

DECEMBER 1980

VOLUME 22

NUMBER 12

# STORM DATA



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

*Daniel B. Mitchell*

DIRECTOR  
NATIONAL CLIMATIC CENTER

**noaa**

NATIONAL OCEANIC AND  
ATMOSPHERIC ADMINISTRATION

ENVIRONMENTAL DATA AND  
INFORMATION SERVICE

NATIONAL CLIMATIC CENTER  
ASHEVILLE, N.C.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

DECEMBER 1980

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
<b>ALABAMA</b>	December was a generally cold and dry month over Alabama.								
<b>ALASKA</b>									
Aleutians	6-7				0	?	7	0	High Winds
	A very strong pressure gradient between a slow moving storm south of the eastern Aleutians and a large high pressure system in the northern Bering Sea brought sustained strong northeast winds over a two day period to the central Aleutians. Adak had winds over 80 mph doing over 40 million dollars damage to the town and military facilities.								
South Central	31	Morning			0	?	5	0	Freezing Rain
	Rain falling on very cold road surfaces chilled by weeks of sub-zero temperatures iced up roads throughout the Anchorage area. Travel was brought to a standstill as most roads were impassable and most major arteries into the city were closed by State Police. Most businesses either never opened or closed early. There were hundreds of minor traffic accidents but no major ones.								
<b>ARIZONA</b>	NONE REPORTED								
<b>ARKANSAS</b>									
Roe-Monroe County	8	8:20 p. CST			0	0	5	0	Lightning
	Lightning caused a fire which destroyed the Roe Community Center. Damage was estimated at 60 thousand dollars.								
<b>CALIFORNIA NORTHERN &amp; CENTRAL</b>									
Del Norte and Humboldt Counties	1-3				0	0	4	0	High winds/heavy rains
	More than 300 powerline breaks during the period with most significant outages in Del Norte County around 5 pm on the 1st, 4:40 am on the 2nd, and 3 pm on the 2nd.								
	Minor flooding reported in Eureka. Also, several, mostly minor mud and rock slides reported. Two people were injured when a motorist overturned her car trying to avoid one of the rockslides 9 miles north of Garberville on Highway 101.								
	Honeydew (in Humboldt County) reported 18.3" of rain during the storm; 12.8" fell during the 24 hour period ending 11 pm on the 2nd.								
Shasta County	1-3				0	0	0	0	High winds/heavy rains
	Crescent City on the northwest coast, reported a peak gust of 49 mph at 8:43am on the 2nd.								
	Frequent wind gusts to 60 mph were reported at the Redding Fire Weather Station on both the 2nd and the 3rd with an unofficial gust to around 70 mph near Redding. There were only minor power outages reported.								
	Whiskeytown National Park Headquarters reported 8.93" of rain on the 2nd and more than 12" as a storm total. Minor flooding occurred in Redding, where 6.22" of rainfall, and in nearby Cottonwood.								
Sierra Nevada and Trinity Mountains	1-3				0	0	0	0	Heavy snow
	First heavy snowfall of the season brought nearly four feet to Lassen Park Ski Area and around two feet to Nordey (Nevada County). There were unofficial reports of up to 14" of snow in the Trinity Mountains of eastern Del Norte County.								
<b>CALIFORNIA SOUTHERN</b>	NONE REPORTED								
<b>COLORADO</b>									
Eastern Foothills	4	morning			0	0	0	0	High winds
	Wind gusts to 80 mph were reported near Red Feather Lakes, northwest of Fort Collins. Buckhorn mountain, in the same area, recorded a peak gust of 60 mph. Well to the south at the Air Force Academy, near Colorado Springs, a 53 mph gust was noted.								
<b>COLORADO (continued)</b>									
Boulder	10	morning			0	0	0	0	High winds
	winds up to 60 mph whistled through the city.								
Northeastern Foothills	11	all day			0	0	0	0	High winds
	Gusts to around 60 mph were reported at Boulder and Buckhorn mountain.								
Boulder	16-17				0	0	0	0	High winds
	Chinook winds blew through the night. The peak gust recorded was 75 mph.								
Northeast Foothills	22	morning			0	0	0	0	High winds
	A gust of 74 mph was recorded at Buckhorn mountain at 520 am. Boulder noted a peak wind of 52 mph.								
Northeast Foothills	24-25				0	0	?	0	High winds
	Another chinook episode produced high winds along the foothills from the afternoon of the 24th through the morning of the 25th. An estimated gust of 100 mph was reported 10 miles northwest of Fort Collins and there were reports of property damage in the area; no details were available. Wondervu, southwest of Boulder, noted west winds sustained at 80 mph, with a peak gust of 90 mph. Other areas along the foothills reported speeds of 50 to 60 mph.								
<b>CONNECTICUT</b>	NO DATA RECEIVED								
<b>DELAWARE</b>	NONE REPORTED								
<b>FLORIDA</b>	NO DATA RECEIVED								
<b>GEORGIA</b>									
Chatham County	26-27	Entire night			0	0	5	?	Freezing Rain
	Light rain began to freeze on trees between 6 and 7 PM and continued for most of the night. Some tree limbs broke and fell on power lines, causing power outages for 6,000 customers for periods ranging from 1 to 3 hours.								
<b>HAWAII</b>	NO DATA RECEIVED								
<b>IDAHO</b>									
Coeur d'Alene River Basin, Shoshone County	26-27				0	0	6	0	Flooding
	Heavy rainfall on top of a snowpack produced high river flows that caused flooding. There was extensive damage to roads, houses, culverts and utilities.								
<b>ILLINOIS</b>	NONE REPORTED								
<b>INDIANA</b>									
Northeast Indiana	24	Morning	0	0	0	0	0	0	Snow
	Fort Wayne reported new snowfall of 3.2". Maximum amount on the ground was 3". Reports in area of responsibility: Bluffton - 3", Angola - 3", Hamilton - 4".								
Indiana	29	Morning	0	0	0	0	0	0	Snow, freezing rain, sleet
	During the early morning hours, freezing rain and sleet slipped into Indiana, Illinois and Kentucky to create slippery roads and a few bent fenders.								
	Fort Wayne reported new snowfall of 4". General accumulation in area north of U.S. 30 was 2-4".								
Northern Indiana	31	Morning	0	0	0	0	0	0	Snow
	Fort Wayne reported new snowfall of 2.2". Total snow depth reported in area: Angola - 6", Auburn - 4", South Bend - 2-3", Berne - 2".								

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

DECEMBER 1980

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS				ESTIMATED DAMAGE	CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS		
<b>IOWA</b>										
STATEWIDE	7-8	230P-1200P	--	--	0	0	4	0	Ice Storm	
An ice and sleet storm covered the state. Heavy rain, 1 1/2 to 3 inches were common, preceded below freezing temperatures in South Central and Southeast Sections. Many roads and sidewalks were glazed covered. Several autos and trucks skidded off roads into ditches and onto the median along the Interstates.										
Southeast Two-Thirds	23-24	1200P-800A	--	--	0	0	3	0	Ice Storm	
An ice storm preceded the arrival of 1/2 to 2 inches of snow which caused very slippery conditions. Automobile accidents occurred. Two of the accidents included fatalities due to head-on collisions.										
<b>KANSAS</b>										
Western, Central, and Northeast Sections	6-8				0	0	6		Ice Storm	
Freezing drizzle over west and northcentral Kansas on the 6th changed to freezing rain and moved east through the night of the 7th, ending in the northeast the morning of the 8th. Heavy glazing produced considerable damage to power lines and trees in portions of the west, central and the northeast with most serious in Edwards, Stafford, Pawnee, Reno, Rice, Russell, Saline, Dickinson, Marshall and Nemaha Counties.										
The heavier freezing rain fell during the day of the 7th in the southwest and northcentral, and that night in the northcentral and northeast. Ice accumulations of 1/2 to 1 inch were common in a band about 70 miles wide centered on a line from Dodge City to Ellsworth to Sabetha. Some accumulations up to 3/4 inch were also reported in parts of the northwest. Scattered power interruptions occurred in the northwest but the majority of the damage was incurred in the area from Dodge City to Sabetha. There, trees were splintered and utility poles snapped by the heavy load of ice. Nearly all of the northcentral and northern counties of the south-central and northeast experienced power outages. Some rural areas were still without electricity on the 10th.										
<b>KENTUCKY</b>										
									NONE REPORTED	
<b>LOUISIANA</b>										
									NONE REPORTED	
<b>MAINE</b>										
Statewide	3-4	Aftn-Eve			0	0	6	0	Windstorm	
High winds snapped utility poles in two, uprooted and snapped off thousands of trees—some up to 2 ft in diameter. In turn, they tore down more utility poles and lines, crashed onto houses and vehicles and blocked roads. Mobile homes were lifted off their foundations. Numerous antennas, chimneys and large road signs were flattened. Hardest hit was the Lovell-Stoneman-Waterford area in Oxford County. Stoneman was cut off from the outside world for 12 hours by huge trees acting as barricades across the roads. Wind gusts through this mountainous region were estimated between 65 and 100 mph where an estimated 8,000 acres of woodlands were leveled. At the Knox County Airport, Ows Head, winds gusted to 49 mph on the 4th, snapping the tie-downs on one light aircraft and smashing it into another light aircraft. Peak wind at the Portland Jetport was 50 mph and at the AMCS in Greenville, 51 mph. High wind warnings were in effect for the Western Mountains.										
<b>MARYLAND &amp; D.C.</b>										
North Central	2-3				0	0	4	0	Wind	
Winds gusted up to 70 mph as a strong cold frontal system moved across the area. Damage to power lines from fallen trees reported in Frederick County, as well as in the Baltimore City area and surrounding counties. Tree debris also blocked roads and caused damage to autos and other property. Transport of mobile homes and empty tractor trailers was banned for several hours from crossing the Francis Scott Key Bridge. Total damage estimated at \$30,000 - \$50,000.										
Cumberland & Lavale, Allegany County	14	Afternoon			0	0	3	0	Wind	
Scattered damage reported along with power interruption. Some business establishments reported window damage and a wall was toppled in Cumberland... some of the bricks damaging an adjacent home. Total damage estimated at around \$5,000.										
Statewide and District of Columbia	23	Morning			0	20	0	0	Glaze	
Light rain that moved into the area during the pre-dawn hours, froze almost immediately on surfaces. Rush hour traffic in metropolitan areas was all but immobilized, with some tie-ups miles long. Hundreds of traffic accidents resulted... some involving several vehicles. Hospitals treated much more than the usual number of injuries due to falls. One weather-related accident in Queen Annes County was responsible for two fatalities.										
<b>MASSACHUSETTS</b>										
									NO DATA RECEIVED	
<b>MICHIGAN</b>										
2 S Tmlay City, Lapeer county.	14	4.30AM			0	0	4		Store under construction destroyed.	Gusty Wind
<b>MINNESOTA</b>										
									NONE REPORTED	
<b>MISSISSIPPI</b>										
									NONE REPORTED	
<b>MISSOURI</b>										
									NONE REPORTED	
<b>MONTANA</b>										
									NONE REPORTED	
<b>NEBRASKA</b>										
Southeast Nebraska	7	Early Morning to Evening			6	7	5	0	Ice Storm	
Freezing rain fell southeast of a line from Alma through Decatur. Accumulated ice downed numerous utility lines and trees and was responsible for many accidents. Six persons died and many more were injured in auto and truck accidents related to the storm. Portions of the interstate were closed for a time around Omaha. Fallen trees damaged some autos and buildings. The storm was particularly bad in the areas around Fairbury, Beatrice, Tecumseh, Humboldt and Pawnee City. In these areas ice accumulated over one inch and thousands were left without electric and telephone service for up to 72 hours. At one time over seventy percent of Beatrice and Fairbury were without power.										
<b>NEVADA</b>										
Reno/Carson City area	2-3	02/04P 03/22P			0	0	5	0	Windstorm	
Damage to power lines, trees, vehicles, signs and roofs. A peak gust of 81 mph was registered at Cannon International Airport, Reno, at 03/0422P.										
<b>NEW HAMPSHIRE</b>										
Statewide	3-4	Early Aftn			0	0	6	0	Windstorm	
High winds snapped utility poles in two, uprooted and snapped off thousands of trees—some up to 3 1/2 feet in diameter. In turn, they tore down more utility poles and lines, crashed onto homes and vehicles and blocked many roads. Mobile homes were lifted off their foundations or rolled over. Numerous antennas, chimneys and large road signs were flattened. This type of damage was reported statewide with the North country hardest hit (Waterville Valley, Crafton County). Most of the Jackson-Brittlet area in Carroll County were without power for up to 24 hours with isolated spots to 46 hours. A Jackson resident recorded a gust to 96 mph with several other readings between 80 and 90 mph throughout the North country. Atop Mt. Washington (elevation 6,288 ft) the peak wind recorded was 175 mph and, also, the wind speed averaged 100 mph or more for 20 consecutive hours beginning at 8 pm on the 3rd. These were the strongest winds recorded by the summit since 1941. Other reports estimated gusts between 70 and 80 mph along exposed shores of Lake Winnepesaukee. In southern part of the state, Manchester had a peak gust of 58 mph. Town officials throughout the state said "Trees were falling like dominoes" and "It was a miracle no one was killed or injured." High wind warnings were in effect for the White Mountains Region.										
<b>NEW JERSEY</b>										
									SEE END OF TABLE	
<b>NEW MEXICO</b>										
									NONE REPORTED	
<b>NEW YORK</b>										
COASTAL									SEE END OF TABLE	

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

DECEMBER 1980

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
<b>NEW YORK CENTRAL</b>									
AREAWIDE	3	2A-4P			0	0	4	0	WIND
									35 TO 45 MPH WINDS GUSTING TO 60MPH AT TIMES, DOWNED MANY TREES AND POWERLINES CAUSING MANY POWER OUTAGES. TEMPERATURES IN THE TEENS WERE LOWERED TO WIND CHILL READINGS OF 20 TO 30 BELOW ZERO WITH TEMPERATURES THE PREVIOUS DAY NEAR 60. LAKE EFFECT SNOW ALSO CAUSED SLIPPERY ROADS AND MANY TRAFFIC ACCIDENTS.
AREAWIDE	25	1A-8P			0	0	4	0	COLD WAVE
									ARTIC AIR DESCENDED ON THE AREA, DROPPING TEMPERATURES TO 10 TO 25 DEGREES BELOW ZERO. OLD FAGE IN THE ADIRONDACS REPORTED A LOW OF 38 DEGREES BELOW ZERO. MANY RECORD LOW TEMPERATURES WERE BROKEN AND WINDS CREATED WIND CHILL TEMPERATURES FROM 50 TO 70 BELOW ZERO. MANY WATER PIPES FROZE IN HOMES AND BUSINESSES AND MANY PEOPLE HAD A GREAT DEAL OF TROUBLE STARTING THEIR AUTOMOBILES. WINDS GUSTED TO OVER 30 MPH AND NUMEROUS REPORTS WERE RECEIVED OF PROSBITE BY AREA HOSPITALS. SOME AREAS LOST POWER WHEN ELECTRIC LINES SNAPPED FROM THE COLD AND THE WIND. MANY TRAFFIC ACCIDENTS WERE ALSO REPORTED DUE TO SLICK ROADS AND BLOWING AND DRIFTING SNOW.
<b>NEW YORK WESTERN</b>									
Erie, Niagara, Orleans, Genesee, Wyoming, Monroe, Wayne, Chautauque, and Cattaraugus Counties	12/3	Morning			0	0	5	0	Wind
									Strong winds with gusts of more than 50 MPH accompanied by blowing snow raked Western New York. Tree limbs were torn off and strewn on many roads. Electrical and telephone lines were broken. Burglar alarms were tripped on. Many schools and offices were forced to close. Many windows and doors were blown away. There were many vehicular accidents due to icy roads and low visibility. Four persons died of heart attacks after shoveling snow.
<b>NORTH CAROLINA</b>									
Brunswick and New Hanover Counties.	28	AM					5		Winter Storm
									Severe erosion along beach fronts in New Hanover and Brunswick Counties. Seven houses were undermined with bulkheads destroyed. From 30 to 180 feet of three fishing piers were washed away. A 28 foot vessel was sunk while tied up in a marina. Dollar losses over \$200,000.
<b>NORTH DAKOTA</b>									
									NONE REPORTED
<b>OHIO</b>									
Northern Half	24	Afternoon & Evening					4	0	Heavy Snow/Wind
									Four to 10 inches of snow fell on the northern half of the state. The snow was accompanied by 30 to 40 mph winds which limited visibilities and drifted snow. Some minor wind damage was reported.
<b>OKLAHOMA</b>									
									NONE REPORTED
<b>OREGON</b>									
Western	1						5		Heavy rain in western Oregon caused flooding of many coastal areas as well as western valleys and Hood River County.
Western	23				1		5		(Same as above)
Hood River County	24						7		(Same as above)
	25								(Same as above)
<b>PACIFIC</b>									
									NONE REPORTED
<b>PENNSYLVANIA EASTERN</b>									
Eastern	2	6 PM EST			0	5	4	0	Wind
	3	to 4 PM EST							Strong wind gusts downed trees, limbs and utility poles. The winds also damaged or collapsed some small buildings, tore siding and roof covering off houses and overturned mobile homes. At least 7 mobile homes were overturned or moved by the wind. Seven people were in two of the overturned mobile homes and 4 received minor injuries. Porch roofs, signs and at least one store window were blown down by the wind. Falling trees damaged automobiles and houses. A falling tree limb struck and injured a man in North Coventry Township, Chester County. Although a few thunderstorms accompanied the cold front that passed between 6 and 8 PM on the 2nd, most of the damaging winds were gradient winds that followed the front in the colder air. Some of the higher gusts reported were Chambersburg 64 MPH, Lancaster 57 MPH, Allentown 55 MPH, Williamsport 51 MPH and Wilkes-Barre-Scranton 50 MPH.
Eastern	15	1 PM to 16			0	0	2	0	Snow
									Light snow falling for most of 24 hours accumulated from 2 to 4 inches and resulted in quite hazardous roadway conditions. Numerous automobile accidents resulted from the slippery conditions. Only around 1 inch accumulated in the extreme southeast corner of the state.
Eastern	24	11 AM to 11 PM EST			0	0	2	0	Snow
									Light snow that accumulated to 1 to 3 inches caused slippery roadways for Christmas Eve.
<b>PENNSYLVANIA WESTERN</b>									NONE REPORTED
<b>PUERTO RICO</b>									
Off Western Puerto Rico	6	18:00 a			0	0	0	0	Waterpout
<b>RHODE ISLAND</b>									
									NONE REPORTED
<b>SOUTH CAROLINA</b>									
Northwest and Central	23				0	0	3	0	Freezing Rain
									A period of freezing rain early morning of the 23rd brought icy roads to much of the northwest half of the state. Ice was reported on roads and/or trees from Chesterfield, York, and Lancaster Counties, southwestward to Richland County. There were numerous auto accidents in northwest South Carolina. At least two deaths were attributed to the slick roads--one in Anderson County, the other in Greenville County.
Eastern	26-28				0	0	3	0	Freezing Rain, Sleet, Snow
									A winter storm affected mainly the coastal sections. Freezing rain caused major power disruptions in the Beaufort-Hilton Head area. Up to 4 inches of snow or sleet occurred near Charleston with lesser amounts inland through central South Carolina. Numerous storm related accidents were reported in eastern South Carolina.
<b>SOUTH DAKOTA</b>									
									NONE REPORTED
<b>TENNESSEE</b>									
									NONE REPORTED
<b>TEXAS NORTHERN</b>									
Brownwood, Brown County	8	1:06 A	?	?	0	0	5	0	Windstorm
									A severe thunderstorm downburst of straight-line winds struck the Brownwood Village Shopping Center, causing \$150,000 damage. Heavy damage occurred to 4 of the center's 10 businesses with several buildings unroofed. Rain water caused further heavy damage inside the unroofed structures. Several automobiles were damaged in the parking lot. In the same neighborhood, several carpools were damaged and 52 flagpoles in honor of the Iranian hostages were toppled at a traffic circle.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

