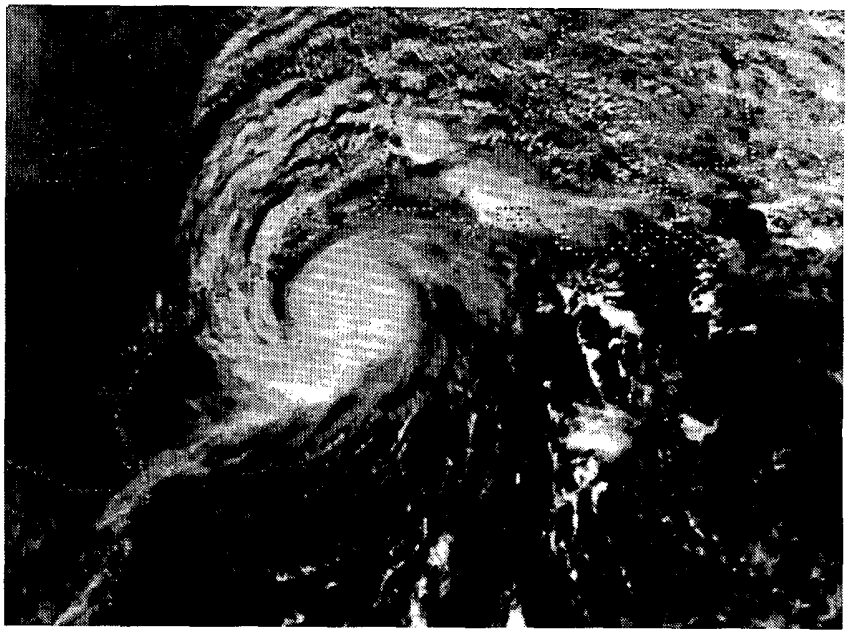
OCTOBER 1989 VOLUME 31 NUMBER 10

STORM DATA

WITH LATE REPORTS/CORRECTIONS



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DIRECTOR
NATIONAL CLIMATIC DATA CENTER

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CONTENTS

Cover: Hurricane JERRY is seen bearing down on the southeast Texas coast at 1930 UTC (1330 CST) on October 15th in this GOES 7 satellite, visible image taken 5 hours prior to JERRY's landfall on Galveston Island. JERRY did an estimated 15 to 35 million dollars in damage in damage in the southeast Texas region (see pages 6, 8 and 9). ---Photo from the National Hurricane Center and provided through AOML/HRD, both of Miami, Florida.

STORM DATA
(ISSN 0039-1972)

The section on Outstanding Storms of the Month is prepared by Professor T. Theodore Fujita, editor, and Duane J. Stiegler, associate editor, the University of Chicago, with funding by the U. S. Office of Naval Research. The Storm Data and Unusual Weather Phenomena narratives, and summaries of Hurricanes/Tropical Storms are prepared by the National Weather Service. The National Climatic Data Center compiles statistics on deaths, injuries, damage and prepares the annual summaries of tornadoes and lightning. 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. Maps of zones used in the Storm Data and Unusual Weather Phenomena will be published in all editions.

Storm Data is published monthly by the National Climatic Data Center.

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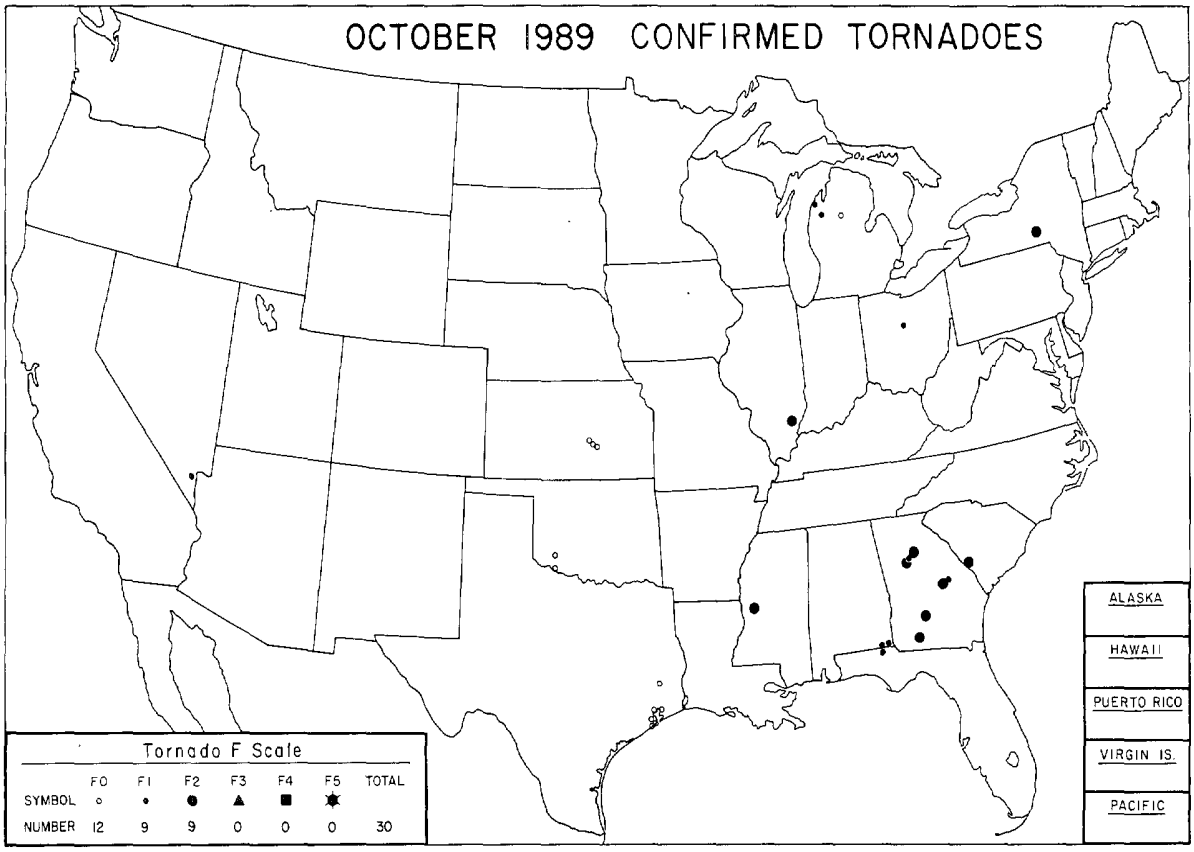
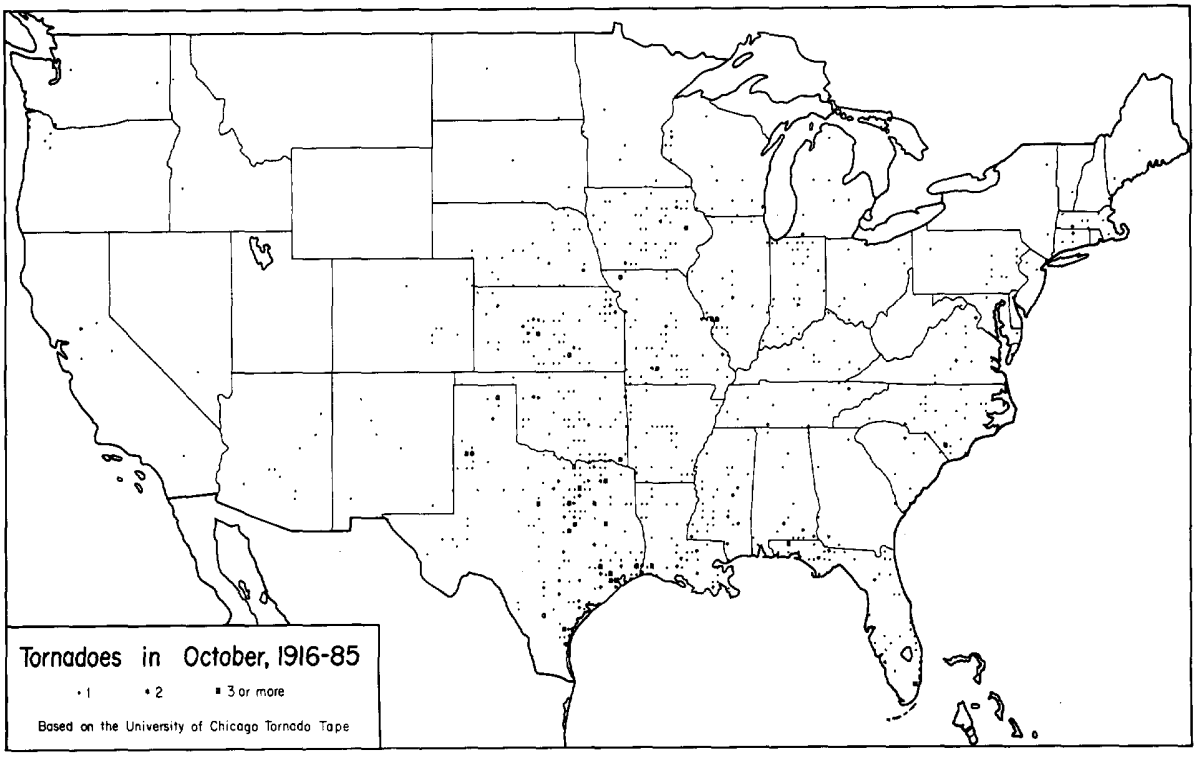
OUTSTANDING STORMS OF THE MONTH

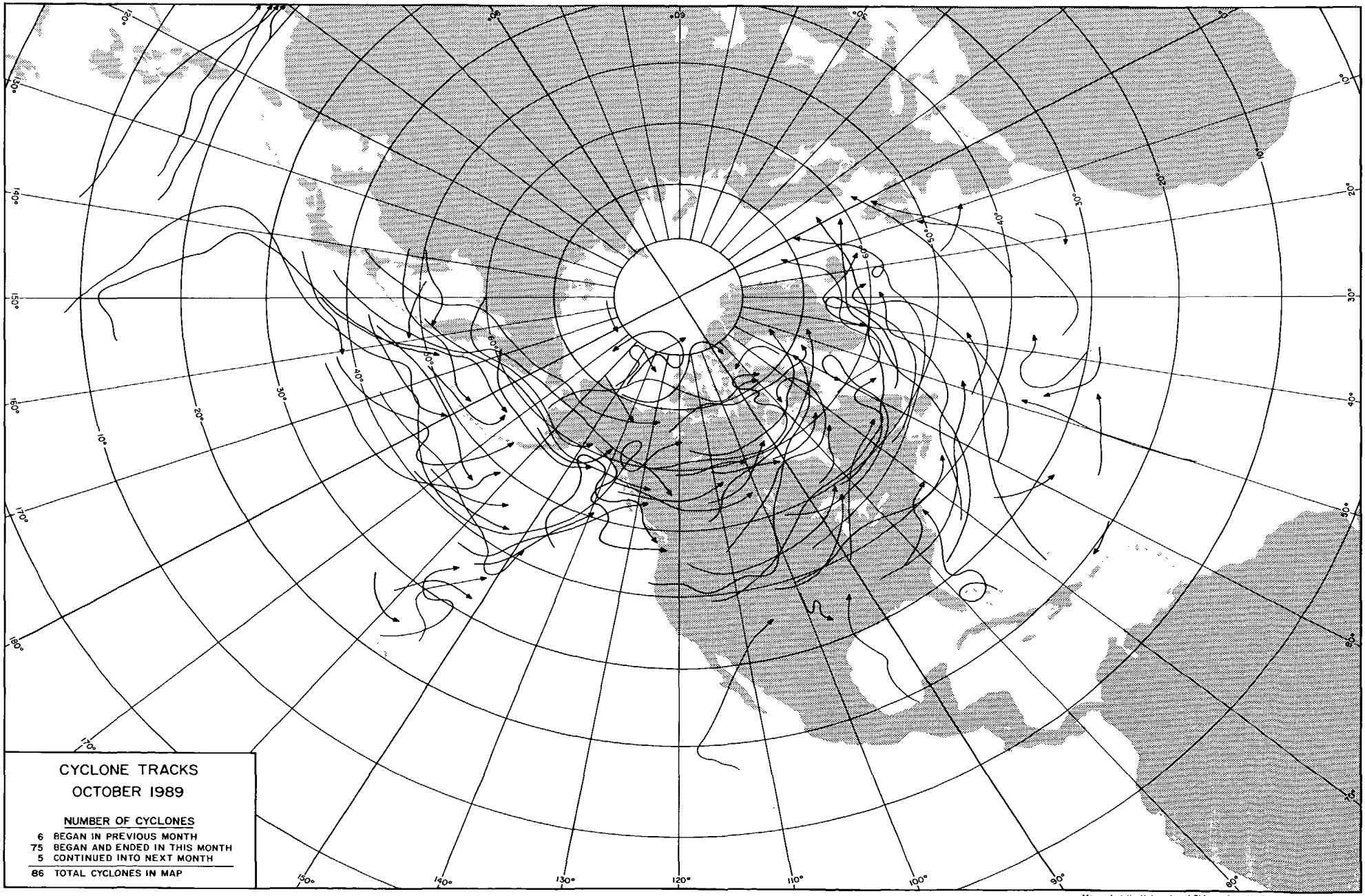


● COMPLETE REPORT RECEIVED
◑ PRELIMINARY REPORT RECEIVED
○ REPORT NOT RECEIVED

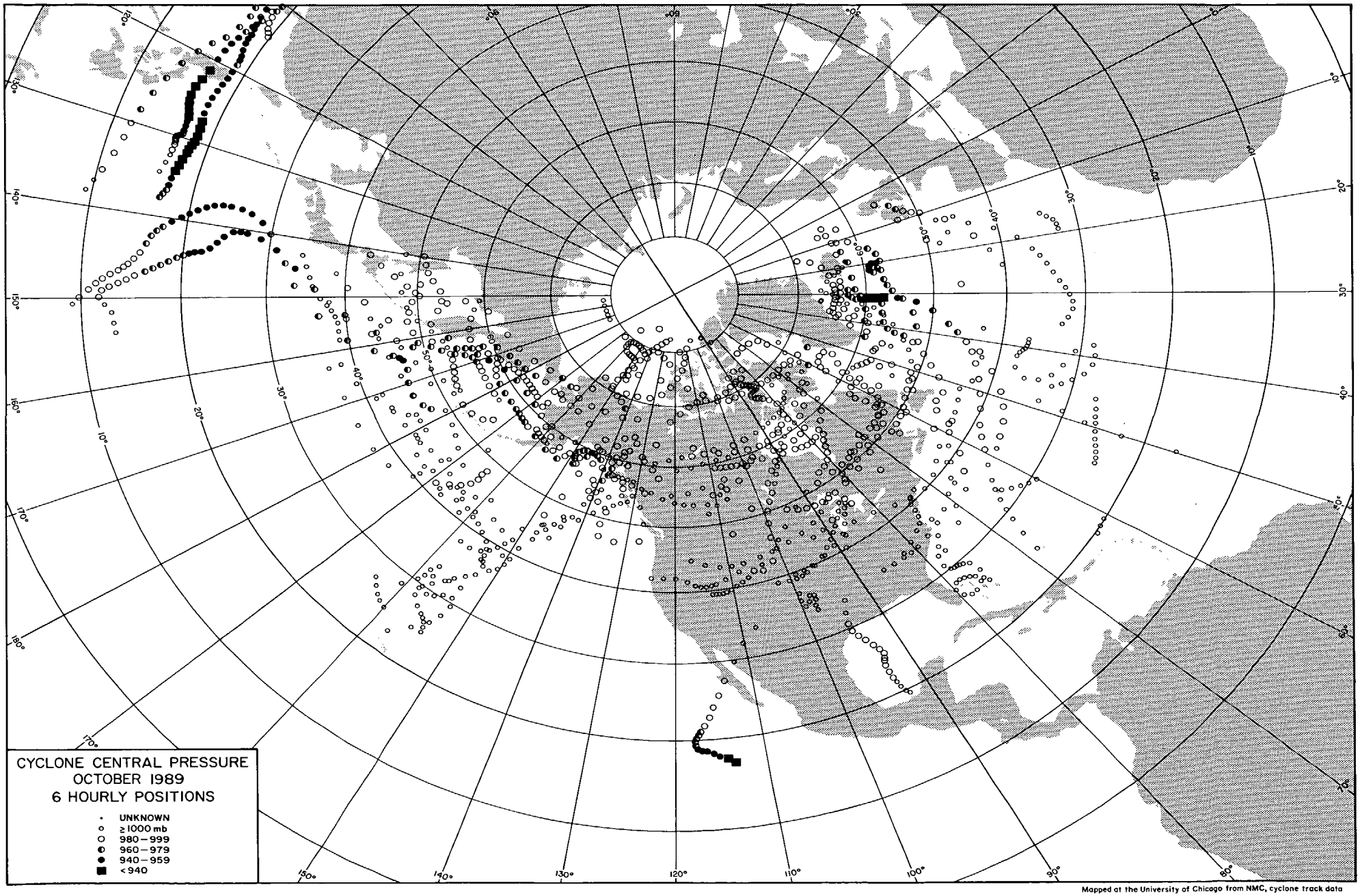
(N) northern (W) western
(S) southern (C) central
(E) eastern (O) coastal
(SE) southeastern

● 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)	

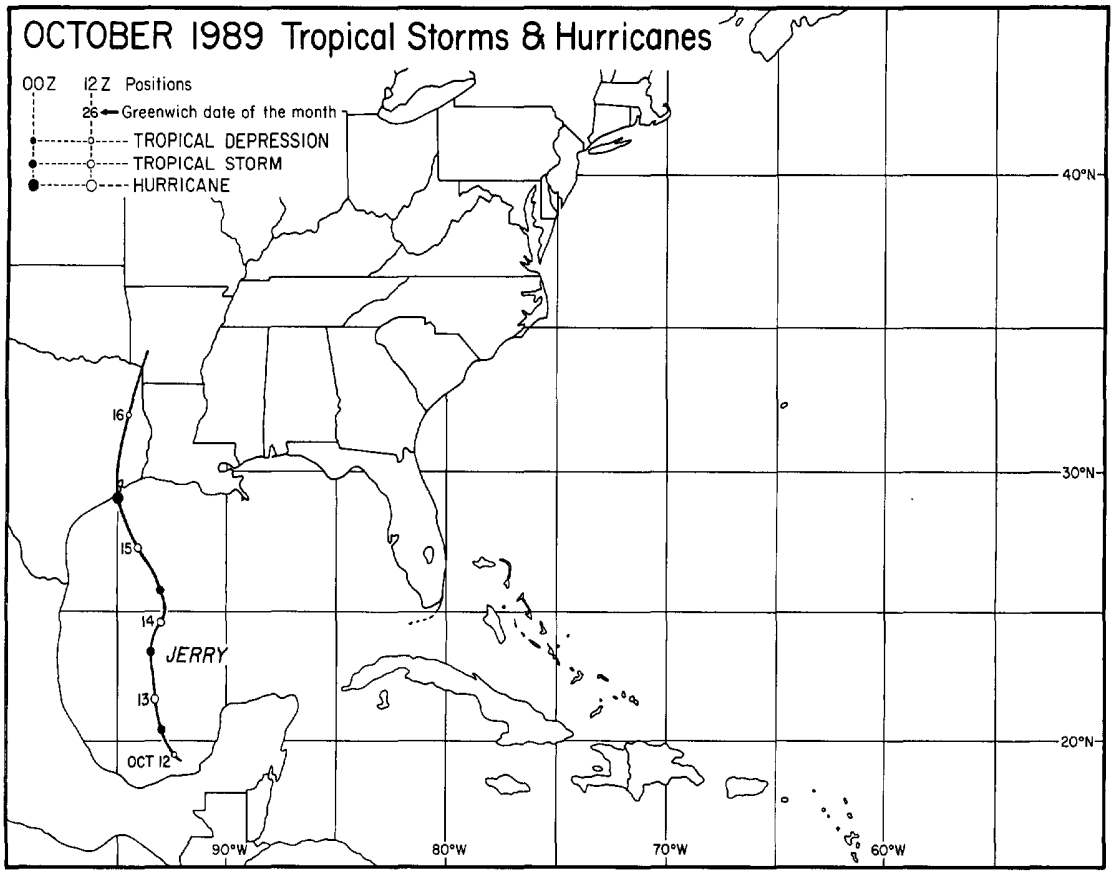




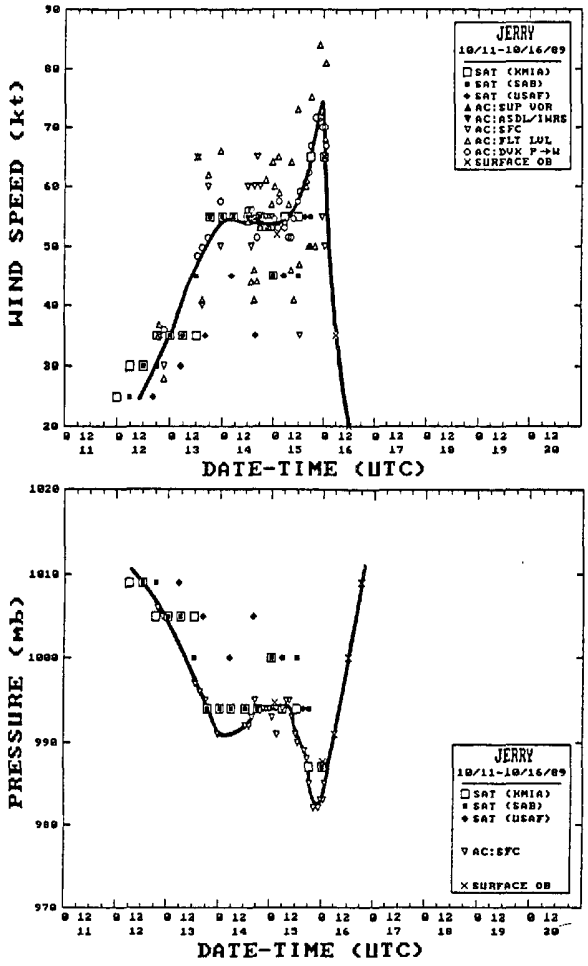
Mapped at the University of Chicago from NMC, cyclone track data

