



TOP TEN WEATHER EVENTS OF THE 2010s

As Ranked by the Staff of
NWS Houston/Galveston

#10 – Christmas 2012
EF-3 Tornado

#9 – 2015 Webster
Flooding

#8 – March 2014 Ice
Storm

#7 – 2011 Exceptional
Drought

#6 – 2015 Memorial
Day Floods

#5 – 2016 Memorial
Day Floods

#4 – 2015 Halloween
Severe Weather

#3 – 2016 Tax Day
Flood Emergency

#2 – Tropical Storm
Imelda

#1 – Hurricane
Harvey

#10

Christmas EF-3 Tornado

December 25th 2012



On Christmas Day strong to severe thunderstorms developed along a warm front that was lifting north through the area.

One of those storms produced an EF-3 tornado near Pennington, TX. The worst of the tornado damage was along Highway 287, or one mile north of the town of Pennington. An agricultural feed store and restaurant were completely destroyed with the debris scattered off toward the east in a field. There was severe damage to several homes and trailers along the path of the tornado.

Max Wnds

155 MPH

Rating

EF-3

Wdth

300 Yards

Length

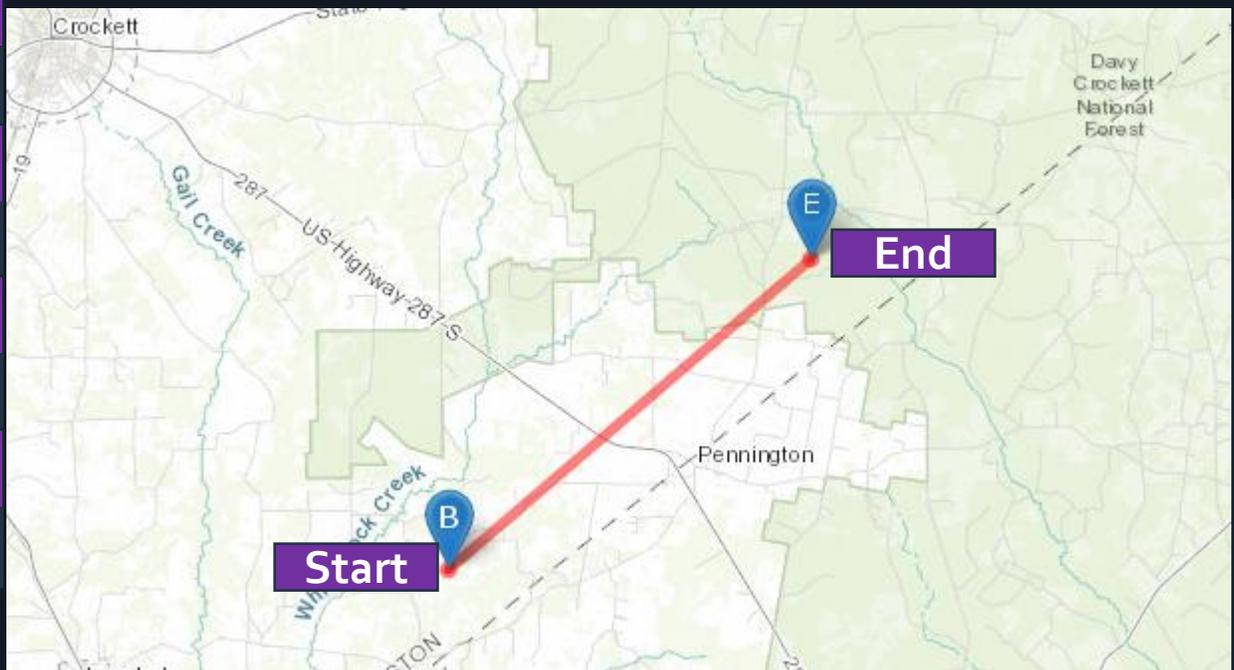
9.72 mi.

