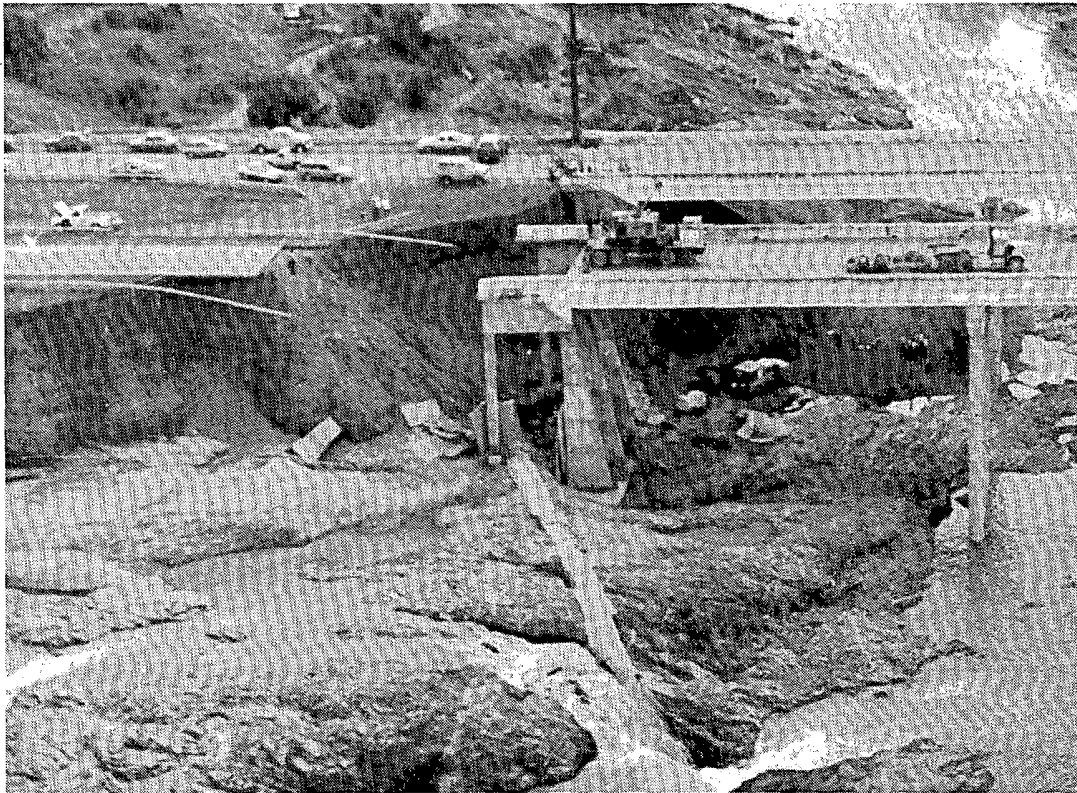


OCTOBER 1985

VOLUME 27

NUMBER 10

STORM DATA



This edition contains a revised section concerning the May 1985 Tornado outbreak in OH, PA, and NY.

"I CERTIFY THAT THIS IS AN OFFICIAL PUBLICATION OF THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION AND IS COMPILED FROM INFORMATION RECEIVED AT THE NATIONAL CLIMATIC DATA CENTER, ASHEVILLE, N.C. 28801"

Kenneth D. Hadler

DIRECTOR
NATIONAL CLIMATIC DATA CENTER

noaa

NATIONAL OCEANIC AND
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NATIONAL ENVIRONMENTAL SATELLITE,
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NATIONAL CLIMATIC DATA CENTER
ASHEVILLE, N.C.

C O N T E N T S

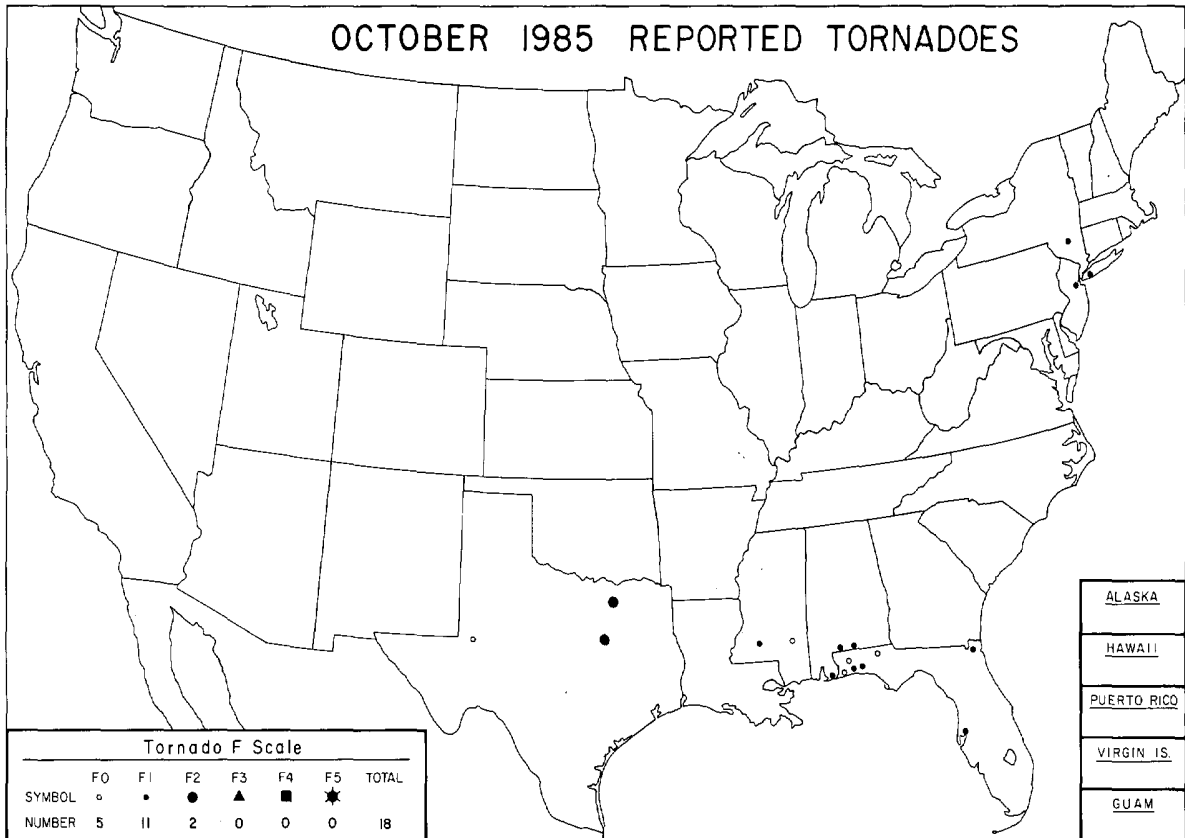
| | <u>Page</u> |
|---|-------------|
| Outstanding Storms of the Month..... | 3 |
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Cover: Eroded roadway of the San Juan-Ponce Highway at a bridge near Coamo, Puerto Rico, where 29 people died as a result of driving their vehicles over the edge into floodwaters produced by up to 24 inches of rain that fell during the passage of a tropical wave on October 6th and 7th, 1985 (see TROPICAL WAVE over PUERTO RICO, pages 7 to 9). ---Photo by Victor M. Hernandez, Departamento Recursos Naturales.

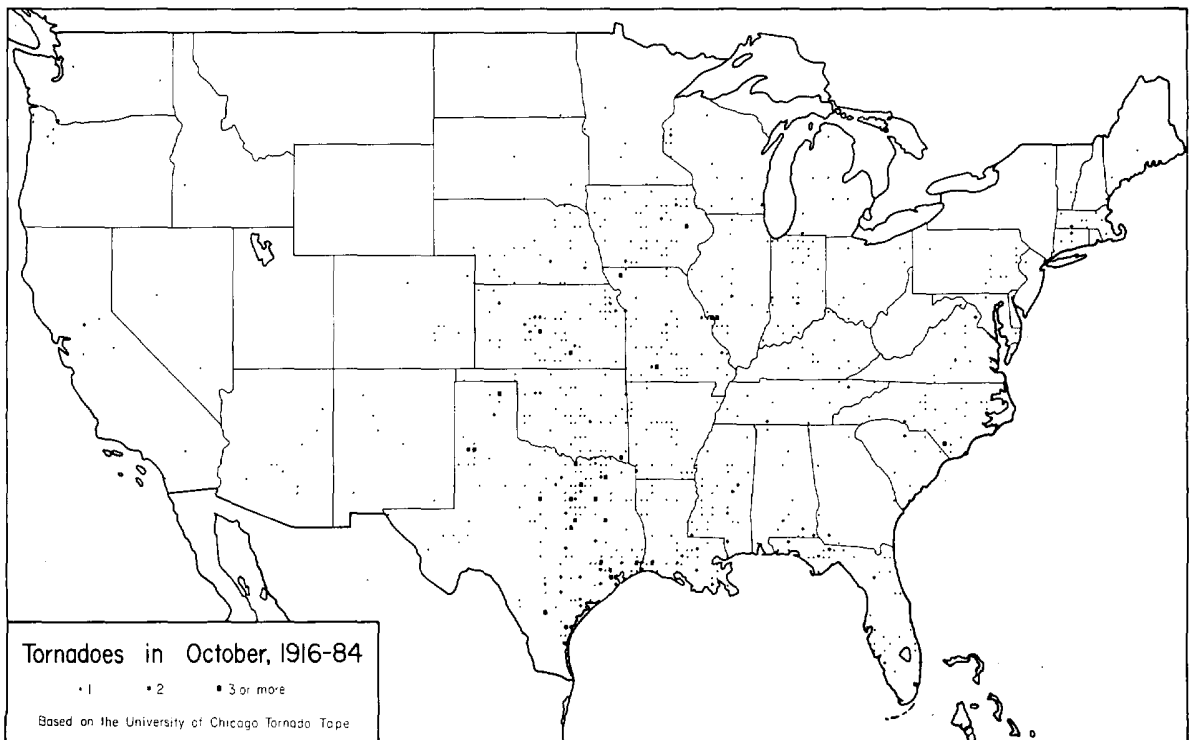
NOTE: The section on Outstanding Storms of the Month is prepared by Professor T. Theodore Fujita, editor, and Duane J. Stiegler, associate editor, University of Chicago. The narrative descriptions of Storms by State and Summaries of Hurricanes and Tropical Storms are prepared by the National Weather 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.

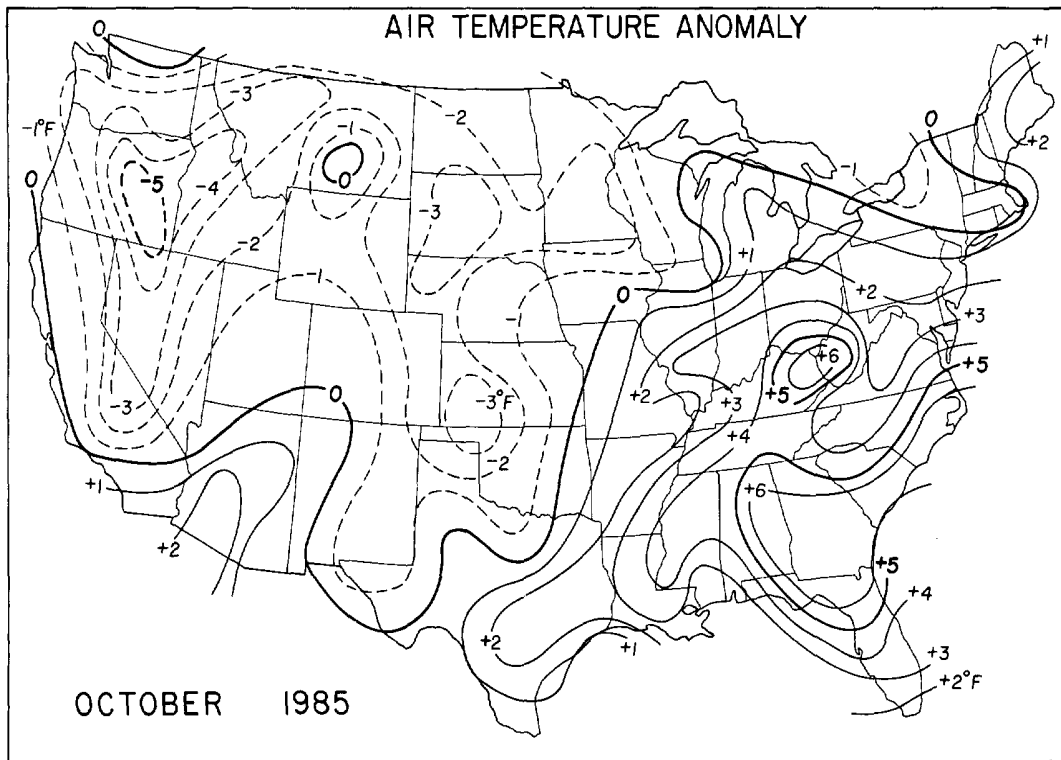
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OUTSTANDING STORMS OF THE MONTH



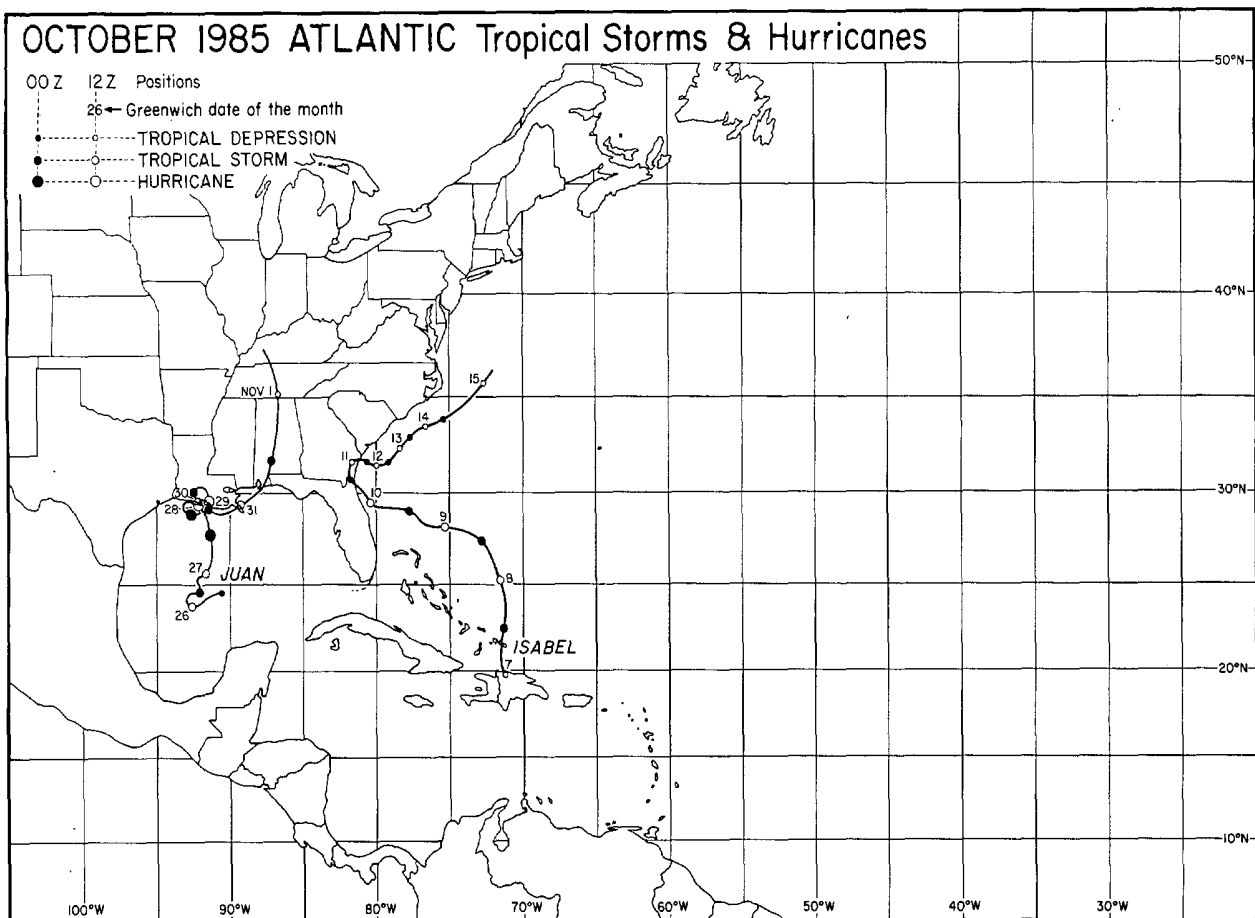
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| <p>● COMPLETE REPORT RECEIVED</p> <p>◐ PRELIMINARY REPORT RECEIVED</p> <p>○ REPORT NOT RECEIVED</p> | <p>(N) northern (W) western</p> <p>(S) southern (C) central</p> <p>(E) eastern (O) coastal</p> <p>(SE) southeastern</p> | <table style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td>● 1AL</td><td>● 7DE</td><td>● 14KS</td><td>● 21MN</td><td>● 28NJ</td><td>● 33OH</td><td>● 39SD</td><td>● 44VA</td><td>● 49AK(SE)</td> </tr> <tr> <td>● 2AZ</td><td>● 8FL</td><td>● 15KY</td><td>● 22MS</td><td>● 29NM</td><td>● 34OK</td><td>● 40TN</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 | ● 21MN | ● 28NJ | ● 33OH | ● 39SD | ● 44VA | ● 49AK(SE) | ● 2AZ | ● 8FL | ● 15KY | ● 22MS | ● 29NM | ● 34OK | ● 40TN | ● 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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| ● 2AZ | ● 8FL | ● 15KY | ● 22MS | ● 29NM | ● 34OK | ● 40TN | ● 45WA | ● 50HI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ● 3AR | ● 9GA | ● 16LA | ● 23MO | ● 30NY(O) | ● 35OR | ● 41TX(N) | ● 46WV | ● 51PR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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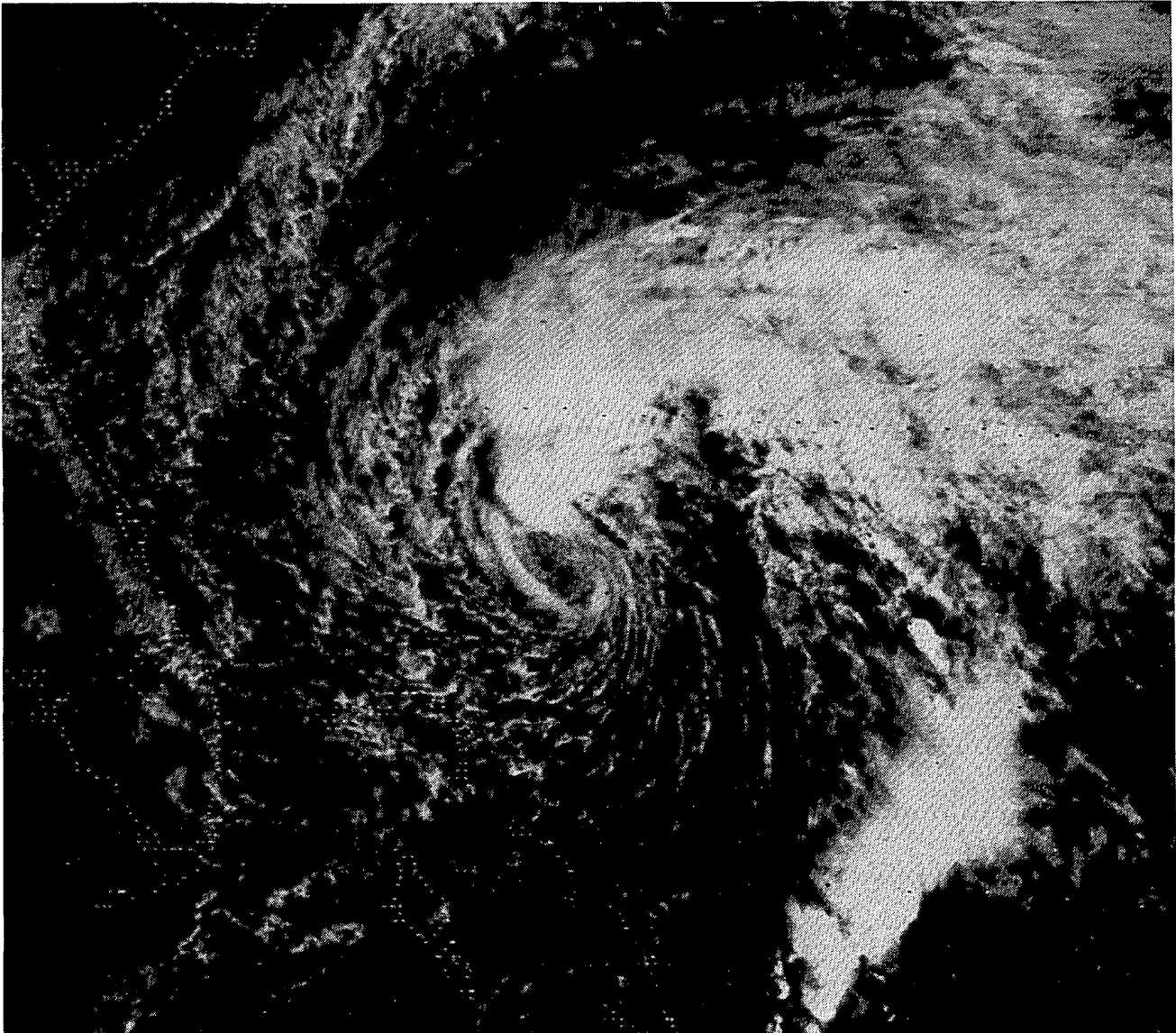
---Data base from NOAA/USDA Joint Agricultural Weather Facility.

TROPICAL STORMS AND HURRICANES

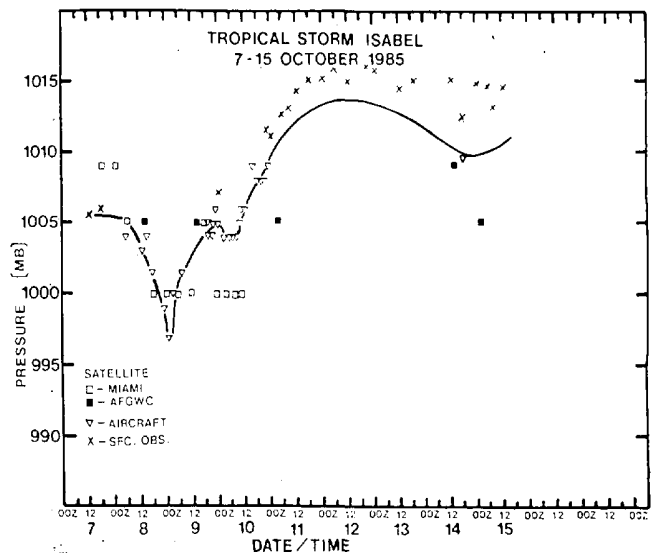
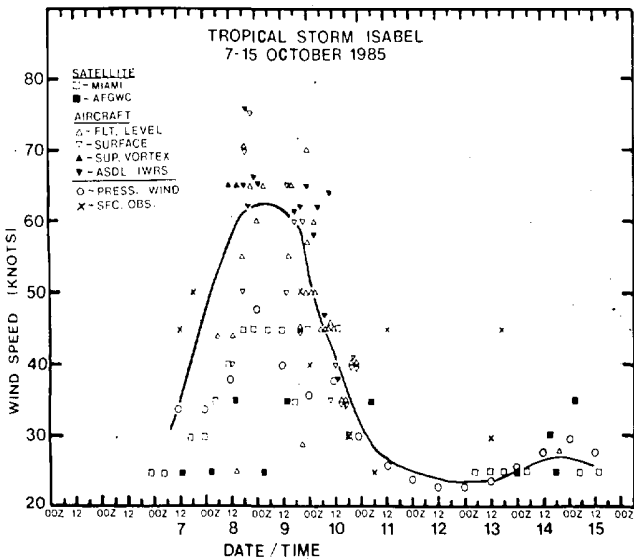


---Best track data from the National Hurricane Center, Miami, Florida.

