

# STORM DATA



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## C O N T E N T S

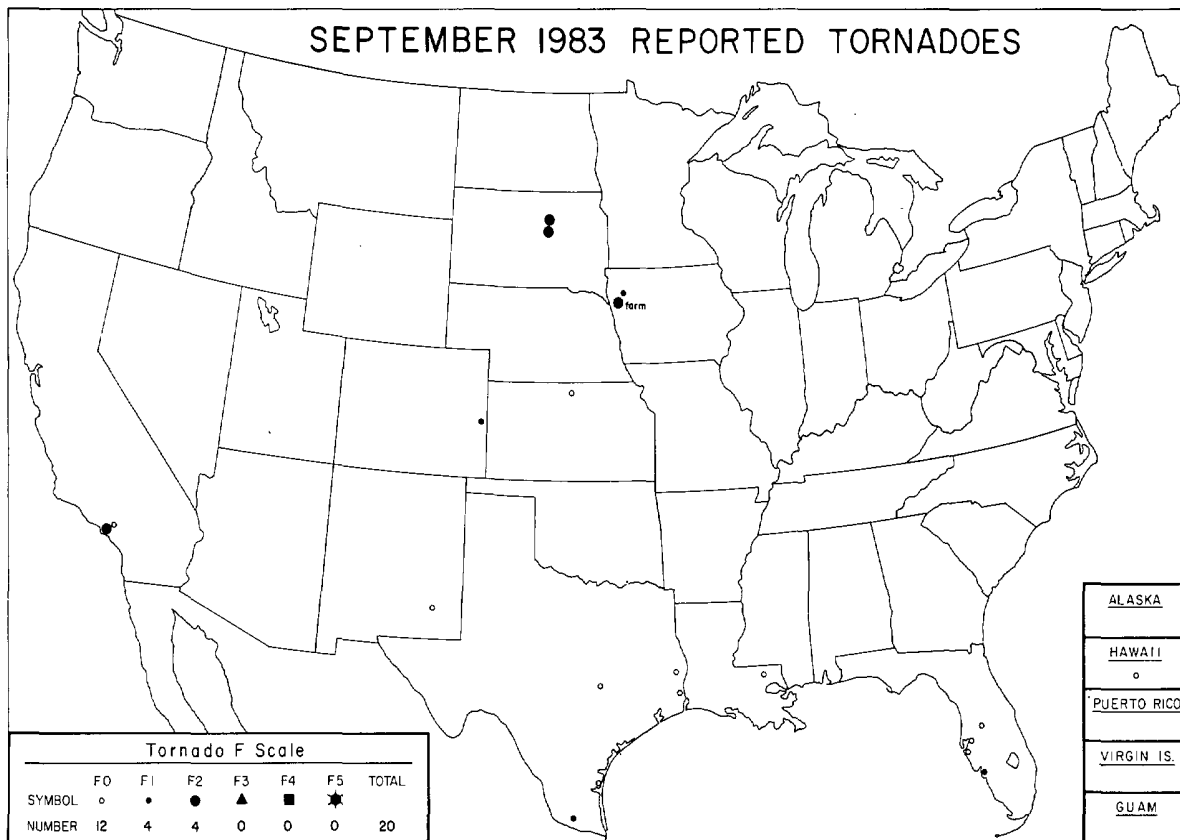
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Cover: A Tucson, AZ home succumbs to the erosion of the flood swollen Santa Cruz River. ---Photo by Emmett Jordan, The Arizona Daily Star.

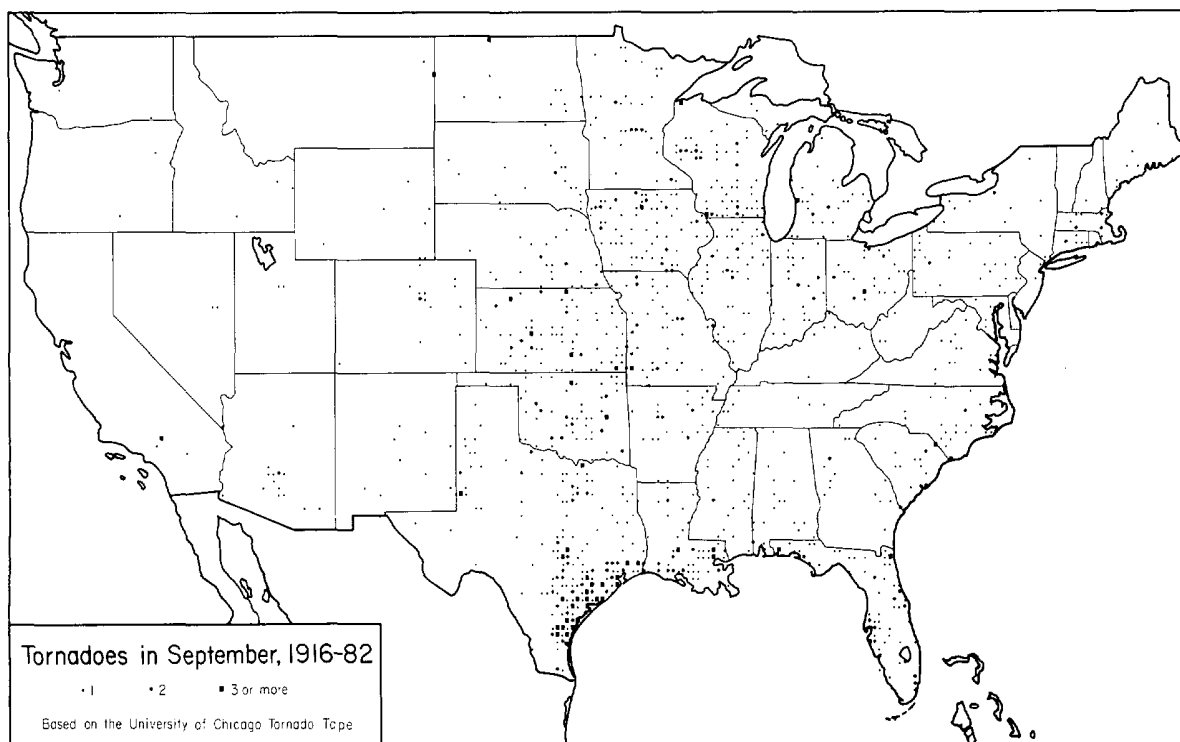
NOTE: The section on Outstanding Storms of the Month is prepared by Professor T. Theodore Fujita, editor, and Duane J. Stiegler, associate editor, University of Chicago. The narrative descriptions of Storms by State and Summaries of Hurricanes and Tropical Storms are prepared by the National Weather Service. The National Climatic Data Center compiles the statistics on deaths, injuries, and damage. This publication contains our best information on Storms, but, due to the difficulties inherent in collection of this type of data, it is not all-inclusive. Late reports and corrections will be carried quarterly.

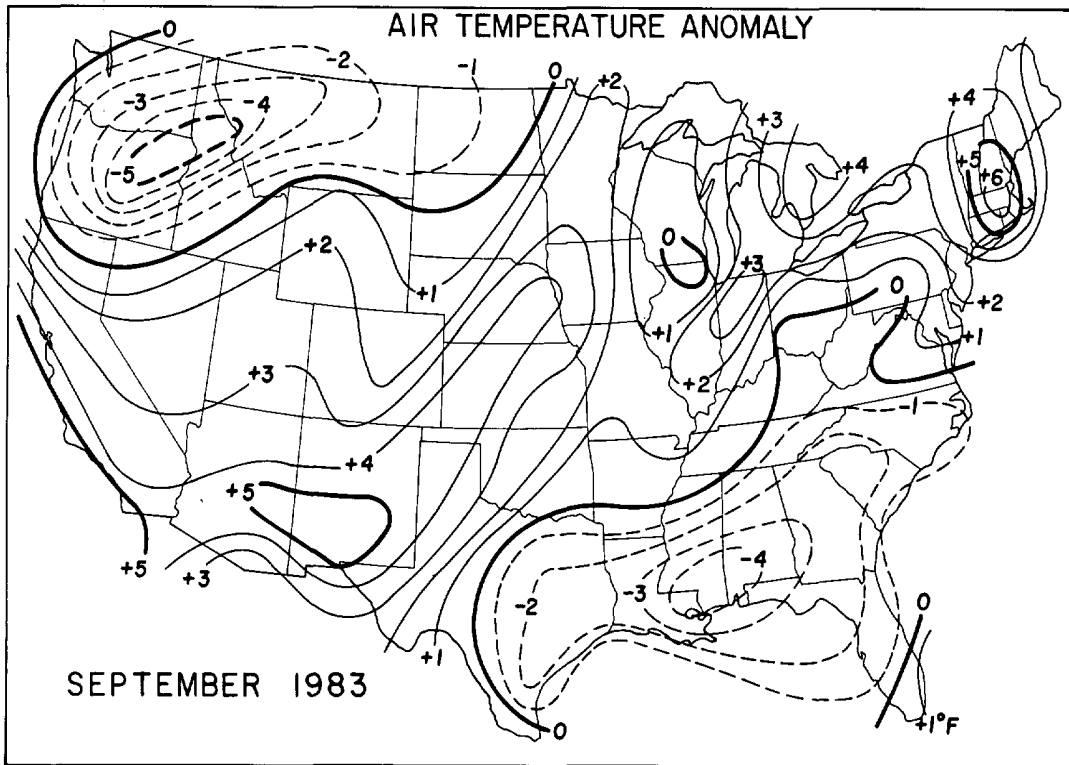
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# OUTSTANDING STORMS OF THE MONTH



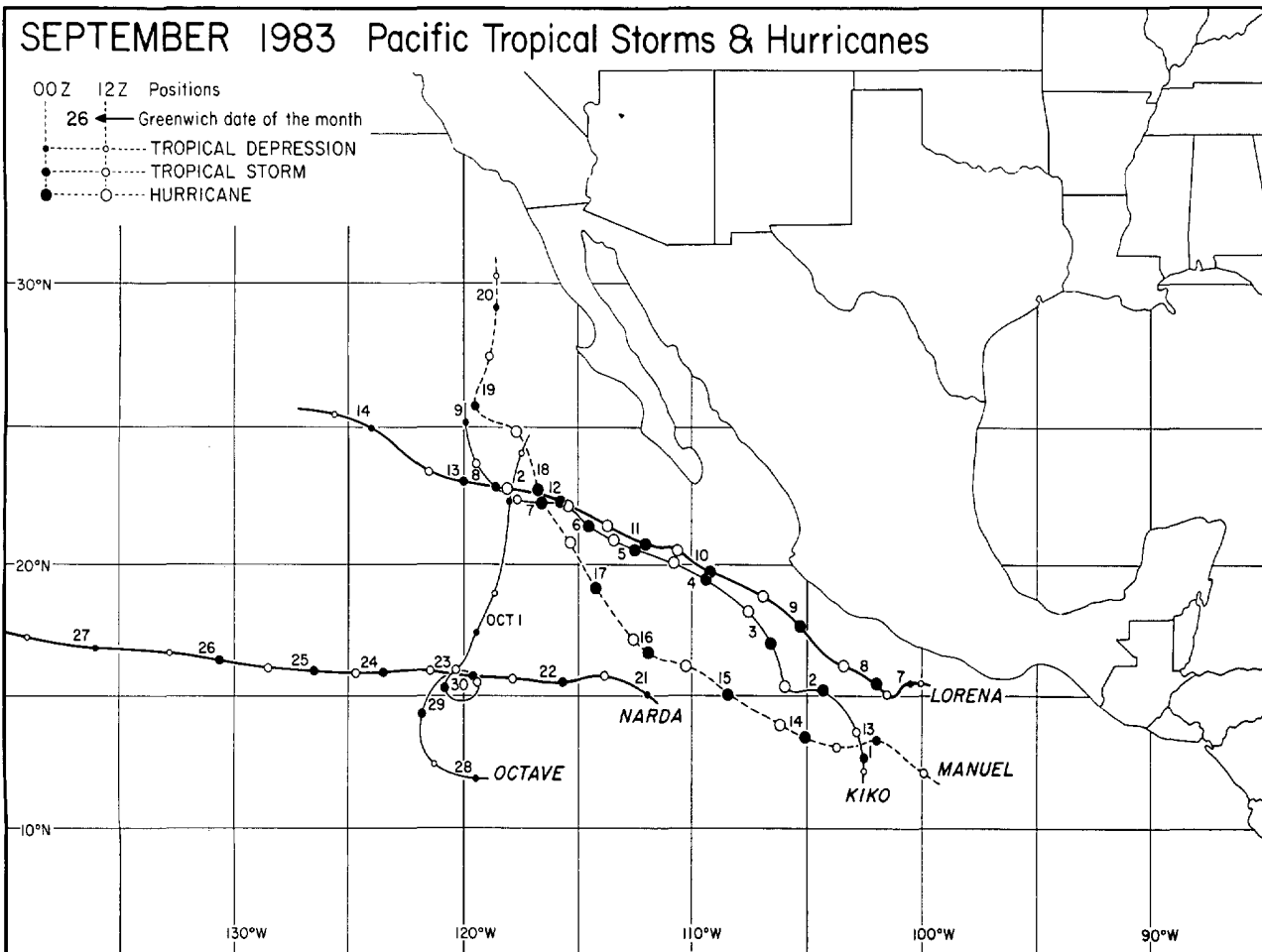
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|--|--|--------|--------|-----------|-----------|-----------|-----------|------------|--------|------------|-------|-------|--------|--------|--------|--------|--------|--------|--------|-------|-------|--------|--------|-----------|--------|-----------|--------|--------|----------|--------|--------|--------|-----------|-----------|-----------|--------|--------|----------|--------|--------|--------|-----------|-----------|-----------|--------|--------|-------|--------|--------|--------|--------|--------|--------|-----------|--|-------|--------|--------|--------|--------|--------|--------|-----------|--|
| <ul style="list-style-type: none"> <li>● COMPLETE REPORT RECEIVED</li> <li>◐ PRELIMINARY REPORT RECEIVED</li> <li>○ REPORT NOT RECEIVED</li> </ul> <p>(N) northern (W) western<br/>                     (S) southern (C) central<br/>                     (E) eastern (O) coastal<br/>                     (SE) southeastern</p> | <table style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td>● 1AL</td><td>● 7DE</td><td>● 14KS</td><td>● 21MH</td><td>● 28NJ</td><td>● 33OH</td><td>● 39SD</td><td>● 44VA</td><td>● 49AK(SE)</td> </tr> <tr> <td>● 2AZ</td><td>● 8EL</td><td>● 15KY</td><td>● 22MS</td><td>● 29NM</td><td>● 34OK</td><td>● 40IN</td><td>● 45WA</td><td>● 50HI</td> </tr> <tr> <td>● 3AR</td><td>● 9GA</td><td>● 16LA</td><td>● 23MO</td><td>● 30NY(O)</td><td>● 35OR</td><td>● 41TX(N)</td><td>● 46WV</td><td>● 51PR</td> </tr> <tr> <td>● 4CA(N)</td><td>● 10ID</td><td>● 17ME</td><td>● 24MT</td><td>● 30NY(C)</td><td>● 36PA(E)</td><td>● 41TX(S)</td><td>● 47WI</td><td>● 52VI</td> </tr> <tr> <td>● 4CA(S)</td><td>● 11IL</td><td>● 18MD</td><td>● 25NE</td><td>● 30NY(W)</td><td>● 36PA(W)</td><td>● 41TX(W)</td><td>● 48WY</td><td>● 53PC</td> </tr> <tr> <td>● 5CO</td><td>● 12IN</td><td>● 19MA</td><td>● 26NV</td><td>● 31NC</td><td>● 37RI</td><td>● 42UT</td><td>● 49AK(N)</td><td></td> </tr> <tr> <td>● 6CT</td><td>● 13IA</td><td>● 20MI</td><td>● 27NH</td><td>● 32ND</td><td>● 38SC</td><td>● 43VT</td><td>● 49AK(S)</td><td></td> </tr> </tbody> </table> | ● 1AL  | ● 7DE  | ● 14KS    | ● 21MH    | ● 28NJ    | ● 33OH    | ● 39SD     | ● 44VA | ● 49AK(SE) | ● 2AZ | ● 8EL | ● 15KY | ● 22MS | ● 29NM | ● 34OK | ● 40IN | ● 45WA | ● 50HI | ● 3AR | ● 9GA | ● 16LA | ● 23MO | ● 30NY(O) | ● 35OR | ● 41TX(N) | ● 46WV | ● 51PR | ● 4CA(N) | ● 10ID | ● 17ME | ● 24MT | ● 30NY(C) | ● 36PA(E) | ● 41TX(S) | ● 47WI | ● 52VI | ● 4CA(S) | ● 11IL | ● 18MD | ● 25NE | ● 30NY(W) | ● 36PA(W) | ● 41TX(W) | ● 48WY | ● 53PC | ● 5CO | ● 12IN | ● 19MA | ● 26NV | ● 31NC | ● 37RI | ● 42UT | ● 49AK(N) |  | ● 6CT | ● 13IA | ● 20MI | ● 27NH | ● 32ND | ● 38SC | ● 43VT | ● 49AK(S) |  |
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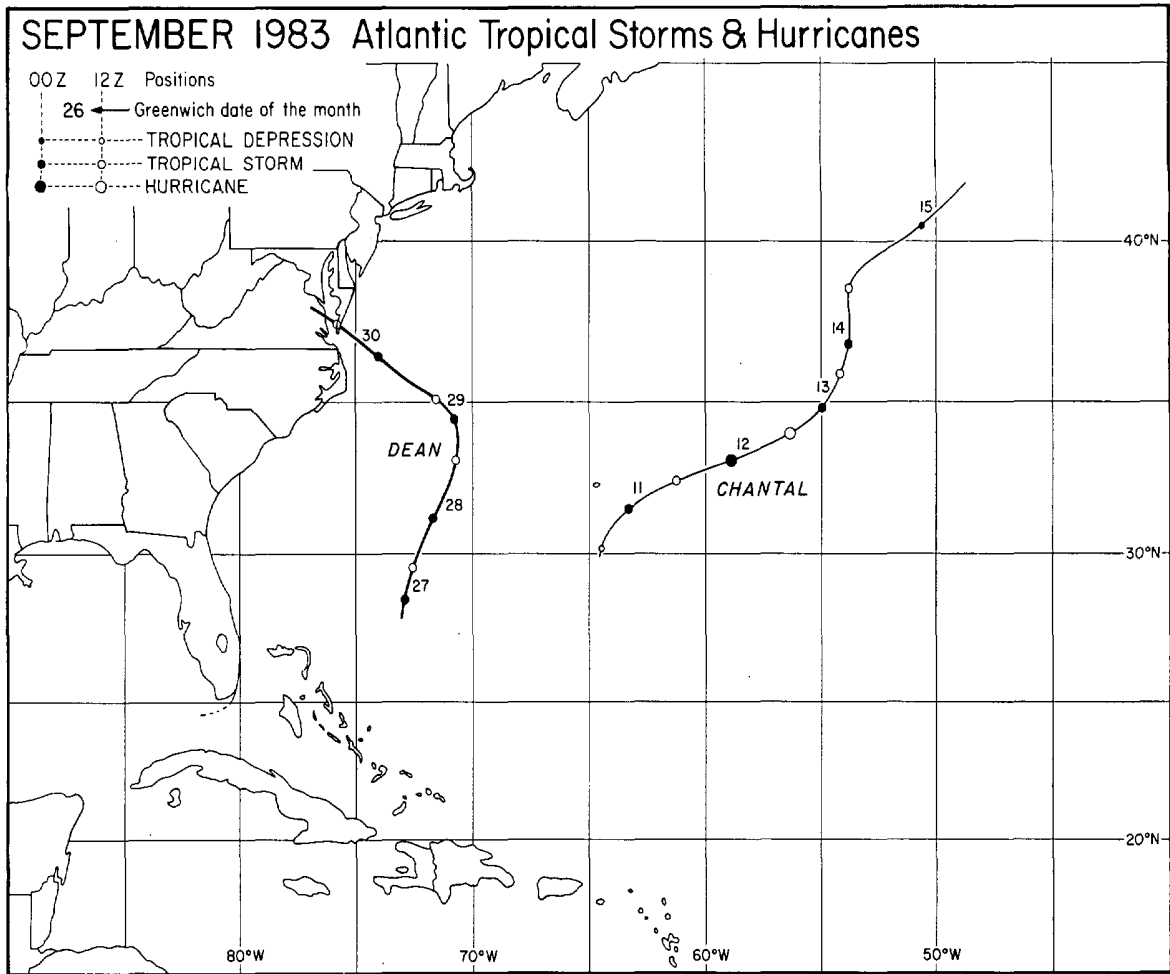
---Data base from NOAA/USDA Joint Agricultural Weather Facility.

