

APRIL 1990
VOLUME 32
NUMBER 4

STORM DATA



AND UNUSUAL WEATHER PHENOMENA
WITH LATE REPORTS AND CORRECTIONS



noaa

NATIONAL OCEANIC AND
ATMOSPHERIC ADMINISTRATION

/ NATIONAL ENVIRONMENTAL SATELLITE,
DATA, AND INFORMATION SERVICE

/ NATIONAL CLIMATIC DATA CENTER
ASHEVILLE, N.C.

COVER: Flooding rains pour on Caldwell, Texas on April 24, 1990. Over 13 inches of rain fell on Caldwell on the 24th (in about a 10-hour period); the three-day total ending the morning of the 27th was 14.89 inches. Many roads were closed by high water, and a number of people had to be evacuated from flooded homes. *Courtesy: Joe Conway of the Burtleson County Citizen-Tribune; Caldwell, Texas.*

CONTENTS

	<u>Page</u>
Storm Folks	3
Outstanding Storms of the Month	4
Et Cetera	19
Storm Data and Unusual Weather Phenomena	30
Late Reports and/or Corrections	129
Storm Summaries	136
Reference Notes and "F" Scale Definitions	138

STORM DATA

(ISSN 0039-1972)

National Climatic Data Center

Editor: Roger W. Tanner

Associate Editor: Vince Miller

Publication Staff: Lanny Dimmick, Jay Hollifield, and Sara Lackey

STORM DATA is prepared, funded, and distributed by the National Oceanic and Atmospheric Administration (NOAA). The Outstanding Storms of the Month section is prepared in cooperation with Mr. Vince Miller, Associate Editor. He is a broadcast meteorologist for THE WEATHER CHANNEL® in Atlanta, GA.

The Storm Data and Unusual Weather Phenomena Narratives and Hurricane/Tropical Storm summaries are prepared by the National Weather Service. Monthly and annual statistics and summaries of tornado and lightning events resulting in deaths, injuries, and damage are compiled by cooperative efforts between the National Climatic Data Center and the National Severe Storms Forecast Center.

STORM DATA contains all confirmed information on storms available to our staff at the time of publication. However, due to difficulties inherent in the collection of this type of data, it is not all-inclusive. Late reports and corrections are printed in the January, April, July, and October editions.

Maps of the National Weather Service Forecast Zones which are used in the Storm Data and Unusual Weather Phenomena section will be printed in all editions.

Except for the limited editing for grammatical errors, material submitted are generally published as received.

Subscription, pricing, and ordering information is available from:

National Climatic Data Center
Federal Building
Asheville, NC 28801-2696
(704) 259-0682 or (704) CLIMATE

The editors of **STORM DATA** solicit your help in acquiring photographs (prints or slides; black and white, or color), maps, clippings, etc. of significant or unusual weather events (past or present). These could be for use in the "Outstanding Storm of the Month" or "Et Cetera" sections of **STORM DATA**. We request our subscribers or other interested persons to mail such items to:

Mr. Vince Miller
1464 Wood Thrush Way
Marietta, GA 30062

Any such items received by the editors will be for use in **STORM DATA** only. Any other use will be with the permission of the owner of said items. Materials submitted will be returned if requested in the original submission.

"I certify that this is an official publication of the National Oceanic and Atmospheric Administration and is compiled from information received at the National Climatic Data Center, Asheville, North Carolina 28801."


Director
National Climatic Data Center

STORM FOLKS . . .



National Climatic Data Center (NCDC) and General Electric Government Services (GEGS under contract to NCDC) **STORM DATA** support personnel.

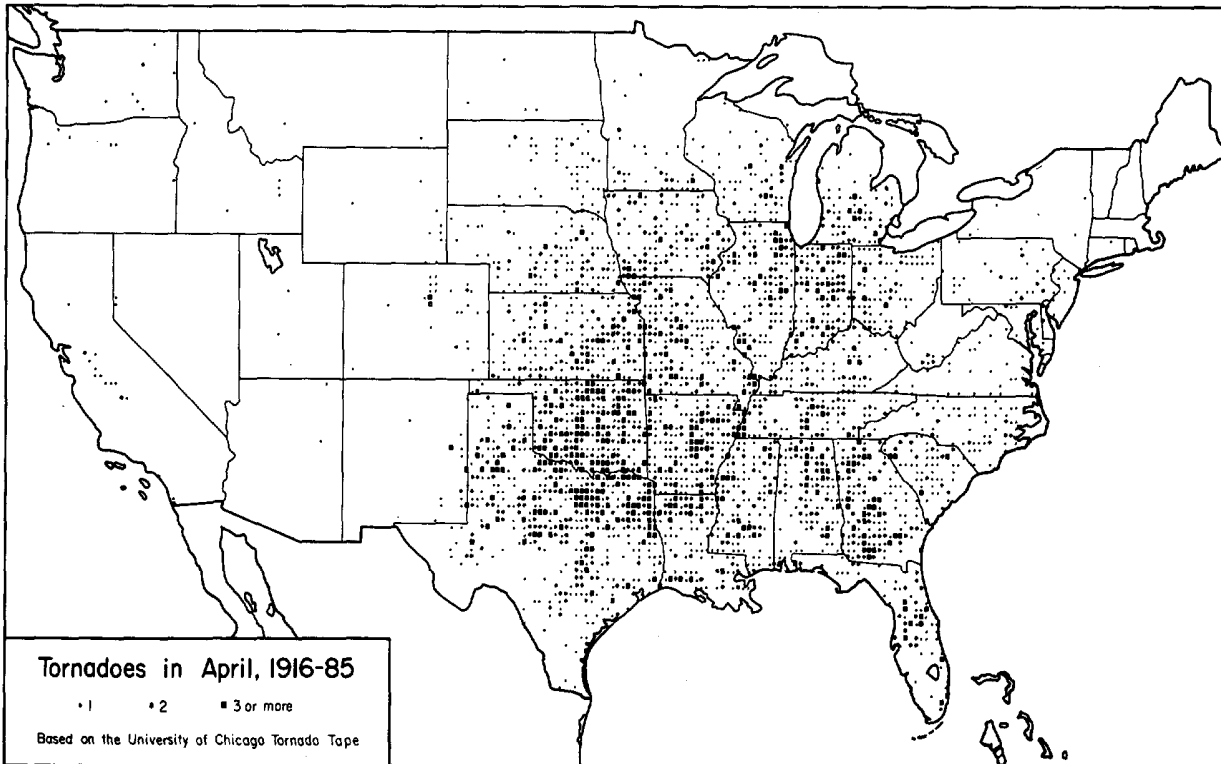
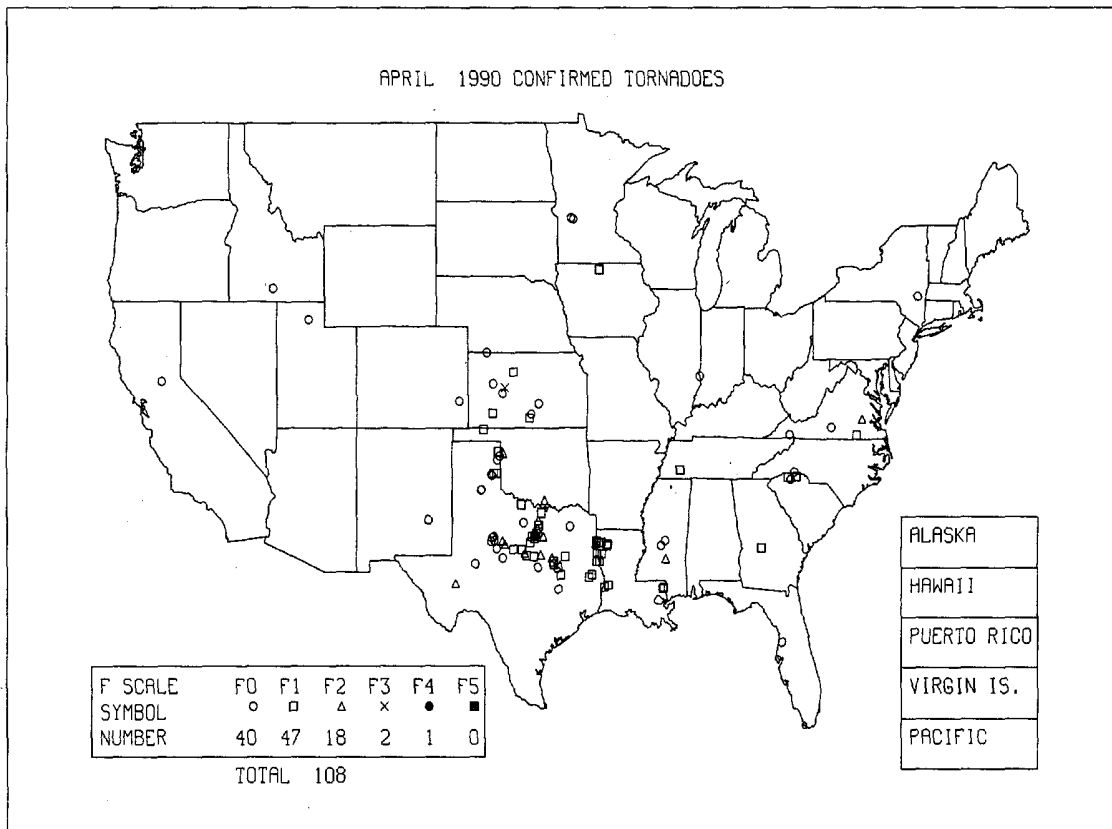
GEGS Word Processing Staff (top photo): *Seated:* Ima Franklin (supervisor); *left to right:* Mary Williams, Virginia Suttles, Sherry Watson, Angela LaBarbera, Linda Dobson, and Mechelle Henderson.

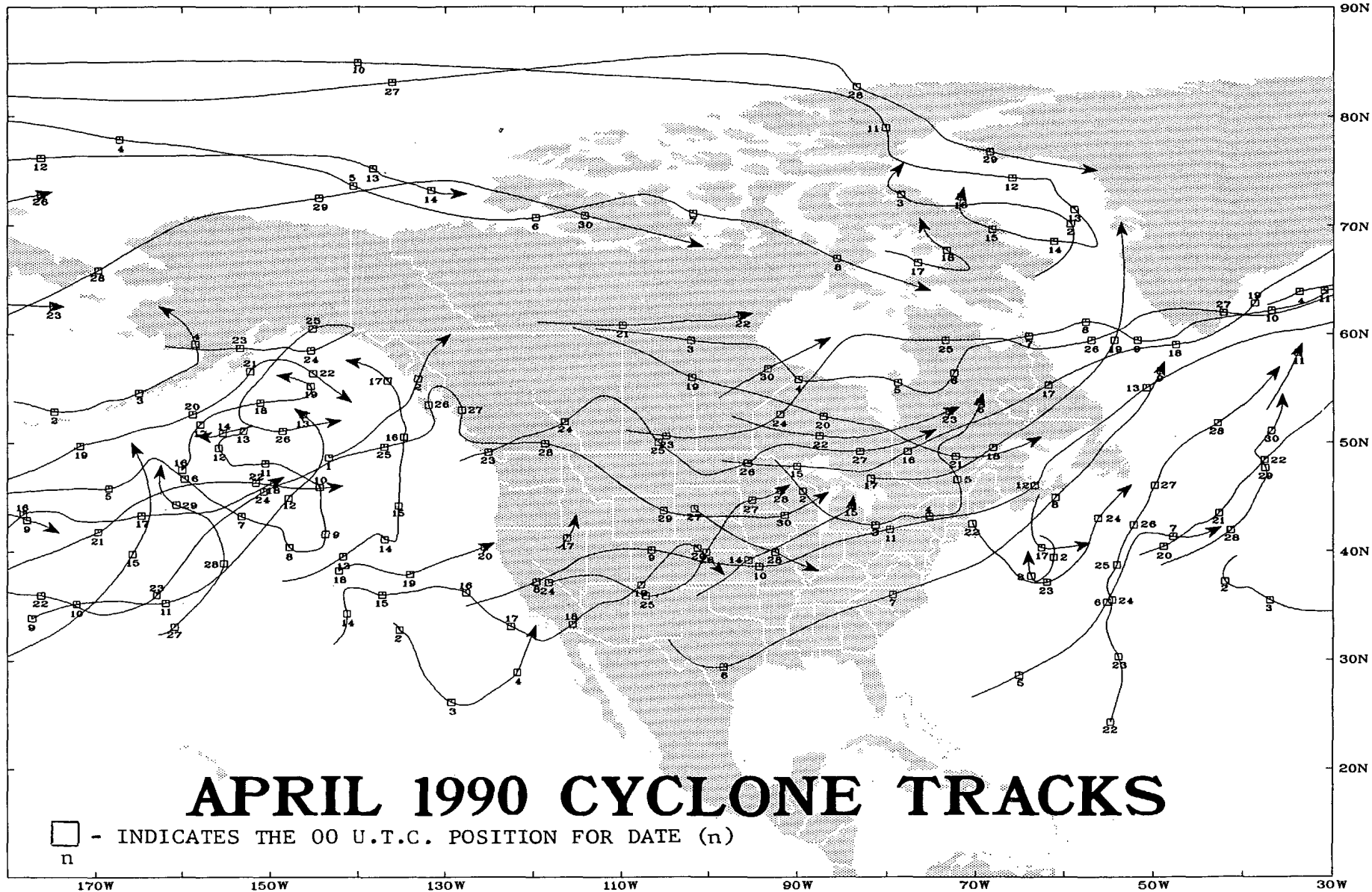
The high degree of skill and enthusiastic attitude of these folks have been directly responsible for the improved appearance of **STORM DATA** type.

GEGS Photo Lab (above left): Neil Sander (supervisor) - With 31 years of experience, Neil has "a thousand tricks up his sleeves" for getting the best quality from any type of photographic medium.

NCDC Printing Plant (above right): "Bud" Creasman (foreman) - Worked in Printing Plant since 1960. *Right:* John Davis (pressman) - Employed in the printing crafts for 20 years; at NCDC since 1987. High quality and pride to produce an excellent product within available resources are consistently demonstrated by these men.

OUTSTANDING STORMS OF THE MONTH





APRIL 1990 CYCLONE TRACKS

□ - INDICATES THE 00 U.T.C. POSITION FOR DATE (n)
n

1. PRECIPITATION AND TEMPERATURE ANOMALIES - APRIL 1990

Table 1 shows the April 1990 temperature and precipitation rankings for the nine climatically homogenous regions shown in Fig. 1.

Most of the Great Basin and interior West, southern and central Rockies, southern Plains, upper Midwest and New England received above normal precipitation in April (Figs. 2 and 3 on the following page). Most of the U.S. had above normal April temperatures, except for much of the lower Midwest, Ohio and Tennessee River Valleys, Southeast, and central and southern Plains (Fig. 4 on page 8).

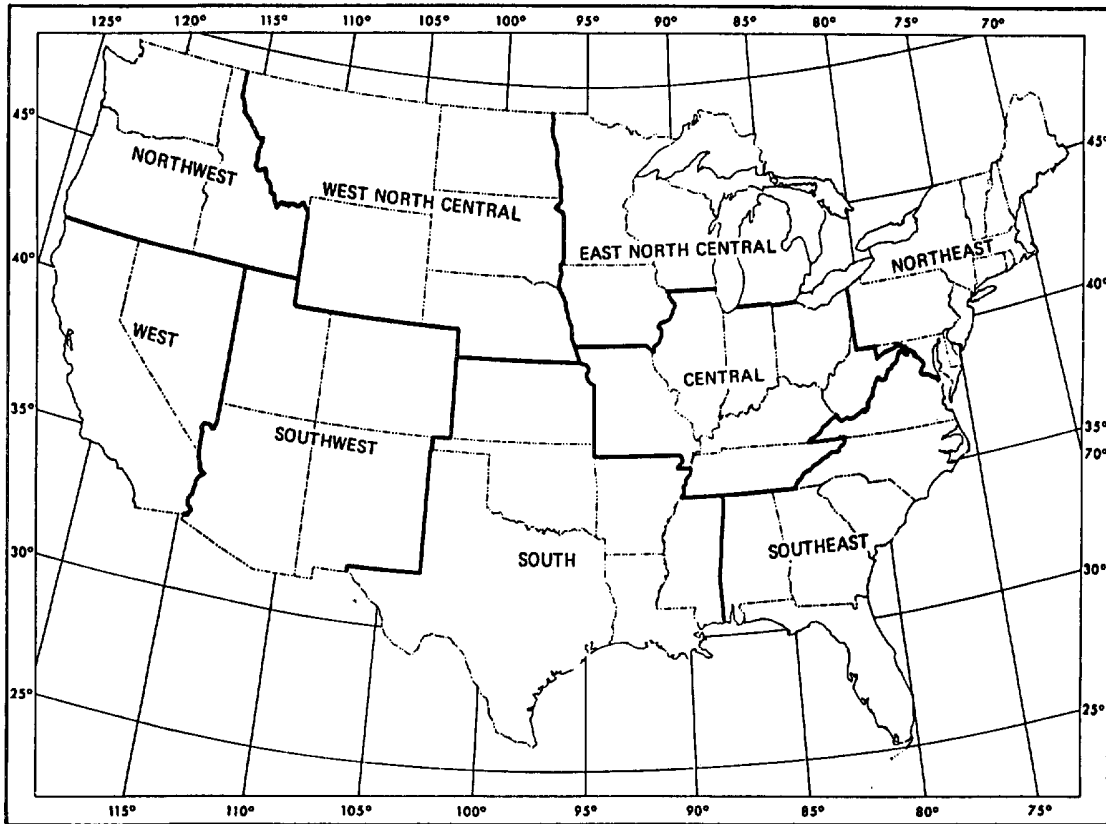
TABLE 1. TEMPERATURE AND PRECIPITATION RANKINGS FOR APRIL 1990, BASED ON THE PERIOD 1895-1990.

1 = DRIEST/COLDEST, 96 = WETTEST/HOTTEST.

<u>REGION</u>	<u>PRECIPITATION</u>	<u>TEMPERATURE</u>
Northeast	65	75
East North Central	44	66
Central	21	38
Southeast	22	42
West North Central	38	65
South	63	47
Southwest	47	88
Northwest	62	90
West	39	92

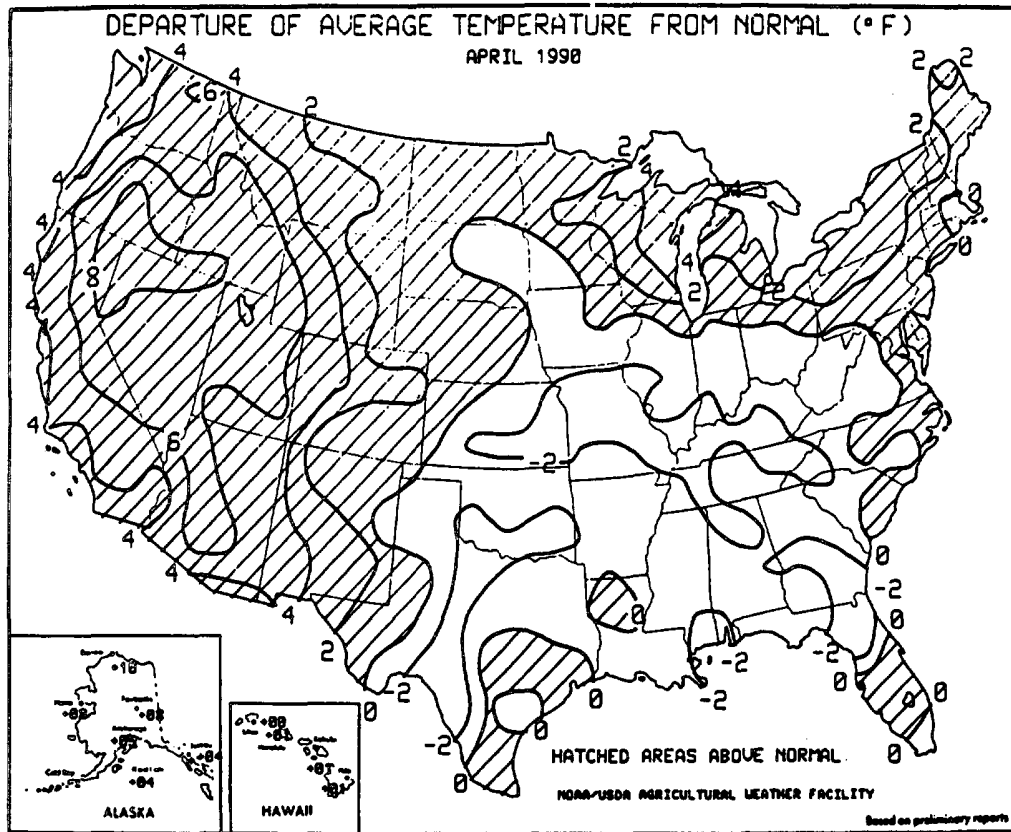
From National Climatic Data Center

Fig. 1



From National Climatic Data Center

Fig. 4

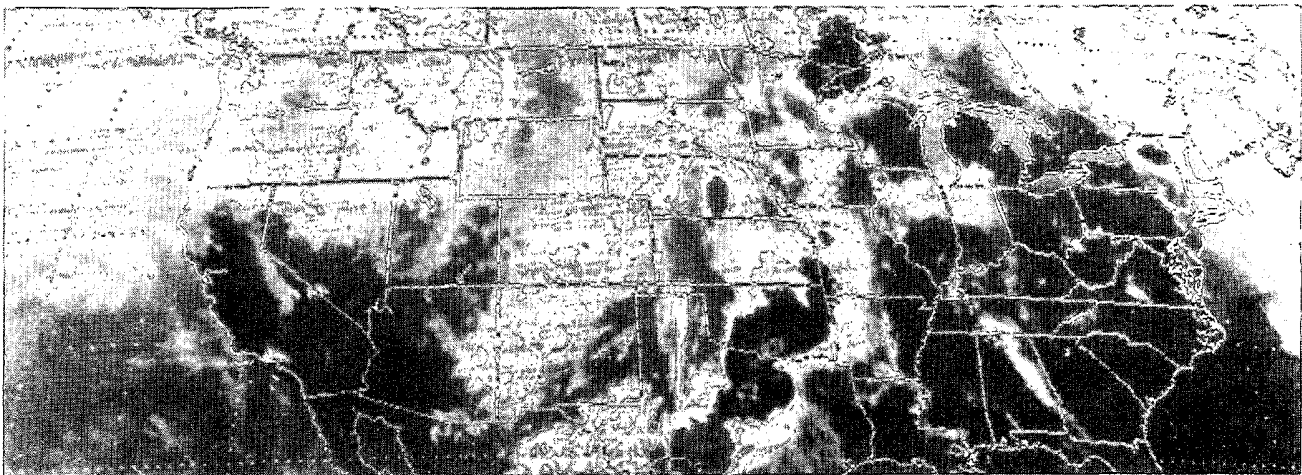


Reprinted from *Weekly Weather and Crop Bulletin* - May 8, 1990

2. APRIL 25, 1990 - ACTIVE IN THE PLAINS

The satellite picture below of 0101 UTC (7:01 p.m. CST) April 25th shows thunderstorms, sometimes severe, which produced torrential rains from east-central Oklahoma to parts of the

Texas Big Bend. The complex which produced four western Kansas tornadoes is dying over south-central Nebraska.



0101 UTC

Courtesy: National Climatic Data Center

2(a). BROWNWOOD (TEXAS) FLOOD

Except for far southwestern Texas, most locations in Texas were hit by thunderstorms occasionally containing high winds, large hail, heavy rain, and even a few tornadoes - sometime between April 23rd and April 27th.

Intense thunderstorms dropped 15 to perhaps as much as 18 inches of rain over parts of Brown County, Texas - mostly in a 13-hour period between 5:00 p.m. CST (April 25th) to 6:00 a.m. CST (April 26th). The Brownwood Municipal Airport measured 16.05 inches. The resultant flooding killed two, forced hundreds to evacuate their homes, and caused tens of millions of dollars in damage.

It was estimated that some 50 city blocks in Brownwood were extensively damaged by the flood waters. By the afternoon of April 26th, Pecan Bayou was estimated to be 4 miles wide. Only a disastrous flood in 1900 may have rivaled this event in Brownwood.

Flood waters surged 7.0 feet over the Lake Brownwood Spillway. Many damaged homes were built below the 10-foot above spillway easement held by the Brown County Water Improvement District. Nonetheless, flooding would have been more severe had it not been for U.S. Soil Conservation Service retardation dams built in Brown and nearby counties since the 1940s.

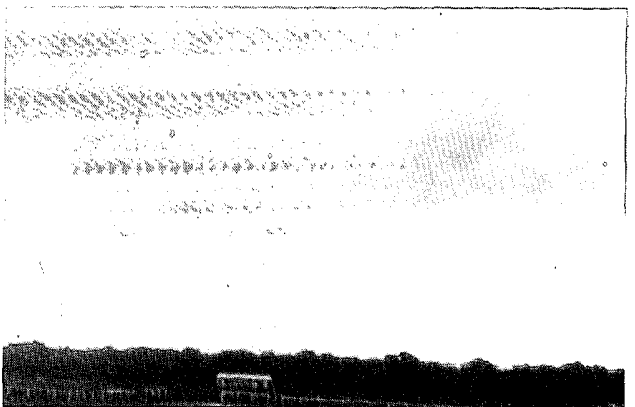
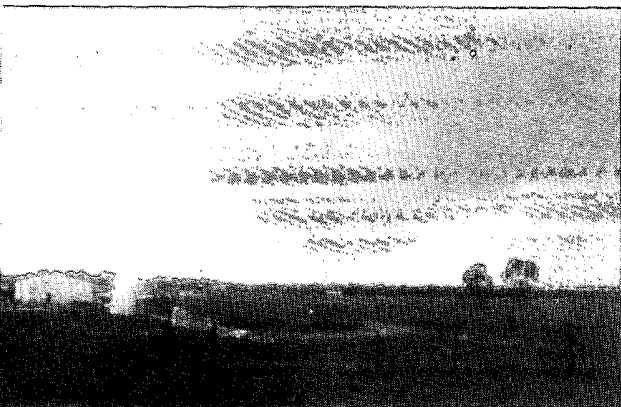
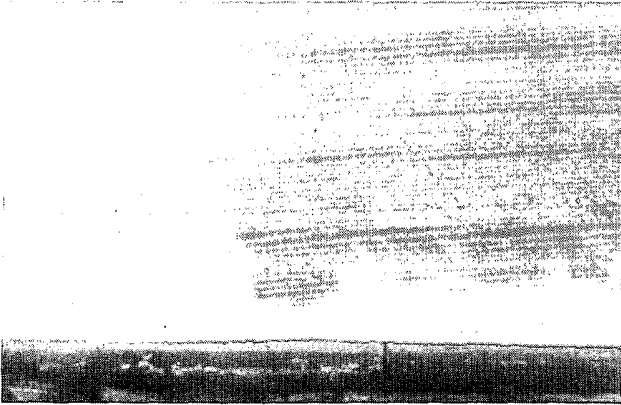
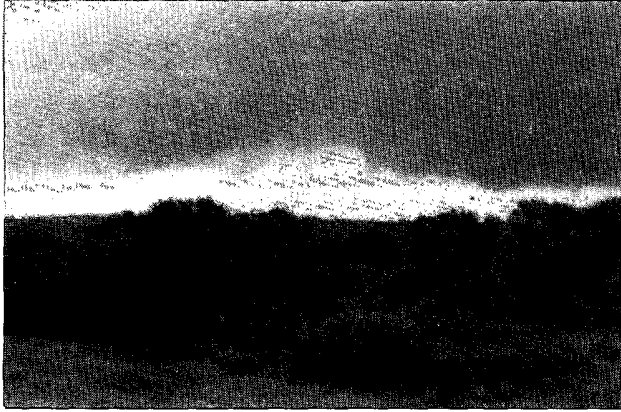


Top (left and right): Flooding on Main Street just north of Brownwood's central business district. **Bottom (left):** Part of the flood-ravaged Pickard Motors business. Every car of the dealership was flooded by Adams Branch, a tributary of Pecan Bayou. **Bottom (right):** Flooded business at "traffic circle" just north of the downtown business district. The "traffic circle" is the major intersection of Brownwood. *Photos courtesy: Gene Deason of the Brownwood (Texas) Bulletin.*

2(b). NORTH TEXAS TORNADO OUTBREAK

An isolated thunderstorm developed over Hood County and moved rapidly northward. It became tornadic after intersecting an eastward moving outflow boundary produced by a dying squall-

line. The storm produced six tornadoes between 3:30 p.m. CST and 5:05 p.m. CST. No injuries were reported, although a number of homes were destroyed.

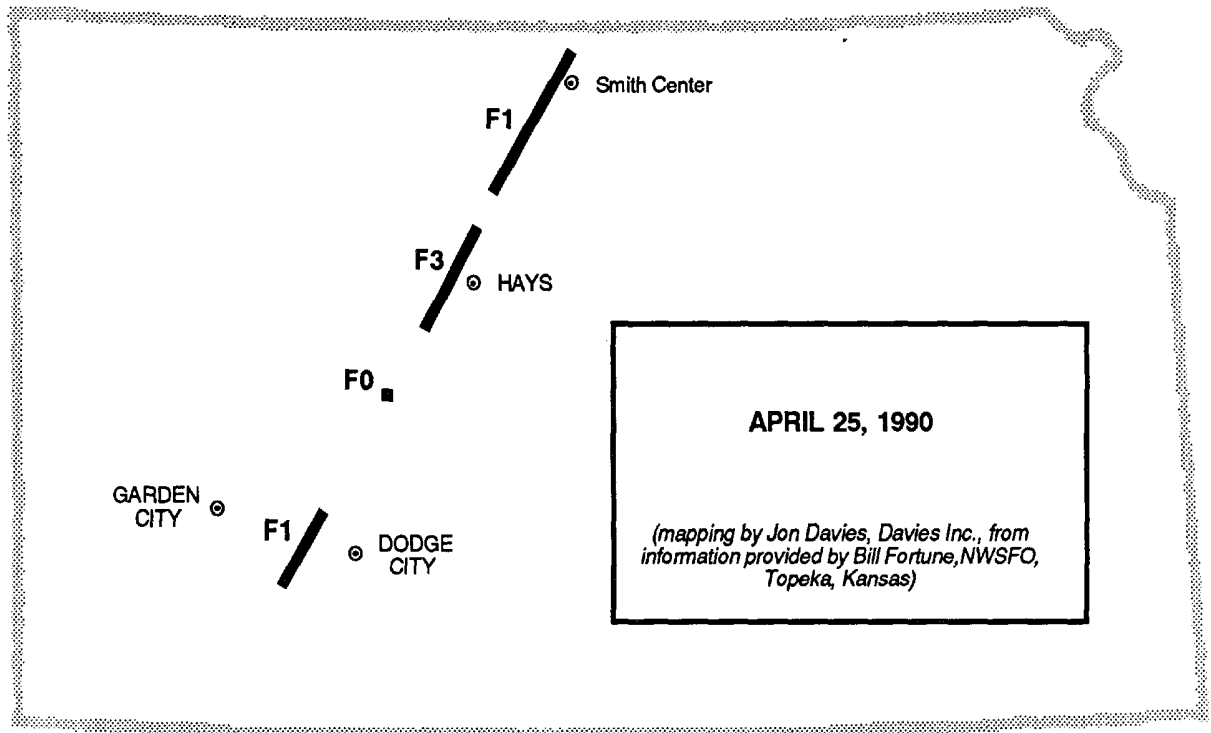


Top (left): Tornado #2 of the outbreak--about 13 miles southwest of Springtown, Texas. *Top (right):* Tornado #3--about six miles southwest of Springtown. *Photos courtesy of Carson Eads.* *Middle (left):* Funnel of 4th circulation--about eight miles northwest of Springtown. *Middle (right):* Closeup of 4th tornado. *Bottom (left):* Broad funnel of 5th circulation--over Paradise, Texas. *Bottom (right):* Tornado #5--one mile north of Paradise, Texas. *Remaining photos courtesy Tim Marshall of Lewisville, Texas.*

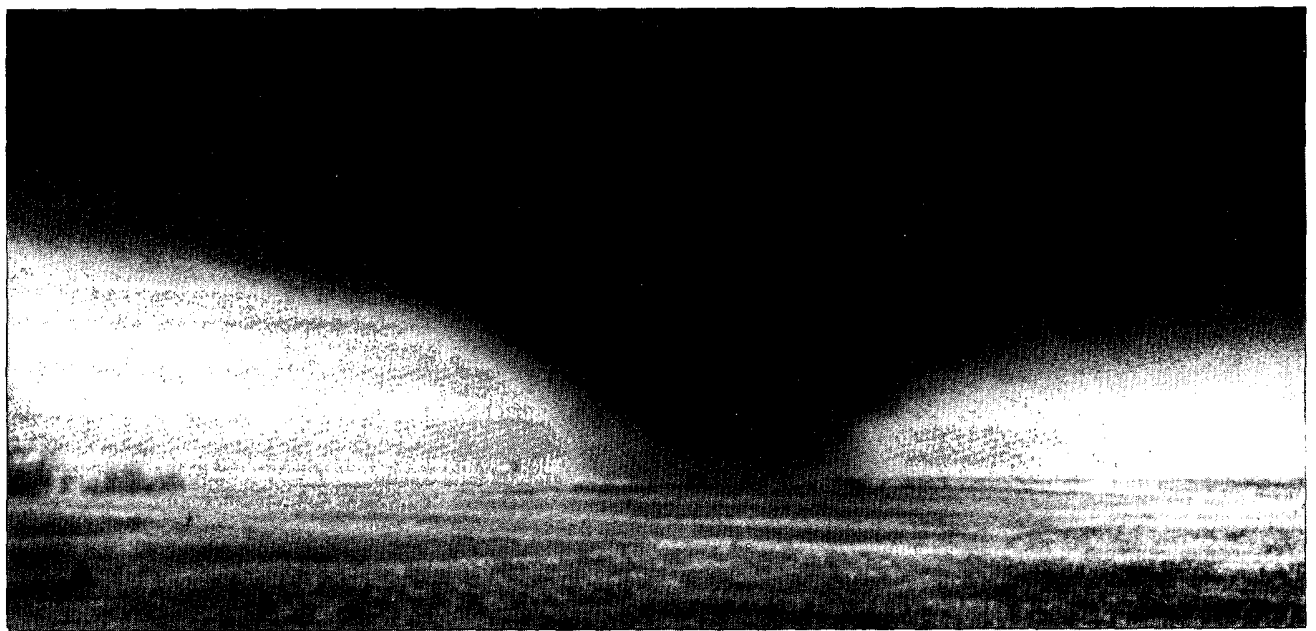
2(c). WESTERN KANSAS TORNADO COMPLEX

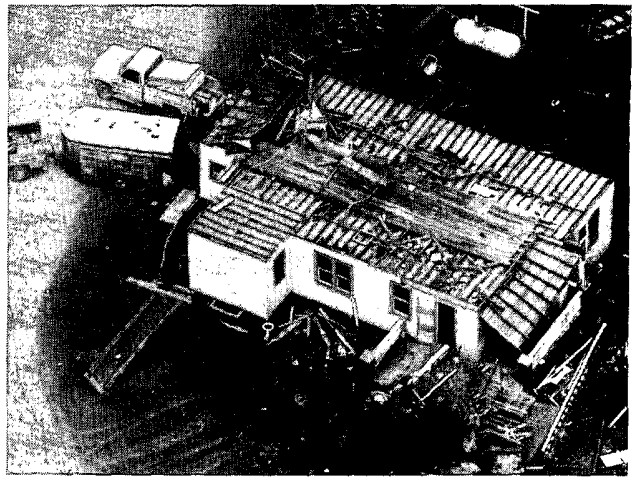
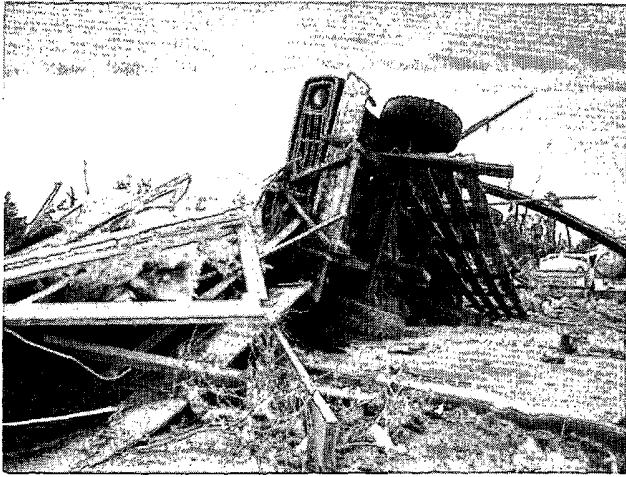
The same storm complex produced four tornadoes between about 3:00 p.m. CST and 8:00 p.m. CST. Total tornado path length was 119 miles - almost the same as the Hesston (Kansas) Tornado Complex of

March 13, 1990. Although no towns were hit by the tornadoes, and no injuries occurred, damage totaled over \$1 million.



Above: Tracks of the four tornadoes produced by the same storm complex. **Below:** The F3 tornado as it entered the southwestern part of Ellis County. This tornado destroyed 13 farms; power line damage alone was \$250,000. Its path width was at times 1/3 of a mile. *Photo courtesy: Mike Corn; Harris News Service; Hays, Kansas.*



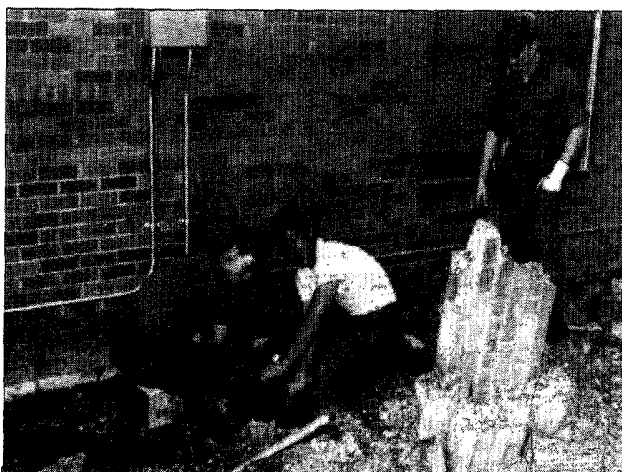


Above (left): Tornado damage on David Seibel farm south of Ellis. *Above (right):* Tornado damage to A. E. Slaughter farmhouse northeast of Ellis. *Photos courtesy: Charlie Riedel of the Hays (Kansas) Daily News.*

2(d). LAUGHLIN AFB THUNDERSTORM WIND

Thunderstorm winds gusted to 112 mph at Laughlin Air Force Base (just outside of Del Rio, Texas). Some aircraft and buildings on base were damaged;

minor property and power line damage was also reported in Del Rio.

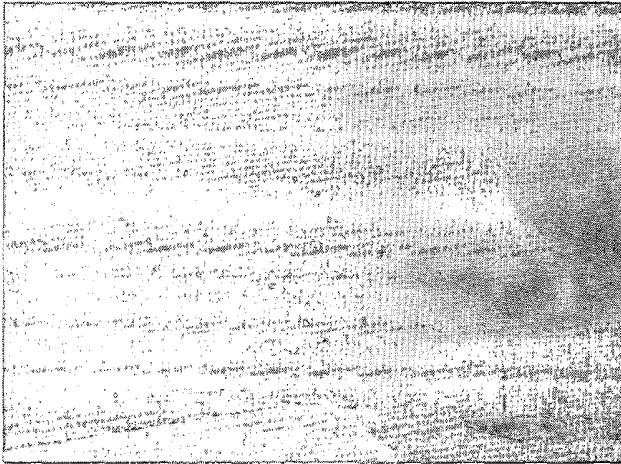


Above (left): Flora Woods checks the damage to the education office at Laughlin AFB. Note that the roof is missing! *Above (right):* A crew prepares to cut and haul away blown-over trees. *Left:* Base personnel fix damaged walls in family house. *Photos courtesy of Sgt. Dave Holden, Laughlin Air Force Base, Texas.*

3(a). TEXAS PANHANDLE STORMS

Thunderstorms with large hail and several tornadoes struck, mainly, parts of the northern and eastern sections of the Texas Panhandle mid and late p.m. of April 24th through early a.m. of the 25th. The Wheeler County Sheriff was

slightly injured when his patrol car was damaged by a tornado. Three people in a vehicle drowned west of Sunray when their vehicle was swept off a flooded highway.

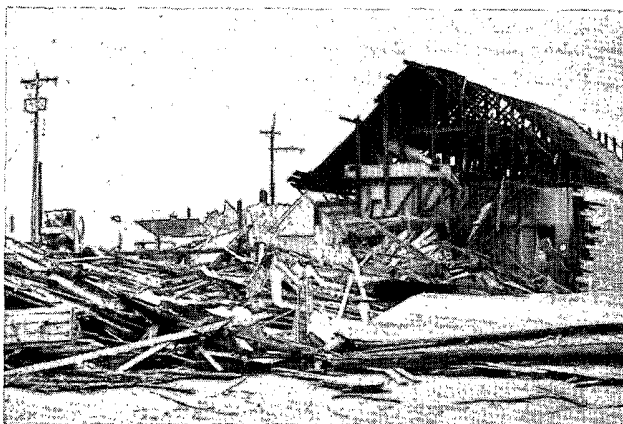


Above (left): An isolated supercell developed east of the dry line over the Palo Duro Canyon region of the eastern Texas Panhandle during the late afternoon of April 24th. It produced large hail and several brief tornadoes. The rear flank hail-core produced golf ball-size hail near McLean. *Above (right):* Lightning illuminates a developing tornado from the same storm north of Allison, Texas. *Photos courtesy: Tim Marshall of Lewisville, Texas.*

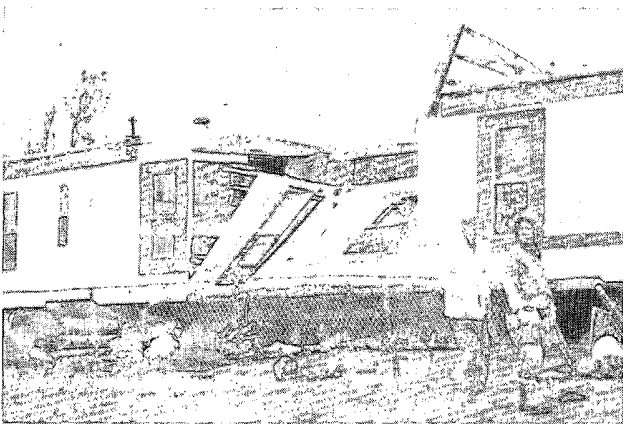
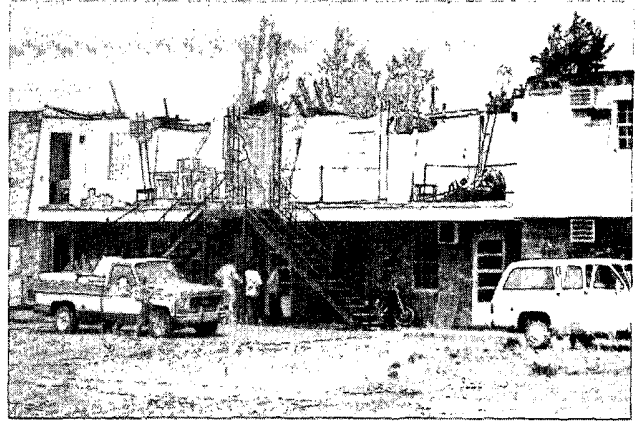
3(b). SHATTUCK (OKLAHOMA) TORNADO DAMAGE

Thunderstorms moved into parts of western Oklahoma from the Texas Panhandle. An F2 tornado touched down at 9:23 p.m. CST south-southwest of Arnett Oklahoma and moved north-

northeast, striking Shattuck at 9:48 p.m. CST. Five people were injured by the tornado. It caused \$1.5 million damage.