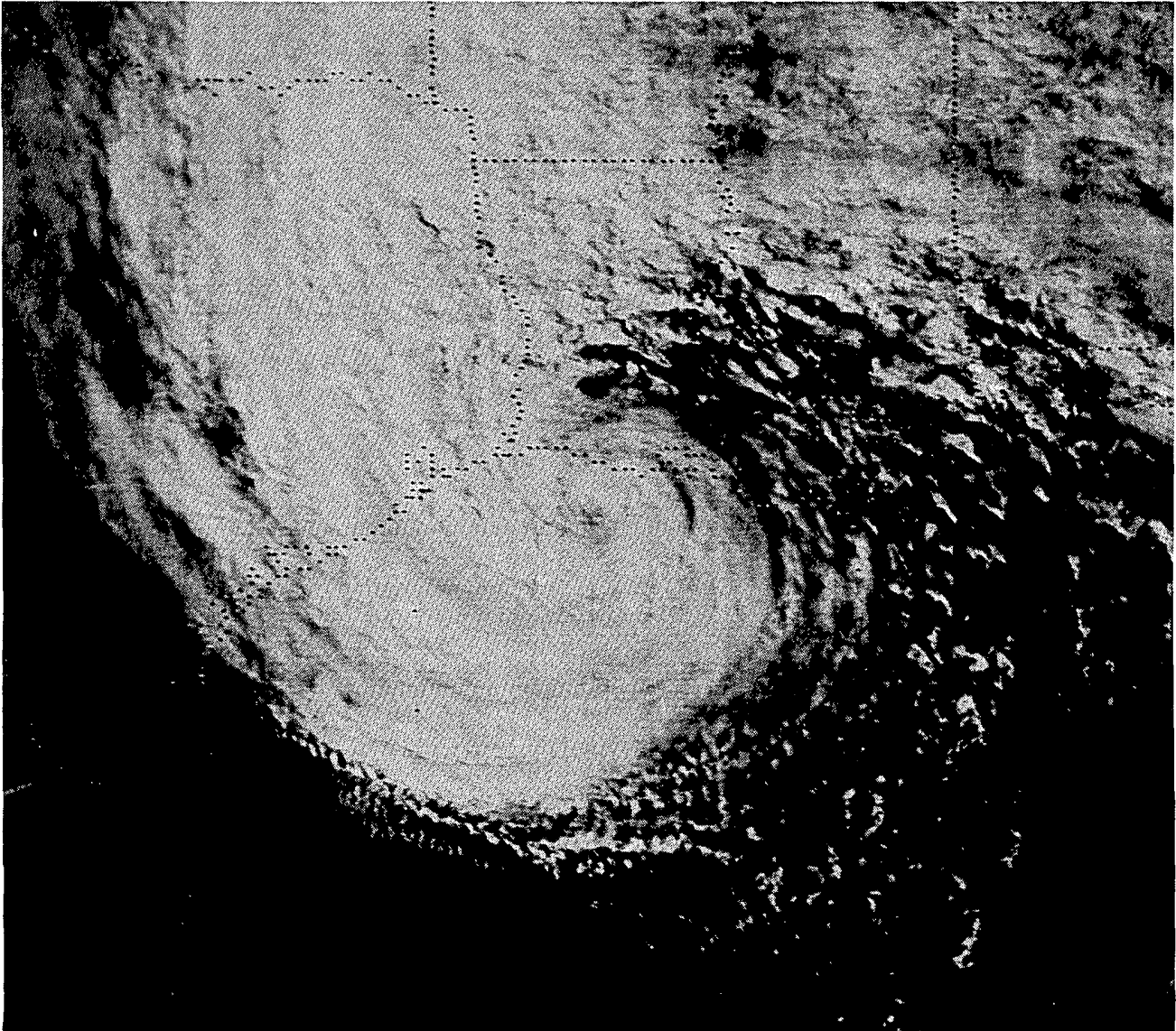
TROPICAL STORMS and HURRICANES ---- continued



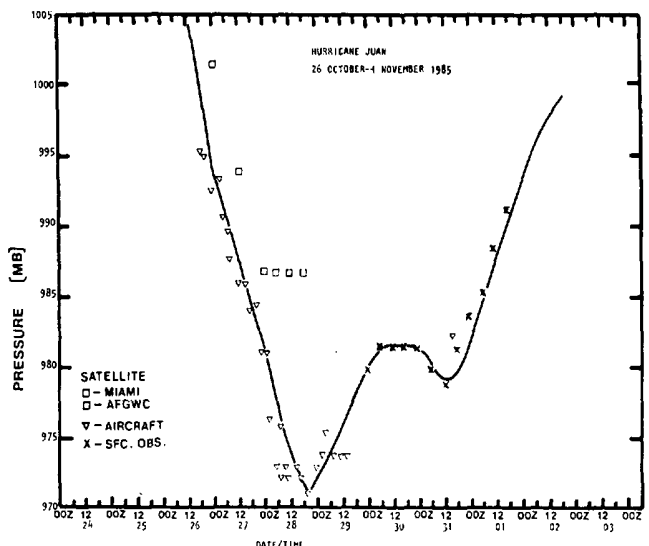
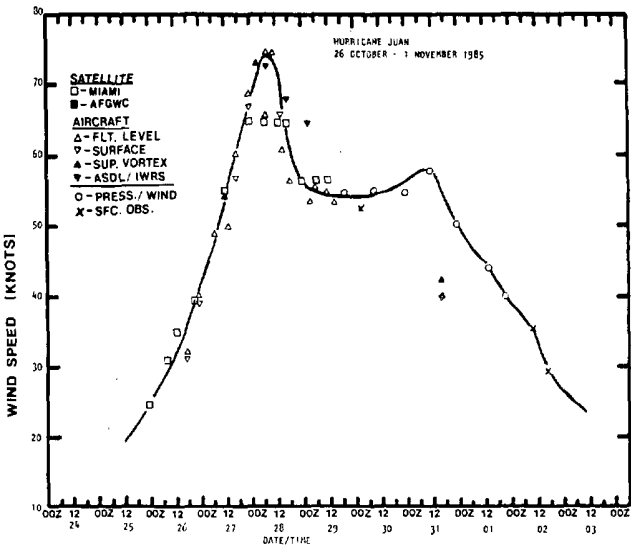
Tropical Storm ISABEL, centered near 28.5°N and 75.5°W at 1401GMT on October 9th, as it was producing its peak winds. It later dropped to depression stage and made a momentary landfall on the Georgia Coast. BELOW: Plots of estimated maximum wind speed and minimum surface pressure versus time for Tropical Storm ISABEL. ---Photo and figures from NHC, provided by AOML/HRD, both of Miami, Florida.



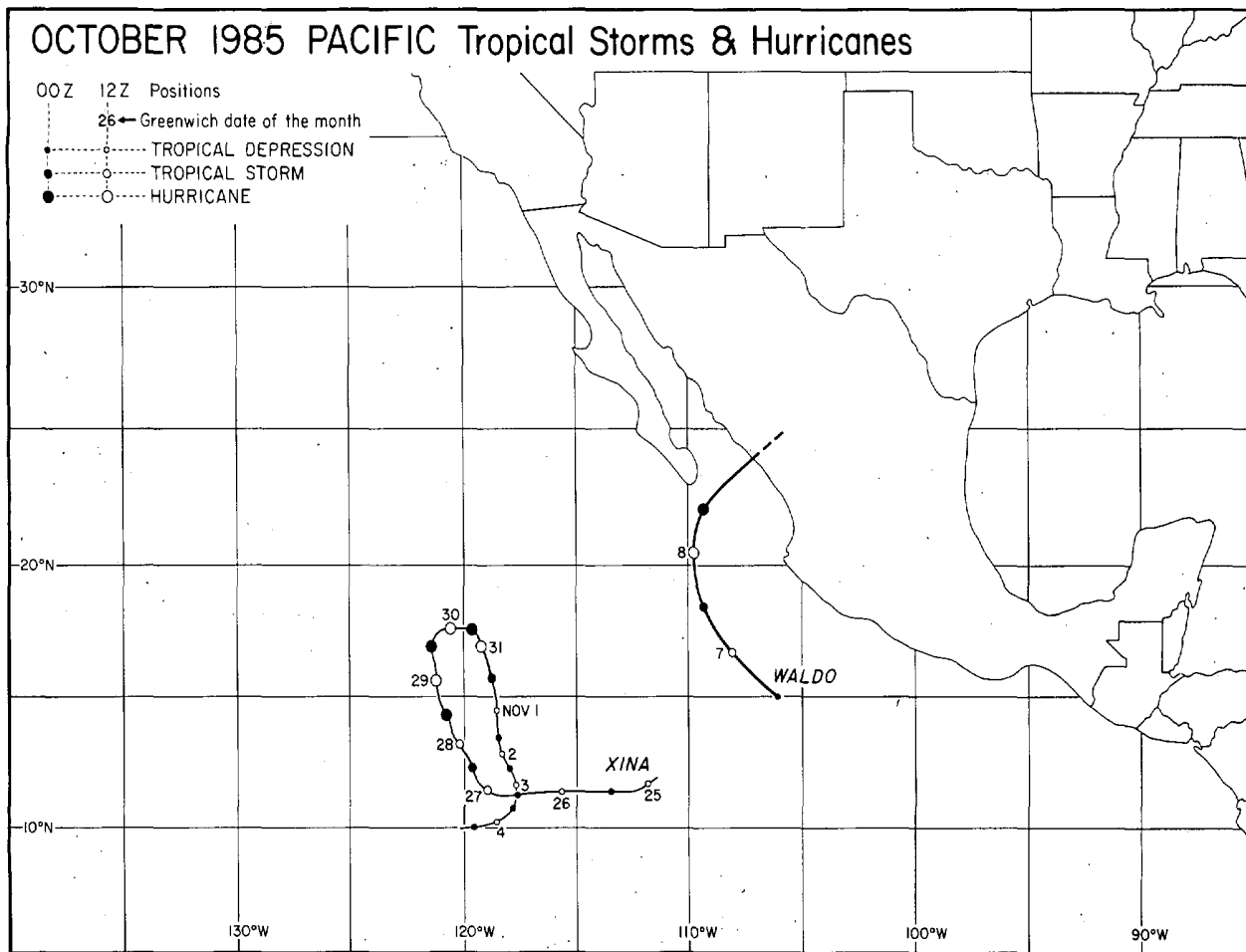
TROPICAL STORMS and HURRICANES ---- continued



Satellite view of Hurricane JUAN as it was centered just offshore of the Louisiana Coast at 2000GMT on October 28th. The storm meandered in the area, both on and off-shore, for a 3 day period before moving inland for the last time in southwestern Alabama on October 31st (see page 16 for detail of the storm's track). BELOW: Plots of estimated maximum wind speed and minimum surface pressure versus time for Hurricane JUAN. ---Photo and figures from NHC, provided by AOML/HRD, both of Miami, Florida.



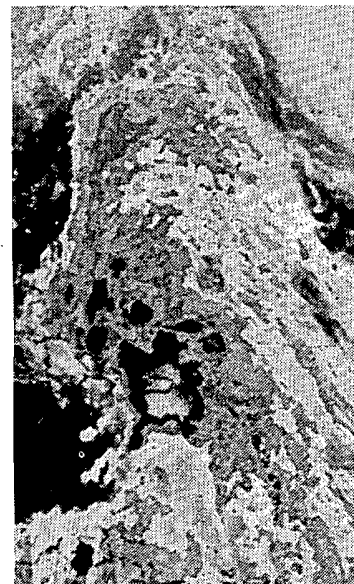
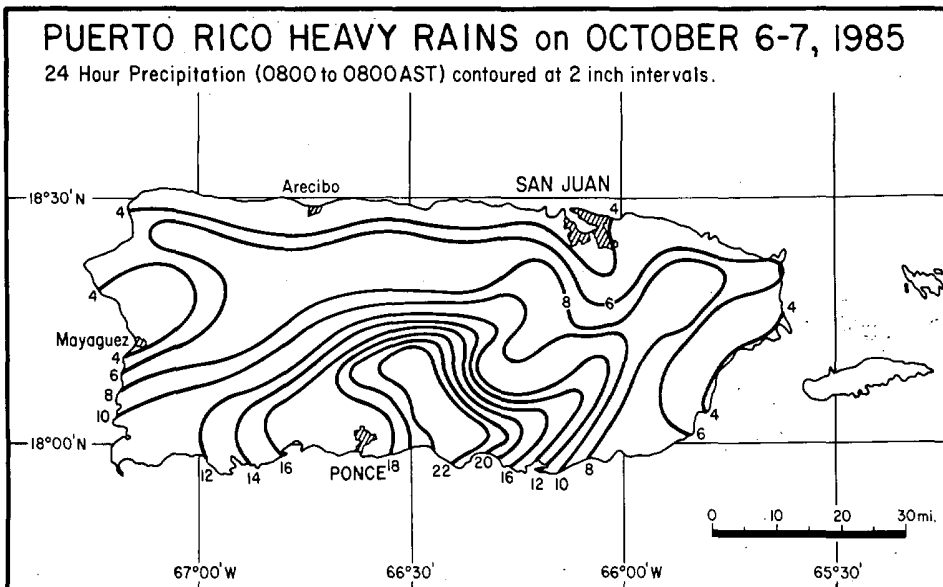
TROPICAL STORMS and HURRICANES ---- continued



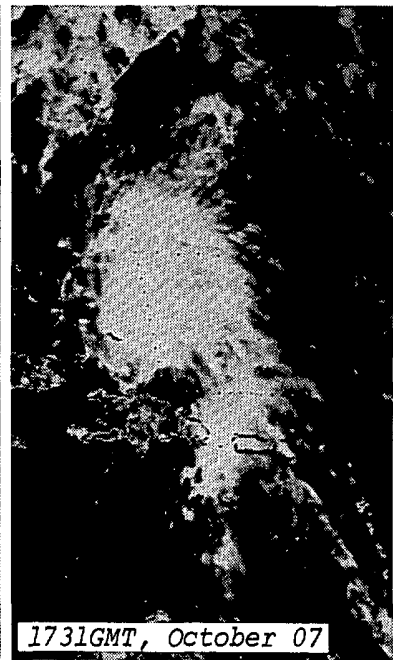
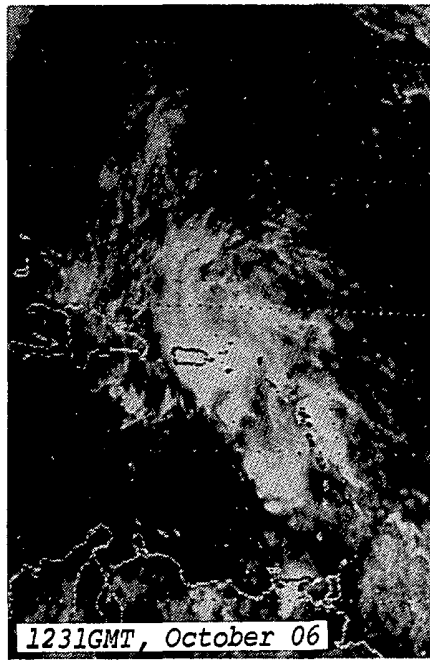
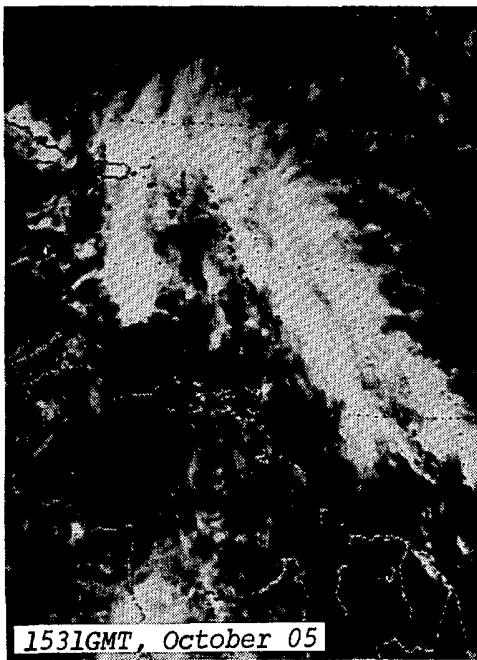
---Best track data from NWSFO, San Francisco, California.

1. TROPICAL WAVE over PUERTO RICO on October 6-7, 1985

A tropical wave that later intensified to become Tropical Storm ISABEL produced record-setting heavy rains of up to 24.6 inches in 24 hours over Puerto Rico on October 6th and 7th. The heaviest rains fell on the southern mountain slopes in the Ponce area, and created severe flooding and numerous landslides which claimed about 180 lives. BELOW RIGHT: A GOES 6 satellite, infrared image shows cold cloud tops, an indicator of strong convection, over Puerto Rico at 0330GMT on October 7th.



TROPICAL WAVE over PUERTO RICO ---- continued



GOES 6 satellite, visible images of the tropical wave as it approached, passed over, and moved beyond Puerto Rico over a 2 day period. The system was named Tropical Storm ISABEL prior to the time of the last photo. ---Photos courtesy of NESDIS.



A bridge of the San Juan-Ponce Highway over the Coamo River where pavement leading to it had been eroded away by floodwater which had overtopped the dam in the foreground. A number of motorists had driven into the flooded gap and were washed downstream before anyone was aware of the incident and the road could be blocked off. 29 lives were lost. ---Photo by Victor M. Hernandez, Departamento Recursos Naturales.

TROPICAL WAVE over PUERTO RICO ---- continued



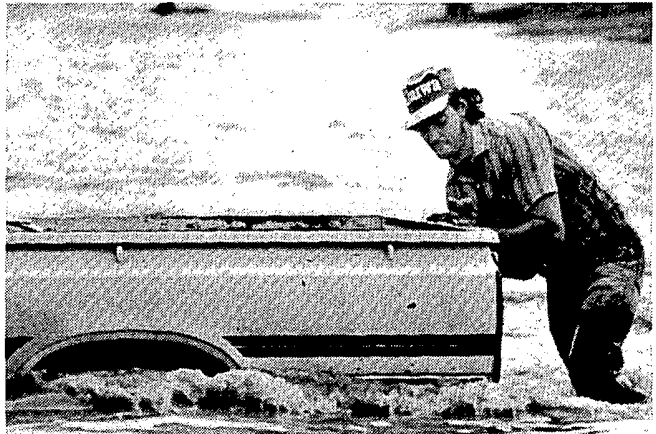
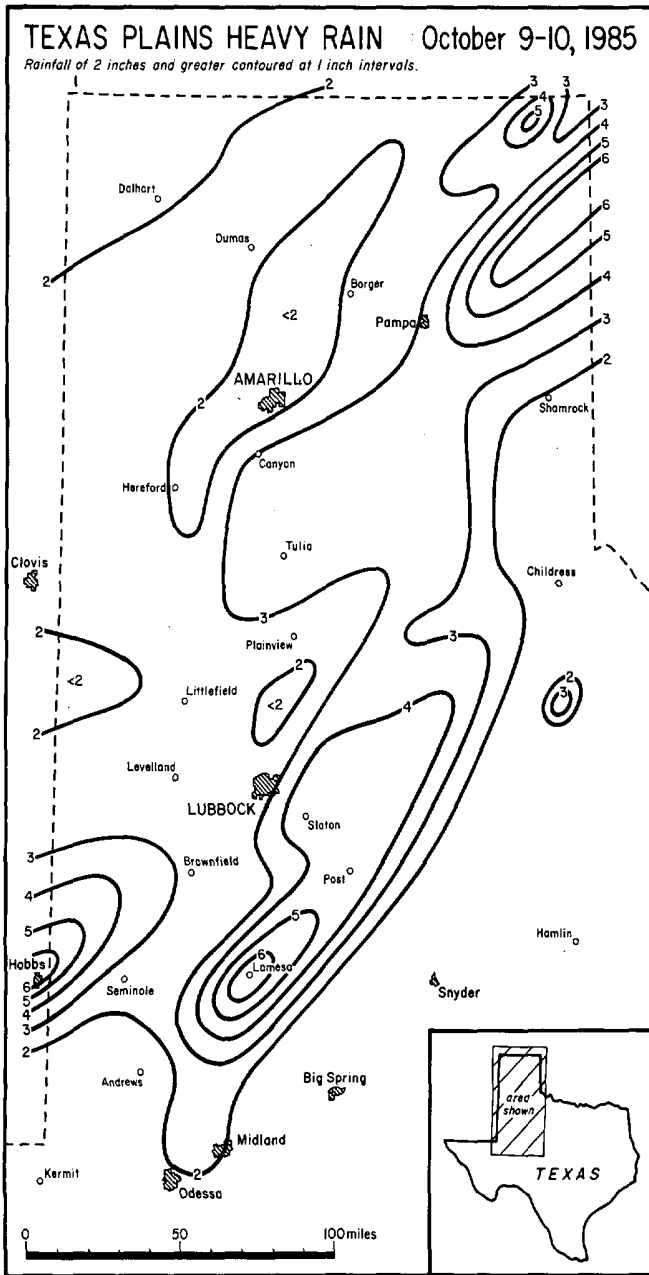
A portion of a landslide at Barrio Mameyes, a residential hillside community of Ponce where 127 lives were lost in the most tragic incident associated with the rain episode.

---Map and all photos covering this event, except for the satellite images on page 8, were supplied by the NWSFO at San Juan, Puerto Rico.

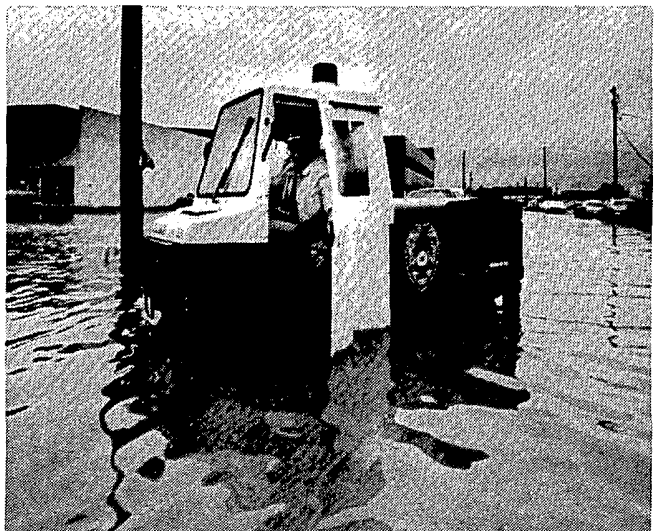
On October 9-10, 1985, heavy rains fell in a band that stretched from southeast New Mexico to Michigan as the remnants of Hurricane WALDO, which had made landfall on the Pacific Coast of Mexico early on the 9th, combined with a frontal system. Two areas which received some of the heaviest rains are featured in the following items 2a and 2b.

2a. HEAVY RAINS over the TEXAS PLAINS on October 9-10, 1985

The rains that fell over the Texas Plains on October 9th and 10th were generally 2 to 4 inches, while parts of the eastern and southern panhandle received amounts of just over 6 inches. Flash flooding was minimal as the welcome rains were spread over the 2 day period throughout much of the area. However, in some areas such as Midland, general flooding was a problem and caused moderate damage and travel disruption.

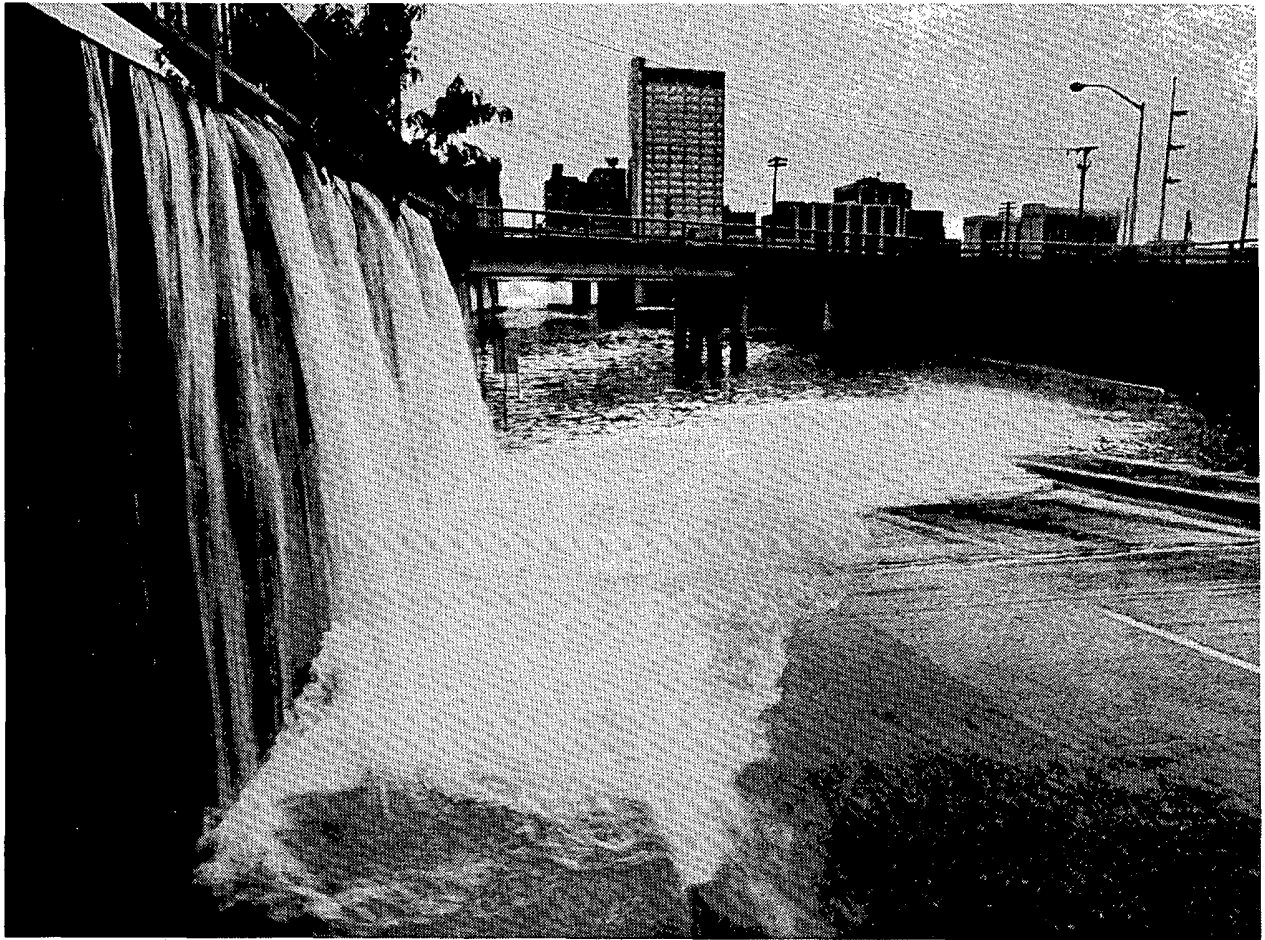


ABOVE: An engulfed pickup truck receives a helping push through a flooded Midland street. BELOW: A Midland traffic officer is caught in his vehicle as floodwater penetrated its cab. ---Both photos by Kent Porter.



---Analysis by the University of Chicago based on 117 data points from cooperative observers and NWS offices. Data supplied by the NWSFO at Lubbock, Texas and the NCDC.

HEAVY RAINS over the TEXAS PLAINS ---- continued



A highway underpass in downtown Midland that turned into a small lake as water poured over one of the embankments.



A family wades across a flooded intersection on a major Midland thoroughfare.
---Photo by Kent Porter.

HEAVY RAINS over the TEXAS PLAINS ---- continued

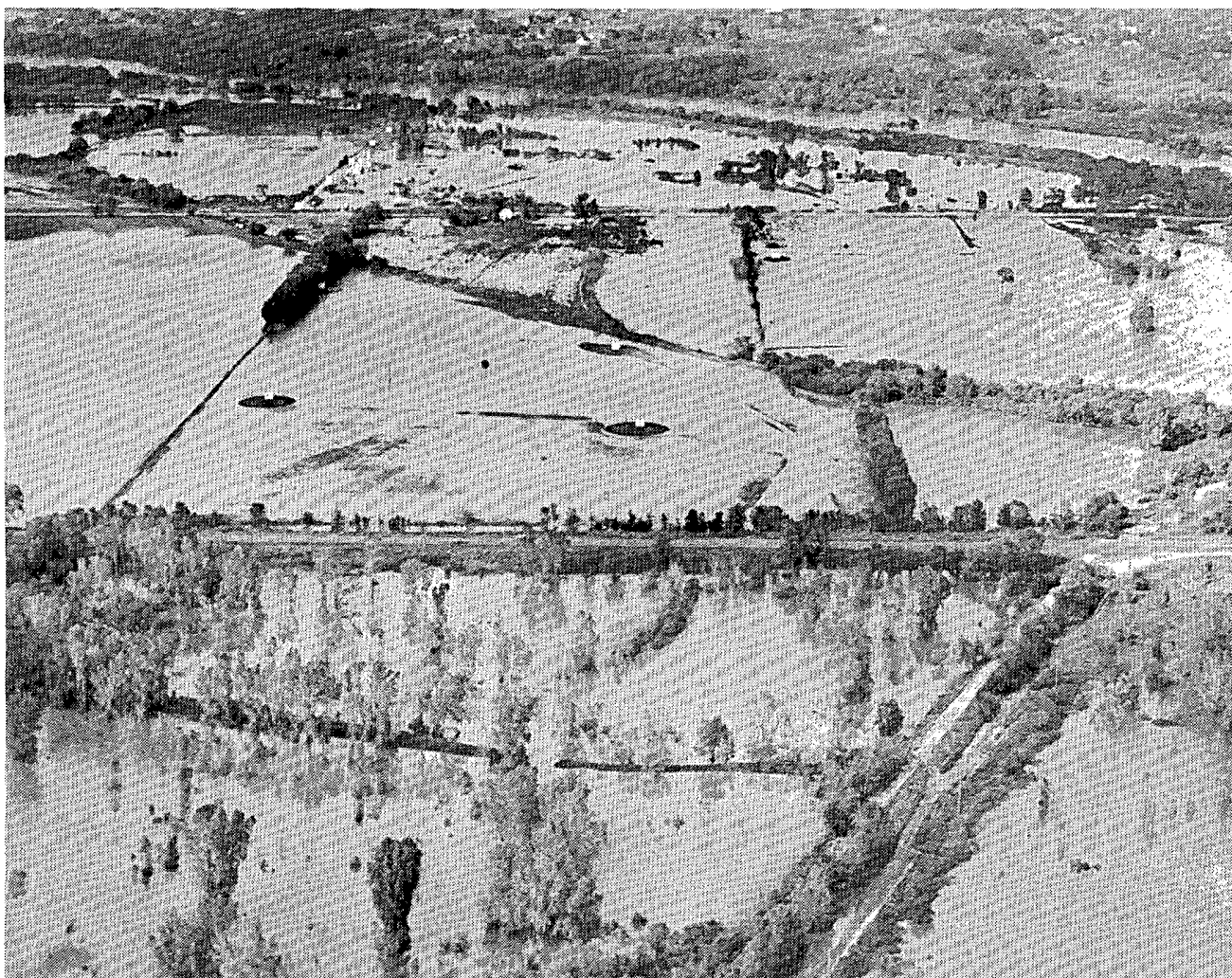
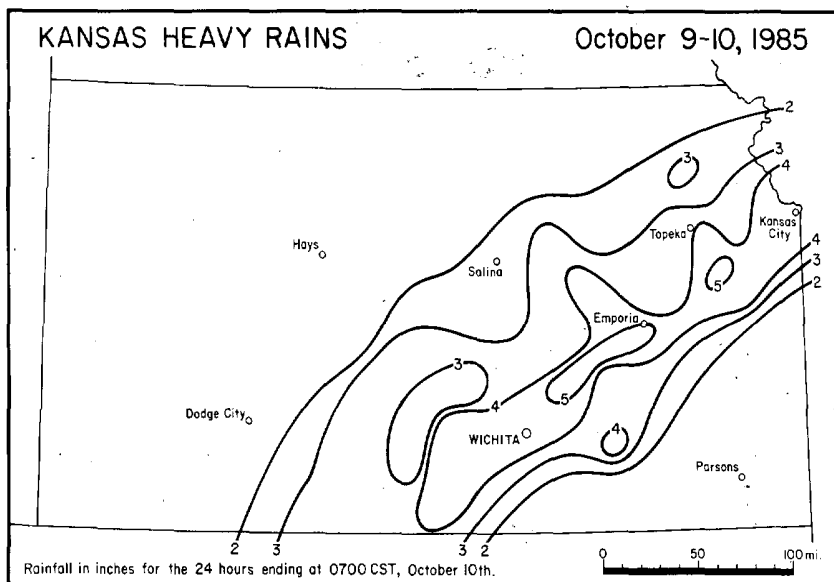


As evidenced by the above photos, numerous Midland manholes simulated geysers as the pressure of floodwater over backed-up sewers forced water through the drainage system and out of others.