DECEMBER 1980

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED <sup>1</sup> DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
<b>TEXAS (continued)</b>									
NORTHERN Duncanville, Dallas County	8	Morning			0	0	?	?	Lightning
			Lightning struck and heavily damaged the chimney and roof of at least one home.						
TEXAS SOUTHERN			NONE REPORTED						
TEXAS WESTERN Tulia, Swisher County	7	2:00p			0	0	6	5	Hailstorm
			A cold front entered the Texas Panhandle early on the morning of the 7th and proceeded southeastward. Strong thunderstorms developed in advance of the front as it entered the central portion of the Panhandle near noon. One very strong storm formed near Hamitt, in Castro County, about 1 p.m. and moved eastward toward Tulia. As the storm entered the southwest portion of the city, about 2 p.m., it began producing marble-sized hail. The storm passed over the southern part of the city, continuing to produce hail driven by winds estimated at 40 mph. Some of the hail was reported to have been as large as golfballs. The hail ended shortly after the storm exited the southeastern part of the city. Most damage caused by the hail was to roofs in and around the city. This damage was described as the most devastating people could remember. Most houses and businesses suffered some roof damage. Damage was also reported to windows in homes and glass in automobiles and trucks. Little vegetation damage was noted. However, considerable damage was caused to cotton crops in fields adjacent to the city.						
Spur, Dickens County	7	5:59p	5	30	0	0	2	0	Tornado
			A strong thunderstorm, embedded in a line of thunderstorms, that accompanied the above cold front southeastward across the South Plains, produced a small funnel cloud as it approached the City of Spur just before 6 p.m. The funnel was sighted by several members of the public as well as Civil Defense spotters. It remained aloft for two or three minutes then developed downward into a small, thin tornado as it passed by a nursing home on the south side of the city. As it touched down, the tornado caused minor damage to the home, then skipped across the southeast edge of the city destroying several cotton trailers and storage barns. Sheet metal from damaged buildings was scattered over a wide area. The tornado also caused a power failure in some parts of the city as it knocked out power lines in the southeast portion. No hail and only a trace of rain accompanied the storm.						
UTAH			NONE REPORTED						
VERMONT			NONE REPORTED						
VIRGINIA Fairfax County	3	10:00 a			0	3	4	0	Wind
			Strong northwest winds followed a cold frontal passage, with gusts to over 50 mph. At a construction site in Fairfax City winds toppled a brick and cinderblock wall, injuring three workmen. Some window breakage, along with tree and power line damage was also reported in the County.						
Statewide	23	Morning			0	28	0	0	Glaze
			A weak low center moved northeastward along the coast. Light rain, that developed during the pre-dawn hours, froze on surfaces very rapidly, resulting in chaos for auto traffic as well as to pedestrians. Hundreds of accidents occurred, many involving several vehicles, causing monumental tie-ups during the rush hour. An unusual amount of injuries due to falls were treated at hospitals, while highway accidents took four lives.						
Chesapeake Bay	25	Morning			0	0	5	0	Wind
			Gusty northwest winds tore a coal ship loose from anchor off Cape Charles. The ship sustained damage to one engine and to its rudders as it drifted rapidly and became tangled with two other vessels. The other two craft were less seriously damaged.						
Southern	27- 28				0	0	0	0	Freezing Rain, Snow, Sleet
			Hazardous road conditions developed late on the 27th to early of the 28th, resulting in a rash of accidents. Two fatalities occurred in separate incidents.						
<b>VIRGIN ISLANDS</b>									
15 mi. SW St. Thomas	1	1:00 p			0	0	0	0	Waterspout
<b>WASHINGTON</b>									
Chelan, Cowlitz, Kittitas, Lewis, Skagit, Snohomish Counties	24-26				0	0	7	C	Heavy Rain
			Heavy rains in the six county area caused flooding along major rivers over the period from the 24th through the 26th. Mud slides, road and bridge washouts, and soil erosion occurred in most of the affected counties. Homes were also washed away in the towns of Index and Sultan in Snohomish County. The main rivers causing damage were the Skagit, Skykomish, Snohomish, Wenatchee, and Yakima Rivers. During the three day period, Snoqualmie Pass received 9.7 inches of rain, while Stampede Pass had 6.5 inches.						
<b>WEST VIRGINIA</b>									
			NONE REPORTED						
<b>WISCONSIN</b>									
			NONE REPORTED						
<b>WYOMING</b>									
Campbell, Crook Sheridan, Johnson Counties	2				0	0	0	0	
			A winter storm moved southeast across northeast Wyoming dropping a foot of snow. Winds gusting to 25 mph caused visibilities to occasionally drop to 1/4 mile. No property damage or injuries were reported.						
<b>NEW JERSEY</b>									
(Coastal)	25				0	0	?	?	Arctic air, Record breaking cold temperatures
			A high pressure system with extremely cold "Canadian Arctic Air" brought record-breaking cold temperatures and making that the coldest Christmas in the history of weather record-keeping in the state.						
<b>NEW YORK</b>									
COASTAL Extreme Southeast, Nassau, Suffolk Co., Metropolitan Area	23 24				0	0	?	?	Mixing Snow, Ice and Rain
			Winter weighed in on the 23rd with an unheralded storm bearing ice, freezing rain and snow.						

# 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	

THE FOLLOWING ARE LATE REPORTS, CORRECTIONS, AND DELETIONS:

### LATE REPORTS ALABAMA

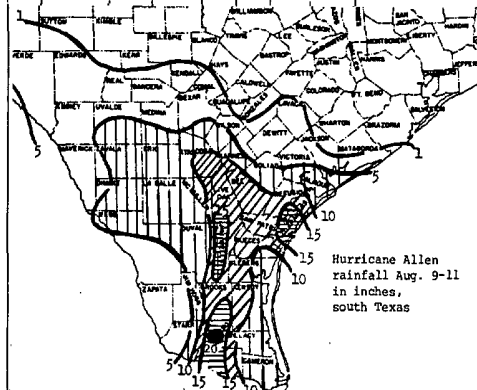
PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED	INJURED	PROPERTY	CROPS	CHARACTER OF STORM
Mobile area, Mobile County	17	Early Morning					6		Flash Flooding/Wind
<p>More than 6 inches of rain in the 12 hour period from 11pm Friday to 11am Saturday caused extensive flooding in low areas. The flooding was most severe in the area along 3 Mile Creek; a dam gave way at Langan Park. Some homes were flooded and bridges washed out. The rushing flood waters also broke a 16 inch water main where it crossed the creek. The flood also caused disruptions to telephone and electric services in the area. Winds to 52 mph at Bares Field accompanied the rain. The winds blew the front of a night club into its parking lot on Highway 904. In the Saraland area, residents near Bayou Sara and Norton Creek were trapped in their homes but no injuries were reported.</p>									
Calvert, Mobile County	17	6a			0	3	4	0	Wind
<p>Strong winds destroyed a house trailer east of Highway 43 in Calvert. Three occupants of the trailer were injured. They were treated and released at a hospital.</p>									
Gulf Shores-Elberta, Baldwin County	17	7:45a	10	40	0	0	4	0	Tornado
<p>Tornado touched down a few miles southeast of Elberta near Baldwin County Road 95 after snapping off tree tops in the Gulf Shores area. A house trailer was damaged and a stable destroyed. However, 5 horses in the stable were unharmed.</p>									

### TEXAS SOUTHERN

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED	INJURED	PROPERTY	CROPS	CHARACTER OF STORM
Orange Co.	5	6:00 am			0	0	4	0	Lightning
<p>Frequent lightning strikes over Bridge City caused much damage to electrical power lines and transformers. One bolt struck a flood-light sending a charge into the nearby house and starting a fire.</p>									
Brazos Co.	5	3:30 pm			0	0	7	7	Lightning
<p>An afternoon thunderstorm sparked many brush fires when lightning hit tinder dry vegetation. Fires were scattered from Bryan to northeastern Brazos County. High wind gusts around the storm caused no direct damage but did help to spread the lightning-generated fires.</p>									
Williamson Co.	6	3:30 pm			0	1	5	0	Wind
<p>Clear skies were suddenly replaced by an explosively developing thunderstorm about 3 pm east over the area. Soon after the onset of brief heavy rain, there were extreme wind blasts in and around the rain area. Three large houses under construction in Round Rock were damaged by the winds due to collapse of framing. A construction worker inside one house suffered minor injuries. Occupied houses in the same area received minor roof damages. Other wind damages were reported on farms outside Round Rock and at a restaurant on Highway 195 and Interstate 35.</p>									
South Texas	9-11				3	7	9	8	Hurricane Allen
<p>Total losses due to Hurricane Allen's effects (public and private, property and crops, insured and uninsured) were in the range \$650 to 750 million. Other significant expenditures which are not accounted for also occurred due to the relocation and housing efforts for 250,000 coastal and near-coastal residents who evacuated inland.</p> <p>For a detailed meteorological account of Hurricane Allen, consult the April 1981 issue of <u>Monthly Weather Review</u> containing an article by the National Hurricane Center.</p> <p>Hurricane Allen's most destructive characteristic was its tidal flooding. Although it had a storm surge height equivalent to Hurricane Beulah's which hit the same area in 1967, Allen's destructive tidal action surpassed Beulah's due to the larger expanse of coastline affected and due to the extreme coastal erosion caused by high seas and wave action. Allen's eye crossed the coast during a period of very low astronomical tides thus mitigating some of the storm surge intensity. Even so, all sections of the Texas coast experienced bad to severe erosion including the points farthest from Allen's landfall.</p>									

### LATE REPORTS TEXAS (continued)

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED	INJURED	PROPERTY	CROPS	CHARACTER OF STORM
SOUTHERN									
<p>The brunt of Allen's wind and tidal action was directed at Padre Island, which was slipped by over 60 washover channels and wiped clean of the first line of sand dunes; also at northeastern Willacy County where the town of Port Mansfield was devastated; and at the coastal zone of Kenney County where insignificant damage occurred due to the uninhabited and undeveloped nature of the King Ranch grazing lands there. Farther north tidal flooding devastated low areas around bays on the central Texas coast. The unprotected North Beach area of Corpus Christi (home to about 1000 persons who lived in the neighborhood's old hotels, apartments, houses, and mobile home courts) was virtually destroyed. All but a very few of those 1000 residents were evacuated in advance of Allen's arrival. Among the few who elected to remain, two were saved from the surging bay waters by heroic action of Corpus Christi policemen during the height of the storm in darkness; three survived in the upper floor of an apartment building which did not collapse; one woman survived atop her refrigerator where she could reach a small air space next to the ceiling of her flooded apartment; one man was able to swim to safety; the other two persons who remained on North Beach drowned in the tides. A third coastal drowning occurred on the upper coast when a fisherman was swept away by surf. See county-by-county reports, below for details on tidal flooding impacts in Texas.</p> <p>There were 29 documented tornadoes which developed on the periphery of Allen's circulation. Although this number is below the record tornado outbreak associated with Hurricane Beulah, Allen's tornadoes were particularly significant due to their strength, longevity, tracks through populated areas, and due to their physical and psychological influences on many coastal evacuees who thought inland areas were safe from hurricane effects. On the afternoon of August 10 the most dangerous of Hurricane Allen's tornadoes formed on the outer edge of the hurricane spiral band area some 150 to 200 miles to the right of the low pressure center. These tornadoes hit areas from east of San Antonio to San Marcos to Austin.</p> <p>Tornado incidents are listed separately in chronological order in this report. Tornado caused casualties and property damages are not included in the above columnar entries for overall hurricane statistics but are entered separately also in the below tornado reports.</p> <p>For much of south Texas Allen's rains were a beneficial release from the severe heat wave and drought conditions which had gripped the area. On the afternoon of August 10 with Allden's center well inland and moving westward, a well defined rain band intensified 50 to 100 miles inland and paralleling the coastline. Torrential rains then fell on soils nearly saturated from Allen's initial rain shield, and severe flooding resulted. This rain band at peak intensity straddled US Highway 261 from Pleasanton (south of San Antonio) southward for 300 miles all the way to McAllen on the Mexican border. Points along this route received 15 to 20 inches of rain, most falling during the afternoon and night of the 10th. Specific rainfall flooding effects are detailed in the county-by-county listings. The rainfall pattern is indicated in the map below.</p>									



