

JANUARY 1992  
VOLUME 34  
NUMBER 1

# 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: Lake effect snow struck Ohio on January 14. Snowfall totals ranged from four to ten inches. Snowfall amounts of ten inches were common in and around Toledo. See page 8 for further information. (Photo courtesy: Brad Herold, Toledo, Ohio.)

**CONTENTS**

|   |           |
|---|-----------|
| Climatic Data of the Month . . . . .                | Page<br>4 |
| Outstanding Storms of the Month . . . . .           | 8         |
| Storm Data and Unusual Weather Phenomena . . . . .  | 9         |
| Storm Summaries . . . . .                           | 52        |
| Reference Notes and "F" Scale Definitions . . . . . | 54        |

**STORM DATA**

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National Climatic Data Center

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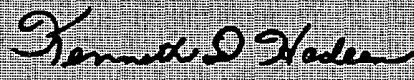
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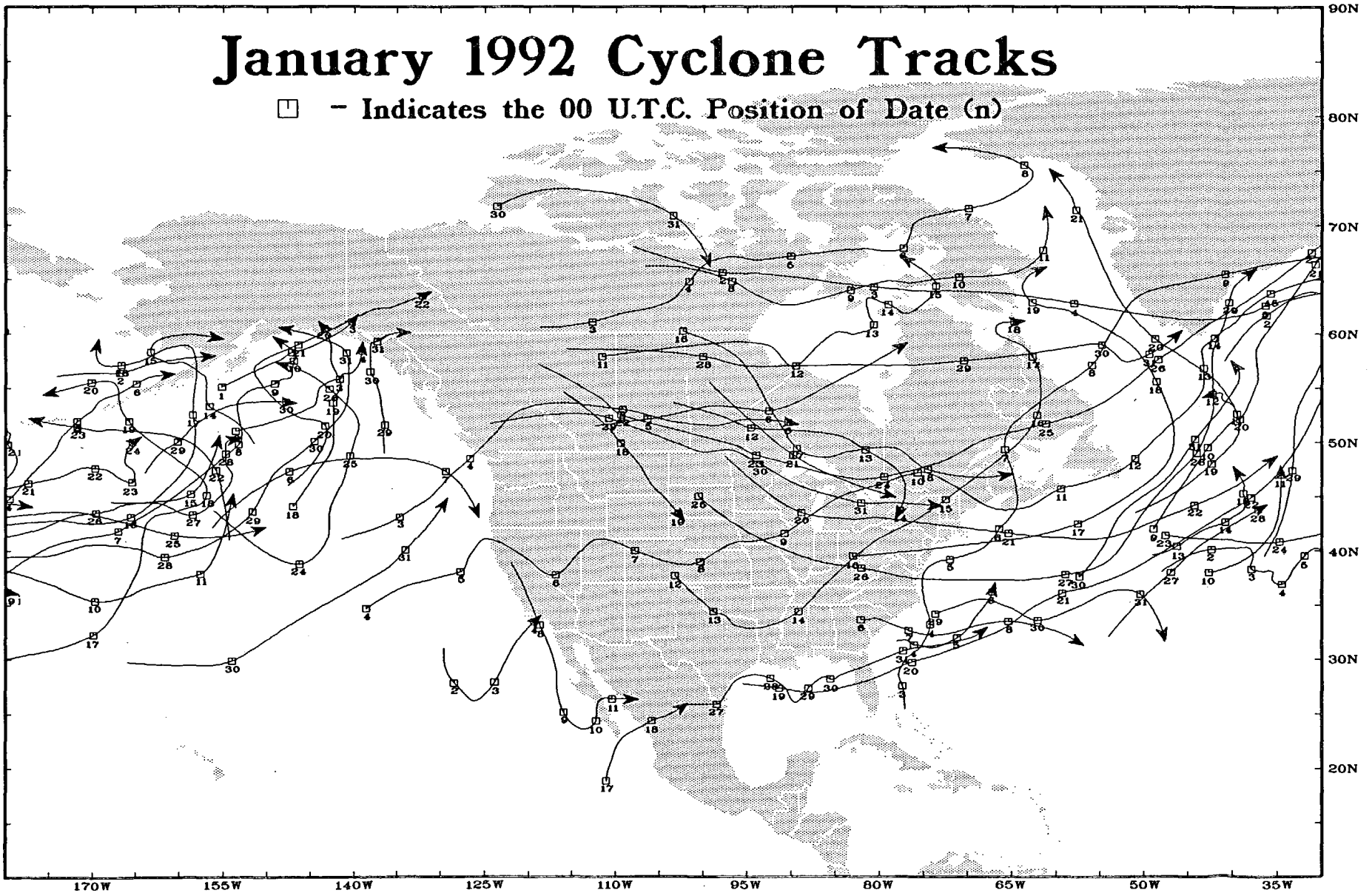
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Director  
National Climatic Data

# January 1992 Cyclone Tracks

□ - Indicates the 00 U.T.C. Position of Date (n)



# CLIMATIC DATA OF THE MONTH

## PRECIPITATION AND TEMPERATURE ANOMALIES - JANUARY 1992

Table 1 lists the 98-year temperature and precipitation rankings for the nine climatically homogeneous regions in the United States outlined in Figure 1 below.

Nationally, January 1992 ranked as the 12th warmest January since 1895. With chinook winds in the High Plains, the West North Central and East North Central regions observed their third and sixth warmest January, respectively. Mean monthly temperature departures greater than +10°F existed from Kansas northward into Montana, the Dakotas, and Minnesota. The greatest mean monthly temperature departure, +18.2°F, occurred in Montana. The high pressure system that brought the warmth to the northern Plains also allowed cold air to drain into the interior Western valleys. Negative mean monthly temperature departures of -6°F existed in Colorado. Below normal temperatures (>-2°F) existed along the Gulf Coast due to clouds and precipitation. Negative temperature departures of -4°F occurred in extreme south-central Georgia and northern Florida. Unusual warmth also occurred in southern Alaska where mean monthly temperature departures ranged from +8°F (Anchorage) to +14°F (Juneau). (See Figures 2 and 3 on page 5.)

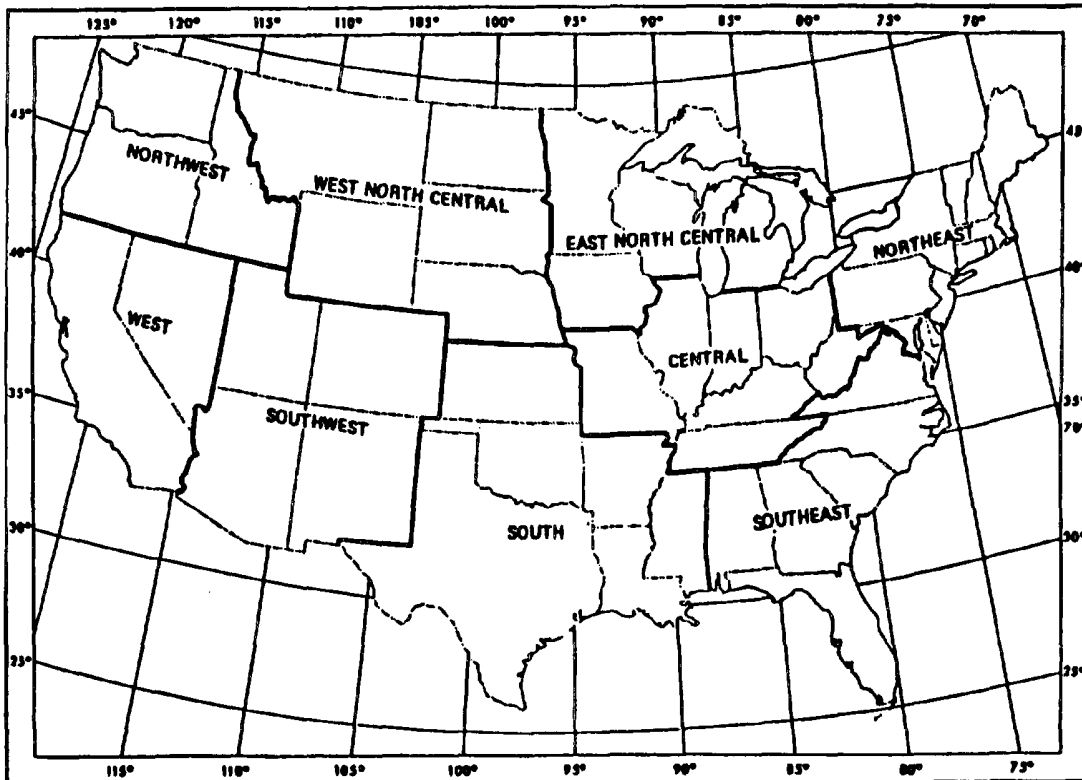
**TABLE 1. TEMPERATURE AND PRECIPITATION RANKINGS FOR JANUARY 1992, BASED ON THE PERIOD 1895-1992.**  
**1 = DRIEST, 98 = WETTEST; 1 = COLDEST, 98 = HOTTEST.**

| REGION             | PRECIPITATION | TEMPERATURE |
|--------------------|---------------|-------------|
| Northeast          | 31            | 65          |
| East North Central | 41            | 93          |
| Central            | 18            | 73          |
| Southeast          | 72            | 55          |
| West North Central | 29            | 96          |
| South              | 79            | 64          |
| Southwest          | 63            | 36          |
| Northwest          | 24            | 90          |
| West               | 25            | 54          |
| National           | 38            | 87          |

*From National Climatic Data Center*

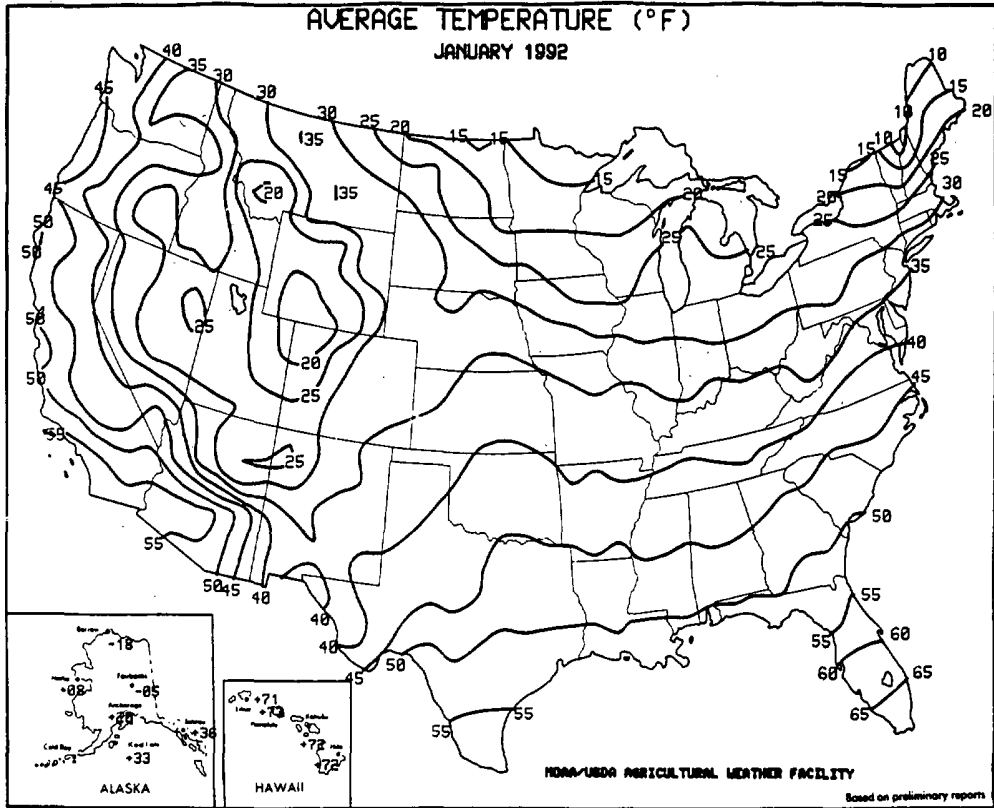
Areally-averaged precipitation, for the nation, ranked January 1992 as the 38th driest January on record since 1895. Due to the heavy rains (>8 inches) along the Gulf Coast, the South and Southeast regions recorded their 20th and 27th wettest January, respectively. Except for scattered areas, most of the nation experienced drier than normal conditions. The Central region recorded its 18th driest January. The Northwest and West regions also recorded their 24th and 25th driest January, respectively. (See Figures 4 and 5 on page 6.)

Fig. 1



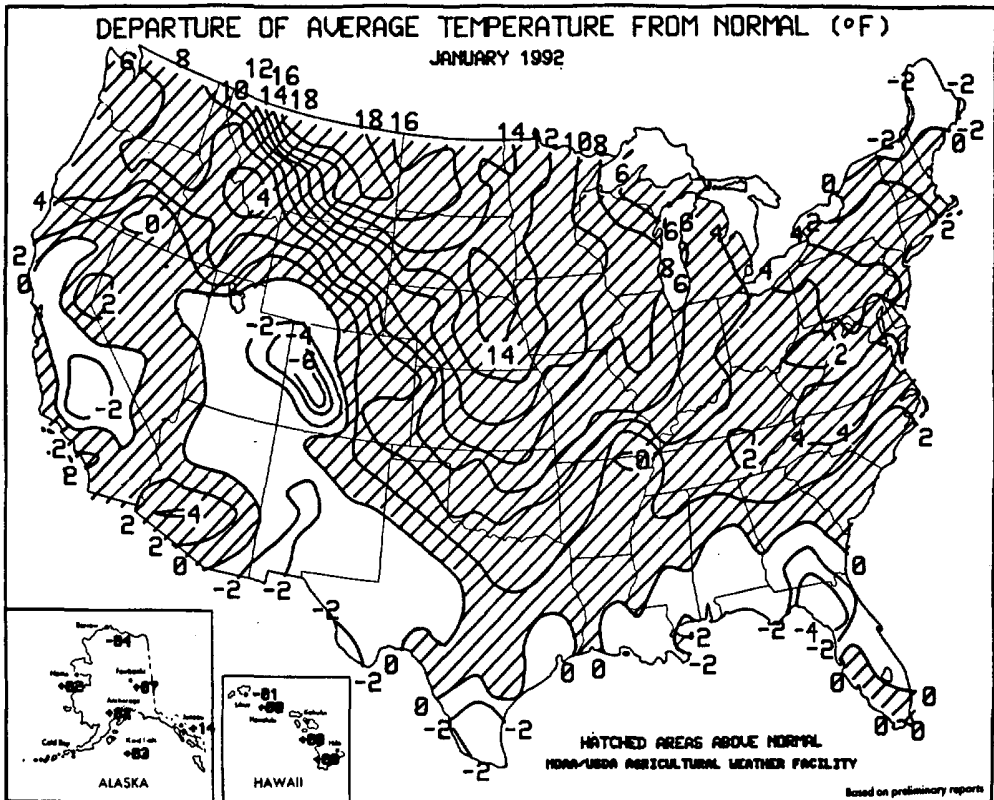
*From National Climatic Data Center*

Fig. 2



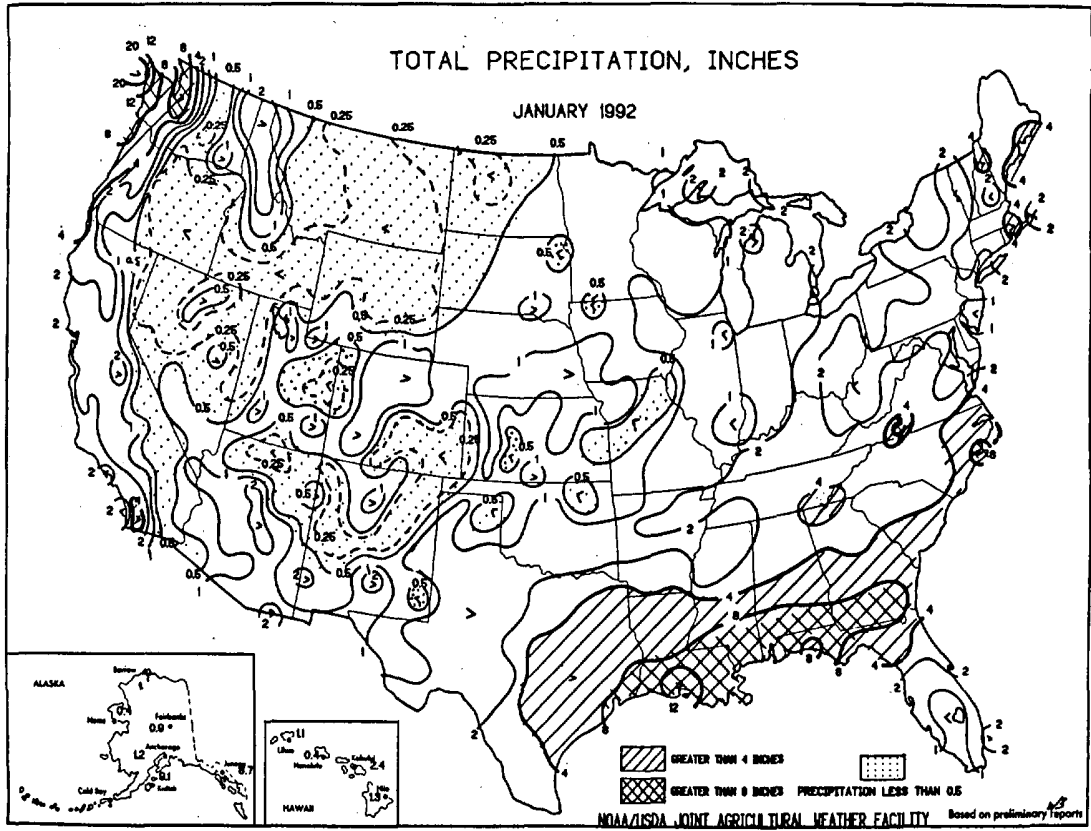
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Fig. 3



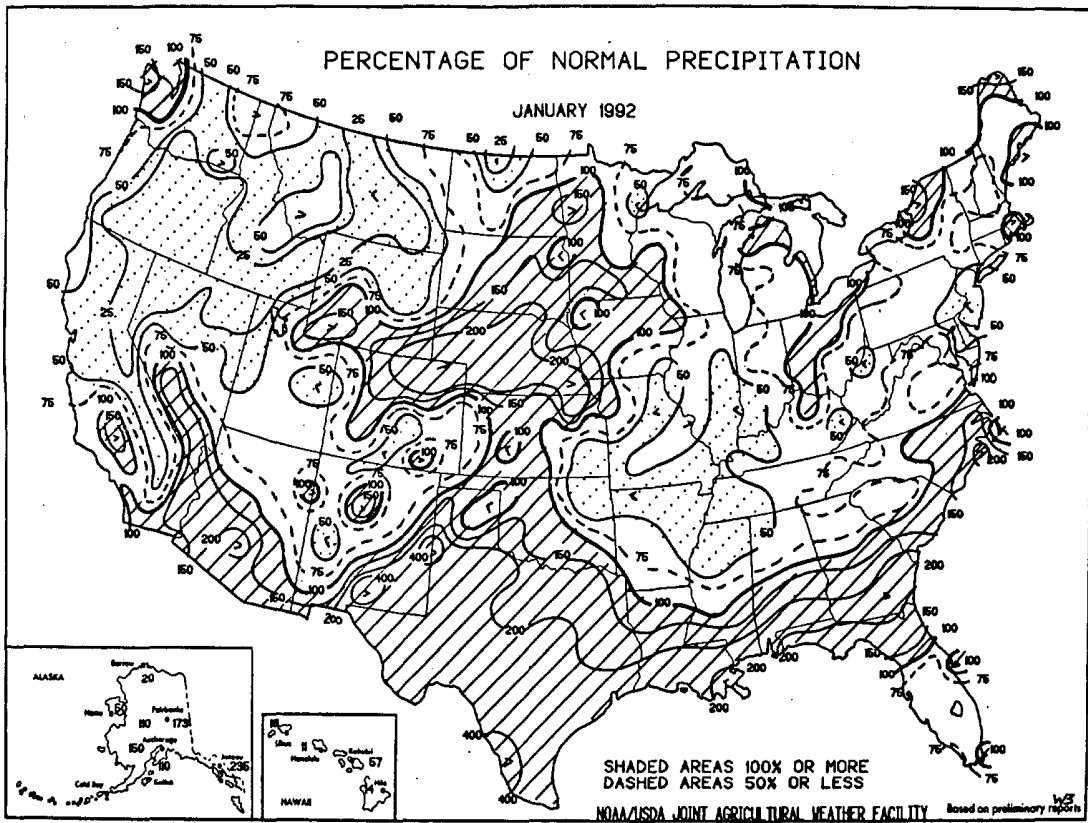
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Fig. 4

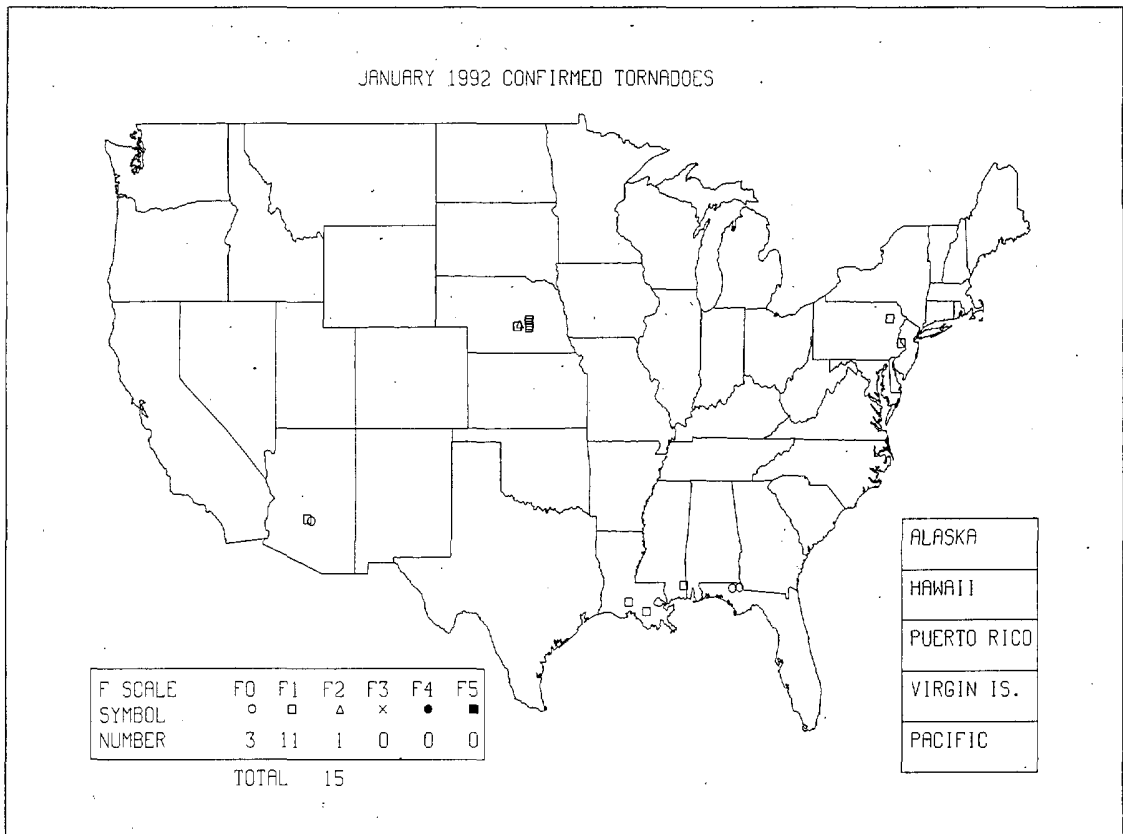


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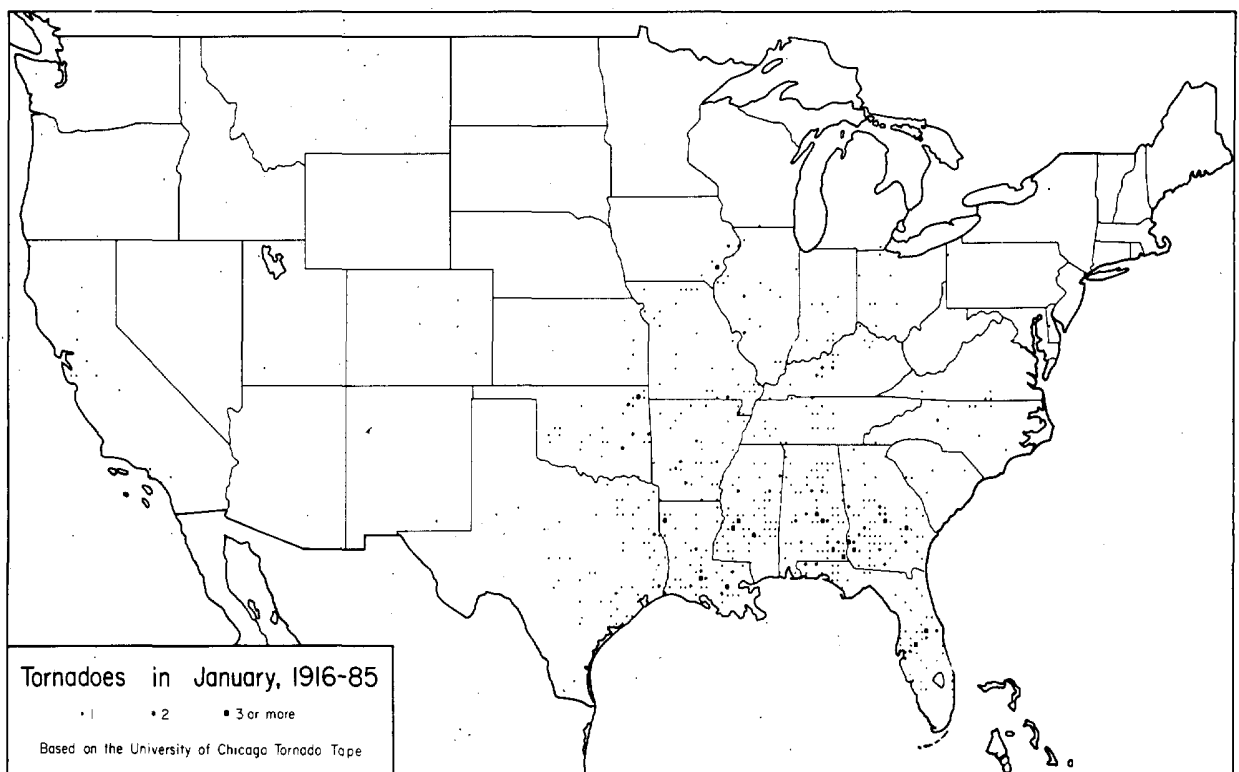
Fig. 5



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The new year began with a total of 15 tornadoes in January. Six of these tornadoes occurred in Nebraska alone. The strongest tornado was an F2 near Grand Island. Outside of Nebraska, six F1 and three F0 tornadoes (as defined by the Fujita Tornado Scale) occurred. Nationally, most of the tornadoes were short-lived, but still caused two injuries.



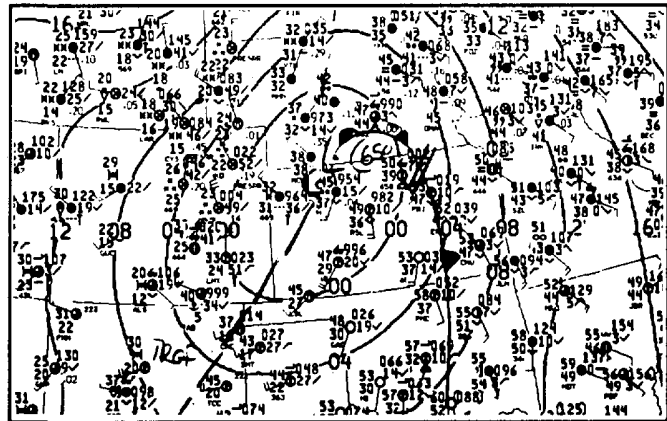
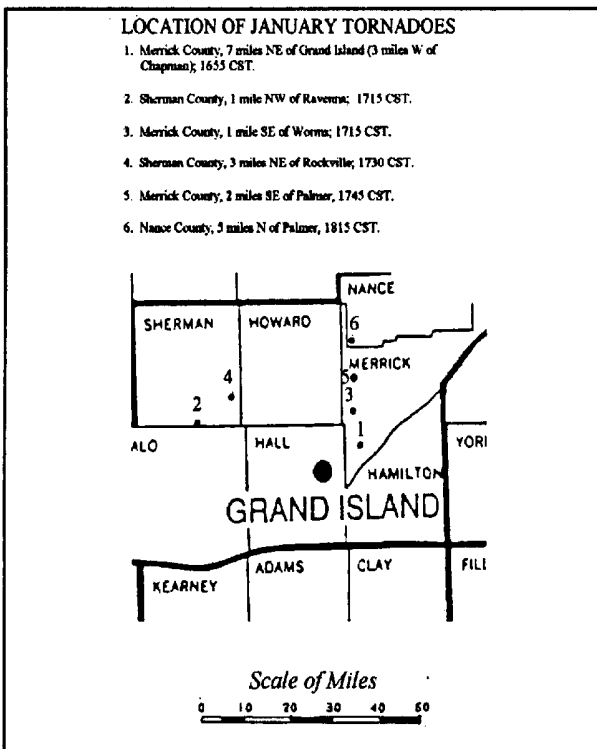


# OUTSTANDING STORMS OF THE MONTH

## 1. January Tornadoes in Nebraska

On January 7, Nebraska recorded its first ever January tornadoes. Six tornadoes touched down near Grand Island, Nebraska. The strongest of the tornadoes (as defined by the Fujita Tornado Scale) was an F2 tornado that struck near Rockville (location number 4 on map below). The other five tornadoes were F1's. Fortunately, all the tornadoes were short-lived and caused no deaths or injuries.

Right: Photograph of an F1 tornado 1 mile southeast of Worms at approximately 1715 CST (location number 3 on map below). Photograph was taken from a location 2 miles west and 1 mile north of Chapman. (Photograph by Mrs. Elsie Houdek, Chapman, Nebraska; photograph supplied by Susan Anderson, WSFO Omaha, Nebraska.)



## 2. Lake Effect Snow in Ohio



Heavy rain changed to lake effect snow in Ohio in the morning hours of January 14. The snow forced banks, schools, and many businesses to close. Final snow depths ranged from four to ten inches over northern Ohio. Ten inch snow amounts were common in and around Toledo.

Photograph provided by Brad Herold, Toledo, Ohio.