---All photos of this event are from the Midland Reporter-Telegram and were supplied by the NWSFO at Lubbock, Texas.

2b. HEAVY RAINS over KANSAS on October 9-10, 1985

In Kansas, the heavy rains of October 9th and 10th were distributed from the south-central to the northeast portion of the state, with the heaviest amounts of up to 6 inches occurring along a line running through Wichita, Emporia and Kansas City. Having fallen on presoaked ground, the rains impact was manifest mainly by river and stream flooding that persisted through October 12th and set record crests at some locations. ---Map and photos supplied by the NWSFO at Topeka, Kansas.



Farmland along U.S. Highway 166 west of Arkansas City is flooded by water from the Arkansas River in the distance. ---Photo by Don Shrubshell, Arkansas City Traveler.

HEAVY RAINS over KANSAS ---- continued



Canoes float down Main Street in Sedgwick in floodwaters of the Little Arkansas River on October 10th. ---Photo by Kevin Loeffler, Newton Kansan.

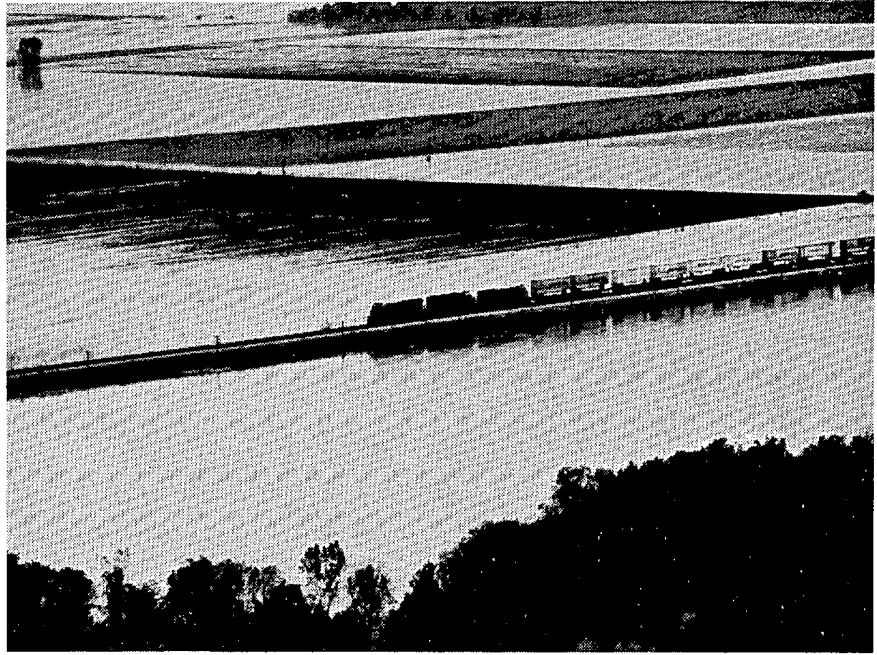


ABOVE: Cottonwood River flooding at Elmdale on October 10th.
BELOW: The Cottonwood River, topping the 5th Street bridge at Florence, also on the 10th. ---Both photos by Bill Hoch, Marion County Record.



HEAVY RAINS over KANSAS ---- continued

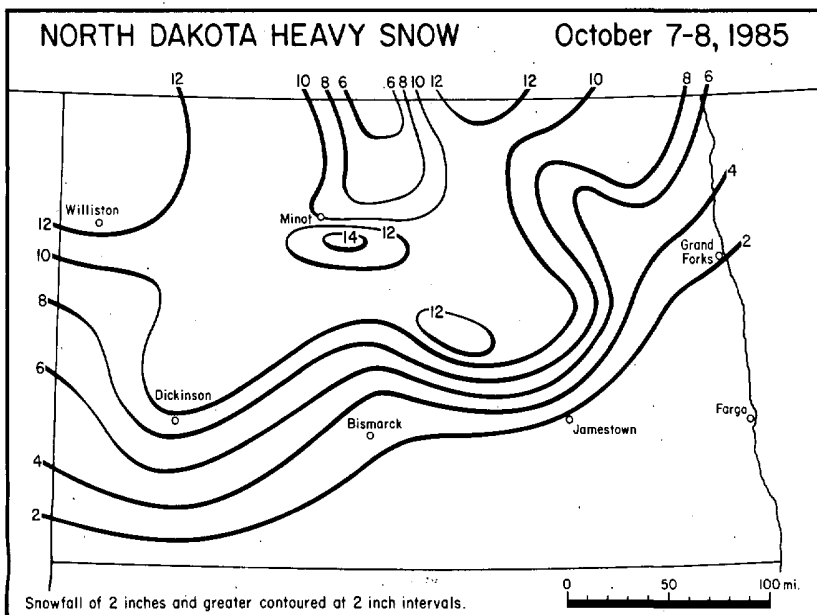
A train that was one of the few vehicles moving near Cottonwood Falls on October 11th, as the Cottonwood River had submerged much of its surrounding landscape. ---Photo by Keith Mays, Topeka Capital-Journal.



The Arkansas River, flowing over the West Chestnut Avenue bridge in Arkansas City on October 12th. ---Photo by Don Shrubshell, Arkansas City Traveler.



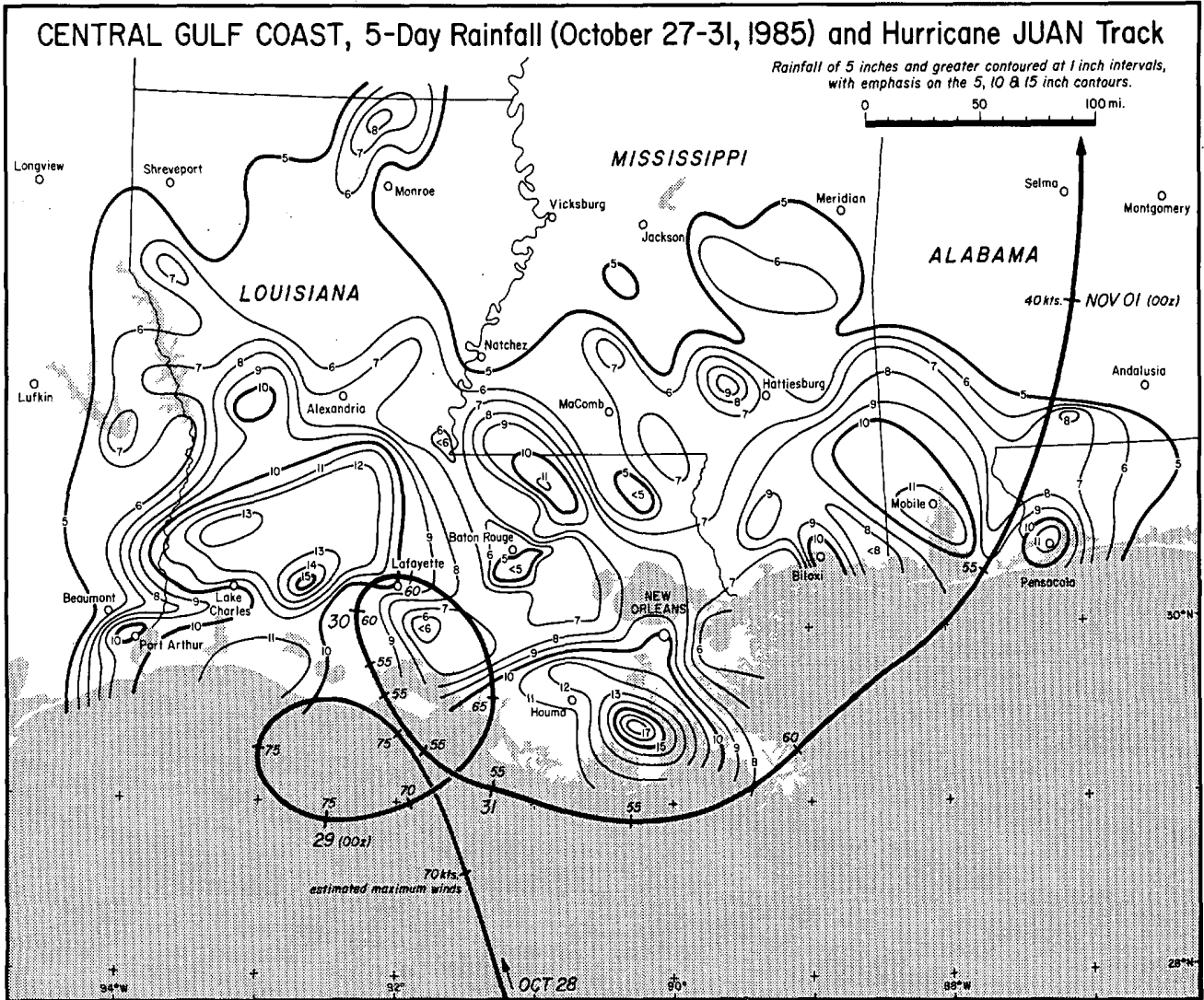
3. HEAVY SNOW in NORTH DAKOTA on October 7-8, 1985



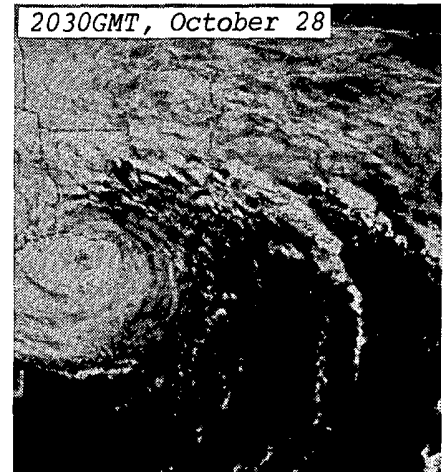
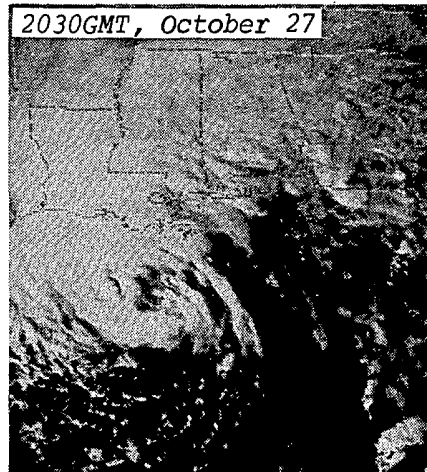
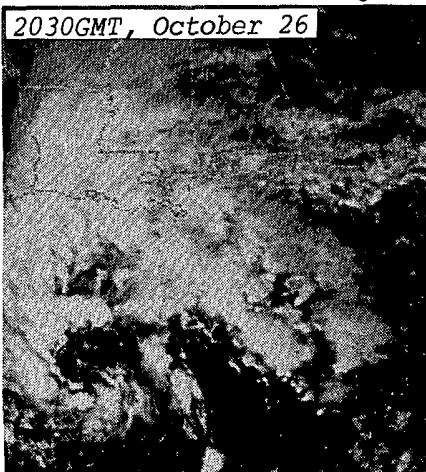
A heavy, wet snowfall of up to 14 inches blanketed much of northern and western North Dakota on October 7th and 8th. The snow blocked roads, stranded motorists, contributed to the cause of numerous traffic accidents, and caused power outages and damage to unharvested crops. The situation was complicated by single digit temperatures on the morning of the 9th which froze vehicle wheels to the pavement and hampered clearing operations by turning the slush to ice. ---Map provided by the NWSFO at Bismarck, North Dakota.

4. HURRICANE JUAN on the CENTRAL GULF COAST on October 26-31, 1985

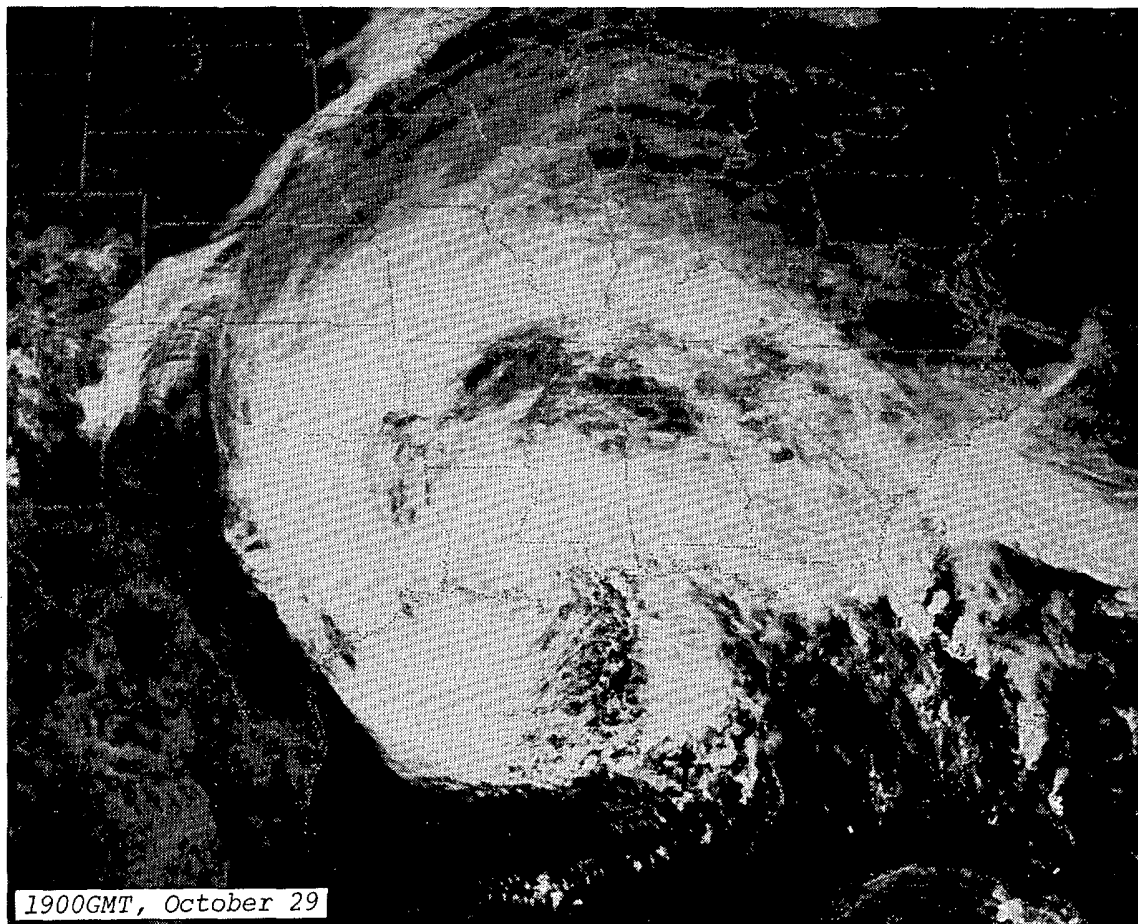
As Hurricane JUAN lashed the central Gulf Coast on October 26th to the 31st, it made a pretzel-like path of 2 cycloidal loops over the Louisiana Coast. Although JUAN was weak (75 knot maximum winds), its slow, meandering course resulted in excessive rainfall, with Galliano, LA receiving as much as 17.73 inches in a 5 day period. Flooding resulted from rains and up to 8 foot storm surges, and 12 lives were lost, 9 associated with toppled oil rigs and boats lost at sea.



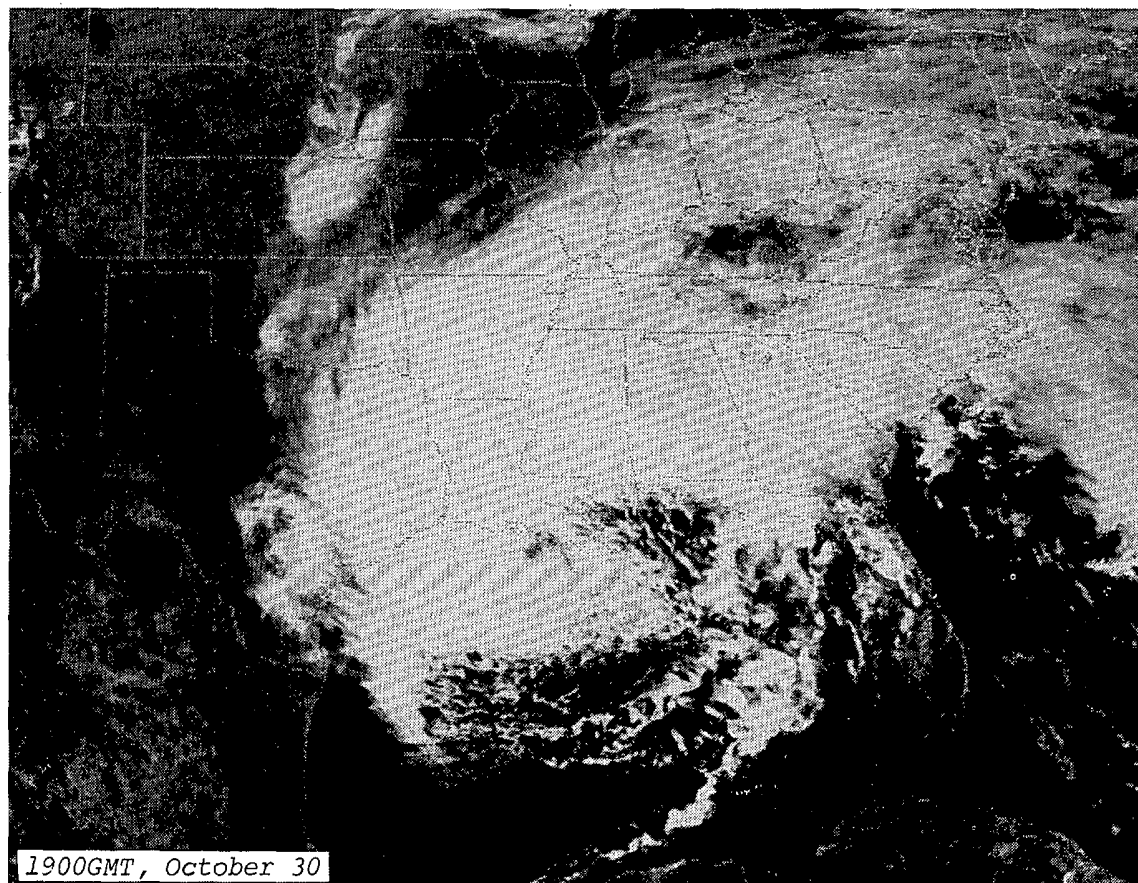
*Extreme SE Louisiana data includes October 26th precipitation. ---Mapped by the University of Chicago from 349 NWS and cooperative observer reports. Track with 6 hour positions from NHC. BELOW AND NEXT TWO PAGES: GOES 6 satellite, visible images of JUAN at various stages of its life from October 26th to November 1st.



HURRICANE JUAN on the CENTRAL GULF COAST ---- continued

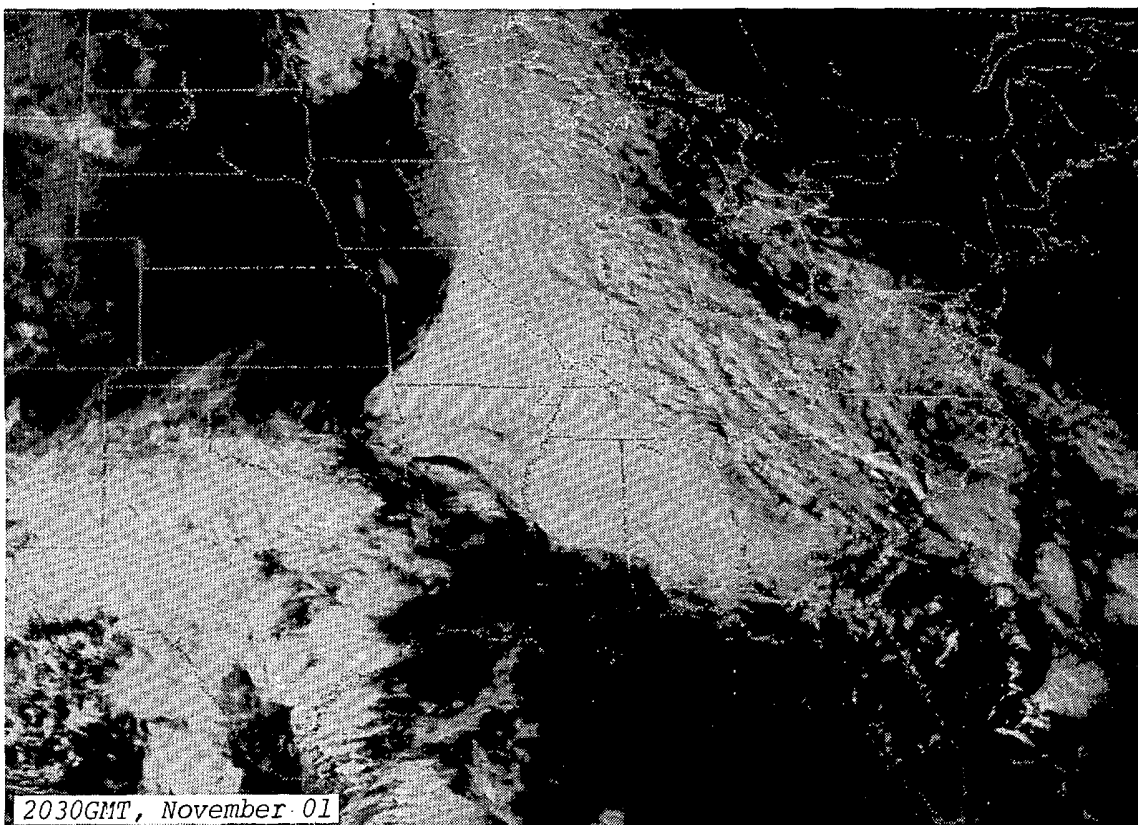
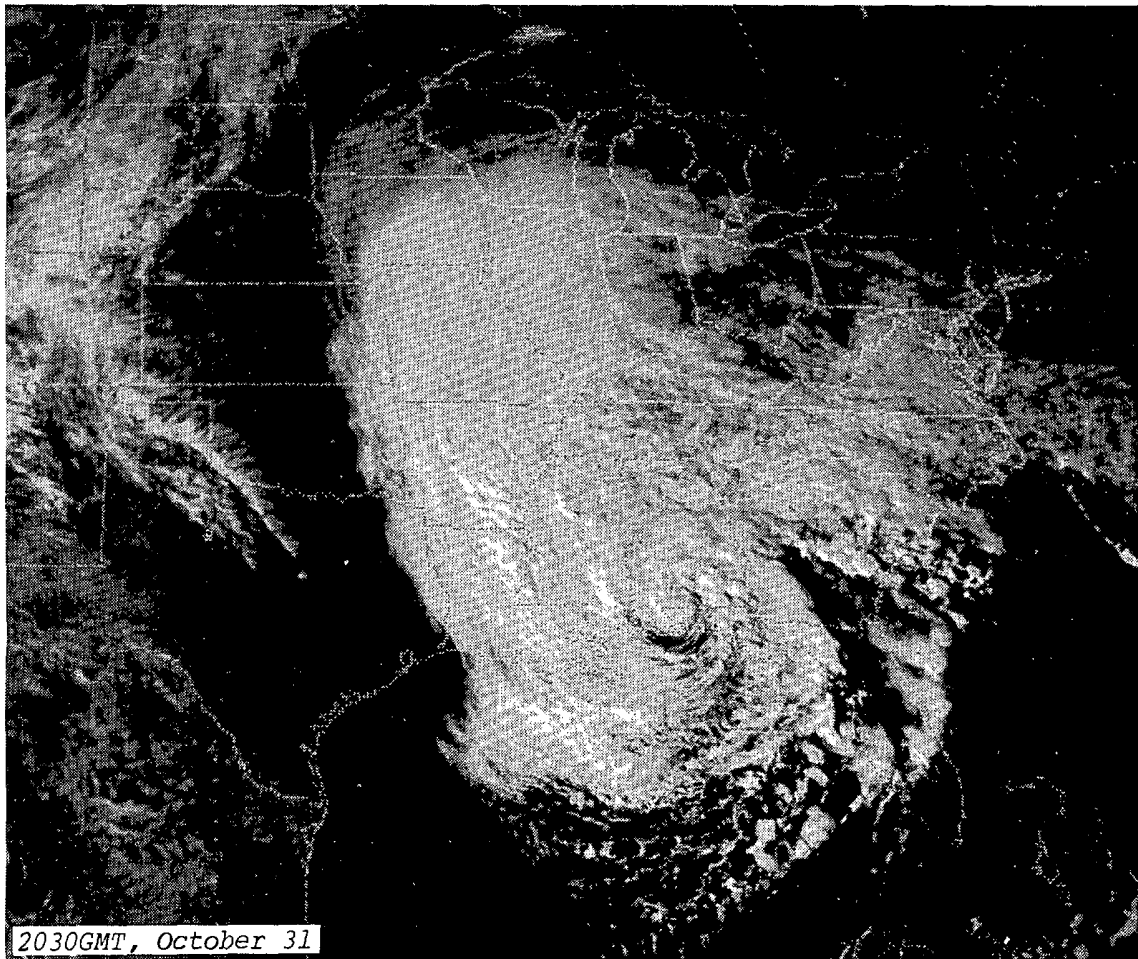


1900GMT, October 29



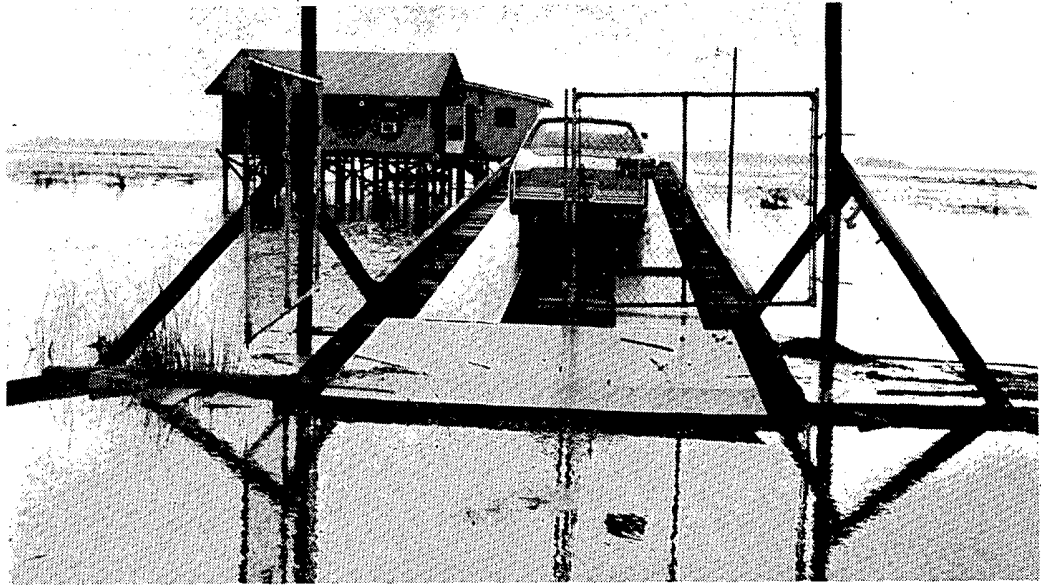
1900GMT, October 30

HURRICANE JUAN on the CENTRAL GULF COAST ---- continued



---All satellite photos on pages 16 to 18 are courtesy of NESDIS.