Casualties

0

Cost

\$700,000



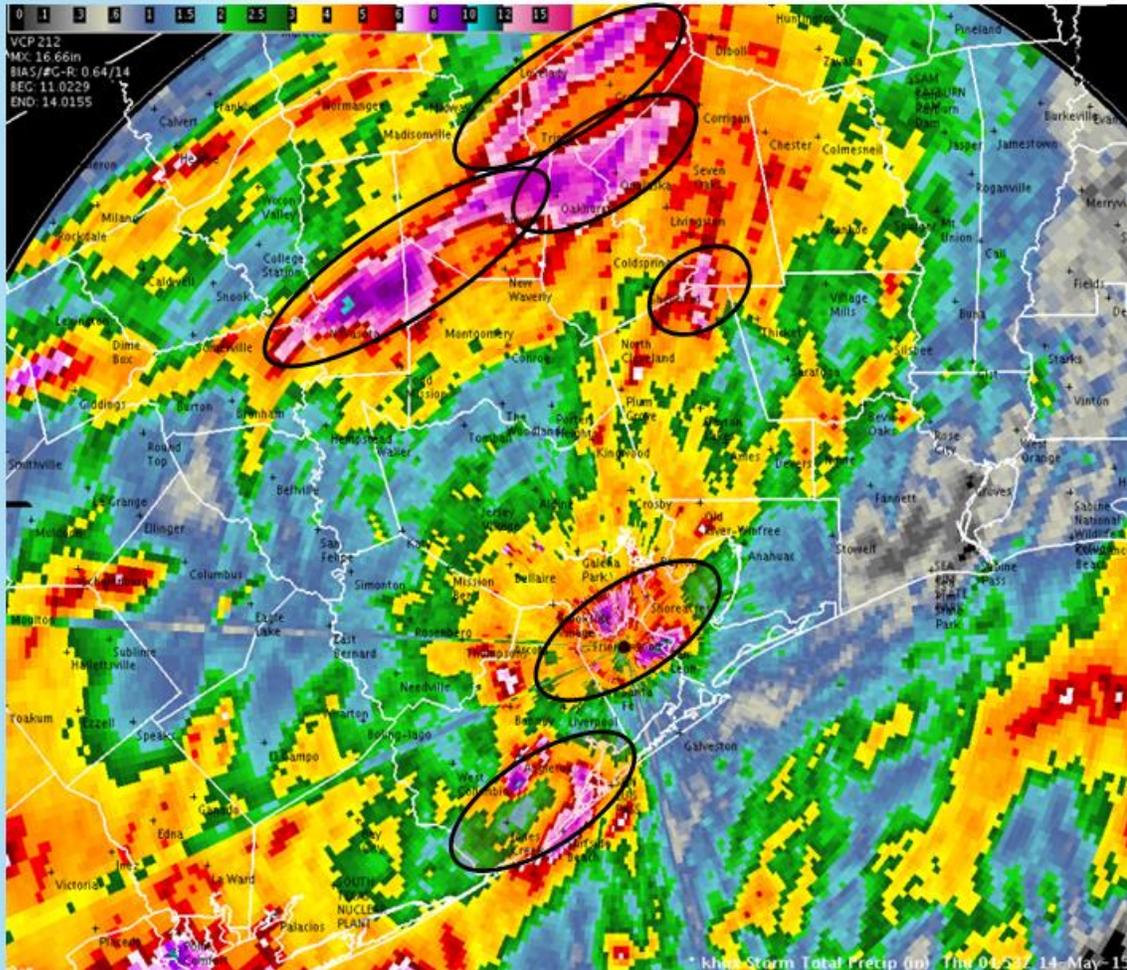
#9

Webster Flooding

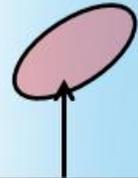
May 12th 2015



NATIONAL WEATHER SERVICE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION



This week's rainfall



Greater than 6"

Top 5 Rain Totals:

- 1) **12.79"**
Onalaska (5/11)
- 2) **11.98"**
Friendswood (5/13)
- 3) **10.52"**
Webster (5/13)
- 4) **8.35"**
Taylor Lake Village (5/13)
- 5) **6.78"**
6 mi SSE Danbury (5/12)

A supercell developed near San Leon (Galveston County) late in the afternoon along a weak stationary boundary that extended from central Brazoria county to Dickinson and then into western Galveston Bay. The supercell spawned a large waterspout over western Galveston Bay and also served as an "anchor" holding the stationary boundary in place. Showers developing over the Gulf would move inland and intensify as they approached the coastal boundary with periods of showers and thunderstorms training over the same area for much of the evening. By the time the event was over, parts of Brazoria County received up to 8 inches of rain and parts of Galveston and Harris counties received between 10-14 inches of rain.

#8

March 4th 2014 Ice Storm



An upper level disturbance moved across the area and generated light to moderate precipitation within a near freezing air mass. There was an accumulation of $\frac{1}{4}$ - $\frac{1}{2}$ inch of ice on numerous vehicles, trees, power lines, and roadways.

As a result, there were downed tree limbs and power lines that caused regional power outages. Parts of Highway 290 were closed in Waller County and parts of Highway 59 in Liberty County were closed due to icy conditions.

This was the 3rd ice storm to affect the region during the 2013/2014 winter season.

