



# TROPICAL DEPRESSION 22 BRIEFING

10:30 AM CT

Friday, September 18, 2020

*Prepared by: Dan Reilly, Brian Kyle  
WFO Houston/Galveston*

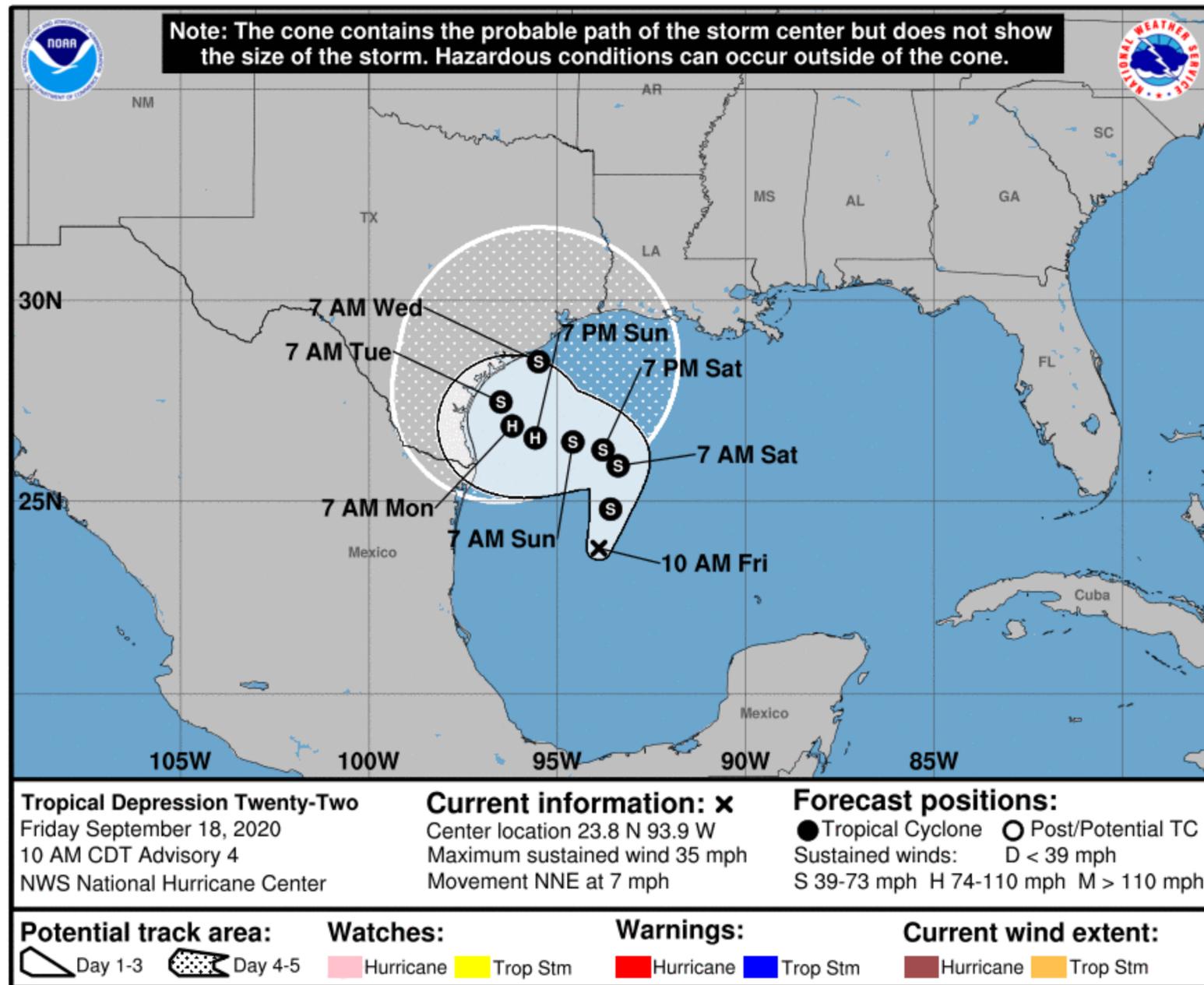
What has changed: Coastal Flood Watch Saturday Morning through  
Tuesday Evening

# Situation Overview

## Tropical Depression 22



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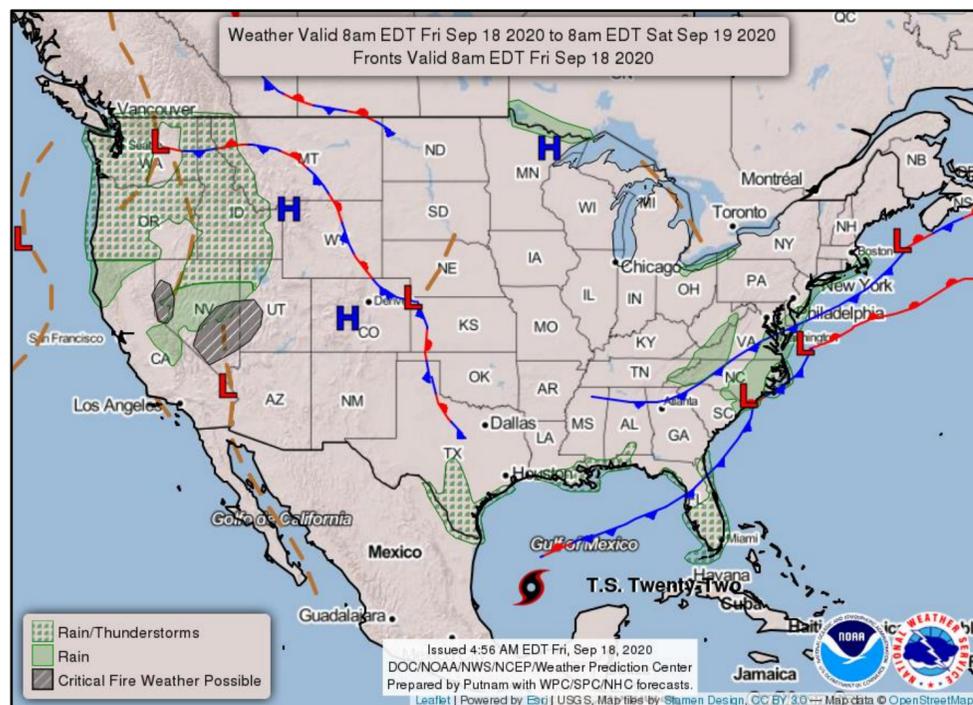
- Tropical Depression 22. May become Tropical Storm Alpha later today.
- Slow moving storm. Track north then bends west toward the Texas coast. Beyond 3 days especially uncertain. Could track slowly up the Texas coast or inland or back offshore.
- Stippled area shows range of possibilities in the days 4 and 5 period.
- On average center tracks within the cone 2/3 of the time.

**NOTE:** Do not focus on the exact track. Impacts can occur well outside the area enclosed by the cone.

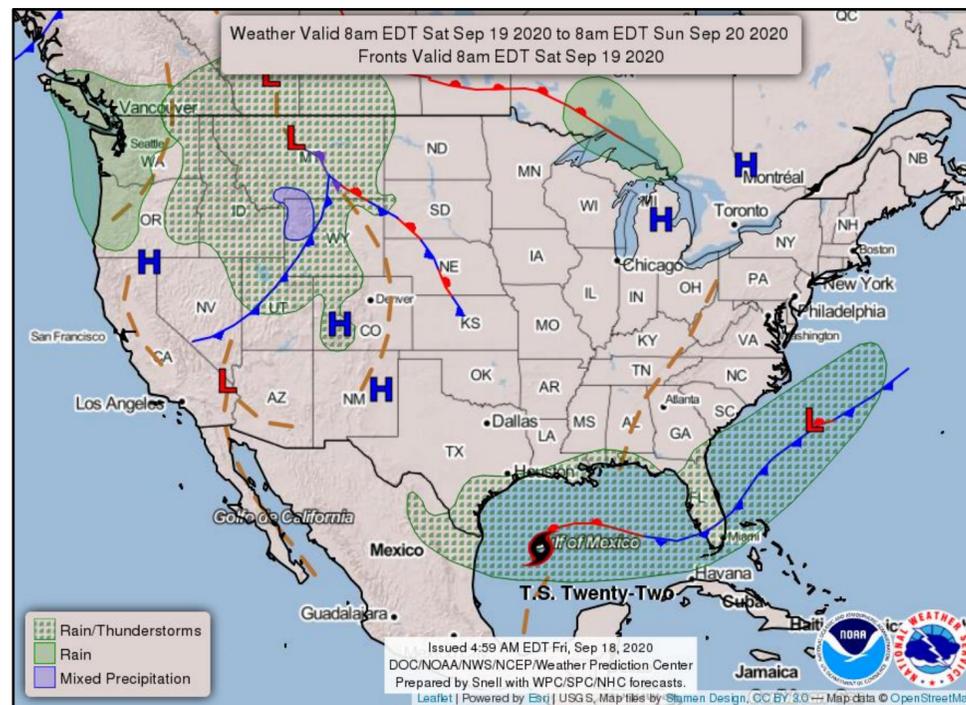
# Forecast Charts



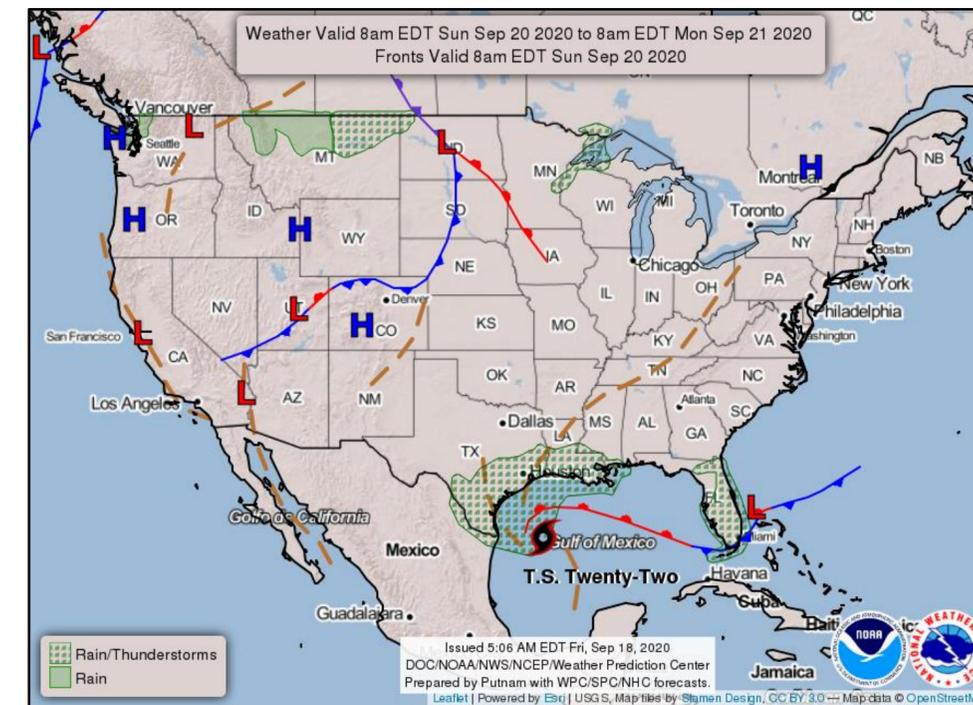
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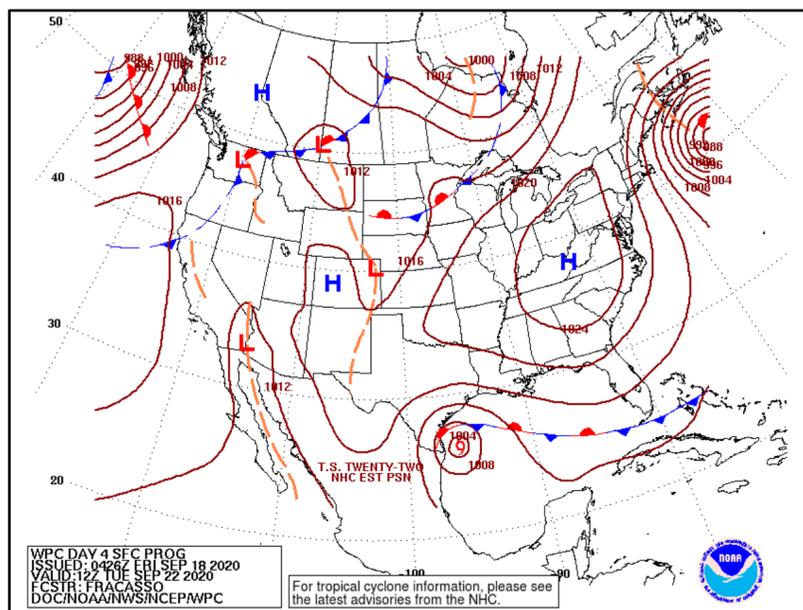
Day 1