HURRICANE JUAN over the CENTRAL GULF COAST ---- continued

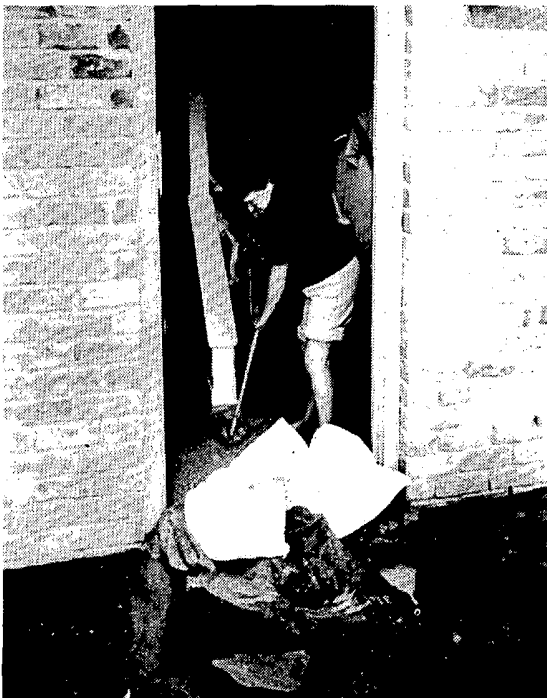


Three views of the Slidell, Louisiana area where 5 to 7 foot storm surges and 7 inch rains flooded roadways, stranding vehicles and restricting travel to wading and boating.

HURRICANE JUAN over the CENTRAL GULF COAST ---- continued



Residents living on Lake Pontchartrain watch as JUAN's storm surge pushes water and debris beyond the lakeshore and up to the road on which they are standing.



A woman does what she can to prevent water from entering the doorway to her Slidell apartment.



Sandbagging operations which worked well to keep some buildings dry.

---All photos on pages 19 and 20 are by Dennis Tymkiw, The Daily Sentry-News, Slidell, Louisiana.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

OCTOBER 1985

| 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 | |

1 ALABAMA

| | | | | | | | | | |
|--|-------|---------|----|----|---|---|---|---|-----------------------------|
| NE Dallas County | 15 | 1320CST | | | 0 | 0 | ? | ? | Thunderstorm/ Wind |
| Thunderstorm winds apparently caused a 20 year old tower to fall. A supporting cable was reported to have snapped after the upper part of the tower began to sway. | | | | | | | | | |
| Selma area, Dallas County | 15 | 1330CST | | | | | | | Funnel Cloud |
| The Dallas County Emergency Management Agency reported a funnel cloud just NE of Selma, moving NE. | | | | | | | | | |
| Wetumpka, Elmore County | 15 | 1415CST | | | 0 | 0 | 2 | 0 | Thunderstorm/ Wind |
| Thunderstorm winds downed at least one tree and tree limbs were blown into powerlines. | | | | | | | | | |
| Montgomery area, Montgomery County | 15 | 1430CST | | | 0 | 0 | 3 | 0 | Thunderstorm/ Wind |
| Thunderstorm winds damaged a barn just north of Montgomery and also damaged some trees in a nearby NE Montgomery subdivision. | | | | | | | | | |
| Mobile and Baldwin Counties | 28-31 | | | | 0 | 0 | ? | ? | Tropical Storm/ Flooding |
| Tropical Storm Juan finally moved inland near Gulf Shores, around 1600CST, October 31, marked mainly by wind gusts near 40 mph and no significant damage from the storm at landfall. The main impact from Juan was from heavy rains that drenched Mobile and Baldwin Counties (October 28-31) and from a few, brief tornadoes and windstorms that occurred in spiral bands over south Alabama, which are listed separately in this report. Rainfall totals for the 28th to 31st were around 10 to 12 inches over Mobile and Baldwin Counties. Mobile's October total of 13.20 inches made it the wettest on record there. Some of the worst flooding occurred on the 29th when more than 5 inches of rain fell. However, the flooding apparently was confined to some streets and low areas, and no buildings were affected. Topsoil losses were reported as heavy, and some farmers estimated about 50% of their soybean crop, lost. The pecan crop, already hard hit by Hurricane Elena in September, sustained additional losses when nuts ready for harvest, floated away. | | | | | | | | | |
| Theodore, Mobile County | 28 | 0155CST | | | 0 | 0 | ? | ? | Thunderstorm/Wind |
| Thunderstorm winds caused some damage in a mobile home park. | | | | | | | | | |
| Silverhill/Robertsdale area, Baldwin County | 28 | 0205CST | | | 0 | 0 | ? | ? | Thunderstorm/ Wind |
| Thunderstorm winds downed a few trees and powerlines. | | | | | | | | | |
| 2N Dauphin Island, Mobile County | 28 | 0856CST | | | | | | | Waterspout |
| A waterspout was reported moving NNW. | | | | | | | | | |
| Hartford/Geneva area Geneva County | 28 | 1010CST | | | 0 | 0 | 3 | 0 | Thunderstorm/ Wind |
| Thunderstorm winds destroyed a barn and damaged a house on Alabama 52 between Hartford and Geneva. | | | | | | | | | |
| Floralia, Covington County | 28 | 1100CST | .1 | 30 | 0 | 0 | 4 | 0 | Tornado (F1) |
| Several people reported sighting a tornado that damaged a house, destroyed a barn and downed some trees near U.S. 331 and the Floralia Airport. One fallen tree blocked U.S. 331. | | | | | | | | | |
| Flomaton, Escambia County | 28 | 1115CST | .1 | 30 | 0 | 0 | 4 | 0 | Tornado (F1) |
| A tornado uprooted trees and overturned a mobile home. | | | | | | | | | |
| Coffee Springs area, Geneva County | 28 | 1550CST | | | 0 | 0 | 5 | 0 | Thunderstorm/ Wind |
| Thunderstorm winds destroyed 3 equipment barns and damaged several farm buildings. | | | | | | | | | |
| 6SW Mobile Airport, Mobile County | 29 | 0220CST | | | 0 | 0 | 3 | 0 | Thunderstorm/ Wind |
| Thunderstorm winds downed some trees and powerlines. | | | | | | | | | |
| Orange Beach, Baldwin County | 29 | 0950CST | .1 | 30 | 0 | 0 | 4 | 0 | Tornado (F1) |
| Orange Beach Police reported that a tornado damaged a store and a car. | | | | | | | | | |
| Slocumb area, Geneva County | 31 | 1110CST | | | 0 | 0 | 3 | 0 | Thunderstorm/ Wind |
| Thunderstorm winds downed trees and one power pole and damaged a stable. | | | | | | | | | |

2 ARIZONA

NONE REPORTED

3 AR

| | | | | | | | | | |
|--|----|-----------------|--|--|---|---|---|---|-------------|
| Clay County | 17 | 0300 CST | | | 0 | 0 | 4 | - | Lightning |
| Heavy damage was done by fire to a Corning residence after lightning struck it. | | | | | | | | | |
| Searcy County | 18 | about 1515 CST | | | 0 | 0 | 4 | - | Wind |
| Thunderstorm winds destroyed one mobile home and a storage shed, and damaged two house windows in Marshall. Several trees were blown down, also. | | | | | | | | | |
| Union, Bradley, Lincoln, and Desha Counties | 19 | 0410 - 0945 CST | | | 0 | 0 | ? | - | Flash Flood |
| Rainfall over southeast Arkansas ranged from 2 to 8 inches. Streets and some homes flooded in Gould. The water caused sewage to back up into homes. Several streets were barricaded. State Highway 81 was under water near Yorktown. Highway 4 was also under water between Banks and Warren. Some streets and one business flooded in Dumas. Street flooding was reported at El Dorado. | | | | | | | | | |
| Hempstead County | 28 | 0730 CST | | | 0 | 0 | 3 | - | Wind |
| A gust from a thunderstorm blew down a tree onto a school bus near Guernsey. | | | | | | | | | |

4 CALIFORNIA, Northern

| | | | | | | | | | |
|---|----|---------|--|--|--|--|--|--|-----------|
| Sierra Nevada | 21 | All Day | | | | | | | Snowstorm |
| A strong early season snowstorm hit the Sierras with locally heavy snow and strong gusty winds. Snowfall amounts at the 6000 to 7000 foot level ranged from 6 inches to 2 feet, with higher amounts at the higher elevations. | | | | | | | | | |

4 CALIFORNIA, Southern

| | | | | | | | | | |
|---|----|--------------|--|--|---|---|---|---|---------------------|
| Avalon Harbor, Santa Catalina Island | 05 | 1800PST | | | 0 | 0 | ? | 0 | High Wind |
| A fast-moving storm with wind gusts of over 50 knots caused more than 100 boats to drag anchor or lose their moorings. | | | | | | | | | |
| Salt Creek State Beach, Orange County | 07 | 1737-1744PST | | | 0 | 0 | 0 | 0 | Waterspout |
| A waterspout spotted off Salt Creek State Beach near Laguna Beach was reported by public and the California Highway Patrol. | | | | | | | | | |
| Encinitas, San Diego County | 12 | 0600PST | | | 0 | 0 | 8 | 0 | High Winds |
| Winds reaching nearly 80 mph whipped the county's coastline and knocked down trees, ripped off power lines and tore off roof shingles. High winds tore off the roof of a duplex and then roared into an area of greenhouses. Also, a tree fell on two cars. | | | | | | | | | |
| Wilkerson Ranch near Bishop, Inyo County | 21 | 0640PST | | | 0 | 0 | ? | 0 | High Winds |
| Wind gusts to 90 mph were reported. Limbs and branches were broken and some roofs were damaged. | | | | | | | | | |
| San Fernando Valley and Los Angeles, Los Angeles County | 21 | 1100PST | | | 0 | 2 | ? | 0 | Wind and Rain Storm |
| A rain storm caused seven major accidents on the freeways in Los Angeles and the San Fernando Valley. Gusty winds caused scattered power outages around Los Angeles, the San Fernando Valley, Hollywood Highland Park and West Los Angeles. | | | | | | | | | |

5 COLORADO

| | | | | | | | | | |
|---|-----|---------|--|--|---|---|---|---|------------|
| Eastern Foothills & San Luis Valley | 7 | all day | | | 0 | 0 | 3 | 0 | High Winds |
| Strong winds buffeted the eastern foothills from Colorado Springs northward. A gust of 60 mph was recorded at NORAD near Colorado Springs at 0530PST, and power outages at around midday affected over 5000 people in that city. Around midday, gusts ranging from 59 to 69 mph were clocked at the Air Force Academy, at Boulder, and also at the town of Elbert in southwest Elbert County. Longmont reported a gust of 59 mph at 1620 MST. Around midday, gusts of about 60 mph were also recorded at Alamosa in the San Luis Valley, and on top of Squaw Mountain west of Denver. | | | | | | | | | |
| Northwest Colorado | 8-9 | | | | 0 | 0 | 4 | 0 | Heavy Snow |
| One to two feet of snow buried the northern mountains of Colorado, and the heavy snow extended as far south as the mountains above Aspen. 10 to 18 inches fell at lower elevations of northwest Colorado at Craig, Hayden, and Meeker. There was damage in Meeker from numerous broken branches that knocked down fences and caused widespread power outages. | | | | | | | | | |

STORM DATA AND UNUSUAL WEATHER PHENOMENA

OCTOBER 1985

| 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 | |
| — COLORADO — | | | | | | | | | |
| Northern Colorado | 13 | | | | 0 | 0 | 0 | 0 | Heavy Snow |
| 18 inches of snow fell in the mountains north of Steamboat Springs, and 10 inches at Rand in North Park. Most of the mountainous areas in the northern half of the state received snowfall; a foot fell at Snowmass, near Aspen. The snow also spread into the Denver area; 2 to 4 inches fell in the region. | | | | | | | | | |
| Northeast Colorado | 22 | 0800-1300MST | | | 0 | 2 | 5 | 0 | High Winds |
| Strong winds were widespread along the foothills from Colorado Springs northward. Most spots in the area had gusts of 60 to 80 mph, but the peak wind was an 89 mph gust in the eastern part of Boulder at 0945MST. The wind did a variety of damage. A patio cover was blown off a house in Milliken in Weld County. In Colorado Springs, part of a building roof blew off and landed on a car, causing extensive damage. A treehouse east of Boulder was set on fire by a downed power line. Two people were injured. A woman broke her arm when the gusts in Boulder knocked her to the ground, and a carpenter in the city suffered a severely cut hand while he was trying to repair a roof that was being torn from a building. | | | | | | | | | |
| 6 CONNECTICUT — NONE REPORTED | | | | | | | | | |
| 7 DELAWARE — NONE REPORTED | | | | | | | | | |
| 8 FLORIDA | | | | | | | | | |
| Odessa, Pasco Co. | 01 | 1800EST | | | 0 | 0 | 4 | - | Thunderstorm Wind |
| High wind destroyed a wood frame garage. | | | | | | | | | |
| Miami (12mi W), Dade Co. | 19 | 1500EST | | | 1 | 0 | - | - | Lightning |
| A 19 year old man was apparently struck and killed by lightning. No one saw the lightning bolt. It was not known if it was raining at the time. | | | | | | | | | |
| Panhandle and West Coast of State | 28-31 | | | | 0 | 0 | UNK | - | Hurricane Juan |
| Persistent high wind caused high water and waves along the west coast and panhandle of Florida, resulting in minor beach erosion and flooding. Some seawalls previously weakened by Hurricane Elena were destroyed. Most of the severe weather reported on the 28th through the 31st was related to the fringes of Hurricane Juan. | | | | | | | | | |
| Pensacola, Escambia Co. | 28 | 0300CST | 2.0 | 10 | 0 | 0 | 4 | - | Tornado (F0) |
| Two homes and three mobile homes were destroyed. Seven other structures received major damage. | | | | | | | | | |
| Fort Walton Beach, Okaloosa Co. | 28 | 0530CST | 1.0 | 10 | 0 | 1 | 6 | - | Tornado (F1) |
| A 46 year old man was injured when he was tossed from his home by a tornado. A motel was damaged, four homes were destroyed and six units of an apartment were damaged. | | | | | | | | | |
| Villa Tasso, Walton Co. | 28 | 0640CST | 2.0 | 10 | 0 | 5 | 6 | - | Waterspout-Tornado (F1) |
| A woman was severely injured when she was cut by flying glass. A 58 year old woman was injured when her mobile home was turned over several times by the tornado. Three other people were injured in mobile homes that were damaged. Two homes were destroyed and two mobile homes were destroyed. A kennel and a bird sanctuary were destroyed. | | | | | | | | | |
| Baker-Escambia Farms, Okaloosa Co. | 28 | 0745CST | 12 | 10 | 0 | 0 | 4 | - | Tornado (F0) |
| In Baker, a steel frame barn was destroyed. Several small out buildings and a hog parlor were destroyed in Escambia Farms. | | | | | | | | | |
| Callahan, Nassau Co. | 30 | 1630EST | 3 | 20 | 0 | 0 | 5 | - | Tornado (F1) |
| A tornado started in Callahan and travelled three miles north. A roof was torn off a furniture store. An exhibition building was destroyed and several other buildings were damaged. | | | | | | | | | |
| Nocatee (1mi S), DeSoto Co. | 31 | UNK | | | 0 | 0 | 2 | - | Thunderstorm Wind |
| A camper vehicle was overturned and a truck body was blown 200 feet across a yard. | | | | | | | | | |
| — FLORIDA — | | | | | | | | | |
| Captiva Island, Lee Co. | 31 | UNK | | | 0 | 0 | 5 | - | Beach Erosion |
| Heavy surf caused by Hurricane Juan washed away a house. | | | | | | | | | |
| Odessa, Pasco Co. | 31 | 1000EST | | | 0 | 0 | 4 | - | Thunderstorm Wind |
| Ten mobile homes were damaged by high wind. Several trees were snapped in two. | | | | | | | | | |
| Tampa, Hillsborough Co. | 31 | 1010EST | 3.0 | 20 | 0 | 0 | 5 | - | Tornado (F1) |
| A tornado moved north on a three mile path. Several homes and several mobile homes were destroyed. Power lines were downed. | | | | | | | | | |
| Chipley, Washington Co. and Cottondale, Jackson Co. | 31 | 1030CST | 3.0 | 10 | 0 | 0 | 4 | 0 | Tornado (F0) |
| A trailer was damaged. A boat trailer and boat were damaged. Pine trees two feet in diameter were snapped off. A maintenance shop was destroyed in Chipley. | | | | | | | | | |
| Sarasota, Sarasota Co. | 31 | 1155EST | | | 0 | 0 | - | - | Thunderstorm Wind |
| A gust to 60 knots was recorded at Sarasota Airport. | | | | | | | | | |
| Ormond Beach, Volusia Co. | 31 | 1245EST | | | 0 | 0 | 2 | - | Thunderstorm Wind |
| A wind of 63 knots was reported. Some minor building damage was reported. | | | | | | | | | |
| North Fort Myers, Lee Co. | 31 | 1400EST | | | 0 | 0 | 4 | - | Thunderstorm Wind |
| Twelve mobile homes were damaged by high wind. Several storage sheds and carports were destroyed. | | | | | | | | | |
| 9 GEORGIA | | | | | | | | | |
| Heard and Troup Counties | 15 | 1810EST | | | 0 | 1 | 4 | 0 | Wind, Lightning |
| Many trees were downed by thunderstorm winds in southeastern Heard and northern Troup Counties. A 40 year old man was severely injured by a falling tree which hit the pickup truck he was in. A house in Corinth suffered heavy damage from a fire caused by lightning. | | | | | | | | | |
| 10 IDAHO | | | | | | | | | |
| Central Mountains | 7 | Afternoon and Night | | | 0 | 0 | 4 | 4 | Heavy Snow |
| A very early winter-type storm swept through Idaho from the north. Snow totals included Island Park, 14"; Elk City, 13"; and Bogus Basin (near Boise), 3". | | | | | | | | | |
| Bonneville, Bingham, and Bannock Counties | 21 | 1600-1700MST | | | 0 | 0 | 4 | 0 | High Winds |
| A strong cold front moved rapidly eastward through the state. Wind gusts of 49mph at Pocatello and 63mph at Idaho Falls were recorded. A farm shed near Blackfoot, Bingham County was blown down; and several trees were downed. | | | | | | | | | |
| 11 ILLINOIS — NONE REPORTED | | | | | | | | | |
| 12 INDIANA — NONE REPORTED | | | | | | | | | |

STORM DATA AND UNUSUAL WEATHER PHENOMENA

OCTOBER 1985

| 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 | | | | | | | | | |
| Statewide | 04 | Afternoon | | | 0 | 0 | 4 | 0 | Strong Winds |
| High winds associated with a large scale weather system knocked down trees at several locations in Iowa. Some of the felled trees damaged roofs, power lines and outbuildings. A 60-mile per hour gust was recorded in Des Moines, and 63-mile per hour gusts occurred at the Ottumwa Airport. | | | | | | | | | |
| South Central Iowa | 10-15 | | | | 0 | 0 | 0 | 5 | Floods |
| Several heavy rains over a few days time caused rivers in this part of the state to overflow, and some fields of grain were flooded. Harvest was delayed and some crops were damaged. | | | | | | | | | |
| Southeast Iowa | 23 | Afternoon | | | 0 | 0 | 0 | ? | Hail & Flooding |
| An inch and a half size hail was reported in a thunderstorm at Fairfield [1535 CST]. As this cell moved on into the Quad Cities, no more hail was reported, but minor stream and street flooding was reported amidst some heavy downpours. | | | | | | | | | |
| 14 KANSAS | | | | | | | | | |
| KSZOSC-OEC-ONE South Central, East Central and Northeast Kansas | 09-10 | 0500-0700CST | 270 | 75 MI | 1 | 0 | 6 | 7 | Heavy Rain, Flooding |
| Heavy rains of 3 to 6 inches fell upon an area 75 miles wide centered on a line from Medicine Lodge through Wichita and Emporia to Kansas City. More than 4 inches fell 20 miles either side of that same line. The rain fell upon an area already wet from rains the previous few days. | | | | | | | | | |
| Runoff sent streams 5-10 feet above flood stage on the 10th through the 12th throughout the heavy rain area. Major flooding occurred along the Marais Des Cygnes, Cottonwood, Neosho, Arkansas, Little Arkansas, Walnut, Whitewater, Ninnescah and Chikaskia Rivers. Stranger Creek also left its banks. | | | | | | | | | |
| One man died of a heart attack near Murdock in Kingman County while trying to escape his car caught in flood waters of the South Fork of the Ninnescah River. A number of rural families were driven from their homes along many of the streams. The Cottonwood flooded about half of Elmdale in Chase County, the Little Arkansas sent water through the streets of Sedgwick, and the Whitewater flowed through a dike opening into the northwest part of Augusta. Stranger Creek flooded the east side of Easton in Leavenworth County; it was the fourth time the creek left its banks since the middle of August. | | | | | | | | | |
| New record crests were set on the Marais Des Cygnes at Quenemo, Pomona, and Ottawa. A record crest was also reached on the Arkansas River at Arkansas City. A list of crests along each stream follows. | | | | | | | | | |
| <u>East Central Kansas</u> | | | | | | | | | |
| <u>Marais Des Cygnes River</u> | | | | | | | | | |
| | | | | | | | | | Crest/Date Flood Stage |
| | | | | | | | | | 24.0/10 19 |
| | | | | | | | | | 28.0/10 17 Previous record 25.87 |
| | | | | | | | | | 30.6/11 20 Previous record 30.13 |
| | | | | | | | | | 35.0/11 30 Previous record 34.9 |
| | | | | | | | | | 38.0/12 28 |
| | | | | | | | | | 31.5/15 25 |
| | | | | | | | | | 27.6/16 25 |
| | | | | | | | | | 26.0/11 19 |
| | | | | | | | | | 29.2/11 22 |
| | | | | | | | | | 26.9/11 22 |
| | | | | | | | | | 35.3/10 32 |
| | | | | | | | | | 15.7/11 9 |
| | | | | | | | | | 28.5/11 20 |
| | | | | | | | | | 17.5/12 14 |
| | | | | | | | | | 26.8/12 17 Previous record 25.6 |
| | | | | | | | | | 23.8/10 18 |
| | | | | | | | | | 27.1/11 23 |
| | | | | | | | | | 27.4/13 30 |
| | | | | | | | | | 24.5/12 17 |
| | | | | | | | | | 31.0/11 12 |
| | | | | | | | | | 28.5/11 22 |
| | | | | | | | | | 22.3/11 17 |
| | | | | | | | | | 22.6/10 10 |
| | | | | | | | | | 21.86/10 15 |
| <u>Northeast Kansas</u> | | | | | | | | | |
| | | | | | | | | | M52V. |

| 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 | |
| 15 KENTUCKY ————— NONE REPORTED | | | | | | | | | |
| 16 LOUISIANA | | | | | | | | | |
| Lafayette Parish | 23 | 1530CST | | | 0 | 1 | ? | ? | TSTM -Lightning & Heavy Rain |
| A 32 year old Lafayette man was injured by lightning while standing underneath a tree. Heavy thunderstorms dumped between 4 and 6 inches of rain on Lafayette during a two hour period ending at 1730CST. A 20 x 40 foot section of an office roof collapsed at 1615CST after drain pipes became clogged. There were no employees in the office at the time. | | | | | | | | | |
| Southern LA2007-008-009-010-011-012-013 | 27 | 1600CST | | | 11 | 1357 | 8 | 8 | Hurricane Juan |
| Juan was a large Saffir Simpson Category One hurricane (winds 74-95 MPH) which moved slowly and erratically during most of its life. Juan lingered near the Louisiana coast and coastal plain over the five day period October 27-31. This allowed persistent southeast winds to push a 5 to 8 foot storm surge up into bayous, inland lakes and low-lying areas in the southeast coastal parishes. The Louisiana Office of Emergency Preparedness reported that about 5,000 homes and 100 businesses were flooded. In addition, 8 to 13 inches of rainfall occurred in southwest Louisiana. This flooded rivers, roads and farm land in Calcasieu, Jefferson Davis, Acadia and Evangeline Parishes by October 30th. Juan did \$304 million damage to property and \$250 million damage to crops (mainly soybeans and sugar). There were 11 deaths; 6 of these fatalities occurred in the coastal and offshore waters during the night of October 27-28. The Federal Emergency Management Agency reported 1,357 injuries; however, most of them were minor. | | | | | | | | | |
| Lafourche Parish: The storm surge literally broke up LA 1 below Leeville and LA 3090 near Fourchon during the evening of October 27th. Water had risen over the roofs of several Leeville homes by 1200CST on October 28th. The surge continued relentlessly inland, washing out two sections of local levees from Golden Meadow to Larose. This caused extensive flooding as up to 5 feet of water inundated hundreds of homes. 5,000 persons had to evacuate. Water overtopped a local levee at Lockport at 2200CST on October 29th, flooding about 100 homes. In addition, there was extensive flooding of low-lying crop and grazing land. Overall, about 1200 homes were flooded. \$3.2 million damage was done to public property such as roads and levees. | | | | | | | | | |
| Lafourche Parish Coastal Waters: Around 2315CST on October 27th, a PENROD Company rig collapsed 35 miles south of Leeville and was smashed into a nearby rig by hurricane force winds and 20 foot seas. 80 crewmen evacuated into rescue pods. Unfortunately, one rescue capsule overturned and a 49 year old crewman drowned. The remaining crew were rescued by the Coast Guard; two crewmen were hospitalized with injuries. M490. | | | | | | | | | |
| Terrebonne Parish: An 8 foot storm surge moved through Cocodrie during the evening of October 27th, tossing a shrimp boat 60 feet onto a highway; parked cars were moved 100 feet by the surge. Later that evening, the surge moved a Dulac home off its foundation and into the middle of a highway. An eyewitness account told of a roaring tidal wave rapidly moving across the marsh before colliding with a local 10 foot high, 3 mile long levee at Montegut. A 100 yard section of the levee failed and homes were flooded with up to 4 feet of water around 0200CST, October 28th. The surge continued up Bayou Terrebonne, flooding about 80 homes and 6 businesses in eastern Houma with waist deep water around 1430CST, October 29th. There was extensive flooding of low-lying, unprotected crop land. This caused heavy damage to the sugar and soybean crop. About 200 cattle drowned; thousands were stranded by flood waters. Overall, 800 homes were flooded; 15,000 people were left homeless. | | | | | | | | | |
| Terrebonne Parish Coastal Waters: The Miss Agnes sank while conducting rescue operation 60 miles south of Morgan City at around 1800CST, October 27th. Two crewmen are missing and presumed dead. | | | | | | | | | |
| Jefferson Parish: Only about 700 out of 1900 people fled Grand Isle before LA 1 was washed out by storm tides around 1600CST, October 27th. The surge peaked around 2100CST; it leveled about 6,000 feet of the Grand Isle Hurricane Protection Levee and caused significant damage to another 14,000 feet. The island was covered with up to 4 feet of water; about 300 cars were flooded. The Corps of Engineers said that it would cost \$3 million to repair the levee. The surge flooded about 1,000 homes and 100 businesses with 4 feet of water in Lafitte around 1000CST, October 28th. Flood damage was found to be \$20 million. Water overtopped local levees in Marrero and Westwego by October 29th, flooding 1,195 homes and 2800 cars with 3 to 5 feet of water. This caused \$26.5 million flood damage to homes. Overall, 2,233 homes were inundated, with damages totaling \$46.5 million. 3,100 cars were flooded; this was a \$6 million loss. \$6.2 million damage was done to levees, roads and public buildings. | | | | | | | | | |
| St. Bernard: A 5 to 6 foot storm surge inundated Yscloskey, Alluvial City, Hopedale and Delacroix by 1800CST, October 27th. 500 people were forced to flee. A 21 year old Violet man drowned at 1300CST, October 27th when he fell out of his boat into a canal. M210. | | | | | | | | | |

STORM DATA AND UNUSUAL WEATHER PHENOMENA

OCTOBER 1985

| 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 | |
| | | | | | | | | | |

LOUISIANA

St. Bernard Coastal Waters: The A. M. Howard, a jack up rig, capsized around 0100CST, October 29th in the Mississippi River Gulf Outlet Channel near Hopedale. Three crewmen drowned (ages: 23, 30 and 33). M230, M300, M330.

