3. SEVERE THUNDERSTORMS in the SOUTH-CENTRAL and SOUTHEAST U.S. on February 20–21, 1989

The most prolific period of severe thunderstorm activity during February 1989 occurred over two consecutive days, the 20th and 21st in the South-Central U.S. and Southeast U.S., respectively. The severe phenomena began in central Louisiana at midday of the 20th as a low pressure system formed in northwest Louisiana. The storms had spread northeast through the afternoon and evening hours as the low raced northeast to the western front of the Appalachians, trailing its frontal system southwestward. The severe phenomena included four F2 tornadoes.

Distribution of severe thunderstorm phenomena reported in the South-Central U.S. between 1200 CST of February 20th and 0300 CST of the 21st. ---Graphic by the University of Chicago from data supplied by NWSFO's at Birmingham, Alabama; Miami, Florida; Slidell, Louisiana; and Jackson, Mississippi.

The development and movement of the severe thunderstorm line on February 20th is revealed in five GOES 7 satellite, infrared images taken at three-hour intervals between noon and midnight CST. ---Photos from NESDIS, Washington, DC.
that caused a considerable amount of damage in northeast Mississippi and northwest Alabama during the three hours prior to midnight CST. Overnight, the storms either dissipated or greatly weakened, then re-erupted in Georgia, the Carolinas and Virginia during the daylight hours of the following morning. These storms inflicted mainly wind damage and moved off the East Coast by mid afternoon. There was one death and 17 injuries caused by the storms, all of which occurred in the Carolinas on the 21st.

**SOUTHEAST U.S. SEVERE THUNDERSTORMS of FEBRUARY 21, 1989**

Distribution of severe thunderstorm phenomena reported in the Southeast U.S. between 0500EST and 1500EST of February 21st, 1989. ---Graphic by the University of Chicago from data supplied by NWSFO's at Birmingham, Alabama; Atlanta, Georgia; Raleigh, North Carolina; and Washington, DC; and the South Carolina State Climatology Office, Columbia.

Below and on the following page, the February 21st storms are depicted in infrared (left) and visible (right) sequences of GOES 7 satellite images taken at two-hour intervals between 0800 and 1400EST and 0830 and 1430EST, respectively. ---Photos from NESDIS, Washington, DC.
### STORM DATA AND UNUSUAL WEATHER PHENOMENA

#### FEBRUARY 1989

## NEW YORK, Western

- **Erie County, Buffalo Area**
  - 0700 EST: 0 0 5 0 Snow
  - Lake-effect snow accumulated to more than a foot by mid-morning. It caused many traffic delays, vehicular accidents, and cancellation of meetings. The highest snowfall amount was 15 inches.

- **Chautauqua County, Portions of Genesee and Wyoming Counties**
  - 0900 EST: 0 0 4 0 High Winds
  - Strong winds whipped up the snow on the ground, created zero visibilities and rendered driving very dangerous. There were many accidents, one of which resulted in the death of a motorist.

- **Genesee County, Portions of Wyoming County**
  - 0900 EST: 0 0 4 0 High Winds
  - High winds and snow caused zero visibilities. Schools and businesses had to close.

## NORTH CAROLINA

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<thead>
<tr>
<th>PLACE</th>
<th>DATE</th>
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<th>LOCAL FRED</th>
<th>LENGTH OF PATH (MILES)</th>
<th>WIDTH OF PATH (MILES)</th>
<th>NO. OF PERSONS</th>
<th>ESTIMATED DAMAGE</th>
<th>CHARACTER OF STORM</th>
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<td>TSTM Winds</td>
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A solid line of rapidly moving thunderstorms continued to sweep across central North Carolina. Trees were blown down in northeast Chatham County. In Moore County at Eagle Springs two people were injured as trees were downed and two mobile homes were destroyed. Two mobile homes were destroyed in West End. Trees were blown down near Vass and Lakeview. In Harnett County a man was killed and three others were injured when thunderstorm winds blew down a home under construction in Lillington. Three mobile homes were damaged in Angier. Two injuries were reported. In southeast Lee County two mobile homes were destroyed and numerous trees blown down. Near Rawson in Wake County two mobile homes were destroyed. In Cumberland County there were widespread reports of trees down and minor damage to barns and buildings. In Johnston County a roof was blown off a house 4 miles east of Benson. Trees were blown down and roofs damaged near Smithfield. Just south of Benson in Franklin County the roof was blown off a garage. Three mobile homes were destroyed in West End. Trees were blown down over much of Wake County. (E04)

- **Durham Co.**
  - Pitt Co. 4 8:00 EST: 0 2 4 0 TSTM Winds
  - In Pitt County trees and power lines were blown down and a mobile home was blown down near Parủy. Two people were injured. South of Greenville powerful downbursts destroyed two mobile homes and damaged two houses and a business. In Wayne County trees were blown down and a barn was destroyed. A large metal factory building was severely damaged near Mount Olive. In Lenoir County a propane tank was blown down. A funnel cloud was sighted by amateur radio spotters in the Wilson area. Trees were blown down and minor roof damage was also reported.