TROPICAL STORMS AND HURRICANES



---Best track data from NWSFO, San Francisco, CA.

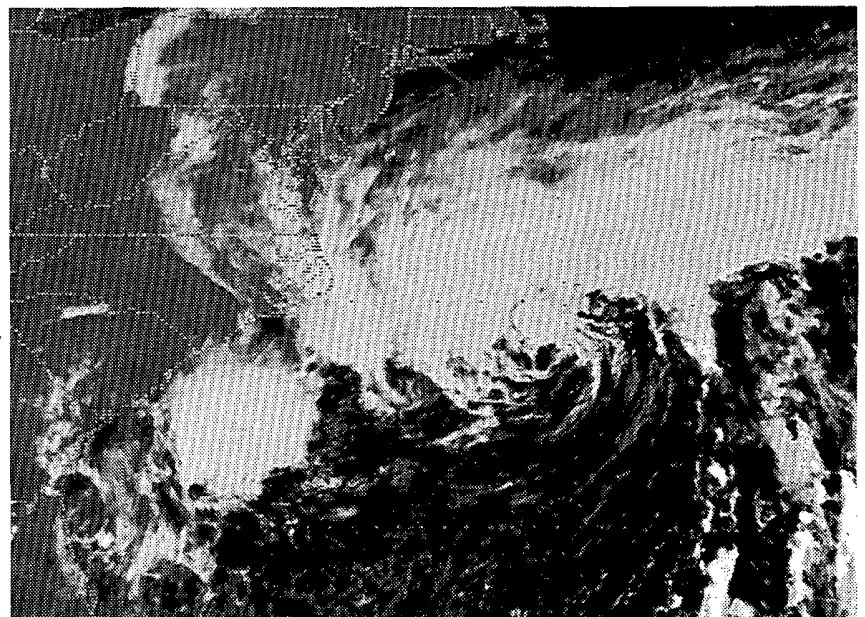
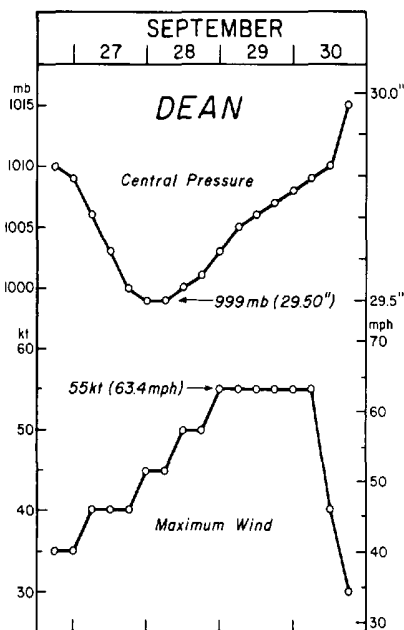
TROPICAL STORMS and HURRICANES ---- continued



---Best track data from National Hurricane Center, Miami, FL.

1. TROPICAL STORM DEAN on September 26-30, 1983

On September 30th, Tropical Storm DEAN moved onshore near the Maryland-Virginia border, accompanied by gale force winds with gusts to 50-60 mph. Significant damage was limited to beach erosion and flooding along portions of the mid-Atlantic coast due to waves and high tides. ---Data from NHC, Miami, FL and NWSFO, Washington, DC.

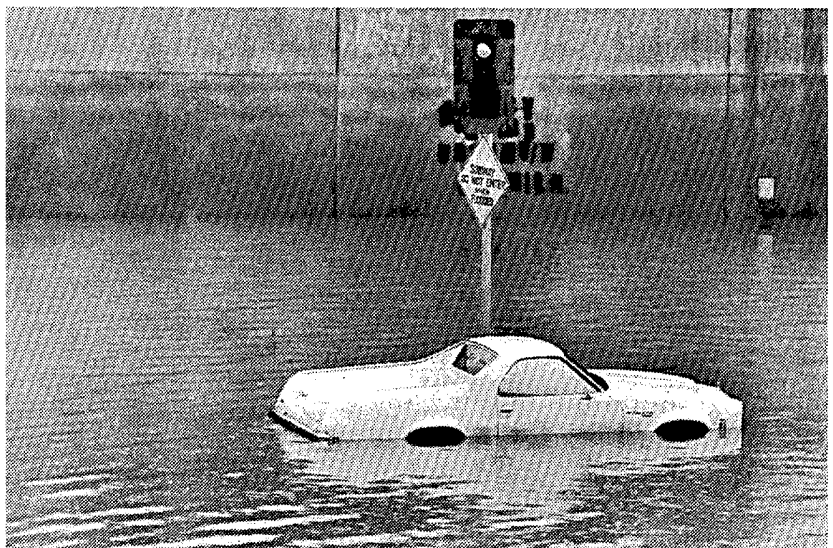


Visible satellite image at 1531GMT, September 28th. Photo from NHC.

## 2. FLOODING in ARIZONA on September 29 to October 3, 1983

From September 29th to October 3rd, much of the eastern two-thirds of Arizona received prolonged heavy rain, with much of the moisture supplied by Tropical Storm OCTAVE. The result was Arizona's most destructive flood. Major flooding occurred along rivers, creeks and washes in the southeastern quarter of the state where 8 counties were declared disaster areas by President Reagan. The flooding caused 13 deaths and an estimated \$178 million damage to agriculture, home, business and public property. ---Data from NWSFO, Phoenix, Arizona.

RIGHT TWO PHOTOS: An office building collapses into the Rillito River in Tucson. ---Photos by Ron Medvescek, The Arizona Daily Star.



Remains of Ina Road and its bridge over the Santa Cruz River near Tucson (left) and a car trapped in a flooded Tucson underpass (right). ---Both photos by Joe Patronite, The Arizona Daily Star.



### 3. TORNADOES in the LOS ANGELES AREA on September 30, 1983

Two tornadoes struck the Los Angeles area on September 30th, the second of which carved a SSE to NNW path of damage through Hawthorne. Although structural damage was limited to a quarter of its 1.4 mile path length, the tornado reached F2 strength unroofing 8 homes and damaging 60 others. Three persons received minor injuries. ---Map and all photos supplied by Roger M. Wakimoto, UCLA. Additional data from NWSFO, Los Angeles, California.



An infrared, GOES West satellite photo at 2045PST on September 30th, less than two hours prior to the occurrence of the Hawthorne Tornado.



Roof damage to homes in Hawthorne.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

SEPTEMBER 1983

| PLACE  | DATE     | TIME - LOCAL STANDARD | LENGTH OF PATH (MILES) | WIDTH OF PATH (YARDS) | NO. OF PERSONS |         |          |       | ESTIMATED <sup>1</sup> DAMAGE | CHARACTER OF STORM                            |
|--|----------|-----------------------|------------------------|-----------------------|----------------|---------|----------|-------|-------------------------------|---|
|  |          |                       |                        |                       | KILLED         | INJURED | PROPERTY | CROPS |                               |   |
| <b>1 ALABAMA</b>   |          |                       |                        |                       |                |         |          |       |                               |   |
| Furman, Wilcox County  | 05       | 1430CST               |                        |                       | 0              | 3       | 4        | 0     |                               | Wind  |
| <p>Three people were injured when thunderstorm winds blew a large oak tree across a two story frame home. One of the victims suffered two broken legs as the tree crushed him against the side of the house. All of the injured were hospitalized. They were trapped in the debris for about two hours. The home was heavily damaged. Other trees and powerlines were down in the area.</p>  |          |                       |                        |                       |                |         |          |       |                               |   |
| Montgomery area, Montgomery County   | 05       | 1500CST               |                        |                       | 0              | 0       | ?        | 0     |                               | Wind  |
| <p>Numerous trees were downed by thunderstorm winds in the south part of Montgomery. Some trees and powerlines were down in other parts of the city also.</p>  |          |                       |                        |                       |                |         |          |       |                               |   |
| Tuscaloosa area, Tuscaloosa County   | 11       | 1620CST               |                        |                       | 0              | 0       | 4        | 0     |                               | Wind  |
| <p>Thunderstorm winds overturned a mobile home. Marble size hail accompanied the storm.</p>  |          |                       |                        |                       |                |         |          |       |                               |   |
| <b>2 ARIZONA</b>   |          |                       |                        |                       |                |         |          |       |                               |   |
| Greater Prescott Area, Yavapai County  | 23       | 0300-0600 MST         |                        |                       | 0              | 0       | 6        | 5     |                               | Thunderstorm, Flash Flooding                  |
| <p>Severe prolonged thunderstorm activity with three to eight inches of rain caused extensive flash flooding. The normally tranquil Willow Creek became a raging torrent when two dams overflowed. About sixty people were evacuated from their homes. Dozens of homes were either severely damaged or destroyed. There was considerable flooding of streets and roads with a number of wash outs to the west and north. A section of the Santa Fe branch line to the northeast was destroyed. A number of autos were swept into streams. The main natural gas line into Prescott was broken and all gas services were lost. In addition, two large water mains were broken, leaving the city without water. Several breaks in sewer lines spread sewage into creeks that emptied into Willow Lake. Damage to city and county property estimated at \$1,753,000, and private property around \$1,000,000. There were no deaths or serious injuries.</p>  |          |                       |                        |                       |                |         |          |       |                               |   |
| Kaibab National Forest, Coconino County  | 23       | Late Afternoon        |                        |                       | 0              | 0       | 0        | 6     |                               | Thunderstorm, Wind, Hail                      |
| <p>A severe thunderstorm downburst caused substantial blowdown of timber north of the Grand Canyon. There were 3500 acres of scattered destruction including 200 acres of total devastation. Many trees were snapped off at the fifteen to thirty foot level. It was estimated that 4.5 million board feet of lumber was affected. Four inches of hail were reported with this storm and the damage pattern indicated straight line winds with no evidence of a twisting motion.</p>   |          |                       |                        |                       |                |         |          |       |                               |   |
| Greater Phoenix Area, Maricopa County  | 29       | 0900-1200 MST         |                        |                       | 1              | 40      | 5        | 5     |                               | Thunderstorm, Wind, Flash Flooding, Lightning |
| <p>Extremely heavy rain caused extensive flooding of streets and highways with some flooding of homes and businesses. One underpass was filled with nine feet of water. Traffic was backed up for miles at a number of locations. There was a rash of traffic accidents because of the heavy rain and flooding. About forty injuries occurred and one woman was killed. Eight fires were started by lightning with \$90,000 damage to one home. Hail up to one and one-half inch diameter fell in some sections.</p>   |          |                       |                        |                       |                |         |          |       |                               |   |
| Eastern Two-Thirds   | 29-Oct 3 |                       | 13                     | 0                     | 8              |         | 8        |       |                               | Flash Flooding, Flooding                      |
| <p>Extended extremely heavy rains deluged most of this area of the state with two to ten inches, except ten to twelve inches in the Mt. Graham section, southwest of Safford. Most of the moisture originated with tropical storm Octave. Very destructive flooding occurred over the southeastern quarter of the state in broad zones along rivers, creeks and washes. This was the result of local inflow from these rains and from rains that occurred upstream in New Mexico on the Gila and San Francisco Rivers and in Mexico on the Santa Cruz and San Pedro Rivers. About 10,000 people were displaced from their residences. Water, mud and debris, severely damaged or destroyed over 1300 homes and about 1700 to a lesser degree. Many persons who fled from their homes were cut off from help because roads, bridges, phone and electric lines were washed away. Twenty main highways were closed, isolating dozens of towns. Interstate 10, the main link between Phoenix and Tucson, was washed out at the Gila River. Numerous people</p>   |          |                       |                        |                       |                |         |          |       |                               |   |
| <b>ARIZONA</b>   |          |                       |                        |                       |                |         |          |       |                               |   |
| <p>were rescued from rooftops and stranded cars by helicopters. In many communities water and sewer lines were broken, contaminating water supplies. In addition many gas lines were severed. The hardest hit cities were: Clifton, Tucson, Marana, Nogales, Safford, Winkelman and Hayden. New record flows were set on the San Francisco at Clifton with an estimated 87,000 cfs; on the Gila at Safford with an estimated 125,000 cfs; on the Santa Cruz at Tucson with an estimated 45,000 cfs.</p> <p>Damage to agriculture was also enormous in all categories: crops, land, irrigation canals and ditches, wells, livestock and machinery. About one-seventh of the state's cotton crop was severely damaged or destroyed. Much of the rich topsoil was washed downstream into the large reservoirs. Counties that experienced the greatest agricultural devastation were: Pinal, Pima, Graham, Santa Cruz and Cochise. This was Arizona's most destructive flood and the seventh major flood in less than six years. Eight counties - Cochise, Gila, Graham, Greenlee, Pima, Pinal, Santa Cruz and Yavapai - were declared disaster areas by President Reagan. Preliminary estimates of damage included: agriculture - \$97,526,186, homes - \$17,779,940, businesses - \$6,929,800 and public property \$55,702,897, for a total of \$177,938,823.</p> <p style="text-align: center;">Deaths</p> <p>A father, mother and their two children were swept to their deaths by rising water of Partridge Creek, southwest of Ash Fork, when their truck became stalled on the 30th. Two Navy officers were killed on the 30th when their jet crashed near Oatman in a storm-related accident. A man was drowned on the 1st when his truck became stalled in the Santa Cruz River near Marana. A man was drowned on the 1st when his truck became stalled and was swept down Tanque Verde Wash east of Tucson. Two men, a taxi driver and a passenger, were drowned on the night of the 3rd trying to cross the Gila River near Sacaton. The body of a man was sighted on the 4th in the Santa Cruz River near Tubac.</p> |          |                       |                        |                       |                |         |          |       |                               |   |
| <b>3 ARKANSAS</b>  |          |                       |                        |                       |                |         |          |       |                               |   |
| Clay County  |          | 03 afternoon          |                        |                       | 0              | 0       | 2        |       |                               | Wind  |
| <p>A rather strong whirlwind moved across a Corning residence, damaging the roof by taking off shingles. The homeowner watched the dust devil move towards his house. Some of the shingles were lifted about 200 feet off the ground.</p>  |          |                       |                        |                       |                |         |          |       |                               |   |
| Baxter County  | 07       | 0540CST               |                        |                       | 0              | 0       | 5        |       |                               | Lightning                                     |
| <p>A home in Camaliel was completely destroyed by fire which started from a lightning strike. The home was unoccupied.</p>   |          |                       |                        |                       |                |         |          |       |                               |   |
| Johnson County   | 07       | about 1800CST         |                        |                       | 0              | 0       | 4        |       |                               | Lightning                                     |
| <p>Lightning struck a poultry house in the Clarksville area. The ensuing fire killed 16,000 of the 21,500 chickens inside the structure.</p>   |          |                       |                        |                       |                |         |          |       |                               |   |
| Arkansas County  | 11       | about 1400CST         |                        |                       | 0              | 0       | 3        |       |                               | Wind  |
| <p>Tree limbs and large store-front awnings were damaged by thunderstorm gusts in DeWitt.</p>  |          |                       |                        |                       |                |         |          |       |                               |   |
| Hot Spring County  | 11       | about 1500CST         |                        |                       | 0              | 0       |          |       |                               | ? Lightning                                   |
| <p>Lightning struck just southeast of Malvern causing a fire that burnt 4 acres of grass and woodland.</p>   |          |                       |                        |                       |                |         |          |       |                               |   |
| Nevada County  | 11       | about 1600CST         |                        |                       | 0              | 0       | 4        |       |                               | Wind  |
| <p>A brief, heavy downpour produced strong winds in Prescott. Several trees were uprooted and power was interrupted. One tree fell across the roof of a residence. A Prescott bank had minor roof damage.</p>  |          |                       |                        |                       |                |         |          |       |                               |   |
| Sharp County   | 12       | 1505CST               |                        |                       | 0              | 0       | 4        |       |                               | Wind  |
| <p>Strong winds from a thunderstorm knocked down trees and 3 utility poles at Ash Flat. One tree fell across the roof of a residence.</p>  |          |                       |                        |                       |                |         |          |       |                               |   |