Wind, rain, tidal flooding, and other hurricane related impacts are detailed on a county-by-county basis in alphabetical order below. Damage and casualty figures have already been tallied into the overall Hurricane Allen statistics listed at the beginning of the Hurricane Allen entry of this report.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED <sup>1</sup> DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
<b>LATE REPORTS TEXAS (continued)</b>									
<b>SOUTHERN ARKANSAS Co.</b>									
	9-10				0	0	0	0	Tidal Flooding
	9-10				0	0	0	0	Wind
	10				0	0	0	0	Rain Flooding
	<p>Tidal Flooding-Extensive flooding on both the gulf side and along all bay shores, as well as wave action, caused extreme erosion. On uninhabited St. Joseph Island dunes were largely washed away. At Rockport at least 13 boats sank in the harbor; all roads including Highway 35 into Rockport were impassable due to tidal flooding. Homes and businesses on the south side of Rockport as well as some downtown areas were damaged by tides and possibly also from heavy rains. Some homes in Key Allegro were touched by tides. Tides were 7 to 8 feet above sea level in the bays. Along Copano Bay tides damaged shoreline structures including buildings, piers, and homes at Holiday Beach, Lamar, and Copano Ridge. Copano Ridge areas had 5 feet of water near Copano Parkway Drive. Along Arkansas Bay the Fulton Beach area flooded in places with damages. In Milton Harbor 20 yachts and shrimp boats sank.</p> <p>Wind-Rockport winds peaked at 56 mph with gusts to 102 mph. Damages were mainly superficial loss to windows and roofs, but structures fared generally well against the wind force.</p> <p>Heavy Rain and Flooding-Although rainfall was 8 to 15 inches over the county, the effects of rain included flooding were masked by the tidal flooding. Rainfall from midnight to 3 am on the 10th set off minor flooding while other downpours from noon through evening of the 10th caused more severe flooding of low areas. At Rockport the rainfall drained into areas already flooded by tides. Highways and county roads away from the immediate coast were impassable due to buildup of rainwater on the afternoon of the 10th.</p>								
	10	3:30 pm			0	0	?	?	Rain Flooding
	<p>Allen's heaviest rain band extended across the county and dropped torrential rains during the afternoon and evening of August 10th. Rainfall ranged from only 4 inches in the north to over 10 inches over the south part of the county. South of Pleasanton the Atascosa River and all small creeks rose out of banks flooding farm and rural areas. Renewed bursts of rain after dark on the 10th added to the flooding of creeks in south Atascosa County. Property losses were believed confined to roads, bridges, fences, and some farm equipment.</p>								
	10	evening			0	0	5	6	Rain Flooding
	<p>Rainfall totals for Aug 9-11 ranged from 8 inches at Papatote to 13.3 inches at Beville with most rain falling the evening of the 10th. Widespread flooding of low areas, all creeks, and the flood plain of the Arkansas River occurred. Farm lands suffered crop losses due to the inundation, but no great property losses were reported although some residences around Beville did receive water damage. Many roads were blocked including parts of Interstate 37, US 181, US 59, and Texas 204.</p>								
	10-11				0	0	?	?	Rain Flooding
	<p>Late evening of the 10th through predawn hours of the 11th southern parts of Bexar County received downpours totalling 4 to 6 inches. Dry parched soil soaked up much of the rain, but the suddenness of the rain did allow enough runoff to put small creeks on a rapid rise out of banks. Rural areas were affected by the flash flooding and some county roads were closed. Metropolitan San Antonio areas to the north did not receive as much rain.</p>								
	9-10				0	0	6	0	Tidal Flooding
	<p>Low lying areas along the coast and along the Brazos River inland to Freeport flood control gates were inundated by high tides and surf action. In general, all areas of the county south of the Intracoastal Waterway were covered by tidal flooding including the town of Surfside. At Surfside tides peaked at 4.9 feet above mean sea level while Freeport tides in the river rose to 6.2 feet above sea level. Tides peaked between noon and 4 pm on the 9th. At Surfside 3 businesses were destroyed by tides and surf. One building was demolished by being hit with large driftwood logs. Extensive damage was suffered by about 50 homes, mainly to substructures of elevated homes and to ground level houses. Septic tanks were uncovered by erosion and all beach dunes were removed. Beach Drive and County Road 257 were severely damaged by tides. Part of the seawall along 2nd to 11th street in Surfside was undermined and collapsed. Dozens of automobiles were ruined by the saltwater inundation.</p> <p>Several weeks afterward a severe infestation of saltwater mosquitos invaded the area. Hurricane Allen's tides were blamed for flooding areas not touched by salt water since Hurricane Carla 19 years earlier. Entomologists stated that Allen's tides activated dormant mosquito eggs deposited after Hurricane Carla. Mosquito hoards were so bad that cattle deaths from mosquito bites were documented around the county.</p>								
	10	Early morning			0	0	6	?	Wind
	10-11				0	0	5	?	Rain Flooding
	<p>The weakening eye of Hurricane Allen moved westward through Brooks Co. ground down on the 10th with wind gusts estimated about 100 mph. The eye passed very near the town of Rachel. Power line and telephone cables were extensively damaged over the county. In Falfurrias two downtown buildings were deroofed. Falfurrias</p>								
<b>LATE REPORTS TEXAS (continued)</b>									
<b>SOUTHERN</b>									
	9-10				0	0	5	0	Tidal Flooding
	<p>Elementary School received extensive roof and window damages while the High School suffered a partially collapsed auditorium brick wall. In Rachel and over rural areas private dwellings and barns suffered extensive roof, window, and superficial damages.</p> <p>Heavy Rain and Flooding-Downpours set in during the afternoon of August 10 as Allen's center moved west of the county. Measured rainfall at Falfurrias was 12.5 inches during the storm but most of that fell afternoon and nighttime of the 10th. Widespread flooding started by evening of the 10th on all creeks including Los Olmos Creek. At first the rains were completely accommodated by the severely parched dry soils of the area. Sudden runoff filled drainage basins as spills saturated during the August 10 downpours. US Highway 281, major route through the area, was impassable evening of the 10th through the 11th. Water damages were reported to rural properties near creeks.</p>								
	9-10				0	0	5	0	Tidal Flooding
	<p>Early on the 9th tides were flooding immediate coastal sections, and Farm Market Road 116 was covered by tides from Matagorda Bay at Indianola and Powderhorn Lake. By the night of the 9th through early on the 10th tides peaked at 4.9 feet above sea level in upper San Antonio Bay; flooding low areas near Seadrift. Tides in Matagorda Bay peaked between 5.5 and 6.5 feet above sea level. Portions of Texas Highway 185 were flooded blocking off travel out of Port Oconor. Substantial flooding caused some property damages from Magnolia Beach around Chocolate Bayou to Port Lavaca. Undeveloped Matagorda Island suffered severe erosion of protective sand dunes on the Gulf side beaches.</p>								
	9-10				0	0	8	0	Tidal Flooding
	9-10				0	0	7	7	Rain Flooding
	10-11				0	0	7	7	Wind
	<p>Tidal Flooding: By far the greatest damages in Cameron County were caused by tidal flooding and surf action. Over \$50 million damages were caused by tidal action around southern Laguna Madre. The water levels in Laguna Madre were actually higher than tides on the Gulf of Mexico side of Padre Island. Peak tides were about 8.5 feet above sea level on the Laguna side of Padre Island and were 7.5 to 8.5 feet on the mainland shores of Laguna Madre. The city of South Padre Island estimated \$30 million in damages from tides. Extensive damage occurred to first floor levels of new hotels and condominiums while surf action reportedly undermined foundations of some buildings. In some cases as much as 5 feet of sand was removed from underneath buildings near the shore. Park Road 100 was totally washed away and facilities at Andy Bowie Park mostly destroyed by surf action. Fishing market buildings on the South Padre Island Laguna side were pushed several blocks inland from the shore. Several seawall structures designed to protect private condominiums were themselves destroyed by tides. 25 percent of the island's streets were damaged and all were sand covered. On the mainland Port Isabel losses due to tides were estimated at \$25 million. In the city worst hit areas were The Fingers, Derry Subdivision, and North Shore Drive where 60 to 90 homes suffered severe flood damages. Some homes experienced collapsed walls due to force of the moving tides. Chunks of land collapsed into Laguna Madre due to surf action taking at least one Port Isabel motel into the water. Highway 100 was eroded and silted over with sand deposits through Port Isabel. Many expensive pleasure boats and some shrimp trawlers sank in Port Isabel harbor. One indirect hurricane death occurred when a Port Isabel man died of heart attack when trying to clear his flood damaged home. County and Municipal losses due to tides were perhaps \$10 million. Hundreds of cars were flooded and many of those ruined by effects of salt water. Other vulnerable areas where tides reportedly caused some damages were Kopernik Shores, Boca Chica, Laguna Vista, and Laguna Heights. Protective sand dunes on Padre Island were severely eroded and those dunes up to 10 and 12 feet high were entirely removed.</p> <p>Heavy Rain and Flooding: 6 to 10 inches of rain covered the county causing some building and ponding of water in poorly drained areas. Unharvested cotton was the greatest loss due to rain, estimated at \$14 million. Much farm equipment and hay also were lost due to flooding. Heaviest rains from Allen occurred farther inland from Cameron County. Brownsville and Harlingen escaped significant property damages due to flooding.</p> <p>Wind: Hurricane Allen's eye moved over South Padre Island at 11 pm CST on the 9th, progressed northward through the Laguna Madre, passed the Laguna Atascosa Wildlife Refuge, and then moved northwest and inland in Willacy County. This exposed the town of South Padre Island and areas adjacent to the Laguna Madre to Allen's hurricane force winds while most of inland Cameron County was subjected to considerably weaker winds over the southwest side of the hurricane. Over Brownsville, Harlingen, San Benito, and other inland areas superficial wind damages occurred to roofs, windows, signs, and trees. Greenhouses in the area were heavily damaged by winds. In the Port of Brownsville several barges broke loose in periods of high winds and caused damage; but about 400 shrimp trawlers safely rode out the hurricane in Brownsville. In Port Isabel mobile homes suffered wind damage and a few in Los Fresnos also were toppled. About \$6 million losses were feared due to citrus being knocked from trees. On South Padre Island buildings suffered more significant wind damages. Upper portions of buildings were ripped, and multi-story apartments were deroofed. Windows were broken in most buildings without shutters.</p>								

# 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	
<b>LATE REPORTS</b>									
<b>TEXAS (continued)</b>									
AUGUST 1980									
<b>SOUTHERN</b>									
Duval Co.	10-11				0	0	6	7	Wind
					0	0	5	7	Rain Flooding
	Wind: Winds suddenly increased to hurricane force squalls on the morning of the 10th as Allen's center passed south of Duval Co. putting the area on the stronger northeast side. Widespread typical wind damages occurred with most utility and phone service knocked out. Wind blasts caused top portions of north, east, and south walls to collapse inward at Benavides High School gym with ensuing rain damages.								
	Heavy Rain and Flooding: Rains early on the 10th soaked the previously dry soils, then torrential rains set in late on the 10th. Rainfall accumulations up to 6 inches in the northwest part of the county and 10 inches in the southeast occurred over night. Serious flooding on creeks in southeast Duval County began early on the 11th, but damages were mainly to rural and ranch areas.								
Frio Co.	11	early morning			0	0	6	0	Rain Flooding
	The heaviest band of Allen's rain dropped 7 to 10 inches over eastern and northern parts of Frio County from afternoon of the 10th through early morning of the 11th. Flooding of small creeks began late on the 10th damaging fences and farm equipment. Few crops were left in the area to be hurt by flooding, most having failed due to drought. Farm Road 140 west of Pearsall flooded and closed early on the 11th. Waters drained in the Frio River sending it several feet over flood stage through southern Frio County on the 11th through the 14th. Along San Miguel Creek the worst flooding since 1947 (Hurricane Beulah) affected rural areas of eastern Frio County. Besides the farm damages, roadways and bridges suffered damages from washouts.								
Galveston Co.	9-10				1	0	6	0	Tidal Flooding
	About \$1 million in damages occurred countywide due to tidal flooding even through the center of Hurricane Allen was more than 250 miles away. Tides rose on the 9th to 4 feet above sea level on Gulf beaches and to 5 feet above sea level along western shores of Galveston Bay. Along the Bolivar Peninsula a half dozen levee homes were destroyed and several piers were washed away. Texas Highway 87 was overwashed and impassable at several points between Bolivar and High Island. Numerous surfers and fishermen took advantage of high surf and killed by one drowning death when a fisherman was washed away by a large breaker. In Galveston city tides covered Farm Road 3005 at Bay Harbor and some low lying homes flooded. At the city of Kemah, Galveston Bay tides of 5 feet rose into the business district lowering streets, flooding businesses and homes and destroying many automobiles left behind when most citizens evacuated.								
	Highways and major thoroughfares were blocked on the 9th by tides at several places including Texas Highway 87 near Crystal Beach, Farm Road 517 at Texas 146, Highway 6 at Holland Bayou, Loop 197 in places around Texas City, all streets fronting Galveston Bay in Kemah, Farm Road 5195 near LaMarque, and parts of NASA Road 1.								
	Even though no rain had fallen, tides caused Clear Creek to flow backwards and flood giving visual evidence of recent land subsidence around western Galveston Bay. Some businesses along Clear Creek in Clear Lake Shores were flooded with low land flooding near the creek through League City and Friendswood. Tides also pushed Mary's Creek out of banks. A few homes near Gumm Bayou were flooded after water backed up from Dickinson Bayou.								
	On Galveston Island West Beach recreational buildings were destroyed by tides and surf, sand dunes at Bermuda Beach were obliterated from the controlled dune and vegetation restoration area.								
Harris Co.	9-10				0	0	6	0	Tidal Flooding
	Galveston Bay tides of 5.2 feet above sea level flooded portions of southeastern Harris County causing significant property damages in lowest lying areas adjacent to the bay. In Seabrook tides crept into the downtown area flooding a number of businesses and homes. Scores of automobiles were damaged by the salt water which rose to window height of cars left parked on the city streets. In Baytown the Brownwood area flooded as tides rose into the San Jacinto estuary and crossed over Patimeter Road. Tides also pushed inland to Channelview closing low roads along the San Jacinto River and Buffalo Bayou. Other road closures caused by tides were Texas 146 at Seabrook, Toddville Road in Seabrook where homes were flooded, and Red Bluff Road in Taylor Lake Village.								

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
<b>LATE REPORTS</b>									
<b>TEXAS (continued)</b>									
AUGUST 1980									
<b>SOUTHERN</b>									
Hidalgo Co.	9-10-11				0	0	6	7	Wind
					0	0	7	7	Rain Flooding
	Wind: As in the case of Cameron County, Hidalgo County was on the weaker southwest semicircle of Hurricane Allen's wind field. This saved the area from devastating wind damages. Scattered mainly superficial wind damage was reported. In McAllen some roofs were partially peeled from downtown stores, numerous plate glass windows were broken, house shingles were lifted, trees and signs were blown down. At Mission slight wind damages included signs, flying debris impact on cars, roofs and windows. Very light damages were reported at Mercedes, but in Weslaco severe damage occurred to the high school roof. In Edinburg a hotel roof was blown off. Late on the 9th through the morning of the 10th hurricane squalls produced some of this wind damage as Allen's center passed to the north. Then, a second round of damaging wind gusts occurred in a line of thunderstorms over the county coincident with heavy rains on the evening of the 10th. These winds started about 7 pm and caused some of the reported wind damages.								
	Heavy Rain and Flooding: The major cause of damage in Hidalgo Co. was intense rains which started about 3 pm on the 10th as Allen's center moved west and dragged its main rain band over the county. The north-south band was situated through the center of the county and by 7 pm hit about Faysville had received 21 inches of rain, 18 inches fell at San Manuel and Linn, 15 inches at Edinburg, and nearly 12 inches at McAllen. Eastern and western edges of the county received less than half the rain that central areas got. Crop losses due to flooding were great and totaled about \$40 million countywide. That included \$19 million to citrus (a combination of wind and flood), \$14 million to unharvested cotton, and \$10 million to spargane and vegetables. Government losses to roads and spurs was \$1.8 million.								
	Hundreds of citizens left hurricane shelters to return home on the afternoon of the 10th, then had to be rescued by National Guard units that night as flood waters rose into homes. About 1500 persons returned to shelters after having left once.								
	In Edinburg 60 to 70 percent of all homes and businesses were estimated to have received some flood damage with 25 to 30 percent getting significant damage. Even the County Courthouse was flooded inside with water 2 feet deep. Bonding of water forced residents out of homes in parts of Mission, McAllen, Faysville, and Linn. About 1200 homes were damaged. Flood damages to property over the county were on the order of magnitude of \$80 million. Major roads were largely impassable through most of the 11th. Areas around Edinburg that suffered basin ponding did not clear of standing water for several weeks.								
Jefferson Co.	8-9				0	0	5	0	Tidal Flooding
	This county was farthest from Hurricane Allen's landfall and yet its coastal sections still experienced severe tidal erosion. Several fishing piers were demolished by tides and surf. Tides which peaked at 3 to 4 feet above sea level and the very high breakers superimposed on those tides allowed water to wash over Texas Highway 87 between Sabine Pass and High Island. The roadway was undermined and surface pavement removed. Sand erosion was noted through the Sea Rim State Park areas.								
Jim Hogg Co.	10	morning			0	1	5	0	Wind
	The center of Allen passed through the county during the morning of the 10th. Squalls of 80 to 100 mph between 7 and 9 am raked the county as Allen moved westward and weakened. Scattered superficial wind damages occurred over the area. In Hebbronville the wall of a department store collapsed but no one was inside. One injury occurred when a woman was cut by glass as her automobile windshield shattered.								
	Rains of 4 to 6 inches over the county were beneficial to parched rangelands with no major flooding reported to the National Weather Service.								
Jim Wells Co.	10-11	morning			0	1	6	0	Wind
					0	0	7	7	Rain Flooding
	Wind: Squalls were estimated at 100 to 120 mph during the predawn hours of the 10th as Hurricane Allen passed to the southeast. In Alice a warehouse lost its roof and lots of damage occurred to roofing, windows, signs, and trees. Car windows were broken mainly by blowing debris. An estimated 50 percent of all buildings had at least minor wind damage. Several mobile homes were destroyed and numerous others damaged in Alice and surrounding areas. One minor injury was reported at a public school shelter when a refugee was cut by a shattering window.								