- **Duplin Co. Magnolia**
  - Pitt Co. 4 8:00 EST: 0 0 4 0 TSTM Winds
  - Violent thunderstorm downdraft produced extensive damage across the Southern Piedmont. In Duplin County a storm roof was damaged, walls were blown down at a hospital construction site and a cable television antenna was blown down. Two people were injured by flying debris. Two Cessna airplanes were blown over at the county airport. In Harnett County several farms were damaged, barns and trees were blown. In Richland County near Robbington a metal roof was destroyed, two homes damaged and a wall at a construction site was blown down. Near Hamlet two storage buildings were damaged. Near Cordova numerous trees were blown down. A mobile home was damaged and trees blown down in Cumberland County.

During afternoon of February 17, a snow storm fell in the Northern Mountains of the state, and slowly spread across the northern half of North Carolina to the Carolina Coastal Area by late that evening. Snow and snow freezing rain continued on the 19th and ended on the 21st. Total accumulations averaged 10 to 15 inches of snow along all of the North Carolina Virginia border with two to three inches from Charlotte to Sanford to Wilson to Washington. The area to the south of the snow experienced damaging freezing rain from Monroe to Lillington to north of Goldsboro.

- **Eagle Springs**
  - Pitt Co. 4 8:00 EST: 0 2 4 0 TSTM Winds
  - In Duplin County downdrafts damaged trees, barns and some residences as a thunderstorm swept from Magnolia to Beulaville to Pin Hook. In Duplin County trees and tobacco barns were destroyed near Clinton and Spivey's Corner. In Pender County trees were blown down and small barns were damaged or destroyed near Willard and 5 miles north of Burgaw. In Beulaville, Onslow County two mobile homes were destroyed and numerous trees blown down. A mobile home was turned over and barns damaged and trees blown down in Kinston. New Hanover County reported two mobile homes turned over, boats turned over and trees and power lines blown down about eight miles northeast of Wilmington.
**STORM DATA AND UNUSUAL WEATHER PHENOMENA**

### NORTH CAROLINA

<table>
<thead>
<tr>
<th>Place</th>
<th>Date</th>
<th>EST</th>
<th>Length of Path (Miles)</th>
<th>OF Persons</th>
<th>Estimated Damage</th>
<th>Character of Storm</th>
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</table>

Thunderstorm winds destroyed a mobile home and two small storage buildings and blew down trees near Beargrass. In Bertie County a camper unit was blown off a pickup truck. A cinder block wall was blown out and large tree limbs were blown down. The roof was blown off a bank and trees were blown down southeast of Edenton. A farm building was destroyed and trees were down near Gatesville.

### OHIO

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<tr>
<th>Place</th>
<th>Date</th>
<th>EST</th>
<th>Length of Path (Miles)</th>
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<th>Estimated Damage</th>
<th>Character of Storm</th>
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<td>Al VIDEO</td>
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### NORTH DAKOTA

North Dakota

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<th>OF Persons</th>
<th>Estimated Damage</th>
<th>Character of Storm</th>
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<tr>
<td>01-</td>
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<td>Extreme Cold</td>
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</table>

Northwest winds of 20 to 35 mph combined with temperatures of 20 to 35 below to cause wind chill temperatures of 60 to 90 below. A wind chill temperature of 90 below was observed at Bolla. In north-central North Dakota near the Canadian border, on the morning of February 1 (0000CST).

On February 3, the actual temperatures across most of North Dakota never got above 20 below.

A seventeen year old male was stranded in his vehicle for over 60 hours in northeast North Dakota. In a remote area along the Towner-Cavalier county line. He suffered severe frostbite and hypothermia. Five passengers, traveling in an unheated bus along Interstate 94, were also treated for frostbite and hypothermia.

The Governor ordered schools closed on February 2 and 3, 1989 due to the extremely cold temperatures. The cold caused isolated power outages and breakdown of frozen water pipes.
There were no known direct weather-caused casualties. There were

OK2 ALL STATEwMDE 05 1800CST
orzoo.6–010–011–013

OK2006-010-011-013

ORZALL
All of Oregon
01- 1400PST
2 6
Winter Storm
with ice Accumulation

ORZALL
Statewide
02- 0000CST
5 6
Record Cold

An Arctic outbreak overspread the state on the 1st and early on February 18. At that time, the first reports of damage were received from Spartanburg County.

Three fatalities resulted in record cold. Six to ten inches of snow fell in Somerset and Cambria counties. Minor flooding occurred at Braddock on the Monongahela River.

