



Time Path Path Width Persons Damage
Location Date Standard (Miles) (Yards) Killed Injured Property Crops Character of Storm

TEXAS, Central Southeast

HARRIS County SOUTH PORTION	04	1752CST 1930CST			0	0	5K	FLASH FLOOD		
	Feeder roads flooded along I-45 in southern parts of the county.									
GALVESTON County SOUTH PORTION	04	1843CST 1950CST			0	0	35K	FLASH FLOOD		
	Highw San Le	ay 87 flooded from Ci	ystal Beach	h to High Is	land. Stre	et floodir	ng in Dickinson	. Water in homes in Baycliff and flooding in		
GALVESTON County										
SOUTH PORTION	04 Contin	1957CST 2330CST nued widespread floodi	nσ		0	0	10K	FLASH FLOOD		
BRAZORIA County	Contin	iaca wiacspread 1100ai	mg.							
4 E ANGLETON	05	0035CST	0.1	50	0	0	15K	Tornado (F0)		
TE THINGEET OF		0040CST						age and loss of livestock.		
HOUSTON County				-8						
GRAPELAND	06	0345CST			0	0	3K	FLASH FLOOD		
	Street	0500CST flooding in Grapeland								
TRINITY County	5	modung m orapetana								
TRINITY	06	0524CST			0	0	3K	FLASH FLOOD		
		0700CST vater on HWY 19.								
MONTGOMERY County	IIIgii v	vater on 11 w 1 19.								
CONROE	06	0600CST			0	0	2K	FLASH FLOOD		
		0715CST street flooding.								
FORT BEND County	WIIIOI	street mooding.								
NEEDVILLE to	06	0620CST	10	50	0	0	15K	Tornado (F0)		
5 S RICHMOND		0640CST down in Needville. Tr						` '		
WHARTON County	11003	down in receiving. 11	ces and po	wernines do	wii acioss	eastern p	ortions of the co	ounty.		
WHARTON County WHARTON	06	0630CST			0	0	2K	FLASH FLOOD		
		0730CST street flooding in Wha	rton		-	_				
LIBERTY County	WIIIOI	street flooding in wha	ii toii.							
ROMAYOR	06	0638CST			0	0	2K	FLASH FLOOD		
		0638CST 0800CST street flooding in Rom	navor		ŭ	ŭ		1 2.12.11 1 2 9 0 2		
HARRIS County	WIIIOI	street flooding in Ron	layor.							
HOUSTON	06	0650CST			0	0	3K	THUNDERSTORM WIND (G52)		
110001011		h winds in the Galleria	area		ŭ	ŭ	011	THE COLUMN (GC2)		
DDA7ODIA Countri	oo mp	ii winds iii the Ganeria	arca.							
BRAZORIA County 3 SSE ROSHARON to	06	0715CST			0	0	10K	THUNDERSTORM WIND		
5 SW ALVIN		0730CST and powerlines blown	down at CI	2 51 hetwee						
MATACODDA Countr	11003	and powernines blown	down at Ci	C 31 betwee	1111 W 1 2	00 & 1 W	1 J21 and along	CK 172.		
MATAGORDA County SARGENT	06	0717CST			0	0	5K	THUNDERSTORM WIND		
		damage to 2 homes in	Sargent		=	Ü				
GALVESTON County	vv IIIU (damage to 2 nomes in	oargent.							
DICKINSON	06	0731CST			0	0	0.50K	THUNDERSTORM WIND (G52)		
		h wind gust at NWS H	ouston/Gal	veston	=	Ü	*** ***	(302)		
	оо шр	n wind gust at iv ws fi	ousion/Oal	v C31011.						





October 1998 Estimated Damage Number of Persons Time Path Length Path Width Local/ Date Character of Storm Location Injure Standar

TEXAS, Central Southeast

GALVESTON County

JAMAICA BEACH PORT BOLIVAR

06 0756CST 0815CST 0

5K

THUNDERSTORM WIND (G64)

62 mph winds at Jamaica Beach and 75 mph gusts at the Ferry landing in Galveston.

CHAMBERS County

0825CST HANKAMER 06

3K

THUNDERSTORM WIND

Trees blown down.