# 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		
<b>LATE REPORTS</b>										
<b>TEXAS (continued)</b>										
<b>SOUTHERN</b>										
Matagorda Co.	9		AUGUST 1980			0	0	6	0	Tidal Flooding
Tides were 4 to 6 feet above mean sea level in Matagorda and Tres Palacios Bays by late morning Aug. 9 causing flooding of shorelines along both bays. Surf action and tides of near 4 feet above sea level on the Gulf shores caused severe erosion there. In the city of Palacios tides flooded low areas next to the bay. All public and private piers were shattered on East Bay. Several boats sank at moorings due to tides. Salt water crept into yards of homes on Bay Shore Drive; a few homes reportedly sustaining damage. Business buildings on the turning basin also had some damage. Tides also pushed inland causing flooding along creek banks near Sargent. Along the Colorado River tides also rose, but 100 shrimp and pleasure boats safely harbored at Bay City. Road closures due to high tides were Farm Road 457 near Sargent, Farm Road 2012 near Matagorda, Highway 35 partially blocked at Palacios.										
Maverick Co.	11-12					0	0	?	0	Rain Flooding
Sudden rains of 4 to 6 inches mainly over central and southern parts of the county sent creeks out of banks and put a local rise on the Rio Grande from Eagle Pass downstream. The river peaked less than a foot below floodstage at Eagle Pass late morning of the 12th. Some damages were done as water flooded the vegs and city recreational facilities. Water stopped just short of entering the Kickapoo Indian settlement. Farm to Market Road 1366 west of El Indio closed in places due to washout.										
Medina Co.	11					0	0	6	?	Rain Flooding
6 to 10 inches of rain fell during the period from late afternoon of the 10th through early morning of the 11th as the northern part of Allen's most active rain band moved across the county. Most rain soaked into the dry earth, but rain overwhelmed soils by morning of the 11th and creeks started a sudden rise. Farm to Market Road 471 near Natalia washed out at Chacon Creek due to swiftness of the current. In Devine Burnt Boot Creek swelled out of banks through the city, rose up to Highway 173, and flooded adjacent parts of downtown. Many crops already withered and failed due to previous heat wave and drought, but what crops were left in fields were partially damaged by water washing over land. Corn toppled due to soft earth and wind gusts.										
Nueces Co.	9-10					2	4	8	0	Tidal Flooding
	9-10					0	1	6	0	Wind
	10-11					0	0	7	7	Rain Flooding
Tidal Flooding: Tides peaked during most midnight hours on the 10th but had reached flood producing levels early in the day on the 9th. Selected maximum tide heights were 8.82 feet above sea level around inner Nueces Bay, 8.35 feet at Flour Bluff on Cayo del Oso, 8.9 feet at Port Aransas on Mustang Island, 8.10 feet at North Beach in Corpus Christi. In the city of Corpus Christi the North Beach area (also known as Corpus Christi Beach) was devastated by tidal flooding from Corpus Christi Bay. Perhaps as many as 1000 persons lived in the area, and all but a few fortunately evacuated from the old motels, apartments, wood frame homes, and mobile home parks before the flooding set in. Of the very few who remained, two drowned as the bay waters surged 8 feet deep in the darkness early on August 10. Victims were a 68 year old man, a 20-year resident of the beach who refused to leave since he had stayed through hurricanes Carla, Beulah, and Celia which did not flood the area appreciably, and a 73-year old woman who delayed leaving, then was caught by rising waters and drowned in a station wagon on North Beach streets. A group of three persons survived in a second floor apartment which luckily did not collapse, although there was reportedly at least one two-story building in the vicinity which did collapse due to tidal action on the first floor walls. Corpus Christi police rescued two women from their apartment with neck deep waters and large swells pounding the area. The women suffered from exposure and shock afterwards. One woman survived on top of her refrigerator in her ground floor apartment that was flooded nearly to ceiling level. She and a man who swam out were injured slightly. Scores of automobiles in the area were ruined. 80 to 90 percent of North Beach buildings were beyond repair after the flooding, and a few mobile homes were completely removed. Contents of most buildings were a total loss. At the mouth of the Nueces River salt water intruded far enough inland to contaminate the Corpus Christi water supply intake. US Highway 181 on the east side of the causeway over the bay was severely eroded. About 9 shrimp boats sank in Corpus Christi harbor, but many others farther up the channel weathered the hurricane well. Extensive damage occurred along Corpus Christi bayfront adjacent to or below the seawall, but tides were not high enough to breach the wall and affect major downtown buildings. About 175 pleasure boats, including many large yachts, were left at the city marina and either sank or were severely damaged and tossed onto the seawall. Parts of the seawall near the municipal coliseum were eroded but did not collapse. One hotel built over the baywaters below the seawall was damaged badly on the first floor as tides surged through it. Land areas of Corpus Christi State University flooded and adjacent Ocean Drive was badly damaged, but the university buildings apparently did not sustain significant flood damage. Naval Air Station was isolated but waters did not enter buildings. Oso Pier and Cole Park Pier were destroyed. Businesses and houses near Oso del Cayo in Flour Bluff were flooded, some for the first time. Along Ocean Drive large chunks of land were gouged out of bluffs removing large portions of yards of some homes overlooking the bay. Flour Bluff areas adjacent to Laguna Madre flooded with water entering a number of older homes never flooded before. Bait stands, fish markets, several restaurants, and several stores next										

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM	
					KILLED	INJURED	PROPERTY	CROPS		
<b>LATE REPORTS</b>										
<b>TEXAS (continued)</b>										
<b>SOUTHERN</b>										
			AUGUST 1980							
to Laguna Madre were destroyed by the tides. Boats and automobiles too were significant monetary losses on the Laguna. Corpus Christi Ship Channel silted in greatly, one ship running aground trying to enter port soon after the hurricane passed. Many other ships were trapped inside the port until dredging released them.										
On Padre Island several hotels on the Gulf beach were damaged by surf battering the first floors. On the Laguna Madre side of the island most condominiums were built up some 8 feet and escaped the tidal flooding. Water covered the north or land-bound side of JFK Causeway early in the day of the 9th inhibiting evacuating traffic. Eventually the causeway was totally flooded, badly eroded on the north side, and concrete median dividers actually pushed aside by tidal currents. Mustang Island State Park was heavily damaged with state losses there estimated at \$700,000. Park Road 53 was largely washed away. On the Gulf beaches the first row of sanddunes were completely removed, some were 10 feet high. The second row of larger dunes were eaten away leaving cliffs facing the Gulf. The permanent vegetation line was moved back and effective beach width about doubled. Privately built seawalls by the Padre Island hotels were undermined and collapsed. One large fishing pier was washed away. Some condominiums on the Gulf side sustained erosion under the foundation. The Liberian tanker Mary Ellen ran aground on Padre Island beach but did not break up. One injury occurred to a crewman of the tugboat which tried to rescue the ship in high seas. At Port Aransas surf and erosion damages were noted on the Gulf-facing beaches.										
In terms of tidal flooding, Hurricane Allen's effects were the worst for the Corpus Christi area since the 1919 hurricane.										
Wind: Wind squalls peaked at 92 mph in Corpus Christi and 125 mph at Port Aransas early on the 10th. Much of the area lost power and telephone service due to winds. High rise buildings downtown suffered extensive glassbreakage and secondary rain damage. Some 65 buildings downtown had significant wind damage. Corpus Christi State University buildings and some on the Naval Air Station reportedly were damaged by wind, work was done to the large roof span buildings. At a shelter, a nurse was hurt when winds blew in a window. In Port Aransas 80 percent of the buildings had some wind damage, mainly to roofing and windows. Mobile homes in the area were for the most part well anchored and survived the gusts which were at threshold of doing damage to them. In Robstown the wall of a dressing room in the junior high school gym collapsed inward from force of a high gust.										
Heavy Rain and Flooding: Rainfall amounts were 10 to 12 inches for the two day period 9th to 11th over the western half of Nueces County. Rains the afternoon of the 10th and into evening hours were especially intense. These last torrents falling on ground that had become saturated led to sudden ponding of water and also filled natural stream beds to flood stage. Flooding began sometime after a sudden 4 inch downpour late on the 10th. Areas hardest hit by fresh water flooding were Bishop, Driscoll, Agua Dulce, Robstown, and Banquete. When skies brightened and winds subsided on the afternoon of the 10th, most evacuees left the shelters and returned home. Allen's heaviest rain band moved over later that afternoon and flooding trapped people in their homes and cars. About 1100 persons fled their homes in Bishop, the west side of town receiving the worst flooding. In Callan river bottom homes were flooded for more than a week by the highest river levels since hurricane Beulah in 1967. Waters spilled out of Lake Corpus Christi and put the river above flood stage at all points below Mathis. Some stilted homes not previously flooded were damaged by the 11.1 ft crest at Callan.										
In Robstown several downtown businesses flooded and many residences in low areas sustained flood damage. The Blumhonn area suffered deep waters in many residential streets and in houses. The Messer Area also had significant flooding. Temporary earthen dikes were constructed west of the city to keep water from draining eastward through the city from the nearly flat farm lands to the west. The dikes failed and west and southwest sides of town were flooded. Altogether Robstown had about 300 homes with bad flood damages. In Driscoll the west side of town had flooding as well as areas along Petronilla Creek where waters were said to be unusually swift for the usually slow moving creek. Some 250 flood evacuees in Driscoll school were forced out of the school as flood waters threatened it. Farm lands in western Nueces County were largely submerged by the heavy rains, some soil being washed away where terrain had some slope. All unharvested cotton was lost amounting to a \$1 million loss. Much harvested cotton was ruined where it had been left outdoors in uncovered modules. All grain had been harvested before the hurricane. A great deal of farm equipment was flood damaged in the fields and flooded barns. Highways US 77, Texas 44, and Farm to Market 667 were flooded by deep waters. Many other county and farm roads were impassable. In the various cities and rural areas, perhaps hundreds of automobiles sustained flood damage.										
Refugio Co.	9-11					0	0	6	0	Tidal Flooding
	10					0	0	5	0	Wind
	10-11					0	0	5	6	Rain Flooding
Tidal Flooding: Tides peaked at 7.2 ft above sea level in Copano Bay on the afternoon of Aug. 10. Numerous small boats were lost around the bay, especially at the town of Bayside. Tide and surf action caused damage to shoreline structures at Bayside and huge debris piles were left at the high water mark on the edge of the town. Farm to Market Road 136 near Bayside was closed by high tides and the road surface damaged.										

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED <sup>1</sup> DAMAGE		CHARACTER OF STORM	
					KILLED	INJURED	PROPERTY	CROPS		
<b>LATE REPORTS</b>										
<b>TEXAS (continued)</b>										
<b>SOUTHERN</b>										
			AUGUST 1980							
			Wind: Utility outages occurred throughout the area due to wind-downed lines. In Refugio and Woodboro some scattered property damage happened to roofing and windows.							
			Heavy Rain and Flooding: Rainfall of 7 to 10 inches affected the county with the greatest part of this rain falling on the afternoon of the 10th. The Mission River overflowed its banks through Refugio and rural lands downstream to Mission Bay. Flash flooding had begun on small streams by mid afternoon of the 10th. The cotton crop was 1/2 to 2/3 harvested before the hurricane, but rains damaged most of that still in the fields. Harvested cotton left in unprotected trailers and in modules suffered quality loss.							
San Patricio Co.	9-10				0	0	7	0	Tidal Flooding	
	10				0	0	0	0	Wind	
	10-11				0	0	7	6	Rain Flooding	
			Tidal Flooding: Tides peaked at 9 ft. above sea level on San Patricio County shores of Corpus Christi Bay farthest west and 6.8 ft on shores closest to the barrier islands. At Aransas Pass tides breached the seawall due to surft pressure on two closure points. Tides came through and flooded low areas with about a dozen houses getting wet from salt water. Waves 15 feet high sent surf over the wall also and added to flooding in town. An area near Conn Harbor flooded several blocks inland. Combined tides and rain flooding ruined several mobile homes and damaged dozens of others. Many boats left in the marina were crushed against overhead roofing as water levels rose. Shrimp trawlers and pleasure craft were sunk in Brown Harbor. The "flats" area suffered bad flooding of combined salt and rain water. Altogether Aransas Pass damages were put at \$700,000 in the city. At Ingleside-on-the-Bay severe damages occurred to shoreline buildings. Some businesses were nearly demolished and their contents ruined.							
			Wind: Gusts to 106 mph were measured at Aransas Pass but wind damages were mainly superficial. Many roofs, windows, and trees were damaged. At Ingleside Elementary School the roof was partly peeled. High wind gusts raked Portland but most severe damage there was apparently caused by a tornado. (See separate entry) Ingleside too had scattered window and roof damages while at Sinton the airport hangars were badly damaged by wind squalls.							
Uvalde Co.	11	early			0	0	4	?	Rain Flooding	
			Rain fell rapidly from the night of the 10th through the morning of the 11th with accumulations of 6 inches over eastern and southern parts of the county. Although very dry, the rocky soils allowed runoff into small creeks by early morning of the 11th. Flooding resulted on tributary creeks of the Rio and Sabinas Rivers. Highway 127 was closed at numerous places between Sabinas and Concan. Most of the large goat population had just received summer shearing and considerable numbers of them died from extended exposure in the rains.							
Val Verde Co.	11-12				0	0	?	0	Rain Flooding	
			As Tropical Storm Allen weakened to the south over Sierra Madre Oriental mountains of Mexico, thunderstorm cloudbursts dropped a sudden 4 inches on Western Val Verde County with continuing rains totalling 7.5 inches at Langtry by morning of the 12th. Flash flooding occurred on the Pecos River, Devils River as well as all feeder canyons. Road closures included Highway 901 east of Comstock Highway 163 at many places, and Ranch Road 1024.							
Webb Co.	10				0	0	6	0	Wind	
	10-12				0	0	0	0	Rain Flooding	
			Wind: The center of Tropical Storm Allen passed a few miles south of Laredo about 3 pm est of August 10. Gusts to 75 mph caused scattered damage in Laredo while eastern Webb County suffered many utility poles and lines downed, fences blown over, and rural buildings damaged.							
			Heavy Rain and Flooding: Rainfall overnight from the 10th to the 11th ranged from 4 inches at Laredo to 8 inches over northern and eastern Webb County. Rangeland previously parched was flooded by early morning of the 11th with several Ranch to Market Roads washed out. In Laredo Zacate Creek produced minor flooding and storm evacuees from the coast had to be relocated from a school when the creek threatened it. In Laredo a total of 125 homes were damaged by wind, rain, or a combination of both. One heart attack that was storm-related occurred to a woman during evacuation, travel through Laredo.							
Willacy Co.	9-10				0	0	7	0	Tidal Flooding	
	9-10				0	0	7	6	Wind	
	10-11				0	0	?	?	Rain Flooding	
			Tidal Flooding: The eye of Hurricane Allen moved onshore close to Port Mansfield after having crossed Laguna Madre. Most of Willacy County was exposed to Allen's weaker southwest semicircle, but Port Mansfield received the stronger northeast side. Tides rose abruptly out of Laguna Madre and peaked at 9.35 feet above sea level on Corps of Engineers gauge, but were estimated at near 12 feet just north of Port Mansfield. In Port Mansfield 50 houses and mobile homes were swept away by tidal force and the remaining 250 homes received major damages. 30 percent of houses next to the Laguna were removed and the rest badly damaged. The very sudden rise of water just after midnight on the 10th and its resultant force were graphically shown by several frame houses which were							
			pushed one-half mile inland off their foundations. Bottom floors of all buildings were shattered and contents swept away. The town was completely evacuated except for a couple of persons who survived through the hurricane in the upper part of the well constructed harbor master building. Most residents were surprised to return and find the damage so severe commenting that "If it got through Beulah, we figured it would get through anything." The seawall was completely washed away and 30 fishing piers were removed by tides. Over 25 draft were destroyed in the harbor and several large barges were found driven aground 8 miles north of the harbor where they had been moored. The Intracoastal Waterway was badly silted in from Port Mansfield to 25 miles north. Damage totals mainly from tidal flooding were \$5 million to Port Mansfield and \$8 million to port facilities. Besides the direct effects of the tides, large pilings of pipes were loosened by the surge and these washed into town acting like battering rams against buildings. Tide waters in Willacy County pushed inland about one mile and the high water line was marked by a huge debris line and many small boats at that point. Propane and butane tanks ruptured and floated off posing some hazard. All automobiles left in Port Mansfield were destroyed. Heavy appliances were rolled in the tides 1/2 to 1 mile away.							
			Wind: Wind Squalls in Port Mansfield were measured at 138 mph before the anemometer failed. Wind damages in the town were masked by the overwhelming severity of the tidal flooding. In the rest of the county wind damages were superficial to roofing, windpws, etc. Agriculture suffered as wind knocked and damaged citrus.							
			Heavy Rain and Flooding: Rainfall totals were not as heavy in Willacy County as they were farther west and inland. Some unharvested cotton was lost due to flooded fields.							
south Texas	9-11								Tornadoes	
			The following 29 tornado reports represent only those confirmed and documented tornadoes associated with Hurricane Allen. Injury and damage totals caused by tornadoes have not been included with the statistics cited for Hurricane Allen previously in this report.							
Cameron Co. (Brownsville)	9	3:45 am	4	50	0	0	6	0	Tornado	
			The tornado spun out of one of Allen's leading rain bands. The twister was short-lived on its north-to-south track through north-west Brownsville. It first touched down in the Opail Hollow subdivision near Farm Road #02 and US 83/77. Five new brick houses, 3 of which were occupied, were hit. Roofs were completely taken off and exterior brick walls were damaged. Next it hit a bakery then a convenience store heavily damaging both buildings and their contents. It skipped along a 4 mile track bowing power lines before lifting.							
Kenedy Co. (near Norias)	9	12:10 pm	2 1/2	30	0	0	0	0	Tornado	
			The small twister moved toward the south-southwest over open ranchlands. The path was on the west side of US Highway 77 about 20 miles north of Norias. It dissipated without hitting any structures.							
Bee Co. (Orangedale)	9	3:25 pm	1 1/2	35	0	0	4	0	Tornado	
			A small tornado dipped to earth as it passed through the Orangedale community. Two houses were damaged (apparently windows and roofing) but no injuries resulted. The twister was short-lived as no other sightings of it were reported in adjacent areas.							
Nueces Co. (Port Aransas)	9	3:30 pm	2 1/2	30	0	0	5	0	Tornado	
			A small tornado skimmed along the coast moving toward the southwest as it formed in one of Hurricane Allen's leading rain bands to approach the central coast. The twister raked a beachside condominium development at Port Aransas where it tore off portions of roofs and collapsed upper portions of brick walls. The tornado probably crossed Mustang Island, moved into Corpus Christi Bay, and dissipated before reaching the mainland.							
Karnes Co. (Near Kenedy)	9	4:00 pm	1	35	0	0	4	0	Tornado	
			The tornado occurred in a peripheral hurricane rain band. Moving along a path toward the southwest, the tornado cut a narrow swath paralleling Texas Highway 72 between Kenedy and Bainville. One mobile home was overturned, the porch and garage of a frame home were destroyed, and numerous trees were uprooted. Minutes before the twister was spotted, high winds toppled a large communications tower in Kenedy to the northeast.							
Duval Co. (south of Freer)	9	7:25 pm	2	30	0	0	0	0	Tornado	
			A motorist observed this tornado moving toward the southwest through open brush country 10 miles south of Freer. It hit no structures but followed close to the west side of Highway 16 for part of its path length.							