# Storm Data and Unusual Weather Phenomena

January 1992

| Location  | Date     | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |        | Character of Storm                 |
|---|----------|----------------------------|---------------------------|--------------------------|----------------------|---------|---------------------|--------|------------------------------------|
|   |          |                            |                           |                          | Killed               | Injured | Property            | Crops  |                                    |
| <b>ALABAMA</b>  |          |                            |                           |                          |                      |         |                     |        |                                    |
| Butler County   | 13       | 1447CST                    |                           |                          | 0                    | 0       | ?                   | ?      | Thunderstorm Winds                 |
| Strong thunderstorm winds blew down numerous trees and power lines in the McKenzie area. Several buildings received major damage. The roofs of a school and several homes were blown off and one house was destroyed. Trees also were blown across United States Highway 31 about 3 miles north of McKenzie.  |          |                            |                           |                          |                      |         |                     |        |                                    |
| Mobile County   | 13       | 1530CST                    |                           |                          | 0                    | 0       | ?                   | ?      | Thunderstorm Winds                 |
| Power lines were blown down about 9 miles south of the Mobile Airport.  |          |                            |                           |                          |                      |         |                     |        |                                    |
| Crenshaw County   | 13       | 1540CST                    |                           |                          | 0                    | 0       | ?                   | ?      | Thunderstorm Winds                 |
| Seven to eight trees were blown down near the intersection of State Highway 106 and County Road 77 in the southern portion of the county.   |          |                            |                           |                          |                      |         |                     |        |                                    |
| <b>ARIZONA</b>  |          |                            |                           |                          |                      |         |                     |        |                                    |
| Maricopa County<br>Phoenix  | 06       | 1408MST                    | 1.2                       | 30                       | 0                    | 0       | 4                   | 0      | Tornado (F1)<br>Hail (0.75)        |
| A strong Pacific, low-pressure system moved into the state and thunderstorms formed over the deserts. Some severe thunderstorms with large hail struck the Phoenix area. Extensive damage was reported at Greenworld Nursery with greenhouses, plants, and trees damaged. Eyewitnesses reported a funnel cloud that resembled "several cloud fingers extending down from the main dark cloud." The tornado moved eastward and caused roof damage at 41st Street and Baseline. An apartment complex at 35th Street and Baseline sustained roof damage. High winds damaged tents in Scottsdale at the Phoenix Open, as well as two newly framed houses at Stonegate, near 115th Street and Mountain View. Tree limbs fell on power lines knocking out power to about 13,000 homes and businesses. |          |                            |                           |                          |                      |         |                     |        |                                    |
| Mesa  | 06       | 1430MST                    | 0.5                       | 20                       | 0                    | 0       | 4                   | 0      | Tornado (F0)<br>Hail (0.75)        |
| Trees, fences, roofs and small buildings damaged as the weak tornado moved eastward through a residential area. Hail covered the ground throughout much of Tempe and Mesa. Williams Air Force Base received dime-size hail at about the same time.  |          |                            |                           |                          |                      |         |                     |        |                                    |
| Pima County<br>Ajo<br>Tucson  | 06<br>12 | 1500MST<br>0430MST         |                           |                          | 0<br>0               | 0<br>0  | 0<br>4              | 0<br>0 | Funnel Cloud<br>Thunderstorm Winds |
| A line of thunderstorms struck the city and produced winds that gusted to 44 mph at the airport. On the northwestern side, near 14th Ave and Glenn, a vacant mobile home was turned end-to-end and landed on an occupied unit. On the eastern side, near 22nd and Pantano, large tree limbs were ripped off. Windows on two nearby campers were shattered.  |          |                            |                           |                          |                      |         |                     |        |                                    |
| <b>ARKANSAS</b>   |          |                            |                           |                          |                      |         |                     |        |                                    |
| ARZ009-011-016<br>Southern Arkansas   | 17<br>18 | 2300CST-<br>1500CST        |                           |                          | 0<br>0               | 0<br>0  | 0<br>0              | 0<br>0 | Heavy Snow                         |
| Up to 7 inches of snow fell across south Arkansas from late on the 17th through the afternoon of the 18th. The weight of the snow broke tree limbs which then broke some power lines, causing scattered power outages.  |          |                            |                           |                          |                      |         |                     |        |                                    |
| <b>CALIFORNIA, Northern</b>   |          |                            |                           |                          |                      |         |                     |        |                                    |
| Northern and Central<br>California  | 05<br>06 | 0000PST-<br>0300PST        |                           |                          | 0<br>0               | 0<br>0  | 4<br>0              | 0<br>0 | Winter Storm                       |
| A strong storm system moved southeastward over the state. High winds were experienced along the northwestern coast with a mobile home at Shelter Cove destroyed. Elsewhere, power outages and minor damage were reported. Snow fell from the northern mountains to the entire Sierra Nevada and into the Techachapis. Amounts ranged from 1 to 2 feet.  |          |                            |                           |                          |                      |         |                     |        |                                    |



# Storm Data and Unusual Weather Phenomena

January 1992

| Location | Date | Time Local/Standard | Path Length (Miles) | Path Width (Yards) | Number of Persons Killed | Injured | Estimated Damage Property | Crops | Character of Storm |
|----------|------|---------------------|---------------------|--------------------|--------------------------|---------|---------------------------|-------|--------------------|
|----------|------|---------------------|---------------------|--------------------|--------------------------|---------|---------------------------|-------|--------------------|

## COLORADO

|                           |       |  |  |  |   |   |   |   |             |
|---------------------------|-------|--|--|--|---|---|---|---|-------------|
| COZ009<br>San Luis Valley | 01-31 |  |  |  | ? | ? | ? | ? | Record Cold |
|---------------------------|-------|--|--|--|---|---|---|---|-------------|

January was a record cold month for the San Luis Valley. While no individual daily records were broken, this was the coldest January on record (since 1960) with an average monthly temperature of 1.4 degrees, 14.6 degrees below the normal of 16.0 degrees. The old record of 1.6 degrees was set in 1984. Of the 31 days in the month, only 1 day saw the maximum temperature rise above freezing (33 degrees on the 7th), and only once did the minimum remain above zero (2 degrees on the 7th).

|  |    |                 |  |  |   |   |   |   |      |
|--|----|-----------------|--|--|---|---|---|---|------|
| COZ002-004-011-012-013-014<br>Northern and Central Mountains and Northeastern Colorado | 01 | 0000MST-1200MST |  |  | 0 | 0 | ? | ? | Snow |
|--|----|-----------------|--|--|---|---|---|---|------|

New Year's Eve snows continued along the Front Range and northeastern Colorado. An additional 2 to 4 inches fell before ending around noon areawide. Storm totals for the two days ranged from 4 to 12 inches with the higher amounts in the foothills.

|  |       |                 |  |  |   |   |   |   |      |
|--|-------|-----------------|--|--|---|---|---|---|------|
| COZ003-004-007-008<br>Southwest and Central Mountains, West Central Valleys and Four Corners | 03-04 | 1800MST-1800MST |  |  | 0 | 0 | ? | ? | Snow |
|--|-------|-----------------|--|--|---|---|---|---|------|

A weak disturbance moved across southwestern Colorado, producing snows of 2 to 6 inches over the region. Representative snow amounts included 6 inches at Gothic; 5 inches at St. Paul and Wolf Creek Ski Areas; and 4 inches at Vail, Irwin and Purgatory Ski Areas. Generally less than 3 inches fell at the lower elevations of the Four Corners region and the West Central Valleys.

|                                 |       |                 |  |  |   |   |   |   |            |
|---------------------------------|-------|-----------------|--|--|---|---|---|---|------------|
| COZ002-004-008-010<br>Mountains | 06-08 | 1800MST-1800MST |  |  | 0 | 0 | ? | ? | Heavy Snow |
|---------------------------------|-------|-----------------|--|--|---|---|---|---|------------|

A strong, upper-level low moved across the western part of Colorado, bringing heavy snow to the mountains. Snow totals were as high as 30 inches. Snow amounts included 30 inches at Vail; 28.5 inches at Mary Jane Ski Area; 28 inches at Steamboat Springs; 21 inches at Irwin and Winter Park; 19.5 inches at Monarch; 18.5 inches at Wolf Creek; 16 inches at Berthoud Pass; and 14 inches at Telluride, Aspen Mountain and Beaver Creek. Strong wind caused blowing snow, frequently reducing visibilities to near zero.

|   |       |                 |  |  |   |   |   |   |                        |
|---|-------|-----------------|--|--|---|---|---|---|------------------------|
| COZ011-012-013-014<br>Northeastern Colorado | 06-07 | 2100MST-1800MST |  |  | 0 | 0 | ? | ? | Heavy Snow<br>Blizzard |
|---|-------|-----------------|--|--|---|---|---|---|------------------------|

While heavy snow was falling in the mountains, blizzard conditions were setting in the northeast. Late on the 6th, a strong upper level low and an associated Pacific frontal system moved through the state. As the low pushed into eastern Colorado, heavy snow began across the Front Range, the Northeast Plains and Border and the Palmer Divide. Snow fell at rates of 2 to 3 inches an hour at times. Snow continued overnight and through the early afternoon on the 7th. Winds increased from the north to 25 to 45 mph during the early morning hours, causing whiteouts over much of the northeast. Drifts of 4 to 8 feet were common. Hundreds of motorists were stranded by snow drifts across roads and highways in northeast Colorado. The heavy snow and the blizzard conditions forced the Highway Patrol to close Interstate 70 from Denver to the Kansas border. Interstate 25 was also closed for a while from Denver to north of Colorado Springs along with numerous other highways and roads in northeastern Colorado. By late afternoon on the 7th, conditions improved quickly as the upper low moved east through Kansas and Nebraska. Snowfall totals ranged from a couple of inches in the foothills west of Denver, to as much 2 feet on the east side of the Denver metro area. The heaviest snow fell in a band from Denver's northern suburbs of Westminster and Thornton through Aurora and East Denver southeast to Parker. Snowfall totals included 22 inches in southeast Aurora; 18 inches in northeast Denver; 17 inches in central Aurora; 15 inches at Stapleton Airport; 13 inches at Northglenn; 10 inches at Loveland and Parker; and 9 inches at Westminster. Farther east, snows were generally 6 to 10 inches but west of Denver, snows were only 1 to 4 inches.

# Storm Data and Unusual Weather Phenomena

January 1992

| Location | Date | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |       | Character of Storm |
|----------|------|----------------------------|---------------------------|--------------------------|----------------------|---------|---------------------|-------|--------------------|
|          |      |                            |                           |                          | Killed               | Injured | Property            | Crops |                    |

## COLORADO Cont'd

|   |    |          |  |  |   |   |   |   |      |
|---|----|----------|--|--|---|---|---|---|------|
| COZ002-004-008-<br>010-011-012-013-<br>014-015, Mountains,<br>Northeastern Portion,<br>Palmer Divide, and<br>Southern Foothills | 11 | 1800MST- |  |  |   |   |   |   |      |
|   | 12 | 2400MST  |  |  | 0 | 0 | ? | ? | Snow |

A Pacific storm system moved through the state late on the 11th and produced snow across the mountains, the foothills and the northeastern plains. Snow totals were generally in the 2 to 8 inches range but a few mountain and foothills sites had over a foot of new snow. Conifer, southwest of Denver, had 17.5 inches of snow, most of it on the 12th. Rye, in the southern foothills, had 17 inches. Other snow amounts included 14 inches at Doubleheader; 13 inches at Lake Eldora; 11 inches at Aspen Mountain; 10 inches at Cuchara; 8 inches at Fort Collins; 7 inches at Morrison and Colorado Sierra; and 6 inches at Castle Rock, Trinidad and Rollinsville. Denver Stapleton Airport received 4.4 inches and Colorado Springs had 3 inches. Strong wind accompanied the snow and forced the closure of many roads, including all roads into Limon where drifts as high 3 feet covered the roads.

|   |    |          |  |  |   |   |   |   |                      |
|---|----|----------|--|--|---|---|---|---|----------------------|
| COZ002-004-011-<br>012-014<br>Northern and<br>Central Mountains,<br>Northeast | 13 | 1800MST- |  |  |   |   |   |   |                      |
|   | 14 | 2400MST  |  |  | 0 | 0 | ? | ? | Snow<br>Blowing Snow |

An upper level trough swung across the Rockies, bringing snow to the northern half of the Colorado Rockies and the northeast. Snow amounts were generally under 10 inches with most under 5 inches. Steamboat Springs had the most snow with 12 inches. Other snow amounts included 9.5 inches at Vail; 7 inches at Thornton (north of Denver); 6 inches at Mary Jane Ski Area; and 5 inches at Beavercreek. Denver had 3.4 inches. Gusty wind caused areas of blowing snow on the plains as well as the mountains, sometimes reducing visibilities to 0.25 mile. Haxtun, in extreme northeastern Colorado, reported wind gusts to 65 mph and whiteout conditions during the afternoon of the 14th. Loveland, along the northern foothills, also had whiteout conditions with wind gusts to 60 mph.

|   |    |                     |  |  |   |   |   |   |            |
|---|----|---------------------|--|--|---|---|---|---|------------|
| COZ002-004-011<br>Northern and<br>Central Mountains,<br>Front Range | 22 | 0000MST-<br>0900MST |  |  |   |   |   |   |            |
|   |    |                     |  |  | 0 | 0 | ? | ? | High Winds |

Strong northwesterly flow aloft produced high winds across the east slope and the foothills of the Northern and Central mountains and the Front Range. Gusts to 58 mph (50 knots) occurred after midnight at the U.S. Atomic Energy Commission's Rocky Flats facility south of Boulder. Estes Park had a gust of 70 mph (61 knots)

|   |    |                     |  |  |   |   |   |   |            |
|---|----|---------------------|--|--|---|---|---|---|------------|
| COZ002-004-011<br>Northern and<br>Central Mountains,<br>Front Range | 23 | 0000MST-<br>1500MST |  |  |   |   |   |   |            |
|   |    |                     |  |  | 0 | 0 | ? | ? | High Winds |

High winds again struck the east slope with the U.S. Atomic Energy Commission's Rocky Flats facility reporting gusts to 63 mph (55 knots) shortly after midnight. Gusts to 68 mph (59 knots) occurred at Rustic. Winds continued at sustained speeds of 40 to 50 mph (35 to 44 knots) until early afternoon.

|  |    |                     |  |  |   |   |   |   |            |
|--|----|---------------------|--|--|---|---|---|---|------------|
| COZ002-004-011-012<br>Northern and<br>Central Mountains,<br>Northeast Plains,<br>Front Range | 24 | 0000MST-<br>2100MST |  |  |   |   |   |   |            |
|  |    |                     |  |  | 0 | 0 | 4 | ? | High Winds |

Northwesterly flow aloft continued over the state and combined with a strong surface high to produce high winds for the third day. Wind speeds were higher and stronger than on the previous two days. The strong wind began to appear on NWS mesonet observation equipment shortly after midnight with a gust to 59 mph (51 knots) at Estes Park. Soon afterward, the Fritz Peak (near Rollinsville) station recorded a gust to 83 mph (72 knots). A spotter at Buckhorn Mountain (west of Fort Collins) measured a gust to 66 mph (57 knots). The wind continued to increase during the day and spread into the plains. By noon, wind speeds exceeded 80 mph (80 knots) over most of the area. At 1146MST Fritz Peak measured a gust to 100 mph (87 knots). A north Boulder spotter reported a gust to 93 mph (81 knots). Sustained winds of 40 mph with gusts to 68 mph (59 knots) were reported north of New Raymer in Weld County. The National Center for Atmospheric Research (NCAR) in Boulder recorded a wind gust to 143 mph (124 knots). This was the second highest wind speed ever recorded at NCAR. Several tractor-semitrailers were overturned along

# Storm Data and Unusual Weather Phenomena

January 1992

| Location | Date | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons<br>Killed | Injured | Estimated<br>Damage<br>Property Crops |  | Character of Storm |
|----------|------|----------------------------|---------------------------|--------------------------|--------------------------------|---------|---------------------------------------|--|--------------------|
|----------|------|----------------------------|---------------------------|--------------------------|--------------------------------|---------|---------------------------------------|--|--------------------|

## COLORADO Cont'd

highways, particularly Colorado Highway 93 between Golden and Boulder. Traffic lights and signs were knocked down in Boulder. At around 1100 MST railroad crossing bars were snapped by the wind in Fort Collins. Later in the afternoon part of a rood was blown off a home 2 miles northwest of Masonville. Other high wind gust reports included 86 mph (75 knots) at Rocky Flats; 80 mph (70 knots) at Masonville; 79 mph (69 knots) at both Estes Park and Fort Collins; and 61 mph (53 knots) at Wellington (north-northeast of Fort Collins).

## CONNECTICUT

|                    |    |                     |  |  |   |   |   |   |       |
|--------------------|----|---------------------|--|--|---|---|---|---|-------|
| CTZ001-002-003-004 | 00 | 0500EST-<br>1200EST |  |  | 0 | 0 | 0 | 0 | Glaze |
|--------------------|----|---------------------|--|--|---|---|---|---|-------|

Light freezing rain caused icy surfaces which resulted in scores of skidding accidents across most of the state except in the coastal areas. Schools were closed and openings were delayed across the northern portion of the state when roads quickly became sheets of ice during the early morning commute. More than 50 accidents were reported in the greater Hartford area.

|                            |    |                     |  |  |   |   |   |   |            |
|----------------------------|----|---------------------|--|--|---|---|---|---|------------|
| CTZ002-003-004-<br>005-006 | 23 | 1900EST-<br>2300EST |  |  | 0 | 0 | 5 | 0 | High Winds |
|----------------------------|----|---------------------|--|--|---|---|---|---|------------|

Gale force southern winds gusting up to 60 mph caused scattered power outages across the state. There was some minor coastal flooding. Up to 12,000 electric customers lost power when high winds knocked tree limbs onto power lines in central and eastern Connecticut. A peak wind gust of 58 mph was recorded in Bridgeport.

## DELAWARE

|   |          |                     |  |  |   |   |   |   |                             |
|---|----------|---------------------|--|--|---|---|---|---|-----------------------------|
| DEZ001-002<br>Rehoboth Beach<br>Dewey Beach<br>Bethany Beach<br>2 S Bethany Beach | 03<br>04 | 1800EST-<br>1500EST |  |  | 0 | 0 | 7 | 0 | High Winds<br>Coastal Flood |
|---|----------|---------------------|--|--|---|---|---|---|-----------------------------|

An intense, small-diameter coastal storm wreaked destruction on the mid-Atlantic coastline. Heavy erosion of the dunes was widespread. The strongest winds occurred on the morning of the 4th as the storm came onshore over the lower Delmarva Peninsula. At Rehoboth Beach, about 75% of the mile-long boardwalk was demolished or heavily damaged; local officials estimated the cost of replacement at one million dollars. About half the boardwalk at Bethany Beach was lost. Three houses were washed into the ocean at South Bethany, and about 65 others were damaged. 15 homes in all were destroyed on the Delaware Coast and at least 500 were damaged. The beach areas in Kent and Sussex Counties were declared Federal disaster areas. Damage to the beaches was estimated by local officials at \$3 to \$4 million dollars. The water supply at Dewey Beach was contaminated as a result of broken water and sewer lines. A number of hunters had to be rescued when rising flood waters inundated their duck blinds. On the 4th, winds of 83 mph (72 knots) were recorded at the old Coast Guard site at Indian River on the morning of the 4th; tides ran 2 to 3 feet above normal, with swells offshore as high as 18 to 20 feet.

## FLORIDA

|                                |    |         |   |   |   |   |   |   |            |
|--------------------------------|----|---------|---|---|---|---|---|---|------------|
| Monroe County<br>8 SW Key West | 09 | 1150EST | ? | ? | 0 | 0 | 0 | 0 | Waterspout |
|--------------------------------|----|---------|---|---|---|---|---|---|------------|

A waterspout was observed briefly 8 miles southwest of the Key West Airport.

|                              |    |         |  |  |   |   |   |   |                    |
|------------------------------|----|---------|--|--|---|---|---|---|--------------------|
| Okaloosa County<br>Crestview | 12 | 2330EST |  |  | 0 | 0 | 3 | 0 | Thunderstorm Winds |
|------------------------------|----|---------|--|--|---|---|---|---|--------------------|

Strong downburst winds struck central Crestview. The front window of a furniture store was blown out and its roof damaged. Several trees were uprooted, knocking down power lines, with at least one tree being blown onto a vehicle, breaking its windows. A highway sign was blown into a county van in the courthouse parking lot.

|   |    |         |  |  |   |   |   |   |                    |
|---|----|---------|--|--|---|---|---|---|--------------------|
| Gadsden County<br>26 WNW<br>Tallahassee | 13 | 0205EST |  |  | 0 | 0 | 4 | 0 | Thunderstorm Winds |
|---|----|---------|--|--|---|---|---|---|--------------------|

Strong downburst winds struck north of Quincy, peeling the roofs off two adjacent mobile homes, and uprooting trees.

## Storm Data and Unusual Weather Phenomena

January 1992

| Location | Date | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons<br>Killed | Injured | Estimated<br>Damage<br>Property | Crops | Character of Storm |
|----------|------|----------------------------|---------------------------|--------------------------|--------------------------------|---------|---------------------------------|-------|--------------------|
|----------|------|----------------------------|---------------------------|--------------------------|--------------------------------|---------|---------------------------------|-------|--------------------|

### FLORIDA Cont'd

|  |    |                     |     |    |   |   |   |   |                    |
|--|----|---------------------|-----|----|---|---|---|---|--------------------|
| Alachua County<br>Gainesville  | 14 | 1210EST             |     |    | 0 | 0 | 0 | 0 | Funnel Cloud       |
| Three funnel clouds were observed by the county sheriff's deputies near Gainesville.   |    |                     |     |    |   |   |   |   |                    |
| Escambia County<br>Pensacola   | 23 | 0030EST-<br>0110EST |     |    | 0 | 0 | 4 | 0 | Thunderstorm Winds |
| Strong thunderstorm winds uprooted trees and damaged the roofs of two mobile homes near Pleasant Grove. Power lines were downed and awnings and screen porches damaged near Belleview.   |    |                     |     |    |   |   |   |   |                    |
| Washington County<br>32 S Dothan, AL   | 23 | 0210EST             | 0.7 | 20 | 0 | 0 | 5 | 0 | Tornado (F0)       |
| A small tornado struck Chipley near the intersection of Highways 77 and 280. The tornado overturned several mobile homes, wrecked sheds, uprooted numerous trees including large pines, and downed power lines before dissipating. |    |                     |     |    |   |   |   |   |                    |
| Leon County<br>Tallahassee   | 23 | 0320EST             |     |    | 0 | 0 | 2 | 0 | Thunderstorm Winds |
| Several tree limbs were broken off and some power lines were downed by strong winds just northeast of Tallahassee.   |    |                     |     |    |   |   |   |   |                    |
| Jackson County<br>36 SE Dothan, AL   | 23 | 0326EST             | 0.3 | 15 | 0 | 0 | 3 | 0 | Tornado (F0)       |

A small tornado damaged one mobile home and several sheds in a rural area near Dellwood.

### GEORGIA

|  |    |         |  |  |   |   |   |   |                    |
|--|----|---------|--|--|---|---|---|---|--------------------|
| Dougherty County<br>Albany   | 13 | 0600EST |  |  | 0 | 0 | 2 | ? | Thunderstorm Winds |
| Isolated power outages developed when winds tore down tree limbs and power lines.  |    |         |  |  |   |   |   |   |                    |
| Marion County<br>Buena Vista   | 13 | 1820EST |  |  | 0 | 0 | 2 | ? | Thunderstorm Winds |
| In Buena Vista and the surrounding area, power lines and large tree limbs were town down by strong winds.  |    |         |  |  |   |   |   |   |                    |
| Crawford County  | 13 | 1840EST |  |  | 0 | 0 | 2 | ? | Thunderstorm Winds |
| Strong winds tore down power lines and uprooted trees.   |    |         |  |  |   |   |   |   |                    |
| Stewart County<br>4 ENE Lumpkin  | 13 | 1810EST |  |  | 0 | 0 | 2 | ? | Thunderstorm Winds |
| Numerous tree limbs were blown down between Lumpkin and Richland along Georgia Highway 27. Scattered power outages developed when the limbs tore down power lines. |    |         |  |  |   |   |   |   |                    |
| Clinch County<br>Homerville  | 13 | 1920EST |  |  | 0 | 0 | 4 | ? | Flash Flood        |
| Ware County<br>Waycross  | 13 | 2115EST |  |  | 0 | 0 | ? | ? | Flash Flood        |
| Wayne County<br>Jesup  | 13 | 2200EST |  |  | 0 | 0 | ? | ? | Flash Flood        |

Moderate to heavy rain fell over portions of central and south Georgia late January 12th into the morning of January 13th. By 1630 EST, rainfall amounts of 4 to 5 inches had fallen across the same areas. Strong afternoon thunderstorms on the 13th produced flash flooding over Clinch, Ware, and Wayne Counties.

In downtown Homerville, flood waters ran into several stores. Georgia Highways 441 and 84 were closed by flooding. Several low-lying areas of Waycross were flooded by 2115 EST. Minor street

# Storm Data and Unusual Weather Phenomena

January 1992

| Location   | Date     | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |       | Character of Storm  |
|--|----------|----------------------------|---------------------------|--------------------------|----------------------|---------|---------------------|-------|---|
|  |          |                            |                           |                          | Killed               | Injured | Property            | Crops |   |
| <b>GEORGIA Cont'd</b>  |          |                            |                           |                          |                      |         |                     |       |   |
|  |          |                            |                           |                          |                      |         |                     |       | flooding developed in and around Jesup.   |
| Peach County   | 13       | 2045EST                    |                           |                          | 0                    | 0       | 3                   | ?     | Thunderstorm Winds  |
|  |          |                            |                           |                          |                      |         |                     |       | Thunderstorm winds uprooted numerous trees. The trees and winds tore down power lines; outages resulted.  |
| Floyd County<br>Cave Springs                                 | 13       | 2222EST                    |                           |                          | 0                    | 0       | 2                   | ?     | Thunderstorm Winds  |
|  |          |                            |                           |                          |                      |         |                     |       | Power outages developed around Cave Springs when lines were torn down by winds and broken limbs.  |
| Gordon County<br>Calhoun                                     | 13       | 2250EST                    |                           |                          | 0                    | 0       | 3                   | ?     | Thunderstorm Winds  |
|  |          |                            |                           |                          |                      |         |                     |       | Thunderstorm winds uprooted a few trees and blew down a large sign. Utility lines were torn down and power outages developed.   |
| GAZ003-004-005<br>006-007<br>Northern and<br>Central Georgia | 18<br>19 | 1100EST-<br>0400EST        |                           |                          | 0                    | 0       | 3                   | ?     | Rain<br>Light Snow<br>Heavy Snow  |
|  |          |                            |                           |                          |                      |         |                     |       | Light sleet and snow flurries developed over 1100 EST around Carrollton and LaGrange. By 1715 EST, rain mixed with sleet had spread over a large area of north and central Georgia generally south of a line from Rome to Toccoa. After 1830 EST, accumulations began around several towns in central Georgia and the sleet changed to snow over large areas. Around 2015 EST, a large area of mostly sleet and snow had developed north of a line from Augusta to Macon.   |
|  |          |                            |                           |                          |                      |         |                     |       | As the evening progressed, many traffic accidents occurred over north and central Georgia. A few power lines were downed by accumulations of precipitation and broken limbs around Augusta and in the Ben Hill section of Atlanta.  |
|  |          |                            |                           |                          |                      |         |                     |       | By 0245 EST, several counties had snow accumulations up to five inches on the ground. About 0400 EST on January 19th, the heavy snow ended. The greater accumulations occurred over the southern suburbs of Atlanta. The largest accumulations were: Monticello in Jasper County, 4 to 6 inches; Forsyth in Monroe County, 4 to 5 inches; Southern Fulton County, 3 to 5 inches; Newnan in Coweta County, 7 inches; Fayette County, 6 to 7 inches; Riverdale in Clayton County, 8.5 inches; Henry County, 6 inches; Spaulding County, 6 to 8 inches; Butts County, 6 inches; Covington in Newton County, 7 to 8 inches; Rockdale County, 5 to 6 inches; Hartsfield International Airport in Atlanta, 5 inches; and Lexington in Oglethorpe County, 4 to 5 inches; Madison in Morgan County, 4 inches. |
| Floyd County<br>Lindale<br>Cave Springs                      | 23       | 1410EST                    |                           |                          | 0                    | 0       | ?                   | ?     | Small Hail  |
| Hall County<br>Countywide                                    | 23       | 1450EST                    |                           |                          | 0                    | 0       | ?                   | ?     | Small Hail  |
| Gainesville  | 23       | 1500EST                    |                           |                          | 0                    | 0       | ?                   | ?     | Lightning   |
| Gainesville  | 23       | 1500EST                    |                           |                          | 0                    | 0       | 4                   | ?     | Thunderstorm Winds  |
|  |          |                            |                           |                          |                      |         |                     |       | Strong winds damaged the awning and roof of one building and damaged the roof of another building. Several trees were uprooted in Gainesville. Lightning toppled one tree that caused minor damage to three parked cars. Scattered utility outages developed in Gainesville.  |
| Forsyth County   | 23       | 1500EST                    |                           |                          | 0                    | 0       | 4                   | ?     | Thunderstorm Winds<br>Small Hail  |
|  |          |                            |                           |                          |                      |         |                     |       | Numerous trees were uprooted or snapped by strong winds as a thunderstorm moved over Forsyth County. Several homes were damaged and power lines were torn down.   |
| <b>IDAHO</b>   |          |                            |                           |                          |                      |         |                     |       |   |
| Snake River Valley<br>Southern Idaho                         |          | Entire Month               |                           |                          | 0                    | 0       | ?                   | ?     | Severe Drought  |
|  |          |                            |                           |                          |                      |         |                     |       | Six years of drought in southern Idaho was especially severe in the Snake River Valley. Snowpack in the Boise, Owyhee, and Portneuf River Basins were exceptionally low and similar to the extreme  |



# Storm Data and Unusual Weather Phenomena

January 1992

| Location  | Date                   | Time<br>Local/<br>Standard  | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |       | Character of Storm           |
|---|------------------------|---|---------------------------|--------------------------|----------------------|---------|---------------------|-------|------------------------------|
|   |                        |   |                           |                          | Killed               | Injured | Property            | Crops |                              |
| <b>IDAHO Cont'd</b>   |                        |   |                           |                          |                      |         |                     |       |                              |
|   |                        | low snowpack in the El Niño year of 1987.   |                           |                          |                      |         |                     |       |                              |
| <b>IDZ009</b><br>Panhandle  | <b>04</b>              | <b>0400PST-<br/>1200PST</b>   |                           |                          | 0                    | 0       | 0                   | 0     | <b>Heavy Snow</b>            |
|   |                        | Four inches of snow brought the snowdepth to 9 inches in Bonner County.   |                           |                          |                      |         |                     |       |                              |
| <b>IDZ006</b><br>West Central<br>Mountains  | <b>06</b>              | <b>0200MST-<br/>0800MST</b>   |                           |                          | 0                    | 0       | 0                   | 0     | <b>Heavy Snow</b>            |
|   |                        | Five inches of new snow fell bringing the depth to 13 inches at New Meadows.  |                           |                          |                      |         |                     |       |                              |
| <b>IDZ009</b><br>Panhandle  | <b>10</b>              | <b>1500PST-<br/>2200PST</b>   |                           |                          | 0                    | 0       | 4                   | 0     | <b>Snow</b>                  |
|   |                        | Snowfall during the rush-hour was blamed for 18 minor accidents.  |                           |                          |                      |         |                     |       |                              |
| <b>Canyon County</b><br>Caldwell  | <b>11</b>              | <b>1650MST</b>  |                           |                          | 0                    | 0       | 4                   | 0     | <b>Gust of Wind</b>          |
|   |                        | A sudden gust of wind lifted a taxiing ultralight aircraft off the airport runway and lodged it in powerlines. The pilot dropped to the ground unhurt.  |                           |                          |                      |         |                     |       |                              |
| <b>IDZ009-008-011</b><br>Northern Idaho   | <b>22</b><br><b>23</b> | <b>2200PST-<br/>1100PST</b>   |                           |                          | 0                    | 0       | 0                   | 0     | <b>Heavy Snow</b>            |
|   |                        | Six to eight inches of snow fell in northern Idaho.   |                           |                          |                      |         |                     |       |                              |
| <b>ILLINOIS</b>   |                        |   |                           |                          |                      |         |                     |       |                              |
| <b>ILZ009-012</b>   | <b>13</b><br><b>14</b> | <b>1600CST-<br/>0600CST</b>   |                           |                          | 0                    | 0       | 0                   | 0     | <b>Heavy Snow</b>            |
|   |                        | Snow began during the afternoon of the 13th and continued into the morning of the 14th. The band of heaviest snow was from near St. Louis, Missouri to Terre Haute, Indiana. Four to six inches of snow fell in this area. Six inches fell at both Charleston and Sullivan, Illinois. Two to three inches of snow fell north of the heavy snow band from around Quincy to Chicago and south of the heavy snow band over part of southern Illinois.  |                           |                          |                      |         |                     |       |                              |
| <b>ILZ004-010</b>   | <b>15</b>              | <b>0300CST-<br/>1800CST</b>   |                           |                          | 0                    | 0       | 0                   | 0     | <b>Blowing Snow<br/>Snow</b> |
|   |                        | An Alberta Clipper dropped 2 to 4 inches of snow across parts of north-central Illinois in zones 4 through 8 during the morning hours of the 15th. Northwest to north winds gusted to 40 to 50 mph in the wake of the storm in the late morning and afternoon hours. This resulted in severe blowing and drifting of snow over flat open farmland of central Illinois. Visibility dropped below 1 mile over much of central Illinois, with near whiteout conditions in some open areas. There were hundreds of vehicles in ditches and numerous accidents, including one fatal, 10 car pile-up on Interstate 39 near State Road 18. Portions of Interstates 55, 57 and 74 had to be closed for several hours. Many county and local roads were closed into the evening. The strong winds combined with plunging temperatures also created wind chill equivalent temperatures of 40 to 50 below zero in the afternoon and evening. |                           |                          |                      |         |                     |       |                              |
| <b>ILZ001-005 &gt; 007-008</b>  | <b>25</b>              | <b>0000CST-<br/>1200CST</b>   |                           |                          | 0                    | 0       | 0                   | 0     | <b>Heavy Snow</b>            |
|   |                        | Two to four inches of snow fell north of a line from Moline to Watseka and south of a line from Woodstock to Chicago. The heaviest snow fell in a narrow band from DuBuque, Iowa with 5 inches, to Ottawa with 6 inches, to near Joliet with 4.5 inches.  |                           |                          |                      |         |                     |       |                              |
| <b>INDIANA</b>  |                        |   |                           |                          |                      |         |                     |       |                              |
| <b>INZ005-006-008-009-<br/>010-012</b><br>West-central to<br>Northeastern Indiana | <b>14</b>              | <b>0015EST-<br/>1100EST</b>   |                           |                          | 0                    | ?       | ?                   | 0     | <b>Heavy Snow</b>            |
|   |                        | An intense low pressure system was tracked across Kentucky and into eastern Ohio. This system   |                           |                          |                      |         |                     |       |                              |

# Storm Data and Unusual Weather Phenomena

January 1992

| Location | Date | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons<br>Killed | Injured | Estimated<br>Damage<br>Property | Crops | Character of Storm |
|----------|------|----------------------------|---------------------------|--------------------------|--------------------------------|---------|---------------------------------|-------|--------------------|
|----------|------|----------------------------|---------------------------|--------------------------|--------------------------------|---------|---------------------------------|-------|--------------------|

## INDIANA Cont'd

brought snow to most of Indiana, with the heaviest snow of 4 to 6 inches falling over central and northeastern Indiana from Indianapolis to Fort Wayne. Wind gusts of 35 to 40 mph caused considerable blowing and drifting snow in north central Indiana. Drifts of 3 feet were reported in Cass and Howard Counties.

|  |    |          |  |  |   |   |   |   |            |
|--|----|----------|--|--|---|---|---|---|------------|
| INZ001-002-004-005<br>Northwestern and<br>North-central<br>Indiana | 15 | 1600EST- |  |  |   |   |   |   |            |
|  | 16 | 0001EST  |  |  | 0 | 0 | ? | 0 | Heavy Snow |

A low pressure system moving across north central Indiana dumped 5 to 7 inches of snow over the area. Winds gusting to 40 mph caused considerable blowing and drifting snow, and reduced visibilities to zero at times. Wind chill temperatures reached 40 to 50 below zero.

|  |    |          |  |  |   |   |   |   |            |
|--|----|----------|--|--|---|---|---|---|------------|
| INZ001-002-<br>Far Northwestern to<br>Far North-central<br>Indiana | 23 | 2200EST- |  |  |   |   |   |   |            |
|  | 24 | 1400EST  |  |  | 0 | ? | ? | 0 | Heavy Snow |

Lake effect snow totalled 4 to 6 inches across northern LaPorte and St. Joseph Counties and 2 to 3 inches in Elkhart and Marshall Counties. West winds gusting to 37 mph caused blowing and drifting snow, and reduced visibilities to near zero at times. A United Limo Bus carrying the University of Notre Dame Swim Team overturned on the Toll Road about 11.5 miles north of South Bend (1 mile east of Exit 72), resulting in 2 deaths and 35 injuries (1 serious injury) at 0015 EST on the 24th.