Plaquemines: Storm tides overtopped a local levee near Myrtle Grove on the west bank during the night of October 28th, flooding a 3 mile section of LA 23 with about 4 feet of water from Lake Judge Perez to Myrtle Grove. Several homes in Grand Bayou, a small community west of Port Sulphur, were flooded with up to 4 feet of water.

Plaquemines Parish Coastal Waters: A crewman was washed overboard from the Sybil after it lost power and went aground on the jetty of the southwest pass of the Mississippi River at around 2200CST, October 27th. Three crewmen were seriously injured during an attempted rescue off an AR00 platform near the mouth of the Mississippi River when 40 MPH winds blew their rescue basket against the rig as a helicopter tried to hoist them aboard on October 30th. Two men had broken backs; one had a broken leg.

Livingston and Ascension Parishes: Up to 3 feet of Lake Maurepas water covered LA 22 by the night of October 29th. Homes were flooded with up to 2 feet of water in French Settlement, Head of Island, Springhill, Killian, Whitehall and Maurepas. The flood waters continued to spread southeast into neighboring Ascension Parish, flooding homes in Acy, Anant and Sorento by October 30th. Overall, about 800 homes were flooded.

Tangipahoa Parish: 53 homes and 10 businesses were flooded with up to 4 feet of water in Manchac from October 27-30. 350 people evacuated.

St. Tammany Parish: A 5 to 7 foot storm surge pushed up bayous and into parts of southern Slidell, Pearl River, Lacombe, the Mandeville lakefront area and southern Madisonville. Water started rising rapidly early on October 28th and peaked the next day. 800 to 1,000 homes were flooded. Three bridges were washed out near Lacombe on LA 434. A 46 year old man is missing and presumed drowned in the marshes southeast of Slidell since October 30th. M460.

St. Charles Parish: 3 to 5 feet of Lake Pontchartrain water rushed over US 61 (Airline Highway) during the evening of October 27th, flooding about 150 homes in St. Rose, Turtle Pond and New Sarpy up to kitchen counter tops. This caused about \$500,000 damage. Some homes in Des Allemands, Bayou Gauche and Luling were flooded on October 28th.

St. John Parish: Water from Lake Pontchartrain overtopped a 4 foot local levee along a three mile stretch at 0400CST, October 29th, flooding about 100 homes. The water crested around 2300CST that night. In addition, some homes along Lac Des Allemands were flooded. The storm surge undermined about a 3 mile section of Illinois Central Gulf Railroad track bed near Ruddock. Overall, 136 homes were flooded. This caused about a \$4 million loss.

St. Mary Parish Coastal Waters: A 45 year old fisherman drowned during the night of October 27th when the Kiwi sank in Atchafalaya Bay. M450.

St. Landry Parish: A 21 year old Arnaudville man was electrocuted after he stepped on a submerged power line. M210.

17 MAINE

| | | | | | | |
|----------------------------|------------|---|---|---|---|--------------|
| Kittery Point, York County | 27 1445EST | 0 | 0 | 4 | 0 | Thunderstorm |
|----------------------------|------------|---|---|---|---|--------------|

A cold front raced across the state Saturday afternoon with isolated thunderstorms ahead of it. A downburst from one of these thunderstorms caused damage to shore front property at Kittery Point. On this one piece of property, the downburst uprooted 7 trees, lifted a thick slate slab from a stone wall, shoved a 30 foot long aluminum walkway up a wooden pier and against some steps, and tore a securely anchored boat in the cove and wedged it between two trees some 100 feet away. The neighborhood also reported a few other trees uprooted and several large branches broken off. The owner of a 29-foot sloop on the water, said he lost complete control of his craft and was blown up the Piscataquis River. He estimated the wind at over 50 mph.

18 MARYLAND and D.C. — NONE REPORTED

19 MASSACHUSETTS — NONE REPORTED

20 MICHIGAN — NONE REPORTED

21 MINNESOTA

| | | | | | | |
|------------------|-----------------------|---|---|---|---|-----------|
| MNZ009 Northeast | 7 Afternoon & evening | 0 | 0 | 3 | 0 | High Wind |
|------------------|-----------------------|---|---|---|---|-----------|

Strong winds and high Lake Superior water levels combined to inundate Park Point of Duluth. Sky Harbor Airport was under water, basements were flooded and erosion occurred along the shore. A peak wind gust of 53 miles per hour was recorded at the Duluth Airport at 1808 CST.

| | | | | | | |
|-----------------------------------|------------|---|---|---|---|-----------|
| Brooklyn Center (Hennepin County) | 17 1208CST | 0 | 1 | 0 | 0 | Lightning |
|-----------------------------------|------------|---|---|---|---|-----------|

A child was hospitalized after being knocked to the ground by lightning while playing at a park.

22 MISSISSIPPI

| | | | | | | |
|---------------------|------------------------|---|---|---|---|----------------|
| Coastal Mississippi | 28- 0200CST-31 0900CST | 0 | 0 | 6 | ? | Hurricane Juan |
|---------------------|------------------------|---|---|---|---|----------------|

Hurricane Juan moved erratically through Coastal and Southern Louisiana from the 27th-30th. The storm made two complete loops during this period before heading northeastward on the 31st and striking the extreme southwest corner of Alabama. While the storm meandered around Louisiana, the combination of 4 inch rainfall, high tides and southeasterly winds of 30 to 50mph caused extensive coastal flooding in Mississippi, mainly on the 27th and 28th. Nearly 6,000 people were evacuated in the low-lying areas due to the flood threat. In Harrison County, 302 homes received water damage which accounted for about 151,000 dollars worth of damage. The town of Pass Christian was the hardest hit. In Hancock County, between 40 and 50 homes were flooded, and six businesses received water damage. Strong winds and high waves caused about 500,000 dollars worth of beach erosion. A tremendous amount of debris, marsh grass and dead animals littered the beach after the storm had departed. High winds and waves caused over 100,000 dollars worth of damage to a harbor in Pass Christian and 25,000 dollars worth of damage to a harbor in Long Beach. Many boats received damage in harbors along the entire coast line. Many roads were severely damaged due to erosion. The storm also caused the seafood industry extensive losses.

| | | | | | | | | |
|----------------|------------|-----|-----|---|---|---|---|--------------|
| Lincoln County | 28 1650CST | 1.2 | 100 | 0 | 0 | 4 | ? | Tornado (F1) |
|----------------|------------|-----|-----|---|---|---|---|--------------|

A tornado touched down about 2 miles east-southeast of Brookhaven and moved to the northwest. The tornado was located on one of the rain bands associated with Hurricane Juan. No thunder or lightning occurred before or during the time of the tornado. The tornado knocked a trailer off its foundation and rolled it over. No one was home at the time. Twisted and uprooted pine trees, and flattened corn fields clearly marked the path of the tornado.

| | | | | | | | | |
|--------------|------------|-----|----|---|---|---|---|--------------|
| Jones County | 29 0430CST | .75 | 30 | 0 | 0 | 3 | ? | Tornado (F0) |
|--------------|------------|-----|----|---|---|---|---|--------------|

A tornado touched down about 8 miles south of Laurel on Highway 15 near Tuckers Crossing. This tornado was also located in one of the rainbands in Hurricane Juan. The tornado was moving toward the northwest. One mobile home received minor damage and a roof was blown off a barn. Numerous trees were snapped along the path.

23 MISSOURI — NONE REPORTED

24 MONTANA — NONE REPORTED

25 NEBRASKA

| | | | | | | |
|--------------------------------|------------|---|---|---|---|------------|
| Northern Panhandle of Nebraska | 03 1740CST | 0 | 0 | 2 | 0 | High Winds |
|--------------------------------|------------|---|---|---|---|------------|

Northwest winds gusted to 60 m.p.h. at the Chadron airport. Minor property damage was reported.

| | | | | | | |
|------------------------------|------------|---|---|---|---|------------|
| Central and Eastern Nebraska | 04 Daytime | 0 | 0 | 4 | 0 | High Winds |
|------------------------------|------------|---|---|---|---|------------|

Strong northwest winds buffeted central and eastern areas, causing scattered property damage. Peak gusts to 61 m.p.h. were measured at Broken Bow around midday. Also during the afternoon, gusts to 58 m.p.h. were recorded at Lincoln, 53 m.p.h. at Norfolk and 48 m.p.h. at Grand Island and Omaha. Scattered wind damage occurred mainly to trees and utility lines, however, a building roof was damaged at St. Edward and a top was blown off a truck in Lincoln.

26 NEVADA — NONE REPORTED

STORM DATA AND UNUSUAL WEATHER PHENOMENA

OCTOBER 1985

| 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 | |
| 27 NEW HAMPSHIRE ————— NONE REPORTED | | | | | | | | | |
| 28 NEW JERSEY, Northern | | | | | | | | | |
| Edison, Woodbridge, and Elizabeth; Somerset and Union Counties | 05 | 0945EST | 12 | 50-100 | 0 | 8 | ? | ? | Tornado (F1) |
| A skipping tornado touched down on New Dover Road in Edison and moved southwest to northeast, touching down again in Woodbridge and Elizabeth. Only 1.5 miles of damage occurred along a path length of about 12 miles. In Woodbridge, 8 members of the J. P. Stevens Marching Band were injured. Most of the injuries were twisted ankles and bruises caused by flying instruments. One member was treated for a mild concussion when hit in the back of the head by a falling flag pole. Trees and wires were blown down. 4,000 Public Service Electric and Gas customers lost power because of downed power lines. Twenty feet of paving blocks were ripped up out of a street in Edison. In Elizabeth, part of a warehouse roof was blown away. | | | | | | | | | |
| 28 NEW JERSEY, Southern ————— NONE REPORTED | | | | | | | | | |
| 29 NEW MEXICO | | | | | | | | | |
| Southern third of the state from Silver City to Clovis | | 8-9 Night | | | | 5 | 5 | | Flash Flood |
| The southern one-third of the state from Grant County in the southwest to Curry County in the east was hit by heavy rains of up to 7 inches. These heavy rains were caused by remnants of Hurricane WALDO. Damage occurred to crops, roads, some cars, and buildings. | | | | | | | | | |
| 30 NEW YORK, Coastal | | | | | | | | | |
| New York Harbor | 05 | 1035EST | 1 | 10 | 0 | 0 | ? | 0 | Waterspout |
| A waterspout was observed over New York Harbor by several people. Two boats were overturned. One boat lost its mast while another lost a sail. | | | | | | | | | |
| Jackson Heights and East Elmhurst, Queens County | 05 | 1055EST | 1.5 | 50 | 0 | 6 | ? | 0 | Tornado (F1) |
| A skipping tornado moved southwest to northeast across Jackson Heights and East Elmhurst. Six customers at a supermarket in Jackson Heights were cut by flying glass when winds blew in several large store windows. Large trees snapped off or uprooted. Houses and cars were damaged. A patio umbrella was picked up and landed 5 blocks away. An assemblyman reported hearing a noise like a freight train. Twisted trunks were observed on trees whose tops were broken off. | | | | | | | | | |
| 30 NEW YORK, Central | | | | | | | | | |
| E. Kingston, Ulster County | 05 | 1000EST | UNK | 75 | 0 | 0 | 5 | 3 | Tornado (F1) |
| At 1000EST, a "large funnel-shaped cloud" was reported in E. Kingston. Damage was confined to a small area. One home was severely damaged, and rubble was scattered in all directions. A nearby house was twisted off its foundation. Nearby trees were uprooted. Witnesses described the tornado as "a large spinning top". One couple reported that they could feel the wind sucking them into the funnel, but they remained low and were able to hold on to nearby objects. | | | | | | | | | |
| 30 NEW YORK, Western | | | | | | | | | |
| Chautauque County | 24 | 1515 EST | | | 0 | 0 | 5 | | Wind |
| Strong thunderstorm winds damaged six homes in Maple Springs, Chautauque County. Four of these had significant roof damages. The other two had minor damages. Ten large trees were also felled. | | | | | | | | | |
| 31 NORTH CAROLINA | | | | | | | | | |
| Pine Bluff, Moore County | 03 | 1500 EST | | | 0 | 0 | 0 | 0 | Hail |
| Three-quarter to one inch hail was observed by town employees. | | | | | | | | | |
| Simmons Airfield, Cumberland County (PBG) | 03 | 1604 EST | | | 0 | 0 | 4 | 0 | Thunderstorm Winds |
| Gusts to 60 knots were recorded. | | | | | | | | | |
| Fayetteville, Cumberland County | 03 | 1615 EST | | | 0 | 3 | 5 | 0 | Thunderstorm Winds |
| The severe thunderstorm that hit Fort Bragg moved into northern sections of Fayetteville where five mobile homes were destroyed and about thirty others were damaged. Three people received minor injuries from the storm, but only one required medical attention. Trees and power lines were blown down throughout the area, and some residences had minor damage. Some businesses throughout the county also reported damage. Countywide damage was estimated at nearly \$350,000 by an appraisal team. | | | | | | | | | |
| Erwings Crossroads, Lenoir County | 03 | 1818 EST | | | 0 | 0 | 3 | 0 | Thunderstorm Winds |
| Thunderstorm winds gusted to over sixty miles per hour, and minor damage to a residence was reported. Trees were also blown down. | | | | | | | | | |
| Jenny Lind Area, Lenoir County | 03 | 1830 EST | | | 0 | 0 | 4 | 0 | Thunderstorm Winds |
| A tobacco barn was blown down by severe thunderstorm winds between LaGrange and Kinston. | | | | | | | | | |
| 3 miles East of Winston Salem, Forsyth County | 15 | 1505EST | | | 0 | 0 | 3 | 0 | Thunderstorm Winds |
| Numerous trees were blown over, and some roof damage was reported. One tree was blown onto a building. The total damage was estimated at \$4600. | | | | | | | | | |
| Greensboro Airport, Guilford County | 15 | 1509EST | | | 0 | 0 | 0 | 0 | Thunderstorm Winds |
| Gusts to 52 knots were recorded. | | | | | | | | | |
| Kernersville, Forsyth County | 15 | 1510EST | | | 0 | 0 | 4 | 0 | Thunderstorm Winds, Hail |
| Apartments under construction were damaged as a short line of severe thunderstorms developed in the northwest Piedmont. Some buildings collapsed, and others only had windows blown out. Some structural damage to warehouses was also reported; numerous trees were blown down, and plate glass windows were blown out of a car dealership. Total damage in the area was estimated at \$41,000. One and three-quarter inch hail was also reported. | | | | | | | | | |
| Greensboro, Guilford County | 15 | 1525EST | | | 0 | 0 | 4 | 0 | Thunderstorm Winds |
| Numerous trees and powerlines were blown down in north-central Greensboro. A truck and car were damaged by trees, and power outages resulted in a large area, including a large mall and surrounding businesses. Numerous trees were also reported down north of Greensboro Airport. | | | | | | | | | |
| Northern Alamance County | 15 | 1545EST | | | 0 | 0 | 4 | 0 | Thunderstorm Winds |
| Power poles and trees were blown down, and power lines were damaged by thunderstorm winds. Damage resulted in loss of power to hundreds of residences for about four hours. | | | | | | | | | |
| Butner, Granville County | 15 | 1600EST | | | 0 | 0 | 3 | 0 | Thunderstorm Winds |
| Trees and power lines were blown down, leaving about 1800 customers without power for an hour. | | | | | | | | | |
| Cedar Grove Area, Orange County | 15 | 1630EST | | | 0 | 0 | 0 | 0 | Thunderstorm Winds |
| Trees were blown across roads. | | | | | | | | | |
| Quail Roost and Rougemont, Durham County | 15 | 1640EST | | | 0 | 0 | 0 | 0 | Thunderstorm Winds |
| Thunderstorm winds gusted to around 70 MPH and were reported by a farmer and an Air Force Meteorologist. | | | | | | | | | |
| Stovall, Granville County | 15 | 1655EST | | | 0 | 0 | 4 | 0 | Thunderstorm Winds, Hail |
| A very damaging thunderstorm moved through the town. Thirty to forty trees were blown down and many buildings had minor damage. Sheds were torn down, and one farm reported a damage estimate of \$15,000. The storm area was 1/4 to 1/2 mile wide and one and one-half miles long. A brief period of one inch hail preceded the wind damage. | | | | | | | | | |
| Ten Miles North of Henderson, Vance Co. | 15 | 1732EST | | | 0 | 0 | 3 | 0 | Thunderstorm Winds |
| Trees were blown down; one fell across a mobile home. | | | | | | | | | |

STORM DATA AND UNUSUAL WEATHER PHENOMENA

OCTOBER 1985

| 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 | |
| — NORTH CAROLINA | | | | | | | | | | | |
| Four Miles North of Norlina, Warren County | 15 | 1735 EST | | 0 | 0 | 0 | 0 | 0 | | | Thunderstorm Winds |
| | | | | Trees were blown down at North Warren Middle School. | | | | | | | |
| Macon Area, Warren County | 15 | 1754 EST | | 0 | 0 | 3 | 0 | | | | Thunderstorm Winds |
| | | | | Trees were blown down, one onto a truck. | | | | | | | |
| Gupton, Franklin County (Near Centerville) | 15 | 1830 EST | | 0 | 0 | 4 | 0 | | | | Thunderstorm Winds |
| | | | | A brief but violent thunderstorm toppled sheds, blew a mobile home off its foundation, and blew trees onto cars. A brick chimney was also demolished. Power lines were blown down and a roof of a home was partially removed. | | | | | | | |
| Patetown Area, Wayne County | 15 | 2015 EST | | 0 | 0 | 3 | 0 | | | | Thunderstorm Winds |
| | | | | A large oak tree was blown down and a barn top was blown off. | | | | | | | |
| 32 NORTH DAKOTA | | | | | | | | | | | |
| North and West | 07 | Morning to 08 Morning | | 0 | 0 | 7 | 7 | | | | Winter Storm |
| | | | | A winter storm deposited up to fourteen inches of heavy wet snow over parts of northern and western North Dakota. The snowfall was combined with wind gusts between 30 and 40 mph. | | | | | | | |
| | | | | Roads and highways were blocked by snow, motorists were stranded, and many minor traffic accidents occurred. Many cars and some maintenance vehicles went off the slippery roads and became stuck in the snow and mud. Ambulance service was slowed and mail service was delayed. Many schools were closed. Snow removal was slowed due to the difficulty of clearing frozen slush. | | | | | | | |
| | | | | In addition, the storm caused many power outages; 8000 people were without power. The main cause of the power outages was the heavy moisture buildup on the power lines, combined with the high winds. Many large tree branches were broken, causing additional power outages and other damages. | | | | | | | |
| | | | | The storm also caused considerable damage to unharvested crops. | | | | | | | |
| | | | | In the wake of the storm, temperatures in the northwest corner of the state dropped to the single digits above zero on the morning of the 9th. This caused vehicle wheels to become frozen in the slush which turned to ice. | | | | | | | |
| McClusky 12N (Sheridan County) | 22 | 1900 CST | | 0 | 0 | 4 | 0 | | | | Lightning |
| | | | | Lightning struck and burned a barn. A large quantity of hay inside the barn was also burned. | | | | | | | |
| 33 OHIO ————— NONE REPORTED | | | | | | | | | | | |
| 34 OKLAHOMA | | | | | | | | | | | |
| Waynoka, Woods County | 09 | All Day | | 0 | 0 | ? | ? | | | | Flooding |
| | | | | Dog Creek flooded a few homes in Waynoka after 3 to 4 inches of rain fell. | | | | | | | |
| Shattuck, Ellis County | 9-10 | Night | | 0 | 0 | ? | ? | | | | Flooding |
| | | | | Heavy rains of 6 to 7 inches caused 25-mile Creek to flood portions of northern Ellis County. Several roads were washed out and some houses and basements were flooded in Gage. The flooding ruined terraces and washed out seed wheat. No estimate was available on damages. | | | | | | | |
| Alva, Woods County | 10 | All Day | | 0 | 0 | ? | ? | | | | Flooding |
| | | | | The Salt Fork River almost completely inundated the Northwest Oklahoma State University college farm. | | | | | | | |
| Blackwell, Kay County | 10-11 | Both Days | | 0 | 0 | ? | ? | | | | Flooding |
| | | | | The Chikaskia River flooded 15 to 20 houses in eastern sections of Blackwell. U.S. Highway 177 was closed for several hours, north of Blackwell. | | | | | | | |
| — OKLAHOMA | | | | | | | | | | | |
| Sharon, Woodward County | 13 | 1545 CST | | 0 | 0 | ? | ? | | | | Hail |
| | | | | 3/4 inch size hail fell 4 miles south and 3 miles east of Sharon. | | | | | | | |
| El Reno, Canadian County | 13 | 2330 CST | | 0 | 0 | ? | ? | | | | Hail |
| | | | | Hail the size of nickels fell 2 miles north of El Reno. | | | | | | | |
| Seward, Logan County | 14 | 0025 CST | | 0 | 0 | ? | ? | | | | Hail |
| | | | | One inch size hail fell 3 miles southeast of Seward. | | | | | | | |
| Luther, Oklahoma County | 14 | 0030 CST | | 0 | 0 | ? | ? | | | | Wind |
| | | | | A thunderstorm produced winds up to 60 mph at Luther. | | | | | | | |
| Sapulpa, Creek County | 14 | 0550 CST | | 0 | 0 | 4 | ? | | | | Lightning |
| | | | | Lightning caused \$35,000 damage when it caused a house to burn. | | | | | | | |
| Southern Wagoner County | 14 | Night-Day | | 0 | 0 | 6 | ? | | | | Heavy Rain, Flooding |
| | | | | Ten to 12 inches of rain fell over a 48-hour period across southern Wagoner County. Many roads were washed out, stranding 12 to 15 families in rural areas. Two bridges were washed out and many more damaged. Heavy damage occurred to farm land. Damage was estimated at \$1.25 million. | | | | | | | |
| Okemah, Okfuskee County | 14 | Night-Day | | 0 | 0 | ? | ? | | | | Heavy Rain, Flooding |
| | | | | Six to eight inches of rain in 48 hours caused Buckeye Creek to flood. Many roads were destroyed around Okemah, and low-lying farm land was damaged. | | | | | | | |
| Coalgate, Coal County | 18 | Afternoon | | 0 | 0 | 5 | ? | | | | Lightning |
| | | | | Lightning struck a house near Coalgate, causing it to burn. Damage estimated at \$80,000 occurred. | | | | | | | |
| South Central and East Central | 18 | Night-Day | | 0 | 0 | ? | ? | | | | Heavy Rain, Flooding |
| | | | | Widespread rainfall of 3 to 6 inches in 12 hours caused many small creeks and streams to flood. Counties receiving flood damage were Garvin, Carter, Murray, Pontotoc and Seminole. Damage consisted of washed out roads and bridges, and considerable damage to farm land. | | | | | | | |
| 35 OREGON | | | | | | | | | | | |
| Curry County | 21 | PM | | 0 | 0 | 0 | 0 | | | | Wind |
| | | | | A vigorous Pacific storm produced winds near 100 mph. Despite the high wind velocity, only minor power outages and a few uprooted trees were reported. | | | | | | | |
| 36 PENNSYLVANIA, Eastern | | | | | | | | | | | |
| Franklin Township, Carbon County | 05 | 0835 EST | | 0 | 1 | 4 | 0 | | | | Wind |
| | | | | Wind gusts accompanying a thunderstorm caused damage in the township. A large part of the roof on a sprawling, volunteer fire company building was lifted off and damaged. A number of large trees were uprooted and blown over; one came to rest on a truck. A mobile home was lifted off its foundation and moved sideways. Furniture and other contents of the mobile home were knocked over and thrown about. A woman and a child in the mobile home were thrown to the floor, and the woman sustained a minor injury. A porch on a house was also partially moved and damaged. | | | | | | | |
| Philadelphia, Philadelphia County | 05 | 0900 EST | | 0 | 0 | 3 | 0 | | | | Wind |
| Narberth, Montgomery County | 05 | 0920 EST | | 0 | 0 | 3 | 0 | | | | Wind |
| | | | | Thunderstorm wind gusts in the Philadelphia area brought down many trees in Narberth, Montgomery County, and along Montgomery Drive in Philadelphia. | | | | | | | |
| 36 PENNSYLVANIA, Western— NONE REPORTED | | | | | | | | | | | |
| 37 RHODE ISLAND ————— NONE REPORTED | | | | | | | | | | | |