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

SEPTEMBER 1983

| PLACE  | DATE | TIME - LOCAL STANDARD    | LENGTH OF PATH (MILES) | WIDTH OF PATH (YARDS) | NO. OF PERSONS |         | ESTIMATED DAMAGE |       | CHARACTER OF STORM     |
|--|------|--------------------------|------------------------|-----------------------|----------------|---------|------------------|-------|------------------------|
|  |      |                          |                        |                       | KILLED         | INJURED | PROPERTY         | CROPS |                        |
| <b>4 ARKANSAS</b>  |      |                          |                        |                       |                |         |                  |       |                        |
| Newton County  | 12   | 1830 <sup>0804</sup> CST |                        |                       | 0              | 0       | 3                | -     | Lightning              |
| Lightning struck a tree between two homes in Jasper. Both houses had damage in their electrical wiring, plus the entire neighborhood lost telephone service.   |      |                          |                        |                       |                |         |                  |       |                        |
| Garland County   | 12   | 1740 CST                 |                        |                       | 0              | 0       | 4                | -     | Wind                   |
| Thunderstorm gusts damaged signs and two townhouses at Hot Springs Village. Damage to one townhouse was extensive because a large pine tree was uprooted, and it crashed against the home. Heavy rain and some hail were also reported.  |      |                          |                        |                       |                |         |                  |       |                        |
| Prairie County   | 16   | 1730 CST                 |                        |                       | 0              | 0       | ?                | -     | Thunderstorm           |
| A thunderstorm moved across Des Arc producing localized street flooding from 2.6 inches of rain. Lightning knocked out several transformers and insulators throughout the city.  |      |                          |                        |                       |                |         |                  |       |                        |
| Independence County  | 19   | 1400 CST                 |                        |                       | 0              | 0       | 2                | -     | Lightning              |
| Lightning struck a storm door at a Desha residence. The glass was shattered and the bottom part of the door was thrown into the living room.   |      |                          |                        |                       |                |         |                  |       |                        |
| <b>4 CALIFORNIA, Northern</b> — NONE REPORTED  |      |                          |                        |                       |                |         |                  |       |                        |
| <b>4 CALIFORNIA, Southern</b>  |      |                          |                        |                       |                |         |                  |       |                        |
| Bishop Inyo and Mono Counties  | 27   | ?                        |                        |                       | 0              | 0       | ?                | ?     | Heavy Thunderstorms    |
| Heavy thunderstorms observed in White Mountains east of Bishop, caused some mudslides and rockslides.  |      |                          |                        |                       |                |         |                  |       |                        |
| Walnut Park Los Angeles County   | 30   | 0600 PST                 | 1/4 mile               | 50-100 yards          | 0              | 0       | ?                | 0     | Tornado (F0)           |
| Tornado touched down in Walnut Park, 6.5 miles SE of Los Angeles Civic Center and moved from SSE to NNW. There was minor window breakage in four homes and several small trees uprooted. There was minor damage in the form of torn shingles or broken roof tiles. The front porch of one home (porch about 30 feet wide) was torn away from the house and deposited in one piece on the roof. The funnel was seen by at least 3 eyewitnesses and one of them reported seeing debris being "swirled around" inside the funnel.   |      |                          |                        |                       |                |         |                  |       |                        |
| Hawthorne Los Angeles County   | 30   | 2235 PST                 | 1.4 mile               | 100 yards             | 0              | 3       | 2                | ?     | Tornado (F2)           |
| Touchdown point is located 3 miles SE of the east end of the runways at Los Angeles International Airport. The direction of movement was from SSE to NNW. Severe damage to 8 homes which lost their roofs. Substantial damage to 15 homes and minor damage to 45 homes and 36 automobiles (one pick up truck destroyed). Several large trees were uprooted. Three persons sustained minor injuries due to flying debris and/or glass.  |      |                          |                        |                       |                |         |                  |       |                        |
| <b>5 COLORADO</b>  |      |                          |                        |                       |                |         |                  |       |                        |
| Weld County  | 3    | 1645 MST                 |                        |                       | 0              | 1       | 0                | 0     | Lightning              |
| A man was injured by lightning near Wiggins; he was standing near a fence that was struck by the bolt.   |      |                          |                        |                       |                |         |                  |       |                        |
| Cheyenne County  | 4    | 1852 MST                 |                        |                       | 0              | 0       | 0                | 0     | Hail                   |
| Golfball size hail fell just south of Cheyenne Wells.  |      |                          |                        |                       |                |         |                  |       |                        |
| Cheyenne County  | 4    | 1905 MST                 | 1/2                    | 50                    | 0              | 0       | 0                | 0     | Tornado (F1)           |
| The same storm that produced the large hail spawned a tornado, which touched down 10 miles east of Cheyenne Wells. FPP101  |      |                          |                        |                       |                |         |                  |       |                        |
| Denver area  | 14   | 1500-1600 MST            |                        |                       | 0              | 0       | 3                | 0     | High winds             |
| A thunderstorm produced wind gusts as high as 56 mph in the Denver area, along with thick blowing dust. Power was knocked out in many spots.   |      |                          |                        |                       |                |         |                  |       |                        |
| Eastern Colorado   | 19   | aftn, eve.               |                        |                       | 0              | 0       | 0                | 0     | Cold front             |
| An unusually strong cold front roared through Colorado, sending temperatures plunging as much as 25 degrees in just 30 minutes in the eastern part of the state. In Denver, the temperature dropped 51 degrees in seven hours from a sunny 86 degrees to a snowy 35. In Greeley, the thermometer plummeted 60 degrees in a twelve hour period. Strong winds and blowing dust accompanied the front; the peak gust recorded was 48 mph at Colorado Springs. Snowfall was very light at lower elevations, but up to 7 inches fell in the northern mountains of Colorado. |      |                          |                        |                       |                |         |                  |       |                        |
| <b>6 CONNECTICUT</b>   |      |                          |                        |                       |                |         |                  |       |                        |
| Fairfield County   | 21   | Evening-22 Early Morning |                        |                       | 0              | 0       | 0                | 0     | Gusty Winds, Lightning |
| Up to ten thousand customers lost electric power for brief spells during this period. A combination of gusty winds knocking down tree limbs onto wires and some lightning strikes contributed to the outages.  |      |                          |                        |                       |                |         |                  |       |                        |
| <b>7 DELAWARE</b>  |      |                          |                        |                       |                |         |                  |       |                        |
| New Castle County  | 21   | All Day                  |                        |                       | 0              | 0       | 3                | 0     | Rain                   |
| Rain associated with a strong cold front totaled between 2 and 3 inches, for the heaviest single day of rain of the year. Flooding of some streets affected traffic for a time, while heavy downpours disrupted electrical service in the Hockessin and Greenville areas.  |      |                          |                        |                       |                |         |                  |       |                        |
| Sussex County  | 30   | All Day                  |                        |                       | 0              | 0       | 0                | 0     | Tropical Storm         |
| Tropical Storm "Dean" moved in a northwesterly course across the lower Delmarva Peninsula and the Chesapeake Bay during the morning hours, weakening as it moved inland. At the height of the storm the Coast Guard station at Indian River Inlet reported one wind gust of 50 mph. Wind and wave action caused the temporary loss of tons of sand along the beach area, otherwise, no significant damage was reported.  |      |                          |                        |                       |                |         |                  |       |                        |
| <b>8 FLORIDA</b>   |      |                          |                        |                       |                |         |                  |       |                        |
| Panama City Beach, Bay County  | 01   | 0414 EST                 | -                      | -                     | 0              | 0       | 5                | 0     | Lightning              |
| Lightning started a fire which destroyed an unoccupied house.  |      |                          |                        |                       |                |         |                  |       |                        |
| Frostproof, Polk County  | 01   | 1600 EST                 | -                      | -                     | 1              | 0       | 0                | 0     | Lightning              |
| Lightning struck and killed a high school football player during football practice.  |      |                          |                        |                       |                |         |                  |       |                        |
| Ocala, Marion County   | 02   | 1700 EST                 | -                      | -                     | 0              | 0       | 5                | 0     | Lightning              |
| Lightning started a fire which damaged an unoccupied house.  |      |                          |                        |                       |                |         |                  |       |                        |
| Crestview, Okaloosa County   | 03   | 0900 EST                 | -                      | -                     | 0              | 0       | 5                | 0     | Lightning              |
| Lightning started a fire which destroyed an unoccupied house.  |      |                          |                        |                       |                |         |                  |       |                        |
| Bradenton, Manatee County  | 03   | 1700 EST                 | .2                     | 30                    | 0              | 0       | 3                | 2     | Tornado (F0)           |
| A tornado destroyed a fence and uprooted several trees in an orange grove.   |      |                          |                        |                       |                |         |                  |       |                        |
| Choctawhatchee Bay, Okaloosa and Walton Counties   | 05   | 1400 EST                 | -                      | -                     | 1              | 0       | 0                | 0     | Thunderstorm Winds     |
| A man was drowned when wind capsized a boat.   |      |                          |                        |                       |                |         |                  |       |                        |
| 4SE Auburndale, Polk County  | 06   | 2000 EST                 | 1                      | 100                   | 0              | 0       | 4                | 0     | Tornado (F0)           |
| A tornado destroyed one small airplane and damaged another and uprooted trees and damaged TV antennas and carports.  |      |                          |                        |                       |                |         |                  |       |                        |
| Macdill AFB, Hillsborough County   | 08   | 1400 EST                 | .5                     | 30                    | 0              | 0       | 5                | 0     | Tornado (F0)           |
| A tornado uprooted trees and damaged signs, electric wires and roofs.  |      |                          |                        |                       |                |         |                  |       |                        |
| Cape Coral, Lee County   | 10   | 1630 EST                 | 3                      | 30                    | 0              | 0       | 5                | 0     | Tornado (F1)           |
| A tornado moved at roof top level and damaged 35 homes.  |      |                          |                        |                       |                |         |                  |       |                        |
| Pensacola, Escambia County   | 12   | 0520 EST                 | -                      | -                     | 0              | 0       | 4                | 0     | Thunderstorm Winds     |
| A shed roof was blown through the roof of a home.  |      |                          |                        |                       |                |         |                  |       |                        |
| Jacksonville, Duval County   | 12   | 1300 EST                 | -                      | -                     | 0              | 0       | 4                | 0     | Thunderstorm Winds     |
| Trees knocked down, winds to 83MPH.  |      |                          |                        |                       |                |         |                  |       |                        |
| Homosassa, Citrus County   | 13   | 1300 EST                 | -                      | -                     | 0              | 0       | 3                | 0     | Lightning              |
| Lightning caused a fire which damaged a house.   |      |                          |                        |                       |                |         |                  |       |                        |
| Lantana, Palm Beach County   | 13   | 1330 EST                 | -                      | -                     | 0              | 1       | 0                | 0     | Lightning              |
| A golfer was struck and severely injured by lightning.   |      |                          |                        |                       |                |         |                  |       |                        |

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

SEPTEMBER 1983

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

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

## FLORIDA

|  |    |         |   |   |   |   |   |   |                    |
|--|----|---------|---|---|---|---|---|---|--------------------|
| Apollo Beach,<br>Hillsborough County   | 14 | 1830EST | - | - | 0 | 0 | 3 | 0 | Thunderstorm Winds |
| Wind blew the roof off one mobile home into the side of another mobile home.   |    |         |   |   |   |   |   |   |                    |
| Tamarac,<br>Broward County   | 21 | 1400EST | - | - | 1 | 2 | 0 | 0 | Lightning          |
| Lightning struck a construction scaffolding killing one and injuring 2 people. |    |         |   |   |   |   |   |   |                    |
| Hollywood,<br>Broward County   | 28 | 1400EST | - | - | 0 | 0 | 3 | 0 | Thunderstorm Winds |
| a tool shed and porch were destroyed.  |    |         |   |   |   |   |   |   |                    |
| Leesburg,<br>Lake County   | 29 | 1700EST | - | - | 0 | 0 | 2 | 0 | Thunderstorm Winds |
| Trees were uprooted and glass was broken in a mobile home park.                |    |         |   |   |   |   |   |   |                    |

## 9 GEORGIA

|   |    |                |  |  |   |   |   |   |           |
|---|----|----------------|--|--|---|---|---|---|-----------|
| Clarke County   | 04 | 1000EST        |  |  | 0 | 0 | 4 | 0 | Lightning |
| Lightning struck a house in Athens; the resultant fire caused substantial damage to the building.   |    |                |  |  |   |   |   |   |           |
| Morgan County   | 04 | 1030EST        |  |  | 0 | 0 | 2 | 0 | Wind      |
| Thunderstorm winds broke a few pine trees in the western part of the county.  |    |                |  |  |   |   |   |   |           |
| McDuffie County   | 10 | 1630EST        |  |  | 0 | 0 | 2 | 0 | Wind      |
| Thunderstorm winds downed a few trees near Thomson.   |    |                |  |  |   |   |   |   |           |
| Chatham County  | 11 | Around 1630EST |  |  | 0 | 0 | 4 | 0 | Wind      |
| Thunderstorm winds downed a tree which fell on a mobile home.   |    |                |  |  |   |   |   |   |           |
| Jasper County   | 11 | Around 1930EST |  |  | 0 | 0 | 3 | 0 | Wind      |
| Thunderstorm winds downed at least four large trees near Shady Dale. The winds tore the roof from a barn, and caused minor damage to a few other buildings. |    |                |  |  |   |   |   |   |           |
| Emanuel County  | 12 | 1800EST        |  |  | 0 | 0 | 2 | 0 | Wind      |
| Thunderstorm winds downed around 50 trees near Moadoc.  |    |                |  |  |   |   |   |   |           |

## 10 IDAHO

|   |    |          |  |  |  |  |   |  |                    |
|---|----|----------|--|--|--|--|---|--|--------------------|
| Haglar<br>Cassia County   | 29 | 1400 MST |  |  |  |  | 4 |  | Thunderstorm, Wind |
| A thunderstorm and associated strong winds damaged several farm buildings. One granary was lifted off its foundation and parts were blown in a field, some landing as much as a mile away. A machine shed roof was also severely damaged. |    |          |  |  |  |  |   |  |                    |

## 11 ILLINOIS

|  |     |                 |  |  |   |   |   |   |      |
|--|-----|-----------------|--|--|---|---|---|---|------|
| Northern third   | 5-6 | 1845 to 0030CST |  |  | 0 | 0 | 5 | 0 | Wind |
| Scattered thunderstorms with high winds moved across portions of the north during the evening and continued past midnight. The wind damage, mainly to trees, power lines, several homes, and out buildings was rather wide-spread. At 2100, the 68th street crib on Lake Michigan recorded a 52 knot gust. Rockford, in Winnebago County, and Tampico in Whiteside County, both reported building damage by strong winds shortly before midnight. A roof was ripped off a house south of Warren, in Jo Daviess County, and the second floor walls collapsed. Trees broke power lines causing power failures. |     |                 |  |  |   |   |   |   |      |
| Southern portions  | 6   | 1530 to 2030CST |  |  | 0 | 0 | 0 | 0 | Hail |
| Thunderstorms with high winds and large hail caused minor damage to portions of the southern part of the state. East of Bellevue, in St. Clair County, 0.75 inch hail was reported at 1655. Also at 1655 0.75 inch hail fell in New Baden, Clinton County. At 1945, 1.75 inch hail was again reported in New Baden. No known damage occurred.  |     |                 |  |  |   |   |   |   |      |

## ILLINOIS

|  |    |                 |  |  |   |    |   |   |                           |
|--|----|-----------------|--|--|---|----|---|---|---------------------------|
| Carroll County   | 7  | 0000 to 0015CST |  |  | 0 | 0  | 4 | 0 | Wind                      |
| During the night thunderstorms developed over the northwest section of the state. Strong winds caused building and tree damage mainly in Carroll County. At 0010 buildings were damaged by the high winds in Savannah and in Shannon.                                      |    |                 |  |  |   |    |   |   |                           |
| Southern portions  | 11 | 1400 to 1500CST |  |  | 0 | 0  | 4 | 0 | Wind                      |
| As thunderstorms with powerful winds moved across the south, some building, tree, and power line damage was reported. At 1415, tree and power failures were reported in Sparta, Randolph County. At 1445, power failures were reported in Blairsville, in Williams County. |    |                 |  |  |   |    |   |   |                           |
| Westmont, Dupage County  | 17 | 1752CST         |  |  | 0 | 0  | 4 | 0 | Lightning                 |
| A house was struck by lightning causing a fire.  |    |                 |  |  |   |    |   |   |                           |
| Northern half  | 18 | 1445 to 2000CST |  |  | 0 | 0  | ? | 0 | Hail                      |
| As thunderstorms moved through the northern half of Illinois, large hail fell in rather localized areas. The largest was reported in Lemont, Cook County, where 1 inch hail fell at 1845. No damage was reported.  |    |                 |  |  |   |    |   |   |                           |
| DeKalb, DeKalb County  | 18 | 1845CST         |  |  | 0 | 11 | 0 | 0 | Lightning                 |
| Lightning struck and injured 11 students while playing football in an open field.  |    |                 |  |  |   |    |   |   |                           |
| <b>12 INDIANA</b>  |    |                 |  |  |   |    |   |   |                           |
| Andrews<br>Huntington County   | 06 | 1500EST         |  |  | 0 | 0  | 0 | 0 | Hail                      |
| Golf ball size hail was reported at Andrews.   |    |                 |  |  |   |    |   |   |                           |
| Columbia City<br>Whitley County  | 06 | 1500EST         |  |  | 0 | 0  | 2 | 2 | Thunderstorm Winds        |
| Trees were uprooted and down just west of Columbia City due to high thunderstorm winds.  |    |                 |  |  |   |    |   |   |                           |
| Bippus<br>Huntington County  | 06 | 1500EST         |  |  | 0 | 0  | 2 | 2 | Thunderstorm Winds        |
| Trees were uprooted due to high thunderstorm winds.  |    |                 |  |  |   |    |   |   |                           |
| 15 Decatur<br>Adams County   | 06 | 1525EST         |  |  | 0 | 0  | 0 | 0 | Hail                      |
| Golf ball size hail was reported just south of Decatur.  |    |                 |  |  |   |    |   |   |                           |
| Rockville<br>Parke County  | 06 | 1850EST         |  |  | 0 | 0  | 0 | 0 | Thunderstorm Winds        |
| 70 mile an hour winds reported by a radio station.   |    |                 |  |  |   |    |   |   |                           |
| 35 Rockville<br>Parke County   | 06 | 1900EST         |  |  | 0 | 0  | 0 | 0 | Thunderstorms Winds       |
| Trees uprooted on US 41 by strong thunderstorm winds.  |    |                 |  |  |   |    |   |   |                           |
| Indianapolis,<br>Marion County   | 06 | 1920EST         |  |  | 0 | 0  | 0 | 0 | Thunderstorm, Winds, Hail |
| 60 mph winds and 3/4 inch hail were reported at 56th street and Michigan Road. Some small tree limbs were downed.  |    |                 |  |  |   |    |   |   |                           |
| Indianapolis,<br>Marion County   | 06 | 1935EST         |  |  | 0 | 0  | 0 | 0 | Thunderstorm Winds        |
| 62 mph winds recorded on a television station's wind equipment located in downtown Indianapolis.   |    |                 |  |  |   |    |   |   |                           |
| 5E Avon,<br>Hendricks County   | 06 | 1935EST         |  |  | 0 | 0  | 0 | 0 | Thunderstorm Winds        |
| 60 mph winds reported on Rockville Road near the Hendricks and Marion County Line.   |    |                 |  |  |   |    |   |   |                           |

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

SEPTEMBER 1983

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

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

## 13 IOWA

|                    |                  |       |        |   |   |   |   |                                     |  |
|--------------------|------------------|-------|--------|---|---|---|---|-------------------------------------|--|
| Cherokee County    | 05 1720 CST      | .1    | 30     | 0 | 0 | 4 | 0 | Tornado (F1)                        | A tornado touched down briefly and destroyed a barn about 2 miles north of Marcus. The barn was old but well constructed, according to the owner. Much farm equipment inside the barn was damaged or destroyed.  |
| Woodbury County    | 05 1805 CST      | 2 1/2 | 50-200 | 0 | 0 | 5 | 5 | Tornado (F2)                        | The tornado struck three farms in its path. First it destroyed many fruit trees in an orchard and cut a swath through a cornfield at the Roger Linn farm. Then it continued to the Joe Gatto farm, damaging the house and most of the other buildings, and finally dissipated at the Joe Linn farm. The house at the Gatto farm was severely damaged. The roof and two exterior walls were taken off. One person saw "an unbelievable mess of scattered roofs, cars, wagons, building and furniture" when he arrived to help. The movement of the tornado was apparently toward the east southeast, and was photographed from a location northeast of where it struck.   |
| Northern Iowa      | 05 Evening       |       |        | 0 | 0 | 5 | 6 | Thunderstorm and Hail               | Thunderstorms moved across Iowa Labor Day evening, and left much destruction in the wake of these storms. The greatest damage occurred in Northwest Iowa, where large hail fell and destroyed many acres of crops. Strong winds also accompanied the hail, but as the storms tracked across the State, the hail ceased while the high winds increased. Many reports of hail as big or bigger than golf balls were received. At Gilmore City, the hail was said to cover the streets after the storms, and the leaves brought down by the hail made a green carpet after the hail melted. The Counties stricken the hardest by the hail were Sioux and Pocahontas, although damage was by no means confined to these. Some broken windows and damaged roofs were also caused by the hail. Some of the fields of corn were total losses - the stalks were flattened. The crop loss in Pocahontas County alone may amount to one million dollars. In Northeast Iowa most damage was caused by high winds knocking over trees and power lines, with some outages caused by this. A large machine shed was pushed over by the wind and destroyed, as were many other farm buildings. Many trees were felled in the town of Tripoli, damaging a car, a camper, and two house trailers. Fallen trees knocked over several poles and utility lines in West Union in Fayette County, and overturned two campers. All in all, a very destructive end to the Labor Day weekend. |
| Southwest Iowa     | 06 Early Morning |       |        | 0 | 0 | 6 | 6 | Thunderstorms and Hail              | Thunderstorms developed in Nebraska and quickly moved into Southwest Iowa in the early morning hours. Both strong winds and hail occurred with the storms, and if possible caused even more damage than the storms of the evening before. Montgomery County took the brunt of the storm. Winds gusted as high as 92 MPH at Red Oak and took off the roof of the Police Station. Hail struck with a vengeance in the towns of Stanton and Villisca. Seventy-five percent of the homes in Villisca lost windows and 93 windows were broken in the school buildings alone. Crop damage was extensive, starting from Northeastern Mills County through Montgomery County into Taylor County. Fields that had been teeming with corn and soybeans were flattened and ruined in minutes.   |
| Northwest Iowa     | 17 Morning       |       |        | 0 | 0 | 3 | 4 | Thunderstorms, Hail & Lightning     | Strong thunderstorms tracked across Northwest Iowa in the morning hours. Hail fell, including marble to golfball size, which made the ground white 8 miles south of Ruthven, in Palo Alto County. A farmer's house was also struck by lightning, causing minor damage.   |
| North Central Iowa | 19 Afternoon     |       |        | 0 | 0 | 4 | 5 | Thunderstorm, Hail & Flash Flooding | Strong thunderstorms with heavy rains and hail moved across Northern Iowa in the afternoon. Hail, reported to be as big as golf balls, fell at several spots in Humboldt and Wright Counties, causing some damage to corn and beans. Heavy rains of more than five inches caused flash flooding in several areas, including the town of Belmond. Strong winds ripped the door off a turkey barn south of Belmond. A trailer home was toppled, several outbuildings damaged and windows were broken by hail at a farmstead southwest of town.   |

## 14 KANSAS

|  |                 |  |  |   |   |   |   |              |   |
|--|-----------------|--|--|---|---|---|---|--------------|---|
| Smith Center, Smith County                 | 05 0100CST      |  |  | 0 | 5 | 4 | 0 | Lightning    | Lightning set fire to a rural home near Smith Center. Three of the occupants suffered injuries that required hospitalization. Two others were treated and released at the hospital. |
| Oswego, Labette County                     | 06 1800-1830CST |  |  | 0 | 0 | 2 | 0 | Hail, Funnel | Hail the size of golf balls fell for a short time in Oswego around 1800CST. A funnel cloud was also sighted at 1828CST.   |
| Valley Center and Wichita, Sedgwick County | 06 1930-1945CST |  |  | 0 | 0 | 4 | 0 | Hail         | Golf ball to baseball size hailstones fell at Valley Center and on the north side of Wichita.   |
| Burlington, Coffey County                  | 07 0108CST      |  |  | 0 | 0 | 2 | 2 | Hail         | Two inch diameter hailstones fell briefly at Burlington.  |

## KANSAS

|   |                 |  |  |   |   |   |   |              |   |
|---|-----------------|--|--|---|---|---|---|--------------|---|
| Junction City and Fort Riley, Geary County        | 12 0345-0405CST |  |  | 0 | 0 | 4 | 0 | Wind         | Strong wind gusts preceded a thunderstorm through Junction City and Fort Riley. Milford Dam measured wind speeds up to 60 mph, and Fort Riley recorded at peak speed of 64 mph at 0357CST. Several power lines were knocked down, and the roof was ripped from a mobile home just east of Junction City at Grandview Plaza.   |
| Russell, Russell County                           | 14 2130-2230CST |  |  | 0 | 0 | 3 | 0 | Wind         | A thunderstorm crossed the southern part of Russell County and caused wind gusts of 50 to 60 mph. The Russell Airport measured peak winds at 59 mph at 2146CST and 69 mph at 2220CST. Several trees were blown down but little other damage resulted.   |
| Great Bend, Barton County                         | 19 2345CST      |  |  | 0 | 0 | 5 | 0 | Lightning    | Lightning set fire to a building in downtown Great Bend. The building which housed three businesses was a total loss.   |
| Courtland, Republic County                        | 28 2015CST      |  |  | 0 | 0 | 4 | 0 | Tornado (F0) | A tornado touched down briefly 1.5 miles east of Courtland. The twister ripped apart a pole barn and forced one pole through the roof of a nearby home.   |
| Republic, Washington, Smith and Marshall Counties | 28- Oct 2       |  |  | 0 | 0 | 4 | 4 | Flood        | Thunderstorms dumped 3-6 inches of rain on a small part of north central Kansas and most of south central Nebraska the evening of September 28th and early morning of September 29th. The heavy rain fell in Kansas along the Nebraska border north of a line from Smith Center to Lovewell Reservoir, and also over the northwest half of Republic County. Runoff from the Kansas and especially the Nebraska rains sent the Republican River 1-3 feet above flood stage from the Nebraska border south to Scandia in the evening of September 29th until the evening of October 1st. Runoff from Nebraska also sent the Little Blue River from Nebraska to Blue Rapids 1-2 feet above flood stage from the afternoon of September 29th until the afternoon of October 2nd. Some farm land was flooded but no other damage resulted. |

### SPECIAL HAIL SUMMARY

Kansas-Oklahoma Hail Loss Service reports indicate hail was especially damaging to crops on the following dates in the listed counties.