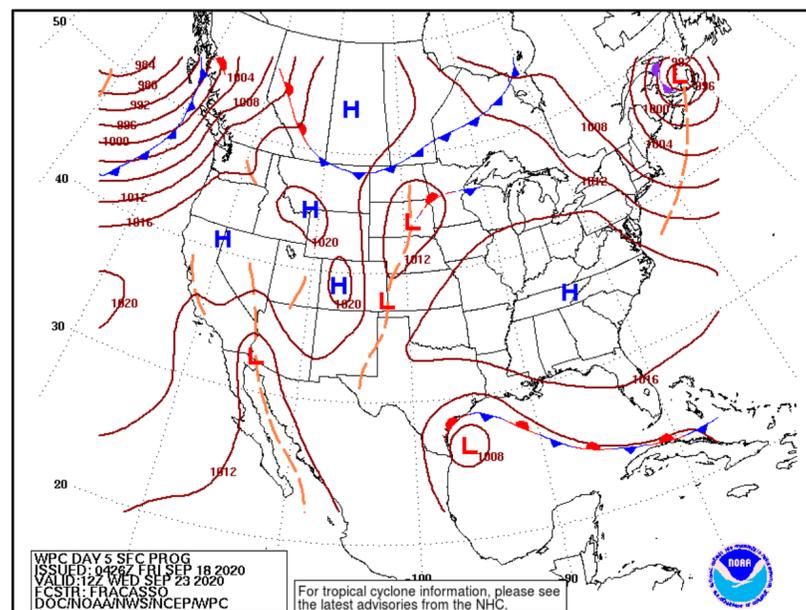
Day 2



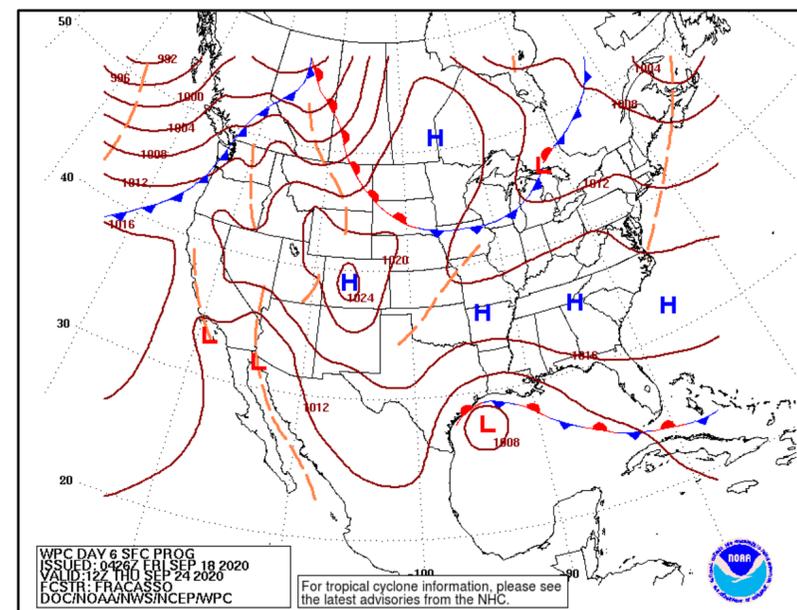
Day 3



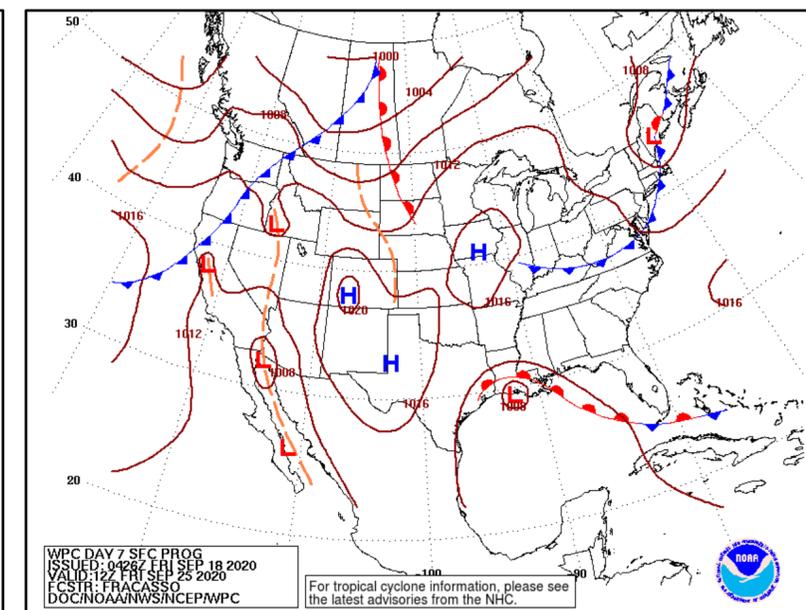
Day 4



Day 5



Day 6



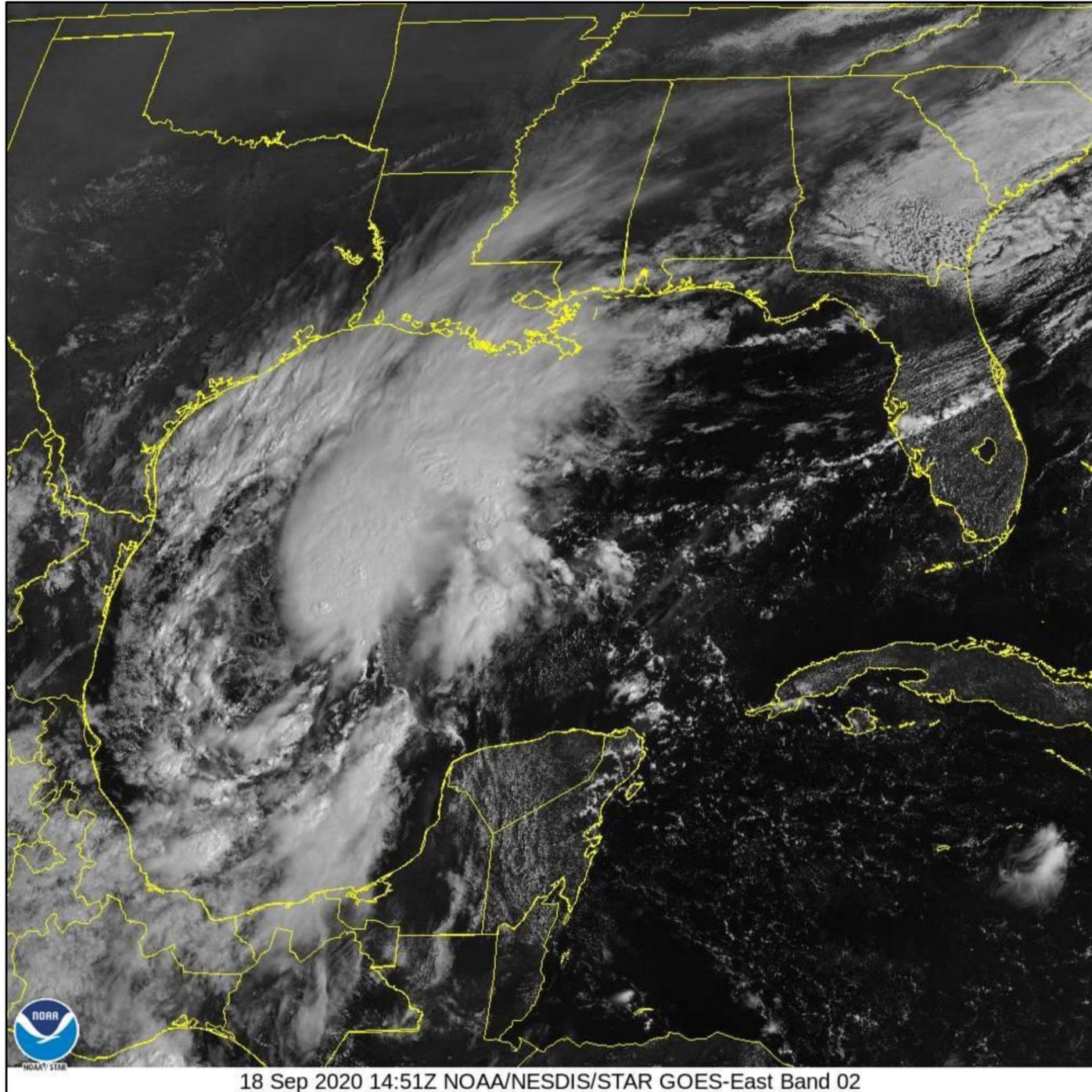
Day 7

# Current Satellite View

Tropical Depression 22



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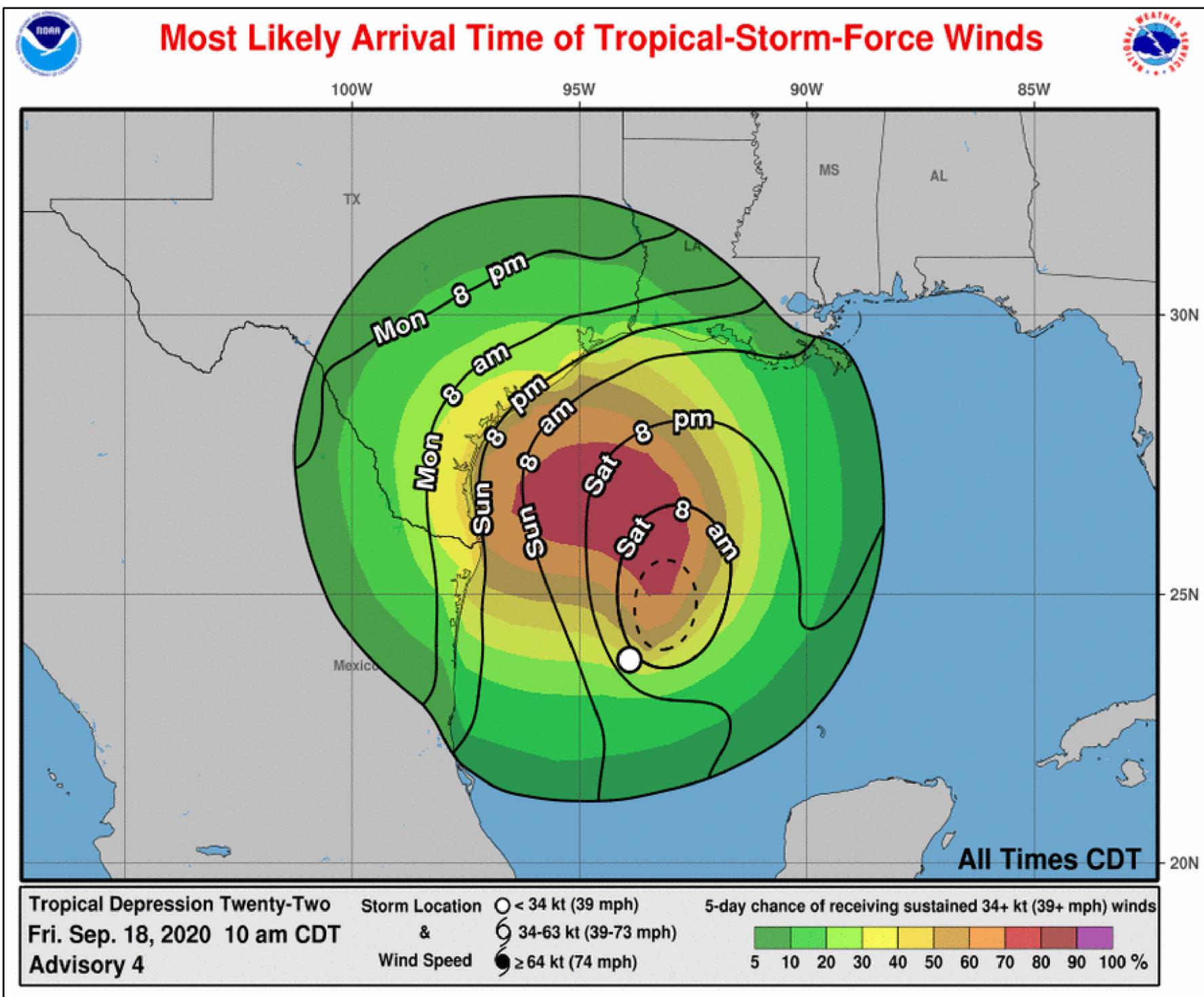
- Still fairly weak, disorganized.
- Strengthening forecast as it moves slowly over the Gulf.
- Forecast to become a hurricane.

# Most Likely Time of Arrival

Tropical Depression 22



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- TS force point wind probabilities shaded and most likely time of arrival of TS force winds.
- Highest values lower and mid Texas coast but fairly high probabilities Upper TX coast as well.
- Most likely time of arrival Sunday night.

# Coastal Flooding Set-up

Weekend into middle of next week



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- Favorable set up for a prolonged coastal flood event.
- Minor, localized flooding between now and Saturday around high tide times.
- Potentially significant impact **Saturday night into midweek for some parts of the coast.**
- Too early for location specific impacts but would prepare for:
  - Significant beach erosion.
  - Transportation issues...both over land (coastal roads) and in the water (boats/vessels/ferry).
  - Possible water inundation in some to beach/bay communities.
  - Poor street drainage with any rainfall next week.
  - At the beaches: Large breaking waves, wave run-up on top of already elevated tides and dangerous rip currents.

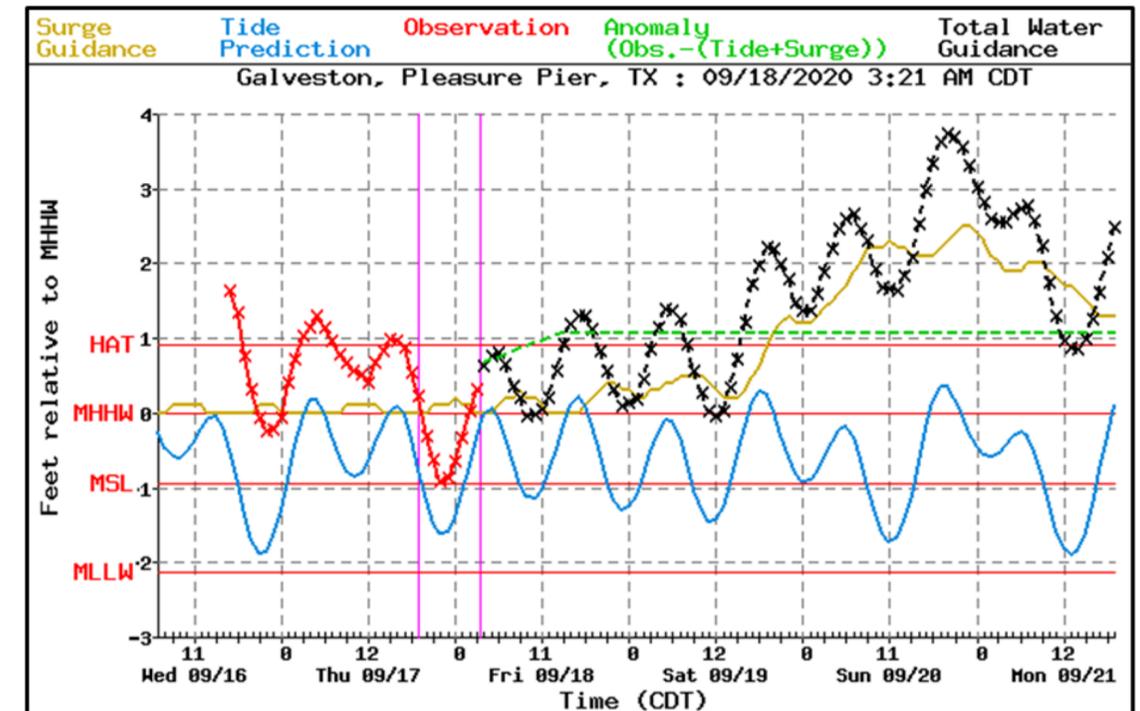
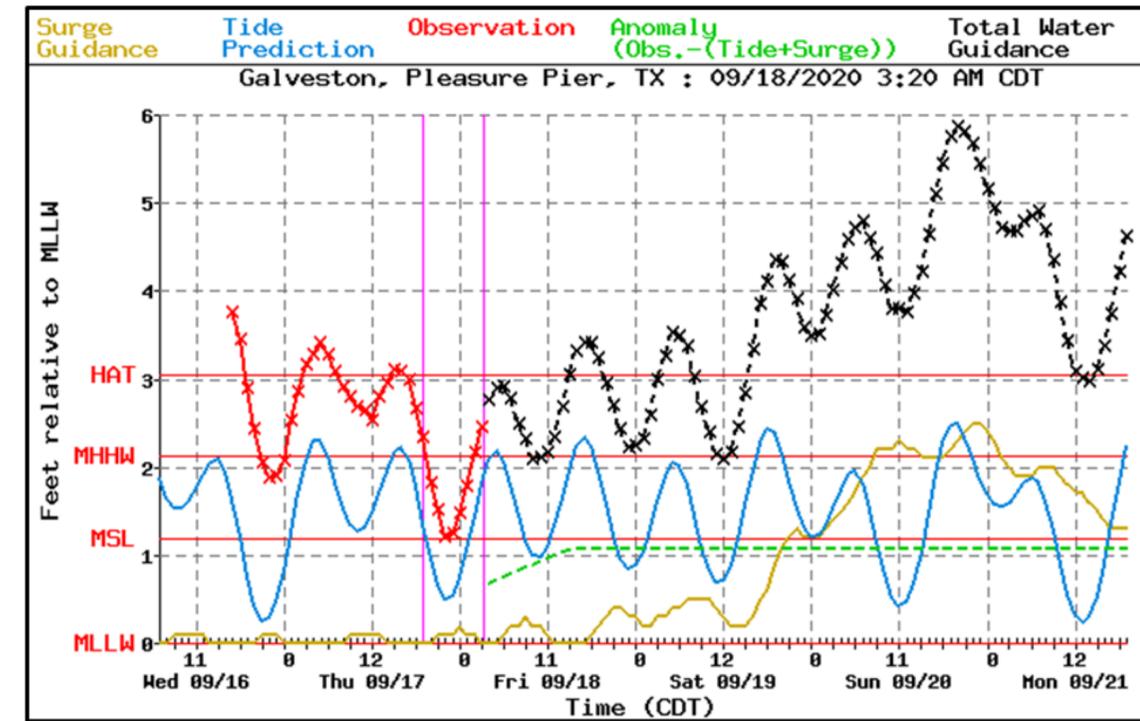
# Coastal Flooding

Tropical Depression 22



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- Storm surge model output from yesterday's runs for Galveston Bay Entrance.
- Note timing...reaching 4 feet above MLLW, 2 feet above MHHW Saturday and 5 to 6 feet above MLLW, 3 to 4 feet above MHHW Sunday. Additional rises possible early next week depending on track.
- Would see moderate coastal flooding at these levels.
- A Coastal Flood Watch is in effect.