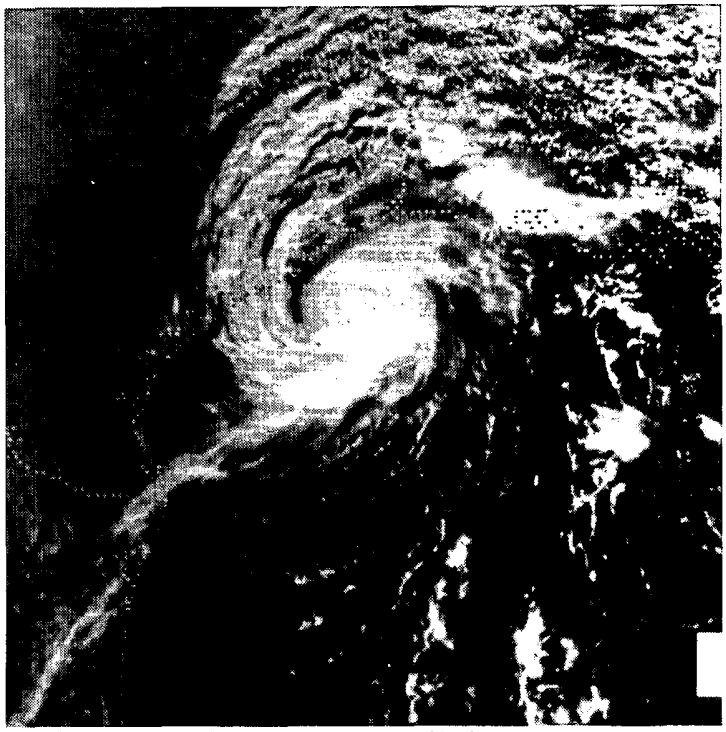

CYCLONE CENTRAL PRESSURE
OCTOBER 1989
6 HOURLY POSITIONS
UNKNOWN
≥ 1000 mb
980 – 999
960 – 979
940 – 959
< 940
Mapped at the University of Chicago from NMC, cyclone track data

TROPICAL STORMS and HURRICANES



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





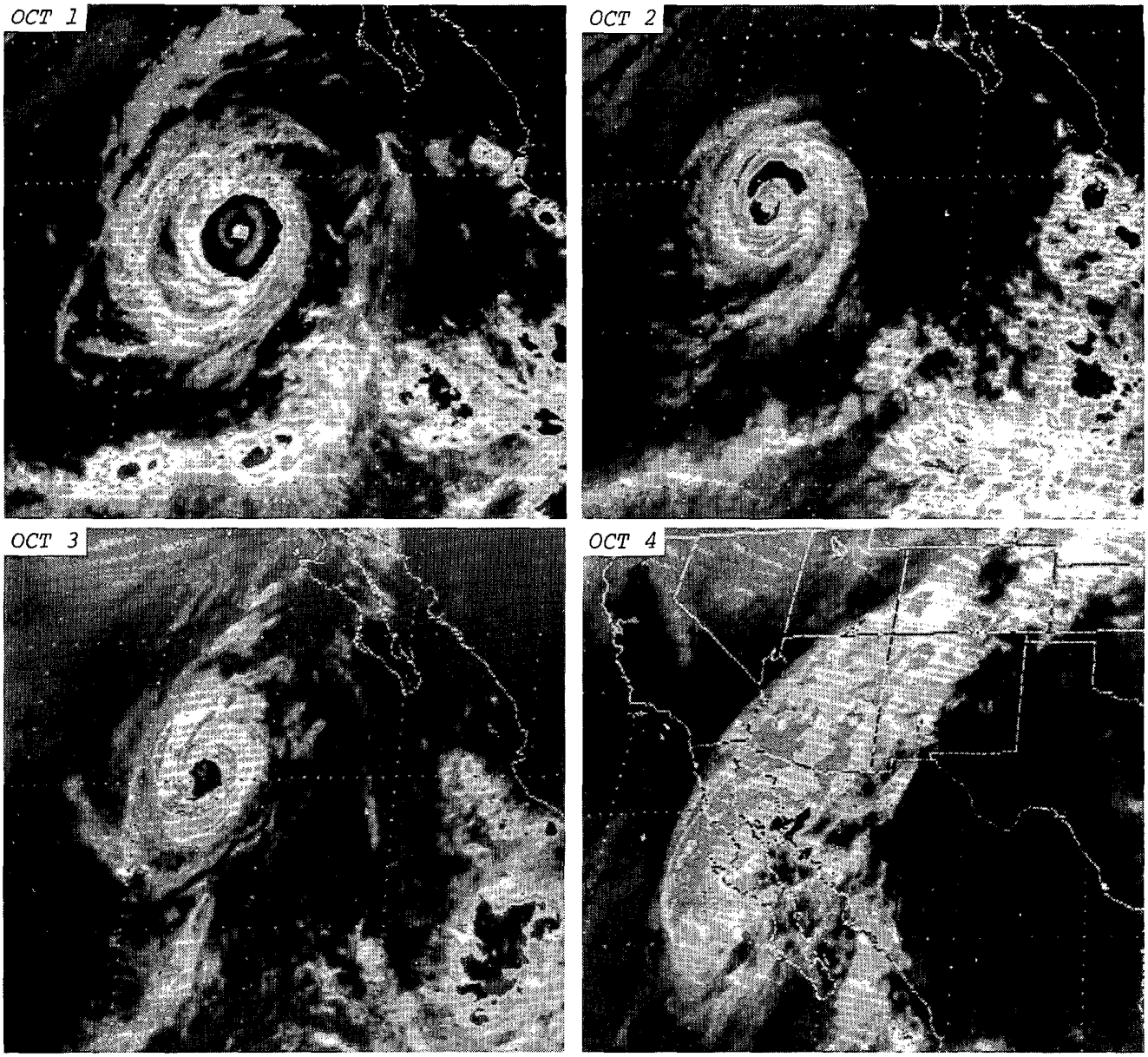
Hurricane JERRY, its center poised off the Texas coast about 65 miles southeast of Galveston and 5 hours from landfall, is seen at 1930 UTC (1330 CST) on October 15th. More on JERRY follows on pages 8 and 9.

LEFT: Plots of estimated maximum wind speed and minimum surface pressure versus time for Hurricane JERRY.

---Photo and graphs from the National Hurricane Center and provided through AOML/HRD, both of Miami, Florida.

1. HURRICANE RAYMOND, September 25 - October 5, 1989

Hurricane RAYMOND, an Eastern Pacific tropical cyclone that began during September and eventually made landfall on Baja California, Mexico late on October 4th (see path map on page 6 of September 1989 Storm Data), made its impact in the southwest U.S. with heavy rains as the system moved across southeast Arizona and western New Mexico as a tropical depression on October 5th. The heaviest rainfall was in the southeast portion of Arizona where amounts were generally 2 to 4 inches between Nogales and Duncan. In Willcox, widespread flooding resulted



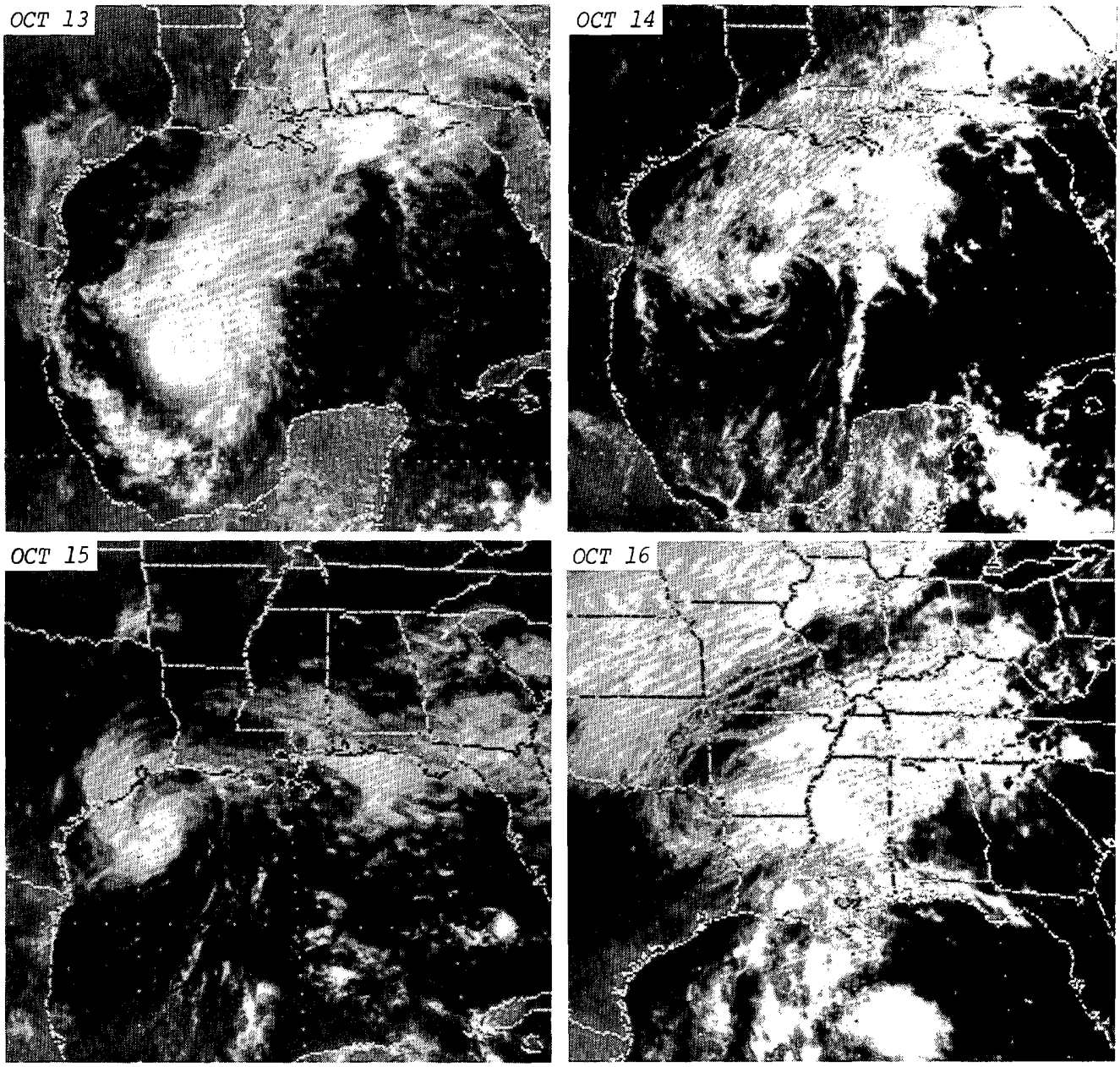
GOES 7 satellite, infrared images taken daily at 1600 UTC (0900 MST) from October 1st through the 5th, show RAYMOND undergoing its gradual demise as it made its way from the Eastern Pacific, across northwest Mexico, and into the southwest U.S. ---Photos from NESDIS, Washington, DC.

from about 2.7 inches of rain that fell in a 24 hour period. Some locations just north of Willcox reported 4.5 inches. About 75% of the community's streets were submerged under 18 inches of water. Damages were estimated at one million dollars for government facilities and roads, and 69,000 dollars for local businesses. The damage estimate for southeast Arizona in total was 1.5 million dollars.

2. HURRICANE JERRY, October 12-16, 1989

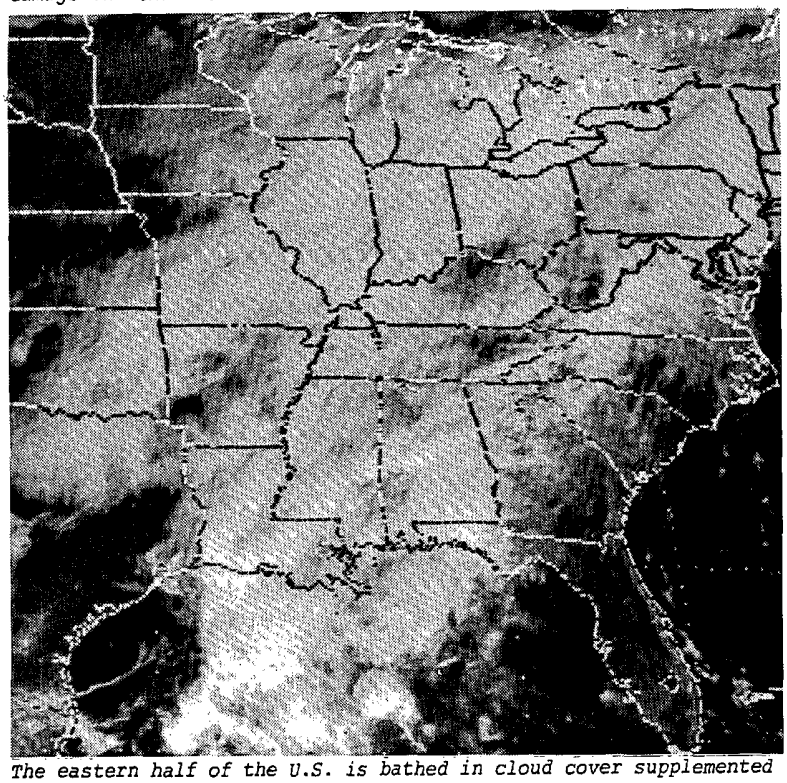
Hurricane JERRY was borne of a tropical wave that emerged from the northwest African coast on September 23rd and moved westward across the Atlantic and Caribbean Sea, showing no additional sign of organization en route. The wave slowed as it moved over the Yucatan Peninsula, and achieved depression status as it entered the Bay of Campeche on October 12th. The system then moved north-northwest into the Gulf of Mexico and began to intensify, attaining tropical storm strength early on October 13th. Now called JERRY, the storm moved slowly northward while gradually intensifying. After a momentary slowing and slight northeast deviation at mid Gulf, JERRY again headed north-northwest. Hurricane status was reached at 1800 UTC (1200 CST) on October 15th as JERRY moved toward the upper Texas coast at an increased speed of slightly more than 10 knots. JERRY's center made landfall near Jamaica Beach on Galveston Island at 0030 UTC on October 16th (1830 CST on the 15th), at which time it was packing its strongest winds of 75 knots, sustained. JERRY's minimum pressure of 982 mb was achieved about 3 hours prior to landfall.

JERRY's claim to fame was that no other hurricane of record had made landfall on the upper Texas coast as late in the season as did JERRY. Nonetheless, JERRY's effects on the region were minor. There was little wind damage, as the cyclone was of small size and its tropical storm force winds were restricted to a narrow band along its path. Also, JERRY weakened quite rapidly from its already mimimal hurricane status after landfall; maximum winds reported at Houston International Airport and Houston Hobby Airport were both less than tropical storm force. The highest tide, 7.0 feet, was reported at Baytown on Galveston Bay, although unofficial reports of an 8 foot tide were received from near the entrance to the Houston ship canal just west of Baytown. Rainfall was generally 2 inches or less in the Houston area, and between 2 and 5 inches eastward from Galveston Bay to the state line. There was one report as high as 6.40 inches for Silsbee. Also, JERRY spawned six tornadoes over southeast Texas, but all six were momentary and rated as F0 in intensity as they produced little damage along their short path lengths.

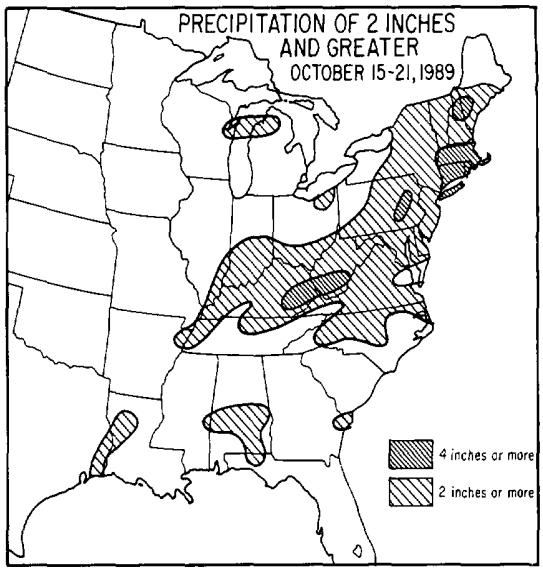


JERRY's northward progression into eastern Texas from the Gulf of Mexico is depicted in a sequence of GOES 7 satellite, visible images taken daily at 1630 UTC (1030 CST) from October 13th through the 16th. ---Photos from NESDIS, Washington, DC.

Three deaths were attributed to JERRY when a car in which three persons were riding was either driven off the Galveston seawall during a blinding rain, or was blown off by the winds. Damage mainly consisted of light beach erosion on portions of Galveston Island and the Bolivar Peninsula, and some flooding. A portion of Texas Highway 87 was washed out between Sea Rim State Park and High Island. The flooding was mostly of the coastal type produced by storm surge, or of the urban street type caused by sudden isolated downpours of heavy rain. The total dollar value of damage produced by JERRY in Texas is estimated by the National Weather Service to be in the neighborhood of 15 million dollars; however, the American Insurance Association estimated the insured property damage in Texas to be valued at 35 million dollars.



The eastern half of the U.S. is bathed in cloud cover supplemented by the moisture of JERRY's remnants as depicted in a GOES 7 satellite, visible image taken at 1630 UTC on October 17th. ---Photo from NESDIS, Washington, DC.



Rainfall of two inches and greater over the Eastern U.S. during the week of October 15-21, 1989. As the pattern suggests, moisture supplied by the remnants of JERRY led to heavy rains over the east-central and northeast U.S. Some of the worst flooding that resulted occurred in the Appalachians of eastern Kentucky on October 16th and 17th, where damage in excess of 5 million dollars was done. ---Analysis from the Weekly Weather and Crop Bulletin, NOAA/USDA Joint Agricultural Weather Facility, Washington, DC.

Hurricane Jerry selected surface observations October 1989

Location	Minimum sea-level pressure		Maximum surface wind speed (knots)			Storm tide (height above MSL) (ft)	Rain ** (in)
	Pressure (mb)	Date/time (UTC)	1-minute average	Peak gust	Date/time (UTC)*		
Texas							
Scholes Field, Galveston	987.6	16/0034	65	87	16/0034	-.-	1.17
Galveston WSO	994.2	16/0018	40	75	16/0100	-.-	1.46
Houston Hobby A/P	997.0	16/0250	25	32	15/2350	-.-	0.14
Houston International	--	--	18	29	16/0150	-.-	Trace
Houston WSO, Alvin	--	--	--	--	--	-.-	0.25
Anahuac	--	--	--	--	--	5.3	4.50
Flagship Pier, Galveston	--	--	--	--	--	6.0	-.-
Baytown	--	--	--	--	--	7.0	-.-
Sabine Pass	--	--	--	--	--	2.3	-.-
Friendship	--	--	--	--	--	-.-	4.75
Silsbee	--	--	--	--	--	-.-	6.40