- 4 Scott, Wallace, Wichita
- 13 Gray

## 15 KENTUCKY

|                  |            |  |  |   |   |   |   |                            |   |
|------------------|------------|--|--|---|---|---|---|----------------------------|---|
| Boyle County     | 12 1500EST |  |  | 0 | 0 | 4 | 0 | Thunderstorm Winds         | A severe thunderstorm with very strong winds ripped a porch off of a Mitchellsburg residence. The storm also damaged metal storage buildings, toppled trees, and lifted shingles of roofs off some homes.                               |
| Lincoln County   | 12 1500EST |  |  | 0 | 0 | 4 | 0 | Thunderstorm Winds         | Very strong thunderstorm winds ripped the top off of a machinery shed and blew a locust tree on top of a house on Tick Ridge Road. A television antenna on top of the same house was knocked down and the front porch severely damaged. |
| Magoffin County  | 12 AFTN    |  |  | 0 | 0 | 2 | 3 | Thunderstorm Winds         | Strong thunderstorm winds downed trees throughout the county and did minor damage to the corn and tobacco crops.  |
| Christian County | 12 1500EST |  |  | 0 | 0 | 3 | 1 | Lightning and Thunderstorm | A severe thunderstorm went through Hopkinsville and downed numerous trees and large limbs. The County Emergency Operations Center sustained some damage from lightning during the storm.  |
| Wayne County     | 14 1530EST |  |  | 0 | 0 | 2 | 0 | Lightning                  | Monticello Independent and Wayne County Schools were dismissed due to a water shortage when two electrical water pumps were hit by lightning. Both the pumps and the panel box caught fire.   |
| Monroe County    | 15 1455EST |  |  | 0 | 0 | 3 | 0 | Lightning                  | A storage building was set on fire apparently having been struck by lightning at Tompkinsville.   |

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

SEPTEMBER 1983

| PLACE                                    | DATE  | TIME - LOCAL STANDARD | LENGTH OF PATH (MILES) | WIDTH OF PATH (YARDS) | NO. OF PERSONS |         |          |       | ESTIMATED DAMAGE |       | CHARACTER OF STORM  |
|--|-------|-----------------------|------------------------|-----------------------|----------------|---------|----------|-------|------------------|-------|---|
|  |       |                       |                        |                       | KILLED         | INJURED | PROPERTY | CROPS | PROPERTY         | CROPS |   |
| <b>— KENTUCKY</b>                        |       |                       |                        |                       |                |         |          |       |                  |       |   |
| Henderson County                         | 19    | ERLY AFTN             |                        |                       | 0              | 0       | 0        | 3     |                  |       | Lightning   |
|  |       |                       |                        |                       |                |         |          |       |                  |       | Winds up to 40 MPH fueled a grass fire ignited by lightning in Henderson County.  |
| Graves County                            | 20    | AFTN                  |                        |                       | 0              | 0       | 1        | 0     |                  |       | Thunderstorm Winds  |
|  |       |                       |                        |                       |                |         |          |       |                  |       | Strong winds tore tents down at a revival service in Hickman.   |
| <b>16 LOUISIANA</b>                      |       |                       |                        |                       |                |         |          |       |                  |       |   |
| Tangipahoa Parish                        | 03    | 1805CST               | 2                      | 200                   | 0              | 0       | 5        | 0     |                  |       | Tornado (FO)  |
|  |       |                       |                        |                       |                |         |          |       |                  |       | A tornado moved from north to south across the western portion of the town of Amite. Considerable roof, tree, and power line damage was noted along a 200 yard path about 2 miles long. There no injuries or deaths. Although the visibility was quite poor due to heavy rain, a funnel was observed briefly by several persons.  |
| St. Charles Parish                       | 04    | 1315CST               |                        |                       |                |         |          |       |                  |       | Waterspout  |
|  |       |                       |                        |                       |                |         |          |       |                  |       | A large waterspout was visible for about 30 minutes on Lake Pontchartrain near the Bonnet Carre Spillway. The estimated diameter of the waterspout was 200 to 300 yards. The waterspout eventually crossed Interstate 10 causing persons driving in that area to panic. Fortunately there were no injuries reported.  |
| Livingston Parish                        | 07    | 0847CST               |                        |                       |                |         |          |       |                  |       | Funnel Clouds   |
|  |       |                       |                        |                       |                |         |          |       |                  |       | A funnel cloud was sighted a few miles northwest of Livingston at 0847 est. Another funnel cloud was sighted by the sheriff dept. over Livingston at 0942 CST. No damage was reported.  |
| LaFourche Parish                         | 18    | 1500CST               |                        |                       |                |         | 4        |       |                  |       | Lightning   |
|  |       |                       |                        |                       |                |         |          |       |                  |       | Lightning struck a community center in the town of Thibodaux. The ensuing fire caused extensive damage to the interior of the building. No injuries were reported.  |
| <b>17 MAINE</b>                          |       |                       |                        |                       |                |         |          |       |                  |       |   |
| Houlton and Carys Mills, Aroostook Cty   | 07    | Morning EST           |                        |                       | 0              | 0       | 3        | 0     |                  |       | Strong Winds  |
|  |       |                       |                        |                       |                |         |          |       |                  |       | Winds estimated between 30 and 35 mph during a half hour rainstorm, toppled a large tree onto a pickup. Several other trees were felled by the winds including one in Carys Mills which fell on a 3400 volt unit causing a complete power failure for one hour.   |
| Kingfield, Franklin County               | 10    | 0210EST               |                        |                       | 0              | 0       | 3        | 0     |                  |       | Strong Winds  |
|  |       |                       |                        |                       |                |         |          |       |                  |       | Winds blew a large tree limb onto power lines causing power outages and a transformer to reportedly shoot fire. The limb also blocked Maple Street in Kingfield.  |
| Township 3, Range 10, Piscataquis County | 10    | 1400EST               |                        |                       | 0              | 0       | 3        | ?     |                  |       | Lightning   |
|  |       |                       |                        |                       |                |         |          |       |                  |       | A lightning strike and dry woods conditions were responsible for a fire near Deer Pond in Baxter State Park. The fire started in a blow down area and burned one quarter acre. The lightning strike actually occurred on the 7th, but the fire smoldered until discovered by air patrol on the 10th.  |
| Camden-Rockport Region Knox County       | 11    | 1400EST               |                        |                       | 0              | 0       | 3        | 0     |                  |       | Lightning   |
|  |       |                       |                        |                       |                |         |          |       |                  |       | In Rockport, lightning struck and split a 40-foot maple tree to its base, traveled 100 feet underground, emerging in a garage wall. The bolt knocked cement from the foundation, broke light bulbs, lifted some clapboards, and blew the electric door opener out of its box. Numerous fire alarms, home burglary and security systems were activated in Camden by lightning.   |
| Southwest of Millinocket, Penobscot Cty  | 15    | 1500EST               |                        |                       | 0              | 0       | 3        | ?     |                  |       | Lightning   |
|  |       |                       |                        |                       |                |         |          |       |                  |       | A lightning strike in a spruce, fir and budworm damaged area burned one quarter acre about 10 miles southwest of Millinocket. This was a potentially dangerous fire because access to the fire was virtually impossible.  |
| Vinalhaven, Knox Cty                     | 19    | 0830EST               |                        |                       | 0              | 0       | 3        | 0     |                  |       | Lightning   |
|  |       |                       |                        |                       |                |         |          |       |                  |       | Lightning struck twice on Vinalhaven Island causing minor fires. One was smoke and television damage at a fish house and the other was to a residence where an electrical fuse was blown from its box onto a couch which caught fire. Power on the island was disrupted for about one hour as lightning hit two transformers.   |
| <b>18 MARYLAND and D.C.</b>              |       |                       |                        |                       |                |         |          |       |                  |       |   |
| Montgomery County & District of Columbia | 12    | 1600-1700EST          |                        |                       | 0              | 0       | 4        | 0     |                  |       | Wind, Lightning   |
|  |       |                       |                        |                       |                |         |          |       |                  |       | Heavy thunderstorms with local wind gusts up to 60 mph surged through the area. The main problem was due to uprooted trees and broken tree limbs..one block in Kensington reporting 9 very large trees down. At about the same time, a small airplane encountered difficulty and made a forced landing in a Montgomery County field. Lightning struck a home in Hillandale, with the attic damaged by the ensuing fire. In addition, nearly 3,000 homes had power outages for a time.                 |
| Worcester County                         | 28-30 |                       |                        |                       | 0              | 0       | 3        | 0     |                  |       | Tropical Storm  |
|  |       |                       |                        |                       |                |         |          |       |                  |       | Tropical Storm "Dean" moved northwestward across the lower Delmarva Peninsula and Chesapeake Bay during the early hours on the 30th. The storm weakened as it made landfall, with maximum wind gusts reported near 50-55 mph. Beaches were the hardest hit, with Ocean City estimating thousands of tons of sand removed..occurring well ahead of the storm as early as the night of the 28th. Erosion was also experienced at Assateague Island. Minor wind damage and light flooding also occurred. |
| Annapolis                                | 30    | 1000EST               |                        |                       | 0              | 0       | 3        | 0     |                  |       | Lightning   |
|  |       |                       |                        |                       |                |         |          |       |                  |       | Lightning struck near a newspaper building. The resulting power surge entered the building and damaged the printing press.  |
| <b>19 MASSACHUSETTS</b>                  |       |                       |                        |                       |                |         |          |       |                  |       |   |
| Statewide                                | 22    | Early Morning         |                        |                       | 0              | 0       | 3        | 0     |                  |       | Gusty Winds   |
|  |       |                       |                        |                       |                |         |          |       |                  |       | Scattered power failures were reported across the state. In Chicopee, tree limbs and even a tree fell on a couple of autos causing extensive damage.  |
| <b>20 MICHIGAN</b>                       |       |                       |                        |                       |                |         |          |       |                  |       |   |
| Riverton Township, Mason County          | 05    | 1915-1930EST          |                        |                       | 0              | 0       | 4        | 0     |                  |       | Thunderstorm  |
|  |       |                       |                        |                       |                |         |          |       |                  |       | Barn and metal out-building destroyed by wind. Several trees down. Chicken house destroyed by lightning fire.   |
| Straits of Mackinac                      | 06    | 1750EST               |                        |                       | 0              | 0       | 0        | 0     |                  |       | Waterspout  |
|  |       |                       |                        |                       |                |         |          |       |                  |       | Sighted to west from Mackinac Bridge by trucker and police patrol.  |
| Muskegon, Muskegon County                | 17    |                       |                        |                       | 2              | 0       | 0        | 0     |                  |       | Wind and Waves  |
|  |       |                       |                        |                       |                |         |          |       |                  |       | Two fishermen swept off breakwater and drowned in Lake Michigan.  |
| Battle Creek, Calhoun County             | 18    | 2200EST               |                        |                       | 0              | 0       | 5        | 0     |                  |       | Lightning   |
|  |       |                       |                        |                       |                |         |          |       |                  |       | Airport hangar burned, destroying 7 aircraft, 3 trucks, and a 52-foot sailboat.   |
| Burton, Genesee County                   | 19    | early morning         |                        |                       | 0              | 0       | 5        | 0     |                  |       | Lightning   |
|  |       |                       |                        |                       |                |         |          |       |                  |       | Store and contents burned.  |
| <b>21 MINNESOTA</b>                      |       |                       |                        |                       |                |         |          |       |                  |       |   |
| Roseau County                            | 8     | 1415 CST              |                        |                       | 0              | 0       | 0        | 0     |                  |       | Hail  |
|  |       |                       |                        |                       |                |         |          |       |                  |       | Golfball size hail reported just south of Roseau.   |
| Koochiching County                       | 8     | 1525 CST              |                        |                       | 0              | 0       | 0        | 0     |                  |       | Wind  |
|  |       |                       |                        |                       |                |         |          |       |                  |       | 70-75 mph wind reported at Lake of the Woods.   |
| Koochiching County                       | 8     | 1900-2030CST          |                        |                       | 0              | 0       | 4        | 0     |                  |       | Hail  |
|  |       |                       |                        |                       |                |         |          |       |                  |       | Hail accompanied by heavy rain fell over Koochiching County. Damaging hail from 3/4 to 1-1/4 inch in diameter was reported in International Falls and on Highway 11 west of International Falls.  |

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

SEPTEMBER 1983

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

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

| MINNESOTA   |    |              |       |      |   |   |   |   |   |            |
|---|----|--------------|-------|------|---|---|---|---|---|------------|
| West Central and Central  | 8  | 1930-2330CST |       | 0    | 0 | 5 | ? | ? | ? | Wind       |
| <p>Thunderstorms moved from the South Dakota border east through Lac Qui Parle, Yellow Medicine, Swift, Chippewa, Kandiyohi, Stearns and Meeker Counties. Numerous power outages occurred due to falling trees. Several barns were damaged near Dawson in Lac Qui Parle County. Winds were recorded at 75 mph at radio station KQIC in Willmar. Winds of 75 mph were also measured at the airport in Litchfield. A machine shed and silage box were blown over at a farm site 6 miles north of Litchfield. A cattle shed was heavily damaged southwest of Watertown. The wind knocked down five power poles near Kingston in eastern Meeker County. The wind also damaged some crops making harvest difficult.</p>  |    |              |       |      |   |   |   |   |   |            |
| Koochiching County  | 8  | 2010-2046CST |       | 0    | 0 | 0 | 0 | 0 | 0 | Wind       |
| <p>Strong winds knocked down trees across Highway 71, 10 miles southwest of Little Fork.</p>  |    |              |       |      |   |   |   |   |   |            |
| Lake of the Woods (Lake of the Woods County)  | 8  | 2035CST      |       | 0    | 0 | 0 | 0 | 0 | 0 | Funnels    |
| <p>Three funnel clouds were observed over Lake of the Woods.</p>  |    |              |       |      |   |   |   |   |   |            |
| St. Louis County  | 8  | 2130CST      |       | 1    | 0 | 0 | 0 | 0 | 0 | Wind       |
| <p>A man was killed in the Boundary Waters Canoe Area while camping when a tree fell on his tent. The incident occurred 25 miles north of Ely off Echo Trail on Lake Agnes.</p>   |    |              |       |      |   |   |   |   |   |            |
| St. Louis County  | 9  | 0003CST      |       | 0    | 0 | 0 | 0 | 0 | 0 | Wind       |
| <p>Strong winds knocked down trees at Palo just south of Aurora.</p>  |    |              |       |      |   |   |   |   |   |            |
| Willmar (Kandiyohi County)  | 9  | 0030CST      |       | 0    | 1 | 0 | 0 | 0 | 0 | Lightning  |
| <p>A utility worker was struck by lightning while repairing downed power lines. Lightning struck two blocks away and traveled through the power line to the utility worker.</p>   |    |              |       |      |   |   |   |   |   |            |
| West Central and Central  | 10 | 0000-0530CST |       | 1    | 2 | 6 | ? | ? | ? | Wind       |
| <p>Numerous thunderstorms over west central and central Minnesota produced violent winds. The winds were often described as roaring and so loud that falling trees and debris could not be heard above the noise. Wind damage was widespread from Lac Qui Parle County east to Sherburne County. Roofs were torn off, mobile homes damaged and power in many areas was disrupted. The wind flattened some crops and damaged others to the extent of making harvest difficult. The heaviest damage occurred through Kandiyohi County and around Paynesville. A falling tree hit a travel trailer killing a woman in Kandiyohi County at a campsite on the west shore of Diamond Lake. Two mobile homes, a barn and a garage were destroyed near New London and at Spicer a car was found blown into a slough. A man was injured in Raymond where a mobile home was destroyed and several others damaged. A poultry farm in Kandiyohi County lost two barns and 25,000 turkeys and sustained \$190,000 in damages. In Paynesville 20 homes were damaged and power was knocked out to a 40 square mile area after 9 utility poles were blown over. A hospital in Paynesville had to evacuate patients when it received wind damage and the roof of the high school was also damaged. High winds blew the top off a water tower in Cold Spring and a girl was injured by flying glass north of Eden Valley.</p> |    |              |       |      |   |   |   |   |   |            |
| Lake of the Woods (Lake of the Woods County)  | 12 | 0800-0930CST |       | 0    | 0 | 0 | 0 | 0 | 0 | Funnels    |
| <p>Ten funnel clouds were observed over Lake of the Woods between Morris Point and Wheelers Point.</p>  |    |              |       |      |   |   |   |   |   |            |
| Lake of the Woods (Lake of the Woods County)  | 12 | 0845CST      | 0-0.5 | 0-20 | 0 | 0 | 0 | 0 | 0 | Waterspout |
| <p>A funnel cloud touched down on Lake of the Woods just north of Morris Point Resort. The water spout was observed by two people who saw the funnel draw water from the lake.</p>  |    |              |       |      |   |   |   |   |   |            |
| Lake of the Woods (Lake of the Woods County)  | 12 | 0845-0930CST | 0-0.5 | 0-20 | 0 | 0 | 0 | 0 | 0 | Waterspout |
| <p>A funnel cloud touched down on Lake of the Woods just northeast of Morris Point Resort along Pine Island.</p>  |    |              |       |      |   |   |   |   |   |            |

