTM Wind	Trees were uprooted at Goodwater and 2 miles east of Rockford.
Talladega County	20 2000CST 20 2014CST	0	0	?	0	TSTM Wind	At Talladega one mobile home was unroofed, two homes were partially unroofed, a brick fronting was blown from a beauty shop, and an awning was blown off a service station. Numerous trees were uprooted across Talladega County. At 2014CST thunderstorm winds officially reached 61 mph at the Anniston airport on the north edge of Talladega County.
Calhoun County	20 2014CST	0	0	?	0	TSTM Wind	Power lines were blown down near Weaver.
Jefferson County	21 0320CST	0	0	?	0	TSTM Wind	A residence in Hoover received roof damage from strong thunderstorm winds.
Mobile County	21 0445CST	0	0	0	0	Hail (0.75)	Dime size hail fell at Semmes.
Macon County	21 0600CST	0	0	?	0	TSTM Wind	One mobile home was heavily damaged and a tree was blown onto a house in the Little Texas Community about 8 miles east of Tuskegee.
Pike County	21 0645CST	0	0	?	0	TSTM Wind	Five aircraft were damaged at the Troy airport. One was heavily damaged.
Barbour County	21 0645CST	0	0	?	0	TSTM Wind	Trees and power lines were blown down two miles east of Louisville.
Henry County	21 0810CST	0	0	0	0	Hail (0.75)	Dime size hail fell at Newville.
Mobile County	21 1054CST 21 1420CST	0	0	0	0	Hail (0.75) Hail (1.00)	At 1054CST dime size hail fell on the edge of Mobile at Tillman's Corner. At 1420CST quarter size hail fell in Mobile.
Greene County	29 1230CST	0	0	?	0	TSTM Wind	In the Lewiston Community about 15 miles north of Eutaw, a mobile home was damaged along with several cars. Numerous trees were blown down in the same area.
Tuscaloosa County	29 1300CST	0	0	?	0	TSTM Wind	At least 20 homes and vehicles were damaged in the City of Tuscaloosa, mostly by wind blown trees. Two mobile homes were severely damaged in Northport. There were no injuries.
Fayette County	29 1305CST	0	0	0	0	TSTM Wind	Trees and power lines were blown down at Newtonville.
Pickens County	29 1305CST	0	0	?	0	TSTM Wind	Trees and power lines were blown down at numerous locations in Pickens County, especially around the Gordo area.
Walker County	29 1340CST	0	0	?	0	TSTM Wind	Trees and power lines were blown down at Carbon Hill.
Jefferson County	29 1415CST 29 1420CST 29 1455CST	0	0	?	0	TSTM Wind	At 1415CST thunderstorm winds damaged a motel and blew numerous trees and power lines down in the North Birmingham area. At 1420CST a wind gust to 66 mph was recorded at the Birmingham Airport. At about the same time a roof was torn from a flight service center at the Birmingham Airport. Ten people inside the flight service center were uninjured. At 1455CST trees and a large billboard were blown down on the west and south side of Birmingham.

ALABAMA

Dallas County	29 1440CST	0	0	?	0	TSTM Wind	Trees were blown down in the Paul Grist State Park five miles southwest of Plantersville.
Shelby County	29 1500CST	0	0	?	0	TSTM Wind	Numerous trees were blown down in eastern Shelby County, especially around Harpersville.
Saint Clair County	29 1510CST	0	0	?	0	TSTM Wind	Trees and power lines were blown down in the Pell City area.
Talladega County	29 1525CST	0	0	?	0	TSTM Wind	Trees and power lines were blown down in the City of Talladega.
Etowah County	29 1550CST	0	0	?	0	TSTM Wind(653)	A wind gust to 61 mph was recorded at the Etowah County Emergency Management Agency.
Calhoun County	29 1605CST	0	0	?	0	TSTM Wind	A large permanent sign was blown down at a shopping center in the Jacksonville area. Trees and power lines were also blown down in the same vicinity.
Clay County	29 1635CST	0	0	?	0	TSTM Wind	Trees and power lines were blown down in northeast Clay County in the Community of Delta.
Cleburne County	29 1640CST	0	0	?	0	TSTM Wind	Large tree limbs were blown down at Heflin.
Franklin County	30 2238CST	0	0	-	-	Funnel Cloud	A funnel cloud was sighted at Hodges.
Colbert County	30 2250CST	0	0	0	0	Hail (0.75)	Dime size hail fell 7 miles south of Tuscumbia.
Lawrence County	30 2310CST	0	0	0	0	Hail (0.75)	Dime size hail fell at Courland and Hatton.
Morgan County	30 2348CST	0	0	0	0	Hail (1.00)	Quarter size hail fell at Decatur.
Limestone County	30 2348CST	0	0	0	0	Hail (1.00)	Quarter size hail fell at Athens.
Madison County	31 0020CST	0	0	0	0	Hail (1.00)	Quarter size hail fell at Madison.

ARIZONA

AZZ-010 Southeast Arizona Bowie	03 1500 MST	2	43	6	0	Dust Storm	A blinding dust storm developed along portions of Interstate 10 in Cochise County. Westerly winds gusted to about 57 mph. The visibility dropped to near zero. A Greyhound bus, 12 tractor-trailer rigs, and at least 12 cars were involved in accidents. Most of the collisions were in the eastbound lane. Two truck drivers were killed. M25V, M27V
AZZ-005 Mogollon Rim	26 Morning	1	0	0	0	Cold, Snow	Heavy snow began early in the morning on Easter Sunday, making search and rescue efforts difficult for a lost 3-year-old boy. Up to a foot of snow fell just north of Kohls Ranch, northeast of Payson, in Gila County. The boy's body was found about 4 days after he wandered away from a cabin. M030.

ARKANSAS

Poinsett Co.	04 1735CST	0	1	?	?	Thunderstorm Wind	The roof of a bowling alley caved in during high winds in Trumann. The owner of the bowling alley was injured as the roof caved in, but 20 patrons inside were unharmed.
Union Co. El Dorado	04 2155CST	0	0	?	?	Hail (1.75)	

STORM DATA AND UNUSUAL WEATHER PHENOMENA

MARCH 1989

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					KILLED	INJURED	PROPERTY	CROPS							KILLED	INJURED	PROPERTY	CROPS		
— ARKANSAS										— ARKANSAS										
AR2001-006	04-05	All Day			0	1	8	?	Winter Storm	Jefferson Co. Pine Bluff	20	2028CST			0	0	?	?	Hail (0.75)	
		<p>Mother Nature delivered a one-two punch of winter weather to the northwest half of the State of Arkansas. The storm was most severe in the extreme northwest corner of the state where it was considered by the local press as, "The worst disaster in history for the poultry industry." The storm began as an ice storm with sleet and freezing rain piling up to a depth of two to three inches by late on the 4th. After a brief let up in precipitation, snow moved back into the area on the 5th and accumulated to as much as a foot in Benton County. The combined weight of the snow and ice was just too much for over 300 poultry houses which collapsed. One man was injured in a poultry house as it collapsed onto him in Gravette. The man suffered several broken bones. Over one million birds were killed as the houses collapsed. Damage from both the collapsed buildings and from lost poultry exceeded 50 million dollars.</p>								Jefferson Co.	20	2030CST			0	0	?	?	Thunderstorm Wind	
Arkansas Co.	07	Early Morning			0	0	?	?	Flash Flood	Arkansas Co.	20	2040CST			0	0	5	?	Thunderstorm Wind	
		<p>A levee buckled and broke around a 30-acre irrigation reservoir in Stuttgart. The levee broke due to heavy rains and winds. An area the size of a city block was flooded. Twenty to twenty-five homes were affected, but only two or three homes received substantial flood damage.</p>																		
Crawford Co. 10 N Fort Smith	17	2120CST			0	0	?	?	Hail (1.00)											
Sebastian Co. Fort Smith	17	2137CST			0	0	?	?	Hail (0.75)											
Crawford Co. 2 E Van Buren	17	2139CST			0	0	?	?	Hail (1.00)											
Sebastian Co. Fort Smith	17	2145CST			0	0	?	?	Hail (0.75)											
Carroll Co.	18	0105CST			0	0	5	?	Hail (2.00)											
		<p>A small, but intense thunderstorm dropped a short burst of very large hail in the Berryville area. One car dealer was severely affected, with damage to over 200 cars. Hail also fell at Green Forest.</p>																		
Sebastian Co. Greenwood	20	1545CST			0	0	?	?	Hail (1.00)											
Randolph Co.	20	1700CST			0	0	4	0	Thunderstorm Wind											
		<p>High winds ripped one-third of a roof off a house and threw it into the yard. The house was located just west of Maynard, but tin and siding from the house were found up to 1/2 mile away.</p>																		
Garland Co.	20	1825CST			0	0	?	?	Thunderstorm Wind											
		<p>Thunderstorm winds downed trees and power lines at Hot Springs and Hot Springs Village.</p>																		
Columbia Co. Bussey	20	1852CST			0	0	?	?	Hail (1.00)											
Miller Co. Three Rivers	20	1900CST			0	0	?	?	Hail (0.88)											
Lafayette Co. 2 W Canfield	20	1912CST			0	0	?	?	Hail (1.00)											
Fulaaki Co.	20	1915CST			0	0	?	?	Thunderstorm Wind											
		<p>High winds downed power lines in Little Rock and blew out a plate glass window at a store in North Little Rock.</p>																		
Grant Co.	20	1940CST			0	0	?	?	Thunderstorm Wind											
		<p>Thunderstorm winds downed trees and power lines just west of Sheridan.</p>																		
Lonoke Co.	20	2005CST			0	0	?	?	Thunderstorm Wind											
		<p>Arkansas Power and Light reported lines down between Lonoke and Carlisle. Also, they reported trees and power lines down just north of Carlisle.</p>																		
Prairie Co.	20	2020CST			0	0	?	?	Thunderstorm Wind											
		<p>Arkansas Power and Light reported trees and lines down on the west side of Hazen.</p>																		
Jefferson Co. Whitehall	20	2022CST			0	0	?	?	Hail (0.75)											
		<p>Winds downed several trees in Pine Bluff.</p>																		
		<p>A severe thunderstorm ripped through Arkansas County and caused significant damage to the Ainsley Airport. Winds tore the roof off a hangar, and more than a dozen planes inside were heavily damaged or destroyed. Winds over 60 miles an hour also took the roof off a nearby mobile home and damaged a small building just north of the airport. Damage was estimated at \$250,000. In Stuttgart, the only damage reported was several trees downed.</p>																		
AR2009-011	28	All Day			0	0	5	?	Flooding	AR2009-011 Southwest Arkansas	28	All Day			0	0	5	?	Flooding	
		<p>Heavy rains, in some places greater than six inches, brought quite a bit of flooding to the southwest corner of Arkansas. Nevada County was hardest hit, but all counties reported significant damage to roads and bridges. Nevada County reported \$75,000 in damages while Hempstead County reported \$40,000.</p>																		
Benton Co.	28	0200CST			0	0	?	?	Thunderstorm Wind											
		<p>High winds destroyed a 30-foot fence around a park in Bentonville. Also, in Rogers a large billboard was downed as well as several trees.</p>																		
Washington Co.	28	0200CST			0	0	?	?	Thunderstorm Wind											
		<p>Damage was reported in the west part of the county near Lincoln. A few chicken houses were damaged along with some house trailers. Trees and power lines were downed in the area.</p>																		
Washington Co.	28	0210CST			0	0	4	0	Thunderstorm Winds (52)											
		<p>Hangar doors were ripped from the Arkansas Air Museum in Fayetteville and ten vintage aircraft were damaged. Damage was in the thousands of dollars. The anemometer at Drake Field recorded a wind gust to 52 knots.</p>																		
Madison Co.	28	0300CST			0	0	4	?	Thunderstorm Wind											
		<p>A severe thunderstorm that had earlier moved through Washington County caused damage on a farm just west of Huntsville. Five hog houses were damaged all together, three were unroofed and two were destroyed. Trees were downed in the area. Farther south in Aurora, a chicken house was unroofed, and a house on Highway 23 South was damaged as shutters were torn loose and thrown.</p>																		
Miller Co. Texarkana Airport	28	1250CST			0	0	?	?	Thunderstorm Winds (55)											
Nevada Co.	28	1315CST			0	0	?	?	Thunderstorm Wind											
		<p>Strong winds downed trees in the City of Prescott.</p>																		
Clark Co.	28	1400CST			0	0	?	?	Thunderstorm Wind											
		<p>High winds downed several trees in the Gordon-Beirne area. Winds up to 55 mph were reported along with marble size hail.</p>																		
Jackson Co.	28	1640CST			0	0	4	?	Thunderstorm Wind											
		<p>High winds hit the Newport area and destroyed a mobile home and caused damage to a local golf course. The mobile home was located on a county road off Highway 14, and was damaged beyond repair. At the golf course, a fence was blown down and several large trees were downed. Elsewhere, in Newport itself, trees were downed and a small metal storage building was destroyed.</p>																		
Cleveland Co. 12 NE Rison	28	1715CST			0	0	?	?	Hail (0.75)											
Lincoln Co.	28	1716CST	Short 100		0	0	?	?	Tornado (F0)											
		<p>A tornado touched down briefly three miles north of Star City on Highway 11. A barn was damaged and a few cotton trailers overturned. Several light poles were also destroyed.</p>																		

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MARCH 1989

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					KILLED	INURED	PROPERTY	CROPS	
— ARKANSAS									
Arkansas Co.	28	1815CST			0	0	0	0	Funnel Clouds
									Funnel clouds were reported near DeWitt and later near Stuttgart.
Union Co.	29	0430CST			0	0	3	?	Lightning
									Lightning hit a tree which fell onto and destroyed a 1981 Buick parked at a house on Highway 82 just west of El Dorado.
Bradley Co.	29	0515CST			0	0	?	?	Thunderstorm Wind
									A thunderstorm caused damage to a house on Highway 4, two miles east of Warren. Part of the roof of the house blew off, and trees and power lines were downed in the area.
Miller Co. Ravenna	29	1300CST			0	0	?	?	Hail (0.88)
Faulkner Co.	30	1555CST			0	0	?	?	Thunderstorm Wind
									Strong winds over 60 mph ripped through the City of Conway and downed numerous trees and power lines. A wall collapsed at a storage area of a lumber store as the building was destroyed.
Faulkner Co. 3 N Mayflower	30	1609CST			0	0	?	?	Hail (1.75)
Faulkner Co. 1-1/2 NW Mayflower	30	1609CST			0	0	?	?	Hail (1.25)
Faulkner Co. Mayflower	30	1613CST			0	0	?	?	Hail (0.75)
Faulkner Co. 9 SE Conway	30	1618CST			0	0	?	?	Hail (1.00)
Lonoke Co. Austin	30	1644CST			0	0	?	?	Hail (0.75)
Lonoke Co.	30	1646CST			0	0	5	?	Hail (1.75)
									Golfball size hail pelted the community of Ward during a severe thunderstorm and caused significant damage. Numerous cars were dented, as well as the windows on both cars and houses being broken out. The hail stripped the pine trees of their needles, and according to eyewitnesses, the streets looked like they had been painted green after the storm. High winds accompanied the storm.
Lonoke Co. 1 W Cabot	30	1647CST			0	0	?	?	Hail (1.75)
White Co. Beebe	30	1655CST			0	0	?	?	Hail (1.00)
Prairie Co.	30	1722- 1732CST	7	100	0	0	5	3	Tornado (F1)
									A tornado touched down along Highway 38, five miles west of Des Arc and traveled to the northeast for seven miles. Two mobile homes along Highway 38 were completely destroyed and other farm shops were damaged. Three hundred acres of wheat were damaged by golfball size hail that accompanied the storm. The last damage occurred four miles north of Des Arc where tin and wood from the roof of a farm shed was blown into a home and caused broken windows and other minor damage. Total damage was estimated at \$130,000.
Clay Co.	30	1730CST			0	0	?	?	Thunderstorm Wind
									High winds downed trees and power lines at both Corning and Piggott.
Woodruff Co.	30	1740CST			0	0	?	?	Thunderstorm Wind
									High winds destroyed a house trailer at Little Dixie.
St. Francis Co.	30	1755CST			0	0	4	?	Thunderstorm Wind
									A warehouse was destroyed by violent thunderstorm winds at Wheatley.
Woodruff Co.	30	1755CST			0	0	?	?	Thunderstorm Wind
									Arkansas Power and Light reported four power poles destroyed by high winds in the Hunter area.
St. Francis Co. Forrest City	30	1810CST			0	0	?	?	Hail (0.88)
— ARKANSAS									
St. Francis Co. Forrest City	30	1830CST			0	0	?	?	Hail (0.88)
Lee Co. Marianna	30	1850CST			0	0	?	?	Hail (1.75)
Lee Co. Brickeys	30	1855CST			0	0	?	?	Hail (1.75)
Phillips Co.	30	1935CST			0	0	?	?	Thunderstorm Wind
									High winds downed large tree limbs in Helena.
4 CALIFORNIA, Northern									
CAZ009-010 Sierra Nevada	01	0730PST- 02 0730PST			0	0	0	0	Heavy Snow
									A cold moist Pacific cold front brought nearly 2 feet of new snow to the Sierra Nevada. Soda Springs (elev. 7000') reported 20 inches.
Fresno County, Fresno	02	1420PST	short narrow		0	0	3	0	Tornado (F0) Funnel Clouds
									Several cold air funnels were spawned in unstable post-frontal air in the Central San Joaquin Valley. There was a single-point touchdown in Fresno, damaging a shed.
CAZ009-010 Sierra Nevada	16	0130PST- 16 1330 PST			0	0	0	0	Heavy Snow
									A strong Pacific cold front brought over a foot of snow to the Sierra Nevada within a 12 hour period. Soda Springs received 11 inches, Alpine Meadows 14 inches, Sugar Bowl 15 inches, and Echo Summit 18 inches.
Tehama County and Butte County	25	1230PST			0	0	0	0	Funnel Clouds
Tehama County, near Corning	25	1530PST			0	0	0	?	Hail (1.75)
									Cold air aloft triggered at least 7 different funnel clouds during the afternoon. Widespread small hail was reported, with golf ball size hail near Corning. Since crops were in the bud and bloom stage extensive damage was probably sustained in the hail areas, though no estimates will be available until the fruit matures.
4 CALIFORNIA, Southern									
CAZ013-014-019 Mountains, Northern Deserts, and Owens Valley	2-3				0	0	0	0	High Winds
									A surface low over the Western U.S. on the morning of the second continued to deepen while a strong upper trough dropped southeastward across California from the Pacific Northwest. A cold front associated with this system swept across Southern California on the night of the second. Gusty winds in the mountains, northern deserts, and the Owens Valley began increasing during the early morning hours on the second and reached 30-40 MPH strength before gradually decreasing late on the night of the third.
Coastal Waters Avalon Harbor	2	PM			1	0	0	0	High Winds
									Gusty winds of 25-35kts were believed to have been the cause of a boating accident sometime during the day. The body of an experienced boat handler, who disappeared on the second in a small boat near Avalon Harbor, was discovered about 18 miles east of Avalon off the Santa Catalina coast Saturday. #210
CAZ014-018 Owens Valley, Mojave Desert and Antelope Valley	13	1000PST			0	0	0	0	High Winds
									Low pressure developed over the Central and Northern Rockies on the morning of the thirteenth producing westerly winds over the Northern Deserts and northerly winds in the Owens Valley. Wind speeds were mostly 30-40 MPH with local gusts to 60 MPH. No significant damage was reported.

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MARCH 1989

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					KILLED	INJURED	PROPERTY	CROPS	
5 COLORADO									
Montrose County CO2003	2	0224MST	0	0	3	0	0	0	High wind (52) Wind gusts reached 61 mph at the Montrose airport. A mobile home was partially unroofed.
Larimer County CO2011	2	0815MST	0	0	0	0	0	0	High wind (65) A gust of 75 mph was recorded 36 miles west-northwest of Fort Collins in Poudre Canyon.
San Miguel County CO2008	2	morning	0	0	0	0	0	0	High winds (66) Wind speeds reached 76 mph at the Telluride ski area; two lifts had to be closed.
Extreme Northeast CO2012-013	2-3		0	0	5	0	0	0	Wind Freezing rain in Logan, Washington, Phillips, and Yuma counties caused ice buildups up to an inch thick on power poles and lines. The ice, combined with winds, downed many lines throughout the area, causing an estimated \$500,000 damage. Numerous schools and roads in the area were closed.
Mtns, Northeast CO2002-004-008-010-011-012-013	3-4		0	0	0	0	0	0	Snow A storm brought one to two feet of snow to the Colorado Rockies, with the greatest amounts in the central and southern mountains. 2 to 6 inches fell along the Front Range. The snow caused two-hour delays at Denver's Stapleton airport, and there were many traffic accidents in the Denver area. Interstate 70 was closed from Limon to the Kansas border for a time on the 3rd.
El Paso County CO2014	5		0	0	4	0	0	0	Cold Temperatures dropped as low as 15 degrees below zero in eastern Colorado, unusually cold for March. In Simla, northeast of Colorado Springs, a broken water pipe was a victim of the cold. The rupture caused a school to be flooded, cancelling classes the following day.
Northern, Central Mountains CO2002-004	13		0	0	4	0	0	0	High winds Wind gusts exceeded 60 mph at several ski areas, including Loveland Basin (65 mph at 1100 MST); Aspen Mountain (61 mph at 1810); and Sunlight (96 mph at 1530). The winds knocked a chairlift cable off its track at Aspen Mountain; 220 skiers had to be evacuated.
Northern, Central Mountains, East CO2002-004-011-012-013-014-015-016-017	14 morning		0	1	6	3	0	0	High winds Widespread strong winds caused light to moderate damage over a large part of the state. The winds raised great clouds of dust on the eastern plains, causing some road closures. The Front Range area was notably hard hit. A 2000 seat grandstand at a speedway just west of Denver was blown down. In the Denver suburb of Wheat Ridge, a large sign was demolished. Farther north in Boulder County, homes under construction were partially dismantled in Boulder and Louisville. A semi-trailer was overturned in the county, and dumpsters were reported being blown down the street by the wind. A portable toilet flew through the air and collided with a car. In Larimer County, a 64 year old man was slightly injured when winds blew his truck off the road near Loveland. Winds blew windows out of several cars at a dealership between Fort Collins and Loveland, and a huge American flag at the dealership was shredded. A home under construction was blown down near Fort Collins. Farther east, winds caused minor damage to wheat in Yuma County, and caused property damage in Holyoke (Phillips County). In Prowers County, the winds blew a grass fire out of control; several power poles were burned. Strong winds also blew in the Rockies; ski lifts were shut down in Summit County at Copper Mountain, Breckenridge, and Keystone. The strongest winds occurred between 0600 and 1000 MST. The top gusts recorded were 120 mph at Horsetooth Heights, 6 miles southwest of Fort Collins; this is the maximum reading that the anemometer at that location can record. Gusts reached 105 mph just east of Boulder, and 100 mph just north of the city. 96 mph gusts were noted in Poudre Canyon, 36 miles WNW of Fort Collins. 80 to 90 mph gusts occurred in Boulder, Fort Collins, Longmont (Boulder Co.), and at the Loveland Basin ski area. Gusts of over 50 mph blew almost everywhere in eastern Colorado.
Grand County CO2002	15		0	0	0	0	0	0	High winds A gust of 61 mph was noted at the Mary Jane ski area.
6 COLORADO									
Northern, Central Mtns., Northeast CO2002-004-011-012-013	17		0	0	4	4	0	0	High winds Strong winds blew over much of Northern Colorado. Most of the peak gusts occurred between 0700 and 1400MST. Roads were closed in the extreme northeastern corner of the state by blowing dust, and some crop losses occurred in that area. A grass fire burned 2000 acres west of Julesburg, in Sedgwick County. A fire of similar size west of Peetz, in Logan County, was probably started by a power line downed by the wind. The peak gust recorded was 86 mph at Loveland Basin ski area, in Clear Creek County at 1335 MST. A gust of 80 mph occurred in Summit County at Breckenridge, with 84 mph in Poudre Canyon, west of Fort Collins in Larimer County. Several other mountain sites had gusts of 60 to 75 mph, and gusts around 70 mph were clocked in Logan and Sedgwick counties.
Pueblo County CO2016	20	0604MST	0	0	0	0	0	0	High winds (52) A gust of 60 mph was clocked at Pueblo airport.
Northern, Central Mtns., Northeast CO2002-004-011-012-013	20		0	0	0	0	0	0	Snow 5 to 15 inches of snow fell in the northern and central mountains. At lower elevations, 5 to 9 inches fell in Boulder, with 2 to 6 inches elsewhere along the Front Range. 1 to 4 inches fell elsewhere in Northeastern Colorado.
Northern Mtns., Front Range CO2002-011	31		0	0	0	0	0	0	High winds A gust of 64 mph was recorded in Fort Collins at 2355 MST. Earlier in the day, winds reached 60 mph at Mary Jane ski area.
6 CONNECTICUT — NONE REPORTED									
7 DELAWARE									
DE2001-002-003 Entire State of Delaware	6	1100EST	0	0	?	?	0	0	Winter Storm A mixture of rain and freezing rain gradually changed to sleet, freezing rain and snow Monday night and early Tuesday. There were widespread outages from downed trees and power lines, as moderate winds accompanied the precipitation. Dover accumulated 3 inches of ice and snow; the remainder of the state received 1 to 2 inches of the mixed precipitation.
New Castle Co: Stanton	18	1500EST	0	0	0	0	0	0	Thunderstorm Wind
Harrington	18	1615EST	0	0	0	0	0	0	Thunderstorm Wind Damage to trailers was reported in a trailer park behind Delaware Park Race Track. Strong thunderstorm winds blew plate glass windows out of store fronts in Harrington.
Sussex Co/ Georgetown Georgetown and Millsboro Lewes	31	1515EST	0	0	?	?	?	?	Hail (.75)
	31	1530EST	0	0	?	?	?	?	Thunderstorm Wind
	31	1550EST	0	0	?	?	?	?	Thunderstorm Wind Trees were downed in Georgetown and Millsboro. Several power lines were downed in Lewes. A short-lived tornado was reported by 2 restaurant employees in Georgetown, but this report remains unconfirmed.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