* Time of 1 minute wind speed
** 24 hour total ending 16/1200 UTC

Selected surface observations in southeast Texas for Hurricane JERRY, October 1989. ---Table from the National Hurricane Center and provided through AOML/HRD, both of Miami, Florida.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS KILLED	NO. OF PERSONS INJURED	ESTIMATED DAMAGE PROPERTY	ESTIMATED DAMAGE CROPS	CHARACTER OF STORM
1 ALABAMA									
Geneva County	01	0530CST	3.0	35	0	0	?	?	Tornado (F1)
A small tornado touched down about 3 miles south-southeast of Fadette on Geneva County Road 4, then moved northeast approximately 3 miles. One house was destroyed, 3 sustained minor damage, and numerous trees and power lines were downed. There were no injuries.									
Houston County	01	0635CST	5.0	45	0	0	?	?	Tornado (F1)
A small tornado touched down about 2 miles northeast of Cottonwood on Geneva County Road 55, then moved northeast about 5 miles. Numerous trees were uprooted. Three to four automobiles were totaled. Two barns were demolished, two houses received minor damage, and power poles were blown over. There were no injuries.									
Limestone and Madison Counties	01	0930CST-1300CST			0	0	?	?	Flash Flooding
Heavy rains of 3 to 6 inches continued for several hours causing flash flooding of many low areas in Limestone and Madison counties. In Athens, numerous streets and one shopping center were flooded. In Huntsville, a half dozen streets were flooded downtown and near a shopping mall. No injuries were reported.									
2 ARIZONA									
Cochise County, Willcox	05	all day			0	0	6	4	Flash Flood
Copious amounts of moisture streamed into southern Arizona ahead of Hurricane Raymond. Rainfall was heaviest in the southeastern portion with generally 2 to 4 inches between Nogales and Duncan. Widespread flooding occurred in Willcox, where about 2.7 inches of rain fell in 24 hours. Just north of Willcox some areas had 4.5 inches. About 75% of the community's streets had about 18 inches of water passing over them. The rains ended about 8:30 am on the 5th, but runoff continued all day. The Willcox Department of Public Safety reported that damage to government facilities and roads exceeded $1,000,000,and local businesses had estimated damages over $69,000. Nogales, Arizona, also had locally heavy rains,with 2.27 inches reported in a 24 hour period.									
Pima County, Tucson	19	1000 MST			0	0	4	0	High Wind
Strong winds knocked over a replica of a historic light pole in the downtown area. The pole struck a mini-van. Winds also blew a boat off a trailer that was being pulled near South 12th Ave. and West Valencia Road. Gusts of 41 mph were clocked at the airport.									
Maricopa County, Glendale	21	1520 MST			0	0	?	0	Thunderstorm Winds
Thunderstorms, some with strong winds, hail, and heavy rains, pelted central Arizona. The Glendale Municipal Airport had gusts to 57 mph. The storm knocked out power to several thousand customers in the area. Numerous traffic accidents were blamed on the weather, including one at 5:05 pm on I-17 about one-half mile north of Black Canyon City. An earlier accident, reported at about 3:45 pm on Arizona Route 87 involved three vehicles in which a 97-year old woman died of injuries she received in the head-on collision.									
3 ARKANSAS ——— NONE REPORTED									
4 CALIFORNIA, Northern									
Tehama County, E of Red Bluff	23	0800PST			1	1	0	0	High Water
A 12 year old boy was drowned when the truck in which he was riding failed to negotiate a rain-swollen stream. The boy's father, who was driving, was injured.									
Northern Sierra Nevada CAZ009	23-24	0825PST-0726PST			0	0	?	0	Heavy Snow
A Pacific storm brought 18-24 inches of snow to many locations above 6500 feet.									
4 CALIFORNIA, Southern									
CAZ019 Los Angeles Co., San Bernardino Co.	25	1500PST			0	0	0	0	High wind
Strong high pressure built in over the northwest and northern Rockies, providing southern California with strong winds over the deserts and mountain areas. 45 mile an hour winds were reported in the Twentynine Palms area and 40 mile an hour winds at Lancaster and Daggett.									
CAZ017 Los Angeles Co.	29	1000PST			0	1	0	0	High wind
Santa Ana winds returned to southern California with only minor impact. An isolated report in Long Beach, CA stated strong winds uprooted a eucalyptus tree which fell on a man, resulting in a mild concussion.									
5 COLORADO									
Northern, Central Mtns., Northeast COZ002-004-011-012	15-17				0	0	4	0	Snow
An autumn snowstorm hit parts of northern Colorado, dropping 2 to 6 inches of snow along the Front Range from the Wyoming border south to the Colorado Springs area. The heavy, wet snow caused leafy branches to sag onto power lines, resulting in scattered outages. 5000 homes were blacked-out in Boulder on the 16th. The adjacent mountains were buried with up to a foot of snow, and even more fell at Echo Lake in Clear Creek County, where the storm total was 19 inches.									
Gilpin County, 4S Rollinsville	25	1344MST			0	0	0	0	High winds (75)
Front Range COZ011-014	Oct 31-Nov 1				0	0	0	0	Snow
A Halloween night storm dropped 3 to 6 inches of snow on the Front Range; the adjacent foothills had 5 to 10 inches. Most of the snow fell on the evening of the 31st, but the storm left icy streets throughout the Denver metro area on the morning of November 1, making a spooky commute for many motorists.									
6 CONNECTICUT									
Hartford County Simsbury	14	2015-2030EST			0	0	0	0	Hail (0.75)
Hail of up to 3/4 inch in diameter was reported in Simsbury during a strong thunderstorm.									
Hartford County South Windsor	14	2030EST			0	1	4	0	Lightning
A South Windsor teenager was slightly injured when struck by a bolt of lightning as he stood under a tree. The lightning and high winds also caused scattered damage in the area. Across the state up to 45,000 customers suffered power outages during this series of thunderstorms.									
New London County New London, Groton, Stonington and Montville	14	2100-2145EST			0	0	4	0	TSTM Winds (50)
Thunderstorm winds with gusts of up to 60 mph knocked down trees and limbs in the southeast portion of the state.									
New London County Ledyard	14	2130EST			0	1	4	0	Lightning
A man was struck and seriously injured by lightning in Ledyard.									
CTZALL Statewide	20-21	0000EST-0000EST			0	0	4	0	Heavy Rain, Flooding
Rain of 2 to 4 inches in amount fell during a twenty-four hour period. These heavy amounts, added to the several inches which fell during the previous week, resulted in considerable flooding of low-lying areas as small rivers and streams overflowed their banks. Many roads became inundated and were closed temporarily, resulting in a number of traffic tie-ups. Also reported was the flooding of many cellars and basements.									
CTZ001-002-004 Most of Western and Central Connecticut	20-22	2100EST-1800EST			0	0	4	0	Flood
Major rivers in the state, including the Connecticut, Farmington and Housatonic, crested at from one to three feet above flood stage. Minor flooding of unprotected areas occurred as a number of roads were closed.									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS KILLED	NO. OF PERSONS INJURED	ESTIMATED† DAMAGE PROPERTY	ESTIMATED† DAMAGE CROPS	CHARACTER OF STORM
7 DELAWARE									
DEZ001-002-003 Coastal Delaware	19	Early Afternoon			0	0	?	0	Coastal Flooding
	Fresh to strong southeasterly winds caused tides to run 2 to 3 feet above normal which resulted in minor coastal flooding near the time of high tide.								
DEZ003 New Castle Co.	20	1500EST			0	0	?	0	River Flooding
	The Christina River near Newark, swelled by approximately 2 inches of rain during the previous two days, crested at 10.5 feet and caused minor flooding. Flood stage was 9 feet.								
8 FLORIDA									
Jackson Co., 3N Graceville	01	0600 EST			0	1	5	?	Tornado (F1)
	A tornado touched down briefly destroying one house and damaging a car and a truck. Power poles also were downed.								
Dade Co., 4E Miami Beach	02	0740 EST							Waterspout
	A waterspout was observed 4 miles east of the Miami Harbor entrance.								
Monroe Co., 1S Key West	02	0800 EST							Waterspout
	A waterspout was sighted 1 mile south of the Key West Airport.								
Dade Co., Miami	02	1500 EST			0	0	4	0	Lightning
	Lightning struck an office building,causing extensive damage to the roof,and ignited a fire in the top floor of the building.								
Palm Beach Co., 2E Riviera Beach	04	0625 EST							Waterspout
	A waterspout was observed just east of Riviera Beach.								
Orange Co., Orlando	07	1700 EST			1	0	?	0	Lightning
	Lightning struck a DC-9 aircraft at Orlando International Airport, killing a ground crewman standing near the nose of the aircraft. M450								
Monroe Co., 4W Key West	08	1520 EST							Waterspout
	A waterspout was spotted about 4 miles west of the Key West Airport.								
Monroe Co., 3NW Key West	09	1440 EST							Waterspout
	A waterspout formed 3 miles northwest of Key West.								
FLZ008-012-017 St. Johns, Flagler, Volusia, and Brevard Counties	10	0100 to 1500 EST			0	0	6	?	Flash Flood
	Torrential rains developed along the upper Florida east coast north of a stationary front. Rain amounts between 6 and 16 inches occurred along the coast. This resulted in widespread flooding of streets and structures. In St. Augustine where the greatest rain total was recorded, 16.08", extensive flooding occurred in homes and businesses, and caused the closing of many streets that had over three feet of standing water. Considerable road damage resulted.								
Lee Co., Cape Coral	10	0420 EST			0	0	4	0	Tstm,wind (55)
	Strong winds accompanying a thunderstorm caused damage to several house roofs, pool screen enclosures, and one boat.								
Sarasota Co., Venice	11	1650 EST			0	1	0	0	Lightning
	A man in a boat was injured when lightning struck nearby mangrove plants.								
FLORIDA									
Monroe Co., 4W Key West	12	1130 EST							Waterspout
	A waterspout was observed 4 miles west of Key West.								
Broward Co., Fort Lauderdale	14	1305 EST							Funnel Cloud
	A funnel cloud was observed near Fort Lauderdale International Airport.								
Monroe Co., 3SW Key West	15	0645 EST							Waterspout
	15	0716 EST							Waterspout
	Several waterspouts were observed in an area about 3 miles southwest of Key West.								
Broward Co., 2E Hollywood Beach	18	0645 EST							Waterspouts
	Two waterspouts were sighted about 2 miles east of Hollywood Beach								
Franklin Co., 2SW Carrabelle	18	0700 EST							Funnel Cloud
	A funnel cloud was sighted.								
Franklin Co., SE Alligator Point	18	0733 EST							Waterspouts
	A large waterspout with several small waterspouts rotating around the larger one was sighted just off Alligator Point.								
9 GEORGIA									
GORDON COUNTY									
countywide	01	All day			0	0	?	4	Flooding
Calhoun and	01	0000EST-			0	0	5	?	River Flood
Resaca	06	0000EST							
FLOYD COUNTY									
countywide	01	All day			0	0	4	4	Flooding
Rome	01	0000EST-			0	0	4	?	River Flood
	03	1900EST							
BARTOW COUNTY									
countywide	01	All day			0	0	5	?	Flooding
Emerson	01	1030EST			0	1	?	?	Flash Flood
Cartersville	01	1225EST			1	0	5	?	Flash Flood
CHEROKEE COUNTY									
countywide	01	All day			0	0	5	?	Flooding
Canton	01	0000EST-			0	0	5	?	River Flood
	03	1200EST							
Lake Allatoona	01	0000EST-			0	0	4	?	Backwater Flood
	07	0000EST							
	After rainfall totals from two inches to over five inches over the upper Coosa River basin, the Conasauga, Coosawattee, Etowah, Coosa, and Oostanaula rivers rose out of their banks. The worst flooding occurred on the Etowah River at Canton, where a crest of over seven feet over the flood stage was reached on October 2nd. Several businesses in Canton had water damage, including a motel that had water in the first floor. Several riverside homes were flooded at Calhoun. Agricultural concerns and low farmlands along the Oostanaula River in Gordon and Floyd counties also flooded. The Heritage Park recreational complex, on the river at Rome, was flooded. Charged to control flooding and the receptor of flood water from the Etowah River, Lake Allatoona rose to a maximum lake level of over fourteen feet above its full pool by the 4th. Backwater flooding occurred in parking lots, picnic areas, boat landings, and over several roadways around the lake.								
	In Bartow County, two men were sucked into drainage lines in separate incidents during the flooding. One man was sucked through 500 feet of sewerage line about 1030EST at Emerson. He was treated for injuries and released. Swift water currents swept another young man into an eighteen-inch drainage ditch at about 1225EST in Cartersville. After remaining under water for about thirty minutes, the man was rescued. However, he died October 3rd after remaining in critical condition. Water damage was reported across the county, including fallen trees due to the soggy soils. Substantial damage occurred at Cartersville where many apartments and homes had flood water damage. M160								

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS KILLED	NO. OF PERSONS INJURED	ESTIMATED† DAMAGE PROPERTY	ESTIMATED† DAMAGE CROPS	CHARACTER OF STORM
GEORGIA									
FULTON COUNTY									
countywide	01	All Day			0	0	5	0	Flooding
Vinings	01	0000EST-			0	0	4	0	River Flood
	02	1000EST							
DEKALB COUNTY									
countywide	01	All Day			0	0	4	0	Flooding
CHEROKEE COUNTY									
countywide	01	All Day			0	0	5	0	Flooding
COBB COUNTY									
countywide	01	0000EST-			0	0	6	0	Flooding
	02	1900EST							
Austell	01	0000EST-			0	0	5	0	River Flood
	04	1200EST							
PAULDING COUNTY									
countywide	01	All Day			0	0	6	?	Flooding
Dallas	01	1000EST			0	0	4	?	Flash Flood
CLAYTON COUNTY									
countywide	01	All Day			0	0	5	0	Flooding
Riverdale and Jonesboro	01	All Day			0	0	5	0	River Flood
FAYETTE COUNTY									
countywide	01	All Day			0	0	4	0	Flooding
Woolsey	01	All Day			0	0	?	4	River Flood
DOUGLAS COUNTY									
countywide	01	All Day			0	0	?	?	Flooding
HEARD COUNTY									
countywide	01	All Day			0	0	?	?	Flooding
TROUP COUNTY									
countywide	01	All Day			0	0	?	?	Flooding

Heavy rainfall over the northern and western counties of Georgia through September 30th had already fully saturated the soils. Flash flooding started over the Atlanta metropolitan area and west Georgia on September 30th and continued throughout the day on October 1st. By 2140EST on September 30th, rainfall totals already ranged from two to over five inches. Many area creeks and streams were then near bankfull. Low-lying roads were closed and scattered homes, businesses, and recreational areas were flooded across suburban and metropolitan Atlanta, mainly in Cobb and Fulton counties. An earthen dam failed in Cherokee County late September 30th and contributed to the flooding on October 1st.

Heavy rainfall continued to develop over north and west Georgia on October 1st. While some flooding that started on September 30th receded briefly during the morning hours, the ground remained completely saturated. The worst of the flooding redeveloped over those areas that had experienced earlier flooding. Numerous roads were closed as area creeks, streams, and rivers quickly rose out of their banks.

By October 1st, the Flint River had already overflowed at Riverdale in Clayton County and caused property damage to several homes within the floodplain. The Flint River continued to flood during the day, overflowing at Riverdale and into a yard in Fayette County at Woolsey, with depths occasionally reaching twelve feet. On the Flint River at Jonesboro, a mobile home sales park was flooded. With around five feet of standing water in some sections of the park, seven homes were damaged.

The highest crest on the Chattahoochee River at Vinings occurred early on October 1st, when the river rose over four feet above its flood stage. Sweetwater Creek, a tributary of the Chattahoochee River in the western Atlanta suburbs, washed out several bridges and roads in Paulding and Cobb counties, isolating several riverside homes and flooding a construction site. In Cobb County, Sweetwater Creek and the Chattahoochee flooded recreational areas, including the Six Flags theme park, horse stables, and homes. At Powder Springs, Acworth, Kennesaw, and Austell, several roads and bridges were damaged. Storm and sewer drains were washed out, while water mains ruptured in southwest Cobb County. At Dallas, heavy rainfall during the morning collapsed a basement wall of a house, leaving a hole twenty feet wide by eight feet high. In Paulding County, floods washed out a bridge and twenty feet of a road. Several large sewage pipes were also lost. Downriver on the Chattahoochee at Whitesburg, the river crested over seven feet above the flood stage on October 2nd. Extensive flooding of farmland resulted.

GREENE COUNTY									
countywide	01	All Day			0	0	5	?	Flooding
Penfield	01	0000EST-			0	0	?	4	River Flood
	05	1900EST							
OCONEE COUNTY									
countywide	01	0400EST-			0	0	5	?	Flooding
	02	0000EST							
Bogart	01	0600EST			0	0	4	0	Flash Flood
CLARKE COUNTY									
countywide	01	0400EST-			0	0	4	?	Flooding
	02	0000EST							
1E Bogart	01	0600EST			0	0	3	0	Flash Flood
MADISON COUNTY									
countywide	01	0400EST-			0	0	5	?	Flooding
	02	0000EST							
Comer	01	1000EST			0	0	4	?	Flash Flood
HART COUNTY									
countywide	01	0400EST-			0	0	5	?	Flooding
	02	0000EST							

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS KILLED	NO. OF PERSONS INJURED	ESTIMATED† DAMAGE PROPERTY	ESTIMATED† DAMAGE CROPS	CHARACTER OF STORM
GEORGIA									
ELBERT COUNTY									
countywide	01	0400EST-			0	0	5	4	Flooding
	02	0000EST							
OGLETHORPE COUNTY									
countywide	01	0400EST-			0	0	5	?	Flooding
	02	0000EST							
WALTON COUNTY									
countywide	01	0400EST-			0	0	4	?	Flooding
	02	0000EST							

After receiving around ten inches of rainfall from September 30th through October 1st, flooding resulted over much of northeast Georgia. Along the rivers and streams, low-lying pastures and timber land flooded considerably.

By the time six inches of rainfall had been measured at the Athens Weather Service Office in twenty-four hours, the Oconee River overflowed downstream at Penfield. The stage there reached over eight feet over the flood stage by 1000EST on the 1st. At Penfield and in the area along the river, extensive flooding occurred over agricultural and timber land. Extensive damage also occurred to many roads and bridges throughout the county. Damage estimates were near $250,000 to repair the roadways alone. Hundreds of sewer and drain pipes were either damaged or completely washed out at numerous locations. Flash flooding of McNutt Creek caused $15,000 worth of damage to a country club's golf course, situated along the Clarke-Oconee county line. Generally, the damage in Clarke County was minor.

At Comer in Madison County, several businesses had flood damage. Rivers and creeks overflowed over many county roads. One trailer home was totally destroyed by water; other trailers in the area suffered some damage. The basement walls of another home washed out. At least twelve bridges washed out and another twelve to fourteen bridges were badly damaged by flood waters. Costs to the roads and bridges alone were estimated at more than $150,000.

In Hart County, flood damage occurred to at least ten bridges; a few were totally washed out. In Elbert County, about twenty roads were in need of repair or washed out and a few bridges were damaged. A large water main was broken in Elberton by rushing flood water. The cotton crop in Elbert County was also damaged. In Walton County, one bridge was washed out. Although only three bridges in Oglethorpe County were totally destroyed, at Winterville, Crawford, and near Lake Oglethorpe, at least twelve small bridges were seriously damaged. The cost to repair the roads and small bridges was estimated at over $100,000.

The dam on the City of Crawford's reservoir was seriously damaged when rising water flowed over and around the structure. In Oconee County, several roads were flooded and bridges were damaged. The Oconee County library was flooded, with permanent damage to books and the building's interior decor being sustained.

COLQUITT COUNTY									
10SW Moultrie	01	1230EST	10	100	2	12	6	4	Tornado (F2)

A tornado formed southwest of Moultrie over a rural area near Georgia Highways 202 and 111. The tornado traveled northeast over farmland to the Funston community, close to five miles northwest of Moultrie. The tornado was sighted there just before it hit a mobile home park where the worst of the damage occurred. As the tornado moved throught the park, it totally destroyed nine mobile homes and caused two fatalities and twelve injuries. The tornado then moved northeast out of the park and traveled across another stretch of timber land. As the tornado continued along its path, another mobile home was destroyed. The storm moved about twenty-five yards further and totally demolished a church. Another 500 feet away, the social hall and roof of another church were heavily damaged. The remainder of the tornado's path was generally over wooded land. Along the ten miles, at least eight permanent homes and five vehicles sustained damage from the tornado. Falling large trees also caused considerable damage. The damage to the cars alone was estimated to cost near $15,000. Although no livestock was killed, agricultural losses were estimated to be at least $9,500 in timber and pecan trees. Damage costs in the mobile home park were estimated at around $350,000. F49M F02M

DOOLY COUNTY									
7NE Cordele	01	1300EST			0	0	?	?	TSTM Wind
9SE Vienna	01	1315EST			0	0	?	?	TSTM Wind

Trees were downed just inside the Crisp-Dooly county line in the Lamb's Town community. Trees and power lines were downed just east of Georgia Highways 257 and 215.

DOOLY COUNTY									
7SE Vienna	01	1330EST	4.0	87.5	0	0	5	4	Tornado (F2)

A tornado touched down in a forest just west of Highway 257 on Highway 215, twisting and snapping trees. As the storm moved north to northeast, it destroyed a barn and took the roof off a house. Two cars were knocked into ditches of Highway 257. Numerous pecan trees were also damaged along the path.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS KILLED	NO. OF PERSONS INJURED	ESTIMATED¹ DAMAGE PROPERTY	ESTIMATED¹ DAMAGE CROPS	CHARACTER OF STORM
GEORGIA									
WASHINGTON COUNTY									
Sandersville	01	1600EST			0	0	4	?	Flash Flood
	Torrential rains caused severe damage to a bridge and caused water pipes beneath the bridge to separate.								
WASHINGTON COUNTY									
11S Sandersville	01	1600EST			0	0	0	0	Funnel Cloud
14SE Sandersville	01	1615EST	4.0	100	0	0	5	4	Tornado (F2)
	A tornado formed over farmland southeast of Sandersville and caused twisted damage over a four-mile stretch. The tornado downed numerous trees and power lines along its path. Many smaller structures, along with a home and several barns, were demolished. Tin roofs and porches were blown off several homes and debris was carried for miles by the storm. Farm equipment, some tossed hundreds of feet, and vehicles sustained damage also. Another home was pushed ten feet off its foundation. The soybean crop at one farm was damaged by debris and winds. Tornado damage continued as the storm moved over woods to about five miles southeast of Riddlesville; it lifted near Lewis Lake. The parent thunderstorm continued northeast toward Bartow in Jefferson County.								
WASHINGTON COUNTY									
15SE Sandersville	01	1625EST			0	0	?	?	TSTM Wind
	Thunderstorm winds tore down power lines and trees.								
JEFFERSON COUNTY									
Bartow	01	1635EST	short	50	0	2	4	?	Tornado (F1)
	The thunderstorm that produced the tornado in Washington County continued into Jefferson County. A tornado dipped down at Bartow and almost completely destroyed a house. The winds lifted the roof and uprooted numerous large trees around the house. The owners of the home received minor injuries.								
HALL COUNTY									
countywide	01	1735EST			0	0	?	?	Flash Flood
countywide	01	1805EST			0	0	?	?	Flash Flood
	Flash flooding occurred over the entire county as thunderstorms moved over the area. In some areas, the Chattahoochee River and its tributaries were at bankfull. Many roads were impassable.								
TROUP COUNTY									
Hogansville	01-02	1900EST-1500EST			0	0	3	0	Flooding
	After several days of rainfall, sometimes heavy, flooding developed along Yellowjacket Creek, a tributary of the Chattahoochee River. The flood waters totally inundated a homesite but did generally minor damage.								
JACKSON COUNTY									
Arcade	01-02	1900EST-0700EST			0	0	0	?	River Flood
	The Middle Oconee River flooded agricultural and timber land at Arcade.								
JASPER COUNTY									
Eastern Jasper County	01-02	1900EST-1900EST			0	0	?	?	Flooding
PUTNAM COUNTY									
Southwest Putnam County	01-02	1900EST-1900EST			0	0	4	?	Flooding
Eatonton	01-02	2300EST-1900EST			0	0	4	?	Flooding
MORGAN COUNTY									
countywide	01-02	1900EST-1500EST			0	0	5	?	Flooding
Madison	01-02	2300EST-1500EST			0	0	4	?	Flooding
NEWTON COUNTY									
countywide	01-02	1900EST-1500EST			0	0	5	?	Flooding
Porterdale	01-02	2300EST-1900EST			0	0	4	0	Flooding
BALDWIN COUNTY									
Milledgeville	01-03	1900EST-1900EST			0	0	?	?	River Flood
	The Little River, which rises near Madison in Morgan County and flows through Putnam County near Eatonton reached a record crest on October 2nd. In Putnam County, five mobile homes flooded on the river after eight homes were evacuated. Several roads and bridges were closed due to high water and low farmland was considerably flooded. The Murder Creek in southwest Putnam County flooded several riverside cabins by October 2nd. In eastern Jasper County, the low-lying farm and timber lands along the Murder Creek were flooded.								
	Water rose near the Yellow River at Porterdale and reached eight to ten feet deep in some places. Six mobile homes in a nearby park were flooded and residents had to be evacuated. Most of the damage in Newton County was to roads and bridges. One bridge was washed out completely.								