21 0900EST
21 1910EST
21 0940EST
21 0900EST
21 1910EST
21 0940EST
21 0900EST
21 1910EST
21 0940EST
21 0900EST
21 1910EST
21 0940EST

SC2001-002
Northwest South Carolina
An during the late morning Cherokee, Oconee, Spartanburg, and Pickens counties reported light mixed precipitation. The only accumulation of note was at Seneca Mountain Fire Tower in Oconee County where the tower was "iced-up".

The freezing rain caused slick roads and accidents (especially on bridges and overpasses) as early as 800 PM February 17. However, accumulations did not reach ice storm criteria until about 0000 EST February 18. At that time, the first reports of damage were received from Spartanburg County.

Women had frozen to death. M23'.w F05W. F.39W, F720, F400

In many places the accumulation of ice was very light, but northeast of Greenville, the ice accumulated on trees and power lines. On Saturday evening, the mountains had 1 to 3 inches of snow. There were reports of minor glass accumulations as far south as Newberry and as far east of Port Mill.

There were numerous trees across roads in the northeastern portion of South Carolina, and many cars were damaged by falling trees, limbs, and ice. Power outages varied across the area. Some communities were without power well into Sunday evening.

Thunderstorm winds injured one person at Lexington Wire and Cable Company along SC Rte. 378, four miles west of West Columbia.

A tornado ripped the roof of a home and business, destroyed a mobile home and damaged another mobile home. A wind speed of 60 knots was recorded at Columbia Airport at 0850EST.

A roof was blown off of a building, a mobile home was damaged, and a dog was killed.

Winds damaged the roof of a factory.

Winds destroyed a barn and mobile home, and damaged an equipment shed.

Winds destroyed a mobile home, damaged a turkey house, and disrupted power. A number of turkeys in the turkey houses were killed.

A small tornado destroyed a mobile home and damaged other buildings nearby. The tornado occurred 3 miles east of Jefferson and moved to the northeast.

Three were blown down and a roof was blown off of a warehouse.

A few trees were downed.
STORM DATA AND UNUSUAL WEATHER PHENOMENA

FEBRUARY 1998

40 TENNESSEE

On February 22nd, a cold front passed through the upstate, bringing snow to nearly all 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 the North-Central, 4 to 5 inches over most of the Coastal Plains, and to one inch or less along the South Coast. The snowfall disrupted traffic and caused schools and businesses to close. The snow cover was short lived due to warm soil temperatures.

With the soil saturated and all streams at or above bankfull in West and Middle Tennessee from the heavy rains less than a week before, an additional 2 to 3 inches of rain caused flash flooding in these counties. Numerous roads were flooded and some bridges were washed out. In Portland, Sumner County, 25 people had to be evacuated from their homes. Homes were also flooded in Ashland City, Cheatham County.

On February 23, 2000CST, 00 00 00 Heavy Snow

Four areas of sputty snow in the lower elevations up to twenty-two inches of snow in the higher elevations were recorded in East Tennessee. Mt. LeConte had the 22 inches. Roads were closed halting travel in this area.

On February 27, 2000CST, 00 00 00 Heavy Snow

Four to eight inches of snow fell overnight in this part of Middle Tennessee. This stopped travel and caused the closing of schools and businesses.

41 TEXAS, Northern

A bitter cold air mass settled over North Texas. Temperatures dropped below freezing over much of North Texas on the evening of the 2nd and did not climb above freezing until the afternoon of the 5th, the same time the ground was still covered with snow. Another spell of heavy rains was recorded during the evening of the 3rd and early morning of the 4th, coating roadways with ice. One to two inches of snow fell across North-Central Texas during the evening of the 4th and morning of the 5th. Freezing drizzle and freezing rain coated exposed surfaces with ice in Northwest Texas during the evening of the 4th and morning of the 5th.

Many schools were closed on the 3rd due to hazardous driving conditions and on the 6th and 7th due to natural gas curtailments. Numerous accidents occurred on icy roads resulting in five fatalities. Six other people also died from the cold and ice. A 67 year old man died on the 3rd from injuries in Dallas after he slipped on ice and hit his head. An 84 year old woman died from exposure in Fort Worth on the 3rd after apparently accidentally locking herself out of her home. A 65 year old man died of exposure on the 4th in an abandoned home in Dallas. Two men died of hypothermia in an apartment in Dallas when a bottled gas supply for their space heater ran out. A 57 year old woman died in the hospital on the 7th. Heat was available to the house she was in, but the heat was not in use.

SUMMARY

<table>
<thead>
<tr>
<th>PLACE</th>
<th>DATE</th>
<th>LENGTH OF PATH</th>
<th>HEIGHT (IN.)</th>
<th>NO OF PERSONS</th>
<th>ESTIMATED DAMAGE</th>
<th>PROPERTY</th>
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