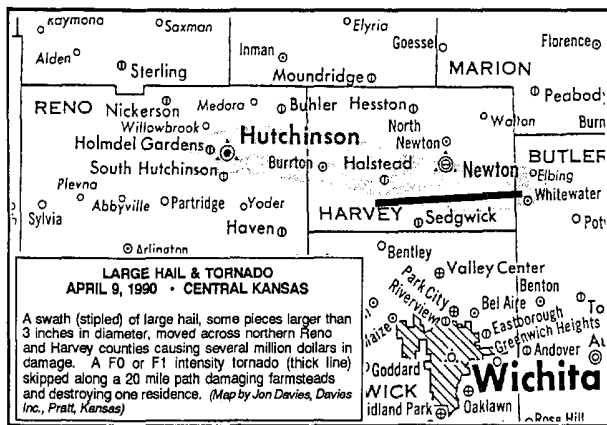


Above (left): Tornado damage to the Ellis County Building Supply Company. *Above (right):* Aircraft and building damage at the Shattuck airport. *Photos courtesy: Jerry Denson; The Ellis County Capital; Arnett, Oklahoma.*



Top (left): The tornado caused a building to collapse on these new pickup trucks of the Brown Ford dealership on Main Street. **Top (right):** Damage to an apartment building in Shattuck. **Above (left):** The tornado damaged this trailer home. **Above (right):** Farm damage about five miles south of Shattuck. *Photos courtesy: Jerry Denson; Ellis County Capital; Arnett, Oklahoma.*

4. KANSAS HAIL AND TORNADO OF APRIL 9, 1990



Above (left): The map shows the location of a severe hail storm (damage in the \$millions), and associated F0 tornado with a path length of 20 miles. The tornado's width was, at times, over 200 yards; no injuries were reported. **Above (right):** Looking north from Sedgewick at F0 tornado. A hail shaft is behind the tornado; 3-inch diameter hail is causing significant damage to fields east of Halstead. Hail and rain soon engulfed the tornado. *Map and video/photo courtesy: Jon Davies of Pratt, Kansas.*

5. VIRGINIA TORNADO DAMAGE

A tornado touched down briefly prior to 9:00 p.m. EST about 10 miles southwest of Richmond, Virginia on April 2nd. One home received extensive damage, while the nearby Bennett Ford, Inc. showroom was destroyed. The dealership closed 45 minutes early so the

employees could watch the NCAA championship basketball game. About 30 minutes after closing, the tornado destroyed the showroom. No injuries were reported due to the tornado, although over \$500,000 damage occurred.



Top (left and right) and above (right): Tornado damage in and next to the Ford showroom. Left (center and bottom): Uprooted oak tree. Photos courtesy: Roy Britt of Richmond, Virginia.

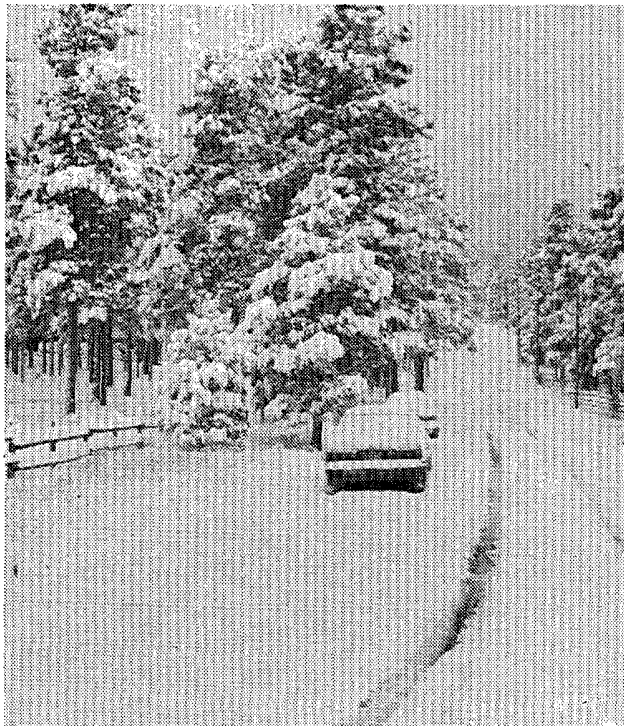
6. A COLORADO SPRING SNOW

Much of southern Colorado (mountains, foothills, and adjacent high plains) received heavy, wet snow on April 29th and 30th. Amounts of 6 inches to 36 inches were quite common.

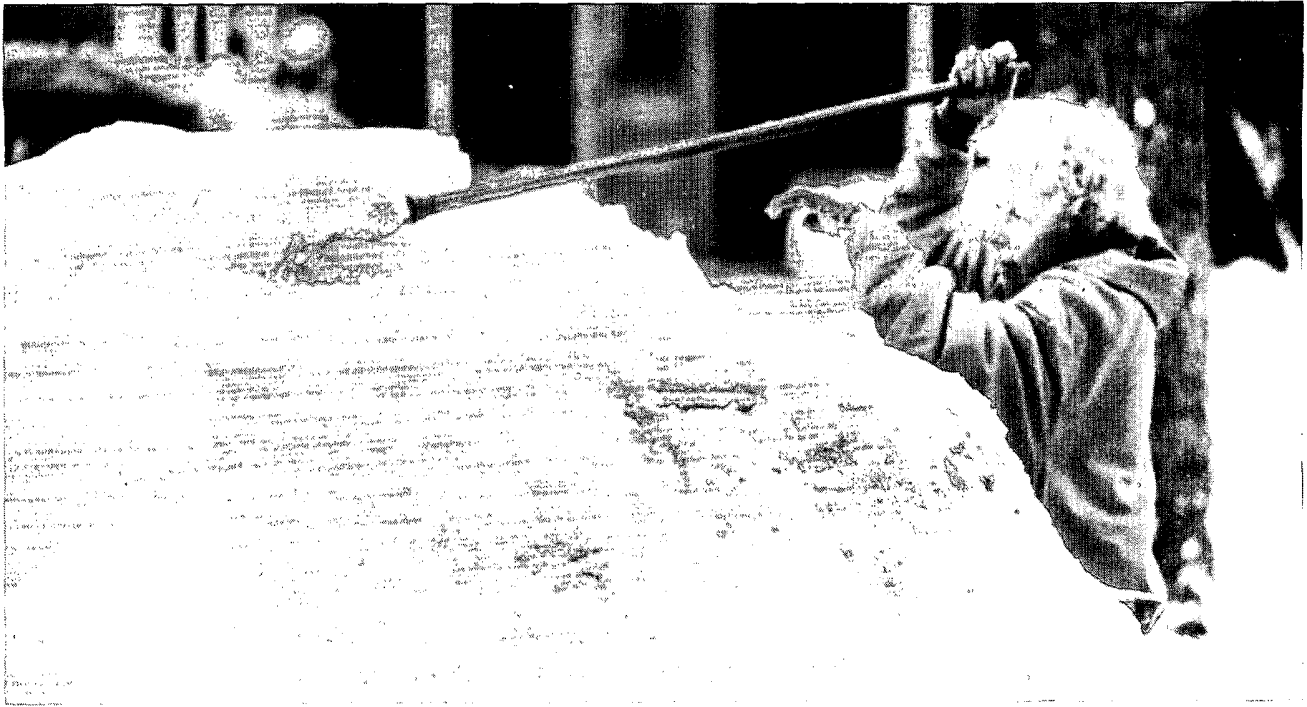
Pueblo's 24-hour snowfall of 16.8 inches (storm total was 17.6 inches) on the 29th through 30th tied its 24-hour record previously set April 1st through 2nd, 1957.



Top: Woodland Park's Silver Spring Ranch rests in a mantle of white at storm's end. Photo courtesy: Ruth Zirkle; Ute Pass Courier; Woodland Park, Colorado. Bottom (left): A motorist dodges a branch felled by Pueblo's record snow. Bottom (right): Matt Wolfe of Pueblo catches a big snowflake. Bottom photos courtesy: Bryan Kelsen of The Pueblo (Colorado) Chieftain.



Above and left: Wintery scenes from Woodland Park and the Teller County region of Colorado. Up to 26 inches of snow fell. *Photos courtesy: Ruth Zirkle; Ute Pass Courier; Woodland Park, Colorado.*



Top: A lady sweeps snow off her car after the heavy snowfall of April 29th through 30th. Photo courtesy: Tom Kimmell, Colorado Springs Gazette Telegraph.

Bottom: Officials from Colorado College walk through deep snowcover to a baccalaureate exercise on April 30th. Photo courtesy: Mark Reis, Colorado Springs Gazette Telegraph.

ET CETERA

1. Hundreds of tornado-like whirlwinds were generated April 7th-11th, 1926, near San Luis Obispo, California, as a lightning-set oil depot fire raged out of control. One of the whirlwinds travelled 1,000 yards, picked up a house, carried

it 150 feet and dropped it. The two occupants died.

The following article and pictures of the event are reprinted from the *Monthly Weather Review* of April 1926.

WHIRLWINDS AT OIL-TANK FIRE, SAN LUIS OBISPO, CALIF.

By J. E. Hissong

[U.S. Weather Bureau Office, San Luis Obispo, Calif., April 17, 1926]

On the morning of April 7, 1926, following a showery night, several mild lightning discharges were noticed in the south, the first at 7:15 a.m., followed by rumbling of thunder in the distance. At 7:35 a.m. a very intense discharge of lightning occurred accompanied by a crash of thunder; this was followed instantly by a terrific explosion that shook the town of San Luis Obispo severely. About 20 large plate-glass windows in store fronts were completely shattered, numerous small windows in residences were broken, houses rocked on their foundations and hundreds of people rushed into the streets, many under the impression that a severe earthquake shock had occurred. The lightning bolt had struck the large oil reservoirs at the tank farm of the Union Oil Co., located about 2 1/2 miles directly south of the center of the town, and the oil, or the vapor in or over three of the reservoirs had exploded, setting them on fire. These reservoirs have a capacity of 750,000 barrels and were full.

An employee of the oil company, who was looking toward the reservoirs at the time of the explosion, said: "I saw two balls of lightning strike reservoirs No. 5 and No. 7; a clap of thunder and an explosion followed immediately and the tanks burst into flames. At the same time the earth rocked so violently under my feet that I was almost thrown down."

A fourth reservoir was fired and exploded about 15 minutes later. Testimony as to the cause of the explosion of this reservoir is conflicting. An inspector for the oil company reported that it was struck by another lightning discharge. Others in the vicinity say that the first explosion threw burning

timbers from the roofs of the exploded reservoirs, and possibly burning oil, on the fourth reservoir, causing it to explode.

Approximately 6,000,000 barrels of oil were stored at the farm in concrete reservoirs and steel tanks. With the exception of five of the smaller steel tanks, containing about 250,000 barrels of oil, all the oil burned during the five days of the fire.

Typical thunderstorm conditions prevailed at San Luis Obispo during the morning of the 7th. A storm which had been developing over the ocean between the California coast and the Hawaiian Islands for several days had increased in intensity and moved northeastward during the night. Its center on the morning of the 7th was approximately 600 miles west of San Francisco, the lowest barometer reading near the center being close to 29.00 inches. The thunderstorm was, therefore, about 700 miles southeast of the center of the low-pressure area. A moderate southeast wind had prevailed during the night and had increased to 18 miles per hour after 5:00 a.m. About 7:20 a.m. the wind changed to southwest, blowing out the approaching squall, and increased to 24 miles per hour. At the same time a heavy downpour began, 0.18 inch of rain falling in three minutes. The temperature dropped 12° and the barometer rose from 29.45 inches to 29.55 inches within a few minutes. Near the peak of the rise on the barogram appears a vertical mark, approximately, 1/8 inch in length, caused by the concussion due to the explosion. This mark covers any record of an air billow or wave that may have traveled over the station. Such an air wave would traverse the distance

to the station in about 12 seconds--too short a period to make a record on the barogram distinct from that made by the concussion.

The thunderstorm continued with moderate rainfall and occasional feeble lightning until 10:42 a.m. when the rain ended. The last lightning was observed at 8:30 a.m.

This storm was not severe and with the exception of the single heavy lightning discharge would not have called for comment, but the fire that was caused by the lightning burned five days and resulted in the loss of two lives and of property estimated by responsible officials of the oil company at \$15,000,000. It also produced hundreds of violent whirlwinds, many of tornadic character and force, probably the strangest meteorological phenomenon ever noted in connection with a fire. In fact one of these whirls was responsible for the loss of life noted above.

Strong southerly winds prevailed all day on the 7th and until 12:20 a.m. on the 8th, shortly after midnight, when the wind veered into the west and a few minutes later into the northwest.

At the same time the first "boil-over" occurred; reservoirs Nos. 5, 6, and 7, and, according to some reports, No. 3 also, boiling over at the same time. These are all 750,000 barrel containers. They threw out an immense quantity of hot, burning oil which spread with remarkable rapidity over an area estimated by the engineers present at about 900 acres. The flames leaped seemingly a thousand feet in the air over the greatly increased area of the fire. At the same time violent whirlwinds began to form over the fire.

One of these whirlwinds left the vicinity of the reservoirs and traveling east-northeast about 1,000 yards picked up the Seeber cottage, just outside of the tank farm, lifting it several feet in the air and carrying it about 150 feet north, where it was dropped in a field, a total wreck. Mr. A. H. Seeber and his son, who were in the house, were killed. A daughter and a friend, who had just stepped out of the house, were carried some distance along the ground, but were not seriously injured. A barn, 100 feet south of the house, was not damaged. A few minutes later, a whirl, possibly the same one, tore the roof from the house of Mr. Banks, about one-fourth mile northeast of the Seeber home; it also demolished his garage and other outhouses, uprooted fruit trees, and

drove a 2 by 4 inch beam, 16 feet long, through the boarded side of the pump house. An examination of the debris scattered around the Seeber and Banks places indicates clearly that the direction of rotation in these funnels was counterclockwise. Several of the fruit trees in the Banks yard, that were not uprooted, were twisted around in a counterclockwise direction until the boles cracked. Some of the whirlwinds, however, were reported as rotating in the opposite direction. At least two were observed, on the 8th during daylight hours, revolving in a clockwise direction. These were reported by eye witnesses who were in a position to observe them carefully.

Between 12:30 a.m. and 3:00 a.m. on the 8th, when the great sea of oil was burning and the tornadoes appear to have been most numerous, houses in San Luis Obispo, 2 1/2 miles distant, shook as if a moderate earthquake were passing. Windows rattled vigorously and continuously and the Weather Bureau building swayed noticeably at times. The roar, even at that distance, was terrifying. Many residents refused to remain in their houses. About 3 a.m. these vibrations subsided.

From the time the wind veered into the northwest and the large reservoirs boiled over, hundreds of whirlwinds formed in and around the edges of the fire until the last tank boiled over on the morning of the 11th. During the period when the large reservoirs were burning and the temperature over the fire was probably at its highest point, and consequently the vertical convection was strongest, the whirls appear to have been most numerous and violent. Many of them had all the characteristics of true tornadoes. The gyrating, writhing, funnel-shaped clouds were viewed by thousands, the white, condensing vapor in the vortices making them plainly visible against the background of black smoke. Some of the funnels appeared to be not more than one foot in diameter at the smallest part, and some were reported as giving the impression of ropes dangling from the clouds of smoke.

About the time the Seeber house was destroyed, an employee of the oil company who had left his car standing near the Seeber barn started in that direction, but becoming alarmed at the roaring from the burning reservoirs, ran back to the Edna road and started toward town. Looking back he saw a "funnel" leave the fire and move toward the road, in a northeasterly direction. Near the mushroom-shaped top of the funnel, about 200 feet in the air, a small shed or

chicken coop was floating around in a counterclockwise direction. Looking back occasionally as he fled Mr. Berry says that he saw at least 20 "spouts" between the Seeber house and the fire, some of them very small. He reports that a brisk northwest wind was blowing at that time, and that the roar from the whirlwinds was terrific.

It is believed that none of the tornadoes traveled more than 3 miles from the fire zone; some debris was found at that distance.

About 10:30 a.m. on the 8th, a tornado traveling from the reservoirs picked up Mr. Martin's house, about 300 feet north of the site of the Seeber home, and according to spectators, raised it 300 feet in the funnel. It was carried about 100 feet northwest and dropped, completely demolished. A small range of hills about 500 feet in height lies northwest of the Martin house and may have been the cause of this tornado apparently traveling against the northwest wind. It is probable that an eddy formed in the lee of these hills.

Practically every explosion or "boil-over" of a reservoir or tank produced whirlwinds or tornadoes. Melted cast iron fittings found at the scene of the fire indicates a temperature of between 2,000° and 2,500° F.

The tank farm lies on the broad, level floor of San Luis Valley. From this valley the Los Osos Valley, a broad, level plain, trends northwestward to the ocean, about 13 miles from the tank farm. Northwest winds through this valley are of such strength that they have received the local name of "the Osos wind." On Sunday afternoon, April 11, when the writer visited the tank farm, he estimated the northwest wind then blowing across the farm at 40 to 50 miles per hour. It was with difficulty that one could walk around the rims of the large reservoirs. The wind velocity registered at the station at this time was 15 miles per hour. In view of the fact that the tornadoes were first noted just after the wind changed

from southerly to northwest it is possible that they may have been caused by the strong convectional currents over the fire being given a rotational motion by the northwest wind.

Property to the value of \$15,000,000 was destroyed by fire and wind.

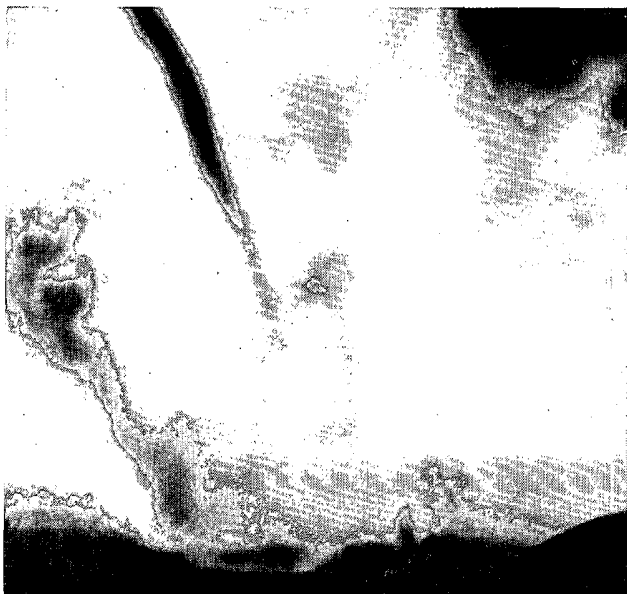
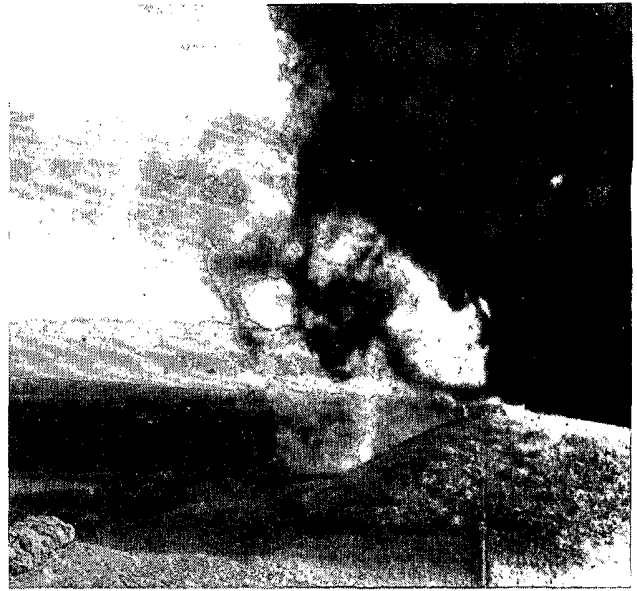
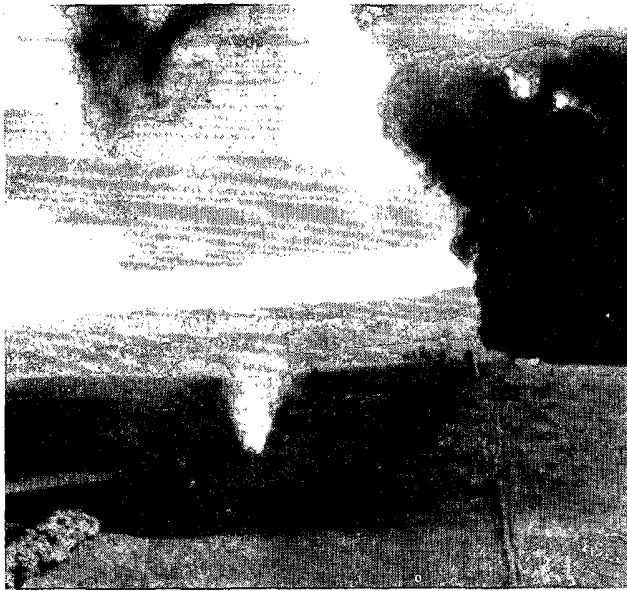
Supplementary note.--Mr. Hissong has sent to the editor five photographs of whirls that accompanied the oil fire. Since these probably constitute a unique record of a phenomenon which is rarely developed to the degree of intensity here met with, the photographs are reproduced, without retouching, and in the same size as the originals. They are arranged in what appears to have been the order in which they were taken.

Following, is an extract from Mr. Hissong's letter which accompanied the photographs:

It will be noted that the funnels were photographed after leaving the smoke pall that lay over the fire, the faint outlines of distant hills being visible in the background. Also that the funnels appear black in the prints although all accounts of eyewitnesses were to the effect that they were white, or light colored. This is probably due to the fact that the funnels were between the camera and the sun. (The camera was pointing due south. The pictures were taken just after noon on the 8th.)

Regarding the distance traveled by the whirls: Some debris was found on the slopes of the Santa Lucia range about 3 miles northeast of the fire. This range rises rather abruptly to a height of about 2,500 feet above the floor of the valley and undoubtedly some of the whirls were broken up by this range during the night of the 7-8th. No whirls were seen more than a mile from the fire during daylight hours.

Since writing the report I have learned that a house about 4 1/2 miles south of the tank farm was unroofed about 7 a.m. on the 7th by a violent wind. This was probably the same storm that caused the fire. No lightning was noted in that vicinity, however, and no funnel-shaped cloud was seen.



2. The following article is by Tim Marshall, who is both a meteorologist and an engineer.

LESSONS LEARNED FROM ANALYZING TORNADO DAMAGE

Timothy P. Marshall, P.E.

In the past two decades, much has been learned by studying building damage in the wake of tornadoes. What was "known" decades ago about tornadoes has since become recognized as myth. This is due in part to cooperative efforts between engineers and meteorologists in accurately assessing tornado damage. Still, the process of disseminating this knowledge is slow and confusing. We still read about opening windows as a tornado nears, and yet people are told to board up their windows when a hurricane threatens. Tornado safety rules tell us to stay away from auditoriums, when in hurricane situations, officials still place people in them. Below is a list of some of the lessons learned in assessing wind damage to buildings.

1. Wind is wind.

Aerodynamic forces are induced as air flows over and around buildings. As a result, the greatest outward (or uplift) wind pressures occur around windward walls, roof corners, eaves, and ridges. The damage due to wind typically involves the removal of wall cladding and roof coverings at these locations. Surveys of damage from various types of wind events have revealed the same types of building response. The locations of cladding and member failures are the same, regardless whether the wind is from a tornado, hurricane, or straight-line thunderstorm wind. Buildings do not recognize the phenomenon creating the wind.

Long span structures, such as auditoriums and gymnasiums, are quite vulnerable in high winds due to their large surface areas which induce large loads. Such buildings are just as susceptible to wind damage in tornadoes as in hurricanes. Therefore, it is not wise that people seek shelter in these places in any type of

windstorm.

2. Buildings don't explode.

Damage surveys and photogrammetric analyses of tornadoes have revealed the primary wind flow near the ground is rotational. Strongest winds are on the right sides of cyclonically rotating tornadoes as the effects of translation are additive. The rotating wind field extends over a diameter much larger than most buildings. Thus, at any given instant, a building in the tornado path has winds that are unidirectional. Buildings are twisted due to variations in foundation anchorage, not rotating winds.

For years, persons have claimed that air is sucked out of a building as a tornado passes overhead, causing the building to explode. This statement is not logical. If air were suddenly removed from a building, outside air pressure would try to force the structure to collapse inward. Studies have shown that wind pressure, not barometric pressure, causes the damage to buildings. Openings on the windward side of the storm may actually increase internal wind pressures resulting in additional uplift under the roof. Evidence of mud, insulation, glass shards, and wood missiles inside buildings with windward openings indicate wind enters the buildings.

3. Typical building failures.

Considerable wind damage to structures has resulted from connection failures, particularly at the following locations: 1) wall/foundation, 2) wall stud/bottom plate, 3) roof joist/top plate, and 4) rafter/top plate. All too often, uplift forces are not considered when the connections are designed. Each member of a structure should

be thought of as a link in a chain; the weakest link usually initiates failure.

Inadequate wall/foundation anchorage has meant failure of large portions of structures. Conventional wood structures often have minimal or no anchorage to their concrete foundations. The same is true with masonry structures. Anchor bolts in slabs or perimeter footings are necessary to secure the bottom plates and/or floor joists to the foundation.

Wooden wall framing is usually straight-nailed to bottom plates. As a result, laterally applied forces cause overturning of this connection and the nail ends pull out. A stronger connection would be to install straps and braces to put nails or bolts in shear. Significant resistance to lateral loads can be achieved by installing plywood sheets in wall corners of wood-framed structures.

Wooden roof joists/top plate and rafter/top plate connections are usually toe-nailed. Wind uplift would tend to pull out these connections. Again, properly installed straps or braces to put fasteners in shear, not tension, would provide greater resistance to uplift. Construction details are shown in Figures 1 and 2.

The best time to add details to resist uplift forces is during design. Proper placement of anchors, braces, and connections is essential to anchor floors to foundations, walls to floors, and roofs to walls. Increasing the wind uplift resistance of a building after it is constructed is more expensive, more difficult, and often less effective. There are several publications available to builders, architects, and engineers which illustrate how to install anchors and braces to resist wind forces. One such publication by the National Forest Products Association is entitled "How to Build Storm Resistant Structures".

4. Specific problem areas

In addition to the above mentioned areas, more specific failure initiation points occur at large overhead doors, roof edges, and masonry structures in general. In metal buildings, inward buckling of overhead doors has led to loss of roof and wall corner cladding.

Improper roof edge details have led to loss of the roof coverings, opening the structure up to the weather. In particular, metal gravel guards are seldom anchored to walls. Uplift of the roof edges allows the wind to get underneath the roof membrane, leading to its removal. Also, a number of roof coverings have been displaced when separation occurred between the insulation board and deck, or the insulation board failed in tension. In these instances, the insulation was inadvertently designed to resist some of the wind uplift forces.

Absence of brick ties to secure masonry veneers has led to wall failures at relatively low wind velocities. Even load-bearing walls have collapsed due to lack of steel reinforcement and cell grouting. Bond beams atop masonry walls have performed poorly in past windstorms. The mortar joints beneath the bond beams frequently fail in tension.

5. Summary

Not all buildings are constructed the same. The extent and type of anchors, braces and connections used in a building are directly proportional to how it will behave in the wind. Knowing how a building is constructed is an important factor which must be considered when trying to obtain an accurate account of the wind velocity needed to cause failure.

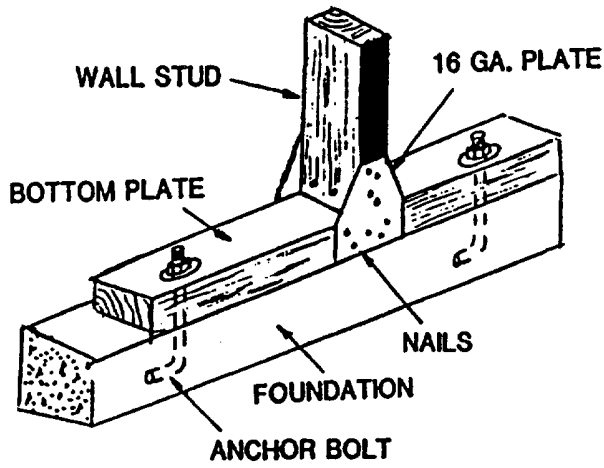


Figure 1. Wall-floor connection detail in wood framed construction needed to resist lateral loads.

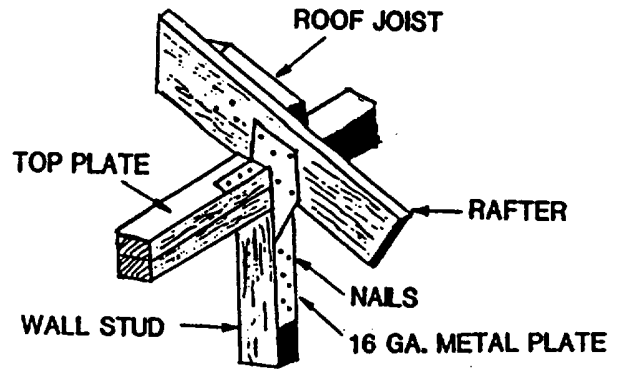
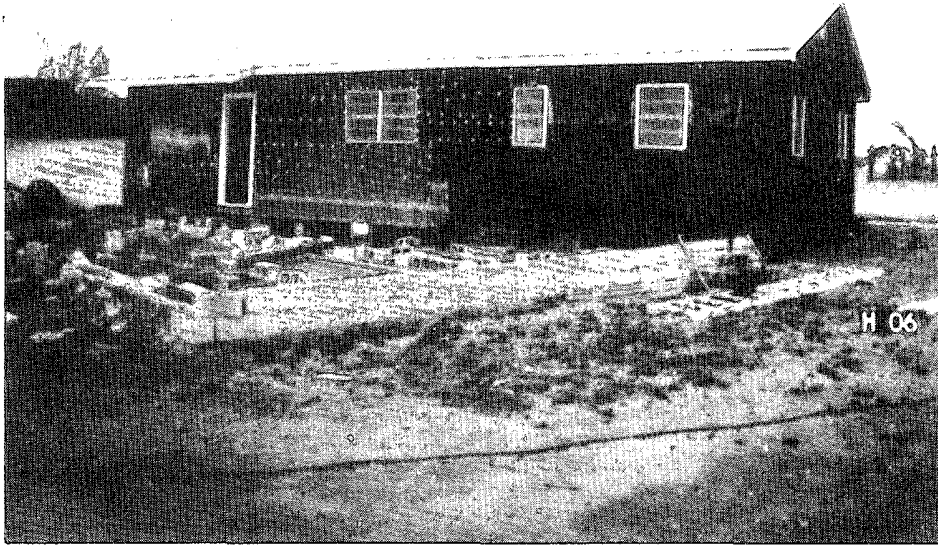


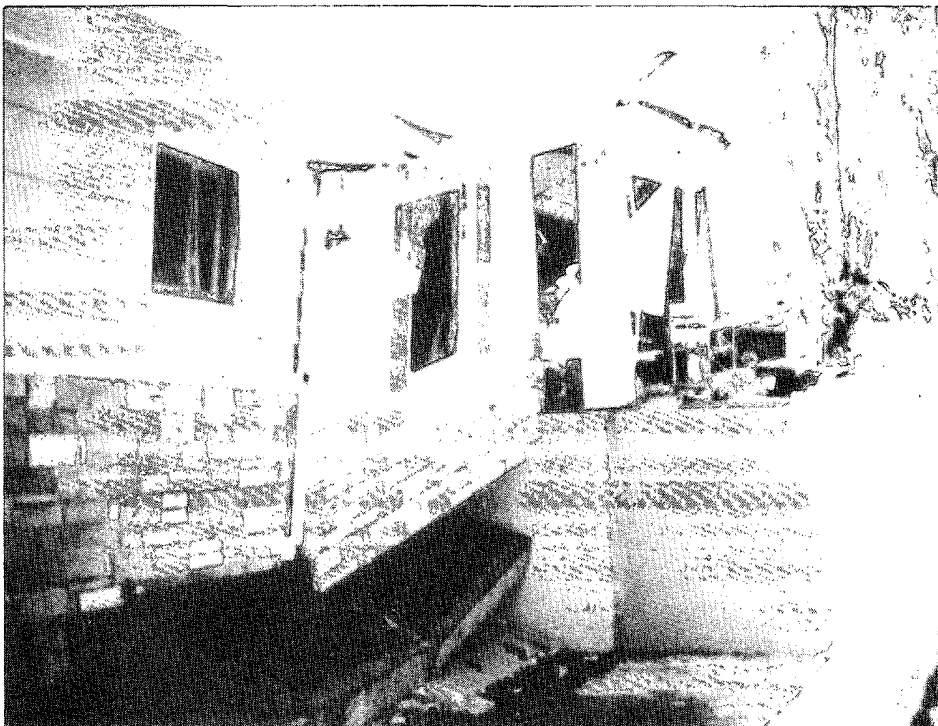
Figure 2. Roof-wall connection detail in wood framed construction needed to resist uplift loads.



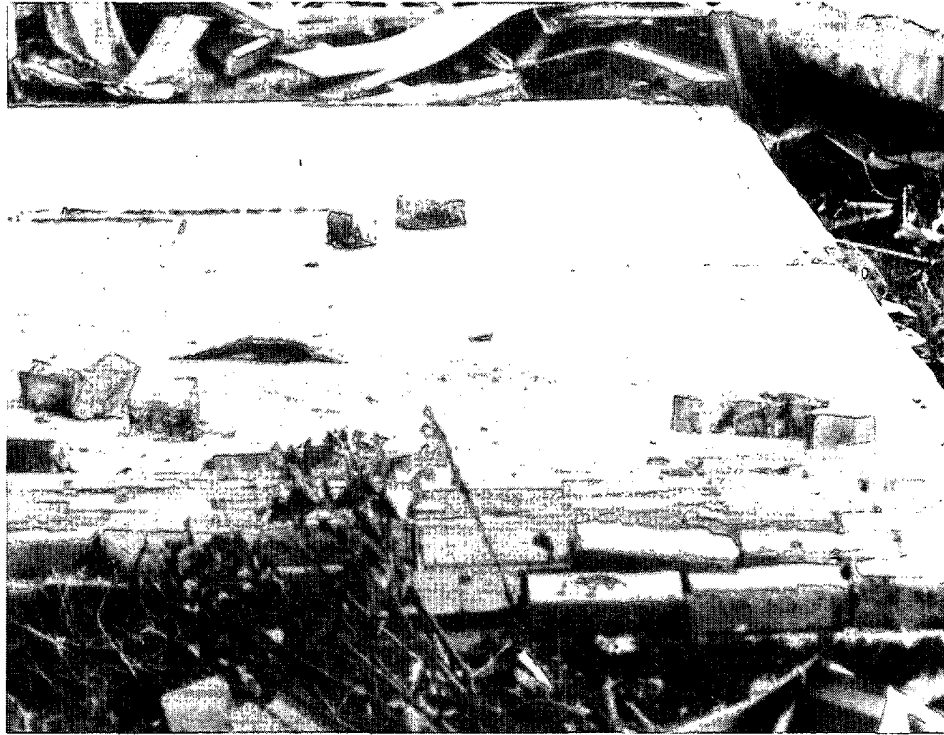
Photograph 1. The roof on this house was not anchored very well and was uplifted and displaced during peripheral winds in the Mesquite, Texas tornado on December 13, 1984. Wind velocities less than 100 m.p.h. can cause such residential damage.



Photograph 2. This pre-manufactured home was rotated off its concrete block foundation during the Hereford, Texas tornado. The house actually pivoted about bathroom plumbing which was the only significant point of floor-to ground anchorage. The rotation or "twist" of this object was best explained by the variations inherent within the structure, rather than rotating wind currents. Note the lack of damage to roof shingles and felt paper underlayment along walls indicative of relatively low wind velocities. *Photograph courtesy of the Institute for Disaster Research, Texas Tech. Univ.*



Photograph 3. This house was also not anchored to its foundation and had a full basement. Lateral displacement of the house during the Grand Island, NE tornado caused the wooden floor structure to lose support and fall into the basement. Absence of damage to surrounding trees and roof shingles indicated house movement occurred at wind velocities probably less than 100 m.p.h.



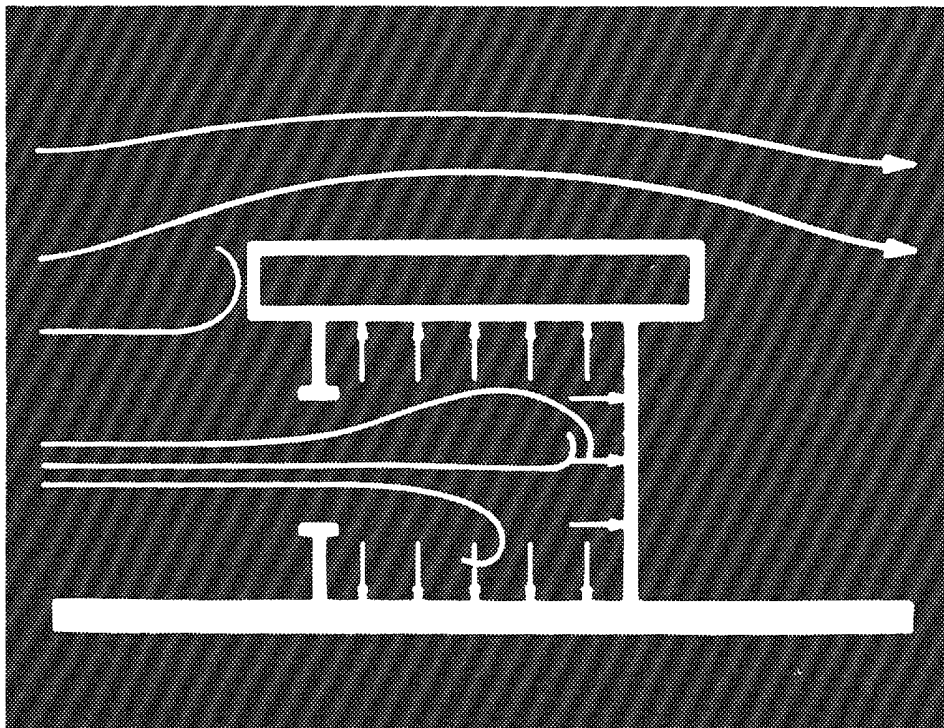
Photograph 4. A concrete slab and a few bricks are all that was left of this unanchored home following the Mesquite, Texas tornado. Although, the home was near the centerline of the tornado damage path, other damage around this home suggested wind speeds were probably no more than 120 m.p.h. There was evidence that the house may have been struck by debris from an adjacent metal warehouse building.



Photograph 5. Damage to two-story brick veneer wall after the Mesquite, Texas tornado. There were no brick ties to anchor the wall to the wooden frame. The wall toppled on the leeward or "suction" side.



Photograph 6. The same type of damage was found to brick veneer after Hurricane Elena at Gulfport MS. Building response was the same as above regardless whether the wind is from a tornado or hurricane.



Photograph 7. This simplified schematic shows the airflow (long arrows) over and into a building with a windward wall opening. The pressure on the building's interior actually increases resulting in additional uplift or outward forces (small arrows). Thus, opening windows when a tornado nears could actually be detrimental to the structure. *Photograph courtesy of the Institute for Disaster Research at Texas Tech. University.*



Photograph 8. At first glance, it may appear that this building exploded during this tornado. However, closer inspection reveals the back wall (at right) is leaning inward indicating this was the windward wall during the storm. Loss of the door and window allowed wind pressures to gain access to the building interior. Lack of roof/wall anchorage led to removal of the roof structure, and the remaining walls, no longer supported at the top, fell outward. *Photograph courtesy of the Institute for Disaster Research at Texas Tech. University.*

6. Pertinent references on storm damage assessment.

Conner, Harold, et. al., 1987: Roof Connections in Houses: Key to Wind Resistance, ASCE Journal of Structural Engineering, Vol. 113, No. 12, p. 2459-2473.

McDonald, James R. and Timothy P. Marshall, 1983: Damage Survey of the Tornadoes Near Altus, Oklahoma on May 11, 1982, Pub. 68D, IDR, Texas Tech. University.

McDonald, James R. and Timothy P. Marshall, 1984: Tornado Damage Documentation, IDR publication, 27 pp.

Minor, Joseph E. and Kishor C. Mehta, 1979: Wind Damage Observations and Implications, ASCE Journal of Structural Engineering, Vol. 105, No. ST11, p. 2279-2291.

Minor, Joseph E., Mehta, Kishor C., and James R. McDonald, 1977: The Tornado: An Engineering Oriented Perspective, NOAA Tech. Memo. ERL-NSSL-82, 196 pp.

Tim Marshall works as a Failure and Damage Consultant, Haag Engineering Company, P. O. Box 814245, Dallas, TX 75381.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

ALABAMA

Sumter County	01	1345CST			0	0	0	0	Hail (0.75) Dime-size hail fell at York.
Pickens County	01	1400CST			0	0	?	?	Hail (1.75) Golf ball-size hail damaged windows in Aliceville.
Greene County	01	1415CST			0	0	0	0	Thunderstorm Winds (G60) Thunderstorm winds reached an estimated 60 mph at Boligee.
Bibb County	01	1525CST			0	0	?	?	Thunderstorm Winds Trees and power lines were blown down at Brierfield. Trees and telephone lines were blown down at Brent.
Coosa County	01	1530CST			0	0	0	0	Hail (0.75) Hail (1.75) Nickel-size hail fell at Goodwater at 1530 CST. Golf ball-size hail fell in the Lay Lake vicinity of west Coosa County at 1545 CST.
	01	1545CST			0	0	?	?	
Perry County	01	1535CST			0	0	0	0	Thunderstorm Winds Several trees were blown down at Marion.
Clarke County	01	1542CST			0	0	0	0	Thunderstorm Winds Trees were blown down at Grove Hill.
Dallas County	01	1542CST			0	0	0	0	Thunderstorm Winds Trees were blown down about 5 miles west of Selma.
Wilcox County	01	1545CST			0	0	?	?	Thunderstorm Winds Thunderstorm winds blew down trees at numerous locations in the county.
Monroe County	01	1610CST			0	0	?	?	Thunderstorm Winds Hail (1.00) Thunderstorm Winds Trees were blown down at Monroeville at 1610 CST. Quarter-size hail fell and trees were blown down from Chrysler to Frisco City at 1630 CST.
	01	1630CST			0	0	?	?	
	01	1630CST			0	0	?	?	
Chilton County	01	1613CST			0	0	?	?	Thunderstorm Winds Numerous trees and power lines were blown down at Enterprise and Verbena.
Autauga County	01	1615CST			0	0	?	?	Thunderstorm Winds Trees were blown down at scattered locations in the county.
Montgomery County	01	1626CST			0	0	?	?	Thunderstorm Winds Hail (0.75) Thunderstorm Winds (G58) Numerous trees and power lines were blown down at Hope Hull at 1626CST. Nickel-size hail fell in the same area. Thunderstorm winds gusted to 58 mph at the Montgomery Airport at 1642 CST.
	01	1626CST			0	0	0	0	
	01	1642CST			0	0	?	?	