Ice damage in Eldridge



Ice covered trees in Katy



#7

Severe Drought

2011



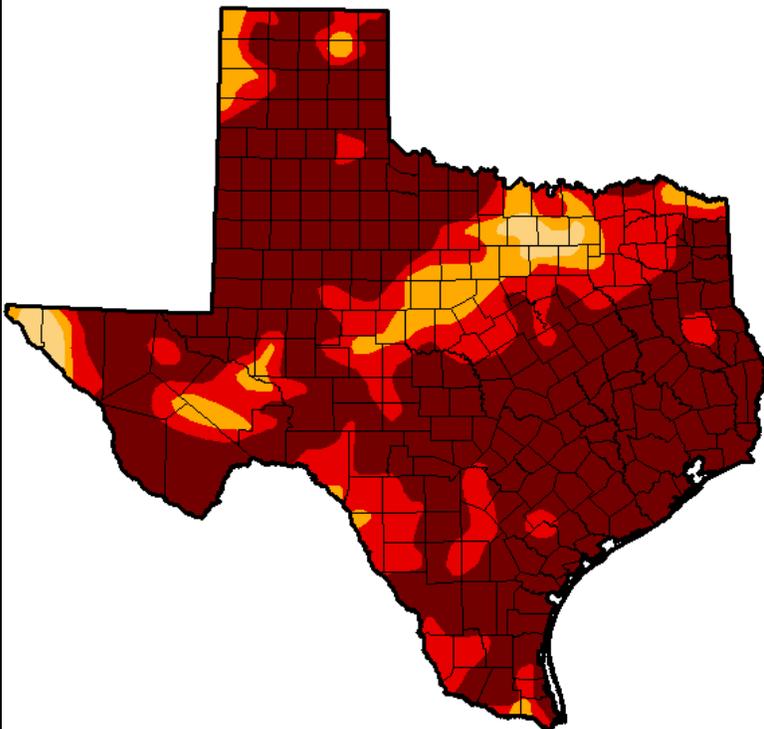
2011 was an extremely dry year across Texas. The City of College Station experienced its 5th driest year on record, the Cities of Houston & Galveston had their 3rd driest, and Houston-Hobby had its driest year on record with only 25.41 inches of rain – only 47% of the normal yearly total.

By October, the entirety of Southeast Texas was classified as an Exceptional Drought (D4) – the worst drought category.

Brazos River at Seymour on 8/3/2011



U.S. Drought Monitor Texas



October 25, 2011

(Released Thursday, Oct. 27, 2011)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

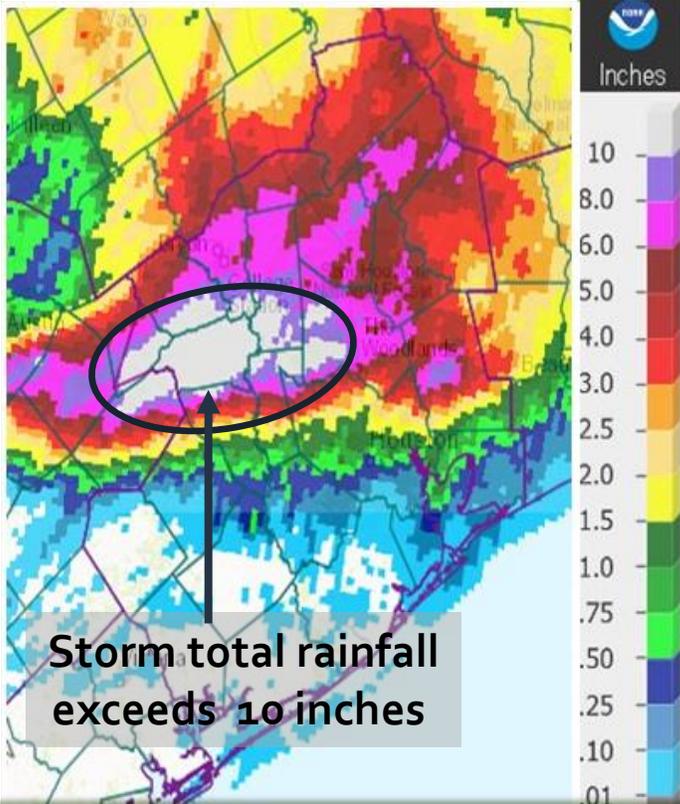
| | None | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4 |
|---|-------|--------|--------|-------|-------|-------|
| Current | 0.00 | 100.00 | 100.00 | 98.34 | 90.87 | 69.61 |
| Last Week 10/18/2011 | 0.00 | 100.00 | 100.00 | 98.60 | 91.87 | 72.61 |
| 3 Months Ago 7/26/2011 | 0.00 | 100.00 | 99.85 | 96.88 | 91.65 | 75.23 |
| Start of Calendar Year 1/4/2011 | 13.55 | 86.45 | 66.68 | 36.30 | 13.04 | 0.00 |
| Start of Water Year 9/27/2011 | 0.00 | 100.00 | 100.00 | 99.16 | 96.65 | 85.75 |
| One Year Ago 10/26/2010 | 57.82 | 42.18 | 20.47 | 3.15 | 0.08 | 0.00 |