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS KILLED	NO. OF PERSONS INJURED	ESTIMATED¹ DAMAGE PROPERTY	ESTIMATED¹ DAMAGE CROPS	CHARACTER OF STORM
GEORGIA									
	Over Morgan County, about fourteen bridges were damaged by floods. In addition, one home was completely flooded out. Along the Oconee River around Milledgeville, riverside farm and pasture lands were flooded, along with rural roads. In Milledgeville itself, flood damage occurred along a few low-lying streets. Residents of a mobile home park were evacuated.								
MONROE COUNTY									
South Monroe County	01-03	1900EST-1900EST			0	0	?	?	River Flood
BIBB COUNTY									
North Bibb County	01-03	1900EST-1900EST			0	0	?	?	River Flood
Macon	01-05	1900EST-1900EST			0	0	?	?	River Flood
	At Macon, brick companies along the Ocmulgee River were flooded. Many riverside homes, yards, and outbuildings were flooded by the river in southern Monroe and northern Bibb counties.								
HENRY COUNTY									
3NE Stockbridge	01	1900EST			0	0	4	?	TSTM Wind
	Straight-line thunderstorm winds toppled numerous trees and power lines in the area. Evidence of a downburst wind event was found in the tree damage also.								
HENRY and ROCKDALE COUNTIES									
4NE Stockbridge to 7NE Stockbridge	01	1900EST	3.0	300	0	0	5	?	Tornado (F2)
	The small tornado developed just north of Swan Lake and skipped northeast over wooded areas. At the beginning of its path, the tornado damaged a church and a home. The tornado was sighted when it moved toward a subdivision about a mile away from where it started. The tornado touched down there briefly. Although about twenty-five homes in that area sustained damage, the bulk of the damage occurred due to falling trees. One home's garage was blown off its foundation and another garage lost a wall. Windows at one home imploded, while several homes lost chimneys or had minor roof and siding damage. The tornado then traveled about a half mile down from the subdivision and damaged a century-old church. From the church, the storm continued northeast, damaging several homes and numerous trees and taller structures as it approached the county line. In all, about fifty buildings and many vehicles were damaged. Debris in the storm was carried as far as a half mile. At the end of the path several chicken houses were destroyed. The tornado moved just across the Rockdale County line and lifted. The parent storm continued northeast.								
ROCKDALE COUNTY									
8SW Conyers	01	1917EST			0	0	4	?	TSTM Wind
	Thunderstorms produced wind damage near the Henry-Rockdale county line. Trees were uprooted and power lines were broken.								
ROCKDALE COUNTY									
2NW Conyers	01	1930EST	0.5	300	0	0	5	0	Tornado (F1)
	After the tornado-producing thunderstorm moved across the Rockdale County line, a tornado touched down briefly northwest of Conyers in a subdivision. There, several homes were damaged and many trees were uprooted or broken. Most of the damage to the homes and vehicles resulted from falling trees. The tornado lifted again as the parent thunderstorm continued northeast.								
ROCKDALE COUNTY									
2NE Milstead	01	1944EST	2.0	300	0	0	5	0	Tornado (F2)
	The parent storm that produced a tornado just northwest of Conyers produced another tornado just northeast of Milstead. From this area the tornado traveled about two miles before dissipating in a heavily-wooded subdivision. Considerable damage was done to homes and vehicles by the tornado and falling trees.								
ROCKDALE COUNTY									
4NE Milstead	01	1950EST			0	0	?	?	TSTM Wind
	Numerous trees and power lines were downed by a downburst wind event which occurred as the tornado dissipated. The tornado-producing storm moved northeast toward Walton County.								
CHEROKEE COUNTY									
2E Canton	01	1950EST			0	0	?	?	TSTM Wind
4SE Canton	01	1950EST			0	0	?	?	TSTM Wind
	Numerous trees and power lines were downed by winds estimated at near 50 miles an hour. Several homes and other properties were damaged by the winds.								
WALTON COUNTY									
1E Loganville	01	2030EST			0	0	?	?	TSTM Wind
2N Monroe	01	2030EST			0	0	?	?	TSTM Wind
	Scattered large trees were uprooted, damaging several automobiles as they fell.								

STORM DATA AND UNUSUAL WEATHER PHENOMENA

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS: KILLED	NO. OF PERSONS: INJURED	ESTIMATED DAMAGE: PROPERTY	ESTIMATED DAMAGE: CROPS	CHARACTER OF STORM
GEORGIA									
WALTON COUNTY									
Bold Springs	01	2040EST			0	0	0	0	Funnel Cloud
Bold Springs	01	2040EST			0	0	?	?	TSTM Wind
A roof was taken off a home at Bold Springs.									
WALTON COUNTY									
1S Campton	01	2050EST			0	0	?	?	TSTM Wind
Thunderstorm winds caused three chicken houses to collapse. A small fire resulted in one of the houses due to an electrical short-circuit.									
BARROW COUNTY									
2E Statham	01	2110EST			0	0	0	0	Funnel Cloud
A funnel cloud was sighted at the Barrow-Clarke county line.									
OCONEE COUNTY									
2S Bogart	01	2115EST			0	0	?	?	TSTM Wind
6NW Eastville	01	2115EST			0	0	?	?	TSTM Wind
Scattered trees were blown down by thunderstorms.									
JACKSON COUNTY									
3E Center	01	2130EST			0	0	?	?	TSTM Wind
Scattered trees were downed by winds.									
MADISON COUNTY									
7W Danielsville	01	2130EST			0	0	?	?	TSTM Wind
Scattered trees were downed by winds.									
LAURENS COUNTY									
Dublin	04	1000EST			0	0	?	?	River Flood
East Dublin	09	0700EST							
WHEELER COUNTY									
4W Mount Vernon	07	0700EST-			0	0	?	?	River Flood
	09	0700EST							
MONTGOMERY COUNTY									
2W Mount Vernon	07	0700EST-			0	0	0	?	River Flood
	09	0700EST							
Water rose in several sections of Dublin and East Dublin. Only minor damage occurred in a flooded trailer home park in East Dublin. On the Oconee River at Dublin, another riverside mobile home park was evacuated; very minor flooding occurred. In some areas along the Oconee River in Laurens, Wheeler, and Montgomery counties, riverside farm and pasture lands were flooded.									
WILCOX COUNTY									
Abbeville	07	1900EST-			0	0	?	?	River Flood
	13	0700EST							
The worst damage of the flooding on the Ocmulgee River occurred at Abbeville. About eight riverfront homes were isolated due to flood waters. In the rural area outside of Abbeville, substantial flooding of low farm and pasture land occurred.									
10 IDAHO									
Madison Co., Rexburg	3	1600 MST			0	0	4	0	LIGHTNING
A bolt of lightning knocked out electricity to a large section of Rexburg, burned along electrical lines and blew out appliances in a few homes. This bolt was so powerful that it burned out a major Utah Power and Light Company switching gear, creating thousands of dollars worth of damage.									
ID003-004-005-006 Southern Idaho	28	1200 MST			0	0	3	0	HEAVY SNOW
An early-season heavy snow storm spread across the Southern Idaho mountains during the day. However, the valley station of Pocatello in Zone 3 received 6" of snow by noon. Mountain stations received 6" to 12" of snow.									
11 ILLINOIS									
Wayne Co, Fairfield	16	1800CST	2	600	0	0	4	0	Tornado (F2)
A tornado touched down near Fairfield and destroyed a mobile home, 2 machine sheds, 3 grain bins and 3 house roofs.									
S Third of State	16-17				0	0	?	?	Heavy rain
Scattered heavy thunderstorms produced rainfall amounts of from 2 to over 3 inches across about the southern third of Illinois. Some rainfall amounts reported by official cooperative weather observers include: 3.90 inches on the 16th at Sparata in Randolph County, 3.75 inches on the 17th at Prairie Du Rocher in Randolph County, 3.30 inches on the 17th Smithland Lock and Dam in Pope County, 3.25 inches on the 16th at Carmi in White County and 3.0 inches on the 17th at Centralia in Clinton County.									
ILZ003-005-007-008-010-012 Far Eastern Illinois	19-20				0	0	?	0	Early snow
A record-breaking early-season snowfall event occurred across extreme eastern Illinois during the afternoon and evening of the 19th and the early morning hours of the 20th. 1 to 3 inches of snow fell from Lake and McHenry counties in far northeast Illinois southward through the greater Chicago area, through Champaign, and to as far south as Newton in Jasper County (about 75 miles south of Champaign.) The official snowfall total of 3.8 inches measured at Chicago's O'Hare International Airport set a record for the earliest snowfall of 1 inch or greater. (The previous record was 3.0 inches of snow that fell on October 20th, 1952.)									
12 INDIANA									
Greene County	16	1608EST			0	0	3	?	TSTM Wind
A roof was blown off of a garage by thunderstorm winds along State Road 157 in central Greene County.									
Brown and Monroe Counties	16	1620-1700EST			0	0	?	?	Flash Flooding
Street flooding occurred at Nashville in Brown County and at Bloomington in Monroe County.									
Monroe County	16	1628EST			0	0	?	?	TSTM Wind
Trees and tree limbs were blown down by thunderstorm winds in the western areas of Bloomington.									
Northern and Central Indiana	19	0000-1800EST			0	0	?	?	Heavy Snow
A record-breaking snowfall began early on the morning of October 19th. An intense upper-level low pressure system was anchored over the Missouri bootheel which allowed warmer, southerly winds to override colder surface air over Indiana. Snowfall began to accumulate on grassy and exposed areas as the air temperature hovered near freezing. By 0700 EST, accumulations of five to six inches were reported from across central Indiana, and elevated roadways and bridges were becoming ice covered. The ice conditions became only wet by late morning as the temperatures rose to the middle thirties and road crews had spead salt on affected areas. Another problem with the wet, heavy snow was the large accumulation on power lines, and especially on trees, since many trees still had a substantial number of leaves. Scattered power outages were reported from across central Indiana, while 15,000 customers lost power service at South Bend due to power lines being knocked down by falling tree limbs. Snowfall amounts exceeded both 24 hour and monthly record totals at South Bend which had 8.8 inches. Fort Wayne had 6.4 inches of snow and Indianapolis had 9.3 inches. The axis of maximum snowfall was from South Bend to Indianapolis to Bedford (Lawrence County). The maximum snowfall was 10.5 inches at Kokomo in Howard County.									
13 IOWA									
Adair County, Fontanelle	15	1820 CST			0	0	4	2	Tstm Winds (50)
Madison County, Winterset	15	1840 CST			0	0	4	3	Tstm Winds (56)
A strong cold front moved southeast across Iowa. A line of strong thunderstorms developed along the front. Most of the weather associated with these storms was in the form of gusty winds and some small hail. High winds were reported over Adair County, where a "not too sturdy" barn was blown over at Fontanelle. In Madison County, high winds of 60 to 70 MPH blew a vehicle off the highway at Winterset.									

STORM DATA AND UNUSUAL WEATHER PHENOMENA

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

14 KANSAS

Harvey Co.									
2 SE Newton	27	1828CST	.1	10	0	0	0	0	Tornado (F0)
1 SE Newton	27	1830CST	.1	10	0	0	0	0	Tornado (F0)
1 NW Newton	27	1840CST	.1	10	0	0	0	0	Tornado (F0)

Three weak tornadoes (F0), from the same parent thunderstorm, touched down for less than 40 seconds each around the outskirts of Newton, KS; 21 miles north of Wichita, KS. No damage was reported but a large dust cloud was observed with each one. A large, rotating wall cloud was observed prior to and just after the third tornado.

15 KENTUCKY

Rockcastle Co., Jaskson Co., Owsley Co., Lee Co., Breathitt Co., Magoffin Co., Clay Co., Knox Co., Leslie Co., Harlan Co., Letcher Co., Perry Co., Knott Co., Floyd Co. and Pike Co.	16-17	2100EST-1200EST			0	0	7	4	Flash Flood

On the 16th and 17th days of October, the remnants of Hurricane Jerry moved over the counties of southeast Kentucky producing rainfall amounts of 4 to 6 inches in a period of 18 to 24 hours. The result was a widespread *flash flood event causing significant damage across* the area. Dozens of roads and bridges were washed out, hundreds of homes were destroyed or damaged, hundreds of families were evacuated and many vehicles were either damaged or washed away.

At Hazard in Perry County, many streets were closed as nearly 4 feet of water from the flooded Kentucky River ran through the town. Ten families were evacuated from the area. Damage estimates for Perry County exceeded $1 million.

In Letcher County, flood damage was expected to exceed $2 million. Countywide, 100 bridges and culverts were *washed out and at least 50 homes received flood damage.*

In Floyd County over 750 students and teachers were stranded in McDowell schools when water breached the banks of Frasure Creek above Left Beaver, pouring a torrent of water into the town and sending over two feet of water into several classrooms.

In Pike County, officials estimated damage in excess of $2 million. Over 200 homes were flooded and many bridges and roads were washed out.

16 LOUISIANA

LAZ010-011-012-013-014 Coastal Louisiana	15-16	0000CST-1200CST			0	0	4	0	Tropical Storm/ Hurricane
Orleans Parish, Lakefront Arpt(NEW)	15	1615CST			0	0	0	0	Funnel Cloud
DeSoto Parish, Mansfield	16	0700CST			0	0	3	0	TSTM Wind
Frierson	16	0720CST			0	0	?	0	TSTM Wind
Red River Parish, 5 SE Coushatta	16	0710CST			0	0	?	?	TSTM Wind
Bossier Parish, 5 E Bossier City	16	0730CST			0	0	?	?	TSTM Wind

A tropical depression in the southwest Gulf of Mexico developed into a tropical storm, named Jerry, at approximately 0700CST, *Friday, Oct. 13, 1989.* The tropical storm moved on an erratic northward course during the next 36 hours before turning toward the north-northwest. Tropical Storm Jerry eventually developed into a minimal hurricane shortly before making landfall during the early evening of Sunday, October 15th, at Galveston, Texas.

The main effect on Louisiana was evacuation of low-lying coastal locations in event the storm made landfall in or close to Louisiana. Approximately 1,000 persons evacuated Grand Isle on the 14th, and about 7,000 evacuated lower Cameron Parish on the 15th. Considerable evacuation of offshore oil production facilities took place on the 13th and 14th. Hurricane Jerry was a rather small hurricane, therefore, the tidal effect on the Louisiana coast was not great. The tides ranged from about three *feet above normal along the southwest Louisiana coast to around* two feet above normal along the southeast on the morning of the 16th. No significant rainfall was associated with this tropical storm/hurricane in Louisiana.

The remnant low pressure system moved north and northeast across east Texas, eventually crossing northwest Louisiana on the morning of Monday, Oct. 16th. A few thunderstorms associated with the low pressure center produced wind gusts which downed trees and power lines in several northwest Louisiana parishes.

17 MAINE — NONE REPORTED

18 MARYLAND and D.C. — NONE REPORTED

19 MASSACHUSETTS

Middlesex County	15	0200EST			0	0	4	0	Lightning

A bolt of lightning set fire to a building housing two businesses in Holliston. Heavy property damage resulted.

MAZ005-006 Western Massachusetts	20-21	0000EST-0000EST			0	0	5	0	Heavy Rain

A total of two to three inches of rain fell during a twelve hour period, bringing the weekly rainfall totals to between five and six inches. The resulting heavy runoff triggered two mud slides in *Holyoke which closed several roads and caused small rivers and* streams to overflow their banks. Backed-up sewers and flooded and washed-out roads were common throughout the area. The most significant road damage was reported in the hill towns. In Greenfield, residents of a mobile home park were evacuated to higher ground due to flooding. Large rivers did not reach flood stage. There was considerable flooding of low-lying areas and many cellars and basements were flooded.

20 MICHIGAN

Crawford County Grayling	14	0945EST			0	0	0	?	Hail (1.75)
Oscoda County Mio	14	1025EST			0	0	0	?	Hail (1.00)
Roscommon County Higgins Lake to Roscommon	14	1025EST	5.0		0	0	0	?	Hail (1.75)
3WNW Higgins Lake	14	1028EST	0.3	70	0	0	0	?	Tornado (F0)
St. Helens	14	1032EST			0	0	0	?	Hail (1.75)
Camp Grayling	14	1044EST			0	0	0	?	Hail (1.75)
Ogemaw County 6W Rose City	14	1100EST			0	0	0	?	Hail (1.75)
Oscoda County Mio to Fairview	14	1130EST			0	0	0	?	Hail (1.75)
Alcona County Harrisville	14	1250EST			0	0	0	?	Hail (0.75)

Morning to midday thunderstorms produced hail of up to golfball size across counties of the northern half of the lower peninsula of Michigan. A brief tornado twisted and downed trees along a swath 3 miles west-northwest of Higgins Lake in Roscommon County. *The trees were left lying in many directions. Its funnel was seen* aloft 20 miles to the east of this location about 20 minutes later.

Grand Traverse County	15	0925EST			0	2	6	?	TSTM Wind (50)

Two persons were injured when a tree fell on a camper in Traverse City State Park. A highway was closed due to fallen trees near Fife Lake.

Lake Michigan and Benzie County 4NW Frankfort to 2E Beulah	15	0930EST	12.0	20	0	0	4	?	Waterspout-Tornado (F1)

A waterspout was seen on Lake Michigan off of Point Betsie. It came ashore, lifted, and was seen moving aloft along the length of Crystal Lake by several persons. It approached the ground again and damaged roofcops and treetops near the center of Beulah, lifted again as it crossed a golf course, and touched down again near the course's clubhouse. It ripped out trees on ground which rose in elevation to the east of the clubhouse and destroyed a farm building before finally dissipating.

Wexford County Buckley	15	0935EST	1.0	40	0	0	5	?	Tornado (F1)

Fourteen houses were damaged, three of them seriously. A mobile home was rolled over and destroyed.

Kalkaska County Kalkaska	15	1015EST			0	0	2	?	Hail (1.50)

Several cars were damaged.

Roscommon County Roscommon to St. Helen	15	1030EST			0	0	0	?	Hail (1.75)
Antrim County Bellair	15	1100EST			0	0	0	?	Hail (0.75)
MIZ001-003-015 Southwest Lower Peninsula	19	0500EST			0	0	3	?	Heavy Snow

The snow accumulation ranged from 4 to 7 inches, with the heaviest amounts having fallen near the Indiana border. Many trees and large limbs were downed due to the weight of the snow on leaves. Several cars were damaged.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

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

21 MINNESOTA — NONE REPORTED

22 MISSISSIPPI

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED	INJURED	PROPERTY	CROPS	CHARACTER OF STORM
Yazoo County 10SW to 8WSW Yazoo City	16	1420CST	3.0	80	0	0	5	0	Tornado (F2)

A woman watched this tornado from her house, from six to eight miles away. She said that the main funnel of the tornado decended to the ground and that there was another cloud band rotating around it (possibly a wall cloud). She watched the tornado for about six minutes until it dissipated. One house was totally destroyed. Another home had the roof torn off and several pacan trees were blown down. Numerous trees were blown down west of the Yazoo River. Several bales of cotton were blown apart. Much of the tornado path was over open fields.

23 MISSOURI — NONE REPORTED

24 MONTANA

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED	INJURED	PROPERTY	CROPS	CHARACTER OF STORM
MTZ003-007	10	1600 MST			0	0	3	0	HIGH WINDS (G63)

Winds gusted to 72 mph at Choteau, 63 mph at Cut Bank and 58 mph at Livingston during the day.

MTZ004-007	28	0500-2000MST			0	0	5	0	HEAVY SNOW

A foot or more of snow fell across much of Southern Montana during the day. Red Lodge reported 12 inches, and Dillon 11 inches. 30 inches of snow fell on I-90 near the Wyoming Border, closing the Interstate after 2100 MST. U.S. Highway 212 from Laurel to Red Lodge was closed for a short time during the afternoon. Power lines were down across the area.

25 NEBRASKA

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED	INJURED	PROPERTY	CROPS	CHARACTER OF STORM
NEZ010 South-Central Nebraska	27	1455CST			0	0	2	1	High Wind (50)

South winds gusted to 58 m.p.h. at Kearney. The winds kicked up clouds of blowing dust.

26 NEVADA

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED	INJURED	PROPERTY	CROPS	CHARACTER OF STORM
Clark County, Henderson	14	1725PST	?	?	0	0	4	0	Tornado (F1)

The Henderson, NV Police Department reported the sighting of a tornado that tore the roof off a house and slammed it into the next door neighbor's automobile. This tornado also tossed several other cars about. There were no injury reports.

NVZ003 Extreme Western Nevada	23	0800PST-1400PST			0	0	3	0	High winds

High winds developed along the lee of the Sierra Nevada ahead of an approaching Pacific storm. Winds gusted to nearly 70 MPH in the Reno-Carson City area. The strongest wind gust measured was 69 MPH in the Virginia Foothills area, just south of Reno. The greatest wind gust recorded at the Reno Cannon International Airport was 67 MPH shortly after 8 AM. Only minor damage was reported.

Churchill County	25	1015PST			0	0	0	0	Funnel Cloud

A funnel cloud was spotted southeast of the Fallon Naval Air Station by a Navy weather observer.

27 NEW HAMPSHIRE

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED	INJURED	PROPERTY	CROPS	CHARACTER OF STORM
NHZ002 White Mountains Region	17	1830EST			0	0	3	0	High Winds

A giant evergreen near the Ammonoosuc River was toppled as strong winds raked the White Mountains area. The 70 year old tree damaged the second floor of a home on Gilman Hill Road (no better geographical reference is available).

NHZ006 Manchester-Londonderry Area	17	1830EST			0	0	3	0	High Winds

High winds caused power outages in the Manchester-Londonderry area of southeast New Hampshire. Power was later restored at 2045 EST.

NHZ001-002-003-004-005-006 All but Coastal and Eastern New Hampshire	20	1800-2200EST			0	0	3	0	Flooding and High Winds

Low pressure passing through New England brought heavy rain, minor flooding and strong winds to all but coastal and eastern New Hampshire. A flood watch was issued for the entire state on the evening of the 20th. Six-tenths of an inch of rain fell in Concord at around 2015 EST. Water a foot deep was reported on Route 119 near Hinsdale and water 2 feet deep flooded Route 101 in Dublin. Urban flooding was reported in many locations including Beech Street in Manchester. Most of the urban flooding was caused by blocked culverts and catch basins which became clogged with leaves from strong winds on the 17th. Most rivers approached but did not exceed flood stage. Several power outages were reported. A tree limb fell on a major supply line on Route 120 near Meridan at 1825 EST. Ten different locations in the Manchester area lost power. Winds of 29 mph were reported in Concord. The wind caused power outages across the state.

28 NEW JERSEY, Northern

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED	INJURED	PROPERTY	CROPS	CHARACTER OF STORM
Hunterdon, Warren, Middlesex, Sussex, Monmouth, Somerset, Morris, Bergen, Essex, Hudson, Union, and Passaic Counties	20	afternoon-evening			0	0	?	0	Flood

A slow, northward-moving low pressure system along the Atlantic coast dumped 3 to 4 inches, locally up to 6 inches, of rain across Northern New Jersey. Widespread urban flooding resulted, as did flooding of rivers and streams. The Millstone, Raritan, Rockaway and Ramapo rivers each exceeded bank full for many hours.

