



# Tropical Storm Beryl Briefing

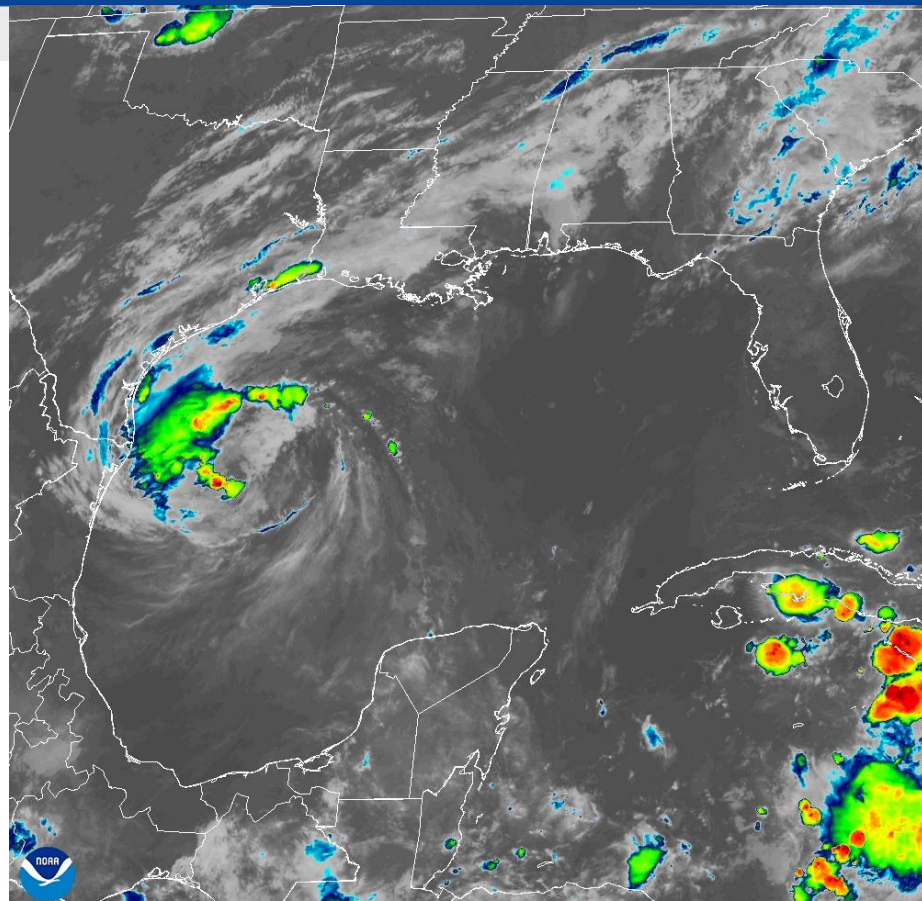
4 AM Sunday, July 7th, 2024

NWS Houston/Galveston



# Situation Overview

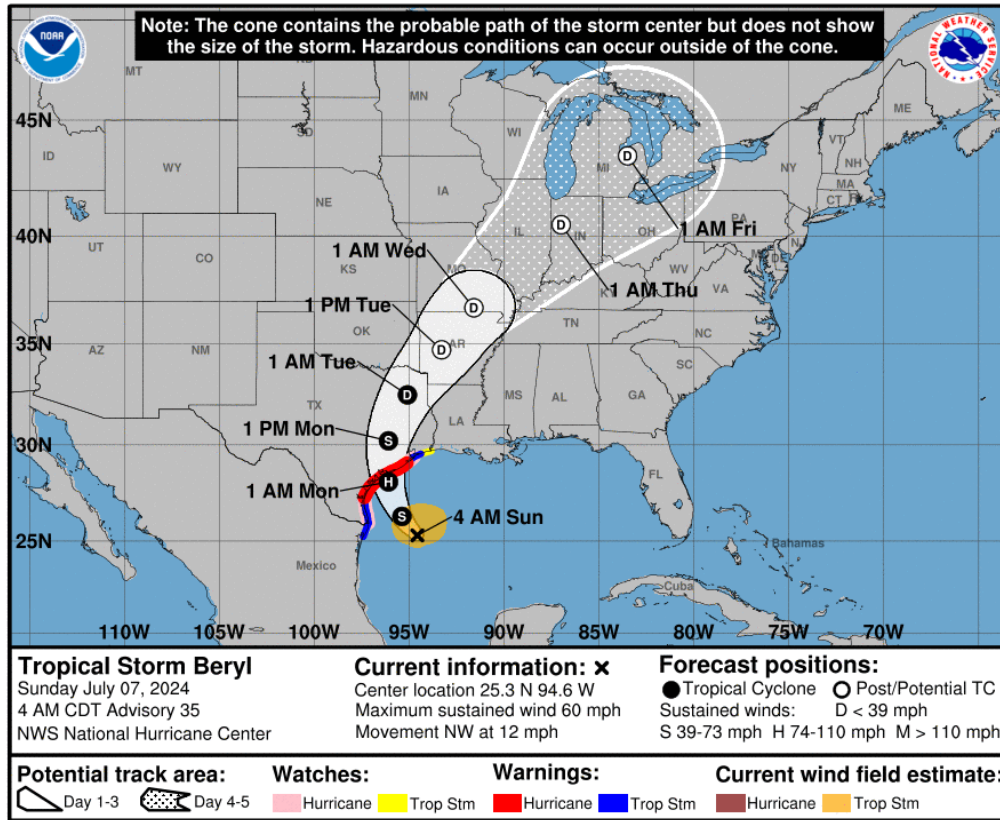
- Tropical Storm Beryl continues to track NW across the Gulf toward the Texas coast with the expected landfall now potentially in Matagorda County.
- Currently a 60 mph tropical storm, Beryl is forecast to make landfall as an 85 mph hurricane (Cat 1).
- Coastal Brazoria County is now in a Hurricane Warning and Galveston Island is now in a Hurricane Watch. All other inland hazards remain the same.
- Storm Surge Warnings remain in effect along the coast with inundation of up to 4-6ft possible.
- Flood Watch remains in effect for portions of the area (mainly along and west of I-45) for late tonight through Tuesday.
- Rainfall forecast amounts unchanged: 5 to 10 inches are expected with local amounts up to 15 inches where the heaviest rainfall occurs.
- Rip currents and elevated seas are likely.
- Possibly a few tornadoes in bands starting this afternoon.