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

#6

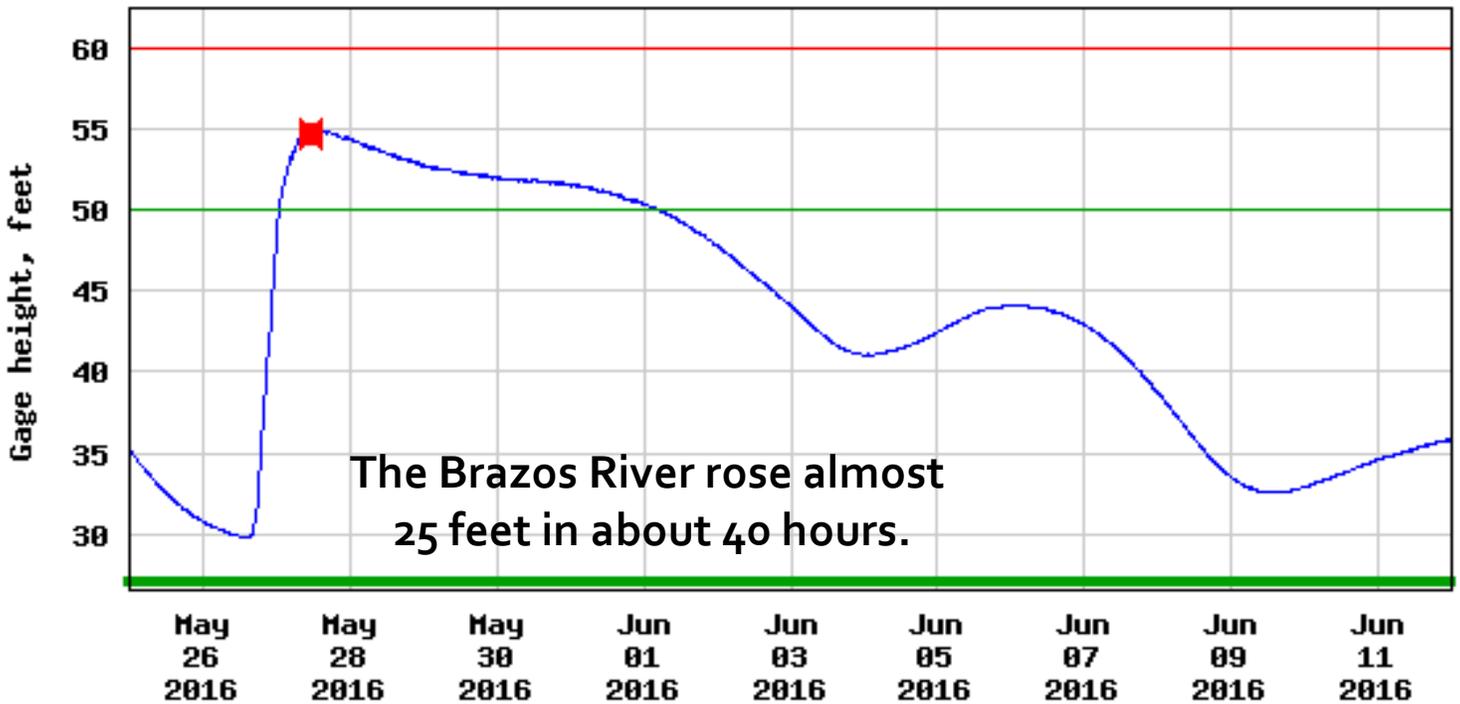
Memorial Day Floods 2016



A strong upper level trough coupled with a slow moving cold front allowed for storms to train over the same area repeatedly. Brenham bore the brunt of this latest heavy rain event with 20.50 inches of rain in 24 hours. May 2016 is still the wettest month ever recorded by the co-op site in Brenham.

This was the second Flash Flood Emergency ever issued by the Houston/Galveston National Weather Service Office.

USGS 08111500 Brazos Rv nr Hempstead, TX



The Brazos River rose almost 25 feet in about 40 hours.

- Gage height
- Operational limit (maximum)
- Period of approved data
- MWS Flood Stage
- Measured gage height