MARCH 1989

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	
8 FLORIDA									
Orange Co., Goldenrod	1	1945EST			0	0	1	0	Hail (0.75)
		Dime size hail was reported.							
Okeechobee Co., Otter Creek	2	1744EST			0	0	2	0	Tstm. wind(50)
		Minor wind damage occurred.							
Palm Beach Co., Boca Raton	3	1600EST			0	2	0	0	Lightning
					0	1	3	0	Tstm. wind(60)
		Two construction workers were injured when a nearby lightning strike knocked them from a building beam. An 18 wheel truck blew over, injuring the driver.							
Monroe Co., Big Pine Key	7	1130EST	0.3	50	0	0	3	0	Waterspout-Tornado(F0)
		A waterspout moved onshore at Big Pine Key causing minor damage to trees, awnings and roofs at Tropical Bay Estates.							
FL2008-012-017-020 Duval, St. Johns, Nassau, Martin, Palm Beach, St. Lucie, Brevard, Flagler, Indian River, Volusia Counties	9-11	1100EST-1200EST			0	0	5	0	High wind
		A storm center off the Florida east coast moved slowly to the east and produced 30-40 mph northeast winds along most of Florida's East coast. The onshore flow produced locally major beach erosion which washed up to 3 feet of sand onto barrier island roads and which produced minor coastal flooding closing portions of ALA. Winds downed trees and light poles. Tides 3-4 feet above normal produced the worst beach damage in some areas since the 1984 Thanksgiving Day storm.							
Okaloosa Co., Dorcas	21	0005CST	short	25	0	0	3	0	Tornado(F0)
		A tornado ripped the sides and top off a mobile home.							
Santa Rosa Co., Milton	21	1220CST			0	0	0	0	Hail (0.75)
Okaloosa Co., Eglin AFB and Ft. Walton Beach	21	1230CST-1315CST			0	0	0	0	Funnel clouds
					0	0	2	0	Lightning
		Several funnel clouds were sighted and dime size hail fell. A lightning strike started a fire that damaged a house.							
Okaloosa Co., Ft. Walton Beach	21	1425EST			0	0	0	0	Hail (0.75)
		Dime size hail was reported.							
Santa Rosa Co., Milton	21	1500EST			0	0	0	0	Tstm. wind (50)
		Trees were downed.							
Okaloosa Co., Mary Esther	21	1520CST	0.5	50	0	0	2	0	Tornado(F0)
		A tornado was observed skipping across open areas. A storage shed was destroyed.							
Santa Rosa Co., Milton	21	1600CST			0	0	0	0	Hail (0.75)
Putnam Co., Crescent City	23	1500EST			0	0	3	0	Tstm. wind(50)
		Trees were uprooted and blown onto a parked car.							
Volusia Co., 3 SSE Seville	23	1530EST			0	0	0	0	Hail (1.25)
Flagler Co., Cody Corners	23	1550EST			0	0	0	0	Hail (1.00)
		Hail was reported.							
Broward Co., 5N Ft. Lauderdale Intl. Airport	24	1645EST	0.5	100	0	0	4	0	Tornado(F0)
		A visually impressive but apparently weak tornado moved through the Ft. Lauderdale suburb of Oakland Park, crossing a canal and causing minor property damage to buildings and cars.							
Bay Co., Parker-Callaway	30	0300CST			0	0	5	0	Tstm. wind(70)
		Thunderstorms moving onshore from the Gulf of Mexico produced strong winds, possibly a series of microbursts, which stripped aluminum sidings, and damaged awnings, storage sheds, mobile homes, windows, motel roofs, cars and trees.							
Brevard County: 6NW Melbourne Regional Airport IN Palm Bay	31	1140EST	short	25	0	0	0	0	Tornado (F0)
	31	1225EST	short	25	0	0	0	0	Tornado (F0)
		A pilot and local police reported brief nondestructive tornado touchdowns.							
9 GEORGIA									
Haralson County, 7 NW Tallapoosa	05	1910EST	3.7	100	0	0	5	0	Tornado (F1)
	05	1910EST			0	0	?	0	Hail (1.00)
		A tornado touched down one mile northwest of Steadman Church or seven miles north-northwest of Tallapoosa. Two barns were destroyed and another damaged. Heavy farm equipment was overturned by the tornado and metal roofing from the barns injured several cows on a dairy farm. Trees were uprooted and snapped off along the path. Hail one inch in diameter fell from the storm. Eight houses and eight mobile homes were damaged by the tornado.							
Heard and Coweta Counties	05	2100EST-2144EST	33.0	167	1	6	6	?	Tornado (F2)
		A tornado entered Georgia from Alabama about 200 feet north of the Troup/Heard county line. The tornado traveled in a northeast direction for 33.0 miles, passing through the north part of the community of Gwen then across sparsely populated Heard County. Most of the damage between Gwen and a point 2 miles east of Franklin was to trees and power lines. A mobile home was destroyed two miles east of Franklin at approximately 920 PM EST and a 68 year old man was killed in the mobile home. This is the first known tornado fatality in Georgia since 1977. The tornado moved next to an area just west of the Powers Crossroads community, one mile west of the Heard/Coweta line. At that location, a fire house was destroyed, a house had the roof taken off, and another sustained moderate damage. At 928 PM EST the tornado moved from Heard County into Coweta County. The next area hit by the tornado was a subdivision around the Mt. Carmel Church which is 7 miles west-northwest of Newnan. Several homes had substantial roof damage with a few walls blown down. Property damage next occurred just northwest of the community of Sargent at about 940 PM EST. A number of pine trees were broken off or uprooted in this area. Several homes also had minor damage. The end of the damage path was 2 miles south-southwest of the community of Roscoe or 7 miles north of Newnan. This occurred at approximately 944 PM EST. Total number of buildings destroyed by the storm was near 20 and other buildings damaged was around 50. Other than the fatality, only a few minor injuries were reported with this tornado. M68H							
Troup County, 6.5 SW Hogansville	05	2147EST-2150EST	1.9	50	0	0	3	0	Tornado (F1)
		A tornado touched down just west of Youngs Mill Road southwest of Hogansville. An old barn lost its roof and a house suffered minor damage when an oak tree fell on one corner of the house. The tornado moved northeast through timber and one arm of West Point Reservoir. Several trees were uprooted and broken off along the path of the storm.							
Coweta County, 2.8 N Grantville	05	2212EST-2238EST	14.0	120	0	23	7	0	Tornado (F3)
		A tornado first touched down just west of West Grantville Road 2.8 miles north of Grantville. The first damage was done to several homes and outbuildings in this area. The tornado moved northeast to near the intersection of Interstate 85 and U.S. Highway 29. A new motel was destroyed and another heavily damaged by the tornado. A gas station and restaurant were also damaged in this area. Eight people were injured in the motel. The tornado continued to the northeast, crossed Interstate 85, and hit a mobile home park. The worst of the damage was seen in the area from the motel through the mobile home park. The tornado continued to the White Oaks subdivision just south of U.S. Highway 34, 2 miles east of I-85. One home was totally destroyed and several others suffered moderate to severe damage. Trees and high voltage power lines were downed along the entire path of the tornado. A total of 86 homes were damaged or destroyed by the storm, and an additional 25 outbuildings were destroyed. Sixty-one cars were damaged or destroyed. Of the 23 people hospitalized, only one was critically injured. Other very minor injuries were reported with the storm but did not require medical attention.							
Chattahoochee County, 1 N Cusseta	05	2300EST			0	2	5	0	TSTM Wind
		Thunderstorm winds heavily damaged a business, flipped a car, and downed trees on the northern edge of Cusseta along U.S. Highway 27. One tree fell on a mobile home, causing serious damage. A flea market had shed and stands destroyed. Two people had minor injuries; one was in a car and the other in the business.							

STORM DATA AND UNUSUAL WEATHER PHENOMENA

MARCH 1989

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	
— GEORGIA —									
Floyd, Gordon and Polk Counties	06	0200EST-1000EST			0	0	?	0	Flash Flood
									Heavy rains totalling 2 to 3 inches on the 4th and 5th brought Big Cedar Creek and the Oostanaula, Coosawattee, Conasauga, and Coosa rivers up to near bankful stages. Additional rains of 3 to 4 inches the night of 5th and early morning of the 6th brought these rivers and streams out of their banks. Big Cedar Creek crested 1 foot above flood stage flooding basements of 10 homes, a little league ball field and several storage out-buildings and came within 1/2 inch of flooding a restaurant. Several cars were stranded and water inundated several roads for hours. In Resaca and Rome 12 people were evacuated and 20 homes were surrounded with water and 3 homes and 1 mobile home were flooded. The Oostanaula River was responsible for flooding a large recreation area outside levee protection in Rome as well as much farmland and some roads in Gordon and Floyd counties.
Clay County, Fort Gaines	21	0930EST			0	0	?	0	Hail (0.75)
	21	0930EST			0	0	?	0	TSTM Wind
Sumter County, 1 N Americus	21	0931EST			0	0	?	0	TSTM Wind
Calhoun County, Morgan	21	0940EST			0	0	?	0	TSTM Wind
	21	0940EST			0	0	?	0	Hail (0.75)
									Thunderstorm winds downed several large limbs in a residential area of Fort Gaines, in scattered areas of Morgan, and in the north part of Americus.
Miller County, 8 S Colquitt	21	1040EST			0	0	?	0	TSTM Wind
	21	1040EST			0	0	?	0	Hail (0.75)
									Thunderstorm winds downed tree limbs and downed a 12 foot T.V. antenna.
Baker County, Newton	21	1100EST			0	0	?	0	Hail (0.75)
	21	1100EST			0	0	?	0	TSTM Wind
									Thunderstorm winds downed many tree limbs near Newton.
Ben Hill County, Fitzgerald	21	1150EST			0	0	4	0	TSTM Wind
									Thunderstorm winds downed trees and advertising signs and caused damage to a mobile home and utility buildings in Fitzgerald.
Grady County, 3 SE Cairo	30	0730EST	0.3	30	0	0	4	0	Tornado (F1)
									A small tornado touched down briefly snapping a tree in half and throwing it into a house. The house also had roof damage and a nearby barn was demolished.
Cook County, 5.5 NE Adel	30	0920EST	0.2	30	0	0	4	0	Tornado (F1)
									A small tornado touched down briefly in the Chassersville community northeast of Adel. The fire department building was heavily damaged and a mobile home was blown off it's foundation. Several trees were uprooted along the path which was confined to a very small area of approximately 25 acres.
Randolph County, Carnegie	30	1000EST			0	0	?	0	TSTM Wind
									Thunderstorm winds downed a tree over a road near Carnegie.
Lanier County, Stockton	30	1000EST			0	0	3	0	TSTM Wind
Clinch County, 20 W Homerville	30	1005EST			0	0	3	0	TSTM Wind
									Thunderstorm winds downed trees and damaged mobile homes near Stockton. Trees were downed by winds west of Homerville.
10 IDAHO									
ID2004-006-007-008 West-Central and Southeast Idaho	1-2	1800MST-2100MST			0	0	4	0	HEAVY SNOW
									A moist Pacific storm produced the following heavy snow reports from north and central Idaho: 16" at Pomerelle Ski area south of Burley, 12" at Grangeville, 8" at Sun Valley's Bald Mountain and at Moscow, 7" at Fairfield, 6" at Elk City. There were many car accidents across Northern Idaho.
ID2008-009 Northern Idaho	2	0800-2100PST			0	0	5	0	FLOOD
									Heavy rain amounts over snow-covered ground combined for extensive street and basement flooding especially in Coeur d'Alene and Moscow. Coeur d'Alene received between 1 1/4 and 1 1/2 inches of rain.
— IDAHO —									
ID2003-010 Clark Co.	2-3	2100MST-1700MST			0	0	0	0	BLIZZARD
									High winds produced extensive drifting snow and zero visibilities which closed I-15 for the entire period.
ID2003 Upper Snake River Valley	17	0000-0500MST			0	0	3	0	HIGH WIND (47)
									Strong winds behind a cold front destroyed a shed and plum tree at Blackrock. Wind gusts to 47 knots were recorded at Rexburg and 41 knots at the Pocatello airport.
11 ILLINOIS									
IL2002-003 Ogle, Lee, Kane, Cook and Dupage Counties	3				0	0	?	0	Freezing Rain
									Freezing rain accumulated between 1/4 to 1/2 inch across a portion of northeast Illinois. The glazing was most pronounced to the west and northwest of the Chicago metropolitan area and then westward toward Rockford. Ice accumulated on power lines and caused scattered power outages. 5000 customers were without power for several hours in Dixon in Lee County.
IL2009-010-011-012-013-014 South-Central and Southern Illinois	5-6				0	?	?	0	Winter Storm, Ice Storm
									A major winter storm affected most of south-central and southern Illinois. Heavy snow fell in a 100 mile wide band that was centered along a line from East St. Louis northeastward to near Danville. The heaviest snow accumulations of 6 to 12 inches fell near the centerline of the snow band. At Chahokia in St. Clair County 12 inches of snow was measured. Alton, Illinois near St. Louis measured 11 inches, one of the heaviest snowfalls in 7 years. 8 to 12 inches of snow closed schools in Mattoon and Charleston in Coles County. 6 to 10 inches fell in Shelby and Fayette counties. Further north, Danville recorded 8 inches, Champaign 7 inches and Springfield 4 inches. South of Interstate 70 snow changed over to freezing rain and sleet. Heavy ice accumulations of over one inch were reported across portions of southern Illinois by early Monday March 6th. The heaviest ice accumulations seemed to be concentrated along a line from Carbondale in Jackson County in the southwest to West Salem in Edwards County to the northeast. Heavy ice accumulations on power lines, coupled with strong winds, caused downed power lines and numerous power outages. Franklin County reported 10,000 persons without power and 8,000 were without power in Edwards County. Southern Illinois University in Carbondale closed classes for the first time in 6 years. Some persons described the ice storm as "being the worst in 10 years".
White Co, 10S Carmi	14	2002CST			0	0	?	0	Hail (0.68)
White Co, Omaha	14	2004CST			0	0	?	0	Tstm. wind (52)
									Thunderstorm winds in excess of 60 mph blew down large tree limbs near Omaha in White County.
Upper Rock Island and Whiteside Counties	17	0800CST-1800CST			0	?	0	0	Freezing Rain, Glazing
									Freezing rain caused extensive glazing across eastern Iowa and a small portion of northwest Illinois. Numerous accidents occurred and area hospitals were filled with injured motorists.
Tazewell County, Mackinaw	17	2055CST			0	0	?	0	Hail (0.75)
IL2012-IL2014 Southeast Illinois	30-31				0	0	?	0	Heavy Rainfall
									Over 5 inches of rain fell across a small portion of extreme southeast Illinois during a two day period between the 30th and 31st. McLeansboro received 3.45 inches on the 30th and 1.69 inches on the 31st for a two day total of 5.14 inches which brought the monthly total for March to 9.79 inches. Other reports, respectively: Lawrenceville, Lawrence County 3.86 and 1.17 inches for a two day total 5.03 inches and 10.03 inches for the month; Fairfield, Wayne County 3.65 and 1.25 inches for a two day total 4.90 inches and 9.88 inches for the month. This was the second month in a row that portions of southern Illinois received total monthly rainfall of near or over 10 inches. (See STORM DATA February 1989).

STORM DATA AND UNUSUAL WEATHER PHENOMENA

MARCH 1989

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					KILLED	INJURED	PROPERTY	CROPS	
12 INDIANA									
St. Joseph Co. Walkerton	14	1620EST			0	0	?	?	Hail (1.50)
Marion Co.	14	2055EST			0	0	?	?	Hail (0.88)
Posey Co.	14	2127EST			0	0	?	?	Hail (0.75)
									Three-quarter inch diameter hail fell and large tree limbs were downed in Poseyville.
Bartholomew Co.	14	2220- 2230EST			0	0	?	?	Hail (1.50)
									Hail near golfball size produced damage south of Columbus. Golfball size hail was reported at 2230EST in Petersburg in the eastern portion of county.
Decatur Co.	14	2240- 2250EST			0	0	?	?	Hail (1.00)
									Dime to near quarter size hail covered the ground near Greensburg. Also, two trees were blown down in the county.
Jackson Co.	14	2245- 2300EST			0	0	4	?	Tstm.Wind
									A barn was severely damaged and a roof was ripped off near Surprise. Several large and small tree limbs were downed between Brownstown and Seymour.
Franklin Co. Batesville	14	2255EST			0	0	?	?	Hail (0.75)
									Windows were broken out by hail in Batesville.
Porter Co. Hebron	17	2029EST			0	0	?	?	Hail (1.25)
Warren Co.	17	2030EST			0	0	5	?	Tstm.Wind
									Straightline thunderstorm winds downed many trees and power lines from Tab to Williamsport. Property damage included: one house trailer demolished, chimney damaged and garage blown away from one prefab house, seven garages severely damaged or destroyed, many automobiles damaged by flying debris and one minor house fire from lightning.
LaPorte Co. LaPorte	17	2046EST			0	0	?	?	Hail (0.75)
Tippecanoe Co.	17	2057- 2107EST			0	0	4	?	Tstm.Wind
									Thunderstorm winds knocked down a home antenna tower and overturned a satellite dish from a cement foundation at West Point. Several trees were downed, a house roof was damaged, and some other structural damage occurred just south of Lafayette.
St. Joseph Co. South Bend	17	2112EST			0	0	?	?	Hail (1.50)
Clinton Co.	17	2123EST			0	0	3	?	Tstm.Wind
									Straightline thunderstorm winds downed some trees and damaged a house near Mulberry.
Warren Co.	17	2330EST			0	0	0	?	Hail (0.75)
									Three-quarter inch diameter hail was reported three miles northwest of Williamsport.
LaPorte Co. Mill Creek	28	1900EST			0	0	4	?	Tstm.Wind
									Strong thunderstorm downburst winds flattened an old shed, moved a garage from it's foundation, caved in the side of a barn, and uprooted a large tree.
13 IOWA									
									IAZ001-002-003-004-005-006-007-008-009-010-011-012-013-014-015-SDZ018-NEZ010-ILZ004 All of Iowa
	03	All Day			0	0	5	0	Heavy Snow and Ice
									Mixed precipitation affected Iowa throughout the day. Most of it fell as sleet and freezing rain over the south half. During the afternoon, freezing rain changed to rain as temperatures warmed in South-Central and Southeast Iowa. The north half of the state had the worst weather. Three to seven inches of snow fell before it changed to freezing rain and sleet. A few isolated areas reported ten to twelve inches of snow. Winds of 20 to 30 MPH with occasional gusts over 40 MPH caused considerable blowing snow. Roads became treacherous over all of the state, especially in the north. There were many reports of power outages as ice-coated tree limbs downed power lines.
	14	1500 to 15 0300 CST			0	0	5	0	High Winds
									Strong west to northwest winds followed a cold frontal passage. Winds were generally in the 25 to 45 MPH range with some gusts to around 55 MPH. Most of the damage was restricted to power lines and tree limbs. Damage was caused to a school building in Albia, in Monroe County, when a tree fell against the building.
	17	0800 to 1800 CST			0	0	3	0	Freezing Rain
									A mixture of freezing rain and snow fell across most of Northern Iowa. The precipitation was light, but road surfaces quickly iced over causing numerous accidents.
Muscatine County, West Liberty	28	0315 CST			0	0	4	0	Lightning
									Lightning struck a house in West Liberty. The house was set on fire, causing extensive damage.
14 KANSAS									
	02-	0100 to			0	0	6	4	Ice Storm
	03	1500CST							
Northwest Kansas									Freezing drizzle fell across northwest Kansas from the early morning hours of the 2nd into the afternoon on the 3rd. Temperatures at the time were only in the teens during the ice storm that accumulated ice of one to two inches thick in places. The ice storm was also accompanied by strong northeasterly winds of 20 to 35 MPH that downed about 1000 power poles in the region. A 450 foot tall radio tower near Oberlin collapsed because of a heavy accumulation of ice at 0830 CST on the 3rd. Damage was estimated at \$70,000. Many roads were closed in the area during the storm.
Wilson Co. 2E Vilia	03	1732CST			0	0	3	0	Hail (1.75)
Neosho Co. 5SSW Chanute	03	1740CST			0	0	3	0	Hail (1.75)
									A line of strong to occasionally severe thunderstorms formed along a cold front in eastern Kansas during the late afternoon hours. A few of the storms produced hail up to golfball size and winds to 45 MPH in southeast Kansas. No major damage was reported with the storms.
	05-	1200 to			0	0	4	0	Heavy Snow
	06	0200CST							
Far Southeast Kansas									A strong low pressure system over northeast Texas produced a band of heavy snow across far southeast Kansas from midday on the 5th into the early morning hours of the 6th. Snowfall amounts in the 5 to 8 inch range were common across the area. Some snowfall amounts included: 8 inches at Chetopa, 6 inches at Edna and Oswego and 5 inches at both Parsons and Altamont. Strong northeast winds of 15 to 35 MPH caused considerable blowing and drifting of the snow. The weight of the heavy snow caused the roof at the Carden Pecan Co. in Chetopa to collapse at 0100 CST on the 6th. No injuries were reported.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

MARCH 1989

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					KILLED	INJURED	PROPERTY	CROPS	PROPERTY	CROPS	
— KANSAS											
KSZ001-002-003-004-005-006-007-008-009-010-011-012-013-014-015 Much of Kansas	14	0900 to 1900CST			0	0	4	6			Dust Storm, High Winds
			<p>A strong low pressure system over northern Nebraska produced high winds of 40 to 65 MPH and considerable blowing dust across the state. The lack of rainfall, combined with the strong winds, brought considerable damage to the wheat crop and soil erosion with nearly 5 million acres damaged. Hardest hit areas were in the northwest and north-central portions of Kansas. Visibilities were reduced to under 100 feet at times, especially in the west. Many automobile accidents were reported out west with most roads in the northwest closed during the late morning and afternoon hours. Two persons were killed in multiple car pileups in western Kansas. A woman was killed near Oakley on Interstate 70 at 1130 CST while another woman died in an accident 13 miles south of Sharon Springs on K-27 at 1030 CST. Some strong wind gusts across the state included: 64 MPH at Goodland, 61 MPH at Concordia and 56 MPH at Dodge City. Some power poles were also downed by the high winds in Leavenworth County. The winds also did some minor damage to roofs across the state while a mobile home in Hanover was heavily damaged. F56V, F24V.</p>								
KSZ001-002-003 Far Western Kansas	20	0600 to 1500CST			0	0	0	0			Blizzard
			<p>A strong storm system over Missouri brought blizzard conditions to far western Kansas during the morning and afternoon hours. Winds of 40 to 60 MPH and temperatures in the lower 20s accompanied the snow. Visibilities were reduced to under one-half mile due to the blowing and drifting snow. Snowfall amounts were generally in the 1 to 3 inch range with 4 to 7 inches in portions of southwest Kansas near Garden City. Many roads in the area were closed during the storm.</p>								
Clark and Comanche Counties	26	1600CST			0	0	4	4			Lightning
			<p>Thunderstorms that moved into south-central Kansas from northwest Oklahoma produced considerable lightning activity in the two counties. Many range fires were started when lightning struck the very dry grass in the region. Several cattle were lost in the fires along with some fences and corrals. An estimated 7,000 acres of land was burned in the two counties.</p>								
Saline Co. Salina	26	2205CST			0	0	3	0			High Winds
			<p>Winds gusted to 60 MPH at the Salina airport during the late evening hours. The winds were the result of collapsing thunderstorms some 20 miles southwest of the Salina area. The winds knocked down a few power poles and caused power to be lost in the area for a short time. No thunder was heard.</p>								
Reno Co. Pretty Prairie	27	1455CST			0	0	3	0			Hail (1.0)
Sedgwick Co. Derby	27	1603CST			0	0	2	0			Hail (.75)
Wichita	27	1605CST			0	0	3	0			Hail (1.0)
McConnell AFB	27	1608CST			0	0	3	0			Hail (1.25)
Sumner Co. Oxford	27	1615CST			0	0	3	0			Hail (1.0)
Riley Co. Manhattan	27	1731CST			0	0	0	0			TSTM Wind (51)
Cowley Co. 6SE Cedervale	27	1753CST			0	0	2	0			Hail (.75)
Shawnee Co. Topeka	27	1805CST			0	0	0	0			Hail (.75)
Auburn	27	1812CST			0	0	3	0			Hail (1.75)
Topeka	27	1820CST			0	0	0	0			TSTM Wind (50)
Topeka	27	1845CST			0	0	4	0			TSTM Wind
Chautauqua Co. 6NW Sedan	27	1834CST			0	0	2	0			Hail (.75)
1S Sedan	27	1915CST			0	0	3	0			Hail (1.0)
Douglas Co. 2W Clinton	27	1853CST			0	0	0	0			Funnel Cloud
Neosho Co. 85SW Chanute	27	2049CST			0	0	2	0			Hail (1.0)
— KANSAS											
Lafayette Co. Parsons	27	2230CST			0	0	4	0			TSTM Wind
			<p>Thunderstorms, some severe, formed across south-central Kansas ahead of a cold front during the early afternoon hours. The storms then moved into eastern Kansas. Hail up to golfball size and winds to 60 MPH accompanied the stronger storms. Windows were broken and cars dented by golfball size hail in Auburn while a mobile home was damaged in Topeka by strong winds. Strong straight-line winds also damaged a camper and a few outbuildings in Parsons. A funnel cloud was sighted for a short time just west of Clinton Lake by trained storm spotters. Minor roof and car damage was reported around the Wichita area from hail up to one and a quarter inch in diameter. Some power outages were noted across the region from lightning strikes to transformers. No injuries were reported with any of the storms across south-central and eastern Kansas.</p>								
Barber Co. 7E Lake City	29	1825CST			0	0	0	0			Hail (.75)
8NW Medicine Lodge	29	1835CST			0	0	2	0			Hail (1.75)
Haskell Co. 14N Sublette	29	1930CST			0	0	3	0			TSTM Wind
Finney Co. 15SE Garden City	29	1945CST			0	0	2	0			TSTM Wind (52), Hail (.75)
Harper Co. Corwin	29	2018CST			0	0	0	0			Hail (.75)
Waldron	29	2028CST			0	0	2	0			Hail (1.0)
Anthony	29	2355CST			0	0	2	0			Hail (1.0)
Meade Co. 3W Fowler	29	2130CST			0	0	0	0			Hail (.75)
Sumner Co. 2E Caldwell	30	0015CST			0	0	3	0			TSTM Wind
			<p>Several severe thunderstorms formed over southwest Kansas during the late afternoon hours and then moved into south-central sections of the state. Hail up to golfball size and strong winds to 60 MPH were reported. Strong winds from a thunderstorm blew a truck off Hwy. 83, 14 miles north of Sublette, but the driver was not injured. Thunderstorm winds also produced minor roof damage near Caldwell as tree limbs downed in the storm fell against buildings in the area. No other damage was reported.</p>								
Thomas Co. 1E Colby	30	1345CST			0	0	0	0			Funnel Cloud
			<p>A thunderstorm produced a cold air funnel cloud briefly near Colby. Some pea size hail was also reported with the storm.</p>								
15 KENTUCKY											
Whitley Co.	06	0545EST			0	0	4	0			Flash Flood
			<p>Almost three inches of rain in 24 hours, falling on already saturated ground, brought many creeks and streams out of their banks. County schools were closed as many roads in the southern portion of the county were covered with water.</p>								
Floyd Co.	06	0700EST			0	0	5	2			Flash Flood
			<p>High water from the left fork of Middle Creek cut off at least 30 homes in the community of David. In addition some minor flooding was reported in Carrert as the Right Fork of Beaver Creek rose out of its banks.</p>								
Wayne Co.	06	0700EST			0	0	4	0			Flash Flood
			<p>Excessive rainfall hampered routes throughout the county with water rising above many roads, stranding some residents at their homes and leaving many people without water service for 24 hours.</p>								

STORM DATA AND UNUSUAL WEATHER PHENOMENA

MARCH 1989

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	

KENTUCKY

Perry Co. Breathitt Co. Clay Co. Owsley Co. Lee Co.	06 0800EST					0	0	4	3	Flood
Over three inches of rain falling on already saturated ground forced the Kentucky River above flood stage at Hazard, Jackson, Oneida, Booneville, and Heidelberg. Most locations reported minor damage and the river crested from one to four feet above flood stage.										
Nelson Co.	06 0800EST					0	0	4	3	Flood
Over 3 inches of rain in 48 hours pushed water levels above flood stage along the Rolling Fork River. The river crested about 3 feet above the flood stage of 35 feet at Boston. Only minor damage was reported.										
Trigg Co.	17 2000CST					1	0	0	0	High Wind
Bonnie Thomas of Crofton, Kentucky died shortly after the boat she was in, on Barkly Lake, overturned due to high wind. Her age was not reported.										
Muhlenburg Co.	29 1546CST					0	0	4	0	Flash Flood
Kentucky DES reported 1.35 inches of rain in one hour causing flash flooding.										
Grayson Co.	29 1625CST	7	50			0	0	6	4	Tornado (F2)
A tornado touched down at 1625 CST on the south side of Clarkson near the Western Kentucky Parkway. The tornado crossed Highway 62 and continued northeast passing just north of Big Clifty at 1637 CST. It continued northeast until it ended at 1640 CST close to the Hardin County line. The tornado hopped and skipped across Grayson County with an intermittent damage track. Four homes and 6 mobile homes were destroyed with 10 other homes damaged. Also destroyed included: 10 outbuildings, 5 barns, 2 garages, and 1 church. Damage estimated between \$500,000 and \$1,000,000 by the Kentucky DES occurred.										
Ohio Co.	29 1845CST					0	0	4	0	Flash Flood
Rainfall over two inches in 4 hours produced flash flooding near Beda, five miles northeast of Hartford.										
Christian Co.	30 2120CST					0	0	3	0	Thunderstorm Wind
Thunderstorms wind in excess of 60 mph uprooted trees between Lafayette and Fort Campbell. A thunderstorm wind gust of 64 mph was recorded by a weather spotter 7 miles west of Hopkinsville.										