28 NEW JERSEY, Southern

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED	INJURED	PROPERTY	CROPS	CHARACTER OF STORM
Camden County	20	0910EST			0	0	?	?	Flood

Heavy rain of 1 to 2 inches following rain that fell on previous days led to urban and small stream flooding. Roads were flooded, especially in Cherry Hill, Pennsauken and Camden. Flooding occurred between 0910 and 1130 EST.

Mercer County	20	1700EST			0	0	?	?	Flood

Heavy rain of 1 to 2 inches following rain that fell on previous days led to urban and small stream flooding. The Assunpink Creek reached its flood stage of 7 feet. The flooding occurred at around 1700 EST.

29 NEW MEXICO — NONE REPORTED

30 NEW YORK, Coastal

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED	INJURED	PROPERTY	CROPS	CHARACTER OF STORM
Suffolk County, Plum Island	15	0400EST			0	0	?	0	Thunderstorm Wind

A small area of thunderstorms moving across the Eastern Forks of Long Island downed several trees and ripped the roof off of an old building on Plum Island.

Rockland, Suffolk, Westchester and Nassau Counties; and New York City	20	afternoon			0	0	?	0	Flood

A slow, northward-moving low pressure system along the Atlantic coast dumped 3 to 4 inches, locally up to 6 inches, of rain across southeastern New York. Widespread urban flooding resulted, as did flooding of rivers and streams.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

30 NEW YORK, Central

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS KILLED	NO. OF PERSONS INJURED	ESTIMATED† DAMAGE PROPERTY	ESTIMATED† DAMAGE CROPS	CHARACTER OF STORM
Cortland County									
Cortlandville	14	1556EST			0	0	3	0	TSTM Wind
Chenango County									
Columbus	14	1630EST			0	0	?	?	Hail (0.75)
Otsego County									
countywide	14	1645EST			0	0	4	3	TSTM Wind
New Lisbon	14	1645EST			0	1	0	0	Lightning
Herkimer County									
northern portion	14	1700EST			0	0	5	0	TSTM Wind
Otsego County									
countywide	14	1715EST			0	0	5	2	TSTM Wind
Oneida County									
countywide	14	1742EST			0	1	5	0	TSTM Wind
countywide	14	1742EST			0	0	0	3	Lightning
Cortland County									
Scott	14	1745EST			0	0	5	?	TSTM Wind
Homer	14	1745EST			0	0	3	0	TSTM Wind
Preble	14	1752EST			0	0	3	0	TSTM Wind
Homer-Little York Creek	14	1759EST			0	0	3	0	TSTM Wind
McGraw	14	1800EST			0	0	?	?	Hail (0.75)
Culyer	14	1800EST			0	0	3	0	TSTM Wind
Cortland	14	1802EST			0	0	3	0	TSTM Wind
Cortlandville	14	1813EST			0	0	3	3	TSTM Wind
Cincinnatus	14	1813EST			0	0	3	0	TSTM Wind
Chenango County									
Otselic	14	1815EST			0	0	4	3	TSTM Wind
Otselic	14	1815EST			0	0	3	3	Hail (1.00)
McDonough	14	1815-1818EST	2	300	1	3	4	?	Tornado (F2)
McDonough	14	1818EST			0	0	?	?	Hail (0.50)
Montgomery County									
Ft. Plain	14	1818EST			0	0	4	4	TSTM Wind
Chenango County									
Oxford	14	1825EST			0	0	5	4	TSTM Wind
Oxford	14	1825EST			0	0	?	?	Hail (1.25)
Fulton County									
countywide	14	1830EST			0	0	5	3	TSTM Wind
Tioga County									
Berkshire	14	1830EST			0	0	3	3	TSTM Wind
Chenango County									
Oxford	14	1830EST			0	0	3	0	TSTM Wind
Norwich	14	1830EST			0	0	3	3	Hail (1.75)
Otsego County									
Cooperstown	14	1830EST			0	0	3	0	TSTM Wind
West Exeter	14	1830EST			0	0	3	2	TSTM Wind
Springfield	14	1830EST			0	0	3	2	TSTM Wind
Cortland County									
Virgil	14	1833EST			0	0	3	3	TSTM Wind
Schoharie County									
Middleburg	14	1845EST			0	0	4	4	TSTM Wind
Otsego County									
Plainfield	14	1845EST			0	0	3	3	TSTM Wind
Richfield Springs	14	1847EST			0	0	3	0	TSTM Wind
Schenectady County									
countywide	14	1900EST			0	0	4	?	TSTM Wind
countywide	14	1902EST			0	0	3	2	Lightning
Saratoga County									
countywide	14	1900EST			0	0	5	3	TSTM Wind
Broome County									
Binghamton	14	1900EST			0	0	2	0	TSTM Wind
Rockdale	14	1900EST			0	0	3	0	TSTM Wind
Delaware County									
Walton	14	1900EST			0	0	3	3	TSTM Wind
Sidney	14	1900EST			0	0	4	3	TSTM Wind
Franklin	14	1900EST			0	0	3	0	TSTM Wind
Otsego County									
Oneonta	14	1900EST			0	0	3	0	TSTM Wind
Gilbertsville	14	1906EST			0	0	3	0	TSTM Wind
Unadilla	14	1910EST			0	0	3	0	TSTM Wind
Cortland County									
Cortland	14	1910EST			0	0	3	2	TSTM Wind
Broome County									
Bainbridge	14	1915EST			0	0	4	0	TSTM Wind
Albany County									
countywide	14	1920EST			0	0	5	0	TSTM Wind
Slingerlands	14	1923EST			0	0	6	0	Lightning
Colonie	14	1924EST			0	0	4	0	Lightning
Rensselaer County									
Wynanskill	14	1922EST			0	0	4	3	TSTM Wind
Schodak Center	14	1934EST			0	0	3	0	TSTM Wind
Nassau	14	unknown			1	0	?	?	TSTM Wind
Chenango County									
Afton	14	2040EST			0	0	3	3	TSTM Wind
Dutchess County									
Millerton	14	2100EST			0	0	4	4	TSTM Wind
Pine Plains	14	2100EST			0	0	3	0	TSTM Wind
Amenia	14	2100EST			0	0	3	0	TSTM Wind

NEW YORK, Central

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS KILLED	NO. OF PERSONS INJURED	ESTIMATED† DAMAGE PROPERTY	ESTIMATED† DAMAGE CROPS	CHARACTER OF STORM
Chenango County									
3N McDonough	14	2200EST			0	0	4	0	Lightning
Columbia County									
Ghent	15	0350EST			0	0	3	0	Lightning

Powerful thunderstorms spawned a tornado of F1 intensity in Chenango County. The tornado lifted a mobile home off of its foundation and dropped it some distance away. During its flight the trailer struck a car and a pickup truck before coming to rest. One occupant was killed and three others were injured. The tornado initially touched down along Bradt Road, crossed Route 220, and proceeded up along Creek Road. The tornado's damage occurred in six intermittent segments along the two mile long path.

M72M, M320.

Orange County									
countywide	20	1220-1400EST			0	0	4	3	TSTM Wind and Small Stream Flooding
Middleton	20	1220EST			0	0	5	0	TSTM Wind
Campbell Hall	20	1222EST			0	0	4	3	TSTM Wind
Sullivan County									
Fosterdale to Kenoza Lake	20	1520-1920EST			0	0	?	?	Small Stream Flooding
Dutchess County	20-21	PM-AM			0	0	?	?	River Flooding
Ulster County	20-21	PM-AM			0	0	?	?	River Flooding

Thunderstorms accompanied by heavy rain brought down trees, power lines and large tree limbs. In Middletown, high winds shattered eight plate glass windows at Tri Valley Furniture Store. In Sullivan County, the Callicoon Creek flooded State Route 52. Many other areas reported small stream flooding as well. Mainstem river flooding was reported along the Wallkill River and Wappinger Creek.

30 NEW YORK, Western

NIAGARA COUNTY									
countywide	14	1545EST			0	0	0	6	TSTM WIND
Somerset	14	1545EST			0	0	4	0	TSTM WIND (91)
Hartland	14	1600EST			0	0	5	0	TSTM WIND
Lockport	14	1600EST			0	0	5	0	TSTM WIND
ORLEANS COUNTY									
countywide	14	1600EST			0	0	0	6	TSTM WIND
Kendall	14	1600EST			0	0	4	0	TSTM WIND
Medina	14	1600EST			0	0	6	0	TSTM WIND (78)
GENESEE COUNTY									
Batavia	14	1615EST			0	0	4	0	TSTM WIND

Severe thunderstorms uprooted large trees and blew down scores of power lines in Niagara, Orleans, and Genesee counties. Thunderstorm winds tore off siding of the Somerset power plant where New York State Electric & Gas monitored winds at 105 MPH. A house trailer in the town of Hartland was blown off its foundation and destroyed. In Medina, the hardest hit area, all 7000 residents were without power. Part of the roof on Medina's armory was peeled off by the storm and thrown on the street. Trees as large as 6 feet in diameter were uprooted or knocked down by winds estimated in the area of 90 mph. A state of emergency was declared in the village and no vehicles were allowed in or out. New York Telephone reported having to replace 40 poles and 10,000 feet of cable in Medina. The violent winds and hail damaged at least 750,000 to a million bushels of apples in Niagara and Orleans counties. In Genesee County, power was knocked out in the towns of Oakfield, Alabama, Elba, Byron, Bergen, and Pembroke.

LIVINGSTON COUNTY									
Caledonia	14	1630EST			0	0	4	0	TSTM WIND
Livonia	14	1645EST			0	0	4	0	TSTM WIND
MONROE COUNTY									
Wheatland	14	1630EST			0	0	4	0	TSTM WIND (52)
Brockport	14	1700EST			0	0	3	0	HAIL (0.75)
Spencerport	14	1735EST			0	0	4	0	TSTM WIND
WAYNE COUNTY									
Macedon	14	1708EST			0	0	4	0	TSTM WIND
Newark	14	1710EST			0	0	4	0	TSTM WIND (52)
YATES COUNTY									
Penn Yan	14	1720EST			0	0	4	0	HAIL (1.00)
SENECA COUNTY									
Covert	14	1730EST			0	0	4	0	TSTM WIND
ONTARIO COUNTY									
Canandaigua	14	1733EST			0	0	4	0	TSTM WIND

STORM DATA AND UNUSUAL WEATHER PHENOMENA

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	

—— NEW YORK, Western

A series of severe thunderstorms, accompanied by high winds, lightning, hail, and heavy rain, struck portions of the Finger Lakes region. Numerous large trees and power lines were downed. Power failures were widespread, with Rochester Gas & Electric Co. outages affecting tens of thousands of customers. A mobile home and a two car garage in the town of Covert were destroyed by the storms. The violent winds toppled the steeple off a church in Canandaigua.

CAYUGA COUNTY								
Auburn	14	1645EST	0	0	4	0		TSTM WIND
OSWEGO COUNTY								
Phoenix	14	1645EST	0	0	4	0		TSTM WIND
ONONDAGA COUNTY								
Salina	14	1655EST	0	0	4	0		HAIL (0.75)
Amber	14	1740EST	0	0	4	0		TSTM WIND
Tully	14	1845EST	0	0	4	0		HAIL (0.75)
MADISON COUNTY								
Erieville	14	1804EST	0	0	4	0		TSTM WIND

Severe thunderstorms rolled across Cayuga, Onondaga, southern Oswego and Madison counties. Numerous large trees and power lines were downed. Several house fires were reportedly started by lightning strikes. In Erieville, a large tree fell onto a house, causing considerable damage to the structure. In the town of Amber, a summer home was destroyed by a falling tree.

TOMPKINS COUNTY								
Trumansburg	14	1740EST	0	0	4	0		TSTM WIND
Ithaca	14	1747EST	0	0	3	0		TSTM WIND (65)
Lansing	14	1755EST	0	0	4	0		TSTM WIND
Dryden	14	1815EST	0	0	3	0		TSTM WIND
SCHUYLER COUNTY								
Montour	14	1830EST	0	0	4	0		TSTM WIND
CHEMUNG COUNTY	14	1830EST	0	0	3	0		TSTM WIND

Severe thunderstorms swept down across south-central New York. Numerous large trees and wires were downed. In Lansing, the roof and 3rd floor of an apartment building were destroyed. A trailer and a few barns and silos were demolished. In Dryden, trees in excess of 100 feet tall and 2-3 feet in diameter were completely uprooted.

31 NORTH CAROLINA

Burke Co.	1	1230EST	0	0	?	0		Flash Flood
Transylvania Co.	1	1310EST	0	0	?	0		Flash Flood
Cherokee Co.	1	1315EST	0	0	?	0		Flash Flood
Clay Co.	1	1325EST	0	0	?	0		Flash Flood
Macon Co.	1	1325EST	0	0	?	0		Flash Flood
Polk Co.	1	1325EST	0	0	?	0		Flash Flood
Henderson Co.	1	1325EST	0	0	?	0		Flash Flood
Rutherford Co.	1	1325EST	0	0	?	0		Flash Flood

Two to four inches of rain fell over the North Carolina mountains causing widespread minor flash flooding. Most counties experienced flooding of roads and fields. Bridges were washed out in Transylvania, Macon, and Polk counties. Flooding in most areas lasted into the evening.

Cabarrus Co.	1	1107EST	0	0	?	0		Flash Flood
Gaston Co. Cherryville	1	1115EST	0	0	?	0		Flash Flood
Anson Co.	1	1205EST	0	0	?	0		Flash Flood
Lincoln Co. Long Shoals	1	1215EST	0	0	?	0		Flash Flood
Cabarrus Co.	1	1300EST	0	0	?	0		Flash Flood
Mecklenburg Co.	1	1533EST	0	0	?	0		Flash Flood
Union Co.	1	1725EST	0	0	?	0		Flash Flood
Stanley Co. Albemarle	1	1807EST	0	0	?	0		Flash Flood
Union Co. Monroe	2	0330EST	3	0	?	0		Flash Flood

From September 30 to October 2 rainfall amounts of 3 to 7 inches were recorded over the Southern Piedmont of North Carolina. Most rivers and reservoirs were already high from the rain of Hurricane Hugo the previous week. Initial flooding began as streams and creeks began to overflow in Gaston, Anson, Stanley, Lincoln, Cabarrus and Mecklenburg counties. Soon many bridges and roads were flooded. By 1215 PM EDT, U.S. Highway 321 was flooded near Long Shoals in Lincoln County. Roads were flooding near Cherryville in Gaston County, and near Albemarle in Stanley County. Heavy rain continued through the afternoon and evening. By 625 PM EDT roads were flooded in Union County. During the night Duke Power was forced to let water out of Lake Norman,

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	

—— NORTH CAROLINA

Mountain Island, and Cowans Ford dams. Before midnight water was spilling over the Mountain Island Dam, flooding river front homes in Mecklenburg and Gaston counties. A mobile home park was evacuated of 53 people in McAdenville in Gaston County when the South Fork River crested 4 feet above flood stage. Around 1207 AM EDT several cars were swept off of roads in Cabarrus County. No injuries were reported. Flooding continued across the area through the late night hours. At 430 AM EDT a car was swept off of Walkup Avenue in Monroe in Union County. Three of the people in the car drowned. The forth person swam out of the car window and was swept 100 yard downstream where she was able to hang on to a tree until rescued. Flash Flood (M43V, F20V, F17V)

32 NORTH DAKOTA —— NONE REPORTED

33 OHIO

Richmond and Ashland Counties Ontario to north of Mohicanville	10	1510-1550EST	24	60	0	0	5	0	Tornado (F1)

A tornado initially touched down at Rudy Road in southwest Ontario, damaging the roof of a house. The tornado then created an intermittent path of damage through Richmond and Ashland counties. It damaged a house about one-half mile south of Millsboro Road, on Lexington/Ontario Road. Trees were uprooted and power lines were downed. A barn was destroyed and another barn was damaged at the intersection of Crimson/Peterson Road and Mt. Zion Road. Cattle were injured by flying debris. The tornado passed across State Route 603 southeast of Charles Mill Lake. It damaged the dugouts at a ball field and damaged a house. Trees and power lines were also blown down. The tornado crossed into Ashland County at 1535 EST. It moved through a heavily wooded area, and the last report of damage, that being done to trees, was north of Mohicanville at about 1550 EST.

Guernsey County	10	1740EST	0	0	4	0		Thunderstorm Wind

A thunderstorm blew down trees near Cumberland and in extreme west-central Guernsey County.

Cuyahoga County:								
East Cleveland	10	1830EST	0	0	?	0		Hail (1.75)
Cleveland	10	1845EST	0	0	?	0		Hail (0.75)

A thunderstorm dropped golfball size hail in East Cleveland. A short time later, another thunderstorm dropped dime size hail in downtown Cleveland.

Ross County	16-17	2300EST-0200EST	0	0	5	0		Urban and Small Stream Flooding

Almost two inches of rain fell near Massieville which caused flooding in Indiana Creek. Several mobile homes and businesses were flooded. One bridge was damaged.

OHZ008 Southwest Ohio	19	0600EST	0	0	5	0		Heavy Snow
OHZ005 Miami Valley	19	0700EST	0	0	5	0		Heavy Snow

Four to six inches of snow fell over southwest Ohio. This snow set numerous records for this part of Ohio, that for the earliest measurable snow and for snow amounts. The excessive weight of the wet snow brought down trees and branches onto power and telephone lines. Utility service was lost in many communities. About half of the city of Cincinnati was without power during the morning of the 19th, and many communities were without some utilities for over a day.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

34 OKLAHOMA

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS KILLED	NO. OF PERSONS INJURED	ESTIMATED† DAMAGE PROPERTY	ESTIMATED† DAMAGE CROPS	CHARACTER OF STORM
Roger Mills County, 2 W Berlin	05	2020CST			0	0	?	?	TSTM Wind (52)
Beckham County, 13 WSW Elk City	05	2030CST			0	0	?	?	TSTM Wind (52)
Custer County, 1 S Clinton	05	2050CST			0	0	?	?	Hail (0.88)
Custer County, 5 SE Clinton	05	2100CST			0	0	?	?	TSTM Wind
Custer County, 1 S Weatherford	05	2125CST			0	0	?	?	TSTM Wind (52)
Caddo County, 5 S Hydro	05	2145CST			0	0	?	?	TSTM Wind
Grady County, Pocasset	05	2306CST			1	0	?	?	TSTM Wind (78)

A fast-moving severe thunderstorm moved eastward from the Texas Panhandle into western and central Oklahoma, producing damaging winds and nickel size hail. Four telephone poles were downed 5 miles southeast of Clinton, and power lines were downed south of Hydro, blocking a road. Also in the area just south of Hydro, a home sustained minor structural damage to its roof, 2 barns were damaged or destroyed, and a television satellite dish was torn from its base. In Pocasset, straight-line thunderstorm winds were estimated at 78 knots. The roof of a convenience store was lifted and fell on a mobile home, killing a 50 year old man inside. A nearby home was heavily damaged, and two trailers were damaged. Several power poles were downed up to two miles east of Pocasset. Numerous trees were also downed. Damage in Pocasset was estimated at 100,000 dollars. M50M

Canadian County, 2 W Okarche	27	1515CST			0	0	?	?	Hail (0.75)
Kingfisher County, 2 W Okarche (on county line)	27	1515CST			0	0	?	?	Hail (0.75)
Canadian County, Okarche	27	1530CST			0	0	?	?	Hail (1.00)

A thunderstorm in Canadian County produced quarter size hail and heavy rain.

Cleveland County, Norman	29	1000CST			0	0	?	?	Lightning
Jackson County, 2 S Altus	29	1502CST			0	0	?	?	Hail (1.00)
Jackson County, Altus AFB	29	1511CST			0	0	?	?	Hail (2.00)
Kiowa County, 9 W Mountain Park	29	1630CST			0	0	?	?	Hail (0.88)
Jackson County, Eldorado	29	1634CST			0	0	?	?	Hail (1.00)
Jackson County, 2 S Eldorado	29	1641CST			0	0	?	?	Hail (1.50)
Kiowa County, 4 W Snyder	29	1646CST- 1650CST	0.03	30	0	0	?	?	Tornado (F0)
Jackson County, Altus	29	1655CST			0	0	?	?	Hail (1.75)
Jackson County, 1 S Martha	29	1710CST			0	0	?	?	Hail (1.00)
Comanche County, 12 NW Cache	29	1730CST			0	0	?	?	Hail (1.25)
Jackson County, Friendship	29	1730CST			0	0	?	?	Hail (0.75)
Tillman County, 2 NW Davidson	29	1732CST- 1745CST	0.04	30	0	0	?	?	Tornado (F0)
Washita County, 4 NE Corn	29	1747CST			0	0	?	?	Hail (1.75)
Greer County, Granite	29	1752CST			0	0	?	?	Hail (1.75)
Washita County, Sentinel	29	1800CST			0	0	?	?	Hail (0.75)
Kiowa County, 4 WSW Lone Wolf	29	1800CST			0	0	?	?	Hail (0.88)
Tillman County, 4 E Frederick	29	1827CST			0	0	?	?	Hail (1.50)
Kiowa County, 4 S Mountain View	29	1830CST			0	0	?	?	TSTM Wind (57)
Comanche County, Cache	29	1850CST			0	0	?	?	TSTM Wind (52)
Grady County, Rush Springs	29	2107CST			0	0	?	?	Hail (0.75)
Stephens County, 2 W Marlow	29	2120CST			0	0	?	?	TSTM Wind

Thunderstorms developed in southwest Oklahoma in advance of a cold front and moved into central sections of the state, producing 2-inch hail, damaging winds, and two weak tornadoes. An F0 tornado touched down 4 miles west of Snyder and moved east-northeast. A second F0 tornado touched down 2 miles northwest of Davidson. Both tornadoes were spotted in open fields and no damage was reported. Large hail in Tillman County destroyed 60 to 80 percent of the cotton crop. No dollar estimate of damage was available. Golfball size hail in Granite broke several automobile windshields and did extensive roof damage. Strong thunderstorm winds downed trees south of Mountain View and power lines were downed west of Marlow. Lightning struck the Chemistry building at the University of Oklahoma, causing minor damage.

