



Homeland
Security

Operational Commanders Perspective



U.S. COAST GUARD

Triple Challenge



➤ **Grow Capacity**

- Move more people and Cargo
- System Transparency

➤ **Reduce Environmental Impact**

- Move the culprit
- All waste streams/ All MTS components
- Level playing field

➤ **Increased Complexity**

- Not just technology
- Geo-political

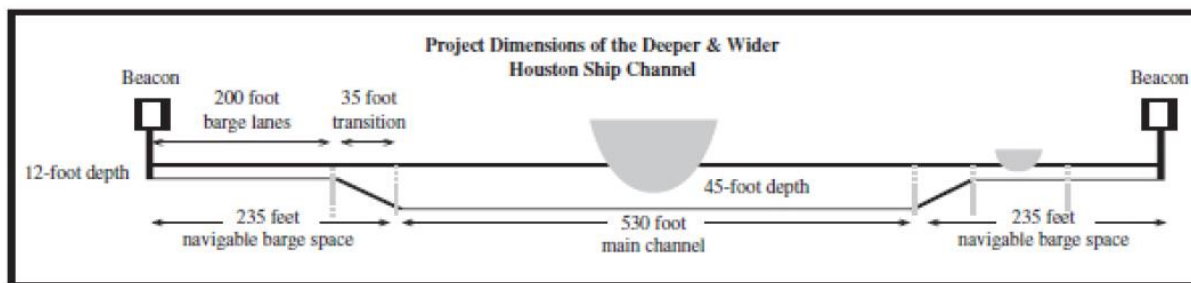


Houston-Galveston Port Complex

52 Miles (Sea Buoy/Buffalo Bayou Turning Basin)

Ports of National Significance

- 1st in U.S. foreign tonnage
- 1st in U.S. exports
- 2nd in overall tonnage
- 2nd largest petrochemical complex worldwide
- 4th busiest U.S. cruise ship port
- 6th busiest U.S. container port
- \$801 Billion/yr Economic Impact



ECA vs IMO 2020

1. We are 4+ yrs into .10% m/m Sulphur content North American Emissions Control Area (ECA) requirements;

2. **Compliance:** USCG PSC exams....

1. Examine bunker delivery notes
2. Examine procedures/crew familiarity in ECA
3. Examine Engine Room (leaks, etc...)
4. "Show me", aka logged, location, etc...

(**FYI...Fuel sample locker housekeeping**)

Early notification of compliance complications is KEY!

3. **Enforcement:** shared jointly USCG/EPA;