22 MISSISSIPPI ————— NONE REPORTED

| 23 MISSOURI   |       |                                  |  |   |   |   |   |   |   |                         |
|---|-------|----------------------------------|--|---|---|---|---|---|---|-------------------------|
| Wright  | 6     | 2100CST                          |  | 0 | 0 | 3 | 0 | 0 | 0 | Damaging Wind           |
| <p>Severe thunderstorm with damaging wind did scattered minor damage to Grove Spring.</p>   |       |                                  |  |   |   |   |   |   |   |                         |
| Jasper  | 7     | 0155CST                          |  | 0 | 0 | 0 | 0 | 0 | 0 | High Wind               |
| <p>Severe thunderstorm produced a gust to 63 mph at the Joplin Airport.</p>   |       |                                  |  |   |   |   |   |   |   |                         |
| 24 MONTANA  |       |                                  |  |   |   |   |   |   |   |                         |
| Southwest and South Central   | 18-   | From AM                          |  | 0 | 0 | 5 | 4 | 4 | 4 | Heavy Snow              |
| <p>19 on 18th to AM on 19th</p> <p>Six to eighteen inches of snow fell over much of the southwest and south central causing widespread damage to trees and downing power lines. Heaviest accumulations were in Lewis &amp; Clark, Sweetgrass, Stillwater, Meagher, Golden Valley, Musselshell and Yellowstone counties.</p> |       |                                  |  |   |   |   |   |   |   |                         |
| 25 NEBRASKA   |       |                                  |  |   |   |   |   |   |   |                         |
| Keith, Perkins, and Lincoln Counties  | 02-03 | 2000CST -0000CST                 |  | 0 | 0 | 3 | 0 | 0 | 0 | Lightning               |
| <p>Frequent lightning touched off numerous grass fires. Three head of cattle were also struck and killed by lightning on open range 3 miles north of Wallace.</p>   |       |                                  |  |   |   |   |   |   |   |                         |
| Scottsbluff County  | 03    | 1710CST                          |  | 0 | 0 | ? | 5 | 5 | 5 | Damaging Winds and Hail |
| <p>One and a half inch hail and high winds caused considerable crop damage in west and north part of county.</p>  |       |                                  |  |   |   |   |   |   |   |                         |
| Box Butte County  | 03    | 1820CST                          |  | 0 | 0 | 0 | 3 | 3 | 3 | Hail                    |
| <p>Half inch hail and high winds caused some crop damage west of Alliance.</p>  |       |                                  |  |   |   |   |   |   |   |                         |
| Wayne County  | 05    | 1400CST -1500CST                 |  | 0 | 0 | 3 | 4 | 4 | 4 | Hail                    |
| <p>Hail to around 1 inch damaged crops and some farm buildings across the south portion of the county.</p>  |       |                                  |  |   |   |   |   |   |   |                         |
| Cuming County   | 05    | 1545CST -1630CST                 |  | 0 | 0 | 5 | 5 | 5 | 5 | Hail                    |
| <p>Three inch hail was reported 7 miles northeast of Wisner, 1 1/2 inch hail was reported 9 1/2 miles north of West Point and at Bancroft. Crop damage, numerous broken windows, siding and roof damage to buildings and dented vehicles were reported from the wind driven hail.</p>                                       |       |                                  |  |   |   |   |   |   |   |                         |
| Washington and Douglas counties   | 06    | 0220CST -0250CST                 |  | 0 | 0 | 3 | 0 | 0 | 0 | Hail and Damaging Winds |
| <p>A few hailstones to 1 1/2 inches were reported at Blair and the northeast side of Omaha resulting in minor roof damage. Winds estimated 45 to 55 m.p.h. with the storm blew down a large exposition tent at the Omaha Septemberfest grounds.</p>   |       |                                  |  |   |   |   |   |   |   |                         |
| Clay County   | 12    | 0009CST                          |  | 0 | 0 | 0 | ? | ? | ? | Hail                    |
| <p>Three-quarter inch hail fell 4 miles west and 2 miles north of Sutton. No damage was reported.</p>   |       |                                  |  |   |   |   |   |   |   |                         |
| McPherson County  | 19    | Afternoon -20 thru Early Morning |  | 0 | 0 | 0 | 0 | 0 | 0 | Snow                    |
| <p>Early snow fell in north central and panhandle areas of Nebraska after a strong cold front. Five inches of snow was reported by a rancher 14 miles west of Tryon.</p>  |       |                                  |  |   |   |   |   |   |   |                         |
| Douglas County  | 19    | 1910CST                          |  | 0 | 0 | 3 | 0 | 0 | 0 | Damaging Winds          |
| <p>Thunderstorm winds broke a few tree limbs, which damaged some power lines in Omaha.</p>  |       |                                  |  |   |   |   |   |   |   |                         |
| Cuming County   | 21    | 1500CST                          |  | 0 | 0 | 3 | 0 | 0 | 0 | Lightning               |
| <p>Lightning struck and killed 5 head of cattle on a farm southwest of Wisner.</p>  |       |                                  |  |   |   |   |   |   |   |                         |
| Cherry County   | 27    | 1730CST                          |  | 0 | 0 | ? | ? | ? | ? | Lightning               |
| <p>Lightning was the cause of several range fires south of Valentine.</p>   |       |                                  |  |   |   |   |   |   |   |                         |
| Lancaster County  | 28    | 1340CST                          |  | 0 | 0 | 4 | 0 | 0 | 0 | Lightning               |
| <p>Fire started by lightning heavily damaged a home in Lincoln.</p>   |       |                                  |  |   |   |   |   |   |   |                         |
| Douglas County  | 28    | 1725CST                          |  | 0 | 0 | 4 | 0 | 0 | 0 | Lightning               |
| <p>Lightning struck a home in west Omaha resulting in a fire which caused extensive damage. The lightning blasted a hole the size of a basketball in the roof.</p>  |       |                                  |  |   |   |   |   |   |   |                         |
| Thayer County   | 28    | 1740CST                          |  | 0 | 0 | 5 | 0 | 0 | 0 | Damaging Winds          |
| <p>Strong thunderstorm winds damaged livestock sheds, grain bins, barn roofs, shingles and fencing on two farms in the vicinity of Deshler.</p>   |       |                                  |  |   |   |   |   |   |   |                         |

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

SEPTEMBER 1983

| PLACE   | DATE  | TIME - LOCAL STANDARD | LENGTH OF PATH (MILES)   | WIDTH OF PATH (YARDS) | NO. OF PERSONS |         | ESTIMATED <sup>1</sup> DAMAGE |       | CHARACTER OF STORM      |
|---|-------|-----------------------|--|-----------------------|----------------|---------|-------------------------------|-------|-------------------------|
|   |       |                       |  |                       | KILLED         | INJURED | PROPERTY                      | CROPS |                         |
| <b>NEBRASKA</b>   |       |                       |  |                       |                |         |                               |       |                         |
| Fillmore, Saline, Franklin, Webster, Nuckolls, Thayer, and Jefferson Counties   | 28    | 1900CST               |  |                       | 0              | 0       | 5                             | 5     | Flash Flooding          |
|   | 29    | -0300CST              | Widespread heavy rain of 3½ to 6 inches fell south and west of a line from the Harlan County Reservoir to near Seward to Crete to Hubbell. Pockets of heavier rain of 6 to 8 inches fell inside this area in a band from Red Cloud to Tobias. Considerable lowland flooding occurred including the Little Blue River and its tributaries and the Republican River and its tributaries east of the Harlan County Dam. Considerable damage was reported to crops along with severe farmland erosion and small farm dam washouts. A number of county roads and bridges were washed out or submerged and some homes and buildings flooded. |                       |                |         |                               |       |                         |
| <b>26 NEVADA</b>  |       |                       |  |                       |                |         |                               |       |                         |
| North Las Vegas   | 27    | 1200PST               |  |                       | 0              | 0       | 0                             | 0     | Hail                    |
|   |       |                       | ¾ inch hail was observed at the DOE.   |                       |                |         |                               |       |                         |
| North Las Vegas   | 27    | 1230PST               |  |                       |                |         |                               |       | Funnel Clouds           |
|   |       |                       | Two funnel clouds were reported by DOE personnel/observers.  |                       |                |         |                               |       |                         |
| <b>27 NEW HAMPSHIRE</b>   |       |                       |  |                       |                |         |                               |       |                         |
| Bristol, Grafton Cty  | 21    | 1300EST               |  |                       | 0              | 0       | 3                             | 0     | Strong winds            |
|   |       |                       | In Bristol, strong southerly winds ahead of an approaching cold front, snapped a large old tree at its base. The tree landed on and damaged three vehicles. WSD Concord reported a peak gust of 35 mph at 2:47pm EST.  |                       |                |         |                               |       |                         |
| <b>28 NEW JERSEY</b>  |       |                       |  |                       |                |         |                               |       |                         |
| New Jersey Coast  | 30    | 0030 to 1800EST       |  |                       | 0              | 0       | ?                             | 0     | Heavy Rain and Flooding |
|   |       |                       | The northern edge of Tropical Storm DEAN caused flooding which created traffic tieups on major arteries, knocked out power lines and created a number of commuting problems.   |                       |                |         |                               |       |                         |
| <b>29 NEW MEXICO</b>  |       |                       |  |                       |                |         |                               |       |                         |
| Artesia, Eddy County  | 1     | 1750MST               |  |                       | 0              | 0       | 5                             | 0     | Tornado (F0)            |
|   |       |                       | A tornado touched down in Artesia causing about \$100,000 in damages to the South-First Street area.   |                       |                |         |                               |       |                         |
| Logan, Quay County  | 25    | 1500MST               |  |                       | 1              | 0       | 0                             | 0     | Lightning               |
|   |       |                       | One man was killed when struck by lightning while fighting a prairie fire.   |                       |                |         |                               |       |                         |
| <b>30 NEW YORK, Coastal</b>   |       |                       |  |                       |                |         |                               |       |                         |
| Extreme SE Nassau Co., Suffolk Co., New York City, and Westchester  | 30    | 0030 to 1730 EST      |  |                       | 0              | 0       | ?                             | 0     | Heavy Rain and Flooding |
|   |       |                       | The northern edge of Tropical Storm Dean moved erratically toward the Eastern Seaboard with torrential rain and flooding. Heavy downpours of rain soaked area highways with over two inches of rainfall in less than 24 hours. Motorists and commuters were faced with flooded roadways and delayed trains.  |                       |                |         |                               |       |                         |
| <b>30 NEW YORK, Central</b>   |       |                       |  |                       |                |         |                               |       |                         |
| Broome & Cortland Counties  | 14    | 2030EST               |  |                       | 0              | 0       | 2                             | 0     | Thunderstorm            |
|   |       |                       | Some minor basement flooding was reported throughout both counties as the result of some isolated, heavy thunderstorms. The maximum wind gust at Binghamton WSO was 30 mph. Some power lines fell along with a few small tree limbs.   |                       |                |         |                               |       |                         |
| Vestal, Broome County   | 19    | 1315EST               |  |                       | 0              | 0       | 0                             | 0     | Record Heat             |
|   |       |                       | At 1315EST a new record high of 89°F was set. The old record was 84°F set in 1955.   |                       |                |         |                               |       |                         |
| Vestal, Broome County   | 19    | 1700EST               |  |                       | 0              | 0       | 0                             | 0     | Thunderstorm            |
|   |       |                       | Thunderstorms brought heavy rain to the Vestal-Johnson City area. The rain produced local urban flooding. The thunderstorms were the result of record high temperatures and a cold front which moved into the area. Wind reached 35 mph during the storm.  |                       |                |         |                               |       |                         |
| Troy, Rensselaer County   | 21    | 1700EST               |  |                       | 0              | 0       | 0                             | 0     | Thunderstorm            |
|   |       |                       | Thunderstorms crossed through Troy bringing minor flooding and downed power lines. No major damage was reported.   |                       |                |         |                               |       |                         |
| <b>30 NEW YORK, Western</b>   |       |                       |  |                       |                |         |                               |       |                         |
| Niagara Falls, Niagara County; Batavia, Genesee County; Buffalo, Gowanda, W. Seneca & other parts of Erie County; & parts of Cattaraugus County | 06    | Evening               |  |                       | 0              | 1       | 4                             | 0     | Wind & Lightning        |
|   |       |                       | A heavy thunderstorm with lightning and damaging winds toppled tall trees and ruptured power lines. Fallen trees smashed a few cars. An occupant of a car was injured.   |                       |                |         |                               |       |                         |
| Syracuse, Onondaga County; Rochester and other parts of Monroe County; parts of Ontario & Orleans Counties.                                     | 19    | Evening               |  |                       | 0              | 0       | 4                             | 0     | Wind, Rain & Lightning  |
|   |       |                       | A thunderstorm with strong winds severed telephone lines in Greece, Spencerport, and Rochester in Monroe County. Nearby Orleans County had power lines downed.   |                       |                |         |                               |       |                         |
|   |       |                       | In Ontario County, fire trucks were dispatched to several points where transformers were struck by lightning.  |                       |                |         |                               |       |                         |
|   |       |                       | Syracuse and neighboring communities had some trees felled and power lines cut by the wind. Heavy rains caused flooding at a construction site along Interstate 81. A few houses were damaged slightly by lightning.   |                       |                |         |                               |       |                         |
| Watertown & Ellisburg, Jefferson County   | 22    | 1730EST               |  |                       | 0              | 0       | 3                             | 0     | Lightning               |
|   |       |                       | Lightning bolts struck utility poles and a few houses. Windows were smashed and television sets exploded.  |                       |                |         |                               |       |                         |
| Portland & Sinclairville, Chautauqua County   | 23    | Morning               |  |                       | 0              | 0       | 4                             | 0     | Lightning & Rain        |
|   |       |                       | In Portland, heavy rains flooded a few basements and washed out a bridge on Ellicott Road, near the intersection of Route 380.   |                       |                |         |                               |       |                         |
|   |       |                       | In Sinclairville, a lightning bolt struck a utility pole and rendered 10 homes without power for 2 and 1/2 hours.  |                       |                |         |                               |       |                         |
| <b>31 NORTH CAROLINA</b>  |       |                       |  |                       |                |         |                               |       |                         |
| St. Bethel, Columbus County   | 12    | 1330EST               |  |                       | 1              | 0       | 0                             | 0     | Lightning               |
|   |       |                       | A 47 year old farmer was struck and killed by lightning while walking to his barns in this small community just north of Whiteville.   |                       |                |         |                               |       |                         |
| Richlands, Onslow County  | 12    | 1440EST               |  |                       | 0              | 0       | 4                             | 0     | Thunderstorm            |
|   |       |                       | A severe thunderstorm moved through the Albert Ellis Airport accompanied by 70 mph winds which destroyed a small airplane valued at \$40,000. The winds also slightly damaged the baggage claim building at the airport.   |                       |                |         |                               |       |                         |
| Outer Banks   | 29-30 |                       |  |                       | 0              | 0       | ?                             | 0     | Tropical Storm          |
|   |       |                       | Moving northwestward, Tropical Storm Dean passed off the Outer Banks producing 45 mph winds and 6 to 10 foot waves, which resulted in minor beach erosion. Most areas lost between 1 and 3 feet of beach; however, some isolated areas lost up to 20 feet. Overwash from the storm resulted in the temporary closing of Highway 12 as a foot of water covered the road. Damage from the storm was very minor, limited to isolated power outages.   |                       |                |         |                               |       |                         |



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

SEPTEMBER 1983

| PLACE  | DATE | TIME - LOCAL STANDARD | LENGTH OF PATH (MILES) | WIDTH OF PATH (YARDS) | NO. OF PERSONS |         | ESTIMATED DAMAGE |       | CHARACTER OF STORM                 |
|--|------|-----------------------|------------------------|-----------------------|----------------|---------|------------------|-------|------------------------------------|
|  |      |                       |                        |                       | KILLED         | INJURED | PROPERTY         | CROPS |                                    |
| <b>32 NORTH DAKOTA</b>   |      |                       |                        |                       |                |         |                  |       |                                    |
| Fingal (Barnes County)   | 01   | 1810CST - 1900CST     |                        |                       | 0              | 0       | 4                | 5     | Thunderstorm Winds Hail            |
| Egg to baseball sized hail severely damaged crops along a path 14 miles long and 5 miles wide in the Fingal area. Strong thunderstorm winds destroyed a steel bin and barn, and uprooted trees.  |      |                       |                        |                       |                |         |                  |       |                                    |
| Enderlin (Ransom County)   | 01   | 1900CST               |                        |                       | 0              | 0       | 0                | 0     | Hail                               |
| Hail up 3/4 inch occurred. No damage was reported.   |      |                       |                        |                       |                |         |                  |       |                                    |
| Hatton (Traill County)   | 02   | 1800CST               |                        |                       | 0              | 0       | 4                | 0     | Thunderstorm Winds                 |
| Strong thunderstorm winds blew over trees, and ripped siding from a mobile home.   |      |                       |                        |                       |                |         |                  |       |                                    |
| Valley City 20NW (Barnes County)   | 02   | 1600CST               |                        |                       | 0              | 0       | 4                | 0     | Thunderstorm Winds                 |
| Strong thunderstorm winds destroyed a pole barn.   |      |                       |                        |                       |                |         |                  |       |                                    |
| Cooperstown (Griggs County)  | 05   | 1345CST               |                        |                       |                |         |                  |       | Funnel                             |
| Southwest  | 07   | Night                 |                        |                       | 0              | 0       | 4                | 0     | Lightning                          |
| Grass fires, started by lightning, burned over 1000 acres of grassland.  |      |                       |                        |                       |                |         |                  |       |                                    |
| Rolette (Rolette County)   | 27   | Evening               |                        |                       | 0              | 2       | 0                | 0     | Lightning                          |
| Lightning struck near a football field during a game and knocked several people to the ground and stunned several other people. Two toddlers, who were playing under an aluminum bleacher on the field, were taken to the hospital after the lightning struck. Neither of the toddlers was seriously injured.  |      |                       |                        |                       |                |         |                  |       |                                    |
| <b>33 OHIO</b>   |      |                       |                        |                       |                |         |                  |       |                                    |
| Napoleon, Henry County   | 06   | 1600EST               |                        |                       | 0              | 0       | 5                | 0     | High Wind and Lightning            |
| A thunderstorm produced winds to 60 mph and several lightning strikes that started fires. The high winds downed trees and lines and caused damage to several buildings.  |      |                       |                        |                       |                |         |                  |       |                                    |
| Ottoville, Putnam County   | 06   | 1604EST               |                        |                       | 0              | 1       | 5                | 0     | High Wind                          |
| A thunderstorm crossed the county downing trees and lines and damaging structures. The heaviest damage occurred 3 miles east of Ottoville where the high winds struck a mobile home park destroying one mobile home and damaging 8 others. One resident of the park suffered minor injuries.   |      |                       |                        |                       |                |         |                  |       |                                    |
| Bowling Green, Wood County   | 06   | 1615EST               |                        |                       | 0              | 0       | 5                | 0     | High Wind and Lightning            |
| Severe thunderstorms in the county did considerable damage to trees, lines and buildings. Most of the city of Bowling Green was without electricity for several hours. Several homes had roof and window damage and barns were blown down. Lightning strikes started several fires. Over \$150,000 damage was done to electric company equipment in Bowling Green alone. |      |                       |                        |                       |                |         |                  |       |                                    |
| Sandusky County  | 06   | 1640EST               |                        |                       | 0              | 0       | 5                | 0     | High Wind and Lightning            |
| Thunderstorms moved through the county producing winds up to 75 mph and several lightning strikes. Damage to buildings and trees was especially high in Fremont, Woodville and Gibsonburg.   |      |                       |                        |                       |                |         |                  |       |                                    |
| Seneca County  | 06   | 1645EST               |                        |                       | 0              | 0       | 5                | 0     | High Wind                          |
| A thunderstorm crossed the county producing winds up to 60 mph. Trees were downed and buildings damaged in Clyde and Tiffin.   |      |                       |                        |                       |                |         |                  |       |                                    |
| Erie and Huron Counties  | 06   | 1648-1720EST          |                        |                       | 0              | 0       | 4                | 0     | High Wind and Lightning            |
| Severe thunderstorms passed across these counties downing trees and lines, damaging buildings and causing several lightning strikes. The most significant damage occurred in Norwalk where an ice cream stand was destroyed and in Sandusky where several trees were downed, buildings damaged and much of the town left without electricity for several hours.          |      |                       |                        |                       |                |         |                  |       |                                    |
| <b>OHIO</b>  |      |                       |                        |                       |                |         |                  |       |                                    |
| Lorain County  | 06   | 1720EST               |                        |                       | 0              | 1       | 5                | 0     | High Wind and Lightning            |
| A severe thunderstorm moved through the northern half of this county. High winds downed trees and lines and damaged buildings in several communities. A lightning strike started a fire in a dormitory at a college in Oberlin.  |      |                       |                        |                       |                |         |                  |       |                                    |
| Cuyahoga County  | 06   | 1740EST               |                        |                       | 0              | 1       | 4                | 0     | High Wind                          |
| Thunderstorms with damaging winds passed across the county. The heaviest damage occurred in the eastern suburbs of Cleveland. Several homes were damaged in Cleveland Hts. A Cleveland Hts man was pinned under a fallen tree and slightly injured.  |      |                       |                        |                       |                |         |                  |       |                                    |
| Medina County  | 06   | 1805EST               |                        |                       | 0              | 0       | 4                | 0     | High Wind                          |
| A thunderstorm produced damaging winds in a small area in the northern part of the county near Brunswick. The winds toppled a camper trailer and did damage to a garage.   |      |                       |                        |                       |                |         |                  |       |                                    |
| Lake County  | 06   | 1809EST               |                        |                       | 0              | 0       | 4                | 0     | High Wind and Lightning            |
| Thunderstorms produced winds of 60 mph and several lightning strikes. Trees and lines were downed and the lightning strikes started several fires. Damage was especially heavy in Willoughby at 1809EST and Mentor at 1815EST.   |      |                       |                        |                       |                |         |                  |       |                                    |
| Trumbull County  | 06   | 1858EST               |                        |                       | 0              | 0       | 4                | 0     | High Wind                          |
| Thunderstorm winds reaches 62 mph and downed trees and lines near the Youngstown airport. Some buildings sustained damage in the Kinsman area.   |      |                       |                        |                       |                |         |                  |       |                                    |
| Ashtabula County   | 06   | 1908EST               |                        |                       | 0              | 0       | 4                | 0     | High Wind                          |
| Thunderstorm winds downed trees and lines and caused minor structural damage in several parts of the county.   |      |                       |                        |                       |                |         |                  |       |                                    |
| Summit County  | 06   | 1915EST               |                        |                       | 0              | 0       | 4                | 0     | High Wind                          |
| Thunderstorm winds downed trees and lines and did minor structural damage in Twinsburg and Sagamore Hills. Several thousand people were with electricity for a time at the height of the storm.  |      |                       |                        |                       |                |         |                  |       |                                    |
| Entire State   |      |                       |                        |                       | 0              | 0       | 8 <sup>0</sup>   | 8     | Lack of Rain and High Temperatures |
| A widespread lack of rain during the summer months and unusually high temperatures caused farmers in all areas of the state to lose 30 to 50 percent of their crops. Most areas of the state applied for federal disaster assistance. Several counties reported crop losses in excess of 15 million dollars.   |      |                       |                        |                       |                |         |                  |       |                                    |
| <b>34 OKLAHOMA</b>   |      |                       |                        |                       |                |         |                  |       |                                    |
| Seiling, Dewey County  | 04   | evening               |                        |                       | 0              | 0       | ?                | ?     | Lightning                          |
| Lightning caused a grass fire which burned 450 acres of grassland.   |      |                       |                        |                       |                |         |                  |       |                                    |
| Boise City, Cimarron County  | 04   | evening               |                        |                       | 0              | 0       | ?                | ?     | Lightning                          |
| Lightning caused a grassfire which burned several thousand acres 17 miles south of Boise City.   |      |                       |                        |                       |                |         |                  |       |                                    |
| Braman, Kay County   | 06   | 1848 est              |                        |                       | 0              | 0       | ?                | ?     | Hail                               |
| Golfball size hail covered the ground.   |      |                       |                        |                       |                |         |                  |       |                                    |
| Waynoka, Woods County  | 06   | 1904 est              |                        |                       | 0              | 0       | ?                | ?     | Hail                               |
| Hail the size of hens eggs covered the ground 3 miles west and 1 mile south of Waynoka.  |      |                       |                        |                       |                |         |                  |       |                                    |
| Blackwell, Kay County  | 06   | 1915 est              |                        |                       | 0              | 0       | ?                | ?     | Hail                               |
| Golfball size hail fell along with 50 to 55 mph winds.   |      |                       |                        |                       |                |         |                  |       |                                    |
| Braman, Kay County   | 06   | 1945 est              |                        |                       | 0              | 0       | ?                | ?     | Hail                               |
| Golfball size hail fell just north of Braman.  |      |                       |                        |                       |                |         |                  |       |                                    |