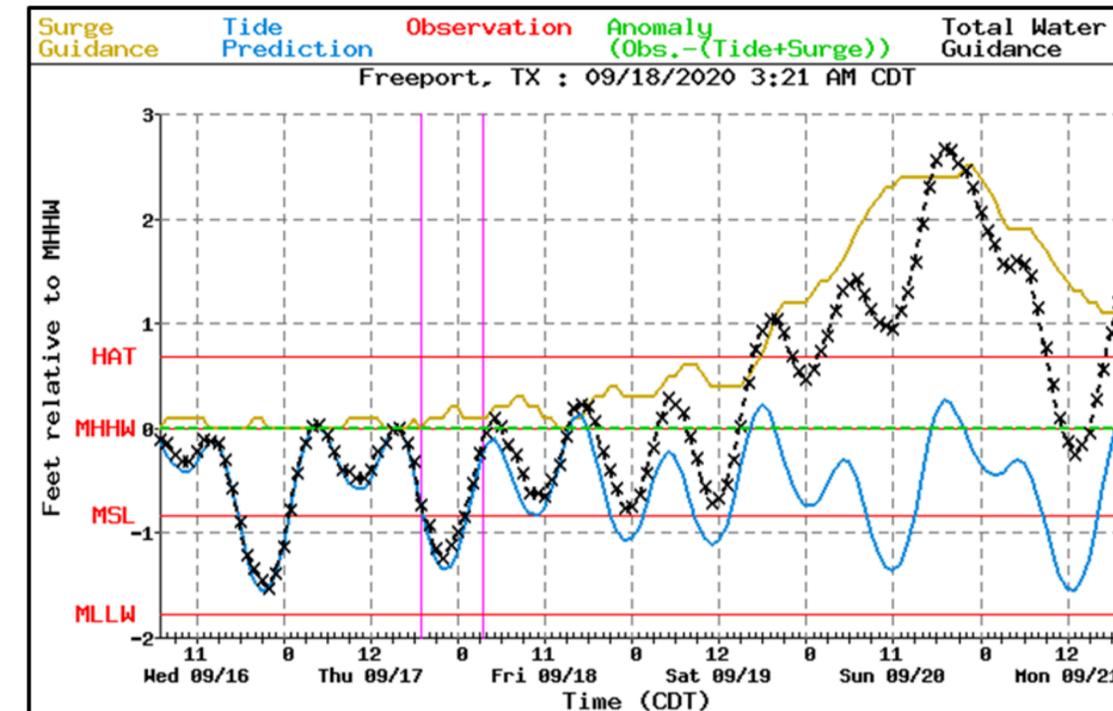
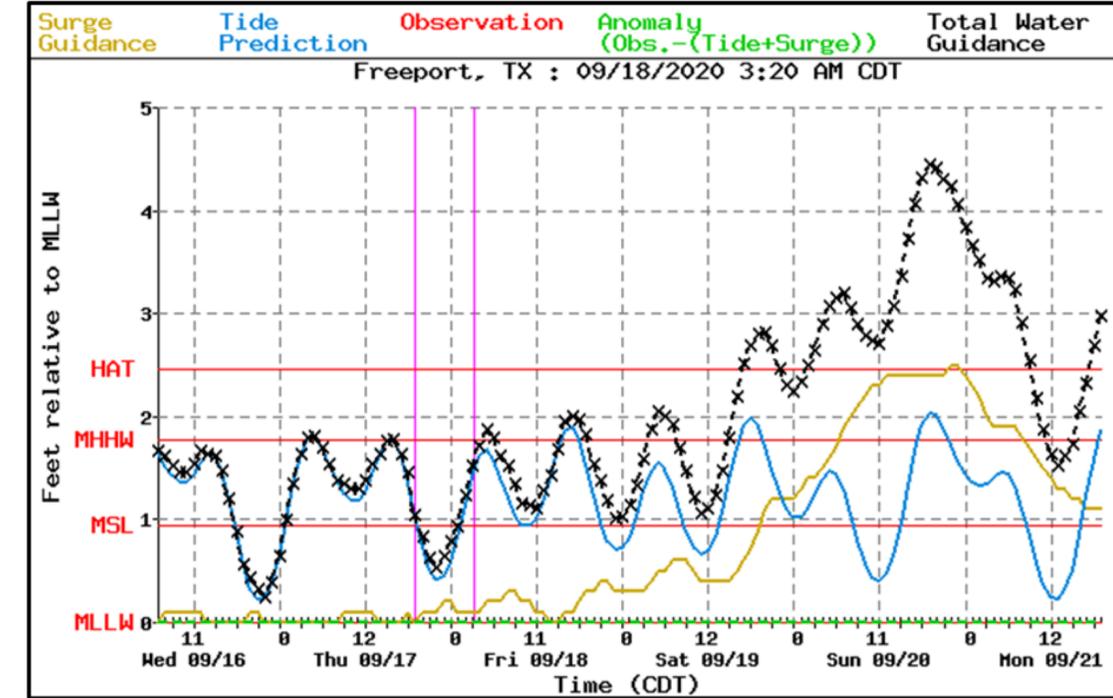
# Coastal Flooding

Tropical Depression 22



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- Storm surge model output from yesterdays runs for Freeport.
- Note timing...reaching 3 feet above MLLW, 1 to 2 feet above MHHW Saturday and 4 to 5 feet above MLLW, 2 to 3 feet above MHHW Sunday. Additional rises possible early next week depending on track.
- Would see minor to locally moderate coastal flooding at these levels.
- A Coastal Flood Watch is in effect.