## IOWA

|   |    |          |  |  |   |   |   |   |            |
|---|----|----------|--|--|---|---|---|---|------------|
| IAZ001-002-003-004<br>005-006-007-008-009-<br>010-011-012-013-014-<br>015-SDZ018-NEZ010-<br>ILZ004, All of Iowa | 14 | 1800CST- |  |  |   |   |   |   |            |
|   | 15 | 0600CST  |  |  | 0 | 0 | 5 | 0 | High Winds |

|   |    |          |  |  |   |   |   |   |          |
|---|----|----------|--|--|---|---|---|---|----------|
| IAZ001-002-003-005-<br>006-007-008-010-011-<br>ILZ004<br>Northeast Iowa | 14 | 1800CST- |  |  |   |   |   |   |          |
|   | 15 | 0600CST  |  |  | 0 | 0 | 4 | 0 | Blizzard |

An Alberta Clipper raced across the state during the evening of the 14th and early morning of the 15th. Two to five inches of snow fell over about the northeast half of Iowa. As the low slid southeast, high winds occurred across the state in the wake of its arctic cold front. North to northwest winds of 25 to 45 mph were widespread over Iowa. Occasional gusts of 50 to 60 mph were reported. Ottumwa had one of the highest wind gusts with a 60 mph gust. Where the snow fell in the northeast, blizzard conditions occurred for several hours. Whiteouts were reported with numerous roads closed due to poor visibility. Southwest Iowa did not have the problems, since prior to this storm, there wasn't any snow on the ground anywhere in Iowa. Temperatures fell rapidly from the 20's and 30's to sub-zero levels. By early morning, all of the state was between zero and 13 degrees below zero. The combination of high winds with these temperatures sent wind chill indices to between 45 and 70 degrees below zero.

## KANSAS

|  |    |    |  |  |   |   |   |   |              |
|--|----|----|--|--|---|---|---|---|--------------|
| Kansas County<br>Northwestern<br>Portion | 01 | PM |  |  | 0 | 0 | 0 | 0 | Winter Storm |
|--|----|----|--|--|---|---|---|---|--------------|

A lackluster winter storm began late on December 31, 1991 and ended in the early afternoon on the 1st. Four to six inches fell across most of the area north of an Sharon Springs to Oberlin line. Goodland received 8 inches. Several minor automobile accidents were reported due to icy and snow packed roads.

## KENTUCKY

|               |    |         |  |  |   |   |   |   |       |
|---------------|----|---------|--|--|---|---|---|---|-------|
| Nelson County | 04 | 0700EST |  |  | 0 | 0 | 0 | 0 | Flood |
|---------------|----|---------|--|--|---|---|---|---|-------|

The Rolling Fork River at Boston rose to 36.5 feet, which is about 2 feet above the flood stage.

|                |    |         |  |  |   |   |   |   |       |
|----------------|----|---------|--|--|---|---|---|---|-------|
| Fleming County | 14 | 0200EST |  |  | 0 | 2 | 5 | 0 | Winds |
|----------------|----|---------|--|--|---|---|---|---|-------|

High winds destroyed a mobile home in Mt. Carmel. Cecil Johnson (88-years-old) and his wife were taken to the hospital with cuts and bruises. In Flemingsburg, high winds also damaged

## Storm Data and Unusual Weather Phenomena

January 1992

| Location | Date | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons<br>Killed | Injured | Estimated<br>Damage<br>Property | Crops | Character of Storm |
|----------|------|----------------------------|---------------------------|--------------------------|--------------------------------|---------|---------------------------------|-------|--------------------|
|----------|------|----------------------------|---------------------------|--------------------------|--------------------------------|---------|---------------------------------|-------|--------------------|

### KENTUCKY Cont'd

several homes and downed a large tree.

|              |    |         |  |  |   |   |   |   |       |
|--------------|----|---------|--|--|---|---|---|---|-------|
| Lewis County | 14 | 0215EST |  |  | 0 | 0 | 4 | 0 | Winds |
|--------------|----|---------|--|--|---|---|---|---|-------|

High winds destroyed a barn near Tolesboro and a mobile home was blown off its foundation in the western portion of the county. In addition several trees and power lines were blown and shingles were blown off the roofs of several homes across the county.

### LOUISIANA

|                            |    |         |  |  |   |   |   |   |                                   |
|----------------------------|----|---------|--|--|---|---|---|---|-----------------------------------|
| Caddo Parish<br>Shreveport | 08 | 0210CST |  |  | 0 | 0 | 3 | 0 | Thunderstorm Winds<br>Hail (1.00) |
|----------------------------|----|---------|--|--|---|---|---|---|-----------------------------------|

|                            |    |         |  |  |   |   |   |   |                                   |
|----------------------------|----|---------|--|--|---|---|---|---|-----------------------------------|
| Desoto Parish<br>Stonewall | 08 | 0215CST |  |  | 0 | 0 | 0 | 0 | Thunderstorm Winds<br>Hail (0.75) |
|----------------------------|----|---------|--|--|---|---|---|---|-----------------------------------|

|                            |    |         |  |  |   |   |   |   |                                   |
|----------------------------|----|---------|--|--|---|---|---|---|-----------------------------------|
| Caddo Parish<br>Keithville | 08 | 0220CST |  |  | 0 | 0 | 0 | 0 | Thunderstorm Winds<br>Hail (0.90) |
|----------------------------|----|---------|--|--|---|---|---|---|-----------------------------------|

|                         |    |         |  |  |   |   |   |   |                                   |
|-------------------------|----|---------|--|--|---|---|---|---|-----------------------------------|
| Bossier Parish<br>Sligo | 08 | 0225CST |  |  | 0 | 0 | 0 | 0 | Thunderstorm Winds<br>Hail (0.90) |
|-------------------------|----|---------|--|--|---|---|---|---|-----------------------------------|

|       |    |         |  |  |   |   |   |   |                                   |
|-------|----|---------|--|--|---|---|---|---|-----------------------------------|
| Koran | 08 | 0310CST |  |  | 0 | 0 | 0 | 0 | Thunderstorm Winds<br>Hail (0.90) |
|-------|----|---------|--|--|---|---|---|---|-----------------------------------|

Scattered thunderstorms moving northeast about 30 mph produced 0.75- to 1.00-inch hail at Shreveport, Stonewall, Keithville, Sligo and Koran.

|  |    |         |     |    |   |   |   |   |              |
|--|----|---------|-----|----|---|---|---|---|--------------|
| Lafayette Parish<br>Lafayette<br>Broussard | 12 | 0630CST | 2.0 | 25 | 0 | 0 | 5 | 0 | Tornado (F1) |
|--|----|---------|-----|----|---|---|---|---|--------------|

A tornado on a intermittent path destroyed one mobile home and heavily damaged five others in the southern portion of the city of Lafayette and in the town of Broussard. The tornado damaged the roof of a Lafayette business, tore down numerous trees and snapped off some utility poles.

|                                     |    |         |     |    |   |   |   |   |              |
|-------------------------------------|----|---------|-----|----|---|---|---|---|--------------|
| Lafourche Parish<br>4 WNW Thibodaux | 12 | 1015CST | 0.2 | 20 | 0 | 0 | 4 | 0 | Tornado (F1) |
|-------------------------------------|----|---------|-----|----|---|---|---|---|--------------|

A small tornado damaged the roofs of two homes and a few outbuildings 4 miles west-northwest of Thibodaux. The tornado threw a piece of ply wood and embedded it in the wall of one of the homes. The twister sucked out the air conditioner from a parked van and threw it against the driver's side window along with showering the van with roofing shingles from a nearby house. Some of these shingles were later found embedded in the van's roof. The van was occupied by a woman and three children when the tornado struck; fortunately, they all escaped unharmed.

|  |    |                     |  |  |   |   |   |   |            |
|--|----|---------------------|--|--|---|---|---|---|------------|
| LAZ005-006-007-008<br>Southwestern and<br>Central Portions of<br>Louisiana | 13 | 1700CST-<br>1900CST |  |  | 0 | 0 | ? | 0 | High Winds |
|--|----|---------------------|--|--|---|---|---|---|------------|

A strengthening low pressure area produced strong winds between 40 and 50 mph which blew down numerous trees and power lines in southwestern and central parts of Louisiana. Some 5,700 people in Vernon and Beauregard Parishes lost electric power at one time; other electrical outages were reported in the Lake Charles area and in Ville Platte where about 1,000 homes and businesses lost electrical service.

|                            |    |         |  |  |   |   |   |   |      |
|----------------------------|----|---------|--|--|---|---|---|---|------|
| Caddo Parish<br>Shreveport | 16 | 1000CST |  |  | 1 | 0 | 0 | 0 | Cold |
|----------------------------|----|---------|--|--|---|---|---|---|------|

A 77-year-old man died from hypothermia in his unheated Shreveport home according to the Caddo Parish corner. (M77H)

## Storm Data and Unusual Weather Phenomena

January 1992

| Location | Date | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |       | Character of Storm |
|----------|------|----------------------------|---------------------------|--------------------------|----------------------|---------|---------------------|-------|--------------------|
|          |      |                            |                           |                          | Killed               | Injured | Property            | Crops |                    |

### MAINE

|                        |    |                 |  |  |   |    |   |   |           |
|------------------------|----|-----------------|--|--|---|----|---|---|-----------|
| MEZ001-002-005-006-009 | 04 | 2000EST-1200EST |  |  | 0 | 11 | ? | 0 | Ice Storm |
|------------------------|----|-----------------|--|--|---|----|---|---|-----------|

A low-pressure system over eastern Virginia during the late afternoon hours on the 4th, spread moisture north into Maine throughout the night and early morning hours on the 4th and 5th. Shallow, cold low level air was in place over western, central, and northern Maine which enabled the precipitation to fall in the form of freezing rain. Numerous cars were involved in collisions or had skidded off the road. Eleven people were reported injured in the accidents.

York County  
Sanford  
Springvale  
Penobscot County  
Bangor

|  |    |         |  |  |   |   |   |   |      |
|--|----|---------|--|--|---|---|---|---|------|
|  | 09 | 2055EST |  |  | 0 | 0 | ? | 0 | Snow |
|--|----|---------|--|--|---|---|---|---|------|

|  |    |                 |  |  |   |   |   |   |      |
|--|----|-----------------|--|--|---|---|---|---|------|
|  | 09 | 2300EST-0200EST |  |  | 0 | ? | ? | 0 | Snow |
|--|----|-----------------|--|--|---|---|---|---|------|

The low-pressure system moving northeast along the Maine coastline on the 9th brought snow to most of the state. Two single car accidents in Sanford and Springvale at 2055 EST resulted in damage to both vehicles. The snow caused 12 accidents in Bangor between 2300 EST and 0200 EST with some minor injuries being reported.

|                                    |    |                 |  |  |   |   |   |   |       |
|------------------------------------|----|-----------------|--|--|---|---|---|---|-------|
| MEZ007-008-009-010-011-012-013-014 | 14 | 0900EST-1600EST |  |  | 0 | ? | ? | 0 | Glaze |
|------------------------------------|----|-----------------|--|--|---|---|---|---|-------|

An early morning bout with freezing rain led to over 75 accidents across portions of southern, western, and central Maine. Numerous injuries were also reported as vehicles skidded off roads or were involved in collisions with other vehicles. Twenty-one accidents alone were reported in the Bath and Brunswick areas in a 3-hour time period.

Androscoggin County  
Auburn

|  |    |         |  |  |   |   |   |   |           |
|--|----|---------|--|--|---|---|---|---|-----------|
|  | 14 | 0300EST |  |  | 0 | 0 | ? | 0 | Lightning |
|--|----|---------|--|--|---|---|---|---|-----------|

Lightning struck an insulator causing damage to it. The bolt of lightning also knocked power out in portions of Auburn, Poland Spring, and New Gloucester.

Aroostook County  
Caribou

|  |    |         |  |  |   |   |   |   |      |
|--|----|---------|--|--|---|---|---|---|------|
|  | 15 | 1200EST |  |  | 0 | ? | ? | 0 | Snow |
|--|----|---------|--|--|---|---|---|---|------|

An early morning snow from a departing low pressure system caused several accidents in Caribou with some injuries reported.

|            |    |                 |  |  |   |   |   |   |            |
|------------|----|-----------------|--|--|---|---|---|---|------------|
| MEZ001-005 | 23 | 1500EST-0400EST |  |  | 0 | 0 | 0 | 0 | Heavy Snow |
|------------|----|-----------------|--|--|---|---|---|---|------------|

|  |    |                 |  |  |   |   |   |   |       |
|--|----|-----------------|--|--|---|---|---|---|-------|
| MEZ006-007-008-009-010-011-012-013-014 | 23 | 1500EST-0400EST |  |  | 0 | ? | ? | 0 | Glaze |
|--|----|-----------------|--|--|---|---|---|---|-------|

Over 6 inches of snow fell over the far northern and northwest portions of Maine in advance of a strong low pressure system moving into Northern New England. Meanwhile, a prolonged period of freezing rain fell across most of southern, western, and central Maine. More than 100 accidents resulted with most vehicles either skidding off the road or colliding with other vehicles. Extensive damage and numerous injuries were reported with the injuries all being minor in nature.

|                                |       |                 |  |  |   |   |   |   |            |
|--------------------------------|-------|-----------------|--|--|---|---|---|---|------------|
| MEZ004-007-008-010-011-013-014 | 23-24 | 2300EST-0800EST |  |  | 0 | 0 | ? | 0 | High Winds |
|--------------------------------|-------|-----------------|--|--|---|---|---|---|------------|

High Winds, in front of an intense low pressure system moving through Quebec Province, battered portions of Maine. Numerous locations reported wind speeds over 40 mph. Bangor, Bath, and Bar Harbor reported wind gusts of 60, 63, and 67 mph respectively. A 97 mph wind gust was reported at Owls Head in Knox County around 0600 EST on the 24th. The high winds knocked trees and power lines down, tore part of a roof off at Chelsea in Kennebec County, and sunk a boat in Jonesport as the winds ripped the boat from its moorings. Another boat also in Jonesport was heavily damaged when it was ripped from its moorings. Three boats at Bass Harbor in Hancock County were ripped from their moorings and tossed against the shore also causing extensive damage.

# Storm Data and Unusual Weather Phenomena

January 1992

| Location | Date | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons<br>Killed | Injured | Estimated<br>Damage<br>Property | Crops | Character of Storm |
|----------|------|----------------------------|---------------------------|--------------------------|--------------------------------|---------|---------------------------------|-------|--------------------|
|----------|------|----------------------------|---------------------------|--------------------------|--------------------------------|---------|---------------------------------|-------|--------------------|

## MARYLAND and DC

|   |          |                      |  |  |   |   |   |   |   |
|---|----------|----------------------|--|--|---|---|---|---|---|
| <b>MDZ001-004-005</b><br>Ocean City<br>Ocean City Airport<br>W Ocean City<br>5 NW Cambridge | 03<br>04 | 1800EST-<br>1200EST- |  |  | 0 | 5 | 7 | 0 | <b>High Winds</b><br><b>Coastal Flood</b> |
|---|----------|----------------------|--|--|---|---|---|---|---|

An intense, small-diameter coastal storm wreaked destruction on the mid-Atlantic coastline. The strongest winds occurred on the morning of the 4th as the storm came onshore over the lower Delmarva Peninsula. Tides reached 3 to 4 feet above normal. At Ocean City, beach erosion was mitigated by the new seawall, but local officials estimated that this storm, plus the "Halloween 1991" storm, removed 80% of the sand forming the dune system. Waves crashed into several ocean-front hotels, with many basement and first-floor units damaged by the inundation. Several people caught in their rooms by the onrushing waves suffered minor injuries. Winds of 60 knots (70 mph) were recorded at the Ocean City Airport around 0700 EST. About 40 families were displaced by flood waters. Flooding also affected the areas beyond the barrier island, mainly at West Ocean City. At Sinepuxent Bay, water reached 7 to 8 feet above normal. Four houses in a flooded subdivision in the Snug Harbor area of West Ocean City were washed off their foundations; cars in the area were covered by the floodwaters; and several mobile home parks were destroyed. Damages were estimated as follows: to private property, \$200,000 to 300,000; and to public parks and a city-owned golf course, \$500,000. In addition, replacement costs for the sand and dunes was estimated at 10 to 30 million dollars. A recreational-style pavilion at Horns Point was flattened by the wind. In southern Maryland, winds gusted over 50 mph at the height of the storm and caused many trees and tree limbs to be blown onto power lines. Resulting power outages affected more than 32,000 homes in southern Prince Georges, Anne Arundel, Calvert, St. Marys, and Charles Counties.

|  |    |         |  |  |   |   |   |   |                                 |
|--|----|---------|--|--|---|---|---|---|---------------------------------|
| <b>Frederick County</b><br>Emmitsburg<br>Myersville<br>Brunswick | 14 | 0905EST |  |  | 0 | 0 | 4 | 0 | <b>Thunderstorm Winds (G76)</b> |
|--|----|---------|--|--|---|---|---|---|---------------------------------|

A spotter recorded winds gusting to 88 mph (76 knots) at Emmitsburg. County Emergency Operations Center reported trees downed at Myersville and Brunswick. Power outages affected some 1,000 homes.

|  |    |                     |  |  |   |   |   |   |                           |
|--|----|---------------------|--|--|---|---|---|---|---------------------------|
| <b>Carroll County</b><br>2 WSW Greenmount<br>Westminster | 14 | 0910EST-<br>0930EST |  |  | 0 | 0 | 5 | 0 | <b>Thunderstorm Winds</b> |
|--|----|---------------------|--|--|---|---|---|---|---------------------------|

Many tin-roofed homes suffered at least partial unroofing in the county, particularly in the Snydersburg area. Trees were downed onto power lines and a few houses. One house suffered an estimated \$30,000 damage to its roof and upper level when a large tree was blown onto the house. Winds to 65 mph (56 knots) were recorded at the Emergency Operations Center at Westminster. Power company officials counted more than 4,000 homes without power. Numerous pine trees were reported downed.

|  |    |         |  |  |   |   |   |   |                           |
|--|----|---------|--|--|---|---|---|---|---------------------------|
| <b>Montgomery County</b><br>Urbana<br>Burtonsville | 14 | 0915EST |  |  | 0 | 0 | 4 | 0 | <b>Thunderstorm Winds</b> |
|--|----|---------|--|--|---|---|---|---|---------------------------|

Trees were downed at Urbana and in the northeastern part of the county. A house was unroofed at Burtonsville.

|                             |    |         |  |  |   |   |   |   |                           |
|-----------------------------|----|---------|--|--|---|---|---|---|---------------------------|
| <b>District of Columbia</b> | 14 | 0940EST |  |  | 0 | 0 | 0 | 0 | <b>Thunderstorm Winds</b> |
|-----------------------------|----|---------|--|--|---|---|---|---|---------------------------|

Several reports of downed trees in the northwestern and northeastern portions of the District.

|                       |    |         |  |  |   |   |   |   |                           |
|-----------------------|----|---------|--|--|---|---|---|---|---------------------------|
| <b>Harford County</b> | 14 | 1000EST |  |  | 0 | 0 | 4 | 0 | <b>Thunderstorm Winds</b> |
|-----------------------|----|---------|--|--|---|---|---|---|---------------------------|

Several areas of downed trees and power lines were reported. At Aberdeen Proving Grounds, power outages resulted from snapped power poles and downed wires near the facility.

|                        |    |                     |  |  |   |   |   |   |                   |
|------------------------|----|---------------------|--|--|---|---|---|---|-------------------|
| <b>MDZ007 &gt; 009</b> | 14 | 1000EST-<br>1800EST |  |  | 0 | 0 | 4 | 0 | <b>High Winds</b> |
|------------------------|----|---------------------|--|--|---|---|---|---|-------------------|

High Winds following a cold front knocked trees and power lines down. In Oakland, the roof of a warehouse-type store was dislodged so that it wound up on the side of the building, and a large tree was blown onto a car. Sustained winds during this event were 30 to 50 mph, which is a typical high-wind event for the mid-Atlantic region. The Hagerstown AWOS site recorded frequent gusts of 40 knots (46 mph) or more, with a peak of 52 mph (45 knots).

# Storm Data and Unusual Weather Phenomena

January 1992

| Location                      | Date     | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles)   | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |       | Character of Storm |
|-------------------------------|----------|----------------------------|---|--------------------------|----------------------|---------|---------------------|-------|--------------------|
|                               |          |                            |   |                          | Killed               | Injured | Property            | Crops |                    |
| <b>MARYLAND and DC Cont'd</b> |          |                            |   |                          |                      |         |                     |       |                    |
| MDZ009                        | 14<br>15 | 1800EST-<br>0600EST        |   |                          | 0                    | 0       | 0                   | 0     | Heavy Snow         |
|                               |          |                            | Six to eight inches of lake-effect snow, swirled about by gusty winds, brought hazardous driving to Garrett County. Several traffic accidents occurred, most of them minor; but one person was hospitalized with a neck injury.   |                          |                      |         |                     |       |                    |
| District of Columbia          | 15       | AM                         |   |                          | 1                    | 0       | 0                   | 0     | Cold               |
|                               |          |                            | A homeless man was found dead in an abandoned car. He had bronchial pneumonia but the cause of his death was attributed to clinical cold exposure. Temperatures had been well down in the 20s overnight. (M??V)   |                          |                      |         |                     |       |                    |
| Dorchester County             | 16       | 0600EST-<br>1800EST        |   |                          | 0                    | 0       | 4                   | 0     | High Winds         |
|                               |          |                            | Strong winds, reported as high as 58 mph (50 knots) at the Cambridge Airport, blew down trees and knocked out plate-glass windows in Cambridge. Several roads along the coast were reported by county road crews as being blocked by debris washed up by waves.   |                          |                      |         |                     |       |                    |
| MDZ008-009                    | 16       | 0500EST-<br>1800EST        |   |                          | 0                    | 0       | 0                   | 0     | Snow               |
|                               |          |                            | More lake-effect snow occurred over western Maryland. Four to six inches were reported in Garrett County with lesser amounts in western Allegany County, west of Cumberland. At La Vale in western Allegany County, a woman was killed when her car skidded across U.S. Highway 40 into a station wagon. The four occupants of the station wagon were treated for minor injuries.   |                          |                      |         |                     |       |                    |
| District of Columbia          | 16       | 0900EST                    |   |                          | 1                    | 1       | 0                   | 0     | Cold               |
|                               |          |                            | Police found the body of a homeless man about four blocks from the White House. Another homeless man was hospitalized with a body temperature of 80°F. Falling temperatures overnight were in the low 20s by sunrise. Strong winds, gusting over 40 mph at times, accompanied the falling temperatures. (M??O)  |                          |                      |         |                     |       |                    |
| District of Columbia          | 17       | AM                         |   |                          | 1                    | 0       | 0                   | 0     | Cold               |
|                               |          |                            | A homeless man was found dead in an abandoned house in southeastern Washington. His death was attributed to hypothermia. Overnight temperatures in Washington had been in the range of 15°F to 20°F. (M??P)   |                          |                      |         |                     |       |                    |
| District of Columbia          | 20       | AM                         |   |                          | 1                    | 0       | 0                   | 0     | Cold               |
|                               |          |                            | A homeless man was found dead in the street in the northwestern portion of the District. He had had bronchial pneumonia, but his death was listed as being caused by clinical cold exposure. Temperatures overnight had been in the range of 18°F to 25°F. (M63O)   |                          |                      |         |                     |       |                    |
| MDZ009                        | 24       | 0300EST-<br>2400EST        |   |                          | 0                    | 0       | 0                   | 0     | Heavy Snow         |
|                               |          |                            | Six to eight inches of lake-effect snow fell on Garrett County, most of it by 1600 EST, accompanied by gusty winds. The snow and poor visibility caused traffic problems on the major highways.   |                          |                      |         |                     |       |                    |
| MDZ004>006                    | 25<br>26 | 1600EST-<br>0200EST        |   |                          | 1                    | 0       | 4                   | 0     | Snow               |
|                               |          |                            | Two to four inches of snow in the Washington-Baltimore metro areas, and 3 to 5 inches southeast of Washington, caused many slippery roads and minor traffic accidents. Untreated snow and ice-covered secondary roads later on the 26th caused a number of motor-vehicle accidents, including an accident in Silver Spring, in which an 11-year-old boy was dragged by a car underneath the wheels and killed. Police determined that the motorist was unable to stop in time to avoid hitting the boy, because of snow and ice on the road, and therefore no charges were filed. A 24-year-old man lost his life when his car hit a snowplow in Prince Georges County. A man in Baltimore County was killed when his car hit a highway guard rail; driver error was a contributing factor. Two other injuries were reported in sledding accidents involving motor vehicles. (M11O) |                          |                      |         |                     |       |                    |

# Storm Data and Unusual Weather Phenomena

January 1992

| Location | Date | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons<br>Killed | Injured | Estimated<br>Damage<br>Property | Crops | Character of Storm |
|----------|------|----------------------------|---------------------------|--------------------------|--------------------------------|---------|---------------------------------|-------|--------------------|
|----------|------|----------------------------|---------------------------|--------------------------|--------------------------------|---------|---------------------------------|-------|--------------------|

## MASSACHUSETTS

### MAZALL

|    |          |  |  |  |   |   |   |   |            |
|----|----------|--|--|--|---|---|---|---|------------|
| 14 | 2300EST- |  |  |  |   |   |   |   |            |
| 15 | 0100EST  |  |  |  | 0 | 0 | 0 | 0 | High Winds |

High winds associated with the influx of colder air caused widely scattered power outages across the state as well as some signs and the street signals being blown down in a few places. At Worcester Municipal Airport, a single-engine Cessna airplane was ripped from its moorings, flipped over and heavily damaged. Four other planes and a helicopter were also damaged. Some peak wind gusts at the National Weather Service sites included: 62 mph at Worcester, 55 mph at Boston, 64 mph at Blue Hill Observatory in Milton, and 54 mph at Chatham.

### MAZ001-004-005-006- 007-008-010

|    |          |  |  |  |   |   |   |   |       |
|----|----------|--|--|--|---|---|---|---|-------|
| 23 | 0600EST- |  |  |  |   |   |   |   |       |
|    | 1400EST  |  |  |  | 0 | 0 | 0 | 0 | Glaze |

A period of light freezing rain left a thin coating of glaze over most of the state except the southeastern portion. There were scores of skidding accidents. In Boston, eight children were injured during a bus skidding accident and five fire-fighters were injured when their fire engine skidded into another truck. State police reported multi-car accidents on Interstate 95 and 495.

### MAZ001-002-003-007 008-009

|    |          |  |  |  |   |   |   |   |            |
|----|----------|--|--|--|---|---|---|---|------------|
| 23 | 1900EST- |  |  |  |   |   |   |   |            |
|    | 2300EST  |  |  |  | 0 | 0 | 5 | 0 | High Winds |

Gale force winds from the south raked the eastern and southeast portion of the state. Gusts to 60 mph occurred and Chatham and New Bedford reported gusts from 66 to 67 mph. Gusts to hurricane force occurred over high terrain with Blue Hill Observatory in Milton reporting its highest wind gusts since March, 1987, with 87 mph. Power companies reported numerous outages. Up to 25,000 electric customers reportedly lost power in eastern Massachusetts as a result of the high winds. The hurricane barrier at New Bedford was closed around the time for high tide.

## MICHIGAN

### MIZ011-012-018 > 021-024-027 > 032- 034-035-036 Southeast Lower Peninsula

|    |          |  |  |  |   |   |   |   |            |
|----|----------|--|--|--|---|---|---|---|------------|
| 13 | 1800EST- |  |  |  |   |   |   |   |            |
| 14 | 1200EST  |  |  |  | 0 | 0 | 0 | 0 | Heavy Snow |

This was the heaviest snowstorm for southeast Lower Michigan in 10 years. The precipitation began as snow over the northern suburbs of the Detroit area, but as rain from the Detroit south to the Ohio border. The rain changed to snow over all of Lower Michigan before midnight. The snow became heavy at times. Thunderstorms accompanying the heavy snow resulted in snowfall rates of around 2 inches an hour. The snow became light across the area by 0800 EST on the morning of the 14th, ending by noon. Snowfalls ranged from 8 to 12 inches in most areas with 14 inches at Dearborn. Considerable blowing and drifting of snow occurred due to northeast winds of 15 to 30 mph with gusts reported as high as 51 mph. Snow shoveling resulted in 13 fatalities due to heart attacks. An additional three people died due to traffic related injuries. Most schools were closed for 2 days as a result of the storm.

### MIZ001-002-006 > 008-021-054-055- 058 West Central Southwest and Southeast Lower Peninsula

|    |          |  |  |  |   |   |   |   |            |
|----|----------|--|--|--|---|---|---|---|------------|
| 15 | 1245EST- |  |  |  |   |   |   |   |            |
| 16 | 0430EST  |  |  |  | 0 | 0 | 0 | 0 | Heavy Snow |

A storm center moved across north-central Indiana, dumping 5 to 10 inches of snow across southwest and southeast Lower Michigan counties, which included Berrien, Cass, Van Buren and St. Joseph. Western Washtenaw County reported 8 inches. Lake effect snow occurred north of the actual storm system, causing a 6-inch snowfall over Oceana, Mason, Manistee, and Kalkaska Counties. The heaviest snowfall was reported at Benton Harbor with 10 inches of snow. Snowfalls over the remainder of southern Lower Michigan, mostly south of a Flint to Grand Rapids lines, was 2 to 4 inches. Northwestern Lower Michigan, outside the heavy snow area, received 2 to 5 inches of snowfall. Visibilities were reduced to near zero and wind chills were lowered to near 50° below zero in some cases due to winds to near 30 mph with air temperatures near zero. Traffic accidents and snow shoveling caused additional 16 fatalities.

### MIZ069 Chippewa County

|    |          |  |  |  |   |   |   |   |            |
|----|----------|--|--|--|---|---|---|---|------------|
| 17 | 0700EST- |  |  |  |   |   |   |   |            |
| 18 | 1900EST  |  |  |  | 0 | 0 | 0 | 0 | Heavy Snow |



# Storm Data and Unusual Weather Phenomena

January 1992

| Location | Date | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons<br>Killed Injured | Estimated<br>Damage<br>Property Crops | Character of Storm |
|----------|------|----------------------------|---------------------------|--------------------------|--|---------------------------------------|--------------------|
|----------|------|----------------------------|---------------------------|--------------------------|--|---------------------------------------|--------------------|

## MICHIGAN Cont'd

Lake effect heavy snow fell over most of northern Chippewa County. Snowfalls ranged from 12 inches near Sault Ste Marie, to 8 inches at Whitefish Point, to 3 inches at Rudyard. Winds gusted to 46 mph (40knots) at 1503 EST at Sault Ste Marie on the 17th, but the winds diminished greatly after 2300 EST on the 17th. The counties of Ontonagon, Houghton, Marquette, Alger and Luce reports 3 to 7 inches of snow during this time period, since it took 36 hours to fall.