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

ALABAMA Cont'd

Geneva County	01	1840CST			0	0	?	?	Thunderstorm Winds
Trees were blown down at Hartford.									
Henry County	01	1840CST			0	0	?	?	Thunderstorm Winds
Trees were blown down in the Abbeville vicinity.									
Houston County	01	1915CST			0	0	?	?	Thunderstorm Winds
Strong thunderstorm winds damaged the roofs of several buildings in Wicksburg.									
Covington County	06	1850CST			0	0	?	?	Thunderstorm Wind
Thunderstorm winds blew down several barns and blew a tree across a mobile home 1 mile south of Gantt.									
Coffee County	06	1930CST			0	0	?	?	Hail (1.75)
Golf ball-size hail covered the ground at Enterprise.									
Pickens County	10	1135CST			0	0	?	?	Thunderstorm Winds
Trees were blown down at Carrollton.									
Jefferson County	10	1240CST			0	0	?	?	Thunderstorm Winds (G60)
	10	1245CST			0	0	?	?	Thunderstorm Winds
	10	1300CST			0	0	?	?	Thunderstorm Winds
	10	1318CST			0	0	?	?	Thunderstorm Winds (G60)
Thunderstorm winds were estimated at 60 mph at 1240 CST in Gilmore about 18 miles west of Birmingham. Trees were blown down 2 miles east of Morris at 1245 CST. Trees were blown onto cars on the southside of Birmingham at 1300 CST. Winds were estimated at 60 mph at 1318 CST at Leeds.									
Etowah County	10	1407CST			0	0	?	?	Thunderstorm Winds
	10	1410CST			0	0	?	?	Thunderstorm Winds
A mobile home was blown over 5 miles east of Rainbow City at 1407 CST. Trees and power lines were blown down at 1410 CST in the Southside area. Also in the Southside area one boathouse and several outbuildings were blown away.									
Calhoun County	10	1420CST			0	0	?	?	Thunderstorm Winds
Trees were blown down 5 miles east of Anniston.									
Autauga County	10	1445CST			0	0	?	?	Thunderstorm Winds
	10	1505CST			0	0	?	?	Thunderstorm Winds
Trees were blown onto power lines at 1445 CST in the Autaugaville area. Trees and power lines were blown down at 1505 CST in the Prattville area.									
Barbour County	10	1450CST			0	0	?	?	Thunderstorm Winds
Trees and power lines were blown down 5 miles north of Eufaula.									
Clay County	10	1500CST			0	0	?	?	Hail (0.75)
Dime-size hail fell in the Ashland/Lineville area.									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

ARKANSAS Cont'd

Nevada County Willisville	05	1815CST			0	0	?	?	Thunderstorm Winds
Thunderstorm winds blew down trees and destroyed several chicken barns. One inch of small hail also covered the ground.									
Nevada County 2 S Falcon	05	1820CST			0	0	0	0	Hail (1.75)
Columbia County Waldo	05	1820CST			0	0	0	0	Hail (1.00)
Nevada County Bodcaw	05	1825CST			0	0	0	0	Hail (1.75)
Six inches of hail occurred in Bodcaw, ranging in size from 3/4 to 1-3/4-inch.									
Nevada County 5 NE Falcon	05	1829CST			0	0	0	0	Funnel Cloud
A funnel cloud was spotted by the public between Falcon and Willisville.									
Lafayette County 8 N Stamps	05	1830CST			0	0	0	0	Hail (1.00)
Columbia County McNeil	05	1840CST			0	0	0	0	Funnel Cloud
Lafayette County Stamps	05	1858CST			0	0	0	0	Hail (0.75)
Lafayette County Lewisville	05	1905CST			0	0	0	0	Hail (0.75)
Lafayette County Stamps	05	1905CST			0	0	0	0	Hail (1.00)
Lafayette County Lewisville	05	1910CST			0	0	?	?	Thunderstorm Winds
Thunderstorm winds downed trees blocking Highway 29.									
Miller County Fouke	05	1925CST			0	0	0	0	Hail (1.75)
Columbia County Ware	05	1925CST			0	0	0	0	Hail (1.00)
Columbia County Taylor	05	2020CST			0	0	0	0	Hail (1.00)
Washington County Springdale	09	2315CST			0	0	5	?	Lightning
Lightning struck a home, resulting in a fire that caused an estimated \$60,000 damage.									
Sebastian County Midland	10	0215CST			0	1	?	?	Thunderstorm Winds
Thunderstorm winds overturned a mobile home. A man was inside at the time and suffered minor injuries.									
Sebastian County Witcherville	10	0215CST			0	0	?	?	Thunderstorm Winds
Thunderstorm winds destroyed a barn near Witcherville.									
Sebastian County 2 E Hackett	10	0215CST			0	0	0	0	Hail (0.75)

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

ARKANSAS Cont'd

Washington County
Springdale

10 0230CST 0 0 0 0 **Lightning**

Lightning struck a home, knocking a hole in the wall, burning telephone cables, and starting a small fire. Lightning strikes also knocked out traffic lights across town and set off numerous burglar alarms.

Johnson County
8 NW Clarksville

10 0300CST 0 0 0 0 **Hail (1.50)**

Polk County
Ink

10 0300CST 0 0 4 ? **Thunderstorm Winds**

Poultry houses and other buildings on several farms in the Ink area were damaged by thunderstorm winds. Estimated damage was near \$50,000.

Yell County
Havana
Belleville
Waveland

10 0330CST 0 0 ? ? **Thunderstorm Winds**
10 0300CST 0 0 ? ? **Thunderstorm Winds**
10 0330CST 0 0 ? ? **Thunderstorm Winds**

Severe thunderstorms rolled across northwestern Yell County causing considerable damage. Trees up to 2.5 feet in diameter were blown over near Waveland blocking several roads. A farm near Havana suffered considerable damage with several buildings destroyed and equipment damaged. Many large trees were also downed blocking roads around Belleville. Poultry houses were damaged across the northwestern part of the county, along with numerous downed power lines.

Pope County
8 NNW Dardanelle

10 0340CST 0 0 ? ? **Thunderstorm Winds (G60)**

Trees near 2 feet in diameter were blown down by thunderstorm winds. Farm buildings were also damaged in the area.

Pope County
Russellville

10 0345CST 0 0 5 ? **Thunderstorm Winds**

A severe thunderstorm hit Russellville, downing trees and power lines, damaging roofs, breaking windows, and blowing away signs. Two auto dealers also suffered major damage, one estimated around \$200,000 and the other around \$150,000.

Scott County
Waldron

10 0345CST 0 0 0 0 **Thunderstorm Winds**

Thunderstorm winds uprooted several trees.

Conway County
St. Vincent
Kenwood

10 0420CST 0 0 4 ? **Thunderstorm Winds**
10 0420CST 0 0 5 ? **Thunderstorm Winds**

Thunderstorm winds damaged several farms and homes around St. Vincent, with damage estimated near \$13,000. An airstrip at Kenwood had at least one hangar and airplane destroyed by strong winds. Damage was estimated near \$100,000.

Conway County
Birdtown

10 0425CST 0 0 4 ? **Thunderstorm Winds**

Thunderstorm winds uprooted several trees, one of which fell on a house and garage. At least three vehicles and a barn suffered damage. Damage was estimated to be about \$10,000.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

ARKANSAS Cont'd

Washington County 16 1930CST-2330CST 0 0 ? ? Flash Flood

Up to 4 inches of rain caused flash flooding across Washington County. County Roads 3 and 4 had large sections washed away by the rushing water. Several cars stalled out on Highway 45 near Cane Hill as a result of high water.

Madison County Huntsville 16 1956CST 0 0 0 0 Hail (1.75)
 Madison County Huntsville 16 2010CST 0 0 0 0 Hail (0.75)
 Benton County Rogers 16 2010CST 0 0 0 0 Hail (0.75)
 Marion County Rea Valley 16 2010CST 0 1 ? ? Lightning

A woman suffered minor injuries when lightning struck a water pump she was using. In a nearby field, five cows were killed by another strike.

Randolph County Warm Springs 16 2010CST 0 0 0 0 Hail (1.00)
 Washington County 16 2040CST 0 0 0 0 Hail (0.75)
 Crawford County 16 2040CST 0 0 0 0 Hail (0.75)

Three-quarter-inch hail fell for about 30 minutes along the Washington-Crawford County line near Devils Den State Park.

Randolph County Pocahontas 16 2100CST 0 0 0 0 Hail (1.00)
 Washington County Winslow 16 2105CST 0 0 0 0 Hail (0.75)
 Sharp County Cave City 16 2230CST 0 0 ? ? Lightning

Lightning struck several transformers causing power outages.

Johnson County 5 N Clarksville 16 2255CST 0 0 0 0 Hail (0.75)
 Logan County 17 0005CST 0 0 ? ? Thunderstorm Winds

A severe thunderstorm swept across Logan County causing widespread damage, mainly from falling trees. One mile north of Booneville, a two-bedroom home was almost completely destroyed when a 3-foot-wide oak tree fell on it. A home was partially caved in by a falling tree in Delaware. Outbuildings were damaged by the strong winds and power lines were blown down. Over 80 trees were blown down at the Blue Mountain Wildlife Demonstration Area, 2 miles east of Sugar Grove. Some of the falling trees severely damaged a mobile home.

Lonoke County Scott 20 1615CST 0 0 ? ? Lightning

An estimated 10,000 pounds of fish died at a fish farm after a lightning strike set fire to the building. Many of the fish died from the heat of the fire. The aeration, incubation, and filter systems were also destroyed.

Desha County McGehee 22 0930CST 0 0 ? ? Lightning

Lightning struck the bell tower at St. Mary's Church, destroying the bell tower, knocking the bell to the ground, and causing minor roof damage.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

ARKANSAS Cont'd

Hempstead County 4 NW Hope	22	1630CST			0	0	0	0	Hail (0.75)
Jefferson County Swan Lake	23	1532CST			0	0	0	0	Hail (0.75)
Clay County Corning	23	1610CST			0	0	0	0	Hail (0.75)
Pulaski County North Little Rock	25	2245CST			0	0	0	0	Hail (1.75)

A rapidly developing thunderstorm produced golf ball-size hail and wind gusts around 40 mph in downtown North Little Rock.

Benton County Hiwasse	26	1620CST			0	1	?	?	Lightning
--------------------------	----	---------	--	--	---	---	---	---	-----------

A man suffered minor injuries when lightning struck the Hiwasse Fire Station. The man was leaning against a truck when the lightning struck.

Columbia County Magnolia	28	2038CST			0	0	?	?	Thunderstorm Winds
-----------------------------	----	---------	--	--	---	---	---	---	--------------------

Thunderstorm winds downed trees and caused some roof damage in Magnolia.

CALIFORNIA, Northern

San Joaquin County 5 W Stockton	23	0952PDT- 1002PDT			0	0	0	0	Funnel Cloud
Yuba County 1 W Marysville	23	1417PDT- 1423PDT			0	0	0	0	Funnel Cloud
Placer County Penryn	23	1630PDT			0	0	3	0	Tornado (F0)
Amador County	23	1800PDT			0	0	3	0	Flash Flood

Around 1325 PDT, a thunderstorm complex developed over northern Sutter County. These thunderstorms, one of which spawned the tornado at Penryn, were tracked on radar until 1925 PDT. By this time they had moved to the south-southeast and had reached northeast San Joaquin County. The area of thunderstorms also caused the flash flood in Amador County with an intensity indicated at level 6.

CALIFORNIA, Southern

Ventura County	16	0805PST			0	0	0	0	Funnel Cloud
San Diego County	16	1728PST			0	0	0	0	Waterspouts

A spring storm system moved through southern California, which produced a small funnel cloud near Point Mugu and two waterspouts were reported 13 miles southwest of Oceanside. No reports of damage.

CAZ013-018-019	23 25	1430PST- 2245PST			0	0	?	0	High Winds
----------------	----------	---------------------	--	--	---	---	---	---	------------

A storm system developed over Nevada and Utah and moved southeast into Arizona, with an associated cold front moving through southern California. The system caused strong gusty winds over all of southern California mountains and deserts. Winds were reported at Mojave to be 40 mph with gusts to 58 mph at 1100 PST on the 24th. Winds elsewhere ranged 25 to 35 mph with gusts to 45 mph.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

CALIFORNIA, Southern Cont'd

CAZ013-014 and CAZ018-019	28 1300PST- 30 0845PST					0 0 ? 0		High Winds
--------------------------------------	---------------------------	--	--	--	--	---------	--	------------

Once again a storm system developed over the central and southern Rockies producing strong gusty west-to-southwest winds over southern California mountains and deserts including the Owens Valley. Local areas of blowing dust and sand reduced visibilities to only a few hundred feet. Strongest winds reported were at Daggett Airport with gusts to 50 mph. Sustained winds of 30 to 40 mph were frequently reported.

COLORADO

Front Range COZ011	05 0500MST- 1600MST					0 0 0 0		Snow
-------------------------------	------------------------	--	--	--	--	---------	--	------

Wet, heavy snow fell in many areas in and along Colorado's Front Range, northeast foothills and adjacent high plains as a result of moist, easterly upslope flow. Six- to 10-inch accumulations were reported at two ski areas approximately 40 miles west of Denver. Four- to 7-inch readings were common in and around the Boulder area, with lesser amounts noted at lower elevations in southern and eastern sections of the metropolitan area. Icy road conditions contributed to numerous fender-benders throughout the Denver/Boulder metropolitan area, with a 20-vehicle pileup near the junction of Interstates 25 and 70 in northwest Denver. During the morning hours, visibilities were restricted to less than a half-mile in snow and fog at two metropolitan area county airports, with scheduled flight delays for a short time at Denver's Stapleton International Airport.

Alamosa County Alamosa	18 1323MST					0 0 0 0		Funnel Cloud
-----------------------------------	------------	--	--	--	--	---------	--	--------------

A funnel cloud was spotted by NWS personnel just southwest of the Alamosa County Airport.

West Central Valleys, Southwest Mountains COZ003-007	18 All Day					0 0 4 0		Heavy Snow
---	------------	--	--	--	--	---------	--	------------

Heavy, wet snow caused numerous power outages in and around the town of Montrose situated along the Gunnison River, as well as to the south of Montrose in the San Juan Mountains. Several power poles snapped under the weight of the wet snow. Electric power and phone service was knocked out for nearly 6 hours during the peak of the storm in the southwest mountain communities of Telluride, Ouray, Ridgeway, and Placerville where 15 to 18 inches of snow had fallen by evening.

Rio Grande County Center	19 1800MST					0 0 4 0		Thunderstorm Winds Hail
-------------------------------------	------------	--	--	--	--	---------	--	----------------------------

Strong thunderstorm winds demolished a lettuce shed (20 feet x 40 feet) just south of the town of Center on the west-central side of the San Luis Valley (23 miles northwest of Alamosa). Power lines were also downed by the strong winds and pea- to marble-size hail fell in the same area.

Central Mountains and Upper Arkansas Valley COZ004-006	19- 20 Overnight					0 0 0 0		Snow
---	---------------------	--	--	--	--	---------	--	------

A fast-moving Pacific storm system dumped more than a foot of snow on the central mountains rimming the upper Arkansas valley, with 12 inches recorded at Leadville (Lake County), at slightly above 10,000 feet in elevation. At lower elevations, 3- to 5-inch accumulations were common along the Arkansas River with 4 inches falling on Nathrop (Chaffee County).

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

FLORIDA Cont'd

Monroe County Cudjoe Key	16	0635EST							Waterspout Air Force personnel sighted a waterspout.
Monroe County 2 S Duck Key	16	1018EST							Waterspout Coast Guard sighted a waterspout.
Monroe County 5 WNW Key West	18	0618EST							Waterspout Waterspout sighted.
Monroe County 4 NW Cudjoe Key	18	1845EST							Waterspout Air Force personnel sighted a waterspout.
Flagler County Bunnell	22	1710EST			0	0	0	0	Thunderstorm Winds Power lines and trees were down and one-quarter-inch-size hail fell.
Duval County Jacksonville	22	1740EST			0	6	4	0	Thunderstorm Winds Trees were down and house roofs were damaged. Six people were treated for cuts and bruises at area hospitals.
Duval County Jacksonville	22	1817EST			0	0	0	0	Thunderstorm Winds Numerous trees down.
Alachua County Gainesville	23	1514EST			0	0	0	0	Hail (0.75) Several reports of three-quarter-inch-size hail.
Union County Lake Butler	23	1600EST			0	0	0	5	Hail (0.75) Hail damaged a peach orchard and several hundred acres of vegetables causing \$100,000 damage.
Alachua County Hague	23	1610EST			0	0	0	0	Thunderstorm Winds Trees limbs were down.
Hernando County Spring Hill	23	1710EST	0.5	7	0	0	3	0	Tornado (F0) Minor damage to a house roof, fence, and car. A shed was destroyed.
Dade County 15 SE Miami	24	0905EST							Waterspout Florida Marine Patrol sighted waterspout near Fowey Rocks.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

FLORIDA Cont'd

Monroe County 8 W Key West	24	1754EST							Waterspout
A waterspout was observed by NWS personnel.									
Baker County 10 S Baxter	28	1300EST			0	0	0	0	Thunderstorm Winds
Trees were blown down.									
Holmes County Bonifay	28	1515EST			0	0	0	0	Thunderstorm Winds
Several trees and power lines were blown down.									
Putnam County Bostwick	28	1616EST			0	0	0	0	Thunderstorm Winds
Powers lines were blown down.									
Monroe County 2 NW Key West	29	1040EST							Waterspout
NWS personnel sighted a waterspout.									

GEORGIA

Burke County Burton's Ferry	01 02	0000EST- 1900EST			0	0	?	?	Flood
Effingham County Clyo	01 08	0000EST- 1900EST			0	0	?	?	Flood
The Savannah River remained above its 15-foot flood stage at Burton's Ferry until April 2nd. The flooding began February 19th. At Clyo, the river flooded until April 8th. The Savannah River had been above the 11-foot flood stage since February 12th. Low-lying farms, roads, and pastures were affected during the flooding.									
Toombs County Southern Toombs County	05	0000EST- 1900EST			0	0	?	?	Flood
Appling County North Appling County	05	0000EST- 1900EST			0	0	?	?	Flood
The Altamaha River flooded at Plant Hatch north of Baxley from March 24th until April 5th. Widespread flooding occurred over agricultural lands adjacent to the river, along with rural roads in Toombs and Appling counties.									
Montgomery County 5 S Uvalda	03	0000EST- 0700EST			0	0	?	?	Flood
Jeff Davis County Extreme Northeast Jeff Davis County	03	0000EST- 0700EST			0	0	?	?	Flood

Vacation homes and cabins were flooded along the Altamaha River in Montgomery and Jeff Davis counties. Some riverside trailers were evacuated during the flooding that started on March 25th. Some riverside roads were impassable. The river crested at 20.5 feet late in March. The flood stage is 15 feet.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

GEORGIA Cont'd

Thomas County 18 SSW Moultrie Thomasville	01	2120EST			0	0	?	?	Thunderstorm Winds (G52) Small Hail
Scattered trees were broken or uprooted by thunderstorm winds. Power outages resulted when lines, utility poles, and several substations were damaged during the storm.									
Chattooga County Summerville Trion	10	1538EST			0	0	?	?	Thunderstorm Winds
Widespread damage occurred as strong thunderstorms moved across Chattooga County. Many trees and power lines were downed in the county and in Summerville and Trion. A truck was struck by a falling tree on Highway 100. Winds took the roof off a retail store in Summerville.									
Haralson County Bremen Tallapoosa Buchanan	10	1540EST			0	0	0	0	Hail (0.88)
	10	1558EST			0	0	0	0	Hail (0.75)
	10	1610EST			0	0	0	0	Hail (0.75)
Stewart County Omaha	10	1615EST			0	0	?	?	Thunderstorm Winds
Thunderstorm winds uprooted trees, resulting in power lines being torn down.									
Gilmer County Ellijay	10	1645EST			0	0	?	?	Thunderstorm Winds
Scattered trees were blown down by winds.									
Douglas County Douglasville Countywide	10	1648EST			0	0	0	0	Hail (0.75)
	10	1650EST			0	0	?	?	Thunderstorm Winds
Gusty winds broke a few tree limbs in Douglas County.									
Fulton County Atlanta	10	1650EST			0	0	?	0	Lightning
A lightning strike at Hartsfield International Airport damaged the air traffic control radar, halting traffic for an hour.									
Stewart County 1 N Richland	10	1700EST			0	0	?	?	Thunderstorm Winds
Scattered trees were downed.									
Webster County Preston	10	1700EST			0	0	?	?	Thunderstorm Winds
Scattered trees were uprooted or broken and power lines were torn down resulting in power outages.									
Haralson County Bremen Tallapoosa	10	1702EST			0	0	0	0	Hail (0.88)
	10	1705EST			0	0	0	0	Hail (0.75)

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

GEORGIA Cont'd

Fulton County Southwest Atlanta	10	1710EST			0	0	0	0	Hail (0.88)
Atlanta	10	1713EST			0	0	0	0	Hail (1.00)

Hail developed around and just north of the intersection of Georgia Highway 166 and Interstate 285 over southwest Atlanta. Winds gusted to 43 mph at the Weather Service Office as the thunderstorm passed over.

Marion County 2 S Juniper	10	1715EST			0	0	?	?	Thunderstorm Winds Small Hail
Dranesville	10	1725EST			0	0	?	?	Thunderstorm Winds Small Hail

Scattered trees were uprooted or broken across the county. The majority of the damages occurred at Dranesville and near Juniper. Several power outages resulted.

Fulton County Roswell	10	1720EST			0	0	?	0	Thunderstorm Winds Small Hail
3 SSE Sandy Springs	10	1720EST			0	0	?	0	Flash Flood

A few trees were uprooted by thunderstorm winds. Flash flooding developed briefly at Nancy Creek.

Troup County Hogansville	10	1720EST			0	0	?	?	Thunderstorm Winds
2 N LaGrange	10	1728EST			0	0	5	?	Thunderstorm Winds

Scattered trees were blown down by winds at Hogansville. A microburst wind event caused damage to about 14 buildings at LaGrange, mainly due to the many trees that were snapped or uprooted. Winds lifted portions of the roofs of several homes. Of the 14 damaged structures, two were trailers and 1 was a church. Only one building had severe damage. Several vehicles were damaged. Winds were estimated at between 80 and 90 mph. Damages were estimated to cost over \$150,000.

DeKalb County East Atlanta	10	1730EST			0	0	0	0	Funnel Cloud Small Hail
Southeast DeKalb County	10	1733EST			0	0	0	0	Hail (0.75)
Countywide	10	1735EST			0	0	?	0	Thunderstorm Winds Small Hail

A funnel cloud was sighted just south of Interstate 20 in east Atlanta. About 3 miles south of the intersection of Interstates 20 and 285, a hail storm lasted about five minutes, with hail covering the ground. Hail also developed at Georgia Highway 155 about 2 miles north of the Henry County line. Scattered tree limbs were broken in southwest DeKalb County. A home in southeast DeKalb was damaged by a large, falling tree.

Gwinnett County Snellville	10	1735EST			0	0	0	0	Hail (0.75)
-------------------------------	----	---------	--	--	---	---	---	---	-------------

Rockdale County Conyers	10	1740EST			0	0	?	0	Hail (1.50)
	10	1740EST			0	0	?	0	Flash Flood
Conyers North Rockdale County	10	1740EST			0	0	?	0	Thunderstorm Winds

Thunderstorm winds uprooted or damaged scattered trees around Conyers, resulting in power outages as the trees tore down power lines. Two homes in a mobile home park in north Rockdale County were severely damaged when trees fell through them. Large hail also broke small tree limbs, tore down power lines, and damaged several vehicles around Conyers.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

GEORGIA Cont'd

Oglethorpe County Crawford	10	1835EST			0	0	?	?	Thunderstorm Winds
A few large trees were blown down onto utility lines, resulting in brief interruptions in service.									
Oconee County Farmington	10	1838EST			0	0	0	0	Hail (0.75)
Greene County Countywide	10	1838EST			0	0	?	?	Thunderstorm Winds (G50)
	10	1906EST			0	0	?	?	Thunderstorm Winds
Scattered broken and uprooted trees tore down power lines, resulting in many outages over the county.									
Laurens County 4 N Dudley	10	1955EST			0	0	0	0	Hail (0.75)
Dublin	10	2000EST			0	0	?	?	Thunderstorm Winds
Houston County Bonaire	10	2020EST			0	0	0	0	Hail (1.75)
Floyd County Rome	17	1750EST			0	0	?	0	High Wind
Scattered power outages resulted when tree limbs, broken by the winds, fell onto utility lines.									
Carroll County Carrollton Countywide	28	1230EST			0	0	?	?	Thunderstorm Winds Small Hail
At Carrollton and over the county, scattered trees and power lines were blown down. About three hundred residents had no power.									
Douglas County Douglasville	28	1235EST			0	0	0	0	Hail (0.75)
Paulding County Dallas	28	1300EST			0	0	?	?	Thunderstorm Winds
A few large trees were blown down around Dallas.									
Gilmer County Countywide	28	1300EST			0	0	?	?	Thunderstorm Winds
Many large trees were uprooted or broken across the county. Falling trees tore down power lines, resulting in outages.									
Murray County Countywide	28	1310EST			0	0	?	?	Thunderstorm Winds
A few limbs were blown down across the county.									
Fannin County McCaysville	28	1315EST			0	0	0	0	Hail (0.75)
Countywide	28	1328EST			0	0	?	?	Thunderstorm Winds
Scattered trees and limbs were blown down over the county.									
Fayette County Peachtree City	28	1315EST			0	0	?	0	Thunderstorm Winds Small Hail
Fayetteville	28	1328EST			0	0	0	0	Hail (1.75)
Scattered small trees were uprooted or broken at Peachtree City.									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

GEORGIA Cont'd

Clayton County
Jonesboro 28 1330EST 0 0 ? 0 **Thunderstorm Winds**

Large oak trees were uprooted by the winds. Small hail occurred at 1306 EST 3 miles south of Jonesboro and at 1335 EST 4 miles southwest of Jonesboro.

Cherokee County
Ball Ground 28 1330EST 0 0 ? ? **Thunderstorm Winds**
Countywide 28 1335EST 0 0 ? ? **Thunderstorm Winds**
Hopewell 28 1340EST 0 0 ? ? **Thunderstorm Winds**

Large trees were uprooted and broken by winds over the county. Power lines were torn down by falling trees at Hopewell. Several roadways were blocked, mainly around Ball Ground and north of Waleska along Georgia Highway 140.

Dawson County
Countywide 28 1350EST 0 0 ? ? **Thunderstorm Winds**
Small Hail

Scattered trees were uprooted by thunderstorm winds.

Fayette County
Fayetteville 28 1354EST 0 0 ? 0 **Thunderstorm Winds**
3.5 SW
Fayetteville 28 1358EST 0 0 0 0 **Funnel Cloud**
Southern Fayette
County 28 1400EST 0 0 ? ? **Thunderstorm Winds**

A few trees were snapped by winds in Fayetteville. Scattered trees were uprooted across southern Fayette County. A funnel cloud was sighted at Willow Pond. A few trees were blown down around the pond.

Muscogee County
Columbus 28 1358EST 0 0 ? 0 **Thunderstorm Winds (G58)**
28 1358EST 0 0 0 0 **Hail (0.75)**

Scattered trees were uprooted or broken by the winds, resulting in power outages when utility lines were torn down. Over the city, around 6,000 customers were briefly without electricity. A small airplane at the airport was flipped. Moderate structural damage occurred to buildings, mainly due to fallen trees.

Lumpkin County
Countywide 28 1400EST 0 0 0 0 **Hail (0.88)**
Meriwether County
Lutherville 28 1400EST 0 0 0 0 **Hail (0.75)**

Hail developed as a thunderstorm moved over Meriwether County. The hail lasted about eight minutes.

Macon County
Northern Macon
County 28 1400EST 0 0 0 ? **Hail (1.00)**
28 1400EST 0 0 ? ? **Thunderstorm Winds**

Scattered crop damage resulted from hail in northern Macon County. A few large tree limbs were blown down.

Muscogee County
Countywide 28 1415EST 0 0 0 0 **Hail (1.75)**
28 1415EST 0 0 ? ? **Thunderstorm Winds**

Thunderstorm winds uprooted or damaged many trees over the county, resulting in structural damage to buildings and scattered power outages.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

GEORGIA Cont'd

Morgan County 5 S Madison	28	1500EST			0	0	0	0	Hail (0.88)
	28	1500EST			0	0	?	?	Thunderstorm Winds
Rutledge	28	1500EST			0	0	0	0	Hail (1.75)

Scattered trees were blown down by the winds south of Madison.

Habersham County 5 W Clarkesville	28	1500EST			0	0	?	0	Lightning Small Hail
---	----	---------	--	--	---	---	---	---	--------------------------------

A cabinet shop was destroyed when lightning struck the building.

Banks County Northern Banks County	28	1500EST			0	0	?	?	Thunderstorm Winds
	28	1500EST			0	0	0	0	Hail (0.88)

A few power outages resulted from the winds.

Hall County Northeastern Hall County	28	1505EST			0	0	0	0	Hail (0.88)
Bibb County Macon	28	1506EST			0	0	0	0	Hail (1.75)

Golf ball-size hail occurred at Wilson Airport.

Madison County 2 N Danielsville Danielsville Hull	28	1515EST			0	1	?	?	Thunderstorm Winds Small Hail
---	----	---------	--	--	---	---	---	---	----------------------------------

A house trailer was rolled by the thunderstorm's winds north of Danielsville. An elderly woman in the trailer sustained injuries. Scattered trees were blown down along Georgia Highway 29. Another house and several cars were damaged in northern Madison County. Marble-size hail developed over the county, covering the ground at Danielsville and Hull during the storm.

Marion County 1 SE Buena Vista	28	1520EST			0	0	?	?	Thunderstorm Winds
Madison County Eastern Madison County	28	1530EST			0	0	?	?	Thunderstorm Winds Small Hail

Scattered trees were uprooted by the winds.

Twiggs County Countywide	28	1530EST			0	0	0	0	Hail (1.00)
Schley County Countywide Ellaville	28	1530EST			0	0	?	?	Hail (1.75)

Considerable crop and plant damage resulted from hail. Damage to automobiles and windows also occurred. The hail covered the ground in several areas to a 2-inch depth.

Taylor County 1 S Reynolds	28	1545EST			0	0	?	?	Thunderstorm Winds
Stephens County 5 W Toccoa	28	1545EST			0	0	0	0	Hail (0.88)
Monroe County Countywide	28	1545EST			0	0	?	?	Thunderstorm Winds

Scattered trees were uprooted or broken across the county, causing power outages.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

GEORGIA Cont'd

Houston County Countywide	28	1550EST			0	0	0	0	Hail (1.00)
Hart County Hart State Park	28	1550EST			0	0	?	?	Thunderstorm Winds Small Hail

Thunderstorm winds blew down trees and power lines in Hart State Park. Marble-size hail covered the ground during the storm.

Macon County Central and South Macon County 5 S Oglethorpe	28	1555EST			0	0	0	?	Hail (1.75)
	28	1555EST			0	0	?	?	Thunderstorm Winds

Golf ball-size hail caused considerable damage to crops and plants over central and southern Macon County. Winds blew over a metal building on Georgia Highway 49 outside of Oglethorpe. Scattered large trees were uprooted or broken by the winds, resulting in blocked roadways and brief power outages.

Wilkinson County Irwinton	28	1555EST			0	0	0	0	Hail (0.88)
McIntyre	28	1600EST			0	0	0	0	Hail (1.00)

Oglethorpe County North Oglethorpe County	28	1600EST			0	0	?	?	Thunderstorm Winds
Crawford	28	1605EST			0	0	?	?	Thunderstorm Winds (G52) and Small Hail

Several areas in Oglethorpe County had power outages when trees were blown onto the power lines. Small hail occurred in Oglethorpe County at 1553 EST near Georgia Highway 78.

Houston County Countywide	28	1630EST			0	0	?	?	Thunderstorm Winds
------------------------------	----	---------	--	--	---	---	---	---	--------------------

Scattered trees were uprooted or broken across Houston County, resulting in a few power outages. Several roadways were blocked by the trees, including a section of Georgia Highway 41.

Washington County 3 W Sandersville	28	1645EST			0	1	?	?	Thunderstorm Winds Small Hail
---------------------------------------	----	---------	--	--	---	---	---	---	----------------------------------

West of Sandersville, on Georgia Highway 24, a thunderstorm developed with winds estimated between 60 to 70 mph. About 26 mature trees in a pecan orchard were uprooted. Two mobile homes in a mobile home park were damaged and another was destroyed. Damage costs were unknown.

Bleckley County Eastern Bleckley County	28	1700EST			0	0	?	?	Thunderstorm Winds
---	----	---------	--	--	---	---	---	---	--------------------

Scattered trees were blown onto power lines in rural Bleckley County, resulting in outages.

Pulaski County Hawkinsville	28	1705EST			0	0	0	0	Hail (1.00)
--------------------------------	----	---------	--	--	---	---	---	---	-------------

Twiggs County Countywide	28	1710EST			0	0	?	?	Thunderstorm Winds
-----------------------------	----	---------	--	--	---	---	---	---	--------------------

Scattered tree limbs were blown down over the county. Sections of Georgia Highway 80 were blocked by limbs across the highway.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

GEORGIA Cont'd

Wilkinson County
Countywide 28 1715EST 0 0 ? ? **Thunderstorm Winds**

Scattered trees were uprooted or broken across the county.

Laurens County
Dudley 28 1735EST 0 0 0 0 **Hail (1.75)**

Southern Laurens County
County 28 1820EST 0 0 0 0 **Hail (1.75)**

Jefferson County
1.4 W Wrens 28 1820EST .25 0 2 ? ? **Thunderstorm Winds**

Several trees which were pointing toward the northeast were uprooted, in a wooded area outside of Wrens. Two mobile homes, located about a half mile northeast of the uprooted trees, were destroyed by winds estimated at between 75 to 85 mph. Another double-wide trailer had significant structural damage.

1 NNE Wrens 28 1825CST 0 0 ? ? **Thunderstorm Winds**

Five mobile homes were destroyed northeast of Wrens, along the western side of U.S. Highway 1. The trailers were all pushed off their foundations toward the northwest. All of the damaged homes were at right angles to the wind.

Treutlen County
2 N Soperton 28 1900EST 0 0 0 0 **(Hail (0.75))**

Wheeler County
Alamo 28 1945EST 0 0 0 0 **(Hail 0.88)**

Toombs County
Lyons 28 2020EST 0 0 ? ? **Thunderstorm Winds**
 28 2020EST 0 0 0 0 **Hail (0.75)**

Limbs and power lines were blown down by thunderstorm winds.

Tattnall County
Cobbtown 28 2030EST 0 0 0 0 **Hail (0.75)**

IDAHO

Power County
10 SW 08 1303MST- 0 0 0 0 **Funnel Clouds**
Pocatello Airport 1320MST

Several funnel clouds briefly formed about 10 miles southwest of the Pocatello Airport. The airmass was cold and unstable and the funnel clouds quickly dissipated.

IDZ001
Boise 16 1830MST- 0 0 4 0 **Thunderstorm Wind**
 1910MST

Thunderstorms developed over the mountains 10 miles northeast of Boise. Outflow wind gusts downed many trees. One 3-foot diameter tree destroyed three vehicles behind Boise High School. The Boise Airport, located 7 miles south of downtown and a distance from the thunderstorms, had a wind gust of 48 mph.

Twin Falls County
5 E Kimberly 20 1324MST- 0 0 0 0 **Tornado (F0)**
 1329MST

A National Weather Service employee sighted a long and narrow tornado just east of Kimberly. The tornado stayed on the ground about 5 minutes and then dissipated. No damage was reported.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

IDAHO Cont'd

IDZ003-004 28 1000MST-1330MST Southeastern Idaho 0 0 3 0 High Wind (G63)

A strong cold front passed through southeastern Idaho. A wind gust of 60 mph was reported 5 miles southeast of Pocatello. A Montpelier observer reported winds of 50 mph with gusts to 72 mph. Six miles northwest of Rigby the storm moved a garage 6 inches to the east and leveled a woodshed. Near Montpelier a car was damaged by part of a tin roof.

ILLINOIS

McDonough County 32 SE BRL 27 1415CST 0 0 4 0 Thunderstorm Wind

A trailer was blown over on Route 41, and numerous power poles were downed.

Calhoun County 3 N Hardin 33 NNW STL 27 1455CST 0 0 0 0 Thunderstorm Wind (G52)

Carroll County Milledgeville 38 WSW RFD 27 1555CST 0 0 3 0 Thunderstorm Wind (G52)

Numerous small trees were downed.

Stephenson County Freeport 27 1605CST 0 0 0 2 Thunderstorm Wind (G54)

Large trees were downed.

Menard County 2 W Petersburg 16 NW SPI 27 1610CST 0 0 3 0 Thunderstorm Wind

A roof was reported torn off a barn.

Stephenson County Lena 39 WNW RFD 27 1613CST 0 0 0 0 Thunderstorm Wind (G52)

Stephenson County Freeport 27 WNW RFD 27 1615CST Time estimated 0 0 0 0 Thunderstorm Wind (G55)

Tazewell County 4 S Tremont 18 SE PIA 27 1701CST 0 0 0 0 Thunderstorm Wind (G52)

INDIANA

Sullivan County Merom 28 1550EST 0.2 30 0 0 4 0 Tornado (F0)

A weak small tornado touched down briefly at Merom. The tornado moved a small house about 6 inches off its foundation and blew away awnings and patio covers from several other residences. Several trees were also blown down.

IOWA

Woodbury County Sioux City 16 1040CST 0 0 4 0 High Winds

As a frontal system moved through the Sioux City area, gusty winds swept in behind it. A gust of 50 mph ripped a 48 x 304 foot section of corrugated steel roof off a building. The building was in the process of being re-roofed.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

IOWA Cont'd

Kossuth County 3 1/2 S Bancroft	23	1148CST			0	0	5	0	Thunderstorm Winds (G50+)
Winnebago County 7 S Buffalo Center	23	1229CST			0	0	4	0	Thunderstorm Winds (G50+)
4 S Lake Mills	23	1230CST			0	0	4	0	Thunderstorm Winds (G50+)
Forest City	23	1250CST			0	0	4	0	Lightning
Rake	23	1253CST			0	0	5	0	Thunderstorm Winds (G50+)

A cluster of thunderstorms developed over northwest Iowa. One cell in the cluster became severe. High winds caused damage to several farms in northern Kossuth County. High winds also blew down outbuildings south of Buffalo Center. At Rake, several grain bins and trees were blown down. There was also some power line damage there. Lightning struck a main transformer in Forest City, causing a major power outage.

Clay County 5 W Spencer	23	1630CST			0	0	4	0	Thunderstorm Winds (G54)
2 1/2 S Everly	23	1630CST			0	0	5	0	Thunderstorm Winds (G50+)
6 W Spencer	23	1638CST			0	0	3	0	Thunderstorm Winds (G50)

Another round of thunderstorms developed over northwest Iowa. Severe weather occurred west of Spencer with high winds, heavy rain, and small hail. The most significant damage occurred south of Everly. On one farm, everything but the house was blown down, including the barn and silo.

Hancock County 4 NNE Woden	23	2100CST	0.5	50	0	0	5	0	Tornado (F1)
-------------------------------	----	---------	-----	----	---	---	---	---	--------------

An isolated thunderstorm developed over northwest Iowa and moved into the north-central counties. A tornado touched down north of Woden, destroying a barn, part of a hog house, and damaged several other buildings.

IAZ013 South Central Iowa	28	1200CST-			0	0	3	3	Flooding
	29	0800CST							

Rainfall of 1.50 to 2.50 inches fell across south-central Iowa. This caused some minor flooding along the Chariton River. The river crested 1.3 feet above flood stage. Only minor flooding of agricultural lands occurred.

KANSAS

Finney County 5 S Holcomb	09	1602CST			0	0	4	4	Hail (0.75)
Gray County 7 S Cimarron	09	1727CST			0	0	4	4	Hail (0.75)
Gray County 12 E Cimarron	09	1730CST			0	0	0	4	Hail (0.75)
Reno County Hutchinson	09	1734CST			0	0	2	0	Hail (2.00)
Gray County 3 S Ingalls	09	1735CST			0	0	0	4	Hail (0.75)
Reno County Hutchinson	09	1745CST			0	0	3	0	Hail (1.75)
Ford County 8 SE Ensign	09	1800CST			0	0	0	4	Hail (0.75)
Ford County 5 S Dodge City	09	1802CST			0	0	0	4	Hail (0.75)

Severe thunderstorms formed near Lakin and moved southeast. Over 16,000 acres received hail damage over 50% of the crop in a 20-mile wide area from 15 miles south of Holcomb to Bloom.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

KANSAS Cont'd

Harvey County
Butler County

2 N Patterson-
1 N Whitewater 09 1812CST 20 210 0 0 4 0 Tornado (F0)

A small tornado touched down in open area near Patterson and moved east across Harvey County (4 miles north of Sedgwick) and into Butler County, dissipating 1 mile north of Whitewater at 1908CST. The tornado skipped along its track over open farm land. The tornado produced most of its damage in Harvey County where it damaged several farmsteads and destroyed a rural residence.

Harvey County

8 S Newton 09 1818CST 0 0 2 0 Hail (1.75)
Burrton 09 1824CST 0 0 3 0 Hail (1.75)
Halstead 09 1845CST 0 0 0 2 Hail (3.00)
3.5 NW Halstead 09 1845CST 0 0 0 2 Hail (3.00)
1 E Halstead 09 1857CST 0 0 2 2 Hail (3.00)

Kingman County

5 SW Spivey 09 1918CST 10 420 0 0 0 2 Tornado (F1)

A small tornado did minor crop damage along a 7-mile track from 5 miles southwest of Spivey to just west of Rago.