35 OREGON

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS KILLED	NO. OF PERSONS INJURED	ESTIMATED† DAMAGE PROPERTY	ESTIMATED† DAMAGE CROPS	CHARACTER OF STORM
ORZ002-003 Lincoln, Lane, Douglas, Coos, and Curry Counties	21-24	0830PST- 0430PST			0	0	?	0	High Wind

A cold low pressure trough off the Pacific Northwest coast steered several frontal systems into Oregon. The fronts caused a few thunderstorms, snows in the mountains, but especially brought high winds to the coastal areas. Gale force winds were recorded in the southern two-thirds of the coast, including speeds in the 50 to 60 mph range. No official reports of damages are available.

36 PENNSYLVANIA, Eastern

Philadelphia County	20	1015EST			0	0	?	?	Flood

Heavy rains of 1 to 2 inches fell during the 20th after lighter rains in previous days had already wet the ground. As a result there was a good bit of urban and small stream flooding. The Pennypack Creek was out of its banks. Flooding occurred at around 1015 EST.

Wayne County	20	1320EST			0	0	3	?	Flood

Heavy rains of 1 to 2 inches following several inches that had fallen in the previous few days led to widespread urban and small stream flooding. Numerous small streams and creeks throughout the county flooded. The flooding was mostly minor and in lowlands, but some roads were flooded also. The flooding occurred between 1320 and 1600 EST.

Bucks County	20	1430EST			0	0	3	?	Flood

Heavy rains of 1 to 2 inches following several days of light rain during the previous few days led to urban and small stream flooding. The Neshaminy Creek at Langhorne reached a stage of 9.63 feet, surpassing the flood stage of 9.0 feet. The flooding occurred between 1430 and 1700 EST.

36 PENNSYLVANIA, Western– NONE REPORTED

37 RHODE ISLAND

Washington County	14-15	2200EST- 0200EST			0	0	4	0	Lightning

Late-season thunderstorms brought lightning strikes which caused damage in several county towns. A tree struck by lightning fell onto and destroyed a pickup truck in Charlestown and a lightning bolt ignited a fire which damaged a North Kingstown home. In Narragansett, a lightning bolt damaged equipment at a local business firm.

Providence County	15	0200EST			0	0	3	0	Lightning

Lightning started a fire which destroyed a barn and a vehicle stored within in North Smithfield.

Bristol County	15	0200EST			0	0	4	0	Lightning

Lightning started a fire that completely gutted a house and an attached garage in Bristol.

38 SOUTH CAROLINA

Oconee County, various locations	01	0840EST			0	0	4	?	Flash Flooding
Greenville County, Greenville	01	0930EST			0	0	3	?	Flash Flooding
Anderson County, Anderson	01	1100EST			0	0	5	0	Flash Flooding

STORM DATA AND UNUSUAL WEATHER PHENOMENA

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS: KILLED	NO. OF PERSONS: INJURED	ESTIMATED† DAMAGE: PROPERTY	ESTIMATED† DAMAGE: CROPS	CHARACTER OF STORM
SOUTH CAROLINA									
Oconee County, various locations	01	1110EST			0	0	?	?	Flooding
Spartanburg County, Spartanburg	01	1135EST			0	0	?	0	Urban Flooding
Pickens County, Pickens & Easley	01	1150EST			0	0	?	?	Flooding
Spartanburg County, near Landrum	01	1215EST			0	0	?	?	Flash Flooding
Cherokee County:									
Gaffney	01	PM			0	0	?	0	Urban Flooding
Cherokee Falls	01	PM			0	0	?	?	Flooding
Antioch	01	PM			0	0	?	?	Flooding
Fairfield County, Lake Wateree	01	PM			0	0	?	?	Flooding
Kershaw County, Lake Wateree	01	PM			0	0	?	?	Flooding
Union County, Lockhart	01	1348EST			0	0	?	0	Urban Flooding
Barnwell County, Savannah River Site to Sweetwater Country Club	01	1845EST	16.5	200	0	0	6	5	Tornado (F2)
A tornado moving from southwest to northeast developed over the Savannah River Site, damaged forest areas on the Site, and moved off the Site. Many trees were snapped or uprooted in and around Snelling. The storm ripped the sheet metal roof off the frame of a mobile home and deposited the debris about 90 feet away in a wooded area. A concrete-block house was torn apart by the tornado. At the Sweetwater Country Club, a number of homes suffered extensive damage. Many trees near the country club were scattered in all directions. Beginning latitude 33°06'N beginning longitude 81°40'W; ending latitude 33°14'N ending longitude 81°25'W.									
Greenwood County, various locations	01	1930EST			0	0	?	?	Flash Flooding
Bamberg County, Bamberg & Denmark	01	PM			0	0	?	0	Urban Flooding
Dorchester County, Summerville	01	PM			0	0	?	0	Urban Flooding
Berkeley County, Lebanon Community	01	2252EST			0	2	4	0	Tstm Winds
Horry County, Myrtle Beach	01	PM			0	0	?	0	Urban Flooding

A low pressure area developed over the Gulf of Mexico on September 29 and moved across Alabama, Georgia and South Carolina over a three day period. South Carolina was affected by large amounts of rain during the period from September 30 to October 2. The system spawned at least one tornado, in Barnwell County, and hampered clean-up efforts from Hurricane Hugo. As the floodwaters moved through the river system, they brought flooding to low-lying areas until the middle of the month. Overnight rainfall of one to two inches across the mountains and foothills was culminated by thunderstorms which brought an additional two to three inches of rain over much of the Upstate. This resulted in a slow-developing flood event although still close enough in time to the causative rainfall to be considered "flash flood" in most areas. The areas most affected were many places in Oconee County where up to 20 roads were closed. The flooding, for the most part, was restricted to the foothills with very little, if any, in the mountains. In the City of Spartanburg, a sidewalk along Forest Street caved in when the dirt beneath it was washed away. In Cherokee County, there were a few roads blocked along the Broad River near Gaston Shoals Road, Cherokee Falls and the Antioch area. There was also some low-level flooding in Cherokee County. There was also some minor street flooding in parts of Gaffney. In Lockhart, there was minor street flooding. In Anderson County, 100 people were evacuated from flood-prone areas. Also in Anderson County, two small homes were destroyed and several others severely damaged when Whitener Creek flooded. In Pickens, Anderson and Oconee counties, some roads were temporarily blocked by water. There were some reports of bridges being washed out in several of the upstate counties. In Kershaw and Fairfield counties, Lake Wateree overflowed its banks as it reached a height of 107 feet, (seven feet higher than the dam). In Kershaw County, boathouses, gasoline pumps and some roadways were partially submerged along Lake Wateree. One peninsula of homes was cut off by water in Kershaw County also at Lake Wateree. In Summerville, in Dorchester County, one neighborhood was under three feet of water after the rain apparently washed limbs and trash into sewers, backing them up. In Bamberg County, several businesses in downtown Denmark and the City of Bamberg were flooded. Water closed three county roads in Bamberg County. Thunderstorm winds injured two people inside a mobile home when it was lifted and thrown across a road at the Lebanon Community of Berkeley County.

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS: KILLED	NO. OF PERSONS: INJURED	ESTIMATED† DAMAGE: PROPERTY	ESTIMATED† DAMAGE: CROPS	CHARACTER OF STORM
39 SOUTH DAKOTA									
Yankton County, Yankton	01	1530CST			0	0	0	0	TSTM Wind (62)
Some trees were blown down.									
SDZ001-002-006-007-008-013 Western South Dakota	28-29	1800-1800MST			0	0	0	0	Snow

The season's first snowfall brought much needed moisture to the Black Hills and portions of western South Dakota, as up to nearly a foot of snow fell in the higher elevations. But the storm also caused motorists a number of problems. A build-up of ice and slush in combination with blowing snow prompted the State Highway Patrol to close a portion of Interstate 90 from Rapid City to Wall. Roadways west and north of Rapid City were snow packed and slippery. Numerous multiple-car accidents without injuries were reported, and many cars went into ditches. The following is a list of snowfall amounts in inches:

Deadwood	11
Lead, Dearfield and Belle Fourche	8
Sturgis and Hill City	6
Rapid City (west side)	4
Newell and Rapid City Airport	3
Hot Springs	2

40 TENNESSEE

Marshall County	01	0600CST	0	0	2	0	Flood	
Coffee County	01	0600CST	0	0	2	0	Flood	
Hamilton County	01	0600CST	0	0	3	0	Flood	
Rhea County	01	0600CST	0	0	2	0	Flood	
Giles County	01	0600CST	0	0	2	0	Flood	
McMinn County	01	0600CST	0	0	2	0	Flood	
Polk County	01	0600CST	0	0	4	0	Flood	
Moore County	01	0600CST	0	0	2	0	Flood	
Tipton County	01	0600CST	0	0	2	0	Flood	
Bledsoe County	01	1900CST	3	0	3	0	Flood	

Rain throughout the weekend across Tennessee was especially heavy in South-Central and Southeast Tennessee. This caused already swollen streams to flood in many locations on Sunday. The flooding consisted mostly of small streams overflowing, with low-lying areas becoming flooded. In Marshall County, Rock Creek overflowed, flooding low areas. In Coffee County, low areas were also flooded, including Highway 130 in several places. In Rhea County, Piney Creek flooded portions of Highway 27. In Polk County, low-lying areas were flooded throughout the county. Additionally, on Parksville Lake water pushed away superboards on top of the dam and sent floodwaters downstream, flooding yards and some basements. The South Chickamauga Creek at Chattanooga and the Hatchie River at Rialto went above flood stage and flooded low-lying areas.

In Bledsoe County, three people drowned but another escaped after the vehicle they were in was swept off a bridge by floodwaters on Monday night, October 2nd. The vehicle was driven onto the bridge even though water in the creek was flowing two feet deep over the bridge.

M32V, F35V,F18V

41 TEXAS, Northern

Angelina County:								
Zavalla	16	0230CST	0	0	?	?	TSTM Wind	
7 N Zavalla	16	0300CST	0	0	?	?	TSTM Wind	
8 N Zavalla	16	0300CST	0	0	?	?	TSTM Wind	

Strong winds associated with Hurricane Jerry blew the windows out of two homes, the roof off a barn and the side wall off of a second barn in Zavalla. At Hanks Creek Marina (7 N of Zavalla) located along the eastern shores of Sam Rayburn Reservoir, strong winds damaged a walkway and four boats and blew the roof off of the marina. At Shirley Creek Marina (8 N of Zavalla), strong winds also blew the roof off the marina and produced additional structural damage to several boat stalls.

Hardeman County:								
12 S Quanah	29	1540CST	0	0	?	?	Hail (1.50)	
1 SW Chillicothe	29	1610CST	0	0	?	?	Hail (1.75)	

Walnut size hail damaged windshields of automobiles at Copper Breaks State Park (12 S Quanah).

Wilbarger County:								
1 W Vernon	29	1620CST	0	0	?	?	Hail (0.88)	
3 W Vernon	29	1625CST	0	0	?	?	Hail (0.88)	
Odell	29	1655CST	0	0	?	?	Hail (1.75)	
5 N Vernon	29	1843CST	0	0	?	?	Hail (1.00)	

Golfball size hail dented cars and damaged windshields of automobiles at Odell.

Foard County Crowell	29	1626CST	0	0	?	?	Hail (0.88)	

STORM DATA AND UNUSUAL WEATHER PHENOMENA

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

41 TEXAS, Southern

Southeast Texas	15-16				3	?	7	?	Hurricane Jerry

A tropical depression formed over the Bay of Campeche on the afternoon of Thursday, Oct.12. The depression moved northward and attained tropical storm strength (39 mph) and was named Jerry at 7 AM CST on Friday the 13th. The storm moved north-northwest and at 10 AM CST on Sunday the 15th when it was 110 miles south of Galveston it strengthened to hurricane force (74 mph). The storm continued to move northward and made landfall on the western end of Galveston Island at 630 PM CST on the 15th.

The highest recorded wind speed from the storm was a gust to 100 mph measured at Scholes Field (Galveston Airport) at 1834 CST. Highest sustained winds were 75 mph at 1836 CST at the same location. At the WSO, downtown Galveston, the peak gust was 85 mph at 1854 CST with the highest sustained wind of 46 mph.

Lowest pressure measured at landfall was 29.16 inches (987.6 mbs) at 1834 CST at Scholes Field.

There was considerable coastal tidal flooding from the storm surge and from high, unusual astronomical effects. Highest tide on the Gulf side was 6 feet above mean sea level measured at Flagship Pier in Galveston. Tides decreased rapidly up the coast to 2.3 feet above mean sea level at Sabine Pass. Higher tides were recorded in the inland bays where 8 feet was recorded in the upper end of Galveston Bay near the Houston ship channel. Tides were about 7 feet above normal at Texas City. Across the bay at Anahuac heights were 6 to 7 feet.

Heavy rainfall from the compact storm was in a small area to the right and just inland of where the storm made landfall (see page 9). The heaviest amount was just over 6 inches north of Beaumont in Hardin County. Flooding was almost non-existent and was limited to serious street flooding. The minimal rainfall from the storm can be attributed to the rapid movement of the storm and the entrainment of dry air that fed into the storm from the northwest.

There were six confirmed tornadoes spun off from the storm. Making a determination or differentation from straight-line wind damage to rotational or tornadic wind was difficult to do. The most serious wind damage was in a 50 block area on the west side of the city of Galveston and in Baytown. The tornadoes, all F0, and other storm effects are listed below by counties.

There were three deaths attributed to the storm. All three victims presumedly drowned when the vehicle in which they were riding was blown off the Galveston seawall and into the pounding surf. There were several injuries in the area also, most were cuts caused by flying glass. One man suffered a broken leg when a tree fell on him. M190, M260, F020.

Total dollar damage from the storm on the upper coast was estimated to be in the neighborhood of 15 million dollars.

Brazoria County	15-16				0	0	?	?	Coastal Flooding

High tides in the Surfside area did minor road damage.
The hurricane spared Brazoria County as no other damage was reported.

Chambers County	15-16				0	?	?	?	Coastal Flooding and Wind (?)
	15	2124CST	small	narrow	0	0	?	?	Tornado (F0)

Coastal flooding occurred in the Anahuac area where 6 to 7 feet of storm surge was experienced. On Bolivar Peninsula, Tx.Hwy.87 was closed due to high water from the Gulf. Wind damage was considered light. 4 to 5 inches of rain fell over the county, but no significant flooding occurred. A tornado was blamed for damage to a beach house near Anahuac.

Galveston County	15-16				3	?	7	?	Coastal Flooding and Wind (65)
	15	1855CST	small	narrow	0	?	?	?	Tornado (F0)
	15	2015CST	small	narrow	0	?	?	?	Tornado (F0)
	15	2020CST	small	narrow	0	?	?	?	Tornado (F0)

Damage from coastal flooding was considered to be light. An unusual high astronomical tide coincided with the time of Jerry's making landfall, which produced about a 6 foot storm surge on the Gulf coast. There was some beach erosion and some sand dunes were leveled. Beachfront roads were flooded and covered with debris, boards and glass, on the western end of the island.
For more discussion on the storm surge, see above.

Wind damage across the area was considered to be light. The bulk of the damage was to roofs. There was some structural damage to roofs but for the most part it was roofing material that was peeled off. Across the county, trees were downed along with numerous power lines and poles. Signs and traffic lights were bent out of shape. Lots of windows were blown out of homes, automobiles, motels, condos and hotels. Fallen trees, poles and and signs blocked roads. Hangar doors were blown off of hangars at Scholes Field. 3 or 4 vehicles were blown or washed off of the the seawall during the storm. 3 persons died in one of the vehicles. The majority of the wind damage on the island, including that by the tornadoes, occurred in a 50 block area behind the seawall. M190, M260, F20.

—— TEXAS, Southern

Inland, in the Texas City area, damage from the storm was light. There was no flooding as rainfall was light.
There were some trees in the area that fell on residences and carports. At least one brick wall at an apartment complex collapsed. There was some roof damage in the area. At Kemah, there was considerable damage to waterfront businesses such as restaurants, boat docks and bait stands. Damage in Kemah was estimated at 2 million dollars.

Some boats were reported capsized while moored at docks.

The first of three tornadoes occurred at 1855CST and hit on Galveston Island at 83rd Street and Airport Boulevard. It touched down and unroofed some buildings.

The second tornado touched down at 2015CST and did considerable damage. It hit in the western part of Galveston and destroyed a convenience store. Many businesses, homes, and apartment complexes received roof damage.

The third tornado touched down in the northwestern part of the county in League City at the intersection of Hwys.576 and 646. Numerous trees and a flag pole were toppled.

Harris County	15-16				0	?	?	?	Coastal Flooding and Wind (?)
	15	2105CST	small	narrow	0	?	?	?	Tornado (F0)

The upper end of Galveston Bay rose to a height of about 8 feet above normal. There was a considerable amount of coastal flooding. Low-lying businesses around the Bay suffered water damage. Also around Seabrook, the area known as the point, seafood markets were gutted out by winds and water.

High winds toppled four high steel towers that supported electrical lines that traversed the upper portion of the bay near the Houston Ship Channel. At the Baytown airport, high winds blew down hangar doors and damaged aircraft.
Wind damage over the county was light. Other damage to roofs, windows, and power lines and poles was reported. Some trees were blown down, some fell on homes.

A small tornado touched down in downtown Baytown at Main Street and Texas Avenue. The winds from the tornado shattered numerous windows at a hospital. Also at a nearby mall, skylights and store windows were blown out. Wind damage in Baytown was estimated at 2 million dollars.

Jefferson County	15-16				0	0	?	?	Coastal Flooding

Coastal flooding occurred along the Gulf side beaches along Tx. Hwy 87. The highway was closed from debris and damage from the high tides which were estimated at between 2 and 4 feet. There was only minor wind damage across the county.

Liberty County	15-16 nightime				0	?	?	?	Wind (?)

High winds from Jerry toppled numerous trees in the county. Some of the trees in Liberty and Cleveland fell on homes, carports, cars and mobile homes. In Cleveland there was roof damage to homes and to school buildings. At least 300 trees in the area were downed, with many falling onto power lines. Barns and outbuildings were blown over at scattered points throughout the county.

Orange County	15	Evening			0	0	?	?	Wind (?)

High winds from Hurricane Jerry damaged several businesses in downtown Orange. Some homes were damaged also, with the damage consisting mainly of blown out windows and blown off roofing material. At least one home and a business were moved off their foundations. One 40 foot box trailer was blown over.

San Jacinto County	16	Early Morning			0	0	?	?	Wind (?)

High winds from Jerry toppled many trees in the county. Some of the trees fell on homes, carports and mobile homes.

Polk County	16	0150CST	small	narrow	0	0	4	?	Tornado (F0)

A small tornado touched down 7 miles southeast of Livingston. The damage was 10 thousand dollars in value.

Tyler County	16	early			0	0	?	?	Wind (?)

High winds from Jerry toppled numerous trees in the county. Numerous trees and limbs fell on residences, carports and automobiles. Most of the roads were closed for a short time due to fallen trees and limbs. Lots of utility lines and poles were downed. Homes in and around Woodville were damaged by falling trees. Barns, outbuildings and sheds were demolished by the high winds. There was no flooding other than street and road flooding.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

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

—— TEXAS, Southern

Kinney County	27	2300CST			0	0	?	?	Tstm.Wind (50)
	High winds from a thunderstorm rolled over a mobile home and demolished it in Bracketville. Winds were estimated.								
Bexar County	30	0920CST			1	0	?	0	Tstm.Wind (40)
	It was reported by construction workers that high winds from a a thunderstorm caused a precast concrete panel to become unstable and fall. When the panel fell to the ground, it hit a construction worker on a front end loader and killed him. Winds in the area were estimated at between 40 and 50 mph.								

41 TEXAS, Western

Carson County									
Panhandle	5	Est. 1700 CST			0	0	5	5	Tstm.Wind
White Deer	5	Est. 1700 CST			0	0	3	0	Tstm.Wind (70)
	Thunderstorm winds of unknown speed moved an empty tractor trailer truck about 30 feet at Panhandle, according to the Sheriffs Office. At about the same time, thunderstorm wind measured at 80 mph (70 knots) by a Skywarn spotter was reported by an Amarillo television station to have inflicted roof damage at White Deer.								
	The windstorm at Panhandle also broke limbs from trees, peeled shingles from roofs and left a trail of microburst-type damage across an area 6 miles north of the city. At that location, large power poles were snapped, a windmill was heavily damaged, and a trailer load of irrigation piping was scattered. The powerful winds also roared across area crops, almost totally destroying milo that was nearing maturity.								
Gray County									
Pampa	5	Est. 1810 CST			0	0	?	?	Hail (1.75)
Lefors	5	1830 CST			0	0	?	?	Hail (1.75)
	A thunderstorm moved east-southeast through the county, bringing golfball size hail to Pampa at about 1810 CST, according to a local radio station. Twenty minutes later the Volunteer Fire Department reported hail the size of golf balls at Lefors. Damage, if any, was unreported.								
Wheeler County									
Shamrock	5	1900 CST			0	0	0	0	Tstm.Wind (52)
	The thunderstorm complex earlier affecting Gray and Carson counties moved through Shamrock and was accompanied by 60 mph (52 knot) winds, according to the Shamrock Police Department.								
Sutton County									
Sonora	30	0455 CST			0	0	5	0	Tstm.Wind (?)
	Brief thunderstorm winds, or possibly a small tornado, caused considerable damage in an area of Sonora a block wide and about a half mile long. The high winds were associated with thunderstorms along a fast-moving cold front. Damage included uprooted small trees, torn off roofs, knocked over signs and downed power lines.								

42 UTAH

UTZ010	28	0500MST			0	0	1	0	Heavy Snow
Northern Mountains	The ski resorts in Little Cottonwood Canyon reported receiving as much as 19 inches of snow in the 24 hour period ending at 5:00 a.m. MST on this date.								
UTZ010	29	0500MST			0	0	1	0	Heavy Snow
Northern Mountains	The ski resorts in Little Cottonwood Canyon reported receiving 17 inches of snow in the 24 hour period ending at 5:00 a.m. MST on this Sunday morning.								

43 VERMONT

Windham County									
Dummerston	20	late evening			0	0	7	?	Small Stream Flooding
West Brattleboro	20	late evening			0	0	5	0	Small Stream Flooding
Rutland County									
Mt. Holly	20	late evening			0	0	4	0	Small Stream Flooding
	Rainfall in excess of 4.1 inches occurred over southern Vermont over a three day period. Small streams flooded several roads and resulted in some precautionary evacuations. Flooding was reported along the Whetstone Brook, Freeman Creek and West River. Flood waters also washed out about 600 feet of railroad track, resulting in a train derailment.								