16 LOUISIANA

Franklin Parish, 3 NE Wisner	04 1715CST									Hail (1.00)
Tensas Parish, 2 N Waterproof	04 1720CST					0	0	?	?	Hail (0.88)
3 NNW St. Joseph	04 1730CST	3.0	50			0	0	4	?	Tornado (F1)
Newellton	04 1735CST					0	0	?	?	Hail (1.00)
Matchitoches Parish, Campti	04 1740CST					0	0	?	?	Hail (1.00)
Clouterville	04 1740CST					0	0	?	?	Hail (1.00)
Gorum	04 1850CST					0	0	?	?	Hail (1.00)
Madison Parish, Mound	04 1750CST					0	0	?	?	Hail (0.88)
4 NE Afton	04 1818CST					0	0	?	?	Hail (1.00)
Winn Parish, Atlanta	04 1822CST					0	0	?	?	Hail (1.75)
2 NE Dodson	04 1845CST					0	0	?	?	Hail (1.00)
Jackson Parish, 5 E Chatham	04 1853CST					0	0	?	?	Hail (1.75)
Ouachita Parish, 2 SW Calhoun	04 1935CST					0	0	?	?	Hail (1.25)
Morehouse Parish, 3 W Beekman	04 1948CST					0	0	?	?	Hail (1.75)
Severe thunderstorms raked north Louisiana bringing widespread reports of large hail. The greatest damage occurred in Tensas Parish when a tornado touched down northwest of St. Joseph and traveled along an intermittent path across the Lake Bruin area. Two houses on Lake Bruin Island suffered heavy damage and eight other houses on the island had roof damage. Numerous trees were also downed by the tornado. On the north side of the lake, one barn was destroyed, several houses suffered roof damage, and numerous trees were downed.										

LOUISIANA

Caddo Parish, Four Forks	20 2148CST					0	0	?	?	Hail (1.75)
Four Forks	20 2148CST					0	0	?	?	TSTM Wind
A severe thunderstorm produced large hail and strong wind gusts which downed several trees.										
St. Tammany Parish, 10 SSW Mandeville	21 1330CST					0	0	0	0	Waterspout
A waterspout was observed over Lake Ponchartrain near the Causeway.										
Cameron Parish, Creole	21 1620CST					0	0	?	?	Hail (0.75)
Vernon Parish, Anacoco	29 0322CST	1.0	35			0	0	4	?	Tornado (F1)
A mobile home was blown over by a tornado and numerous trees and power lines were damaged.										

17 MAINE ————— NONE REPORTED

18 MARYLAND and D.C.

MD2005-006-007 -008 Northern and Western Maryland District of Columbia	6 0230EST					0	0	3	0	Winter Storm
Rain changed over to freezing rain, sleet and occasional snow by late morning and early afternoon. Frederick reported 3 inches accumulation of mixed precipitation. There were widespread power outages, and many auto accidents.										
Harford Co., Bel Air	18 1400EST					0	0	?	?	Funnel Cloud
The public reported a green-colored wall-like cloud and heard a loud noise, then saw a funnel cloud drop out of the clouds.										
Harford Co.	18 1400EST					0	0	?	?	Thunderstorm Winds
Nearly 24,000 electric customers were left without power due to strong gusty winds.										
St. Mary's Co., Hollywood	18 1400EST					0	0	?	?	Thunderstorm Winds (42kts)
Carroll Co.	18 1410EST					0	0	?	?	Hail (0.50)
Cecil Co.	18 1415EST					0	0	?	?	Thunderstorm Winds
Trees and power lines were downed by strong gusty winds. Small hail, heavy rains and frequent lightning accompanied the storm.										
Somerset Co.	18 1600EST					0	0	?	?	Lightning
Vivid and frequent lightning knocked out 911 service for 6 hours when a communications tower in Princess Anne was struck.										
Calvert Co., Prince Frederick	31 1400EST					0	0	?	?	Hail (.50)
St. Marys Co., Mechanicsville	31 1400EST					0	0	?	?	Hail (.25)
Chaptico	31 1400EST					0	0	?	?	Thunderstorm Wind
Dorchester Co., Vienna	31 1500EST					0	0	?	?	Thunderstorm Wind
Prince Georges Co., Gambrills	31 1535EST					0	0	?	?	Hail (.75)
Upper Marlboro	31 1540EST					0	0	?	?	Hail (.50)
Wicomico Co.	31 1545EST					0	0	?	?	Thunderstorm Wind (57 kt)
Cecil Co., Calvert Co., St. Leonard	31 1600EST					0	0	?	?	Hail (.50)
	31 1600EST					0	0	?	?	Thunderstorm Wind
Hail reportedly covered the ground in Prince Frederick. Many trees and power lines were reported down in Wicomico County. The thunderstorms were accompanied by heavy downpours that dropped 1.71 inches of rain in Northeast, located in Cecil County. Damage to barns, and many downed large trees were reported at St. Leonard Creek in Calvert County. Two barns were destroyed in Chaptico, where winds also uprooted several trees and tore limbs off; hail was also reported. In Vienna, parts of seven steel support beams at a bridge were knocked down, and a large warehouse was badly damaged by strong winds.										

STORM DATA AND UNUSUAL WEATHER PHENOMENA

MARCH 1989

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					KILLED	INJURED	PROPERTY	CROPS	
MISSISSIPPI									
Hinds County, 5SE Brownsville to 1SE Pocahontas	04	1915-1930CST	11.0	350	0	5	6	0	Tornado (F3)
Madison County, 6E Canton	04	1938CST			0	0	?	0	Hail (1.00)
Madison County, 10SE Flora to 10SW Canton	04	1935-1940CST	5.0	60	0	0	4	0	Tornado (F1)
Madison County, 2NW Madison	04	1938CST			0	0	?	0	Thunderstorm Winds
Madison County, Guckstadt	04	1945CST			0	0	?	0	Thunderstorm Winds
Madison County, 2W Canton	04	1948CST			0	0	?	0	Thunderstorm Winds
Madison County, 5N Canton	04	2000CST			0	0	5	0	Thunderstorm Winds (690)
Warren County, 13NW Vicksburg	04	2012CST			0	0	?	0	Hail (1.75)
Warren County, 13NW Vicksburg	04	2020CST			0	0	?	0	Hail (1.75)
Warren County, Vicksburg	04	2043CST			0	0	0	0	Funnel Cloud
Attala County, 4S Kosciusko	04	2045CST			0	0	?	0	Thunderstorm Winds
Yazoo County, Yazoo City	04	2100CST			0	0	?	0	Thunderstorm Winds
Yazoo County, 5E Yazoo City	04	2105CST			0	0	?	0	Thunderstorm Winds
Choctaw County, French Camp	04	2115CST			0	0	?	0	Hail (.75)
Choctaw County, 5E French Camp	04	2130CST			0	0	4	0	Thunderstorm Winds
Yazoo County, Eden	04	2130CST			0	0	?	0	Hail (.75)
Holmes County, 4E Thornton	04	2150CST			0	0	?	0	Thunderstorm Winds
Holmes County, Lexington	04	2200CST			0	0	?	0	Thunderstorm Winds
<p>Two power thunderstorms moved northeast from West-Central Mississippi into Central Mississippi during the evening hours of the 4th. The first storm which was a supercell, developed in Eastern Louisiana. This storm tracked through southern Warren County, northwest Hinds County, Madison County and Attala County. The storm produced considerable hail and wind damage along its path. The strongest winds occurred in a small area about 5 miles north of Canton. One home was destroyed and two other nearby homes were damaged. Winds were estimated at close to 100 mph in this microburst.</p> <p>This same storm also produced 3 tornadoes. The first tornado was weak (F1) and moved through extreme northern Hinds County which is unpopulated and hard to reach. Damage here was confined mainly to trees. This tornado moved through Pocahontas in a very weak state and blew tin off a few homes and barns. The tornado crossed into Madison County at 1918CST before dissipating.</p> <p>The second tornado that also developed in Hinds County was much more powerful (F3). This tornado destroyed 9 homes and 2 barns. Three houses sustained major damage and 4 homes received minor damage. In addition, there were 5 people hurt, but none seriously. Seven cows and 2 hogs were killed in one pasture.</p> <p>The strongest part of this tornado was near the middle of the path. The tornado at its strongest was up to 1/2 mile wide.</p> <p>The third tornado was also weak (F1) and appeared to have developed out of the same mesocyclone that produced the previous tornado. Damage from this tornado was confined to trees, and shingles off barns and homes.</p> <p>The second storm was a steady-state storm, but was not as strong as the first one. This storm moved from north of Vicksburg through Yazoo and Holmes County before it weakened. The storm produced some wind damage and large hail, but no tornadoes.</p>									
Webster County, Dancy	04	2320CST			0	0	3	0	Thunderstorm Winds
Chickasaw County, 4E Houston	04	2320CST			0	0	5	0	Thunderstorm Winds Hail (.75)
<p>Two barns were destroyed and several trees were blown over. Several homes in the area suffered roof damage.</p>									
MISSISSIPPI									
Chickasaw County, 10S Houston	04	2330CST			0	0	?	0	Thunderstorm Winds
<p>Several power poles were blown down.</p>									
Chickasaw County, Okolona	04	2359CST			0	0	5	0	Thunderstorm Winds
<p>A couple of barns were heavily damaged and 3 planes were damaged at the local airport. One hangar at the airport was also damaged.</p>									
Chickasaw County, 5E Okolona	05	0000CST			0	0	?	0	Thunderstorm Winds
<p>Trees were blown down on Mississippi Highway 41.</p>									
Pontotoc County, Troy	05	0005CST			0	0	0	0	Thunderstorm Winds
<p>Trees were blown down in southeast Pontotoc County.</p>									
Monroe County, 4N Bigbee	05	0033CST			0	0	0	0	Funnel Cloud
Chickasaw County, Houston	05	0300-0900CST			0	0	5	0	Flash Flood
<p>Several hours of continuous heavy rains resulted in major street flooding in Houston. Four homes and five businesses sustained water damage.</p>									
Lee County, 2NE Nettleton	05	0500CST			0	0	0	0	Funnel Cloud
Monroe County, 2S New Hamilton	05	0510CST	1.0	60	0	0	4	0	Tornado (F1)
<p>A mobile home was destroyed and numerous large trees were uprooted in the path of this tornado in extreme southern Monroe County.</p>									
Prentiss County, New Site	05	0535CST			0	0	5	0	Lightning
<p>Lightning struck a power line near a school. The sparks fell on the roof which caught fire. The fire destroyed 4 classrooms.</p>									
Walthall County, Tylertown	05	0715CST			0	0	?	0	Hail (1.00)
Marion County, Morgantown	05	0752CST			0	0	?	0	Hail (1.75)
Marion County, Goss	05	0755CST			0	0	?	0	Hail (1.75)
Covington County, Collins	05	0815CST			0	0	?	0	Hail (1.75) Thunderstorm Winds
Smith County, Taylorsville	05	0835CST			0	0	?	0	Hail (1.00)
Jasper County, Stringer	05	0904CST			0	0	?	0	Hail (1.75)
Jasper County, 4S Bay Springs	05	0920CST	.7	40	0	0	4	0	Tornado (F1)
<p>Another steady-state thunderstorm moved northeast across southeast Mississippi from Walthall County to Jasper County before it weakened. This storm produced mainly large hail with winds strong enough to blow down trees in Collins.</p> <p>A small short-lived tornado touched down briefly in western Jasper County. The only structure in the path of the tornado was a barn, which was destroyed.</p>									
Lowndes County, 4SE Columbus	05	0928CST			0	0	?	0	Hail (.75)
Simpson County, 1W Magee	05	0935CST			0	0	?	0	Hail (1.75)
Simpson County, 5NE Mendenhall	05	0940CST			0	0	?	0	Thunderstorm Winds
<p>Power lines were blown down in northeast Simpson County.</p>									
Scott County, Morton	05	1010CST			0	0	?	0	Hail (.75)
Kemper County, DeKalb	05	1030CST			0	0	?	0	Thunderstorm Winds
<p>Trees and power lines were blown down.</p>									
Attala County, Newport	05	1040CST			0	0	?	0	Hail (.75)
Lauderdale County, Meridian	05	1300CST			0	0	4	0	Flash Flood
<p>Rainfall amounts of 2 to 4 inches caused many creeks and streams to overflow into streets and close to some businesses.</p>									
Simpson County, 2SW D'Lo	20	1455CST			0	0	?	0	Hail (.75)
Lauderdale County, 14NW Meridian	20	1605CST			0	0	?	0	Hail (1.00)

STORM DATA AND UNUSUAL WEATHER PHENOMENA

MARCH 1989

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					KILLED	INJURED	PROPERTY	CROPS	

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

MISSISSIPPI									
Kemper County, DeKalb	20	1637CST			0	0	?	0	Thunderstorm Winds (652)
Clarke County, 3S Quitman	20	1700CST			0	0	?	0	Thunderstorm Winds Trees and power lines were blown down.
Clarke County, 12SE Quitman	20	1710CST			0	0	?	0	Thunderstorm Winds Trees were blown down.
Forrest County, 8S Hattiesburg	20	1730CST			0	0	?	0	Hail (.75)
Perry County, 6SW Richton	20	1740CST			0	0	?	0	Hail (1.00)
Bolivar County, 3N Cleveland	20	2235CST			0	0	?	0	Hail (.75)
Hinds County, 3N Jackson	21	0201CST			0	0	?	0	Thunderstorm Winds Several trees and a few power lines were blown down in North Jackson.
Rankin County, Brandon	21	0220CST			0	0	?	0	Hail (.75)
Warren County, 1S Vicksburg to 2E Vicksburg	29	0730CST			0	1	5	0	Thunderstorm Winds (690) A strong thunderstorm moved through Vicksburg and produced a series of strong bursts of wind. A total of 20 homes suffered damage, mainly from falling trees. At a hospital, 3 cars were blown over and totalled, while 14 others had their windows blown out. A couple of businesses lost their roofs, while several others received window damage. One student at a school was injured when the strong winds hit and he received cuts and bruises from flying debris.
Madison County, 3SE Flora	29	0900CST			0	0	5	0	Thunderstorm Winds Strong straight-line winds destroyed a mobile home and damaged 2 nearby homes. Two businesses also in the area received major damage.
Rankin County, 6E Jackson	29	0930CST			0	2	5	0	Lightning A lightning bolt struck the anemometer outside the National Weather Service in Jackson and followed a cable into the building. On its path into the building, one person received a minor jolt to the foot and another was injured on the telephone. The lightning strike reached into other lines in the building and caused around 100,000 dollars in damage.
Neshoba County, 5W Philadelphia	29	1030CST			0	0	?	0	Thunderstorm Winds Several trees were blown down in western Neshoba County.
Winston County, 10S Louisville	29	1050CST			0	0	4	0	Thunderstorm Winds Two houses and 2 barns sustained roof damage. A county building and 2 trailers also were damaged. Numerous trees were downed in the area.
Kemper County, 2S DeKalb	29	1130CST			0	0	?	0	Thunderstorm Winds Trees and a few telephone poles were blown down on Mississippi Highway 39.
Lowndes County, 3E Crawford to 6E Crawford	29	1135-1140CST	3.0	50	0	0	5	0	tornado (F1) A small tornado moved eastward through extreme southern Lowndes County. The heaviest damage was at a school where part of the roof was torn off. A nearby vacant building was destroyed. The principal heard a roaring noise and saw the black clouds coming. She sounded the tornado bell about 2 minutes before it hit. The children were in the hallway when the tornado passed by. Twenty-five homes nearby suffered some roof damage.
Noxubee County, 7E Macon	29	1150CST	1.5	70	0	0	5	0	Tornado (F1) A tornado touched down briefly in rural eastern Noxubee County. A church was destroyed and a few houses in the area received minor damage. Numerous downed trees and power lines marked the path of the tornado.
Forrest County, Hattiesburg	29	1200CST			0	0	?	0	Hail (.75)
DeSoto County, Whitehaven	30	1910CST			0	0	?	0	Hail (.75)
Coahoma County, Farrell	30	1950CST			0	0	?	0	Funnel Cloud
Marshall County, Mt. Pleasant	30	1950CST			0	0	?	0	Hail (1.75)

MISSISSIPPI									
Coahoma County, Clarksdale	30	2004CST			0	0	4	0	Thunderstorm Winds A roof was partially blown off of a school. Several homes in the area also received minor roof damage.
Coahoma County, Jonestown	30	2005CST			0	0	?	0	Hail (.75)
Quitman County, Darling	30	2015CST			0	0	?	0	Hail (.75)
Panola County, Batesville	30	2040CST			0	0	?	0	Thunderstorm Winds Several trees were blown down.
Lafayette County, Oxford	30	2100CST			0	0	?	0	Thunderstorm Winds Hail (.75) Several trees and power lines were blown down.
Union County, 6W New Albany	30	2130CST			0	0	?	0	Thunderstorm Winds Several trees were blown down.
Pontotoc County, 8E Pontotoc	30	2158CST			0	0	0	0	Funnel Cloud
Pontotoc County, 3SW Sherman	30	2200CST			0	0	?	0	Thunderstorm Winds Several trees were blown down in northeast Pontotoc County.
Lee County, Tupelo	30	2240CST			0	0	?	0	Thunderstorm Winds A few trees were blown down in Tupelo.
23 MISSOURI									
MO2010-011-012-013-014-015-016-017-018-019	4-6				0	0	6	0	Heavy Snow and Ice A major winter storm began as sleet and freezing rain on March 4th. Accumulations of 2 to 3 inches of sleet were reported in Southwest Missouri. This was followed by a heavy snow on the 5th and 6th. The heavy snow began in Southwest Missouri late on the afternoon of the 5th and quickly spread to East-Central Missouri during the evening. The heaviest snow was along and just north of Interstate 44. Amounts of 12 to 16 inches were the rule by mid morning of March 6th, along a 50 mile wide band from Neosho through St. Louis. The snow was accompanied by thunder at times, and this coincided with even higher amounts locally. A band of 5 to 8 inches of snow extended to as far as 80 miles north of Interstate 44 and in a narrow band just south of the Interstate. At least 14 deaths resulted from car accidents and heart attacks. The biggest monetary loss was in the Buffalo and Bolivar areas due to hundreds of roofs which collapsed due to the heavy snow accumulations. Many of these roofs were from chicken houses. More than 1 million chickens had to be removed after being crushed by the roofs and heavy snow. The Missouri National Guard was called out to perform this chore.
Southwest through East-Central Missouri									
Lincoln County, Foley	17	1635CST			0	0	2	0	Hail (1.75)
St. Charles County, Harvester	17	1705CST			0	0	0	0	Hail (0.75) Three-quarter inch diameter hail fell southwest of Harvester.
St. Louis County, Chesterfield	17	1720CST			0	0	0	0	Hail (1.00) Hail of 3/4 to one inch in diameter fell in Chesterfield.
St. Louis County, Chesterfield	17	1720CST			0	0	0	0	TSTM Wind A wind gust of 60 mph occurred at Chesterfield.
St. Louis County	17	1722CST			0	0	0	0	Hail (0.75) Hail of 3/4 inch diameter fell at Olive and Highway 40 in St. Louis County.
City of St. Louis	17	1737CST			0	0	3	0	Hail (2.00) Two-inch diameter hail fell at the Arena on Highway 40 in the City of St. Louis.
St. Louis County	17	1739CST			0	0	3	0	Hail (2.00) Two-inch diameter hail fell at Interstate 270 and Page in West County.
City of St. Louis	17	1742CST			0	0	0	0	Hail (0.75) Three-quarter inch diameter hail fell near the Arena in the City of St. Louis.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

MARCH 1989

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	
24 MONTANA									
Prairie County, Terry	04	early morning			1	0	0	0	Cold
		A Terry man was found frozen to death. His death was attributed to hypothermia. N720							
MEZ004-009 Southwest and South-Central Montana	10	1200-1800MST			0	0	5	0	Flooding
		Rapid snow melt caused extensive low-level flooding along Ten Mile and Prickly Pear creeks in the Helena Valley, Warm Springs Creek in Anaconda, and along Pryor and Rock creeks in South-Central Montana. The high water was caused by ice still covering the creeks and the fact that most culverts were frozen. In most cases the water ran over the top of the ice and over the banks and across roadways.							
MTZ001-003-004-005-007-009 Much of Montana	13-14	0500MST-0500MST			0	0	?	0	Heavy Snow
		Four to ten inches of snow fell at lower elevations and up to 18 inches fell in the mountains.							
MTZ002-004 Southwest Montana	15	0000-0900MST			0	0	0	0	Heavy Snow
		Four to eight inches of snow fell.							
25 NEBRASKA									
NEZ001 North Panhandle Nebraska	01	0000CST-0700CST			0	0	1	1	Heavy Snow
		Six inches or more of snow fell in the Pine Ridge area. Heavier amounts reported included 8 inches 12 miles south of Hay Springs and 7 inches at Crawford.							
NEZ001-005 Panhandle Nebraska	02-03	2300CST-1500CST			0	0	3	1	Heavy Snow
		Snow of 6 inches or more fell north of a line from Harrison to Bridgeport to Ellsworth. Some larger amounts included 11 inches at Rushville, 10 inches at Gordon and 9 inches at Chadron and Hay Springs. Gusty north winds caused areas of blowing snow and near-blizzard conditions at times. Some livestock loss was reported.							
NEZ010-015-018-019 East-Central and Southeast Nebraska	03	0200CST-0700CST			0	0	6	2	Ice Storm
		Freezing rain caused glazing up to half inch thick in some areas. Power outages occurred as lines and some power poles broke under the weight of the ice, especially in the Omaha area north towards Blair. The Blair area was without power for hours as four large transmission structures broke west of town. The ice resulted in school closings, airport closings and accidents. A number of people were injured by falls on icy surfaces.							
NEZ002-003-006-007-012-013-016-017 North-Central and Southwest Nebraska	03	0800CST-1900CST			0	0	4	2	Blizzard
		Snow and blowing snow generated by north winds gusting to around 40 m.p.h. created blizzard conditions at times. Visibilities lowered to near zero for intervals in some areas, with difficult travel conditions resulting in a number of road closures and accidents. Ranchers reported some loss of newborn livestock. Snow was heavy in areas. Some reported snowfalls included 8 inches at Valentine and Mullen, 7 inches at Merriman, and 6 inches at Spencer, Springview, Mullen, Ogallala, and Madrid.							
NEZ004 Northeast Nebraska	03	0900CST-1900CST			0	0	1	1	Heavy Snow
		Localized snowfall of 6 inches was reported at Plainview and Laurel.							
Cherry Co. Sparks	08	Daytime			0	0	3	2	Flood
		Ice jamming resulted in some lowland flooding along the Niobrara River in the Sparks area.							
Dodge Co.	10	Daytime			0	0	2	3	Flood
		Ice jamming resulted in lowland flooding along the Elkhorn River north of Hooper. Some overflows were also reported along Maple Creek around Nickerson.							
Saunders Co.	11	Daytime			0	0	2	2	Flood
		Minor overflows occurred near the Highway 6 bridge from ice action in the Platte River.							
Knox Co.	13	Daytime			0	0	2	2	Flood
		Ice action caused minor flooding near the Highway 12 bridge on Bazille Creek and the Niobrara River near Verdell.							
NEBRASKA									
NEZ002-003-004-006-007-008-009-010-012-013-014-015-016-017-018-019-020 Central and East Nebraska	14	1030CST-1730CST			0	0	5	5	High Wind (61)
		Strong northwest winds gusting 55 to 70 m.p.h. started in central sections in the late morning and spread into eastern areas by afternoon. Signs, storage sheds and traffic signals were damaged; tree limbs and power lines were damaged, resulting in power outages; and shingles were blown off of roofs. Some areas of blowing dust and field erosion were also reported, especially in southwest Nebraska. A semi-trailer truck was overturned on I-80, 2 miles west of Minden. At Wisner a portion of the roof and front of a downtown business was blown off. Windows were reported blown out and portions of roofs damaged at Norfolk and Falls City. In the northeast from Ainsworth east towards Sioux City, near-blizzard conditions in blowing snow developed during the afternoon with difficult travel and accidents. A school bus ran off the road in low visibility 4 miles west of Bloomfield. Some peak gusts reported included 70 m.p.h. at McCook at 1327CST, 63 m.p.h. at Norfolk at 1404CST, at O'Neill at 1455CST and at Kearney at 1455CST, 60 m.p.h. at Mullen at 1054CST, at Broken Bow at 1351CST, and at Ord at 1647CST and 56 m.p.h. at Valentine at 1109CST and Falls City at 1450CST.							
NEZ005-011 Panhandle Nebraska	17	1140CST-1600CST			0	0	4	4	High Wind (60)
		West to northwest winds gusted upwards to 69 m.p.h. causing some damage to signs, tree limbs, shingles on roofs and utility lines. The winds also kicked up clouds of dust reducing visibility at times to less than 1 mile. Peak gusts included 69 m.p.h. at Sidney at 1340CST and 61 m.p.h. at Scottsbluff at 1224CST							
NEZ001 North Panhandle Nebraska	30	0600CST-1300CST			0	0	1	1	Heavy Snow
		Snowfall of 6 inches or more fell in the Pine Ridge with 8 inches reported at Crawford and Harrison and 6 inches at Rushville.							
26 NEVADA									
NVZ003 Extreme Western Nevada	02	0100PST-1530PST			0	0	0	0	Heavy Snow
	02	0800PST-1500PST			0	0	0	0	High Wind
NVZ007 Extreme Southern Nevada	02-03	1400PST-0700PST			0	0	4	0	High Wind
		A cold moist Pacific storm moved into the mountains of Extreme Western Nevada during the morning of the 2nd. This storm produced heavy snow around Lake Tahoe. Around 12 inches of new snow fell near the shoreline and 18 to 24 inches fell in the higher elevations. High winds developed ahead of this storm along the lee of the Sierra Nevada in Extreme Western Nevada. Gusts to 74 MPH were recorded in the southwest part of Reno. Strong winds continued to develop ahead of the front as it moved across Nevada. In the Extreme South winds gusting to 60 MPH were recorded from the afternoon of the 2nd until the morning of the 3rd. Damage in Southern Nevada was generally light, however, there were reports of widespread power outages and uprooted trees.							
NVZ003 Extreme Western Nevada	09	0930PST-2100PST			0	0	0	0	High Wind
		High winds developed across Extreme Western Nevada due to a strong low pressure system off the coast of California. The strongest gust recorded was 61 MPH in the southwest part of Reno at around 1100PST. At 1345PST a gust to 58 MPH was recorded at the Reno-Cannon International Airport.							
NVZ003 Extreme Western Nevada	10-11	2200PST-0600PST			0	0	3	0	High Wind
		High winds developed ahead of a strong Pacific cold front. Wind gusts between 60 and 75 MPH were reported across most of Extreme Western Nevada.							
NVZ002 Northeast Nevada	16	1000PST-1400PST			0	0	3	0	High Wind
NVZ005 East-Central Nevada	16	1100PST-1630PST			0	0	4	0	High Wind
NVZ007 Extreme Southern Nevada	16	1130PST-1730PST			0	0	3	0	High Wind
		A very strong pressure gradient ahead of a strong Pacific cold front produced high winds across Eastern and Extreme Southern Nevada. Winds gusted to nearly 60 MPH in the Elko and Las Vegas areas. The strongest recorded gust was 65 MPH at Yelland Field at Fly. In the Ely area two vehicles were damaged by flying debris when a shed was destroyed, a large metal sign was severely damaged and the roof of a hardware store was damaged. In Spring Creek, just south of Elko, minor roof damage was reported. Power outages were reported in the Las Vegas area.							

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					KILLED	INURED	PROPERTY	CROPS	

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	

NEVADA

NVZ003
Extreme Western Nevada
28 0300PST-1700PST
0 0 0 0 High Wind
High winds developed along the lee of the Sierra Nevada in Extreme Western Nevada ahead of an approaching Pacific cold front. Winds gusted from 60 MPH to a peak of 74 MPH.

