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PRELIMINARY STORM REPORT...TROPICAL STORM FRANCES
NATIONAL WEATHER SERVICE HOUSTON/GALVESTON TX
235 PM CDT WED SEP 29 1998

A. HIGHEST WINDS...

PSX ASOS...29 KT FROM 030 AT 1915 SEP 10 1998
PEAK WIND..46 KT FROM 030 AT 1952 SEP 10 1998

GLS ASOS...37 KT FROM 110 AT 2219 SEP 10 1998
PEAK WIND..47 KT FROM 070 AT 1808 SEP 10 1998

GLS ASOS...37 KT FROM 060 AT 1405 SEP 11 1998
PEAK WIND..46 KT FROM 060 AT 0204 SEP 11 1998

IAH ASOS...24 KT FROM 060 AT 2039 SEP 10 1998
PEAK WIND..31 KT FROM 060 AT 2038 SEP 10 1998

IAH ASOS...25 KT FROM 070 AT 0520 SEP 11 1998
PEAK WIND..31 KT FROM 070 AT 0458 SEP 11 1998

HOU ASOS...32 KT FROM 060 AT 1910 SEP 10 1998
PEAK WIND..40 KT FROM 060 AT 1908 SEP 10 1998

B. LOWEST PRESSURE...

PSX ASOS...29.38 INCHES AT 1454 SEP 11 1998
GLS ASOS...29.48 INCHES AT 0529 SEP 11 1998
IAH ASOS...29.50 INCHES AT 1725 SEP 11 1998
HOU ASOS...29.47 INCHES AT 0643 SEP 11 1998

C. RAINFALL...

HEAVY RAIN FELL OVER THE SOUTHERN HALF OF THE HGX CWA...
PRIMARILY SOUTH OF I-10. AN UNOFFICIAL RAINFALL REPORT
OF 9 INCHES WAS REPORTED BY AN OBSERVER AT THE MOUTH OF THE SAN
BERNARD RIVER IN BRAZORIA COUNTY. RAINFALL REPORTS COULD BE
AMENDED IN A LATER UPDATE. OTHER SITES...

	GREATEST 1HR	GREATEST 6HR	GREATEST 12 HR
IAH...	0.92	2.89	4.59
HOU...	1.43	4.67	6.82
GLS...	1.14	3.38	5.32

	ENDING AT MID	09/09	09/10	09/11	09/12	IN INCHES
PSX...		0.75	8.63	0.15		
GLS...		0.91	8.02	0.91	0.14	
LBX...		0.17	MSG	0.27	0.11	
T02...		TRACE	2.86	3.04	0.32	
IAH...		0.01	1.82	4.61	0.35	
WSO HGX...		0.00	4.47	4.03	0.41	
HOU...		0.21	3.41	5.58		

TOTAL FOR THE EVENT

CHAMBERS COUNTY

...ANAHUAC...11.47
 ...BEACH CITY...8.22
 ...WALLISVILLE...7.77
 ...SMITH POINT...11.65
 ...WINNIE...11.2
 ...HANKAVMER...9.35
 ...OAK ISLAND...8.2

GALVESTON COUNTY

...KGBC RADIO STN...8.47
 ...SANTA FE...12.4
 ...DICKINSON...8.3
 ...LEAGUE CITY...9.5

HARRIS COUNTY

...BAYTOWN...6.59
 ...BARKER DAM...0.41
 ...HOUSTON BUFFALO BAYOU AT WEST BELT DR...10.60
 ...HOUSTON SPRING BRANCH...3.10
 ...BUFFALO BAYOU AT KATY...0.71
 ...DENVER HARBOR (5 MILES EAST OF DOWNTOWN HOUSTON)...14.75
 ...3 SW OF DOWNTOWN HOUSTON...13.00
 ...WEST HOUSTON...10.75
 ...LA PORTE...12.87
 ...MISSOURI CITY...6.49
 ...SEABROOK...14.85
 ...HOCKLEY...14.50

BRAZORIA COUNTY

...FREEPORT DOW CHEMICAL...7.84
 ...WEST COLUMBIA...16.2
 ...ALVIN...10.8

...DEMI-JOHN COMMUNITY ON BASTROP BAYOU...13.00
...MANVEL...9.95

MATAGORDA COUNTY

...BAY CITY...10.84
...PALACIOS...10.57
...MATAGORDA COLORADO LOCKS...17.00

JACKSON COUNTY

...EDNA...6.92
...GANADO...8.54
...LAKE TEXANA...3.35

WHARTON COUNTY

...DANEVANG...7.05
...PIERCE...0.12
...WHARTON...6.73

COLORADO COUNTY

...COLUMBUS...3.46
...CORDELE...6.81

AUSTIN COUNTY

...BELLEVILLE... 4.50
...SEALY...5.79

MONTGOMERY COUNTY

...MONTGOMERY...1.85

SAN JACINTO COUNTY

...COLDSRING...7.16

LIBERTY COUNTY

...CLEVELAND...5.23
...LIBERTY...5.51

FORT BEND

...RICHMOND...6.84
...EAST BERNARD...5.46
...FULSHEAR...7.20
...NEEDVILLE...7.18
...ROSENBERG...9.00
...SIMONTON...8.00
...ORCHARD...6.25

D. STORM TIDES...

HIGHEST TIDES AT INDIVIDUAL STATIONS
(LEVELS ARE ABOVE MLLW)