MIZ006-014-036-  
038-039-053 > 055  
Northwest and  
East Central Lower

|    |          |  |  |   |   |   |            |
|----|----------|--|--|---|---|---|------------|
| 19 | 1200EST- |  |  |   |   |   |            |
| 20 | 0200EST  |  |  | 0 | 0 | 0 | 0          |
|    |          |  |  |   |   |   | Heavy Snow |

Heavy snow fell in a 60-mile-wide band across central Lower Michigan during the afternoon and evening hours of Sunday, the 19th. An Alberta Clipper raced from central Minnesota during the early afternoon on the 19th, southeast to central Wisconsin by mid evening on the 19th to southwestern Lower Michigan by midnight on the 19th. All of the significant snow was ahead of the storm. The counties near Lake Michigan and Lake Huron had the heaviest snow. Over Oceana, Mason, Manistee and Benzie Counties 8 to 10 inches of snow was common. Over the counties near Lake Huron, Arenac, Bay, and Sanilac 6 inches of snow was common. For the counties inland, in the heaviest snow track, 3 to 5 inches was more common. Three to five inches of snow fell from Detroit north across the Flint area. The heaviest snow in any one area lasted around 6 hours.

MIZ001 > 003-006-  
007-009-051-  
053-054-056-  
057-061-070-  
072-073-076 >  
078  
Upper Peninsula  
Near Lake Superior  
and Western Lower  
near Lake Michigan

|    |          |  |  |   |   |   |            |
|----|----------|--|--|---|---|---|------------|
| 23 | 1000EST- |  |  |   |   |   |            |
| 24 | 1600EST  |  |  | 0 | 0 | 0 | 0          |
|    |          |  |  |   |   |   | Heavy Snow |

Near blizzard conditions ranged over the Michigan Upper Peninsula from noon on the 23rd until 0500 EST on the 24th. Marquette had wind gusts to 53 mph causing wind chills as low as -30°F. Sustained winds ranged from 20 to 30 mph over much of the Upper Peninsula during the storm. The primary storm center tracked west of Michigan, crossing western Wisconsin during the night time hours of the 22nd. The center of the storm reached extreme western Lake Superior, west of Ontonagon, around 0700 EST on the morning of the 23d. From there, the storm moved eastward across central Lake Superior, reaching the Canadian shore on the eastern side of Lake Superior around 1600 EST on the 23d. As a result, most of the snow that fell over Michigan with this storm was either lake effect or lake enhanced in origin. Over Upper Michigan, significant snow fell from 1000 EST on the 23d until 1600 EST on the 24th. Over the Lower Peninsula, significant snow fell from around 1800 EST on the 23d until 1000 EST on the 24th. Light snow and blowing snow continued to reduce visibility under 3 miles until 1800 EST on the 24th over both the Upper and Lower Peninsulas. Schoolcraft County had the highest reported snowfall from the storm, 15 inches. Over the rest of the Upper Peninsula near Lake Superior, snowfalls ranged from 5 to 13 inches with an average snowfall of 10 inches. The southern counties of Upper Michigan reported 2 to 7 inches with an average of 3 inches for most locations. Over Lower Michigan, snowfalls of 4 to 12 inches were common within 50 miles of Lake Michigan, 1 to 2 inches were common over all of the rest of the counties of Lower Michigan. The heaviest snows over Lower Michigan were reported from 20 miles north of Muskegon, north to the Traverse City area, were 6 to 8 inches was common, with some parts of Oceana County reporting as much as 12 inches. The extreme southwestern part of Lower Michigan, that is Berrien County, also reported heavy snow, with 8 inches of snowfall. Emmet County, in the extreme northern part of Lower Michigan, reported 7 inches. Over both areas of the state, strong northwesterly winds of 20 to 30 mph with frequent gust to 40 mph and occasional gusts near 50 mph, combined with temperatures near 20°F over Lower Michigan and near 10°F over Upper Michigan to cause wind chills of near zero over Lower Michigan and to near 30 below over Upper Michigan. Visibilities were frequently near zero in the snowbelt areas of both Upper and Lower Michigan. The storm closed schools in many areas and caused numerous minor traffic accidents.

# Storm Data and Unusual Weather Phenomena

January 1992

| Location | Date | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |       | Character of Storm |
|----------|------|----------------------------|---------------------------|--------------------------|----------------------|---------|---------------------|-------|--------------------|
|          |      |                            |                           |                          | Killed               | Injured | Property            | Crops |                    |

## MINNESOTA

|   |    |          |  |  |   |   |   |   |                             |
|---|----|----------|--|--|---|---|---|---|-----------------------------|
| MNZ001-003-006-007-<br>010-011-013 > 015<br>Northwestern, West-<br>Central and Central<br>Minnesota | 07 | 1500CST- |  |  |   |   |   |   |                             |
|   | 08 | 1500CST  |  |  | 0 | 0 | ? | ? | Heavy Snow<br>Freezing Rain |

An area of low pressure developed east of the Colorado Rockies early on the 7th and traveled northeast into Iowa and weakened during the day on the 8th. Snow began falling over the northwest corner of the state during the late afternoon on the 7th and tapered to flurries over the area by late morning on the 8th. Strong northwesterly winds gusting to 30 mph caused considerable drifting snow. Several car accidents occurred and many schools were delayed up to 2 hours because of the heavy snow and slick roads.

A mixture of rain, freezing rain and sleet moved across west-central into portions of central Minnesota during the late afternoon on the 7th and continued until late afternoon on the 8th. The icy conditions caused several minor car accidents. At least 6,000 people were without electrical power for several hours due to ice covered power lines. Snowfall amounts around 6 inches occurred northwest of a line from Detroit Lakes to International Falls. The heaviest amount reported was 6.2 inches at International Falls.

|                                     |    |          |  |  |   |   |   |   |          |
|-------------------------------------|----|----------|--|--|---|---|---|---|----------|
| MNZ017<br>Southwestern<br>Minnesota | 14 | 1800CST- |  |  |   |   |   |   |          |
|                                     | 15 | 0100CST  |  |  | 0 | 0 | ? | ? | Blizzard |

An intense low pressure system raced from the western Dakotas early in the morning of the 14th to the northwestern corner of Iowa by evening and to central Illinois by early morning of the 15th. The storm brought 2 to 4 inches of snow, strong winds and bitterly cold temperatures across the area.

As the storm moved into northwestern Iowa, northerly winds increased and gusted over 40 mph at times causing whiteout conditions for several hours during the evening. Many visiting athletic teams were stranded at home-team schools and local YMCA's due to the treacherous driving conditions. Air temperatures tumbled and wind chill readings ranged from 40 to 70 below zero as the storm moved into Illinois.

|   |    |          |  |  |   |   |   |   |            |
|---|----|----------|--|--|---|---|---|---|------------|
| MNZ004-005<br>Extreme Northeastern<br>Minnesota | 26 | 0900CST- |  |  |   |   |   |   |            |
|   | 27 | 0400CST  |  |  | 0 | 0 | 0 | 0 | Heavy Snow |

A fast moving low pressure system moved across southern Minnesota into Wisconsin from early in the morning of the 26th through the early morning hours on the 27th. Snow began to fall heavily along the north shore of Lake Superior by noon and continued through much of the day. An easterly fetch of wind and moisture off of Lake Superior enhanced the snow near the lake front.

Snowfall in excess of 6 inches fell east of a line from near Grand Portage to Isabella and Two Harbors. The heaviest amounts, around a foot, fell at Lutsen and Grand Marais with 11 and 13 inches, respectively.

## MISSISSIPPI

|                               |    |         |     |     |   |   |   |   |              |
|-------------------------------|----|---------|-----|-----|---|---|---|---|--------------|
| George County<br>1 S Lucedale | 13 | 1243CST | 2.0 | 200 | 0 | 2 | 5 | 0 | Tornado (F1) |
|-------------------------------|----|---------|-----|-----|---|---|---|---|--------------|

Two homes and one mobile home were totally destroyed. Two people in the homes were injured and had to be taken to the hospital. The local fire station was severely damaged. Numerous other homes and business had minor damage. Numerous trees were also blown down.

|                |    |          |  |  |   |   |   |   |            |
|----------------|----|----------|--|--|---|---|---|---|------------|
| MIZ002-006-007 | 18 | 0600CST- |  |  |   |   |   |   |            |
|                |    | 1800CST  |  |  | 0 | 0 | 0 | 0 | Heavy Snow |

A band of heavy snow, about 50 miles wide, occurred across North-central Mississippi from Greenwood to Carrollton to West Point. Amounts of 4 to 6 inches were common in this band with the largest amount of 7 inches recorded in Webster County. Other lighter amounts fell to the north and south of this band, but were less than 2 inches.

## MISSOURI

None reported.

# Storm Data and Unusual Weather Phenomena

January 1992

| Location   | Date     | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |        | Character of Storm  |
|--|----------|----------------------------|---------------------------|--------------------------|----------------------|---------|---------------------|--------|---|
|  |          |                            |                           |                          | Killed               | Injured | Property            | Crops  |   |
| <b>MONTANA</b>   |          |                            |                           |                          |                      |         |                     |        |   |
| MTZ003   | 15       | 1500MST-<br>2000MST        |                           |                          | 0                    | 0       | 5                   | 0      | High Winds (G86)  |
|  |          |                            |                           |                          |                      |         |                     |        | One hundred-mph winds blew four rail cars off the tracks near East Glacier.   |
| MTZ007   | 16       | 1100MST-<br>1700MST        |                           |                          | 0                    | 0       | 0                   | 0      | Heavy Snow  |
|  |          |                            |                           |                          |                      |         |                     |        | Six to eight inches of snow fell in the Livingston/Red Lodge Area.  |
| MTZ003-007   | 23<br>24 | 2300MST-<br>0500MST        |                           |                          | 0                    | 0       | 2                   | 0      | High Winds (G73)  |
|  |          |                            |                           |                          |                      |         |                     |        | Early morning high winds to 84 mph hit Cut Bank, Dupuyer and Browning along the Northern East Slopes and 80 mph at Red Lodge in south-central Montana.              |
| MTZ003   | 30       | 1100MST-<br>1500MST        |                           |                          | 0                    | 0       | 0                   | 0      | High Winds (G70)  |
|  |          |                            |                           |                          |                      |         |                     |        | Winds gusted to 80 mph in Browning.   |
| <b>NEBRASKA</b>  |          |                            |                           |                          |                      |         |                     |        |   |
| NEZ001-002-005-<br>006-011-012<br>Panhandle and<br>North-Central<br>Nebraska | 07<br>08 | 0400MST-<br>0600MST        |                           |                          | 0                    | 0       | ?                   | ?      | Heavy Snow  |
|  |          |                            |                           |                          |                      |         |                     |        | Six to ten inches of snow fell over western Nebraska. Snow depths included 12 inches at Dalton, 13 inches at Nenzel, and 15 inches at Crawford.                     |
| Merrick County<br>4.5 S Worms<br>Homestead                                   | 07<br>07 | 1655CST<br>1655CST         | 1.5                       | 20                       | 0<br>0               | 0<br>0  | 0<br>4              | 0<br>0 | Funnel Cloud<br>Tornado (F1)  |
|  |          |                            |                           |                          |                      |         |                     |        | A tornado touched down at Homestead and destroyed a barn and outbuildings, uprooted trees, and damaged a house.   |
| Howard County<br>1 S Ravenna<br>Sherman County<br>1 NW Ravenna               | 07<br>07 | 1705CST<br>1715CST         | **100                     | 30                       | 0<br>0               | 0<br>0  | 0<br>0              | 0<br>0 | Funnel Cloud<br>Tornado (F1)  |
|  |          |                            |                           |                          |                      |         |                     |        | A tornado touched down briefly; no damage was reported.   |
| Merrick County<br>1 SE Worms   | 07       | 1715CST                    | **100                     | 30                       | 0                    | 0       | 0                   | 0      | Tornado (F1)  |
|  |          |                            |                           |                          |                      |         |                     |        | A tornado touched down near Worms, but caused no damage.  |
| Sherman County<br>3 NE Rockville   | 07       | 1730CST                    | **250                     | 30                       | 0                    | 0       | 4                   | 0      | Tornado (F2)  |
|  |          |                            |                           |                          |                      |         |                     |        | A tornado struck a homestead near Rockville, destroyed a barn, and tore off part of the house roof. Some lumber from the barn was blown into the side of the house. |
| Merrick County<br>2 SE Palmer  | 07       | 1745CST                    | **100                     | 20                       | 0                    | 0       | 4                   | 0      | Tornado (F1)  |
|  |          |                            |                           |                          |                      |         |                     |        | A tornado touched down near Palmer and damaged a large stack of pipes.  |
| Nance County<br>5 N Palmer   | 07       | 1815CST                    | **75                      | 20                       | 0                    | 0       | 2                   | 0      | Tornado (F1)  |
|  |          |                            |                           |                          |                      |         |                     |        | A tornado blew down several large cottonwood trees and damaged some pipes.  |

# Storm Data and Unusual Weather Phenomena

January 1992

| Location | Date | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |       | Character of Storm |
|----------|------|----------------------------|---------------------------|--------------------------|----------------------|---------|---------------------|-------|--------------------|
|          |      |                            |                           |                          | Killed               | Injured | Property            | Crops |                    |

## NEVADA

|  |    |          |  |  |   |   |   |   |            |
|--|----|----------|--|--|---|---|---|---|------------|
| NVZ007-008                               | 05 | 1000PST- |  |  |   |   |   |   |            |
| East Central Nevada/South Central Nevada | 06 | 1200PST  |  |  | 0 | 0 | 0 | 0 | Heavy Snow |

A strong low pressure system moved through central and southern Nevada dumping 1 foot or more of snow across much of the area. Snowfall totals for the storm included 22 inches at Austin, 12 inches in the Reese River Valley of northern Nye County, 12 inches in Pioche, and 9 inches in Eureka.

## NEW HAMPSHIRE

|                                  |    |                     |  |  |  |  |  |  |       |
|----------------------------------|----|---------------------|--|--|--|--|--|--|-------|
| Carroll County<br>Center Ossipee | 04 | 2100EST-<br>0100EST |  |  |  |  |  |  | Glaze |
|----------------------------------|----|---------------------|--|--|--|--|--|--|-------|

Freezing rain led to three accidents in Center Ossipee with some injuries reported.

|                    |    |                     |  |  |  |  |  |  |      |
|--------------------|----|---------------------|--|--|--|--|--|--|------|
| NHZ003-004-005-006 | 09 | 2015EST-<br>0000EST |  |  |  |  |  |  | Snow |
|--------------------|----|---------------------|--|--|--|--|--|--|------|

A dozen accidents were reported across southern and central New Hampshire as snow spread across the state. The snowfall caused vehicles to either slide off the road or collide with other vehicles. Damage was reported to all vehicles with several injuries being sustained.

|            |    |                     |  |  |  |  |  |  |       |
|------------|----|---------------------|--|--|--|--|--|--|-------|
| NHZ004-006 | 14 | 0800EST-<br>1300EST |  |  |  |  |  |  | Glaze |
|------------|----|---------------------|--|--|--|--|--|--|-------|

Freezing rain during the early morning hours led to numerous cars skidding off the road or colliding with other vehicles. Twenty accidents alone were reported at Concord in Merrimack county. Several injuries, all minor in nature, were also reported.

|                              |    |         |  |  |  |  |  |  |           |
|------------------------------|----|---------|--|--|--|--|--|--|-----------|
| Cheshire County<br>W Swanzey | 14 | 1800EST |  |  |  |  |  |  | Lightning |
|------------------------------|----|---------|--|--|--|--|--|--|-----------|

Lightning struck a home and nearby tree in West Swanzey causing the cellar door and several windows to blow out. The radio and television suffered extensive damage as well.

|         |    |                     |  |  |  |  |  |  |      |
|---------|----|---------------------|--|--|--|--|--|--|------|
| NHZ-006 | 20 | 1400EST-<br>0200EST |  |  |  |  |  |  | Snow |
|---------|----|---------------------|--|--|--|--|--|--|------|

Brief, but intense snow squalls throughout the day on the 20th helped to produce near whiteout conditions. The snow and the very low visibilities led to several accidents in Deerfield, Dover, and Hopkinton. Some injuries were reported with the accidents.

|                    |    |                     |  |  |  |  |  |  |       |
|--------------------|----|---------------------|--|--|--|--|--|--|-------|
| NHZ004-005-006-007 | 23 | 1700EST-<br>0200EST |  |  |  |  |  |  | Glaze |
|--------------------|----|---------------------|--|--|--|--|--|--|-------|

Quite a bit of freezing rain and sleet accumulated on the roads over a good portion of southern and central New Hampshire. Over 125 accidents were reported in response to the freezing rain and sleet with 60 accidents alone occurring at Concord in Merrimack county. Numerous injuries were reported with the vehicles skidding off roads or getting involved in a collision.

## NEW JERSEY, Northern

|                                      |    |                     |  |  |   |   |   |   |               |
|--------------------------------------|----|---------------------|--|--|---|---|---|---|---------------|
| NJZ007<br>Coastal New Jersey         | 04 | AM                  |  |  |   |   |   |   | Coastal Flood |
| NJZ015<br>Metropolitan<br>New Jersey | 04 | 0800EST-<br>1100EST |  |  | 0 | 0 | ? | 0 | High Winds    |

A low pressure system moving northward along the mid-Atlantic coast, intensified rapidly as it reached the Chesapeake Bay area. Strong northeasterly winds with gusts as high as 60 mph battered the northern New Jersey shore during the morning hours. The winds generated tides nearly 3 feet above normal which lead to considerable flooding along coastal sections of Monmouth County. The high winds also downed many trees and power lines in Hudson County, but then weaken rapidly by midday.

# Storm Data and Unusual Weather Phenomena

January 1992

| Location | Date | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |       | Character of Storm |
|----------|------|----------------------------|---------------------------|--------------------------|----------------------|---------|---------------------|-------|--------------------|
|          |      |                            |                           |                          | Killed               | Injured | Property            | Crops |                    |

## NEW JERSEY, Northern Cont'd

|   |    |                     |  |  |   |   |   |   |                          |
|---|----|---------------------|--|--|---|---|---|---|--------------------------|
| Hunterdon County<br>Whitehouse              | 14 | 1145EST             |  |  | 0 | 0 | 0 | 0 | Thunderstorm Winds (G64) |
| Somerset County<br>Belle Mead               | 14 | 1200EST             |  |  | 0 | 0 | ? | 0 | Thunderstorm Winds       |
| Union County<br>Elizabeth                   | 14 | 1215EST-<br>1230EST |  |  | 0 | 0 | ? | 0 | Thunderstorm Winds       |
| Linden<br>Colonia                           |    |                     |  |  |   |   |   |   |                          |
| Essex County<br>Orange                      | 14 | 1219EST             |  |  | 0 | 0 | 0 | 0 | Hail (0.75)              |
| Morris County<br>Morristown                 | 14 | 1220EST             |  |  | 0 | 0 | 0 | 0 | Thunderstorm Winds       |
| Passaic County<br>Little Falls              | 14 | 1220EST             |  |  | 0 | 0 | ? | 0 | Thunderstorm Winds       |
| Wayne<br>Glenridge                          |    |                     |  |  |   |   |   |   |                          |
| Bergen County<br>Rochelle Park              | 14 | 1222EST-<br>1230EST |  |  | 0 | 0 | ? | 0 | Thunderstorm Winds       |
| Elmwood Park<br>Woodcliff Lake<br>Hillsdale |    |                     |  |  |   |   |   |   |                          |
| Hunterdon County<br>Quakertown              | 14 | 1222EST             |  |  | 0 | 0 | ? | 0 | Thunderstorm Winds       |
| Somerset County<br>Branchburg               | 14 | 1222EST             |  |  | 0 | 0 | ? | 0 | Thunderstorm Winds       |
| Middlesex County<br>Edison                  | 14 | 1230EST             |  |  | 0 | 0 | ? | 0 | Thunderstorm Winds       |
| New Brunswick<br>Bridgewater<br>Aberdeen    |    |                     |  |  |   |   |   |   |                          |

A squall line moving across northern New Jersey around midday, produced some severe thunderstorms, rare for this time of year. These thunderstorms generated heavy rain, large hail and very strong winds which downed numerous trees and power lines throughout the region. Several cars and homes were damaged to some extent by these fallen trees.

|   |    |                      |  |  |   |   |   |   |            |
|---|----|----------------------|--|--|---|---|---|---|------------|
| NJZ001-005-007-015<br>Northern New Jersey | 14 | 1739EST-<br>2200EST- |  |  | 0 | 1 | ? | 0 | High Winds |
|---|----|----------------------|--|--|---|---|---|---|------------|

A strong cold front, following on the heels of a damaging squall line only hours earlier, generated its own destruction. For several hours strong winds battered the area. Once again numerous trees and power lines were downed. Many road signs were also damaged or destroyed.

|   |          |                      |  |  |   |   |   |   |       |
|---|----------|----------------------|--|--|---|---|---|---|-------|
| NJZ001-005-007-015<br>Northern New Jersey | 23<br>24 | 1630EST-<br>1200EST- |  |  | 0 | 0 | ? | 0 | Winds |
|---|----------|----------------------|--|--|---|---|---|---|-------|

A warm front moving northward through the area was accompanied by strong southerly winds. Sustained wind speeds of 20 to 25 mph with gusts to around 40 mph were common. These winds brought down some tree limbs and in the process some power lines.

## NEW JERSEY, Southern

|  |    |         |  |  |   |   |   |   |                           |
|--|----|---------|--|--|---|---|---|---|---------------------------|
| NJZ003<br>Southern Coastal<br>New Jersey | 04 | 0600EST |  |  | 0 | 0 | 5 | 0 | Tidal Flood<br>High Winds |
|--|----|---------|--|--|---|---|---|---|---------------------------|

A storm that moved onshore on the Delmarva Coast brought high tides and high winds to the New Jersey Coast. Storms in October and November had already damaged or washed away the protective dunes. This allowed the storm to wash away the remaining dunes which made way for the high tides to be pushed inland by the high winds. Extensive flooding occurred in coastal communities from Cape May to Longport. Some flooding also occurred in Ventnor, Margate, Atlantic City and Brigantine. There even was some minor flooding farther north to Barnegat Light. Tides reached 3.5 feet above normal and resulted in flooding on the back bays as well as the ocean front. Besides extensive beach erosion the surging waves washed out sea walls, bulkheads and damaged or washed out boardwalks. Ocean City had large sections of boardwalk ripped out. Several piers received major damage. About 4,000 single-family homes were affected with 76

# Storm Data and Unusual Weather Phenomena

January 1992

| Location | Date | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |       | Character of Storm |
|----------|------|----------------------------|---------------------------|--------------------------|----------------------|---------|---------------------|-------|--------------------|
|          |      |                            |                           |                          | Killed               | Injured | Property            | Crops |                    |

## NEW JERSEY, Southern Cont'd

suffering major damage. Around 100 apartments and around 30 businesses suffered major damage. Damage to public parks and buildings was estimated at \$13 million. Many roads were impassable due to flooding and/or large amounts of sand washed onto them. At the height of the flooding only the Atlantic City Expressway remained open as an access to the barrier islands from Atlantic City south. Many automobiles were flooded with some being a total loss. Although wind gusts reached as high as 68 mph, most of the damage was due to flooding or wave action. Total damage was estimated at over \$45 million. Flooding started around 0600 EST and lasted until around 1800 EST.

### Burlington County

|             |    |         |  |  |   |   |   |   |                    |
|-------------|----|---------|--|--|---|---|---|---|--------------------|
| Maple Shade | 14 | 1135EST |  |  | 0 | 0 | 3 | 0 | Thunderstorm Winds |
| Mount Holly | 14 | 1145EST |  |  | 0 | 0 | 3 | 0 | Thunderstorm Winds |

Thunderstorm wind gusts downed trees and utility lines and poles. Utility lines were also down in other portions of the county.

### Mercer County

|         |    |         |  |  |   |   |   |   |                    |
|---------|----|---------|--|--|---|---|---|---|--------------------|
| Trenton | 14 | 1140EST |  |  | 0 | 0 | 3 | 0 | Thunderstorm Winds |
|---------|----|---------|--|--|---|---|---|---|--------------------|

Thunderstorm wind gusts downed trees and also brought down a large tent.

### NJZ00E-OS

|                     |    |         |  |  |   |   |   |   |            |
|---------------------|----|---------|--|--|---|---|---|---|------------|
| Southern New Jersey | 23 | 1700EST |  |  | 0 | 1 | 4 | 0 | High Winds |
|---------------------|----|---------|--|--|---|---|---|---|------------|

High winds behind a warm front downed trees and utility lines at scattered locations across southern New Jersey. Near Atlantic City the porch on a house was dislodged from its foundation. In Vineland, wind gusts estimated at 50 to 60 mph tore a tree branch off a tree and drove it through an automobile windshield and impaled a woman. A wind gust to 74 mph was measured at Ocean City.

## NEW MEXICO

### Eddy County

|  |    |         |  |  |   |   |   |   |            |
|--|----|---------|--|--|---|---|---|---|------------|
|  | 06 | 2314MST |  |  | 0 | 0 | 0 | 0 | High Winds |
|--|----|---------|--|--|---|---|---|---|------------|

A vigorous upper level disturbance and surface cold front passed through Carlsbad, causing a wind gust to 53 knots (61 mph) at the Carlsbad Airport.

### NMZ011

|  |    |          |  |  |   |   |   |   |            |
|--|----|----------|--|--|---|---|---|---|------------|
|  | 10 | 2000MST- |  |  | 0 | 0 | 0 | 0 | Heavy Snow |
|  | 11 | 0900MST  |  |  |   |   |   |   |            |

An upper level disturbance slipped out from northwestern Mexico late on the 10th and moved northeastwardly across southern New Mexico early on the 11th. Temperatures just below freezing allowed heavy snow to accumulate over south-central New Mexico. Four to six inches fell at lower elevations, including Alamogordo, Hatch, and Las Cruces. Up to 5 inches fell in the Sacramento Mountains east of Alamogordo. Portions of U.S. Highway 70, from Las Cruces to White Sands, were closed during the storm.

### NMZ008-010-012

|                 |    |          |  |  |   |   |   |   |                    |
|-----------------|----|----------|--|--|---|---|---|---|--------------------|
|                 | 12 | 0800MST- |  |  | 0 | 0 | 0 | 0 | Heavy Snow         |
|                 | 13 | 1100MST  |  |  |   |   |   |   |                    |
| Dona Ana County | 12 | 1100MST  |  |  | 0 | 0 | 4 | 0 | Thunderstorm Winds |
| Las Cruces      |    |          |  |  |   |   |   |   |                    |

A strong storm that moved across New Mexico produced heavy snow and some thunderstorms, and closed parts of Interstates 25 and 40. The heavy snow fell in the central and southern mountains, with 9 inches reported in Cloudcroft, 7 inches at Quemado, 6 inches near Moriarty, and 5 inches in Silver City. Numerous accidents occurred, leading to two indirect fatalities - one in Moriarty and the other just south of Santa Fe. In Las Cruces, a microburst from a thunderstorm ripped away a large section of a drugstore's wall, substantially damaged a car and the roofs of two houses, uprooted a large tree, and blew a tractor-semitrailer off the road. A National Weather Service official inspected the scene and determined the winds blew from the west or northwest at speeds around 70 to 80 mph.

### NMZ006-010-012

|  |    |          |  |  |   |   |   |   |            |
|--|----|----------|--|--|---|---|---|---|------------|
|  | 20 | 2100MST- |  |  | 0 | 0 | 0 | 0 | Heavy Snow |
|  | 21 | 1200MST  |  |  |   |   |   |   |            |

A storm moved from northern Baja California northeastwardly across southern New Mexico. Heavy snow fell in the western and southern mountains, including 10 inches at Zuni, 9 inches at Gallup, 6 to 8 inches at Mescalero, and 4 inches at Bayard.

# Storm Data and Unusual Weather Phenomena

January 1992

| Location   | Date   | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |       | Character of Storm    |
|--|--|----------------------------|---------------------------|--------------------------|----------------------|---------|---------------------|-------|-----------------------|
|  |  |                            |                           |                          | Killed               | Injured | Property            | Crops |                       |
| <b>NEW YORK, Central</b>                         |  |                            |                           |                          |                      |         |                     |       |                       |
| Saratoga County<br>Northumberland                | 01   | PM                         |                           |                          | 0                    | 1       | 4                   | 0     | Ice                   |
|  | A vehicle slipped on an icy section of Smith Bridge Road hitting a power pole and shearing it in half.   |                            |                           |                          |                      |         |                     |       |                       |
| Areawide   | 04   | AM-<br>PM                  |                           |                          | 1                    | 2       | 5                   | ?     | Freezing Rain         |
|  | A low pressure system moved north along the Middle Atlantic Coast on the morning of January 4th pushing freezing rain across eastern New York which eventually changed to rain from south to north during the day. Accidents were reported across the area at various times during the day with the most serious accident occurring in the Washington County town of White Creek where one man was killed and another man was injured when the vehicle they were riding in plunged into a 100 foot ravine off Chestnut Woods Road around 1745 EST. (M18V)  |                            |                           |                          |                      |         |                     |       |                       |
| Upper Hudson Valley<br>and Adirondacks           | 05   | PM                         |                           |                          | 0                    | 1       | 5                   | 0     | Ice                   |
|  | Accidents were reported during the afternoon in the Speculator area with numerous accidents reported across Saratoga County during the evening as temperatures fell back below freezing causing water on the roads to turn to ice.   |                            |                           |                          |                      |         |                     |       |                       |
| Mohawk and Saint<br>Lawrence Valleys             | 07   | 1730EST-<br>2000EST        |                           |                          | 0                    | 4       | 5                   | 0     | Ice                   |
|  | A cold front dropped southeast out of Canada across Eastern New York during the afternoon and evening of January 7th pushing temperatures below freezing which caused some roads to ice over. Accidents which involved injuries were reported in Gouverneur, Whitestown and Rome.  |                            |                           |                          |                      |         |                     |       |                       |
| Broome County<br>Conklin                         | 08   | 2230EST                    |                           |                          | 0                    | 1       | 4                   | 0     | Ice                   |
|  | A car skidded on ice and hit a tree injuring the driver along Fall Brook Road in Conklin.  |                            |                           |                          |                      |         |                     |       |                       |
| Areawide   | 09   | AM-<br>PM                  |                           |                          | 1                    | 5       | 5                   | 0     | Freezing Rain<br>Snow |
|  | A low pressure system moved from the upper Great Lakes north of the Saint Lawrence Valley late in the day resulting in a mix of rain, freezing rain and snow across eastern New York during the day which resulted in scattered reports of traffic accidents throughout the area. At 0830 EST, a tractor-semitrailer jackknifed along Interstate 88 near Afton. At 1400 EST, four cars were damaged in separate accidents on a slick ramp connecting Route 9 to Interstate 90 in Albany. At 1645 EST, a boy was struck and killed by a car in Warrensburg as he was pushing a cart along Main Street. Poor visibility and falling snow prevented the driver of the car from seeing the boy. (M12V) |                            |                           |                          |                      |         |                     |       |                       |
| Ulster County<br>Woodstock                       | 14   | 1030EST                    |                           |                          | 0                    | 0       | 3                   | 0     | Thunderstorm Winds    |
| Sullivan County<br>Narrowsburg                   | 14   | 1100EST                    |                           |                          | 0                    | 0       | 5                   | 0     | Thunderstorm Winds    |
| Orange County<br>Port Jervis                     | 14   | 1125EST                    |                           |                          | 0                    | 0       | 3                   | 0     | Thunderstorm Winds    |
| Sullivan County<br>Callicoon                     | 14   | 1130EST                    |                           |                          | 0                    | 0       | 3                   | 0     | Thunderstorm Winds    |
| Roscoe   | 14   | 1130EST                    |                           |                          | 0                    | 0       | 3                   | 0     | Thunderstorm Winds    |
| Kenoza Lake                                      | 14   | 1130EST                    |                           |                          | 0                    | 0       | 4                   | 0     | Thunderstorm Winds    |
|  | Severe thunderstorms ahead of a very strong storm system moved across parts of the southern Catskills on the morning of January 14th. Hardest hit was the Sullivan County hamlet of Narrowsburg where straight-line winds downed or uprooted a dozen trees, damaged two vehicles, partially destroyed the roof of a house and left approximately 50 customers without power. Also hard hit was the Kenoza Lake area where fallen trees crushed several cars.   |                            |                           |                          |                      |         |                     |       |                       |
| Orange County<br>Vails Gate<br>Rensselaer County | 14   | 1130EST                    |                           |                          | 0                    | 0       | 3                   | 0     | Lightning             |