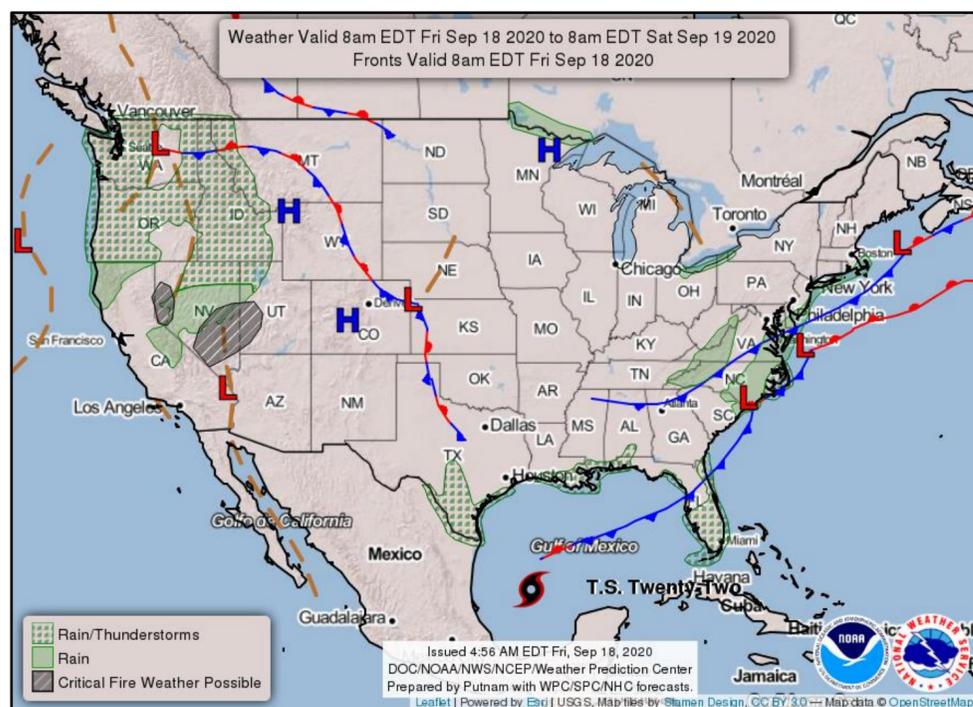
# Forecast Charts

## WPC Auto Updated

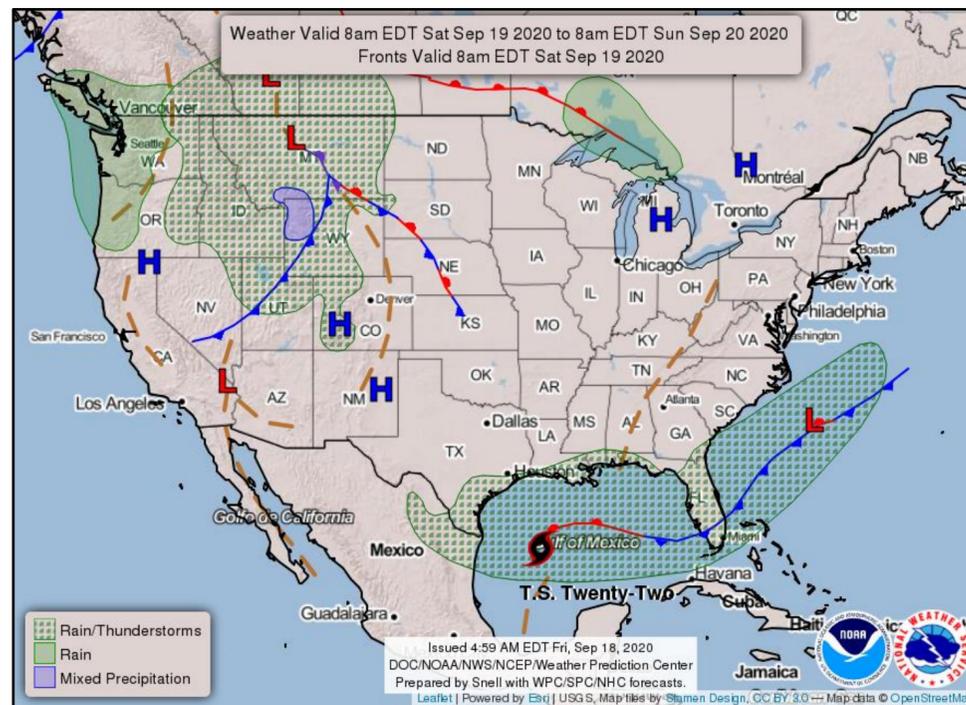


# Houston/Galveston

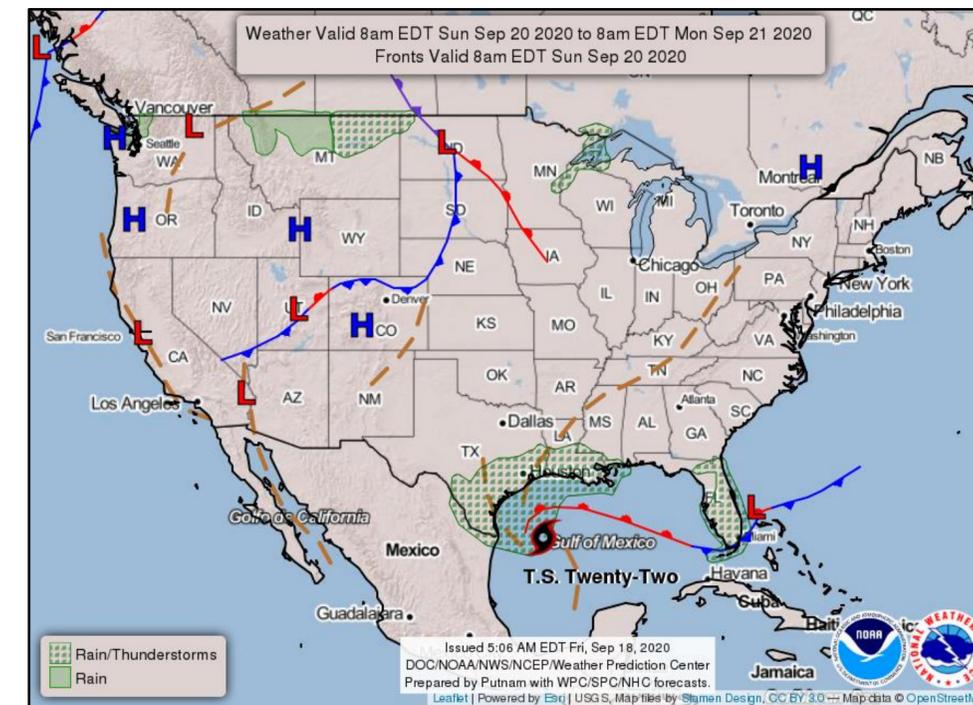
## WEATHER FORECAST OFFICE



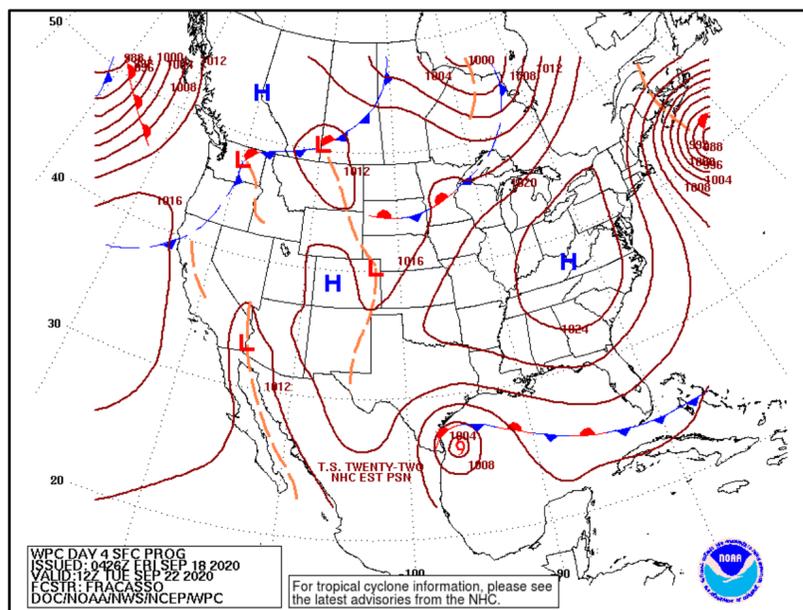
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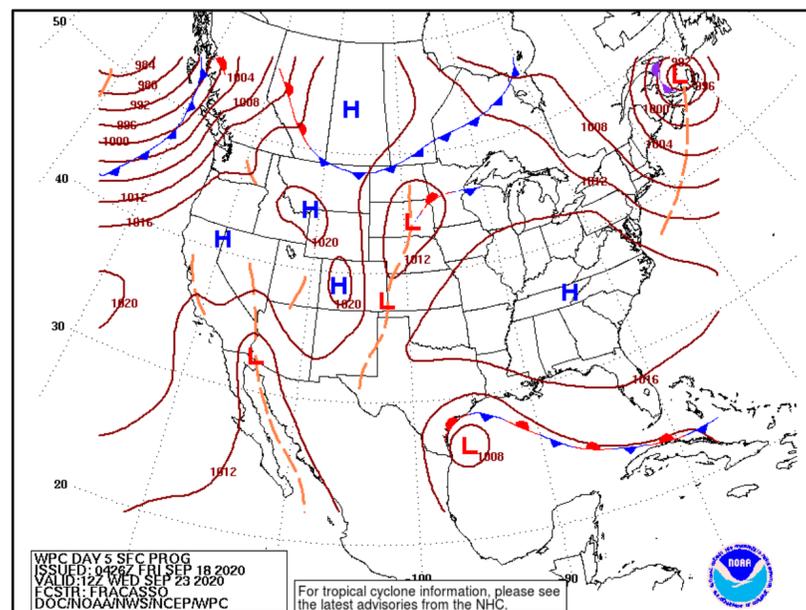
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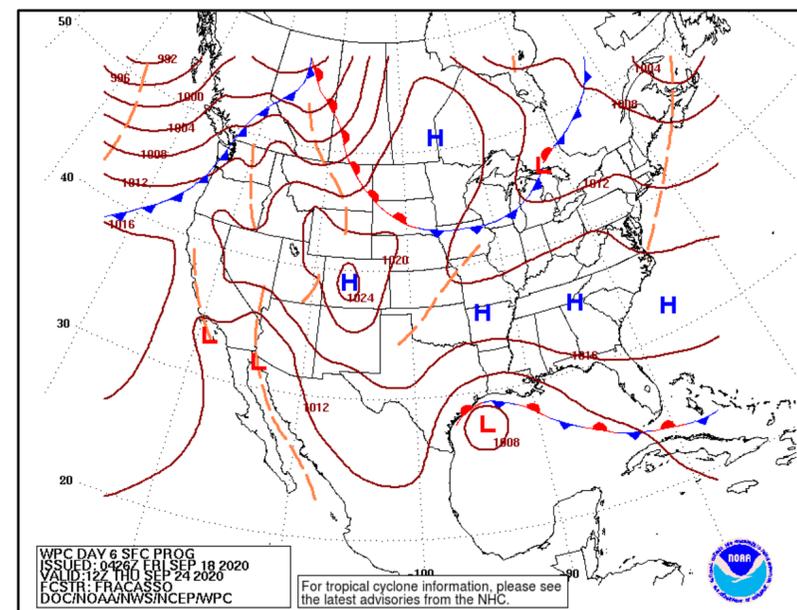
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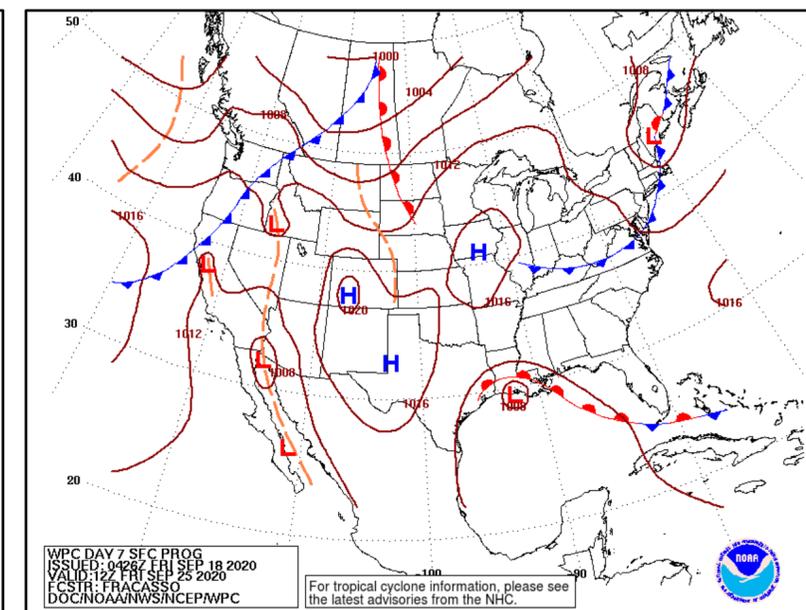
### Day 4



### Day 5



### Day 6



### Day 7

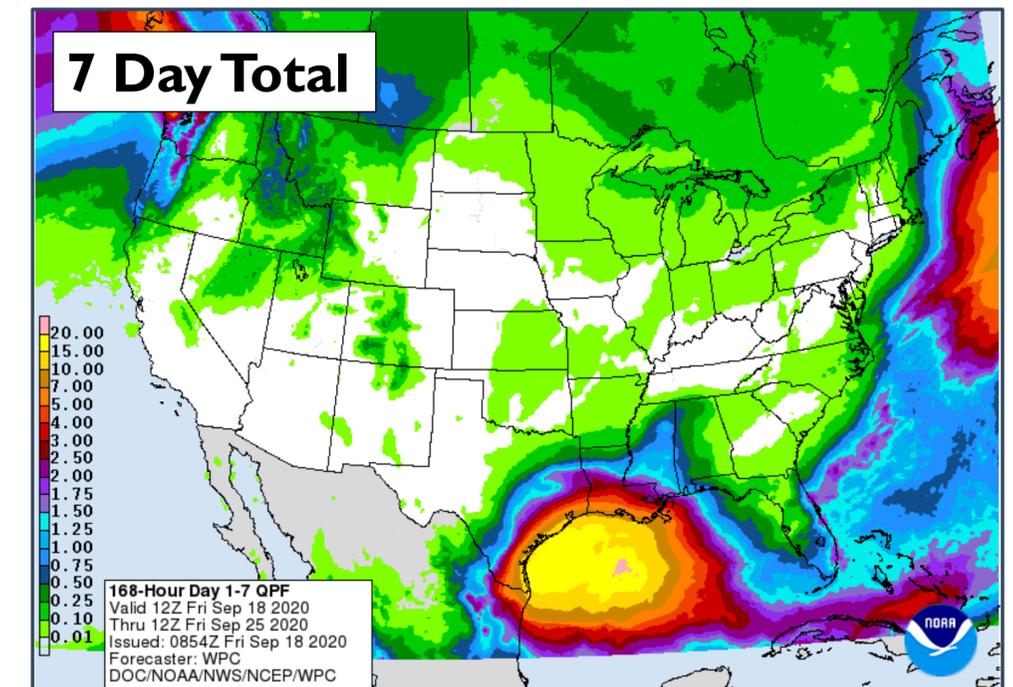
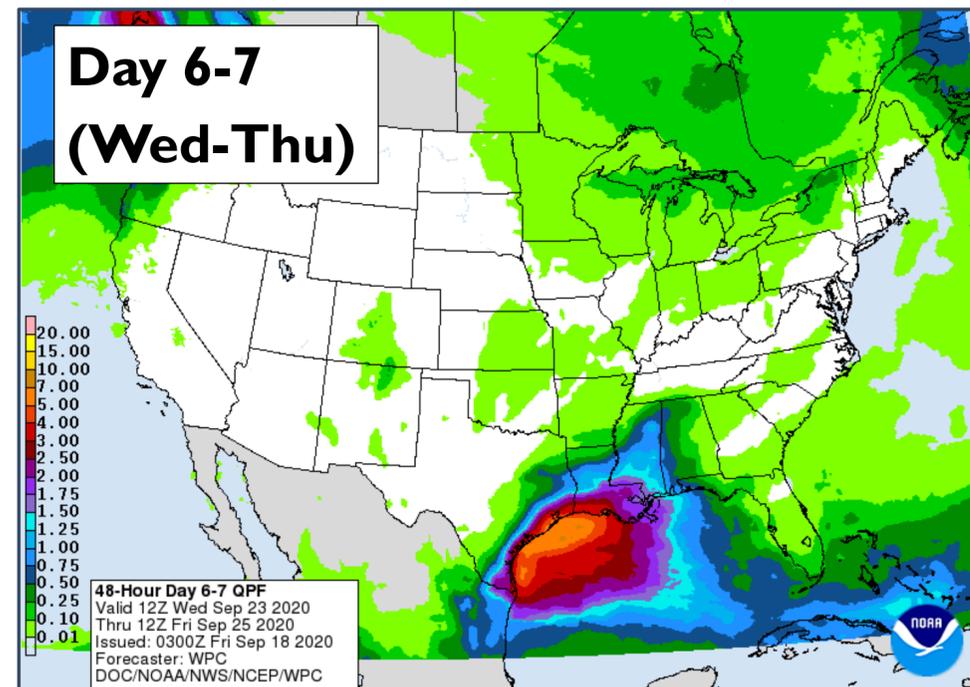
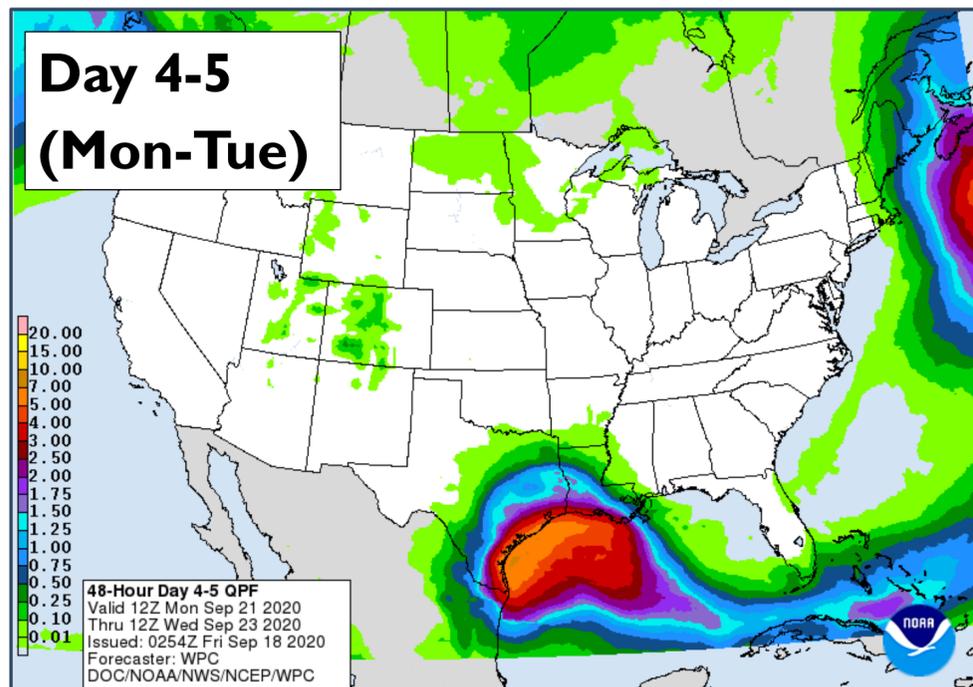
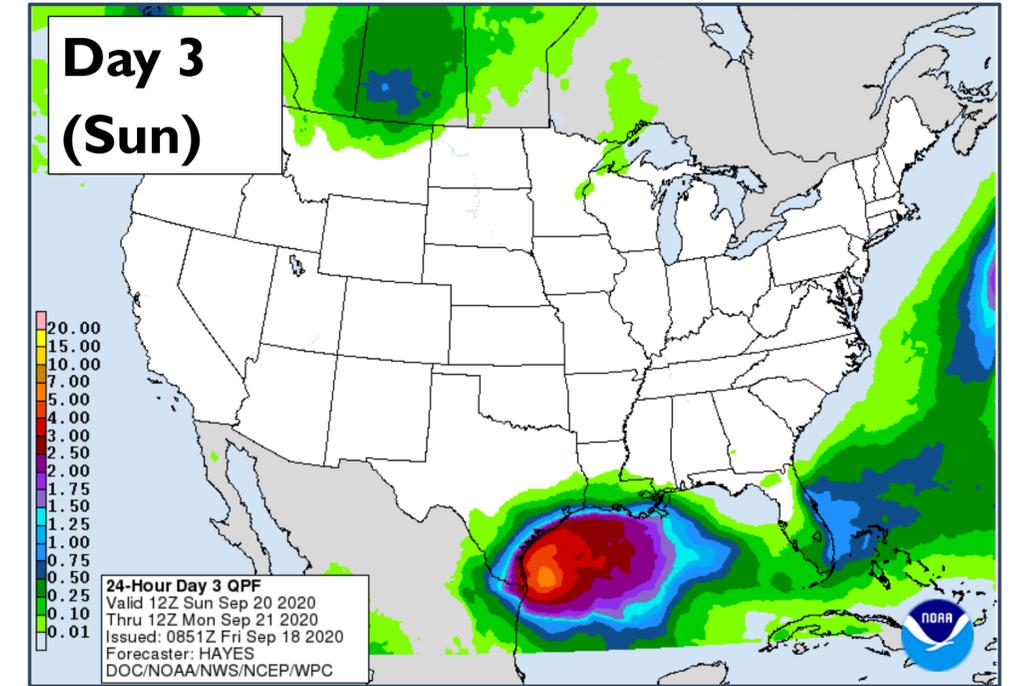
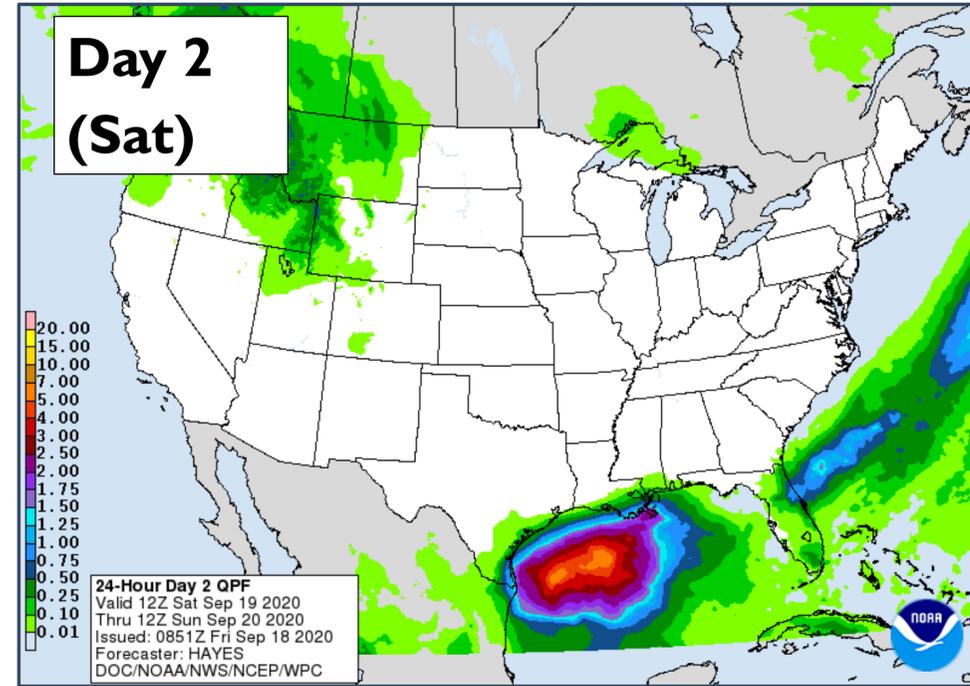
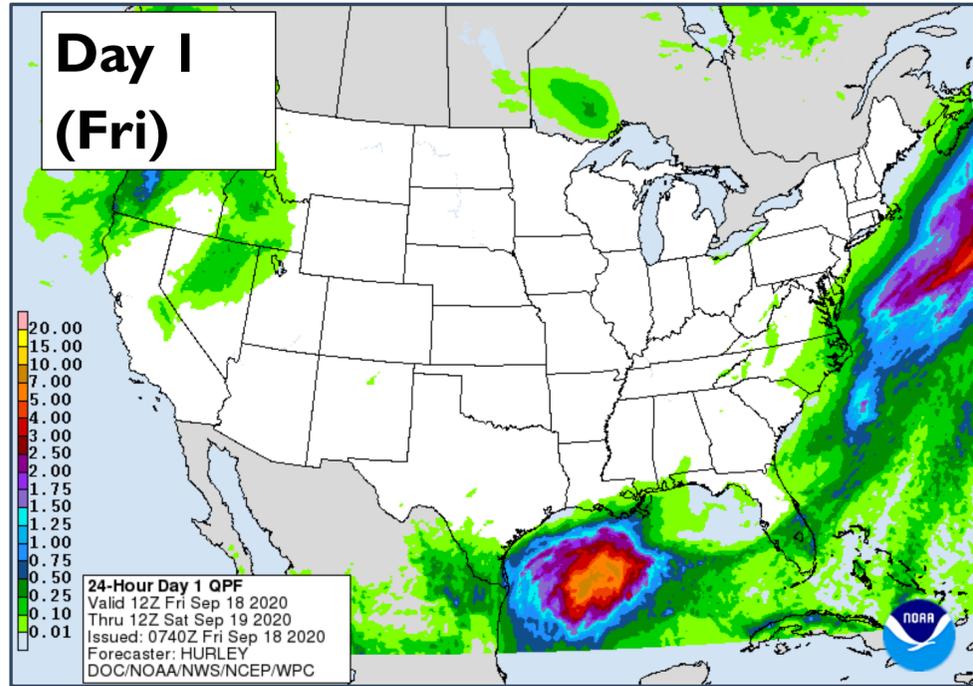
# Rainfall Forecast