# 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	
<b>LATE REPORTS TEXAS (continued)</b>									
<b>SOUTHERN</b>									
San Patricio Co. (Portland)	9	8:00 pm	1	40	0	0	6	0	Tornado
<p>The tornado moved across the city of Portland severely damaging two businesses and downing many power lines and poles. An automobile dealership the roof was removed from the business office and cars in the parking lot were nearly demolished. An adjacent store was also deroofed. It next hit a motel which was closed and unoccupied at the time. The roof was largely removed from the motel's northern-most wing and some walls collapsed. The south wing had damage too, but to a lesser extent. The tornado then exited the developed area of Portland and moved toward farm land with no direct hits on structures.</p>									
Nueces Co. (Bishop #1)	9	9:30 pm	5	50	0	3	6	0	Tornado
<p>This tornado caused an estimated \$2 million damages in Bishop. It passed less than 100 yards from Bishop High School and Junior High School where 1800 evacuees were spending the night. It hit the adjacent sports stadium, removed the press box, and hurled it into the high school science lab, gymnasium, and courtyard. The loud roar, vibrating walls, and crash of debris on the roof were said to have terrorized many evacuees inside. Power outages put the schools in darkness. The 1800 shelter inhabitants represented half of the towns population. Numerous cars in the school parking lot were damaged by debris or rolled. Three persons were said to have received lacerations from debris. An aerial survey indicated that the tornado followed a straight-line path on the east side of the city passing over the 900 block of E. 6th St. After hitting the school complex, the tornado destroyed two business buildings nearby and took the roof off a service station. Prior to reaching the school, it had damaged 3 other buildings.</p>									
Nueces Co. (Bishop #2)	10	4:00 am	1 1/2	40	0	0	6	0	Tornado
<p>This second tornado to hit Bishop did an estimated \$1 million dollars damage. It first hit near US Highway 77 bypass. It passed near a drugstore taking off the roof and removing large steel beam supports. Next it deroofed a warehouse, uprooted many trees, and flattened fences. It lifted as it approached a residential area, but left a trail of debris from the warehouse and trees as it passed aloft over the residences. Other damages along its path included power lines and poles beside US Highway 77, three mobile homes which were demolished but unoccupied at the time, one frame house roof, and a small truck camper.</p>									
Victoria Co. (8 mi. north of Victoria)	10	8:30 am	3/4	30	0	0	4	0	Tornado Funnel Clouds
<p>A small short-lived tornado moved from the east-southeast across farmlands about 8 miles north of Victoria. It passed over one barn and destroyed it but caused no injuries. The twister disappeared from sight and caused no further damage after hitting that one farm. Several other funnel clouds aloft were seen in the Victoria area about that same time.</p>									
Bexar Co. (Lone Oak to near China Grove)	10	8:57 am	12	100	0	2	5	7	Tornado
<p>The tornado cut an east-to-west path over rural and suburban areas of eastern Bexar County and ended just before reaching the eastern city limits of San Antonio. The twister first touched down at 8:57 am at breaking power lines as it crossed Pittman Road north of US 87. It continued rapidly westward where it hit the community of Lone Oak doing considerable damage. The Lone Oak Estates Subdivision Water Company suffered damages and several houses were deroofed and windows blown in. The twister crossed Highway 87 in the 11600 block where it also took the entire roofs off five houses and one business while breaking all windows on the east sides. One house sustained a direct hit and also suffered collapsed walls. No injuries occurred because residents were not home or else took cover just before the tornado hit. Residents in Lone Oak described the roar of the twister as deafening and said that there was a noticeable sudden cessation of rain and wind just moments before the tornado arrived. The funnel was described by one woman as "horrible and black." The twister then proceeded over an open field area where it downed power lines and trees but hit no structures as it passed just south of the Sayers Community and narrowly missed hitting East Central High School. As it crossed Beck Road about 1 mile south of US 87 at 9:10 am it hit a mobile home and completely shattered it. The two occupants were seriously hurt but lucky to be alive. A neighboring frame house was deroofed. As it continued west the tornado began to weaken over open meadowland a half mile south of the city of China Grove. It crossed south Foster Road near Sulphur Springs Road, fortunately missing nearby buildings. At 10:25 am it lifted from the ground just before reaching Interstate Highway 41B, then continued over southeastern San Antonio as a funnel aloft.</p>									
Jim Wells Co. (Alice)	10	9:00 am	2	40	0	1	5	0	Tornado
<p>The tornado moved quickly from east to west over Alice as it formed in one of Hurricane Alley's spiral bands. Allen's center was only about 60 to 80 miles to the south then. A motel on the edge of the city and two businesses were badly damaged, a convenience store and a warehouse were destroyed. Two vacated mobile homes nearby were destroyed also. One woman was slightly injured when the tornadoic blast collapsed her apartment wall inward on her. The tornado moved westward out of the city and, although its track may have been longer, there was no further evidence of it away from Alice.</p>									

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
<b>LATE REPORTS TEXAS (continued)</b>									
<b>SOUTHERN</b>									
Bexar Co. (San Antonio)	10	9:50 am	3/10	30	0	0	4	0	Tornado
<p>A funnel aloft was spotted about 9 am near Holbrook Road on the east side of Fort Sam Houston Army Base in San Antonio. It moved due west about 20 to 25 mph prompting many citizen reports of the funnel as it passed overhead through the center of San Antonio. At various times it was seen directly over Olmos Drive, and other streets just north of downtown. At 9:50 am the funnel finally did touch ground as it approached the northwest side of the city. Near the intersection of Evers and Callaghan Roads it raked an apartment building damaging roofing and awnings, but injuring no one. The path was short and there was no further evidence that it hit ground farther to the west.</p>									
Caldwell Co. (Travis Co. Turnersville)	10	12:14 pm	14	80	0	0	5	0	Tornado
<p>The tornado was seen by Lytton Springs residents as it first formed and touched ground less than a quarter of a mile north of town. It moved west-northwest over farm lands crossing three farm roads, downing fences and trees, and narrowly missing several rural homes. At 12:30 pm it moved directly over the Leslie Roban home a half mile north of Highway 21 of the Old Lockhart Road, just north of the Mendoza community. The house was completely deroofed; exterior walls were bowed inward on the east side and outward on the west. A large power transmission line was cut knocking power out to a wide surrounding area. Four persons in the house saw the twister seconds before it hit and ducked under furniture in the center of the house. No one was hurt. A few seconds before the tornado hit, the steadily blowing east winds dropped and neighbors said, "it got real quiet outside." Then there was a sudden onset of a roar as the tornado approached.</p>									
Bastrop Co. (near Smithville to near Bastrop)	10	1:00 pm	18	75	0	0	?	0	Tornado
<p>At 1 pm a motorist saw the tornado touch down fill with debris, then sharply lift off ground again along side highway 153 near Rocky Hill in far eastern Bastrop County. The funnel skipped toward the west-northwest apparently passing aloft over Buescher State Park and the Alum community. The funnel strengthened and at 1:30 pm east began cutting a path 100 yards wide through undeveloped bottom lands along the Colorado River just south of Bastrop city limits. As the twister approached the Colorado River, residents on highway 71 less than a mile to the north observed it. Traffic was heavy on highway 71 at the time as residents of the central coast who had evacuated into the area were returning home. Most commented that the tornado was a big one. "As it crossed Farm Road 304 a short distance south of Highway 71, it narrowly missed one farm home. It then crossed Highway 71 traffic having observed the funnel and stopped. It passed over largely open fields where witnesses watched it lift tree trunks and debris rather high into the air before dissipating. Total distance on ground was 30 percent from Smithville to dissipation.</p>									
Bastrop Co. (near Elysium to near Del Valle)	10	1:15 pm	9	50	0	0	7	0	Tornado
<p>The tornado was believed first to have touched ground in Bastrop County about one mile south of the Elysium community in open farm land. It probably caused no damage as it skipped west-northwest crossing into Travis County around 1:20 pm and finally going aloft completely or else dissipating about 1:30 pm just before it reached Bergstrom Air Force Base. It was last seen from the Del Valle area. It was estimated on the ground at quick intervals about 20 percent of its life.</p>									
Bastrop Co. (near Bastrop)	10	1:30 pm	9	25	0	0	3	0	Tornado
<p>What was described as a small dancing tornado moved west-northwest over countryside north of Lake Bastrop intermittently touching ground. The tornado was first observed on the ground on Highway 21 about 7 miles northwest of Bastrop. A police officer observed a dark tall form from the ground upward to the cloud as the tornado first touched ground and began lifting debris. As it approached populated areas along Highway 95 its brief touchdowns caused some roof and window damages to houses in Lake Bastrop across numerous windows on south sides were blown in. Many residents watched as it approached and then passed. One point of touchdown was on Indian Oak Drive where residents made comments that the twister "made a noise like a shrill whistle," "it was dark grayish in color," "it danced around intermittently hurling tree limbs and debris upward." Area residents were hosting guests who had evacuated from the coast and some commented that they should not have left the coast. As it continued west-northwest it passed over the Bastrop Federal Correction Center without causing damage. Overall the tornado was on the ground about 30 percent from first touchdown point to the last.</p>									
Travis Co. (Austin)	10	1:40 pm	3 1/2	150	0	4	8	0	Tornado
<p>This was one of the most destructive hurricane-related tornadoes in Texas history in terms of dollar value losses because it moved directly over Municipal Airport and neighboring residential areas of Austin. Total damages from this single tornado were about \$50 million.</p>									

# 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	INURED	PROPERTY	CROPS	
<b>LATE REPORTS</b>									
<b>TEXAS (continued)</b>									
<b>SOUTHERN</b>									
		<b>AUGUST 1980</b>							
		The tornado was first seen aloft east of Ft. Bluestein Road and E. 19th Street moving toward the west-northwest. First evidence of the tornado on the ground was in the vicinity of Pecan Springs Road and E. 51st Street. The tornado's continuous path varied in width from 100 to 200 yards over vacant areas behind houses until it reached Manor Road where a business and two houses were heavily damaged. It crossed Old Manor Road taking roofs off houses, then hitting an apartment complex on E. 51st taking off most of the roof from the second story apartments, knocking out windows, and heavily damaging 50 cars in the parking lot. Many coastal residents were staying with friends in the apartments. Persons described the tornado as sounding like "a siren wailing." Across the street from the apartments several duplex homes were deroofed. One person was injured in this area as she ran for cover but was hit by flying debris before she reached safety.							
		It then crossed into Austin Municipal Airport property moving parallel and about 400 yards north of the active east-west runway. A DC9 passenger flight inbound aborted its landing, banked to the left and moved away from the tornado just as the funnel was approaching from the east. Several of the 50 passengers on board remarked later that they had been watching strange lightning during the approach toward the tornado.							
		On the airport the tornado moved over Ragsdale Aviation hangars doing some \$40 million damage to aircraft and ground equipment. Three hangars were destroyed, 74 private and state owned airplanes were destroyed or heavily damaged, many of which ironically had been moved to Austin from Corpus Christi to escape the hurricane effects. The tornado narrowly missed hitting a National Guard hangar where 100 persons were assembled inside. It did wreck several dozen National Guard vehicles on the parking lot. At this time the tornado was visible from the National Weather Service on the opposite side of the airport. It was visually tracked for 11 minutes and witnesses described a multiple vortex appearance within the funnel.							
		It then left the airport and followed a two mile stretch along side 51st Street damaging several dozen homes. No injuries occurred here as residents reported being aware of the tornado through warnings or hearing the noise. The World of Peacock Church was packed with 1800 persons, many coastal residents who evacuated from the coast, when the tornado approached. Ushers spotted the tornado, warned the people, and all took shelter on the floor under seats until the threat had passed. The funnel did not hit the church directly, but came close enough to shower the building with debris from Ragsdale Aviation hangars. It then damaged another apartment complex before crossing Interstate Highway 35 at 51st Street. Motorists saw the tornado coming and stopped under the 51st Street overpass, but three injuries occurred here as occupants of one car were battered with tornadoic debris. Several more houses were damaged west of IH35 as the tornado began making a skipping path. It finally lifted just before reaching Guadalupe Street and the State Health Building a few blocks from the state Dept. of Public Safety Headquarters.							
Travis Co. Williams Co. (Manor to Lake Travis)	10	2:25 pm	30	50	0	0	5	0	Tornado
	10	2:50 pm							
		The tornado formed near the town of Manor and moved west-northwest very quickly. It was observed by the state Highway Patrol as it first formed. It was then sighted along its very long path by many citizens and was detected sporadically by weather radar. Differing from its predecessor tornado an hour earlier which hit Austin, this tornado remained relatively weak and was on the ground intermittently over a long path. Spotters verified that it was a single funnel as it was tracked over northern suburbs of Austin where it did minor damage to roofs, windows, trees, signs, and outbuildings. Its path took it over Old Dessau Road and Interstate 35. It touched down near Farmer Lane and IH35 and was on ground to W. Lamar Blvd. and Farmer Lane, it continued skipping past Anderson Mill, did damage again in the Shenandoah Subdivision near Rural Road 620 and Highway 183. It then passed briefly over the extreme southern Williamson County line south of Jollyville, then back into Travis County again. Eventually it passed into the hills north of Hickmuntown and ended over Post Oak Ridge on the north side of Lake Travis at 3:25 pm est. It was on the ground about 10 percent of the total length between beginning and ending points.							
Caldwell Co. Hays Co. Blanco Co. (San Marcos to near Wimberley to near Blanco)	10	4:02 pm	47	200	0	20	7	0	Tornado
	10	4:10 pm							
	10	5:00 pm							
		Although not continuously on the ground through the 47 miles between its first and last points on the ground, this tornado still represents on the longest-lived and one of the stronger hurricane-related tornadoes documented in Texas. Damage in the city of San Marcos alone was \$15 million with \$3 million damage done elsewhere.							
		Segment #1... The tornado first touched ground at 4:02 pm in a field between the San Marcos Airport and Farm-to-Market Road 142 in extreme western Caldwell County. The funnel moved west-northwest directly striking the Gary Job Corps Center on the San Marcos Airport property. Center apartments were partially filled with students and with 100 evacuees from the coast who had fled Hurricane Allen. Most evacuees had cars destroyed on the center parking lot. About 15 wood frame buildings including 6 dormitories were heavily damaged. There were 6 injuries to persons there from							