TXZ176-196-198>200-

MADISON - BRAZOS - GRIMES - MONTGOMERY - LIBERTY - COLORADO - HARRIS - WHARTON - FORT 210-213-226>227-235>237 BEND - JACKSON - MATAGORDA - BRAZORIA

> 17 28 2300CST

Severe flooding revisited the Houston HSA during the month of October. The event began Saturday afternoon October 17th as train echo development across the northwest HSA. Through early Sunday morning October 18th an MCS moved slowly through the northern and western portions of the HSA producing extremely heavy rain. This same complex had moved earlier through the San Antonio area. The size and intensity of the complex along with the repeated development of heavy rains resulted in widespread average rainfall of 5 to 8 inches over the HSA. Many areas received in excess of 10 inches and over 16 inches of rain fell along the Wharton/Colorado county line. The large areal coverage of this heavy rainfall lead to widespread river flooding, some of which reached near record levels. During the day Sunday the rain moved quickly to the east producing rainfall amounts averaging 2 to 4 inches. This rainfall did not result in significant flooding.

Even before the rainfall has stopped, rapid rises were occurring on several main stems and tributaries within the HSA. 5 to 7 inches of rain over the San Jacinto basin October 17th produced rapid rises during the early morning hours of October 18th. Major flooding occurred on Spring and Cypress Creeks as water spilled into surrounding communities in Montgomery and Harris Counties. A combination of heavy rain and flooding on these watersheds produced major flooding on the West Fork of the San Jacinto above Highway 59 near Humble to Lake Houston. Flooding continued from October 18th through October 23rd . On the East Fork at FM 1485 near New Caney the river went from around 5 feet, well within banks to above bankfull (15 feet) in 3 ½ hours, and to above flood stage (19 feet) 2 ½ hours later. The river remained above flood stage for almost 4 days. As a result of these flood waves emptying into Lake Houston significant flooding occurred on the San Jacinto River main stem below the lake from October 18th through October 23rd. At Highway 90 near Sheldon a rapid rise occurred on October 18th sending the river from well within banks to above flood stage (10 feet) in only 2 ½ hours. Minor flooding occurred on the West Fork of the San Jacinto River in the channel below Lake Conroe to below Porter. Minor flooding also occurred on Caney Creek near Splendora and Luce Bayou near Huffman. Crests on these watersheds were at or slightly above flood stage and generally lasted 24 to 36 hours. A rise of the East Fork of the San Jacinto near Cleveland occurred on October 18th, however, the river crested below flood stage on October 19th. As a result of this flooding thousands of homes and businesses were isolated due to road closures, 150 to 200 homes were flooded in Montgomery County, mainly along Spring Creek, in Harris County 1200 homes were affected by flooding, 291 sustained minor damage, 50 major damage and I was destroyed. The only death attributed to flooding occurred late Sunday night or early Monday morning when an individual drove into a flooded road along Spring Creek.

Severe flooding on the San Bernard River occurred October 18th, the result of 12 to 14 inches of rain over the upper portions of the watershed. Major flooding occurred on several major tributaries, including Middle and West Bernard Creeks in Wharton County. Long time residents experienced flooding for the first time in memory. Highway 90A, which crosses the San Bernard River near East Bernard, was flooded and closed from October 20th through October 22nd. Highway 59 was closed near Kendalton for almost 24 hours. In Hungerford, Highway 59 was inundated at West Bernard Creek. The river crested near the flood of record at FM 442 near Boling. Downstream near Sweeny in Brazoria County barge traffic to the Phillips Petroleum Facility was stopped for more than a week due to high water and swift currents. Flooding continued through October 28th. The Lakeside subdivision in Brazoria County on Cedar Creek was threatened.

Flooding on the Colorado River was the result of heavy rainfall and upstream flooding. In Columbus moderate flooding occurred from October 18th through October 22nd. Several roads in the Columbus vicinity were inundated and closed, an RV park on Highway 71 in northwest Columbus was flooded as well as the public golf course, and Beeson Park, near the gage. Residents in Garwood, Altair, and Eagle Lake in southern Colorado County were evacuated. Downstream in Wharton major flooding occurred from October 20th through October 24th. A near record crest was observed in Wharton as well. Several hundred residents of Wharton were evacuated to El Campo for more than 48 hours. Wharton County had homes flooded from both the San Bernard and Colorado. In all 350 to 375 homes were impacted, 4 were destroyed completely, 143 sustained major damage, and 209 received minor damage. Hundreds of head of livestock were lost and 7500 acres of crop land were damaged. 50 agricultural structures were damaged or destroyed as well as 25 pieces of equipment (tractors, irrigation equipment, etc.).