07 Jul 2024 07:31Z - NOAA/NESDIS/STAR - GOES-East - Band 13 - GM



# Tropical Storm Beryl



- Slight shift eastward for potential landfall location – now possibly in Matagorda County.
- **Hurricane Warnings** (red) from Baffin Bay to San Luis Pass.
- **Tropical Storm Warnings** (blue) from San Luis Pass to High Island.
- **Hurricane Watch** (shown in pink) and **TS Warning** together from San Luis Pass through Galveston Island.
- Confidence in track continues to increase but changes could still occur. Stay tuned!
- Note: The cone only shows the probable path of the storm center – impacts will be felt well outside the cone.

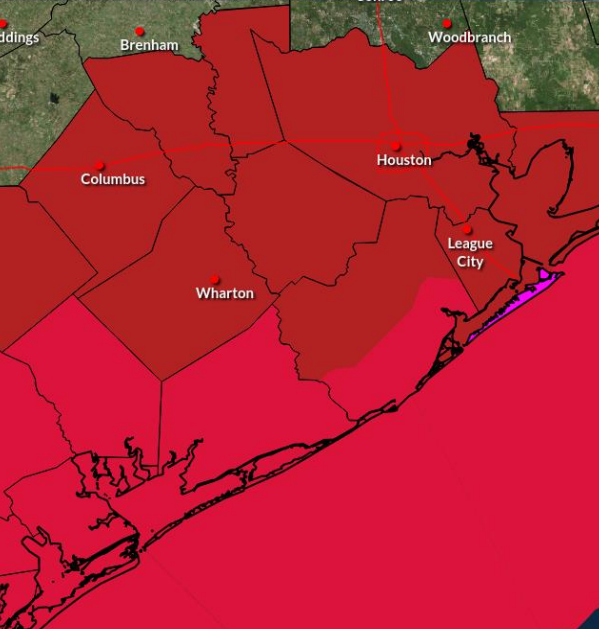


# Watches and Warnings

Maps Showing Various Warnings and Watches: Warned Areas Denote the Greatest Threat for Life Threatening Conditions

## Tropical Storm Beryl - Hazards

Strong Winds | Heavy Rainfall | Coastal Flooding



Weather Forecast Office  
Houston/Galveston TX  
Issued Jul 07, 2024 4:16 AM CDT



### HURRICANE WARNING

Sustained winds of 75 - 85 mph are expected within 36 hrs or less.