27 NEW HAMPSHIRE — NONE REPORTED

28 NEW JERSEY, Northern

NJZ005
Watchung-Raritan
06 2200EST 0 0 0 0 Heavy Snow
A strong low pressure system moving northeastward along the Atlantic coast dumped 4 to 7 1/2 inches of snow across sections of the Watchung-Raritan area. North Brunswick in Middlesex County reported the highest amount of 7 1/2 inches.
Hunterdon County 18 1500EST 2 0 0 0 Thunderstorm Wind
Bergen County 18 1520EST 0 0 ? 0 Thunderstorm Wind
A line of thunderstorms, some severe, moved across sections of northern New Jersey. In Bergen County, winds associated with these thunderstorms downed some power lines. At the Round Valley Reservoir in Hunterdon County, sudden gusty winds quickly produced waves of at least 3 feet which capsized a 12 foot boat with two fishermen aboard. Both men drowned. M360, M320

28 NEW JERSEY, Southern

NJZ002-004 06 1500EST 0 0 3 0 Freezing Rain/Snow
NJZ003-006 06 1900EST 0 0 3 0 Freezing Rain/Snow
Southern New Jersey
Rain began in the morning and then mixed with and changed to sleet and freezing rain at around 1500EST in the west and around 1800EST in the east. The precipitation mixed with or changed to snow before ending at around midnight. There was significant accumulation of ice plus 2 to 6 inches of snow and sleet in the Metropolitan Delaware Valley Zone, 1 to 4 inches of snow and sleet in the Coastal Delaware Bay Zone and 1 to 2 inches of snow and sleet in the Southern Coastal and Southern Interior Zones.
Cape May County, Woodbine Municipal Airport 15 2215EST 0 0 ? 0 TSTM Wind (51)
Thunderstorm wind gusts were measured at 59 mph.
Gloucester County, 2 ENE Harrisonville 18 1530EST .25 50 0 0 4 0 Tornado (F1)
A tornado touched down in Cedar Grove in South Harrison Township at 1530EST and caused about 15,000 dollars in damage to two farms. The tornado was on the ground for 1/4 mile and was 50 yards wide. After the tornado lifted, the parent storm continued northeast and produced straight-line wind damage farther along its path (see the entry at 1600EST). FPP 1-1
Gloucester County, National Park 18 1541EST 0 0 3 0 TSTM Wind
Thunderstorm winds downed several large trees and destroyed one small shed.
Camden County: Erial 18 1551EST 0 0 ? 0 TSTM Wind (56)
Blackwood 18 1605EST 0 0 4 0 TSTM Wind (96)
Thunderstorm wind gusts were measured at 64 mph in Erial. In Blackwood, thunderstorm wind gusts downed 12 large trees and damaged a stairwell in a building at Lakeland Psychiatric Institute. The winds were estimated at 90 to 110 mph and caused damage in a path 600 yards long and 400 yards wide.
Gloucester County, 0.5 SE Jefferson 18 1555EST 6.5 50 0 0 4 0 Tornado (F1)
A tornado first touched down about 1/2 mile southeast of Jefferson at 1555EST. One shed was overturned and many large trees were uprooted or snapped off. This first portion of the damage path was 1 mile long and 50 yards wide. The next touchdown by the tornado was 4.5 miles away in Sewell at 1600EST. It caused 20,000 dollars damage to a farm. This second portion of the path was also 1 mile long and 50 yards wide. This tornado might have started just southwest of the first damage site in Mullica Hill, but general reports of damage there were not investigated. FPP 121

NEW JERSEY, Southern

Gloucester County:
1 S Sewell 18 1600EST 0 0 3 0 TSTM Wind
2 E Sewell 18 1605EST 0 0 ? 0 TSTM Wind
Thunderstorm winds produced damage in Washington Township about 1 mile south of Sewell at 1600EST. In between Cedar Grove and Sewell there were reports of a loud roaring sound in Pitman. This area was not investigated due to lack of more specific information. The Washington Township damage was most likely caused by the same storm that produced the Cedar Grove tornado at 1530EST, but there was no indication of tornado damage here, just straight-line wind damage to a half-dozen roofs and fences. The damage path was 1/4 mile long and 50 yards wide, and the total damage was estimated at around 4000 dollars. The final damage due to this storm occurred about 2 miles further to the northeast in Lakeland Township (about 2 miles east of Sewell) at 1605EST. Several trees were snapped off. This damage was again more straight-line in nature. After this damage, the storm moved into Camden County.
Burlington County, Medford 18 1605EST 0 0 3 0 TSTM Wind
Thunderstorm winds downed large trees and power lines.
Gloucester County, Wenonah 18 1610EST 1.0 62.5 0 0 4 0 Tornado (F1)
A tornado swept through a 5 block area of Wenonah Boro. There were general reports of damage in East Greenwich Township, Mantua Township to the southwest of Wenonah, and Deptford Township to the northeast, but lack of time and specific detail prevented further investigation as to whether these damages were attributable to the tornado. In Wenonah Boro, the tornado travelled 1/2 mile in a northwest to southeast direction and then turned left, travelling another 1/2 mile in a southwest to northeast direction. The first leg of this mile long path was 50 yards wide and the second leg was 50 to 100 yards wide. A small house was destroyed by a large falling tree, a shed was damaged, and shingles were ripped off of one roof. The total damage in this area was about 21,000 dollars. Many large trees were uprooted or snapped off. FPP 112
Cumberland County, Vineland 18 1629EST 0 0 3 0 TSTM Wind
Thunderstorm winds brought down some large limbs and ripped a large flag off a bank building.
Atlantic County, Hammonton 18 1635EST 0 0 ? 0 TSTM Wind (56)
Thunderstorm wind gusts were measured at 64 mph.
Cumberland County, 8 SW Millville 31 1725EST 0 0 ? 0 TSTM Wind (50)
Thunderstorm winds were measured at 58 mph.
Atlantic County, Hammonton 31 1730EST 0 0 ? 0 TSTM Wind (56)
Thunderstorm wind gusts were measured at 64 mph.
Cape May County, Cape May Court House 31 1750EST 0 0 ? 0 TSTM Wind (51)
Thunderstorm wind gusts were measured at 59 mph.
29 NEW MEXICO — NONE REPORTED
30 NEW YORK, Coastal — NONE REPORTED
30 NEW YORK, Central
Areawide 01- 0001EST- 0 0 ? ? Drought
31 2359EST
Precipitation continued below normal for the month. Drought conditions continue in all areas, with the worst conditions in the Catskills and Delaware River basin.
Saratoga Co. Malta 01 1500EST 0 0 3 0 High Wind

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					KILLED	INJURED	PROPERTY	CROPS	
NEW YORK, Central									
Areawide	05	0954-1221EST			0	3	4	0	Freezing Rain
Areawide	05	1600-1900EST			0	2	4	0	Freezing Rain
	Freezing rain produced a rash of accidents in the Western Mohawk Valley during the late morning hours. A heavy accumulation of ice prevented medical aircraft from flying a rescue mission in Oneida County. Scattered power outages were also reported. Freezing rain changed to rain at about noon. A cold front moved back into the area during the afternoon rush hour, producing another period of freezing rain.								
NYZ007-008-011 St. Lawrence Valley, Saranac-Lake Placid Champlain Valley	15-16	0600EST-1200EST			0	0	5	?	Floods
	Sixty degree temperatures rapidly melted ice and snow in the Adirondacks of New York. The result of the rapid melting was considerable flooding of the Salmon, Saranac, Great Chazy, Bouquet and Ausable rivers (other flooding was reported in the western Adirondacks).								
NYZ007-008-011 St. Lawrence Valley, Saranac-Lake Placid Champlain Valley	18	0102-0745EST			0	0	4	0	Snow
	A major winter storm hit northern New York. Snow amounts of over 12 inches fell in Botsdam. As the storm wound down some pockets of rain and freezing rain were reported.								
Sullivan Co.	24	1430-1800EST			0	0	5	0	Freezing Rain
	Afternoon temperatures remained just below 32 degrees. As a result rain coated exposed objects with an ice coating. Several accidents and down power lines were reported.								
NYZ007-008-011 St. Lawrence Valley, Saranac-Lake Placid Champlain Valley	29-31	0600EST-1800EST			0	0	6	0	Floods
	Rivers in the northern section of New York rose again. Flood waters forced local officials to close several roads, evacuate families, and threatened local bridges and dams. As the first rain system moved out of New York, a second system was preparing to move in. The additional rainfall from the second system pushed rivers back up for a second time in two days.								
30 NEW YORK, Western									
Niagara County Niagara Falls, Grand Island, Newfane	04	Morning			0	0	4	0	Freezing Rain
	Freezing rain downed trees and power lines. Ice-covered roads were the cause of several automobile accidents.								
Niagara County Niagara Falls	15	0900 EST			0	0	3	0	High Winds(51)
Erie County Buffalo	15	1008 EST			0	0	3	0	High Winds(50)
	Deep low pressure over southern Ontario and its accompanying cold front brought high winds across the western counties of New York. Only minor damage and no injuries were reported.								
Niagara County: Niagara Falls, Lockport	19	Morning			0	0	4	0	Freezing Rain
Orleans County: Medina, Shelby	19	Morning			0	0	5	0	Freezing Rain
Genesee County: Batavia	19	Morning			0	0	4	0	Freezing Rain
Wyoming County: Covington	19	Morning			0	0	4	0	Freezing Rain
Monroe County: Greene	19	Morning			0	0	5	0	Freezing Rain
NEW YORK, Western									
Erie County Buffalo, Lancaster	19	Morning			0	0	4	0	Freezing Rain
	An area of freezing rain was widespread across Western New York downing numerous trees and power lines. Ice-coated roads were blamed for countless automobile accidents. The Orleans Co. Sheriff estimated that power failures affected three-fourths of the county at one point. Officials of the telephone company stated about 500 wires were downed and the utility lost many poles and cables in the Niagara Falls, Lockport, and Medina areas. In Greece, as a large tree fell it crushed a van, garage and 35-foot travel trailer. A boat and car stored in the garage were also flattened. A power utility spokesman estimated about 16000 customers without power in Monroe Co. In Covington, a seven car accident blamed on icy roads closed Rte. 63 for 4 hours.								
Erie, Wyoming, Chautauqua, and Genesee Counties	31	Morning through Evening			0	0	5	0	Snow
	An early spring snowstorm brought snowfalls ranging between six and eleven inches to the area. The heavy wet snow downed power lines and caused scattered power outages. Numerous automobile accidents were blamed on the slippery road conditions.								
31 NORTH CAROLINA									
Iredell Co. Moore'sville	6	1400EST			0	0	4	0	TSTM Winds
Rowan Co. 4 N Salisbury	6	1415EST			0	0	4	0	TSTM Winds
	Severe thunderstorms blew down trees and produced minor damage to some buildings in both Iredell and Rowan counties.								
Surry Co. Mount Airy	6	1600EST			0	0	5	0	Flash Flood
	Heavy rains produced flash flooding in Mount Airy. Seven businesses and about 75 vehicles were flooded. Damage was estimated near \$220,000.								
Johnston Co. Smithfield	6	1750EST			0	0	0	0	TSTM Winds Hail (0.75)
Harnett Co. 10 S Lillington	6	1755EST			0	0	0	0	Hail (0.75)
	Severe thunderstorms produced dime size hail in Harnett and Johnston counties. Trees and power lines were blown down near Smithfield.								
NCZ01 Dare Co.	7	1800EST			0	0	7	0	Coastal Storm
	From the early evening on March 7 through the morning of March 9, the coast of North Carolina north of Cape Hatteras was pounded by heavy surf and high winds. The wave damage along the coast was increased by the high spring tide that coincided with the coastal storm. During the storm 19 homes were destroyed or washed into the ocean. The majority of these were in Kitty Hawk. Seventy-three homes were severely damaged, and 122 homes received minor damage. The storm severely eroded the main line of sand dunes that stretched from Cape Hatteras to Duck. Many areas lost 20 to 50 feet of coastline. At Oregon Inlet, between 200 and 300 feet of land was lost between the old Coast Guard Station and the sea, bringing the erosion total for the past 12 months to near 1300 feet. Damage was near \$5 million.								

STORM DATA AND UNUSUAL WEATHER PHENOMENA

MARCH 1989

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					KILLED	INURED	PROPERTY	CROPS	

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	

NORTH CAROLINA

Hyde Co. Swanquarter	13	2130EST			0	0	0	0	TSTM Winds
Severe thunderstorms blew down trees and power lines in Swanquarter. Damage to some small farm buildings was reported.									
Cherokee Co. Culberson	15	1430EST			0	0	0	0	Hail (0.75)
Macon Co. Franklin	15	1430EST			0	0	0	0	Hail (0.75)
Jackson Co.	15	1503EST			0	0	0	0	Hail (0.75)
Thunderstorms produced pea to dime size hail over western North Carolina.									
Wilkes Co. SE Wilkes Co.	15	1600EST			0	0	0	0	Hail (0.75)
Catawba Co. Hickory	15	1610EST			0	0	0	0	Hail (1.00)
Yadkin Co. Yadkinville	15	1612EST			0	0	0	0	Hail (0.75)
Rockingham Co. Wentworth	15	1615EST			0	0	0	0	Hail (1.00)
Iredell Co. Statesville	15	1635EST			0	0	0	0	Hail (0.75)
Forsyth Co. NE Forsyth Co.	15	1645EST			0	0	0	0	Hail (0.75)
Alamance Co. Burlington	15	1650EST			0	0	0	0	Hail (0.75)
Person Co. Timberlake	15	1710EST			0	0	0	0	Hail (1.75)
Orange Co. Schley	15	1715EST			0	0	0	0	Hail (0.75)
Durham Co. 3 S Rougemont	15	1730EST			0	0	0	0	Hail (0.75)
Granville Co. Stem	15	1742EST			0	0	0	0	Hail (1.50)
Vance Co. Henderson	15	1758EST			0	0	0	0	Hail (0.75)
Warren Co. Warrenton	15	1833EST			0	0	0	0	Hail (0.75)
Hertford Co. Harrellsville	15	1935EST			0	0	4	0	TSTM Winds Hail (0.75)
Severe thunderstorms swept across north-central and northeast North Carolina producing dime size hail. Golfball size hail was reported in Person County near Timberlake. Trees were blown down and a small building was destroyed in Harrellsville.									
Stokes Co. Hanging Rock State Park	18	1440EST			1	2	0	0	Lightning
One man was killed and two men were injured by lightning at Hanging Rock State Park. M260									
Alamance Co. Sweepsenville	18	1630EST			0	0	0	0	TSTM Winds
Thunderstorm winds blew down trees near Sweepsenville.									
Johnston Co. 10 W Saitthfield	18	1655EST			0	0	0	0	TSTM Winds
Franklin Co. 1 S Pilot	18	1710EST			0	0	0	0	TSTM Winds
Wake Co. Raleigh	18	1715EST			0	0	5	0	TSTM Winds
Nash Co. Bailey	18	1740EST			0	0	4	0	TSTM Winds
Edgecombe Co. Tarboro	18	1749EST			0	0	0	0	TSTM Winds
Pitt Co. Bethel	18	1815EST			0	0	5	0	TSTM Winds
Wilson Co. Wilson	18	1820EST			0	0	0	0	TSTM Winds
Robeson Co. Lumberton	18	1900EST			0	0	4	0	Lightning
Bladen Co. Tarheel	18	2020EST			0	0	4	0	Lightning
Severe thunderstorms swept across central and eastern North Carolina blowing down trees and power lines in western Johnston County, in southern Franklin County, in Raleigh, and southern Nash County. Trees and power lines were blown down in Tarboro, Bethel, and Wilson. Lightning started fires destroying a house in Lumberton and two mobile homes in Tarheel.									
Carteret Co. Harker's Island	20	0715EST	.2	100	0	0	5	0	Waterspout/ Tornado (F2)
A waterspout touched down in Back Sound and moved inland over Harker's Island destroying two large, empty oil storage tanks and two small office buildings. Damage totals were near \$225,000.									
Nash Co. Castalia	30	1435EST			0	0	0	0	Hail (1.75)
Nash Co. Rocky Mount	30	1450EST			0	0	0	0	Hail (0.75)
Golf ball size hail fell near Castalia. Dime size hail was reported just south of Rocky Mount.									

NORTH CAROLINA

Northampton Co.	30	1645EST	22	100	0	11	6	0	Tornado (F2)
A tornado touched down about four miles west-southwest of Jackson and moved to the east-northeast skirting the south part of the town of Jackson. It continued along it's path crossing State Highway 33 between Pendleton and Severn. The tornado lifted about 2 miles from the Meherrin River. The tornado destroyed 10 weaker houses and mobile homes and damaged 40 others. Two elementary schools received heavy damage. Eleven people were injured. Two required hospitalization.									
Northampton Co. 1 N Severn	31	1531EST			0	0	0	0	TSTM Winds
Perquimans Co. Morgans Corner	31	1612EST			0	0	0	0	Hail (0.75)
Pitt Co. Deep Run	31	1802EST			0	0	0	0	Hail (0.75)
Trees were blown down just north of Severn. Later, the same line of thunderstorms produced dime size hail near Morgans Corner and Deep Run.									
32 NORTH DAKOTA									
Southeastern North Dakota NDZ017-018	03 to 04	1300CST 0500CST			0	0	?	0	Heavy Snow
Heavy snow fell over southeastern North Dakota. Wahpeton had 7 inches of snow while Fargo had 6 inches.									
The combination of snow-restricted visibilities and icy roads caused many vehicle accidents, including fatalities and injuries.									
Extreme Southeastern North Dakota NDZ018	07	0800CST to 2300CST			0	0	0	0	Heavy Snow
Heavy snow fell over the southeast corner of North Dakota. Wahpeton had 9 inches snow while Cayuga had 8 inches.									
The heavy snow caused slippery roads and numerous vehicle mishaps, closed schools, closed Interstates and stranded motorists.									
Northeastern North Dakota NDZ012-015-016	29	0500CST to 1900CST			0	0	0	0	Heavy Snow
Heavy wet snow fell over northeastern North Dakota, amounts ranged from 6 to 11 inches.									
The wet snow caused many motorists to slide off the roads.									
33 OHIO									
OHZ-006-007-008-009 Central, East-Central Southwest and South- Central Ohio	05 06	1700 EST- 0700 EST			0	0	6	0	Ice Storm
A major winter storm dropped large amounts of freezing rain, sleet and some snow on about the southern third of Ohio. The northern edge of the storm was from Oxford to Wilmington, Columbus, Cambridge and St. Clairsville. The storm left a coating of ice up to an inch thick. The excessive ice felled numerous trees and power poles. This in turn caused extensive damage to personal property and numerous power outages. Nearly 100,000 homes and businesses were without electricity for a time. In the hardest hit areas of Noble and Morgan counties, some rural areas had no electrical service for five days.									
Washington County	06	0900 EST- 2000 EST			0	0	5	0	Flash Flood
Over an inch of rain fell on nearly frozen ground causing rapid rises in small streams throughout Washington County. County Road 9 at the 4 mile marker was under 4 to 5 feet of water. CR 333 at the zero mile marker was under 4 to 5 feet of water. State Route 618 at Township Road 97 and Porterfield was impassable. SR 26 at Cow Run and CR 3 between SR 7 and SR 339 were flooded.									
Butler County	14	2320 EST			0	0	4	0	Thunderstorm Wind
A thunderstorm blew down trees one mile south of Riley and at State Route 128 at Skyview Market in Ross.									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

MARCH 1989

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS				ESTIMATED ¹ DAMAGE	CHARACTER OF STORM	PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS				ESTIMATED ¹ DAMAGE	CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS								KILLED	INJURED	PROPERTY	CROPS		
OHIO											OKLAHOMA										
Hamilton County	15	0010 EST			0	0	4	0		Thunderstorm Wind	OKOSW-00C-ONE-OEC-CSC-OSE	04-05	1200CST-2100CST			0	?	7	?		Heavy Snow
Licking County	15	0030 EST			0	0	5	0		Thunderstorm Wind	On Saturday the 4th an upper-level storm system moved eastward from the southern Rockies into North Texas. Freezing rain and sleet developed over southern and eastern sections of the state during the day and changed to snow during the afternoon. By the morning of the 5th near-blizzard conditions were common over much of the southeast half of the state. Snow totals of up to 16 inches combined with winds of 25 to 40 mph to produce drifts of 3 to 6 feet. Wind chill temperatures reached 20 to 30 degrees below zero. Six automobile accident fatalities and one sledding fatality were indirectly attributed to the storm. The heavy snow resulted in the collapse of many chicken houses in eastern Oklahoma and an estimated 2.4 million chickens were killed. Damage to farm houses and farm equipment totaled over 20 million dollars. Governor Henry Bellmon declared portions of eastern Oklahoma in a state of Emergency due to the disease threat from the poultry losses. In addition, there were many reports of damage to structures due to roof and awning collapse under the weight of the heavy snow. The axis of heaviest snow extended northward from Bealdton to Pauls Valley to Chandler to Jay in extreme northeast Oklahoma. Amounts along this axis were in excess of 10 inches with Pauls Valley reporting 16 inches.										
Ashland County	18	0400 EST			0	0	5	0		Thunderstorm Wind	Tulsa County, 3 ESE (TUL)	17	1745CST			0	0	?	?		Hail (1.50)
OHZ009 Pike County	30	1600 EST			0	0	?	0		Flood	Rogers County, Catoosa	17	1755CST			0	0	?	?		Hail (1.75)
OHZ003-004-007 Northeast Lakeshore, Northeast Inland and East-Central Ohio	31	1000 EST			0	0	?	0		Heavy Snow	Wagoner County, 3 N Coweta	17	1810CST			0	0	?	?		Hail (0.75)
OHZ006 Pickaway County	31	1600 EST			0	0	?	0		Flood	Wagoner County, 4 ESE Wagoner	17	1905CST			0	0	?	?		Hail (1.75)
OHZ008 Hamilton County	31	1815 EST			0	0	?	0		Flood	Cherokee County, 3 WSW Hulbert	17	1910CST			0	0	?	?		Hail (2.75)
<p>The Scioto River flooded at Piketon. The river went into flood and did not crest until 1600 EST on April 1st at 20.2 feet. The highest level reached during March was 19.2 feet at 2400 EST on the 31st. The river remained above flood stage until 0100 EST on April 9th. Lowland flooding occurred.</p> <p>Six to eight inches of snow fell on much of the Northeast Lakeshore and inland areas. Three to five inches of snow fell across the northern half of East-Central Ohio. The snow began at 0700 EST and ended at 1700 EST on the 31st.</p> <p>The Scioto River flooded at Circleville. The river went into flood and did not crest until 1300 EST on April 1st. The highest level reached during March was 16.0 feet at 2400 EST on the 31st. The river remained above flood stage until 1500 EST on April 2nd. Lowland flooding occurred.</p> <p>The Great Miami River flooded at Miamitown. The river went into flood on the 31st, but did not crest until 0100 EST on the 1st of April. The highest level reached during March was 16.9 feet at 2400 EST on the 31st. The river remained above flood stage until 1300 EST on April 1st. Only lowland flooding occurred.</p>											<p>Scattered thunderstorms formed along a cold front in northeast Oklahoma and intensified during the evening hours, producing reports of large hail.</p> <p>Thunderstorms formed in north Texas during the afternoon and moved into southern Oklahoma producing dime to nickel size hail.</p> <p>A thunderstorm in northwest Oklahoma briefly attained severe levels and produced dime-sized hail.</p>										
34 OKLAHOMA																					
Canadian County, 9 W El Reno	03	1652CST			0	0	?	?		Hail (0.75)	Jefferson County, 7 NW Ringling	19	1620CST			0	0	?	?		Hail (0.88)
Canadian County, 4 N Piedmont	03	1735CST			0	0	?	?		Hail (0.88)	Stephens County, Loco	19	1630CST			0	0	?	?		Hail (0.75)
Kingfisher County, 4 S Cashion	03	1740CST			0	0	?	?		Hail (0.75)	Woods County, Woods Co.	26	1930CST			0	0	?	?		Hail (0.75)
Oklahoma County, N Oklahoma Co.	03	1745CST			0	0	?	?		Hail (1.25)	A thunderstorm in northwest Oklahoma briefly attained severe levels and produced dime-sized hail.										
Oklahoma County, Oklahoma City	03	1805CST			0	0	?	?		TSTM Wind (52)	Washita County, Foss	27	1059CST			0	0	?	?		Hail (1.75)
Logan County, 3 S Guthrie	03	1810CST			0	0	?	?		Hail (0.75)	Woodward County, 1 W Woodward	27	1222CST			0	0	?	?		TSTM Wind (56)
Oklahoma County, Oklahoma City	03	1820CST			0	0	?	?		Extreme Turbulence	Ellis County, (GAG) Shattuck	27	1222CST			0	0	?	?		TSTM Wind (52)
Payne County, Cushing	03	1845CST			0	0	?	?		Hail (0.75)	Harmon County, Vinson	27	1240CST			0	0	?	?		Hail (0.75)
Tulsa County, near Jenks	03	1930CST			0	0	?	?		TSTM Wind (61)	Harper County, 13 NE Buffalo	27	1245CST	20	50	0	0	?	?		Hail (0.75)
Canadian County, 12 W Edmond	04	0048CST			0	0	?	?		Hail (0.88)	Greer County, 4 W Mangum	27	1318CST			0	0	?	?		Tornado (F1)
Logan County, 8 SW Seward	04	0105CST			0	0	?	?		TSTM Wind (52)	Woods County, 16 W Alva	27	1325CST			0	0	?	?		TSTM Wind
<p>An Arctic cold front moved southward into Oklahoma during the afternoon of the 3rd. Severe thunderstorms developed in the warm, moist air in central and northeast Oklahoma during the afternoon and evening hours. The strongest storm produced 1.25 inch hail and wind gusts over 50 knots in the northern portions of the Oklahoma City metro area. During the early morning hours of the 4th thunderstorms redeveloped just north of Oklahoma City and produced nickel-sized hail and 50 kt winds. These early-morning storms formed in the cold air behind the front with surface temperatures in the upper teens. Spotters reported difficulty discriminating between the hail and the sleet.</p>											<p>Thunderstorms formed in north Texas during the afternoon and moved into southern Oklahoma producing dime to nickel size hail.</p>										
											Washita County, Canute	27	1445CST			0	0	?	?		Hail (0.75)
											Beckham County, 7 N Willow	27	1445CST			0	0	?	?		Hail (2.75)
											Custer County, Butler	27	1450CST			0	0	?	?		Hail (0.88)
											Osage County, Hominy	27	1500CST			0	0	?	?		Hail (0.75)
											Custer County, Custer City	27	1515CST			0	0	?	?		Hail (0.75)