PLEASURE PIER 7.1

PIER 21	5.6
BOLIVAR ROADS	6.0
EAGLE POINT	5.3
MORGANS POINT	7.5
MATAGORDA LOCKS	E8.0
SARGEANT SWING	E8.0
BRIDGE	
JAMAICA BEACH	7.1
FREEPORT	6.3
CLEAR LAKE ENTRANCE	6.8
TEXAS CITY @	5.5
MOSES LAKE	
LA MARQUE PUMP STN	5.8

BEACH EROSION

MAJOR BEACH EROSION OCCURRED FROM HIGH ISLAND TO SARGEANT WITH MINOR BEACH EROSION ALONG MATAGORDA ISLAND WITH 50-75 FEET OF BEACH LOST. MOST SAND DUNES FROM HIGH ISLAND TO SARGEANT WERE COMPLETELY DESTROYED FROM HIGH ISLAND TO SARGEANT. NUMEROUS BEACH FRONT HOMES ALONG BOLIVER PENINSULA AND PORTIONS OF THE WEST END OF GALVESTON ISLAND WERE COMPLETELY DESTROYED WHILE MANY MORE ARE NOW ON THE BEACH IN FRONT OF THE VEGETATION LINE AND WILL HAVE TO BE DESTROYED.

F. FLOODING

MAJOR COASTAL FLOODING OCCURRED FROM HIGH ISLAND TO MATAGORDA INCLUDING GALVESTON AND MATAGORDA BAY AREAS. AREAS ALONG THE COAST AND BAYS AT OR BELOW ELEVATIONS 7 FEET EXPERIENCED STORM SURGE FLOODING. IN ADDITION TO THE COASTAL FLOODING INLAND RAINS OF 6 - 12 INCHES CAUSED MAJOR FLOODING ALONG SEVERAL OF THE CREEKS IN BAYOUS IN GALVESTON...HARRIS...BRAZORIA...MATAGORDA AND JACKSON COUNTIES. SEVERAL MAJOR FREEWAYS IN HOUSTON WERE FLOODED MUCH OF THE DAY FRIDAY MAKING TRAVEL EXTREMELY HAZARDOUS AND DIFFICULT.

G. TORNADOES...

THREE CONFIRMED TORNADOES.

7PM THURSDAY SEPTEMBER 10 AT CANEY CREEK IN SOUTHEAST MATAGORDA COUNTY.

430 AM FRIDAY SEPTEMBER 11 AT LA PORTE IN SOUTHEAST HARRIS COUNTY. WEST END OF GALVESTON ISLAND NEAR COMMUNITY OF PALM BEACH. TIME TBD.

H. STORM EFFECTS...

GALVESTON COUNTY...47 SINGLE FAMILY HOMES DESTROYED AND 8 MOBILE

HOMES DESTROYED. 2719 SINGLE FAMILY HOMES RECEIVED MAJOR DAMAGE AND ANOTHER 1756 RECEIVED MINOR DAMAGE. 5 BUSINESSES WERE DESTROYED WHILE 54 OTHERS RECEIVED MAJOR DAMAGE. DAMAGE TO PUBLIC FACILITIES TOTALLED ABOUT \$77 MILLION. TOTAL DAMAGE WAS \$256 MILLION.

BRAZORIA COUNTY...5 SINGLE FAMILY HOMES WERE DESTROYED WHILE 400 RECEIVED MAJOR DAMAGE. 200 MOBILE HOMES RECEIVED MAJOR DAMAGE.

DAMAGE TO PUBLIC FACILITIES WAS \$750 THOUSAND. TOTAL DAMAGE WAS 9 MILLION.

HARRIS COUNTY...29 SINGLE FAMILY HOMES DESTROYED AND 920 RECEIVED MAJOR DAMAGE. 184 MULTI-FAMILY UNITS RECEIVED MAJOR DAMAGE. TOTAL DAMAGE WAS \$17 MILLION.

MATAGORDA COUNTY...4 SINGLE FAMILY HOMES AND 1 MOBILE HOME WERE DESTROYED. 9 SINGLE FAMILY HOMES AND 11 MOBILE HOMES RECEIVED MAJOR DAMAGE. 16 BUSINESSES RECEIVED MAJOR DAMAGE. DAMAGE TO PUBLIC FACILITIES WAS \$1.5 MILLION. TOTAL DAMAGE WAS \$4 MILLION.

TOTAL DOLLAR DAMAGE WAS \$286 MILLION. MAIN DAMAGE WAS DUE TO BEACH EROSION...HOMES DESTROYED ALONG THE COAST...COASTAL FLOODING AND INLAND FLOODING DUE TO HEAVY RAIN ALONG CREEKS AND BAYOUS.

THERE WERE THREE DEATHS DURING THE STORM. A FATHER AND DAUGHTER DROWNED IN THE SURF ON GALVESTON ISLAND WHILE SWIMMING IN THE SURF ON MONDAY. A SURFER DROWNED ON SURFSIDE BEACH IN BRAZORIA COUNTY WEDNESDAY WHILE SURFING THE WAVES.

VOLUNTARY EVACUATIONS OF COASTAL COMMUNITIES THAT WERE BEING CUT OFF BY HIGH TIDES TOOK PLACE ON THURSDAY. THE TOTAL NUMBER OF PEOPLE EVACUATED WAS PROBABLY LESS THAN 10,000. SINCE THIS WAS ONLY A TROPICAL STORM THE THREAT OF HIGH TIDES WAS NOT TAKEN SERIOUSLY.