Butler County

Whitewater 09 1934CST 0 0 2 2 Hail (1.75)

Kingman County

5 S Kingman 09 1940CST 0 0 0 0 Funnel Cloud

Butler County

Northern Part 09 1947CST 0 0 0 0 Hail (1.75)

Kingman County

5 S Kingman 09 1950CST 1 210 0 0 0 0 Tornado (F0)

Cowley County

Arkansas City 20 1500CST 0 0 0 0 Funnel Cloud

Finney County

Garden City 23 1945CST 0 0 0 0 Thunderstorm Wind (G50)

Finney County

Garden City 23 2015CST 0 0 2 0 Lightning

Lightning struck a large tree. The explosion shattered car windows, blew open kitchen cupboards, blew out street lights, and dented a passing car.

Hodgeman County

Jetmore 23 2048CST 0 0 0 0 Hail (0.75)

A line of severe thunderstorms moved across all of southwest Kansas producing reports of 60 mph winds and large hail.

Edwards County

Kinsley 24 1545CST 0 0 0 0 Hail (0.75)

Edwards County

Offerle 24 1553CST 0 0 0 0 Hail (0.75)

Scattered thunderstorms developed at midafternoon from Coldwater to Kinsley and produced large hail around Kinsley.

Rooks County

10 E Stockton 24 1610MST 0 0 3 4 Hail (1.50)

Osborne County

18 SW Osborne 24 1640CST 0 0 0 2 Hail (0.75)

A severe thunderstorm developed southwest of Osborne and moved north-northeast across western Osborne and Smith counties. Large hail (1.75 inch) and winds over 60 mph produced damage to farm buildings and equipment, some homes, and trees.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

KANSAS Cont'd

Ellis County 2 S Hays	24	1647MST			0	0	3	4	Hail (1.50)
Ellis County Hays	24	1652MST			0	0	0	0	Hail (1.50)
Smith County Athol	24	1758CST			0	0	3	3	Thunderstorm Wind (G52)
Smith County 8 W Smith Center	24	1956CST			0	0	2	2	Hail (0.75)
Smith County 15 NW Smith Center	24	2026CST			0	0	2	2	Hail (0.75)
Smith County 20 NW Smith Center	24	2033CST			0	0	2	2	Hail (0.75)

A severe thunderstorm developed in western Smith County, moved north and produced 3/4-inch hail at several locations, ending near the Nebraska border.

Seward County Liberal	24	2120CST			0	0	0	0	Hail (0.75)
Finney County 5 W Garden City	24	2325CST			0	0	0	0	Hail (0.75)

Heavy rain and large hail were produced by thunderstorms that developed in the evening and lasted through the night. Rainfall amounts between 2 and 3 inches were widespread and welcome over this agricultural area.

Reno County Pretty Prairie	25	1125CST			0	0	0	0	Hail (0.75)
Gray 3 W Montezuma- 10 NE Cimarron	25	1430CST	25	50	0	0	4	0	Tornado (F1)

First report of the tornado came as a funnel cloud 3 miles west of Montezuma. Funnel touched down and moved northeast damaging a farm complex. The tornado dissipated 10 miles northeast of Cimarron but the funnel cloud was followed across Hodgeman County.

Ness County 3 S Ness City	25	1507MST	1	50	0	0	3	0	Tornado (F0)
------------------------------	----	---------	---	----	---	---	---	---	--------------

The second of four tornadoes from the same thunderstorm did minor damage as it touched down briefly south of Ness City.

Gove County 11 S Gove	25	1550MST	2	25	0	0	3	3	Tornado (F0)
Ness County Trego County Ellis County Brownell- 15 N Hays	25	1600MST	38	500	0	0	6	0	Tornado (F3)

The same parent thunderstorm produced this long track tornado, the third of four. Thirteen farms were destroyed and damage to power lines reached \$250,000. Total damage was \$750,000.

Rooks County Osborne County Smith County 4 E Plainville- 6 N Smith Center	25	1608MST	55	100	0	0	6	0	Tornado (F1)
---	----	---------	----	-----	---	---	---	---	--------------

The fourth and final tornado from the same parent thunderstorm touched down in Rooks County, damaging 3 farms east of Woodston. It crossed into Osborne County at 1830 CST, 6 miles

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

KANSAS Cont'd

southwest of Alton, and moved northeast damaging 4 farms and downing power lines. It crossed into Smith County 5 miles south of Cedar, crossed within 3 miles of Smith Center and dissipated 6 miles north of Smith Center. Four homes were damaged between Cedar and Gaylord. A farm was damaged 4 miles northwest of Smith Center.

Osborne County 3 N Alton	25	2002CST			0	0	2	2	Thunderstorm Wind (G52)
Smith County Smith Center	25	2005CST			0	0	2	5	Hail (0.75)
Sherman County Goodland	28	2200MST			0	0	0	0	Wind (G56)

Straight-line wind gusts ahead of a cold front produced 63 mph winds.

KENTUCKY

Bell County	28	1350EST			0	0	1	1	Hail (1.50)
Bell County	28	1400EST			0	1	1	0	Thunderstorm Wind

A boy lost control of his bike in high wind, crashing into a window at a school. His arm was badly cut and he was taken by air to the University of Tennessee Medical Center.

Leslie County	28	1440EST			0	0	1	1	Hail (1.50)
Breathitt County	28	1510EST			0	0	3	0	Thunderstorm Wind

Strong thunderstorm winds blew trees down over power lines in the Lakeside Estates subdivision in Jackson.

Perry County	28	1510EST			0	0	3	0	Thunderstorm Wind
--------------	----	---------	--	--	---	---	---	---	-------------------

Several large trees were blown down around the community of Chavies.

LOUISIANA

Morehouse Parish 2 N Bastrop	01	1015CST			0	0	?	0	Thunderstorm Wind Hail (2.75)
West Carroll Parish Oak Grove	01	1045CST			0	0	2	0	Thunderstorm Wind

A few severe thunderstorms downed trees in two north Louisiana parishes. In Oak Grove, the roof was blown off a commercial building.

Livingston Parish Watson	02	1030CST			0	0	3	0	Thunderstorm Wind
-----------------------------	----	---------	--	--	---	---	---	---	-------------------

A micro-downburst associated with a severe thunderstorm toppled a large tree onto a house causing considerable damage. A mobile home was also overturned by the intense wind, and a 2 x 4-inch piece of lumber was driven through the wall of another mobile home.

Webster Parish Shongaloo	05	2028CST			0	0	0	0	Hail (1.00)
-----------------------------	----	---------	--	--	---	---	---	---	-------------

A severe thunderstorm produced 1-inch hail.

Washington Parish 2 S Bogalusa	14	1410CST	.5	30	0	0	3	0	Tornado (F1)
Rio	14	1415CST	.5	30	0	0	3	0	Tornado (F1)

An area of strong thunderstorms moving eastward across southeast Louisiana produced a couple of tornadoes in extreme eastern Washington Parish. Just south of Bogalusa, numerous trees were downed and large branched ripped away from trees. A mobile home

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

LOUISIANA Cont'd

was also heavily damaged. Similar damage occurred near Rio, where the fallen trees and branches blocked a state highway for a short time.

Acadia Parish
2 E Crowley 21 1045CST 0 0 0 0 **Funnel Cloud**

A sheriff's officer spotted a funnel cloud near Crowley.

Caddo Parish
Vivian 27 1736CST 0 0 ? ? **Hail (1.75)**
Oil City 27 1736CST 0 0 ? ? **Hail (1.75)**
7 W Blanchard 27 1824CST 0.3 30 0 0 3 0 **Tornado (F1)**
2 SW Longwood 27 1826CST 0.5 30 0 0 0 3 **Tornado (F1)**
Longwood 27 1826CST 0 0 ? ? **Hail (1.75)**
Blanchard 27 1827CST 0 0 ? ? **Hail (1.75)**
Cross Lake 27 1848CST 0.2 30 0 0 0 0 **Waterspout-Tornado (F1)**
Shreveport 27 1855CST-1910CST 0 0 ? ? **Hail (2.75)**
Shreveport 27 1928CST 0 0 ? ? **Thunderstorm Wind (G56)**
Hail (1.75)

Hail damage to roofs in the Shreveport area was estimated between \$1 and \$2 million.

Sabine Parish
7 W Converse 27 1915CST 0.2 30 0 0 0 0 **Waterspout-Tornado (F1)**

DeSoto Parish
2 SW Longstreet 27 1916CST 0.2 30 0 0 3 0 **Tornado (F1)**

Bossier Parish
Bossier City 27 1925CST 0.1 20 0 0 0 0 **Tornado (F1)**

DeSoto Parish
2 NE Mansfield 27 1941CST 0.3 30 0 0 ? ? **Tornado (F1)**

Bossier Parish
Bossier City 27 1936CST 0.3 40 0 0 4 0 **Tornado (F1)**

Barksdale AFB (BAD) 27 1935CST 0 0 ? ? **Thunderstorm Wind**

Webster Parish
2 SW Heflin 27 1950CST 1.5 50 0 0 ? 2 **Tornado (F1)**

Red River Parish
4 N Westdale 27 1951CST 0 0 ? ? **Thunderstorm Wind**

Bienville Parish
5 WNW Ringgold 27 1957CST 0.5 30 0 0 3 ? **Tornado (F1)**

Natchitoches Parish
1 N Natchitoches 27 2000CST-2006CST 0 0 ? ? **Thunderstorm Wind**

Beauregard Parish
Merryville 27 2000CST 3.0 75 0 0 4 0 **Tornado (F1)**
2 S DeRidder 27 2015CST 0.8 30 0 0 3 0 **Tornado (F1)**

Webster Parish
Dixie Inn 27 2022CST 0 0 ? ? **Hail (1.00)**
Thunderstorm Wind

Claiborne Parish
5 SW Homer 27 2026CST 0 0 ? ? **Hail (0.88)**

Winn Parish
Calvin 27 2035CST 0 0 0 0 **Hail (0.75)**
4 N Dodson 27 2040CST 0 0 ? ? **Hail (1.00)**

Jackson Parish
Jonesboro 27 2035CST 0 0 ? ? **Thunderstorm Wind**
Chatam 27 2045CST 0 0 ? ? **Thunderstorm Wind**

Grant Parish
Montgomery 27 2030CST 0 0 ? ? **Thunderstorm Wind**

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			K ILL D E A T H	I N J U R Y	P R O P E R T Y	C R O P S	

LOUISIANA Cont'd

15 NE Dry Prong LaSalle Parish	27	2045CST			0	0	?	?	Thunderstorm Wind
Tullos Franklin Parish	27	2050CST			0	0	3	?	Thunderstorm Wind
5 W Wisner Tensas Parish	27	2205CST			0	0	?	?	Thunderstorm Wind
2 NW Newlight Madison Parish	27	2230CST			0	0	?	?	Thunderstorm Wind
5 S Waverly Vernon Parish	27	2240CST			0	0	?	?	Thunderstorm Wind
Fort Polk (POE) Camerson Parish	27	2330CST			0	0	0	0	Hail (1.00)
Hackberry	27	2330CST			0	0	0	0	Hail (0.75)

Severe thunderstorms moved from Texas into all but southeast Louisiana during the evening hours bringing tornadoes, damaging thunderstorm winds, and large hail to a number of locations.

Several short-lived tornadoes were reported in the northwest area of the state in the vicinity of Shreveport. The most significant damage was in the north portion of Bossier City where ten house roofs were damaged, a number of trees blown down, and the roof of a church heavily damaged. The other tornadoes were mostly in rural areas with damage confined to trees and a few outbuildings. Tornadoic-waterspouts were also sighted over Cross Lake and Toledo Bend Reservoir. In southwest Louisiana, near Merryville, a combination of tornado and downbursts from an intense thunderstorm produced a 3-mile-long damage path oriented northwest to southeast through a mainly forested area. The damage path ranged up to 150 yards wide in a few locations. Several houses and businesses in Merryville had minor damage from the tornadic storm. A number of locations in and around Shreveport/Bossier City reported golf ball- to baseball-size hail, especially on the north side of cities. Hailstones ranging from the size of marbles to golf balls fell for a period of 20 minutes in the community of Blanchard and covered the ground to a depth of 4 inches. Other hail reports were generally an inch or less over central and southwest Louisiana.

Damaging thunderstorm wind gusts were also common as the severe thunderstorms moved southeast across the north and west portion of the state. The wind gusts caused damage to trees and power lines, along with a few outbuildings.

MAINE

MEZ001-002-005- 006-009	10	0200EST-			0	0	3	0	Heavy Snow
	11	2000EST							

A weak low pressure system in combination with a cold front in extreme northern Maine produced snow across northern sections early on the 10th. The snow continued on the 11th as the low (994mb) passed through Vermont to eastern Maine. A few accidents were reported near Oakfield and Island Falls. Snow totals included (in inches):

Telos Lake	13	Allagash	6
Grand Lake	11	Fort Kent	6
Presque Isle	10	Houlton	4
Clayton Lake	9	Jackson	4
Caribou	7	Millinocket	2
Limestone	7	Moosehead	2

MARYLAND and D.C.

Washington County	01	1959EDT			0	0	?	?	Hail (0.88)
-------------------	----	---------	--	--	---	---	---	---	-------------

Nickel-size hail was reported in the western sections of Hagerstown.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

MARYLAND and D.C. Cont'd

Washington County	02	1630EDT			0	0	?	?	Hail (0.75)
Dime-size hail fell in Hagerstown. Two buildings were struck by lightning.									
Anne Arundel County	02	Late Evening			0	0	?	0	Flooding
Heavy rains caused water to accumulate on some low-lying roads at several places in the county, causing stalled cars.									
City of Baltimore	27	1900EDT			1	0	0	0	Heat
Ninety-five degree heat contributed to the death of a man whose body was found in a parked car with the windows shut all day. He had been drinking and had gotten into the car and gone to sleep. M62V.									
Anne Arundel County	28	Morning			0	0	3	0	Heavy Rain
Heavy rain caused the collapse of the roof of an office building under construction in Severna Park.									
Anne Arundel County	29	Morning			0	0	4	0	Lightning
Lightning struck a church steeple in Glen Burnie, damaging the church's organ and sound system. Lightning struck a flagpole at the state Motor Vehicle Administration in Annapolis and caused damage to the adjoining sidewalk because it was conducted by reinforcement rods.									
Anne Arundel County	30	2100EDT			0	0	5	0	Heavy Rain
A 1.50-inch rainstorm caused the collapse of a county storage building in Annapolis, with damage estimated at \$100,000 to \$150,000.									
Talbot County	30	Afternoon			0	0	?	0	Flooding
Heavy rains flooded U.S. Route 50 on Kent Island to a depth of several inches, causing a 17-mile traffic jam.									

MASSACHUSETTS

None reported.

MICHIGAN

MIZ017 Upper Peninsula	01	2000EST			0	0	0	0	Heavy Snow
Snow began falling during the evening hours of Sunday, April 1st, then became heavy shortly after midnight on Monday. By the time the snow diminished to flurries Monday evening, 8.3 inches of snow had fallen in the Marquette area of the upper peninsula. All of the upper peninsula had some snow, generally 1 to 3 inches; however, only the Marquette area received heavy snow. Northeast winds blowing across Lake Superior, being forced onshore and upslope significantly contributed to the locally heavy snow in the Marquette area. No significant problems resulted from this snowfall.									
MIZ09 Northeast Lower Peninsula	02	2000EST			0	0	0	0	Heavy Snow
Heavy snow began falling over the entire Lake Huron shore area of northeastern lower Michigan during the early afternoon of Monday, April 2nd. This snow came from the same storm that caused the heavy snow in the Marquette area. The storm moved eastward across									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

MINNESOTA Cont'd

Morrison County
Little Falls 23 1703CST 0 0 0 0 **Hail (0.75)**

A funnel cloud was observed near Norway Lake.

Washington County
Stillwater 24 0224CST 0 0 4 0 **Lightning**

Lightning started a house fire in Stillwater.

Morrison County
Royalton 24 0733CST 0 0 0 0 **Hail (1.00)**
6 E Royalton 24 0740CST 0 0 0 0 **Hail (1.25)**
Meeker County
Eden Valley 24 1530CST 0 0 3 0 **Thunderstorm**

Thunderstorm winds destroyed a steel shed and scattered debris across a yard just west of Eden Valley.

Itasca County
Warba 26 1520CST 0 0 0 0 **Hail (1.75)**

Sibley County
Gaylord 26 1600CST 0 0 4 0 **Thunderstorm Wind**

Thunderstorm wind peeled back a large section of roof from a government building in Gaylord. Twenty thousand dollars of damage resulted as heavy rains poured into the building soaking interior furnishings. A machine shed was blown over onto a truck and another adjacent shed just west of Gaylord. Several large tree branches were also downed in Gaylord.

MISSISSIPPI

Kemper County
8 S Dekalb 01 1330CST 0 0 ? ? **Hail (1.75)**

Newton County
4 S Decatur 01 1345CST 0 0 ? 0 **Thunderstorm Wind**

Several trees were blown down.

Kemper County
2 N Dekalb 01 1400CST 0 0 ? 0 **Thunderstorm Wind**

Several trees were blown down.

Lauderdale County
4 W Meridian 01 1401CST 0 0 ? ? **Hail (0.75)**

Lauderdale County
5 W Meridian 01 1405CST 1 0 4 0 **Thunderstorm Wind**

A large limb blew out of a tree striking an automobile. The limb crushed the driver's head and he died at the hospital. M45A

Lauderdale County
Meridian 01 1408CST 0 0 ? 0 **Hail (1.00)**

Oktoberbeha County
Starkville 10 1030CST 0 15 3 0 **Thunderstorm Wind**

High winds blew down a large tent at Mississippi State University.

Jones County
15 SW Laurel 10 1215CST 0 1 4 0 **Thunderstorm Wind**

An unsecured mobile home was blown off its blocks and destroyed. One person in the mobile home was seriously injured.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

MISSISSIPPI Cont'd

Pearl River County
Crossroads 14 1433CST 0 0 ? 0 **Thunderstorm Wind**

Several trees were blown down.

Sunflower County
2 NW Moorhead 22 1050CST 0 0 ? 0 **Thunderstorm Wind**

Five power poles and power lines were blown down.

Jackson County
1 E Latimer 22 1450CST 0 0 ? ? **Hail (1.75)**

Harrison County
3 N Biloxi 22 1522CST 0 0 ? ? **Hail (1.75)**

Harrison County
Mississippi Sound 22 1615CST 1 0 ? 0 **Thunderstorm Wind**

Several boats were turned over drowning one person. M350

Simpson County
2 E to 7 NNW Magee 27 1300CST 5.0 100 0 0 5 0 **Tornado (F2)**

Two houses had roof damage. A car shop was totally destroyed. Numerous trees, power lines, and telephone lines were blown down.

Rankin County
Pearl 27 1335CST 0 0 0 0 **Funnel Cloud**

Yazoo County
5 SW Vaughan 27 1350CST 0 0 ? ? **Hail (0.75)**

Rankin County
Brandon 27 1400CST 0 0 ? 0 **Thunderstorm Winds**

Several large limbs were blown off of trees.

Rankin County
3 SW Fannin 27 1415CST 0.5 20 0 0 0 0 **Tornado (F0)**

A tornado touched down briefly just south of Pelahatchie on Ross Barnett Reservoir. No damage occurred.

Scott County
2 NW Ludlow 27 1420CST 1.0 20 0 0 ? 0 **Tornado (F0)**

A tornado knocked down several trees in the Coal Bluff community.

Leake County
8 SW Carthage 27 1425CST 0 0 ? ? **Hail (1.00)**

Hinds County
Jackson 27 1430CST-1630CST 0 0 ? ? **Flash Flood**

Nearly 4 inches of rain fell over south Jackson, from 1100 CST to 1500 CST, causing numerous reports of street flooding. Water was up to the bumper of cars just off Interstate 55 at High Street. Water was over a foot deep on streets in the Van Winkle area of south Jackson.

Madison County
Revive 27 1445CST 0 0 ? ? **Hail (1.75)**

Attala County
5 SW Kosciusko 27 1520CST 0 0 ? 0 **Thunderstorm Wind**

Several trees and large limbs were blown down onto the roadway.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			K	I	P	C	

MISSISSIPPI Cont'd

Leake County 6 E Carthage	27	1820CST		0	0	5	0	Thunderstorm Wind
Four homes had roof damage and several outbuildings were damaged. Several power lines were blown down and numerous trees were blocking roads.								
Newton County Chunky	27	1825CST		0	0	?	0	Thunderstorm Wind
Several trees were blown down.								
Jasper County Rose Hill	27	1830CST		0	0	?	0	Thunderstorm Wind
Two trees were blown down.								
Neshoba County Philadelphia	27	1830CST		0	0	?	0	Thunderstorm Wind
Several trees and power lines were blown down.								
Lauderdale County Lauderdale	27	1900CST		0	0	?	0	Thunderstorm Wind
Several trees and power lines were blown down.								

MISSOURI

Oregon Alton	17	1930CST		0	0	0	0	Hail (1.50)
Hail to 1.50-inch diameter.								
Shannon Birch Tree	17	1930CST		0	0	0	0	Hail (1.75)
Hail to size of golf balls.								

MONTANA

MTZ001-003-004-006 & 007	27	2200MDT		0	0	0	0	
	28	1700MDT		0	0	5	0	Winter Storm
Heavy wet snow began falling across northwest Montana late Friday night on the 27th, and continued through the 28th and spread eastward. Many power lines were down around Whitefish, Eureka, and Kalispell. There were several roads closed for a short time on Saturday. Some snow depths were: Whitefish 5 inches; Shelby 5 to 7 inches; Bozeman 6 inches; and Billings 5 inches.								

NEBRASKA

Hooker County Mullen	03	1754CST		0	0	0	0	High Wind
Wind gusted to 58 mph during a rain shower.								
Holt County O'Neill	23	1850CST		0	0	1	1	Hail (1.75)
Knox County 7 W Crofton	23	2115CST		0	0	4	0	Thunderstorm Wind
The roof of a large hog confinement building was blown off in northern Knox County resulting in about \$30,000 damage.								

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

NEBRASKA Cont'd

Chase County Imperial	25	1711CST			0	0	2	1	Hail (0.75)
Red Willow County 18 SW McCook	25	1900CST	0.2	20	0	0	1	1	Tornado (F0)
McCook	25	1920CST			0	0	0	0	Funnel Clouds

A tornado briefly touched down just east of Nebraska State Highway 17 at the Red Willow County, Hitchcock County, and Kansas border. Funnel clouds were reported 5 to 6 miles west and 3 miles south of McCook. The storms moved north at 25 mph.

Red Willow County McCook	26	1730CST			0	0	3	1	Thunderstorm Wind (G52)
-----------------------------	----	---------	--	--	---	---	---	---	-------------------------

Thunderstorm winds gusted to 60 mph, causing minor property damage.

NEVADA

None reported.

NEW HAMPSHIRE

None reported.

NEW JERSEY, Northern

None reported.

NEW JERSEY, Southern

None reported.

NEW MEXICO

Bernalillo County Albuquerque	18	1407MST			0	0	0	0	Thunderstorm Wind (G44+)
----------------------------------	----	---------	--	--	---	---	---	---	--------------------------

Five 75-foot spruce trees were uprooted and lying to the northeast. Funnel clouds and a tornado were reported by the public, but surveyed damage to trees did not indicate circulation. Likely was thunderstorm wind coupled with terrain-site enhancement.

Chaves County Roswell	21	1945MST			0	0	?	?	Hail (1.00)
Chaves County Roswell	21	2020MST	short		0	0	0	0	Tornado (F0)

The public reported a tornado southwest of Roswell, NM.

Chaves County Roswell	21	2100MST			0	0	?	?	Hail (1.75)
Lincoln County Hondo	22	1528MST			0	0	?	?	Hail (1.75)

Golf ball-size hail reported in Hondo, by a cooperative observer in Picacho.

Chaves County 2 SW Roswell	22	1528MST	short		0	0	0	0	Funnel Clouds Tornado (F0)
-------------------------------	----	---------	-------	--	---	---	---	---	-------------------------------

Multiple reports of funnel clouds 20 to 25 miles west of Roswell. One reported touching down for five minutes but no damage.

Chaves County 15 SW Roswell	22	1600MST			0	0	?	?	Hail (1.75)
--------------------------------	----	---------	--	--	---	---	---	---	-------------

Golf ball-size hail was reported by the public 15 miles southwest of Roswell.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			K	I	P	C	

NEW MEXICO Cont'd

Chaves County 25 W Roswell	22	1605MST			0	0	?	?	Hail (2.00)
Two-inch hail was reported 20 to 25 miles west of Roswell, by the public.									
Chaves County W of Roswell	22	1610MST			0	0	0	0	Tornado (F0)
A Lear jet pilot reported a tornado west of Roswell.									
Chaves County Dexter	22	1700MST			0	0	?	?	Hail (1.00)
Eddy County NERN Carlsbad	22	1915MST			0	0	?	?	Hail (1.00)
One-inch hail and 1 inch of rain reported in northeastern Carlsbad. Roof damage indicated.									
Eddy County 3 N Carlsbad	22 23	1915MST- 0500MST			0	0	?	?	Flash Flood
McNew subdivision 3 miles north of city of Carlsbad reported 2.70 inches of rain at 1915 MST, total of 3.35 inches by 2018 MST and total of 5.15 inches by 0500 MST. (4.25 inches Sunday afternoon 0.90 inches overnight.)									
Eddy County Otis	22	2015MST			0	0	?	?	Hail (1.75)
Eddy County Carlsbad	22	2035MST			0	0	?	?	Hail (1.75)
Golf ball-size hail reported by public in the northern part of Carlsbad.									
Roosevelt County S of Portales	24	1912MST			0	0	?	0	High Wind (Microburst)
Strong winds were reported one-half mile south of Portales. A sheet metal roof was blown off a house. Reported to WSO, Amarillo, TX, which could not detect any thunderstorms on radar in that area at that time.									
Eddy County Carlsbad	24	1919MST			0	0	0	0	High Wind (G60) (Microburst)
Lea County Lovington	24	2249MST			0	0	?	0	Hail (0.88)
The Lovington Fire Department reported hail larger than three-quarter inch. Some vehicle damage was reported.									
Bernalillo County Albuquerque	29	1518MST			0	0	?	0	High Wind (G56)
Wind gusts of 56 knots occurred at the Albuquerque International Airport. Local canyon winds were occurring 25 to 40 knots and likely were enhanced by a microburst from nearby showers.									

NEW YORK, Central

Ulster County Town of Lloyd	01	1135EST			1	0	?	?	Fog
Dense fog over Illinois Mountain in the town of Lloyd was listed as the tentative cause of a fatal plane crash.									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

NEW YORK, Central Cont'd

Madison County
Lakeport

17 0630EST 1 1 ? 0 High Wind

One teenage boy was presumed killed and a second male youth suffered from hypothermia when high winds capsized a row boat in Lake Oneida.

Area Wide

26- Afternoon
28 Afternoon 0 0 ? ? Record Heat

Many communities in eastern New York tied or set new (Date) record high temperatures. The month of April (90°) continued a four-month trend of above normal temperatures.

Saratoga County

Burnt Hills

26 1445EST 0 0 0 0 Hail (0.25)

Waterford

26 1457EST 0 0 0 0 Hail (0.75)

Rensselaer County

Johnsonville

26 1506EST 0 0 4 0 Thunderstorm Wind

Eagle Mills

26 1520EST 0 0 3 0 Thunderstorm Wind

Saratoga County

Clifton Park

26 1515EST-
1530EST 0 0 4 0 Thunderstorm Wind

Clifton Park

26 1525EST 0 0 3 0 Lightning

Halfmoon

26 1530EST 0 0 3 0 Thunderstorm Wind

Trees and power lines were brought down by strong gusty thunderstorm winds.

Greene County

Kiskatom

28 1430EST 0 1 4 0 Tornado (F0)

A small tornado was observed by local residents. The tornado was on the ground for about a minute. The tornado crossed Route 23A into a swamp. Observers reported seeing water being sucked up from the swamp before dissipating.

NEW YORK, Coastal

None reported.

NEW YORK, Western

NYZ001-002-022-003

Erie, Wyoming,

Cayuga, Allegany,

Chautauqua,

Cattaraugus

Tompkins Counties

04 0800EST-
1700EST 0 0 4 0 Heavy Snow

Circulation around deep low pressure over northern New York brought cold, moist air to portions of western and central New York. A record snowfall of 5.8 inches was recorded at the Buffalo Airport. The heavy, wet snow broke many trees and limbs throughout the area. Slippery road conditions were blamed for dozens of accidents. Other reports received: Warsaw, Wyoming County 11 inches; Locke, Cayuga County 5 inches; Angelica, Allegany County 10 inches; New Albion, Cattaraugus County 8 inches; Sherman, Chautauqua County 5 inches; Friendship, Allegany County 6 inches; Ithaca, Tompkins County 6 inches.

NYZ001

Erie, Wyoming &

Genesee Counties

10 1700EST-
11 1700EST 0 0 4 0 Flood

Low pressure from Indiana tracked east across the area dropping heavy rains over soil already saturated from snowmelt. Record precipitation of 1.66 inches fell at the Buffalo Airport. Reports from around the area ranged from 1 to 1.75 inches of rain. The heavy rains caused area rivers and streams to rise to bankfull. Urban and poor drainage flooding was also reported. Some basement flooding occurred in Batavia, Genesee County. Tonawanda Creek at Batavia crested at about a half-foot above flood stage.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

NORTH CAROLINA

Alexander County 5 W Millersville	01	1600EST			0	0	0	0	Hail (0.75)
Mecklenburg County Charlotte	01	1705EST			0	0	?	0	Thunderstorm Winds Hail (0.75)
Mecklenburg County Charlotte	01	1730EST			0	0	0	0	Hail (0.75)
Union County Unionville	01	1802EST			0	0	0	0	Hail (1.00)
Lincoln County Lincolnton	01	1815EST			0	0	0	0	Hail (0.75)
Anson County 10 SE Burnsville	01	1838EST			0	0	0	0	Hail (1.75)
Cleveland County Polkville	01	1900EST			0	0	0	0	Hail (0.75)
Cleveland County 5 W Kings Mountain	01	1925EST			0	0	0	0	Funnel Cloud
Richmond County Rockingham	01	1940EST			0	0	0	0	Hail (1.00)
Scotland County Laurel Hill	01	1945EST			0	0	0	0	Hail (0.75)
Gaston County Gastonia	01	2000EST			0	0	0	0	Hail (0.75)
Gaston County Mt. Holly	01	2018EST			0	0	0	0	Hail (1.75)
Mecklenburg County 5 N Charlotte	01	2025EST			0	0	0	0	Hail (1.00)
Union County Monroe	01	2134EST			0	0	0	0	Hail (1.00)
Anson County Wadesboro	01	2152EST			0	0	0	0	Hail (1.75)
Hoke County 5 NE Raeford	01	2213EST			0	0	0	0	Hail (0.75)

Severe thunderstorms moved out of the foothills into the western piedmont producing large hail and downburst wind damage. Trees and power lines were blown down over much of the Charlotte metropolitan area. Thunderstorms produced golf ball-size hail and blew down trees in the Ansonville and Wadesboro areas of Anson County. Golf ball-size hail was also reported in Mt. Holly in Gaston County. A funnel cloud was sighted near Kings Mountain in Cleveland County.

Stokes County Pinnacle	02	1520EST			0	0	0	0	Hail (0.75)
Moore County Foxfire	02	1607EST			0	0	0	0	Hail (1.75)
Hoke County Pine Hall	02	1705EST			0	0	0	0	Thunderstorm Winds
Cumberland County 5 S Pope AFB	02	1730EST			0	0	0	0	Hail (1.50)
Durham County Near Rougemont	02	1746EST			0	0	0	0	Thunderstorm Winds Hail (1.00)
Durham County Durham	02	1747EST			0	0	0	0	Funnel Cloud
Sampson County Autryville	02	1800EST			0	0	0	0	Hail (1.50)
Guilford County Greensboro	02	1830EST			0	1	0	0	Lightning
Alamance County Mebane	02	1918EST			0	0	0	0	Hail (1.75)
Franklin County Ingleside	02	1925EST			0	3	5	0	Thunderstorm Winds

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

NORTH CAROLINA Cont'd

Granville County Providence	02	1955EST			0	0	0	0	Hail (1.75)
Vance County Kittrell	02	2000EST			0	0	0	0	Hail (1.75)
Durham County Durham	02	2026EST			0	0	0	0	Hail (0.75)
Wake County Zebulon	02	2100EST			0	0	0	0	Hail (1.75)
Orange County N Orange County	02	2105EST			0	0	0	0	Hail (0.75)
Cumberland County Fayetteville	02	2340EST			0	0	0	0	Hail (0.75)

Severe thunderstorms moved east across the state producing damaging winds and large hail. A funnel cloud was spotted by police in Durham. Most reports of hail were from quarter to golf ball-size. Near Pinnacle in Stokes County quarter-size hail was so deep that it covered the ground and became a hazard to driving. In much of western Hoke County near Pine Hall thunderstorm winds blew down trees. Numerous trees were also blown down near Rougemont in Durham County. Thunderstorm winds in Franklin County near Ingleside destroyed two mobile homes injuring three people. Four mobile homes and three houses were damaged. A Greensboro man was struck by lightning as he was getting out of his car. He was hospitalized and released shortly after.

Cleveland County Boiling Springs	10	2050EST	0.2	30	0	0	4	0	Tornado (F0)
-------------------------------------	----	---------	-----	----	---	---	---	---	--------------

Police officers reported seeing a small tornado touch down briefly near Boiling Springs. The tornado stayed on the ground for about a quarter of a mile uprooting and snapping off trees.

Cleveland County Kings Mountain	28	1800EST			0	0	4	0	Thunderstorm Winds
Cleveland County Shelby	28	1800EST			0	0	4	0	Thunderstorm Winds
Catawba County Hickory	28	1830EST			0	0	4	0	Thunderstorm Winds
Lincoln County Lincolnton	28	1836EST			0	0	0	0	Thunderstorm Winds
Gaston County Gastonia	28	1855EST			0	0	4	0	Thunderstorm Winds

Thunderstorm winds blew down trees and power lines in Kings Mountain and in Shelby. Three houses were slightly damaged in Kings Mountain. Four houses were damaged and trees were blown down in Hickory and Long View. A mobile home was destroyed and trees and power lines were blown down in a 4 mile long swath in Gastonia. Trees and power lines were also blown down in Lincolnton.

Columbus County Bethel	30	1745EST			0	0	0	0	Hail (0.75)
Brunswick County Oak Island	30	2000EST			0	0	0	0	Hail (1.00)
Scotland County Laurinburg	30	2100EST			0	0	0	0	Hail (0.75)
Robeson County Lumberton	30	2130EST			0	0	0	4	Hail (1.75)
Robeson County 4 N Purvis	30	2130EST			0	0	0	0	Thunderstorm Winds
Bladen County Bladenboro	30	2200EST			0	0	0	0	Hail (0.75)
Columbus County 10 SE Tabor City	30	2225EST			0	0	0	0	Hail (1.00)

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

NORTH CAROLINA Cont'd

Brunswick County S of Holden Beach	30	2310EST			0	0	0	0	Waterspout
Robeson County Rowland	30	2330EST			0	0	0	0	Hail (0.75)

Thunderstorms produced nickel- to golf ball-size hail over much of southeast North Carolina. Several large trees were blown down 4 miles north of Purvis in Robeson County. A waterspout was sighted south of Holden Beach in Brunswick County.

NORTH DAKOTA

NDZ012 > 018 Eastern North Dakota	27	1800CST-			0	0	0	0	Heavy Snow
	28	1200CST			0	0	0	0	

Six to 10 inches of snow fell over a large part of eastern North Dakota. The snow largely melted as it fell and parts of the extreme east had only rain. Icy conditions caused numerous traffic accidents. The snowfall alleviated drought conditions and was a welcome event.

OHIO

Belmont County	01	1535EST			0	0	4	?	Hail (1.00)
Belmont County	01	1600EST			0	0	4	?	Hail (1.50)

Thunderstorms produced large hail in St. Clairsville. A short time later another thunderstorm produced large hail in Martins Ferry.

Erie County Huron River	11	0030EST- 1730EST			0	0	3	0	Flood
----------------------------	----	---------------------	--	--	---	---	---	---	-------

The Huron River at Milan went into flood and crested at 16 feet at 0700 EST. This was 2 feet above flood stage and only minor damage occurred.

OKLAHOMA

Beckham County 8 S Carter	05	1226CST			0	0	?	?	Hail (0.75)
Beckham County 3 S Sayre	05	1255CST			0	0	?	?	Hail (0.88)
Marshall County Nr Kingston	05	1323CST			0	0	?	?	Hail (0.88)
Marshall County 2 E Cumberland	05	1347CST			0	0	?	?	Hail (1.75)
Bryan County 5 W Durant	05	1357CST			0	0	?	?	Hail (0.75)
Bryan County Achille	05	1415CST			0	0	?	?	Hail (1.75)
Atoka County 8 E Atoka	05	1430CST			0	0	?	?	Hail (0.75)
Bryan County 3 N Yuba	05	1447CST			0	0	?	?	Hail (1.00)
Pushmataha County Nr. Moyers	05	1505CST			0	0	?	?	Hail (0.75)
Love County 4 N Thackerville	05	1627CST			0	0	?	?	Hail (1.00)
Love County Marietta	05	1640CST			0	0	?	?	Hail (0.75)

Thunderstorms across southern Oklahoma produced golf ball-size hail.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

OKLAHOMA Cont'd

Beaver County 4 N Bryans Corner	09	1535CST			0	0	?	?	Hail (1.25)
Beaver County 2 N Elmwood	09	1604CST			0	0	?	?	Hail (1.75)
Woods County Nr Alva	09	1615CST			0	0	?	?	Hail (0.88)
Harper County 18 SE Buffalo	09	1725CST			0	0	?	?	Hail (0.88)
Woods County Waynoka	09	1745CST			0	0	?	?	Hail (1.00)
Alfalfa County 6 W Ingersoll	09	1750CST			0	0	?	?	Hail (0.75)
Alfalfa County 5 NW Cherokee	09	1805CST			0	0	?	?	Hail (1.75)
Tillman County 5 NW Davidson	09	1850CST			0	0	?	?	Hail (1.00)
Grant County Nash	09	1915CST			0	0	?	?	Hail (0.75)
Garfield County Kremlin	09	1924CST			0	0	?	?	Hail (1.00)
Garfield County Lahoma	09	1932CST			0	0	?	?	Hail (0.88)
Rogers County 3 NW Inola	09	1935CST			0	0	?	?	Hail (0.88)
Tillman County Nr Davidson	09	1945CST			0	0	?	?	Hail (1.75)
Mayes County S Pryor	09	1954CST			0	0	?	?	Hail (0.75)
Garfield County (END) Vance AFB	09	1958CST			0	0	?	?	Hail (1.25)
Greer County 2 N Hester	09	2005CST			0	0	?	?	Hail (2.00)
Jackson County Hess	09	2030CST			0	0	?	?	Hail (0.75)
Delaware County 5 SW Jay	09	2030CST			0	0	?	?	Hail (0.75)
Mayes County Nr Salina	09	2040CST			0	0	?	?	Hail (0.88)
Delaware County 9 W Jay	09	2045CST			0	0	?	?	Hail (0.75)
Kiowa County 1 S Snyder	09	2048CST			0	0	?	?	Thunderstorm Winds (G56)
Tillman County Davidson	09	2056CST			0	0	?	?	Hail (1.75)
Cherokee County 4 W Hulbert	09	2105CST			0	0	?	?	Hail (0.75)
Comanche County Faxon	09	2115CST			0	0	?	?	Hail (0.75)
Noble County 10 N Orlando	09	2119CST			0	0	?	?	Hail (0.75)
Garfield County Nr Covington	09	2119CST			0	0	?	?	Hail (0.75)
Logan County Nr Orlando	09	2135CST			0	0	?	?	Hail (1.00)
Kingfisher County Hennessey	09	2145CST			0	0	?	?	Hail (0.88)
Cotton County Temple	09	2145CST			0	0	?	?	Hail (1.00)
Cotton County Temple	09	2145CST			0	0	?	?	Thunderstorm Winds
Jefferson County Nr Ryan	09	2150CST			0	0	?	?	Hail (1.00)

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

OKLAHOMA Cont'd

Stephens County Comanche	09	2205CST			0	0	?	?	Hail (0.75)
Love County 2 E Rubottom	09	2215CST			0	0	?	?	Hail (0.75)
Kingfisher County 10 ESE Hennessey	09	2218CST			0	0	?	?	Hail (1.00)
Logan County Lovell	09	2220CST			0	0	?	?	Hail (1.00)
Carter County Lone Grove	09	2245CST			0	0	?	?	Hail (1.00)
Murray County 3 N Sulphur	09	2305CST			0	0	5	0	Lightning
Carter County 2 W Ardmore	09	2308CST			0	0	?	?	Hail (0.75)
Carter County Nr Ardmore	09	2310CST	11	440	0	4	5	?	Tornado (F2)
Carter County Lone Grove	09	2315CST			0	0	?	?	Hail (1.00)
Lincoln County Stroud	09	2332CST			0	0	?	?	Hail (0.88)
Love County 3 SE Leon	09	2340CST			0	0	?	?	Hail (0.75)
Johnston County Mannsville	09	2345CST			0	0	?	?	Hail (1.25)
Marshall County Madill	10	0000CST			0	0	?	?	Hail (0.75)
Love County 3 SE Leon	10	0005CST			0	0	?	?	Hail (0.75)
Carter County Wilson	10	0020CST			0	0	?	?	Hail (1.00)
Bryan County Kenefick	10	0040CST			0	0	?	?	Hail (0.88)
Atoka County Caney	10	0050CST			0	0	?	?	Hail (0.75)
Pittsburg County Indianola	10	0110CST			0	0	?	?	Hail (1.75) Thunderstorm Winds (G52)
Cherokee County Tahlequah	10	0115CST			0	0	?	?	Thunderstorm Winds (G52)
Haskell County Kinta	10	0130CST			0	0	?	?	Thunderstorm Winds (G56)
Adair County 7 W Stilwell	10	0130CST			0	0	?	?	Thunderstorm Winds
Latimer County Wilburton	10	0130CST			0	0	?	?	Hail (0.75) Thunderstorm Winds (G61)
Adair County Kellyville	10	0130CST			0	0	?	?	Thunderstorm Winds (G52)
Sequoyah County Muldrow	10	0210CST			0	0	?	?	Thunderstorm Winds
Leflore County Poteau	10	0225CST			0	0	?	?	Thunderstorm Winds

Thunderstorms across the Oklahoma Panhandle moved eastward during the afternoon and evening of the 9th and into eastern Oklahoma early on the 10th. Hail up to the size of half-dollars was reported along with damaging winds and an F2 tornado. The tornado first touched down 2 miles south of Lone Grove in Carter County at 2310 CST and moved east-northeast for 11 miles. At least 5 mobile homes were destroyed, several permanent homes were damaged, and a farm implement building was destroyed. There were four injuries. Of the four, three were minor and one required hospitalization. The four injuries occurred in mobile homes. Strong thunderstorm winds downed trees in Temple. In Poteau, strong winds destroyed a hangar at the airport, damaged another, and destroyed or damaged several aircraft. Lightning struck a home 3 miles north of Sulphur in Murray County. The resulting fire destroyed the home and damage was estimated at \$75,000.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

OKLAHOMA Cont'd

Blaine County 1 SE Watonga	13	1500CST			0	0	?	?	Hail (1.00)
Kingfisher County 2 N Okarche	13	1540CST			0	0	?	?	Thunderstorm Winds (G65)
Canadian County El Reno	13	1621CST			0	0	?	?	Hail (1.75)
Canadian County Yukon	13	1623CST			0	0	?	?	Hail (1.25)
Canadian County Nr Yukon	13	1658CST			0	0	?	?	Hail (0.75)
Oklahoma County Oklahoma City	13	1658CST			0	0	?	?	Hail (0.75)
Caddo County 2 W Cogar	13	1706CST			0	0	?	?	Hail (0.75)
Canadian County Union City	13	1708CST			0	0	?	?	Hail (0.75)
Grady County Minco	13	1733CST			0	0	?	?	Hail (0.88)
Grady County Pocasset	13	1747CST			0	0	?	?	Hail (0.88)
Caddo County Lake Chickasha	13	1808CST			0	0	?	?	Hail (1.00)

Thunderstorms in central Oklahoma produced golf ball-size hail.