Minor flooding also occurred an several rivers and creeks within the HSA. On Bedias Creek near Madisonville in Madison County brief lowland flooding occurred on October 19th. Minor flooding occurred on the Trinity River at Liberty, however no damage was reported. The Navasota River experienced minor lowland flooding from above OSR near Normangee to below Highway 30 near College Station from October 19th through October 22nd. On Middle and East Yegua Creeks minor flooding





October 1998 Estimated Damage erty Crops Path Length (Miles) Number of Persons led Injured Time Local/ Path Width (Yards) Date Character of Storm Standard

TEXAS, Central Southeast

occurred from above Highway 21 to Lake Somerville from October 19th through October 25th. The impact of flooding on these watersheds were inundation of low lying areas and flooding of agricultural and pasture lands. On the Brazos River minor flooding occurred above Richmond to above Rosharon and moderate flooding from above Rosharon to below West Columbia. Significant backwater up Varner Creek in Brazoria County impacted roads into the Columbia Lakes subdivision. The Tres Palacios River in Matagorda briefly experienced minor lowland flooding in the channel above Midfield to below Highway 35 on October 19th. On East Mustang Creek in Wharton County minor flooding occurred from October 18th through October 19th. Significant rises were also observed on the following watersheds during this event; Cedar Bayou on the Harris/Liberty County line near Crosby, Chocolate Bayou in Brazoria County near Alvin, Mill Creek in Austin County near Bellville, and Cummins Creek near Columbus and Redgate Creek near Frelsburg, both in Colorado County.

Crests of these floods ranged from late Sunday until Thursday as the flood waves moved toward the coast. The flooding on the

	Crests of these floods ranged from late Sunday until Thursday as the flood waves moved toward the coast. The flooding on the San Bernard and Colorado exceeded the historical flooding of winter 1991-1992. Flooding on the Brazos was somewhat less than either the 1991-1992 flood or the October 1994 flood. Flooding on the San Jacinto and its tributaries was well below the record 1994 event. ??VE											
BURLESON County 2.5 SW CALDWELL to 3 NW CALDWELL	17	1420CST 1426CST	5	75	0	0	500K	Tornado (F1)				
BURLESON County												
2 S CALDWELL to 1.5 N CALDWELL	17	1428CST	3.5	100	0	0	1.5M	Tornado (F2)				
	Two tornadoes touched down in the Caldwell area causing substantial damage. Twenty-two homes were completely destroyed, 37 sustained major damage, and 101 homes with minor damage. Caldwell Middle School also had major damage. Tombstones weighing more than 1000 pounds were unearthed and moved.											
BRAZOS County												
5 E COLLEGE STATI(8 NE COLLEGE	17	1540CST	3.5	75	0	0	20K	Tornado (F1)				
STATION	Utility	poles downed and	roof damage	on the outs	kirts of Bry	an Colleg	ge Station.					
BRAZOS County												
COLLEGE STATION	17	1850CST			0	0	5K	FLASH FLOOD				
	Street	2300CST Street flooding in College Station as well as along frontage roads of HWY 6.										
MADISON County												
MADISONVILLE	17	1850CST 2300CST			0	0	5K	FLASH FLOOD				
	2300CST Street flooding in and around Madisonville. HWY 90 and FM 978 closed due to high water.											
WASHINGTON County							_					
3.5 E BRENHAM	17	1850CST	1	25	0	0		Tornado (F0)				
	DPS r	1853CST reported tornado. N	o damage rep	orted.								
HOUSTON County		•										
AUSTONIA	17	2030CST			0	0	5K	FLASH FLOOD				
	Street	2300CST flooding in Auston	io and Lovela	adv.								
WASHINGTON County		8										
BRENHAM	17	2218CST			0	0	5K	FLASH FLOOD				
	Street	2300CST flooding.										
AUSTIN County	Succe	noounig.										
COUNTYWIDE	17	2221CST			0	0	50K	FLASH FLOOD				
	18	0700CST	county ecne	ecially the so	outhern hal	f near Sea		ee. HWY 36 flooded.I-10 closed near mile				
		er 725 with 15 to 20										
COLORADO County												
EAST PORTION	17	2245CST			0	0	25K	FLASH FLOOD				
	18 Major	0700CST flooding across the	county, espe	ecially in Ea	gle Lake, (Garwood,	and Nada.					
HARRIS County	3	<u> </u>	\$ / F	•	_ ,	7						
KATY	17	2300CST			0	0	5K	THUNDERSTORM WIND				
	Trees	and powerlines blo	wn down.									