# Storm Data and Unusual Weather Phenomena

January 1992

| Location  | Date  | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |       | Character of Storm   |
|---|---|----------------------------|---------------------------|--------------------------|----------------------|---------|---------------------|-------|----------------------|
|   |   |                            |                           |                          | Killed               | Injured | Property            | Crops |                      |
| <b>NEW YORK, Central Cont'd</b>                               |   |                            |                           |                          |                      |         |                     |       |                      |
| North Greenbush   | 14  | 1130EST                    |                           |                          | 0                    | 0       | 3                   | 0     | Lightning            |
|   | Lightning struck Paragon Cable's telephone lines knocking out the company's communication with the public for a few hours in Vails Gate. Lightning also knocked out the telephone switchboard at Van Rensselaer Manor Nursing Home in North Greenbush.  |                            |                           |                          |                      |         |                     |       |                      |
| NYZ006-009-010-012-013-019-020<br>Much of Eastern<br>New York | 14  | 1300EST-                   |                           |                          |                      |         |                     |       |                      |
|   | 15  | 0700EST                    |                           |                          | 0                    | 0       | 5                   | ?     | High Winds           |
|   | A very strong storm system moved from eastern Lake Erie on the morning of January 14th up the Saint Lawrence River Valley that afternoon and evening and into the Canadian Maritimes on the morning of January 15th. High winds developed across the area during the afternoon as the pressure gradient around the storm tightened. At 1310 EST, winds gusted to 81 mph near Cambridge with a shed and porch blown down, and the roof of a barn blown across County Route 74. In Cortland County, 1,000 customers were left without electricity after high winds blew down two power poles in Homer and one in Truxton around 1530 EST. Another 4,000 customers were left without power in northern Dutchess and Columbia Counties when high winds blew trees and tree limbs onto power lines after 2000 EST. In Rome, the high winds ripped off part of the facade of a Dunkin Donuts. Other areas hard hit included much of Saratoga and Warren Counties where trees and power lines were knocked down throughout the night. Wind gusts recorded during the high wind episode included 70 mph at Stamford, 68 mph at Utica, 63 mph at Westerlo, and 58 mph at Albany. |                            |                           |                          |                      |         |                     |       |                      |
| Catskills and Lower<br>Hudson Valley                          | 16  | 0600EST-<br>1400EST        |                           |                          | 0                    | 7       | 4                   | 0     | Snow                 |
|   | A fast moving storm near Long Island was responsible for dumping 1 to 2 inches of snow over the Catskills and Lower Hudson Valleys which resulted in some accidents.  |                            |                           |                          |                      |         |                     |       |                      |
| Areawide  | 17  | AM-<br>PM                  |                           |                          | 0                    | 13      | 5                   | 0     | Snow<br>Snow Squalls |
|   | A storm system moved from the Upper Great Lakes on the morning of the 17th across the Saint Lawrence Valley and into the Canadian Maritimes on the 18th. The storm resulted in light snow across much of eastern New York on the morning of the 17th with snow squalls moving across the western Mohawk Valley and Adirondacks into the Upper Hudson Valley during the afternoon and evening. Numerous traffic accidents were reported at various times during the day. The most serious accident occurred during a squall in the Glens Falls area along Interstate 87 involving a tractor-semitrailer and four cars and injuring seven people.   |                            |                           |                          |                      |         |                     |       |                      |
| Cortland County<br>Harford                                    | 18  | 2215EST                    |                           |                          | 1                    | 1       | 3                   | 0     | Blowing Snow         |
|   | Blowing snow resulted in a two vehicle accident in Harford which resulted in one fatality. (F78V)   |                            |                           |                          |                      |         |                     |       |                      |
| Areawide  | 23  | 0400EST-                   |                           |                          |                      |         |                     |       |                      |
|   | 24  | 0700EST                    |                           |                          | 0                    | 17      | 5                   | ?     | Freezing Rain        |
|   | A storm system over the Upper Great Lakes moved east drawing warm air aloft over the frozen ground across eastern New York resulting in freezing rain which began during the early morning hours of the 23rd across southern portions of the area and during the late morning and early afternoon across northern portions of the area. The freezing rain continued across extreme northern sections of the area into the early morning hours of the 24th. Dozens of accidents were reported in the Capital District, Glens Falls, and Massena areas.   |                            |                           |                          |                      |         |                     |       |                      |
| NYZ011<br>Champlain Valley                                    | 23  | 0500EST-<br>0730EST        |                           |                          | 0                    | 0       | 4                   | ?     | High Winds           |
|   | A strong pressure gradient developed across the Champlain Valley resulting in high winds which downed tree limbs and power lines in Chazy and Morrisonville leaving 350 customers without power.  |                            |                           |                          |                      |         |                     |       |                      |
| Western Mohawk<br>Valley, Catskills<br>and Susquehanna        | 24  | PM-                        |                           |                          | 1                    | 21      | 4                   | 0     | Snow Squalls         |
|   | 25  | AM                         |                           |                          |                      |         |                     |       |                      |

# Storm Data and Unusual Weather Phenomena

January 1992

| Location | Date | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |       | Character of Storm |
|----------|------|----------------------------|---------------------------|--------------------------|----------------------|---------|---------------------|-------|--------------------|
|          |      |                            |                           |                          | Killed               | Injured | Property            | Crops |                    |

## NEW YORK, Central Cont'd

**Regions** Lake effect snow squalls dumped 2 to 4 inches of snow in spots across the Western Mohawk Valley, Susquehanna and Catskill regions during the afternoon and evening of the 24th resulting in dozens of accidents including one involving a car and school bus in Delhi in which 17 people were slightly injured. Also a woman was killed early on the morning of the 25th when her car spun out of control along Route 206 in Greene. (F21V)

|   |           |  |  |  |   |   |   |   |         |
|---|-----------|--|--|--|---|---|---|---|---------|
| <b>Lower Hudson Valley and Susquehanna and Catskill Regions</b> | All Month |  |  |  | 0 | 0 | ? | 0 | Drought |
|---|-----------|--|--|--|---|---|---|---|---------|

The New York State Department of Environmental Conservation continued the drought warning for the following nine counties in Eastern New York: Delaware, Dutchess, Greene, Orange, Otsego, Putnam, Schoharie, Sullivan and Ulster. The drought warning was continued due to the continuation of low levels within the New York City Reservoir Storage.

## NEW YORK, Coastal

|  |    |    |  |  |   |   |   |   |               |
|--|----|----|--|--|---|---|---|---|---------------|
| NYZ014-015-016-017<br>Coastal New York | 04 | AM |  |  | 0 | 0 | ? | 0 | Coastal Flood |
|--|----|----|--|--|---|---|---|---|---------------|

|                          |    |                     |  |  |   |   |   |   |            |
|--------------------------|----|---------------------|--|--|---|---|---|---|------------|
| NYZ016<br>Suffolk County | 04 | 0800EST-<br>1100EST |  |  | 0 | 1 | ? | 0 | High Winds |
|--------------------------|----|---------------------|--|--|---|---|---|---|------------|

A low pressure system moving northward along the mid-Atlantic coast, intensified rapidly as it reached the Chesapeake Bay area. Strong northeasterly winds with gusts as high as 60 mph battered sections of southeastern New York. The winds generated tides nearly 3 feet above normal which lead to some flooding along coastal sections of Long Island, Staten Island and even along the Westchester County coast. The high winds downed several trees and power lines across Suffolk County. One tree fell on a car in Patchogue, seriously injuring the driver. The strong winds also caused an oil barge to rip loose from its mooring and slam into another vessel.

|                 |    |         |  |  |   |   |   |   |                          |
|-----------------|----|---------|--|--|---|---|---|---|--------------------------|
| Richmond County | 14 | 1240EST |  |  | 0 | 0 | 0 | 0 | Thunderstorm Winds (G62) |
|-----------------|----|---------|--|--|---|---|---|---|--------------------------|

A squall line moving across Staten Island produced a thunderstorm that generated a wind gust to 62 knots.

|  |    |                     |  |  |   |   |   |   |            |
|--|----|---------------------|--|--|---|---|---|---|------------|
| NYZ014-015-016-017<br>Coastal New York | 14 | 1800EST-<br>2400EST |  |  | 0 | 0 | ? | 0 | High Winds |
|--|----|---------------------|--|--|---|---|---|---|------------|

A strong cold front, following on the heels of the squall line only hours earlier, generated considerable destruction. For several hours strong winds battered the area. Several trees and power lines were downed as winds reached to around 60 knots.

|   |          |                     |  |  |   |   |   |   |       |
|---|----------|---------------------|--|--|---|---|---|---|-------|
| NYZ014-015-016-017<br>Southeastern New York | 23<br>24 | 1630EST-<br>1200EST |  |  | 1 | 0 | ? | 0 | Winds |
|---|----------|---------------------|--|--|---|---|---|---|-------|

A warm front moving northward through the area was accompanied by strong gusty southerly winds. Sustained wind speeds of 20 to 25 mph with gusts to around 40 mph were common. These winds brought down numerous tree limbs and in the process downed many power lines. The power company reported more than 8,000 customers without power. On Friday the 24th, a young man was killed as he tried to drag aside a piece of aluminum that was blocking traffic on the Throgs Neck Bridge. A gust of wind lifted the piece of metal, causing it to strike the man in the neck. He died at the scene. (O21M)

## NEW YORK, Western

|            |    |         |  |  |   |   |   |   |            |
|------------|----|---------|--|--|---|---|---|---|------------|
| NYZ003     | 14 | 1342EST |  |  | 0 | 0 | 4 | 0 | High Winds |
| NYZ004     | 14 | 1444EST |  |  | 0 | 0 | 4 | 0 | High Winds |
| NYZ002-022 | 14 | 1500EST |  |  | 0 | 0 | 4 | 0 | High Winds |
| NYZ005     | 14 | 1620EST |  |  | 0 | 0 | 4 | 0 | High Winds |

A strong low pressure system moved northeast from the mid-Mississippi Valley across New York to Maine. Circulation around the low brought strong gusty winds to the area. Winds frequently gusted over 50 mph, and combined with falling snow and snow on the ground to produce whiteouts. Numerous automobile accidents were reported due to the hazardous driving conditions. Wind gusts included 59 mph at Elmira, 58 mph at Watertown and Syracuse, 54 mph at Rochester, 46 mph at Dunkirk, and 45 mph at Buffalo.

## Storm Data and Unusual Weather Phenomena

January 1992

| Location | Date | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons | Estimated<br>Damage | Character of Storm |       |
|----------|------|----------------------------|---------------------------|--------------------------|----------------------|---------------------|--------------------|-------|
|          |      |                            |                           |                          | Killed               | Injured             | Property           | Crops |

### NEW YORK, Western Cont'd

|        |    |         |  |  |   |   |   |   |            |
|--------|----|---------|--|--|---|---|---|---|------------|
| NYZ004 | 17 | 1800EST |  |  | 0 | 0 | 4 | 0 | Heavy Snow |
| NYZ022 | 18 | 0000EST |  |  | 0 | 0 | 4 | 0 | Heavy Snow |
| NYZ005 | 18 | 1700EST |  |  | 0 | 0 | 4 | 0 | Heavy Snow |
| NYZ002 | 18 | 1900EST |  |  | 0 | 0 | 4 | 0 | Heavy Snow |

A northwesterly flow of Arctic air across the relatively warm waters of Lakes Erie and Ontario produced lake effect snow squalls to the lee of the lakes. Gusty winds combined with the snow to cause blowing and drifting creating hazardous road conditions in the squall areas. Numerous auto accidents were reported including one involving three school buses carrying 150 handicapped students. Specific snow reports included: 2 feet in Northeast Oswego, 16 inches in Syracuse, 12 inches in Wolcott and 6 inches in Sinclairville and New Albion.

|        |    |         |  |  |   |   |   |   |            |
|--------|----|---------|--|--|---|---|---|---|------------|
| NYZ021 | 20 | 0600EST |  |  | 0 | 0 | 4 | 0 | Heavy Snow |
|--------|----|---------|--|--|---|---|---|---|------------|

Low pressure passed over Lake Erie and produced a general snowfall of 1 to 3 inches. In addition, the southwesterly winds off Lake Erie resulted in a band of lake effect snow which moved north across Buffalo and stalled over southern Niagara County. Snowfall amounts which were reported were as follows: 8 inches in Tonawanda, and 7 inches in Niagara Falls and the northern portion of Tonawanda.

|        |    |         |  |  |   |   |   |   |            |
|--------|----|---------|--|--|---|---|---|---|------------|
| NYZ022 | 24 | 1800EST |  |  | 0 | 0 | 4 | 0 | Heavy Snow |
|--------|----|---------|--|--|---|---|---|---|------------|

A northwesterly flow of cold air across Lake Erie produced localized snow squalls which dumped up to 6 inches of snow over the northern and central regions of Chautauqua County. Winds gusted up to 35 mph and caused whiteouts in the squalls. Several school districts called off classes because of the storm.

### NORTH CAROLINA

|                            |    |    |  |  |   |   |   |   |               |
|----------------------------|----|----|--|--|---|---|---|---|---------------|
| Dare County<br>Outer Banks | 04 | AM |  |  | 0 | 0 | 0 | 0 | Coastal Flood |
|----------------------------|----|----|--|--|---|---|---|---|---------------|

Highway 12 was closed from Rodanthe to the Oregon Inlet by ocean overwash and heavy overwash reported at Kill Devil Hills, Nags Head, and Kitty Hawk. The overwash was caused by a coastal storm that had generated heavy swells.

|                  |    |                     |  |  |   |   |   |   |             |
|------------------|----|---------------------|--|--|---|---|---|---|-------------|
| Granville County | 04 | 1000EST-<br>1400EST |  |  | 0 | 0 | 0 | 0 | Flash Flood |
|------------------|----|---------------------|--|--|---|---|---|---|-------------|

Several roads were closed when creeks overflowed during heavy rain after nearly 4 inches of rainfall in a 24-hour period.

|                  |          |          |  |  |   |   |   |   |       |
|------------------|----------|----------|--|--|---|---|---|---|-------|
| Edgecombe County | 06<br>10 | Unknown- |  |  | 0 | 0 | 0 | 0 | Flood |
|------------------|----------|----------|--|--|---|---|---|---|-------|

The total rainfall of 3 to 6 inches in the previous days upstream caused the Tar River to flood. Water levels rose to the foundations of several homes and businesses and inundated residential streets, especially in Tarboro.

|                                   |    |         |  |  |   |   |   |   |            |
|-----------------------------------|----|---------|--|--|---|---|---|---|------------|
| Wilkes County<br>North Wilkesboro | 16 | 0430EST |  |  | 0 | 0 | 2 | 0 | High Winds |
|-----------------------------------|----|---------|--|--|---|---|---|---|------------|

High wind associated with a cold front blew down two large trees with one landing on top of a house.

|                             |    |         |  |  |   |   |   |   |                    |
|-----------------------------|----|---------|--|--|---|---|---|---|--------------------|
| Wilson County<br>2 N Wilson | 23 | 2100EST |  |  | 0 | 1 | 3 | 0 | Thunderstorm Winds |
|-----------------------------|----|---------|--|--|---|---|---|---|--------------------|

Splintered rafters from a barn roof were blown 50 yards into a dwelling injuring one man. The wind also uprooted a large tree nearby.

### NORTH DAKOTA

|   |          |                     |  |  |   |   |   |   |            |
|---|----------|---------------------|--|--|---|---|---|---|------------|
| NDZ013-014-016-018<br>Portions of Eastern<br>North Dakota | 07<br>08 | 1500CST-<br>1200CST |  |  | 0 | 0 | 0 | 0 | Heavy Snow |
|---|----------|---------------------|--|--|---|---|---|---|------------|

Around 6 inches of snow fell over a large part of eastern North Dakota. Temperatures were in the

# Storm Data and Unusual Weather Phenomena

January 1992

| Location | Date | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |       | Character of Storm |
|----------|------|----------------------------|---------------------------|--------------------------|----------------------|---------|---------------------|-------|--------------------|
|          |      |                            |                           |                          | Killed               | Injured | Property            | Crops |                    |

## NORTH DAKOTA Cont'd

20s during the snowfall and the moisture content of the snow was unusually high for North Dakota in January. The snowfall in North Dakota was a small part of a massive storm system that was centered well to the south of our state.

## OHIO

|   |    |                     |  |  |   |   |   |   |                  |
|---|----|---------------------|--|--|---|---|---|---|------------------|
| OHZ001-002-003-006-010-011<br>Northwestern<br>Central Lakeshore<br>Northeastern<br>Lakeshore, Central<br>and West-Central<br>and Central<br>Highlands | 14 | 0200EST-<br>1700EST |  |  | 0 | 0 | 4 | 0 | Lake Effect Snow |
|---|----|---------------------|--|--|---|---|---|---|------------------|

Heavy rain changed over to snow from west to east across Ohio during the early morning hours of the 14th. Snow depths reached 6 inches in western Ohio around 0600 EST, from central into north-central Ohio around 1400 EST and in northeast Ohio around 1700 EST. Final snow totals were from 4 to 10 inches across a large part of the northern half of Ohio. The greatest snow depths were in northwest Ohio where 10-inch amounts were common in and around Toledo.

|  |          |                     |  |  |   |   |   |   |            |
|--|----------|---------------------|--|--|---|---|---|---|------------|
| OHZ002-003-004-007<br>Central Lakeshore<br>Northeastern<br>Lakeshore, North-<br>eastern Inland<br>East-Central | 15<br>16 | 1500EST-<br>2200EST |  |  | 0 | 0 | 4 | 0 | Heavy Snow |
|--|----------|---------------------|--|--|---|---|---|---|------------|

Heavy snow moved into the northeastern and eastern sections of Ohio during the afternoon of the 15th. Snow depths reached 4 inches in Muskingum County, of eastern Ohio, and 6 inches across a large part of northeastern Ohio around midnight on the 15th.

|                                     |          |                     |  |  |   |   |   |   |                  |
|-------------------------------------|----------|---------------------|--|--|---|---|---|---|------------------|
| OHZ003<br>Northeastern<br>Lakeshore | 18<br>19 | 0030EST-<br>1900EST |  |  | 0 | 0 | 4 | 0 | Lake Effect Snow |
|-------------------------------------|----------|---------------------|--|--|---|---|---|---|------------------|

Heavy lake effect snow developed over far northeastern Ohio during the early morning hours of the 18th. Snow depths reached 6 inches in Jefferson around 0700 EST. Total snowfall was nearly 10 inches in Jefferson.

|                          |    |                     |  |  |   |   |   |   |            |
|--------------------------|----|---------------------|--|--|---|---|---|---|------------|
| OHZ007, East-<br>Central | 20 | 0100EST-<br>0900EST |  |  | 0 | 0 | 4 | 0 | Heavy Snow |
|--------------------------|----|---------------------|--|--|---|---|---|---|------------|

Heavy snow moved across parts of eastern Ohio depositing 4 inches of snow around Zanesville at 0600 EST.

|                                     |    |                     |  |  |   |   |   |   |                  |
|-------------------------------------|----|---------------------|--|--|---|---|---|---|------------------|
| OHZ003<br>Northeastern<br>Lakeshore | 24 | 0400EST-<br>1400EST |  |  | 0 | 0 | 4 | 0 | Lake Effect Snow |
|-------------------------------------|----|---------------------|--|--|---|---|---|---|------------------|

Heavy lake effect snow moved into far northeast Ohio during the early morning of the 24th. Snow depths reached 6 inches in Russell Township at 1200 EST. Total snowfall was 6 to 8 inches across Geauga county.

|   |    |                     |  |  |   |   |   |   |            |
|---|----|---------------------|--|--|---|---|---|---|------------|
| OHZ005-006-007<br>Miami Valley<br>Central<br>East Central | 25 | 0500EST-<br>1900EST |  |  | 0 | 0 | 4 | 0 | Heavy Snow |
|---|----|---------------------|--|--|---|---|---|---|------------|

Heavy snow moved across central Ohio during the 25th. Snow depths reached 4 inches in many areas by 1600 EST with total snow depths of 3 to 6 inches.

## OKLAHOMA

|                                    |    |                     |  |  |   |   |   |   |            |
|------------------------------------|----|---------------------|--|--|---|---|---|---|------------|
| OKZ011-013-014-015-016-017-030-031 | 13 | 0400CST-<br>1300CST |  |  | 0 | 0 | ? | ? | Snow Storm |
|------------------------------------|----|---------------------|--|--|---|---|---|---|------------|

Heavy snow fell in an area bounded by Ft. Cobb, Edmond, Muskogee, and Sulphur. Snowfall totals ranged generally from 3 to 6 inches, with 7 inches reported at Ada. Schools were closed and

# Storm Data and Unusual Weather Phenomena

January 1992

| Location | Date | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |       | Character of Storm |
|----------|------|----------------------------|---------------------------|--------------------------|----------------------|---------|---------------------|-------|--------------------|
|          |      |                            |                           |                          | Killed               | Injured | Property            | Crops |                    |

## OKLAHOMA Cont'd

numerous traffic accidents resulted from the heavy snow, which was wet and slushy and was accompanied by 30 to 40 mph winds and near zero visibility at times.

|                            |    |                     |  |  |   |   |   |   |            |
|----------------------------|----|---------------------|--|--|---|---|---|---|------------|
| OKZ018-019-020-021-034-040 | 18 | 0200CST-<br>1400CST |  |  | 0 | 0 | 5 | ? | Snow Storm |
|----------------------------|----|---------------------|--|--|---|---|---|---|------------|

Heavy snow fell in a band from western Cotton County to Mc Curtain and southern Le Flore Counties. Six to eight inches of snow were common, and isolated spots received 12 inches in the Ardmore area. Since the snowfall occurred on a Saturday morning, it did not create widespread traffic problems, although Interstate 35 through the Arbuckle Mountain area was closed for a time. In Idabel, a wet, heavy 6 inches of snow caused a mill building to collapse under the weight, with damage estimated at \$125,000.

## OREGON

|        |    |                     |  |  |   |   |   |   |                  |
|--------|----|---------------------|--|--|---|---|---|---|------------------|
| ORZ001 | 27 | 0200PST-<br>2400PST |  |  | 0 | 0 | ? | 0 | High Winds (G73) |
|--------|----|---------------------|--|--|---|---|---|---|------------------|

A surface low off the Pacific Northwest coast caused very strong gradient wind along the northern Oregon coast. Wind gusts reached 84 mph at Netarts and 60 mph at Tillamook Bay.

|        |    |                     |  |  |   |   |   |   |            |
|--------|----|---------------------|--|--|---|---|---|---|------------|
| ORZ011 | 31 | 0300PST-<br>0500PST |  |  | 0 | 0 | 4 | 0 | High Winds |
|--------|----|---------------------|--|--|---|---|---|---|------------|

Continued strong gradient winds across Oregon caused damages in Joseph. The early morning winds tore part of a meatal roof from one house and displaced a mobile home from its foundation. A motor boat was flipped from its trailer onto a neighboring pickup truck and a travel trailer converted into a food stand was destroyed.

|            |    |                     |  |  |   |   |   |   |                  |
|------------|----|---------------------|--|--|---|---|---|---|------------------|
| ORZ001-003 | 31 | 0530PST-<br>1700PST |  |  | 0 | 0 | 4 | 0 | High Winds (G84) |
|------------|----|---------------------|--|--|---|---|---|---|------------------|

Midmorning wind gusts along the Oregon coast reached 97 mph at Oceanside in the north and 85 mph at Cape Blanco in the south. At 0930 PST logs were rolling off of log piles at a mill in Clatsop County. At 1000 PST a United Parcel Service truck in Clatsop County was blown over on its side.

## PENNSYLVANIA, Eastern

|                               |    |         |  |  |   |   |   |   |                    |
|-------------------------------|----|---------|--|--|---|---|---|---|--------------------|
| Franklin County<br>Waynesboro | 14 | 0848EST |  |  | 0 | 0 | 3 | 0 | Thunderstorm Winds |
|-------------------------------|----|---------|--|--|---|---|---|---|--------------------|

Thunderstorm wind gusts downed large trees.

|                           |    |         |  |  |   |   |   |   |                          |
|---------------------------|----|---------|--|--|---|---|---|---|--------------------------|
| Adams County<br>Gettsburg | 14 | 0911EST |  |  | 0 | 0 | 3 | 0 | Thunderstorm Winds (G76) |
|---------------------------|----|---------|--|--|---|---|---|---|--------------------------|

Thunderstorm wind gusts reported as high as 87 mph downed trees and blew out storefront windows.

|                              |    |         |  |  |   |   |   |   |                          |
|------------------------------|----|---------|--|--|---|---|---|---|--------------------------|
| Dauphin County<br>Harrisburg | 14 | 0925EST |  |  | 0 | 0 | ? | 0 | Thunderstorm Winds (G61) |
|------------------------------|----|---------|--|--|---|---|---|---|--------------------------|

Thunderstorm wind gusts were measured at 70 mph at the Federal Building.

|                                   |    |         |  |  |   |   |   |   |                    |
|-----------------------------------|----|---------|--|--|---|---|---|---|--------------------|
| Lancaster County<br>4 S Conestoga | 14 | 0930EST |  |  | 0 | 0 | 3 | 0 | Thunderstorm Winds |
| 2 NE Reamstown                    | 14 | 0950EST |  |  | 0 | 0 | 3 | 0 | Thunderstorm Winds |
| 2 NW Blue Ball                    | 14 | 0950EST |  |  | 0 | 0 | 5 | 0 | Thunderstorm Winds |
| 2 E Bowmansville                  | 14 | 1018EST |  |  | 0 | 0 | 4 | 0 | Thunderstorm Winds |
| Akron                             | 14 | 1030EST |  |  | 0 | 0 | 5 | 0 | Thunderstorm Winds |

Thunderstorm wind gusts destroyed a shed near Conestoga, brought trees down on two homes near Bowmansville, ripped off the roof or part of the roof on three buildings in Akron and blew a barn off its foundation and onto a highway near Blue Ball. There also were numerous trees downed in other locations throughout the county. A tractor-semitrailer truck was blown over on its side near Reamstown.

# Storm Data and Unusual Weather Phenomena

January 1992

| Location  | Date | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |       | Character of Storm       |
|---|------|----------------------------|---------------------------|--------------------------|----------------------|---------|---------------------|-------|--------------------------|
|   |      |                            |                           |                          | Killed               | Injured | Property            | Crops |                          |
| <b>PENNSYLVANIA, Eastern Cont'd</b>   |      |                            |                           |                          |                      |         |                     |       |                          |
| <b>Northumberland County</b>  |      |                            |                           |                          |                      |         |                     |       |                          |
| 3 N Watsontown  | 14   | 0945EST                    |                           |                          | 0                    | 0       | 4                   | 0     | Thunderstorm Winds       |
| Thunderstorm wind gusts damaged six mobile homes and knocked one of them off its foundation.  |      |                            |                           |                          |                      |         |                     |       |                          |
| <b>York County</b>  |      |                            |                           |                          |                      |         |                     |       |                          |
| 0.25 S Red Lion   | 14   | 1005EST                    |                           |                          | 0                    | 0       | 3                   | 0     | Thunderstorm Winds       |
| Thunderstorm wind gusts downed numerous trees.  |      |                            |                           |                          |                      |         |                     |       |                          |
| <b>Chester County</b>   |      |                            |                           |                          |                      |         |                     |       |                          |
| Unionville  | 14   | 1005EST                    |                           |                          | 0                    | 0       | 3                   | 0     | Thunderstorm Winds       |
| Lionville   | 14   | 1010EST                    |                           |                          | 0                    | 0       | 4                   | 0     | Thunderstorm Winds       |
| Thunderstorm wind gusts downed trees in Unionville and blew down a barn in Lionville.   |      |                            |                           |                          |                      |         |                     |       |                          |
| <b>Susquehanna County</b>   |      |                            |                           |                          |                      |         |                     |       |                          |
| 1 S Lawton  | 14   | 1015EST                    |                           |                          | 0                    | 0       | 4                   | 0     | Thunderstorm Winds       |
| Harford   | 14   | 1130EST                    |                           |                          | 0                    | 0       | 3                   | 0     | Thunderstorm Winds       |
| Thunderstorm wind gusts took part of the roof off a house near Lawton and blew away a utility shed and a dog house. Trees were blown down in Harford.   |      |                            |                           |                          |                      |         |                     |       |                          |
| <b>Lebanon County</b>   |      |                            |                           |                          |                      |         |                     |       |                          |
| Lickdale  | 14   | 1020EST                    |                           |                          | 0                    | 0       | 3                   | 0     | Thunderstorm Winds       |
| Ono   | 14   | 1035EST                    |                           |                          | 0                    | 0       | 3                   | 0     | Thunderstorm Winds       |
| Thunderstorm wind gusts brought trees down across roadways.   |      |                            |                           |                          |                      |         |                     |       |                          |
| <b>Schuylkill County</b>  |      |                            |                           |                          |                      |         |                     |       |                          |
| Rock  | 14   | 1020EST                    |                           |                          | 0                    | 1       | 4                   | 0     | Thunderstorm Winds       |
| 3 E Rock  | 14   | 1025EST                    |                           |                          | 0                    | 0       | 4                   | 0     | Thunderstorm Winds       |
| 2 NE Friedensburg   | 14   | 1030EST                    |                           |                          | 0                    | 0       | 4                   | 0     | Thunderstorm Winds       |
| Pottsville  | 14   | 1035EST                    |                           |                          | 0                    | 0       | 3                   | 0     | Thunderstorm Winds       |
| Coaldale  | 14   | 1100EST                    |                           |                          | 0                    | 0       | 4                   | 0     | Thunderstorm Winds       |
| Thunderstorm wind gusts picked up a mobile home, threw it onto its roof and almost completely demolished it in Rock. A man sleeping inside luckily escaped with just cuts and bruises. To the east of Rock there was a narrow band of uprooted and snapped off trees for several hundred yards. Some trees 2 feet in diameter were uprooted and carried more than 100 feet. A large part of the roof was blown off a house, pieces of awning and aluminum siding were as much as 100 feet away with some wrapped around trees, the windshield on an automobile was shattered and a porch was collapsed. To the northeast of Friedensburg all the roof and portions of the walls were blown off a barn. Trees and utility lines were down in Pottsville. In Coaldale, wind gusts tore a hole in the roof of a house. |      |                            |                           |                          |                      |         |                     |       |                          |
| <b>Luzerne County</b>   |      |                            |                           |                          |                      |         |                     |       |                          |
| Plains  | 14   | 1030EST                    |                           |                          | 0                    | 0       | 3                   | 0     | Thunderstorm Winds       |
| Forty Fort  | 14   | 1030EST                    |                           |                          | 0                    | 0       | 3                   | 0     | Thunderstorm Winds       |
| Warriors Run  | 14   | 1030EST                    |                           |                          | 0                    | 0       | 4                   | 0     | Thunderstorm Winds       |
| Wilkes Barre/<br>Scranton Airport   | 14   | 1035EST                    |                           |                          | 0                    | 0       | 4                   | 0     | Thunderstorm Winds (G64) |
| Hughestown  | 14   | 1035EST                    |                           |                          | 0                    | 0       | 3                   | 0     | Thunderstorm Winds       |
| Pittston  | 14   | 1035EST                    |                           |                          | 0                    | 0       | 3                   | 0     | Thunderstorm Winds       |
| 0.50 S Avoca  | 14   | 1036EST                    |                           |                          | 0                    | 0       | 3                   | 0     | Thunderstorm Winds       |
| Harveys Lake  | 14   | 1100EST                    |                           |                          | 0                    | 0       | 3                   | 0     | Thunderstorm Winds       |
| Hazleton  | 14   | 1100EST                    |                           |                          | 0                    | 0       | 4                   | 0     | Thunderstorm Winds       |
| Thunderstorm wind gusts downed trees and utility lines in Plains, Forty Fort, Hughestown, Pittston, Harveys Lake and Hazleton. Some of the trees came down on houses in Plains. A billboard was blown over south of Avoca. A window was blown out of a store in Hazleton. Roofing was blown off a building in Warriors Run and damaged automobiles in the parking lot. At the Wilkes Barre-Scranton Airport, an airplane was flipped over onto a fence when wind gusts were measured at 74 mph.   |      |                            |                           |                          |                      |         |                     |       |                          |

# Storm Data and Unusual Weather Phenomena

January 1992

| Location | Date | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |       | Character of Storm |
|----------|------|----------------------------|---------------------------|--------------------------|----------------------|---------|---------------------|-------|--------------------|
|          |      |                            |                           |                          | Killed               | Injured | Property            | Crops |                    |

## PENNSYLVANIA, Eastern Cont'd

### Lackawanna County

|              |    |         |  |  |   |   |   |   |                    |
|--------------|----|---------|--|--|---|---|---|---|--------------------|
| Taylor       | 14 | 1034EST |  |  | 0 | 5 | 5 | 0 | Thunderstorm Winds |
| Scranton     | 14 | 1036EST |  |  | 0 | 1 | 5 | 0 | Thunderstorm Winds |
| Waverly      | 14 | 1038EST |  |  | 0 | 0 | 3 | 0 | Thunderstorm Winds |
| Old Forge    | 14 | 1039EST |  |  | 0 | 0 | 3 | 0 | Thunderstorm Winds |
| Dickson City | 14 | 1045EST |  |  | 0 | 0 | 4 | 0 | Thunderstorm Winds |
| Jermyn       | 14 | 1050EST |  |  | 0 | 0 | 3 | 0 | Thunderstorm Winds |
| Carbondale   | 14 | 1050EST |  |  | 0 | 0 | 4 | 0 | Thunderstorm Winds |

Thunderstorm wind gusts uprooted or broke off many trees and brought down many utility lines. Trees came down on automobiles in Jermyn and Old Forge. Trees came down on a house in Scranton injuring one person. A garage was blown down in Carbondale. Most of the roofing was blown off stores in Dickson City. In Scranton, terracotta tiles were blown off the roof of a building and along with the wind gusts made holes in the roof of an adjacent building, a television station, and damaged or destroyed satellite dishes. In addition, windows were blown out of a store. A porch was blown off a house and the wall of a building collapsed. In Taylor, windows were blown in on a restaurant causing minor injuries to five people. Windows were blown in on a school and heating ducts blown off the roof. Siding was blown off a house and a window was smashed.