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS ESTIMATED DAMAGE				CHARACTER OF STORM
					KILLED	INURED	PROPERTY	CROPS	
<b>LATE REPORTS</b>									
<b>TEXAS (continued)</b>									
<b>SOUTHERN</b>									
		<b>AUGUST 1980</b>							
		flying debris. Witnesses said it "sounded just like two freight trains." It only lasted about one minute in passing. Normally 2200 students were at the center, but most had not yet returned from the weekend break. The center sustained \$5-6 million damage.							
		It continued on a very slightly more westerly path than as it crossed Countyline Road into Hays County at 4:12 pm est. It hit a small frame home directly on Highway 21 where a family of 7 had just departed from. The house was deroofed entirely and exterior walls on three sides collapsed. The tornado seemed to be at its strongest at this point. Damage path was about 1000 feet wide here. It then moved over a commercial campground where many coastal evacuees were staying in their small recreational vehicles or camping trailers. Some 15 to 20 small trailers and vehicles were flipped and demolished. Some of them were carried 100 yards downstream along the tornado path. Five larger mobile homes at the campground were destroyed. There were three serious injuries among the trailer occupants and ironically all were coastal evacuees there to escape the effects of Hurricane Allen. Several other persons received lesser injuries.							
		The tornado passed close to the Care Inn Nursing Home where the edge of the funnel destroyed the southeast wing of the spoke-shaped building. Most of the 111 residents of the nursing home (which included 30 elderly evacuees from the coast) were in the central dining room and not in the heavily damaged wings. Only two minor injuries were reported there. Damage to the building was set at \$2 million.							
		As the tornado crossed IH35 no cars were hit. The earthen overpass embankment temporarily weakened the surface vortex it seems as the funnel passed to the west of the highway where it did less intense damage to a restaurant and motel. It moved down Uhlend Road damaging 3 other businesses and passing near radio station KENY. Then passing over vacant lots on the northern edge of San Marcos, it came to Mill and 3rd Streets. More than 25 houses were damaged in this area, many deroofed and windows broken. Over a dozen mobile homes were badly damaged and one mobile home resident seriously hurt, and several others got minor injuries. It then passed beside Travis Elementary School and took part of the roof off, but none of the coastal evacuees staying in the school were hurt. All were in safer parts of the building rather than the damaged gym area. It then passed over the San Marcos River at Aquatena Springs without hitting buildings. Then it crossed a vacant field area before lifting off ground. The path was 8 miles.							
		Segment #2... Hays County Sheriff's Deputies visually tracked the funnel as it left San Marcos. It moved mostly aloft over open lands and into hilly areas on a path paralleling Highway 12 toward Wimberley. It cut a major power line between San Marcos and Wimberley at 4:30 pm. and was on ground 20 percent of 8 miles.							
		Segment #3... It began a second continuous path on ground about 4 miles southeast of Wimberley and continued on the ground for 11 miles along the Blanco River. It was viewed by Wimberley residents as it passed a mile southwest of town. Damage began east of Highway 12, then crossed Hwy 12 and paralleled Ranch Road 1492. Many trees were uprooted and fences down as it passed near Paradise Hills and Pioneer Town resort areas. The funnel skirted a rock house on a bluff beside the Blanco River completely tearing off the roof. The house was occupied by a couple who had evacuated from the coast. Then it hit the Te Ranch where it damaged buildings and fences. Witnesses there described a multi-vortex nature of the twister. "There were two groups of dark clouds which just seemed to swirl together." It then moved over the Thompson Ranch heavily damaging several miles of fence and splintering huge oak trees.							
		Segment #4... The tornado then began another intermittent path for the next 13 miles, dipping to ground about 80 percent of the distance from 8 miles west of Wimberley to one mile southwest of Blanco. It was observed by many residents as it passed aloft just to the south of Blanco a few minutes before 5 pm est.							
		Segment #5... It then began its last continuous path on ground which was a 7 mile stretch along the Blanco River to near Falls Creek. It first touched down in Blanco County at 5 pm and soon directly hit the McClain dairy on Crabapple Creek. It deroofed the farm home and destroyed barns and farm equipment. Several head of cattle were killed as well as many poultry. Neighbors observed the twister and said that the persistent east winds that had blown all day suddenly stopped before the twister hit. Many farm houses were barely missed by the funnel as it continued west-northwest before ending alongside Farm to Market Road 1888 at Falls Creek. One rancher described the tornado as "One large tornado with two smaller ones in it." Damage path on this last leg ranged up to 300 yards wide.							
Prio Co. (5 mi. SW of Pearsall)	10	4:30 pm	2	30	0	0	4	0	Tornado
		The tornado moved westward over a farm about 5 miles southwest of Pearsall. Witnesses observed the short lived tornado as it destroyed a barn and windmill and narrowly missed the farm house on the Ruben Trevino farm.							
Bexar Co.	10	4:30 pm							Funnel Cloud
		A funnel cloud was observed from the ground and also by a pilot over extreme northwestern San Antonio close to Interstate 10. The funnel moved toward the southwest and apparently never touched ground.							

# 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		
<b>LATE REPORTS TEXAS (continued)</b>										
<b>SOUTHERN AUGUST 1980</b>										
Frio Co. (Pearsall)	10	4:45 pm	1 1/2	30	0	0	3	0		Tornado
A weak tornado was observed passing over a residential area in Pearsall. Minor roof damage occurred to houses along S. Ash St., large trees were uprooted, but no one was hurt as residents described hearing a sudden roar and taking cover.										
Nueces Co.	10	5:30 pm								Funnel Clouds
Several funnel clouds were observed over the Corpus Christi area around 5:30 pm est. Allen's main rain band was lying parallel to the coast and just west of the area at the time. Relatively dense populated area in the city probably would have shown clear evidence had any of the funnels ever touched ground. Apparently none did.										
Nueces Co. (Calallen)	10	5:30 pm	1	30	0	0	4	0		Tornado
A small tornado moving toward the west-northwest dipped to earth and caused scattered damages near the Corpus Christi Petrochemical Plant on Highway 9 about 7 miles west of the airport. Although sustained winds from Hurricane Allen had subsided greatly over the area from what they had been earlier in the day, the wind recorder at the plant registered a sudden 100 mph wind as the edge of the tornado passed over the chemical plant.										
San Patricio Co. (near Mathis)	10	6:30 pm	2	30	0	0	5	0		Tornado
This tornado skipped on a northward path across agricultural lands outside Mathis. No significant crop damage was done, but the twister passed near a cotton gin heavily damaging it. In the same area over an hour's time, funnel clouds were also seen aloft near Point Loma, Whitney Switch, and Old McAnnally Road.										
Bexar Co. (near Sayers)	10	6:35 pm	8/10	35	0	0	0	0		Tornado
A funnel cloud passed over southeast Bexar County near Calaveras Lake moving toward the northwest. Witnesses saw it touch ground near East Central High School a short distance south of the path of a stronger tornado that same morning. This one only hit in an open field uprooting some trees before dissipating.										
Hidalgo Co. (Penitas)	10	6:50 pm	1	50	0	0	5	0		Tornado
The quick tornado moved on a path toward the north-northeast on the edge of the Penitas community. Discernible damage path started at the Missouri Pacific Railroad tracks and ended close to the intersection of US Highway 83 and Farm Road 1427. Along this path numerous large trees were uprooted, a warehouse was severely damaged, and about 25 houses received extensive roof and window damage. There were no confirmed injuries. The tornado formed near the southern edge of a large rain band associated with Tropical Storm Allen which was centered near Laredo at the time.										
Medina Co. (near Devine)	10	7:30 pm	1	40	0	0	4	0		Tornado
This short-lived tornado moved on a southeast-to-northwest path just southwest of Devine. It passed near Highway 173 just missing a direct hit on a farm building but still taking its roof off. Power lines were severed cutting off power to Big Foot community.										
Kleberg Co. (near Kingsville)	11	12:30 am	1/2	25	0	0	0	0		Tornado
Deputy sheriffs observed a large funnel cloud aloft passing northward over the King Ranch main gate west of Kingsville. Deputies said that rain suddenly stopped, lightning illuminated the funnel, and it made a roaring sound as it passed. No damage was found from the funnel in this area, but soon afterward it began cutting a path through ranchland without hitting any structures.										
Medina Co. (near Hondo)	11	12:30 am	1 1/2	40	0	0	4	0		Tornado
A small tornado moving from the southeast to northwest crossed Highway 173 a few miles north of Hondo. It passed within 50 yards of a house ripping a portion of the porch and roof off, downing trees, but hitting no other structures before it dissipated over hills to the northwest. Squally weather associated with one of Allen's dying rain bands caused scattered damages near Hondo just moments before the twister was reported. Occupants of the house said that rainy, windy conditions let up momentarily before the tornado passed by, with a distinct onset of roaring noise as the tornado was close.										
Hays Co.	11	6:30 am								Funnel cloud
The funnel was seen passing near Kyle but did not touch ground.										
Val Verde Co.	17	8:00 am			0	0	?	?		Rain Flooding
Early morning thunderstorms dumped torrents of rain over northern Val Verde County. One ranch recorded 2.6 inches in one hour with totals of 4 inches common over northern Val Verde County before rains subsided at 10 am. Flash flooding developed in most canyons and sharp rises moved down the Devil's and Dry Devil's Rivers. Highways were closed temporarily by swift waters.										
Polk Co.	22	5:30 pm			0	0	4	0		Wind
A 10-minute duration thunderstorm produced wind gusts measured at 75 mph by the Trinity River Authority gauge on Lake Livingston. Large gas storage tanks on the lake were blown away, at least one boat capsized, and scattered damages occurred elsewhere in the area.										

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS				ESTIMATED DAMAGE	CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS		
<b>LATE REPORTS TEXAS (continued)</b>										
<b>SOUTHERN AUGUST 1980</b>										
Hardin Co.	22	5:40 pm			0	0	5	0		Wind
A band of severe thunderstorms developed and moved through Hardin County producing high wind gusts. Damage to trees, roofs, and utilities occurred over much of the county with concentrated damages inside Kountze and Silsbee. In Silsbee many pine trees were downed, light standards were bent at the Silsbee High School stadium, very many plate glass windows were blown into the west and north sides of buildings, and numerous utility poles were pushed over.										
Fayette Co.	22	afternoon			0	0	4	0		Wind
Short duration but very strong blasts of wind were generated by an isolated thunderstorm over LaGrange. Scattered damages occurred over the area, except at one farm a small building and a large water cistern were demolished.										
Travis Co.	22	afternoon			0	0	5	0		Wind
Williamson Co.	22	afternoon			0	0	5	0		Wind
Severe damaging wind gusts occurred simultaneously with 30-minute downpours underneath a cluster of thunderstorms in western Williamson Co. and northern Travis Co. Winds ripped awnings, antennas, roofs, and fences, and broke many plate glass windows from Cedar Park to Austin. In Austin a concentrated swath of damages was reported on a mile long area between South First and Manchaca Streets. Half-inch diameter hail caused no problems.										
Hardin Co.	24	4:10 pm			0	0	4	0		Lightning
Lightning hit the city communication tower causing damage to police radios and other city-owned equipment. Utilities were knocked out, light bulbs exploded, and telephones were shorted.										
Harris Co.	27	1:30 pm			0	0	?	0		Wind
A severe thunderstorm cell moved northwest over the Deer Park, Channelview, eastern Harris County area producing locally damaging wind gusts.										
Bexar Co.	27	3:30 pm			0	0	5	0		Wind
Guadalupe Co.	27	3:30 pm			0	0	4	0		Wind
A single thunderstorm cell developed rapidly on the Bexar-Guadalupe county line and showed no appreciable movement. Sudden short-lived downpours were followed by a strong downburst of wind. Gusts were estimated at 80 to 90 mph and caused scattered damages over Universal City, Live Oak, and Shertz. Trees overturned, roofs peeled, traffic signals and signs were blown down, and many small storage builds were toppled. One mobile home was rolled and demolished. On Old Converse Road a farm suffered severe damages and one barn was blown 100 yards from east to west.										
Brazos Co.	27	4:00 pm			0	0	5	0		Wind
	27	4:00 pm			0	0	5	0		Lightning
A severe thunderstorm hit the Bryan-College Station area during the afternoon rush hour. Severe gusts tore roofs from at least four businesses and damaged a number of house roofs. Trees and power poles were downed. Torrential rain was centered over Bryan where 3 inches in 1 1/2 hours filled creeks. Water surged through streets and created very hazardous conditions for traffic, but apparently caused no great property damages. This downpour broke a 91 day rainless period for Bryan, the second longest such period of record for the city. The same storm produced many lightning strikes. Utility equipment suffered big losses. Power was out for 12,000 residents for four hours. In Bryan 3 homes were struck by lightning and set on fire.										
Galveston Co. (Texas City)	28	10:10 am	3/10	30	0	0	5	0		Tornado
The tornado was seen by many persons and photographed by several. Civil Defense Director, who observed it, said "It sounded just like a cannon. Then it roared real loud. Then it was gone." The narrow tail of the twister dipped to ground twice over residential and business areas; each time on the ground for only 15 seconds. It damaged the roofs of 13 houses, broke windows, and rolled several parked cars. Power lines were severed. The damage areas started at 16th Avenue at 19th Street moved westward to 34th and Palm, and was on ground at these two points only briefly. The tornado was followed by heavy downpours that dropped nearly an inch of rain in 10 minutes.										
Jim Hogg Co.	29	4:45 pm			0	0	?	?		Wind
A severe thunderstorm cell developed in central Jim Hogg County just north of Agua Nueva and moved southwest causing damaging wind gusts over rural areas and towns in southern parts of the county.										
Austin Co. (near Sealy)	29	12:20 pm	1/10	20	0	0	0	0		Tornado
A small tornado touched ground in open farm land between Sealy and the San Bernard River. The twister formed on the edge of an area of very heavy thunderstorms extending from Angleton to Sealy. It hit no structures and caused no damage.										

# 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	INURED	PROPERTY	CROPS	
<b>LATE REPORTS TEXAS (continued)</b>									
<b>SOUTHERN</b>									
<b>AUGUST 1980</b>									
Webb Co.	29	7:00 pm			0	0	5	0	Wind
	29	8:00 pm			0	0	7	0	Rain Flooding
Zapata Co.	29	7:55 pm			0	0	4	0	Wind
<p>A severe thunderstorm produced high wind gusts over the city of Laredo and western Webb County. At the airport peak gusts were measured at 88 mph but on the south side of Laredo severity of damage to frame houses indicated peak gusts possibly of 115 mph. The storm moved southward along the Rio Grande into Zapata County still producing severe wind gusts. The storm developed 15 miles from Laredo, grew rapidly, and moved southward over the city. There were no reported injuries. A plane roared at the airport was flipped. Many houses had roof damage. On the south side of Laredo several houses had the entire roof blown off. Several mobile homes were flipped and twisted. Scores of cars were battered by blowing debris.</p> <p>Rains of 5 inches fell in a little over an hour. Low areas of Laredo experienced flash flooding with streets overwashed and undermined. Drainage ditches spilled over banks with very swift waters.</p>									
Brooks Co.	30	Afternoon			0	0	?	?	Lightning
<p>Lightning struck a power line leading into the Falfurrias newspaper office. The electrical surge set fire to meters and burned the wall.</p>									
Harris Co.	30	2:00 pm							Funnel Cloud
<p>Building thunderstorms generated a funnel cloud over Crosby in eastern Harris County. It moved north without touching ground. Gusty winds did occur with associated thunderstorms and caused minor wind damages over Highlands and other eastern Harris County areas.</p>									
<b>SEPTEMBER 1980</b>									
Harris Co.	2	2:00 pm			0	0	5	0	Lightning
<p>An electrical storm over the city of Bellaire produced numerous lightning strikes which damaged the municipal water well pumps, radios and communications systems, utility lines and transformers, and the city's central power station.</p>									
Jefferson Co.	5	3:00 pm							Funnel Clouds
<p>Several funnel clouds passed over marshlands 5 to 7 miles south-east of Jefferson County Airport moving generally toward the south or southwest. At 3:53 pm one funnel passed over Memorial Blvd in Port Arthur. None of the funnels touched ground.</p>									
Jefferson Co. (Beaumont)	5	4:45 pm	2	30	0	0	5	0	Tornado
<p>A small twister moved rapidly east to west along College Street in west Beaumont. It first touched ground in the 5200 block of College and then a second time in the 5900 block of College near Langham Road. It caused damage at the College Street Mobile Home Park; damaged the roof of one business, and at the Langham Rd. vicinity of College St. It passed near Evangel Temple where it tore tops out of trees, took shingles off roofs, broke house windows, and lifted loose objects from yards. The funnel was spotted again a few minutes later moving westward aloft near Highway 90 west of Beaumont.</p>									
Southeast and Central Texas	5-8								Tropical Storm Danielle Rain, Flooding
<p>Tropical Storm Danielle formed from a depression in the northern Gulf of Mexico mid day on September 5 and moved westward going inland along the extreme upper Texas coast the evening of the 5th. Danielle's lifespan in the Gulf was not long enough to generate damaging winds or tides in Texas. However, Danielle dropped torrential rains and produced serious flooding over two widely separated parts of Texas. Flooding first developed over the extreme southeast corner of the state as Danielle moved onshore late on the 5th. During the next several days after Danielle had moved westward, floods occurred over parts of the Texas Hill Country and Edwards Plateau some 350 miles farther west. Danielle's rains were heaviest at night and only light to moderate rains fell during the day of the 6th along Danielle's track as it moved toward central Texas.</p> <p>In southeast Texas maximum rainfall was over 17 inches at Nederland, Groves, and Port Arthur. In central Texas maximum rainfall was about 25 inches on a ranch 10 miles northwest of Junction. Total damage in Texas from heavy rain and flooding was estimated in the range 20 to 30 million dollars.</p> <p>Danielle's rains fell on areas that had not been affected by Hurricane Allen's rains a month earlier. As a result, the flooded areas had been very dry and still suffering from drought conditions before Danielle arrived. This probably helped reduce the amount of flooding caused by Danielle, especially in rural areas.</p>									