Time Path Path Number of Estimated October 1998
Location Date Standard (Miles) (Yards) Killed Injured Property Crops Character of Storm

TEXAS, Central Southeast

WHARTON County									
COUNTYWIDE	17 18	2300CST 0700CST			0	0	50K	FLASH FLOOD	
	FM 102 north of Egypt closed and water entering nearby homes. Major flooding across NW parts of county. Elm Grove subdivision in northern Wharton County had 1 foot of water in them.								
HARRIS County									
HOUSTON	18	0000CST 0005CST		25	0	0	20K	Tornado (F0)	
	Magnolia and Pine Forest subdivisions had some roof damage, trees and powerlines downed.								
HARRIS County CYPRESS	18	0345CST	1	25	0	0	25K	Tornado (F0)	
CTIRESS		0347CST structural damage and			U	U	23K	Tornauo (Fo)	
HARRIS County									
NORTH PORTION	18	0348CST			0	0	10K	FLASH FLOOD	
	Street	0700CST flooding, especially ne	ar Hooks A	irport.					
HARRIS County									
8 WNW BAMMEL to 7 WNW BAMMEL	18	0400CST 0402CST	1	25	0	0	10K	Tornado (F0)	
7 WINW DANIMEL	Trees b	olown down and minor	r damage to	homes.					
MONTGOMERY County									
COUNTYWIDE	18	0400CST 0700CST			0	0	15K	FLASH FLOOD	
	Major	flooding beginning to	occur count	tywide.					
LIBERTY County									
PLUM GROVE	18	0430CST 0432CST	0.5	25	0	0	30K	Tornado (F0)	
	Tornac	lo touchdown in Plum	Grove on F	M 1010. M	obile home	s damage	ed and trees/powerline	es down.	
HOUSTON County	10	0.500.CCT			0	0	FIZ	EL ACH EL OOD	
CROCKETT	18	0500CST 0800CST			0	0	5K	FLASH FLOOD	
	Street	flooding in Crockett.							
WASHINGTON County COUNTYWIDE	18	0515CST			0	0	35K	FLASH FLOOD	
COUNTIWIDE		1300CST	D 4	d4 W/	_		33K	FLASH FLOOD	
WALLED C	Floode	ed roads countywide. 1	Bridge wash	ied out at wo	onderniii K	a.			
WALLER County BROOKSHIRE	18	0525CST	1	50	1	1	75K	Tornado (F2)	
BROOKSHIKE		0528CST						her homes damaged and 2 barns	
		ed. M47MH	onic. One p	crson kineu	and another	i iijuicu	in the nome. Tyme of	ner nomes damaged and 2 barns	
BRAZOS County									
COUNTYWIDE	18	0545CST 1300CST			0	0	15K	FLASH FLOOD	
	HWY :	30 between HWY 6 &	FM 158 clo	osed due to f	looding. S	econdary	roads flooded elsewl	here.	
JACKSON County									
EDNA to COUNTYWIDE	18	0629CST 1300CST			0	0	15K	FLASH FLOOD	
	Street	flooding in Edna becar	me more wi	despread thro	ough the pe	eriod.			
AUSTIN County	10	0.000				•	4.577	TV + 0V TV 0 0 D	
COUNTYWIDE	18	0706CST 1100CST			0	0	15K	FLASH FLOOD	
	Major	flooding countywide.							
COLORADO County COUNTYWIDE	18	0706CST			0	0	15K	FLASH FLOOD	
COUNTIWIDE		1100CST			U	U	13K	FLASH FLOUD	
	Major	flooding countywide.							