### TROPICAL STORM WARNING

Sustained winds of 39 to 73 mph are expected within 36 hrs or less.

### HURRICANE WATCH

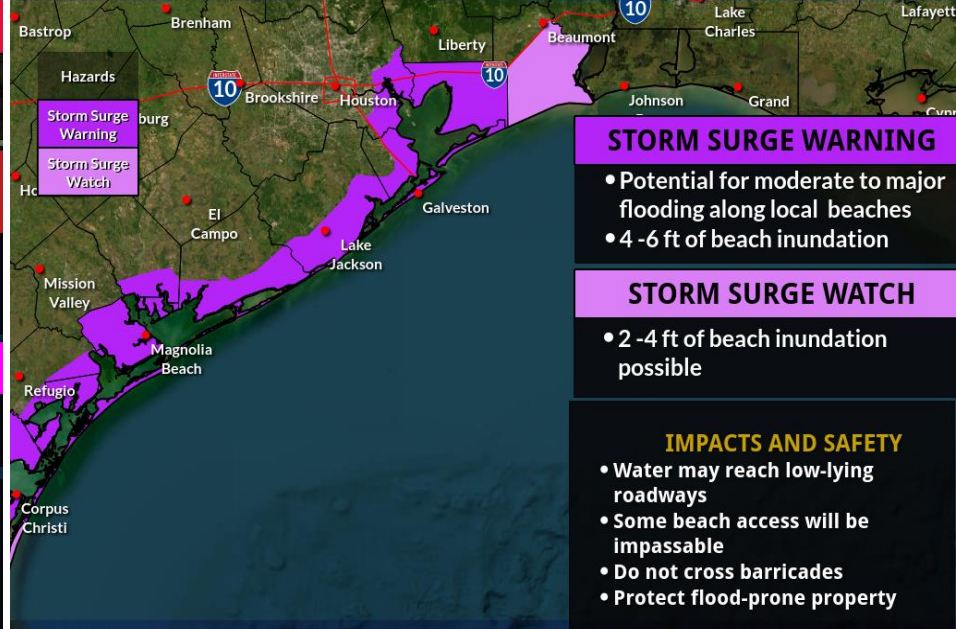
Sustained winds of 74 - 85 mph are possible.

- Warnings and Watches are in effect through Monday.
- Be prepared and follow local official's guidance.

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

## Tropical Storm Beryl - Hazards

Life-Threatening Storm Surge



Weather Forecast Office  
Houston/Galveston TX  
Issued Jul 06, 2024 10:29 PM CDT



### STORM SURGE WARNING

- Potential for moderate to major flooding along local beaches
- 4 -6 ft of beach inundation

### STORM SURGE WATCH

- 2 -4 ft of beach inundation possible

### IMPACTS AND SAFETY

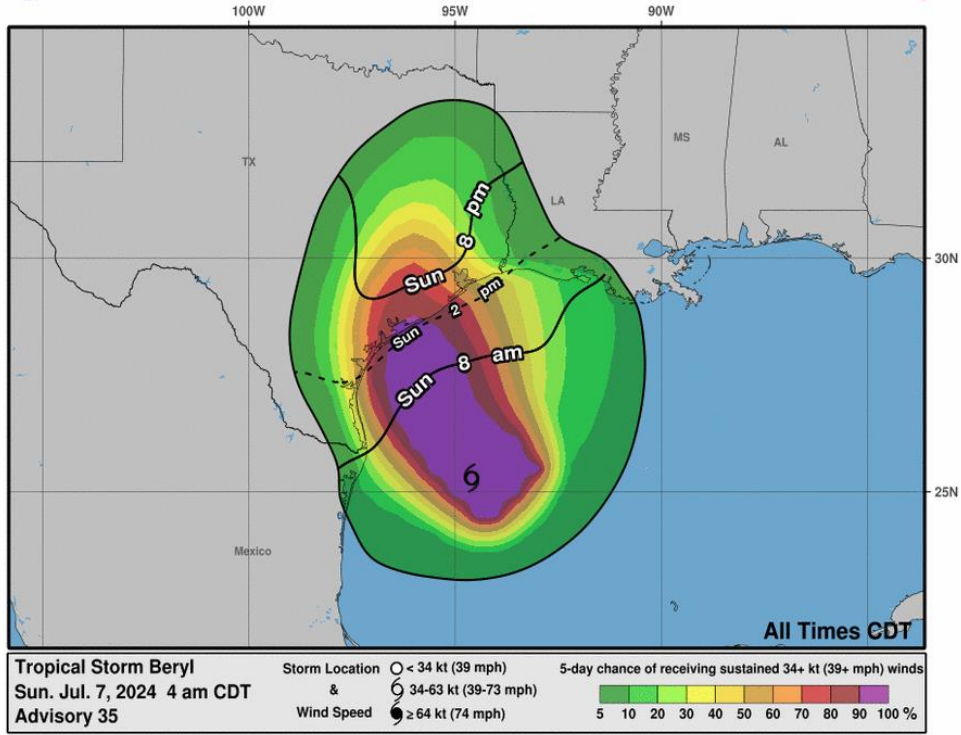
- Water may reach low-lying roadways
- Some beach access will be impassable
- Do not cross barricades
- Protect flood-prone property