## Tropical Depression 22



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# Expected Storm Total Rainfall

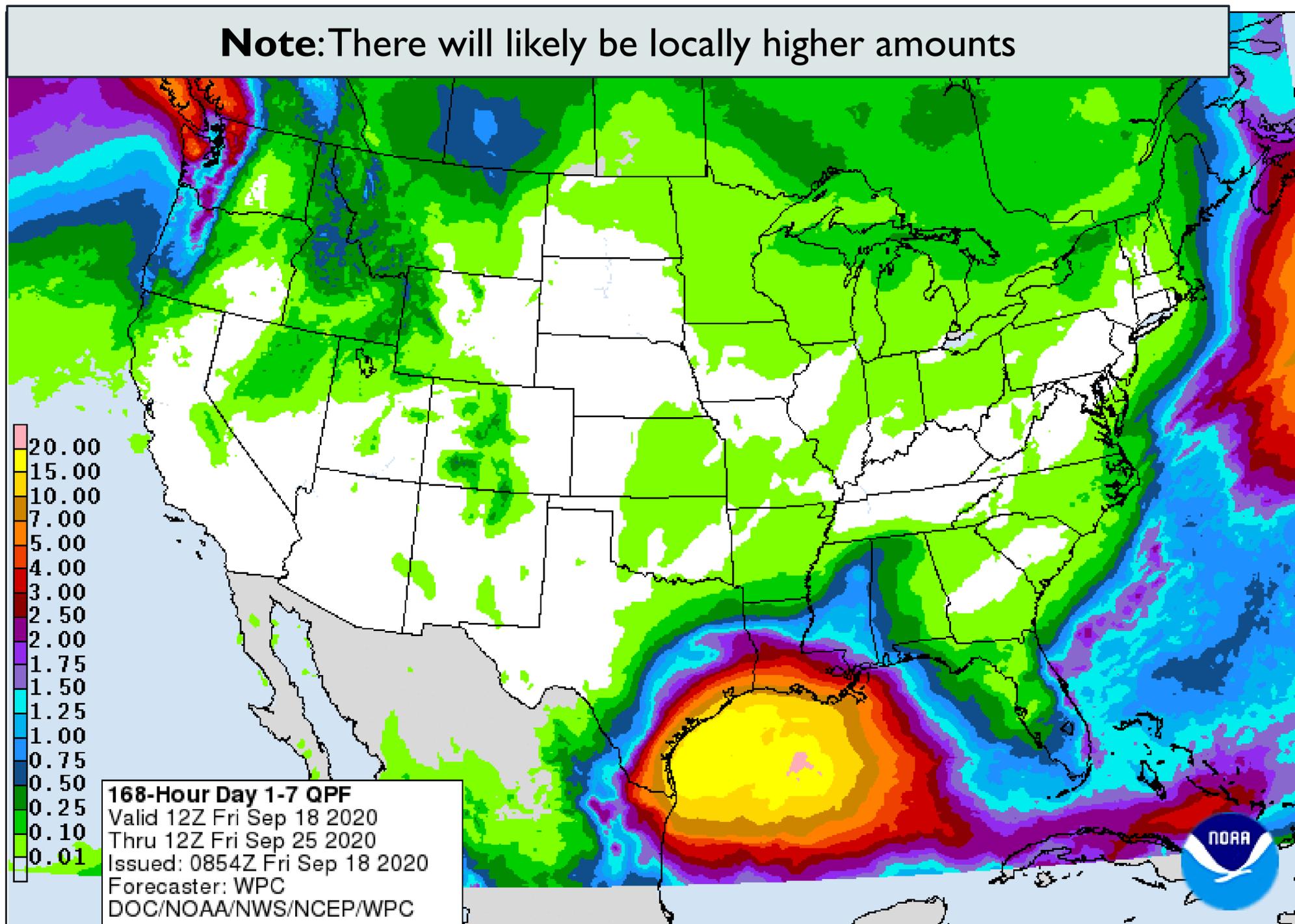
Tropical Depression 22



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**Note:** There will likely be locally higher amounts



- Key point...rainfall forecast highly uncertain, track dependent.
- Potential for very heavy rain, flooding along the TX coast.
- Worst case scenario for SE TX a slow track up the Texas coast next week.
- Don't focus on exact amounts yet but understand potential is there for flooding due to heavy rains.

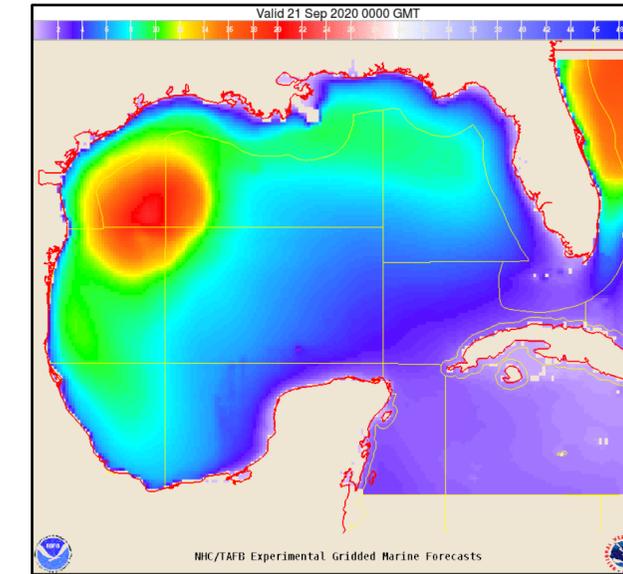
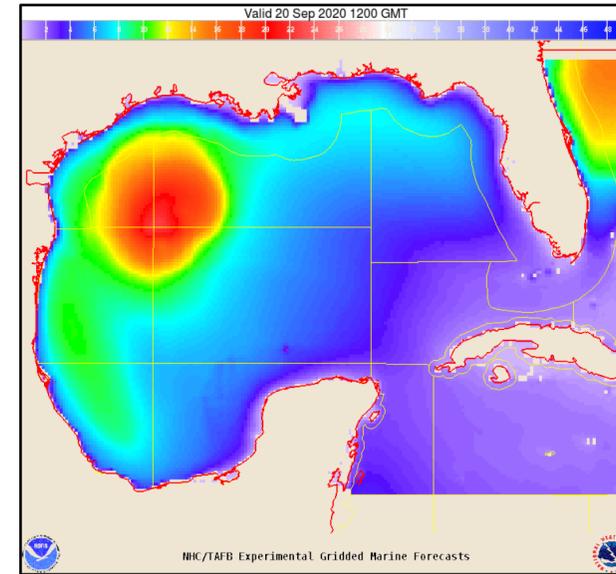
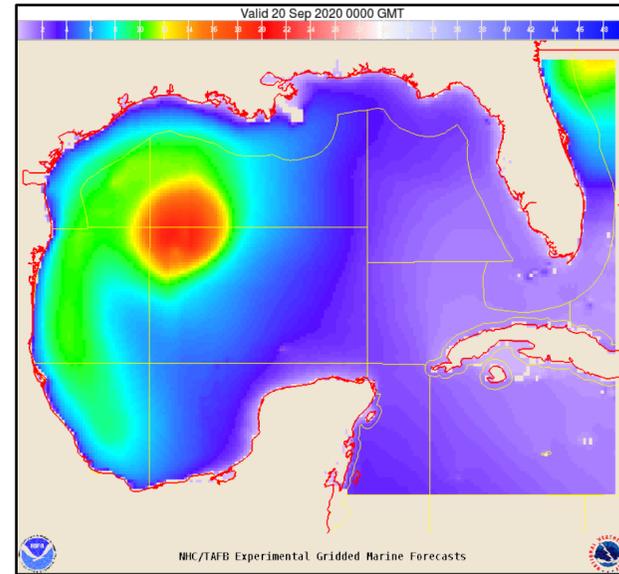
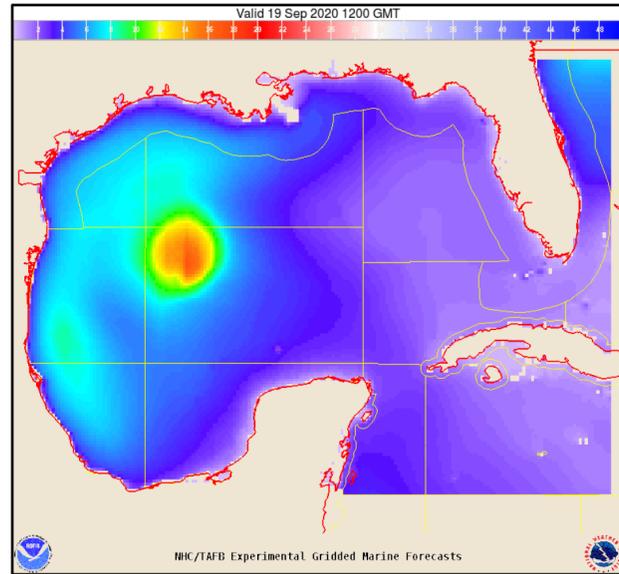
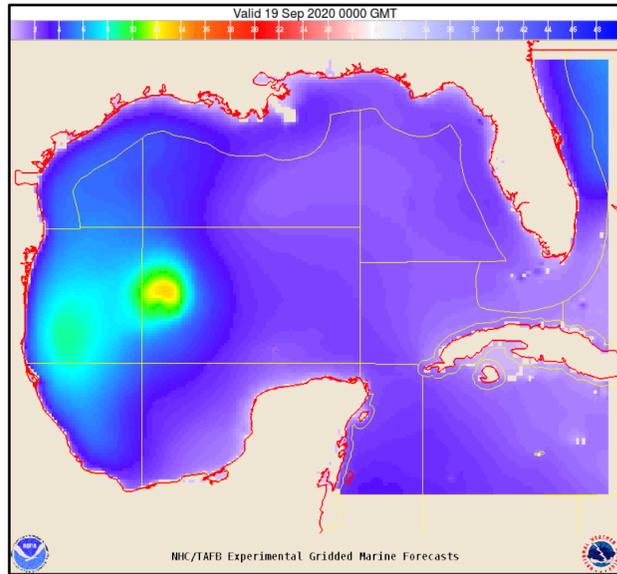
# Forecast Wave Heights