Pontotoc County Fittstown	15	1451CST			0	0	?	?	Hail (1.00)
Pontotoc County Jesse	15	1530CST			0	0	?	?	Hail (1.75)
Coal County Clarita	15	1535CST			0	0	?	?	Hail (1.75)
Leflore County Wister	15	1740CST			0	0	?	?	Hail (1.75)
Johnston County Emet	15	1744CST			0	0	?	?	Hail (1.75)
Jefferson County Ringling	15	1745CST			0	0	?	?	Hail (1.75)
Leflore County Poteau	15	1813CST			0	0	?	?	Hail (0.75)
Bryan County Silo	15	1815CST			0	0	?	?	Hail (2.75)
Latimer County 7 N Wilburton	15	1825CST			0	0	?	?	Hail (0.75)
Marshall County Madill	15	1836CST			0	0	?	?	Hail (1.75)
Bryan County Colbert	15	1900CST			0	0	?	?	Hail (1.25)

Thunderstorms in southern Oklahoma produced tennis ball-size hail.

Lincoln County Meeker	16	1735CST			0	0	?	?	Hail (0.88)
Lincoln County Jacktown	16	1800CST			0	0	?	?	Hail (0.75)
Stephens County 4 E Bray	16	1800CST			0	0	?	?	Hail (0.75)
Garvin County Foster	16	1810CST			0	0	?	?	Hail (0.75)
Beaver County Slapout	16	1812CST			0	0	?	?	Hail (0.75)
Beaver County 9 S Beaver	16	1812CST			0	0	?	?	Hail (1.75)

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

OKLAHOMA Cont'd

Beaver County 13 W Beaver	16	1812CST			0	0	?	?	Hail (1.50)
Rogers County Verdigris	16	1817CST			0	0	?	?	Hail (1.00)
Creek County Slick	16	1836CST			0	0	?	?	Hail (0.88)
Tulsa County Tulsa	16	1839CST			0	0	?	?	Hail (1.75)
Rogers County Catoosa	16	1845CST			0	0	?	?	Hail (0.88)
Okfuskee County Welty	16	1850CST			0	0	?	?	Hail (0.75)
Osage County 3 W Hulah	16	1850CST			0	0	?	?	Hail (0.75)
Lincoln County Agra	16	1850CST			0	0	?	?	Hail (0.88)
Harper County 2 NW May	16	1900CST			0	0	?	?	Hail (1.00)
Lincoln County Fallis	16	1904CST			0	0	?	?	Hail (0.88)
Washington County Copan	16	1905CST			0	0	?	?	Hail (0.75)
Woods County Alva	16	1908CST			0	0	?	?	Hail (1.75)
Ellis County Shattuck	16	1910CST			0	0	?	?	Hail (0.75)
McIntosh County Eufaula	16	1915CST			0	0	?	?	Hail (1.00)
Lincoln County 2 S Carney	16	1917CST			0	0	?	?	Hail (2.75)
Tulsa County Tulsa	16	1917CST			0	0	?	?	Hail (0.88)
Nowata County Nowata	16	1924CST			0	0	?	?	Hail (1.75)
Ellis County Gage	16	1934CST			0	0	?	?	Thunderstorm Winds (G70)
Lincoln County 2 W Chandler	16	1937CST			0	0	?	?	Hail (2.50)
Woodward County Woodward	16	1940CST			0	0	?	?	Thunderstorm Winds (G55)
Payne County Ripley	16	1940CST			0	0	?	?	Hail (0.75)
Ellis County Shattuck	16	1945CST			0	0	?	?	Hail (1.00)
Woodward County Quinlan	16	1945CST			0	0	?	?	Thunderstorm Winds (G52)
Alfalfa County Carmen	16	1945CST			0	0	?	?	Thunderstorm Winds (G52)
Tulsa County Tulsa	16	1952CST			0	0	?	?	Hail (0.88)
Creek County Drumright	16	1952CST			0	0	?	?	Hail (0.88)
Cherokee County Tahlequah	16	2000CST			0	0	?	?	Hail (1.75)
Mayes County Pryor	16	2000CST			0	0	?	?	Hail (0.75)
Tulsa County 8 W Sand Springs	16	2004CST			0	0	?	?	Hail (0.88)
Woodward County Woodward	16	2010CST			0	0	?	?	Thunderstorm Winds (G62)
Roger Mills County 20 S Arnett	16	2015CST			0	0	?	?	Hail (0.88)

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			K I L L E D	I N J U R E D	P R O P E R T Y	C R O P S	

OKLAHOMA Cont'd

Major County 4 NNW Chester	16	2015CST			0	0	?	?	Hail (0.88)
Ellis County 12 SE Harmon	16	2025CST			0	0	?	?	Thunderstorm Winds
Creek County Bristow	16	2026CST			0	0	?	?	Hail (1.00)
Payne County 4 S Stillwater	16	2027CST			0	0	?	?	Hail (1.50)
Adair County 10 SW Stilwell	16	2030CST			0	0	?	?	Hail (0.75)
Dewey County Vici	16	2030CST			0	0	?	?	Hail (0.75)
Greer County 5 ESE Mangum	16	2030CST			0	0	?	?	Thunderstorm Winds (G52)
Roger Mills County 4 S Hammon	16	2037CST			0	0	?	?	Hail (1.00)
Blaine County Canton Lake	16	2040CST			0	0	?	?	Thunderstorm Winds (G52)
Garfield County Drummond	16	2045CST			0	0	?	?	Hail (1.75)
Major County Isabella	16	2045CST			0	0	?	?	Thunderstorm Winds (G52)
Wagoner County Porter	16	2045CST			0	0	?	?	Hail (0.88)
Tulsa County Glenpool	16	2048CST			0	0	?	?	Hail (0.75)
Creek County Sapulpa	16	2050CST			0	0	?	?	Hail (0.75)
Okmulgee County 5 N Beggs	16	2050CST			0	0	?	?	Hail (1.75)
Grant County Nash	16	2100CST			0	0	?	?	Hail (0.88)
Pawnee County 5 W Pawnee	16	2100CST			0	0	?	?	Hail (0.75)
Tulsa County Glenpool	16	2105CST			0	0	?	?	Thunderstorm Winds (G52)
Payne County Stillwater	16	2108CST			0	0	?	?	Hail (1.00)
Custer County Weatherford	16	2115CST			0	0	?	?	Thunderstorm Winds (G70)
Osage County Skiatook	16	2115CST			0	0	?	?	Hail (0.88)
Washington County Vera	16	2120CST			0	0	?	?	Thunderstorm Winds (G52)
Cherokee County Peggs	16	2120CST			0	0	?	?	Hail (0.75)
Okmulgee County 4 SSW Beggs	16	2150CST			0	0	?	?	Hail (1.75)
Washita County Colony	16	2120CST			0	0	?	?	Hail (0.88)
Beckham County Texola	16	2130CST			0	0	?	?	Hail (1.00)
Beckham County Texola	16	2130CST			0	0	?	?	Thunderstorm Winds (G56)
Ellis County Arnett	16	2130CST			0	0	?	?	Thunderstorm Winds
Caddo County Eakly	16	2130CST			0	0	?	?	Hail (0.88)
Canadian County El Reno	16	2135CST			0	0	?	?	Hail (0.75)
Garfield County (END) Vance AFB	16	2141CST			0	0	?	?	Thunderstorm Winds (G52)

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

OKLAHOMA Cont'd

Oklahoma County Harrah	16	2148CST			0	0	?	?	Hail (0.88)
Kiowa County Mountain View	16	2149CST			0	0	?	?	Thunderstorm Winds (G61)
Grady County 9 W Minco	16	2159CST			0	0	?	?	Thunderstorm Wind (G61)
Kingfisher County Cushion	16	2200CST			0	0	?	?	Thunderstorm Winds (G56)
Oklahoma County NW Oklahoma City	16	2204CST			0	0	?	?	Hail (0.88)
Oklahoma County Edmond	16	2204CST			0	0	?	?	Thunderstorm Winds (G70)
Caddo County Anadarko	16	2209CST			0	0	?	?	Thunderstorm Winds (G61)
Canadian County Piedmont	16	2211CST			0	0	?	?	Thunderstorm Winds (G70)
Canadian County Union City	16	2212CST			0	0	?	?	Hail (0.75)
Canadian County Mustand	16	2213CST			0	0	?	?	Thunderstorm Winds (G55)
Kingfisher County Cashion	16	2216CST			0	0	?	?	Thunderstorm Winds (G56)
Canadian County Yukon	16	2219CST			0	0	?	?	Hail (0.88)
Oklahoma County (OKC) Will Rogers	16	2219CST			0	0	?	?	Thunderstorm Winds (G80)
Comanche County 5 N Lawton	16	2226CST			0	0	?	?	Thunderstorm Winds (G52)
Cleveland County Moore	16	2230CST			0	0	?	?	Thunderstorm Winds (G61)
McClain County Newcastle	16	2230CST			0	0	?	?	Thunderstorm Winds (G65)
Oklahoma County (PWA) Wiley Post	16	2237CST			0	0	?	?	Thunderstorm Winds (G60)
Oklahoma County (PWA) Wiley Post	16	2237CST			0	0	?	?	Hail (0.88)
Oklahoma County (TIK) Tinker AFB	16	2237CST			0	1	?	?	Thunderstorm Winds (G54)
Logan County Orlando	16	2244CST			0	0	?	?	Thunderstorm Winds (G52)
Oklahoma County Oklahoma City	16	2240CST			0	0	?	?	Thunderstorm Winds (G87)
Cotton County Temple	16	2245CST			0	0	?	?	Thunderstorm Winds (G61)
Tulsa County Bixby	16	2300CST			0	0	5	0	Lightning
Comanche County Lawton	16	2300CST			0	0	?	?	Thunderstorm Winds (G55)
Oklahoma County Midwest City	16	2305CST			0	0	?	?	Thunderstorm Winds (G52)
Garvin County 3 NE Pauls Valley	16	2330CST			0	0	?	?	Thunderstorm Winds (G59)
Pontotoc County ADA	16	2346CST			0	0	?	?	Thunderstorm Winds (G61)
Murray County Hickory	16	2345CST			0	0	?	?	Hail (0.88)
Carter County Healdton	16	2359CST			0	0	?	?	Thunderstorm Winds (G52)
Coal County Coalgate	17	0005CST			0	0	?	?	Thunderstorm Winds
Coal County Tupelo	17	0005CST			0	0	?	?	Thunderstorm Winds

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

OKLAHOMA Cont'd

Johnston County Connerville	17	0030CST			0	0	?	?	Hail (2.00)
Johnston County Nr Wapanucka	17	0030CST			0	0	?	?	Thunderstorm Winds
Johnston County Wapanucka	17	0030CST			0	0	?	?	Hail (1.75)
Atoka County Atoka	17	0100CST			0	0	?	?	Thunderstorm Winds (G52)
Pittsburg County (MLC) McAlester	17	0101CST			0	0	?	?	Thunderstorm Winds (G56)

Severe thunderstorms were widespread across much of Oklahoma during the afternoon and evening of the 16th and into the early morning of the 17th. Extremely strong straight-line winds and hail up to tennis ball-size were reported. A roof was damaged and numerous trees uprooted 12 miles southeast of Harmon (in Ellis County). Trees were also downed in Tahlequah, Kinta, and 7 miles east of Stilwell. In addition, several roofs were damaged in Tahlequah and power lines were reported downed in Kinta. Strong thunderstorm winds resulted in considerable damage (in central Oklahoma). A greenhouse was destroyed and the roof of a municipal building was partially ripped off in Mustang. A mobile home was destroyed and several power poles were snapped. Damage was widespread (in the Oklahoma City area) as winds were clocked at 80 knots (92 mph). Three schools suffered substantial damage to roofs and windows, and Remington Park Racetrack suffered damage to roofs and two starting gates. The Park Ridge Apartments in Midwest City and the Villa Creek Apartments in Del City suffered structural damage, and one minor injury was reported in Del City. There were many reports of downed power poles and damage to signs along Northwest 63rd street in Oklahoma City. Many Federal Income Tax Returns were swept away by the strong winds while being transported in a mail cart to a waiting truck (at the Oklahoma City Post Office). Lightning struck a home in Bixby and the resulting fire destroyed the home, worth over \$100,000.

Creek County Kellyville	17	2300CST			0	0	?	?	Flash Flood
----------------------------	----	---------	--	--	---	---	---	---	-------------

Two- to 3-inch rains over saturated ground caused Tiger, Euchee, and Little Polecat Creeks to overflow their banks, closing several county roads for several hours.

Logan County Guthrie	17- 18	Unknown			0	0	?	?	River Flooding
-------------------------	-----------	---------	--	--	---	---	---	---	----------------

Heavy rains forced Cottonwood Creek out of its banks resulting in flooding in the city of Guthrie. Several roads were closed due to high water, and businesses were threatened along Noble Avenue.

Okmulgee County Countywide	17	Unknown			0	0	?	?	River Flooding
-------------------------------	----	---------	--	--	---	---	---	---	----------------

The Deep Fork of the Canadian River was above flood stage from the 17th through the 30th of April. At the gaging point at Beggs, the river crested at 27.4 feet on the 21st. Flood stage is 18 feet. Although only minor flooding occurred in the city of Okmulgee, suburban and rural areas in the county were cut off due to flooded roads and some homes were flooded. Damage estimates were not available. At month's end the river height remained at 9 feet above flood stage.

Stephens County Countywide	19	1100CST- 1230CST			0	0	?	?	Flash Flood
Jefferson County Countywide	19	1100CST- 1230CST			0	0	?	?	Flash Flood
Cotton County Countywide	19	1100CST- 1230CST			0	0	?	?	Flash Flood

Heavy thunderstorm rains of 2 to 4 inches flooded several roads and closed state Highway 53 in several locations.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

OKLAHOMA Cont'd

Kiowa County Mountain Park	20	0425CST			0	1	?	?	Thunderstorm Winds
Cotton County Temple	20	0520CST			0	0	?	?	Hail (0.88)

Stephens County 8 WSW Comanche	20	0540CST			0	0	?	?	Hail (0.88)
-----------------------------------	----	---------	--	--	---	---	---	---	-------------

Early morning thunderstorms in southwest Oklahoma produced nickel-size hail and strong winds. A Mountain View woman was injured when strong winds damaged her mobile home.

Tulsa County Tulsa	20	1700CST			0	2	0	0	Lightning
Osage County 3 E Sperry	20	1735CST			0	0	?	?	Hail (0.75)
Tulsa County Sperry	20	1740CST			0	0	?	?	Hail (0.75)
Rogers County Verdigris	20	1820CST			0	0	?	?	Hail (0.75)
Tulsa County Reservoir Hill	20	1848CST			0	0	?	?	Thunderstorm Winds (G66)
Tulsa County Tulsa	20	1850CST			0	0	?	?	Thunderstorm Winds (G56)
Tulsa County Tulsa	20	1850CST			0	0	?	?	Hail (0.88)
Rogers County Nr Tiawah	20	1935CST			0	0	?	?	Hail (0.75)

Thunderstorms in northeast Oklahoma produced quarter-size hail and strong winds. Lightning struck two Tulsa boys, ages 11 and 12, as they were playing in front of their apartment. The 12-year-old was critically injured, and the 11-year-old was treated and released.

Coal County Tupelo	21	1316CST			0	0	?	?	Hail (1.00)
Carter County Eastern portion	21	1330CST- 1500CST			0	0	?	?	Flash Flood
Coal County Countywide	21	1330CST- 1500CST			0	0	?	?	Flash Flood
Johnston County Countywide	21	1330CST- 1500CST			0	0	?	?	Flash Flood
Coal County Tupelo	21	1400CST			0	0	?	?	Hail (1.75)
Johnston County Ravia	21	1610CST			0	0	?	?	Hail (0.75)
Washington County NW Copan	21	1621CST			0	0	?	?	Hail (0.88)
Tulsa County Oakhurst	21	1625CST			0	0	?	?	Hail (0.75)
Johnston County 4 W Nida	21	1650CST			0	0	?	?	Hail (1.75)
Bryan County 1 NW Brown	21	1710CST			0	0	?	?	Hail (0.88)
Okfuskee County 3 W Welty	21	1730CST			0	0	?	?	Hail (1.75)
Osage County Barnsdall	21	1736CST			0	0	?	?	Hail (0.75)
Creek County 2 S Bristow	21	1740CST			0	0	?	?	Hail (0.75)
Osage County 5 S Avant	21	1755CST			0	0	?	?	Hail (0.88)
Okfuskee County NW Castle	21	1805CST			0	0	?	?	Hail (0.75)

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

OKLAHOMA Cont'd

Creek County Mounds	21	1837CST			0	0	?	?	Hail (0.88)
Lincoln County Prague	21	1858CST			0	0	?	?	Hail (0.75)
Pottawatomie County 12 NE Shawnee	21	1910CST			0	0	?	?	Hail (0.75)

Thunderstorms produced golf ball-size hail and flash flooding. Heavy rains produced flash flooding in Carter, Johnston, and Coal counties in south-central Oklahoma. Highway 177 north of Baum was closed, and bridges in Tishomingo were closed as water up to 2 feet deep flowed over them. Numerous roads were closed in Coal County.

Roger Mills County Central portions	22	1300CST			0	0	?	?	Flash Flood
Roger Mills County Cheyenne	22	1345CST			0	0	?	?	Hail (1.75)
Roger Mills County Strong City	22	1532CST			0	0	?	?	Hail (1.00)
Logan County 12 SW Guthrie	22	1524CST			1	0	0	0	Lightning
Oklahoma County 10 NW Edmond	22	1545CST			0	0	?	?	Hail (0.88)
Logan County 1 E Navina	22	1545CST			0	0	?	?	Hail (0.75)
Pottawatomie County N. Shawnee	22	1550CST			0	0	?	?	Hail (0.75)
Woods County 10 E Lookout	22	1620CST			0	0	?	?	Hail (1.00)
Roger Mills County 7 N Sweetwater	22	1638CST			0	0	?	?	Hail (0.75)
Roger Mills County Herring Station	22	1735CST			0	0	?	?	Hail (0.88)
Roger Mills County Reydon	22	1800CST			0	0	?	?	Hail (1.00)
Roger Mills County 4 N Reydon	22	1915CST			0	0	?	?	Hail (1.00)
Okmulgee County Okmulgee	22	1435CST			0	0	?	?	Hail (0.88)

Thunderstorms produced golf ball-size hail and flash flooding. As much as 8.68 inches of rain fell in Cheyenne in Roger Mills County during the afternoon and evening hours, producing water up to 5 feet deep. Several homes, businesses, and streets suffered water damage from the flooding. A 29-year-old Edmond man was struck and killed by lightning (in Logan County) while walking to his pick-up truck after fishing. M290

Blaine County 15 SSW Watonga	23	1350CST			0	0	?	?	Hail (0.75)
Custer County Clinton	23	1445CST			0	0	?	?	Hail (0.88)
Custer County 13 W Thomas	23	1532CST			0	0	?	?	Hail (1.00)
Blaine County 5 W Watonga	23	1650CST			0	0	?	?	Hail (0.75)
Garfield County 6 SE Enid	23	1715CST			0	0	?	?	Hail (1.75)
Kingfisher County 5 SE Hitchcock	23	1830CST			0	0	?	?	Hail (1.00)
Ellis County Gage	23	2013CST			0	0	?	?	Thunderstorm Winds (G78)
Woodward County Woodward	23	2030CST			0	0	?	?	Hail (0.88)
Ellis County 8 S Hammon	23	2030CST			0	0	?	?	Hail (0.88)

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

OKLAHOMA Cont'd

Dewey County Putnam	23	2056CST			0	0	?	?	Hail (0.88)
Custer County 5 NW Custer City	23	2105CST			0	0	?	?	Hail (0.75)
Texas County Tyrone	25	0115CST			0	0	?	?	Hail (1.00)

Thunderstorms produced two tornadoes, large hail, and damaging straight-line winds. An F2 tornado touched down 8 miles west-southwest of Arnett and moved north-northeast, hitting the town of Shattuck at 2148CST and dissipating 11 miles northeast of Shattuck at approximately 2210CST. Damage was continuous from 6 miles south of Shattuck to 0.75 miles north of Shattuck and consisted of 10 buildings (mostly businesses) destroyed, 17 buildings with major damage, and 41 with minor damage. Three mobile homes were destroyed and several outbuildings were destroyed. There were 5 injuries, one of which was serious and required hospitalization. The last known damage, 11 miles northeast of Shattuck consisted of roof damage and siding ripped from a farmhouse. Total damage is estimated at \$1.5 million. Later that same evening, another thunderstorm produced strong winds which downed large trees 15 miles southwest of Arnett. An F1 tornado touched down in open country just southwest of Tyrone and produced no known damage.

Cotton County Walters	25	1810CST			0	0	?	?	Hail (0.88)
Comanche County 13 WSW Rush Springs	25	1830CST			0	0	?	?	Hail (0.88)
Comanche County 19 NE Lawton	25	1835CST			0	0	?	?	Hail (0.75)
Oklahoma County 1 S Harrah	25	1940CST			0	0	?	?	Hail (0.75)
Seminole County Countywide	25	2230CST-			0	0	?	?	Flash Flood
Latimer County Most sections	26	0200CST-			0	0	?	?	Flash Flood
Pittsburg County Most sections	25	2300CST-			0	0	?	?	Flash Flood
Murray County Turner Falls	26	1100CST			0	0	?	?	Flash Flood
	26	0745CST			0	0	5	?	Flash Flood

Thunderstorms produced nickel-size hail and flash flooding. Two to 3 inches of rain on already saturated ground caused several small creeks to overflow their banks, resulting in flash flooding that closed several roads for several hours. In Seminole County, a Wewoka couple was trapped in their car by high water. In Murray County up to 5 inches of rain caused over \$100,000 damage to Turner Falls Recreation Area. All bridges at the recreation area were destroyed or damaged, a concession building was washed away, and many roads were washed out.

Dewey County 3 E Vici	23	2110CST			0	0	?	?	Hail (0.88)
Major County 1 NE Chester	23	2135CST			0	0	?	?	Hail (0.75)
Blaine County 13 WSW Geary	23	2150CST			0	0	?	?	Hail (0.88)
Jackson County Altus	23	2150CST			0	0	5	?	Lightning
Dewey County 2 SW Oakwood	23	2200CST			0	0	?	?	Hail (0.88)
Kingfisher County 4 WNW Okarche	23	2340CST			0	0	?	?	Hail (0.88)

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

OKLAHOMA Cont'd

Garfield County (END) Vance AFB	23	2357CST			0	0	?	?	Thunderstorm Winds (G51)
Kingfisher County Loyal	24	0015CST			0	0	?	?	Hail (0.75)

Thunderstorms produced golf ball-size hail and strong winds.

Ellis County 8 SSW Arnett	24	2123CST	19	250	0	5	6	?	Tornado (F2)
Ellis County 2 SW Arnett	24	2128CST			0	0	?	?	Hail (2.00)
Ellis County 11 NE Shattuck	24	2210CST			0	0	?	?	Hail (0.88)
Woodward County 8 SE Woodward	24	2245CST			0	0	?	?	Hail (1.75)
Woodward County 5 NNW Mooreland	24	2302CST			0	0	?	?	Hail (0.75)
Woodward County 5 NNW Mooreland	24	2310CST			0	0	?	?	Thunderstorm Winds (G70)
Woodward County 5 NNW Mooreland,	24	2317CST			0	0	?	?	Hail (0.75)
Harper County 6 SE Buffalo	24	2330CST			0	0	?	?	Hail (1.00)
Woods County 5 NW Lookout	25	0000CST			0	0	?	?	Hail (1.00)
Harper County 10 NNE Selman	25	0000CST			0	0	?	?	Hail (0.75)
Ellis County 15 SW Arnett	25	0045CST			0	0	?	?	Thunderstorm Winds (G74)
Texas County 1 SW Tyrone	25	0050CST	2	50	0	0	?	?	Tornado (F1)

OREGON

ORZ008 and 011 North Central and Northeast Mtns.	25	1200PST- 1700PST			0	0	0	?	High Wind
--	----	---------------------	--	--	---	---	---	---	-----------

A windy storm system blew west to east across Oregon with wind gusts from 45 to 60 mph. For several hours the wind in central and northeast Oregon toppled numerous trees into electrical power lines. Nineteen brush fires started. The largest fire was 6 acres.

ORZ002, 004, 006	27	All Day			0	0	?	4	Heavy Snow Flood
------------------	----	------------	--	--	---	---	---	---	---------------------

Western Oregon and the Cascades

A dynamic northwest jetstream over the state caused excessive precipitation from the central coast region to the northeast mountains. Rainfall exceeded 3 inches in the central coastal mountains. It caused a mudslide that took out a 110-foot section of highway in Lane County which fell 30 feet down the slope along with underground telephone cabling. Snowfall in the mountains was generally 3 to 6 inches, but Timberline Lodge on Mt. Hood received 36 inches. Below the snow level over 6 inches of rain fell in the Cascade foothills. Water had to be released from reservoirs which resulted in local flooding of farmer's fields downstream in the Willamette Valley. Parts of newly-planted corn fields were destroyed under several feet of standing water that lasted for several days.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

PENNSYLVANIA, Eastern

Lycoming County

Linden	25	1459EST			0	0	?	?	Hail (0.75)
Linden	25	1505EST			0	0	?	?	Hail (0.75)

Thunderstorms dropped dime-size hail at 1459 EST and three quarter-inch-hail at 1505EST.

PENNSYLVANIA, Western

Somerset County

Somerset	01	1630EST	0	0	0	0	0	0	Hail (0.75)
----------	----	---------	---	---	---	---	---	---	-------------

Three quarter-inch hail at Somerset.

Bedford County

Bedford	01	1713EST	0	0	0	0	0	0	Hail (0.75)
---------	----	---------	---	---	---	---	---	---	-------------

Three quarter-inch hail near Bedford.

Washington County

12 NE Washington	01	1830EST	0	0	0	0	0	0	Thunderstorm Winds
------------------	----	---------	---	---	---	---	---	---	--------------------

Two trees were blown down in McMurray.

RHODE ISLAND

None reported.

SOUTH CAROLINA

Oconee County

1 S Walhalla	10	1900EST			0	0	0	0	Thunderstorm Winds
--------------	----	---------	--	--	---	---	---	---	--------------------

Pickens County

1 N Dacusville	10	1925EST			0	1	6	0	Thunderstorm Winds (G100)
----------------	----	---------	--	--	---	---	---	---	---------------------------

Greenville County

Travelers Rest	10	1935EST			0	0	3	0	Thunderstorm Winds (G55)
----------------	----	---------	--	--	---	---	---	---	--------------------------

6 NNW Greer	10	1944EST			0	4	5	0	Thunderstorm Winds (G85)
-------------	----	---------	--	--	---	---	---	---	--------------------------

Spartanburg County

Holly Springs	10	2000EST			0	2	5	0	Thunderstorm Winds (G75)
---------------	----	---------	--	--	---	---	---	---	--------------------------

1 N Inman	10	2008EST			0	2	5	?	Thunderstorm Winds (G65)
-----------	----	---------	--	--	---	---	---	---	--------------------------

Chesnee area	10	2018EST			0	1	5	?	Thunderstorm Winds
--------------	----	---------	--	--	---	---	---	---	--------------------

Cherokee County

N of Battleground	10	2040EST			0	0	3	0	Thunderstorm Winds
-------------------	----	---------	--	--	---	---	---	---	--------------------

A squall line, displaying a "Bow Echo" RADAR configuration moved through the northern edge of the foothills and caused a tremendous amount of damage. The wind speeds listed above were estimated based on the damage. A few trees were blown down south of Walhalla. Trees were reported down north of Pickens (In Pickens County) and at Dacusville a particularly violent downburst caused much worse damage. At Nine Forks Baptist Church, the west end of the gym was blown in, causing the walls to be pushed outward. The roof then collapsed into the gym. Loss of this building was estimated at \$500,000. Across the street, a mobile home was destroyed, and other buildings in the immediate area were damaged badly. At Travelers Rest, lighter damage was reported as trees were blown down and businesses and homes received some damage. At Blue Ridge, several mobile homes were destroyed or severely damaged causing injury to four people. A well-constructed silo was blown about 300 yards, just missed a house upon impact, and then most of the wreckage was blown about 150 to 200 more yards. This was the result of a microburst embedded in a macroburst which caused damage over 16 square miles. The storm then struck Holly Springs in Spartanburg County where two mobile homes were destroyed; two people in one of them were injured. Other homes were badly damaged and

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

SOUTH CAROLINA Cont'd

trees and power lines were blown down over a fairly large area. Another mobile home was destroyed north of Inman, along with other typical damage, and another trailer was destroyed between Inman and Chesnee. At Chesnee, mobile homes and permanent structures were damaged, and one person was slightly injured after he was blown about 100 yards as he was leaving a mobile home. The storm then moved into northern Cherokee County where lighter damage was reported.

Anderson County Sadler's Creek State Park 13 SW Anderson	28	1555EST			0	4	4	?	Thunderstorm Winds
Anderson	28	1612EST			0	0	4	0	Hail (1.75) Thunderstorm Winds
Abbeville County Calhoun Falls	28	1630EST			0	0	?	?	Hail (1.75)
Greenville County Sm Greenville City	28	1640EST			0	0	?	0	Hail (1.75)
Abbeville County Due West	28	1645EST			0	0	4	0	Thunderstorm Winds
Greenville County Simpsonville and N of Mauldin	28	1653EST			0	0	?	?	Hail (0.88) & Thunderstorm Winds
Spartanburg County Greer Jetport	28	1658EST			0	0	0	0	Rotating Wall Cloud
Spartanburg	28	1700EST			0	0	0	0	Several Funnel Clouds
2 N Downtown Spartanburg to 3 NE Downtown Spartanburg	28	1710EST	2	30	0	0	5	0	Tornado (F0)
3 E Greer Jetport	28	1710EST			0	0	?	?	Hail (1.00)
Greenville County Lake Cunningham (8 N Greer)	28	1710EST			0	0	?	?	Thunderstorm Winds
Spartanburg County Inman to 5 N Boiling Springs	28	1720EST- 1735EST	6	50	0	4	5	0	Tornado (F1)
New Prospect to 3 W Chesnee	28	1750EST			0	0	5	0	Thunderstorm Winds
Cherokee County 6 NNE Pacolet	28	1750EST			0	0	3	0	Thunderstorm Winds
4 E Gaffney to Blacksburg	28	1755EST	5	40	0	0	4	0	Tornado (F1) Hail (0.75)
York County Countywide	28	1830EST			0	0	?	?	Thunderstorm Winds
Lexington County Leesville	28	1925EST			0	0	?	?	Hail (0.75)

A large, rotating, severe thunderstorm entered Anderson County just ahead of a line of marginally severe storms. At Sadler's Creek State Park on Lake Hartwell, four people suffered injury when three campers were turned over by the wind. In the same area, two silos were blown over and some trees were snapped off. The storm continued moving northeast and produced large hail and some wind damage in and around the city of Anderson. A separate storm produced large hail at Calhoun Falls and wind damage at Due West. The main storm began to be overtaken by the line and the entire complex produced large amounts of hail over a good portion of southern Greenville County, along with some wind damage and trees blown down in Simpsonville. Trees were also blown down north of Greer near Lake Cunningham. This damage, along with a wall cloud observed by the Weather Service Office at Greer, was the first indication of the damaging part of the storm.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

SOUTH CAROLINA Cont'd

splitting. Several funnel clouds were observed moving slowly over the city of Spartanburg by law enforcement, and at about 1710EST an F0 tornado touched down causing trees to be blown onto homes and tearing down power lines. A stronger tornado touched down at Inman and produced considerable damage and four injuries; two when a mobile home was destroyed, one struck by a truck blown off the road, and the last, near Boiling Springs, was struck by an object blown through a window. North of that tornado track, there was considerable wind damage. The worst damage was near Chesnee, where one mobile home was destroyed, two others damaged, and most of the roof of a small home was removed. In Cherokee County north-northeast of Pacolet, some outbuildings and farm equipment were damaged by the wind along with trees and power lines. A tornado touched down east of Gaffney and moved close to US Hwy 29 into Blacksburg. Damage was mostly to trees and utilities, although roofs of three permanent structures were removed and some other property damage was noted. Large hail was also observed. In York County several large trees were blown down. Nickel-size hail was reported at Leesville, in Lexington County.

Spartanburg County									
Chesnee	30	1627EST			0	0	?	?	Hail (2.75)
Chesnee	30	1645EST			0	0	?	?	Hail (2.00)
Cherokee County									
5 SE Chesnee	30	1710EST			0	0	?	?	Hail (2.50)
3 E Thicketty	30	1730EST			0	0	?	?	Hail (1.00)
Spartanburg County									
Mayo	30	1730EST			0	0	?	?	Thunderstorm Winds

A single thunderstorm exploded to enormous height and diameter, and produced giant hail over a large area. The largest hail apparently fell in and around Chesnee and the Battleground area near Cowpens. The main body of the storm moved south-southeast through the western part of Cherokee County with the size of the hail slowly diminishing as the storm weakened. During the storm's collapse phase, some minor wind damage was reported at Mayo, where about a dozen trees fell, some onto personal property. Regeneration caused more hail at Chesnee and Cowpens, but this hail was less than 0.75 inch diameter.

Horry County									
North Myrtle Beach	30	1935EST			0	0	?	?	Hail (0.75)
									Heavy Rain
North Myrtle Beach	30	2020EST			0	0	?	?	Hail (1.50)
Loris	30	2315EST			0	0	?	?	Hail (0.75)

Tree limbs were blown down and 0.75 to 1.50 inch hail reported near North Myrtle Beach and Loris.

SOUTH DAKOTA

Brown County									
Aberdeen	22	2103CDT			0	0	0	0	Thunderstorm Winds (G50)
Brookings County									
Brookings	23	0353CDT			0	0	0	0	Thunderstorm Winds (G50)
SDZ006-007-008									
South Dakota	27	0100MST-			0	0	0	0	Snow
Black Hills		0900MST							

Snow developed and moved quickly across the northern Black Hills early on the 27th, depositing up to 6 to 7 inches accumulation in a short period of time. Some snowfall reports for the day included 6 to 7 inches at Spearfish, Lead, and Deadwood, and 3 to 5 inches at Belle Forche and Sturgis.

SDZ004-005									
Northeast	28	2300CDT-			0	0	0	0	Snow
South Dakota	29	1100CDT							

Snow moved across western and central South Dakota during the evening of the 28th into the northeast part of the state where snowfall amounts became significant. From late evening on the 28th to morning of the 29th, up to 8 inches fell in Redfield, with 7 inches in Conde and Webster, 5 inches at Doland, and 2 to 3 inches in Aberdeen.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TENNESSEE

Blount County	10	1235CST			0	0	2	0	Wind
Carter County	10	1330CST			0	0	3	0	Wind

Strong winds blew over numerous small trees and power lines. A tree fell on a car in Blount County and a small pine tree fell on a mobile home causing some damage (in Carter County).

Crockett County	20	2015CST			0	0	5	0	Thunderstorm Winds
Gibson County	20	2035CST			0	0	4	0	Thunderstorm Winds

Thunderstorms produced damaging winds as they moved east through these two counties. Near Alamo in Crockett County an old store building was destroyed and a number of trees were knocked down. Estimated damage was \$185,000. A number of trees and power lines were knocked down and two empty truck trailers were blown over in Humbolt in Gibson County.

McMinn County	28	1130CST			0	0	2	0	Thunderstorm Winds
Claiborne County	28	1200CST			0	0	4	0	Thunderstorm Winds

In McMinn County thunderstorm winds knocked down trees in the Goodsprings, Carlock, and Cog Hill areas of the southern part of the county. Violent winds from a thunderstorm struck the Norris Lake area in Claiborne County. The winds broke six cables holding two enclosed slips and a floating bait and supply store and shoved it, along with six people in the store at the time, about 100 yards into the lake. On shore at the marina winds knocked over two large maple trees which fell on a pickup truck.

Chester County	28	1300CST- 1303CST	2.0	50	0	0	5	0	Tornado (F1)
----------------	----	---------------------	-----	----	---	---	---	---	--------------

A tornado touched down briefly in the western part of Chester County in Silerton near the Hardeman County line. It traveled northeast for 2 miles before lifting. It knocked down numerous trees and power lines and damaged roofs of several houses and a church and damaged a few outbuildings. Damage was estimated at \$150,000.

Anderson County	28	1330CST			0	0	2	0	Thunderstorm Winds
-----------------	----	---------	--	--	---	---	---	---	--------------------

Thunderstorm winds knocked down numerous small trees and power lines in the northeast part of the county, especially in the Clinton area.

TEXAS, Northern

Northern Texas 05

A cluster of severe thunderstorms developed along two boundaries in north and northwest Texas during the afternoon and evening of April 5th. The first boundary was a stationary front that extended east from a surface low pressure center near Plainview through the Red River Valley portion of north Texas. The second boundary extended south from the low pressure center to just east of Lubbock and Midland at 1400 CST. As the low pressure center moved slowly southeast during the evening, a number of severe thunderstorms produced large hail, damaging bursts of wind, and several weak tornadoes in northern Texas. Damage for all of northern Texas was estimated at approximately \$85 million.

Lamar County 2 W Summer	05	1147CST			0	0	?	?	Hail (0.75)
Montague County Bowie	05	1435CST			0	0	?	?	Hail (0.75)
Fannin County 3 SW Elwood	05	1455CST			0	0	?	?	Hail (0.75)
Cooke County 1 NE Gainesville	05	1455CST			0	0	?	?	Funnel Cloud
Dexter	05	1535CST			0	0	?	?	Hail (0.75)

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TEXAS, Northern Cont'd

Valley View	05	1610CST			0	0	?	?	Hail (0.88)
2 N Gainesville	05	1615CST			0	0	?	?	Hail (1.75)
3 S Valley View	05	1630CST			0	0	?	?	Hail (1.75)
Valley View	05	1630CST							Funnel Cloud
10 E Valley View	05	1650CST			0	0	?	?	Hail (1.75)

Golf ball-size hail fell continuously from 1615 CST to 1645 CST 3 miles south of Valley View. Roofs of several homes were damaged, and several thousand acres of wheat were shredded.

Lamar County

1 NE Paris	05	1546CST			0	0	?	?	Hail (0.75)
Powderly	05	1557CST			0	0	?	?	Hail (1.75)
Faught	05	1609CST			0	0	?	?	Hail (0.75)
2 W Sumner	05	1647CST			0	0	?	?	Hail (0.75)

Young County

Jean	05	1552CST			0	0	?	?	Hail (1.75)
4 W Loving	05	1600CST- 1601CST	Short	Narrow	0	0	?	?	Tornado (F1)

A weak tornado touched down briefly in open country 4 miles west of Loving.

Grayson County

2 S Gordonville	05	1600CST			0	0	?	?	Hail (0.75)
-----------------	----	---------	--	--	---	---	---	---	-------------

Jack County

Jerymn	05	1600CST			0	0	?	?	Hail (1.75)
Jacksboro	05	1625CST			0	0	?	?	Hail (1.75)
Jacksboro	05	1640CST			0	0	?	?	Hail (1.75)
Wizard Wells	05	1830CST			0	0	?	?	Hail (1.75)

Golf ball-size hail shattered windows of automobiles and homes. There was also structural damage to several automobiles and homes in Jerymn, Jacksboro, and Wizard Wells.

Red River County

Woodland	05	1612CST			0	0	?	?	Hail (1.75)
Manchester	05	1612CST			0	0	?	?	Hail (1.75)
Detroit	05	1625CST			0	0	?	?	Thunderstorm Wind
Clarksville	05	1625CST			0	0	?	?	Hail (1.75)
6 NW Clarksville	05	1626CST			0	0	?	?	Hail (1.75)
5 N Clarksville	05	1647CST			0	0	?	?	Hail (1.75)

A downburst in Detroit blew down several trees. A downburst in Clarksville lifted the roof off a furniture store in the downtown area. Elsewhere in Clarksville several trees were uprooted, power lines were blown down, windows shattered, and several automobiles were damaged by wind-blown debris.

Denton County	05	1655CST			0	0	?	?	Hail (1.75)
Pilot Point									
Throckmorton County	05	1655CST			0	0	?	?	Hail (0.75)
Throckmorton									
Grayson County									
Tioga	05	1702CST			0	0	?	?	Hail (0.75)
4 E Sherman	05	1714CST			0	0	?	?	Hail (1.00)
Whitewright	05	1735CST			0	0	?	?	Hail (1.00)
Wise County									
1 W Lake-									
Bridgeport	05	1708CST			0	0	?	?	Hail (1.00)
Bridgeport	05	1710CST							Funnel Cloud

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TEXAS, Northern Cont'd

Jones County	05	1710CST			0	0	?	?	Thunderstorm Wind
2 W Anson	05	1730CST			0	0	?	?	Thunderstorm Wind
Anson	05	1822CST-							
Hodges	05	1823CST	Short	Narrow	0	0	?	?	Tornado (F2)
Hawley	05	1822CST			0	0	?	?	Hail (1.75)

A downburst destroyed a private airplane hangar 2 miles west of Anson at 1710 CST and damaged the door to a business at Anson at 1730 CST. A tornado touched down briefly in Hodges and blew the roof off of several homes.