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



# Earliest Reasonable Time of Arrival

Earliest Reasonable Arrival Time of Tropical-Storm-Force Winds



- The earliest reasonable time of arrival of Tropical Storm Force Winds will be this afternoon to evening.
  - The most likely time will be this evening to overnight tonight.
- Higher point probabilities near and around our SW Counties/Matagorda Bay.

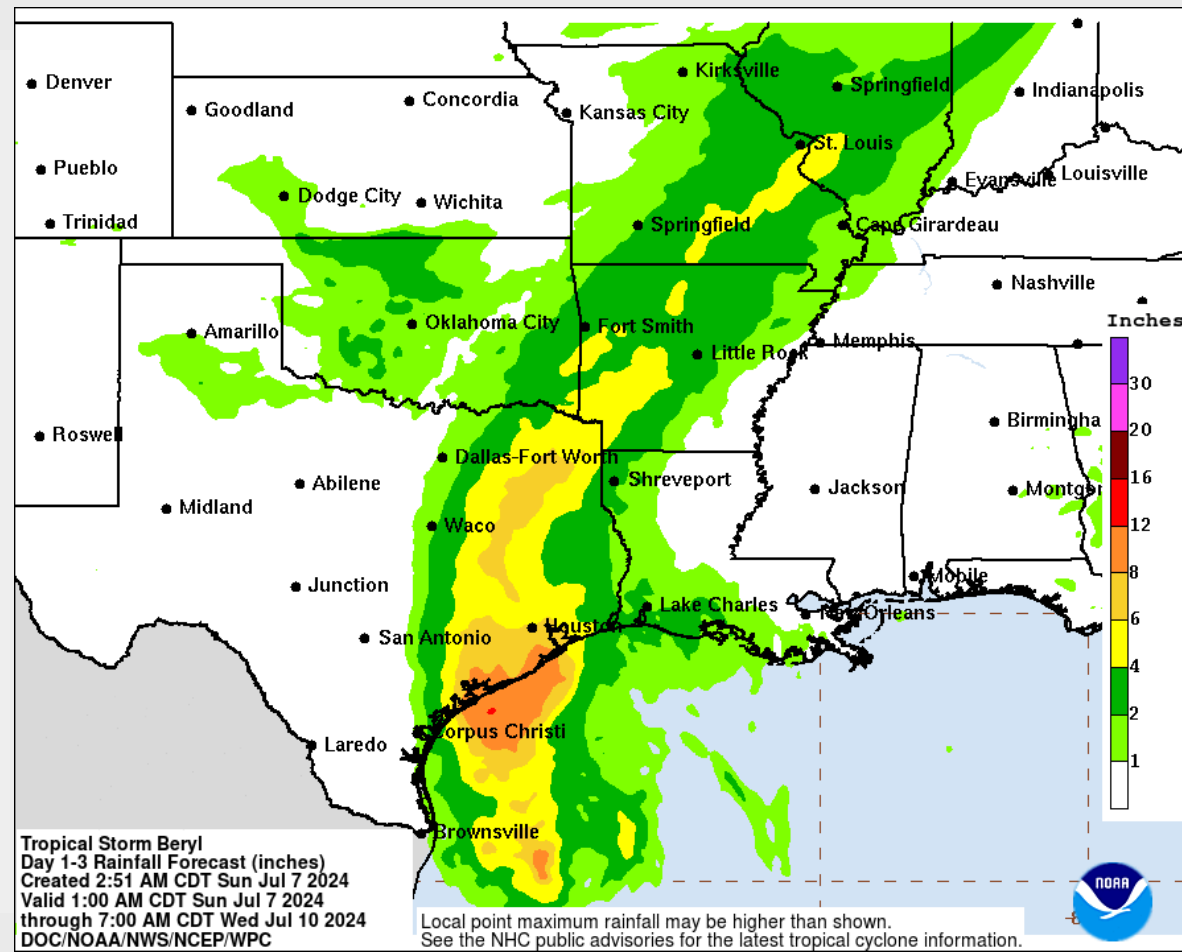


# Rainfall Forecast

Storm total rainfall amounts of 5 to 10 inches with localized higher amounts expected. Beginning late today.

Period of heaviest rain tonight into Tuesday.

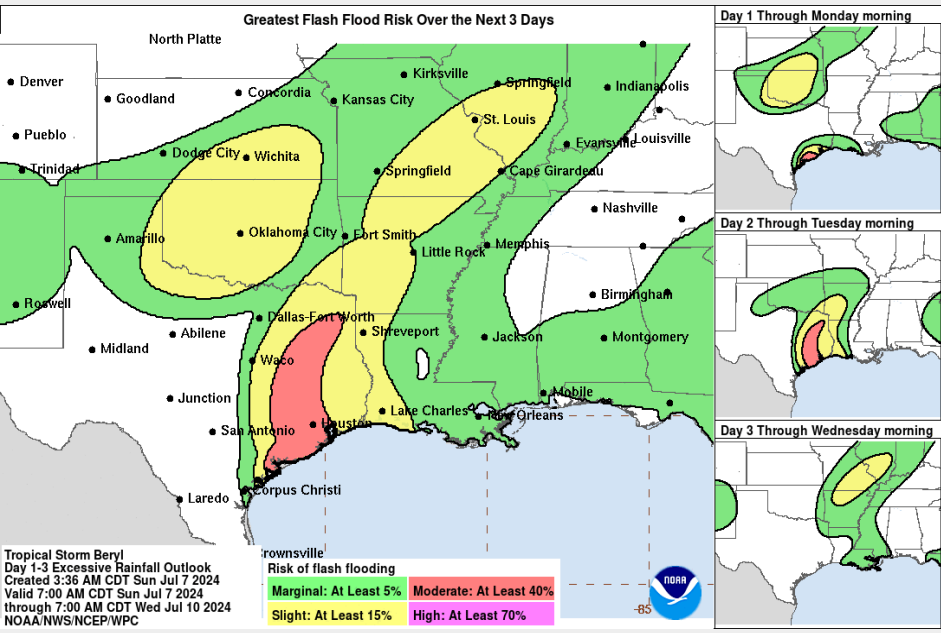
The heaviest band will be generally near or right of the center track.





# Excessive Rainfall Outlook/Flood Watch

Main heavy rain/flash flood threat will be tonight into Tuesday for the local area. Risk rated as Moderate for western counties which will be closer to the track, highest rainfall.



## Flood Watch

In effect from Sunday night through Tuesday morning

Weather Forecast Office  
**Houston/Galveston TX**  
Issued Jul 06, 2024 6:20 PM CDT

### FLOOD WATCH

*In effect Sun Night through Tues Morning*

- Heavy rain associated with Tropical Storm Beryl could produce rainfall amounts from 5 to 10 inches, with locally higher amounts possible
- Flooding caused by excessive rainfall will be possible.