	Time		Path	Path Path Length Width		er of	Estimated	October 1998		
Location	Date	Local/ Standard	Length (Miles)	Width (Yards)	Pers Killed	ons Injured	Damage Property Crops	Character of Storm		
TEXAS, Central South	east									
HARRIS County										
COUNTYWIDE	18	0706CST			0	0	100K	FLASH FLOOD		
	Major	1100CST flooding county	wide							
MONTCOMEDY C	major	mooding county	wide.							
MONTGOMERY County COUNTYWIDE	18	0706CST			0	0	75K	FLASH FLOOD		
COUNTIWIDE		1100CST			U	U	/ 3K	FLASH FLOOD		
	Major	flooding county	wide.							
WALLER County										
COUNTYWIDE	18	0706CST 1100CST			0	0	15K	FLASH FLOOD		
	Major	flooding county	wide.							
WHARTON County										
COUNTYWIDE	18	0706CST 1100CST			0	0	15K	FLASH FLOOD		
	Major	flooding county	wide.							
LIBERTY County	3	2 ,								
COUNTYWIDE	18	0901CST			0	0	15K	FLASH FLOOD		
		1300CST flooding county	wido		-	-				
	Major	flooding county	wide.							
MADISON County	10	0001.000			0	0	1017	EL AGUELOOD		
COUNTYWIDE	18	0901CST			0	0	10K	FLASH FLOOD		
	FM 22	289 & FM 1428	flooded.							
FORT BEND County										
COUNTYWIDE	18	0930CST 1100CST			0	0	10K	FLASH FLOOD		
	Traini	ng rains caused	numerous flood	led roads.						
CHAMBERS County										
NORTH PORTION	18	0945CST			0	0	5K	FLASH FLOOD		
	I-10 a	1300CST t HWY 565 floo	ded							
BRAZORIA County	1 10 4	11111 1 202 1100								
BRAZORIA County BRAZORIA	18	1024CST			0	0	3K	FLASH FLOOD		
BRIZORIA		1024CST 1230CST			v	Ū	J.K	TEASHTEOOD		
	Minor	street flooding.								
GALVESTON County	40	1001000					***	W. 637 W. 00 D		
FRIENDSWOOD	18	1024CST 1230CST			0	0	3K	FLASH FLOOD		
	Minor	street flooding.								
SAN JACINTO County										
COUNTYWIDE	18	1030CST			0	0	10K	FLASH FLOOD		
	Traini	1100CST ng rains caused	numerous roads	s to flood.						
AUSTIN County										
COUNTYWIDE	18	1102CST 1500CST			0	0		FLASH FLOOD		
	Major	1500CST flooding continu	ies							
COLODADO Ct-	major	mooding contin								
COLORADO County COUNTYWIDE	18	1102CST			0	0		FLASH FLOOD		
COUNTIWIDE		1102CST 1500CST			U	U		FLASH FLOOD		
	Major	flooding contin	ies.							
FORT BEND County										
COUNTYWIDE	18	1102CST 1500CST			0	0		FLASH FLOOD		
	Major	flooding contin	ues.							
HARRIS County										
COUNTYWIDE	18	1102CST 1500CST			0	0		FLASH FLOOD		
	Major	flooding contin	ies.							
	•	-								





Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Numb Pers Killed	per of sons Injured	Estir Dai Property	nated nage Crops	October 199 Character of Storm	8
TEXAS, Central South	<u>east</u>									
MONTGOMERY County										
COUNTYWIDE	18 Major	1102CST 1500CST flooding continues			0	0			FLASH FLOOD	
SAN JACINTO County										
COUNTYWIDE	18 Major	1102CST 1500CST flooding continues			0	0			FLASH FLOOD	
WALLER County										
COUNTYWIDE	18 Maior	1102CST 1500CST flooding continues			0	0			FLASH FLOOD	
WHARTON County										
COUNTYWIDE	18 Maior	1102CST 1500CST			0	0			FLASH FLOOD	
CW LAMPING C	Major	flooding continues	•							
CHAMBERS County COUNTYWIDE	18	1307CST 1600CST			0	0			FLASH FLOOD	
	Floodi	ing continues								
LIBERTY County COUNTYWIDE	18	1307CST 1600CST			0	0			FLASH FLOOD	
	Floodi	ing continues.								
JACKSON County										
COUNTYWIDE	18 Floodi	1319CST 1700CST ing continues.			0	0			FLASH FLOOD	
BRAZOS County	110041	ing commute.								
COLLEGE STATION	18	1640CST 1900CST			0	0	2K		FLASH FLOOD	
	Street	flooding in College	Station.							
JACKSON County										
COUNTYWIDE	18	1707CST 2000CST			0	0			FLASH FLOOD	
	Floodi	ing continues. Nun	nerous roads	closed.						
JACKSON County										
COUNTYWIDE	18 19 Floodi	2012CST 0100CST ing continues.			0	0			FLASH FLOOD	