STORM DATA AND UNUSUAL WEATHER PHENOMENA

OCTOBER 1985

| 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 | |
| 38 SOUTH CAROLINA | | | | | | | | | |
| Cayce, Lexington County | 3 | 1820EST | | | 0 | 0 | 3 | 0 | Hail, Wind |
| Marble-sized hail was reported along Knox Abbott Drive in Cayce and caused minor damage. High winds blew down a sign and caused other, mostly minor damage. | | | | | | | | | |
| 7 miles North of Hanning, Clarendon County | 4 | 0430EST | | | 1 | 3 | 5 | 4 | Wind |
| A severe thunderstorm accompanied by high wind caused localized damage over an area about 1 mile wide by 2 miles long. There was a small area of straight-line damage about 200 feet wide and a quarter mile long apparently caused by a downburst. Two mobile homes and several sheds were destroyed, and another mobile home was damaged. A few large trees (20-24 inches in diameter) were uprooted. The mobile home housing the victims was blown about 55 feet and overturned, crushing the occupants. All of the mobile homes were at right angles to the wind, and all were without adequate anchoring. | | | | | | | | | |
| Summerville, Dorchester County | 16 | 1430EST | | | 0 | 1 | 0 | 0 | Lightning |
| A man working on a roof was struck by lightning. He was seriously injured, but recovered. | | | | | | | | | |
| Charleston, Charleston County | 16 | 1500EST | | | 0 | 0 | 4 | 0 | Flooding |
| Heavy rains resulted in considerable street flooding in parts of the city. Water was reported as up to the hoods of cars in the vicinity of East Bay and Calhoun. | | | | | | | | | |
| Seabrook Island, Charleston County | 17 | 1230EST | | | 0 | 0 | 3 | 0 | Flooding |
| Onshore winds at the time of spring tides resulted in street flooding and other minor damage on Seabrook Island. | | | | | | | | | |
| Beach Island, Aiken County | 31 | 1710EST | | | 0 | 0 | 4 | 0 | Lightning |
| Lightning put two television stations off the air and damaged the SCE&G substation at Beach Island. | | | | | | | | | |
| 39 SOUTH DAKOTA | | | | | | | | | |
| Western South Dakota | 03- | Late Afternoon/Early Morning | | | 0 | 0 | 3 | ? | High Winds |
| Strong winds of 60 to 75 mph occurred over the western quarter of South Dakota. The strong winds blew down power lines and caused power outages over many locations in the Black Hills. Power remained out at Wind Cave (Custer County) and other rural areas of the southern Black Hills until the afternoon of October 4. The strong winds uprooted trees in Rapid City (Pennington County) and blew a roof off a barn near Newell (Butte County). | | | | | | | | | |
| Northcentral South Dakota | 22 | Evening | | | 0 | 0 | 3 | ? | Hail, High Winds |
| Hail, ranging in size from a quarter of an inch in diameter to an inch in diameter fell over the north-central part of the state. One inch diameter hail fell sixteen miles west-southwest of Gettysburg (Potter County) at 1855 CST, and covered the ground. Many crops were damaged by the hail. Strong thunderstorm winds of 50 mph occurred at Bowdle (Edmunds County) at 2021 CST, and Eureka (McPherson County) at 2041 CST, and blew a roof off a store in Bowdle. | | | | | | | | | |
| 40 TENNESSEE | | | | | | | | | |
| Paris, Henry County | 14 | 1445CST | | | | | 3 | | Lightning |
| Lightning struck a garage on Paris Route 2, and the resulting fire caused \$3,000 worth of damage. | | | | | | | | | |
| Giles County | 15 | 0030CST | | | | | 4 | | Lightning |
| Lightning apparently started a fire at a trailer in the Rockwood Crooked S trailer park, killing 3 boys and destroying the trailer. | | | | | | | | | |
| Jackson, Madison County | 20 | Afternoon | | | | | 3 | ? | Flash Flood |
| 2 3/4" of rain in a 3 hour period caused flash flooding in the northern portion of Jackson. Most low spots became inundated, including street intersections where numerous cars were flooded. | | | | | | | | | |
| Sullivan County | 21 | 1045EST | | | | | 5 | ? | Flash Flood |
| A double-wide house trailer on Carden Hollow Road was destroyed as heavy rains washed away the foundation under the trailer. The trailer dropped 10 feet, and was shot outward about 12 feet, causing extensive structural damage. The trailer was worth \$80,000. | | | | | | | | | |
| 41 TEXAS, Northern | | | | | | | | | |
| Hamilton County | 14 | 1350CST | | | 0 | 0 | ? | ? | Hail |
| Quarter size hail was reported by the Sheriff's Office near Carlton. | | | | | | | | | |
| Hill and Ellis Counties | 17 | 1632CST 1650CST | 8 | 50 | 0 | 0 | 5 | 0 | Tornado F2 Funnels |
| The tornado touched down in extreme southern Hill County east of 1-45 and north of the Cottonwood Community in McLennan County. Damage was confined to the initial touchdown area where one frame home was destroyed, along with several outbuildings and a barn. Traveling just east of north, the tornado continued across open fields for several miles before striking another frame home. The house was not heavily damaged, but was moved about fifty feet from its foundation and turned at an angle. | | | | | | | | | |
| The storm continued across open fields before lifting several miles southwest of Bynum. | | | | | | | | | |
| Eyewitnesses reported the tornado was multiple-vortex in nature. | | | | | | | | | |
| As the parent storm continued into Ellis County, several funnels were sighted. | | | | | | | | | |
| Tarrant County | 17 | 1719CST | | | 0 | 0 | ? | ? | Thunderstorm Winds |
| Thunderstorm winds blew over a construction trailer and some bleachers at a soccer field near the intersection of I-20 and Cooper in Arlington. | | | | | | | | | |
| Dallas County | 17 | 1810CST | | | 0 | 0 | ? | ? | Thunderstorm Winds |
| Spotters reported winds of near 70 mph in northwest Dallas. | | | | | | | | | |
| North Texas | 18 | AM 19 PM | | | 2 | 3 | ? | ? | Flooding |
| Heavy rains started during the late hours of the 17th and, by daybreak of the 18th, creeks and streams were out of their banks in the central and western sections of North Texas. The rains continued through the next night and into the afternoon of the 19th, with the highest rainfall amounts in the eastern and central sections. 24 hour totals for each day were in the 4 to 6 inch range, with some totals near 9 inches. On the morning of the 18th, Woodson, in southeast Throckmorton County, had received 8.85 inches. The next morning, Tyler had received 8.7 inches overnight, with Waxahachie reporting 7.7 inches. Two fatalities and three injuries resulted from the flooding. | | | | | | | | | |
| The two fatalities occurred between 1 and 3 AM on the 19th at the Ft. Hood Army Base. Four National Guardsmen in an ambulance tried to cross a swollen creek when their vehicle was washed downstream. Two men escaped, but the other two drowned. | | | | | | | | | |
| Just north of Montague on Highway 59 at 0530CST on the 18th, three men were injured when their car drove off a washed-out bridge. Approaching the bridge in the dark, the men were unable to see the missing bridge in time to stop their car and plunged into the water. | | | | | | | | | |
| Virtually all of North Texas had some low-land flooding during the two days. In Waxahachie, several business buildings were flooded, along with some homes, on the evening of the 18th. Similar events occurred in Tyler where a bridge was washed-out and, in Eastland, 2 cars were washed away at a low-water crossing. | | | | | | | | | |
| Sherman, Abilene, Gainesville and Athens were just a few of the cities that had problems with flooding of low-land areas, streets and even some homes. 12 homes were evacuated in Gainesville after being flooded on the afternoon of the 18th. | | | | | | | | | |
| In addition to the flooding, several thunderstorms struck North Texas during the day. Details of individual thunderstorms follow this narrative. | | | | | | | | | |
| Dallas County | 18 | 0800CST | | | 0 | 0 | 5 | ? | Thunderstorm Winds |
| Thunderstorm winds struck Addison Airport, damaging 3 hangars. The hangars sustained damage to their roofs, sidings and doors, with several nearby autos damaged by debris. A mobile home near one of the hangars was overturned. | | | | | | | | | |

STORM DATA AND UNUSUAL WEATHER PHENOMENA

OCTOBER 1985

| 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 | |

TEXAS, Northern

| | | | | | | | | | |
|--|----|---------|---|-----|---|---|---|---|---------------------------|
| Collin County | 18 | 0930CST | 2 | 150 | 0 | 2 | 5 | ? | Tornado F2/ Waterspout |
| <p>Several people watched a tornado touchdown at Culleoka on Lavon Lake near Princeton. A woman and a child were injured when debris fell on the pickup they were occupying, trapping them for a short time.</p> <p>The tornado destroyed 2 homes, damaged 6, and heavily damaged a travel trailer and several trucks.</p> <p>The tornado was observed traveling a short distance further and then started across the lake, spraying water and then dissipating.</p> | | | | | | | | | |
| Franklin County | 19 | 1400CST | | | 0 | 0 | 4 | ? | Thunderstorm Winds |
| <p>Thunderstorm winds destroyed a mobile home near Mt. Vernon. The winds rolled the trailer about 75 ft. from its foundation and blew down several trees.</p> | | | | | | | | | |
| Nacogdoches County | 22 | Late AM | | | 0 | 0 | ? | ? | Flooding |
| <p>Heavy overnight rains in the county caused creeks and streams to overflow. Douglass recorded 6.87 inches by morning, with Highway 21 west of Nacogdoches being closed for a short time. Creeks in the city of Nacogdoches crested about 2 ft. above bankfull by afternoon.</p> | | | | | | | | | |

TEXAS, Southern

| | | | | | | | | | |
|---|-------|---------------|--|--|---|---|---|---|--|
| Blanco, Burnet and Llano Counties | 19 | Morning | | | 1 | ? | 5 | 0 | Flash Flooding |
| <p>In Blanco County, 4-6 inches of rain caused flash flooding with many roads in the area flooded. Pedernales State Park east of Johnson City was evacuated because of the expected rise of the Pedernales River.</p> <p>In Burnet County, up to 6 inches of rain, mostly over the western half of the county, caused flash flooding. Many low water crossings were closed in the area from the runoff of the heavy rains. 12 miles northwest of Burnet, on Ranch Road 2341 near Lake Buchanan, a 14 year old girl lost her life when the station wagon in which she was riding was swept off a low water crossing into Morgan Creek. She drowned while trying to get to safety. Her parents, who were also in the automobile, barely managed to save themselves from the swift water. Her body was recovered on the morning of the 22nd, about one mile downstream from where the car went into the water.</p> <p>In Llano County, heavy rains caused flash flooding which closed numerous low water crossings. The Llano River, near Llano, crested 16 feet above normal. Little damage was reported.</p> | | | | | | | | | |
| Bexar County | 19 | 1100CST | | | 0 | 0 | 0 | 0 | Flash Flooding |
| <p>Up to 5 inches of rain near Helotes flooded creeks and low water crossings in the north and northwest part of the city and the county. Other low water crossings in the City of San Antonio were also flooded. In Leon Valley, Evers Road, Poas Road and parts of Wurzbach Road were closed because of high water. There were some flooded cars in McAllister Park on the north side of the City of San Antonio. Low areas in and around Olmos Creek, including the Olmos Creek Golf Course, were flooded.</p> | | | | | | | | | |
| Frio, La Salle, McMullen, Uvalde and Zavala Counties | 19-20 | | | | 0 | 0 | 0 | 0 | Flooding |
| <p>Heavy rainfall flooded streams and tributaries of the Nueces, Frio, and Atascosa Rivers. Uvalde had 11.4 inches of rain in the two day period. Cotulla had 10 inches and most of the area from west of Uvalde to Pleasanton to Encinal had 2.5 to 7.5 inches. The Nueces River, 11 miles south of Tilden, had two major flood peaks. Large crests also moved down the Atascosa and lower Frio Rivers, as well as down the San Miguel Creek. Choke Canyon Reservoir rose 5 feet from the inflow from the Frio River. Anxious South Texas residents saw the lake rise to about one fourth of its capacity (27.5 percent). The 10 inches of rain in and around the town of Cotulla produced flooding of low areas, some homes and roadways. The Sheriff's Dept. of La Salle County reported several elderly persons were forced from their homes because of the high water.</p> | | | | | | | | | |
| Webb County | 20 | Evening-Night | | | 0 | 0 | 0 | 0 | Flash Flooding |
| <p>Up to 9 inches of rain fell over portions of the Laredo area, flooding streets, streams and low water crossings. Many streets were barricaded and some schools had to be closed on the morning of the 21st because of lingering high water. Water was the highest and did more damage in the Tinaja Creek area of Laredo; at least a two block area of that section of town looked like a running river. Many stranded cars were pulled off of flooded streets.</p> | | | | | | | | | |
| Brooks and Hidalgo Counties | 21 | Day | | | 0 | 0 | 0 | 0 | Flooding |
| <p>Heavy rains in the counties caused flooding of roads and some highways. US Hwy 281 through portions of Brooks County was closed. Highway 755 near Encino was flooded, also SH285 east of Falfurrias. Some roads in Hidalgo County were flooded from a reported 5 inch rain, location not given.</p> | | | | | | | | | |
| Southeast Texas | 27-29 | | | | 0 | 0 | 5 | ? | Flooding, Wind (Outer fringes of Hurricane Juan) |

41 TEXAS, Southern

| | | | | | | | | | |
|--|----|---------------|--|--|---|---|---|---|----------------|
| Burnet and Travis Counties | 14 | 1900-2100CST | | | 0 | 0 | 0 | 0 | Flash Flooding |
| <p>Between 3 and 4 inches of rain fell on portions of the city of Austin, causing flash flooding. Many streets were closed because of the high water. Many motorists were stranded in stalled vehicles. At least one apartment complex had problems with high water. In Burnet County, up to 5 inches of rain near the town of Oatmeal flooded low water crossings, and barricades were put up at several locations in the county. Other areas of Burnet County received 2-4 inches of rain.</p> | | | | | | | | | |
| Fort Bend County | 15 | 0215CST | | | 0 | 0 | 4 | 0 | Wind |
| <p>Thunderstorm winds downed power lines and poles at Stafford. Most of the damage was near the intersection of Highways 90A and US59. Signs and one trailer were also blown over.</p> | | | | | | | | | |
| Duval County | 15 | 0330CST | | | 0 | 0 | 0 | 0 | Wind |
| <p>Thunderstorms with high winds did scattered damage mostly to trees in the Freer area according to the County Extension Agent. The damage was minor; there was no structural damage reported. A power outage occurred between 0330CST and 0420CST.</p> | | | | | | | | | |
| Val Verde County | 18 | Morning | | | 0 | 0 | 0 | 0 | Flash Flooding |
| <p>5 inches of rain in and around the town of Juno, flooded many low water crossings in the area. SH163 was closed shortly after noon near Juno and was closed through the night just north of Comstock.</p> | | | | | | | | | |
| Kimble County | 19 | Early Morning | | | 0 | 0 | 0 | 0 | Flash Flooding |
| <p>4-5 inches of rain caused flash flooding and closed several roads in the area. Flood waters in the area produced a substantial rise on the Llano River. No damage was reported.</p> | | | | | | | | | |
| Gillespie and Kerr Counties | 19 | Morning | | | 0 | 0 | 5 | ? | Flash Flooding |
| <p>Heavy rainfall began in the Hill Country in the early morning hours with 10.75 inches reported at Mountain Home and 10.3 inches at the Kerr Wildlife Management Area in western Kerr County. Resulting flood waters caused serious flooding of the low areas in and around the tributaries of the Guadalupe River west of Kerrville. Both the north and south forks of the river and Johnson Creek west of Kerrville got on a rampage. The river at Hunt was up 23 feet. At Camp Waldemar, near Hunt, high water marooned 53 persons and washed 20 vehicles downstream. East of Hunt, a park and picnic area on the Guadalupe River sustained major damage. The north fork of the Guadalupe River also swept two tractors into the river. Some low water crossings in the area had as much as 17 feet of water covering the roads. Many automobiles were reported floating down flooded streams. The flood water uprooted many trees in the area. An estimated 300 persons were evacuated in the area which included the city of Kerrville and the towns of Hunt and Center Point. Some of the 300 were persons that were rescued from stranded automobiles. Many roads in the area were still closed on Sunday afternoon, the 20th because of the high water. There were no deaths, but there were several near misses. A couple camped in a van near Ingram were marooned and had to be rescued by boat just before the van was washed down stream. A nurse in the Center Point area fled her trailer home moments before it was swept away by flood waters.</p> <p>In Gillespie County, Fredericksburg reported 8.91 inches of rain which flooded many streets and roads in the area and produced a crest on the Pedernales River of 30.42 feet.</p> | | | | | | | | | |

STORM DATA AND UNUSUAL WEATHER PHENOMENA

OCTOBER 1985

| 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 | |
| TEXAS, Southern | | | | | | | | | |
| | <p>As the slow-moving storm approached the southern Louisiana Coast late on the 28th and 29th, tides along the Texas Coast reversed themselves to 1-2 feet below normal because of the strong off-shore winds. The below normal tides minimized the flooding in areas that had received the heavy rains.</p> <p>Numerous tree limbs were blown down in the area, and some of these fell on power lines, causing power outages. On the mid Texas Coast, a palm tree in Rockport was blown over on some power lines, which resulted in a power outage. Winds in the Rockport area were between 50 and 60 MPH. 40 to 50 MPH winds were common over all of Southeast Texas, the Coastal Plains, and the eastern portions of Central Texas. The Beaumont WSO (Weather Service Office) had a peak gust of 47 MPH. Sabine Pass and Galveston both reported a wind gust to 58 MPH. Galveston's peak gust occurred at around noon on the 28th. Victoria reported winds up to 54 MPH which felled some large oak trees and power lines. The storms stronger winds were located at greater distances from its center than what is normally observed in a hurricane. A National Hurricane Center spokesman reasoned that the cause for this was that the storm was not completely tropical, and that it could be labeled a subtropical hurricane.</p> <p>100 persons evacuated the Port Arthur-Beaumont-Sabine Pass area. Many persons were evacuated from offshore platforms and rigs. One supply ship located 50 miles south of Matagorda Island reported 30 foot seas. There was one unconfirmed report of 45 foot seas from one platform.</p> | | | | | | | | |
| 41 TEXAS, Western | | | | | | | | | |
| Much of West Texas | 09 through 10 | | | | 0 | 0 | 5 | 5 | Floods and Flash Floods |
| | <p>"Would-be Noahs can put their tools away, un-pair the critters and stow their arks this weekend," so said the Lubbock Avalanche Journal after one of the "best" rain periods in West Texas. The rain hit hard from the Panhandle to the Permian Basin with lesser, but substantial, amounts elsewhere.</p> <p>Moisture-laden air from the Gulf of Mexico and the Pacific, a cool front crossing the region and the remnants of Hurricane Waldo out of the Pacific, combined neatly to drop rain in excess of 6 inches in some locations. More than 4 inches were common.</p> <p>Not all the rain came in at one time. It spread out over the 2-day period. Consequently, the flash flooding was minimal but flooding was extensive.</p> <p>The flood waters penetrated many homes, buildings and cars, ruining a large number of carpets and furniture. Some of the crops, particularly cotton, suffered heavily. Travel was interrupted due to the many highways and roads that were under water for long periods of time.</p> <p>Some of the hard hit places were Midland and Odessa, as well as U.S. Highway 385 north of Seminole to Seagraves. The plays lakes and lakes on the South Plains spilled over with ease. Numerous streets and highways in the eastern and southern Texas Panhandle were under up to 10 inches of water. Some were impassable at times of heaviest runoff. 24-hour rainfall amounts well in excess of 5 inches were common in this area.</p> | | | | | | | | |
| Motley County | 13 2000CST | | | | 0 | 0 | ? | ? | Hail |
| | Baseball-sized hail fell at Flomot and near Whiteflat. Some crops were destroyed; otherwise, no damage was reported. | | | | | | | | |
| Ector County | 13 2057CST | | | | 0 | 0 | 0 | 0 | Funnel |
| | A funnel cloud near the Midland County Line was reported by the Odessa Fire Department. | | | | | | | | |
| Ector County | 13 2108CST | short 13 | | | 0 | 0 | 0 | 0 | Tornado (P0) |
| | The Odessa Fire Department reported a small tornado touched down briefly at 42nd and Yukon in Odessa. No damage occurred. | | | | | | | | |
| Ector County | 13 2112CST | | | | 0 | 0 | ? | 0 | Hail |
| | Gardendale received 1-inch sized hail. | | | | | | | | |
| Midland County | 17 1155CST | | | | 0 | 0 | ? | ? | Flooding |
| | Major flooding in Midland closed many streets and highways. Loop 250 and a street nearby had 1 to 3 feet of water. Scarborough Drive was underwater. Damage was extensive, but dollar amount unknown. | | | | | | | | |
| Ward County | 17 1510CST | | | | 0 | 0 | ? | 0 | Hail |
| | Grandfalls was hit by 2-inch sized hail. Damage was undetermined. | | | | | | | | |
| 42 UTAH | | | | | | | | | |
| Beaver, Box Elder, Iron, and Salt Lake Counties | 21 1000MST to 2000MST | | | | 0 | 0 | 1 | 0 | High Winds |
| | Strong pre-frontal winds gusted to as high as 71 mph in the western valleys of the state. Other maximum wind gusts included 61 mph in West Valley City, 54 mph in Cedar City, and 51 mph at the Salt Lake City International Airport. | | | | | | | | |
| Box Elder County | 21 1615MST | | | | 0 | 0 | 1 | 0 | Waterspout |
| | A waterspout was reported by a pilot over the Great Salt Lake. Several funnel clouds over the Lake were also reported by pilots near the same time. One helicopter pilot reported that he saw water "being sucked out of the Lake to 700 feet". The exact location was not known. | | | | | | | | |
| 43 VERMONT | | | | | | | | | |
| Windham, Bennington, and Rutland Counties | 07 0900EST | | | | 0 | 0 | 4 | 0 | Flood |
| | Heavy rain of over four inches caused minor to moderate flooding in Southwestern Vermont. Rain fell at the rate of almost two inches in two hours between 8:00 and 10:00 A.M. East Wallingford reported small brooks out of their banks. Urban flooding was reported in Bellows Falls, and washouts of secondary roads was reported near Shaftsbury. | | | | | | | | |
| 44 VIRGINIA ————— NONE REPORTED | | | | | | | | | |
| 45 WASHINGTON | | | | | | | | | |
| Puget Sound including King, Pierce and Thurston Counties | 22 1000-1600PST | | | | 0 | 1 | 4 | 0 | Thunderstorm |
| | After a frontal system went through Western Washington a thunderstorm squall line formed over central Puget Sound and moved south. An intense lightning episode caused some damage. Witnesses said lightning caused a fire at a condominium in South Seattle, causing \$35,000 damage. A guest on the top floor of a hotel was seriously injured when he was on the phone during an apparent lightning strike. The storm generated winds to around 50 miles an hour. | | | | | | | | |
| King, Snohomish, Skagit, Whatcom and Clallam Counties | 25-31 | | | | 0 | 0 | 0 | 0 | Flooding |
| | A series of Pacific fronts moved across the state and caused enough rainfall for several rivers in NW Washington to exceed their flood stages during the last week of the month. Rivers which swelled over their banks brought about flooding sufficient enough to close some roads and bridges. A potato field was covered with water, but otherwise crop damage was virtually nil. | | | | | | | | |
| 46 WEST VIRGINIA ————— NONE REPORTED | | | | | | | | | |
| 47 WISCONSIN ————— NONE REPORTED | | | | | | | | | |
| 48 WYOMING | | | | | | | | | |
| Cheyenne, Laramie County | 22 1044MST | | | | 0 | 0 | 3 | 0 | High Wind |
| | Winds gusting to 71 mph at Cheyenne damaged some trees and outdoor signs, and caused minor power outages. | | | | | | | | |
| Platte County | 22 1210MST | | | | 0 | 0 | 3 | 0 | High Wind |
| | Winds gusting in excess of 65 mph were logged at Chugwater and Wheatland. Four empty semi-trailer trucks were toppled 10 miles south of Wheatland along Interstate 25. Minor tree, building and fence damage was also reported. | | | | | | | | |
| Carbon County | 22 1300MST | | | | 0 | 0 | 0 | 0 | High Wind |
| | Wind gusts to 60 mph were recorded at Arlington. | | | | | | | | |
| Carbon County | 23 0900MST | | | | 0 | 0 | 0 | 0 | High Wind |
| | Wind gusts to 60 mph were logged at Arlington in extreme east Carbon County. | | | | | | | | |

STORM DATA AND UNUSUAL WEATHER PHENOMENA

OCTOBER 1985

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

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

49 **ALASKA, Northern** ————— NO REPORT RECEIVED

49 **ALASKA, Southern** ————— NO REPORT RECEIVED

49 **ALASKA, Southeastern**

| | | | | | | |
|-----------|-------|---|---|---|---|-------------------------|
| Ketchikan | 27-28 | 0 | 0 | 4 | 0 | Heavy Snow, Mudslide |
|-----------|-------|---|---|---|---|-------------------------|

6 inch accumulations of heavy wet snow knocked down trees, damaging homes and causing major power outages in the Ketchikan area. As the snow melted in steady rain on Monday the 28th, mudslides closed the major road north from the city.

50 **HAWAII**

| | | | | | | |
|-------------------|------------|---|---|---|---|-------------|
| Lanai and Molokai | 17 1706HST | 0 | 0 | 0 | 0 | Waterspouts |
|-------------------|------------|---|---|---|---|-------------|

Two waterspouts were reported 5 miles off Kaunakakai by a pilot. They were moving toward Lanai.

| | | | | | | |
|--------------------------|-------|---|---|---|---|----------------|
| Maui, Lanai, and Molokai | 17-18 | 0 | 0 | 5 | 4 | Flash Flooding |
|--------------------------|-------|---|---|---|---|----------------|

A nearly stationary line of heavy showers and thundershowers affected West Maui, Lanai and Molokai for about two days.

| | | | | | | |
|-------|------------|---|---|---|---|-------------|
| Kauai | 19 0820HST | 0 | 0 | 0 | 0 | Waterspouts |
|-------|------------|---|---|---|---|-------------|

Three waterspouts were reported offshore of southwest Kauai. One was located 1/4 mile off Makaweli, and the other two were 2 miles offshore from Poihale.

| | | | | | | |
|------|-------------------------|---|---|---|---|----------------|
| Oahu | 19- 2300- 20 0600HST | 0 | 0 | 5 | 4 | Flash Flooding |
|------|-------------------------|---|---|---|---|----------------|

Heavy showers and thunderstorms dropped from 5 to 10 inches of rain across much of Oahu.

| | | | | | | |
|-------|---------------------|---|---|---|---|----------------|
| Kauai | 20 0200- 2000HST | 0 | 0 | 4 | 0 | Flash Flooding |
|-------|---------------------|---|---|---|---|----------------|

Heavy showers caused minor flooding mainly over northeast portions of Kauai.