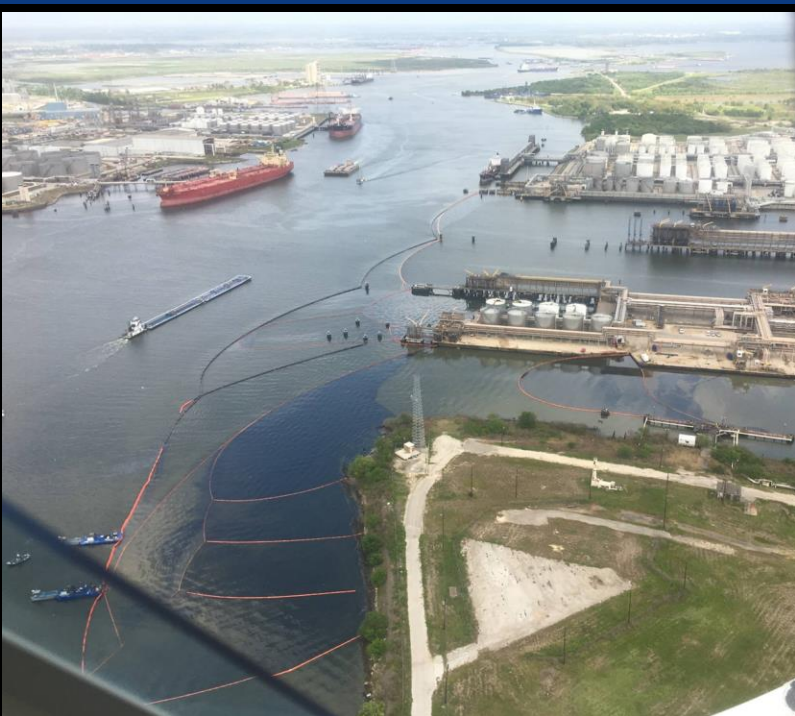


Homeland
Security

Risks and Challenges from Maritime Terminals/Facilities



U.S. COAST GUARD



U.S. COAST GUARD



Homeland
Security

05-10-2019 Fri 15:08:54 (S)



U.S. COAST GUARD



Homeland
Security

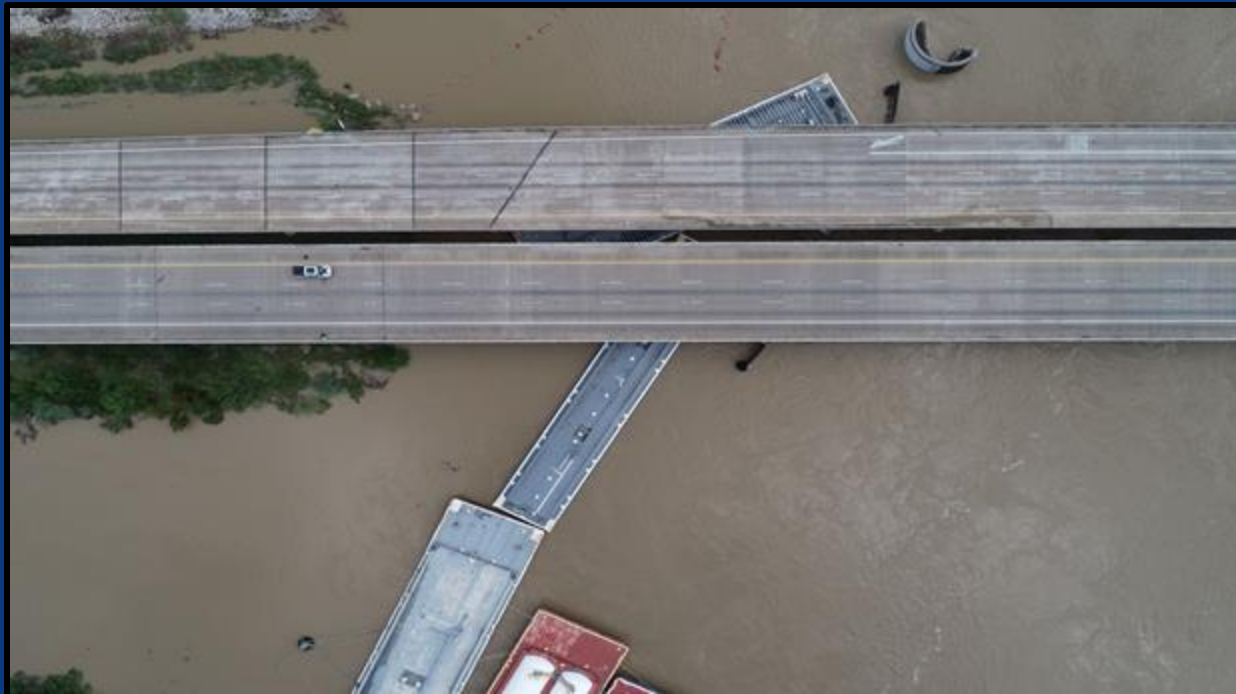
Collision Between Gas Carrier and Tug/Tow



U.S. COAST GUARD



Homeland
Security



U.S. COAST GUARD



Courtesy: Brandon Clement/LSM





Homeland
Security

Questions?



U.S. COAST GUARD