IMPACTS AND ACTIONS

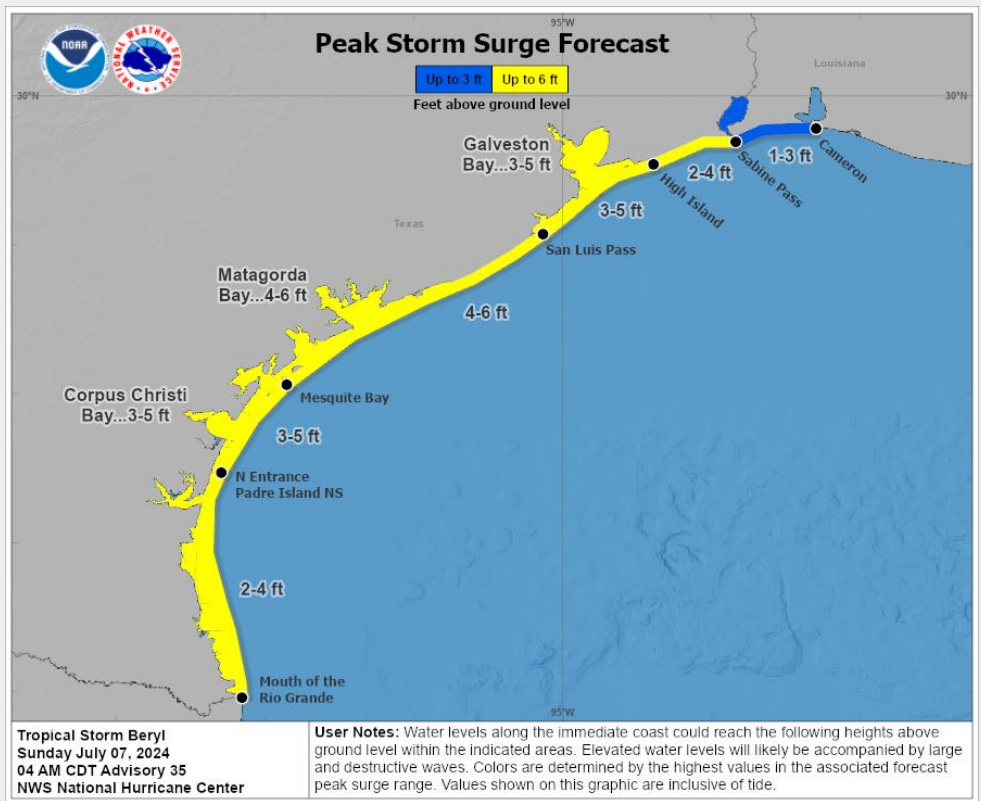
- Excessive runoff may result in flooding of rivers, creeks, streams, and other low-lying and flood-prone locations, particularly urban areas.
- Monitor latest forecast updates and be prepared.

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weather.gov/hgx



# Peak Surge (Height Above Normally Dry Ground)



## Peak surge:

- 4 to 6 feet above ground Mesquite Bay to San Luis Pass
- 3 to 5 feet San Luis Pass to High Island (including Galveston Bay)
- 2 to 4 feet High Island to Sabine Pass





# Potential Storm Surge Flooding

NHC Potential Storm Surge Flooding Map  
Tropical Storm BERYL (2024) Advisory 35  
From 04 AM CDT Sunday July 07 to 07 AM CDT Thursday July 11



## Potential Storm Surge Flooding\*

- Intertidal Zone/Estuarine Wetland
- Greater than 1 foot above ground
- Greater than 3 feet above ground
- Greater than 6 feet above ground
- Greater than 9 feet above ground
- Leveed area  
Consult local officials for flood risk

## Map Layer Options:

Inundation Layer Only

Inundation with Intertidal Layer

Map Opacity Slider

[Download GIS data](#)  
*(Instructions)*

Inundation Layer Only

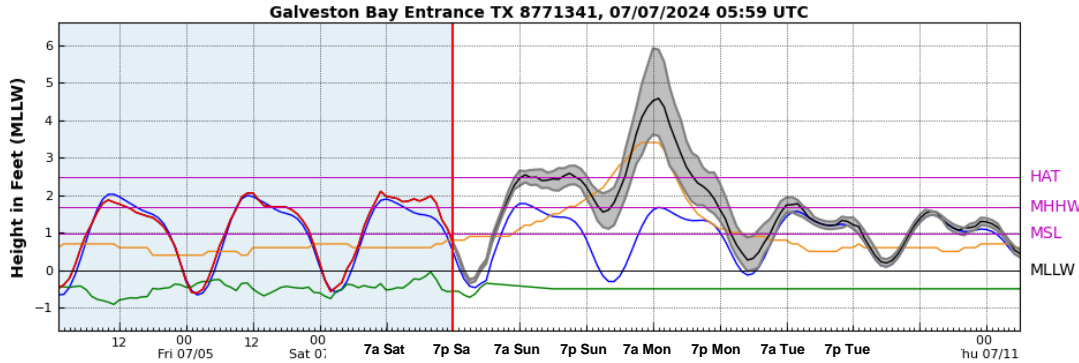
Inundation with Intertidal Layer

\*Displayed flooding values indicate the water height that has about a 1-in-10 (10%) chance of being exceeded.