Fannin County	05	1730CST			0	0	?	?	Hail (0.75)
Trenton	05	1730CST			0	0	?	?	Hail (0.75)
Leonard	05	1735CST			0	0	?	?	Hail (1.00)
Savoy									

Young County	05	1730CST			0	0	?	?	Hail (1.75)
Murray	05	1745CST			0	0	?	?	Hail (1.75)
Graham	05	1745CST			0	0	?	?	Thunderstorm Wind
7 N Graham									

A downburst destroyed a garage 7 miles north of Graham.

Taylor County	05	1738CST			0	1	?	?	Funnel Cloud
2 N Tye	05	1750CST			0	1	?	?	Thunderstorm Wind (G61)
Abilene	05	1800CST-							
Abilene	05	1805CST	3	100	0	0	?	?	Tornado (F2)

Strong winds blew down several utility poles, power lines, and trees in the southern portion of Abilene at 1750 CST. A tornado in Abilene at 1800 CST flipped the roof off a parking garage, lifted three 700 pound concrete piers and crashed them through the roof of an office building, destroyed the metal roof of a lumber warehouse, damaged the roof of a business and several boats at a boat dealership, blew down street signs, several trees, and the awning off a building while shattering a plate glass window.

Palo Pinto County	05	1753CST			0	0	?	?	Thunderstorm Wind (G55)
Mineral Wells Arpt	05	1830CST			0	0	?	?	Thunderstorm Wind (G61)
Oran	05	1840CST			0	0	?	?	Thunderstorm Wind
Mineral Wells									Hail (1.75)
4 SE Mineral Wells	05	1840CST			0	0	?	?	Hail (1.75)
4 SE Mineral Wells		1840CST-							
		1841CST	Short	Narrow	0	0	?	?	Tornado (F1)
Mineral Wells	05	1853CST			0	0	?	?	Thunderstorm Wind (G65)
3 S Mineral Wells	05	1910CST			0	0	?	?	Hail (1.00)

A downburst in Mineral Wells at 1840 CST damaged the roof of several buildings at the National Guard Armory, destroyed the roof of three buildings, and uprooted several trees. A tornado touched down near Farm to Market Road 3028 and Farm to Market Road 1195 (4 miles southeast Mineral Wells) at 1840 CST and destroyed a camper and several farm buildings while blowing down several power lines and utility poles. Golf ball-size hail accumulated to a depth of 1 foot in Mineral Wells at 1840 CST, while 3 miles south of Mineral Wells at 1910 CST, 3-foot-high drifts of 1-inch hail were observed.

Callahan County	05	1828CST			0	0	?	?	Thunderstorm Wind
4 W Baird									Hail (1.75)
Clyde	05	1828CST			0	0	?	?	Thunderstorm Wind
									Hail (1.75)
Eula	05	1830CST			0	0	?	?	Thunderstorm Wind

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TEXAS, Northern Cont'd

Cottonwood	05	1850CST			0	0	?	?	Hail (1.75)
2 N Cottonwood	05	1850CST			0	0	?	?	Hail (1.75)
2 N Cottonwood	05	1855CST- 1856CST	Short	Narrow	0	0	?	?	Tornado (F1)
Cross Plains	05	1955CST			0	0	?	?	Thunderstorm Wind (G69)
10 SE Potosi	05	2000CST			0	0	?	?	Thunderstorm Wind

A downburst four miles west of Baird flipped over one mobile home and destroyed another mobile home and two barns. A downburst in Clyde destroyed a mobile home, lifted the roof off a second mobile home, overturned a travel trailer, damaged a barn, uprooted trees, and broke large tree branches. Strong winds in Eula overturned three mobile homes and broke large tree branches. Two miles north of Cottonwood, a tornado touched down in open country while golf ball-size hail shattered the windows of several residences. A downburst blew the wall out of a framed house, destroyed a metal shed, and damaged the roof of several residences 10 miles southeast of Potosi.

Stephens County

Breckenridge	05	1830CST			0	0	?	?	Thunderstorm Wind
Breckenridge	05	1845CST			0	0	4	?	Thunderstorm Wind (G61)
9 S Breckenridge	05	1900CST			0	0	?	?	Thunderstorm Wind

In Breckenridge, a downburst at 1830 CST twisted numerous street signs, blew down twelve utility poles, numerous power lines, shingles off of several residences, and uprooted a few trees. At 1845CST, strong winds estimated at 70 miles an hour blew in a church window valued at \$7,000. A downburst 9 miles south of Breckenridge at 1900 CST lifted the roof off a mobile home and destroyed a carport.

Shackelford County Albany

	05	1830CST			0	0	?	?	Thunderstorm Wind
--	----	---------	--	--	---	---	---	---	-------------------

Strong winds blew down several utility poles in Albany.

Parker County Garner

Garner	05	1847CST- 1848CST	Short	Narrow	0	0	?	?	Tornado (F2)
Whitt	05	1850CST			0	0	?	?	Hail (2.75)
2 E Cool	05	1853CST- 1854CST	Short	Narrow	0	0	?	?	Tornado (F2)
Brock	05	1855CST			0	0	?	?	Thunderstorm Wind
5 N Weatherford	05	1858CST- 1859CST	Short	Narrow	0	0	?	?	Tornado (F1)
Weatherford	05	1910CST			0	0	?	?	Hail (0.75)
10 NE Weatherford	05	1910CST			0	0	?	?	Hail (2.75)
1 W Millsap	05	1915CST			0	0	?	?	Thunderstorm Wind
Springtown	05	1915CST			0	0	?	?	Hail (0.75)
7 SW Azle	05	1920CST			0	0	?	?	Hail (1.75)
Springtown	05	1935CST			0	0	?	?	Hail (0.75)
Reno	05	1945CST			0	0	?	?	Thunderstorm Wind

A tornado touched down in Garner and blew the roof off a microwave tower while damaging another building. A tornado touched down at the intersection of Farm to Market Road 113 and Farm to Market Road 180 (2 miles east of Cool) and destroyed two barns. A downburst blew the roof off two buildings 1 mile west of Millsap. A tornado touched down in open country 5 miles north of Weatherford. A downburst damaged the roof of a church in Brock and the roof of a fire station in Reno.

Hunt County Greenville Bowie County 3 E Maud

Greenville	05	1855CST			0	0	?	?	Hail (0.75)
3 E Maud	05	19910CST			0	0	?	?	Thunderstorm Wind Hail (1.00)

Strong winds blew down numerous trees 3 miles east of Maud.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TEXAS, Northern Cont'd

Cass County 1 N Linden	05	1925CST			0	0	?	?	Hail (0.88)
Eastland County Comanche County 1 E Gorman to 3 E Gorman	05	1930CST- 1935CST	2	50	0	0	?	?	Tornado (F1)

A confirmed tornado touched down in open country 1 mile east of Gorman in Eastland County at 1930 CST and moved east. It entered Comanche County 2 miles east of Gorman and crossed into the extreme northwest portion of Comanche County before dissipating.

Tarrant County White Settlement	05	1933CST			0	0	6	?	Hail (1.75)
River Oaks	05	1935CST			0	0	?	?	Hail (0.88)
Carswell AFB	05	1937CST			0	0	?	?	Thunderstorm Wind (G53)
Benbrook	05	1940CST			0	0	?	?	Hail (1.75)
Meacham Arpt	05	1956CST			0	0	?	?	Hail (0.75)
10 W Ft Worth	05	1959CST			0	0	?	?	Hail (3.50)
Fort Worth	05	2005CST			0	0	?	?	Hail (0.75) Lightning
Kennedale	05	2018CST			0	0	?	?	Hail (1.75)
Arlington	05	2018CST			0	0	?	?	Thunderstorm Wind Hail (1.75)
Kennedale	05	2033CST			0	0	?	?	Thunderstorm Wind
Fort Worth	05	2033CST- 2035CST	Short	Narrow	0	0	?	?	Tornado (F2)

Golf ball-size hail in White Settlement at 1933 CST, broke 300 to 400 windows of several residences and a couple of apartment complexes, shattered windshields and damaged approximately 200 cars at two automobile dealerships where damage estimates exceeded one million dollars. Nickel-size hail fell continuously from 1935 CST to 1945 CST (in River Oaks). At 2005 CST, lightning ignited a house fire (in Fort Worth). A downburst tore the roof off two buildings in Arlington, turned several cars around, and blew down power lines in Kennedale. A tornado touched down briefly in Fort Worth between Las Vegas Trail and Cherry Lane and destroyed the roof of a church and several apartment buildings, uprooted trees, collapsed a billboard, and blew several light poles onto automobiles resulting in approximately a million dollars in damage.

Hopkins County 5 W Sulphur Springs	05	1940CST- 1941CST	Short	Narrow	0	0	?	?	Tornado (F0)
19 S Sulphur Springs	05	1955CST			0	0	?	?	Hail (1.00)

A tornado touched down in open country 5 miles west of Sulphur Springs.

Erath County Bluff Dale	05	1945CST			0	0	?	?	Thunderstorm Wind
----------------------------	----	---------	--	--	---	---	---	---	-------------------

A downburst blew down several large trees at Bluff Dale.

Somervell Glen Rose	05	2005CST			0	0	?	?	Hail (1.75)
Glen Rose	05	2040CST			0	0	?	?	Thunderstorm Wind (G61)
Wood County Yantis	05	2015CST			0	0	?	?	Hail (0.75)
Hood County 8 S Granbury	05	2025CST			0	0	?	?	Hail (1.00)
Franklin County Scroggins	05	2030CST			0	0	?	?	Hail (1.75)

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TEXAS, Northern Cont'd

Coleman County Coleman	05	2030CST			0	0	?	?	Thunderstorm Wind Hail (0.75)
---------------------------	----	---------	--	--	---	---	---	---	----------------------------------

A downburst blew down several power lines in Coleman.

Brown County May	05	2030CST			0	0	?	?	Hail (1.75)
Bangs	05	2102CST			0	0	?	?	Thunderstorm Wind
Brownwood	05	2110CST			0	0	?	?	Hail (0.75)

A downburst blew down several large stockade fences in Bangs.

Johnson County Burleson	05	2033CST			0	0	?	?	Thunderstorm Wind Hail (1.75)
10 N Covington	05	2045CST			0	0	?	?	Funnel Cloud

A downburst blew down power lines and destroyed a metal storage building in Burleson.

Hill County 4 W Blum	05	2040CST			0	0	?	?	Hail (1.00)
Comanche County Comanche	05	2043CST			0	0	?	?	Hail (1.75)
Dallas County Dallas	05	2100CST			0	0	?	?	Hail (0.75)
Ellis County 5 S Midlothian	05	2110CST			0	0	?	?	Lightning
4 E Ferris	05	2112CST			0	0	?	?	Thunderstorm Wind (G55)

Lightning ignited fire to a hay barn 5 miles south of Midlothian.

Hamilton County 3 SW Hamilton	05	2131CST			0	0	?	?	Hail (0.75)
Henderson County Tool	05	2155CST			0	0	?	?	Thunderstorm Wind
Payne Springs	05	2200CST			0	0	?	?	Thunderstorm Wind

Strong winds uprooted trees and blew down power lines, utility poles, and fences in Tool while damaging one home and uprooting several trees at Payne Springs.

Coryell County 15 WNW McGregor	05	2210CST- 2211CST	Short	Narrow	0	0	?	?	Tornado (F0)
Fort Hood AAF	05	2255CST			0	0	?	?	Hail (2.00)
Fort Hood	05	2325CST			0	0			Hail (1.75)

A pilot in a commercial aircraft observed a tornado 15 miles west-northwest of McGregor. Golf ball-size hail shattered windows out of several buildings in Fort Hood.

Lampasas County Moline	05	2215CST			0	0	?	?	Hail (1.50)
Mills County 8 N. Goldthwaite	05	2215CST			0	0	?	?	Hail (1.75)
Bell County Killeen	05	2337CST			0	0	5	?	Thunderstorm Wind Hail (1.75)

Golf ball-size hail shattered windshields and dented the bodies of approximately fifty automobiles while a downburst damaged the roof of 5 homes and blew large tree branches down. Damage estimates were approximately \$100,000 in Killeen.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TEXAS, Northern Cont'd

Northern Texas 09-10

Thunderstorms developed along a boundary extending from a low pressure system over western Texas the afternoon of April 9th. The thunderstorms solidified into a squall line by evening as the boundary edged into the northwestern portion of northern Texas. A cluster of severe thunderstorms moved over mainly northern sections of north Texas where large hail and damaging bursts of wind were observed over several counties during the evening of April 9th through the early morning hours of April 10th.

Baylor County Lake Kemp	09	1842CST			0	0	?	?	Thunderstorm Wind (G52)
Wichita County 2 S Kadane Corner	09	1907CST			0	0	?	?	Hail (0.75)
Kadane Corner	09	1923CST			0	0	?	?	Hail (0.88)
Iowa Park	09	1954CST							Funnel Cloud
2 W Iowa Park	09	2000CST-							
		2001CST	Short	Narrow	0	0	?	?	Tornado (F1)
Iowa Park	09	2001CST			0	0	?	?	Hail (0.88)
Wichita Falls	09	2005CST			0	0	?	?	Hail (1.75)
3 E Wichita Falls	09	2020CST			0	0	?	?	Hail (1.00)

A tornado was observed in open country 2 miles west of Iowa Park.

Clay County Dean	09	2028CST			0	0	?	?	Hail (0.75)
Archer County Holliday	09	2030CST			0	12	?	?	Thunderstorm Wind

Strong winds damaged two homes and a business. A restaurant had its windows blown out and flying glass debris resulted in a dozen minor injuries.

Baylor County Seymour	09	2145CST			0	0	?	?	Thunderstorm Wind (G56)
Throckmorton County Throckmorton	09	2318CST			0	0	?	?	Hail (1.75)

Montague County 2 SW Nacona	09	2345CST			0	0	?	?	Thunderstorm Wind
--------------------------------	----	---------	--	--	---	---	---	---	-------------------

A downburst blew the roof off a well house, damaged a house and barn, blew down a television antenna, and shattered a window 2 miles southwest of Nacona.

Young County Graham	09	2347CST			0	0	?	?	Hail (1.00)
------------------------	----	---------	--	--	---	---	---	---	-------------

Cooke County Muenster	10	0015CST			0	0	?	?	Thunderstorm Wind
Callisburg	10	0020CST			0	0	?	?	Thunderstorm Wind
Gainesville	10	0025CST			0	0	?	?	Thunderstorm Wind (G52) Hail (1.75)

A downburst blew down a 320-foot radio tower and uprooted trees in Muenster while severely damaging two mobile homes and uprooting trees at Callisburg. In Gainesville, strong winds measured at 60 miles an hour blew the roof off several homes, destroyed a greenhouse, and broke several windows.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TEXAS, Northern Cont'd

Grayson County

Whitesboro	10	0040CST			0	0	5	?	Thunderstorm Wind
Southmayd	10	0050CST			0	0	?	?	Thunderstorm Wind
Sherman	10	0100CST			0	0	4	?	Thunderstorm Wind

A downburst destroyed a barn and lifted the roof off a second barn (in Whitesboro). Several trees were also uprooted and fell on the roof of four buildings and several homes. Damage estimates in Whitesboro were around \$400,000. Strong winds destroyed a couple of outdoor sheds, flattened a fence, and blew in a window at a residence in Southmayd. A downburst in Sherman damaged the roof of a building, blew down power lines and utility poles, and broke large tree limbs while wind-blown debris damaged automobile windows. Damage estimates were around \$25,000 in Sherman.

Fannin County Savoy

	10	0115CST			0	0	?	?	Thunderstorm Wind
--	----	---------	--	--	---	---	---	---	-------------------

A downburst lifted the roof off two mobile homes and blew down power lines at Savoy.

Parker County Agnes

	10	0240CST			0	0	?	?	Hail (1.75)
--	----	---------	--	--	---	---	---	---	-------------

Northern Texas

13-14

A cluster of severe thunderstorms developed along a cold front that moved slowly into the western half of northern Texas during the early morning hours of April 14th.

Palo Pinto County

Lake Palo Pinto	13	2305CST			0	0	?	?	Hail (1.75)
1 N of Strawn	14	0027CST			0	0	?	?	Funnel Cloud
2 S of Gordon	14	0043CST			0	0	?	?	Hail (1.75)
4 S Palo Pinto	14	0154CST			0	0	?	?	Hail (0.75)

Eastland County

Ranger	13	2310CST			0	0	?	?	Hail (0.75)
Eastland	14	0043CST			0	0	?	?	Funnel Cloud
2 N Ranger	14	0110CST			0	0	?	?	Hail (0.75)
ERN Eastland Co.	14	0300CST-0600CST			0	0	?	?	Flash Flooding

Several city and county roads in the eastern portion of Eastland County had high water over the roadway.

Throckmorton County

Throckmorton	13	2318CST			0	0	?	?	Hail (1.75)
--------------	----	---------	--	--	---	---	---	---	-------------

Parker County

Lake Weatherford	13	2320CST			0	0	?	?	Hail (1.75)
4 N. Aledo	13	2320CST			0	0	?	?	Hail (0.75)
Weatherford	13	2335CST			0	0	?	?	Hail (0.88)
Peaser	14	0015CST			0	0	?	?	Hail (1.00)
1 W Weatherford	14	0015CST			0	0	?	?	Hail (0.75)

Stephens County

Hubbard Creek Lk	13	2325CST			0	0	?	?	Hail (0.75)
Breckenridge	14	0555CST			0	0	?	?	Hail (1.50)
10 SE Breckenridge	14	0110CST			0	0	?	?	Hail (1.75)
Breckenridge	14	0130CST			0	0	?	?	Hail (0.75)
Necessity	14	01041CST			0	0	?	?	Hail (0.75)

Breckenridge	14	0240CST-0600CST			0	0	?	?	Flash Flooding
--------------	----	-----------------	--	--	---	---	---	---	----------------

Several city streets and low-lying areas in Breckenridge observed high water.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TEXAS, Northern Cont'd

Tarrant County

Fort Worth	13	2340CST			0	0	?	?	Hail (1.00)
Fort Worth	13	2345CST			0	0	?	?	Hail (0.75)
Fort Worth	13	2350CST			0	0	?	?	Hail (1.00)
Fort Worth	13	2355CST			0	0	?	?	Hail (1.75)
River Oaks	14	0005CST			0	0	?	?	Hail (1.00)
Keller	14	0114CST			0	0	?	?	Hail (1.75)

Erath County

Thurber	14	0050CST			0	0	?	?	Hail (0.75)
3 NE Thurber	14	0115CST			0	0	?	?	Hail (1.75)

Denton County

5 WSW Lewisville	14	0125CST			0	0	?	?	Hail (0.75)
------------------	----	---------	--	--	---	---	---	---	-------------

Dallas County

Cedar Hill	14	0130CST			0	0	5	?	Lightning
------------	----	---------	--	--	---	---	---	---	-----------

Lightning ignited a church fire in Cedar Hill, resulting in approximately \$300.00 damage.

Hill County

3 NE Hillsboro	14	0145CST			0	0	?	?	Hail (0.75)
5 SE Itasca	14	0145CST			0	1	?	?	Thunderstorm Wind Hail (0.75)

A downburst 5 miles southeast of Itasca uprooted several trees, blew down a fence and one boat over a mile downwind, shattered a window in a home, and damaged the roof of a residence.

Bosque County

3 SW Iredell-	14	0350CST-			0	0	?	?	Tornado (F1) Thunderstorm Wind
4 SW Iredell Meridian	14	0352CST 0400CST	1	440	0	0	?	?	

A tornado, which touched down 3 miles southwest of Iredell, destroyed two outdoor buildings and snapped the tops of several trees before dissipating 4 miles southwest of Iredell. A downburst snapped the tops of several trees and ripped the awning from a business in Meridian.

Hill County

Itasca	14	0430CST			0	0	?	?	Thunderstorm Wind
--------	----	---------	--	--	---	---	---	---	-------------------

Strong winds blew a truck off Interstate 35 and the glass out of a bedroom window at a residence in Itasca.

Northern Texas

15

Strong thunderstorms developed in northern Texas on April 15th along a warm frontal boundary that moved northward through northern Texas and into southern Oklahoma by late evening.

Jones County

5 W Anson	15	1650CST			0	0	?	?	Hail (1.75)
-----------	----	---------	--	--	---	---	---	---	-------------

Taylor County

Trent	15	1745CST			0	0	?	?	Hail (1.75)
2 S Dyess AFB	15	1905CST			0	0	?	?	Funnel Cloud
14 S Trent	15	1922CST			0	0	?	?	Hail (1.75)
3 S Lawn	15	1942CST			0	0	?	?	Hail (1.75)

Montague County

Capps Corner	15	1810CST			0	0	?	?	Hail (2.75)
6 N St. JO	15	1810CST			0	0	?	?	Funnel Cloud
6 SW Bowie	15	2022CST			0	0	?	?	Hail (1.00)
Sunset	15	2033CST			0	0	?	?	Hail (0.88)

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TEXAS, Northern Cont'd

Shackelford County

9 SW Albany 15 1800CST 0 0 ? ? **Thunderstorm Wind**

Strong winds damaged a barn and several outbuildings at Martin-Van Zandt ranch (9 SW Albany).

Cooke County

4 E Capps Corner 15 1812CST 0 0 ? ? **Hail (2.75)**

4 W Muenster 15 1850CST-
1855CST **Short Narrow** 0 0 ? ? **Tornado (F1)**

Spotters observed a tornado in open country 4 miles west of Muenster.

Throckmorton County

5 S Throckmorton 15 1822CST 0 0 ? ? **Hail (1.75)**

Young County

Newcastle 15 1907CST 0 0 ? ? **Thunderstorm Wind (G52)**

Hail (1.75)

Olney 15 1910CST 0 0 ? ? **Hail (1.00)**

5 N Newcastle 15 1925CST 0 0 ? ? **Thunderstorm Wind**

A downburst blew down power lines, a television antenna, a storm cellar door off, and broke the windows of a home 5 miles north of Newcastle.

Grayson County

Denison 15 1909CST 0 0 ? ? **Thunderstorm Wind (G56)**

5 NW Ambrose 15 1925CST 0 0 ? ? **Hail (2.50)**

Bells 15 1930CST 0 0 ? ? **Hail (1.75)**

Sadler 15 2015CST 0 0 ? ? **Hail (1.75)**

Southmayd 15 2015CST 0 0 ? ? **Hail (1.75)**

Southmayd 15 2030CST 0 0 ? ? **Hail (0.75)**

7 SW Sherman 15 2047CST 0 0 ? ? **Thunderstorm Wind**

Hail (0.75)

Whitewright 15 2100CST 0 0 ? ? **Thunderstorm Wind**

Hail (1.75)

Strong winds clocked at 64 mph at Denison blew the roof off 23 boat stalls at a tackle shop and knocked the windows out of several homes, businesses, and automobiles. Strong winds also blew the awning off a business and a revolving door out of a building. Large tree limbs blown onto power lines resulted in a number of power outages. Five miles northwest of Ambrose tennis ball-size hail shattered the window of an automobile. Golf ball-size hail accumulated up to 4 inches in depth at Bells. A downburst damaged several homes 7 miles southwest of Sherman and broke windows in several buildings in Whitewright.

Fannin County

4 W Ravenna 15 1927CST 0 0 ? ? **Hail (2.50)**

Trenton 15 2052CST 0 0 ? ? **Hail (1.00)**

Ector 15 2055CST 0 0 ? ? **Thunderstorm Wind (G52)**

Strong winds estimated at 60 mph destroyed a metal storage shed and broke large tree limbs at Ector.

Callahan County

4 N Cottonwood 15 1935CST 0 0 ? ? **Hail (0.75)**

Cross Plains 15 1959CST 0 0 ? ? **Hail (0.75)**

Clay County

Vashti 15 2015CST 0 0 ? ? **Hail (1.00)**

Newport 15 2015CST 0 0 ? ? **Hail (1.00)**

Jack County

Jacksboro 15 2030CST 0 0 ? ? **Hail (0.88)**

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TEXAS, Northern Cont'd

Collin County									
Frisco	15	2045CST			0	0	?	?	Thunderstorm Wind
Westminster	15	2052CST			0	0	?	?	Hail (1.00)
Frisco	15	2232CST			0	0	3	?	Lightning
Frisco	15	2248CST			0	0	3	?	Lightning
Plano	15	2230CST-							
	16	0300CST			0	0	?	?	Flash Flooding

In Frisco, a downburst destroyed a barn while flying debris damaged a truck windshield. Lightning also ignited two house fires resulting in \$1,400, and \$3,000 in damage, respectively. In Plano, high water of unknown depth was observed on several streets.

Wise County									
Alvord	15	2105CST			0	0	?	?	Hail (1.00)
Erath County									
Stephenville	15	2110CST			0	0	?	?	Hail (0.75)
Denton County									
3 SW Denton	15	2130CST			0	0	?	?	Hail (0.75)
Krum	15	2134CST			0	0	?	?	Hail (1.00)
5 S Denton	15	2134CST			0	0	?	?	Hail (1.00)
Corinth	15	2140CST			0	0	?	?	Hail (0.75)
Dallas County									
Seagoville	15	2228CST			0	0	?	?	Hail (0.75)
Dallas County									
	15	2315CST-							
	16	0015CST			1	1	7	?	Flash Flooding

Four inches of rain accumulated in a 90-minute period from 2230 CST April 15 to 2400 CST April 16 (in Garland). Runoff from the heavy rains caused Duck Creek in Garland to spill over its banks and flood approximately 190 homes, 95 apartment units, 40 businesses, 40 city streets, and 225 automobiles. High water ranged in depth from 4 feet in some residential areas up to 4 feet over several roadways. One fatality occurred when a man was swept off a roadway crossing Duck Creek (M46V). In addition, eight homes were flooded in the Sunnyvale section of Dallas County. Total damage from the flash flooding in Dallas County was estimated at \$7.6 million.

Wichita County									
Iowa Park	16	2215CST			0	0	?	?	High Wind
Burkburnett	16	2215CST			0	0	?	?	High Wind
Wichita Falls	16	2223CST			0	0	?	?	High Wind

High winds damaged the roof of a business and blew down numerous fences and trees in Iowa Park. A couple of trees were blown onto power lines while one window was broken out at a residence in Burkburnett. Several trees were uprooted in Wichita Falls while one residence had its roof blown off.

Kaufman County									
	16	0000CST- 0330CST			0	0	?	?	Flash Flooding

Heavy rains resulted in numerous creeks overflowing their banks north of Kaufman while several service roads along Interstate 20 in northern Kaufman County were closed due to high water.

Wise County									
Bridgeport	17	0045CST			0	0	?	?	Thunderstorm Wind

Strong winds uprooted a few trees at Bridgeport.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TEXAS, Northern Cont'd

Hood County
Lipan 25 1515CST-1900CST 0 0 ? ? **Flash Flooding**

Extensive low-land flooding was observed in Hood County while high water of unknown depth crossed Farm to Market Road 4 near Lipan.

Parker County
NRN Parker Co. 25 1520CST-1900CST 0 0 ? ? **Flash Flooding**

High water covered several roads in northern Parker County from Weatherford northward. Several bridges were washed out at Agnes with high water over several roads near Millsap. Rainfall amounts of 3 inches were measured just west of Weatherford in a 6-hour period.

Parker County
3 SW Weatherford
2 WNW Weatherford 25 1530CST-1538CST 4 300 0 0 ? ? **Tornado (F2)**
2 NW Weatherford
5 SW Springtown 25 1544CST-1603CST 10 880 0 0 6 ? **Tornado (F4)**
8 SW Springtown 25 1600CST 0 0 ? ? **Hail (1.00)**
3 SSW Springtown 1613CST-1614CST Short Narrow 0 0 ? ? **Tornado F1)**

A tornado touched down 3 miles southwest of Weatherford near Farm to Market Road 3025. The tornado destroyed one mobile home, blew down utility poles and power lines, and either snapped or uprooted 100 trees as it moved northeastward. A tornado touched down 2 miles northwest of Weatherford and destroyed 8 mobile homes and 2 well constructed homes. In addition 15 mobile homes were damaged, 2 homes and several barns had their roofs blown off, several outbuildings were destroyed, and an automobile was lifted and placed vertically atop another automobile. A tornado was observed by storm spotters in open country 3 miles southwest of Springtown.

Parker County
25 1900CST-
26 1000CST 0 0 ? ? **Flash Flooding**

Just west of Weatherford, rainfall amounts in excess of 7 inches were measured in an eight-hour period with over 4 inches of rain falling from 2200 CST to 2245 CST. High water up to 3 feet in depth closed most secondary roads in the county while several bridges throughout the county were closed either from high water or by debris carried by flood waters in numerous creeks and streams. Several residences were flooded in the Horseshoe Bend, Bennett, Tin Top, and Lazy Bend areas in southern Parker County. In the Horseshoe Bend area, flooding began at 0200CST April 26th and by the evening of April 26th, 75% of the 300 homes were underwater.

Wise County
Cottondale 25 1620CST-
4 W Boyd 1630CST 5 100 0 0 ? ? **Tornado (F2)**
1 N Paradise 25 1650CST-
1651CST Short Narrow 0 0 ? ? **Tornado (F1)**

Wise County
25 1700CST-
26 1000CST 0 0 ? ? **Flash Flooding**
1 NW Decatur 25 1705CST-
1706CST Short Narrow 0 0 ? ? **Tornado (F2)**
Alvord 25 1740CST 0 0 ? ? **Thunderstorm Wind (G69)**

A tornado damaged 7 mobile homes, uprooted several trees, and blew down fences and the roof off several outdoor buildings in Cottondale. Storm spotters observed a tornado in open country 1 mile north of Paradise. Several trees were uprooted by a tornado that touched down 1 mile northwest of Decatur. In Alvord, a downburst with winds estimated at 80 mph blew down

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TEXAS, Northern Cont'd

Erath County

Highland	25	1740CST			0	0	?	?	Hail (1.00)
Gorman	25	1800CST			0	0	?	?	Lightning
2 N Dublin	25	1800CST			0	0	?	?	Hail (0.75)
1 S Stephenville	25	1830CST							Funnel Cloud
Dublin	25	1833CST			0	0	?	?	Hail (0.75)
8 NW Stephenville	25	1907CST			0	0	?	?	Hail (1.00)
Huckaby	25	1945CST			0	0	?	?	Thunderstorm Wind
1 W Lingleville	25	2037CST			0	0	?	?	Thunderstorm Wind
Huckaby	25	2110CST			0	0	?	?	Thunderstorm Wind
4 W Morgan Mill	25	2121CST			0	0	?	?	Hail (1.75)
Huckaby	25	2133CST			0	0	?	?	Hail (1.75)
Morgan Mill	25	2133CST			0	0	?	?	Hail (1.75)

Lighting ignited a fire to a pump station in Gorman (at 1800 CST). Strong winds destroyed a barn in Huckaby at 1945 CST and damaged a home and barn at 2110 CST. A downburst uprooted several trees 1 mile west of Lingleville.

Brown County

25	1800CST-								
26	1000CST			2	0	8	?		Flash Flooding

Strong thunderstorms dumped torrential rains of around 15 to 18 inches over Brown County mainly in a 13-hour period from 1700 CST April 25th to 0600 CST April 26th. Heaviest rainfall amounts were measured from 1700 CST to 2200 CST April 25th and from 0100 CST to 0600 CST April 26th. Unofficial total rainfall amounts included 16.05 inches in Brownwood, 13.10 inches in Blanket, 11.75 inches at Bangs, and 10.00 in Zephr. Seventy-five commercial buildings, 110 homes and 77 low income housing units were damaged in Brown County by a combination of flooding from heavy rains and approximately 7.0 feet of water over the spillway at Lake Brownwood.

Two fatalities were attributed to flash flooding in Brownwood. During the evening of April 25th one fatality occurred when a man attempted to climb into his partially submerged automobile and was swept under his car by rushing water (M870). A second fatality occurred while a man was attempting to clear a storm drain. Swift currents pulled the man into the storm drain and pinned him underneath a bridge (M770). Several motorists were stranded (at 1800 CST) as their automobiles stalled from high water over the roadways and a few homes began to flood. At 2045 CST, 5.60 inches of rain was measured in Brownwood and by 2130 CST, homes in Early and Brownwood had water up to a depth of 3 feet, while in Blanketship high water was up to the windshields of cars. By 0600 CST April 26th almost every highway leading into Brownwood and Early were closed and extensive flooding was occurring in low-lying areas. At 0800CST April 26th, most of Brownwood was flooded by a combination of heavy rainfall and flooding from the Pecan Bayou, a creek that flows from the Lake Brownwood spillway. Damage from high water was estimated at \$500,000 to \$1 million to public property, and tens of millions of dollars to private property.

Young County

25	1820CST-								
	2215CST			0	0	?	?		Flash Flooding
26	0130CST-								
	0600CST			0	0	?	?		Flash Flooding

Heavy rainfall resulted in widespread flooding in Young County. Fifty homes in Graham were flooded and high water up to a depth of 12 inches was observed over most county roads. Two automobiles were swept off the roadway at the intersection of State Highway 67 and Farm to Market Road 71 while high water stranded a number of additional motorists. Most roads leading into Graham and Bryson were closed.

Palo Pinto County

Gordon	25	1840CST			0	0	?	?	Hail (1.00)
4 W Lipan	25	2148CST			0	0	?	?	Hail (1.75)

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TEXAS, Northern Cont'd

Comanche County

Erath County
4 SE Proctor-
6 SSW Dublin

25	1855CST-		2	50	0	0	?	?	Tornado (F1)
	1859CST								

A tornado touched down in open country 4 miles southeast of Proctor in Comanche County and moved northeast. It entered Erath County 7 miles southwest of Dublin.

Eastland County

25	1957CST-				0	0	?	?	Flash Flooding
	26 1100CST								

Strong thunderstorms dumped torrential rains of 8.35 inches at Gorman to near 12.00 inches at Rising Star in the 12-hour period from 1900 CST April 25 to 0700CST April 26th. The most serious flooding occurred in the southern portion of Eastland County. A nursing home in Rising Star was flooded by high water up to 2 feet in depth while several residences were also flooded. By 0400 CST April 26th, some low-lying areas and roadways had water as high as the windows of tractor-semitrailers. Interstate 20 was flooded and several truckers were stranded before dawn in Ranger. Most low water crossings were impassable in Cisco. By 1000 CST April 26th, most of the southern portion of Eastland County remained flooded south of Lake Leon. Meanwhile State Highway 183 and State Highway 36 were still closed due to high water.

Parker County

4 NW Weatherford
Peaster to
2 SE Brock

1 S Tin Top

25	1959CST				0	0	?	?	Hail (0.75)
	25 2038CST				0	0	?	?	Hail (0.75)
	25 2155CST-								
	2157CST	Short	Narrow		0	0	?	?	Tornado (F1)
	25 2155CST								Funnel Cloud

Spotters observed a tornado in open country along Farm to Market Road 1189 2 miles southeast of Brock.

Erath County

25	2000CST				0	0	?	?	Flash Flooding
	26 1100CST								

Heavy rains up to 16.00 inches in Lingleville and 7.80 in Huckaby in a 12-hour period resulted in widespread flooding across Erath County. Most roads in Stephenville were impassable due to high water while 60% of the bridges in the county were washed out. Thirty persons living in low-lying areas along Farm to Market Road 1188 near Huckaby were evacuated as water rose into their homes. Several low water crossings (in both Dublin and Highland) were flooded while high water from Armstrong Creek forced the closing of Farm to Market Road 2156.

Clay County

25	2000CST-				0	0	?	?	Flash Flooding
	25 2330CST								
	26 0130CST-								
	0600CST				0	0	?	?	Flash Flooding

Four to 6 inches of rain in an 8-hour period resulted in the flooding of several homes and most farm to market roads in Clay County. Several homes and businesses were flooded in Henrietta. Ten homes were flooded along State Highway 148 with high water in depth as high as light switches. One railroad bridge, a pickup truck, and a cafe were also flooded. Spur 510, Farm to Market Road 1954 near Lake Arrowhead as well as State Highway 82 from Henrietta to Ring Gold were closed for several hours.

Palo Pinto County

25	2100CST-				0	0	?	?	Flash Flooding
	26 1100CST								

Heavy rains resulted in widespread flooding in Palo Pinto County. All secondary roads in the southern portion of the county were closed by 2100 CST April 26th. Several homes were evacuated in both Millsap and Mineral Wells where high water reached a depth of 18 inches in some Mineral Wells residences. Several persons were evacuated in Santo between midnight and 0000 CST April 26th along Sunday Creek where 4 feet of water was reported over one bridge. At 0900 CST April 26th, high water continued over much of the county, with several roads still closed.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TEXAS, Northern Cont'd

Erath County
Palo Pinto County
Patillo to
6 SE Santo

25	2114CST-	4	50	0	0	?	?	Tornado (F1)
	2125CST							

Spotters observed a tornado touch down in open country near Patillo in Erath County. It entered Palo Pinto County 1 mile northwest of Patillo and crossed into the extreme southeast part of the county.

Cooke County

25	2235CST-			0	0	?	?	Flash Flooding
	26 0730CST							

Numerous streets in Gainesville were closed due to high water. At 0300CST April 26th the Elm Creek and Pecan Creek overflowed their banks and resulted in the evacuation of approximately 700 persons.

Denton County

26	0015CST-			0	0	?	?	Flash Flooding
	26 0300CST							

Farm to Market Roads 1173 and 2450 were flooded by high water of unknown depth near Krum.

Montague County

26	0130CST-			0	0	?	?	Flash Flooding
	26 0600CST							

Heavy rainfall with amounts up to 6.30 inches at Spanish Fort flooded several roads in Montague County with high water up to a foot in depth. Farm to Market Road 2953 was closed for several hours due to high water.

Jack County

26	0130CST-			0	0	?	?	Flash Flooding
	26 0600CST							

Heavy rainfall amounts ranging from 3.60 inches in Jacksboro to 4.83 inches in Antelope flooded most farm to market roads from Bryson to Jermyn, Antelope to Shannon, and State Highway 16 from Jacksboro westward. Most roads in Jack County were closed by 0400 CST except State Highway 38 and 381N.

Somervell County

26	0145CST			0	0	?	?	Flash Flooding
	26 1100CST							

High water washed out a bridge in Glen Rose while numerous low water crossings throughout Somervell County were impassable.

Bosque County

26	0308CST-			0	0	?	?	Flash Flooding
	26 0615CST							
	26 0830CST-							
	26 1600CST							

Heavy rainfall amounts ranging from 5.05 inches in Meridian to 3.26 inches in Clifton produced high water over numerous roads, low-water crossings, and low-lying areas. A Veterans of Foreign Wars Post in Meridian was flooded by high water as the Bosque River overflowed its banks.

Tarrant County

26	0330CST-			0	0	?	?	Flash Flooding
	26 0730CST							
	26 0930CST-							
	26 1200CST					3	?	Flash Flooding

Nearly 3 inches of rain in Fort Worth resulted in the closing of numerous farm to market roads in Azle and Everman. Three bridges along Farm to Market Road 730 near Azle were closed due to high water from Walnut Creek. Farm to Market Road 1187 at Village Creek was also

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TEXAS, Northern Cont'd

closed for several hours due to high water. Flood damage to acreage (in Mansfield) was estimated at \$1,100 while several roads in the city were closed to overflowing creeks.

**Johnson County
Cleburne**

26	0400CST- 1100CST									
		0	0	?	?					Flash Flooding

Heavy rains resulted in high water over several low water crossings in Cleburne. One bridge was also washed out on State Highway 174 in Cleburne.

Hamilton County

26	0400CST- 1200CST									
		0	0	?	?					Flash Flooding

Extensive flooding of roads and low-lying areas occurred in Hico as the Bosque River and Pecan Creek overflowed their banks.

Hood County

26	0400CST- 1200CST									
		0	0	?	?					Flash Flooding

Rainfall amounts of 8 inches were observed at both Lipan and Tipton. Five homes in the Brazos River Acres were flooded up to their roofs while three homes in Pecan Plantation had high water up to a depth of 4 feet. Most county roads and farm to market roads along the Paluzi River were impassable with high water reported up to the hoods of cars in some places. Farm to Market Road 1189 between Lipan and Santo was closed for several hours due to high water up to 5 feet in depth as well as County Road 303 near Action and County Road 323 in Decordova Hills.

**McLennan County
Waco**

26	0655CST									
		0	0	?	?					Lightning

Lightning ignited a fire to a home in Waco.

Brown County

26	0800CST- 30 2400CST									
		0	0	8	?					Flooding

Extensive flooding occurred in Brownwood and surrounding areas along the Pecan Bayou as up to 7 feet of water flowed over the spillway at Lake Brownwood. The flood level of 6.2 feet that occurred at around 0900 CST April 26th exceeded the 1957 record at Lake Brownwood. The central business district had water up to 5 feet in depth (by 0800 CST), all traffic routes leading into Brownwood were under water several feet deep. Fifty-five businesses and 125 homes were flooded, and an auto dealership had water up to the roofs of cars. The Pecan Bayou was estimated to be 4 miles wide by the afternoon of April 26th. Damage estimates to both private, commercial, and public property was in the tens-of-millions of dollars.

**Navarro County
Corsicana**

26	0845CST									
		0	0	4	?					Thunderstorm Wind

A downburst damaged three homes and several businesses, blew two doors out of the city hall building, uprooted trees, blew down power lines, and a couple of fences. Wind damage to two cars was estimated at \$2,400, and \$400 to a fence.

Dallas County

26	0850CST- 1200CST									
		0	0	?	?					Flash Flooding

Several homes and a dozen streets along White Rock Creek were flooded by high water. Several homes were flooded along Ten Mile Creek in DeSoto.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TEXAS, Northern Cont'd

Parker County 26 1000CST-
SRN Parker County 30 2400CST 0 0 ? ? Flooding

Approximately 1,000 persons living in hundreds of residences along the Brazos River were evacuated (by 1000 CST April 26th) due to a combination of runoff from heavy rains and water releases from Possum Kingdom Reservoir. The Brazos River at Tin Top was approximately 4 miles wide and 75% of the 300 homes in the area were underwater (by the evening of April 26th).

Wise County 26 1000CST-
28 2400CST 0 0 ? Flooding

Flooding was observed over a large portion of Wise County as water releases of 5 feet over the spillway were observed at Lake Bridgeport. State Highway 114 continued to be closed over some sections of Wise County through April 28th.

Erath County 26 1100CST-
27 2400CST 0 0 ? ? Flooding

The Bosque River was 3 to 4 feet out of its banks and flooded a city park and State Highway 377 in Stephenville. Flood water from the Leon River was reported as high as 4 feet between Dublin and Deleon in Erath County.

Bell County 26 1230CST 0 0 ? ? Thunderstorm Wind
Temple 26 1230CST 0 0 4 ? Thunderstorm Wind
2 E Temple
Bell County 26 1230CST-
1630CST 0 0 ? ? Flash Flooding

A downburst in Temple destroyed a barn and damaged several other barns at the Bell County Exposition Center. A downburst 2 miles east of Temple uprooted trees and produced \$10,000 worth of roof damage to three metal buildings. Numerous roads were closed in the county due to flash flooding while the Nolan Creek was over its banks in the Holland area.