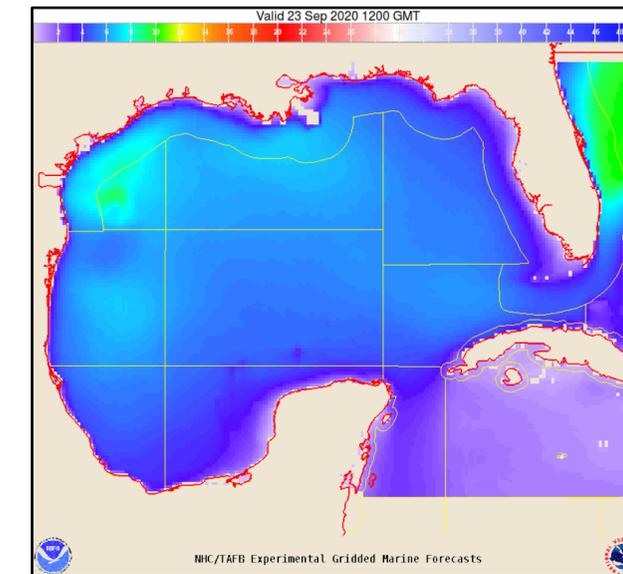
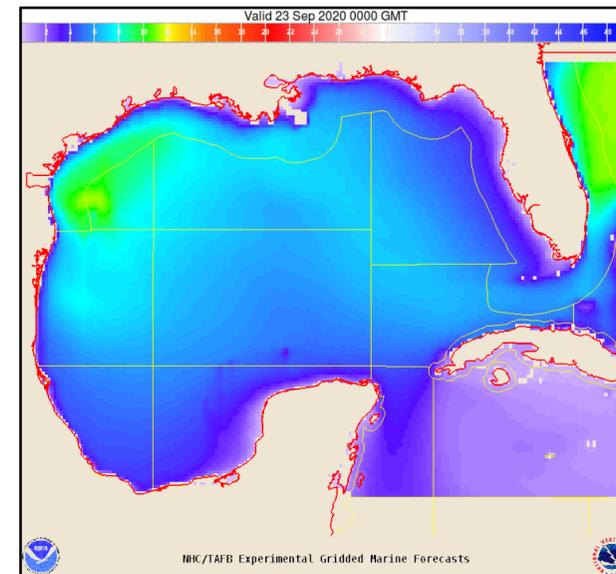
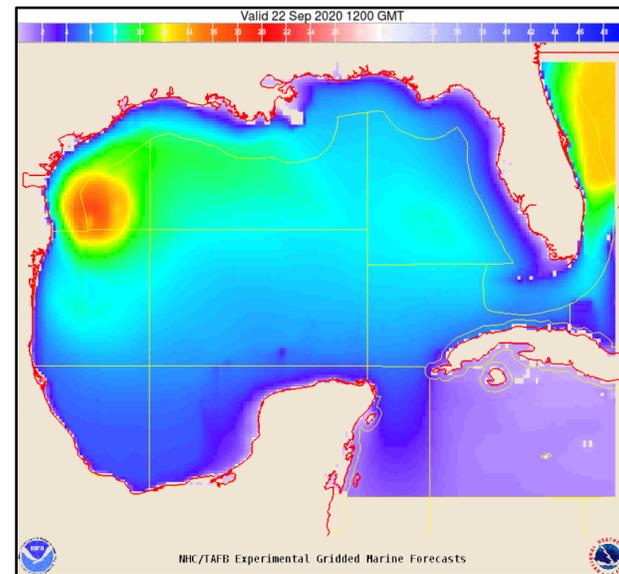
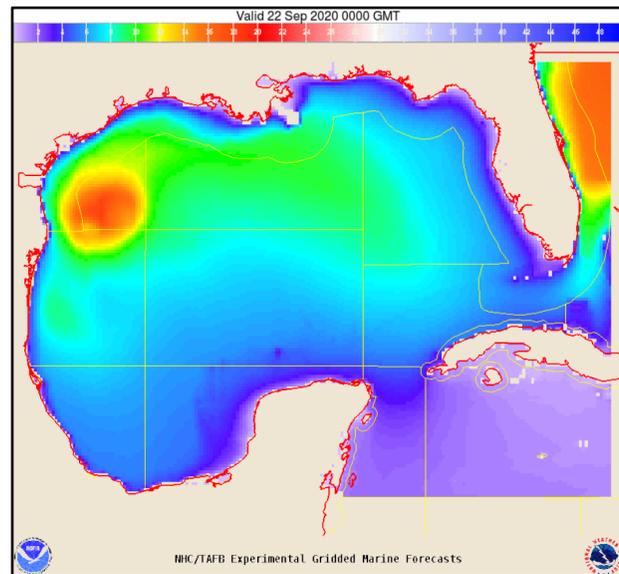
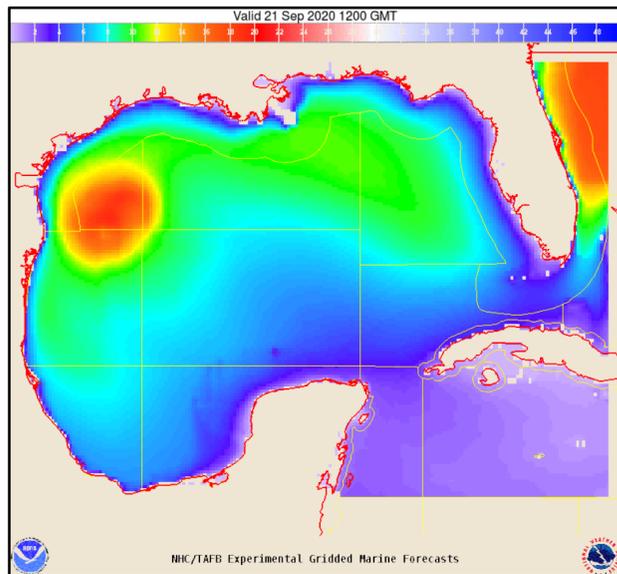
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TAFB Forecast – Auto Updated



Onset of seas  $\geq$  6 feet within 60 NM: **F12** Wednesday morning, **F24** 8-15 feet toward late afternoon, possibly 20+ feet overnight for locations on the east side of the center. **F36** **F48** **F60**



**F72**

**F84**

**F96**

**F108**

**F120**



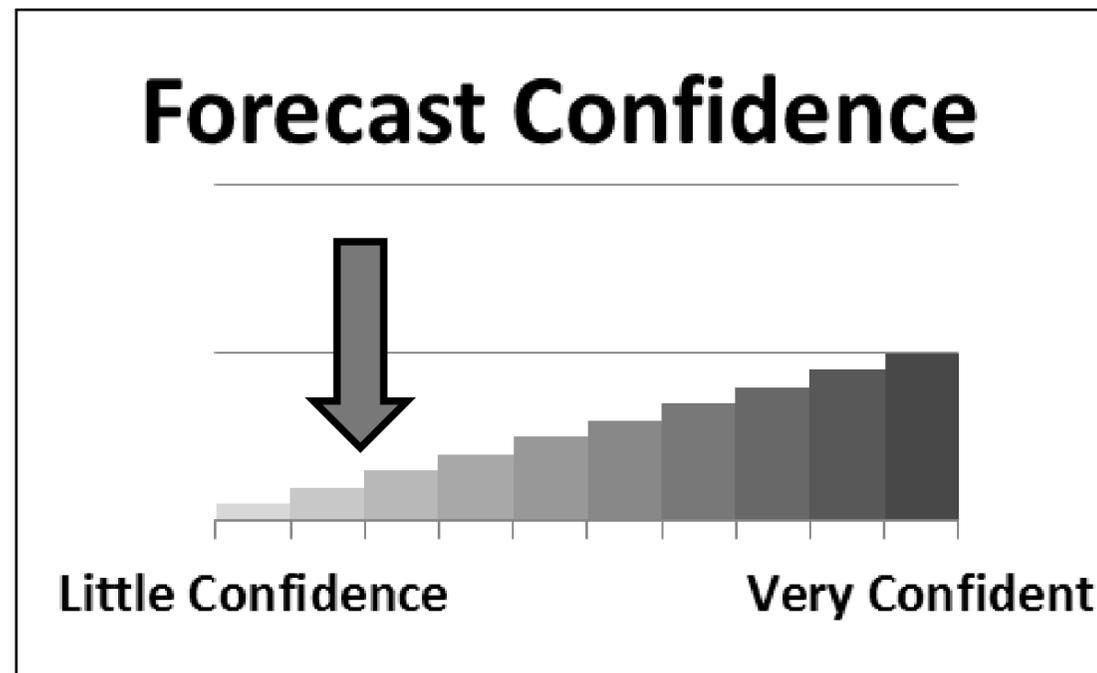
# Key Take-Aways

Tropical Depression 22



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- Most immediate concern. Minor to moderate coastal flooding. Minor starting Saturday night. Moderate Sunday night or Monday.
- Also concerned about heavy rain, flood potential but this will depend on how the system tracks. Slow mover but where it tracks will determine impacts for SE TX.
- Gusty winds also expected along the coast. How high again will depend on track.



Moderate confidence on minor to moderate coastal flooding. Low confidence on track and thus rainfall and wind forecast. Will be dealing with this system for many days.



*The Next Advisory:  
Friday 4:30 PM CDT*



**Web:** <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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For the latest graphics and information go to: [www.hurricanes.gov](http://www.hurricanes.gov) or [weather.gov/srh/tropical?office=hgx](http://weather.gov/srh/tropical?office=hgx)

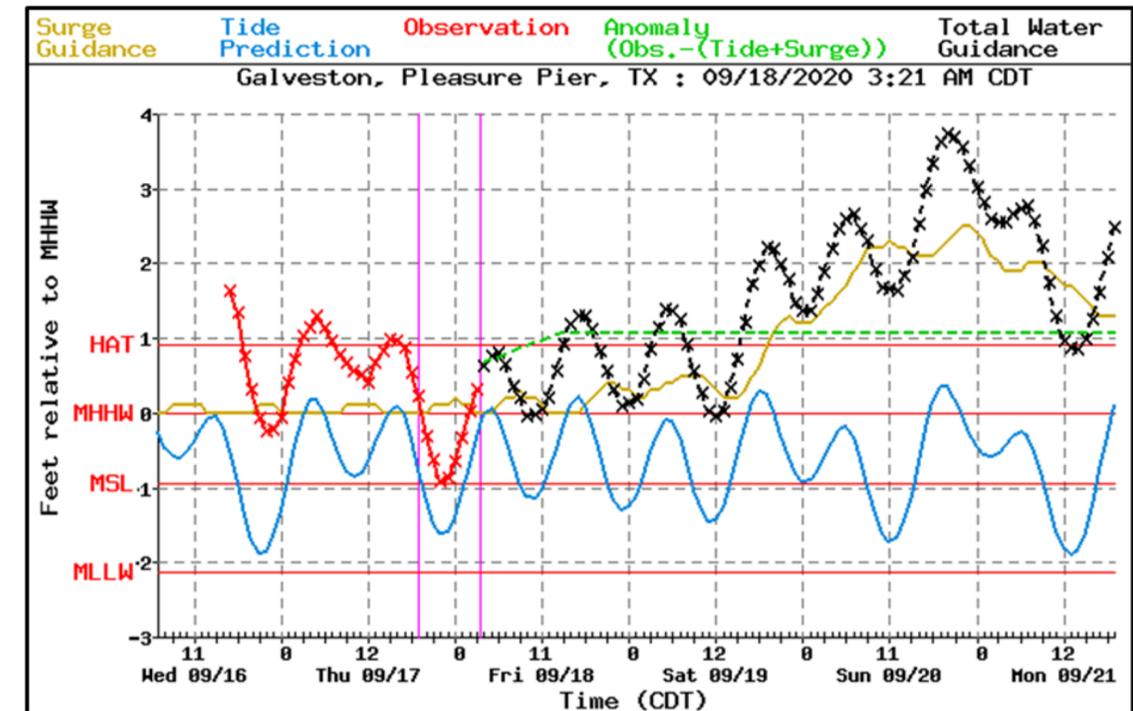
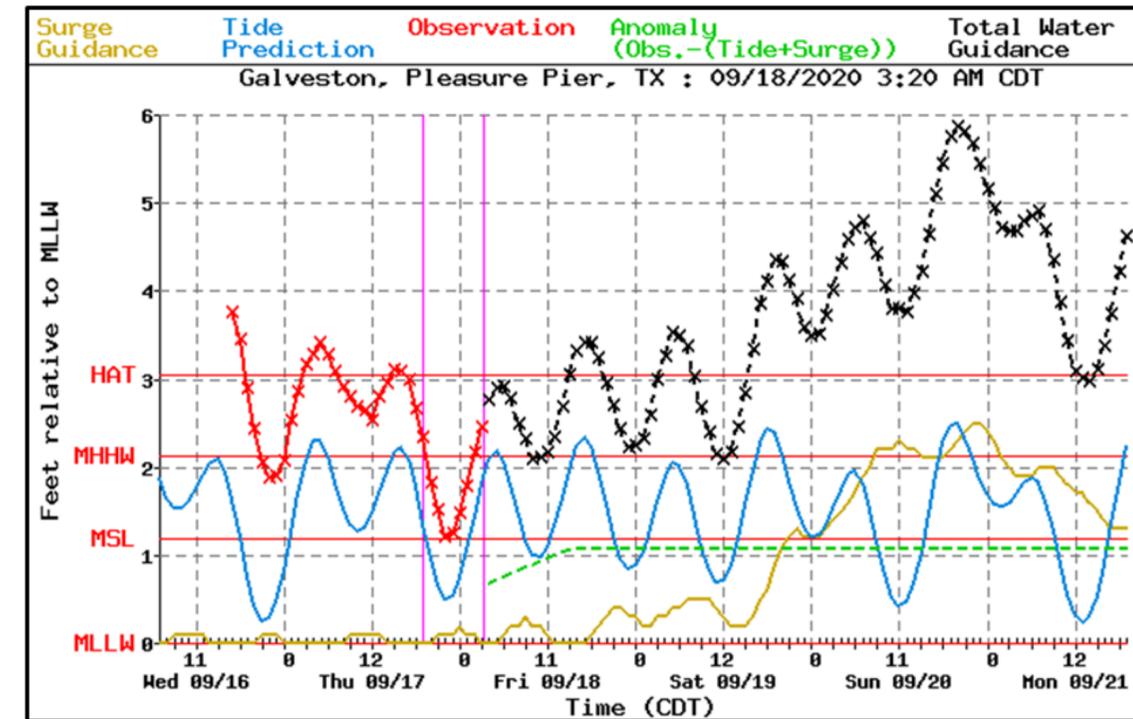
# Marine Impacts

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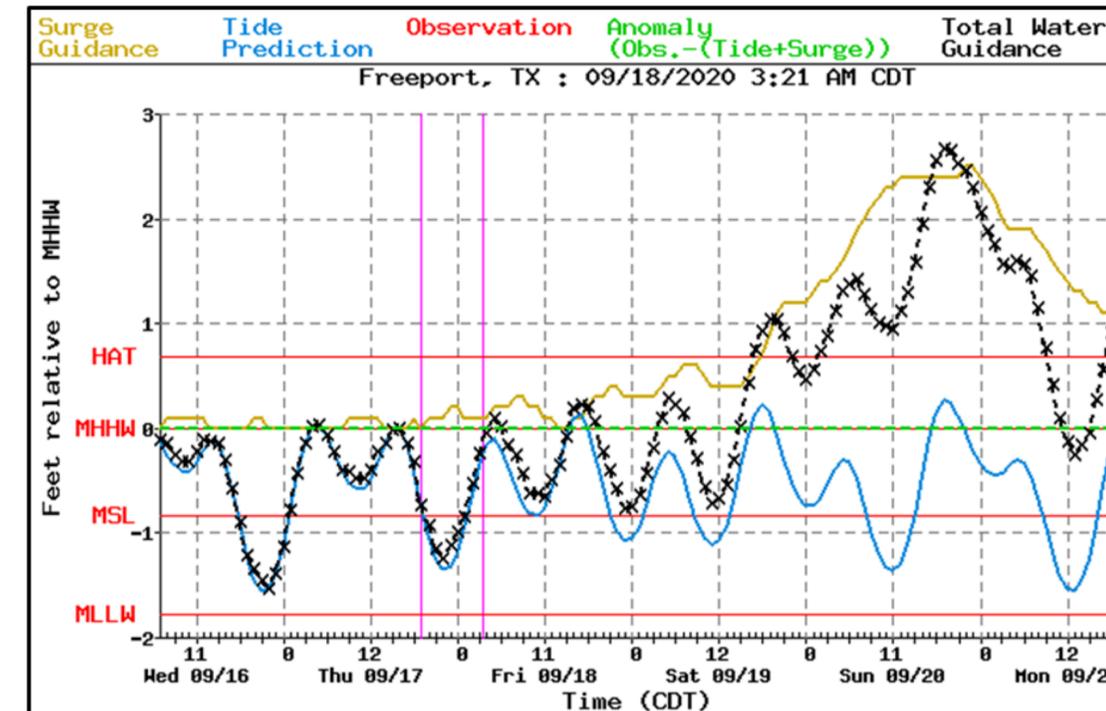
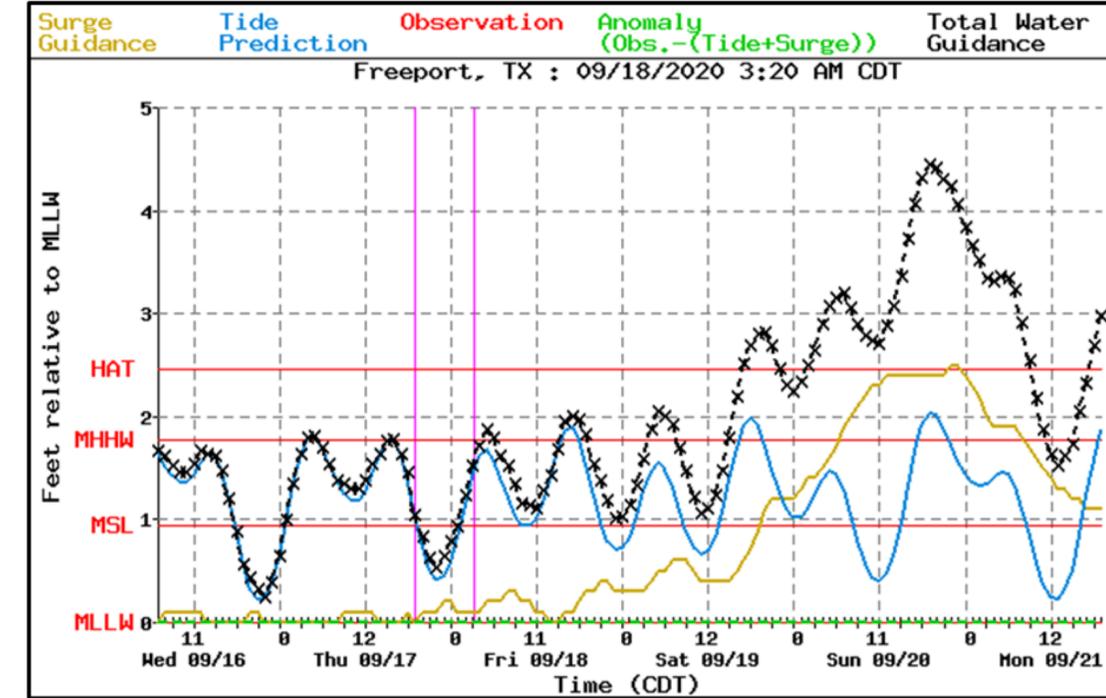
# Place Holder 2