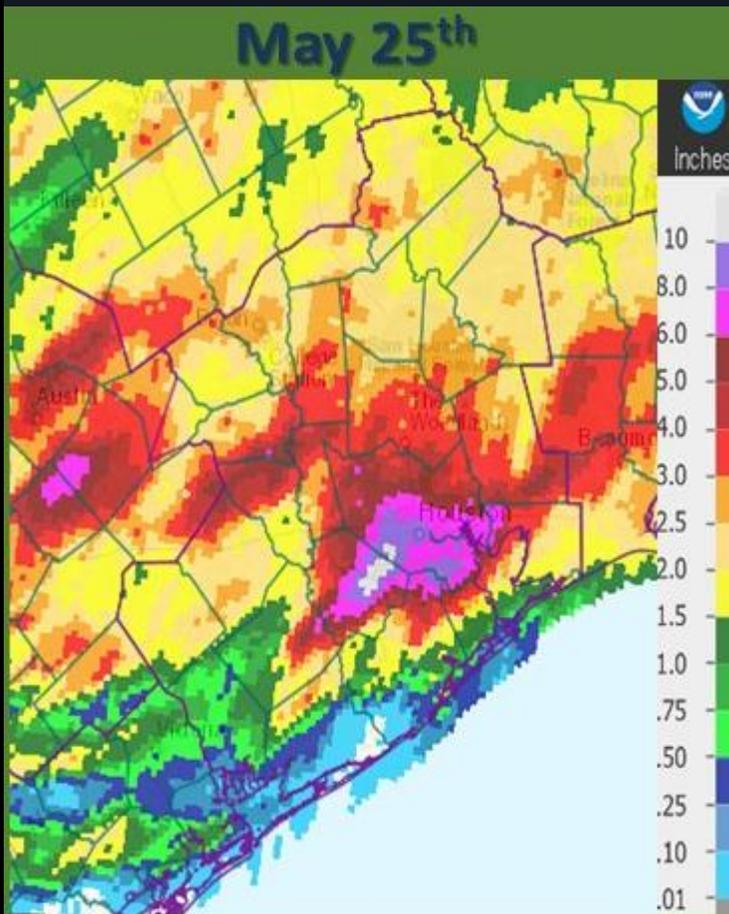
#5

Memorial Day Floods 2015



This was the second heavy rainfall event to affect Harris County during May 2015. Over 10 inches of rain fell over parts of Harris and Fort Bend counties during the evening and overnight hours. Hundreds of vehicles were stalled in high water and there were numerous water rescues. There were seven fatalities associated with this flood event. Fans at a Houston Rockets playoff game were asked to remain at the Toyota Center and wait for flood waters to recede before trying to navigate home on area highways. Some of the higher 24 hour rainfall totals include 11.00 inches at Brays Bayou at Beltway 8, 10.17 inches at Sugar Land and 7.56 inches at Houston Westbury.

This was the first time the Houston/Galveston National Weather Service Office has issued a Flash Flood Emergency.