Hill County 26 1300CST-
1600CST 0 0 ? ? Flash Flooding

The Nolan River overflowed its banks from heavy rainfall runoff and flooded Farm to Market Road 67 in Blum and Farm to Market 309 north of Woodberry.

Coryell County 26 1300CST-
1600CST 0 0 ? ? Flash Flooding

Several low water crossings and two farm to market roads were closed in Coryell County.

Ellis County 26 1400CST-
1700CST 0 0 ? ? Flooding

Several farm to market roads and service roads along Interstate 35 were closed due to runoff from heavy rains before 1400CST.

McLennan County 26 1530CST 0 0 ? ? Thunderstorm Wind
Waco

Strong winds blew down several large cedar trees at the McLennan County Community College.

Northern Texas 27

A cold front at 1100 CST extended from Montague to Breckenridge to San Angelo. A cluster of severe thunderstorms with damaging bursts of wind and large hail developed over mainly central and eastern sections of northern Texas as the cold front moved southeastward.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TEXAS, Northern Cont'd

Hill County

Blum	27	1442CST			0	0	?	?	Hail (1.75)
Hillsboro	27	1510CST			0	0	?	?	Hail (1.75)
4 N Hubbard	27	1515CST- 1516CST	Short	Narrow	0	0	?	?	Tornado (F2)

A tornado destroyed a farmhouse and two mobile homes, and blew the roof off another mobile home 4 miles north of Hubbard.

Collin County

2 N Frisco	27	1500CST			0	0	?	?	Hail (0.75)
McKinney	27	1520CST			0	0	?	?	Hail (0.75)
3 E McKinney	27	1530CST			0	0	?	?	Hail (1.75)
5 E Princeton	27	1530CST			0	0	?	?	Hail (1.75)
4 NW Farmerville	27	1530CST			0	0	?	?	Hail (1.00)

Johnson County

Venus	27	1508CST			0	0	?	?	Thunderstorm Wind (G61)
-------	----	---------	--	--	---	---	---	---	-------------------------

McLennan County

Waco	27	1510CST							Funnel Cloud
15 NE Waco	27	1525CST							Funnel Cloud
Gholson	27	1530CST			0	0	?	?	Hail (1.00)

Cass County

8 NE Hughes Springs	27	1520CST			0	0	?	?	Hail (1.00)
2 W Linden	27	1545CST			0	0	?	?	Hail (1.75)
5 S Linden	27	1616CST			0	0	?	?	Hail (0.75)

Bosque County

Lakeside Village	27	1527CST- 1528CST	Short	Narrow	0	0	?	?	Tornado (F2)
------------------	----	---------------------	-------	--------	---	---	---	---	--------------

A confirmed tornado destroyed three mobile homes at Lakeside Village.

Limestone County

Mexia	27				0	0	?	?	Hail (1.50)
5 S Mexia to	27	1530CST-							
4 SE Mexia		1548CST	4	100	0	0	6	?	Tornado (F3)
3 S Mexia	27	1540CST			0	0	?	?	Hail (1.50)
1 N Coolidge	27	1540CST-							
		1541CST	Short	Narrow	0	0	?	?	Tornado (F1)
3 S Mexia	27	1545CST			0	0	?	?	Thunderstorm Wind
Mexia	27	1619CST			0	0	?	?	Thunderstorm Wind
									Hail (2.75)
4 W Mexia	27	1630CST			0	0	?	?	Thunderstorm Wind
5 SW Coolidge to	27	1645CST	16	880	0	8	7	?	Tornado (F2)
Fallon	27	1653CST							
10 E Thornton	27	1657CST			0	0	?	?	Hail (1.75)
5 E Groesbeck	27	1705CST-							
		1706CST	Short	Narrow	0	0	?	?	Tornado (F1)

A tornado touched down five miles south of Mexia and destroyed 5 homes and 7 mobile homes. Twelve additional homes were heavily damaged with the roofs of 4 homes completely blown off. In addition, several outbuildings were destroyed, 12 cars were damaged by wind-blown debris, trees were uprooted, a metal fence was blown down, and several doors and windows in buildings were blown in. A tornado touched down one mile north of Coolidge and destroyed a farmhouse and barn and blew power lines down. A downburst damaged two mobile homes three miles south of Mexia. Baseball-size hail damaged several buildings and cars (in Mexia at 1619 CST) while strong winds flipped over a mobile home and blew down power lines. A tornado touched down at Sandy (SW Coolidge) and moved southeastward through Forest Glade, Shiloh, and Fallon. A smokehouse was severely damaged in Shiloh while three mobile homes were destroyed and several trees were uprooted.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TEXAS, Northern Cont'd

Ellis County									
Midlothian	27	1540CST			0	0	?	?	Hail (1.75)
Ovilla	27	1557CST			0	0	?	?	Hail (1.75)
Dallas County									
1 N Hutchins	27	1559CST			0	0	?	?	Thunderstorm Wind
4 SE DeSoto	27	1608CST			0	0	?	?	Hail (0.88)
Lancaster	27	1610CST			0	0	?	?	Hail (0.75)
Hutchins	27	1610CST			0	0	?	?	Hail (0.75)

Strong winds blew down power lines in Hutchins.

Hunt County									
1 W Caddo Mills	27	1603CST			0	0	?	?	Thunderstorm Wind (G52)
Caddo Mills	27	1607CST			0	0	?	?	Hail (1.00)
2 W Greenville	27	1630CSt			0	0	?	?	Hail (1.75)
Navarro County									
Rodney	27	1615CST			0	0	?	?	Hail (0.75)
4 N Kerens	27	1643CST			0	0	?	?	Hail (0.75)
2 E Kerens	27	1655CST			0	0	?	?	Hail (0.75)

Freestone County									
Teague	27	1650CST			0	0	?	?	Hail (0.75)
Domie	27	1657CST			0	0	?	?	Hail (2.75)
Marion County									
5 E Jefferson	27	1658CST			0	0	?	?	Thunderstorm Wind

Strong winds uprooted trees and blew several cars off of State Highway 49 (5 E Jefferson).

Anderson County									
Cayuga	27	1658CST			0	0	?	?	Hail (0.75)
Tennessee Colony	27	1730CST			0	0	?	?	Hail (1.75)
Cayuga	27	1730CST-			0	0	?	?	Hail (1.75)
		1731CST	Short	Narrow	0	0	?	?	Tornado (F1)
Palestine	27	1800CST			0	0	?	?	Hail (1.75)

Leon County									
Marques	27	1705CST-			0	0	?	?	Tornado (F1)
		1706CST	Short	Narrow	0	0	?	?	Hail (0.75)
7 NW Jewitt	27	1720CST			0	0	?	?	Hail (1.75)
3 E Marquez	27	1743CST			0	0	?	?	Hail (1.75)

A tornado touched down in open country near Marques.

Henderson County									
Malakoff	27	1715CST			0	0	?	?	Hail (0.75)

Harrison County									
3 N Marshall	27	1732CST			0	0	?	?	Hail (1.00)
Longview	27	1756CST			0	0	?	?	Hail (1.50)
5 SW Marshall	27	1810CST			0	0	?	?	Hail (0.75)
5 E Leigh to	27	1817CST-			0	0	?	?	Hail (0.75)
6 E Leigh	27	1820CST	1	100	0	0	?	?	Tornado (F2)
1 SW Waskom	27	1827CST	Short	Narrow	0	0	?	?	Tornado (F2)

A tornado uprooted numerous trees 5 miles east of Leigh. A tornado destroyed a barn and uprooted several trees 1 mile southwest of Waskom.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TEXAS, Northern Cont'd

Angelina County Sam Rayburn Res	27	1750CST				0	0	?	?	Hail (0.75)
Gregg County Longview	27	1756CST				0	0	?	?	Hail (1.50)
Rusk County Tatum	27	1833CST				0	0	?	?	Thunderstorm Wind (G54) Hail (1.75)
Nacogdoches County Nacogdoches	27	1800CST				0	0	?	?	Thunderstorm Wind
Nacogdoches	27	1840CST				0	0	?	?	Thunderstorm Wind

A downburst at 1800 CST blew down several trees and power lines, and lifted the roof off an apartment. Strong winds (at 1840 CST) uprooted trees, blew down power lines, and damaged several buildings and automobiles.

Camp County Pittsburg	27	1825CST				0	0	?	?	Hail (0.75)
Pittsburg	27	1835CST				0	0	?	?	Thunderstorm Wind

Strong winds blew down large tree limbs in Pittsburg.

Angelina County 3 W Zavalla	27	1835CST- 1836CST	Short	Narrow		0	0	?	?	Tornado (F1)
San Augustine County 5 SW Broaddus to 4 SW Broaddus	27	1835CST- 1836CST	Short	Narrow		0	0	?	?	Tornado (F1)

A tornado that touched down over Sam Rayburn Reservoir (5 SW Broaddus) moved east and uprooted trees and blew down power lines at Jackson Hill Marina (4 SW Broaddus).

Morris County Lone Star	27	1842CST				0	0	?	?	Hail (0.75)
Cherokee County Alto	27	1842CST				0	0	?	?	Thunderstorm Wind Hail (0.75)

Strong winds blew down large tree limbs in Alto.

Shelby County 1 W Center Center	27	1848CST				0	0	?	?	Funnel Cloud Thunderstorm Wind Funnel Cloud
5 NE Center	27	1848CST				0	0	?	?	Hail (1.75)
5 E Center	27	1848CST				0	0	?	?	Hail (1.75)
10 E Center to 3 N Huxley	27	1905CST- 1915CST	4	50		0	0	?	?	Tornado (F1)

A downburst damaged trees and blew down power lines in Center. A tornado touched down 10 miles east of Center and blew down several trees as it moved east.

Trinity County Glendale	27	1900CST				0	0	?	?	Thunderstorm Wind Hail (0.75)
----------------------------	----	---------	--	--	--	---	---	---	---	----------------------------------

Strong winds blew down power lines in Glendale.

Sabine County Hemphill	27	1949CST				0	0	?	?	Thunderstorm Wind (G56)
Pineland	27	1949CST				0	0	?	?	Hail (0.88)
Brookland	27	1949CST				0	0	?	?	Hail (1.75)
Bronson	27	1949CST								Funnel Cloud

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TEXAS, Northern Cont'd

Limestone Mexia	28	1619CST			0	0	?	?	Hail (1.75)
4 W Mexia	28	1630CST			0	0	?	?	Thunderstorm Wind
10 E Thornton	28	1657CST			0	0	?	?	Hail (1.75)

A downburst destroyed a mobile home, damaged several outbuildings, and blew down numerous trees and power lines 4 miles west of Mexia.

Leon County 7 NW Jewitt	28	1720CST			0	0	?	?	Hail (0.75)
----------------------------	----	---------	--	--	---	---	---	---	-------------

TEXAS, Southern

Galveston County Galveston	01	1315CST			0	0	0	0	Hail (1.00)
-------------------------------	----	---------	--	--	---	---	---	---	-------------

Hidalgo County 10 W Mission	01	1955CST			0	0	0	0	Hail (1.75)
--------------------------------	----	---------	--	--	---	---	---	---	-------------

Grimes County Iola	02	0400CST			0	0	?	0	Thunderstorm Wind (?)
-----------------------	----	---------	--	--	---	---	---	---	-----------------------

High winds from a thunderstorm ripped the roof off a school building.

Liberty County Cleveland	06	0330CST			0	1	?	0	Thunderstorm Wind (?)
-----------------------------	----	---------	--	--	---	---	---	---	-----------------------

High winds from a thunderstorm downed trees, power lines, and poles on the southeast side of the town of Cleveland. Falling trees damaged a few homes. Debris, signs, and limbs littered the streets. Windows of cars and homes were shattered. One lady was cut by flying glass.

Hardin County Lumberton	06	0400CST			0	0	?	?	Thunderstorm Wind (?)
----------------------------	----	---------	--	--	---	---	---	---	-----------------------

High winds from a thunderstorm downed trees, power lines, and poles. Some roof damage was reported by home owners.

Orange County Mauriceville	06	0500CST			0	0	?	?	Thunderstorm Wind (?)
-------------------------------	----	---------	--	--	---	---	---	---	-----------------------

High winds from a thunderstorm blew down trees, signs, and power lines and poles. A few outbuildings or sheds were overturned. One home was damaged.

Cameron County Port Isabel	10	1900CST			0	0	?	?	Thunderstorm Wind (?)
-------------------------------	----	---------	--	--	---	---	---	---	-----------------------

High winds from a thunderstorm peeled tiles off roofs in Port Isabel. A trailer was also blown over. One wooden deck was ripped off a residence and blown onto the roof of a neighbor's house. A wind gust to 56 mph was measured at the Port Isabel Turning Basin.

Chambers County Mont Belvieu	14	0830CST			0	0	?	0	Thunderstorm Wind (?)
---------------------------------	----	---------	--	--	---	---	---	---	-----------------------

Two homes and a mobile home were unroofed by high winds from a thunderstorm.

Matagorda County Bay City	14	0830CST			0	0	?	0	Thunderstorm Wind (?)
------------------------------	----	---------	--	--	---	---	---	---	-----------------------

High winds from a thunderstorm downed trees, power lines, and poles. One tree fell on an automobile. Windows were broken out of a school. One business building had a wall to cave in.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TEXAS, Southern Cont'd

Burleson County	24	1800CST			0	0	?	?	Flooding
<p>Very heavy rains fell from the Caldwell area southward to near Somerville. One observer near Caldwell reported 13.45 inches. The western end of Lake Somerville reported 9.64 inches. The heavy rains in and around Caldwell produced some of the worst flooding in recent memory. Streets and highways in the area were flooded and many roads were closed due to the high water. About a half-dozen persons had to be rescued from flooded and stalled vehicles. There were some evacuations from flooded homes.</p>									
Milam County	24	1800CST			0	0	?	?	Flooding
<p>As much as 8 inches of rain fell in and around the town of Cameron. Streets were flooded and many roads were closed.</p>									
Lee County Dime Box	24	1930CST			0	0	0	0	Hail (1.25)
Val Verde County Del Rio	25	1937CST			0	0	?	?	Hail (1.75)
<p>Hail the size of golf balls fell in the city of Del Rio and the NWS Office.</p>									
Val Verde County Laughlin AFB	25	1948CST			0	0	?	?	Hail (1.50)
Val Verde County 9 NW Del Rio	25	1949CST			0	0	?	0	Thunderstorm Wind (G57)
Val Verde County Del Rio	25	2000CST			0	0	?	?	Flash Flooding
<p>Serious street flooding resulted from a heavy thunderstorm in and around the city of Del Rio. Many low water crossings were flooded and streets closed. One automobile was reported floating down a street.</p>									
Val Verde County Del Rio	25	2022CST			0	0	6	?	Thunderstorm Wind (G98)
	25	2010CST			0	0	?	?	Hail (2.00)
<p>High winds from a thunderstorm gusted to 112 mph at Laughlin Air Force Base. The high winds damaged 9 aircraft (not severely) and 22 buildings on the base. Two of the buildings suffered major damage. Recreational vehicles and boats on trailers were overturned. Two inch-hail also fell at the base. In the city of Del Rio, trees were uprooted and fences knocked over near a mobile home park on the north side of the town. There was minor damage to a house in the same area. Utility poles in the area listed from the weight of fallen limbs on power lines. An apartment complex on the east side of the city, across from Laughlin Air Force Base reported some roof damage.</p>									
Kinney County Sm Half	25	2230CST			0	0	?	?	Flash Flooding
<p>Five to 7 inches of rain fell from the Bracketville area southward to Spofford. Streets and highways in the area were flooded and some were closed. Many low-water crossings were flooded.</p>									
Maverick County Nrn Half	25	2230CST			0	0	?	?	Flash Flooding
<p>Up to 9 inches of rain fell in the northern part of the county mainly near Quemado. Many roads were closed in the area. The runoff from the heavy rains caused the Rio Grande River at Eagle Pass to rise above flood stage. A carnival that had temporarily located in the flood plain lost some equipment due to the high water. One rancher lost 24 head of cattle that drowned in the flood plain of the river.</p>									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TEXAS, Southern Cont'd

Uvalde County Uvalde	25	2240CST			0	0	?	?	Thunderstorm Wind (?)
High winds from a thunderstorm blew over trees and signs in Uvalde. One tree fell on a residence damaging the roof. One mobile home was destroyed.									
Uvalde County Con Can	26	0110CST			0	0	?	?	Thunderstorm Wind (?)
High winds from a thunderstorm damaged a mobile home, downed trees and limbs around Con Can. Cars were reported damaged from falling trees.									
Bexar County San Antonio	26	0415CST			0	0	?	?	Thunderstorm Wind (?)
	26	0415CST			0	0	?	?	Hail (1.75)
High winds from a thunderstorm uprooted trees on the northwestern side of the city of San Antonio. The high winds blew out some windows at the South Texas Medical Center. A nearby apartment complex reported roof damage. Cars were damaged from falling trees and roofing material. Hail the size of golf balls fell.									
Comal County Canyon Lake	26	0430CST			0	0	0	0	Thunderstorm Wind (?)
High winds from a thunderstorm uprooted trees near Canyon Lake. A roof was blown off a residence.									
Hays County Dripping Springs	26	0515CST			0	0	0	0	Thunderstorm Wind (?)
High winds from a thunderstorm, estimated at 60 mph, blew over some trees in Dripping Springs.									
Hays County San Marcos	26	0530CST			0	0	?	0	Thunderstorm Wind (?)
High winds from a thunderstorm blew the roof off a lumber yard in San Marcos.									
Travis County NW Austin	26	0645CST			0	0	?	?	Thunderstorm Wind (?)
High winds from a thunderstorm blew over trees and did some roof damage over the northwestern side of the city of Austin.									
Fort Bend County	26	1300CST			0	0	?	?	Thunderstorm Wind (?)
High winds from a thunderstorm caused roof damage and blew over some trees in the Richmon - Rosenberg area.									
Harris County Highlands	26	1500CST			0	0	?	?	Thunderstorm Wind (?)
High winds from a thunderstorm damaged 5 mobile homes in Highlands. The high winds also blew over trees. One tree fell on a pick-up. A recreational vehicle (Winnebago) was blown over. In Bay City, trees were blown over and one commercial building was damaged.									
Chambers County Nrn Part	26	1500CST			0	0	?	?	Thunderstorm Wind (?)
High winds from a thunderstorm flipped over a tractor-semitrailer on Interstate 10 in the northern part of the county.									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TEXAS, Southern Cont'd

Brazos County
Bryan 27 1723CST 0 0 ? ? Hail (1.75)

Hardin County
1 N Village Mills 27 1745CST 0 0 ? ? Hail (0.75)

Brazos County
2 W Bryan 27 1758CST Short Narrow 0 0 0 0 Tornado (FO)

Seven confirmed funnel clouds were observed just west and northwest of the Bryan area. One of the funnels touched the ground in an open field 2 miles west of Bryan. There were no injuries or damage.

Grimes County
Navasota 27 1834CST 0 0 ? ? Hail (2.75)
27 1834CST 0 1 ? ? Thunderstorm Wind

Hail the size of baseballs fell near Navasota. High winds from the same storm did considerable damage to a recreational camp. The winds blew in windows, ripped the roof off a building, and caused a wall to collapse. Fallen trees blocked roads in the area for a short time. One woman was hurt from flying glass.

Walker County
New Waverly 27 1845CST 0 0 ? ? Hail (1.00)

Jasper County
Sam Rayburn Lake 27 1902CST 0 0 0 0 Hail (0.75)

Harris County
Houston 27 2000CST 0 1 ? ? Thunderstorm Wind
27 2000CST 0 0 ? ? Hail (1.75)

High winds from a thunderstorm severely damaged 15 homes and 100 units of an apartment complex on the west side of Houston. There were windows blown out of business buildings. Two churches were damaged. Trees, signs, fences, power lines, and poles were downed. The damage path across the west side of the city was about 10 miles long. One woman was hurt from flying glass. Hail the size of golf balls fell on the northwest side near the intersection of Highways 1x 6 and US 290 and also on the southwest side of the city.

Brazoria County
West Columbia 27 2115CST 0 0 ? ? Hail (0.75)
27 2115CST 0 0 ? ? Thunderstorm Wind (?)

High winds caused some damage to trees and roofs in West Columbia.

Brazoria County
Alvin 27 2115CST 0 0 0 0 Hail (0.75)

Galveston County
Galveston 27 2115CST 0 0 0 0 Hail (0.75)

Galveston County
Galveston 27 2150CST 0 0 ? 0 Hail (1.75)

TEXAS, Western

Andrews County
10 W Andrews 01 1344CST 0 0 0 0 Hail (1.75)
Andrews 01 1350CST 0 0 0 0 Hail (0.75)

The public reported golf ball-size hail 10 miles west of Andrews at 1344CST. A SKYWARN spotter reported dime-size hail in Andrews at 1350 CST. No damage was reported.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TEXAS, Western Cont'd

Runnels County
6 SE Winters

01 1510CST 0.5 50 0 0 0 0 Tornado (FO)

Winters Police Department reported a tornado 6 miles southeast of Winters at 1510CST. No damage was reported.

Ector County
2 N Odessa

01 1525CST 0 0 0 0 Hail (1.00)

The public reported hail up to 1 inch in diameter on the northern edge of Odessa. No damage was reported.

Midland County
6 W Midland
Midland

01 1525CST 0 0 0 0 Hail (0.75)
01 1530CST 0 0 3 3 Hail (1.00)

The public reported dime-size hail in western Midland County at 1525CST. SKYWARN spotters, the public, and off-duty NWS personnel all reported hail to 1 inch accumulating in drifts 3 to 4 inches deep. Hail fell in Midland from 1530CST to 1555CST. Only minor damage was reported.

Loving County
Mentone

01 1922CST 0 0 2 0 Hail (1.50)

The Loving County Sheriff's Office in Mentone reported ping-pong ball-size hail at 1922CST. No significant damage was reported.

Winkler County
Wink

01 2010CST 0 0 0 0 Hail (1.75)

A SKYWARN spotter reported golf ball-size hail near Wink at 2010CST.

Ward County
Pyote
10 S Wickett

01 2020CST 0 0 2 0 Hail (1.75)
01 2033CST 0 0 2 0 Hail (1.75)

A SKYWARN spotter reported golf ball-size hail near Pyote at 2020CST. At 2033CST, the Ward County Sheriff's Office reported hail up to golf ball-size 10 miles south of Wickett.

Hockley County
Levelland

03 1630CST 0 0 4 0 Lightning

Lightning struck and damaged a storage tank and power lines northeast of Levelland.

Fisher County
SW Fisher County
3 W Roby
Wm. Fisher County

05 1624CST 0.5 40 0 0 0 0 Tornado (FO)
05 1645CST 0.8 70 0 0 0 0 Tornado (FO)
05 1655CST 0 0 2 0 Hail (1.00)

A small tornado was reported in southwest Fisher County at 1624CST near Farm to Market road 1606. Another tornado was reported 3 miles west of Roby at 1645CST. Hail 1 inch in diameter was reported in western Fisher County at 1655CST. No significant damage was reported.

Tom Green County
San Angelo

05 2115CST 0 0 2 0 Hail (1.00)

Hail 1 inch in diameter was reported in the west part of San Angelo by an off-duty NWS employee.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TEXAS, Western Cont'd

Ochiltree County
12 S Perryton

16	1825CST	0	0	0	0	Hail (0.75)
----	---------	---	---	---	---	-------------

A spotter reported dime-size hail in Perryton at 1825CST. No damage was observed.

Lipsomb County

Booker

16	1909CST	0	0	2	0	Hail (1.75)
----	---------	---	---	---	---	-------------

Lipscomb

16	1909CST	0	0	0	0	Hail (0.75)
----	---------	---	---	---	---	-------------

Lipscomb

16	1909CST	0	0	0	0	Thunderstorm Wind (G52)
----	---------	---	---	---	---	-------------------------

The Lipscomb County Sheriff's Office reported golf ball-size hail in Booker at 1909CST. At the same time, the Sheriff's Office observed dime-size hail and 50 to 60 mph wind gusts in Lipscomb. No significant damage was reported.

Lipscomb County

Higgins

16	1920CST	0	0	5	3	Thunderstorm Wind (G78)
----	---------	---	---	---	---	-------------------------

Follett

16	1925CST	0	0	3	2	Hail (1.75)
----	---------	---	---	---	---	-------------

A powerful thunderstorm moved across eastern Lipscomb County. Downburst winds estimated at 90 mph damaged the school roof and several other buildings around town. The wind also derailed seven railroad cars east of Higgins. Hail driven by the strong winds damaged homes and other buildings in Follett.

Kent County

Jayton

16	1930CST	0	0	0	0	Hail (0.75)
----	---------	---	---	---	---	-------------

Girard

16	1948CST	0	0	1	0	Hail (1.75)
----	---------	---	---	---	---	-------------

The Kent County Sheriff's Office reported dime-size hail in Jayton at 1930 CST, and golf ball-size hail in Girard at 1948CST. No significant damage was reported.

Hall County

Memphis

16	2025CST	0	0	0	0	Hail (0.75)
----	---------	---	---	---	---	-------------

Dime-size hail fell in Memphis, according to the Memphis Police Department. No damage was observed.

Collingsworth County
4 W Wellington

16	2055CST	0	0	0	0	Hail (0.75)
----	---------	---	---	---	---	-------------

Dime-size hail was reported by the Collingsworth County Sheriff's Office west of Wellington. No damage was observed.

Childress County

Nm. Childress Co.

16	2100CST	0	0	0	0	Hail (0.75)
----	---------	---	---	---	---	-------------

The Childress County Sheriff's Office observed dime-size hail in the northern part of the county. No damage was reported.

Donley County

Clarendon

16	2130CST	0	0	2	0	Hail (1.50)
----	---------	---	---	---	---	-------------

The Donley County Sheriff's Office and the public reported hail up to Ping-Pong ball-size in Clarendon between 2130 and 2134. No significant damage was observed.

Cottle County
4 N Paducah

17	0042CST	0	0	0	0	Hail (0.75)
----	---------	---	---	---	---	-------------

Dime-size hail fell north of Paducah at 0042CST, according to the Cottle County Sheriff's Office. No damage was reported.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TEXAS, Western Cont'd

Martin County

Stanton	18	0415CST				0	0	4	0	Lightning
13 NE Stanton	18	0730CST				0	0	4	0	Lightning

Lightning struck and damaged battery tanks near and 13 miles northeast of Stanton.

Midland County

Midland	18	0600CST				0	0	4	0	Lightning
---------	----	---------	--	--	--	---	---	---	---	-----------

Lightning struck and damaged storage tanks on the northeast side of Midland.

Reeves County

Pecos	18	2115CST- 2129CST				0	0	0	0	Thunderstorm Wind (G61)
						0	0	0	0	Thunderstorm Wind (G52)

Tom Green County

San Angelo	19	0630CST				0	0	2	0	Hail (1.75)
San Angelo	19	0746CST				0	0	1	0	Hail (1.00)

Up to golf ball-size hail fell in San Angelo at 0630CST. At 0746CST, a pilot on the ground at Mathis Field reported quarter-size hail. No significant damage was observed with either event.

Cochran County

Neeleyward	20	0020CST				0	0	0	0	Hail (0.75)
------------	----	---------	--	--	--	---	---	---	---	-------------

The Cochran County Sheriff's Office reported dime-size hail near Neeleyward. No damage was observed.

Reeves County

Balmorhea	21	1600CST				0	0	1	0	Hail (1.00)
Balmorhea	21	1622CST				0	0	1	0	Hail (1.50)

SKYWARN spotters reported 1-inch-diameter hail near Balmorhea at 1600 CST, and walnut-size hail in Balmorhea at 1622CST. No significant damage was observed.

El Paso County

El Paso	21	1605CST				0	0	2	0	Hail (1.75)
El Paso	21	1610CST				0	0	2	0	Hail (1.25)

Off-duty NWS personnel reported hail up to golf ball-size in northeast El Paso between 1605 and 1610CST. No significant damage was reported.

Reeves County

Balmorhea	22	1734CST				0	0	2	0	Hail (1.00)
Balmorhea	22	1740CST				0	0	4	2	Hail (2.00)

The public reported quarter-size hail in Balmorhea at 1734CST, and hen egg-size hail at 1740CST. The hail, which fell for nearly half an hour, broke windows and damaged vehicles throughout the city. Hail drifts were observed up to 4 inches deep.

Brewster County

Big Bend Natl. Pk.	22	1810CST				0	0	0	0	Hail (1.50)
--------------------	----	---------	--	--	--	---	---	---	---	-------------

A Park Ranger at the Big Bend National Park reported walnut-size hail widespread through the park. No damage was noted.

Hemphill County

Lake Marvin	22	1856CST				0	0	2	1	Hail (1.75)
-------------	----	---------	--	--	--	---	---	---	---	-------------

The Hemphill County Sheriff's Office reported golf ball-size hail at Lake Marvin east of Canada. No significant damage was observed.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
		LOCAL STANDARD			K ILL D	I N J U R I E D	P R O P E R T Y	C R O S S	

TEXAS, Western Cont'd

Hutchinson County

Borger	23	1656CST			0	0	0	0	Hail (0.75)
Borger	23	1705CST			0	0	1	0	Hail (0.75)

A spotter observed dime-size hail in Borger at 1656CST. At 1705CST, Borger Police reported dime-size hail in Borger. No significant damage was noted.

Glasscock County

St. Lawrence	23	1700CST			0	0	0	0	Hail (1.00)
5 W Garden City	23	1710CST			0	0	2	0	Hail (2.50)

The public reported quarter-size hail at St. Lawrence, and tennis ball-size hail 5 miles west of Garden City. No significant damage was noted.

Sherman County W Sherman Co.

23	1705CST			0	0	1	0	Hail (1.75)
----	---------	--	--	---	---	---	---	-------------

Up to golf ball-size hail fell on Highway 287 in western Sherman County, according to the public. No significant damage was noted.

Scurry County Lake Thogas

23	1715CST			0	0	3	0	Hail (1.00)
----	---------	--	--	---	---	---	---	-------------

Hail up to 1 inch in diameter, driven by 50 mph winds, broke 9 storm windows in a residence near Lake J.B. Thomas, in southwest Scurry County.

Armstrong County Claude

23	1730CST			0	0	0	0	Hail (0.75)
----	---------	--	--	---	---	---	---	-------------

The public reported dime-size hail in Claude.

Scurry County 8 W Snyder

23	1750CST			0	0	0	0	Hail (1.00)
----	---------	--	--	---	---	---	---	-------------

Hail the size of quarters fell in western Scurry County. No damage was reported.

Reagan County

16 N Stiles	23	1800CST	1.2	80	0	0	0	0	Tornado (FO)
16 N Stiles	23	1800CST			0	0	3	0	Thunderstorm Wind
16 N Stiles	23	1800CST			0	0	1	0	Hail (1.50)

The public observed a small tornado and ping-pong ball-size hail 16 miles north of Stiles at 1800CST. Downburst winds from this thunderstorm damaged a barn at the same location.

Briscoe County

5 NE Silverton	23	1815CST	1.3	70	0	0	0	0	Tornado (FO)
7 NE Silverton	23	1835CST	1.0	60	0	0	0	0	Tornado (FO)

A SKYWARN spotter observed two tornadoes northeast of Silverton. Tornado #1 touched down 5 miles northeast of Silverton and was on the ground for 3 minutes. Tornado #2 touched down 7 miles northeast of Silverton. Both tornadoes were over open country and no damage was reported.

Donley County Clarendon

23	1930CST			0	0	1	0	Hail (0.88)
----	---------	--	--	---	---	---	---	-------------

The Clarendon Police Department reported nickel-size hail at 1930CST.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TEXAS, Western Cont'd

Wheeler County									
4 W New Mobeetie	23	1930CST			0	0	0	0	Hail (0.75)
Mobeetie	23	1936CST			0	0	0	0	Hail (0.75)

The Wheeler County Sheriff's Office reported dime-size hail west of New Mobeetie at 1930CST. Six minutes later, the public observed dime-size hail in Mobeetie. No damage was reported with either event.

Ector County									
Gardendale	23	2130CST			0	0	1	0	Hail (1.75)

The public reported up to golf ball-size hail in Gardendale at 2130CST. No significant damage was noted.

Midland County									
Midland	23	2140CST			0	0	3	0	Thunderstorm Wind (G52)
Midland	23	2205CST			0	0	0	0	Hail (0.75)
10 SSW Midland	23	2230CST			0	0	0	0	Hail (0.75)

Off-duty NWS personnel reported wind gusts to 60 mph in Midland at 2140CST. One house sustained minor structural damage. SKYWARN spotters reported dime-size hail in the northwest part of Midland at 2205CST, and the public reported dime-size hail in southwest Midland County at 2230CST. No damage was reported with the hail events.

Crane County									
6 N Crane	23	2204CST			0	0	0	0	Hail (0.75)

The public observed dime-size hail north of Crane.

Mitchell County									
Colorado City	24	0145CST			0	0	0	0	Hail (0.88)

Nickel-size hail fell in Colorado City between 0145 and 0200CST.

Donley County									
Clarendon	24	1534CST			0	0	2	0	Hail (1.75)
Clarendon	24	1605CST			0	0	1	0	Hail (1.00)
Alanreed	24	1725CST			0	0	2	0	Hail (1.75)

The Clarendon Police reported up to golf ball-size hail in and southwest of Clarendon between 1534 and 1541CST. At 1605CST a spotter observed quarter-size hail in Clarendon. Off-duty NWS personnel reported golf ball-size hail southwest of Alanreed in northern Donley County at 1725CST. No significant damage was noted with the hail events.

Gray County									
McLean	24	1645CST			0	0	1	0	Hail (1.75)
3 S McLean	24	1707CST			0	0	1	0	Hail (1.75)
5 S McLean	24	1711CST	1.4	80	0	0	0	0	Tornado (FO)
5 S McLean	24	1716CST			0	0	2	0	Hail (1.75)
SE Gray Co.	24	1805CST			0	0	1	0	Hail (1.00)

The Donley County storm moved across southeastern Gray County. The Shamrock and Pampa Police observed golf ball-size hail in McLean between 1645 and 1700CST. The Gray County Sheriff's Office reported golf ball-size hail 3 miles south of McLean at 1707 CST, and a tornado 5 miles south of McLean at 1711 CST. The tornado, which touched down twice, remained over open country and caused no damage. The Sheriff's Office observed golf ball-size hail 5 miles south of McLean between 1716 and 1728 CST. An off-duty NWS employee reported quarter-size hail along Interstate 40 in southeastern Gray County.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TEXAS, Western Cont'd

6 SE McLean	24	2140CST	1.5	90	0	0	0	0	Tornado (FO)
5 SE McLean	24	2215CST			0	0	2	1	Hail (2.75)

Another supercell thunderstorm developed over Donley County. The Hedley Police reported quarter-size hail in Hedley at 2125CST. A storm chaser observed golf ball-size hail, 70 mph wind gusts, and a tornado southeast of McLean. Half an hour later, the Donley County Sheriff's Office reported baseball-size hail southeast of McLean. No significant damage was noted.

Gray County McLean	24	2230CST			0	0	4	1	Hail (1.00)
-----------------------	----	---------	--	--	---	---	---	---	-------------

As the Donley County storm moved northeast into Gray County, the Pampa EOC reported quarter-size hail which damaged several roofs in the city of McLean.

Wheeler County 10 W Shamrock	24	2230CST	3.5	140	0	1	3	1	Tornado (F1)
Shamrock	24	2317CST	4.0	250	0	0	4	1	Tornado (F1)

The Gray County storm became tornadic as it moved into Wheeler County. At 2230CST, a tornado touched down 10 miles west of Shamrock. The Wheeler County Sheriff was slightly injured as his patrol car was damaged by the tornado. This tornado moved north-northeast a distance of 3.5 miles before dissipating 5 miles northwest of Lela. A tornado touched down at 2317CST near Shamrock, damaging a truck stop, a farmhouse, and a mobile home. After remaining on the ground for 4 miles, the tornado lifted 4 miles north-northeast of Shamrock. No injuries were reported from the second tornado.

Oldham County Boys Ranch	24	2300CST			0	0	1	1	Hail (1.00)
-----------------------------	----	---------	--	--	---	---	---	---	-------------

A spotter reported quarter-size hail at Boys Ranch in eastern Oldham County. No significant damage was observed.

Sherman County Texhoma	24	2330CST			0	0	1	0	Hail (0.88)
---------------------------	----	---------	--	--	---	---	---	---	-------------

A spotter observed nickel-size hail near Texhoma.

Potter County NW Potter Co.	24	2330CST			0	0	0	0	Hail (0.75)
--------------------------------	----	---------	--	--	---	---	---	---	-------------

The public reported dime-size hail in northwest Potter County.

Hartley County Channing	24	2330CST			0	0	0	0	Hail (0.75)
----------------------------	----	---------	--	--	---	---	---	---	-------------

The public reported dime-size hail in Channing. No damage was observed.

Moore County 5 S Dumas	24	2342CST			0	0	1	1	Hail (1.75)
Nrn. Moore Co.	24	2354CST			0	0	1	0	Hail (1.00)

The Moore County Sheriff's Office reported golf ball-size hail from 5 miles south of Dumas to Sunray. The Dumas Police Department observed quarter-size hail in northern Moore County. No significant damage was noted from either event.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TEXAS, Western Cont'd

Moore County

Dumas	25	0057CST			0	0	1	0	Hail (1.00)
Dumas	25	0155CST			0	0	0	0	Hail (0.75)
Dumas	25	0208CST			0	0	0	0	Hail (0.75)

Recurrent thunderstorms over Moore County brought sporadic large hail to Dumas. At 0057CST, an off-duty NWS employee reported quarter-size hail. The Moore County Sheriff's Office observed dime-size hail at 0155CST, and KDDD radio station reported dime-size hail at 0208CST. No significant damage was observed.

Gaines County 9 W Seminole

	25	0100CST			0	0	0	0	Thunderstorm Wind (G52)
--	----	---------	--	--	---	---	---	---	-------------------------

The public reported wind gusts to 60 mph 9 miles west of Seminole. No damage was reported.

Sherman County 5 NE Cactus

	25	0130CST			0	0	1	0	Hail (1.00)
--	----	---------	--	--	---	---	---	---	-------------

The Cactus Fire Department observed dime-to quarter-size hail 5 miles northeast of Cactus in southern Sherman. No significant damage was noted.

Terry County Gomez

	25	0139CST			0	0	2	1	Hail (1.75)
--	----	---------	--	--	---	---	---	---	-------------

The Terry County Sheriff's Office reported golf ball-size hail in Gomez at 0139CST. No significant damage was observed.

Crane County Crane

	25	0145CST			0	0	0	0	Hail (0.75)
--	----	---------	--	--	---	---	---	---	-------------

SKYWARN spotters reported dime-size hail in Crane. No damage was observed.

Dawson County Welch

	25	0215CST			0	0	4	3	Thunderstorm Wind
--	----	---------	--	--	---	---	---	---	-------------------

Thunderstorm winds moving through northwest Dawson County damaged a roof, an irrigation system, and uprooted seven large trees.

Lubbock County Slaton

	25	0250CST			0	0	2	1	Hail (1.75)
--	----	---------	--	--	---	---	---	---	-------------

The Slaton Police Department reported golf ball-size hail in Slaton at 0250CST. No significant damage was observed.

Upton County Rankin

	25	0250CST			0	0	0	0	Hail (0.75)
--	----	---------	--	--	---	---	---	---	-------------

SKYWARN spotters reported dime-size hail in Rankin. No damage was reported.

Moore County 2 W Sunray

	25	0430CST			3	0	3	2	Flash Flood
--	----	---------	--	--	---	---	---	---	-------------

At 0430CST, three people in a vehicle attempted to cross a flooded highway west of Sunray. The vehicle was washed off the highway into a water-filled landfill. The three passengers vacated the vehicle and attempted to swim back to the highway. One person was washed into some trees, but could not hang on and was washed away. The other two went underwater and did not resurface. F270 M190 M200

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

TEXAS, Western Cont'd

Concho County
1 S Eden 25 1752CST 0 0 2 1 Hail (1.75)

The Concho County Sheriff's Office observed golf ball-size hail south of Eden at 1752CST. No significant damage was noted.

Culberson County
NW Culberson County 29 0850CST 0 0 0 0 High Wind (G55)

Westerly gradient winds gusted to 55 knots at Guadalupe Pass. No damage was reported.

UTAH

UTZ001-003
Northwest Valleys 16 2200MST-
17 0700MST 0 0 4 0 High Wind

A combination of a strong surface pressure gradient across Wyoming and northern Utah, easterly flow aloft, and a cluster of dissipating thunderstorms over southwest Wyoming during the evening set off an episode of strong east winds at the mouths of east-west oriented canyons from Salt Lake County north to the Idaho border. Highest winds were estimated at 90 mph in Weber County with peak winds generally in the 60 to 70 mph range in other locations. Some damage reports included a camper blown off a truck, trees down, and a trampoline blown through a living room window.

Weber County
5 NW Ogden 23 1645MST 0.1 5-15 0 1 4 0 Tornado (FO)

A tornado briefly touched down in Farr West, a subdivision northwest of Ogden. A person was thrown from a bicycle and some roof damage was reported.

UTZ004-005-007-008 28 1330MST-
1900MST 0 0 4 0 High Wind

UTZ001-003-010
Salt Lake, Utah
and Cache
Counties, Northern
Mountains 28 1100MST-
29 0900MST 0 0 1 5 Late Freeze
Heavy Snow

A strong, cold late season storm moved into Utah on the morning of the 28th. The associated cold front produced high winds of over 60 mph. Roofs and power lines were damaged in the Vernal, Price, and Richfield areas. A tractor-semitrailer was blown over near Green River. The cold airmass with the storm brought up to 4 inches of snow to the valleys south of the Great Salt Lake and 6 to 10 inches to portions of the northern mountains. Temperatures were in the 20s by morning in fruit-growing areas of northern Utah.

UTZ001-003
Salt Lake, Utah
and Cache
Counties 30 0000MST-
0900MST 0 0 0 5 Late Freeze

Cold air persisted over northern Utah for a second night and morning lows were even colder in some of the fruit-growing areas. Temperatures ranged from the upper teens to mid 30s.

VERMONT

None reported .

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

VIRGINIA

Bedford County	01	1830EDT			0	0	?	0	Hail (1.50)
Pittsylvania County	01	1900EDT							Thunderstorm Winds

Sheriff's departments reported hail up to 1.5 inches in diameter in both counties, along with downed trees.

Buckingham County
Central
Southwestern

02	1535EDT-				0	0	?	?	Hail (1.75)
02	1546EDT				0	0	?	?	Hail (0.88)
02	1550EDT								

Prince Edward County

02	1632EDT-				0	0	?	?	Hail (1.75)
	1650EDT								

Marble- to golf ball-size hail fell at Prospect.

Goochland County	02	1710EDT-			0	0	?	?	Hail (1.75)
	02	1745EDT			0	0	?	?	

Marble- to golf ball-size hail fell at several places.