STORM DATA AND UNUSUAL WEATHER PHENOMENA

MARCH 1989

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

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

OKLAHOMA

Beckham County, 3 W Sayre	27	1524CST			0	0	?	?	Hail (1.75)
Blaine County, 9 W Watonga	27	1530CST			0	0	?	?	Hail (1.75)
Blaine County, 8 N Watonga	27	1530CST			0	0	?	?	Hail (0.75)
Blaine County, 9 W Watonga	27	1555CST			0	0	?	?	Hail (1.75)
Devey County, Oakwood	27	1600CST			0	0	?	?	Hail (0.75)
Custer County, 10 W Clinton	27	1653CST			0	0	?	?	Hail (0.88)
Washita County, Foss	27	1656CST			0	0	?	?	Hail (1.75)
Custer County, Clinton Airport	27	1700CST			0	0	?	?	Hail (0.75)
Harmon County, Vinson	27	1730CST			0	0	?	?	Hail (1.75)
Harmon County, 3 E Dodson TX	27	1730CST			0	0	?	?	Hail (1.75)
Canadian County, 12 WSW El Reno Arpt.	27	1830CST			0	0	?	?	Hail (0.75)
Jackson County, Olustee Airport	27	1900CST			0	0	?	?	Hail (0.75)
Caddo County, NW Caddo Co.	27	1911CST			0	0	?	?	Hail (1.25)
Carson County, 6 W Elmer	27	1915CST			0	0	?	?	Hail (1.75)
Osage County, near Wynona	27	1915CST			0	0	?	?	TSTM Wind
Washington County, S Bartlesville	27	1918CST			0	0	?	?	Hail (2.75)
Caddo County, Hinton	27	1930CST			0	0	?	?	Hail (0.75)
Pawnee County, near Cleveland	27	2105CST			0	0	?	?	Hail (0.75)
Comanche County, Geronimo	27	2133CST			0	0	?	?	Hail (1.00)
Creek County, 5 NE Drumright	27	2145CST			0	0	?	?	Hail (0.75)
Grady County, Grady Co.	27	2148CST			0	0	?	?	Hail (0.88)
<p>Thunderstorms intensified in extreme northwest Oklahoma during the morning hours of the 27th and became severe shortly after noon. A downburst damaged a mobile home and snapped several power lines in the city of Woodward. Many reports of large hail were received with the largest report of baseball hail in Beckham and Greer counties. An F1 tornado touched down at 1315 CST, 4.5 miles west of Mangum in Greer County and moved northwest. A barn was destroyed and several unoccupied trailers were damaged as the tornado touched down intermittently and finally dissipated approximately 10 miles west of Willow at 1355 CST. Another small tornado touched down 7 miles south of Elk City at 1412 CST and was on the ground for approximately 2 minutes. No damage was reported. During the late afternoon the thunderstorms assumed a squall line configuration and produced flash-flooding rains in Elk City. The residents of 14 mobile homes were evacuated due to rising waters but later returned to their homes. Five inches of rain fell in the area in a 4-hour period.</p>									
Alfalfa County, 6 NW Burlington	29	1945CST			0	0	?	?	Hail (1.00)
Alfalfa County, 5 W Burlington	29	2015CST			0	0	?	?	Hail (1.00)
Woods County, 7 N Capron	29	2100CST			0	0	?	?	Hail (1.75)
Woods County, 4 NNE Capron	29	2120CST			0	0	?	?	Hail (1.00)
Alfalfa County, 8 NW Burlington	29	2130CST			0	0	?	?	Hail (1.25)
Harper County, 14 NE Buffalo	29	2200CST			0	0	?	?	TSTM Wind (52)
Woods County, 6 WSW Lookout	29	2245CST			0	0	?	?	Hail (1.75)
Woods County, 14 W Alva	29	2245CST			0	0	?	?	Hail (1.75)
Municipal Airport Alfalfa County, 8 E Byron	29	2330CST			0	0	?	?	Hail (0.75)
Grant County, Wakita	30	0000CST			0	0	?	?	Hail (1.00)
<p>Thunderstorms developed in southwest Kansas and moved southeast into northern Oklahoma during the evening hours, producing large hail.</p>									
Pawnee County, near Jennings	30	0425CST			0	0	?	?	Hail (0.75)
Pawnee County, 2 W Jennings	30	0525CST			0	0	?	?	Hail (0.75)
<p>A thunderstorm briefly attained severe levels and produced dime size hail.</p>									
Ofuskee County, near Okemah	30	0850CST			0	0	?	?	Hail (0.75)
<p>Dime size hail was reported covering the ground 2 miles west and 4 miles north of Okemah, and 2 miles west of Castle.</p>									

OKLAHOMA

Okmulgee County, 10 W Okmulgee	30	0900CST			0	0	?	?	Hail (0.75)
Muskogee County, near Oklaaha	30	1045CST			0	0	?	?	Hail (0.75)
Cherokee County, near Cookson	30	1105CST			0	0	?	?	Hail (0.75)
Adair County, near Bunch	30	1130CST			0	0	?	?	Hail (0.75)
Harper County, May	30	1709CST			0	0	?	?	Hail (0.88)
Ellis County, Fargo	30	1737CST			0	0	?	?	Hail (1.00)
Woodward County, 3 SW Tangier	30	1737CST			0	0	?	?	Hail (1.00)
Ellis County, 6 W Arnett	30	1805CST			0	0	?	?	Hail (1.00)
Roger Mills County, 4 N Crawford	30	1830CST			0	0	?	?	Hail (0.88)
<p>Thunderstorms developed in central Oklahoma approximately at 0800 CST and intensified while moving into northeast Oklahoma. The storms produced marginal severe weather reports.</p> <p>During that same afternoon thunderstorms developed in the Oklahoma panhandle and moved into northwest Oklahoma. The storms produced hail up to quarter size during the evening hours.</p>									
35 OREGON									
ORZ004-006-006-009-011-013	1-2	2100PST-2000PST			0	0	0	0	Winter Storm
<p>Cascades, North-Central and South-Central Oregon, and the Portland Area</p> <p>An Arctic cold front moved southward across the state. Moderate to heavy snow fell ahead of the front. Six to 12 inches were reported in the Cascades, and 3 to 6 inches were reported in the Portland area, the west end of the Columbia Gorge, and in parts of north-central and southeast Oregon.</p>									
ORZ001-002-003	4-5	0800PST-1800PST			0	0	?	0	Storm and High Wind
<p>Oregon Coast</p> <p>Low pressure formed off the south coast of Oregon and moved north just off the coast. Peak wind gusts of 62 mph at Gold Beach and 70 mph at Netarts were observed.</p>									
ORZ007	4-5	1400PST-1100PST			0	0	0	0	Freezing Rain
<p>Columbia Gorge</p> <p>Light freezing rain coated the Columbia Gorge from Cascade Locks eastward as warm Pacific air overran the colder Arctic air trapped in the gorge.</p>									
ORZ001-002-003	9	0130-2100PST			3	0	5	0	High Wind
<p>Oregon Coast</p> <p>Low pressure formed off the south coast of Oregon and moved north just west of the coast. Wind gusts of 71 mph at Seaside and 70 mph at Tillamook were observed. A small commercial fishing boat with 3 men aboard sank west of Newport. All three men perished. M370, M270, M250</p>									
ORZ009-010-011	9-11	1600PST-1700PST			0	0	4	0	Flood
<p>South-Central and Northeast Oregon, and the East End of the Columbia Basin</p> <p>Rapid warming across Eastern Oregon produced rapid snow melt and, in combination with rains from warm overrunning, caused several rivers and creeks to flood. On the 9th, Bullard Creek flooded in Lakeview and Enterprise was flooded by Prairie Creek. On the 10th and 11th, the John Day River flooded farm lands, and the Umatilla River flooded a part of Pendleton on the 11th.</p>									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

MARCH 1989

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					KILLED	INJURED	PROPERTY	CROPS	
36 PENNSYLVANIA, Eastern									
PAZ009	06	1300EST			0	0	3	0	Heavy Snow
PAZ012	06	1500EST			0	0	3	0	Heavy Snow
PAZ011	06	1800EST			0	0	3	0	Heavy Snow
Lower Susquehanna, East-Central and Southeast Zones	Rain began shortly after midnight on the morning of the 6th, then gradually mixed with and changed to sleet and freezing rain by the late morning. The precipitation changed to all snow by the early afternoon, and then was heavy at times before ending between 1800 and 2300 EST. The snow and sleet accumulated to 4 to 12 inches in the Lower Susquehanna Zone, 5 to 6 inches in the East-Central Zone and 2 to 6 inches in the Southeast Zone. The freezing rain also caused a significant accumulation of ice.								
Chester County, New London Airport	18	1530EST			0	0	4	0	TSTM Wind (78)
	Thunderstorm wind gusts damaged two hangars and blew some roofs off. The wind gusts were estimated at 80 to 90 mph.								
Delaware County, Wallingford	18	1530EST			0	0	4	0	TSTM Wind (78)
	Thunderstorm wind gusts uprooted or broke off 15 to 20 trees, blew down several utility poles and blew a utility shed across a yard. The wind gusts were estimated at 80 to 90 mph.								
Philadelphia County: Philadelphia International Airport	18	1534EST			0	0	?	0	TSTM Wind (60)
South Philadelphia	18	1544EST			0	0	?	0	TSTM Wind (52)
	Thunderstorm wind gusts were measured at 69 mph at the International Airport and estimated at 60 mph in South Philadelphia.								
Franklin County, Blue Ridge Summit	31	1445EST			0	0	4	0	TSTM Wind
	Thunderstorm wind gusts downed 283 trees and also utility lines. There also was an unconfirmed report of a funnel cloud. The time of occurrence was between 1430 and 1500 EST.								
York County, Hanover	31	1500EST			0	0	3	0	TSTM Wind
	Thunderstorm wind gusts downed trees.								
Lancaster County, 3 NE Mt. Joy	31	1530EST			0	0	?	0	TSTM Wind (52) Hail (0.75)
	Thunderstorm wind gusts of 60 mph were reported along with 3/4 inch diameter hail.								
Chester County: 1 S Avondale	31	1525EST			0	0	?	0	Hail (1.50)
Avondale	31	1532EST			0	0	?	0	Hail (1.75)
Avondale	31	1548EST			0	0	?	0	Hail (1.75)
Kennett Square	31	1548EST			0	0	?	0	Hail (1.75)
West Chester	31	1556EST			0	0	?	0	Hail (0.75)
	Thunderstorms dropped hail the size of ping pong balls just south of Avondale and golfball size hail in Avondale. The hail covered the ground for the last time at 1548 EST. Golfball size hail also fell in Kennett Square and 3/4 inch diameter hail fell in West Chester.								
36 PENNSYLVANIA, Western									
Fayette County, 15 SW Uniontown	06	2200EST			0	0	0	0	Flood
	Minor flooding occurred at Lock 8 at Point Marion on the Monongahela River. The water level was two feet above flood stage.								
Greene County, 18 SE Waynesboro	06	2200EST			0	0	0	0	Flood
	Minor flooding occurred at Lock 7 at Greensboro on the Monongahela River. The water level was two feet above flood stage.								
PAZ006 Bedford and Blair Counties	06	2200EST			0	0	0	0	Heavy Snow
	Six to eight inches of snow fell throughout Bedford County. Up to six inches fell in Blair County.								
PAZ005 Cambria and Somerset Counties	06	2200EST			0	0	0	0	Heavy Snow
	Eight to ten inches of snow fell throughout Cambria and Somerset counties.								
PAZ014 Clearfield County	06	2200EST			0	0	0	0	Heavy Snow
	Eight to ten inches of snow fell in Clearfield County.								
Washington County, 19 E Washington	07	0700EST			0	0	0	0	Flood
	Flooding occurred along the Monongahela River at Lock 4 at Charleroi. The water level was 6 feet above flood stage.								
— PENNSYLVANIA, Western									
Allegheny County 17 SE Pittsburgh and 23 SE Pittsburgh	07	1100EST			0	0	0	0	Flood
	Flooding occurred along the Monongahela River at Braddock where the water level reached 4 feet above flood stage, and at Elizabeth where the level was 3 feet above flood stage.								
Forest County, 17 SE Tionesta	31	0800EST			0	0	0	0	Flood
	Minor flooding occurred at Cooksburg on the Clarion River. The water level reached about one-half foot above flood stage.								
PAZ002 Northwestern Pennsylvania	31	2100EST			0	0	0	0	Heavy Snow
	Six to nine inches of snow fell in eastern Erie County and Crawford County.								
37 RHODE ISLAND									
Bristol County Warren	18	1630EST			0	0	4	0	Lightning
	A bolt of lightning caused an electrical surge to flow through wiring at the town hall in Warren, burning out many thousands of dollars worth of electronic equipment. The police radio system was completely disrupted.								
38 SOUTH CAROLINA									
York County, Fort Mill	06	1330EST	0.5	10	0	0	4	0	Tornado (F0)
	A small tornado destroyed a garage on Sutton Road. Heavy rains caused minor flooding.								
Dorchester County, St. George	06	1605EST			0	0	2	0	TSTM Winds
	Large trees were blown over near St. George.								
Berkeley County, Eady Town	06	1630EST			0	0	3	0	TSTM Winds
	Phone lines were downed in Eady Town. Several large trees were downed in Cross.								
SCZ007-008 Coastal South Carolina	08	AM			0	0	1	0	Snow
	0 0 5 0 Beach Erosion 0 0 3 0 Freezing Rain								
	A vigorous winter storm moved northeastward along the South Carolina Coast, producing high winds, freezing rain and sleet. There was considerable disruption to traffic from Charleston northward. The storm tide occurring at the time of spring tides produced considerable beach erosion along the South Carolina coast. One and one-half inches of snow was reported at Dillon and one to two inches was reported at Aynor. Georgetown recorded 1/2 to 1 inch of rain, and sleet and glaze were reported from Georgetown northward. A glaze of ice occurred from Georgetown southward.								
Marion County	08	AM			0	0	3	0	Ice Storm
Horry County	08	AM			0	0	3	0	Ice Storm
Georgetown County	08	AM			0	0	3	0	Ice Storm
Dillon County, Dillon	08	0300EST			0	0	5	0	Ice Storm
	Ice accumulating from freezing rain felled a radio transmitter tower.								
Marlboro County, between Cheraw and Bennettsville	18	1740EST			0	0	4	3	Hail (0.75)
	Hail of 1/2 to 3/4 inch in diameter covered the ground.								
Beaufort County, Hilton Head	23	1645EST			0	0	2	0	Lightning
	Lightning knocked out phones.								
Lancaster County, Lancaster	23	2300EST			0	0	3	0	Urban Flooding
	Runoff from heavy rains flooded cars in a parking lot at Wylie Arms Apartments in Lancaster.								
Orangeburg County, Orangeburg	30	1427EST			0	0	2	0	High Wind
	High winds ahead of a cold front broke limbs in Orangeburg, damaging several cars.								

STORM DATA AND UNUSUAL WEATHER PHENOMENA

MARCH 1989

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	PROPERTY	CROPS	
39 SOUTH DAKOTA											
SDZALL All of South Dakota	02-1600 to 04 0400 CST				0	0	0	0			Winter Storm
		Five to seventeen inches of snow fell across most of South Dakota. Visibilities were lowered to a half mile in many areas because of snow and blowing snow. Several vehicle accidents occurred and many schools were closed. Below is a list of snowfall amounts in inches.									
											Watertown 17 Huron 15 Aberdeen 12 Yankton 11 Sioux Falls, Pierre 10 Rapid City, Winner, Brookings, Faith 6 to 8
SDZ001-002-003-004-005-006-007-008-009-010-011-012-015-016-017 Most of South Dakota	13-1800 to 14 2000 CST				0	0	0	0			Winter Storm
		A fast-moving winter storm produced freezing rain and heavy snow across most of South Dakota. Visibilities were reduced to less than 100 feet in many areas because of blowing snow. Many schools were closed and several vehicles were stranded resulting in numerous accidents. Interstate 29 from Sioux Falls to the North Dakota-South Dakota border was closed during the afternoon and evening of the 13th due to low visibilities and ice. Winds gusted to near 51 mph in the southwest part of the state. Snowfall amounts were one to four inches in the south and four to ten inches in the north with the northern Black Hills receiving up to 16 inches of snow.									
SDZ001-002-006-007-008-009-010-011 Northwest, Central and East-Central South Dakota	18-2200 to 17 1600 CST				0	0	0	0			Winter Storm
		Six to twelve inches of snow fell across the northwest and parts of the central sections of South Dakota. Some of the snowfall amounts in inches are listed below:									
											Faith 12 Sturgis 10 Huron 6 Pierre and the Black Hills area 3 to 6
SDZ004 Northeast South Dakota	28-0600 to 31 2300 CST				0	0	4	0			Flood
		The combination of above normal temperatures and a late snow pack resulted in flooding in parts of northeastern South Dakota. The northern Elm River peaked one foot above flood stage near Westport, South Dakota. The James River peaked near Redfield on the 29th one foot above flood stage. Some local roads and culverts were washed out by the the flood east of Aberdeen. The flooding along the upper James River Basin continued through the 31st.									
40 TENNESSEE											
TIPTON COUNTY Rialto	01-0005CST 31				0	0	2	0			Flood
		The Hatchie River at Rialto remained above flood stage throughout the month. It crested on the 8th, 3.8 feet above flood stage.									
BEDFORD COUNTY	05 0730CST				0	0	3	0			Flash Flood
RUTHERFORD COUNTY	05 0730CST				0	0	3	0			Flash Flood
WILSON COUNTY	05 0730CST				0	0	3	0			Flash Flood
GILLES COUNTY	05 1530CST				0	0	3	0			Flash Flood
COFFEY COUNTY	05 1630CST				0	0	3	0			Flash Flood
FRANKLIN COUNTY	05 1630CST				0	0	3	0			Flash Flood
WARREN COUNTY	05 1630CST				0	0	3	0			Flash Flood
MARION COUNTY	05 2100CST				0	0	3	0			Flash Flood
SEWASHIE COUNTY	05 2100CST				0	0	3	0			Flash Flood
SCOTT COUNTY	05 2140CST				0	0	3	0			Flash Flood
BLEDSOE COUNTY	05 2200CST				0	0	3	0			Flash Flood
GRUNDY COUNTY	05 2200CST				0	0	3	0			Flash Flood
ROANE COUNTY	05 2215CST				0	0	4	0			Flash Flood
RHEA COUNTY	05 2300CST				0	0	3	0			Flash Flood
MORGAN COUNTY	05 2300CST				0	0	3	0			Flash Flood
		Widespread flash flooding occurred in middle and parts of eastern Tennessee. Lowlands were flooded and numerous roads were closed due to water flowing over them and some roads were washed out. Scores of bridges were also damaged or wiped out.									
TENNESSEE											
TN2002-004-005-006-007-008-009-010-011	05 2315CST				0	0	6	0			Flood
		A total of 3 to 5 inches of rain fell on the 5th and 6th, and as a result of the heavy rain and flash flooding, more widespread flooding and river flooding occurred. Many county roads were closed throughout this area and a number of school systems were closed on the 6th. Twenty-three people were evacuated from a mobile home park in Dayton, Rhea Co. as the water rose to 7 feet within the park. In Carthage, Smith Co. 27 families were forced from their homes Sunday night as the Cumberland River overflowed its banks.									
		In all about 119 families were evacuated and about 46 homes were damaged in this part of Tennessee. Several businesses also sustained damage. Some of the major rivers that went above flood stage were: The Cumberland, Harpeth, Elk, Duck and Buffalo.									
POLK COUNTY Copperhill	15 1425CST				0	0	2	0			Hail (1.00)
		A severe thunderstorm produced one-inch size hail that damaged several cars in Copperhill.									
SHELBY COUNTY Memphis	30 1925CST				0	0	2	0			Hail (0.75)
		A severe thunderstorm briefly dropped 3/4 inch size hail in Memphis about 8 miles east of the Memphis International Airport.									
FAYETTE COUNTY	30 1950CST				0	0	2	0			Hail (1.75)
		Large hail fell briefly in Moscow and Rossville as a severe thunderstorm moved over the area.									
HICKMAN COUNTY Bon Aqua	30 2155CST				0	0	3	0			Thunderstorm Wind
		A severe thunderstorm knocked down some trees and power lines, and took shingles off of several roofs. A couple of homes had substantial damage to their roofs, with large parts of the roofs being ripped off and blown into the yards.									
MARION COUNTY	31 0045CST				0	0	1	0			Hail (0.88)
		A severe thunderstorm dropped nickel size hail briefly in Jasper. Only minor damage to a couple of cars was reported.									
41 TEXAS, Northern											
TX2019-020-021-022-023-024-025-026-027-028-029-030-031-032-033 North Texas	04 0500CST- 05 1500CST				0	0	?	?			Ice and Snow
		Freezing rain and sleet fell across much of North Texas on the 4th. The precipitation changed to snow during the night of the 4th and the morning of the 5th. Heaviest snowfalls were in the western part of North Texas where a nine to eleven inch band of snow stretched from Coleman northward to Wichita Falls. Snowfall amounts decreased east of this band to three inch amounts from Comanche to the Dallas-Port Worth Metroplex to Paris. Sleet and snowfall amounts were generally two inches or less across the southeast half on North Texas. Many schools across North Texas were closed on the 6th due to natural gas curtailments.									
		Up to 600 vehicles were caught in a traffic jam the 4th and 5th along Interstate 35 between Sanger and Gainesville. Jack-knifed trucks on the snow and ice made the highway, which was under construction, impassable.									
Wichita County 1 E Electra	19 1515CST				0	0	?	?			Hail (1.00)
		A thunderstorm produced hail up to one inch in diameter.									
Bell County: 4 SW Moody	20 1650CST				0	0	?	?			Hail (1.00)
Temple Mun. Arpt	20 1657CST				0	0	?	?			TSTM Wind (50)
Temple	20 1715CST				0	0	?	?			Hail (0.88)
5 SW Temple	20 1727CST				0	0	?	?			Hail (1.00)
Little River	20 1740CST				0	0	?	?			Hail (1.75)
McLennan County: Lorena	20 1700CST				0	0	?	?			Hail (0.88)
Reisel	20 1705CST				0	0	?	?			Hail (0.88)
Falls County 8 E Marlin	20 1752CST				0	0	?	?			Hail (0.75)
Henderson County: Malakoff	20 1810CST				0	0	?	?			Hail (0.75)
7 W Eustace	20 1810CST				0	0	?	?			Hail (1.00)
Navarro County Winkler	20 1815CST				0	0	?	?			Hail (1.00)
Freesboro County 1 S Winkler	20 1815CST				0	0	?	?			Hail (1.00)

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					KILLED	INJURED	PROPERTY	CROPS	
TEXAS, Northern									
Leon County	20	1915CST			0	0	?	?	Hail (0.75)
Marquez									
Rusk County	20	2053CST			0	0	?	?	Hail (1.75)
5 N Concord									
Shelby County	20	2110CST			0	0	?	?	Hail (1.00)
Timpson									
Panola County:									
Lake Murvail	20	2122CST			0	0	?	?	Hail (1.75)
20 ESE Longview	20	2125CST			0	0	?	?	Hail (1.00)
Deadwood	20	2138CST			0	0	?	?	Hail (1.00)
									Thunderstorms in North-Central and Northeast Texas produced scattered areas of hail. A wind gust to 50 knots was recorded at the Temple Municipal Airport.
Upshur County	21	0630CST			0	0	?	?	Hail (1.00)
Pritchett									A thunderstorm in Northeast Texas produced hail up to one inch in diameter at Pritchett.
Rusk County	26	1535CST			0	0	?	?	Hail (1.50)
3 W Concord									
Shelby County	26	1545CST			0	0	?	?	TSTM Wind
Center									A thunderstorm produced large hail 3 miles west of Concord. Downbursts blew down trees in and near Center.
Jones County:									
Boyd's Chapel	27	1725CST			0	0	?	?	Hail (1.75)
Hamlin	27	1735CST			0	0	?	?	Hail (0.75)
Hardeman County:									
15 S Gould OK	27	1737CST			0	0	?	?	Hail (1.75)
5 W Quanah	27	1750CST			0	0	?	?	Hail (1.75)
Haskell County	27	1843CST			0	0	?	?	Hail (1.75)
6 S Haskell									
Taylor County	27	1850CST			0	0	?	?	Hail (0.88)
5 E Merkel									
Wilbarger County	27	1900CST			0	0	?	?	Hail (1.75)
Odel									
Haskell County	27	1920CST			0	0	?	?	Hail (1.75)
3 N Stamford									
									Thunderstorms produced scattered areas of hail in North-Central Texas.
Bosque County	28	0130CST			0	0	?	?	TSTM Wind
3 W Meridian									
Coryell County	28	0800CST-			0	0	?	?	Flash Flooding
Fort Hood		1100CST							
Kaufman County	28	0920CST			0	0	?	?	TSTM Wind
Peeltown									
Wood County	28	1000CST			0	0	?	?	TSTM Wind
6 WNW Quitman									A downburst blew down numerous trees 3 miles west of Meridian. Heavy rainfall of more than 4 inches produced water up to 5 feet deep across low water crossings on Cowhouse Creek at Fort Hood. A downburst destroyed a storage shed at Peeltown. Several boats were overturned on Lake Fork Reservoir (6 WNW Quitman).
Houston County	28	1415CST	ShortNarrow		0	0	4	?	Tornado (F0)
10 S Crockett									Several barns were damaged and trees uprooted by a brief tornado at the Lone Pine community (10 S Crockett).
Eastland County	28	1905CST	ShortNarrow		0	0	0	?	Tornado (F0)
2 W Cisco									
Stephens County	28	1915CST	ShortNarrow		0	0	0	?	Tornado (F0)
4 W Breckenridge									
Young County	28	2035CST			0	0	?	?	Hail (1.00)
Hurray									
Archer County	28	2114CST	ShortNarrow		0	0	0	?	Tornado (F0)
Lake Diversion									
Young County:									
Bunger	28	2130CST			0	0	?	?	Hail (1.00)
Graham	28	2137CST			0	0	?	?	Hail (0.75)
									"Cold-core" tornadoes were observed briefly 2 miles west of Cisco, 4 miles west of Breckenridge, and at Lake Diversion. Thunderstorms also produced scattered areas of hail in North-Central Texas.
TEXAS, Northern									
Gregg County	28	1700CST-			0	0	?	?	Flash Flooding
	29	0600CST							
Cherokee County	28	1830CST-			0	0	?	?	Flash Flooding
	29	0600CST							
Anderson County	28	1900CST-			0	0	?	?	Flash Flooding
	2300CST								
Cass County	28	2000CST-			0	0	?	?	Flash Flooding
	29	0600CST							
Marion County	28	2000CST-			0	0	?	?	Flash Flooding
	29	0600CST							
Nacogdoches County	28	2000CST-			0	0	?	?	Flash Flooding
	2300CST								
Harrison County	28	2000CST-			0	0	?	?	Flash Flooding
	29	0600CST							
Rusk County	28	2000CST-			1	1	?	?	Flash Flooding
	29	0600CST							
Smith County	28	2000CST-			0	0	?	?	Flash Flooding
	29	0100CST							
Bowie County	28	2000CST-			0	0	?	?	Flash Flooding
	29	0600CST							
Panola County	28	2000CST-			0	0	?	?	Flash Flooding
	29	0600CST							
Nacogdoches County	29	0315CST-			0	0	?	?	Flash Flooding
	0500CST								
									Heavy rainfall fell across Northeast Texas the evening of the 28th and morning of the 29th. Rainfall amounts during the period included 14.16 inches at Longview (Gregg County), 12.17 inches at Atlanta (Cass County), 11.05 inches at Henderson (Rusk County), 10.50 inches at Harleton (Harrison County), 8.73 inches at Rusk (Cherokee County), 8.58 inches at Marshall (Harrison County), 8.45 inches at Linden (Cass County), 8.02 inches at Jefferson (Marion County), 6.97 inches at Reklaw (Rusk County), and 5.61 inches at Texarkana (Bowie County).
									More than 70 bridges on secondary roads in Northeast Texas were washed out or damaged beyond repair. Over 200 people were evacuated, most of whom were in Texarkana, Longview and Henderson. Total damage was estimated between \$10 and \$16 million.
									One fatality occurred when a 48 year old man drowned as his car was washed off State Highway 43 northeast of Henderson in Rusk County. The car was apparently washed off the road when a dam on Nix Lake broke and flooded the highway.
									Widespread flooding occurred throughout Northeast Texas with many roads flooded and closed. In Rusk County, schools were closed on the 29th, 30th and 31st in Henderson due to possible contamination of the city's water supply. U.S. Highway 259 was closed between Kilgore and Henderson and U.S. Highway 84 was closed in the southwest part of the county. Twelve bridges were washed out in Rusk County and roads closed included State Highways 322, 43, and 149 and Farm Roads 225, 839, 1251, 840, 3231 and 3310.
									In Cherokee County, Farm Road 2064 was washed out near Gould, U.S. Highway 69 was closed near Dialville, and secondary roads were closed in and near Jacksonville. In Anderson County, roads were flooded in and near Elkhart. In Smith County, Farm Road 13 was closed near Troup.
									In Gregg County, U.S. Highway 80 was flooded and closed in and near Longview, State Highway 31 was closed north of Kilgore, Farm Road 1252 was closed east of River Road, State Highway 149 was closed near Cherokee Bayou, and Interstate 20 was closed west of the Sabine River. In Harrison County, Interstate 20 was closed at the 612 mile marker and U.S. Highway 80 was closed near Halle'sville. U.S. Highway 59 and State Highway 43 south of Marshall were also closed. Ten families were evacuated from their homes on the south side of Marshall.
									In Nacogdoches County, the Bonita and Lanana Creeks were out of their banks in Nacogdoches, State Highway 204 and Farm Road 225 were flooded near Cushing, and State Highways 7 and 21 were flooded in the eastern part of the county. In Marion County, Farm Roads 2683 and 248 were closed. State Highway 315 between Carthage and Mt. Enterprise was closed in Panola County. M48V
McLennan County:									
Waco	29	0005CST			0	0	?	?	TSTM Wind (63)
Waco	29	0022CST			0	0	?	?	TSTM Wind and Hail (0.75)
4 W Lorena	29	0025CST			0	0	?	?	TSTM Wind
3 NE Waco	29	0025CST			0	0	?	?	TSTM Wind
									A thunderstorm produced winds of 72 miles per hour at the Channel 25 Television Station in Waco at 0005CST. A tree was blown through the window of a home in Waco at 0022CST, with dime size hail falling at the same time. A downburst destroyed a barn at Spring Valley (4 W Lorena). Powerlines were downed by winds in the northeast part of Waco.