#4

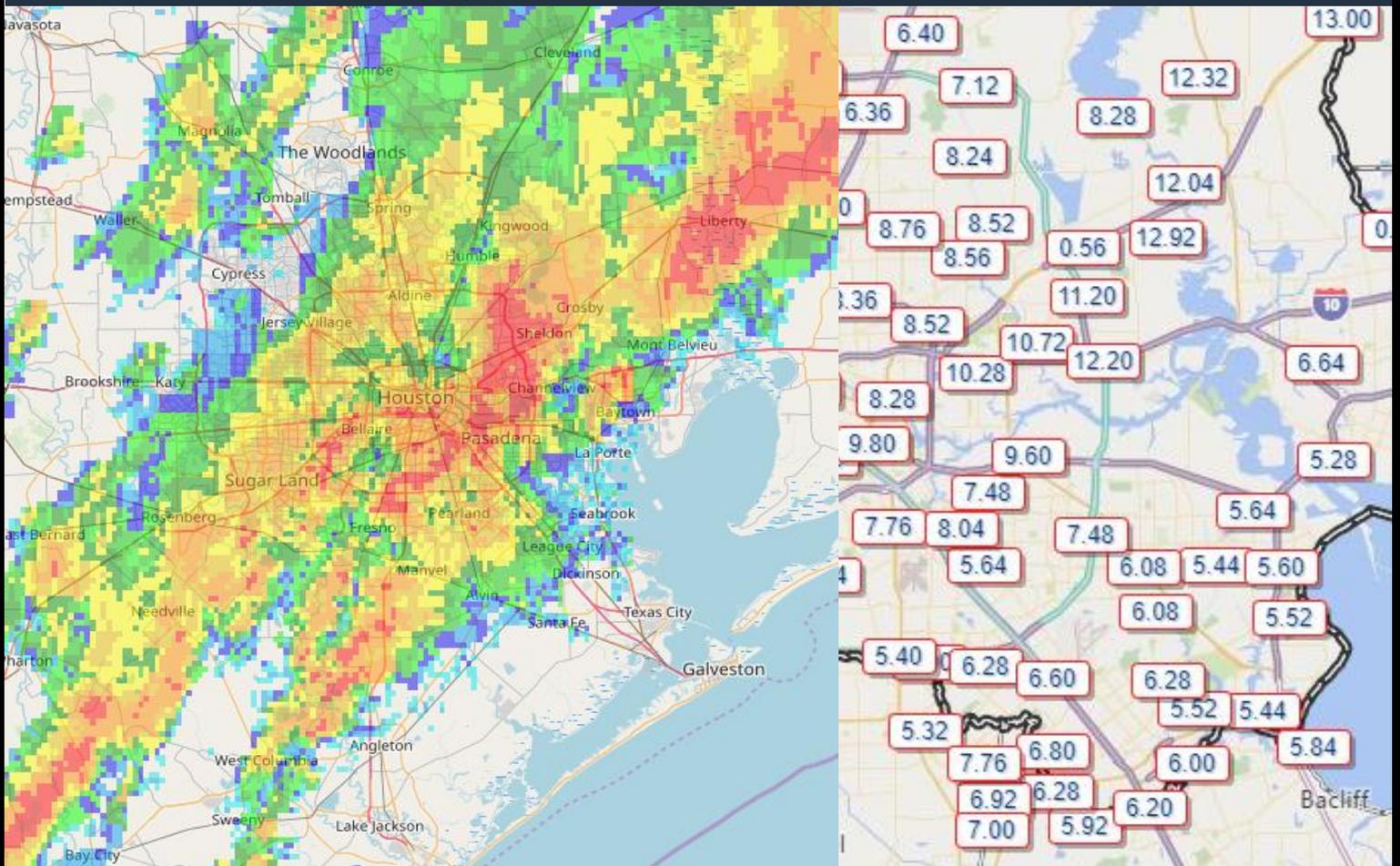
Halloween Severe Weather

October 31st 2015



A strong upper level trough coupled with unseasonably high moisture levels produced periods of showers and thunderstorms across Southeast Texas. Rainfall totals were between 10 and 15 inches over eastern Harris and Liberty counties with 5 to 10 inches common over Brazoria, eastern Fort Bend, Harris, Galveston and Chambers counties. The ground was saturated from 5 to 10 inches of rain that fell just seven days prior associated with Pacific Storm Patricia.

| | |
|---------------------|--------------|
| Confirmed Tornadoes | 11 |
| Property Damage | \$30 Million |
| Deaths | 2 |
| Injuries | 4 |



#3

Tax Day 2016 Flash Flood Emergency



Here are some of the extreme 24 hour rainfall totals:

Waller County

Little Mound Creek 17.60"
Buffalo Bayou @ US 90 11.24"

Harris County

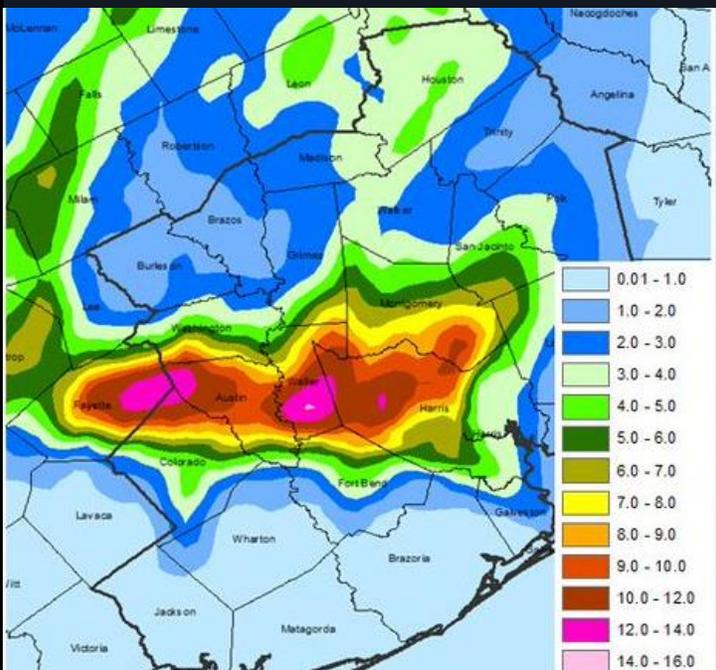
Cypress Creek @ Sharp 16.59"
Bear Creek @ FM 529 15.00"