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

SEPTEMBER 1983

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

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

## OKLAHOMA

|  |         |     |  |  |   |   |   |   |              |
|--|---------|-----|--|--|---|---|---|---|--------------|
| Waynoka, Woods County  | 06 1945 | cat |  |  | 0 | 0 | ? | ? | Hail         |
| One inch size hail 2 to 4 miles south of Waynoka.  |         |     |  |  |   |   |   |   |              |
| Hardin, Key County   | 06 1946 | cat |  |  | 0 | 0 | ? | ? | Hail         |
| 3/4 inch hail fell.  |         |     |  |  |   |   |   |   |              |
| Woodward, Woodward County  | 06 1950 | cat |  |  | 0 | 0 | ? | ? | Hail         |
| 3/4 inch hail fell 6 miles south of Woodward.  |         |     |  |  |   |   |   |   |              |
| Blackwell, Key County  | 06 1950 | cat |  |  | 0 | 0 | ? | ? | Hail         |
| Hail the size of a dime and strong winds occurred, several power lines and tree limbs downed by the wind. Very heavy rain caused street flooding.                                |         |     |  |  |   |   |   |   |              |
| Woodward, Woodward County  | 06 2015 | cat |  |  | 0 | 0 | 4 | ? | Wind         |
| Winds gusting to near 100 mph lifted a roof from a barn and set it on a nearby house. Storm occurred 7 miles west and 3 1/4 miles south of Woodward. Damage to barn was \$6,000. |         |     |  |  |   |   |   |   |              |
| Helena, Alfalfa County   | 06 2030 | cat |  |  | 0 | 0 | ? | ? | Hail         |
| 3/4 inch hail fell 2 miles west of Helena.   |         |     |  |  |   |   |   |   |              |
| Woodward, Woodward County  | 06 2038 | cat |  |  | 0 | 0 | ? | ? | Hail         |
| 3/4 inch hail fell 5 miles south of Woodward.  |         |     |  |  |   |   |   |   |              |
| Ringwood, Major County   | 06 2100 | cat |  |  | 0 | 0 | ? | ? | Hail         |
| 1 inch size hail fell 4 miles south of Ringwood.   |         |     |  |  |   |   |   |   |              |
| Tecumseh, Pottawatomie Co.   | 15 1505 | cat |  |  | 0 | 0 | ? | ? | Hail         |
| 3/4 inch hail fell. Strong winds also downed a few power lines.  |         |     |  |  |   |   |   |   |              |
| Wewoka, Seminole County  | 15 1530 | cat |  |  | 0 | 0 | ? | ? | Hail         |
| 3/4 to 1 inch hail fell.   |         |     |  |  |   |   |   |   |              |
| Wewoka, Seminole, Seminole County  | 15 1545 | cat |  |  | 0 | 0 | ? | ? | Funnel cloud |
| Two funnel clouds were reported between Wewoka and Seminole.   |         |     |  |  |   |   |   |   |              |
| Calvin, Hughes County  | 15 1630 | cat |  |  | 0 | 0 | ? | ? | Wind         |
| Strong winds uprooted several large trees.   |         |     |  |  |   |   |   |   |              |
| Konawa, Seminole County  | 15 1702 | cat |  |  | 0 | 0 | ? | ? | Hail         |
| 3/4 inch hail fell.  |         |     |  |  |   |   |   |   |              |
| Konawa, Seminole County  | 15 1715 | cat |  |  | 0 | 0 | ? | ? | Hail         |
| 1 and 1/4 inch hail fell along with 50 mph winds.  |         |     |  |  |   |   |   |   |              |
| Kiowa, Pittsburg County  | 15 1715 | cat |  |  | 0 | 0 | ? | ? | Wind         |
| Strong winds tore roof from a barn and blew several small structures down.   |         |     |  |  |   |   |   |   |              |
| Ada, Pontotoc County   | 15 1743 | cat |  |  | 0 | 0 | ? | ? | Hail         |
| Golfball size hail fell just northeast of Ada.   |         |     |  |  |   |   |   |   |              |
| Noble, Cleveland County  | 15 1945 | cat |  |  | 0 | 0 | ? | ? | Hail         |
| 3/4 inch hail fell.  |         |     |  |  |   |   |   |   |              |
| Pauls Valley, Garvin County  | 15 2050 | cat |  |  | 0 | 0 | ? | ? | Wind         |
| Winds recorded at 76 mph downed a radio station tower, and flipped several mobile homes. The wind also caused a dump truck to overturn on interstate.                            |         |     |  |  |   |   |   |   |              |

## OKLAHOMA

|   |            |     |  |  |   |   |   |   |           |
|---|------------|-----|--|--|---|---|---|---|-----------|
| Bowlegs, Seminole County  | 15 2100    | cat |  |  | 0 | 0 | ? | ? | Lightning |
| Lightning struck a mobile home causing fire which gutted the mobile home.   |            |     |  |  |   |   |   |   |           |
| Holdenville, Hughes County  | 15 evening |     |  |  | 0 | 0 | ? | ? | Lightning |
| Lightning caused fire which destroyed a barn and 400 bales of hay 3 miles west of Holdenville.  |            |     |  |  |   |   |   |   |           |
| Lone Grove, Carter County   | 15 2200    | cat |  |  | 0 | 0 | ? | ? | Wind      |
| Strong winds damaged 2 mobile homes, broke off 3 highline poles, and 7 telephone poles 7 miles northwest of Lone Grove. A funnel cloud was also reported with this storm. |            |     |  |  |   |   |   |   |           |
| Coalgate, Coal County   | 15 night   |     |  |  | 0 | 0 | 3 | ? | Lightning |
| Lightning caused \$5,000 damage to a house.   |            |     |  |  |   |   |   |   |           |
| Guymon, Texas County  | 19 1705    | cat |  |  | 0 | 0 | ? | ? | Wind      |
| 60 mph winds downed several power lines in Guymon.  |            |     |  |  |   |   |   |   |           |
| Central and Western Oklahoma  | 19 morning |     |  |  | 0 | 0 | ? | ? | Wind      |
| A strong cold front with winds 30 to 50 mph moved across the state. Many power lines blown down and 1 truck blown off the road 4 miles west of Snyder, Kiowa county.      |            |     |  |  |   |   |   |   |           |

35 OREGON ————— NONE REPORTED

## 36 PENNSYLVANIA, Eastern

|   |                      |  |  |  |   |   |   |   |                 |
|---|----------------------|--|--|--|---|---|---|---|-----------------|
| Chester, Montgomery, Bucks and Philadelphia Counties  | 1500 EST to 1730 EST |  |  |  | 0 | 1 | 4 | 0 | Lightning, Wind |
| Thunderstorms moving across the counties caused wind gusts that brought down tree limbs. Some of these brought down utility lines. Lightning strikes combined with lines downed by the falling limbs to cause power outages to 50,000 customers. Lightning caused a house fire near Royersford, Montgomery County. There also was a fire in a mobile home near Ludwigs Corner, Chester County. Near Phoenixville, Chester County, lightning caused minor injuries when it struck near a woman in a yard. Some heavy downpours and small hail also occurred with some minor drainage flooding resulting. |                      |  |  |  |   |   |   |   |                 |

36 PENNSYLVANIA, Western— NONE REPORTED

37 RHODE ISLAND ————— NONE REPORTED

## 38 SOUTH CAROLINA

|  |            |  |  |  |   |   |   |   |             |
|--|------------|--|--|--|---|---|---|---|-------------|
| Lower S.C. Coast   | 1 PM       |  |  |  | 0 | 0 | 3 | 0 | Heavy rains |
| Heavy rainfall associated with thunderstorms along the immediate coast from Charleston southward caused localized flooding as well as other minor damage. Unofficial report of ten inches of precipitation at Edisto Island Beach.       |            |  |  |  |   |   |   |   |             |
| 5 miles east of Florence, Florence County  | 11 1645EST |  |  |  | 0 | 0 | 3 | 3 | Winds, hail |
| Severe thunderstorms destroyed several very large trees and caused other minor damage near Francis Marion School at intersection of SC 327 & US 301. Marble size hail and winds gusts to 55 mph at Florence airport 2 miles to the west. |            |  |  |  |   |   |   |   |             |
| 8 miles NE of Lancaster, Lancaster County  | 11 1800EST |  |  |  | 0 | 0 | 3 | 3 | Winds       |
| Violent thunderstorm winds blew down a number of trees near Sapps Crossroads, and caused other minor damage.   |            |  |  |  |   |   |   |   |             |

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

SEPTEMBER 1983

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

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

## SOUTH CAROLINA

Manchester School area of Sumter, Sumter County | 12 1700EST | 1 0 0 0 | Lightning  
Eight year old boy struck by lightning. Apparently sought shelter from thunderstorm in a wooded area.

## 39 SOUTH DAKOTA

|   |      |                                |              |   |   |   |   |                                  |
|---|------|--------------------------------|--------------|---|---|---|---|----------------------------------|
| Hand County   | 2    | 1545CST                        | short narrow | 0 | 0 | 3 | 0 | Tornado (F2)                     |
| A rope tornado took the roof off a barn ten miles west of Orient and moved it 440 feet.   |      |                                |              |   |   |   |   |                                  |
| Hand County   | 2    | 1615CST                        | short narrow | 0 | 0 | 4 | 0 | Tornado (F2)                     |
| A tornado three miles west and one mile north of Polo damaged buildings, machinery and trees. The roof of a hog house was torn off and the north side of the building was destroyed. A haybaler was overturned and one wheel broken off. A barn was pulled several inches off its foundation and numerous trees destroyed. Several empty plastic jugs outside were flattened from suction and a number of building doors were pushed in. At another nearby farm, two out-buildings were ruined, two calves killed and another two cows injured.   |      |                                |              |   |   |   |   |                                  |
| Hand County   | 2    | 1615-1700CST                   | - -          | 0 | 0 | ? | ? | Funnel Clouds<br>Lightning, Hail |
| A lightning related prairie grass fire ruined 200 tons of hay, four miles west of Polo and several funnel clouds were sighted west of Polo. Hail of unknown diameter fell in and west of Polo, ruining a corn field, stripping bark off trees, devastating area gardens and stripping paint off doors.  |      |                                |              |   |   |   |   |                                  |
| Northcentral through Southeastern Counties  | 5    | 1500-1730CST                   | - -          | 0 | 1 | ? | ? | Hail                             |
| Hail up to two and one-half inches in diameter pounded crops, trees, buildings, and windows resulting in extensive damage. Trees were defoliated and numerous branches broken off. The hail fell off roofs, piling up into a fourteen inch pile southeast of Hitchcock (Beadle County) and an eleven inch pile in the Redfield area (Spink County). Crop damage was extensive, with corn badly stripped and soybean crops with up to 100% loss in Turner County, northeast of Parker. In and around Parker, siding, roofs and windows were damaged on numerous homes and farm buildings. Seven miles south of Centerville (Clay County), a tractor and pickup were extensively damaged and asphalt broken in to pieces. A young boy was cut by hail eight miles north of Yale (Beadle County). Some hail remained into the following day.   |      |                                |              |   |   |   |   |                                  |
| Lawrence County   | 7    | 1130MST                        | - -          | 0 | 0 | 0 | 4 | Lightning                        |
| A lightning related fire two miles northeast of Deadwood burned 15.5 acres of timberland.   |      |                                |              |   |   |   |   |                                  |
| Brookings County  | 8    | 2044CST                        | - -          | 0 | 0 | 0 | 0 | Wind                             |
| Thunderstorm winds downed several trees and broke numerous branches in Brookings.   |      |                                |              |   |   |   |   |                                  |
| Deuel County  | 8    | Evening                        | - -          | 0 | 0 | 0 | 2 | Wind, Lightning                  |
| Strong winds in Gary downed numerous branches and interrupted power for a short time. Lightning burned twelve hay bales, southeast of Gary.   |      |                                |              |   |   |   |   |                                  |
| East Central Counties   | 9-10 | Late Evening-<br>Early Morning | - -          | 0 | 1 | 6 | 5 | Winds                            |
| Strong winds blustered through east central sections, leaving in its wake damaged crops, hundreds of downed trees, broken windows, damaged roofs and buildings, downed power poles and damaged vehicles. The roof of a trailer was taken off eight miles south and one mile west of Huron (Beadle County). Gusts up to 75 mph in Huron moved a semi trailer one-half block away into another semi, and blew the roof off a building onto a propane tank, resulting in a loss of 4,000 gallons of propane. Scattered power outages of up to 24 hours were reported in numerous areas as branches fell across power and telephone lines. Thirty power poles were downed in Kingsbury County alone. Standing crops of corn, beans and sunflowers suffered extensive damage in many areas, with up to 50% losses reported. Gusts up to 90 mph were reported in Lake Poinsett, Lake Norden and Estelline (Hamlin County), where roofs and shingles were ripped from buildings and numerous windows were broken. At Lake Poinsett, extensive damage was done to boats, docks and automobiles at a Dealer's location. A man was cut from flying glass by a broken window and an uprooted tree tore up an asphalt driveway. A marine shop was ravaged by the winds, with considerable damage and a downed canopy from a home fell onto a car, damaging it. In Lake Norden, a garage was damaged as a tree crashed through the roof, several roofs were torn off and a screen porch was ripped from a home. A pole barn, southeast of Castlewood (Hamlin County), was destroyed. In DeSmet (Kingsbury County), a barn collapsed due to strong winds and a machine shed had large sections of its metal roof blown quite a distance. In Woonsocket (Sanborn County), windows were blown out of a tire store, allowing rains to soak the merchandise inside and the light towers at a ballpark were damaged. |      |                                |              |   |   |   |   |                                  |

## SOUTH DAKOTA

|  |    |               |     |   |   |   |   |           |
|--|----|---------------|-----|---|---|---|---|-----------|
| Spink County   | 19 | 0030CST       | - - | 0 | 0 | 0 | 0 | Lightning |
| Lightning caused a forty minute power outage in southeast Redfield.  |    |               |     |   |   |   |   |           |
| Lyman County   | 27 | 1820CST       | - - | 0 | 0 | 0 | 5 | Lightning |
| A lightning related fire burned 25,000 acres northwest of Reliance. At the peak, the fire was four miles wide by ten miles long. |    |               |     |   |   |   |   |           |
| Tripp County   | 27 | Evening       | - - | 0 | 0 | 0 | 3 | Lightning |
| Lightning burned 500 acres in Tripp County.  |    |               |     |   |   |   |   |           |
| Beadle County  | 28 | Early Morning | - - | 0 | 0 | 4 | 0 | Lightning |
| A lightning-related fire burned and destroyed a building just east of Huron.   |    |               |     |   |   |   |   |           |
| Faulk County   | 28 | 0105CST       | - - | 0 | 0 | 0 | 2 | Lightning |
| A haystack was burned in a lightning-related fire three and one-half miles east of Miranda.                                      |    |               |     |   |   |   |   |           |
| Edmunds County   | 30 | Evening       | - - | 0 | 0 | 3 | 0 | Lightning |
| Lightning struck a fire siren and knocked out several television sets in Bowdle  |    |               |     |   |   |   |   |           |
| Haakon County  | 30 | 2030MST       | - - | 0 | 0 | ? | ? | Hail      |
| Hail, three-quarters inches in diameter, fell in Milesville. It nearly covered the ground.                                       |    |               |     |   |   |   |   |           |

## 40 TENNESSEE

|  |    |         |   |   |   |   |   |                   |
|--|----|---------|---|---|---|---|---|-------------------|
| Hixson, Hamilton County  | 12 | 1400cst | - | 0 | 0 | 0 | 0 | Lightning<br>wind |
| A tree struck by lightning fell across a railroad track causing a train to leave the track. About 20 minutes earlier, strong winds reportedly blew down many trees along Old Mill Road in Hixson.  |    |         |   |   |   |   |   |                   |
| Dickson, Dickson County  | 12 | 1430cst | - | 1 | 0 | 0 | 0 | Lightning         |
| A 15-year-old girl was killed by lightning when she went outside during a thunderstorm to wash her hair with rain water. It was not known whether the girl was struck directly by lightning or somehow electrocuted when lightning struck nearby.  |    |         |   |   |   |   |   |                   |
| Murfreesboro, Rutherford County  | 13 | 1500cst | - | 1 | 2 | 0 | 0 | Lightning         |
| Four high school football players walking near a chain link fence were struck by lightning. Two were admitted to the hospital, one was treated and released, and the fourth youth showed no signs of injury. One of the two died about 36 hours after the incident. Football practice was cut short due to a thunderstorm nearby. The four were the last to leave the field. It was not clear whether the group was struck directly or whether lightning had struck the fence before hitting the boys. |    |         |   |   |   |   |   |                   |

## 41 TEXAS, Northern

|  |    |         |   |   |   |   |   |            |
|--|----|---------|---|---|---|---|---|------------|
| Garland, Dallas County   | 1  | 0030CST | - | 0 | 0 | 0 | 0 | Hail       |
| Amateur radio spotters reported golf ball size hail fell in Garland for a brief period.  |    |         |   |   |   |   |   |            |
| Merkel, Taylor County  | 15 | 1900CST | - | 0 | 2 | 6 | 0 | Wind, Hail |
| An intense thunderstorm, moving southeast into Taylor County, suddenly turned right to a more southerly track toward Merkel. As it moved through the city, high winds completely flattened one office building and destroyed about 10 motor homes. Numerous buildings, mobile homes, and houses sustained damage from the winds with dollar estimates placed at \$500,000. |    |         |   |   |   |   |   |            |
| A twelve year old girl had her arm broken when the motor home she was riding in was turned over. A truck driver pulling two trailers was slightly injured when his rig was blown over on the Interstate Highway.   |    |         |   |   |   |   |   |            |
| Hail 1 1/2 to 2 inches in diameter fell during the storm, with almost 3 inches of rain recorded in about 30 minutes.   |    |         |   |   |   |   |   |            |