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					KILLED	INJURED	PROPERTY	CROPS	KILLED	INJURED	PROPERTY	CROPS		
— TEXAS, Northern														
Nacogdoches County 10 SE Cushing	29	0256CST			0	0	?	?	TSTM	Wind				
			A downburst tore down a 356KV electric main line 10 miles southeast of Cushing.											
McLennan County Axtell	29	0900CST			0	0	?	?	TSTM	Wind				
			A downburst blew two trees onto a mobile home at Axtell.											
Cass County 7 SE Atlanta	29	1300CST			0	0	?	?	Hail	(0.88)				
			A thunderstorm produced nickle size hail 7 miles southeast of Atlanta.											
Smith County Tyler	29	1200CST- 1300CST			0	0	?	?	Flash Flooding					
			Heavy rain flooded and closed U.S. Highway 271 near Loop 323 in Tyler. Numerous secondary streets in Tyler were also closed by high water.											
Hopkins County Sulphur Springs	29	1500CST- 1600CST			0	0	?	?	Flash Flooding					
			Heavy rains flooded several streets in Sulphur Springs.											
Rusk County Lake Cherokee	29	0600CST- 1600CST			0	0	?	?	Flooding					
			The heavy rains during the evening of the 28th and early morning of the 29th sent nearly six feet of water over the emergency spillway on Lake Cherokee, flooding houses and roads. Numerous boat sheds on the lake were destroyed by the high water.											
Harrison County Caddo Lake	30	0600CST- 2400CST			0	0	?	?	Flooding					
			Runoff into Caddo Lake from the heavy rains of the 28th and 29th caused the lake to crest at 177.1 feet, more than 4.5 feet above flood stage. Approximately 100 homes along the shoreline were flooded.											
Angelina, Cherokee and Nacogdoches Counties	30	0600CST- 2400CST			0	0	?	?	Flooding					
			The heavy rains during the evening of the 28th and early morning of the 29th produced a flood of record on the Angelina River near Alto and the highest stage in 81 years on the Angelina River near Lufkin. Most of the areas along the Angelina River are ranch and farm land, so property damage was light.											
41 TEXAS, Southern														
Hardin County Saratogo	20	0800CST			0	0	4	0	Tstm.Wind	(?)				
			High winds from a thunderstorm tore a house apart. Other homes in the area suffered minor damage.											
Jasper County Kirbyville Magnolia Springs	20	0900CST			0	0	4	4	Tstm.Wind	(?)				
			High winds from a thunderstorm blew down trees and damaged barns.											
Robertson County Wheelock	20	1910CST			0	0	0	0	Hail	(0.75)				
Leon County Marquez	20	1915CST			0	0	0	0	Hail	(0.75)				
Guadalupe County Seguin	20	2030CST			0	0	0	0	Hail	(0.75)				
Harris County 20 NW Houston	20	2240CST			0	0	0	0	Hail	(0.75)				
Travis County Manchaca	21	0700CST			0	0	0	0	Hail	(1.50)				
Val Verde County 3 N Langtry	27	1623CST			0	0	0	0	Hail	(1.50)				
Val Verde County 12 NE Juno	27	1835CST			0	0	0	0	Hail	(1.75)				
Val Verde County 12 NE Juno	27	1941CST			0	0	3	0	Hail	(1.75)				
			Hail the size of golf balls damaged a pickup truck.											
Val Verde County Langtry	27	1959CST			0	0	0	0	Hail	(0.75)				
Edwards County NW part	27	2205CST			0	0	0	0	Hail	(0.75)				
— TEXAS, Southern														
Travis County Austin	28	0600CST			0	0	0	0	Tstm.Wind	(51)				
			High winds from a thunderstorm gusted to 58 MPH in the northwest part of the city of Austin. Limbs and trees were blown down.											
Bastrop County Cedar Creek	28	1200CST			0	0	0	0	Hail	(1.00)				
Val Verde County Pecos River Bridge	28	1520CST			0	0	0	0	Hail	(1.00)				
Llano County Enchanted Rock	28	1905CST			0	0	0	0	Hail	(1.75)				
Burnet County Burnet	28	2105CST			0	0	0	0	Hail	(1.75)				
Travis County 10 NW Austin	28	2205CST			0	0	0	0	Hail	(1.75)				
Brazoria County Southern Part	28	2330CST			0	0	?	?	Hail	(1.75)				
	28	2330CST			0	0	?	?	Tstm.Wind	(?)				
			High winds from a thunderstorm and hail blew out and broke front plate glass windows in businesses in downtown Freeport. Roofs, fences and billboards were also damaged. The damage extended to the west and north of Freeport to near Jones Creek and Lake Jackson.											
Hardin County Silsbee	29	0015CST			0	0	0	0	Hail	(1.75)				
Jasper County near Kirbyville	29	0030CST			0	0	0	?	Tstm.Wind	(?)				
			High winds from a thunderstorm uprooted trees near Kirbyville.											
Hardin County near Sour Lake	29	0045CST			0	0	?	?	Tstm.Wind	(?)				
			High winds from a thunderstorm estimated near 60 MPH downed trees and power lines.											
Harris County Houston	29	0100CST			0	0	4	0	Tstm.Wind	(?)				
			In Houston, high winds from a thunderstorm broke out windows in at least 3 businesses and damaged the roof of another. One carport was demolished. Power lines were also downed.											
Liberty County NW of Cleveland	29	0200CST			0	0	4	0	Tstm.Wind	(?)				
			High winds from a thunderstorm blew over a tree onto a vacated mobile home. Power lines were also downed in the area.											
41 TEXAS, Western														
Culberson County	3	1145 MST			0	0	0	0	High Wind	(61)				
			A southwest wind blowing steadily at 52 knots gusted to 61 knots preceding a winter storm. Within the hour, wind shifted to the east at 45 knots as temperatures fell 50 degrees.											
El Paso County	3	Morning- Afternoon			0	3	5	0	High Wind					
			Southwest to west winds preceding a winter storm raced through the normally tranquil El Paso metropolitan area, knocking down hundreds of power lines, unroofing one house and damaging the steeple of a historically-significant Catholic church.											
			The wind downed power lines and resulted in numerous power outages. Three people received facial cuts from broken residential window glass.											
Culberson County	14	1330 MST			0	0	0	0	High Wind	(51)				
			Gradient winds gusted to 51 knots through Guadalupe Pass, in the northwest corner of the county.											
Upton County	19	1825 CST			0	0	0	0	Hail	(0.75)				
			Sheriff's Department personnel reported dime size hail at McCamey. The hail inflicted no discernible damage.											
Tom Green County	19	2300 CST (Est.)			0	0	5	0	Lightning					
			Three crude oil tanks and an unknown quantity of crude oil were destroyed in a fire when lightning struck a tank battery six miles southwest of the Knickerbocker Community, along the western edge of the county. The fire burned for two days.											

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					KILLED	INJURED	PROPERTY	CROPS	

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					KILLED	INJURED	PROPERTY	CROPS	

TEXAS, Western										
Brewster County	25	Afternoon			0	0	?	6	Lightning	Lightning set a huge grass fire that burned out of control for more than a week. By the time the fire was contained on April 4th it had scorched more than 50,000 acres, or 80 percent of the Glass Mountains north of U. S. Highway 90 between Alpine and Marathon.
Upton County	26	1550 CST (Est.)			0	0	0	0	Hail (0.75)	Three-fourths inch hail pelted Rankin, in the southeast part of the county, according to a Sheriff's Deputy.
Motley County	26	1745 CST 1801 CST			0	0	0	0	Hail (1.75) Hail (0.88)	The Matador Fire Department observed marble to golf ball size hail seven miles northwest of Matador. Falling in open ranchland, the hail resulted in no damage. At 1801 CST the Fire Department observed hail the size of nickels fall in downtown Matador.
Floyd County	26	1800 CST 1815 CST			0	0	0	0	Hail (0.75) Hail (0.75)	The Floydada Fire Department reported hail the size of thumbnails (which turned out to be 3/4 inch) in downtown Floydada. Fifteen minutes later the Sheriff's Deputy at Dougherty, in the southeast part of the county, witnessed dime size hail that covered the ground. Neither occurrence resulted in damage.
Reagan County	26	1815 CST			0	0	?	?	Hail (1.75)	Hail fell at a ranch 20 miles north of Big Lake, in the northeast part of the county, and attained golf ball size at 1815 CST. Any damage totals were unreported.
Runnels County	26	1910 CST			0	0	0	0	Hail (1.75)	A pair of Winters Police Officers encountered golf ball size hail two miles north of Winters. No damage was reported in the open rangeland.
Lynn County	27	1230 CST							Funnel	A Sheriff's Deputy sighted a funnel cloud over Tahoka.
Donley County	27	1309 CST			0	0	0	0	Hail (2.50)	The Sheriff's Department reported tennis ball size hail at the Giles Community, eleven miles southeast of Hedley, in the southeast corner of the county.
Hale County	27	1355 CST							Funnel	The public reported a funnel cloud over the City of Abernathy.
Wheeler County	27	1406 CST			0	0	0	0	Hail (2.50)	Department of Public Safety officers encountered tennis ball size hail between five and seven miles west of Shamrock. No damage was noted.
Floyd County	27	1412 CST	1.0	60	0	0	0	0	Tornado (F0)	The Texas Tech University Storm Intercept Team filmed a tornado five miles north-northwest of Floydada. The twister was not observed to touch down as a tornado on film, but subsequent conversations with the Floydada Volunteer Fire Department indicated that the storm did, in fact, have a dust whirl and produced striations across a plowed field.
Hale County	27	1440 CST			0	0	0	0	Hail (0.75)	The Fire Department observed 3/4 inch hail at Cotton Center, in the southwest part of the county.
Hall County	27	1545 CST			0	0	0	0	Hail (1.75)	The Memphis Police Department reported golf ball size hail in the City of Memphis. Little, if any, damage resulted.
Dickens County	27	1610 CST			0	0	0	0	Hail (0.75)	Skywarn spotters at the Pitchfork Ranch, 15 miles east of the City of Dickens, observed 3/4 inch hail. No damage was noted in the remote ranchland.
Collingsworth County	27	1616 CST			0	0	0	0	Hail (1.75)	A Sheriff's Deputy encountered golf ball size hail in the southwest corner of the county, 10 miles west of Wellington.
King County	27	1625 CST			0	0	0	0	Hail (1.75)	Golf ball size hail was reported by a Sheriff's Deputy at the Dumont Grocery Store at Dumont, in the extreme northeast corner of the county. No damage was discernible.

TEXAS, Western										
Fisher County	27	1700 CST (Est.)			0	0	0	0	Hail (1.75)	The Department of Public Safety reported hail up to golf ball size along Highway 180, ten miles east of Roby.
Fisher County	27	1730 CST			0	0	0	0	Hail (1.75)	A television camera crew from station KTAB-TV (Abilene) filmed golf ball size hail that covered the ground at Sylvester, in the eastern part of the county.
Hockley County	27	2210 CST			0	0	0	0	Hail (1.00)	Hail one inch in diameter fell at the Fred Albus Farms, 10 to 15 miles north of Levelland in Hockley County.
Cottle County	27	2220 CST			0	0	0	0	Hail (0.75)	The Soil Conservation Service observed 3/4 inch hail five miles north of Dumont, in the southwest corner of the county.
Dallam County	30	1800 CST			0	0	0	0	High Wind (53)	An observer at Dalhart, in the southernmost part of the county, recorded gradient winds that gusted to 53 knots behind a cold front.
42 UTAH										
UTZ002 Lakeside	02	1615MST			0	0	1	0	High Wind (G54)	Prefrontal winds gusted to 62 mph at the Lakeside station.
Salt Lake County, Magna	02	1815MST	?	?	0	0	3	0	Tornado (F1)	A tornado touched down near 3699 South and 7500 West. The storm produced a moderate amount of damage to the neighborhood, including tearing a swamp cooler from a roof, blowing away a small shed, and breaking several windows.
Utah County Salt Lake County, Orem and Salt Lake City	02 02	1840MST 2209MST			0 0	0 0	5 1	0 0	Lightning Lightning	Lightning struck a Utah Power and Light substation at the mouth of Provo Canyon and knocked out power to a large section of northern Utah shortly before 7 pm. Later in the evening lightning hit a commercial jet on takeoff from the Salt Lake International Airport, but there were no injuries and only minor damage to the plane.
UTZ010-011 UTZ003 UTZ006 UTZ005	03 03 03 03	0540MST 0640MST 1200MST 1448MST			0 0 0 0	0 0 0 0	1 1 1 1	0 0 0 0	Heavy Snow Heavy Snow Heavy Snow High Wind (G50)	The spotter in Duck Creek received 12 inches of new snow overnight. During the same time period, from 8 to 10 inches fell in the northern Wasatch ski resorts and 4 to 8 inches fell along the Wasatch Front from Salt Lake City to Ogden. By midday the heavy snow had spread into the southwest valleys of the state. In the northwest flow behind the front, winds gusted to 58 mph in the Price area during the mid afternoon hours.
UTZ010 Northern Mountains	13	1620MST			0	0	1	0	Heavy Snow	From 8 to 12 inches of snow fell during the day at several northern Wasatch ski resorts. Snowfall totals included Solitude 12 inches, Brighton 9, Alta and Beaver Mountain 7, and Park City 8 inches.
UTZ006 UTZ006 UTZ003 Southwest Valleys Wasatch Front	16 16 16	1240MST 1413MST 2025MST			0 0 0	0 0 0	1 1 1	0 0 0	High Wind (G50) High Wind (G52) High Wind (G52)	Strong southwest winds gusted to 58 mph and 60 mph at Cedar City and Milford, respectively. Later in the evening a cold front produced a gust to 52 mph in West Valley City.
UTZ001 Cache Valley	17	0945MST			0	0	1	0	Heavy Snow	A spotter in Smithfield received 4 inches of snow during the morning hours of the 17th.
UTZ010 Northern Mountains	19	1628MST			0	0	1	0	Heavy Snow	The Alta Ski Resort received 8.5 inches of snow during the daytime hours.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

MARCH 1989

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	
43 VERMONT									
Statewide	05	AM			0	0	3	0	Freezing Rain
Statewide	15	0300-1800EST			0	0	3	0	Floods
	A hard rain produced minor flooding. Some back roads were washed out in northern Vermont.								
VT2001-002-003 Northwest, North-Central and Northeast Vermont	18	0300-1200EST			0	0	3	0	Snow
VT2003-004-005 North-Central, Southwest and Southeast Vermont	18	0300-1200EST			0	0	5	0	Freezing Rain
	Six to ten inches of snow fell across northern Vermont. Meanwhile, in central and southern sections of the state the precipitation fell in the form of freezing rain. Hundreds of accidents were reported throughout the state.								
VT2004-005 Southwest and Southeast Vermont	20-21	PM-AM			0	1	3	0	Snow
	Six inches of snow fell across southern Vermont.								
Statewide	30	0400EST			0	0	4	0	Floods
	A combination of frozen ground, melting snow and heavy rain produced flooding along major rivers and small streams in Vermont. Several roads had to be closed. Twenty-five families were stranded near Cambridge because of high water levels.								
44 VIRGINIA									
VA1001-002 Coastal Virginia	7-9	All day			0	0	6	0	Storm Surge
	Gale force north winds, reaching 50 or 60 mph at times, produced tides of 3 to 4 feet above normal and waves as high as 10 to 12 feet. The tide at Sewalls Point exceeded the minimum flood level of 4.5 feet above MLLW with a maximum height of 5.2 feet on the evening high tides of Tuesday and Wednesday, the 7th and 8th, and levels near 5.0 feet on the two morning tides. Considerable beach erosion resulted. The Sandbridge area of Virginia Beach was hardest hit with structural damage where 21 beach front homes suffered major damage and 24 others had minor damage. A seawall built just last summer collapsed. Structural damage was estimated at \$790,000 and beach erosion damage at \$2.25 million.								
Statewide	6-9	All Day			1	0	?	0	Winter Storm
	Cold north winds brought a changeover from rain to freezing rain, sleet, and a little snow from north to south across the state, causing numerous automobile accidents and closing schools. Icy conditions developed over northern and western sections on Monday the 6th, then spread over the remainder of the state on Tuesday, March 7, and continued over the southeastern counties through Wednesday and Thursday, the 8th and 9th. Ice accumulated to an inch or more in some areas. A homeless man, 53, died of exposure in an abandoned car in Norfolk. MS3V								
VA1002 Newport News Hampton Roads	6-8	All Day			0	0	?	0	High Winds (52 kt)
	High winds and tides at Newport News tore the SS United States cruise ship from its moorings and into an adjacent pier. Winds reached 52 knots at Hampton Roads.								
Nelson Co, Shipman	6	1530EST			0	0	3	0	Lightning
	Lightning set afire a shed during a storm of freezing rain and sleet.								
— VIRGINIA									
VA1009-015 Southern Foothills	6	1630EST			0	0	5	?	Heavy Rain Flooding
	Rainfall of up to 2.55 inches in less than 12 hours caused some creeks to overflow their banks.								
Henrico Co, Richmond	7	2100EST			0	0	?	0	Flood
	The James River crested at 12.05 feet at the Westham gauge. Flood stage is 12 feet.								
James City Co, Ford's Colony	15	1930EST			0	1	3	0	Lightning
	Lightning struck a tree and house and narrowly missed but slightly injured a 16 year old boy while in his bedroom; the room was extensively damaged. A horse was struck and killed at a nearby stable.								
Southampton Co, Boykins Franklin Virginia Beach Co, Naval Air Station Chesapeake Co, Chesapeake	15	1830EST			0	0	?	?	Hail (1.00)
	15	1835EST			0	0	?	?	Hail (1.00)
	15	1945EST			0	0	?	?	Thunderstorm Wind (60kt)
	15	1950EST			0	0	4	?	Thunderstorm Wind
	Thunderstorm winds destroyed one building and downed trees and power lines.								
Virginia Beach Co, South Island	15	1959EST			0	0	?	?	Thunderstorm Wind (70kt)
Cape Henry	15	2005EST			0	0	?	?	Thunderstorm Wind (58kt)
Hanover Co.	18	1550EST			0	0	?	?	Thunderstorm Wind
Halifax Co, South Boston	18	1550EST			0	0	?	?	Thunderstorm Wind
	Thunderstorm winds destroyed a metal building and uprooted a large tree.								
Hanover Co, Mechanicsville	18	1608EST			0	0	?	0	Lightning
	Thunderstorm winds felled trees and power lines and damaged homes. Lightning struck and destroyed an auto service shop.								
Henrico Co, Richmond Airport	18	1601EST			0	0	?	?	Thunderstorm Wind (58kt)
Richmond Co, Warsaw	18	1630EST			0	0	?	?	Thunderstorm Wind (43kt)
	Thunderstorm winds estimated at at least 43 knots destroyed a house, damaged other buildings, uprooted trees, and caused power outages near the Richmond-Northumberland county line.								
Lancaster Co, Kilmarnock	18	1630EST			0	0	4	?	Thunderstorm Wind (43kt)
	Thunderstorm winds estimated at 43 knots partially unroofed a store.								
Gloucester Co, Urbanna	18	1700EST			0	0	?	?	Thunderstorm Wind (32kt)
	Thunderstorm winds felled the "Giant Oak" which struck a dorm at the Christchurch School. Winds were measured at 32 knots at the Milford Haven Coast Guard Station.								
Accomack Co, Accomac	18	1700EST			0	0	?	?	Thunderstorm Wind
	Thunderstorm winds blew down a wall under construction.								
York Co, Hampton	18	1713EST			0	0	?	?	Thunderstorm Wind (55kt)
	Thunderstorm winds destroyed a store sign, blew in windows, caused power outages, and tossed a trailered boat across a parking lot. The public reported sighting a funnel cloud in the vicinity. Winds were measured at 55 knots at the Patrick Henry Airport.								
VA2011 Shenandoah Nat'l Park	23-24				0	0	?	0	Ice Storm
	Freezing rain accumulation caused widespread damage to trees.								

STORM DATA AND UNUSUAL WEATHER PHENOMENA

MARCH 1989

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	

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	

— VIRGINIA

Mathews Co, Port Haywood	30	1715EST	3	150	0	0	5	?	Tornado (F1)	<p>A tornado touched down just south of Port Haywood along County Route 606 and a few minutes later approximately 3 miles northeast along County Route 609. Scores of trees were blown down or uprooted, houses lost shingles, and several sheds were blown down. Classification F1, P0, P1.</p>
Virginia Beach Co, Ocean View area	30	1745EST			0	0	0	0	Waterspout	<p>A large waterspout was observed just off the beach.</p>
Newport News, Hampton	30	1830EST			0	0	0	0	Funnel Cloud	<p>A funnel cloud was observed over the James River.</p>
Suffolk Co.	30	1830EST			0	0	?	?	Thunderstorm Wind	<p>Thunderstorm winds damaged some buildings.</p>
Newport News, Hampton	30	1835EST			0	0	?	?	Hail (1.75)	
Chesterfield Co, west part	31	1327EST			0	0	?	?	Hail (1.75)	
Dinwiddie Co, Dewitt	31	1330EST			0	0	?	0	TSTM Wind, Funnel Clouds	
Sutherland	31	1338EST			0	0	?	?	Hail (0.50)	<p>Trees were blown over in the Dewitt area by thunderstorm winds. Winds in Southerland were reported too strong for police cars to drive safely. Funnel clouds were also sighted in the Dewitt area.</p>
Chesterfield Co, Colonial Heights	31	1400EST			0	0	5	?	Thunderstorm Wind (52kt)	<p>Thunderstorm winds estimated at 52 knots destroyed three trailers, one of which was blown into a nearby lake. Several trees were also downed.</p>
Dinwiddie Co, north part	31	1400EST			0	0	?	?	Hail (1.75)	
Prince George Co, Hopewell-Petersburg area	31	1415EST			0	0	?	?	TSTM Wind, Funnel Cloud	<p>Winds estimated at 52 knots in the Petersburg Hopewell area did major damage to an apartment complex. Also, heavy downpours caused minor flooding. A funnel cloud was also sighted.</p>
Charles City Co.	31	1415EST			0	0	?	?	Thunderstorm Wind (57kt)	
New Kent Co.	31	1420EST			0	0	?	?	Hail (0.75)	<p>Flooded roadways and some wind damage was also reported.</p>
Isle of Wight Co.	31	1515EST			0	0	?	?	Thunderstorm Wind (52kt)	
Chesapeake Co.	31	1530EST			0	0	?	?	Thunderstorm Wind (52kt)	<p>Many trees and power poles were downed.</p>
Virginia Beach Co, Norfolk	31	1540EST			0	0	?	?	Thunderstorm Wind (54kt)	<p>A building at the Norfolk State University was unroofed and many trees were downed.</p>
Virginia Beach Co, Cape Henry-Arogonna area	31	1545EST			0	0	6	?	Thunderstorm Wind (65kt)	<p>Thunderstorm winds overturned a tractor-trailer and blew eight catamarans down a street. Some buildings were unroofed, and windows were blown in. A condo wall buckled 10 inches where an observer saw a possible funnel cloud. Many trees were downed. Downpours caused minor flooding.</p>
Virginia Beach Co, Norfolk	31	1830EST			0	0	?	?	Thunderstorm Wind (54kt)	<p>Buildings and cars were damaged at the Norfolk State University and in Portsmouth.</p>

45 WASHINGTON

Western Washington	02	All Day	0	?	4	?	?	?	Heavy Snow	<p>A pair of moist weather systems moving over Washington from the southwest combined with cold northerly flow at the surface to dump heavy snow over Western Washington from late on March 1 through the afternoon of the 2nd. Amounts of snow ranged from 8" in a 24 hour period at Olympia and the Sea-Tac Airport up to 20" near the Cascades foothills of eastern King, Snohomish and Skagit counties. Sea-Tac Airport was forced to close for 14 hours due to heavy snow on runways. Overburdened trees falling on power lines caused scattered power outages affecting up to 50,000 customers. Near Snoqualmie Pass a truck driver suffered a heart attack and died after chaining up his truck. Near Chehalis a man walking along Interstate 5 was struck by a car and killed. Traffic accidents in Tacoma, Gig Harbor and Kirkland also claimed 4 lives.</p>
Spokane & Whitman Counties	09	1900 PST			0	0	5	0	Flash Flood	<p>Thunderstorms with heavy rainshowers and hailstones up to ¼ inch in diameter developed over the southeast corner of the state during the evening. Rainfall up to 1.2 inches in 3 hours falling on mostly frozen ground along with some snow cover led to rapid runoff. Mudslides covered roads and damaged a golf course in Spokane. Water over roads also forced closure of state and county roads. A few homes experienced flooded basements and hailstones caused minor damage to some automobiles.</p>

46 WEST VIRGINIA — NONE REPORTED

47 WISCONSIN

WIZALL Statewide	02	Late Evening into	0	0	?	0	0	0	Winter Storm	<p>A major winter storm deposited a widespread area of 6 to 15 inches of snow across northern and central Wisconsin. Over southern Wisconsin 3 to 7 inches of snow fell before changing to freezing rain and sleet. Numerous schools and businesses closed, mail delivery was cancelled in several areas and countless accidents were reported. Many power outages took place, especially in the south, as accumulating ice downed power lines and caused tree branches to snap lines. Some snow amounts included 15 inches at Blair (Trempealeau County) and Rice Lake (Barron County). Strong gusty winds produced considerable blowing and drifting snow which, at times, closed some highways and hampered travel.</p>
WIZ001-002-003-004-005-006-007 Northern Wisconsin	14	Early Morning into	0	0	?	0	0	0	Heavy Snow	<p>A snowstorm blanketed northern Wisconsin with 5 to 10 inches of snow. Winds gusting at times over 30 mph significantly reduced visibilities and caused plows and wreckers to be withdrawn from duties until the weather subsided. Schools and businesses shut down and many accidents were reported. Snow amounts of 10 inches were measured at Ashland (Ashland County) and Phillips (Price County) as well as several other locations.</p>
WIZ006-007-008-011-012-013-016-017 Central and Southern Wisconsin	17	Early Morning into	0	0	?	0	0	0	Heavy Snow	<p>A late winter storm hit central and southern Wisconsin with 5 to 10 inches of snow. In the southern portions where snow amounts were less, sleet and freezing rain fell, creating icy conditions. Traffic was snarled, and schools and businesses closed. Scores of accidents were reported including a 13 car pile up in Marathon County. Sample snowfall included 10 inches at Green Lake (Green Lake County) and 9 inches at both Wausau (Marathon County) and Fond du Lac (Fond Du Lac County).</p>