Austin County

8 ENE Fayetteville 15.38"

Washington County

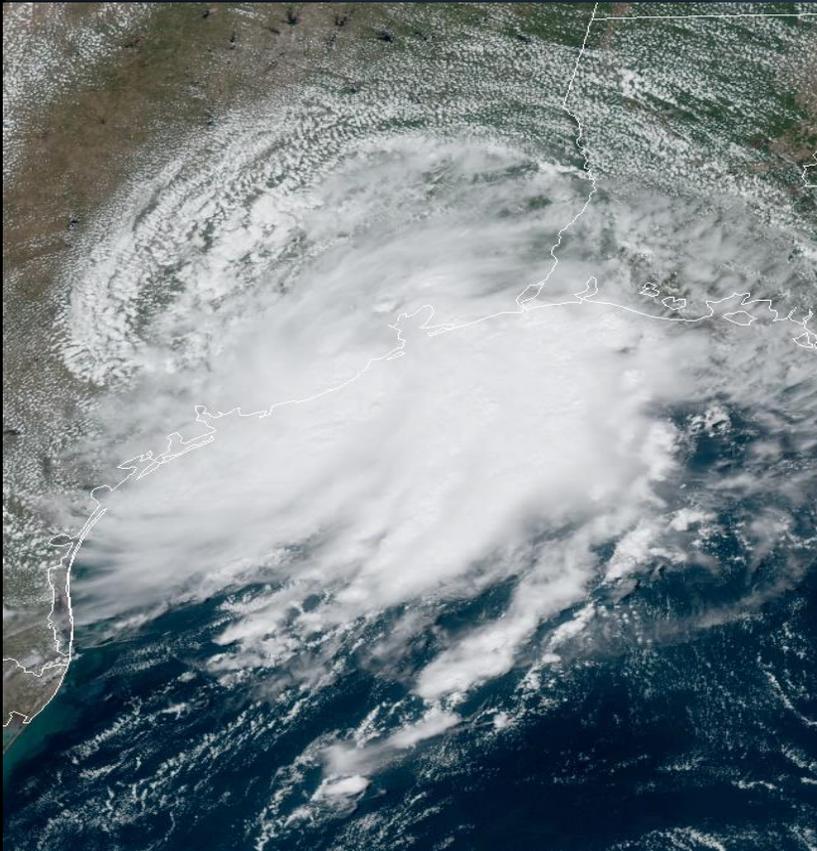
8 WSW Brenham 10.20"



#2

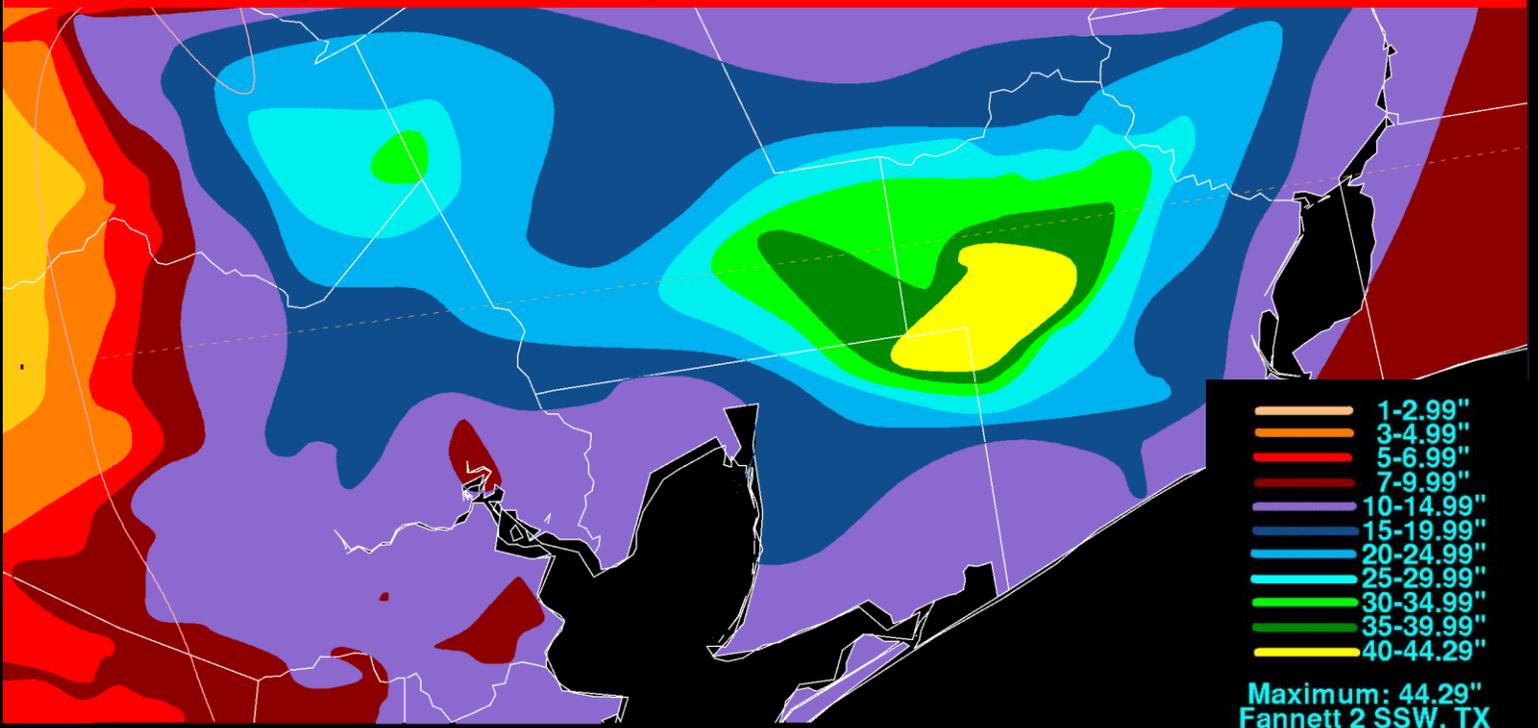
Tropical Storm Imelda

September 17th – 19, 2019



Tropical Storm Imelda formed very close to the Texas coast on September 17th 2019 and was primarily a rain maker. Very heavy rain developed late on September 18th and continued through the morning of the 19th. Storm total rainfall exceeded 30 inches in just 3 days over SE Montgomery, NE Harris and Chambers counties.