Cumberland County	02	1717EDT			0	0	?	?	Hail (1.50)
-------------------	----	---------	--	--	---	---	---	---	-------------

Dime- to half-dollar-size hail southeast part of county.

Cumberland County	02	1730EDT			0	0	?	?	Hail (1.00)
-------------------	----	---------	--	--	---	---	---	---	-------------

Large marble-size hail at Cartersville (Northern part of county).

Powhatan County	02	1740EDT			0	0	?	?	Hail (2.00)
-----------------	----	---------	--	--	---	---	---	---	-------------

Silver-dollar-size hail just north of Route 60 (northern part of county).

Amelia County	02	1750EDT			0	0	?	?	Hail (0.75)
Chesterfield County	02	1840EDT			0	0	?	?	Hail (0.75)
	02	1848EDT			0	0	?	?	Hail (1.75)
Henrico County	02	1938EDT			0	0	?	?	Hail (1.00)

Chesterfield County RIC Bon Air	02	2120EDT			0	0	?	?	Hail (0.75)
---------------------------------------	----	---------	--	--	---	---	---	---	-------------

Henrico County	02	2101EDT-			0	0	?	?	Hail (1.00)
		2115EDT							

Several reports of 3/4- to 1-inch hail county-wide.

Pittsylvania County	02	1830EDT	.10	10	0	0	2	0	Tornado (FO)
---------------------	----	---------	-----	----	---	---	---	---	--------------

Eyewitnesses reported a small tornado 3 miles north of Gretna which twisted tops off about 20 trees and damaged a few outbuildings.

Chesterfield County Chester 10 SW RIC	02	2053EDT	.25	100	0	0	6	0	Tornado (F2)
---	----	---------	-----	-----	---	---	---	---	--------------

An automobile dealership along U.S. Routes 1 and 301 was damaged. Thick plate glass showroom windows were shattered, bay doors blown off, and structural steel beams bent. Twenty-five new cars were damaged. Two residences in the area were also damaged; total estimates \$500,000.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

VIRGINIA Cont'd

Brunswick County
3 SE Lawrenceville

02 2120EST 1.0 20 0 1 5 0 Tornado (F1)

A tornado lifted and destroyed a mobile home on Route 685. Three people were in the home and one was slightly injured. Another residence and several outbuildings were slightly damaged.

Fairfax County

02 Late Evening 0 0 ? 0 Flood

High water on several low-lying roads mostly in the western part of the county caused many cars to stall.

VAZ005-010>012

06 2000EDT-
07 0800EDT 0 0 ? 0 Heavy snow

Heavy wet snow fell in the northern and central Shenandoah Valley and in the eastern foothills. The greatest amounts were 7 to 12 inches in the Harrisonburg area. Other totals include: Augusta County, 4 to 8 inches; Culpeper County, 6 to 7 inches.

Fauquier County

25 1450EDT-
1500EDT 0 0 ? 0 Thunderstorm Winds

Winds estimated at 80 mph were reported between Marshall and Warrenton in Fauquier County at about 1500 EDT; trees were later found uprooted and knocked down in the central part of the county.

Stafford and Spotsylvania Counties

25 1609EDT 1 3 4 0 Thunderstorm Winds

A warehouse under construction near Fredericksburg, on the Stafford/Spotsylvania County line, collapsed; but it is not sure that winds caused the collapse. Weakening thunderstorms were in the area at the time. A worker on a beam died when the beam gave way; he fell and the beam landed on him. M160.

Stafford County

29 1900EDT 0 0 ? ? Flood

State Route 623 and Harrell Road were closed due to a small creek overflowing its banks after heavy rain.

Pulaski County

30 1820EDT 0 0 ? 0 Thunderstorm Winds

Police in the city of Pulaski reported that winds downed a tree whose size was not indicated.

City of Bristol

30 1825EDT 0 0 ? 0 Hail (1.75)

Washington County
City of Bristol

30 1825EDT 0.3 20 0 0 4 ? Tornado (FO)

A tornado touched down in the north part of Bristol and followed a short and intermittent path into adjacent Washington County. It was preceded by large hail and winds estimated in excess of 55 mph. Several large trees were uprooted or knocked down just outside the Bristol city limits, and a few barns were partly unroofed.

WASHINGTON

WAZ009-013
Central Basin
and South Central
Washington

25 1600PST 0 0 0 0 High Wind

A vigorous frontal system moving across eastern Washington caused strong southwesterly winds across the central basin with areas of blowing dust. Wind gusts to 45 mph were recorded at Hanford and in the Tri-Cities area. A few trees and some branches were blown down in the Kennewick and Sunnyside areas, causing little damage. Visibilities down to zero at times in blowing dust were responsible for a pair of traffic accidents about five miles south of Moses Lake. One person was injured. Local roads elsewhere across the central basin were closed at times during the afternoon and evening due to the low visibilities.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

WEST VIRGINIA

WV 007-008-009-010-012
Mountains

06	0400EST-								
07	0100EST				0	0	0	0	Heavy Snow

A spring storm left 2 to 10 inches of snow over the higher elevations. The Beckley/Lewisburg region north to Preston County was affected. The weight of the snow broke tree limbs and damaged some shrubbery. Numerous power outages occurred in Randolph and Pendleton counties. Selected snow depths included: Snowshoe 10 inches; Thomas and Glady 9 inches; McRoss and Webster Springs six inches; and 5 inches at Elkins.

WV 010-011
Eastern Panhandle

08									
09									
13									
19	0700EST				0	0	0	?	Freeze

Several mornings of subfreezing weather affected the peach and apple orchards most severely. Prolonged mild weather since January caused early blooming in the spring vegetation. Peak blooms on fruit trees were at least 2 weeks early. The coldest dawn temperatures occurred on the 13th, when the orchards recorded readings of 20 to 25°. State and Federal agricultural agencies estimate a 50% loss in production to peaches and Red Delicious apples.

WV 003
Cabell County

28	1646EST								Wind (G41)
----	---------	--	--	--	--	--	--	--	------------

WV 022
Wood County

28	1905EST								High Wind (G53)
----	---------	--	--	--	--	--	--	--	-----------------

Winds gusted briefly to 61 mph at the Wood County Airport at Parkersburg. The Tri-State Airport at Huntington measured a 47 mph gust. These winds were associated with an area of weakening showers along a cold front. No thunder was observed.

WISCONSIN

Pierce County
Ellsworth
Hager City

23	0118CST								Hail (0.75)
23	0120CST				0	0	0	0	Hail (1.00)

Severe thunderstorms dropped hail up to 1-inch in diameter at Ellsworth and Hager city.

Green County
5 N Monroe

27	1650CST								Thunderstorm Winds
----	---------	--	--	--	--	--	--	--	--------------------

Richland County
Excelsior

27	1655CST								Thunderstorm Winds
----	---------	--	--	--	--	--	--	--	--------------------

Vernon County
Hillsboro

27	1700CST								Thunderstorm Winds
----	---------	--	--	--	--	--	--	--	--------------------

Several severe thunderstorms knocked down trees and power lines and damaged roofs and sheds in the communities of Monroe, Excelsior, and Hillsboro.

WYOMING

Carbon County
Rawlins

12	1525MST								Thunderstorm Winds (G60)
----	---------	--	--	--	--	--	--	--	--------------------------

A thunderstorm produced a wind gust to 69 mph at the Rawlins Airport.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

WYOMING Cont'd

Campbell County
Gillette 22 1630MST-1700MST 0 0 3 0 **Thunderstorm Winds (G58)**

A thunderstorm produced wind gusts to 67 mph in the Gillette area, damaging some roofs and breaking a few windows.

Sweetwater County
25 NW Rock Springs 24 1025MST 0 0 0 0 **Funnel Cloud**

A funnel cloud was briefly sighted 25 miles northwest of Rock Springs.

WYZ004-005-006
Big Horn Mountains 26 1400MST-
Northern Front 27 0900MST 0 0 0 0 **Heavy Snow**
Range
Northeast Plains

A spring snowstorm dumped heavy snow on northeast Wyoming. Highest amounts fell in the Big Horn Mountains (18 inches), with about 4 to 12 inches elsewhere. The snow was particularly wet and heavy across most of Campbell County and the western parts of Crook and Weston counties. Most of the damage was to power lines as approximately 400 poles went down. Power was out in some areas for up to 3 days.

WYZ001
Northwest Mountains 28 0200MST-2300MST 0 0 0 0 **Heavy Snow**

A spring snowstorm brought about 6 to 12 inches of snow to the mountains of northwest Wyoming. Valley locations received about 3 to 6 inches.

WYZ014-015-016-017
Red Desert 28 1200MST-
Southern Mountains 2200MST 0 0 0 0 **High Wind**
Laramie Valley
Southeast Plains

Strong winds blew across much of southeast Wyoming in the wake of a vigorous cold front. Speeds averaged about 35 to 40 mph, with several areas reporting gusts to 60 mph.

ALASKA, Southeastern

None reported.

ALASKA, Southern

Western Aleutians 3/31 N/A **High Winds**
Pribilofs 4/2

A low moved out of the western north Pacific and crossed the western Aleutians then moved into the southern Bering Sea and intensified to 958 mb before moving east and weakening. Northwest winds gusted to 68 mph at Amchitka, to 66 mph at Shemya on the 1st, and to 61 mph at Adak on the 2nd. Saint Paul reported east winds to 55 mph along with snow and blowing snow on the morning of the 1st.

Eastern Aleutians 6-7 N/A **High Winds**
Alaska Peninsula

A stationary moderate low south of the eastern Aleutians brought strong northwest winds to the eastern Aleutians and southeast winds to the Alaska Peninsula. Winds at Port Heiden gusted to 68 mph both days and Nikolski reported gusts to 55 mph on the 7th.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

ALASKA, Southern Cont'd

Cook Inlet 14-15 N/A 5 Flood

Heavy runoff from melting snow washed out Kalifornski Beach Road south of Kenai when a culvert was overwhelmed by water, and runoff flooded several Kenai streets. The Kalifornski Beach Road washout was 120 feet wide and 50 feet deep and is expected to cost \$250,000 to repair.

HAWAII

None reported.

PACIFIC

None reported.

SAN JUAN, P.R.

None reported.

ST. THOMAS, V.I.

None reported.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

CORRECTIONS

SOUTH CAROLINA Cont'd

Add:

SCZ006
South Midlands 19 Unknown 1 0 0 0 Extreme Cold

A 50-year-old man died of hypothermia in Lexington County. M50?.

Page 32 - Delete:

Statewide 23 0800EST Heavy Snow

On February 22nd, a cold front passed through the upstate bringing cold and windy conditions to the state. Cyclogenesis occurred along the frontal zone bringing snow to the upstate early on the 23rd and spreading across the remainder of the state during the day. Although much of the snow melted as it fell, depths varied from nine inches in west central South Carolina, to 6 inches in north central, 4 to 6 inches over most of the Coastal Plains, to one inch or less along the South Coast. The snowfall disrupted traffic, caused schools and some businesses to close. The snow cover, due to warm soil temperatures, was short-lived.

Page 32 - Add:

SCZ001-002-003-004-
005-006-007-008
Statewide 23 0800EST-
24 2359EST 3 0 5 0 Heavy Snow and
Extreme Cold

On February 22nd, a cold front passed through the upstate bringing cold and windy conditions to the state. Cyclogenesis occurred along the frontal zone bringing snow to the upstate early on the 23rd and spreading across the remainder of the state during the day. Although much of the snow melted as it fell, depths varied from nine inches in west central South Carolina, to 6 inches in north central, 4 to 5 inches over most of the Coastal Plains, to one inch or less along the South Coast. The snowfall disrupted traffic, caused schools and some businesses to close. The snow cover, due to warm soil temperatures, was short-lived. The cold weather was directly responsible for the deaths of three people. A 66-year-old man and a 58-year-old man, both from York County, and a 46-year-old man from Richland County died of hypothermia. The cause of death to the 66-year-old man was also listed as exposure to sub-freezing temperatures meet Storm Data criteria on the 22nd, and nighttime temperatures throughout the period were below freezing. M66?, M58?, M46?.

JULY 1989

MISSOURI - Page 43 - Add:

Clay County
Claycomo and
Liberty 30 0400CST-
0500CST 0 0 4 ? Thunderstorm Wind

Severe thunderstorms moved across the northern suburbs of Kansas City and produced a macro-downburst in Claycomo. Many trees were snapped off at the base and others uprooted. Downed trees blocked roads. Most damage was around North Brighton Avenue. Damage was also done to a trailer park located across from the Ford Plant, just off old Highway 69. Most damage to homes was caused by falling trees and branches. The location where the damage seemed to end was near the Immaculata Retreat in Liberty, MO.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

CORRECTIONS

NOVEMBER 1989

SOUTH CAROLINA

Add:

SCZ002
Foothills

17 Unknown 1 0 0 0 Cold

A 90-year-old man died of hypothermia in Anderson County. M90?.

DECEMBER 1989

MASSACHUSETTS - Page 12

MAZ002-004-005-006-007-009

15-16 Please change the December 1989 issue of STORM DATA to include Z009 circled to the left. It was inadvertently omitted from our submission.

MAZ006

17 Please correct MAZ005 to Z006 as submitted for the December 1989 STORM DATA.

SOUTH CAROLINA

Add:

SCZ001-004-005-006
Mountains, Midlands

04-05 Unknown 3 0 0 0 Extreme Cold

On December 4th, there were two cold-related deaths. A 50-year-old man died of exposure to cold in Marion County; a 76-year-old woman died of hypothermia in Sumter County. On the 5th, there was one cold-related death. A 57-year-old man died of frostbite in Oconee County. M50?, F76?, M57?.

SCZ007
North Coast

10 Unknown 1 0 0 0 Extreme Cold

An 84-year-old woman died of hypothermia in Horry County. F84?.

SCZ002-005-006-007-008
Foothills,
Midlands, Coast

17-18 Unknown 5 0 0 0 Extreme Cold

On the 17th, there were three cold-related deaths. A 64-year-old man died of hypothermia in Anderson County; a 48-year-old man died of hypothermia in Charleston County; a 48-year-old man died of cold exposure in Darlington County. On the 18th, there were two cold-related deaths. A 38-year-old man died of hypothermia in Clarendon County; a 41-year-old man died of hypothermia in Florence County. M64?, M48/, M48?, M38?, M41?.

Page 17 - Delete:

North Midlands
North Coast

19 Ice Storm

Ice covered the county and freezing rain fell.....

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

CORRECTIONS

SOUTH CAROLINA Cont'd

Page 18 - Delete:

Coast	22 2100EST- 26 2000EST	Extreme Cold and Heavy Snow
-------	---------------------------	------------------------------------

The extreme cold following the winter storm was directly responsible for four deaths which are described separately.....A man was found unconscious lying in the snow at 0700 EST on December 23 at North Charleston, Charleston County, and died seven hours later. A man was found dead at 0800 EST in Charleston, Charleston County, in an abandoned cab on December 26. A man was found dead in an abandoned mobile home in North Charleston at 1000 EST on December 26.....MUNKO, M65V, M62M.

Page 18 - Add:

SCZ007-008 Coast	22 2100EST- 26 2000EST	6 3 7 0	Extreme Cold & Heavy Snow
---------------------	---------------------------	---------	--------------------------------------

A winter storm developed along the southern edge of the arctic outbreak described above in the Gulf of Mexico, and tracked eastward across the Florida Peninsula, and then northward along the south Atlantic Coast of the nation, bringing heavy snow to coastal South Carolina on the 22nd, 23rd, and 24th. The extreme cold following the winter storm was directly responsible for six deaths which are described separately. At least three people suffered from hypothermia during the period; each incident described separately below. There were numerous traffic accidents, and at least one traffic-related death from the storm. A man in his 40s was traveling east on U.S. Highway 178 in Dorchester County, when his car apparently slid sideways into an oncoming vehicle at 1840 EST. Police accounts of the accident described the road conditions as being "a heavy sheet of ice." A 20-year-old man was rescued from the Black River, near Oatland, Georgetown County, after his boat ran out of gas at 1030 EST on December 23. He was suffering from hypothermia and was taken to a nearby house to recover. A load of snow and ice apparently sank a boat near Hagley, Georgetown County, at 1946 EST on December 26 injuring the captain and one passenger. It was the first white Christmas since record-keeping began in coastal South Carolina. Snowfall totaled one inch at Wedgefield, Sumter County, four inches at Yemassee, Jasper County, five inches at Beaufort, Beaufort County, six inches at Lake City, Florence County, eight inches at Charleston Weather Service Office, nine inches at McClellanville, both in Charleston County, 12 inches at Brookgreen Gardens, Georgetown County, 13 inches at Conway, 14 inches at Myrtle Beach, and 14.5 inches at Loris, all in Horry County. The cold was also responsible for burst pipes throughout coastal South Carolina, causing extensive damage. Damage from burst pipes along the coast was worse than inland sections, due to the minor depth of water service, and minor insulation in houses. Many cities and towns went without water for several days, as work crews repaired broken water mains and service connections. Some areas had to boil water for several days until the water pressure returned to healthy levels. The lowest water temperatures in 40 years were blamed for the state's worst shrimp kill since the late 1970s. An estimated 95% of the white shrimp were killed in lower Charleston Harbor and just offshore. A man was found unconscious lying in the snow at 0700 EST on December 23 at North Charleston, Charleston County, and died seven hours later. A man was found dead at 0800 EST in Charleston, Charleston County, in an abandoned cab on December 26. A man was found dead in an abandoned mobile home, in North Charleston at 1000 EST on December 26. In Horry County, a 53-year-old man died of hypothermia on December 24. In Beaufort County, a 75-year-old woman died of frostbite on Christmas Day. In Dillon County, a 71-year-old man died of hypothermia on Christmas Day. MUNKO, M65V, M62M, M53?, F75?, M71?

STORM DATA AND UNUSUAL WEATHER PHENOMENA

APRIL 1990

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

CORRECTIONS

JANUARY 1990

CALIFORNIA, Southern - Page 27 - Add:

San Diego County 14 0130PST ? ? 0 0 5 0 Waterspout-Tornado (F?)

An unstable air mass along with an upper level system from southern Nevada to San Diego produced a waterspout-tornado which struck La Playa Cove between the Southwestern Yacht Club and San Diego Yacht Club. Most of the damage was sustained to boats in dry storage and several other anchored boats. The waterspout went onshore throwing large planks into several parked vehicles in the parking lot. The estimated damage was \$75,000.

Page 64 - Storm Summary - Change number to 2, change days to 2.

SOUTH CAROLINA

York County
York 29 PM 0 0 3 0 High Winds

High winds caused a tree to fall on top of a home, ripping a hole in the roof.

Fairfield County
Blair 29 PM 0 0 5 0 High Winds

High winds damaged trees, a house, a barn, and other outside structures.

Aiken County
Bath 29 PM 0 0 5 0 Thunderstorm Winds

Thunderstorm winds ripped the roof off the G & M Market. The entire roof fell onto the street, where a car bumped it.

FEBRUARY 1990

MISSISSIPPI - Page 70 - Add:

Covington County
Mt. Olive 15 1500CST-1700CST 0 0 ? 0 Flash Flooding

Several homes had to be evacuated due to rapidly rising water.

Jefferson Davis County
3 N Prentiss 15 1500CST-1700CST 0 0 ? 0 Flash Flooding

One foot of water flowed over Highway 13 closing the road for four hours. Several other county roads were also flooded.

Lawrence County 15 1500CST-1700CST 0 0 5 0 Flash Flooding

Flash flooding occurred over northern sections of Lawrence County. Water was over several roads and bridges and got into 6 houses in New Hebron.

Lauderdale County
4 S Meridian 15 1510CST 0 0 4 0 Thunderstorm Wind

Fifteen pecan trees were blown down and an awning was blown off a house.

STORM SUMMARY

APRIL 1990

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	0						0	0
Number				1	1			1	1	1		1	1	2		1			0	0	2	3	0		1		
Days				1	1			1	1	1		1	1	2		1			0	0	2	3	0		1		
Deaths				0	0			0	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	0	0		0		
Property Damage				0	0			0	4	0		0	5	6		3			0	0	0	5	0		1		
Crop Damage				0	0			0	?	0		0	0	3		3			0	0	0	0	0		0		
HAIL																											
Deaths	0		0					0	0					0	0			0			0	0			0		
Injuries	0		0					0	0					0	0			0			0	0			0		
Property Damage	?		?					5	?					5	1			?			0	?			?		
Crop Damage	?		?					0	?					0	0			?			0	?			0		
THUNDERSTORM WINDS																											
Deaths	0		0		0			0	4	0	0		0	0	0	0					0	2			0		
Injuries	0		1		4			6	4	0	0		0	0	0	0					0	6			0		
Property Damage	?		?		0			5	0	0			0	0	0	0					0	0			0		
Crop Damage	?		?		0			0	0	0			0	0	0	0					0	0			0		
HIGH WINDS																											
Deaths				0					0	0			0														
Injuries				0					0	0			0														
Property Damage				0					0	0			0														
Crop Damage				0					0	0			0														
LIGHTNING																											
Deaths			0					0	0				0	0				0			0						
Injuries			0					0	0				0	0				0			0						
Property Damage			?					0	0				0	0				0			0						
Crop Damage			?					0	0				0	0				0			0						
FLASH FLOODS																											
Deaths			0						0																		
Injuries			0						0																		
Property Damage			?						0																		
Crop Damage			?						0																		
FLOODS																											
Deaths									0																		
Injuries									0																		
Property Damage									?																		
Crop Damage									?																		
HEAVY SNOWSTORMS AND BLIZZARDS @																											
Deaths					1																						
Injuries					0																						
Property Damage					0																						
Crop Damage					0																						
ICE STORMS #																											
Deaths																											
Injuries																											
Property Damage																											
Crop Damage																											
HURRICANES AND TROPICAL STORMS																											
Deaths																											
Injuries																											
Property Damage																											
Crop Damage																											
ALL OTHERS																											
Deaths																											
Injuries																											
Property Damage																											
Crop Damage																											

STORM SUMMARY

APRIL 1990

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	& INJURY NATIONAL DEATHS
TORNADOES	0																										
Number		3	1	1			3						1	56	1												25
Days		0	0	0			0						0	0	0												
Deaths		0	0	0			0						0	0	0												
Injuries		0	0	0			0						0	0	0												
Property Damage		0	0	0			0						0	0	0												
Crop Damage		0	0	0			0						0	0	0												
HAIL																											
Deaths		0				0	0		0																		
Injuries		0				0	0		0																		
Property Damage		0				0	0		0																		
Crop Damage		0				0	0		0																		
THUNDERSTORM WINDS																											
Deaths			0	0			0						0	0						0	0						3
Injuries			0	0			0						0	0						0	0						52
Property Damage			0	0			0						0	0						0	0						
Crop Damage			0	0			0						0	0						0	0						
HIGH WINDS																											
Deaths		0																									
Injuries		0																									
Property Damage		0																									
Crop Damage		0																									
LIGHTNING																											
Deaths																											
Injuries																											
Property Damage																											
Crop Damage																											
FLASH FLOODS																											
Deaths		0																									
Injuries		0																									
Property Damage		0																									
Crop Damage		0																									
FLOODS																											
Deaths																											
Injuries																											
Property Damage																											
Crop Damage																											
HEAVY SNOWSTORMS AND BLIZZARDS a																											
Deaths																											
Injuries																											
Property Damage																											
Crop Damage																											
ICE STORMS #																											
Deaths																											
Injuries																											
Property Damage																											
Crop Damage																											
HURRICANES AND TROPICAL STORMS																											
Deaths																											
Injuries																											
Property Damage																											
Crop Damage																											
ALL OTHERS																											
Deaths																											
Injuries																											
Property Damage																											
Crop Damage																											

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.

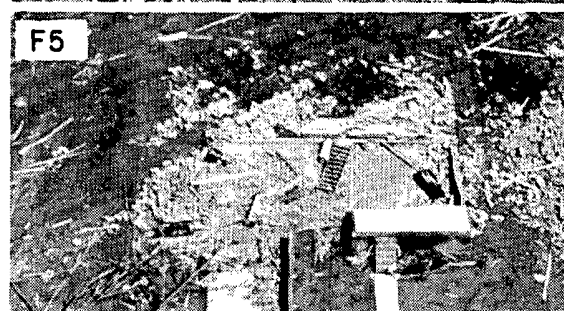
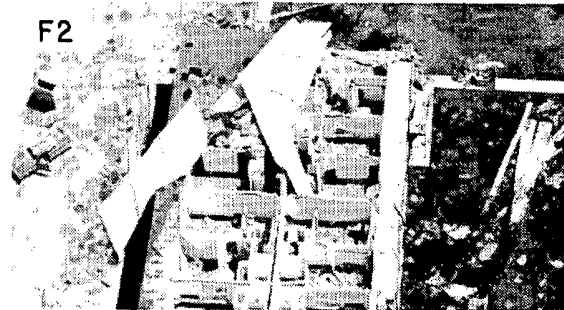
(F3) Severe tornado (158-206 mph): Severe damage
Roofs and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted; heavy cars lifted off ground and thrown.

(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.

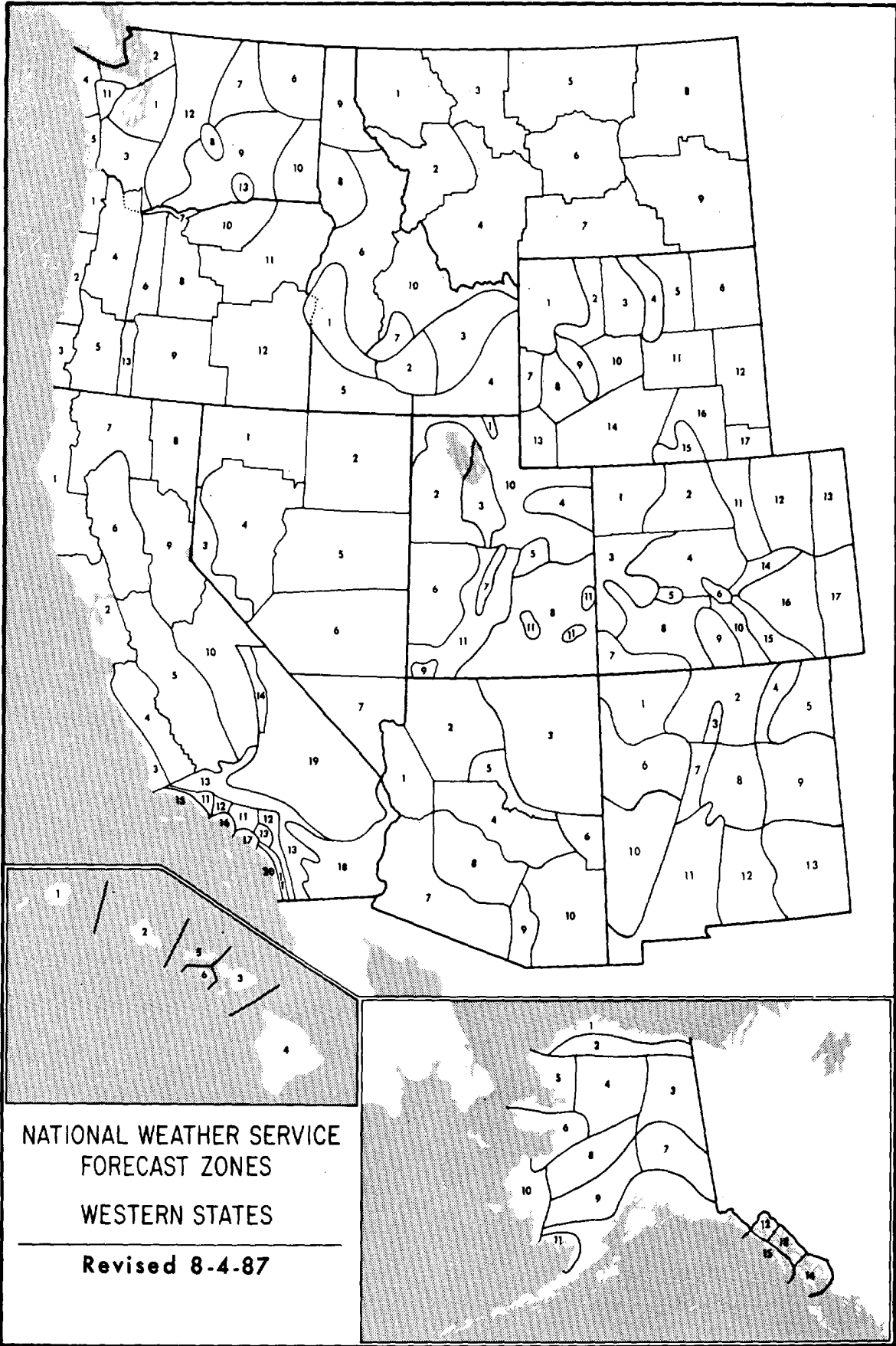
(F5) Incredible tornado (261-318 mph): Incredible damage
Strong frame houses lifted off foundations and carried considerable distance to disintegrate; automobile-sized missiles fly through the air in excess of 100 m; trees debarked; incredible phenomena will occur.

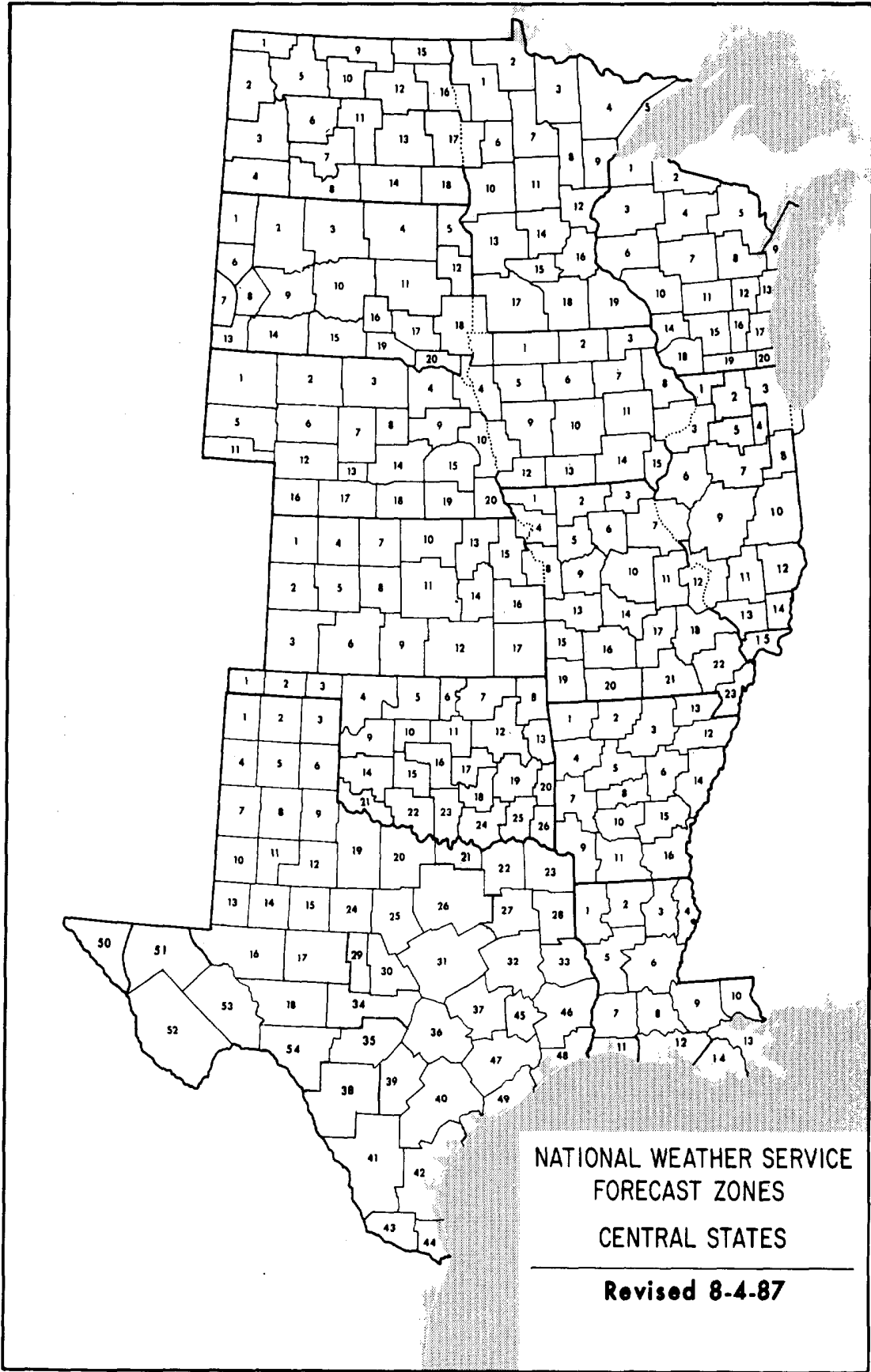
(F6-F12) (319 mph to Mach 1, the speed of sound):
The maximum wind speeds of tornadoes are not expected to reach the F6 wind speeds.

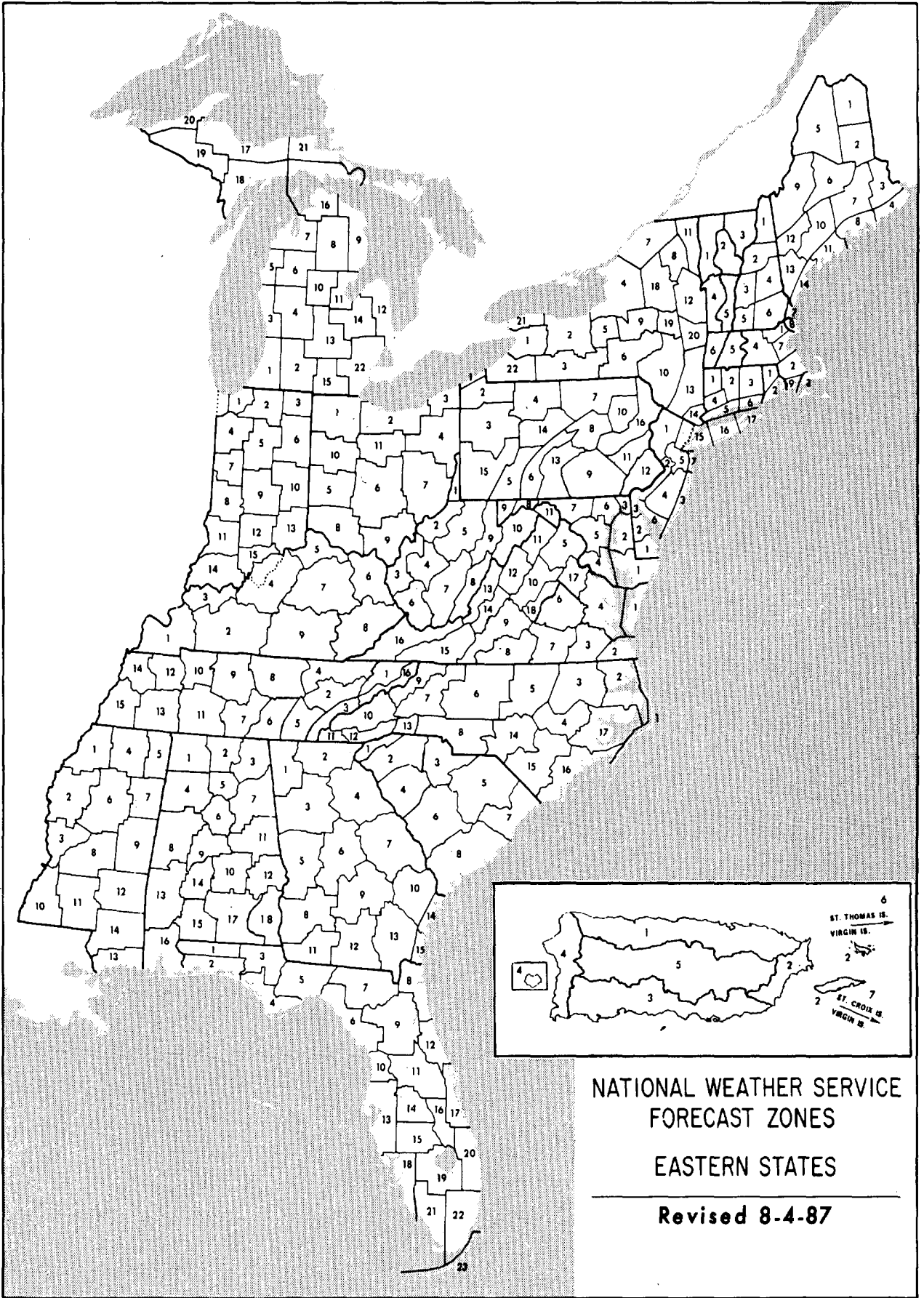
-
- (F0+F1) Weak Tornado
 - (F2+F3) Strong Tornado
 - (F4+F5) Violent Tornado
-



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



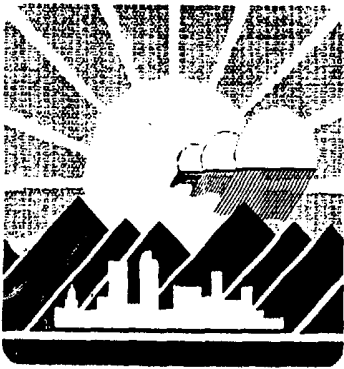






CALL FOR PAPERS

Association of State
Floodplain Managers, Inc.
15th Annual Conference
June 10-14, 1991
Denver, Colorado



INSPIRATION: *Come to the Headwaters*

The Association of State Floodplain Managers (ASFPM) invites all persons interested in presenting papers at the 15th annual conference in Denver, Colorado to submit abstracts for consideration. 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.

Conference Theme

This year's conference theme, "*INSPIRATION: Come to the Headwaters*," focuses on developing the sound, clear, practical, and creative ideas necessary to meet the challenges of the 1990's.

The Platte, Arkansas, Rio Grande and the Colorado Rivers have their headwaters in Colorado. The Platte and the Arkansas are tributaries of the Mississippi River. The Mississippi, Rio Grande and Colorado River Basins are shared by 36 states and two foreign countries. At least once in each floodplain manager's career, he or she should journey to the highest point in the basin for inspiration at the source.

We're planning a conference in Denver that will precipitate a watershed of bold new approaches. Papers are invited for, but not limited to, the following issues and subjects:

- * Integration of Floodplain Management (FPM) with Water Resources Management
- * Watershed Approaches to FPM
- * Building FPM Capability
- * Multi-Objective FPM
- * Coastal Flooding Issues
- * Urban Stormwater Management
- * Flood Hazard Mitigation
- * Floodplain Mapping & Engineering
- * Floodplain Regulations
- * Assistance to Small Communities
- * Flood Control Projects
- * Flood Proofing
- * The Role of Disaster Assistance
- * Flood Warning Systems
- * Flood Insurance
- * Loss Indemnification
- * Public Awareness of Hazards
- * Quantifiable Measurement of Success or Failure
- * Flood Hazard Research
- * Floodplains and the Environment
- * Arid Regions Flood Issues
- * 15th Anniversary of the Big Thompson Flood



Submission of Abstracts

Prospective authors must submit three copies of the following items to Eve Gruntfest, Program Chair, by November 16, 1990:

- A one page abstract including the paper's title, all authors' names and their affiliations, and 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 position, 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, 1991 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 from Tuesday, June 11th through Thursday, June 13, 1991. A number of technical field trips and spouse tours in the Colorado Front Range and mountains are being planned. The ASFPM will conduct its committee and general membership meetings on Monday, June 10th. All members and conference participants are invited to attend.

Registration prior to May 1, 1991 will be \$190 for members and \$205 for non-members. Colorado local government officials and students will receive a discount.

The conference will be held at the Hyatt Regency Hotel in downtown Denver. Conference room rates are \$75 for single or double occupancy.

Hemispheric Travel, Inc. of Madison, Wisconsin is the official conference travel agency. They offer substantial savings and convenience. Call them at 1-800-356-9368.

About Denver

Denver is centrally located in the continental United States with direct flights between 109 cities. Stapleton Airport is the fifth busiest airport in the country with more than 1,100 flights daily. It's only a fifteen minute ride from the airport to the hotel.

In June, the sun shines about 70 percent of the time, and the average temperature is between 53 and 81 degrees F. Denver offers many local activities, and it is a gateway to numerous attractions in the Rocky Mountain region.

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


November 16, 1990 Abstracts Due


May 15, 1991 Papers Due

Conference Hosts

 Colorado Water Conservation Board

 Urban Drainage and Flood Control District

 University of Colorado at Colorado Springs

 Colorado Association of Stormwater and Floodplain Managers

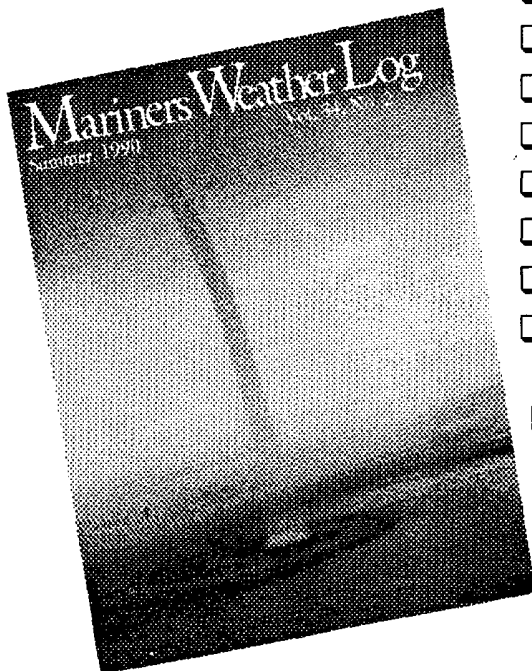
Conference Director - Bill Stanton
Colorado Water Conservation Board
721 Centennial Building
1313 Sherman Street
Denver, CO 80203
(303) 866-3441

Program Chair - Eve Gruntfest
Department of Geography
University of Colorado at Colorado Springs
P.O. Box 7150
Colorado Springs, CO 80933
(719) 593-3513

Exhibits Chair - Dan Accurti
Pennsylvania Department of Community Affairs
551 Forum Building
Harrisburg, PA 17120
(717) 787-5177

Mariners Weather Log

Serving the maritime community



- Comprehensive coverage of storms.
- Typhoon and Hurricane information.
- Unusual weather phenomena at sea.
- Selected gale and wave observations.
- Storm tracks and weather-related casualties.
- History of marine weather and marine lore.
- Lighthouse features by Elinor DeWire
- Sea photography and radio tips.

For sample copy and subscription form write:

**User Services Branch
National Oceanographic Data Center
NOAA
Washington, DC 20235**

DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Environmental Satellite, Data, and Information Service
National Climatic Data Center
Federal Building
Asheville NC 28801

BULK RATE
POSTAGE & FEES PAID
United States Department Of Commerce
NOAA Permit No. G - 19

To change your address, please return a copy of the mailing label along with your new address.

"FORWARDING AND RETURN POSTAGE GUARANTEED - ADDRESS CORRECTION REQUESTED"