Tropical Depression 22



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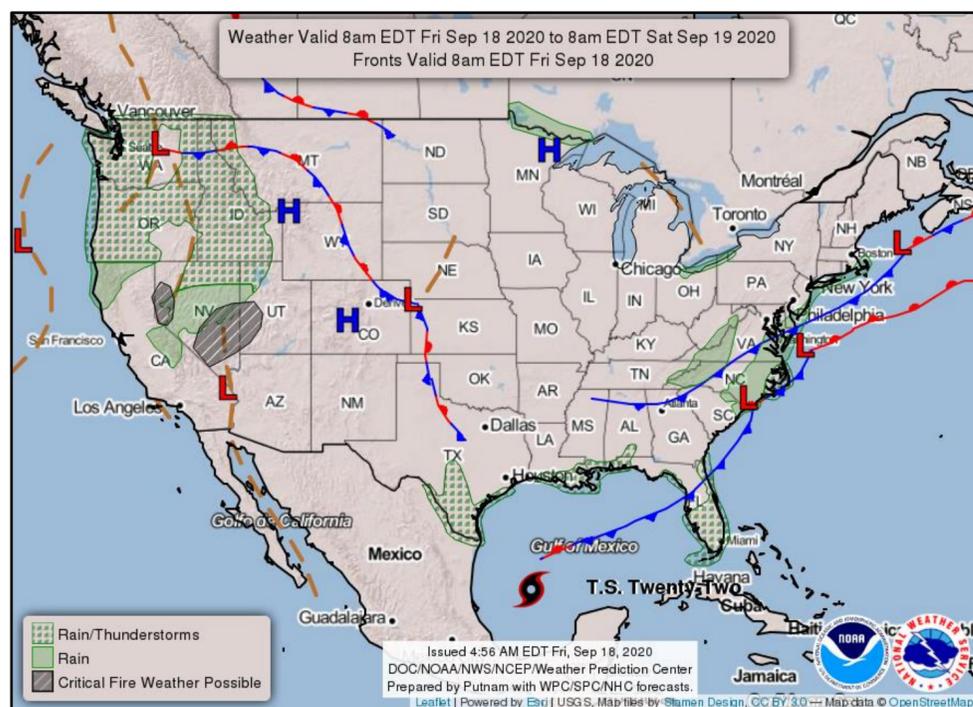
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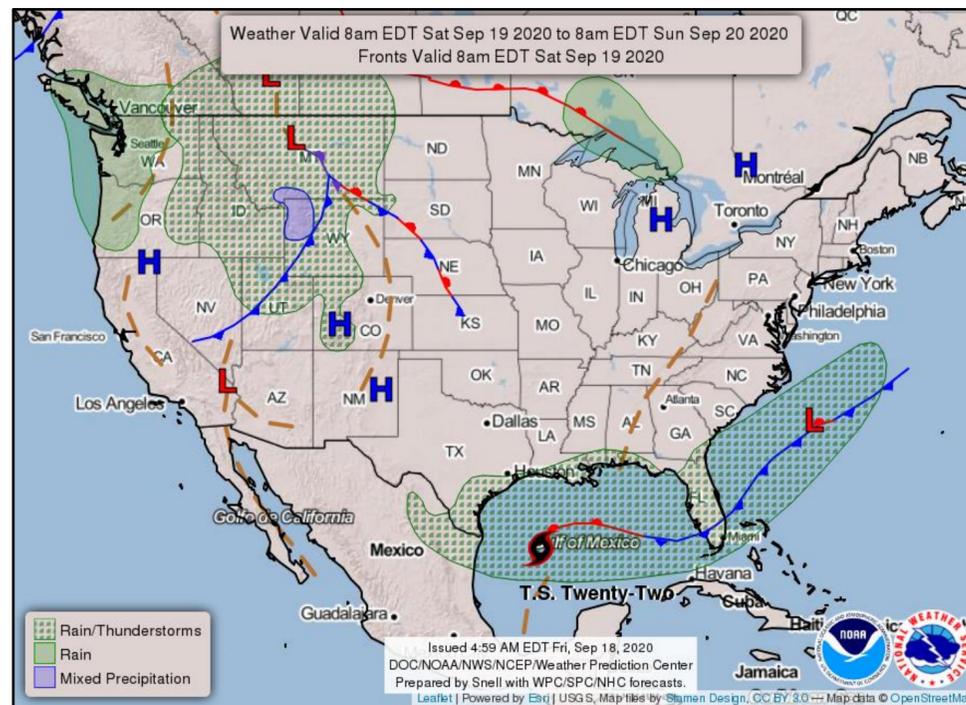


# Houston/Galveston

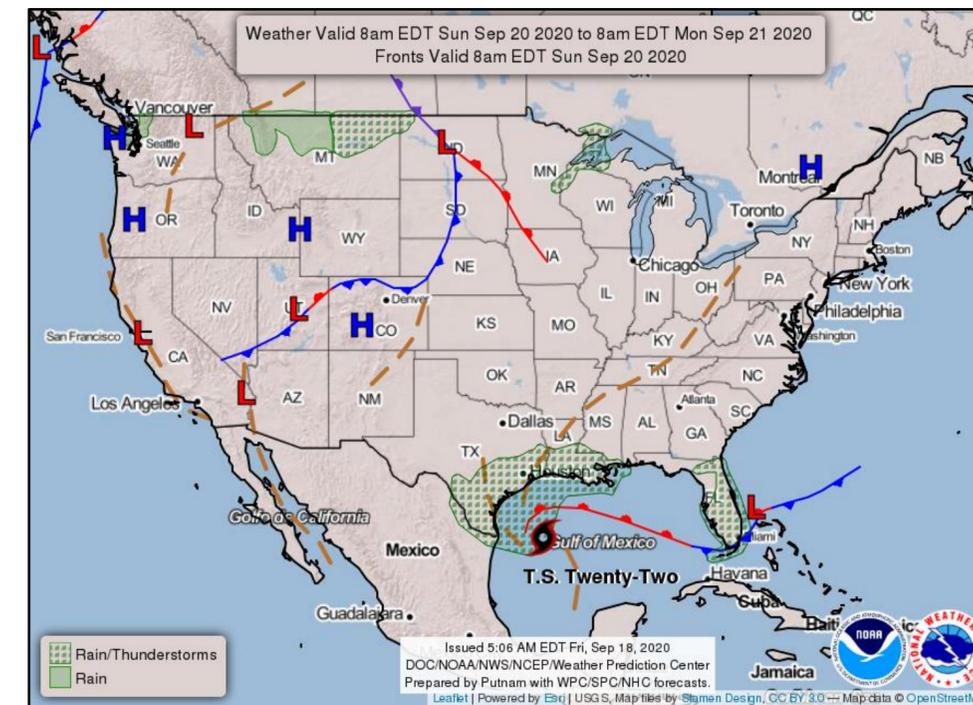
## WEATHER FORECAST OFFICE



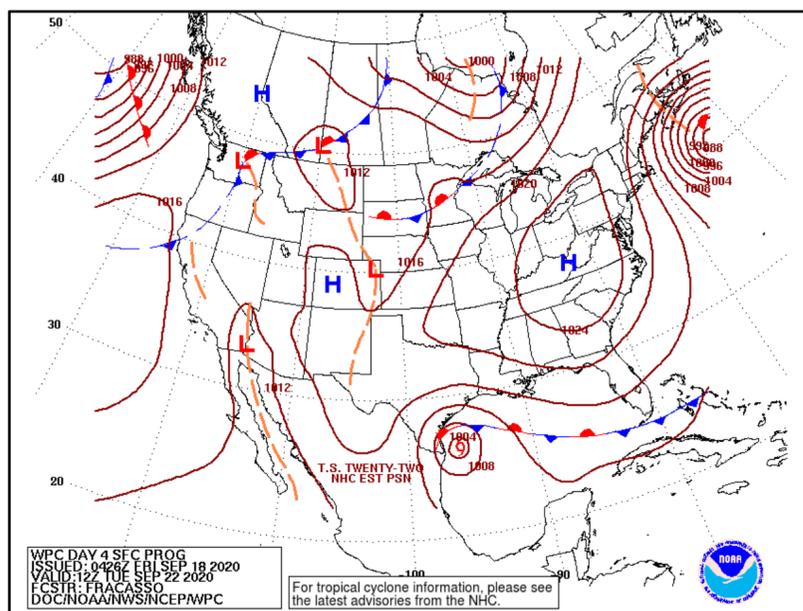
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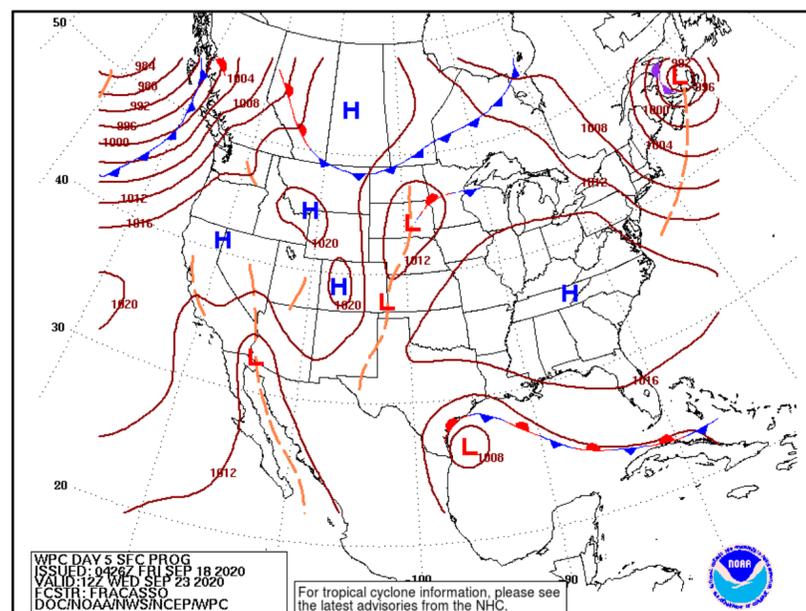
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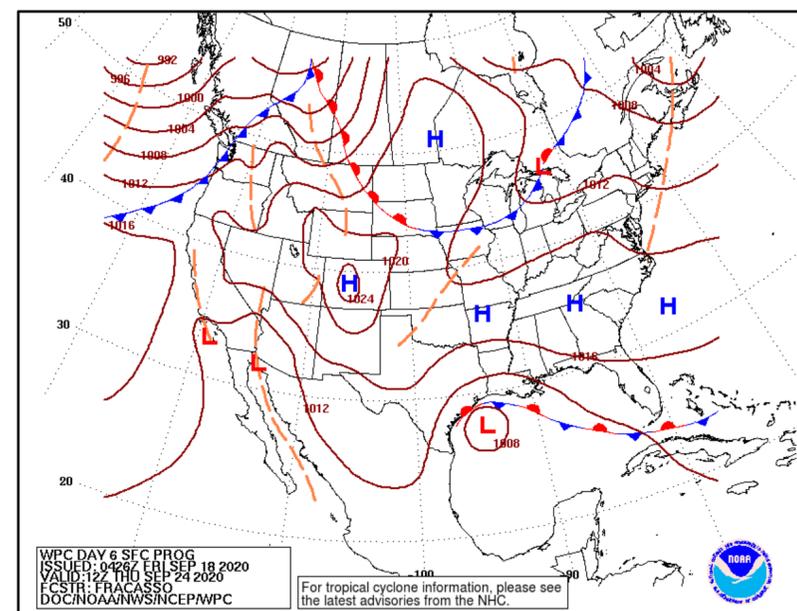
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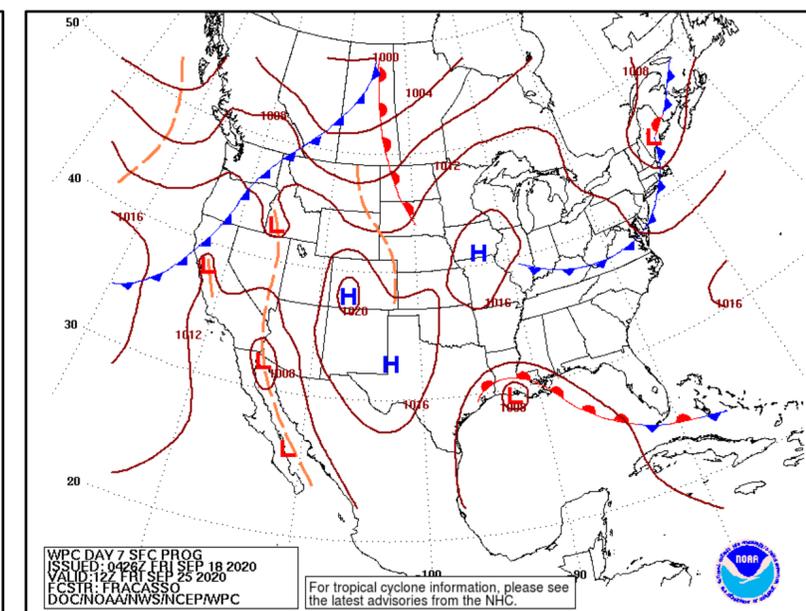
### Day 4