STORM DATA AND UNUSUAL WEATHER PHENOMENA

MARCH 1989

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM	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							KILLED	INJURED	PROPERTY	CROPS	
48 WYOMING										WYOMING									
WYZ001 NORTHWEST MOUNTAINS	01 03	0600 TO 0600MST			0	0	0	0	HEAVY SNOW	WYZ012-014-016-017 EASTERN PLAINS, RED DESERT, LARAMIE VALLEY, SOUTHEAST PLAINS	17	0900 TO 1900MST			0	0	?	0	HIGH WIND
<p>A PROLONGED SNOWFALL EVENT OCCURRED OVER WYOMING'S NORTHWEST MOUNTAINS FROM THE EARLY MORNING OF THE 1ST THROUGH THE EARLY MORNING OF THE 3RD. TWENTY-FOUR HOUR SNOWFALL TOTALS OF 8 TO 12 INCHES WERE COMMON. FROM THE MORNING OF THE 1ST THROUGH THE MORNING OF THE 2ND, SEVERAL SECTIONS OF YELLOWSTONE NATIONAL PARK ACCUMULATED 8 TO 14 INCHES OF NEW SNOW. SIMILAR AMOUNTS FELL THERE 24 HOURS LATER. SECTIONS OF SHOSHONE NATIONAL FOREST LOGGED UP TO 18 INCHES OF FRESH SNOW DURING 24-HOUR PERIODS. FINALLY, THE JACKSON HOLE SKI RESORT PILED UP FROM 9 TO 12 INCHES OF SNOWFALL WEDNESDAY NIGHT THROUGH THURSDAY MORNING.</p>										<p>HIGH WINDS PLAGUED SOUTHERN WYOMING DURING THE 17TH. SUSTAINED SPEEDS OF 40 MPH WITH GUSTS GREATER THAN 70 MPH WERE COMMON. LOCATIONS THAT EXPERIENCED THE FIERCE WINDS INCLUDED LARAMIE, CHEYENNE, RAWLINS AND ROCK SPRINGS. THE HIGHEST WIND GUST REPORTED WAS 78 MPH FROM AN OBSERVER LOCATED IN EXTREME SOUTHEAST WYOMING.</p>									
CARBON COUNTY, RAWLINS	13	1250 TO 1300MST			0	0	?	0	THUNDER-STORM WIND(58)	WYZ017 SOUTHEAST PLAINS	19 20	1700 TO 0500MST			0	0	0	0	SNOW
FREEMONT COUNTY, LANDER	13	1350 TO 1400MST			0	0	?	0	THUNDER-STORM WIND(51)	<p>STRONG WINDS AND WET SNOW OCCURRED ACROSS EXTREME SOUTHEAST WYOMING FROM THE EARLY EVENING OF THE 19TH THROUGH THE EARLY MORNING OF THE 20TH. THE PRECIPITATION BEGAN AS LIGHT RAIN, BUT QUICKLY CHANGED TO WET SNOW. CHEYENNE LOGGED 3 INCHES OF NEW SNOW. THE COMBINATION OF NORTH WINDS GUSTING OVER 30 MPH AND ICE ON POWER LINES CAUSED NUMEROUS ELECTRICAL FLUCTUATIONS AT CHEYENNE.</p>									
WYZ012-014-016-017 EASTERN PLAINS, RED DESERT, LARAMIE VALLEY, SOUTHEAST PLAINS	13 14	1800 TO 1200MST			0	0	?	0	HIGH WIND	<p>49 ALASKA, Northern ——— NO REPORT RECEIVED</p>									
<p>FROM THE EARLY EVENING OF THE 13TH THROUGH THE LATE MORNING OF THE 14TH, HIGH WINDS RAKED SOUTH-CENTRAL AND SOUTHEAST WYOMING. RAWLINS HAD A PEAK GUST OF 59 MPH. VEDAUNOO, LOCATED ABOUT 90 MILES WEST OF CHEYENNE, LOGGED SEVERAL GUSTS OVER 60 MPH, INCLUDING ONE TO 75 MPH. ON THE EARLY MORNING OF THE 14TH, CHEYENNE EXPERIENCED A PEAK WIND OF 62 MPH. FINALLY, DURING THE 14TH, OTHER WEATHER OBSERVERS ACROSS SOUTHEAST WYOMING CLOCKED SEVERAL WIND GUSTS BETWEEN 80 AND 86 MPH.</p>										<p>49 ALASKA, Southern</p>									
WYZ004-005-006 BIG HORN MOUNTAINS, NORTHERN FRONT RANGE, NORTHEASTERN PLAINS	13 14	1900 TO 1100MST			0	0	0	0	HEAVY SNOW	BRISTOL BAY, SOUTH-CENTRAL ALASKA, NORTH GULF COAST, KODIAK ISLAND	3-4	1600AST			4	?	6	0	Wind/High Seas
<p>WYZ001-007-009-015 NORTHWEST MOUNTAINS, WESTERN MOUNTAINS, WIND RIVER MOUNTAINS, SOUTHERN MOUNTAINS</p>										<p>A moderate 978mb low in the north-central Gulf of Alaska combined with high pressure over northern Alaska and strong northerly winds aloft to produce wind gusts 40-65 mph with unofficial reports of gusts to 100 mph.</p>									
WYZ001-007-009-015 NORTHWEST MOUNTAINS, WESTERN MOUNTAINS, WIND RIVER MOUNTAINS, SOUTHERN MOUNTAINS	13 14	1900 TO 1100MST			0	0	0	0	SNOW	SOUTH-CENTRAL ALASKA, NORTH GULF COAST	27	1200AST			0	0	?	0	High winds
<p>SNOW, HEAVY OVER NORTH-CENTRAL AND NORTHEAST WYOMING, OCCURRED ACROSS MUCH OF THE COWBOY STATE FROM LATE ON THE 13TH TO THE LATE MORNING OF THE 14TH. TWELVE-HOUR SNOWFALL AMOUNTS INCLUDED 10 INCHES AT BURGESS JUNCTION (LOCATED IN THE NORTHERN BIG HORN MOUNTAINS), 8 INCHES IN HEWLETTE AND 6 INCHES AT SHERIDAN. YELLOWSTONE PARK LOGGED GENERALLY 4 TO 6 INCHES OF SNOWFALL WITH SIMILAR AMOUNTS REPORTED IN THE SNOWY RANGE MOUNTAINS. ACCUMULATIONS OF 1 TO 5 INCHES OF NEW SNOW WERE COMMON IN THE WIND RIVER AND WESTERN MOUNTAINS.</p>										<p>A moderate 988 mb low in the northern Gulf of Alaska again combined with high pressure inland to produce wind gusts to 63 mph at Palmer, 46 mph at Anchorage, and 65 mph at Valdez.</p>									
WYZ001-005 NORTHWEST MOUNTAINS, NORTHERN FRONT RANGE	16 17	1800 TO 1000MST			0	0	0	0	SNOW	Ketchikan Area	23	Afternoon			4	3			Sea Swell
WYZ006 NORTHEAST PLAINS	16 17	2200 TO 1000MST			0	0	0	0	HEAVY SNOW	<p>A large swell generated by a strong high pressure all off shore, forced a herring boat onto shore in the Kah Shakes area near Ketchikan, causing the boat to sink. This same swell swamped an overloaded skiff southwest of Ketchikan causing 4 people, including 2 children to be treated at the Ketchikan Hospital for hypothermia.</p>									
<p>SNOWFALL ONCE AGAIN GREETED THE NORTHERN PORTION OF THE COWBOY STATE. MOST ACCUMULATIONS WERE IN THE NORTHEAST. RECLUSE PILED UP 7 INCHES OF NEW SNOW, WHILE GILLETTE RECEIVED 6 INCHES. YELLOWSTONE PARK GENERALLY GOT 2 TO 6 INCHES OF NEW SNOW AND SHERIDAN LOGGED 4 INCHES.</p>																			

STORM DATA AND UNUSUAL WEATHER PHENOMENA

MARCH 1989

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED ¹ DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
50 HAWAII									
All islands	1-4				0	0	6	5	Wind, Flash Flooding, Surf
<p>A low pressure system developed unusually far south to the west of the Hawaiian Islands as the month began and then slowly moved northeastward just north of the islands on the 3rd and 4th. Heavy showers caused some flooding on all islands during this four day period. Kauai felt the effects of the storm first with some lightning strikes reported at Poipu and flooding at Anahola at noon on the 1st. At the other end of the chain downslope winds off Mauna Loa were estimated at 40 mph with gusts to 70 mph at Waikeka Uka about 7 miles SW of Hilo at about 2300 HST on the 1st. Strong downslope winds also began affecting the other islands at about 0300 HST on March 2nd on Oahu. Rough surf pounded the southwest-facing beaches. A large tanker <i>EXXON HOUSTON</i> was beached 3 miles south-southwest of Barbers Point on Oahu. Locally strong gusty winds off the Koolau Range occurred as late as during the evening hours of the 3rd.</p> <p>A total of 6 homes lost their roofs during the high winds, mainly in the Kaneohe area. Many power outages occurred, but mostly of brief duration. Some minor flash flooding occurred on Maui and Hawaii on the 4th. Some wind damage to tender plants occurred on all islands.</p>									
51 PUERTO RICO	----- NONE REPORTED								
52 VIRGIN ISLANDS	----- NONE REPORTED								
53 PACIFIC	----- NONE REPORTED								

STORM SUMMARY

MARCH 1989

TYPE	ALABAMA	ARIZONA	ARKANSAS	CALIFORNIA	COLORADO	CONNECTICUT	DELAWARE	FLORIDA	GEORGIA	IDAHO	ILLINOIS	INDIANA	IOWA	KANSAS	KENTUCKY	LOUISIANA	MAINE	MARYLAND & DC	MASSACHUSETTS	MICHIGAN	MINNESOTA	MISSISSIPPI	MISSOURI	MONTANA	NEBRASKA	NEVADA	NEW HAMPSHIRE
TORNADOES						0											0		0								0
Number	4		2	1				6	6						1	2						7					
Days	1		2	1				4	2						1	2						3					
Deaths	0		0	0				0	1						0	0						0					
Injuries	2		0	0				0	2						0	0						5					
Property Damage	6		5	3				4	7						6	5						6					
Crop Damage	0		?	0				0	?						?	?						0					
HAIL																											
Deaths	0		0	0			0	0	0		0	0		0				0				0	0				
Injuries	0		0	0			0	0	0		0	0		0				0				0	0				
Property Damage	?		6	0			?	1	?		?	?		4				?				?	3				
Crop Damage	?		?	?			?	0	0		0	?		0				?				0	0				
THUNDERSTORM WINDS																											
Deaths	0		0				0	0	0		0	0		0	0			0				0	1				
Injuries	0		1				0	1	2		0	0		0	0			0				0	0				
Property Damage	?		6				?	5	6		?	5		4	3			?				?	?				
Crop Damage	0		?				?	0	0		0	?		0	0			?				0	?				
HIGH WINDS																											
Deaths				1	0			0		0			0	0	1										0	0	0
Injuries				0	1			0		0			0	0	0										0	0	0
Property Damage				0	6			5		3			5	4	0									5	5	4	0
Crop Damage				0	4			0		0			0	6	0									5	5	0	0
LIGHTNING																											
Deaths			0					0				0	0	0				0		0		0	2				
Injuries			0					2				0	0	0				0		1		2	5				
Property Damage			3					2				?	4	4				?		2		?	?				
Crop Damage			?					0			0	0	0	4				?		0		0	0				
FLASH FLOODS																											
Deaths	0		0						0					0									0				
Injuries	0		0						0					0									0				
Property Damage	?		?						5					6									5				
Crop Damage	0		?						0					2									0				
FLOODS																											
Deaths			0							0					0							0			0	0	0
Injuries			0							0					0							0			0	0	0
Property Damage			5						5					5	5							6			5	3	3
Crop Damage			?						0					4	4							0			0	0	0
HEAVY SNOWSTORMS AND BLIZZARDS @																											
Deaths							0			0	0		0	0	0							1		0	0	0	0
Injuries							?			0	?		0	0	0							0	0	?	0	0	0
Property Damage							?			4	?		4	4	4							0	6		4	4	3
Crop Damage							0			0	0		0	0	0							0	0		0	0	0
ICE STORMS #																											
Deaths			0		0						0		0	0	0			0		0					0	0	0
Injuries			1		0		0				0		0	0	0			0		0					0	0	0
Property Damage			8		5		?				?		5	6	4			3		3					6	6	2
Crop Damage			?		0		0				0		0	4				0		0					2	2	
HURRICANES AND TROPICAL STORMS																											
Deaths																											
Injuries																											
Property Damage																											
Crop Damage																											
ALL OTHERS																											
Deaths		1			0																						
Injuries		0			0																						1
Property Damage		6			4																						0
Crop Damage		0			0																						0

SEE REFERENCE NOTES FOR STORM DAMAGE CATEGORIES

STORM SUMMARY

MARCH 1989

TYPE	NEW JERSEY	NEW MEXICO	NEW YORK	NORTH CAROLINA	NORTH DAKOTA	OHIO	OKLAHOMA	OREGON	PENNSYLVANIA	RHODE ISLAND	SOUTH CAROLINA	SOUTH DAKOTA	TENNESSEE	TEXAS	UTAH	VERMONT	VIRGINIA	WASHINGTON	WEST VIRGINIA	WISCONSIN	WYOMING	ALASKA	HAWAII	PACIFIC	PUERTO RICO	VIRGIN ISLANDS	NATIONAL DEATHS & INJURY TOTALS
TORNADOES		0																	0			4		0	0	0	
Number	3			2			3				1			5	1		1										1
Days	11			2			1				1			2	1		1										
Deaths	0			0			0				0			0	0		0										
Injuries	0			11			0				0			0	0		0										47
Property Damage	5			6			3				4			4	3		5										
Crop Damage	0			0			3				0			3	0		3										
HAIL																											
Deaths							0		0		0		0	0			0		0								
Injuries							0		0		0		0	0			0		0								
Property Damage							2		3		4		2	3			3		3								
Crop Damage							2		0		3		0	2			3		0								
THUNDERSTORM-WINDS																											
Deaths	2			0		0	0	3	0		0		0	0			0				0						5
Injuries	0			0		0	0	0	0		0		0	0			0				0						5
Property Damage	4			5		5	5	4	4		3		3	5			6				3						
Crop Damage	0			0		0	2	0	0		0		0	3			2				0						
HIGH WINDS																											
Deaths			0								0			0	0		0						0				6
Injuries			0								0			3	0		2					0		0			4
Property Damage			4								2			5	1		3						6				
Crop Damage			0								0			0	0		0					5					
LIGHTNING																											
Deaths				1							0			0	0		0										1
Injuries				2							0			0	0		1										8
Property Damage				5							4			5	5		4										
Crop Damage				0							0			6	0		0										
FLASH FLOODS																											
Deaths				0		0								0					0								1
Injuries				0		0								1					0								1
Property Damage				5		5								7					5								
Crop Damage				0		0								2					0								
FLOODS																											
Deaths			0			0		0			0		0	0		0	0										
Injuries			0			0		0			0		0	0		0	0										
Property Damage			7			?		4			4		6	3		5	5										
Crop Damage			?			0		0			0		0	2		0	?										
HEAVY SNOWSTORMS AND BLIZZARDS @																											
Deaths	0		0			0	0		0		0		0	0	0	0			0								1
Injuries	0		0			0	0		0		0		0	0	0	0			0								0
Property Damage	3		5			?	7		3		?		?	1	4				4								?
Crop Damage	0		0			0	?		0		0		?	?	0				?								
ICE STORMS #																											
Deaths	0		0			0			0		0			0		0	0										0
Injuries	0		0			0			0		0			0		0	0										1
Property Damage	3		5			6			3		5			?		5	?										
Crop Damage	0		0			0			0		0			?		0	?										
HURRICANES AND TROPICAL STORMS																											
Deaths																											
Injuries																											
Property Damage																											
Crop Damage																											
ALL OTHERS																											
Deaths			0								0						1										3
Injuries			0								0						0										4
Property Damage			?								3						6										
Crop Damage			?								0						0										

SEE REFERENCE NOTES FOR STORM DAMAGE CATEGORIES

STORM DAMAGE CATAGORIES

REFERENCE NOTES

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

- 0/Blank None reported.
 * Miles instead of yards.
 ** Yards instead of miles.
 @ Includes heavy sleet storm.
 # Freezing drizzle and freezing rain, commonly known as glaze.
 ≠ Report incomplete.
 ≠# Report not received.
 o/c Indicates Crop Damage amount is included in the value given for property damage.

When reports are not received or are incomplete, the Storm Summary National Death and Injury totals may also be incomplete.

Definition of Fujita Tornado Scale (F scale)

(F0) Gale tornado (40-72 mph): Light damage
 Some damage to chimneys; break branches off trees; push over shallow-rooted trees; damage sign boards.

(F1) Moderate tornado (73-112 mph): Moderate damage
 The lower limit (73 mph) is the beginning of hurricane wind speed; peel surface off roofs; mobile homes pushed off foundations or overturned; moving autos pushed off the roads.

(F2) Significant tornado (113-157 mph): Considerable damage
 Roofs torn off frame houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light-object missiles generated.

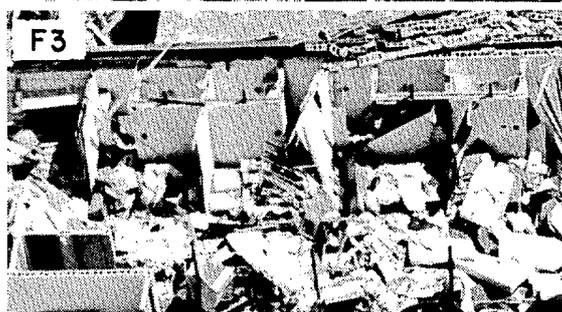
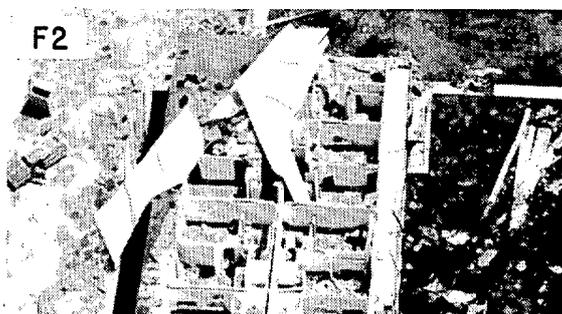
(F3) Severe tornado (158-206 mph): Severe damage
 Roofs and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted; heavy cars lifted off ground and thrown.

(F4) Devastating tornado (207-260 mph): Devastating damage
 Well-constructed houses leveled; structure with weak foundation blown off some distance; cars thrown and large missiles generated.

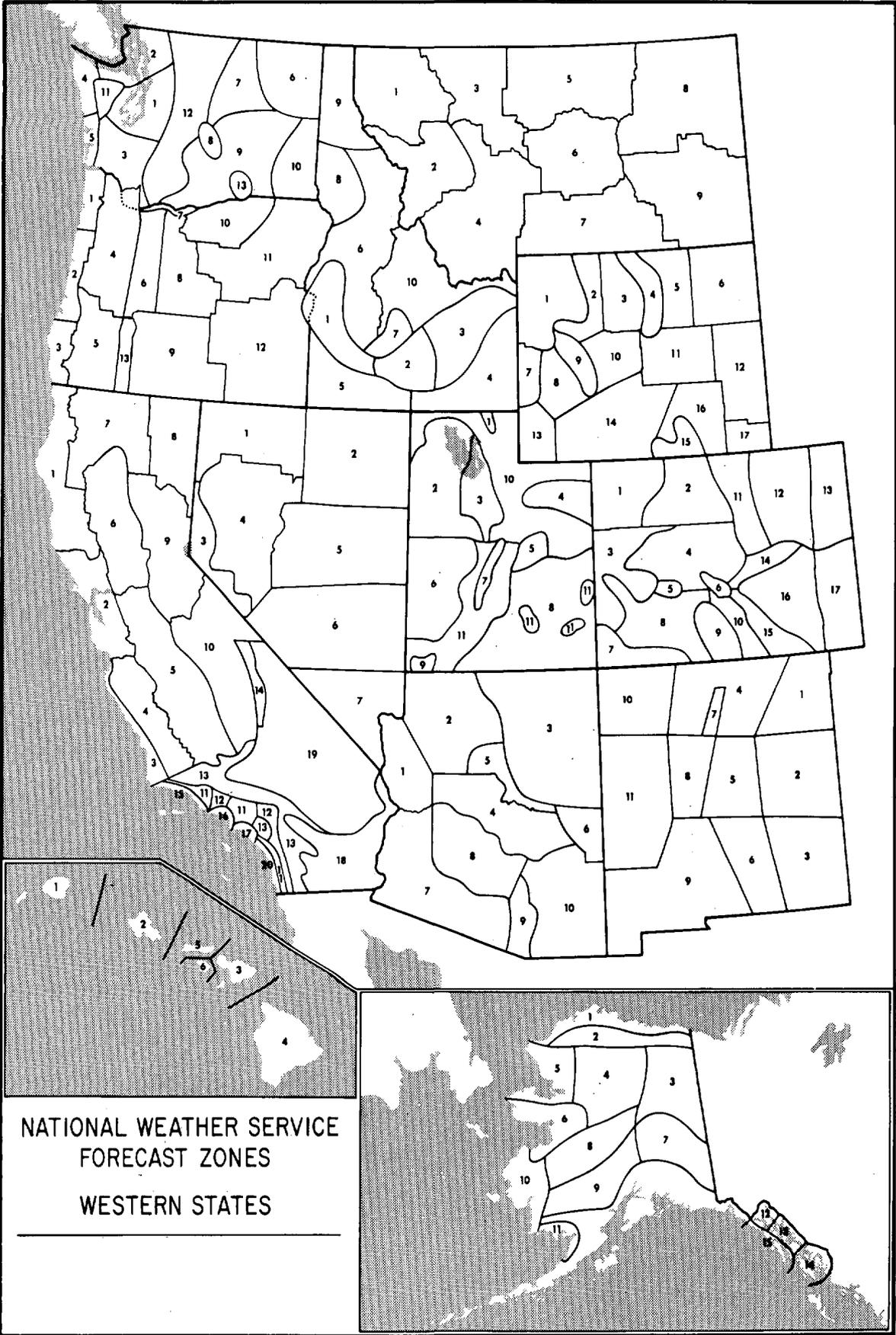
(F5) Incredible tornado (261-318 mph): Incredible damage
 Strong frame houses lifted off foundations and carried considerable distance to disintegrate; automobile-sized missiles fly through the air in excess of 100 m; trees debarked; incredible phenomena will occur.

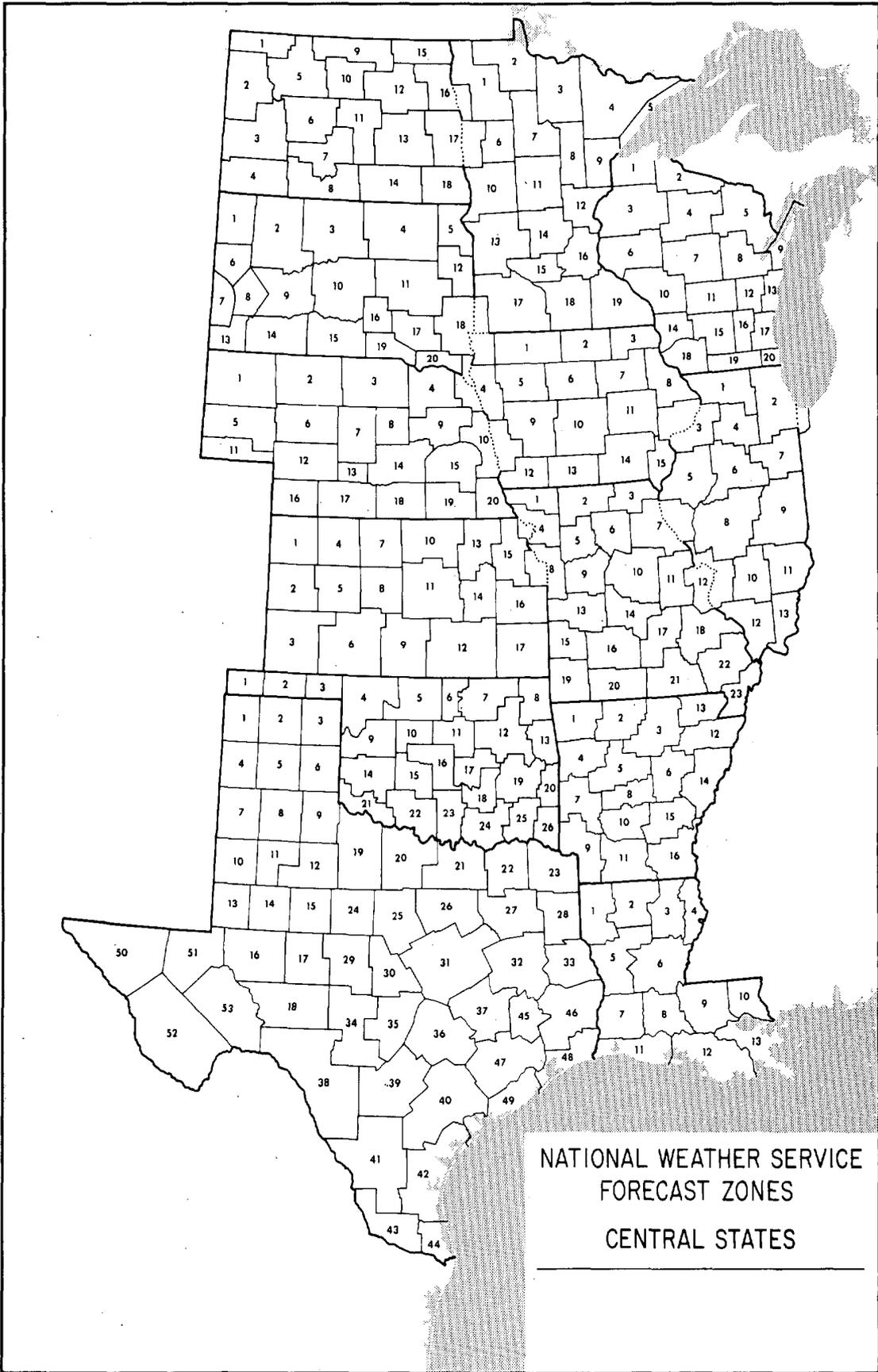
(F6-F12) (319 mph to Mach 1, the speed of sound):
 The maximum wind speeds of tornadoes are not expected to reach the F6 wind speeds.

(F0+F1) *Weak Tornado*
 (F2+F3) *Strong Tornado*
 (F4+F5) *Violent Tornado*

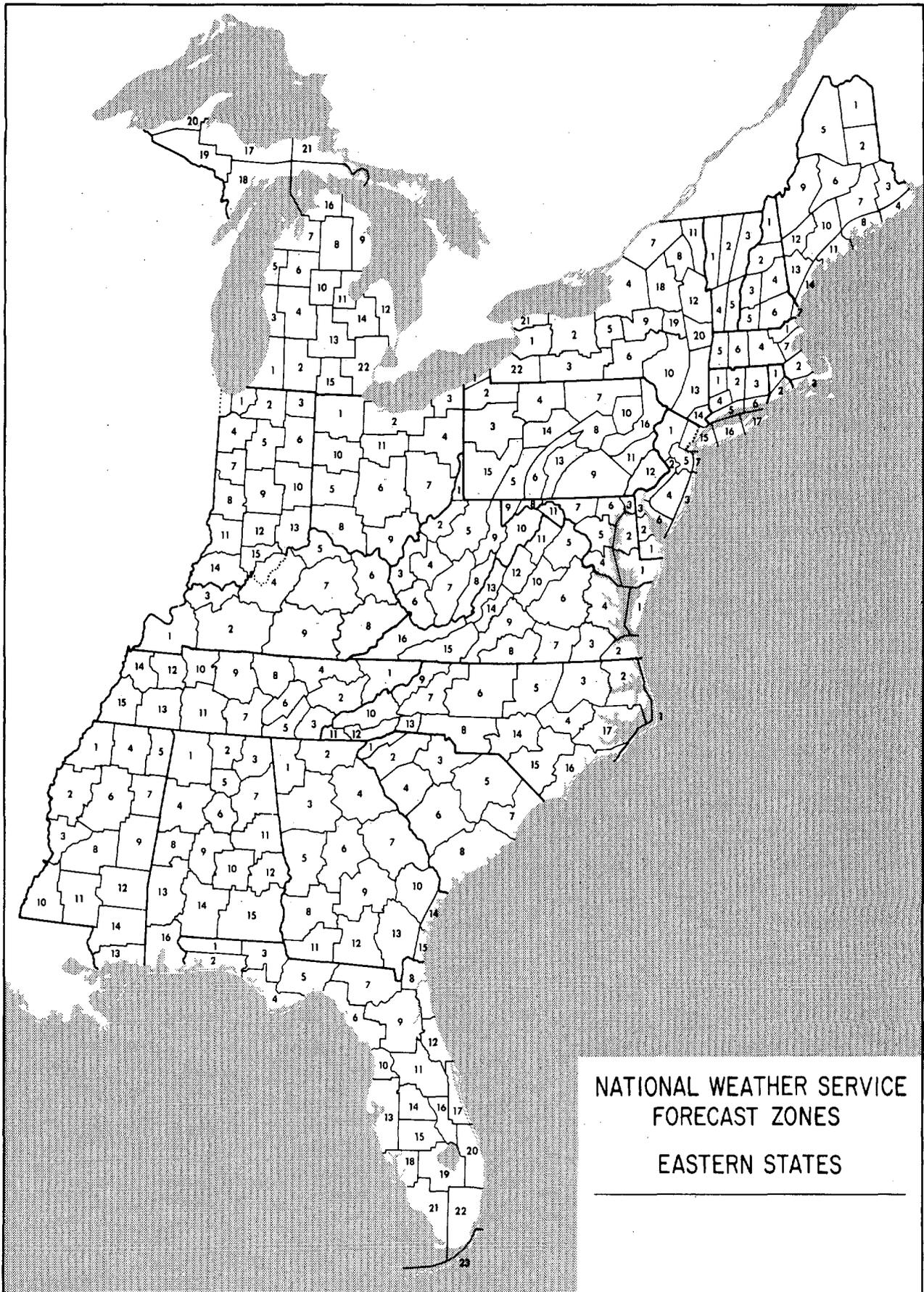


From J. Atmos. Sci., August 1981, p. 1517-1519





NATIONAL WEATHER SERVICE
FORECAST ZONES
CENTRAL STATES



NATIONAL WEATHER SERVICE
FORECAST ZONES
EASTERN STATES

Summaries of Temperature and Precipitation Extremes were compiled by Vincent Miller of THE WEATHER CHANNEL, Atlanta, Georgia.