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

SEPTEMBER 1983

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

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

## 41 TEXAS, Southern

|  |    |         |   |    |   |   |   |   |                |
|--|----|---------|---|----|---|---|---|---|----------------|
| Jasper County  | 1  | 0230CST | 3 | 30 | 0 | 0 | 5 | ? | Tornado (F0)   |
| <p>A small tornado was spotted as it dropped from a thunderstorm about 2 miles southwest of the city of Jasper. It knocked down trees and power lines as it moved northeastward across the west side of the city. Large trees were uprooted and tossed onto cars and homes, causing extensive damage. Minor damage was done to other homes in the residential area. The tornado also caused minor damage to the elementary and middle schools.</p>   |    |         |   |    |   |   |   |   |                |
| Jasper, Jefferson, Newton, Orange Counties   | 6  | 0655CST |   |    | 0 | 0 | ? | ? | Flooding       |
| <p>A line of thunderstorms moved across the area of extreme southeast Texas, producing general 4 to 5 inch rains. Flooding developed in Bridge City and in Vidor near 0730CST, continuing until just after noon. Widespread flooding was reported in Orange County.</p>  |    |         |   |    |   |   |   |   |                |
| Hidalgo County   | 7  | 1340CST | 2 | 50 | 0 | 0 | 0 | 0 | Tornado (F1)   |
| <p>A tornado developed from a very heavy thunderstorm just west of McCook, in western Hidalgo County. It moved toward the northwest at near 15 mph, and was visible along its track for nearly 8 minutes. It crossed into Starr County, then dissipated.</p>   |    |         |   |    |   |   |   |   |                |
| Brazoria County  | 9  | 1320CST |   |    | 0 | 0 | 0 | 0 | Funnel         |
| <p>A funnel was spotted just north of Alvin. It was visible for nearly five minutes before it dissipated.</p>  |    |         |   |    |   |   |   |   |                |
| Cameron County   | 11 | 1505CST |   |    | 0 | 0 | 0 | 0 | Funnel         |
| <p>A funnel was sighted by a pilot over the Laguna Madre just northeast of Bayview.</p>  |    |         |   |    |   |   |   |   |                |
| Nueces County  | 13 | 1510CST |   |    | 0 | 0 | 0 | 0 | Funnel         |
|  |    | 1515CST |   |    | 0 | 0 | 0 | 0 | Funnel         |
| <p>A funnel was sighted 8 miles east of Bishop. The funnel disappeared and a second funnel appeared from a second thunderstorm just east of the city of Bishop shortly afterward. It, too, was short-lived. Both funnels were moving to the east.</p>  |    |         |   |    |   |   |   |   |                |
| Victoria County  | 16 | 0930CST |   |    | 0 | 0 | 0 | 0 | Funnel         |
| <p>A funnel was briefly visible 4 miles south of the city of Victoria. It was moving slowly to the northwest.</p>  |    |         |   |    |   |   |   |   |                |
| Chambers County  | 16 | 1125CST |   |    | 0 | 0 | 0 | 0 | Funnels        |
| <p>The sheriff's department reported several large funnel clouds northeast of Anahuac. They were moving north at near 15 mph.</p>  |    |         |   |    |   |   |   |   |                |
| South Central Texas  | 18 | 1500CST |   |    | 1 | ? | 6 | ? | Flash Flooding |
| <p>General 3 to 4-inch rains, with isolated amounts of up to 7 inches fell over central south Texas during the afternoon and evening of the 18th. The heaviest rains occurred in Caldwell, Gonzales, Atascosa, LaSalle, McMullen, Karnes, Bexar and Wilson Counties. Widespread flooding occurred in Bexar County near 1500CST, in Atascosa and Wilson Counties near 1830CST, and in LaSalle and McMullen Counties near 2200CST.</p> <p>The only fatality occurred in Bexar County where a woman drowned in San Antonio about 1500CST. She had abandoned her car after it was swept into San Pedro Creek in downtown San Antonio. Two young companions of the driver were pulled by nearby residents from the submerged auto and survived.</p> <p>Roads were flooded in and around Charlotte, McCoy and Pleasanton in Atascosa County with many numerous power outages reported. Nearly 100 cars stalled in Atascosa County and another 10 vehicles were completely inundated by flood waters that reached 10 feet in some sections.</p> |    |         |   |    |   |   |   |   |                |
| Bee County   | 18 | 2230CST |   |    | 0 | 0 | 5 | ? | Test Winds     |
| <p>A strong downburst of wind, produced by a severe thunderstorm near Pawnee caused damage to a house and destroyed trees and outbuildings nearby. The wind was estimated by the owner of the property at near 100 mph. A barn was blown down, and an iron clothes pole snapped off above the ground. Debris was scattered in a 400-yard radius around the house. Numerous trees were uprooted and limbs broken off. There was also some minor damage to automobiles.</p>  |    |         |   |    |   |   |   |   |                |
| LaVaca County  | 19 | 0015CST |   |    | 0 | 0 | ? | ? | Flash Flooding |
| <p>Heavy thunderstorms in LaVaca County produced general 3 to 4 inch localized rains that caused considerable flash flooding. The flooding began in Schulenburg shortly after midnight and continued for about two hours. No damage reports were received.</p>   |    |         |   |    |   |   |   |   |                |
| Victoria County  | 19 | 0425CST |   |    | 0 | 0 | ? | ? | Flooding       |
| <p>Rainfall accumulations of up to 4 inches were reported across the northern portion of the county in showers that had started near midnight. Flooding was reported at 0515CST just east of the Victoria Airport with only spotty flooding in the county.</p>   |    |         |   |    |   |   |   |   |                |

## TEXAS, Southern

|  |    |         |    |    |   |   |   |   |                |
|--|----|---------|----|----|---|---|---|---|----------------|
| Upper Texas Coast  | 19 | 0605CST |    |    | 0 | 0 | ? | ? | Flooding       |
| <p>Heavy rains began falling about 0500CST across much of Brazoria, Fort Bend, Harris, Liberty and Wharton Counties. General amounts of 3 to 5 inches reported over the area, with spotty reports of up to 10 inches in eastern Fort Bend, western Harris and central Wharton Counties.</p> <p>Widespread flooding developed near 0700CST in eastern Fort Bend and western Harris Counties. By 0730CST, flooding was reported in the southwestern portion of the city of Houston, with water reported in a number of homes. Many major thoroughfares were under 3 to 5 feet of water in the Houston Metropolitan area.</p> <p>Evacuations began taking place at 0730CST in eastern Fort Bend County and numerous schools were reported closed. Particularly serious flooding occurred in Richmond and Rosenberg.</p> <p>In Brazoria County, several roads were reported under water, with flooding having begun near 0730CST.</p> <p>Although only 1 to 2 inch amounts occurred over the Chambers/Galveston County area, flooding began in Texas City, Dickinson and LaMarque near 0800CST, and in Hitchcock and Crystal Beach near 0830CST.</p> <p>Flooding was not reported in Wharton County until nearly 1400CST.</p>  |    |         |    |    |   |   |   |   |                |
| Williamson County  | 19 | 1307CST | .5 | 30 | 0 | 0 | 0 | 0 | Tornado (F0)   |
| <p>Storm Spotters in Taylor reported a small tornado just south of Taylor. It was moving toward the east along S.H. 112. It caused no known damage.</p>  |    |         |    |    |   |   |   |   |                |
| Brazos County  | 19 | 1610CST |    |    | 0 | 0 | ? | ? | Flash Flooding |
| <p>Heavy rains began in the Brazos County area, and in particular in the north central portion of the County, near 1200CST. By mid-afternoon, 2 to 4-inch rains had fallen. Isolated reports of nearly 8 inches were received from the College Station area. Street flooding began about 1600CST in College Station and Bryan. Widespread minor flooding was reported in Bryan and College Station, but no injuries or major damage was noted.</p>   |    |         |    |    |   |   |   |   |                |
| Orange County  | 20 | 0230CST | .5 | 30 | 0 | 0 | 5 | 0 | Tornado (F0)   |
| <p>A small tornado developed just over downtown Vidor about 0230CST. It struck a house, a commercial building and a convenience store, causing minor damage to each. No injuries were reported.</p>  |    |         |    |    |   |   |   |   |                |
| Harris County  | 20 | 0435CST |    |    | 3 | ? | ? | ? | Flooding       |
| <p>General rainfall amounts averaging one to two inches occurred just after 0200CST on the 20th over Harris County. With area creeks and streams already in flood from the very heavy rains of the past 24 hours, additional flooding developed over the county and continued through the remainder of the day.</p> <p>Three youths, one 9 years old, one 14 years old, and one 16 years old, drowned as the water rose. The first casualty was the 14-year old who drowned near 1030CST as he fell off a makeshift raft while playing with three friends in a tributary of Sims Bayou. The 9 year old drowned near 1600CST as he and a friend tried to swim across a flooded ditch. The third youth drowned near 1850CST. He had been walking along a drainage ditch near Halls Bayou with his sister and had fallen in. Up to 7 inches of rain fell in parts of the town.</p> <p>Firefighters used an airboat to rescue 30 middle school students from a school bus whose driver ignored bystander's warnings and drove into an intersection submerged beneath 5 feet of water. The incident occurred in west Houston. A short time later, a second bus from the same school was also stranded by high water in the same general area. This time the students were able to wade to safety. Nearly all Houston area schools were forced to close early in the afternoon as nearly 50 buses, 12 of them carrying children, were flooded out.</p> <p>Another man was rescued after clinging to the underside of a bridge, breathing in a small air space, for nearly an hour. He had been knocked from an inflatable raft.</p> <p>Many homes were flooded for the first time ever along Brays Bayou in southwest Houston. The water was as high as waist-deep in some locations. Numerous cars were reported stalled in West Harris County and western Houston. Two area hospitals reported some minor flooding in the lowest floors.</p> |    |         |    |    |   |   |   |   |                |
| Kleberg County   | 27 | 0815CST |    |    | 0 | 0 | 0 | 0 | Waterspout     |
|  |    | 0815CST |    |    | 0 | 0 | 0 | 0 | Waterspout     |
|  |    | 0815CST |    |    | 0 | 0 | 0 | 0 | Waterspout     |
|  |    | 0815CST | .5 | 30 | 0 | 0 | 0 | 0 | Tornado (F0)   |
| <p>A series of small waterspouts were observed by the staff at the Padre Island Ranger Station. One of the waterspouts moved onshore briefly near the park. It caused no known damage.</p>   |    |         |    |    |   |   |   |   |                |

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

SEPTEMBER 1983

| PLACE   | DATE  | TIME - LOCAL STANDARD | LENGTH OF PATH (MILES) | WIDTH OF PATH (YARDS) | NO. OF PERSONS |         | ESTIMATED DAMAGE |       | CHARACTER OF STORM   |
|---|-------|-----------------------|------------------------|-----------------------|----------------|---------|------------------|-------|--|
|   |       |                       |                        |                       | KILLED         | INJURED | PROPERTY         | CROPS |  |
| <b>41 TEXAS, Western</b>  |       |                       |                        |                       |                |         |                  |       |  |
| Miami, Roberts County   | 06    | 1730CST               |                        |                       | 0              | 0       | 1                | 0     | Hail Wind  |
|   |       |                       |                        |                       |                |         |                  |       | Winds estimated at 75 mph and golfball-sized hail damaged some outbuildings 5 miles south of Miami.  |
| Guadalupe National Park in Northern Hudspeth and Culberson Counties | 27    | Nighttime             |                        |                       | 0              | 0       | ?                | 0     | Rainstorm  |
|   |       |                       |                        |                       |                |         |                  |       | A five-inch rainstorm hit the Guadalupe National Park causing some water damage. Amount of damage unknown.   |
| <b>42 UTAH</b>  |       |                       |                        |                       |                |         |                  |       |  |
| Davis, Salt Lake, Tooele, Utah, Wasatch, Uintah Counties            | 03    | 1500 to 1800 MST      |                        |                       | 1              | 0       | 4                |       | Severe Thunderstorm  |
|   |       |                       |                        |                       |                |         |                  |       | A Utah County youth was killed when strong thunderstorm winds pushed a tree over onto his tent at a campground in Hobbie Creek Canyon near Springville.  |
|   |       |                       |                        |                       |                |         |                  |       | Numerous reports of property damage, traffic accidents, and flooding were received as a large thunderstorm moved through northern Utah on this Saturday afternoon. Hail stones from 1/2 inch to as large as 1 1/4 inches in diameter were reported from Utah County northward through Davis County. Many persons reported broken windows in homes, broken windows and dents in cars along with damage to fruits and vegetables. In Springville, many trees were knocked over or received considerable damage. The power was knocked out in one area in Salt Lake City for 45 minutes. A semi truck on Interstate 15 slipped on the rain-slick roadway and tipped over. Flash flooding was reported on Mill Creek, in Sandy, and West Valley City.  |
| <b>43 VERMONT</b> ————— NONE REPORTED                               |       |                       |                        |                       |                |         |                  |       |  |
| <b>44 VIRGINIA</b>  |       |                       |                        |                       |                |         |                  |       |  |
| Northern  | 12    | 1600-1700EST          |                        |                       | 0              | 0       | 4                | 0     | Wind, Hail, Lightning  |
|   |       |                       |                        |                       |                |         |                  |       | Strong thunderstorm activity was concentrated over Fairfax County. Wind gusts of 60 mph were reported, along with golfball-sized hail in Falls Church. Several vehicles were damaged by falling trees, while the combination of wind and hail broke a number of windows. Lightning struck a tire store in Fairfax City, setting it on fire. In addition, around 8,000 homes were without power.  |
| Suffolk   | 13    | 1830EST               |                        |                       | 0              | 0       | 3                | 0     | Lightning  |
|   |       |                       |                        |                       |                |         |                  |       | Lightning struck a farm store, damaging the electrical panel and 5 motors attached to the power line. Damage was estimated at over \$4,000.  |
| Virginia Beach  | 29-30 |                       |                        |                       | 0              | 0       | 3                | 0     | Tropical Storm   |
|   |       |                       |                        |                       |                |         |                  |       | Tropical Storm "Dean" moved in a west-northwesterly direction across the lower tip of the Delmarva Peninsula and into Chesapeake Bay early on the 30th. The storm then weakened as it moved onshore near the Virginia-Maryland border, with winds gusting briefly to 50-60 mph. The associated waves and high tides caused minor beach erosion and slight flooding in the sandbridge and Buckroe Beach sections, otherwise damage was minimal.   |
| <b>45 WASHINGTON</b>  |       |                       |                        |                       |                |         |                  |       |  |
| Island County   | 01    |                       |                        |                       | 0              | 0       | 5                | 0     | Heavy Rains  |
|   |       |                       |                        |                       |                |         |                  |       | Heavy rain throughout the county flooded homes, schools, and businesses. Many roads were buried under considerable amounts of dirt and rock. The Naval Air Station on Whidbey Island had 3.03 inches of rainfall for the day.  |
| <b>46 WEST VIRGINIA</b> ————— NONE REPORTED                         |       |                       |                        |                       |                |         |                  |       |  |
| <b>47 WISCONSIN</b>   |       |                       |                        |                       |                |         |                  |       |  |
| Ettrick, Trempealeau County   | 04    | Evening               |                        |                       | 0              | 0       | 4                | 0     | Electrical   |
|   |       |                       |                        |                       |                |         |                  |       | Lightning struck and killed 17 cows on a farm in rural Ettrick.  |
| Delafield, Waukesha County  | 05    | 0730CST               |                        |                       | 0              | 0       | 2                | 0     | Electrical   |
|   |       |                       |                        |                       |                |         |                  |       | Lightning struck an apartment building starting a minor fire.  |
| Marinette, Marinette County   | 05    | 1155CST               |                        |                       | 0              | 1       | 0                | 0     | Electrical   |
|   |       |                       |                        |                       |                |         |                  |       | A golfer was struck by lightning and seriously injured.  |
| Crawford County   | 05    | 2157CST               |                        |                       | 0              | 0       | ?                | ?     | Wind, hail   |
|   |       |                       |                        |                       |                |         |                  |       | Thunderstorm winds gusting to 60 mph were reported by the Crawford County Sheriff, just east of Prairie du Chein. One-half inch hail was also reported at Wauzeka.   |
| Grant County  | 05    | 2230CST               |                        |                       | 0              | 0       | 5                | ?     | Wind   |
|   |       |                       |                        |                       |                |         |                  |       | Severe thunderstorm winds damaged a farm south of Platteville, destroying two 42,000 bushel grain bins and a 62,000 bushel bin. Losses were estimated in excess of one-quarter million dollars. In the same area, a warehouse roof was removed by thunderstorm winds. A section of a house roof and the side of a barn were blown off at a farm 3 miles east of Platteville. Numerous trees and limbs were downed through-out the county.  |
| Lafayette County  | 05    | 2300CST               |                        |                       | 0              | 0       | 4                | ?     | Wind   |
|   |       |                       |                        |                       |                |         |                  |       | Severe thunderstorm winds caused widespread tree damage through-out the county. The greatest amount of damage was concentrated on a path from Belmont to Blanchardville. Several farms 4 miles north of Darlington were damaged by the strong winds. At one farm, a machine shed was lifted off its foundation and carried over another building before landing. A portion of a barn roof was ripped away by the strong winds. Tractors and machinery were also damaged. At a nearby farm, a shed was rolled over and collapsed killing 20 sheep inside. A large tree was blown 75 feet from its original site. At other farms in the area, a machine shed was blown down, the top of a silo was damaged and the end of a barn was pushed over. A tree was toppled onto a home in Wiota. Considerable damage to trees and a few outbuildings occurred in Blanchardville. |
| Green County  | 05    | 2330CST               |                        |                       | 0              | 0       | 4                | ?     | Wind   |
|   |       |                       |                        |                       |                |         |                  |       | Strong thunderstorm winds caused widespread tree damage through-out the county and in the City of Monticello. Minor property damage was reported in New Glarus. The roof was blown off of a bus garage in Brodhead.  |
| Dane County   | 06    | 0015CST               |                        |                       | 0              | 0       | ?                | ?     | Wind, hail   |
|   |       |                       |                        |                       |                |         |                  |       | Strong thunderstorm winds and small hail damaged tobacco fields in an area from south of Stoughton to Albion.  |
| Rock County   | 06    | 0015CST               |                        |                       | 0              | 0       | ?                | ?     | Wind   |
|   |       |                       |                        |                       |                |         |                  |       | Strong thunderstorm winds downed numerous trees and limbs through-out the county with the heaviest damage in the western and southern portions of the county. One home was extensively damaged by a falling tree in the City of Beloit.  |
| Walworth County   | 06    | 0100CST               |                        |                       | 0              | 0       | 4                | ?     | Wind, electrical   |
|   |       |                       |                        |                       |                |         |                  |       | At Whitewater Lake, a thunderstorm downburst wind estimated at 100 yards wide, uprooted trees, flipped a large raft and threw a fishing boat onshore. Lightning started a minor fire in Delavan. A moving car was struck by a falling tree near Walworth. No injuries were reported.   |
|   |       |                       |                        |                       |                |         |                  |       | In Sharon township, thunderstorm winds knocked down a metal barn, uprooted trees, blew over a horse trailer and took a chimney off of a home. At another farm in the area, winds destroyed two 20,000 bushel grain bins and damaged a machine shed. At a nearby farm, a barn lost half of its roof to the strong winds. There was extensive tree and power line damage through-out the county.   |
| Door County   | 06    | 1000CST               |                        |                       | 0              | 0       | ?                | ?     | Hail   |
|   |       |                       |                        |                       |                |         |                  |       | 3/4 inch hail was reported in Door County.   |