51 **PUERTO RICO**

| | | | | | | |
|------------|-----|-----|---|----|---|---|
| Islandwide | 6-7 | 180 | ? | 8° | C | Tropical Wave with Heavy Rains, Floods, and Land- slides |
|------------|-----|-----|---|----|---|---|

During the period of October 6-7, 1985, Puerto Rico suffered the effects of excessive rainfall which resulted in severe flooding of rivers and streams, and subsequent landslides over the entire island. The heaviest rainfall and most severe effects occurred in the municipalities of Ponce, Juana Diaz, Santa Isabel, and Coamo, in the southern plains of Puerto Rico. The most tragic consequence of the event was a landslide in a residential hillside community of Ponce, Barrio Maneyes, where 127 residents lost their lives.

The rains were associated with a tropical wave that, after affecting Puerto Rico on October 6-7, moved into the vicinity of the Bahamas where it became Tropical Storm ISABEL on October 8th.

The effects of the wave were felt in Puerto Rico beginning on Friday, October 4th. The most intense rainfall occurred in the 24-hour period starting at about 0800AST on Sunday, October 6th, with the highest rainfall rates occurring in the 12-hour period from sunset on Sunday to sunrise on Monday. The largest rainfall amounts for the 24-hour period ending at 0800AST on Monday, October 7th were 24.6 inches at Cerro Maravilla, 21.52 inches at Santa Isabel, 21.30 inches at Coamo, and 23.75 inches at Toro Negro. The heaviest amounts of 16-24 inches fell on the mountain slopes north of Ponce. Rainfall amounts of 4-8 inches fell on the northern slopes and north coastal sectors. The 24-hour rainfall totals at Toro Negro and Cerro Maravilla exceeded the record rainfall rate for Puerto Rico of 23 inches in 24 hours which occurred on August 8, 1899 during the great San Ciriaco Hurricane of 1899.

Another serious incident associated with the event was the tragic consequences of a bridge washout on the San Juan-Ponce Highway (Autopista) near Coamo. A number of motorists drove into the flooded gap in the road, resulting in 29 deaths. Another incident involving a large number of deaths occurred in the sector Las Batatas, near El Tuque, Ponce where 16 persons drowned in a flooded creek during the night.

According to the latest data, the total loss of lives was about 180, about 150 of them in Ponce. Around 11,000 families, involving close to 50,000 people, had to leave their dwellings and seek safe shelters. Estimates of damage are close to \$125 million. 28 towns were declared eligible for public disaster assistance under a presidential disaster declaration.

52 **VIRGIN ISLANDS** ————— NONE REPORTED

53 **PACIFIC** ————— NONE REPORTED

STORM DATA AND UNUSUAL WEATHER PHENOMENA

LATE REPORTS

LATE REPORTS

| 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 | |

2 ARIZONA

SEPTEMBER 1985

East Tucson, Pima County

27 about 1 0 0 0 Lightning

A 30 year-old man died on November 26, 1985 after being struck by lightning on September 27th. The man was walking on a sidewalk in East Tucson and was struck at about 5:30 pm MST. The bolt apparently struck him on the left side, leaving a burn on his chest and searing his body hair. He had been in a coma for the entire 2 month period.

17 MAINE

SEPTEMBER 1985

Statewide

27 1400EST 0 3 7 6 Hurricane

Hurricane Gloria lost much of her punch as she traversed Maine from the Rangeley Lakes Region to the west of Caribou on Friday afternoon and night. Her arrival came at the time of low tide, producing minimal flood damage and beach erosion along the coast. Heaviest rains were confined to western and mountain sections of Maine, and, therefore, no flooding was reported. However, strong winds with hurricane force gusts raised havoc with large old trees and their limbs across the entire state. Most of the downed trees were 50 years old or older, at least 50 feet tall or taller, and were of both the hard and softwood varieties. Every community in Maine suffered damage from the downed trees and limbs. Numerous power and telephone lines were taken down by these trees and limbs. Central Maine Power Company said this was the worst and most extensive power outages since Hurricanes Carol and Edna in 1954. Some 250,000 of their customers were without power at some point. In fact, hundreds remained powerless for 5 to 6 days in sections of Augusta, Brunswick, Sanford, Lewiston and Bridgton. About a dozen seasonal homes around ponds and lakes in Acton (York County) were without power for 11 days. In comparison, it took Central Maine Power 14 days to restore power after the 1954 hurricane. Central Maine Power estimates it cost 1.5 million dollars to restore power after Gloria. They also said over 100 poles were knocked over, but nowhere near the 1200 poles downed in the 1954 fiasco. Estimates say 60 percent of the state's residents, or about 600,000 people were without electricity at some point. According to New England Telephone, only 4,800 customers statewide lost phone service. The countless large limbs and trees that were snapped off or uprooted not only blocked roads and impeded traffic, but also caused considerable damage to dwellings and vehicles as they crashed onto or into them. Peak winds recorded around the state are as follows: 86 MPH at Goat Island Coast Guard Station; 80 MPH at Old Orchard Beach; 78 MPH at Newagen; 75 MPH at Ogunquit; 72 MPH at Augusta; 70 MPH at Portland; 67 MPH at Northeast Harbor; 60 MPH at Waterville and Oxford Hills; 58 MPH at Bangor; 55 MPH at Brunswick; 50 MPH at Rumford and Dexter; 45 MPH at Houlton; 42 MPH at Caribou and 38 MPH at Greenville. No deaths were reported and this is due to the fact that the state and local officials and agencies as well as the public heeded the watches and warnings and were well prepared. Most schools, businesses, and factories closed for the day or shut down for the afternoon. However, 3 serious injuries were reported. In Windsor, a man was struck by a falling tree.

In Waterville, a large plate glass window at a gas station was shattered by the wind and injured an employee. In New Gloucester, a woman was struck and pinned to her car by pieces of roof from her home that were torn off by the wind. Direct wind damage reports came from Ogunquit, where the roof was ripped off one of the Norseman Motel Inn's four buildings which, in turn, crushed 8 parked cars. In Old Orchard Beach, the roof was torn off the Belvedere Motel, and the Press tower at the High School football field was blown down. In Groveland, a 16 foot, 127 year old wooden spire on top of the North Congregational Church belfry was toppled by the wind, punching a 2 by 3 foot hole in the roof before landing on the ground. In South Portland, a storage shed was toppled. In East Vassalboro, the United Methodist Church roof blew away and a steeple was left leaning. Rafters were lost off a new building on Swan's Island. Hangar doors were blown into a hangar at the Sanford Airport. At LaFleur Airport in Waterville, two light aircraft were ripped from their moorings, receiving substantial damage. The State House in Augusta had some windows blown in. An apartment building in Hallowell had half of its roof torn off. In South Gardiner, a storage building at a grocery warehouse lost its roof and two walls. In Lincolnville, two silos were torn down and a third damaged by the winds. The garage doors were blown off the Town Garage in Greene. A roof was also torn off a home in Auburn. The boating and marine interests were also well prepared. At Cape Porpoise, a couple thousand lobster traps in the harbor were entangled but not lost. Many others were moved by high seas and winds, landing them on the beaches and rocks along the York County coastline. Damage to vessels came from Peppercorn Cove, off Kittery Point, where 5 boats suffered a total of \$75,000 damage when run aground. One was a 110 footer while the other 4 were in the 22 to 35 foot range. In Casco Bay, the Coast Guard reported 50 small boats were torn from their moorings, with about a dozen driven aground and damaged. Freeport had a 35 foot cabin cruiser break loose and smash into the dock, and sink from a hole punched in her stern. In Linekin Bay, a 42 foot sailboat went aground, while another went ashore on Squirrel Island. Two boats in Rockport

MAINE

Harbor and one boat in Rockland Harbor sustained extensive damage when all 3 foundered on the rocks. When considering the thousands of watercraft involved, the damage was quite small. The apple industry suffered an estimated 3 million dollars loss to its current crop and trees. Several dairy farms that were without power for a long period of time had some milkers dry up and output drastically cut back. Also, several farms reported complete loss of their corn crop.

19 MASSACHUSETTS

SEPTEMBER 1985

Holliston, Middlesex County

27 1400EST 0.1 30 0 0 2 0 Tornado (F1)

A very small tornado accompanying Hurricane GLORIA was reported in the eastern portion of the town near Northway Street. The local civil defense director investigated the damage and found trees had fallen away to either side of the path of the tornado. Residents reported a "grayish misty cloud" and a very loud roaring noise as the trees were falling. Only tree damage was reported.

23 MISSOURI

APRIL 1985

Dunklin County

23 1523CST 1.8 50 0 0 5 0 Tornado (F1)
A tornado touched down in the southeast side of the community of Kennett. The storm damaged 14 cotton trailers, 4 storage sheds, 3 homes, 1 barn, and a pickup truck, and also broke glass.

Dent County

23 1545CST 1/4 100 0 0 3 0 Tornado (F0)
A tornado touched down briefly just southeast of Salem. It destroyed one outbuilding and some trees.

Cape Girardeau County

23 1715CST 0 0 4 0 Damaging Wind
Wind from a severe thunderstorm damaged a fire station at Millersburg. It also downed tree limbs. The underpinning of a mobile home was blown away and the mobile home damaged.

Jefferson County

23 1730CST 0 0 3 0 Damaging Wind
Wind damaged some trees in eastern portions of the county. No tornado was confirmed but numerous reports of funnel clouds were received.

JULY 1985

Saline County

19 2300 CST 2 0 0 0 Lightning
Two brothers were killed by lightning when fishing about 1/2 mile east of Missouri Highway 41. The two brothers were ages 26 and 24. A third person who was fishing with the two was not injured.

27 NEW HAMPSHIRE

SEPTEMBER 1985

Statewide

27 1300EST 1 1 6 6 Hurricane

Hurricane Gloria was losing her punch as she traversed New Hampshire from the Hinsdale-Winchester area to the Conway region Friday afternoon and evening. Her arrival came near the time of low tide, producing minimal flood damage and beach erosion along the coast. Heaviest rains were confined to northern and mountain sections of New Hampshire, where storm totals ranged from 2 to 4 inches. The most recorded, 5.41 inches, came from the top of Mount Washington (6,288 ft.). The only flooding reported was at the Lost River Reservation in North Woodstock (Grafton County), where excessive damage occurred from the high water. Officials there reported the water in the gorge was 20 feet above the river in places, ripping out some 300 feet of boardwalk in the older section of the gorge, or the worst storm damage since the 1938 hurricane. The most damage came from the strong winds with hurricane-force gusts, which raised havoc with large old trees and their limbs across the entire state. Most of the downed trees were 50 years old or older, at least 50 feet tall or taller, and were of the hard and softwood varieties. Every community in the state suffered damage from the downed trees and limbs. Numerous power and telephone lines were taken down by these trees. Officially, 97,116 customers lost their electricity statewide, with the seacoast region reporting the

STORM DATA AND UNUSUAL WEATHER PHENOMENA

LATE REPORTS

| PLACE | DATE | TIME - LOCAL STANDARD | LENGTH OF PATH (MILES) | WIDTH OF PATH (YARDS) | NO. OF PERSONS | | | | ESTIMATED ¹ DAMAGE | | CHARACTER OF STORM | |
|---|------|-----------------------|------------------------|-----------------------|----------------|---------|----------|-------|-------------------------------|-------|--------------------|---|
| | | | | | KILLED | INJURED | PROPERTY | CROPS | PROPERTY | CROPS | | |
| | | | | | | | | | | | | |
| NEW HAMPSHIRE | | | | | | | | | | | | |
| | | | | | | | | | | | | <p>biggest concentration of outages at 41,531. Most customers had power back in two days, and was completely restored in 6 days. The countless large limbs and trees that were snapped off or uprooted not only blocked roads and impeded traffic, but also caused measurable damage to many vehicles and to 16 homes and mobile homes in the state, as they crashed onto or into them. Peak winds recorded around the state are as follows: 127 MPH atop Mount Washington; 80 MPH at Hampton; 75 MPH at Pease Air Force Base in Portsmouth and Portsmouth Harbor Coast Guard Station; 74 MPH at the Isles of Shoals Coast Guard Station; 58 MPH at Manchester; 51 MPH at North Swanzy; 50 MPH at North Conway; and 44 MPH at WSO Concord. Wind gusts of 50 to 60 MPH were common through the Lakes Region, while gusts to 40 MPH were noted in the Clarksville-Pittsburg area. State and local officials and agencies, as well as the public, heeded the watches and warnings and were well prepared. Most schools, businesses, and factories closed for the day or shut down for the afternoon. However, there was one death when a gust of wind caught a door and knocked a 64 year old Suncook woman over her porch railing four feet to the pavement. She died two weeks later from complications brought about from the accident. Only one injury was reported, and that was to a 78 year old woman passenger in a car struck by a falling tree in Manchester. Many road signs fell victim to the winds. The only direct wind damage report came from a Manchester construction site, where welded flooring was broken loose and blown into the street below by the winds. Boating and marine interests were also well prepared. In Rye Harbor, two powerboats and two sailboats were damaged when they smashed against the rocks in the harbor. One powerboat and one sailboat were totalled. This is light damage when one considers the thousands of vessels involved. Minimal damage was reported by lobstermen. Also, three seals were killed by the heavy seas. Damage to crops, statewide, totalled 2 to 2.5 million dollars, most of which was sustained by the apple industry.</p> |
| 28 NEW JERSEY | | | | | | | | | | | | |
| <u>MAY 1985</u> | | | | | | | | | | | | |
| Scotch Plains, Union County | 21 | Evening | | | | 1 | 0 | 0 | 0 | | | Thunderstorm/ Lightning |
| | | | | | | | | | | | | <p>In a bizarre case during a thunderstorm, a high school honors student used a plastic, push-button phone in his grandmother's bedroom to make a call. He was found dead several minutes later by a cousin. The telephone receiver was next to his ear. The autopsy showed a hemorrhage in the inner ear. The student passed the rigorous physical examination required for admission to West Point weeks earlier. The exam showed him to be in excellent condition. The baffling death bewildered forensic experts. Months later the medical examiner determined the cause of death to be a lightning strike.</p> |
| 30 NEW YORK, Coastal — NONE REPORTED | | | | | | | | | | | | |
| <u>MAY 1985</u> | | | | | | | | | | | | |

STORM DATA AND UNUSUAL WEATHER PHENOMENA

CORRECTIONS

CORRECTIONS

| 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 | |

21 MINNESOTA

JULY 1985

DELETE:

2 TORNADOES

in Crow Wing and Aitkin Counties at 1805-1825CST on July 3 (page 22), and
in Crow Wing, Mille Lacs and Kanabec Counties at 1830-1930CST on July 3 (page 22).

ADD:

2 TORNADOES

listed below:

Crow Wing and Aitkin Counties

3 1805-1825CST 7 100 0 0 5 ? Tornado (F0)

A tornado touched down between Cuyuna and Deerwood in Crow Wing County and moved east into Aitkin County where it was last observed from the west shore of Cedar Lake. The tornado damaged three farm sites north of Deerwood. Three more farm sites were damaged approximately one mile west of the Aitkin/Crow Wing county line off Highway 210. Several barns, a garage and a silo were destroyed. Roofs were lifted off several buildings. Trees and power lines were downed.

Crow Wing, Aitkin, Mille Lacs and Kanabec Counties

3 1830-1930CST 30 200 0 0 4 ? Tornado (F2)

A tornado developed just west of Garrison in Crow Wing County and moved southeast at nearly 30 mph across Mille Lacs Lake, and went ashore again between Wahkon and Isle on the southeast shore of the lake. The tornado continued its southeast movement to Warman in Kanabec County before receding into the thunderstorm. The tornado was on the surface almost continually for an hour. Several roofs were damaged and trees uprooted in Garrison. A resort was damaged on the southeast side of Mille Lacs Lake and several farm buildings were damaged and numerous trees uprooted in Mille Lacs and Kanabec Counties.

33 OHIO

MAY 1985

DELETE:

ONE LIGHTNING

in Green County at 1030EST on May 12 (page 44).

ADD:

ONE LIGHTNING

listed below:

Greene County

12 1030 EST 1 19 3 0 Lightning
Lightning struck Beavercreek soccer field during a tournament match injuring 20 players, managers and a referee. One of the managers died in September as a result of his injuries.

38 SOUTH CAROLINA

AUGUST 1985

DELETE:

3 TORNADOES

in York County at 1355EST on August 17 (page 35),
in York County at 1400EST on August 17 (page 35), and
in Union County at 1415EST on August 17 (page 35).

ADD:

3 TORNADOES

listed below:

York County

17 1355EST 3 30 0 0 5 4 Tornado (F1)

A tornado first appeared two miles northwest of McConnel's and moved north-northeast for a distance of 3 miles. Several residences were damaged, and a mobile home and several small buildings were destroyed.

York County

17 1400EST 1 30 0 0 5 0 Tornado (F0)

Trees were blown down and 3 homes damaged by a small tornado 3 miles southeast of Clover, as it moved north-northeast for a distance of one mile.

Union County

17 1415EST 3 30 0 0 4 3 Tornado (F1)

A tornado moved from Old Pumpkin Road, 4 miles northwest of Jonesville, north-northeast for 3 miles. It was observed by several people and cut a path through woods.

48 WYOMING

MAY 1985

DELETE:

2 TORNADOES

in Goshen County at 1640MST on May 6 (page 64), and
in Crook County at 1730MST on May 10 (page 64).

ADD:

2 TORNADOES

listed below:

Goshen County

06 1640MST 15 25 0 0 0 0 Tornado (F1)

A tornado, initially reported by the Air Force just north of Yoder, moved northeast through the south half of Goshen County. There was an unconfirmed report of two tornadoes from the public as the thunderstorm was 3 to 5 miles west to southwest of Torrington. The tornado dissipated along the Wyoming-Nebraska border at around 1703 MST.

Crook County

10 1730MST 1 15-35 0 0 3 0 Tornado (F2)

A tornado 14 miles south of Sundance demolished a small pig shed and came to within 100 feet of a ranch house. The tornado lifted a cow into the air, and dissipated shortly thereafter. The cow was uninjured.

JUNE 1985

DELETE:

ONE TORNADO

in Hot Springs County on the afternoon of June 20 (page 44).

ADD:

ONE TORNADO

listed below:

Hot Springs County

20 1644MST 1 50 0 0 4 0 Tornado (F0)

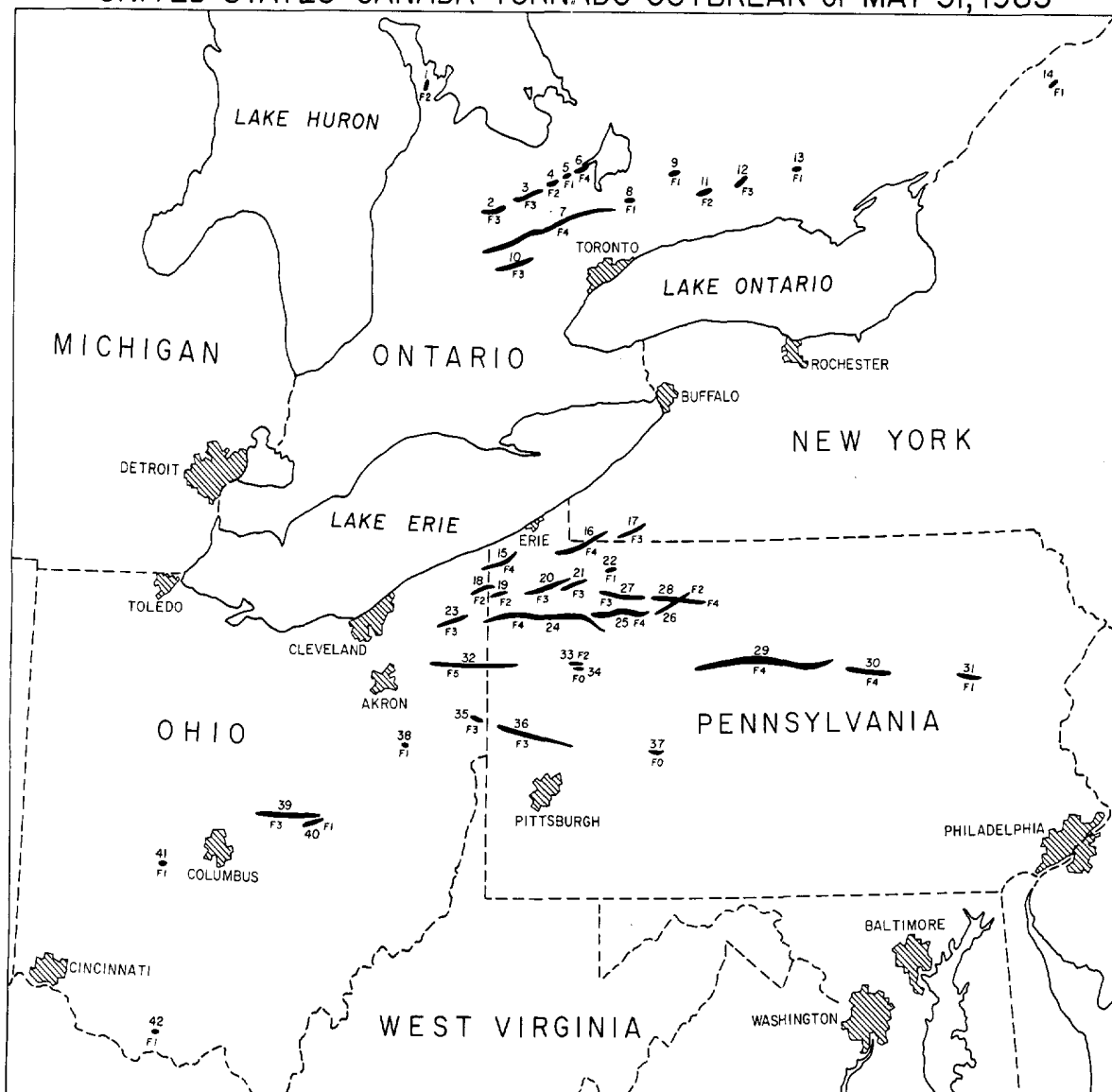
A "twisting black cloud" ripped the roof off a trailer 12 miles north of Thermopolis. The tornado approached from the west and lasted 3 to 4 minutes.

STORM SUMMARY

| 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 | | DEATHS | INJURIES | †DAMAGE | | | | |
| | | | | | | | | PROP. ERTY | CROPS | | | PROP. ERTY | CROPS | | | PROP. ERTY | CROPS | | | PROP. ERTY | CROPS | | | PROP. ERTY | CROPS | | | PROP. ERTY | CROPS | | | PROP. ERTY | CROPS | | | |
| LATE REPORTS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| APRIL 1985 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Missouri | 3 | 2 | | | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MAY 1985 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| New Jersey | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| SEPTEMBER 1985 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Arizona | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maine | | | | | | | | | | 3 | 7 | 6 | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| Massachusetts | 1 | 1 | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| New Hampshire | | | | | | | | | 1 | 1 | 6 | 6 | | | | | | | | | | | | | | | | | | | | | | | | |
| CORRECTIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MAY 1985 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Missouri | | | | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| New York | 3 | 1 | | | 10 | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ohio | 12 | 2 | 11 | 340+ | 8 | | | 4 | 3 | 1 | | 4 | 5 | 1 | 20 | 5 | | | | | | | | | | | | | | | | | | | | |
| Pennsylvania | 22 | 1 | 59 | ? | 8 | | | 5 | 6 | | | 5 | | | | | | | | | | | | | | | | | | | | | | | | |
| JUNE 1985 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Minnesota | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pennsylvania | 8 | | | | | | | | | | | | | 7 | | | | | | | | | | | | | | | | | | | | | | |
| JULY 1985 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Missouri | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Virginia | 3 | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | | | | |
| AUGUST 1985 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Missouri | | | | | | | | | | 13 | 5 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oklahoma | | | | | | | | | | | | | 0 | 0 | 5 | ? | | | | | | | | | | | | | | | | | | | | |

SPECIAL CORRECTION SECTION

UNITED STATES-CANADA TORNADO OUTBREAK of MAY 31, 1985



| | | | | | |
|-----|---------------------|-----------------|------------------|----------------|-----------------|
| No. | <u>TORNADO NAME</u> | 8. Wagoner Lake | 17. Busti | 26. Lamont | 34. Emlenton |
| 1. | Rush Cove | 9. Reavoro | 18. Dorset | 27. Tidioute | 35. Middleton |
| 2. | Hopeville | 10. Alma | 19. Linesville | 28. Kane | 36. Big Beaver |
| 3. | Corberton | 11. Ida | 20. Saegerton | 29. Moshannon | 37. Penn Run |
| 4. | Borden | 12. Rice Lake | 21. Centerville | State Forest | 38. East Sparta |
| 5. | Essa | 13. Minto | 22. Thompson Run | 30. Watsontown | 39. Utica |
| 6. | Barrie | 14. Norfolk | 23. Mesopotamia | 31. Holenback | 40. Cooperdale |
| 7. | Grand Valley | 15. Albion | 24. Atlantic | 32. Wheatland | 41. London |
| | | 16. Corry | 25. Tionesta | 33. Big Bend | 42. West Union |

---This corrected outbreak map was prepared at the University of Chicago and represents the best and most complete data available on this event as of January 30, 1986, based on aerial and ground surveys and subsequent investigations conducted by the University of Chicago, Pennsylvania State University, the National Weather Service, and the Canadian Weather Service.

New listings of the 29 United States tornadoes, and only the tornadoes, in the outbreak of May 31, 1985 appear on the following pages. Some are merely repeated as they originally appeared in the May, 1985 issue of STORM DATA, while others have major corrections and/or additions. Please disregard the previous listings of these tornadoes.

| | F5 | F4 | F3 | F2 | F1 | F0 | Total |
|--------------------|----|----|----|----|----|----|-------|
| United States only | 1 | 7 | 8 | 4 | 7 | 2 | 29 |
| Outbreak total | 1 | 9 | 12 | 7 | 11 | 2 | 42 |

STORM DATA AND UNUSUAL WEATHER PHENOMENA

CORRECTIONS

SPECIAL SECTION

CORRECTIONS

MAY 1985

| 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 | | | |
| | | | | | | | | | | | |

30 NEW YORK, Central

Norfolk, St. Lawrence County 31 2030EST 5 30-50 0 0 5 0 Tornado (F1)
 A tornado was confirmed by NWS staff as having touched down at Norfolk in St. Lawrence County. Witnesses reported sighting a funnel cloud and hearing loud, train-like sounds as the tornado passed. Another witness reported feeling her kitchen floor twisting. The tornado travelled from southwest to northeast. Heavy, driving rain was reported as occurring at the time. Structures destroyed included a horse barn, garage, silo, and several downed trees. No hail was reported at the touchdown site. (F1,P2,P1)

30 NEW YORK, Western

Southern Chautauqua County 31 1655-1705EST 8 440 0 0 6* - Tornado (F3)
 31 1725-1745EST 13 176 0 10 - Tornado (F3)

*County total including damages from both tornadoes.
 Intense low pressure over the Upper Great Lakes, with a cold front that extended beyond the Lower Great Lakes, produced severe thunderstorms and the worst outbreak of tornadoes since 1974.
 Of the two tornadoes in Chautauqua County, the first moved into the state from Pennsylvania, crossing the border at about 3 miles southeast of Clymer, and moved east-northeast for 8 miles through rural areas. It gradually tapered through that distance, before dissipating 1 mile northwest of Watts Flat. Its total path length in both states was 28 miles and the maximum F scale (F4) was in Pennsylvania.
 The second tornado touched down at about 2 miles east of Busti, moved east-northeast through the town, and razed parts of Harmony, Kiantone, and Carroll; before ending 2 miles southeast of Poland. This tornado remained narrow throughout its path.
 Both tornadoes made slight left turns (northeast) during the final mile of their paths, and both were part of a family of three, the other striking earlier at Albion, PA.
 About 70 homes in Chautauqua County were damaged or destroyed. Of these, 21 were destroyed, 11 suffered major damage, and 38 received minor damage. Eight house trailers were included in the number of homes destroyed. About 10 persons were hospitalized for injuries sustained; two could be considered as serious, whereas 8 were minor. County officials were amazed that there were no deaths. Thousands of trees were felled. Power lines to thousands of homes were severed. Damage was estimated at 3 to 4 million dollars, countywide. This does not include damages to cars, livestock, personal belongings, a church, and several businesses, which may increase the total loss by 15 to 25 percent.