Tropical Storm Imelda is the 7th wettest tropical cyclone to impact the United States



#1

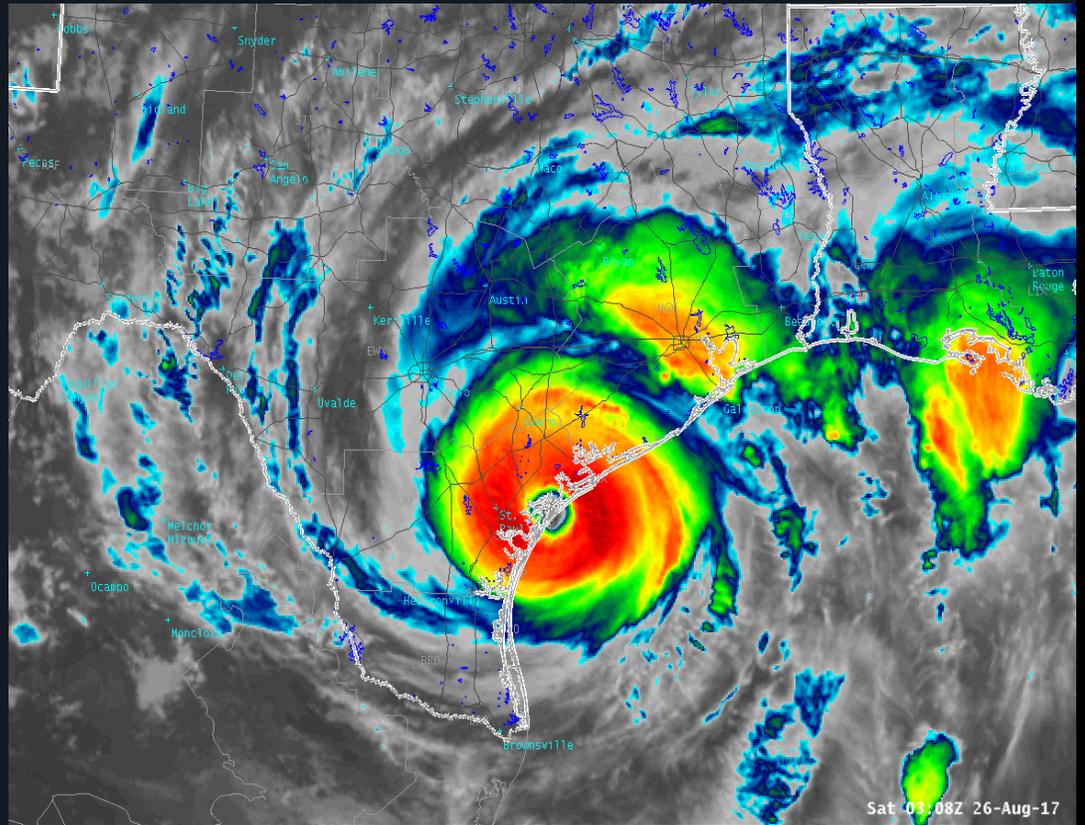
Hurricane Harvey

August 25th – 29th, 2017



The most impactful weather event of the decade was Hurricane Harvey.

It was the first hurricane to make landfall in Texas since Ike (2008), and the first major hurricane to make landfall in Texas since Bret (1999).



Max Wnds

132 MPH

Mn Pressure

937 mb

of Tornadoes

52

Highest Rainfall

60.58"

Casualties

36

Cost

\$125 Billion

Harvey made landfall near Port Aransas around 10pm on August 25th as a Category 4 and brought devastating impacts. As Harvey moved inland, it's forward motion slowed to near 5mph and then meandered just north of Victoria, TX by the 26th. Rain bands on the eastern side of the circulation of Harvey moved into southeast Texas on the morning of the 25th and continued through much of the night and into the 26th. A strong rain band developed over Fort Bend & Brazoria Counties during the evening hours of the 26th and spread into Harris County and slowed while training from south to north. This resulted in a rapid development of flash flooding between 10pm and 1am as tremendous rainfall rates occurred across much of Harris County. The morning of the 27th saw additional rain bands continued to develop and produced additional excessive rainfall amounts. Nearly one million cars flooded and 31 of our 67 river forecast points set new records. It still ranks as the wettest tropical cyclone to make landfall anywhere in the United States.