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

SEPTEMBER 1983

| PLACE                                | DATE  | TIME - LOCAL STANDARD | LENGTH OF PATH (MILES) | WIDTH OF PATH (YARDS) | NO. OF PERSONS |         | ESTIMATED <sup>1</sup> DAMAGE |       | CHARACTER OF STORM  |
|--------------------------------------|---|-----------------------|------------------------|-----------------------|----------------|---------|-------------------------------|-------|---------------------|
|                                      |   |                       |                        |                       | KILLED         | INJURED | PROPERTY                      | CROPS |                     |
| <b>WISCONSIN</b>                     |   |                       |                        |                       |                |         |                               |       |                     |
| Oneida and Vilas Counties            | 06  | 1545CST               |                        |                       | 0              | 0       | ?                             | ?     | Wind, hail          |
|                                      | Severe thunderstorm winds estimated at up to 90 mph roared through the Minocqua-Woodruff-Sayner-Eagle River area downing trees and power lines. Some homes were damaged by falling trees and a few windows were broken by hail.   |                       |                        |                       |                |         |                               |       |                     |
| Hartford, Washington County          | 10  | 1430CST               |                        |                       | 0              | 0       | 4                             | ?     | Wind                |
|                                      | Thunderstorm wind gusts to 50 mph were reported at the Hartford Airport. Numerous trees and power lines were downed and park shelter was damaged.   |                       |                        |                       |                |         |                               |       |                     |
| Sheboygan, Sheboygan County          | 16  | 0100-0300CST          |                        |                       | 0              | 0       | 5                             | 0     | Wind                |
|                                      | A low pressure weather system moved across southeastern Wisconsin during the early morning generating gusty easterly winds. Waves estimated at 8 to 10 feet high damaged 15 boats and sank two others at a local yacht club on the shore of Lake Michigan. The yacht club piers were extensively damaged by the wind and wave action. Losses were estimated at between \$70,000 and \$100,000.  |                       |                        |                       |                |         |                               |       |                     |
| Mount Horeb, Dane County             | 17  | 1430CST               |                        |                       | 0              | 0       | 4                             | 0     | Electrical          |
|                                      | Lightning started a fire in a television service center that damaged the building and its contents.   |                       |                        |                       |                |         |                               |       |                     |
| Lauderdale Lakes, Walworth County    | 17  | 1600CST               |                        |                       | 0              | 0       | 4                             | 0     | Electrical          |
|                                      | A lightning bolt sparked a fire that heavily damaged a lakeside residence.  |                       |                        |                       |                |         |                               |       |                     |
| Nekoosa, Wood County                 | 17  | 1719CST               |                        |                       | 0              | 0       | ?                             | ?     | Hail                |
|                                      | Golf ball size hail was reported at Nekoosa.  |                       |                        |                       |                |         |                               |       |                     |
| Marathon County                      | 17  | 1806CST               |                        |                       | 0              | 0       | ?                             | ?     | Hail                |
|                                      | One inch hail was reported 2 miles north of Mausau.   |                       |                        |                       |                |         |                               |       |                     |
| Germantown, Washington County        | 17  | 2000CST               |                        |                       | 0              | 0       | 3                             | 0     | Electrical          |
|                                      | Lightning struck a home blasting two holes in an exterior wall and knocking the top off of the chimney.   |                       |                        |                       |                |         |                               |       |                     |
| Ripon, Fond du Lac County            | 17  | 2020CST               |                        |                       | 0              | 0       | 2                             | 0     | Electrical          |
|                                      | Lightning entered a home and did minor damage.  |                       |                        |                       |                |         |                               |       |                     |
| Green Lake, Green Lake County        | 17  | 2030CST               |                        |                       | 0              | 0       | 4                             | 0     | Electrical          |
|                                      | Lightning started a fire that completely gutted a Green Lake home.  |                       |                        |                       |                |         |                               |       |                     |
| Town of Greenville, Outagamie County | 17  | 2115CST               |                        |                       | 0              | 0       | 5                             | 0     | Electrical          |
|                                      | A fire caused by lightning destroyed a machine shed at a farm in the Town of Greenville. Losses were estimated at \$150,000.  |                       |                        |                       |                |         |                               |       |                     |
| Sheboygan Falls, Sheboygan County    | 17  | 2120CST               |                        |                       | 0              | 0       | 5                             | 0     | Electrical          |
|                                      | Lightning struck a barn at the Pinehurst Farms, 1/4 mile south of Sheboygan Falls, starting a fire that destroyed the structure. Also lost in the fire were 40,000 bales of hay, 5,000 bales of straw, a farm tractor, spreader and 5 silos. Losses were estimated in excess of \$200,000.  |                       |                        |                       |                |         |                               |       |                     |
| Kiel, Manitowoc County               | 17  | 2130CST               |                        |                       | 0              | 0       | 3                             | 0     | Electrical          |
|                                      | Lightning started a garage roof fire.   |                       |                        |                       |                |         |                               |       |                     |
| Germantown, Washington County        | 19  | 1730CST               |                        |                       | 0              | 0       | 4                             | 0     | Electrical          |
|                                      | Lightning touched off a fire that destroyed a barn and its contents. Loss estimated at \$45,000.  |                       |                        |                       |                |         |                               |       |                     |
| Black Earth, Dane County             | 24  | 2130CST               |                        |                       | 0              | 0       | 4                             | 0     | Electrical          |
|                                      | Lightning caused a fire that destroyed a farm building.   |                       |                        |                       |                |         |                               |       |                     |
| <b>48 WYOMING</b>                    |   |                       |                        |                       |                |         |                               |       |                     |
| Fremont and Hot Springs Counties     | 7   | 1630-1930MST          |                        |                       | 0              | 0       | 4                             | 3     | Winds               |
|                                      | Very strong thunderstorms rumbled through west central Wyoming, packing winds up to 70 mph. Numerous trees were downed onto houses, vehicles, and power lines. Hardest hit was the Lander-Riverton area where extensive power outages occurred due to fallen trees.   |                       |                        |                       |                |         |                               |       |                     |
| Near Rozet, Campbell County          | 14  | 1445MST               |                        |                       | 0              | 1       | 3                             | 0     | Winds               |
|                                      | Thunderstorms with gusts up to 65 mph toppled an oil derrick about 17 miles north of Rozet. One person, who was working on the rig at the time, suffered serious injuries.  |                       |                        |                       |                |         |                               |       |                     |
| <b>49 ALASKA, Northern</b>           |   |                       |                        |                       |                |         |                               |       |                     |
| Kotzebue Sound                       | 6   | 2000-2400 BST         |                        |                       | 0              | 0       | 2                             | 0     | Minor Coastal Flood |
|                                      | A strong low pressure system moved eastward from the Chukchi Sea on a track which took it about 100 miles north of Barrow. This occurred at the same time of monthly high tides. As the cold front associated with the low passed over Kotzebue Sound, minor coastal flooding began at Kotzebue at 2000 BST. The water level peaked out around 2100 BST, and subsided below flooding level around midnight. Minor coastal flooding is suspected to have also occurred at the village of Kivalik, approximately 40 miles south southeast of Kotzebue.  |                       |                        |                       |                |         |                               |       |                     |
| Eastern Arctic Coast                 | 24  | 0900-1900 AST         |                        |                       | 0              | 0       | 0                             | 0     | Blizzard            |
|                                      | Moderate east winds combined with falling snow to cause a minor blizzard on the Arctic coast of Alaska east of Flaxman Island. Peak winds at Barter Island were about 42 mph, with visibility as low as 1/16 mile. No damage was reported.  |                       |                        |                       |                |         |                               |       |                     |
| Tanana Valley                        | 24  | 1000-1700 AST         |                        |                       | 0              | 0       | 4                             | 0     | Snowstorm           |
|                                      | A cold front held over the western Tanana Valley, while moist air from the Gulf of Alaska moved in from the southeast. From 2 to 4 inches of snow fell east of Fairbanks at Eielson AFB and North Pole, while only a trace of snow fell at Fairbanks International Airport. Several auto accidents ensued, due to the very slick roads.   |                       |                        |                       |                |         |                               |       |                     |
| Norton Sound                         | 26  |                       |                        |                       | 0              | 0       | 5                             | 0     | Moderate Surf       |
|                                      | A small low pressure center formed in Bering Strait during the night of the 25-26th of September, while persistent high pressure held over the Alaska mainland. South winds of 15 to 25 knots blew over Norton Sound during the morning of Sept. 26, before the low pressure center in Bering Strait dissipated and moved west, causing the winds to diminish. Post-analysis and calculation suggests that seas in Norton Sound reached no more than 8 feet. Some shoaling of waves in shallow water near the Seward Peninsula coast would have caused surf to rise to no more than 12 feet near shore. While these winds and seas are far from extreme for the waters of Norton Sound, they were enough to cause damage. A gold dredge, floating in about 6 to 10 feet of water just offshore of Bluff (a site 50 miles east of Nome) sank in the surf. The attending vessel, a 123 foot converted Army tug, broke out of control, and ran aground on a sandy beach nearby. All 22 persons aboard this vessel made it to shore without injury. Damage appears limited to the cost of refloating the barge and dredge. A total of 5,000 gallons of #2 diesel fuel spilled from the dredge into Norton Sound. A Coast Guard spokesman stated that this caused only "negligible pollution impact to local flora and fauna." |                       |                        |                       |                |         |                               |       |                     |
| Tanana Valley                        | 28  | 0900-1600 AST         |                        |                       | 0              | 0       | 3                             | 0     | Freezing Rain       |
|                                      | Some freezing rain fell in the western Tanana Valley as a warm front moved in from the west. Several vehicle accidents were caused by slick road surfaces.  |                       |                        |                       |                |         |                               |       |                     |
| Northwest Alaska                     | 30  |                       |                        |                       | 0              | 0       | 0                             | 0     | Near Coastal Flood  |
|                                      | A large autumn storm moved north through the Bering Sea to the Arctic, causing sea level to rise up to 5 feet in Norton and Kotzebue Sounds...within 1 to 2 feet of flooding.   |                       |                        |                       |                |         |                               |       |                     |



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

SEPTEMBER 1983

| PLACE  | DATE | TIME - LOCAL STANDARD | LENGTH OF PATH (MILES) | WIDTH OF PATH (YARDS) | NO. OF PERSONS |         | ESTIMATED DAMAGE |       | CHARACTER OF STORM             | PLACE | DATE | TIME - LOCAL STANDARD | LENGTH OF PATH (MILES) | WIDTH OF PATH (YARDS) | NO. OF PERSONS |         | ESTIMATED DAMAGE |       | CHARACTER OF STORM |  |
|--|------|-----------------------|------------------------|-----------------------|----------------|---------|------------------|-------|--------------------------------|-------|------|-----------------------|------------------------|-----------------------|----------------|---------|------------------|-------|--------------------|--|
|  |      |                       |                        |                       | KILLED         | INJURED | PROPERTY         | CROPS |                                |       |      |                       |                        |                       | KILLED         | INJURED | PROPERTY         | CROPS |                    |  |
| <b>49 ALASKA, Southern</b>   |      |                       |                        |                       |                |         |                  |       |                                |       |      |                       |                        |                       |                |         |                  |       |                    |  |
| Kodiak Island  | 24   | 0200-1000 AST         |                        |                       | 0              | ?       | 5                | 0     | High Wind                      |       |      |                       |                        |                       |                |         |                  |       |                    |  |
| <p>A strong northwesterly flow following the passage of a cold front brought sustained 50 mph winds with gusts to 60 mph to Kodiak Island. In Kodiak City trees and power lines were downed. Some ship piers were broken loose and a fishing vessel was blown aground.</p>   |      |                       |                        |                       |                |         |                  |       |                                |       |      |                       |                        |                       |                |         |                  |       |                    |  |
| Alaska Peninsula   | 29   | 0100-1200 AST         |                        |                       | 0              | ?       | 5                | 0     | High Wind                      |       |      |                       |                        |                       |                |         |                  |       |                    |  |
| <p>A strong low pressure system in the Bering Sea caused very strong winds across the Alaska Peninsula and other areas of southwest Alaska. At Chignik sustained winds of 60 mph with a peak gust of 138 mph did substantial damage to the local cannery. At Cold Bay winds to 93 mph caused damage to roofs and small buildings and forced the abandonment of the FAA control tower. The coastal sections of the Kuskokwim Delta had winds of 50 to 70 mph.</p> |      |                       |                        |                       |                |         |                  |       |                                |       |      |                       |                        |                       |                |         |                  |       |                    |  |
| South Central  | 29   | 1200-2200 AST         |                        |                       | 0              | 0       | 5                | 0     | High Wind                      |       |      |                       |                        |                       |                |         |                  |       |                    |  |
| <p>A strong occluded front passing through South Central Alaska brought winds to 80 mph to eastern sections of Anchorage. Trees and power lines were down and there was some moderate roof damage. Several trailers in a camper park were heavily damaged.</p>   |      |                       |                        |                       |                |         |                  |       |                                |       |      |                       |                        |                       |                |         |                  |       |                    |  |
| <b>49 ALASKA, Southeastern</b>   |      |                       |                        |                       |                |         |                  |       |                                |       |      |                       |                        |                       |                |         |                  |       |                    |  |
| Sitka  | 14   | Early Morning         |                        |                       | 0              | 0       | 2                | 0     | Heavy Rain with Local Flooding |       |      |                       |                        |                       |                |         |                  |       |                    |  |
| <b>50 HAWAII</b>   |      |                       |                        |                       |                |         |                  |       |                                |       |      |                       |                        |                       |                |         |                  |       |                    |  |
| Oahu   | 23   | 1330HST               |                        |                       | 0              | 0       | 3                | 0     | Tornado (F0)                   |       |      |                       |                        |                       |                |         |                  |       |                    |  |
| <p>A tornado briefly dipped down over Pearl City and tore a portion of the roof off a warehouse.</p>   |      |                       |                        |                       |                |         |                  |       |                                |       |      |                       |                        |                       |                |         |                  |       |                    |  |
| All Islands  | 29   |                       |                        |                       | 0              | 0       | 0                | 0     | Wind, Rain, Surf               |       |      |                       |                        |                       |                |         |                  |       |                    |  |
| <p>Tropical Storm NARDA moved south of Big Island on the 29th. The storm remained far enough off shore so that there was no damage on the Islands.</p>   |      |                       |                        |                       |                |         |                  |       |                                |       |      |                       |                        |                       |                |         |                  |       |                    |  |
| <b>51 PUERTO RICO</b> ————— NONE REPORTED  |      |                       |                        |                       |                |         |                  |       |                                |       |      |                       |                        |                       |                |         |                  |       |                    |  |
| <b>52 VIRGIN ISLANDS</b> ————— NONE REPORTED   |      |                       |                        |                       |                |         |                  |       |                                |       |      |                       |                        |                       |                |         |                  |       |                    |  |
| <b>53 PACIFIC</b> ————— NONE REPORTED  |      |                       |                        |                       |                |         |                  |       |                                |       |      |                       |                        |                       |                |         |                  |       |                    |  |

# STORM SUMMARY

SEPTEMBER 1983

| STATE          | TORNADOES |      |        |          |        | HAILSTORMS |          |            |       | WINDSTORMS |          |            |       | LIGHTNING |          |            |       | FLOODING |          |            |       | HEAVY SNOWSTORMS AND BLIZZARDS |          |            |       | ICE STORMS |          |            |       | ALL OTHER |  |  |  |
|----------------|-----------|------|--------|----------|--------|------------|----------|------------|-------|------------|----------|------------|-------|-----------|----------|------------|-------|----------|----------|------------|-------|--------------------------------|----------|------------|-------|------------|----------|------------|-------|-----------|--|--|--|
|                | NUMBER    | DAYS | DEATHS | INJURIES | DAMAGE | DEATHS     | INJURIES | DAMAGE     |       | DEATHS     | INJURIES | DAMAGE     |       | DEATHS    | INJURIES | DAMAGE     |       | DEATHS   | INJURIES | DAMAGE     |       | DEATHS                         | INJURIES | DAMAGE     |       | DEATHS     | INJURIES | DAMAGE     |       |           |  |  |  |
|                |           |      |        |          |        |            |          | PROP. ERTY | CROPS |            |          | PROP. ERTY | CROPS |           |          | PROP. ERTY | CROPS |          |          | PROP. ERTY | CROPS |                                |          | PROP. ERTY | CROPS |            |          | PROP. ERTY | CROPS |           |  |  |  |
| Alabama        |           |      |        |          |        |            |          | 4          |       | 3          | 4        |            |       |           |          |            |       | 14       | 40       | 8          | 8     |                                |          |            |       |            |          |            |       |           |  |  |  |
| Arizona        |           |      |        |          |        |            |          |            |       |            | 5        | 6          |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Arkansas       |           |      |        |          |        |            |          |            |       |            | 5        |            |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| California     | 2         | 1    |        |          | 3      | 2          |          |            |       |            |          |            |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Colorado       | 1         | 1    |        |          |        |            |          |            |       |            |          | 3          |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Connecticut    |           |      |        |          |        |            |          |            |       |            |          |            |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Delaware       |           |      |        |          |        |            |          |            |       |            |          |            |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Florida        | 4         | 4    |        |          | 6      |            |          |            |       | 1          |          | 5          |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Georgia        |           |      |        |          |        |            |          |            |       |            | 4        |            |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Idaho          |           |      |        |          |        |            |          |            |       |            | 4        |            |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Illinois       |           |      |        |          |        |            |          |            |       |            |          | 5          |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Indiana        |           |      |        |          |        |            |          |            |       |            | 2        | 2          |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Iowa           | 2         | 1    |        |          | 5      |            | 6        | 6          |       |            | 5        |            |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Kansas         | 1         | 1    |        |          | 4      |            | 4        | 2          |       |            | 4        | 3          |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Kentucky       |           |      |        |          |        |            |          |            |       |            | 4        |            |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Louisiana      | 2         | 2    |        |          | 5      |            |          |            |       |            |          |            |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Maine          |           |      |        |          |        |            |          |            |       |            | 3        |            |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Maryland & DC  |           |      |        |          |        |            |          |            |       |            | 3        |            |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Massachusetts  |           |      |        |          |        |            |          |            |       |            | 3        |            |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Michigan       |           |      |        |          |        |            |          |            |       | 2          | 4        |            |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Minnesota      |           |      |        |          |        |            |          | 4          |       | 2          | 2        | 6          | 5     |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Mississippi    |           |      |        |          |        |            |          |            |       |            |          |            |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Missouri       |           |      |        |          |        |            |          |            |       |            |          | 3          |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Montana        |           |      |        |          |        |            |          |            |       |            |          |            |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Nebraska       |           |      |        |          |        |            |          | 5          | 5     |            |          | 5          | 3     |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Nevada         |           |      |        |          |        |            |          |            |       |            |          |            |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| New Hampshire  |           |      |        |          |        |            |          |            |       |            |          | 3          |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| New Jersey     |           |      |        |          |        |            |          |            |       |            |          |            |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| New Mexico     |           |      |        |          |        |            |          |            |       |            |          |            |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| New York       | 1         | 1    |        |          | 5      |            |          |            |       |            | 1        | 4          |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| North Carolina |           |      |        |          |        |            |          |            |       |            |          |            |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| North Dakota   |           |      |        |          |        |            |          |            |       |            |          | 4          |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Ohio           |           |      |        |          |        |            |          |            |       |            | 5        |            |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Oklahoma       |           |      |        |          |        |            |          | ?          | ?     |            | 3        | 6          |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Oregon         |           |      |        |          |        |            |          |            |       |            | 4        |            |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Pennsylvania   |           |      |        |          |        |            |          |            |       |            |          | 3          |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Rhode Island   |           |      |        |          |        |            |          |            |       |            |          |            |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| South Carolina |           |      |        |          |        |            |          | 2          | 3     |            |          | 3          | 3     |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| South Dakota   | 2         | 1    |        |          | 4      |            | 1        | ?          | ?     |            | 1        | 6          | 5     |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Tennessee      |           |      |        |          |        |            |          |            |       |            |          | ?          |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Texas          | 5         | 5    |        |          | 5      |            |          | 2          | ?     |            | 2        | 6          | ?     |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Utah           |           |      |        |          |        |            |          |            |       | 1          |          | 4          |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Vermont        |           |      |        |          |        |            |          |            |       |            |          |            |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Virginia       |           |      |        |          |        |            |          | 3          |       |            |          | 4          |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Washington     |           |      |        |          |        |            |          |            |       |            |          |            |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| West Virginia  |           |      |        |          |        |            |          |            |       |            |          |            |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Wisconsin      |           |      |        |          |        |            |          | ?          | ?     |            |          | 5          | ?     |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Wyoming        |           |      |        |          |        |            |          |            |       |            | 1        | 4          | 3     |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Alaska         |           |      |        |          |        |            |          |            |       |            |          | ?          | 6     |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Hawaii         | 1         | 1    |        |          |        |            |          |            |       |            |          | 3          |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Pacific        |           |      |        |          |        |            |          |            |       |            |          |            |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Puerto Rico    |           |      |        |          |        |            |          |            |       |            |          |            |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |
| Virgin Islands |           |      |        |          |        |            |          |            |       |            |          |            |       |           |          |            |       |          |          |            |       |                                |          |            |       |            |          |            |       |           |  |  |  |

REFERENCE NOTES

Storm damage categories are from 1 to 9 as follows:

- 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

- \* Miles instead of yards
- \*\* Yards instead of miles
- @ Includes heavy sleet storm
- # Freezing drizzle and freezing rain, commonly known as glaze
- ≠ Not received or incomplete
- o/c Under Estimated Damage, Property/Crops, indicates crop damage amount is included in the figure given

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
- 



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