### Lackawanna County Moosic

|    |         |     |    |   |   |   |   |              |
|----|---------|-----|----|---|---|---|---|--------------|
| 14 | 1041EST | .02 | 35 | 0 | 0 | 4 | 0 | Tornado (F1) |
|----|---------|-----|----|---|---|---|---|--------------|

Although there was a path of straight line wind damage about 0.25 mile long and 100 yards wide, there was only one touchdown by the tornado. Trees were uprooted, windows were blown out and buildings were damaged with portions of roofs blown off. One mobile home was blown off its foundation.

### Montgomery County

|                |    |         |  |  |   |   |   |   |                          |
|----------------|----|---------|--|--|---|---|---|---|--------------------------|
| Pottstown      | 14 | 1100EST |  |  | 0 | 0 | 3 | 0 | Thunderstorm Winds (G56) |
| 2 NE Pottstown | 14 | 1115EST |  |  | 0 | 0 | 3 | 0 | Thunderstorm Winds       |
| Harleysville   | 14 | 1134EST |  |  | 0 | 0 | ? | 0 | Thunderstorm Winds (G63) |

Thunderstorm wind gusts downed numerous trees. A gust to 72 mph was reported at Harleysville. Gusts of 60 to 65 mph were reported from a 100-foot tower in Pottstown.

### Delaware County

|             |    |         |  |  |   |   |   |   |                    |
|-------------|----|---------|--|--|---|---|---|---|--------------------|
| Aston Mills | 14 | 1120EST |  |  | 0 | 0 | 3 | 0 | Thunderstorm Winds |
| Newtown     | 14 | 1122EST |  |  | 0 | 0 | 3 | 0 | Thunderstorm Winds |

Thunderstorm wind gusts downed trees and utility lines. In Clifton Heights, 0.25-inch hail was reported and 0.25- to 0.375-inch hail in Broomall.

### Bucks County Lumberville

|    |         |     |    |   |   |   |   |              |
|----|---------|-----|----|---|---|---|---|--------------|
| 14 | 1124EST | 1.5 | 25 | 0 | 0 | 4 | 0 | Tornado (F1) |
|----|---------|-----|----|---|---|---|---|--------------|

A tornado touched down toppling trees, snapping off utility poles and taking part of the roof off a building.

### Wayne County

|               |    |         |  |  |   |   |   |   |                    |
|---------------|----|---------|--|--|---|---|---|---|--------------------|
| 3 N Honesdale | 14 | 1130EST |  |  | 0 | 0 | 3 | 0 | Thunderstorm Winds |
| Honesdale     | 14 | 1130EST |  |  | 0 | 0 | 3 | 0 | Thunderstorm Winds |

Thunderstorm wind gusts downed trees and utility lines. One tree damaged a house north of Honesdale and siding was blown off a house.

### Philadelphia County 5 SW Bridesburg

|    |         |  |  |   |   |   |   |                          |
|----|---------|--|--|---|---|---|---|--------------------------|
| 14 | 1131EST |  |  | 0 | 0 | ? | 0 | Thunderstorm Winds (G63) |
|----|---------|--|--|---|---|---|---|--------------------------|

A thunderstorm wind gust was measured at 73 mph.

## PENNSYLVANIA, Western

### Westmoreland County

|                  |    |         |  |  |   |   |   |   |                    |
|------------------|----|---------|--|--|---|---|---|---|--------------------|
| 9 NW Greensburg  | 14 | 0530EST |  |  | 0 | 0 | ? | 0 | Thunderstorm Winds |
| 14 E Greensburg  |    |         |  |  |   |   |   |   | Lightning          |
| 15 SW Greensburg |    |         |  |  |   |   |   |   |                    |



# Storm Data and Unusual Weather Phenomena

January 1992

| Location  | Date | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |       | Character of Storm   |
|---|------|----------------------------|---------------------------|--------------------------|----------------------|---------|---------------------|-------|--|
|   |      |                            |                           |                          | Killed               | Injured | Property            | Crops |  |
| <b>PENNSYLVANIA, Western Cont'd</b>                     |      |                            |                           |                          |                      |         |                     |       |  |
| 21 N Greensburg   |      |                            |                           |                          |                      |         |                     |       | Trees were downed in Penn Township and north Huntingdon. A home was struck by lightning in Derry, trees were downed in Rostraver, and power lines were downed in Vandergrift.                                |
| Fayette County<br>6 W Uniontown                         | 14   | 0545EST                    |                           |                          | 0                    | 0       | 0                   | 0     | Thunderstorm Winds<br>Trees were damaged in Footedale.   |
| Westmoreland County<br>15 NW Greensburg                 | 14   | 0550EST                    |                           |                          | 0                    | 0       | 0                   | 0     | Thunderstorm Winds<br>Thunderstorm winds downed trees and power lines that were lying on roads in Murrysville.   |
| Armstrong County<br>5 SW Kittanning                     | 14   | 0600EST                    |                           |                          | 0                    | 0       | 0                   | 0     | Thunderstorm Winds<br>Trees were downed by thunderstorm winds in north Buffalo Township.   |
| Westmoreland County<br>Greensburg                       | 14   | 0828EST                    |                           |                          | 0                    | 0       | 4                   | 0     | High Winds<br>Eighty-foot oak trees fell on a house in Greensburg resulting in \$15,000 to \$20,000 in estimated damages.  |
| Fayette County<br>16 N Uniontown                        | 14   | 0930EST                    |                           |                          | 0                    | 0       | 3                   | 0     | High Winds<br>A house under construction in Everson was blown down.  |
| Venango County<br>6 E Franklin                          | 14   | 0930EST                    |                           |                          | 0                    | 0       | 2                   | 0     | High Winds<br>An overhead light in a gas station was blown down and trees were downed in the northern part of the county.  |
| Clarion County<br>Southern Portion                      | 14   | 0930EST                    |                           |                          | 0                    | 0       | 0                   | 0     | High Winds<br>Trees were downed in the southern portion of the county.   |
| Jefferson County<br>15 SE Brookville<br>15 E Brookville | 14   | 1015EST-<br>1031EST        |                           |                          | 0                    | 0       | 1                   | 0     | High Winds<br>A plate-glass window was blown out in Punxsutawney. Large tree limbs were downed in Punxsutawney park. Dubois Flight Service Station reported non convective wind gusts to 64 mph at 1031 EST. |
| Washington County<br>12 SE Washington                   | 14   | 1125EST                    |                           |                          | 0                    | 0       | 0                   | 0     | High Winds<br>Marianna reported non convective wind gusts to 66 mph.   |
| Cambria County<br>Johnstown                             | 14   | 1238EST                    |                           |                          | 0                    | 0       | 0                   | 0     | High Winds<br>Johnstown Flight Service Station reported non convective wind gust to 61 mph.  |
| McKean County<br>Bradford                               | 14   | 1350EST-<br>1455EST        |                           |                          | 0                    | 0       | 0                   | 0     | High Winds<br>Bradford Flight Service Station reported wind gusts to 61 mph; at 1412 EST, gusts to 62 mph; at 1455 EST, wind gust to 63 mph.   |
| PAZ002<br>Northwest                                     | 14   | 1900EST                    |                           |                          | 0                    | 0       | 0                   | 0     | Heavy Snow<br>Lake effect snow dumped 6 to 7 inches of snow on Albion and 6 to 10 inches on Cambridge Springs.   |

# Storm Data and Unusual Weather Phenomena

January 1992

| Location   | Date     | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles)  | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |        | Character of Storm                       |
|--|----------|----------------------------|--|--------------------------|----------------------|---------|---------------------|--------|--|
|  |          |                            |  |                          | Killed               | Injured | Property            | Crops  |  |
| <b>PENNSYLVANIA, Western Cont'd</b>                                      |          |                            |  |                          |                      |         |                     |        |  |
| PAZ002<br>Northwest  | 15       | 0700EST                    |  |                          | 0                    | 0       | 0                   | 0      | Heavy Snow                               |
|  |          |                            | Lake effect snow dropped 6 inches of snow at Woodcock Dam, 7 inches in Townville and Meadville, 8 inches in Union City, and 9 inches at Clarks Corners.  |                          |                      |         |                     |        |  |
| PAZ001<br>Lakeshore  | 16       | 0445EST                    |  |                          | 0                    | 0       | 0                   | 0      | Heavy Snow                               |
|  |          |                            | Eight inches of lake effect snow fell over night at Erie.  |                          |                      |         |                     |        |  |
| PAZ002<br>Northwest  | 18       | 0000EST-<br>1600EST        |  |                          | 0                    | 0       | 0                   | 0      | Heavy Snow                               |
|  |          |                            | At Edinboro, 7 to 9 inches of lake effect snow fell, 6 inches in Corry, up to 6 inches in Meadville, and up to 6 inches in Cambridge Springs by the afternoon.   |                          |                      |         |                     |        |  |
| PAZ002<br>Northwest  | 24       | 1800EST                    |  |                          | 0                    | 0       | 0                   | 0      | Heavy Snow                               |
|  |          |                            | Lake effect snow dumped around 8 inches of snow at Corry with 7 inches on the ground in Edinboro.  |                          |                      |         |                     |        |  |
| <b>RHODE ISLAND</b>  |          |                            |  |                          |                      |         |                     |        |  |
| RIZALL   | 14<br>15 | 2300EST-<br>0100EST        |  |                          | 0                    | 0       | 4                   | 0      | High Winds                               |
|  |          |                            | High winds associated with influx of colder air caused widely scattered power outages across the state as well as some signs and street signals being blown down in a few places. Wind gusts were reported up to 50 mph.   |                          |                      |         |                     |        |  |
| RIZ001   | 23       | 0600EST-<br>0900EST        |  |                          | 0                    | 0       | 0                   | 0      | Glaze                                    |
|  |          |                            | Light freezing rain resulted in icy surfaces across interior portions of the state causing numerous skidding accidents.  |                          |                      |         |                     |        |  |
| RIZALL   | 23       | 1900EST-<br>2330EST        |  |                          | 0                    | 0       | 4                   | 0      | High Winds                               |
|  |          |                            | Gale force southern winds gusting up to 60 mph caused scattered power outages across the state. There was some minor coastal flooding with a few coastal roads closed between 2230 EST and 2330 EST. The Fox Point Hurricane Barrier was closed to guard against flooding in the city of Providence. |                          |                      |         |                     |        |  |
| <b>SOUTH CAROLINA</b>  |          |                            |  |                          |                      |         |                     |        |  |
| SCZ003-004-005-<br>006-007,<br>Piedmont, Midlands,<br>and Northern Coast | 18<br>19 | 2000EST-<br>0600EST        |  |                          | 0                    | 0       | ?                   | ?      | Snow Storm                               |
|  |          |                            | The central counties of South Carolina experienced snow as a cyclone moved up the Atlantic Coast. Amounts varied from a trace up to nearly 4 inches in a narrow band which extended from Aiken to Dillon.  |                          |                      |         |                     |        |  |
| SCZ007<br>Southern Coast   | 21       | Unknown                    |  |                          | 1                    | 0       | 0                   | 0      | Hypothermia                              |
|  |          |                            | A 61-year-old man died of hypothermia in Charleston County. (M61?)   |                          |                      |         |                     |        |  |
| Charleston County<br>N Charleston<br>Isle of Palms                       | 23<br>23 | 1030EST<br>1100EST         |  |                          | 0<br>0               | 0<br>0  | ?<br>?              | 0<br>0 | Thunderstorm Winds<br>Thunderstorm Winds |
|  |          |                            | A large oak tree was blown down in the city of North Charleston. At the Isle of Palms, there was wind damage to a temporary fire station, constructed from a tent, erected after Hurricane Hugo. Windows were also blown out of a residence on the Isle of Palms about the same time.                |                          |                      |         |                     |        |  |

## Storm Data and Unusual Weather Phenomena

January 1992

| Location | Date | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |       | Character of Storm |
|----------|------|----------------------------|---------------------------|--------------------------|----------------------|---------|---------------------|-------|--------------------|
|          |      |                            |                           |                          | Killed               | Injured | Property            | Crops |                    |

### SOUTH DAKOTA

|  |    |          |  |  |   |   |   |   |            |
|--|----|----------|--|--|---|---|---|---|------------|
| SDZ004-005-010-011-014 > 016-019                     | 07 | 1300CST- |  |  |   |   |   |   |            |
|  | 08 | 1000CST  |  |  | 0 | 0 | 0 | 0 | Heavy Snow |
| Southwestern, Central, and Northeastern South Dakota |    |          |  |  |   |   |   |   |            |

A strong low pressure system moved northeast over South Dakota from the afternoon of the 7th through the late morning of the 8th. This area of low pressure dumped heavy snow from the southwestern through the northeastern portions of the state. The heaviest snow amounts reported were from 7 to 9 inches in the south-central portion. Amazingly, from the hundreds of traffic accidents caused by conditions from this storm, only two injuries resulted.

|              |    |          |  |  |   |   |   |   |          |
|--------------|----|----------|--|--|---|---|---|---|----------|
| SDZALL       | 14 | 0100CST- |  |  |   |   |   |   |          |
|              | 15 | 0300CST  |  |  | 0 | 0 | 0 | 0 | Blizzard |
| South Dakota |    |          |  |  |   |   |   |   |          |

A strong cold front whipped across the state on the 14th. Winds gusting to over 50 mph accompanied falling snow and dropping temperatures to create the blizzard conditions. Many automobile accidents occurred, over 100 were reported across the state. Six injuries were reported due to these accidents.

### TENNESSEE

|                                 |    |         |  |  |  |  |  |  |                    |
|---------------------------------|----|---------|--|--|--|--|--|--|--------------------|
| Rutherford County<br>Christiana | 13 | 2040CST |  |  |  |  |  |  | Thunderstorm Winds |
|---------------------------------|----|---------|--|--|--|--|--|--|--------------------|

A 10- by 20-foot steel shed was uprooted and destroyed.

|  |    |         |  |  |  |  |  |  |                    |
|--|----|---------|--|--|--|--|--|--|--------------------|
| Williamson County<br>Northwestern<br>Portion | 13 | 2205CST |  |  |  |  |  |  | Thunderstorm Winds |
|--|----|---------|--|--|--|--|--|--|--------------------|

Several large tree limbs were knocked down along Highway 96 North.

|                            |    |         |  |  |  |  |  |  |            |
|----------------------------|----|---------|--|--|--|--|--|--|------------|
| Coffee County<br>Tullahoma | 13 | 2230CST |  |  |  |  |  |  | High Winds |
|----------------------------|----|---------|--|--|--|--|--|--|------------|

Several large trees were knocked down.

|                         |    |         |  |  |  |  |  |  |            |
|-------------------------|----|---------|--|--|--|--|--|--|------------|
| McMinn County<br>Athens | 13 | 2300CST |  |  |  |  |  |  | High Winds |
|-------------------------|----|---------|--|--|--|--|--|--|------------|

The roof was blown off an auto repair shop.

|                         |    |         |  |  |  |  |  |  |            |
|-------------------------|----|---------|--|--|--|--|--|--|------------|
| Cocke County<br>Newport | 14 | 0100CST |  |  |  |  |  |  | High Winds |
|-------------------------|----|---------|--|--|--|--|--|--|------------|

Several tree limbs were knocked down in Newport.

|                            |    |         |  |  |  |  |  |  |            |
|----------------------------|----|---------|--|--|--|--|--|--|------------|
| Sullivan County<br>Briston | 14 | 0200CST |  |  |  |  |  |  | High Winds |
|----------------------------|----|---------|--|--|--|--|--|--|------------|

In Briston, a few tree limbs were knocked down.

### TEXAS, Northern

|                |       |  |  |  |  |  |  |  |       |
|----------------|-------|--|--|--|--|--|--|--|-------|
| Northern Texas | 01-31 |  |  |  |  |  |  |  | Flood |
|----------------|-------|--|--|--|--|--|--|--|-------|

Northern Texas rivers and streams remained susceptible to flooding as January rainfall totals were above normal. This compounded the already saturated soil conditions inherited from an extremely wet December 1991. Substantial flooding continued along portions of the Trinity, Sulphur, Sabine, Neches, Angelina, and Brazos Rivers. Most area reservoirs continued to be well into their flood pools.

|                       |    |         |  |  |  |  |  |  |                    |
|-----------------------|----|---------|--|--|--|--|--|--|--------------------|
| Marion County<br>Gray | 08 | 0240CST |  |  |  |  |  |  | Thunderstorm Winds |
|-----------------------|----|---------|--|--|--|--|--|--|--------------------|

Strong winds blew down several trees.

## Storm Data and Unusual Weather Phenomena

January 1992

| Location   | Date     | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |       | Character of Storm |
|--|----------|----------------------------|---------------------------|--------------------------|----------------------|---------|---------------------|-------|--------------------|
|  |          |                            |                           |                          | Killed               | Injured | Property            | Crops |                    |
| <b>TEXAS, Northern Cont'd</b>  |          |                            |                           |                          |                      |         |                     |       |                    |
| <b>TXZ019-022</b><br>Wilbarger, Wichita,<br>Jack, Montague,<br>Cooke, Grayson,<br>Fannin, and Lamar<br>Counties  | 18       | 0400CST                    |                           |                          | 0                    | 0       | ?                   | ?     | Winter Storm       |
| A band of heavy snow fell across the Red River Valley portion of northern Texas. Snow amounts of 4 to 7 inches were common in less than a 12-hour period.  |          |                            |                           |                          |                      |         |                     |       |                    |
| <b>TEXAS, Southern</b>   |          |                            |                           |                          |                      |         |                     |       |                    |
| <b>Galveston County</b><br>Galveston Island  | 08       | 0400CST                    |                           |                          | ?                    | ?       | 3                   | ?     | Lightning          |
| Lightning knocked a chimney off a home on Galveston Island early Wednesday morning. Fire fighters reported a hole in the roof of the house, but no injuries to any one inside. The storm also caused a power outage to 300 to 400 homes on the Island for about 30 minutes.  |          |                            |                           |                          |                      |         |                     |       |                    |
| <b>Bexar County</b><br>San Antonio   | 13       | 1130CST                    |                           |                          | ?                    | ?       | 4                   | ?     | High Winds         |
| Due to saturated ground, high winds downed several trees throughout the city causing scattered powers outages. One utility pole was downed and two 25-foot doors on a hangar were blown out of their tracks at the International Airport. The maximum wind speed recorded at the airport was 47 mph.   |          |                            |                           |                          |                      |         |                     |       |                    |
| <b>Nueces County</b><br>Corpus Christi   | 13       | 1215CST                    |                           |                          | ?                    | ?       | 2                   | ?     | High Winds         |
| As a cold front moved into the area, high winds downed a large tree in the city. The tree fell onto a house, but caused no damage.   |          |                            |                           |                          |                      |         |                     |       |                    |
| <b>Duval County</b><br>San Diego   | 14       | 2051CST                    |                           |                          | ?                    | ?       | 4                   | 2     | Hail (1.75)        |
| Several thunderstorms developed in an area of convection in western Webb County near 1900CST. The area moved northeastward at 20 mph, and began to form into a line as it entered Duval County shortly after 1930 CST when one of the storms in the line intensified rapidly. At 2051 CST, the Duval County Sheriff's Office reported golf ball-size hail in the city of San Diego.  |          |                            |                           |                          |                      |         |                     |       |                    |
| <b>Duval County</b><br>Benavides   | 14       | 2215CST                    |                           |                          | ?                    | ?       | 2                   | ?     | Hail (1.50)        |
| Another area of thunderstorms passed through Duval County approximately 90 minutes after larger hail was reported in San Diego. The county sheriff's office reported 1.50 inch hail in the town of Benavides.  |          |                            |                           |                          |                      |         |                     |       |                    |
| <b>Uvalde County</b><br>5 NE Uvalde  | 21       | 0700CST                    |                           |                          | ?                    | ?       | 2                   | ?     | Hail (0.50)        |
| As a thunderstorm passed between Uvalde and Knippa, it produced a larger quantities of small hail that was 2 inches deep in some areas. A Spanish goat kid was killed as a result from being repeatedly struck by the hail.  |          |                            |                           |                          |                      |         |                     |       |                    |
| <b>South-Central and<br/>Southeastern Texas</b>  | 26<br>31 | 1900CST-                   |                           |                          | ?                    | ?       | 5                   | ?     | Flood              |
| During the night of January 26th, one to two inches of rainfall was reported over much of south-central Texas with isolated amounts of four inches or more. This rainfall sent major rises down the river in south and southeastern Texas. Residents of many communities over southeastern Texas were not able to move back into their homes because of the flooding that was continuing from December. Roads in Calhoun, Dewitt and Victoria Counties were closed again for several days. |          |                            |                           |                          |                      |         |                     |       |                    |
| <b>TEXAS, Western</b>  |          |                            |                           |                          |                      |         |                     |       |                    |
| <b>Tom Green County</b><br>San Angelo  | 12       | 1930CST                    |                           |                          | 0                    | 0       | 2                   | 3     | High Winds         |

# Storm Data and Unusual Weather Phenomena

January 1992

| Location | Date | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons<br>Killed | Injured | Estimated<br>Damage<br>Property | Crops | Character of Storm |
|----------|------|----------------------------|---------------------------|--------------------------|--------------------------------|---------|---------------------------------|-------|--------------------|
|----------|------|----------------------------|---------------------------|--------------------------|--------------------------------|---------|---------------------------------|-------|--------------------|

## TEXAS, Western Cont'd

Strong gradient winds behind a cold front uprooted a 50-foot tree in San Angelo. The tree slightly damaged a patio when it fell.

|                                 |    |          |  |  |   |   |   |   |            |
|---------------------------------|----|----------|--|--|---|---|---|---|------------|
| TXZ007 > 012<br>Southern Plains | 13 | 0200CST- |  |  | 0 | 0 | 2 | 2 | Heavy Snow |
|                                 |    | 0700CST  |  |  |   |   |   |   |            |

A small, but vigorous upper level disturbance brought heavy snow to the South Plains. Bailey County reported the heaviest snowfall with 7 inches in Muleshoe. Snowfall totals of 4 to 6 inches were reported across much of the western and northern South Plains. The snow caused a number of minor traffic accidents, but no injuries or significant damage were directly attributable to the winter weather.

|   |    |          |  |  |   |   |   |   |            |
|---|----|----------|--|--|---|---|---|---|------------|
| TXZ007 > 016-052-<br>Far Western South<br>South Plains and<br>Permian Basin | 17 | 1800CST- |  |  | 0 | 0 | 2 | 1 | Heavy Snow |
|   | 18 | 0900CST  |  |  |   |   |   |   |            |

Another vigorous upper level storm resulted in heavy snow from the mountains of far west Texas to the South Plains and Permian Basin. Snowfall totals of 5 to 7 inches were common across the area, with Odessa reporting 8 inches of snow. Slick roadways resulted in several minor traffic accidents. Although no injuries were directly related to the winter weather, an oil worker in Greenwood (east of Midland) was killed when he slipped and fell off of a piece of oil equipment.

## UTAH

|                |    |          |  |  |   |   |   |   |            |
|----------------|----|----------|--|--|---|---|---|---|------------|
| UTZ009-011-013 | 03 | 1430MST- |  |  | 0 | 0 | 0 | 0 | Heavy Snow |
|                |    | 0200MST  |  |  |   |   |   |   |            |
| UTZ007         | 03 | 2000MST- |  |  | 0 | 0 | 0 | 0 | Heavy Snow |
|                | 04 | 0000MST  |  |  |   |   |   |   |            |
| UTZ008-012     | 03 | 2130MST- |  |  | 0 | 0 | 0 | 0 | Heavy Snow |
|                | 04 | 0700MST  |  |  |   |   |   |   |            |
| UTZ003         | 04 | 0130MST- |  |  | 0 | 0 | 0 | 0 | Heavy Snow |
|                |    | 1200MST  |  |  |   |   |   |   |            |

A storm that moved in from southern California spread snow over the entire state. The snow began in the southwestern and south-central portions by mid-afternoon of the 3rd. It then spread north and east. Valley locations in the southwest and south-central received 3 to 6 inches, 4 inches in the east-central and extreme southeastern sections, and 4 to 5 inches along the Wasatch Front. The southwestern mountains received the highest amounts with totals of 7 to 8 inches. No significant damage resulted from this storm.

|            |    |          |  |  |   |   |   |   |           |
|------------|----|----------|--|--|---|---|---|---|-----------|
| UTZ004-005 | 05 | 1700MST- |  |  | 1 | 5 | 4 | 0 | Ice Storm |
|            | 06 | 0100MST  |  |  |   |   |   |   |           |

Cold air trapped in the valley locations, and rain falling into this cold air combined to cause freezing rain. The Utah Highway Patrol in this area reported that the roads were very slick. An accident occurred 2 miles north of Huntington on State Road 10 as a result of the slick roadway. A van slid onto the wrong side of the road into a car. A passenger in the car was killed, and all the occupants of the van were injured. (F49V)

|                |    |          |  |  |   |   |   |   |            |
|----------------|----|----------|--|--|---|---|---|---|------------|
| UTZ011         | 05 | 2300MST- |  |  | 0 | 0 | 0 | 0 | Heavy Snow |
|                | 07 | 0500MST  |  |  |   |   |   |   |            |
| UTZ012         | 06 | 0100MST- |  |  | 0 | 0 | 0 | 0 | Heavy Snow |
|                | 07 | 0300MST  |  |  |   |   |   |   |            |
| UTZ006-007     | 06 | 0200MST- |  |  | 0 | 0 | 0 | 0 | Heavy Snow |
|                |    | 1200MST  |  |  |   |   |   |   |            |
| UTZ013         | 06 | 0200MST- |  |  | 0 | 0 | 0 | 0 | Heavy Snow |
|                | 07 | 0300MST  |  |  |   |   |   |   |            |
| UTZ004-005     | 06 | 0830MST- |  |  | 0 | 0 | 0 | 0 | Heavy Snow |
|                | 07 | 0300MST  |  |  |   |   |   |   |            |
| UTZ001-003-010 | 06 | 1700MST- |  |  | 1 | 2 | 4 | 0 | Heavy Snow |
|                | 07 | 1300MST  |  |  |   |   |   |   |            |

Another storm system moved in from the south, and spread snow statewide. The mountains in the southwest received the most snow with amounts ranging from 15 to 32 inches. The northern mountains received 10 to 15 inches with the higher terrain areas of southeastern Utah below 7,000 feet receiving around 9 inches. Amounts received in the valley locations in the south were 4 to 8

# Storm Data and Unusual Weather Phenomena

January 1992

| Location | Date | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |       | Character of Storm |
|----------|------|----------------------------|---------------------------|--------------------------|----------------------|---------|---------------------|-------|--------------------|
|          |      |                            |                           |                          | Killed               | Injured | Property            | Crops |                    |

## UTAH Cont'd

inches, in the northeastern and east-central portions 4 to 5 inches, and in the northwest mostly 4 to 8 inches with the bench areas and the northern portion of the Wasatch Front receiving 9 to 13 inches. A man in Ogden died from a heart attack as a result of shoveling snow. There were numerous accidents in northwestern Utah during the morning of the 7th, but most were only fender benders with no significant damage reported. However, there were three separate accidents that caused damage and injuries. One occurred when a bus crashed into a utility pole, and the top portion of the pole crashed through the roof of the bus. There were no injuries. The second occurred when a car spun out of control into a dump truck. The driver of the car was injured. The last accident occurred when a boy walking to school was hit by a car. The heavy snow also caused power outages along the northern Wasatch Front. (M57P)

|            |    |          |  |  |   |   |   |   |            |
|------------|----|----------|--|--|---|---|---|---|------------|
| UTZ006-011 | 11 | 2200MST- |  |  |   |   |   |   |            |
|            | 12 | 0900MST  |  |  | 0 | 0 | 0 | 0 | Heavy Snow |
| UTZ011     | 12 | 0830MST- |  |  | 0 | 0 | 0 | 0 | High Winds |
|            |    | 1300MST  |  |  |   |   |   |   |            |

A storm system that moved across Arizona caused heavy snow and gusty winds. The valley locations received 3 to 5 inches while the mountains received 8 to 12 inches. About the time the snow stopped, several gusts between 60 and 65 mph were reported between Cedar City and Toquerville. No damage was reported, but the high winds caused areas of blowing snow and reduced visibilities.

|        |    |          |  |  |   |   |   |   |            |
|--------|----|----------|--|--|---|---|---|---|------------|
| UTZ010 | 13 | 1900MST- |  |  |   |   |   |   |            |
|        | 15 | 0300MST  |  |  | 0 | 0 | 0 | 0 | Heavy Snow |
| UTZ003 | 14 | 1700MST- |  |  | 0 | 0 | 0 | 0 | Heavy Snow |
|        | 15 | 0000MST  |  |  |   |   |   |   |            |

Upper level disturbances embedded in a moist, northerly flow brought heavy snow to the northwest valleys and mountains. The valleys received 3 to 6 inches and the mountains reported 11 to 14 inches.

## VERMONT

|           |    |           |  |  |   |   |   |   |               |
|-----------|----|-----------|--|--|---|---|---|---|---------------|
| Statewide | 04 | AM-<br>PM |  |  |   |   |   |   | Freezing Rain |
|           |    |           |  |  | 0 | 0 | 4 | ? |               |

Roads became treacherous as freezing rain was reported across the state resulting in many accidents especially in the eastern part of the state. The freezing rain was the result of a low pressure system which moved north along the Middle Atlantic Coast.

|                           |    |          |  |  |   |   |   |   |            |
|---------------------------|----|----------|--|--|---|---|---|---|------------|
| VTZ001 > 005<br>Statewide | 14 | 1300EST- |  |  |   |   |   |   |            |
|                           | 15 | 0700EST  |  |  | 0 | 0 | 4 | ? | High Winds |

A very strong storm system moved from eastern Lake Erie on the morning of January 14th up the Saint Lawrence River Valley that afternoon and evening and into the Canadian Maritimes on the morning of January 15th. High winds developed across the state during the afternoon as the pressure gradient around the storm tightened. According to Central Vermont Electric and Gas Company officials, tree limbs fell onto power lines knocking out power to 3,000 to 4,000 customers statewide. Other reports of damage included utility poles knocked down in Bennington and downed trees in Woodford.

|                 |    |    |  |  |   |   |   |   |      |
|-----------------|----|----|--|--|---|---|---|---|------|
| Eastern Vermont | 17 | PM |  |  |   |   |   |   | Snow |
|                 |    |    |  |  | 0 | 4 | 4 | 0 |      |

A storm system moved from the Upper Great Lakes on the morning of the 17th across the Saint Lawrence Valley and into the Canadian Maritimes on the 18th. The storm resulted in light snow across much of Vermont which resulted in several accidents along Interstate 89 in Eastern Vermont.

|           |    |          |  |  |   |   |   |   |               |
|-----------|----|----------|--|--|---|---|---|---|---------------|
| Statewide | 23 | 0500EST- |  |  |   |   |   |   |               |
|           | 24 | 0400EST  |  |  | 0 | 2 | 6 | ? | Freezing Rain |

A storm system over the Upper Great Lakes moved east drawing warm air aloft over the frozen ground in Vermont resulting in freezing rain which began during the early morning on the 23rd and continued into the early morning hours of the 24th. The freezing rain snarled traffic along Interstate 89 and Interstate 91 and resulted in hundreds of accidents across the state. There were also a few power outages reported in the Burlington and Marlboro areas.