TEMPERATURE EXTREMES

MARCH 1989

STATE	H I G H E S T	D A T E	STATION	L O W E S T	D A T E	STATION
Alabama	88	12 29+	Greenville Headland	25	7 7 7	Jasper 4 N Martin Dam Valley Head
Alaska	57?	12	Akutan	-52	8	Umiat
Arizona	97	10	Tucson Magnetic Obsy Tucson Univ of Arizona Tucson WSO Airport Bullhead City Lake Havasu Yuma Proving Ground Yuma WSO Airport	-3	4	Flagstaff 4 SW
Arkansas	92	11	Gilbert	12	7	Gravette
California	101	30	Borrego Desert Park	-12	4	Bodie
Colorado	94	11	Campo 7 S	-32		Taylor Park
Connecticut	83	28	Hartford WSO Airport	2	8	
Delaware	85	29+	Dover	12	7	Newark University Farm
Florida	94	28	Oasis Ranger Station	30	10 11	Fountain 3 SSE Gainsville 11 WNW
Georgia	89	18 29 29 29+	Folkston Douglas Fargo 17 NE Waycross 4 NE	24	9 10	Clayton 1 SSW Blairsville Exp Station
Hawaii	91?	1f	Waialua 847	30?	18+	Kanalohuluhulu 1075
	91?	18	Waimea Arboretum	30	31+	Mauna Loa Slope Observatory
	89	1	Puukohola Heiau 98.1			
		24	Honolulu Observatory 702.2			
Idaho	75	11	Swan Falls Power House	-24	4	Stanley
Illinois	83?	28	Benton Forest Service	-3	1	Mount Carroll
	82	26	Cahokia			
Indiana	83	28	Vevay	4	1 8+	Wanatah 2 WNW Bluffton
					8	Perrysville 4 WNW
Iowa	85	26	Mapleton No 2	-15	6	Hawarden
Kansas	96	10	Medicine Lodge	-13	6	Colby 1 SW
	96E	10	Pratt 4 W		a 7+	Atwood 2 SW
	96	10	Ulysses 1 SE			
Kentucky	88	28	Paintsville 1 E	15	1	Shelbyville 1 E
Louisiana	90	30	Many	21	8 8 8	Ashland Logansport 4 ENE Plain Dealing
Maine	75	28	Sanford 2 NNW	-36	8	Vanburen 2
Maryland	91	28	Baltimore WSO City	6	2	Oakland 1 SE
Massachusetts	83	28	Walpole 2	-4	7	Lanesboro
Michigan	80	27 27 27	East Lansing 4 S Ionia Mt Clemens ANG Base	-34	3	Kenton
Minnesota	77	27	Winona	-41	2	Brimson 1 E
Mississippi	87	12 14 14 14 14	Merrill Grenada Meadville Monticello Richton 3 SSE	23	8	Pontotoc Experimental Stn

TEMPERATURE EXTREMES

MARCH 1989

STATE	H I G H E S T	D A T E	STATION	L O W E S T	D A T E	STATION	
Missouri	85	11	Van Buren Ranger Station	- 4	7	Bolivar 1 NE	
		26	Camdenton		8	Weldon Spring Wildlife Area	
		26	Carthage				
		26	Salisbury				
		26	Steelville 2 N				
		26	Union				
Montana	70	25	Grass Range	-35	4	Denton 1 NNE	
Nebraska	92	10	Beaver City	-27	5	Agate 3 E	
Nevada	95	12	Laughlin	-14	4	Wildhorse Reservoir	
New Hampshire	79	28	Greenland	-27	7	First Conn Lake	
New Jersey	84	28	Cranford	0	9	Newton St. Pauls Abbey	
		28	Hammonton 2 NNE				
		28	Toms River				
		29	Tuckerton				
		29	Tuckerton				
New Mexico	95	13+	Carlsbad	-12	5	Eagle Nest	
New York	83	28	Garnerville	-22	7	Dannemora	
		28	Poughkeepsie FAA Airport		8+	Newcomb 3 E	
		28	Poughkeepsie FAA Airport		8+	Newcomb 3 E	
North Carolina	A 89?	31	Elizabethtown Lock 2	14?	9	Chapel Hill 2 W	
		88	29		Burlington Fire Station	9	Roanoke Rapids
North Dakota	70	26	Amidon	-35	8	Mount Mitchell	
					4	Belcourt KEYA Radio	
Ohio	86	28	Newport	0	2	Chardon	
Oklahoma	98?	25	Mangum Research Station	- 5	4	Hammon 1 NNE	
		97	10			Freedom	
Oregon	71	9	Rome 2 NW	-10	4+	Austin	
		10	Pelton Dam		4+	Enterprise 2 S	
Pennsylvania	88	28	Mercersburg 1 E	- 5	3+	Conneautville 4 ESE	
					8	Laurelton St Village	
					7	North Foster 1 E	
Rhode Island	82	28	North Foster 1 E	7	7	North Foster 1 E	
South Carolina	88	28	Laurens	22?	7	Anderson	
					22	8	Sims Water Plant
					22	8	Sims Water Plant
South Dakota	85	26	Pickstown	-29	5	Ardmore 2 N	
Tennessee	86	28	Centerville Water Plant	11	31D	Mt LeConte	
		28	Chattanooga WSO Airport		17	1f	Springfield Exp Station
		28	Chattanooga WSO Airport		18	1D	Mt LeConte
Texas	104	30	Mc Allen FAA Airport	3	5	Cheatham Lock and Dam	
			30			Mc Cook	
			30			Raymondville	
			30			Robstown	
			30			Robstown	
Utah	87	9	La Verkin	-14	4	Uintalands	
Vermont	72	28	Bellows Falls	-24	8	West Burke	
		28	Vernon				
Virginia	92	29	Stony Creek 3 ESE	7	8	Big Meadows	
Washington	71	11	Kennewick	- 9	3	Davenport	
					3	2	Glady 1 N
West Virginia	90	28	Creston	3	2	Glady 1 N	
		28	Logan				
		28	Sutton Lake				
		28	Williamson				
Wisconsin	80	27	Necedah	-35	2	Foxboro	
Wyoming	80	10	Phillips	-40	4	Darwin Ranch	
		10	Worland				

NOTE: Due to differences in observing times and methods, and quality control problems, dates in the temperature table may differ from dates (primarily of high temperatures) published in individual state Climatological Data. Any differences, unless otherwise noted, are of one calendar day. Temperatures are in degrees Fahrenheit.

+ And on previous date or dates.

? Published extreme appears to be in error.

A Published April 1st high of 89 would have occurred on March 31st.

D Date as published probably 1 day too early.

E Observed high of 96 was published as 77.

a Published as 7+; probably occurred only on the 6th.

f Date as published probably occurred February 28th.

PRECIPITATION EXTREMES

MARCH 1989

STATE	GREENTESTLY	STATION	MONTHLY	STATION	GREENTESTLY	DATE	STATION	GREENTESTLY	STATION	GREENTESTLY	DATE	STATION
Alabama	9.27	Cahaba Pump House	2.407	Athens 2	4.34	5	Moulton 2					
Alaska	8.92	Beaver Falls	3.67	Dauphin Island 2	1.88	4	Beaver Falls	43.1	Elfin Cove	92	22	Main Bay
Arizona	5.34	Tonto Creek Fish Hat 2	.00	Cooper Lake Project; Cooper Landing 6 W; Halibut Cove; Mataruska Agr Exp Station; Tok Klagetoh 12 WNW; Lake Havasu; Sanders Monument Valley; Page; Parker 6 NE	2.11	26	Crown King	19.0M	Happy Jack Ranger Station	32	3	Bright Angel Ranger Stn
Arkansas	10.79	Fulton	3.15	McArthur	6.00	29	Bluff City	15.1	Gravette	15	6	Gravette
California	28.12	Bucks Creek P H	.00	Calexico 2 NE; Death Valley; Eagle Mountain; El Centro 2 SSW; Hayfield Pumping Plant; Iron Mountain; Mecca Fire Station; Needles FAA Airport; Pearl Blossom Pomona Cal Poly Victorville Pump Plant Indio Fire Station; Trona Idalia	4.50	10	Dobbins 1 S	110.0	Echo Summit Sierra Ski	75	26	Echo Summit Sierra Ski
Colorado	3.33	Bonham Reservoir	.007 .00 T .00 T	Cheyenne Wells; Joes 2 SE; Manassa; Stonington	2.08	3	Bonham Reservoir	35.0	Aspen 1 SW	79	3	Bonham Reservoir
Connecticut	4.50	Groton	1.547	Ansonia 1 NE	1.80	24	Bridgeport WSO Airport	11.5	Norfolk 2 SW	3	25+	Norfolk 2 SW
Delaware	8.21M	Milford 4 SE	2.37 3.69	Falls Village Wilmington WSO Airport	2.60	24	Dover	2.0	Dover Lewes Wilmington Porter Rsvr	3	7	Georgetown 5 SW
Florida	7.84	De Funiak Springs	.48	Fleming Ranger Station	2.87	23	Apalachicola WSO Airport		Galena	90	31	Deadwood Dam 15 N
Georgia	7.88	Cedartown	1.41	Savannah WSO Airport	3.42	6	Cedartown		Cahokia	12	7	Grafton
Hawaii	18.96	S Glenwood	.13	Kaunakakai 536	12.02	3	Hawaii Volcanos NP HQ 54					
Idaho	7.13	Pierce	.047	Blackfoot 2 SSW	1.65	2	Silver City 5 W	60.0				
Illinois	10.53	Lawrenceville	.18 .39	Howe Barrington	3.86	30	Lawrenceville	12.5				

PRECIPITATION EXTREMES

MARCH 1989

STATE	G R E A T E S T	M O N T H L Y	STATION	M O N T H L Y	STATION	G R E A T E S T	D A T E	STATION	G R E A T E S T	M O N T H L Y	STATION	G R E A T E S T	D A T E	STATION
Indiana	10.73		Vincennes 5 NE	.61	Warsaw	3.10	30	Vincennes 5 NE	5.7		Elwood Waterworks	10	2	Hobart
Iowa	3.13h		Dorchester 4 S	.11s	Ida Grove 5 NW	1.55	28	Clinton 1	13.8		Sibley 5 NNE	12	5+	Ogden Dunes Hawarden
Kansas	2.32		DeWitt	.19	Chariton 1 E; Randolph	2.94	28	Elk City Lake	7.0		Pittsburg	6	6	Columbus 1 SW
	5.59		Chanute FAA Airport	T	Hugoton			Buckhorn Lake	1.2		Covington WSO Airport	1	1	X Murray
Kentucky	8.68		Tompkinsville 9 NW	3.05	Feds creek 1 SE	3.15	6					6	8+	Columbus; Princeton 1 SE Covington WSO Airport
Louisiana	9.78		Sheridan Fire Tower	2.49	Donaldsonville 4 SW	6.15	29	Vivian	.1		Marion 7 SE			
Maine	4.58		Acadia National Park	1.02	Presque Isle	2.25	25	Acadia National Park	29.0		Springfield	39	10+	Van Buren 2
Maryland	8.10		Snow Hill 4 N	2.56?	Westminister Police Brk	2.37	24	Snow Hill 4 N	10.2		Frostburg 2	7	1	Mc Henry 2 NW
				3.10	Potomac Filter Plant									
Massachusetts	4.79		Edgartown	1.79	Cumington Hill	2.43	25	Edgartown	16.0		Plainfield	9	25	Ashfield
Michigan	3.99		Gaylord	.71	East Lansing 4 S	1.77	14	Marquette WSO	44.3		Marquette WSO	44	5	Colrain 4 NW
Minnesota(P)	4.98h		Delano	.27?	Winstead	1.78h	4	Theilman	44.0?		Winsted	45	15	Houghton FAA Airport
Mississippi	10.26		Tylertown 2 WNW	2.27	Charleston 1 N	4.12	30	Tylertown 2 WNW						Bergland Dam
Missouri	8.73		Bernie	p .11?	Memphis	3.32t	5	Cassville Ranger Station	17.0		Pierce Ciaty	16	6	Deep Portage
						3.09	5	Kennett Radio KBOA						Pierce City
Montana	4.75		Mystic Lake	.08	Culbertson	1.14	10	Hungry Horse Dam	79.0		Mystic Lake	47	3	Waynesville 2 W
Nebraska	p 2.23h		Plainview	.00s	Valparaiso	.85	30	Falls City 2 NE	26.0		Crawford	14	4	Cooke City 2 W Hay Springs 12 S
				T	Lincoln-Univ of Nebraska									
				.03	Ulysses									
Nevada	6.29		Dagget Pass	.00	Amargosa Farms-Garey	1.05	8	Dagget Pass						
				T	Penoyer Valley-Castleton			Stateline-Harrah's	39.5		Wildhorse Reservoir	34	3	Dagget Pass
New Hampshire	6.41		Mount Washington	1.53	Mason	1.70	24	Newport	29.8		Mount Washington	33	22	First Conn Lake
New Jersey	8.39		Cape May 2 NW	p2.06?	Midland Park	2.70	24	Tuckerton	9.2		Somerville 3 NW	7	7	Somerville 3 NW
New Mexico	1.41		Chama	T or .00	14 Stations	.87	20	Sandia Park	16.8		Cloudcroft	28	4	Red River
New York	5.64		Westbury	p .94?	Whitehall	2.40	25	Slide Mountain	28.5		Rectors Corners	42	2	Boonville 2 SSW
														Rectors Corners
North Carolina	11.20		Cape Hatteras WSO	2.63	Enka	4.57	24	Cape Hatteras WSO	2.9		Goldsboro 4 SE	16	1	Mount Mitchell
North Dakota	M 3.29h		La Moure 2 W	.09	Center 4 SE	1.10	26	Beach	24.7		Lidgerwood 1 SSW	29	7+	Pemina
	2.56		Fullerton 1 ESE											
Ohio	8.95		Cincinnati-Fernbank	1.17	Stryker	2.10	30	Cincinnati-Fernbank	11.4		Akron-Canton WSO Airport	5	2+	Chardon
												31		Wooster Exp Station

PRECIPITATION EXTREMES

MARCH 1989

STATE	G R E A T E S T	M O N T H L Y	STATION	M O N T H L Y	STATION	G R E A T E S T	D A T E	STATION	G R E A T E S T	M O N T H L Y	STATION	G R E A T E S T	D A T E	STATION
Oklahoma	7.96		Stilwell 1 NE	.01	Regnier	3.96	28	Elk City 1 E	18.0		Kansas 1 ESE	15	6	Kansas 1 ESE
Oregon	27.88		Port Orford 5 E	1.03	Paulina	4.00	25	Port Orford 5 E	96.0		Crater Lake NPS HQ	147	31	Crater Lake NPS HQ
Pennsylvania	8.04		Indiana 3 SE	p1.44?	Sabinsville 3 SE	2.10	30	Derry 4 SW	17.3		Ebensburg Sewage Plant	13	2+	Seven Springs
Rhode Island	4.86		Kingston	2.73	Woonsocket	2.26	25	Kingston	4.7		North Foster 1 E	2	2+	North Foster 1 E
South Carolina	9.14?		Pee Dee	1.39	Hilton Head	3.06	23	Great Falls	.8		Loris 1 S			
South Dakota	8.19		Hogback Mountain											
	3.96h		Bison	.44s	Hilland 4 NNW	1.50h	14	Bison	41.0		Lead	25?	5	Raymond 3 NE
Tennessee	9.52		Kingston Springs	3.04	Morristown Radio WCRK	5.70	5	Pulaski Water Plant	1.5		Mt LeConte	19	4	Bryant 1 NE
Texas	15.64		Longview WSMO	T or .00	15 stations	11.05	29	Henderson	13.5M		Deport	22	1	Mt LeConte
Utah	5.87		Silver Lake Brighton	.04	Big Water	2.05	3	Deer Creek Dam	66.0		Silver Lake Brighton	90	3	Alta
Vermont	4.83		Mount Mansfield	1.69	South Newbury	1.50	31	West Wardsboro	23.4		Canaan	73	26	Mount Mansfield
Virginia	10.35		Wallaceton Lake Drummond	1.48	Independence 2	3.14	7	Tye River 1 SE	3.5		Louisa	3	9	Emporia 1 NNW
Washington	17.14		Cougar 6 E	.82	Waterville	2.29	25	Cougar 6 E	143.0		Rainier Paradise R.S.	195	29	Rainier Paradise R.S.
West Virginia	7.49?		Corton	2.06	Union 3 SSE	2.36	6	Pickens 2	10.0		Mathias	12	1	Snowshoe
	7.18M		Wayne 2											
Wisconsin	3.26		Two Rivers	.99	Prairie du Chien	1.75?	3	Brodhead	35.5M		Lakewood 3 NE	33	4	Gurney
Wyoming	4.90		Moran 5 NNW	.04	Riverton	1.18?	14	Colony	67.4		Snake River	70	3	Snake River

NOTE: Due to differences in observing times and methods, and quality control problems, the precipitation event listed for a particular date may have actually occurred wholly or partially on the previous day. Dates listed are as published in Climatological Data. Precipitation amounts are measured in inches.

+ And on previous date or dates.

? Published as monthly extreme in Climatological Data, but appears to be in error. When possible, the probable correct total and station is listed.

h Total is probably too high due to likely error in measuring the water equivalent of some/all snowfall.

s Total is probably too small due to likely error in measuring the water equivalent of some/all snowfall.

M Missing (1 to 9 daily values).

P Due to many evident errors in measuring snow and its water equivalent, determining true extremes is a bucket of worms (snow?). The distance between the published monthly maximum precipitation location (Delano) and minimum location (Winsted) is 15 miles, yet the published greatest monthly snowfall is 44.0 at Winsted.

T Trace (an amount too small to measure).

X Climatological Data lists "2 stations" as sharing extreme, but only 1 station name was published.

p Due to a number of stations with probable errors, determining the true extreme is difficult.

t Published as a 24-hour total, but probably a 3-day total.

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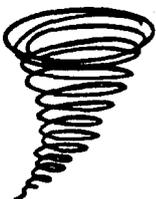
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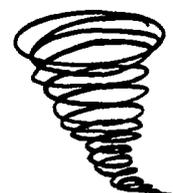
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HOURLY
PRECIPITATION DATA
ARIZONA

DECEMBER
WITH ANNUAL SUPPLEMENT

HOURLY
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CLIMATOLOGICAL DATA
ANNUAL SUMMARY
ARIZONA

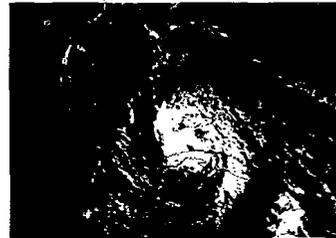
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CLIMATOLOGICAL DATA
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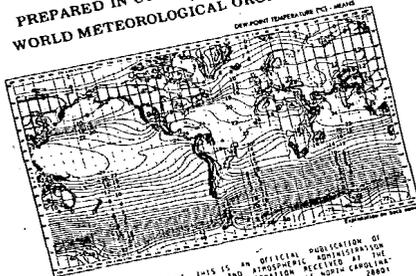
LOCAL
CLIMATOLOGICAL DATA
Monthly Summary

STATION	ELEVATION	LATITUDE	LONGITUDE	TIME ZONE	MONTHLY SUMMARY																																																																																																																																																																																																	
					JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC																																																																																																																																																																																						
ALBUQUERQUE	5100	35° 45' N	106° 45' W	MST	1.2	1.5	2.1	3.2	4.5	6.8	10.2	14.5	19.8	25.1	30.4	35.7	41.0	46.3	51.6	56.9	62.2	67.5	72.8	78.1	83.4	88.7	94.0	99.3	104.6	109.9	115.2	120.5	125.8	131.1	136.4	141.7	147.0	152.3	157.6	162.9	168.2	173.5	178.8	184.1	189.4	194.7	200.0	205.3	210.6	215.9	221.2	226.5	231.8	237.1	242.4	247.7	253.0	258.3	263.6	268.9	274.2	279.5	284.8	290.1	295.4	300.7	306.0	311.3	316.6	321.9	327.2	332.5	337.8	343.1	348.4	353.7	359.0	364.3	369.6	374.9	380.2	385.5	390.8	396.1	401.4	406.7	412.0	417.3	422.6	427.9	433.2	438.5	443.8	449.1	454.4	459.7	465.0	470.3	475.6	480.9	486.2	491.5	496.8	502.1	507.4	512.7	518.0	523.3	528.6	533.9	539.2	544.5	549.8	555.1	560.4	565.7	571.0	576.3	581.6	586.9	592.2	597.5	602.8	608.1	613.4	618.7	624.0	629.3	634.6	639.9	645.2	650.5	655.8	661.1	666.4	671.7	677.0	682.3	687.6	692.9	698.2	703.5	708.8	714.1	719.4	724.7	730.0	735.3	740.6	745.9	751.2	756.5	761.8	767.1	772.4	777.7	783.0	788.3	793.6	798.9	804.2	809.5	814.8	820.1	825.4	830.7	836.0	841.3	846.6	851.9	857.2	862.5	867.8	873.1	878.4	883.7	889.0	894.3	899.6	904.9	910.2	915.5	920.8	926.1	931.4	936.7	942.0	947.3	952.6	957.9	963.2	968.5	973.8	979.1	984.4	989.7	995.0	1000.3

STORM DATA



MONTHLY CLIMATIC
DATA FOR THE WORLD
PREPARED IN COOPERATION WITH THE
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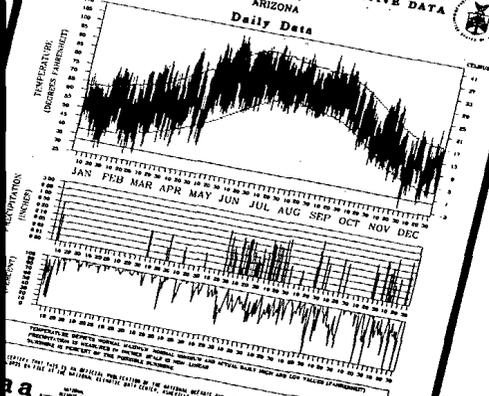


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LOCAL CLIMATOLOGICAL DATA
ANNUAL SUMMARY WITH COMPARATIVE DATA
TUCSON,
ARIZONA
Daily Data



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CHALLENGES AHEAD: FLOOD LOSS REDUCTION STRATEGIES FOR THE '90s

This year's conference theme focuses on the challenges we face in the advent of the 21st century, and the strategies needed to further reduce flood hazards over the next decade. Papers are invited for, but not limited to, the following issues and subjects:

Mapping Issues: Delineation of floodplains in rapidly growing areas to account for the effects of future watershed development; new methods and techniques for assessing and evaluating flooding risks; dealing with floodplains not identified through the National Flood Insurance Program or where flood data does not exist.

Managing Stormwater: Linking floodplain and stormwater management programs; designing stormwater management facilities to reduce future flood losses while providing other environmental and community benefits; effective funding and maintenance arrangements.

The Floodplain and Beyond: Approaches for balancing the need to protect wetlands while allowing for appropriate development of floodplains; special partnerships which further multi-objective management; innovative land use strategies for river corridor management; basinwide approaches to stormwater management.

Floodplain Management for Tomorrow: Successful ways to encourage and promote flood preparedness and response; innovative floodplain management programs; effectiveness of Executive Order 11988 in the '90s.; new tools for floodplain managers; noteworthy local regulatory programs; key flood loss reduction issues for the decade ahead and alternatives for resolving them.

Flood Control: Designing flood control projects for multi-objective benefits; responding to the growing transfer of flood control project costs from federal to state and local governments.

Mitigation: Gaining greater support for state and local flood hazard mitigation activities; practical alternatives for mitigating flood losses to existing structures; exemplary mitigation projects.

Unique Flood Hazards: Defining the hazards; new mapping methodologies; effective management standards.

In addition to specific papers, the ASFPM also welcomes proposals for short course presentations at the conference and any special exhibits or demonstrations that may be of particular interest to conference attendees.

Submission of Abstracts

Prospective authors must submit three copies of the following items to Tim Keptner, Program Chair, by October 31, 1989:

- A one page abstract including the paper's title, all authors' names and their affiliations and the kinds of visual aids which will be used in the presentation.
- Concise biographies of all authors not to exceed 100 words per individual including current titles and positions, other background information directly relevant to the paper and complete mailing addresses and telephone numbers.

Authors will receive timely notification of the status of their papers. All papers selected must be submitted by May 15, 1990 for inclusion in the conference proceedings. All attendees, including authors, are expected to pay the conference registration fee.

About the Conference

The conference program will run Tuesday, June 12 through Thursday, June 14, including technical field trips in the Asheville area. The ASFPM will conduct its committee and general membership meetings on Monday, June 11. All members and conference participants are encouraged to attend.

The conference will be held at the Inn on the Plaza, in the heart of Asheville. Conference room rates are \$62 for a single and \$68 for a double. Hemispheric Travel, Inc. of Madison, Wisconsin will serve as the official conference travel agency.

Registration rates prior to May 1, 1990 will be \$180 for members, \$195 for non-members, and \$95 for students.

Exhibit Space

Exhibit space will be made available for a fee to individuals or organizations who wish to display a product or service to attendees. Further information can be obtained from Dan Accurti, Exhibits Chair.

Deadlines

OCTOBER 31, 1989 - final day for the receipt of abstracts and biographies.

MAY 15, 1990 - final day for the receipt of completed papers for inclusion in conference proceedings.



ASSOCIATION OF STATE
FLOODPLAIN MANAGERS
14TH ANNUAL CONFERENCE
ASHEVILLE, NORTH CAROLINA
JUNE 11-14, 1990

About Asheville

Located at the junction of the French Broad and Swannanoa Rivers, Asheville is the gateway to the Blue Ridge Parkway, Great Smoky Mountains National Park and Mt. Mitchell, the highest peak in the Eastern United States. This mountain region offers a unique blend of cultural and recreational opportunities from white water rafting to Appalachian arts and crafts; from raw natural beauty and scenic attractions to premier mountain resorts and from the simplicity of the Thomas Wolfe Memorial to the grandeur of 7,500 acre Biltmore Estate. Come join us for a breath of fresh air in the North Carolina mountains!

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CHALLENGES AHEAD:

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The Association of State Floodplain Managers (ASFPM) invites all persons interested in presenting papers at the 14th annual conference in Asheville, North Carolina to submit abstracts for consideration by the program review committee. As the major floodplain management conference in the country, this yearly event attracts a broad audience including local, state, and federal officials, consultants, engineers, planners, representatives from non-profit organizations, researchers, educators, and involved citizens--all of whom have an interest or role in flood hazard reduction activities.

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