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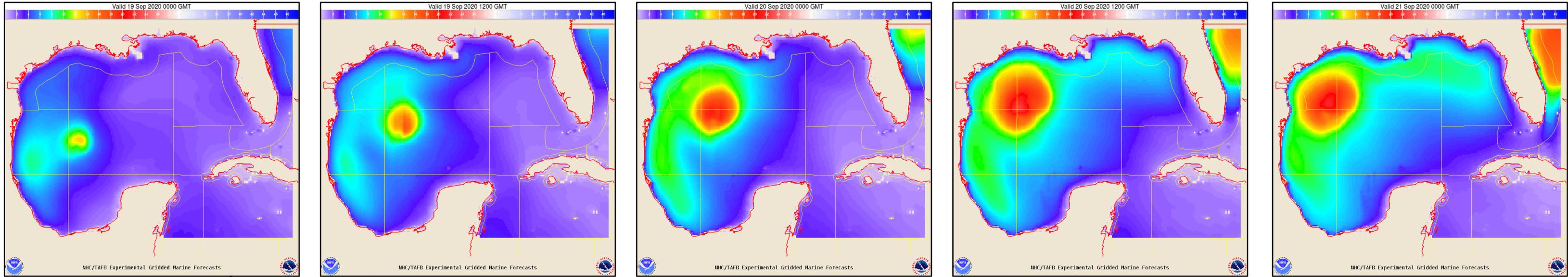
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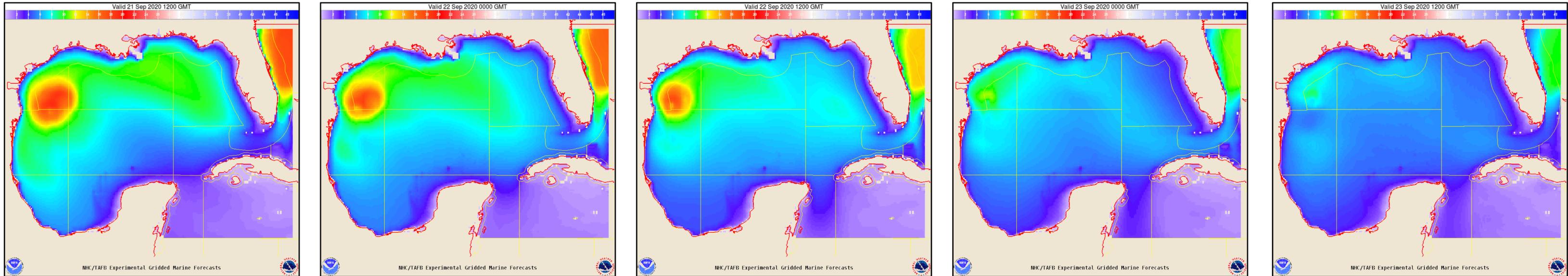


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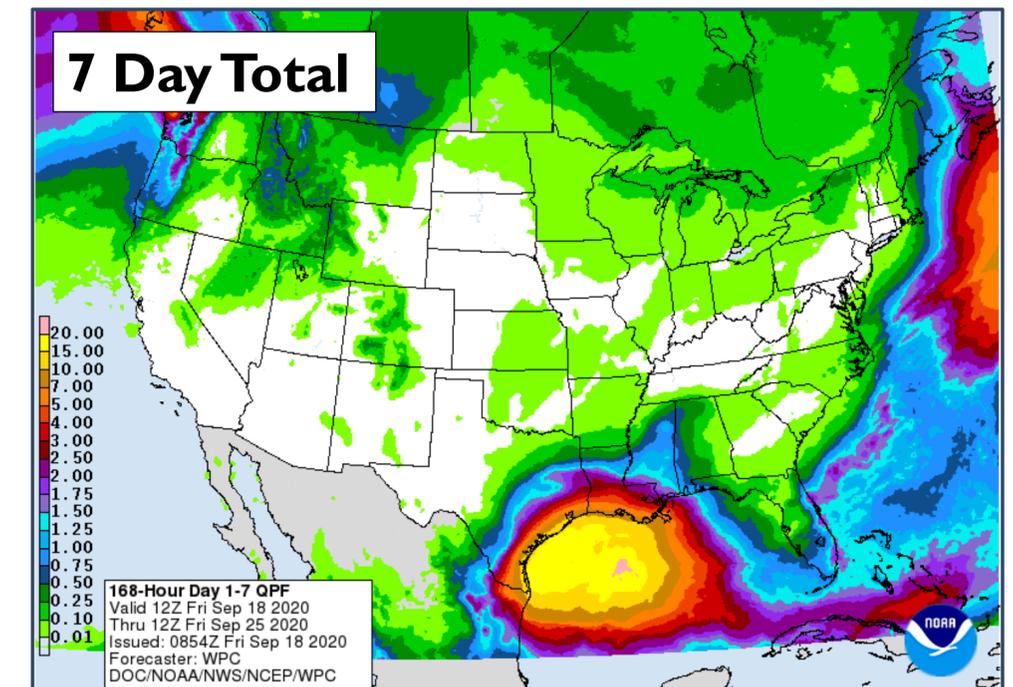
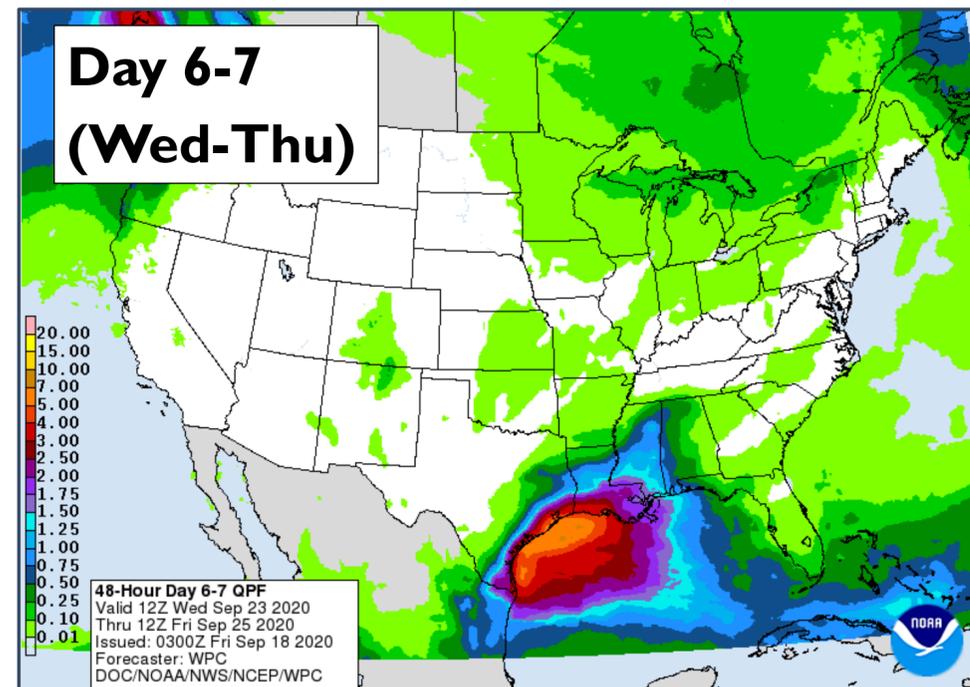
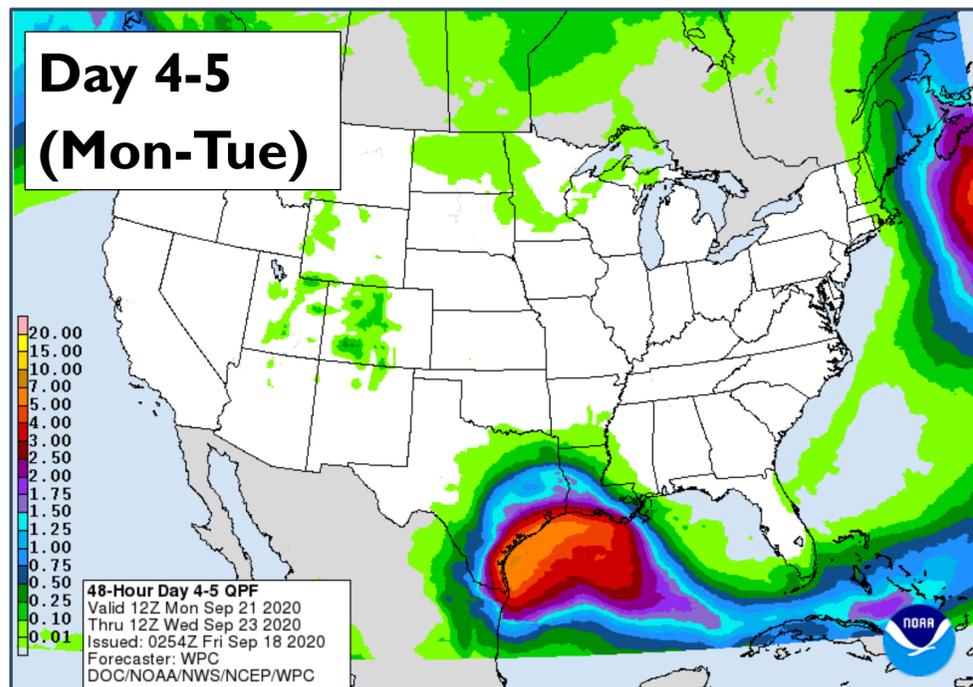
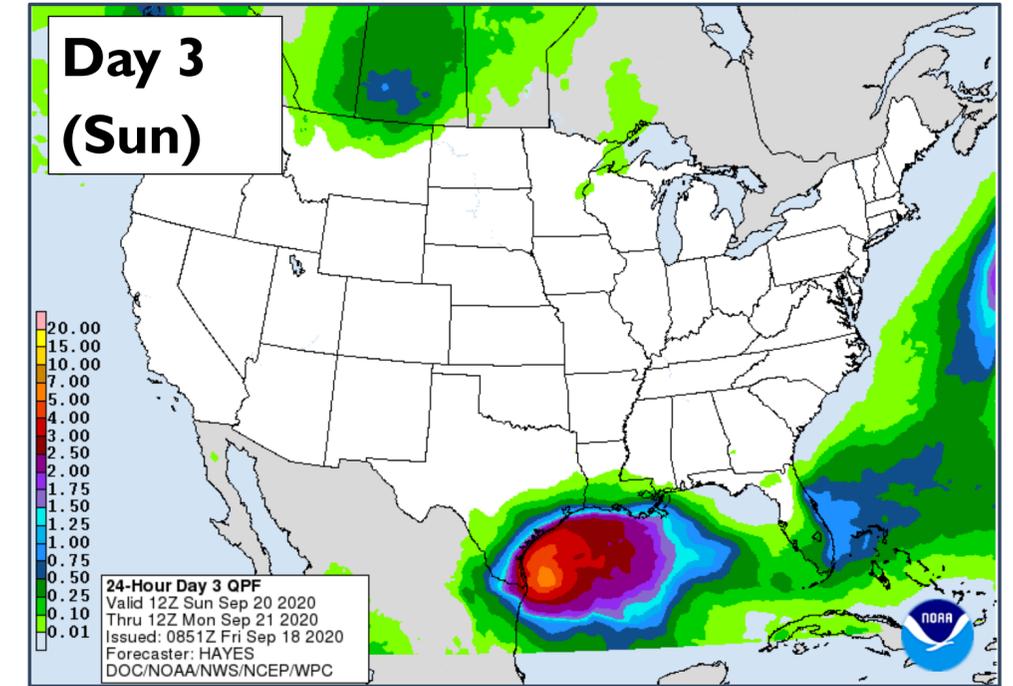
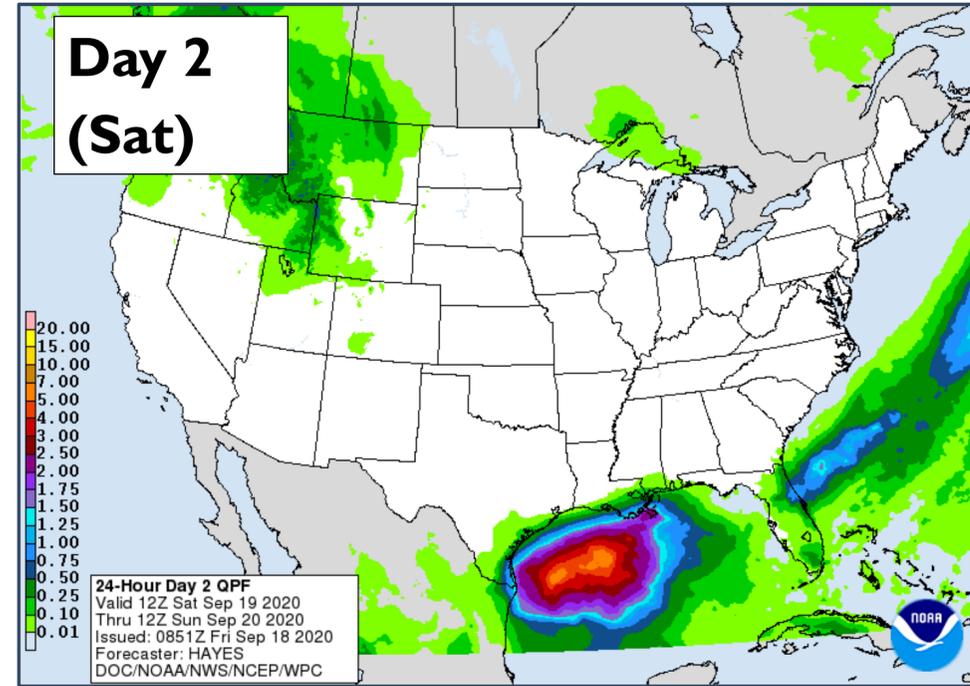
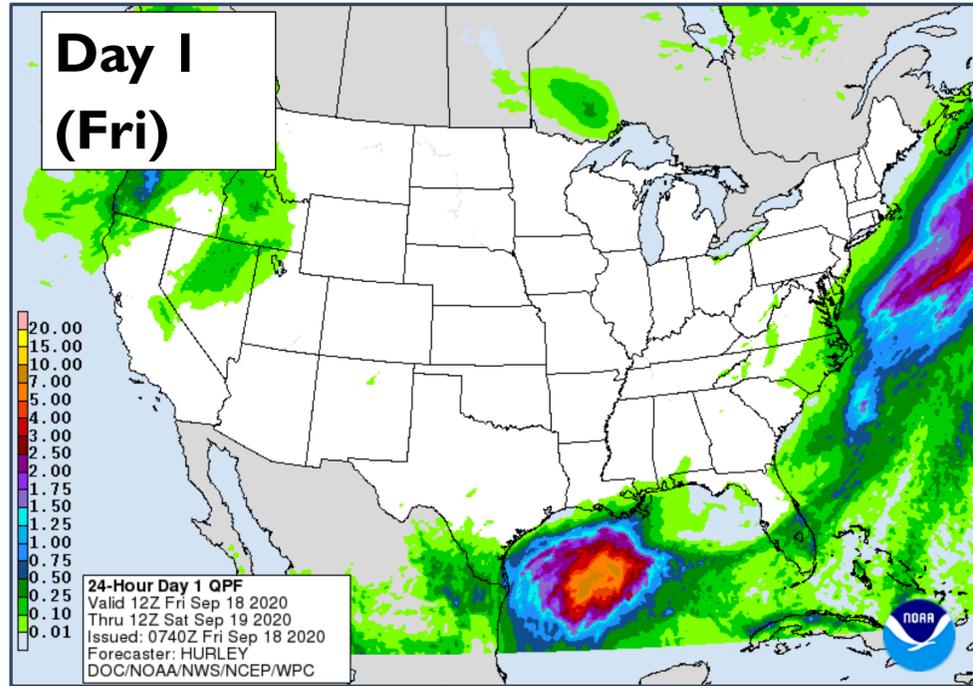
# Rainfall Forecast

## Tropical Depression 22



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# Place Holder 3

Tropical Depression 22



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- Use Gill Sans MT font

# Coastal Flooding Set-up

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Tropical Depression 22



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