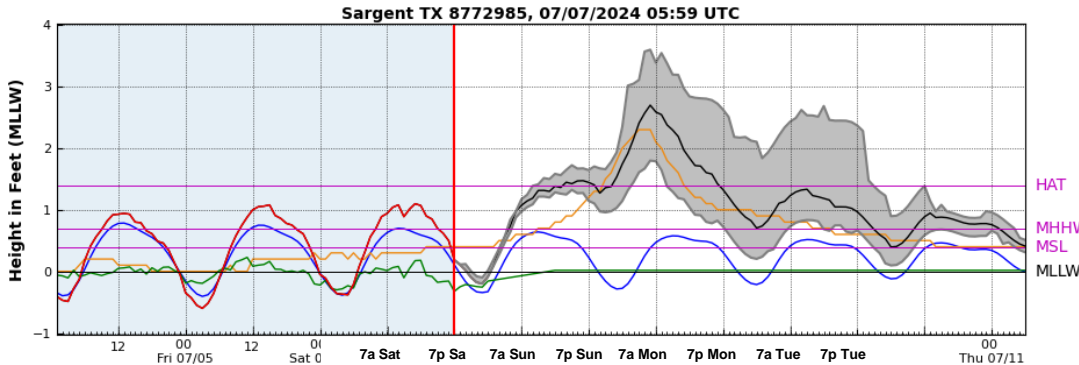
- Map shows areas, depth of water that may occur (surge potential, reasonable worst case).
- Can be viewed at [hurricanes.gov](https://hurricanes.gov) and, for EMCs, using Hurrevac.
- Tides begin to increase today, but highest surge values will be early Monday



# Tide Forecast – Probabilistic Model (PETSS)



— Tide — Surge — Anomaly — Forecast — Observation — Ensemble Uncertainty (10%-90%)