44 VIRGINIA

VAZ008-009-015-016	1-2	All Day			0	0	?	0	Heavy Rain
Southwestern Virginia	Rain which began 30 September continued heavy at times through 2 October and totaled 3 to 5 inches in some areas. Generally, minor flooding was reported. Also, a mud slide blocked part of Virginia Route 100 near Pearisburg in Giles County. Some rainfall totals included nearly 5 inches at Danville in Pittsylvania County, 3.9 inches at Stuart in Patrick County, and almost 3 inches at South Boston in Halifax County. Rainfall totals of 1 to 3 inches were common over much of Virginia.								
VAZ008	4	2200EST			0	0	?	0	River Flooding
Southwestern Piedmont	The Dan River, swelled by heavy rains of October 1 and 2, crested a few inches above 327 feet MSL at Riverdale in Halifax County. Generally, flooding was minor, but part of U.S. Route 501 and several businesses along the road were covered by several inches of water.								
VAZ013-014-015-016	17	All Day			0	0	?	0	Heavy Rain
Southwestern Virginia	Rainfall totaled over 2 inches at numerous locations in Southwestern Virginia and caused minor to moderate flooding. The heaviest rains occurred in Dickenson and Buchanan counties where 3 to 5 inches of rain were measured.								
Dickenson Co.	17	Morning			0	0	?	0	Flash Flooding
	Heavy rains during the morning caused flash flooding, especially along Crooked Branch, beginning at approximately 0900 EST then receding by 1500 EST. The waters flooded some homes and submerged several roads.								
Buchanan Co.	17	Morning			0	2	6	0	Flash Flooding
	Heavy rains during the morning caused flash flooding, especially in the northern half of Buchanan County. Numerous homes and businesses were heavily damaged or destroyed. Many small private bridges were swept away, and more than a hundred roads were flooded. The Hurley area was hardest hit, where approximately 30 families were left homeless. Total property damage in Buchanan County was assessed at 3.4 million dollars. Rainfall amounts averaged close to 3 inches, but reached as high as 5 inches in the Hurley area.								
VAZ007	18	Evening			0	0	4	0	High Winds
Southeastern Piedmont	Moderately strong winds downed several trees which were rooted in soaked ground. Six cars were damaged by falling trees at Farmville in Prince Edward County.								
VAZ015	21	Daytime			0	0	?	0	High Winds
Southern Highlands	Moderately strong winds downed numerous trees which were rooted in soaked ground, mostly in Grayson County. Some of the trees fell onto power lines, which resulted in scattered power outages. Officials noted that most of the downed trees were weakened by Tropical Storm Hugo which struck the area on 22 September.								

STORM DATA AND UNUSUAL WEATHER PHENOMENA

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

45 WASHINGTON

Spokane County	20	1915PST			0	0	4	0	Thunderstorm Wind
	Brief strong winds from a convective downburst tore the roof from a mobile home near the town of Waverly, 20 miles southeast of Spokane. As the roof was being torn off, it was lifted ten feet over an adjacent power line and blown 200 feet into a nearby field. The damaging winds developed abruptly, and returned to relative calm after a few minutes. Total damage was just over $5,000.								

46 WEST VIRGINIA — NONE REPORTED

47 WISCONSIN

Trempealeau Co., Whitehall	15	1830CST			0	0	4	?	Thunderstorm Wind (65)
La Crosse Co., 15 NE La Crosse	15	1855CST			0	0	?	?	Hail (1.75)
	Severe thunderstorms with winds gusting to 75 mph rolled over an unoccupied mobile home and several farm sheds, and uprooted trees near Whitehall. Another storm dumped hail up to golfball size 15 miles northeast of La Crosse.								
WIZ017 Extreme Southeast Wisconsin	19-20	Afternoon into Early Morning			0	0	?	0	Heavy Snow
	An early-season snowstorm dumped over 6 inches of snow over portions of extreme southeast Wisconsin. Milwaukee's Mitchell International Airport picked up 6.3 inches. Over 8,000 people were without power due to power lines being downed. Numerous snow-laden tree branches snapped and dozens of automobile accidents were reported.								

48 WYOMING

WYZ016-017 LARAMIE VALLEY, SOUTHEAST PLAINS	11	0900 TO 1600MST			0	0	0	0	HIGH WIND
	FROM THE MORNING THROUGH THE LATE AFTERNOON OF THE 11TH, STRONG WINDS BLEW ACROSS EXTREME SOUTHEAST WYOMING. VEDAUWOO, LOCATED ABOUT 30 MILES WEST OF CHEYENNE, HAD SUSTAINED WINDS OF 50 TO 60 MPH WITH A PEAK GUST TO 80 MPH. OVER THE SOUTHEAST PLAINS, NUMEROUS GUSTS BETWEEN 58 AND 70 MPH OCCURRED. THERE WAS EVEN A PEAK WIND SPEED OF 76 MPH REPORTED ABOUT 25 MILES NORTHEAST OF CHEYENNE.								
ALABANY COUNTY, LARAMIE	26	0620 TO 0712MST			0	0	0	0	THUNDER-STORM WITH SNOW
	ON THE EARLY MORNING OF THE 26TH, AN INTENSE THUNDERSTORM PRODUCING SNOW AND SNOW PELLETS MOVED THROUGH LARAMIE. SNOWFALL AMOUNTS WERE GENERALLY 1 TO 2 INCHES.								
WYZ016 LARAMIE VALLEY	26	1630 TO 1830MST			0	0	0	0	HIGH WIND
	DURING THE LATE AFTERNOON AND EARLY EVENING OF THE 26TH, HIGH WINDS WERE REPORTED AT VEDAUWOO, 30 MILES WEST OF CHEYENNE. SUSTAINED WINDS OF 40 TO 45 MPH WITH A PEAK GUST TO 63 MPH WERE LOGGED.								

WYOMING

WYZ001-002-003-004-005-006-009-010 NORTHERN WYOMING, WIND RIVER MOUNTAINS, WIND RIVER BASIN	28-29	0600MST- 0900MST			0	0	0	0	HEAVY SNOW
	FROM THE EARLY MORNING OF THE 28TH THROUGH MID MORNING OF THE 29TH, HEAVY SNOW FELL ON MOST SECTIONS OF NORTHERN AND CENTRAL WYOMING. THE LARGEST AMOUNT REPORTED WAS 22 INCHES AT BURGESS JUNCTION, LOCATED IN THE BIG HORN MOUNTAINS. OTHER 24-HOUR SNOWFALL TOTALS INCLUDED 15 INCHES AT STORY, 14 INCHES IN ALVA AND SHERIDAN, 13 INCHES AT RECLUSE, 12 INCHES AT BOTH THE EAST ENTRANCE OF YELLOWSTONE NATIONAL PARK AND MEETEETSE AND 11.5 INCHES AT LANDER. GENERALLY, MOST 24-HOUR SNOWFALL AMOUNTS WERE BETWEEN 10 AND 20 INCHES.								

49 ALASKA, Northern — NO REPORT RECEIVED

49 ALASKA, Southern

Aleutians and the Alaska Peninsula	2				-	-	-	-	High Winds
	A strong 968 MB low moved into the east-central Bering Sea, producing strong winds over the Aleutians and the Alaska Peninsula. Cold Bay reported winds to 58 mph. Cape Newenham just north of the Alaska Pen along the coast reported winds to 50 mph.								
North Gulf Coast	6				-	-	-	-	High Winds and High Seas
	A strong 968 MB low moved north to just south of the Kenai Peninsula, producing strong winds along the North Gulf Coast. Middleton Island recorded gusts to 67 mph, Cordova wind to 50 mph, and one ship in offshore reported winds to 90 mph. A flood warning was issued for the Seward area.								
Eastern Aleutians and the Pribilof Islands	9-10				-	-	4	-	High Winds and High Seas
	A strong 968 MB low moved east across the central Bering Sea, producing strong winds over the eastern Aleutians and the Pribilof Islands. Winds to 75 mph were reported by ship over the Eastern Aleutians, Dutch Harbor reported winds to 50 mph, and Saint Paul Island recorded winds to 66 mph. Minor damages occurred on Saint Paul Island.								
Kodiak Island and the North Gulf Coast	16-17				-	-	4	-	High Winds and High Seas
	A strong 964 MB low moved north into the northern Gulf of Alaska. It produced strong winds from Kodiak Island east along the North Gulf Coast. Middleton Island reported winds to nearly 75 mph. The Kodiak Island area recorded winds to 68 mph.								

49 ALASKA, Southeastern — NONE REPORTED

STORM DATA AND UNUSUAL WEATHER PHENOMENA

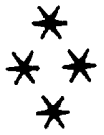
PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED† DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
50 HAWAII									
Oahu	03	daytime			0	0	5	0	Flash Flooding
	Heavy showers drenched Oahu, dropping as much as 8 to 12 inches of rain in 24 hours over the normally dry Ewa Plains and northeastward to the Wahiawa area. Some minor flooding of roadways and low-lying properties occurred. The sugar harvest was delayed due to muddy fields.								
Hawaii	07	evening			0	0	4	0	Flash Flooding
	Heavy showers in the Waimea and Kamuela area and over the Kohala and North Kona slopes caused heavy runoff and minor flooding problems.								
Maui	08	evening			0	0	4	0	Flash Flooding
	Heavy rains on Maui caused street flooding. The showers were heaviest along the south slopes of Haleakala.								
Oahu	10	morning			0	0	4	0	Flash Flooding
	Rainfall and its runoff was heavy along the Waianae coast of Oahu. Some highways were temporarily closed due to high water.								
51 PUERTO RICO — NONE REPORTED									
52 VIRGIN ISLANDS — NONE REPORTED									
53 PACIFIC — NONE REPORTED									

National Oceanic and Atmospheric Administration

NATIONAL CLIMATIC DATA CENTER

World's Largest Weather Records Archive

WHY DO YOU NEED WEATHER DATA?



- *Litigation*
- *Insurance Claims*
- *Environmental Studies*
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- *University Research*
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WHAT TYPE OF INFORMATION DO YOU NEED?

- *Station Records*
- *Monthly/Annual Summaries*
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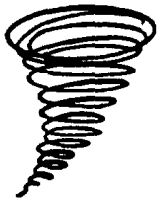
Call or write NCDC and explain your weather related problem. Our meteorologists will provide the best possible solution.



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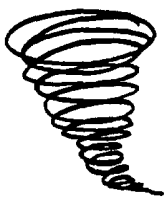


STORM SUMMARY

OCTOBER 1989

TYPE	ALABAMA	ARIZONA	ARKANSAS	CALIFORNIA	COLORADO	CONNECTICUT	DELAWARE	FLORIDA	GEORGIA	IDAHO	ILLINOIS	INDIANA	IOWA	KANSAS	KENTUCKY	LOUISIANA	MAINE	MARYLAND & DC	MASSACHUSETTS	MICHIGAN	MINNESOTA	MISSISSIPPI	MISSOURI	MONTANA	NEBRASKA	NEVADA	NEW HAMPSHIRE
			0														0	0			0		0				
TORNADOES																											
Number	2							1	7		1			3						3		1				1	
Days	1							1	1		1			1						2		1				1	
Deaths	0							0	2		0			0						0		0				0	
Injuries	0							1	14		0			0						0		0				0	
Property Damage	?							5	6		4			0						6		5				4	
Crop Damage	?							?	4		0			0						0		0				0	
HAIL																											
Deaths																				0							
Injuries																				0							
Property Damage																				2							
Crop Damage																				0							
THUNDERSTORM WINDS																											
Deaths		0				0		0	0			0	0			0				0							
Injuries		0				0		0	0			0	0			0				2							
Property Damage		?				4		4	4			3	4			?				6							
Crop Damage		0				0		0	?			?	3			?				0							
HIGH WINDS																											
Deaths		0		0																				0	0	0	0
Injuries		0		1																				0	0	0	0
Property Damage		4		0																				3	2	3	4
Crop Damage		0		0																				0	1	0	0
LIGHTNING																											
Deaths						0		1		0									0								
Injuries						2		1		0									0								
Property Damage						4		4		4									4								
Crop Damage						0		0		0									0								
FLASH FLOODS																											
Deaths	0	0						0	1			0			0												
Injuries	0	0						0	1			0			0												
Property Damage	?	6						6	6			?			7												
Crop Damage	?	4						?	?			?			4												
FLOODS																											
Deaths						0	0		0																		0
Injuries						0	0		0																		0
Property Damage						4	?		7																		3
Crop Damage						0	0		4																		0
HEAVY SNOWSTORMS AND BLIZZARDS @																											
Deaths				0	0					0	0	0								0				0			
Injuries				0	0					0	0	0								0				0			
Property Damage				?	4					3	?	?								3				5			
Crop Damage				0	0					0	0	?								0				0			
ICE STORMS #																											
Deaths																											
Injuries																											
Property Damage																											
Crop Damage																											
HURRICANES AND TROPICAL STORMS																											
Deaths																0											
Injuries																0											
Property Damage																4											
Crop Damage																0											
ALL OTHERS																											
Deaths				1		0	0				0								0								
Injuries				1		0	0				0								0								
Property Damage				0		4	?				?								5								
Crop Damage				0		0	0				?								0								

SEE REFERENCE NOTES FOR STORM DAMAGE CATEGORIES

STORM SUMMARY

OCTOBER 1989

TYPE	NEW JERSEY	NEW MEXICO	NEW YORK	NORTH CAROLINA	NORTH DAKOTA	OHIO	OKLAHOMA	OREGON	PENNSYLVANIA	RHODE ISLAND	SOUTH CAROLINA	SOUTH DAKOTA	TENNESSEE	TEXAS	UTAH	VERMONT	VIRGINIA	WASHINGTON	WEST VIRGINIA	WISCONSIN	WYOMING	ALASKA	HAWAII	PACIFIC	PUERTO RICO	VIRGIN ISLANDS	NATIONAL DEATH & INJURY TOTALS
		0			0							0							0		0	≠		0	0	0	
TORNADOES																											
Number			1			1	2				1			6													
Days			1			1	1				1			2													
Deaths			1			0	0				0			0													3
Injuries			3			0	0				0			?													18?
Property Damage			4			5	?				5			6													
Crop Damage			?			0	?				?			?													
HAIL																											
Deaths			0			0	0							0						0							
Injuries			0			0	0							0						0							
Property Damage			4			?	?							?						?							
Crop Damage			3			0	?							?						?							
THUNDERSTORM WINDS																											
Deaths			1			0	1				0			1				0		0							3
Injuries			1			0	0				2			0				0		0							5
Property Damage			6			4	?				4			5				4		4							
Crop Damage			6			0	?				0			5				0		?							
HIGH WINDS																											
Deaths								0						0			0										
Injuries								0						?			0										1?
Property Damage								?						6			?										
Crop Damage								0						?			0										
LIGHTNING																											
Deaths			0				0			0																	1
Injuries			1				0			0																	4
Property Damage			6				?			5																	
Crop Damage			3				?			0																	
FLASH FLOODS																											
Deaths				3							0						0						0				4
Injuries				0							0						2						0				3
Property Damage				?							5						?						5				
Crop Damage				0							?						0						0				
FLOODS																											
Deaths	0		0						0		0		3			0	0										3
Injuries	0		0						0		0		0			0	0										
Property Damage	?		4						3		?		4			7	?										
Crop Damage	?		3						?		?		0			?	0										
HEAVY SNOWSTORMS AND BLIZZARDS @																											
Deaths						0									0					0							
Injuries						0									0					0							
Property Damage						5									1					?							
Crop Damage						0									0					0							
ICE STORMS #																											
Deaths																											
Injuries																											
Property Damage																											
Crop Damage																											
HURRICANES AND TROPICAL STORMS																											
Deaths														3													3
Injuries														?													?
Property Damage														7													
Crop Damage														?													
ALL OTHERS																											
Deaths						0					0						0										1
Injuries						0					?						0										1?
Property Damage						5					0						?										
Crop Damage						0					?						0										

SEE REFERENCE NOTES FOR STORM DAMAGE CATEGORIES

STORM DATA AND UNUSUAL WEATHER PHENOMENA

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	

35 OREGON

August 1989

DELETE:
ONE TORNADO

at Bend in Deschutes County at 1200PST on the 22nd, appearing on page 42. The report was unconfirmed at the time of publication and should not have been included. The map on page 3 is correct as shown.

37 RHODE ISLAND

September 1989

DELETE:
ONE TSTM WIND

at Cranston in Providence County at 1530-1545EST on the 23rd, appearing on page 46.

ADD:
ONE TORNADO, FUNNEL CLOUDS and TSTM WIND

as follows:

Providence County Cranston	23	1530-1545EST	0.2	40	0	3	5	0	Tornado (F0), Funnel Clouds and TSTM Wind

A weak tornado touched down in a section of Cranston. Also, two funnel clouds were reported by an off-duty police officer. An accompanying downburst with gusts near 100 mph caused considerable damage to a neighborhood in Cranston. Up to 300 trees were destroyed and a small number of homes were damaged. Only three minor injuries were reported. Local radars detected that the thunderstorm tops were barely over 24,000 feet, and there were no indications of the storms' severity whatsoever. However, the tropical airmass left by the passage of Hurricane HUGO was extremely unstable.

9 GEORGIA

April 1989

EDITOR'S NOTICE:

The entire Georgia report appearing on pages 19 through 22 of the April 1989 issue was filed by the Georgia WFM directly with NCDC just prior to the printing phase of the publication. After verbal consultation and agreement among NCDC, University of Chicago and WFM, Georgia, the report was substituted for a previous report filed by the University of Chicago. As such, the report that appears in the issue had not undergone editing by the University of Chicago. Some descrepancies may exit between the substituted report and information, based on the original report, given in maps appearing on pages 3 and 6. Unfortunately, funding does not allow these descrepancies to be resolved by the resubmittal of new maps or a new, edited report. The reader is advised to exercise caution in the use of information from either the maps or the report.

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	

JUNE 1989

Page 26 - ARIZONA - Killed 1; Injured 0.

AZZ-all 13-30

Record or near record high temperatures were observed in many areas around the state. The heat wave began on the 13th and reached its peak on the 18th. In the southeast, Douglas broke the all-time record with 108 degrees. The maximum in Phoenix on the 18rh was 115 degrees. The 103 degrees in Winslow and the 116 degrees in Yuma tied the records. Tucson had record heat of 107 degrees on the 17th, 113 degrees on the 18th, 112 degrees on the 19th, 108 degrees on the 29th, and 112 degrees on the 30th. One death was attributed to the heat in the Tucson area. A vacationing steelworker from Ohio died of exposure in the Saguaro National Monument east of Tucson. M360.

Page 102 - ARIZONA - Number of deaths - All Others; should be 1 and not 2.

Page 103 - ARIZONA - National Deaths should be 2 and not 3.

JUNE 1989

Page 37 - ILLINOIS - Killed 0; Injured 3.- - Lightning

DuPage County Woodridge 06 0845CST

Lightning left a Chicago surburban family of three seriously injured when the lightning struck near their apartment. The three were apparently carrying open umbrellas when the lightning struck.

JUNE 1989

Page 103 - SOUTH CAROLINA - Number of lightning injuries should be 6 and not 5. Total lightning national injuries should be 70 and not 69.

JUNE 1989

Page 98 - WEST VIRGINIA - Roane County, Day 12, 1745EST - DELETE TSTM WIND and enter TORNADO (F1), DELETE THUNDERSTORM WINDS and enter HIGH WINDS.

SEPTEMBER 1989

Page 57 - RHODE ISLAND - Tornadoes blank; should be - Number - 1
Days - 1
Deaths - 0
Injuries - 3

National Injuries total is 8, should be 11.
Thunderstorm Winds entry should be blank.
National Injuries is 30? should be 27?.

STORM DAMAGE CATAGORIES

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

REFERENCE NOTES

0/Blank	None reported.
*	Miles instead of yards.
**	Yards instead of miles.
@	Includes heavy sleet storm.
#	Freezing drizzle and freezing rain, commonly known as glaze.
≠	Report incomplete.
##	Report not received.
o/c	Indicates Crop Damage amount is included in the value given for property damage.

When reports are not received or are incomplete, the Storm Summary National Death and Injury totals may also be incomplete.

Definition of Fujita Tornado Scale (F scale)

(F0) Gale tornado (40-72 mph): Light damage
Some damage to chimneys; break branches off trees; push over shallow-rooted trees; damage sign boards.

(F1) Moderate tornado (73-112 mph): Moderate damage
The lower limit (73 mph) is the beginning of hurricane wind speed; peel surface off roofs; mobile homes pushed off foundations or overturned; moving autos pushed off the roads.

(F2) Significant tornado (113-157 mph): Considerable damage
Roofs torn off frame houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light-object missiles generated.

(F3) Severe tornado (158-206 mph): Severe damage
Roofs and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted; heavy cars lifted off ground and thrown.