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INURED	PROPERTY	CROPS	
<b>LATE REPORTS TEXAS (continued)</b>									
<b>SOUTHERN</b>									
<b>SEPTEMBER 1980</b>									
<p>Southeast Texas: As Tropical Storm Danielle's center passed westward along the coast and then inland through southern Jefferson and Chambers Counties, a band of intense rains swept inland to the east and north of the center. Through evening hours of the 5th and into morning of the 6th, serious flooding set in over extreme southeast Texas. Some rainfall totals for the period were 17.16 inches at Jefferson County Airport, just short of the all-time 24-hour rainfall record for that station; Bridge City 16 inches; Vidor 14 inches; Beaumont 13 inches; Cheek 12 inches.</p> <p>Central Texas: The Hill Country and adjacent parts of the Edwards Plateau received heavy rains the nights of September 6, 7, and 8. Although no longer a tropical depression, the remains of Danielle coalesced into slow moving high tide storms along the Balcones Escarpment and northward. The worst single rainstorm dumped 25 inches on Kinle County sending a flood crest down the Llano River that was the second highest ever recorded on that basin. The extreme swiftness of the water led to severe flood damages along the Llano River.</p> <p>See individual county reports below for flood impacts and details.</p>									
Jefferson Co.	5	evening-6 next day			0	0	?	0	Tidal Flooding
<p>Tides along the Gulf peaked at 3.0 to 3.5 feet above sea level. Surf washed over Texas Highway 67 between Sabine Pass and Sea Rim State Park, but no damage was done because the road remained in disrepair from Hurricane Allen's tides a month earlier.</p> <p>The huge rains caused damages in the cities of Beaumont, Port Arthur, Nederland, Port Neches, Groves, and other suburbs. Total damages for the area were estimated at \$3 million. About 900 homes, 175 businesses, 2 schools, hundreds of automobiles, and many roads and bridges suffered flood damages in the county.</p> <p>One drowning death occurred in Beaumont around 10 pm on the 5th when an out-of-town woman drove her car around a barricade and into a flooded underpass at College and Railroad Ave. She was unable to escape before the car submerged in 18 feet of water. All Beaumont underpasses flooded and water was beginning to enter some homes by 9 pm est when rainfall totals were approaching 7 to 9 inches. Parts of the South Park area were evacuated and eventually water was 2 feet deep in some houses. In north Beaumont other houses and apartments flooded. Many cars flooded out and were abandoned in deep water. Most houses that flooded in April 1979 and July 1979 were flooded again this time.</p> <p>In Port Arthur the Montrose and ElVista areas were hit hardest by flooding, but pockets of worse flooding could be found wherever water ponded. Drainage pumps could not keep up with the deluge. On Lake Sabine a 64-year old man died of heart attack during rescue attempts to remove him from his capsized fishing boat. At Port Neches a waste oil pit filled with rain water and spilled its 200 to 300 barrels of oil into the Neches River. Clean up operations were costly. Hillebrandt Bayou rose out of banks by midnight of the 5th flooding low areas around the Lovell Lake community. Texas Highway 124 was blocked by the bayou waters which rose 3 feet over bankfull at Hillebrandt Acres on the 6th.</p>									
Orange Co.	5-6	evening-6 next day			0	0	6	?	Rain Flooding
<p>Heaviest rains fell along the southern edge of Orange County with 16 inches at Bridge City and 14 inches at Vidor. Nearly 9 inches fell at Orange. By 7 pm water was entering some buildings and homes in Bridge City. Extensive sandbagging efforts around individual buildings saved some from flooding, but an estimated 30 homes and businesses were damaged. Areas along Texas Avenue and low spots in 4 or 5 subdivisions were flooded badly. Many cars were driven into roadside ditches as motorists became disoriented in the water-covered terrain. In Orange street flooding was extensive but the only reported building damages were at a river side housing project. Waters drained slowly during the 6th.</p>									
Jefferson Co.	5	night			0	0	5	0	Lightning
<p>Beaumont Fire Department was called on to extinguish some 30 to 40 small fires started by lightning. Strikes hit buildings, trees, and power lines. One lightning-started blaze heavily damaged an apartment building.</p>									
Jefferson Co. (Nederland)	6	4:00 am	1/10	20	0	0	4	0	Tornado
<p>A small funnel dipped to earth briefly as it moved rapidly to the northwest near a band of showers. It destroyed a barn near the intersection of US Highway 69 and Texas 365 less than a mile from the airport. It moved northwest and remained aloft after the one touch down. It was seen a last time aloft by sheriff deputies on the edge of Beaumont at Highway 69 and Texas 347.</p>									
Galveston Co.	6	9:30 am							Funnel Cloud
<p>A funnel cloud passed aloft near Friendswood. It headed toward the northwest and may have been the same funnel that touched ground east of Alvin a short time later.</p>									

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED <sup>1</sup> DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
<b>LATE REPORTS</b>									
<b>TEXAS (continued)</b>									
<b>SOUTHERN</b>									
<b>SEPTEMBER 1980</b>									
Brasoria Co. (3 E Alvin)	6	9:55 am 6 morning	2/10	20	0	0	0	0	Tornado Funnel Clouds
The tornado touched ground over a short track about 3 miles east of Alvin near highway 6. It moved briefly over fields heading northwest but hit no structures and did no damage. The large funnel lifted and was photographed as it moved aloft for several miles. Other funnels were seen around Danbury and over eastern and northern Brazoria County in the morning.									
Harris Co. (SW Houston)	6	10:30 am	1/10	20	0	0	0	0	Tornado
A small tornado formed in squally weather associated with Tropical Storm Danielle. It touched ground very briefly in southwest Houston near Southwest Freeway and Bissonnet Road. Its short track toward the northwest did not hit any structures.									
Galveston Co. (Port Bolivar)	6	11:00 am	1/10	30	0	0	3	0	Tornado
A small tornado moved northward across the Bolivar Peninsula dipping to ground over Port Bolivar where it hit a county owned storage building. The weak twister tore off part of the roof and a wall. The fire marshal witnessed it and said, "It had rained real hard; it suddenly stopped and then the tornado popped out of the clouds."									
Fort Bend Co.	6	1:00 pm							Funnel Clouds
4 to 6 funnel clouds were seen over eastern Fort Bend County in the area from Missouri City to Sugar Land to Stafford. None touched ground as they moved toward the north or northwest.									
Nueces Co.	6	afternoon			0	0	5	0	Lightning
Frequent lightning hit the city of Corpus Christi during a series of thunderstorms. Utility equipment was damaged and power halted to 1500 homes. Electrical meter boxes throughout the city shorted out and started a number of fires. One palm tree was struck, caught fire, and in turn ignited the adjacent house which was gutted by the resulting fire.									
Kendall Co.	6	night			0	0	4	0	Lightning
Lightning struck the Boerne High School damaging electrical wiring, lights, and the air conditioning system. The school was unoccupied at the time.									
Wilson Co.	7	3:15 am			0	0	?	?	Rain Flooding
Heavy rains had accumulated 5 to 6 inches by post-midnight hours and began causing flash flooding on some creeks. Marcellas Creek overtopped Farm Road 541 east of Poth doing some erosion to the bridge. Other creeks contributed to loss of fences and rural flooding.									
Guadalupe Co.	7	4:15 am			0	0	?	?	Rain Flooding
Rains amounted to 5 and 6 inches over most of the county by midnight and continuing heavy downpours after midnight sent small streams on sudden rises over bankfull. Farm Road 466 on the south side of the Guadalupe River was flooded at several spots where creeks cross it into the Guadalupe River. Rural flooding and some road damages were the main effects.									
Medina Co.	7	8:30 am - all day			0	0	5	?	Rain Flooding
After light steady rains on the 6th, storms intensified about 4 am on the 7th and flooded creeks by late morning. Farm Road 462 at Hondo Creek was washed over by swift current and along Parker Creek near Danis 45 families had to be evacuated as flood waters surged close to their homes. The early morning rains pushed totals to about 10 inches for parts of northern Medina County.									
Bandera Co.	7	9:00 am-evening			0	0	5	?	Rain Flooding
8	2:00 am-morning				0	0	?	?	Rain Flooding
Light rains on the 6th became heavy downpours on the morning of the 7th giving 7 inches at Bandera and Medina. North of Medina on the north Prong of the Medina River, 12 to 14 inches of rain fell. The Medina River developed a 20 ft rise which crested from the town of Medina downstream to Bandera and into Lake Medina during the afternoon of the 7th. This put the river 1 foot below the bridge roadbed structure at Bandera; it washed out the bridge on Highway 14 at Raiger Crossing below Medina; blocked Farm Road 187, and sprouted trees on the river bank. Winnians Creek had already put a rise into the river below Bandera in the morning which helped wash over English Crossing east of Bandera. The greatest burst of rain was on the north Prong between 6 and 8 am. The western part of the county received 10.65 inches at Vanderpool which put a flash flood down the Sabinal River. The new road between Medina and Vanderpool was washed out because of the overhead rains and swift runoff. State Highway 187 at Lost Maple State Park was washed out as was Farm Road 470 at Medina River crossings.									
A second night of downpours put new rises on streams by 2 am of the 8th. These rises were not as great as the previous day's, but 8 feet of water covered Farm Road 2107 and Highway 16 along the North Prong, and isolated residents.									

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED <sup>1</sup> DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
<b>LATE REPORTS</b>									
<b>TEXAS (continued)</b>									
<b>SOUTHERN</b>									
<b>SEPTEMBER 1980</b>									
Kerr Co.	7	10:30 am-afternoon			0	0	5	0	Rain Flooding
From 7 to 10 am heavy rains filled creeks after a night of soaking steady rains. Amounts totalled 6.5 inches in western Kerr Co. A swift rise came down the Guadalupe River and, although it was not a huge rise, it did overtop the highway at Hunt and tear small boats loose from the pier at Hays Park in Kerrville.									
Real Co.	7	10:45 am-afternoon			0	0	5	0	Rain Flooding
11.8 inches of rain fell at Leakey, most having accumulated during the morning of the 7th. A sharp rise on the Frio River washed over US Highway 83 south of Leakey while the rains also generated a rise on the Nueces River down from Camp Wood. State Highway 837 washed out in spots. Swift water and road closures continued through the next night until rains tapered off.									
Uvalde Co.	7	11:00 am-afternoon			0	0	5	0	Rain Flooding
Flash flooding moved down the Frio and Sabinal Rivers into Uvalde County. Most of the flood producing rain had fallen in Real and Bandera Counties to the north, but rises coming downstream were still great enough to flood low water crossing 10 feet deep near Concan and north of Sabinal. Garner State Park campers moved out upon being warned and no one was threatened by the sudden river rises.									
Gillespie Co.	7	noon on			0	0	?	0	Rain Flooding
A 4-inch rain put enough rise on creeks to block rural roads and send a moderate rise down the Pedernales River. Its main effect was to wet the ground and enhance later flood producing rains.									
Galveston Co.	7	afternoon			0	3	?	0	Lightning
Three men were installing a floor at a beach cabin at Caplen when the house was hit by lightning. Two of the men received minor bruises when they were knocked down by the bolt, but the third man was more seriously injured because he received the electrical strike directly on top of his head. Although he was knocked unconscious, first aid and cardiopulmonary resuscitation by one of the other men was credited with reviving him.									
Bexar Co.	7	5:30 pm			0	0	4	0	Lightning
Lightning struck an electrical meter box on a San Antonio house on Seidel Road and caused the house to catch fire. The same electrical storm temporarily knocked out aviation support equipment at San Antonio International Airport.									
Kimble Co.	7- 8	Late night - next day			0	0	0	?	Rain Flooding
Countywide damages to property were estimated at 8 million dollars. Creeks throughout the county were on a strong rise by 10 pm cst from steady rainfall during the day of the 7th. Very intense rains developed around the midnight hour over western and central Kimble County. By 7 am on the 8th rainfall totals were 13 inches over a large part of the county, but center of the rainstorm was on the Pfluger Ranch 10 miles northwest of Junction where 25 inches eventually were accumulated for the period 6 am 7th to 9 am 8th. Much of that rain, however, fell during the near-midnight hours of the 7th. The greatest volume of water apparently came down Bear Creek which tore away part of Interstate 10 Highway and a bridge on the frontage road. Interstate 10 was closed by 2:30 am as the water entered the Llano River just above Junction. By soon after midnight, residents near the river in Junction were being awakened by telephone calls giving the warning. Less than 3 hours later houses, a campground, a mobile home park, and several businesses near the river in Junction were inundated with the swift waters. No loss of life or injury occurred. Highway 83 northward from Junction was washed out also. The waters crested at Junction later that morning at the second highest level on record (record was June 1955). Waters roared on down the Llano sweeping lots of fences and livestock out of the river bottom.									
Mason Co.	7- 8	Late night - next day			0	0	0	?	Rain Flooding
9	All day				0	0	?	?	Rain Flooding
Heavy rains about midnight sent feeder creeks of the Llano on a big rise. The creeks swelled the Llano River after daybreak while a near record rise simultaneously entered the county from upstream Kimble County on the Llano River. The result was that the crest moved very swiftly through the county and maintained its near-record height. Losses from the flash flooding included 12 riverside cabins, irrigation systems on 25 ranches, several houses, low bridges and roads in the river bottom, many head of livestock with as many as 3000 head of goats drowned, and nearly 100 miles of fences. The river crested south of Mason during mid afternoon.									
Total damages were believed in the neighborhood of \$5 million.									
The heavy rains over the county caused other damages away from the Llano River. Bluff Creek rose over the Junction Highway west of Mason and nearly washed it away. Rains of 11.9 inches at Camp Air and 15.2 inches at Long Mountain sent water cascading down rocky hill sides and over highways. On US 87 near Camp Air a commercial bus hit a sheet of swift water and was hurled off the road. The bus floated into a clump of trees and came to rest.									