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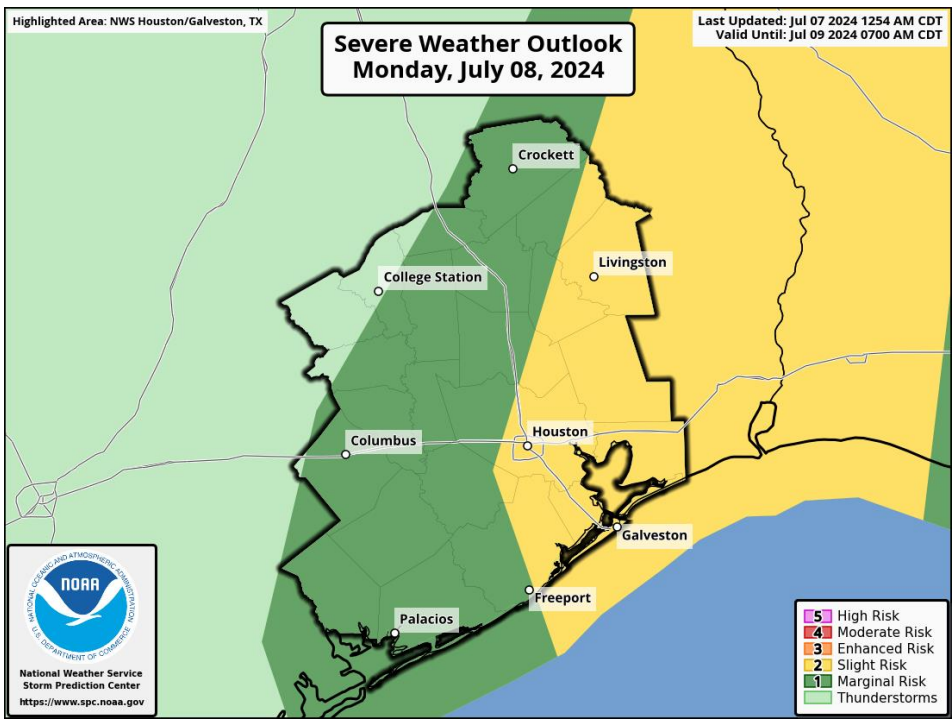
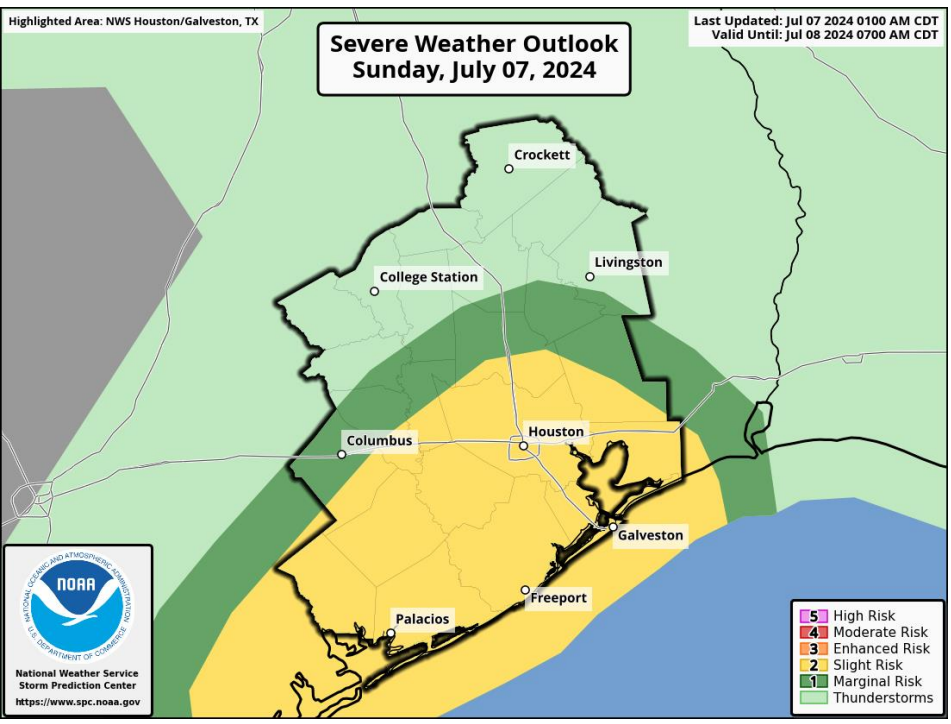
- Water levels shown are relative to MLLW
- Landfall and high tide will be close in time together.
- Elevated tides are expected today, but the highest water levels are expected on Monday.
- Graphics are meant to show timing. For peak values refer to National Hurricane Center guidance which is superior for this type of storm.

Will be highly dependent on the track, intensity and size of the wind field.



# Tornado Chances

Brief tornadoes possible in spiral bands this afternoon through Monday.

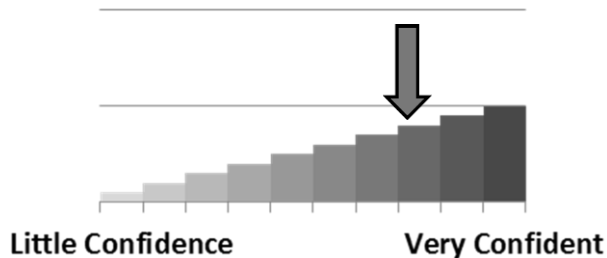




# Key Take-Aways

- Track forecast for Beryl has shifted slightly eastwards with a potential landfall along Matagorda County, but shifts in the track remain possible.
- Beryl is a tropical storm now, but forecast to strengthen to a category one hurricane before landfall. Best practice is to plan for one category higher (Category 2).
- A Flood Watch remains in effect for portions of the area for tonight through Tuesday. Some watches have been upgraded to warnings as described on previous slides to highlight areas of greatest risk, concern.
- Hardest hit areas look to be Jackson and Matagorda Counties with hurricane force winds and damaging surge likely there. Could be impacts farther east and inland as described by the various watches and warnings.
- Isolated tornadoes will be possible starting this afternoon through Monday.

## Forecast Confidence



**Confidence increasing in track and intensity forecasts but changes may still occur. Small shifts could mean significant changes to forecast. Stay tuned for updates!**



# Local Resources

Next Briefing:  
July 7th, 11:00 AM CDT  
Method: Webinar and Email



**Web:** [weather.gov/houston](http://weather.gov/houston)



**Phone:** 281-337-5074



**E-mail:** [sr-hgx.nws@noaa.gov](mailto:sr-hgx.nws@noaa.gov)



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