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

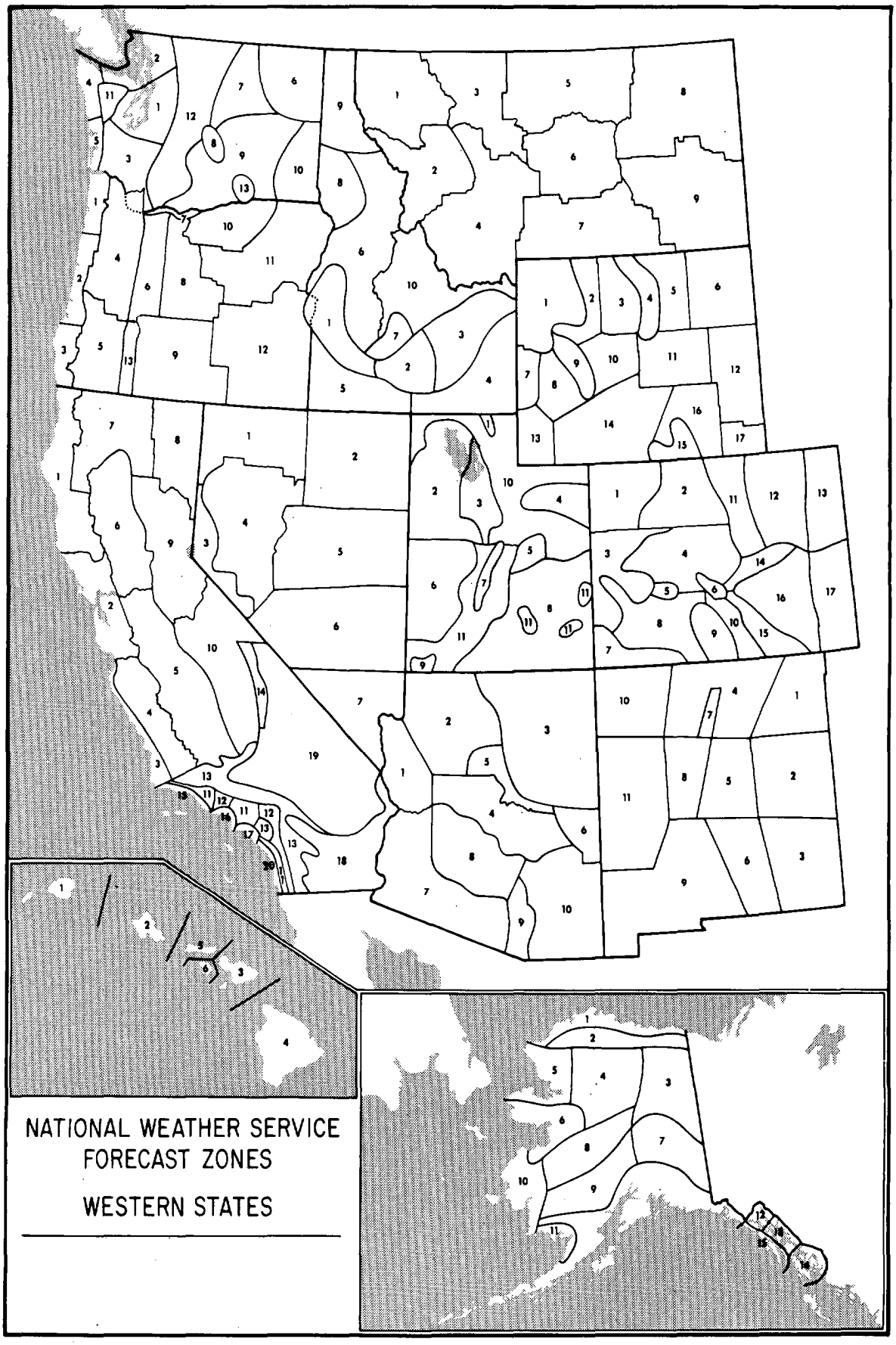
(F5) Incredible tornado (261-318 mph): Incredible damage
Strong frame houses lifted off foundations and carried considerable distance to disintegrate; automobile-sized missiles fly through the air in excess of 100 m; trees debarked; incredible phenomena will occur.

(F6-F12) (319 mph to Mach 1, the speed of sound): The maximum wind speeds of tornadoes are not expected to reach the F6 wind speeds.

(F0+F1) Weak Tornado
(F2+F3) Strong Tornado
(F4+F5) Violent Tornado

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

USCOMM-NOAA-ASHEVILLE, N.C. 1989-1800



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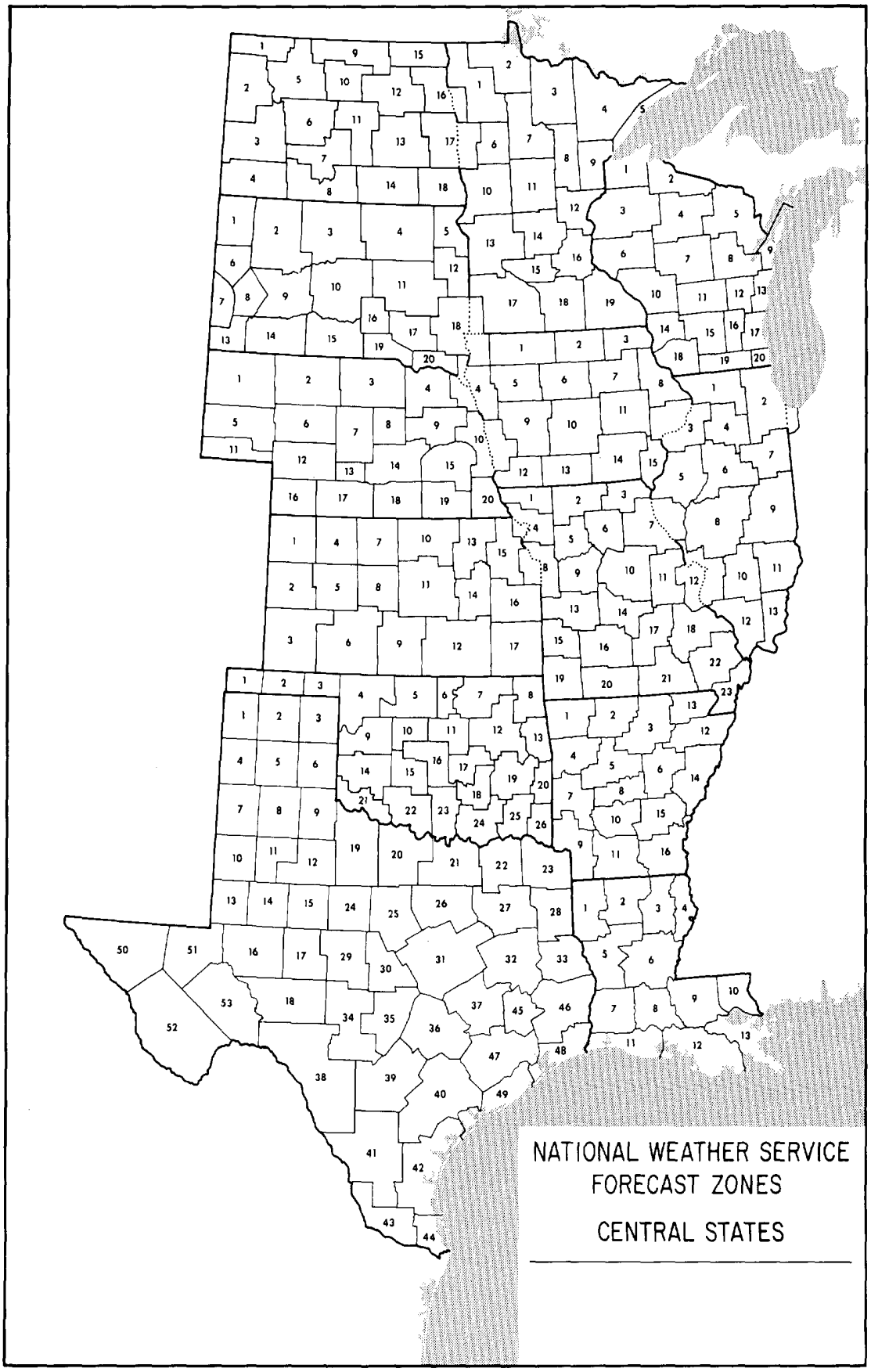
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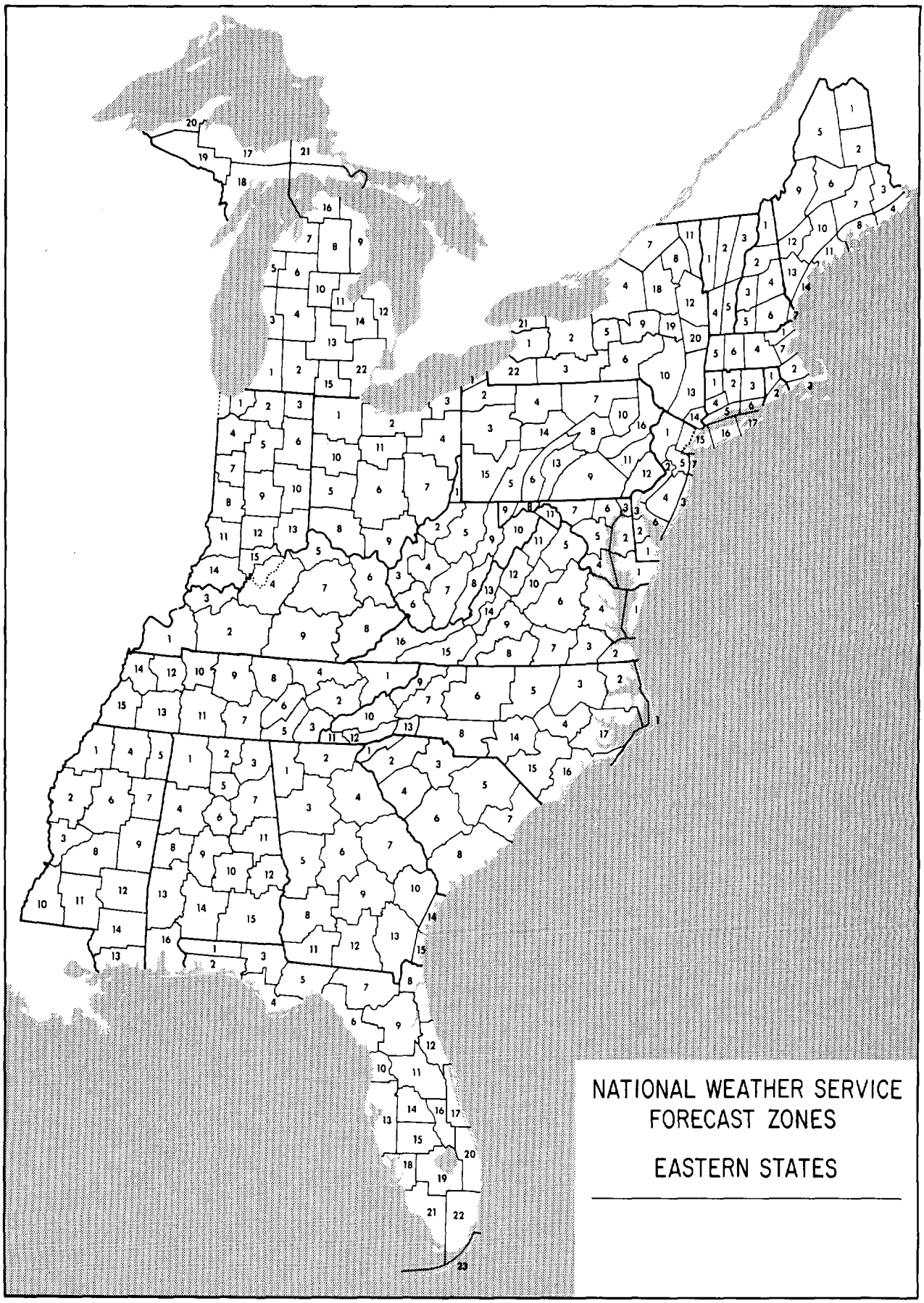
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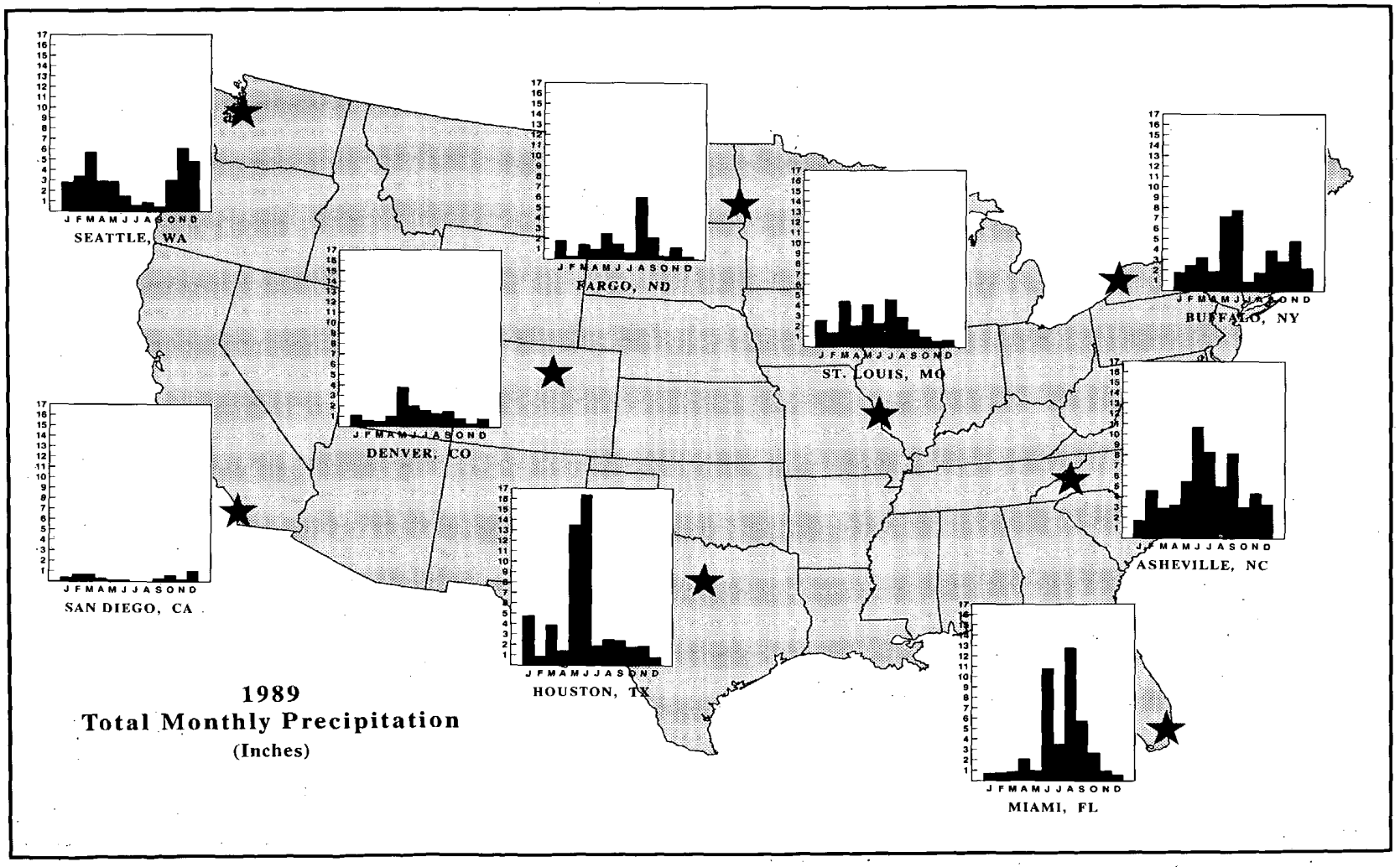
Comparative Climatic Data

For the United States Through 1989



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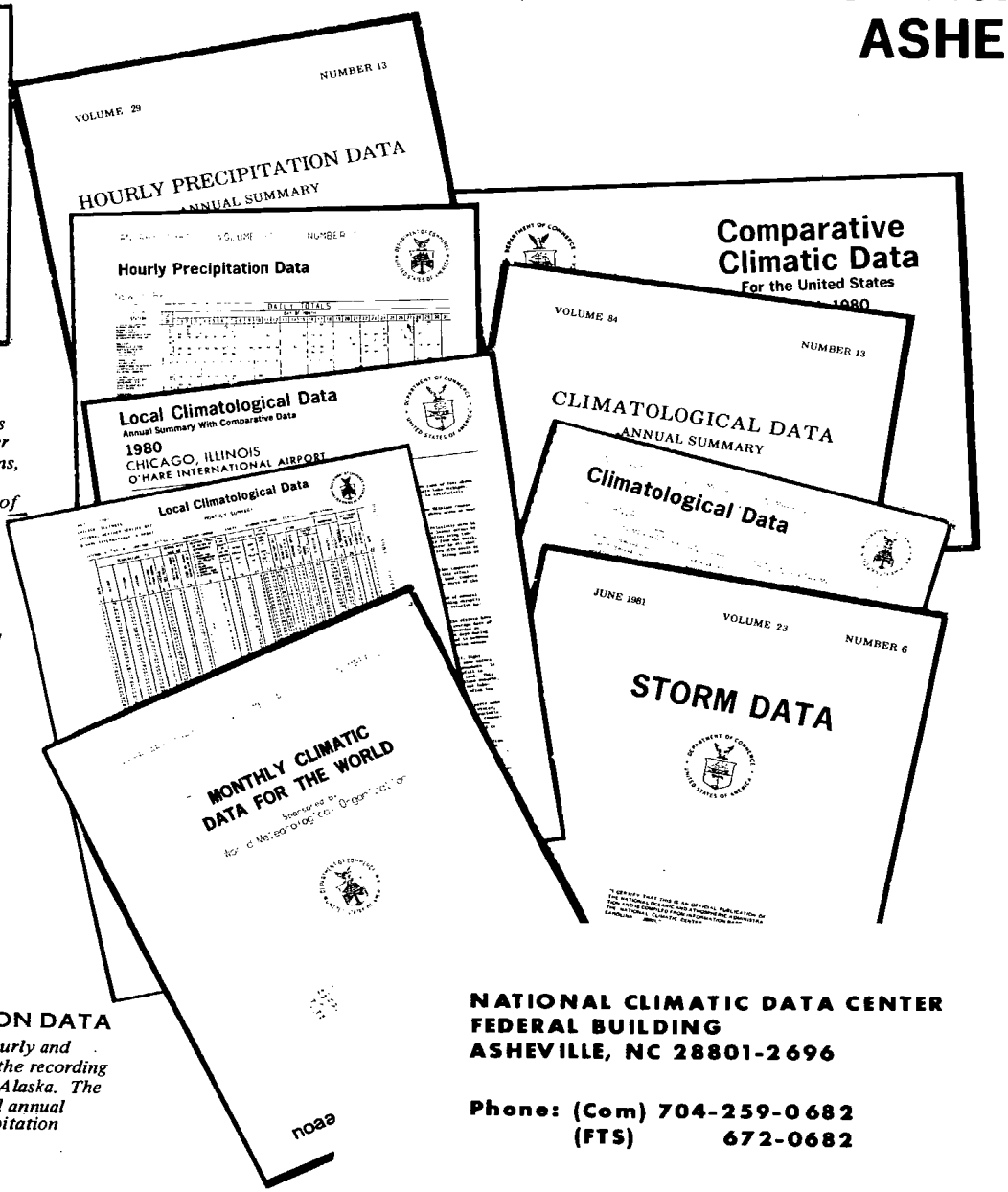

STORM DATA

Monthly issue presents a chronological listing, by states, of occurrences of storms and unusual weather phenomena, together with data on the paths of individual storms, deaths, injuries, and estimated property damage, and a brief narrative description of each event. A new section in the bulletin entitled "OUTSTANDING STORMS OF THE MONTH" highlights severe weather and includes descriptive photographs of storms, their tracks, and analyzed maps. The December issue includes annual summaries of tornadoes and lightning and North Atlantic tropical cyclones.

LOCAL CLIMATOLOGICAL DATA

Published monthly for each first-order station. Presents daily maximum and minimum temperatures, degree day data, precipitation, station pressures, wind statistics, sunshine and sky cover data, as well as 3-hourly data for certain parameters. An annual issue is available summarizing monthly data and including up to 40 years record, and featuring a narrative climatological summary and history of the station.

HOURLY PRECIPITATION DATA

Monthly issue presents daily, hourly and maximum short duration data for the recording gage stations for each state except Alaska. The annual issue tabulates monthly and annual totals, and annual maximum precipitation data by selected time categories.

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CLIMATOLOGICAL DATA

Published monthly for each state. Gives daily temperature and precipitation records, and monthly averages and totals, with departures from normal when available. Also derived statistics such as heating and cooling degree days, counts of days equaling or exceeding given temperature and precipitation thresholds, extremes, etc., are published for cooperative and first-order stations. Evaporation and soil temperature data are given for reporting stations. Seasonal snowfall, heating and cooling degree day tables included in selected tables. Annual summary also available.

COMPARATIVE CLIMATIC DATA

Presents tables of monthly and annual averages, totals or extreme climate conditions for approximately 300 major population centers. This publication is particularly helpful for comparing temperature, rainfall, snowfall, wind velocities, sunshine, cloudiness and relative humidities for the principal cities. The cities are listed alphabetically by state in two sections: observed data and climatological normals. This is an annual publication.

MONTHLY CLIMATIC DATA FOR THE WORLD

Contains monthly means of temperature, pressure, precipitation, vapor pressure and sunshine for about 2,500 surface data stations worldwide. Also contains monthly mean upper air temperatures, dew point depressions and wind velocities for ten standard levels.

FIRST CONFERENCE ANNOUNCEMENT

THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
Invites you to attend

OPERATIONAL SATELLITES:
SENTINELS FOR THE MONITORING OF CLIMATE AND GLOBAL CHANGE

OCTOBER 16-19, 1990
HOTEL WASHINGTON, WASHINGTON, D.C.

The changing nature of the Earth and its climate is a growing area of study that is being undertaken by scientists throughout the world. These changes may effect future human activities and habitability. Warming of the global climate, depletion of ozone, redistribution of snow and ice cover, trends in ocean temperatures, deforestation, and drought are but some of the subjects of immediate concern to the scientific and public communities. Certain changes are viewed as anthropogenic in origin while others may be the result of interrelated natural processes. Regardless of the process, the ability to monitor these changes is fundamental to all research and decision making. The National Oceanic and Atmospheric Administration (NOAA) is responsible for in situ and operational satellite observations and climate monitoring within the U.S. Global Change Research Program. This Conference will provide a forum for the exchange of information between the providers of these observations and the user community who are studying climate and global change.

THE CONFERENCE PROGRAM

This is a 3 1/2 day program of general sessions addressing Atmospheric, Land Surface, and Oceanic topics. Sessions on Calibration/Validation and Data Availability/Accessibility are also scheduled. Presentations on both domestic and international operational remote sensing systems, current and planned, are being organized. The Conference will be held at the Hotel Washington in the heart of the Washington, D.C. business district. The Conference registration begins on the morning of October 16th, and sessions will convene at 10:00 A.M.. The conference will conclude with a session, Friday morning, October 19th, that will detail the constellation of future satellite systems that are planned to meet the data requirements for the study of climate and global change. An evening reception is planned on October 16th. A registration fee will be charged. The preliminary program brochure, containing the technical program as well as Conference registration fees and hotel reservation information will be available early in the summer of 1990. Conference papers will be published as post-conference proceedings. For more information, please contact: Dr. Donald B. Miller, NOAA/NESDIS, Satellite Applications Laboratory, E/RA21, World Weather Building Rm. 601, Washington, D.C. 20233.

ANOTHER EVENT OF INTEREST

Washington, D.C. offers many business and vacation opportunities. Conference attendees may wish to extend their visit and participate in the co-sponsored NOAA/NASA/ERIM Conference, Earth Observations and Global Change Decision Making: A National Partnership; to be held the following week, October 23-24, 1990, in Washington, D.C.

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