33 OHIO

Trumbull and Ashtabula Counties 31 1605-1620EST 15 440 0 30 6° C Tornado (F3)

A strong tornado touched down southwest of Mesopotamia and moved east-northeast, passing north of Bloomfield. The tornado entered Ashtabula County southeast of Orwell at around 1615EST. The path of the storm was continuous and destroyed approximately 40 homes. Several cars, trucks and trailers were also destroyed. Many other homes and farm buildings sustained significant damage. The injuries occurred to residents of the area. There may have been many unreported injuries since the tornado destroyed many homes of the Amish, who often refuse medical treatment unless it's necessary.

Ashtabula County 31 1559-1601EST 2 300 0 0 5 0 Tornado (F1)

A major tornado first touched down 2 miles west of the Pennsylvania border southeast of Monroe Center along Hilldom Road. The tornado moved east-northeast into Pennsylvania and later destroyed much of the town of Albion. In Ohio, the damage consisted of 10 mobile homes destroyed or damaged, and several downed trees. Utility poles were snapped off along the storm's path also. The total path length in both states was 14 miles and the maximum F scale (F4) was in Pennsylvania.

Trumbull County 31 1617EST 0.2 300 0 0 4 0 Tornado (F0)

This tornado touched down in the extreme northeast corner of the county in Kinsman Township. The tornado was on the ground in Ohio for only a few hundred yards before it moved into Pennsylvania and later struck the town of Atlantic. In Ohio, damage was done to some farm buildings and trees were downed. The total path length in both states was 56 miles and the maximum F scale (F4) was in Pennsylvania.

Ashtabula County 31 1628-1641EST 9 220 0 15 6 0 Tornado (F2)

A tornado touched down 5 miles southeast of Jefferson along State Route 307, just northwest of Dorset. The tornado moved east-northeast, passed south of Pierpoint, and turned east, continuing into Pennsylvania. This storm damaged several homes and farm buildings. It also caused extensive tree damage and widespread utility outages. The total path length in both states was 10 miles.

OHIO

Portage and Trumbull Counties 31 1730-1815EST 33 440 10 250 8° C Tornado (F5)

A maxi tornado touched down at 1.5 miles north of Charlestown in the Ravenna Arsenal in Portage County, and moved east, entering Trumbull County at around 1740EST. The tornado destroyed much of the town of Newton Falls, having passed through its center, and continued east through northern Lordstown, Niles, the center of Coalburg, and northern portions of Hubbard before moving into Pennsylvania and causing serious damage at Wheatland. The storm path was continuous and destruction was total in many areas. All of the deaths occurred in Niles and the Hubbard area. Most of the deaths were in the Top of the Strip Mall area on State Route 46 in Niles. Another woman died in Niles when she suffered a heart attack upon reviewing the destruction of her home after the storm had moved out of the area. The injury count is approximate and may be slightly higher. Hundreds of homes were destroyed and more than a thousand others, damaged. Public buildings, schools and businesses also sustained serious damage. Damage estimates were more than \$60 million in Ohio. The path length in both states was 47 miles.

Madison County 31 1806EST 1/2 50 0 0 5 0 Tornado (F1)

A tornado touched down briefly just west of London. Damage was confined to farm buildings, trees and utility lines.

Licking and Coshocton Counties 31 1815-1845EST 29 150 1 20 7° C Tornado (F3)

A strong tornado touched down northwest of Johnstown and moved east-northeast, passing south of Utica near Fallsburg to the West Carlisle area in Coshocton County. The storm entered Coshocton County at around 1845EST. One man was killed near Fallsburg, and several other people were injured along the path of the storm. Several homes and farm buildings were destroyed. Damage valued at \$7-\$8 million occurred.

Columbiana County 31 1835-1855EST 15 220 0 20 7° C Tornado (F2)

A tornado touched down just south of Salem and made a hit-skip path east-southeast to southeast of New Waterford where the funnel went back into the clouds. This same storm complex later produced a tornado near Beaver Falls, Pennsylvania. Many homes and farm buildings were destroyed, and damage estimates were \$5-\$6 million.

Muskingum and Coshocton Counties 31 1850-1910EST 11 75 0 5 6° C Tornado (F1), Hail

A tornado touched down west of Frazeyburg and moved northeast into Pike Township of Coshocton County. The storm destroyed some homes and farm buildings, and downed many trees. Damage was in excess of \$500,000. Two inch diameter hail was reported in Pike Township just before the tornado.

Stark County 31 1945EST 1/4 50 0 0 4 0 Tornado (F1)

A mini tornado touched down in a rural area near East Sparta. The storm moved east, damaging trees and some farm outbuildings.

Adams County 31 2005EST 2 75 0 0 4 0 Tornado (F1)

A tornado touched down six miles east of West Union near Ohio Brush Creek. The storm moved east through a wooded area.

36 PENNSYLVANIA, Eastern

Lycoming, Union, and Northumberland Counties 31 2025-2115EST 19 910 6 60+ 7 4 Tornado (F4), Hail

A tornado moved east-southeast from 1 mile west of Batstress, passed over North White Deer Ridge, and continued to 3 miles northeast of Watsontown. It lifted momentarily as it crossed the ridge, but later widened to 1.5 miles across as it crossed the Susquehanna River.

In Union County, 48 of 60 campers were destroyed at the Hidden Creek campgrounds, and the remainder were damaged. An 83 year old woman survived in her mobile home when it was blown over an 80 foot cliff and landed in a tree. A total of 48 campers, 8 homes, 3 mobile homes, and 18 vehicles were destroyed in Union County, and 5 homes received minor damage.

In Northumberland County, 30 mobile homes were destroyed at a park near Dewart. 2 businesses, 140 mobile homes, 77 homes, a church, 28 barns, 9 silos and 28 garages were either damaged or destroyed.

In all, at least 190 structures and 50 vehicles including 4 school buses were damaged or destroyed. Thousands of trees were uprooted or snapped off, and 6 people were killed, all female and two from each county. Three of the deaths occurred in mobile homes, two in houses and one in a camper. The injuries resulted from flying or falling debris, and person being caught in overturning mobile homes or campers. 35 farms were destroyed or heavily damaged, and at least 12 cows were killed. Damage estimates for the three counties ran \$16 million, with at least \$2 million and \$10 million in Union and Northumberland Counties, respectively.

Golfball-sized hail fell near Jersey Shore.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

CORRECTIONS

SPECIAL SECTION

CORRECTIONS

MAY 1985

| 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 | |
| | | | | | | | | | |

PENNSYLVANIA, Eastern

Luzerne County 31 2145-2200EST 11 530 0 ? 5 0 Tornado (F1)
 A tornado began near Mapwallopen, passed near Hobbie, and ended near Freeland. A campground and adjoining mobile home park north of Drums were struck. Two trailers were overturned and 8 others were damaged. 3 people were injured and damage estimated at \$175,000 was done. Damage was done to trees and a barn, and a large sign was downed along I-80. Some of the damage may have been downburst related, but a definite tornado signature was noted.

*Editor's note: See PENNSYLVANIA, Western for an additional tornado that moved into the PENNSYLVANIA, Eastern region.

36 PENNSYLVANIA, Western

Erie County 31 1601-1617EST 12 400 12 82 7 ? Tornado (F4)
 A tornado that started in Ohio, two miles west of the state line and 8 miles west-southwest of Pennside, Pennsylvania, moved into Pennsylvania, northwest of Pennside and through Albion, to 3 miles east-northeast of Cranesville. In Albion, the tornado levelled an area 8 to 10 blocks long and about two blocks wide through the center of the town. Two trailer parks were levelled as well. A total of 9 deaths occurred in the town. Two trailer parks were also ravaged in Cranesville, causing 3 deaths and destroying 13 trailers. In all, the tornado caused 12 deaths and 82 injuries, and 309 buildings were damaged or destroyed. The total path length in both states was 14 miles and the maximum F scale (F4) was in Pennsylvania at Albion.

Crawford County 31 1610-1615EST 4 200 1 0 ? 0 Tornado (F2)
 A tornado touched down on the Pymatuning Reservoir, moved ashore at 1.5 miles west of Linesville, and continued 4 miles east-northeast, passing north of Linesville. Upon moving ashore, the tornado struck the End-of-the-Road Campground, a new house and a trailer at Pymatuning State Park. Between 75 and 80 campsites were damaged at the Ferris Park Campground, near where two permanent homes were also severely damaged. Two mobile homes were swept away on Airport Road, and a horse barn along Route 6 was demolished. A home near the barn lost part of its roof and a nearby garage was also demolished. An unoccupied house was knocked down along the Wallace Avenue Extension.
 A death resulted when a woman was crushed beneath her travel trailer.

Mercer, Crawford, Venango, and Forest Counties 31 1617-1730EST 56 350 16 125 7 ? Tornado (F4)
 A tornado that started in Ohio, only a few hundred yards west of the state line in extreme northeast Trumbull County, moved into Pennsylvania at the Mercer-Crawford County Line and continued east-northeast, passing through northern portions of Jamestown, through Atlantic and part of Cochran, both in Crawford County, into Venango County where parts of Hannaville, Cooperstown and Cherry Tree were struck, and finally narrowing as it turned southeast, ended at a point 4 miles south of Tionesta in Forest County.

As the tornado moved through Jamestown, three homes were destroyed in the Douthett Allotment. The tornado then struck along Route 322, destroying homes and businesses. Two mobile homes were blown 100 feet across the road and into an embankment. A car and pickup truck were overturned. One of the buildings of a grocery store near Pymatuning State Park was flattened while the other was unroofed. A tavern was also destroyed, but the patrons survived with only a few injuries since they dropped to the floor upon hearing the storm's approach. The Jamestown Elementary School, about 1/4 mile from the devastation, was not damaged. A church on Denver Street was unroofed, and four homes and a mobile home were destroyed along Snake Road. Numerous trees were uprooted throughout Jamestown as well.

In Atlantic, 5 people were killed when a house near the entrance to a trailer park was levelled. The factory of a chair manufacturer on Route 18 was also levelled. The Atlantic Feed and Grain Mill was destroyed, and looters drove off with truckloads of grain. A 1 1/2 year old post office building was destroyed, as was an old school. A church with a steel-reinforced roof withstood the tornado, although windows were broken and ceiling tiles fell. The fiberglass spire atop the roof was undisturbed. A flock of Canada Geese, unable to take off and elude the approaching tornado, was wiped out. An AT&T microwave communications tower, 312 feet tall and built to withstand winds of 200 mph, toppled at a site 1 mile east of Atlantic. A nearby cemetery was also struck, and many tombstones were toppled.

Further east, along Highway 19 about 5 miles north of Sheakleyville, a tavern and motel were heavily damaged, resulting in one fatality. A church along Route 322 in Cochran was heavily damaged, as was a trailer park on Lake Road near Cooperstown. Other areas hard hit were Route 247 north of Cooperstown, Route 417 between Dempseytown and Cherrytree, and Route 8 north of Kaneville. Two houses and 11 mobile homes were destroyed at McCormick's Trailer Park on Route 417 between Dempseytown and Cherrytree, leaving 5 dead. A bird farm on Cherrytree Road lost 160,000 birds and 100,000 eggs that were hatching in 8 brooders.

PENNSYLVANIA, Western

Known damage estimates by location, type and amount were: Oakland Township, including High Banks and McCormick's Trailer Park, 21 mobile homes and 31 houses damaged or destroyed, \$2.5 million; Canal Township, including the Hannaville area, 10 mobile homes and 11 houses damaged or destroyed, \$1.5 million; Plum Township, 6 houses, \$12,000; and Jackson Township, as many as 70 residences, at least \$1 million.

There were a total of 16 deaths caused by the tornado; 5 in Atlantic, 3 in Cochran, and the remaining 8 in the Cooperstown-Dempseytown-Cherrytree area north of Franklin and Oil City.

Although the tornado started in Ohio, the total path length is still 56 miles when rounded to the nearest mile.

Crawford County 31 1623-1655EST 23 275 2 ? ? 0 Tornado (F3)
 A tornado moved from 2 miles south of Saegertown to 2 miles east-northeast of Centerville. The first 8 miles of the path were continuous; however, during the final 15 miles, the funnel became narrow and was partially aloft, leaving a discontinuous path. The tornado hit near the Woodcock Dam at Blooming Valley, and a ranger home at the Army Corps of Engineers Station at Woodcock Creek Lake was heavily damaged. A ranger's car was rolled over 100 feet. Two people died in Centerville.

Erie and Warren Counties 31 1625-1655EST 20 300 0 ? ? 0 Tornado (F4)
 A tornado started a narrow path at 2 miles east-southeast of Waterford, moved east to 3 miles north of Corry, turned northeast and widened, and crossed the state line into New York at 4 miles north of Columbus. At least 4 homes and barns were destroyed near Union City, mostly on Route 8, about 3 miles north of the borough, and on Fennel Road. Over 30 head of cattle were lost at a destroyed farm on Route 8, and winds picked up a forage wagon and dropped it in a field several hundred yards away across the road. A gravity wagon was found in the woods more than a mile away. A mobile home on Kimball Hill Road was knocked over, destroying a pole barn. A destroyed farm on Fenno Road suffered extensive loss of cattle and equipment. With the exception of one silo, a farm on Lyons road was completely levelled. The farm's house was seen airborne. Over 50 more buildings were destroyed in the Elgin and Corry areas, and 70 families in the Corry area applied for disaster assistance. Most of the damage near Corry was on Proctor, Donation, and Turnpike Roads and on Route 426 north of the city. A dump truck on Donation Road was picked up from a driveway and hurled over a house into a field. At least 15 people were injured north of Corry, and at least 2 were injured north of Union City. The total path length in both states was 28 miles, and the maximum F scale (F4) was in Pennsylvania.

Crawford County 31 1641-1642EST 1 125 0 ? ? 0 Tornado (F2)
 A tornado that started just northwest of Dorset, Ohio (Ashtabula County) moved a short distance into Pennsylvania to a point one mile north of Penline. The total path length in both states was 10 miles.

Crawford and Warren Counties 31 1712EST 8 425 0 ? ? 0 Tornado (F3)
 A tornado moved from 2 miles west-southwest of Centerville to one mile east of Buells Corner. 10 houses, trailers, and barns were destroyed. A Pennsylvania Department of Transportation building valued at \$500,000 was destroyed also.

Warren County 31 1730-1737EST 5 200 0 0 ? 0 Tornado (F1)
 A tornado touched down in the Thompson Run area, 12 miles west-southwest of Warren. It moved east-northeast, downing trees, and ended after crossing the Allegheny River.

Venango and Forest Counties 31 1730-1810EST 29 800 7 30 ? 0 Tornado (F4), Microbursts
 A tornado moved from 7 miles west-northwest of Tionesta to 7 miles northeast of Marienville near Pigeon. Microbursts accompanied the tornado, occurring immediately to the right side of its translation for an 8 mile stretch eastward from Kellettsville. Over 700 structures received damage, of which at least 125 were destroyed in the German Hill, Starr, Green Hill, Whig Hill and Kellettsville areas. All 7 fatalities occurred in the German Hill area. A pickup truck travelling on Route 36 lost lights and windows as it was blown 6 feet off the road; a car behind the truck was blown 100 yards, resulting in the deaths of its 3 occupants. Many homes on Route 62 north of Tionesta were damaged, and 14 of 17 mobile homes at the Abraxas Foundation (alcohol and drug treatment center, 6 miles northwest of Marienville) were destroyed.

Forest, Elk and McKean Counties 31 1750-1835EST 19 300 0 ? ? 0 Tornado (F2)
 A tornado touched down 4 miles southwest of Chaffee and created an intermittent path through Lamont to 8 miles east of Kane. With a few exceptions, damage was light and occurred mostly to trees.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

CORRECTIONS

SPECIAL SECTION

CORRECTIONS

MAY 1985

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

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

— PENNSYLVANIA, Western

| | | | | | | | | | |
|---|----|--------------|----|------|---|----|---|---|--------------------|
| Mercer County | 31 | 1810-1835EST | 14 | 450 | 0 | 60 | 5 | ? | Tornado (F5) |
| <p>A tornado that started in the Ravenna Arsenal in Ohio (Portage County) entered Pennsylvania at one mile west of Wheatland and continued east to 2 miles south-southwest of Mercer. It produced F5 damage as it passed through Wheatland, destroying or badly damaging several large businesses including Younga Trucking, B & D Trucking, Steel Trucking, R & J Trucking, Sharon Metal Fence, and two operations of Sawhill Tubular Division of Cyclops Corporation. 13 destroyed small businesses included the Shenango Hotel, Ohio Street Hotel, Yankevich Recycling, Valley Radiator, and J. Schmitt food warehouse. Damaged were Steelite Inc. and Quality Radiator Services. 7 of the destroyed industries were steel-related. The Wheatland Tube Company lost one large building, the roof of its major mill, and some peripheral buildings. The building of one trucking company had all of its sheet-metal roofing and walls torn away, and the steel-girder frame was twisted like a pretzel. 30 trailers valued at \$60,000 apiece were housed in the structure, and were either damaged or destroyed. A church and at least 50 homes were destroyed in Wheatland. Almost every house on Main, Church, First, Second, Third, Wood, Clinton, and Rosedale Streets was demolished. About 95% of the town's industry was destroyed, costing 500 jobs in a community of 1,122 people. 7 people were killed in Wheatland, and at least 32 were injured. Businesses just missed by the tornado included a chemical plant with flammables stored in tanks and outside in trucks, and two motels, one housing 200 people and the other filled to capacity.</p> <p>Further east in Hermitage, another trucking company and a steel-processing business were heavily damaged, and a construction-maintenance garage housing 20 vehicles, some valued at \$100,000, was demolished at Bell of Pennsylvania. Hermitage had 6 businesses and 71 homes destroyed or damaged. Along Route 18, numerous trees were downed at the Tam O'Shanter Golf Course. The tornado missed the clubhouse where golfers had sought refuge. About 75 people were huddled in the basement. A hangar and 4 planes were destroyed at the Hermitage airport on Frampton Road. A trailer near the hangar was picked up and set down on the hangar rubble. A wing from one of the planes was found in Mercer. A 150-foot radio tower was toppled north of Greenfield, and a church on Route 318 was damaged. 15 homes were destroyed and at least 30 heavily damaged in the Greenfield area (Lackawannock Township), resulting in damages of \$1 million.</p> <p>The total path length of this tornado in both Ohio and Pennsylvania was 47 miles.</p> | | | | | | | | | |
| Warren County | 31 | 1830-1855EST | 17 | 800 | 0 | 8 | ? | ? | Tornado (F3) |
| <p>A tornado moved from 3 miles west of Tidouate, passed south of Tidouate as it crossed the Allegheny River, and continued east to a point 3 miles south of Cherry Grove in the Allegheny National Forest. 8 people were injured and 32 buildings were damaged or destroyed.</p> | | | | | | | | | |
| Clearfield, Cameron, Clinton and Centre Counties | 31 | 1835-2000EST | 69 | 2500 | 0 | 0 | 7 | ? | Tornado (F4) |
| <p>A tornado that started 4 miles west-southwest of Penfield in Western Pennsylvania, became a huge maxi-tornado that persisted in that state for most of its path. The path, after 69 miles and an hour and 25 minutes from its start, finally ended 7 miles north-east of Lock Haven in Eastern Pennsylvania. The damage path was as wide as 2.2 miles at one point, and it crossed the West Branch of the Susquehanna River twice, once at 2 miles south of Keating and again at 4 miles north-northwest of Farrandville. Most of the path was through the unpopulated Moshannon State Forest, accounting for the lack of deaths and injuries. Tree damage, however, was extensive, with an estimated 88,000 trees having been destroyed. About 13 homes were destroyed, most at the beginning of the path, just south of Penfield along Routes 255 and 153. The tornado did damage at Parker Dam State Park east of Penfield, and then continued east through the relatively unpopulated forest lands, mowing down trees as it went. Natural gas pipelines were damaged by the uprooting of trees, and a large, metal fire tower valued at \$120,000 was felled. Several coal mining operations received some damage, and the Perma Grain plant in Karthaus was struck. The plant houses a nuclear reactor which shut down without a problem, and there were no radiation leaks. Holes were knocked in the roof and walls of the plant, and a fire broke out inside. The storage pool for the nuclear fuel (Cobalt 60) however, was unharmed. An office trailer and a utility shed were flattened, and wires were downed in the parking lot. A small chemical spill occurred when a kerosene tank connected to the office trailer was demolished.</p> <p>¹Editor's note: This tornado moved through two National Weather Service reporting regions (Pennsylvania Western and Pennsylvania Eastern), but, for purposes of clarity and since it did not cross a state border, is only listed once, here.</p> | | | | | | | | | |
| Venango County | 31 | 1854-1903EST | 6 | 150 | 0 | 2 | ? | ? | Tornado (F2), Hail |
| <p>A tornado moved from 4 miles west-northwest of Emlenton to 2 miles northeast of Emlenton, passing just south of the Big Bend on the Allegheny River. A man and his son were injured, the man critically, when their trailer was demolished. 2 mobile homes and 5 dwellings were destroyed or seriously damaged in Scrubgrass Township, accounting for an estimated \$243,000 of damage. Two inch diameter size hail was also reported.</p> | | | | | | | | | |

— PENNSYLVANIA, Western

| | | | | | | | | | |
|---|----|--------------|----|------|---|-----|---|---|--------------------|
| Venango and Clarion Counties | 31 | 1856-1903EST | 5 | 30 | 0 | 0 | ? | 0 | Tornado (F0) |
| <p>A tornado moved from 2 miles west of Emlenton, passed just south of the town, and continued east into Clarion County for 3 miles. It caused only minor tree damage, and was a companion to the Big Bend Tornado listed above.</p> | | | | | | | | | |
| Warren, McKean and Elk Counties | 31 | 1900-1940EST | 29 | 1000 | 4 | 40 | ? | ? | Tornado (F4) |
| <p>A tornado moved from 4 miles south of Sheffield, east through the southern half of Kane, and on through Burning Well and Elk State Park before ending 6 miles east-northeast of Instanter. Except for the 2 miles of path through Kane, damage was restricted to mostly trees. In Kane, the high school and middle school suffered \$3-\$4 million of damage, and the town received about \$15 million of damage in total. 3-4 businesses were destroyed and about 99 homes were found to be uninhabitable. The Kane Lumber and Fuel complex lost roofs and was severely damaged in general, and a church in East Kane had only front steps remaining. Many houses along Route 321 in East Kane were also destroyed. Scores of vehicles were crushed under collapsing garages or falling trees, and more than 100 utility poles were splintered. All of the estimated 40 injuries occurred in the southern Kane, East Kane and South Settlement area.</p> <p>This tornado crossed over the path left by the Lamont Tornado which occurred earlier.</p> | | | | | | | | | |
| Beaver and Butler Counties | 31 | 1910-2005EST | 39 | 275 | 9 | 120 | 7 | ? | Tornado (F3), Hail |
| <p>A tornado started 2 miles west of Darlington, passed north of Beaver Falls through southern portions of Zellenople, Evans City and Saxenburg, and ended 1 mile south of Sarver. It struck the Big Beaver Borough Shopping Plaza on Route 18 north of West Mayfield, causing extensive damage to all 14 shops. 12 of the stores were totally destroyed, as only brick walls were left standing. Two people were killed at the shopping center which was filled with hundreds of shoppers when the tornado struck. More than 100 cars in the parking lot were either damaged or destroyed.</p> <p>Across the Allegheny River from the shopping plaza, 16 antique cars were demolished in a storage garage on River Road. At the intersection of Routes 588 and 65, a drive-in, service station, 3 homes and 2 other businesses were destroyed. There were some occupied cars at the drive-in, but no one was killed and only one person was injured critically. Other damage in the area included roof damage to a nursing home, trailers overturned at a campground, windows broken and the roof damaged at an elementary school, greenhouses destroyed and a church damaged. The nearby, Fox Run Golf Course, which was also heavily damaged by the tornado, was littered with debris from the Big Beaver Borough Shopping Plaza. A van traveling south on I-79 was picked up by the tornado and thrown a quarter mile from the road. The van was demolished, but the family members that occupied it were all thrown free of the vehicle and survived in satisfactory condition.</p> <p>In Evans City, a trailer park was levelled, and two people were killed when their trailer home along Water Station Road was demolished. Also along Water Station Road, between Mars and Callery, scores of trees were uprooted and about 40 homes were damaged. Fallout in the form of pink insulation material, roof shingles and pieces of metal accompanied a green sky about 2-3 minutes prior to the tornado's arrival in the area. A babysitter and a young girl were killed in a house near Saxenburg.</p> <p>In all there were 9 deaths, 2 at the shopping center, 1 in North Sewickley Township when a man was struck by flying debris, 2 at Evans City and 4 near Saxenburg. Damages in Beaver County alone were estimated at \$10 million, \$3 million of which occurred to farms.</p> <p>Golfball-sized hail was reported at Midland and Monaca, both in Beaver County.</p> | | | | | | | | | |
| Indiana County | 31 | 2053-2102EST | 6 | 25 | 0 | 0 | ? | ? | Tornado (F0) |
| <p>A tornado moved east-southeast from 7 miles east of Indiana to 2 miles southeast of Penn Run, to 1.5 miles from the Cambria County Line. The tornado was mostly aloft, caused only tree damage, and made a sharp left turn at the end of its path.</p> | | | | | | | | | |

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.

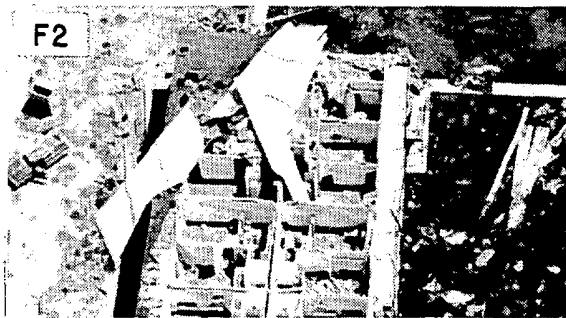
(F4) Devastating tornado (207-260 mph): Devastating damage
Well-constructed houses leveled; structure with weak foundation blown off some distance; cars thrown and large missiles generated.

(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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