# Storm Data and Unusual Weather Phenomena

January 1992

| Location   | Date | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons<br>Killed | Injured | Estimated<br>Damage<br>Property | Crops | Character of Storm |
|--|------|----------------------------|---------------------------|--------------------------|--------------------------------|---------|---------------------------------|-------|--------------------|
| <b>VERMONT Cont'd</b>  |      |                            |                           |                          |                                |         |                                 |       |                    |
| Statewide  | 24   | PM                         |                           |                          | 0                              | 2       | 4                               | 0     | Snow Squalls       |
| Arctic air swept across Vermont behind a strong cold front on the afternoon of the 24th resulting in snow squalls which dumped 1 to 3 inches of snow in some areas. Southern Vermont experienced near white-out conditions with some squalls which resulted in a number of traffic accidents especially in the Bennington area.  |      |                            |                           |                          |                                |         |                                 |       |                    |
| Northern Vermont   | 31   | PM                         |                           |                          | 1                              | 0       | 4                               | 0     | Snow Squalls       |
| A weak storm system moving up the Saint Lawrence River Valley produced light snow, and snow squalls in its wake across northern Vermont. Some accidents were reported during the evening, including one along Interstate 89 in which a man was killed in the Town of Richmond. (M20V)  |      |                            |                           |                          |                                |         |                                 |       |                    |
| <b>VIRGINIA</b>  |      |                            |                           |                          |                                |         |                                 |       |                    |
| VAZ001-002-004   | 03   | 1800EST-                   |                           |                          |                                |         |                                 |       |                    |
| 7 ESE Onley  | 04   | 1200EST                    |                           |                          | 0                              | 0       | 7                               | 0     | High Winds         |
| Wallops Island   |      |                            |                           |                          |                                |         |                                 |       | Coastal Flood      |
| An intense, small-diameter coastal storm wreaked destruction on the mid-Atlantic coastline. The strongest winds occurred on the morning of the 4th as the center of the storm came onshore over Accomack County. A house was destroyed by surf at Cedar Island, 110 camping trailers were damaged, and the NASA satellite facility on Wallops Island suffered \$620,000 damage from flooding and from winds that reached 70 mph (61 knots) at the Wallops Island Flight Facility. Total damage was \$2,196,000. Wind-driven sea water drowned 10 wild ponies and 20 deer on Assateague Island. The highest winds were observed at the U.S. Coast Guard station at Chincoteague, with a gust of 89 mph (77 knots). Other high wind speeds included 62 mph at Cape Henry and 55 mph at the South Island of the Chesapeake Bay Bridge Tunnel. Some 7,000 homes were without power according to local power-company officials. West of Chesapeake Bay, trees and power lines were downed in many locations on the Northern Neck, with Northumberland County suffering some power outages; many trees were blown across roads. In addition to the property damage noted above, National Park Service officials estimated that the cost of repair and cleanup at Assateague Island National Seashore would exceed \$2,500,000. |      |                            |                           |                          |                                |         |                                 |       |                    |
| VAZ009-014 > 016   | 03   | 1800EST-                   |                           |                          |                                |         |                                 |       |                    |
| Shawsville   | 04   | 0600EST                    |                           |                          | 0                              | 0       | 4                               | 0     | Flood              |
| Elliston   |      |                            |                           |                          |                                |         |                                 |       |                    |
| Lafayette  |      |                            |                           |                          |                                |         |                                 |       |                    |
| Four to seven inches of rain overnight caused many streams to flood in southwestern Virginia. In Montgomery County, in the towns of Shawsville, Elliston, and Lafayette, a total of about 100 houses and mobile homes were flooded; a few houses suffered damage to the walls and foundations. The county sheriff reported that people in flood-prone parts of Montgomery County had been warned about flooding, but many declined to evacuate.  |      |                            |                           |                          |                                |         |                                 |       |                    |
| Augusta County   | 14   | 0700EST                    |                           |                          | 0                              | 1       | 5                               | 0     | Thunderstorm Winds |
| 2 NW Verona  |      |                            |                           |                          |                                |         |                                 |       |                    |
| City of Staunton   |      |                            |                           |                          |                                |         |                                 |       |                    |
| A mobile home was ripped open by debris borne on very strong winds. The debris came from a nearby barn which had been destroyed by the winds. A 3-year-old girl in the mobile home suffered minor injuries when a beam from the barn ripped through her bedroom. In the City of Staunton, spotters reported trees downed.  |      |                            |                           |                          |                                |         |                                 |       |                    |
| Halifax County   | 14   | 0700EST                    |                           |                          | 0                              | 0       | 4                               | 0     | Thunderstorm Winds |
| Scottsburg   |      |                            |                           |                          |                                |         |                                 |       |                    |
| A mobile home was partially unroofed and heavily damaged by thunderstorm winds.  |      |                            |                           |                          |                                |         |                                 |       |                    |
| Albemarle County   | 14   | 0700EST                    |                           |                          | 0                              | 0       | 4                               | 0     | Thunderstorm Winds |
| City of Charlottesville  |      |                            |                           |                          |                                |         |                                 |       |                    |
| Strong winds accompanying thunderstorms knocked down trees and power lines in many parts of Albemarle County and the City of Charlottesville. Several accidents occurred when vehicles collided with fallen trees.   |      |                            |                           |                          |                                |         |                                 |       |                    |

# Storm Data and Unusual Weather Phenomena

January 1992

| Location  | Date | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |       | Character of Storm       |
|---|------|----------------------------|---------------------------|--------------------------|----------------------|---------|---------------------|-------|--------------------------|
|   |      |                            |                           |                          | Killed               | Injured | Property            | Crops |                          |
| <b>VIRGINIA Cont'd</b>  |      |                            |                           |                          |                      |         |                     |       |                          |
| <b>Rockingham County</b><br>Bridgewater<br>Staunton Airport<br>2 SE Mayland   | 14   | 0715EST                    |                           |                          | 0                    | 0       | 4                   | 0     | Thunderstorm Winds (G54) |
| Trees and power lines were downed. A mobile home was unroofed at Harrisonburg. Winds gusted to 62 mph (54 knots) at the Shenandoah Airport. At Bridgewater, widespread Harrisonburg power outages resulted from trees and power lines being downed. A barn roof was blown onto power lines at Mauzy causing outages.  |      |                            |                           |                          |                      |         |                     |       |                          |
| <b>Greene County</b><br>2 N Stanardsville   | 14   | 0730EST                    |                           |                          | 0                    | 0       | 3                   | 0     | Thunderstorm Winds       |
| High winds unroofed a 35- by 16-foot shed and sheared off numerous tree limbs 2 miles north of Stanardsville. Scattered severe thunderstorms passed through Greene County at the time, and strong winds were occurring ahead of a cold front.   |      |                            |                           |                          |                      |         |                     |       |                          |
| <b>Page County</b><br>Kimball   | 14   | 0745EST                    |                           |                          | 0                    | 0       | 3                   | 0     | Thunderstorm Winds       |
| Trees were blown down onto power lines. At Kimball, a barn was unroofed.  |      |                            |                           |                          |                      |         |                     |       |                          |
| <b>Frederick County</b><br>Winchester Airport<br>City of Winchester<br>5 E City of Winchester<br>Stephens City  | 14   | 0815EST-<br>0828EST        |                           |                          | 0                    | 1       | 5                   | 0     | Thunderstorm Winds (G55) |
| In the City of Winchester, a car collided on U.S. Route 50 with a mobile home that had been blown from a storage parking lot. The driver was hospitalized with head injuries. A park shelter was heavily damaged by a large tree falling onto it. A 2-ton statue was blown off its pedestal at Winchester Regional Airport, where winds gusted to 64 mph (55 knots). A barn was heavily damaged 5 miles east of the City of Winchester. A large, tall sign for a restaurant was heavily damaged at Stephens City. |      |                            |                           |                          |                      |         |                     |       |                          |
| <b>Clarke County</b><br>3 N Berryville  | 14   | 0815EST                    |                           |                          | 0                    | 0       | 4                   | 0     | Thunderstorm Winds       |
| Fast-moving severe thunderstorms accompanied by strong winds passed through the area along with general high winds preceding a cold front. Many trees were uprooted in the county. A house and a barn were unroofed 3 miles north of Berryville.  |      |                            |                           |                          |                      |         |                     |       |                          |
| <b>Loudoun County</b><br>Sterling<br>Sterling   | 14   | 0834EST                    |                           |                          | 0                    | 0       | 0                   | 0     | Thunderstorm Winds (G50) |
|   | 14   | 0900EST                    |                           |                          | 0                    | 0       | 0                   | 0     | Thunderstorm Winds       |
| Numerous reports of downed trees in the county especially in the Sterling area.   |      |                            |                           |                          |                      |         |                     |       |                          |
| <b>Fauquier County</b><br>Warrenton   | 14   | 0915EST                    |                           |                          | 0                    | 0       | 0                   | 0     | Thunderstorm Winds       |
| Trees were uprooted in Warrenton.   |      |                            |                           |                          |                      |         |                     |       |                          |
| <b>Fairfax County</b><br>Great Falls  | 14   | 0928EST                    |                           |                          | 0                    | 0       | 0                   | 0     | Thunderstorm Winds       |
| The Fairfax County Sheriff's office reported trees downed at Great Falls.   |      |                            |                           |                          |                      |         |                     |       |                          |
| <b>VAZ006</b>   | 14   | 0900EST-<br>0000EST        |                           |                          | 0                    | 0       | 4                   | 0     | High Winds               |
| Strong winds preceded a cold front in central Virginia. In the city of Richmond, a tobacco warehouse was partially unroofed, a tree was blown onto a car, and several trees were blown down onto power lines.   |      |                            |                           |                          |                      |         |                     |       |                          |
| <b>VAZ001&gt;005-008-<br/>010&gt;012-017-018</b>  | 14   | 1100EST-<br>1900EST        |                           |                          | 0                    | 1       | 5                   | 0     | High Winds               |
| High Winds following a cold front downed trees and power lines in many parts of Virginia. Power company officials reported widespread power outages. Numerous trees and tree limbs were blown   |      |                            |                           |                          |                      |         |                     |       |                          |



# Storm Data and Unusual Weather Phenomena

January 1992

| Location | Date | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |       | Character of Storm |
|----------|------|----------------------------|---------------------------|--------------------------|----------------------|---------|---------------------|-------|--------------------|
|          |      |                            |                           |                          | Killed               | Injured | Property            | Crops |                    |

## VIRGINIA Cont'd

down in the Charlottesville area. At Locust Hill in Middlesex County, a single-story office building was unroofed. In the city of Harrisonburg, police reported that the operator of a moped was slightly injured when gusty winds blew her and the moped over while she was traveling about 20 mph. A mobile home was unroofed at Stephens City in Frederick County.

**City of Norfolk  
3 SW Chambers  
Field Airport**

|    |                     |  |  |  |   |   |   |   |            |
|----|---------------------|--|--|--|---|---|---|---|------------|
| 16 | 0530EST-<br>0630EST |  |  |  | 1 | 2 | 3 | 0 | High Winds |
|----|---------------------|--|--|--|---|---|---|---|------------|

A cold front around sunrise brought an abrupt wind shift along with gusty winds. The sudden shift and increase in the winds caused a small tug to capsize near the mouth of the Elizabeth River. The tug's three crew members were tossed overboard. Two of the crew were rescued and hospitalized for hypothermia and the third was washed ashore 2 hours later. He was revived using a heart-lung machine to increase his body temperature but died a week later. Winds at the Norfolk National Weather Service Office gusted as high as 44 mph at 0604 EST. (M400)

## WASHINGTON

**WAZ002-004  
Coast  
Northwestern  
Interior**

|    |                     |  |  |  |   |   |   |   |            |
|----|---------------------|--|--|--|---|---|---|---|------------|
| 01 | 1800PST-<br>2100PST |  |  |  | 0 | 0 | 0 | 0 | High Winds |
|----|---------------------|--|--|--|---|---|---|---|------------|

Strong winds developed ahead of a cold front moving through western Washington. Some noteworthy wind speeds include Smith Island at 54 mph with gust to 63 mph, Tatoosh Island 41 mph gusts to 52 mph and Neah Bay with sustained 40 mph. No damage was indicated.

**WAZ012  
Cascade Mountains**

|    |                     |  |  |  |   |   |   |   |            |
|----|---------------------|--|--|--|---|---|---|---|------------|
| 02 | 0100PST-<br>1900PST |  |  |  | 0 | 0 | 0 | 0 | Heavy Snow |
|----|---------------------|--|--|--|---|---|---|---|------------|

Heavy orographic snow fell over the Washington Cascades following the passage of a cold front. Snowfall totals at pass level varied between 8 and 16 inches. Paradise reported 16 inches, Snoqualmie pass 13 inches, Mt. Baker 12 inches and 10 inches at Stampede and Chinook Passes.

**WAZ005  
Coast**

|    |         |  |  |  |   |   |   |   |             |
|----|---------|--|--|--|---|---|---|---|-------------|
| 03 | 1000PST |  |  |  | 2 | 1 | 4 | 0 | Heavy Swell |
|----|---------|--|--|--|---|---|---|---|-------------|

The Caroline, a 43-foot fishing vessel, sank in rough ocean waters 2 miles beyond the mouth of the Columbia River. Swells along the Washington coast were 13 to 14 feet with a period of 11 to 13 seconds. One person died at the time of the accident, a second died on January 11th from injuries sustained during the accident and a third escaped with minor injuries. (M310) (M430)

**WAZ001-002-004  
Coast, Puget  
Sound and North-  
western Interior**

|    |          |  |  |  |   |   |   |   |            |
|----|----------|--|--|--|---|---|---|---|------------|
| 10 | 2100PST- |  |  |  | 0 | 0 | ? | 0 | High Winds |
| 11 | 0400PST  |  |  |  | 0 | 0 | ? | 0 | High Winds |

High winds in the Puget Sound grounded a barge and tug in the vicinity of Alki Point where winds gusted to 57 mph. Power was knocked out to approximately 6,000 customers. Other wind reports include Evergreen Point Bridge with 46 mph gusting to 58 mph, Tatoosh Island with Sustained 46 mph and a ship within the Strait of Juan de Fuca reporting 46 mph gusting to 58 mph.

**WAZ012  
Cascade Mountains**

|    |                     |  |  |  |   |   |   |   |            |
|----|---------------------|--|--|--|---|---|---|---|------------|
| 11 | 0100PST-<br>1300PST |  |  |  | 0 | 0 | ? | 0 | Heavy Snow |
|----|---------------------|--|--|--|---|---|---|---|------------|

Strong westerly flow over the Washington cascades caused heavy snow to fall at pass levels. Snowfall totals ranged from 9 inches at Stampede Pass, to 14 inches at Mt. Baker.

**Skagit County**

|    |                     |  |  |  |   |   |   |   |            |
|----|---------------------|--|--|--|---|---|---|---|------------|
| 21 | 0800PST-<br>1000PST |  |  |  | 0 | 0 | 3 | 0 | High Winds |
|----|---------------------|--|--|--|---|---|---|---|------------|

A three-story barn in Burlington Washington was blown down by strong winds. Winds at nearby Skagit Regional Airport reached 35 mph, and gusted to 48 mph at Whidbey Naval Air Station. Some farm and construction damage was reported.

**WAZ004-005  
Coast**

|    |                     |  |  |  |   |   |   |   |            |
|----|---------------------|--|--|--|---|---|---|---|------------|
| 23 | 1400PST-<br>2200PST |  |  |  | 0 | 0 | ? | 0 | High Winds |
|----|---------------------|--|--|--|---|---|---|---|------------|

A strong Pacific frontal system came ashore causing strong southerly winds and heavy rain ahead of the front. Two to four inches of rain fell in a 24-hour period along the coast. Sustained winds reached 43 mph at Destruction and Tatoosh Islands. No damage was indicated but the heavy rain

# Storm Data and Unusual Weather Phenomena

January 1992

| Location | Date | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |       | Character of Storm |
|----------|------|----------------------------|---------------------------|--------------------------|----------------------|---------|---------------------|-------|--------------------|
|          |      |                            |                           |                          | Killed               | Injured | Property            | Crops |                    |

## WASHINGTON Cont'd

along the coast and in the mountains caused many rivers in western Washington to rise to within 2 to 4 feet of flood stage.

|                  |    |                     |  |  |   |   |   |   |            |
|------------------|----|---------------------|--|--|---|---|---|---|------------|
| Wahkiakum County | 25 | 0000PST-<br>0300PST |  |  | 0 | 0 | 3 | 0 | High Winds |
|------------------|----|---------------------|--|--|---|---|---|---|------------|

A sudden gust of wind in Cathlamet Washington ripped off an aluminum patio roof, blew it over the house and deposited it on the homeowners front yard.

|                 |    |                     |  |  |   |   |   |   |            |
|-----------------|----|---------------------|--|--|---|---|---|---|------------|
| WAZ004<br>Coast | 27 | 1800PST-<br>2100PST |  |  | 0 | 0 | ? | 0 | High Winds |
|-----------------|----|---------------------|--|--|---|---|---|---|------------|

A strong cold front moved across western Washington with high winds, causing power outages at Westport around 1930 PST. Winds at Westport reached 46 mph with gusts to 63 mph.

|        |    |         |  |  |   |   |   |   |            |
|--------|----|---------|--|--|---|---|---|---|------------|
| WAZ001 | 28 | 1200PST |  |  | 0 | 0 | ? | 0 | High Winds |
|--------|----|---------|--|--|---|---|---|---|------------|

Unstable conditions behind a cold front helped form a squall line which moved through the Puget Sound. Strong winds were reported at Alki Point with sustained winds of 46 mph gusting to 62 mph. Gusts to 54 mph were also recorded at the Hood Canal Bridge.

|   |          |                     |  |  |   |   |   |   |            |
|---|----------|---------------------|--|--|---|---|---|---|------------|
| WAZ002-004-005<br>Coast<br>Northwestern<br>Interior | 29<br>30 | 2000PST-<br>0300PST |  |  | 0 | 0 | ? | 0 | High Winds |
|---|----------|---------------------|--|--|---|---|---|---|------------|

This was the third high wind event to strike western Washington in as many days. A cold front caused strong winds along the coast and the Northwest Interior. Winds at Grays Harbor gusted to 46 mph. Winds in the Northwest Interior were stronger with sustained winds of 46 mph at Smith Island and gusts to 59 mph at the Bellingham International Airport.

|   |    |                     |  |  |   |   |   |   |            |
|---|----|---------------------|--|--|---|---|---|---|------------|
| WAZ002-004-005<br>Coast<br>Northwestern<br>Interior | 31 | 0800PST-<br>1700PST |  |  | 0 | 0 | ? | 0 | High Winds |
|---|----|---------------------|--|--|---|---|---|---|------------|

The last day of the month brought the fourth and by far the strongest Pacific frontal system to the Pacific Northwest. Very strong winds were reported along the coast and Northwest Interior areas of Washington. Sustained winds along coast averaged 50 to 60 mph with gusts to 70 mph common. Some notable wind reports include Grays Harbor with sustained 81 mph gusting to 92, and gusts to 71 mph at Westport. A cooperative observer at Neah Bay recorded 72 mph winds before the anemometer blew down and a naval vessel near Cape Flattery experienced 74-mph winds with 30 foot waves. In the northwest, winds reached 58 mph at Whidbey Naval Air Station and 61 mph at Bellingham. Numerous power outages were reported along the coast with 16,000 customers without power in Grays Harbor alone. The counties of Clallam, Jefferson and Pacific declared states of emergencies.

## WEST VIRGINIA

|   |    |                     |  |  |   |   |   |   |                  |
|---|----|---------------------|--|--|---|---|---|---|------------------|
| WV001-002-003-<br>004-005-006-007<br>Western Lowlands and<br>Southern Mountains | 14 | 0300EST-<br>0630EST |  |  | 0 | 0 | 5 | 0 | High Winds (G57) |
|---|----|---------------------|--|--|---|---|---|---|------------------|

|  |    |                     |  |  |   |   |   |   |            |
|--|----|---------------------|--|--|---|---|---|---|------------|
| WV009-012<br>Northern and<br>Central Mountains | 14 | 0600EST-<br>0800EST |  |  | 0 | 0 | 3 | 0 | High Winds |
|--|----|---------------------|--|--|---|---|---|---|------------|

A strengthening low pressure system, with barometer readings below 29 inches, lifted north through eastern Kentucky and eastern Ohio during the predawn hours. Winds briefly gusted into the 45 to 70 mph range in the wake of the storm's cold front. The highest measured gust was 66 mph at 0326 EST at Charleston. Other gusts included 57 mph at Morgantown, 52 mph at Elkins and Parkersburg, 50 mph at Beckley. A few thunderstorms also occurred. Yet, the high winds were not associated with the thunderstorms, but rather with the increasing circulation around the low pressure system. The winds caused branches to fall on power lines resulting in power outages to about 10,000 dwellings. An empty annex building in Moundsville of Marshall County collapsed. Several large trees were uprooted in Mullens of Wyoming County, causing minor damage to two homes. The winds picked up a residential garage roof in Oak Hill of Fayette County and deposited it into the backyard. A couple of vehicles received minor damage. In Earling of Logan County, a utility pole snapped off and damaged a porch to a mobile home.

# Storm Data and Unusual Weather Phenomena

January 1992

| Location   | Date | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |       | Character of Storm       |
|--|------|----------------------------|---------------------------|--------------------------|----------------------|---------|---------------------|-------|--------------------------|
|  |      |                            |                           |                          | Killed               | Injured | Property            | Crops |                          |
| <b>WEST VIRGINIA Cont'd</b>  |      |                            |                           |                          |                      |         |                     |       |                          |
| Jefferson County<br>Shannondale<br>Charles Town<br>Harpers Ferry   | 14   | 0830EST                    |                           |                          | 0                    | 0       | 4                   | 0     | Thunderstorm Winds (G53) |
| Trees fell on two homes in Shannondale, causing considerable damage. Winds gusted to 61 mph at Charles Town. Power lines were blown down at Harpers Ferry.   |      |                            |                           |                          |                      |         |                     |       |                          |
| WV004-012<br>Central Counties  | 20   | 0400EST-<br>1300EST        |                           |                          | ?                    | ?       | ?                   | ?     | Heavy Snow               |
| Four to five inches of snow fell across Roane, Clay, Webster, and Nicholas Counties. The higher terrain of Webster and Nicholas Counties reported up to 8 inches. Further north, the county areas saw mainly 2 to 4 inches of snow.  |      |                            |                           |                          |                      |         |                     |       |                          |
| WV005-008-009<br>Northern Lowlands,<br>Northern and Central<br>Mountains, and the<br>Upper Greenbrier Valley   | 25   | 1100EST-<br>2300EST        |                           |                          | 0                    | 0       | 0                   | 0     | Heavy Snow               |
| A west to east moving storm crossed through central West Virginia. It left 4 to 10 inches of snow along and north of its track. Terra Alta of Preston County reported 10 inches. A few other representative snowfalls were 8 inches at Thomas, 6 inches at Elkins, and 5 inches at Morgantown, Grafton, Clarksburg, Philippi, and Bartow. Outside the heavy snow region, Wheeling saw 4 inches, while the eastern panhandle had 2 to 4 inches of snow. |      |                            |                           |                          |                      |         |                     |       |                          |
| <b>WISCONSIN</b>   |      |                            |                           |                          |                      |         |                     |       |                          |
| None reported.   |      |                            |                           |                          |                      |         |                     |       |                          |
| <b>WYOMING</b>   |      |                            |                           |                          |                      |         |                     |       |                          |
| WYZ025-029-030<br>032-033  | 07   | 0200MST-<br>1400MST        |                           |                          | 0                    | 0       | 0                   | 0     | Heavy Snow               |
| A winter storm brought 8 to 10 of snow inches to the southwest portion of Wyoming. These amounts were reported at Evanston, Green River and near Kemmerer near the end of the storm Tuesday afternoon.   |      |                            |                           |                          |                      |         |                     |       |                          |
| WYZ066-067-071<br>072-073  | 07   | 0827MST-<br>1653MST        |                           |                          | 0                    | 0       | 0                   | 0     | Blizzard                 |
| Wind gusting to 47 mph and the visibility frequently less than 0.25 mile were noted in extreme southeast Wyoming on the 7th. The storm brought 12 to 14 inches of snow to Cheyenne, and 8 inches of snow to Pine Bluffs. Six to eight inches of snow with much blowing and drifting was reported in Laramie.   |      |                            |                           |                          |                      |         |                     |       |                          |
| WYZ065   | 07   | 0600MST-<br>1500MST        |                           |                          | 0                    | 0       | 0                   | 0     | Heavy Snow               |
| A winter storm left 11 to 16 inches of snow over the eastern slopes of the Snowy Range Mountains in south-central Wyoming.   |      |                            |                           |                          |                      |         |                     |       |                          |
| WYZ070   | 07   | 0830MST-<br>1130MST        |                           |                          | 0                    | 0       | 0                   | 0     | Heavy Snow               |
| A winter storm brought 6 inches of snow to LaGrange in southern Goshen County. Gusty winds made for blowing and drifting snow.   |      |                            |                           |                          |                      |         |                     |       |                          |
| WYZ069   | 15   | 1800MST-<br>2200MST        |                           |                          | 0                    | 0       | 0                   | 0     | High Winds               |
| Strong winds buffeted southeastern Wyoming through the evening. Winds gusting to 75 mph were reported by the highway department 10 miles south of Wheatland.   |      |                            |                           |                          |                      |         |                     |       |                          |
| WY069-071  | 16   | 0800MST-<br>1700MST        |                           |                          | 0                    | 0       | 0                   | 0     | High Winds               |

# Storm Data and Unusual Weather Phenomena

January 1992

| Location                      | Date | Time<br>Local/<br>Standard   | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |       | Character of Storm |
|-------------------------------|------|--|---------------------------|--------------------------|----------------------|---------|---------------------|-------|--------------------|
|                               |      |  |                           |                          | Killed               | Injured | Property            | Crops |                    |
| <b>WYOMING Cont'd</b>         |      |  |                           |                          |                      |         |                     |       |                    |
|                               |      | Strong winds were common to southeastern Wyoming during the day. A wind gust to 80 mph was reported 10 miles south of Wheatland at 1000 MST. Near 1500 MST, a wind gust of 60 mph was reported on the summit between Cheyenne and Laramie.   |                           |                          |                      |         |                     |       |                    |
| WYZ071                        | 21   | 2330MST-   |                           |                          |                      |         |                     |       |                    |
|                               | 22   | 0200MST  |                           |                          | 0                    | 0       | 0                   | 0     | High Winds         |
|                               |      | Strong winds buffeted southeastern Wyoming. Shortly after midnight a wind gusting to 58 mph was logged on the summit between Cheyenne and Laramie.   |                           |                          |                      |         |                     |       |                    |
| WYZ071                        | 23   | 0600MST-   |                           |                          |                      |         |                     |       |                    |
|                               |      | 1200MST  |                           |                          | 0                    | 0       | 0                   | 0     | High Winds         |
|                               |      | Winds were quite strong in the high elevations of southeastern Wyoming. Winds gusting to 60 mph were noted on the summit east of Laramie at 1005 MST.  |                           |                          |                      |         |                     |       |                    |
| WYZ022-059-060<br>068-069-071 | 24   | 0300MST-   |                           |                          |                      |         |                     |       |                    |
|                               |      | 2100MST  |                           |                          | 0                    | 0       | 0                   | 0     | High Winds         |
|                               |      | Strong winds occurred throughout much of southeastern Wyoming from early in the morning through the evening of the 24th. Wind speeds of 30 to 40 mph were common. Near 0800 MST, a wind gust of 90 mph was reported 10 miles south of Wheatland. Later in the morning a wind gust estimated at 100 mph was reported from this same area. Wind gusts to 65 mph were noted around 0430 MST at Casper radio station. Winds gusting to 60 mph were logged on the summit east of Laramie between 1700 and 2000 MST. |                           |                          |                      |         |                     |       |                    |
| <b>ALASKA, Northern</b>       |      |  |                           |                          |                      |         |                     |       |                    |
| AKZ024                        | 01-  |  |                           |                          |                      |         |                     |       |                    |
|                               | 02   |  |                           |                          | 0                    | 0       | ?                   | 0     | High Winds         |
|                               |      | North winds to 45 knots blew in the Bering Strait from the early morning of January 1st to midday on the 2nd.  |                           |                          |                      |         |                     |       |                    |
| AKZ001                        | 06-  |  |                           |                          |                      |         |                     |       |                    |
|                               | 07   |  |                           |                          | 0                    | 0       | ?                   | 0     | Blizzard           |
|                               |      | Easterly winds near 30 knots blew over most of the Arctic coast, but at Point Lay there was a blizzard, lasting from the morning of the 6th through midday on the 7th.   |                           |                          |                      |         |                     |       |                    |
| AKZ024                        | 09-  |  |                           |                          |                      |         |                     |       |                    |
|                               | 10   |  |                           |                          | 0                    | 0       | ?                   | 0     | High Winds         |
|                               |      | There was a brief episode of high winds from the north through the Bering Strait on the night of January 9th through 10th. Tin City had peak gusts to 39 knots.  |                           |                          |                      |         |                     |       |                    |
| AKZ024                        | 12-  |  |                           |                          |                      |         |                     |       |                    |
|                               | 14   |  |                           |                          | 0                    | ?       | ?                   | 0     | High Winds         |
|                               |      | A long and strong northern windstorm hit the Bering Strait. Peak wind gusts of 55 knots were recorded at Tin City, and 50 knots at Gambell, on St. Lawrence Island.  |                           |                          |                      |         |                     |       |                    |
| AKZ003-004                    | 14-  |  |                           |                          |                      |         |                     |       |                    |
|                               | 15   |  |                           |                          | 0                    | 0       | ?                   | 0     | Heavy Snow         |
|                               |      | Heavy snow fell at some central Interior locations from the afternoon of the 14th through the morning of the 15th. Livengood and 7 Mile Camp, on the Dalton Highway, had 4 inches or more. Atigun Pass, on the Dalton Highway, and Eagle Summit, on the Steese Highway, were closed from the early afternoon of the 14th through the morning of the 15th.  |                           |                          |                      |         |                     |       |                    |
| AKZ001                        | 16-  |  |                           |                          |                      |         |                     |       |                    |
|                               | 17   |  |                           |                          | 0                    | ?       | ?                   | 0     | Blizzard           |
|                               |      | A wide spread blizzard shut down most travel on the North Slope from the morning of the 16th through the evening of the 17th. Peak wind was 30 to 40 knots.  |                           |                          |                      |         |                     |       |                    |
| AKZ024                        | 16-  |  |                           |                          |                      |         |                     |       |                    |
|                               | 17   |  |                           |                          | 0                    | 0       | ?                   | 0     | High Winds         |

# Storm Data and Unusual Weather Phenomena

January 1992

| Location                                   | Date      | Time<br>Local/<br>Standard  | Path<br>Length<br>(Miles)  | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |       | Character of Storm      |
|--|-----------|-----------------------------|--|--------------------------|----------------------|---------|---------------------|-------|-------------------------|
|  |           |                             |  |                          | Killed               | Injured | Property            | Crops |                         |
| <b>ALASKA, Northern Cont'd</b>             |           |                             |  |                          |                      |         |                     |       |                         |
|  |           |                             | North winds up to 55 mph blew through the Bering Strait from the evening of the 16th through the evening of the 17th.  |                          |                      |         |                     |       |                         |
| AKZ003                                     | 17-<br>18 |                             |  |                          | 0                    | 0       | ?                   | 0     | Heavy Snow              |
|  |           |                             | Locally heavy snow fell in the north-central Interior from the afternoon of the 17th through the morning of the 18th. The highway camp at Coldfoot had 6 inches of snow in 24 hours.   |                          |                      |         |                     |       |                         |
| AKZ024                                     | 26        |                             |  |                          | 0                    | 0       | ?                   | 0     | High Winds              |
|  |           |                             | Periods of high wind in the Bering Strait were recorded on the morning and evening of the 26th. The strongest sustained wind at Tin City was 39 knots.   |                          |                      |         |                     |       |                         |
| <b>ALASKA, Southeastern</b>                |           |                             |  |                          |                      |         |                     |       |                         |
| AKZ013<br>Central Southeastern<br>Alaska   | 19        | Early Morning-<br>Afternoon |  |                          | 0                    | 0       | 0                   | 0     | High Winds              |
|  |           |                             | A 971 mb low moved north-northeast to near Yakutat on the eastern coast of the Gulf of Alaska. This produced a strong pressure gradient over the panhandle resulting in very strong winds. The highest winds occurred in the central panhandle. Sustained winds at Five Finger lighthouse reached 46 mph and 53 mph at Cape Spencer. Winds gusted as high as 72 mph at the top of the federal building in downtown Juneau. Gusts at Port Alexander reached 76 mph. Power was knocked out in the Juneau area, but no other damage was reported. |                          |                      |         |                     |       |                         |
| AKZ012<br>Lynn Canal<br>Glacier Bay        | 25        | Late Morning-<br>Evening    |  |                          | 0                    | 0       | 0                   | 0     | Heavy Snow              |
|  |           |                             | A strong north Pacific low moved north into the central Gulf of Alaska producing rain over the southern half of the panhandle and snow over the northern half from the 25th through the 27th. The heaviest snowfall occurred at Haines near the northern end of Lynn Canal. The Haines police reported that 1 foot of snow fell on the 25th.   |                          |                      |         |                     |       |                         |
| AKZ012<br>Lynn Canal<br>Glacier Bay        | 28<br>29  | Morning-<br>Early Morning   |  |                          | 0                    | 0       | 0                   | 0     | Heavy Snow              |
|  |           |                             | A 985 mb low moved slowly northwest over the waters along the outer coast of southeast Alaska producing snow over the northern half of the panhandle. The heaviest snowfall was at Haines where 2 feet of snow fell, according to the police there. Visibilities were reduced to 0.25 mile for much of the day on the 28th.  |                          |                      |         |                     |       |                         |
| <b>ALASKA, Southern</b>                    |           |                             |  |                          |                      |         |                     |       |                         |
| Aleutians<br>Alaska Peninsula<br>Pribilofs | 04-<br>05 |                             |  |                          | ?                    | ?       | ?                   | ?     | Blizzard<br>High Winds  |
|  |           |                             | A low pressure, intensified to 944 mb, moved to near Atka Island by 18Z on the 4th and brought sustained winds of 45 to 50 mph with gusts to 80 mph at times over the Aleutians. Gusts to 70 mph were common over the western Alaska Peninsula. Snow, with winds gusting to 55 mph, brought blizzard conditions to the Pribilofs.  |                          |                      |         |                     |       |                         |
| Aleutians<br>Pribilofs<br>Bristol Bay      | 10-<br>12 |                             |  |                          | ?                    | ?       | ?                   | ?     | High Winds              |
|  |           |                             | Strong low pressure moving to the central Aleutians brought winds gusting to 70 mph to the area. St. Paul Island and King Salmon recorded wind gusts to 50 mph.  |                          |                      |         |                     |       |                         |
| Kodiak Island                              | 13        | 1830UTC                     |  |                          | ?                    | ?       | ?                   | ?     | Record Rainfall         |
|  |           |                             | Moderate to heavy rainfall on the 13th produced spectacular hillside waterfalls from melting snow and ice. At 0830 AST, Kodiak State Airport had recorded 1.38 inches of rain which surpassed the old record of 1.25 inches set in 1985.   |                          |                      |         |                     |       |                         |
| Anchorage                                  | 17        | 1700UTC                     |  |                          | ?                    | ?       | ?                   | ?     | Record High Temperature |
|  |           |                             | At 0800 AST, warm southwesterly winds pushed the temperature to 46°F breaking the old record   |                          |                      |         |                     |       |                         |

# Storm Data and Unusual Weather Phenomena

January 1992

| Location | Date | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |       | Character of Storm |
|----------|------|----------------------------|---------------------------|--------------------------|----------------------|---------|---------------------|-------|--------------------|
|          |      |                            |                           |                          | Killed               | Injured | Property            | Crops |                    |

## ALAKSA, Southern Cont'd

of 44°F that was set in 1977. This climaxed a 4-day midwinter thaw over south-central Alaska that ran from the 14th to 18th.