# 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	PROPERTY	CROPS	
<b>LATE REPORTS TEXAS (continued) SOUTHERN</b>											
<b>SEPTEMBER 1980</b>											
Galveston Co.	25	1:30 pm									Funnel Cloud
A funnel cloud passed over the north end of Galveston Island moving northwestward.											
Refugio Co.	26	8:00 am	?	?	0	0	0	0	0	0	Waterspout
The spout formed in Copano Bay just northeast of Bayside, moved west and dissipated before reaching shore.											
Refugio Co.	27	early morning			0	0	?	?	?	?	Rain Flooding
Aransas Co.	27	early morning			0	0	?	?	?	?	Rain Flooding
San Patricio Co.	27	early morning			0	0	?	?	?	?	Rain Flooding
Nearly 5 inches of rain over the area on the 26th wetted the ground. A slow moving thunderstorm on the night of the 26th dropped enough rain to cause ponding of water in low areas throughout all three counties. Water was reported over rural and county roads in all areas soon after midnight through morning of the 27th.											
Brazoria Co.	27	5:00 pm									Funnel Cloud
Large funnel cloud formed just east of Pearland and moved toward Sugar Land. It never touched ground.											
Kerr Co.	29	3:45 am			0	0	?	?	?	?	Rain Flooding
Heavy thunderstorm rains during the night but the Guadalupe River and tributary creeks on a sudden rise which closed Highway 27 along the river. At Hunt the river crested 3 feet over flood-stage later in the morning.											
Bandera Co.	29	2:30 am			0	0	?	?	?	?	Rain Flooding
Heavy thunderstorm rains put sudden rises on both the Medina and Sabinal Rivers. At Bandera the Medina came up 15 to 17 feet later in the morning and washed out Highway 16 near the city of Medina. The Sabinal River washed over Highway 187 near Vanderpool around noon. Damages were generally confined to roads and bridges.											
Real Co.	29	3:00 am			0	0	?	?	?	?	Rain Flooding
Four inches of rain dropped suddenly on the Leakey area around midnight causing a sharp rise on the Frio River. Highway 83 and other river roads were washed over a low water crossings throughout the morning.											
Kimble Co.	29	afternoon			0	0	?	?	?	?	Rain Flooding
During the morning torrential thunderstorm rains of 5 to 6 inches over extreme northern Edwards County and southern Kimble County sent sharp rises down the south Llano River as well as down Paint Creek near the town of Telegraph. From Telegraph to Junction, the waters combined for a 20-ft rise which abated as it neared Junction in the wider river basin. No damage was reported at Junction where the river basin remained clear of obstruction due to the earlier severe flood in September.											
<b>OCTOBER 1980</b>											
Cameron Co.	6	11:30 am									Funnel Cloud
A funnel cloud formed near heavy thunderstorms and passed aloft in the vicinity of Boca Chica.											
Brazos Co.	14	6:00 pm			0	0	5	?	?	?	Wind
A thunderstorm not showing much movement became severe over Brazos County and was centered mainly over the Bryan-College Station area. The short-lived storm cell began producing extreme wind gusts at 6 pm and only lasted for 30 minutes. Those wind gusts came just after heavy rain had started to fall. Damages included a collapsed wall at a shopping mall; many trees blown over, some falling onto buildings and causing further damage; very many windows were blown into houses and businesses; widespread roof damages; and, a large tree toppled. The one inch of rain in 30 minutes caused brief street flooding. Several fires were started by lightning, but those caused no monetary loss as they were limited to trees and a transformer pole. The sheriff's office reported similar wind damages in surrounding rural areas.											
Comal Co.	14	7:30 pm			0	0	?	?	?	?	Hail
Although the 1/2 inch diameter hail was not large enough to cause significant property damage, it fell in such great quantities over the Canyon Lake and Canyon City area that it covered the ground and built up into drifts. One inch of rain fell in 15 minutes and caused flooding of creeks for a brief period.											
Harris Co.	15	4:00 pm			0	0	5	?	?	?	Wind
Harris Co.	15	4:00 pm			0	0	5	?	?	?	Hail
Harris Co.	15	5:30 pm			0	0	4	0	0	0	Rain Flooding
A southeastward moving severe thunderstorm caused damaging hail, wind, intense lightning, and torrential rainfall over northwest Houston. Hitting at Irish hour, the storm created hazardous conditions for commuters. The worst hit area was a relatively small part of Houston west of Shepherd and south of North Loop 610. Winds overturned trees onto houses causing much damage; blew in											
<b>LATE REPORTS TEXAS (continued) SOUTHERN</b>											
<b>OCTOBER 1980</b>											
Real Co.	15	8:30 pm			0	0	?	?	?	?	Hail
Bandera Co.	15	9:00 pm			0	0	?	?	?	?	Hail
Kerr Co.	15	10:00 pm			0	0	?	?	?	?	Hail
Kerr Co.	15	10:30 pm			0	0	4	0	0	0	Wind
Kerr Co.	15	11:00 pm			0	0	4	0	0	0	Rain Flooding
Kendall Co.	15	10:25 pm			0	0	5	0	0	0	Wind
A cluster of severe thunderstorms moved east-northeast over these counties. Starting in Real County, the storm dropped a few large hail stones around Leakey and eastward through northwestern Bandera County. Extent of damages were not known. The worst part of the storm then passed into Kerr County over Camp Verde, Center Point, and Comfort. Golfball sized hail hit about 10 pm and damaging winds also occurred. At Comfort a trailer home was overturned and demolished while others were damaged. The high wind gusts also hit other areas of Kendall County east of Comfort. Rainfall was heaviest in eastern Kerr County where 6.6 inches at Center Point, 5 inches on Cypress Creek, and 4.2 inches on Verde Creek put a 15 foot high rise onto the Guadalupe River below Center Point and flooded low water crossings on Highway 87 north of Comfort and 27 near Center Point.											
Williamson Co.	16	12:00 am			0	0	4	?	?	?	Wind
Travis Co.	16	1:00 am			0	0	5	?	?	?	Wind
Travis Co.	16	3:00 am			0	0	?	?	?	?	Rain Flooding
Blanco Co.	16	2:00 am			0	0	?	?	?	?	Rain Flooding
Hays Co.	16	3:00 am			0	0	?	?	?	?	Rain Flooding
Thunderstorms hit these areas soon after midnight causing damaging wind gusts over western Williamson County and northwest Travis County and dumping enough rain to produce flash flooding on streams in Travis, Blanco, and Hays Counties. Wind gusts shattered glass windows into homes showering sleeping residents with splinters but causing no injuries. The Balbones Village area north of Austin sustained scattered wind damages to homes, trees, businesses and outbuildings. In Williamson County severe wind gusts damaged rural barns over the west and southwest areas while in Georgetown roofs were peeled from several businesses and homes, and many power lines were knocked down. Rains that followed the wind totaled 5.1 inches in western Blanco County, 7 inches in southwest Travis County, and 4.8 inches in western Williamson County. Most rain fell in two hours from 12:30 to 2:30 am est. In Hays County Onion Creek surged out of banks flooding Farm Road 967 near Driftwood. The Blanco River rose sharply from Blanco downstream to San Marcos flooding some riverside roads. In Travis County the most flooding occurred on Barton Creek. The sudden high surge of water flooded rural areas in the early morning and roared into Austin by early afternoon where swimmers at Barton Springs Pool in Walker Park had to scramble to get out of the water when the flood crest arrived turning the clear pool into a flooding brown current in less than 20 minutes. North of Austin several homes flooded next to a creek in the Balbones Village subdivision. In Williamson County around Cedar Park some damages were reported along creeks in Forest North and Brushy Creek areas.											
Jefferson Co.	18	7:30 am			0	0	6	?	?	?	Rain Flooding
A slow moving cold front was preceded by a steady train of thunderstorms which moved inland from the Gulf of Mexico across the extreme upper Texas coast. Flooding was not as widespread as during Tropical Storm Danielle rains of September 1980 in the same area, but the degree of flooding was as bad in a few places in north and middle Jefferson County.											
By 7 am est Beaumont had received 5.9 inches of rain and serious street flooding had begun. By 9:45 am rainfall was 7.5 inches and bad flooding was in progress over parts of south and west Beaumont. Some evacuations were needed in the South Park area and numerous homes had water rise into them from the streets. Scores of cars stalled and flooded on streets but were inundated where parked. The Beaumont Public Library had some water damage. The storms caused intense lightning strikes over Beaumont which knocked out main transmission lines and left a large part of the city without power for 5 hours. The rains over south Beaumont put a rise on Hillebrandt Bayou which forced it out of banks and flooded lower reaches the next few days. In the afternoon between 2 and 4 pm a renewed burst of rain added another 2 inches of rain to flood waters that had gradually started to recede. For the day Beaumont logged just over 11 inches of rain, most falling 5 to 7 am est.											
In Port Arthur, Port Neches, and Nederland rains also caused serious urban flooding. Rainfall totals were 8 to nearly 10 inches in these areas and a few residences in Port Neches reported being flooded for the first time in 20 years. Flooding in Port Arthur was said not to have been as severe as during September 1980.											

# 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	
<b>LATE REPORTS TEXAS (continued)</b>									
<b>SOUTHERN</b>									
Orange Co.	18	7:30 am			0	0	5	?	Rain Flooding
<p>The same series of storms that dumped torrential rains on Jefferson County moved north of the Neches River and caused flooding in Orange County too. Up to 9 am Bridge City had recorded 7.8 inches of rain; by 1 pm 9.9 inches had accumulated; and before rains tapered off later in the afternoon, the city had been deluged with 13.4 inches of rain. Water rose gradually over the area and ponded quite deeply in low residential areas. A few subdivisions reported water in homes and one nursing home was also flooded. Highway 87 between Bridge City and Orange was under water as was parts of Chemical Row in Orange. Orange rains totalled 9 inches and caused deep street flooding. In Vidor one residential area was threatened by ponding waters.</p>									
Medina Co.	18				0	0	?	0	Hail
Bexar Co.	18	10:30 am			0	0	5	0	Hail
Bexar Co.	18	12:10 pm			0	0	?	0	Hail
Guadalupe Co.	18	12:20 pm			0	0	?	0	Hail
<p>A severe thunderstorm developed south of Lake Medina and began dropping large hail stones as it moved eastward at 30 mph. Several other storms also intensified to the west of this storm during the late morning hours. Hail damages were not known in Medina County, but were probably light as the storm missed the local towns. The storm then moved into Bexar County and deposited large hail on the Helotes community. On Braun Road in northwest San Antonio a few stones as large as 1 1/2 inches diameter fell causing scattered property damage. A second separate hail storm developed on the northside of San Antonio at 12:10 pm and did further hail damages from its 1 inch diameter stones. This second storm progressed into Guadalupe Co. dropping large stones over farm areas. Brief urban flooding occurred in San Antonio due to the 1.5 inches of rain that fell in 20 minutes over the north side. Low water crossings on city streets ran deep and swift and one motorist had to be rescued from the dangerous waters at Lockhill-Selma and George Roads.</p>									
Gillespie Co.	18	9:50 am			0	0	5	?	Wind
Flanco Co.	18	10:15 am			0	0	?	?	Wind
<p>Morning thunderstorms raced eastward over these two counties causing scattered damages from the sudden high wind gusts. In Gillespie County most damage was reported around Doss where many farm buildings were badly damaged and power lines were blown down. One rancher lost livestock which wandered into the live damped wires. Rainfall of 1.8 inches in 15 minutes put a brief but sharp rise on creeks while continuing rains in eastern Gillespie eventually totalled 5 inches by afternoon and put a moderate rise on the Pedernales River.</p> <p>In Flanco County similar wind damages were experienced as the storm moved eastward. Also brief but intense downpours caused small stream flooding.</p>									
Kerr Co.	18	10:00 am			0	0	4	?	Hail
<p>The same storm that caused high winds over Gillespie County also dropped large hail over eastern Kerr County. The 1 inch hail, which hit east of Kerrville, caused minor damages to rural property. Small stream flash flooding lasted briefly in Kerr and neighboring Bandera Counties as a result of the rain, but no significant property damage was reported.</p>									
Harris Co. (Jersey Village)	18	12:50	2/10	20	0	0	4	0	Tornado
<p>A line of thunderstorms moving through the area generated one small tornado over the Houston suburb of Jersey Village. It touched ground briefly in the 1500 block of Seattle where it tore the roof and porch from a vacant house. It then crossed the block and overturned a parked car on 15000 Deloier. It moved very fast, was short lived, and was preceded and followed by heavy rain.</p> <p>Other strong winds hit the entire Houston area with the associated thunderstorm line producing scattered light damage and power outages.</p>									
Caldwell Co.	18	2:00 pm			1	1	0	0	Lightning
<p>Mr. Carl Fey, 21 years old, was struck and killed by lightning on a ranch close to the Caldwell-Conzales County line not far from the Harwood community. Another young man with him was injured by the same bolt. Both had been outdoors working on a deer blind in a meadow.</p>									
Harris Co.	18	2:45 pm							Funnel Cloud
<p>A funnel passed aloft over northwest Harris County. It was spotted first near Spetwater and West Roads. Other intense thunderstorms over the area produced some scattered mild wind damage, but there was no evidence that the funnel had touched ground.</p>									
<b>LATE REPORTS TEXAS (continued)</b>									
<b>SOUTHERN</b>									
Williamson Co.	23	10:30 pm							Funnel Cloud
Travis Co.	23	10:45 pm							" "
Bastrop Co.	24	midnight			0	0	?	?	Wind
<p>A rapidly developing thunderstorm produced a funnel cloud over Round Rock which moved southeastward across northern Travis County. The funnel apparently did not touch ground, but the thunderstorm developed into a severe one as it entered Bastrop County. Over rural areas north of the city of Bastrop scattered wind damages were reported.</p>									
Harris Co.	28	7:20 am			0	0	?	0	Hail
Montgomery Co.	28	7:40 am			0	0	?	0	Hail
<p>3/4 inch diameter hail stones fell from a thunderstorm that moved over northern Harris and extreme southern Montgomery Counties. The hail swath extended from east of Tomball to near Spring and into Montgomery County just north of Lake Houston.</p>									
<b>COLORADO</b>									
<b>BOULDER</b>									
	29	aftn, eve.			0	0	3	0	High winds
<p>Strong chinook winds reached speeds of 85 mph in Boulder. Traffic signals and street lights were blown down, and windows were shattered by the abrupt gusts.</p>									
<b>IOWA</b>									
<b>NOVEMBER 1980</b>									
<b>NONE REPORTED</b>									
<b>MINNESOTA</b>									
<b>NOVEMBER 1980</b>									
<b>NONE REPORTED</b>									
<b>SOUTH DAKOTA</b>									
<b>NOVEMBER 1980</b>									
<b>NONE REPORTED</b>									
<b>CORRECTIONS FLORIDA</b>									
<b>NOVEMBER 1980</b>									
MONROE COUNTY	11	6 AM -			0	0	6	0	HEAVY RAIN AND FLOODING
	12	6 AM EST							
<p>MORE THAN 23 INCHES OF RAIN FELL ON KEY WEST NOVEMBER 11-12TH. THIS IS THE HEAVIEST 24 HOUR AMOUNT EVER RECORDED IN KEY WEST. WIDESPREAD FLOODING OF HOMES AND CARS CAUSED HEAVY DAMAGE TO ABOUT 300 CARS AND 500 BUSINESSES AND HOMES. DAMAGE WAS ESTIMATED BY INSURANCE OFFICIALS TO BE NEARLY ONE MILLION DOLLARS.</p>									
MONROE COUNTY	12	AFTERNOON			0	0	0	0	WATERSPOUTS
<p>THE PUBLIC REPORTED FIVE DIFFERENT WATERSPOUTS WERE VISIBLE AT ONE TIME OR ANOTHER DURING THE AFTERNOON. THERE WERE NO REPORTS OF DAMAGE.</p>									
DADE COUNTY	15	625 AM EST	0.3	20	0	0	3	0	TORNADO
<p>A SMALL TORNADO TOUCHED DOWN IN SOUTHWEST DADE COUNTY DAMAGING ROOFS, BREAKING WINDOWS AND UPROOTING TREES IN A ONE OR TWO BLOCK AREA. DAMAGE WAS ESTIMATED LESS THAN \$5000.</p>									
BROWARD COUNTY	15	7 AM EST	0.3	20	0	0	3	0	TORNADO
<p>A SMALL TORNADO STRUCK A LARGE CONDOMINIUM IN MARGATE PRODUCING HEAVY ROOF DAMAGE AND BROKEN WINDOWS. A NUMBER OF CHAIRS AROUND A SWIMMING POOL WERE BLOWN ABOUT ONE QUARTER OF A MILE. DAMAGE WAS ESTIMATED \$5000.</p>									

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

- O Includes crop damage.
- C Crop damage.
- \* Miles instead of yards.
- \*\* Yards instead of miles.
- † Storm damages are placed in categories varying from 1 to 9 as follows:
  - 1 Less than \$50
  - 2 \$50 to \$500
  - 3 \$500 to \$5,000
  - 4 \$5,000 to \$50,000
  - 5 \$50,000 to \$500,000
  - 6 \$500,000 to \$5 Million
  - 7 \$5 Million to \$50 Million
  - 8 \$50 Million to \$500 Million
  - 9 \$500 Million to \$5 Billion

Note: This publication contains our best information on storms but, due to the difficulties inherent in collection of the type of data, it is not all-inclusive. Late Reports and Corrections will be carried in the month following receipt of these data.

SUBSCRIPTION PRICE: \$4.80 per year; \$12.00 foreign; 40c single copy; \$1.00 foreign. There is a minimum charge of \$3.00 for each order of shelf-stocked issues of publications. Make checks payable to Department of Commerce, NOAA; send payments and orders to: National Climatic Center, Federal Building, Asheville, NC 28801. Attn: Publications.

USCOMM-NOAA-ASHEVILLE, N.C. 1981-1700

U.S. DEPARTMENT OF COMMERCE  
NATIONAL CLIMATIC CENTER  
FEDERAL BUILDING  
ASHEVILLE, N.C. 28801

POSTAGE AND FEES PAID  
U. S. DEPARTMENT OF COMMERCE  
COM 210



THIRD CLASS  
BULK RATE