**Aleutians  
Alaska Peninsula**

|           |  |  |  |  |   |   |   |   |            |
|-----------|--|--|--|--|---|---|---|---|------------|
| 21-<br>22 |  |  |  |  | ? | ? | ? | ? | High Winds |
|-----------|--|--|--|--|---|---|---|---|------------|

Strong low pressure moved southwest of Dutch Harbor and produced wind gusts to 70 mph at Dutch Harbor and Cold Bay with rain and snow. Winds also gusted between 50 and 70 mph over the western and central Aleutians.

**Prince William  
Sound**

|           |  |  |  |  |   |   |   |   |            |
|-----------|--|--|--|--|---|---|---|---|------------|
| 27-<br>28 |  |  |  |  | ? | ? | ? | ? | Heavy Snow |
|-----------|--|--|--|--|---|---|---|---|------------|

A frontal boundary along the Kenai Peninsula pulled moisture northward from the Pacific. The result was a 28-inch snowfall in less than 24 hours at Valdez.

## HAWAII

**All Islands**

|           |  |  |  |  |   |   |   |   |                      |
|-----------|--|--|--|--|---|---|---|---|----------------------|
| 14-<br>15 |  |  |  |  | 0 | 0 | 5 | 0 | Winds<br>Flash Flood |
|-----------|--|--|--|--|---|---|---|---|----------------------|

A vigorous cold front moving southeastward across the chain produced locally heavy rains and gusty winds. Mainly minor wind damage occurred on Oahu between 1600 HST and 2100 HST, especially along the lee slopes of the Koolaus from the downtown area to Hawaii Kai. On Maui, between 2000 HST and 2400 HST, minor flash flooding occurred in Kula and Haiku areas and some wind damage was reported near Wailea. On the Island of Hawaii between 0200 HST and 0600 HST, moderate to heavy wind damage occurred at Kamuela-Waimea and in pockets along the Hamakua coast into Hilo and Puna. Over the higher elevations, severe blizzard conditions developed over the summits, severe blizzard conditions developed over the summits and upper slopes of Mauna Kea and Mauna Loa.

## PACIFIC

**Marshall Island  
Micronesia**

|           |  |  |  |  |   |   |   |   |              |
|-----------|--|--|--|--|---|---|---|---|--------------|
| 04-<br>15 |  |  |  |  | 0 | 0 | ? | ? | Typhoon Axel |
|-----------|--|--|--|--|---|---|---|---|--------------|

Axel was a product of El Nino and was the northern twin of two mirror imaged on the Equator tropical cyclones formed near the International Dateline on the 4th. Axel formed near 5N and Betsy near 8S. Axel moved through the Marshall Islands coming quite close to Majuro on the 6th and Kosrae on the 7th. Several islands within the Federated States of Micronesia experienced strong gusty winds and storm surges and wave action with damage to crops and homes. Axel moved about 150 miles south of Guam in a weakened condition on the 12th and was considered dissipating north of Guam on the 15th.

**Line Islands**

|              |  |  |  |  |   |   |   |   |                 |
|--------------|--|--|--|--|---|---|---|---|-----------------|
| 28-<br>Feb08 |  |  |  |  | 0 | 0 | ? | ? | Hurricane Ekeka |
|--------------|--|--|--|--|---|---|---|---|-----------------|

Ekeka was also an El Nino storm which formed within an area of westerly winds on the Equator near Christmas Island on the 26th and 27th. It moved west-northwest while intensifying and attained 100 knot winds at peak strength before weakening on crossing the Dateline on the 4th. The dissipating circulation moved through the Marshalls with no ill effects and the last advisory was issued on Ekeka February 8th near 6N and 150E.

## PUERTO RICO

**PRZ001-002-003-005**

|          |                     |  |  |  |    |   |   |   |             |
|----------|---------------------|--|--|--|----|---|---|---|-------------|
| 05<br>06 | 1400AST-<br>1400AST |  |  |  | 20 | 0 | 8 | 7 | Flash Flood |
|----------|---------------------|--|--|--|----|---|---|---|-------------|

A cold front combined with an upper level trough produced heavy showers and thunderstorms that resulted in a flash flood event over the eastern half of Puerto Rico. More than 20 inches of rain were recorded in 24 hours in Cayey, and more than 12 inches were indicated in the headquarters of Rio La Plata. At the upper headquarters of Rio La Plata and Rio Grande de Patillas, record high stages were reached. Precipitation for 2-, 3-, and 6-hour durations of 8.4, 11.2 and 18.4 inches exceeded previous historical island-wide maximums. The historical 1-hour duration of 4.80 inches was equaled in Pico del Este Luquillo. There was considerable damage to bridges well as other structural damages. Damage to agriculture surpassed \$6 million mainly due to cattle, plantations,

## Storm Data and Unusual Weather Phenomena

January 1992

| Location | Date | Time<br>Local/<br>Standard | Path<br>Length<br>(Miles) | Path<br>Width<br>(Yards) | Number of<br>Persons |         | Estimated<br>Damage |       | Character of Storm |
|----------|------|----------------------------|---------------------------|--------------------------|----------------------|---------|---------------------|-------|--------------------|
|          |      |                            |                           |                          | Killed               | Injured | Property            | Crops |                    |

### PUERTO RICO Cont'd

and other farinaceous. There was a total of 20 deaths, and 3 persons still missing. The 18 people that died during this event were in vehicles and tried to cross flooded areas and were then swept away by the rushing waters. Around 600 people from 14 municipalities had to be evacuated and sheltered. The flooding affected 57 out of 78 municipalities. (F72O) (M23O) (F23O) (M72O) (M19O) (F04O) (F36O) (F42O) (F21O) (M48O) (F16O) (F12O) (M11O) (F20D) (F34O) (F19O) (F42O) (M35O) (F49O) (F30O)

|        |    |         |  |  |   |   |   |   |             |
|--------|----|---------|--|--|---|---|---|---|-------------|
| Caguas | 09 | 1630AST |  |  | 0 | 0 | 3 | 0 | Flash Flood |
|--------|----|---------|--|--|---|---|---|---|-------------|

Heavy rains caused several mudslides along the roads in Barrio Borinquen, and the creek located near Sector Anon overflowed a bridge.

### U. S. VIRGIN ISLANDS

None reported.

# STORM SUMMARY

January 1992

| 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 |  |
|---|---------|---------|----------|------------|----------|-------------|----------|---------|---------|-------|----------|---------|------|--------|----------|-----------|-------|---------------|---------------|----------|-----------|-------------|----------|---------|----------|--------|---------------|--|
| <b>TORNADOES</b>                        |         |         | 0        |            | 0        |             |          |         |         |       | 0        |         |      | 0      |          |           |       |               |               | 0        |           |             | 0        |         |          |        | 0             |  |
| Number                                  |         | 2       |          |            |          |             |          | 2       |         |       |          |         |      |        |          | 2         |       |               |               |          |           | 1           |          |         | 6        |        |               |  |
| Days                                    |         | 0       |          |            |          |             |          | 0       |         |       |          |         |      |        |          | 0         |       |               |               |          |           | 0           |          |         | 0        |        |               |  |
| Deaths                                  |         | 0       |          |            |          |             |          | 0       |         |       |          |         |      |        |          | 0         |       |               |               |          |           | 0           |          |         | 0        |        |               |  |
| Injuries                                |         | 0       |          |            |          |             |          | 0       |         |       |          |         |      |        |          | 0         |       |               |               |          |           | 0           |          |         | 0        |        |               |  |
| Property Damage                         |         | 0       |          |            |          |             |          | 0       |         |       |          |         |      |        |          | 0         |       |               |               |          |           | 0           |          |         | 0        |        |               |  |
| Crop Damage                             |         | 0       |          |            |          |             |          | 0       |         |       |          |         |      |        |          | 0         |       |               |               |          |           | 0           |          |         | 0        |        |               |  |
| <b>HAIL</b>                             |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Deaths                                  |         | 0       |          |            |          |             |          |         |         |       |          |         |      |        |          | 0         |       |               |               |          |           |             |          |         |          |        |               |  |
| Injuries                                |         | 0       |          |            |          |             |          |         |         |       |          |         |      |        |          | 0         |       |               |               |          |           |             |          |         |          |        |               |  |
| Property Damage                         |         | 0       |          |            |          |             |          |         |         |       |          |         |      |        |          | 0         |       |               |               |          |           |             |          |         |          |        |               |  |
| Crop Damage                             |         | 0       |          |            |          |             |          |         |         |       |          |         |      |        |          | 0         |       |               |               |          |           |             |          |         |          |        |               |  |
| <b>THUNDERSTORM WINDS</b>               |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Deaths                                  | 0       | 0       |          |            |          |             |          | 0       | 0       |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Injuries                                | 0       | 0       |          |            |          |             |          | 0       | 0       |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Property Damage                         | 0       | 0       |          |            |          |             |          | 0       | 0       |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Crop Damage                             | 0       | 0       |          |            |          |             |          | 0       | 0       |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| <b>HIGH WINDS</b>                       |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Deaths                                  |         |         |          | 0          |          | 0           | 0        |         |         |       |          |         | 0    |        | 0        |           |       |               |               |          |           |             |          |         | 0        |        |               |  |
| Injuries                                |         |         |          | 0          |          | 0           | 0        |         |         |       |          |         | 0    |        | 0        |           |       |               |               |          |           |             |          | 0       |          |        |               |  |
| Property Damage                         |         |         |          | 0          |          | 0           | 0        |         |         |       |          |         | 0    |        | 0        |           |       |               |               |          |           |             |          | 0       |          |        |               |  |
| Crop Damage                             |         |         |          | 0          |          | 0           | 0        |         |         |       |          |         | 0    |        | 0        |           |       |               |               |          |           |             |          | 0       |          |        |               |  |
| <b>LIGHTNING</b>                        |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Deaths                                  |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        | 0             |  |
| Injuries                                |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        | 0             |  |
| Property Damage                         |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        | 0             |  |
| Crop Damage                             |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        | 0             |  |
| <b>FLASH FLOODS</b>                     |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Deaths                                  |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Injuries                                |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Property Damage                         |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Crop Damage                             |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| <b>FLOODS</b>                           |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Deaths                                  |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Injuries                                |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Property Damage                         |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Crop Damage                             |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| <b>HEAVY SNOWSTORMS AND BLIZZARDS @</b> |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Deaths                                  |         |         |          |            |          |             |          |         |         |       |          | 0       | 0    |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Injuries                                |         |         |          |            |          |             |          |         |         |       |          | 0       | 0    |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Property Damage                         |         |         |          |            |          |             |          |         |         |       |          | 0       | 0    |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Crop Damage                             |         |         |          |            |          |             |          |         |         |       |          | 0       | 0    |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| <b>ICE STORMS #</b>                     |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Deaths                                  |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Injuries                                |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Property Damage                         |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Crop Damage                             |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| <b>HURRICANES AND TROPICAL STORMS</b>   |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Deaths                                  |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Injuries                                |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Property Damage                         |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Crop Damage                             |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| <b>ALL OTHERS</b>                       |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Deaths                                  |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Injuries                                |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Property Damage                         |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |
| Crop Damage                             |         |         |          |            |          |             |          |         |         |       |          |         |      |        |          |           |       |               |               |          |           |             |          |         |          |        |               |  |



# STORM SUMMARY

January 1992

| TYPE                                    | NEW MEXICO | NEW YORK | NORTH CAROLINA | NORTH DAKOTA | OHIO | OKLAHOMA | NEURO | PENNSYLVANIA | RHODE ISLAND | SOUTH CAROLINA | SOUTH DAKOTA | TENNESSEE | TEXAS | UTAH | VERMONT | VIRGINIA | WASHINGTON | WEST VIRGINIA | WISCONSIN | WYOMING | ALASKA | HAWAII | PACIFIC | PUERTO RICO | VIRGIN ISLANDS | NATIONAL DEATHS | INJURY TOTALS |
|---|------------|----------|----------------|--------------|------|----------|-------|--------------|--------------|----------------|--------------|-----------|-------|------|---------|----------|------------|---------------|-----------|---------|--------|--------|---------|-------------|----------------|-----------------|---------------|
| <b>TORNADOES</b>                        |            |          |                | 0            |      |          |       | 2            |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                | 0               |               |
| Number                                  |            |          |                |              |      |          |       | 2            |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Days                                    |            |          |                |              |      |          |       | 1            |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Deaths                                  |            |          |                |              |      |          |       | 0            |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 | 2             |
| Injuries                                |            |          |                |              |      |          |       | 0            |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Property Damage                         |            |          |                |              |      |          |       | 0            |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Crop Damage                             |            |          |                |              |      |          |       | 0            |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| <b>HAIL</b>                             |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Deaths                                  |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Injuries                                |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Property Damage                         |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Crop Damage                             |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| <b>THUNDERSTORM WINDS</b>               |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Deaths                                  | 0          |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Injuries                                | 0          |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Property Damage                         | 0          |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Crop Damage                             | 0          |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| <b>HIGH WINDS</b>                       |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Deaths                                  | 0          |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Injuries                                | 1          |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Property Damage                         | 0          |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Crop Damage                             | 0          |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| <b>LIGHTNING</b>                        |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Deaths                                  |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Injuries                                |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Property Damage                         |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Crop Damage                             |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| <b>FLASH FLOODS</b>                     |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Deaths                                  |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Injuries                                |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Property Damage                         |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Crop Damage                             |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| <b>FLOODS</b>                           |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Deaths                                  | 0          |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Injuries                                | 0          |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Property Damage                         | 0          |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Crop Damage                             | 0          |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| <b>HEAVY SNOWSTORMS AND BLIZZARDS a</b> |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Deaths                                  |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Injuries                                |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Property Damage                         |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Crop Damage                             |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| <b>ICE STORMS #</b>                     |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Deaths                                  |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Injuries                                |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Property Damage                         |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Crop Damage                             |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| <b>HURRICANES AND TROPICAL STORMS</b>   |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Deaths                                  |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Injuries                                |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Property Damage                         |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Crop Damage                             |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| <b>ALL OTHERS</b>                       |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Deaths                                  |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Injuries                                |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Property Damage                         |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Crop Damage                             |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| <b>TOTALS</b>                           |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Deaths                                  |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Injuries                                |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Property Damage                         |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Crop Damage                             |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| <b>NATIONAL DEATHS</b>                  |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Deaths                                  |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Injuries                                |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Property Damage                         |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Crop Damage                             |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| <b>TOTALS</b>                           |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Deaths                                  |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Injuries                                |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Property Damage                         |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |
| Crop Damage                             |            |          |                |              |      |          |       |              |              |                |              |           |       |      |         |          |            |               |           |         |        |        |         |             |                |                 |               |

## STORM DAMAGE CATEGORIES

## 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

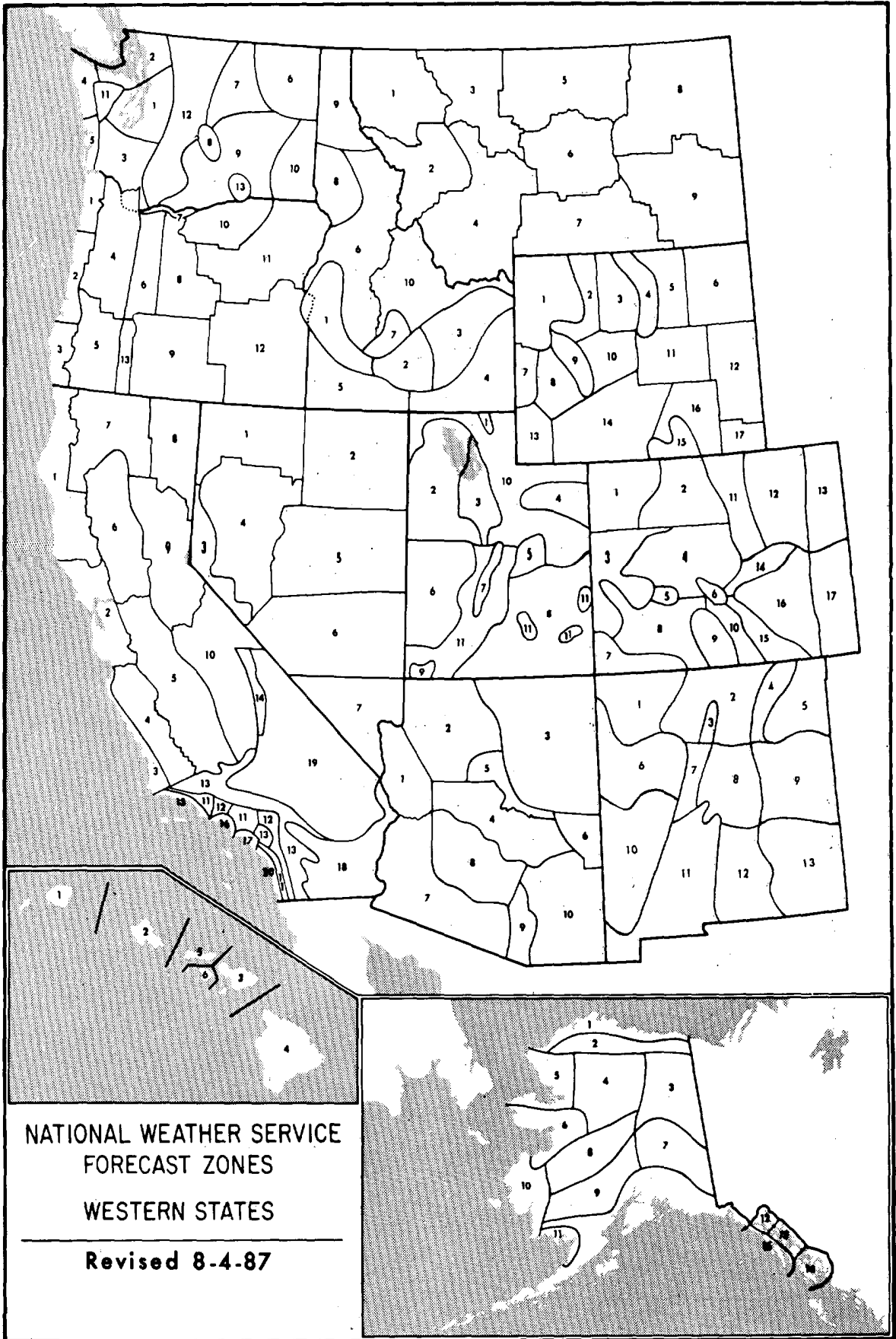
(F2+F3) Strong Tornado

(F4+F5) Violent Tornado



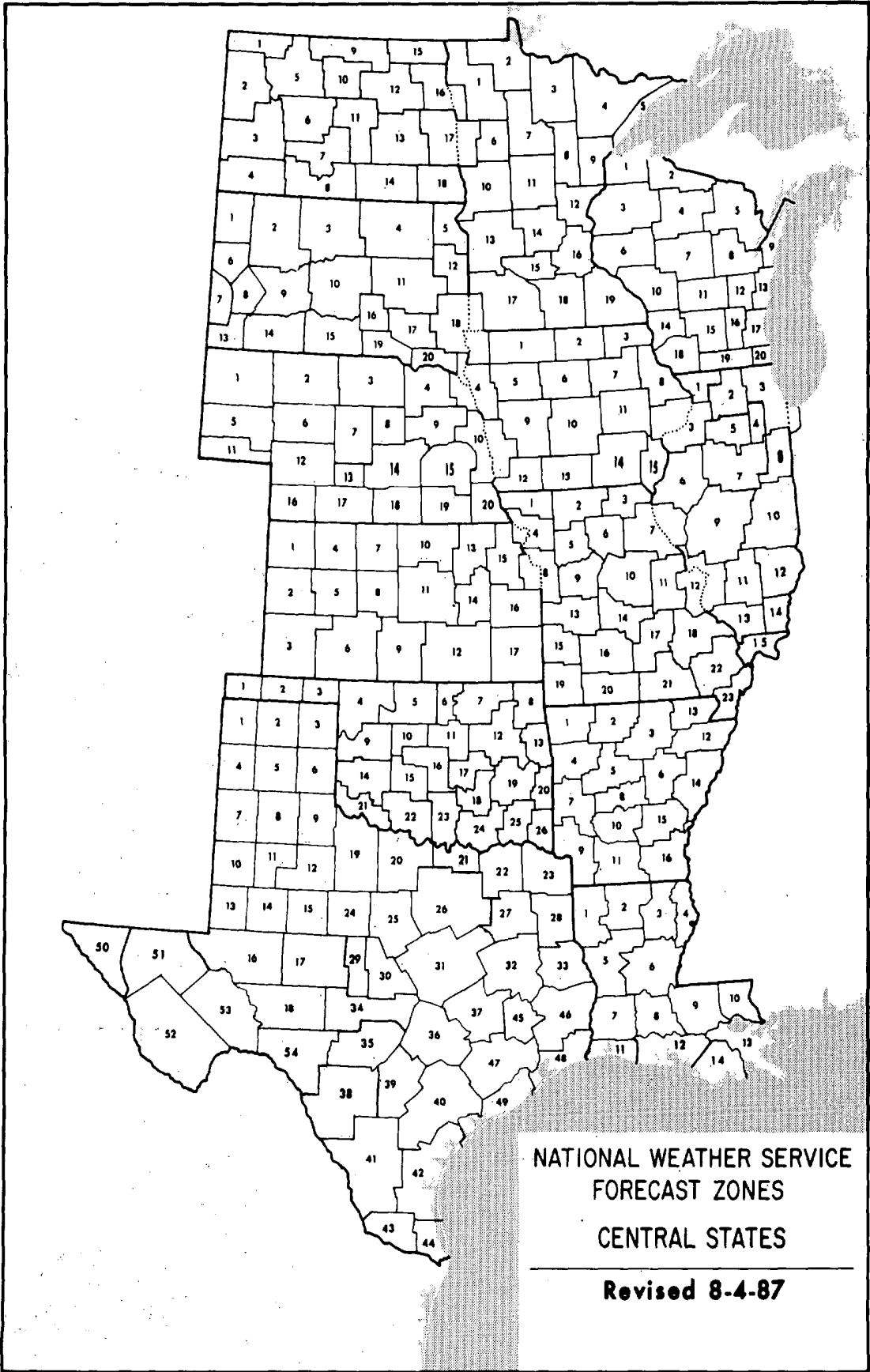
From J. Atmos. Sci., August 1981, p. 1517-1519

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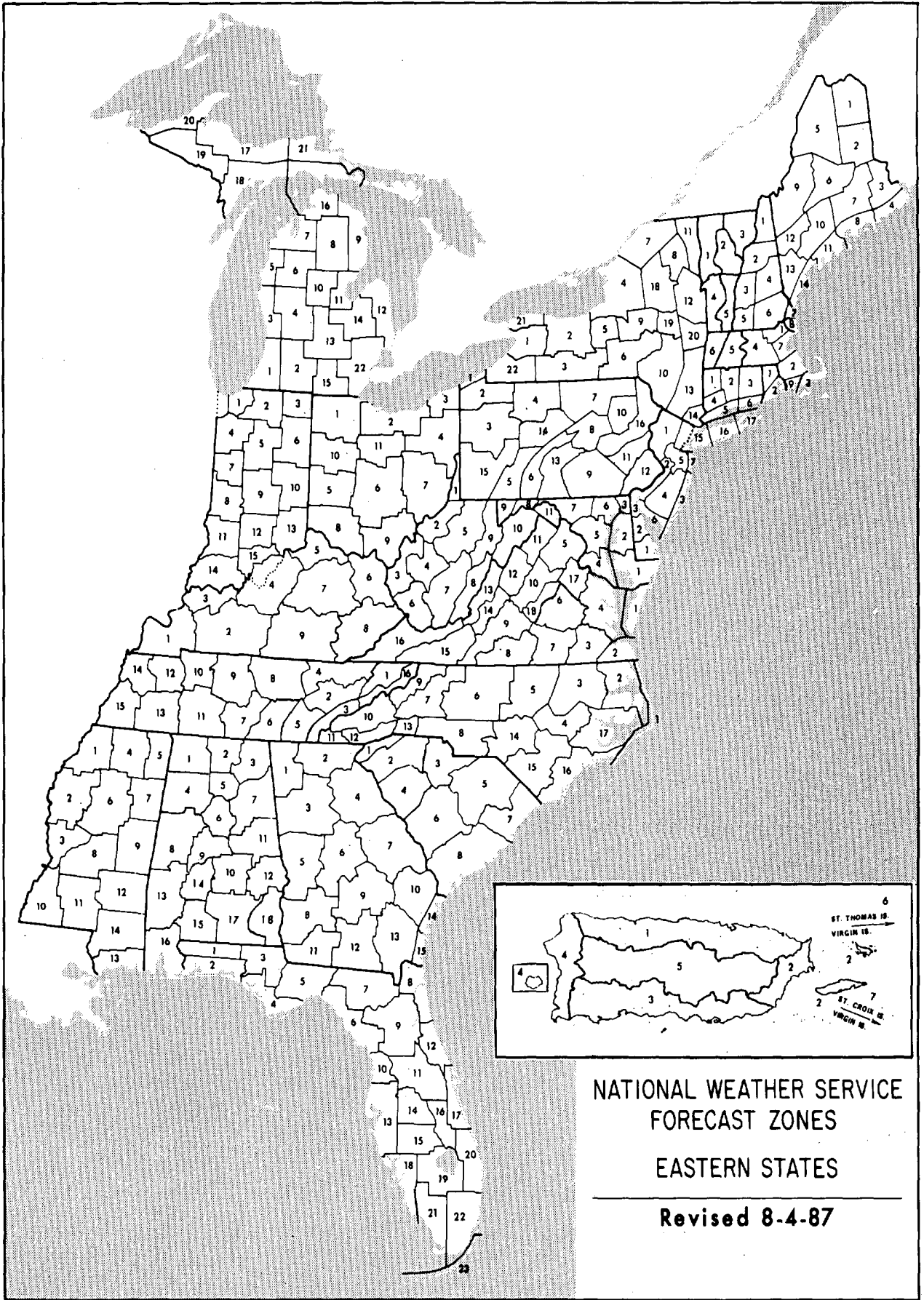
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# STORM DATA



Photo courtesy: Larry Miller, Kansas Heritage Photography

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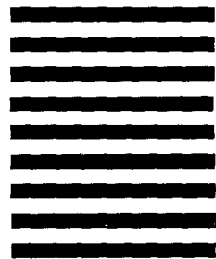


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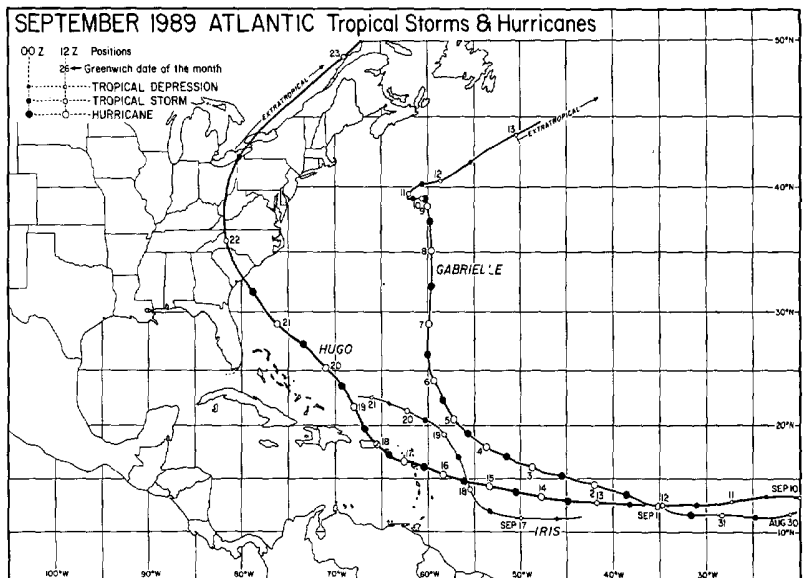
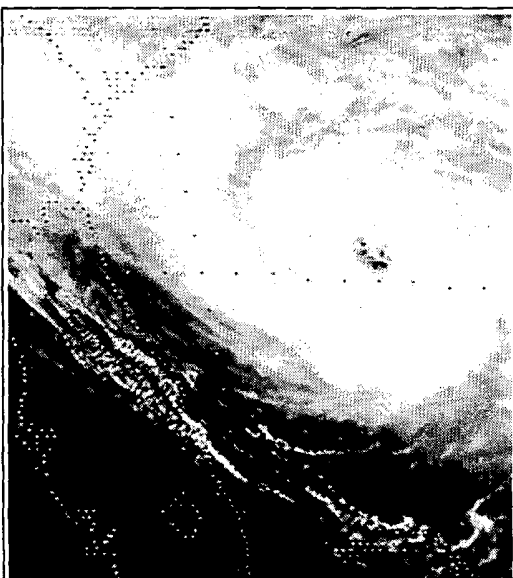
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## HURRICANE HUGO, SEPTEMBER 10-22, 1989

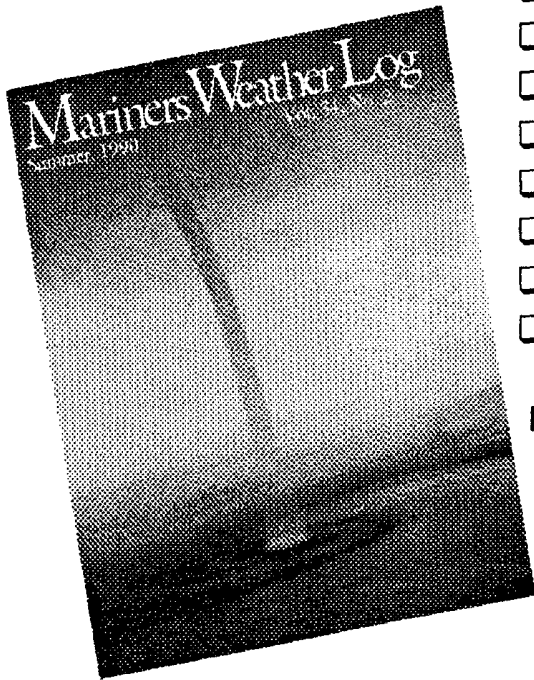
Despite excellent warning lead times and excellent government and public response to the warnings, the fury of Hurricane Hugo took many by surprise and will undoubtedly haunt the memory of many Americans for years to come. Along with numerous deaths and injuries, HUGO brought large-scale devastation to much of the Carolinas, Puerto Rico, the Virgin Islands and other islands of the Caribbean, making it the costliest hurricane in U.S. history.

Over the course of slightly less than two weeks, HUGO followed a trajectory that was typical for an Atlantic Basin tropical system: originating near Africa in the vicinity of the Cape Verde Islands, traveling west across the tropical Atlantic to the Leeward Islands, turning northwest toward the U.S. coast until making landfall in the Carolinas, and once inland, turning northeast under the influence of the Westerlies and becoming extratropical while skirting the eastern U.S.-Canada border (see map below). The system originated from a cluster of thunderstorms that moved off the African coast on September 9th and organized into a tropical depression on the 10th just southeast of the Cape Verde Islands. The system moved west at 18 knots, attaining storm status on the 11th, and hurricane status on the 13th while located about 1100 nautical miles east of the Leeward Islands. HUGO gradually turned west-northwest and slowed in its translation as it headed for the Islands. While still several hundred miles east of the Islands on the 15th, the first reconnaissance aircraft reported HUGO as having a minimum central pressure of 918 mb and an estimated maximum surface wind of 140 knots. This turned out to be HUGO's maximum intensity.



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