



GICA 112th Seminar - New Orleans, LA

Lone Star Harbor Safety Committee **Navigation Operations Subcommittee**

Barge Push In/Fleeting Workgroup

July 27, 2017



HSCs for the Houston Area

- Originally the Houston-Galveston Navigation Advisory Committee (HOGANSAC)
 - FACA – Federal Advisory Committee Act
 - Congressionally mandated – written into the law
 - Sponsored & led by USCG
 - Covered Houston, Galveston and Texas City
 - Efforts were underway to also incorporate Freeport
- Lone Star Harbor Safety Committee
 - Industry-driven, Agency-supported
 - Created on February 17, 2012
 - Operating under the Charter of the Organization



Lone Star HSC Organization

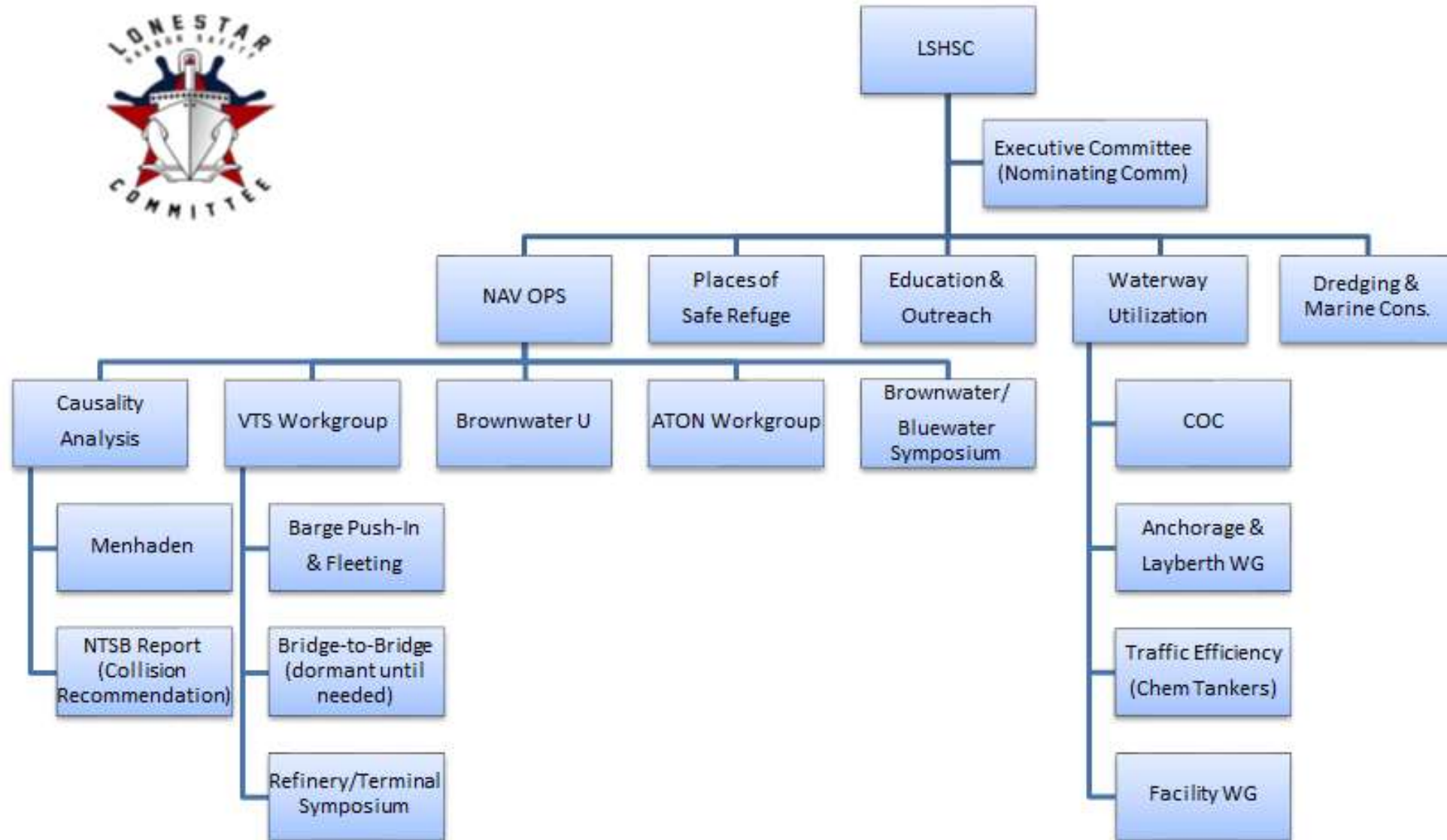
- Comprised of the Ports of:
 - Houston, Galveston, Texas City & Freeport
 - Associated waters of the ICW and Offshore
- 29 Voting Members & 5 Non-Voting (agencies)
- Full Committee meetings every quarter; Sub Committee and Workgroup meetings at least quarterly and more often as needed
- Website: www.lonestarhsc.org

Lone Star HSC Membership



- Port Authorities (Houston, Galveston, Texas City and Freeport)
 - Vessel owners and operators (tankers, dry; cargo, barges, ferries)
 - Pilot associations
 - Marine Exchanges
 - Docking pilots / tug and tow operators
 - Shipping agents
- Terminal operators
 - Industry associations (national, state, and local)
 - Organized Labor
 - Commercial Fishing Industry Associations
 - State / Local Government agencies
 - Federal Government representatives

Lone Star HSC Structure



Navigation Operations (NavOps) Committee



NavOps Committee – Addresses navigational issues via workgroup efforts such as:

- Causality Analysis Workgroup – In conjunction with Sector Houston, reviews major casualties and other areas of concern, such as loss of propulsion
- VTS Workgroup and Barge Push-in and Fleeting Workgroup
 - Barge Push-in and Fleeting – Optimize fleeting locations and reduce risk by eliminating non productive vessel transits
 - Coordinated the Refinery/Terminal Manager Symposium
 - Improve coordination with VTS and its users
- Brownwater University
- Brownwater/Bluewater Symposium – Increase dialog between Ship Channel Pilots, Deep Sea Vessels and Brownwater Vessel operators

Lone Star HSC - VTS-Barge Push-in Workgroup

Key Accomplishments



- Requesting project to remove BRIAR shoal area
- Requested expansion of VTS check-in area for barges further to the east and west of Bolivar (being implemented during times of congestion)
- VTS/Industry solutions for barge push-in protocols in Barbour's Cut and Bayport areas
- Working with terminals/operators to improve locations where tows can tender Notice of Readiness (NOR) to reduce non-productive vessel movements
- Working with various entities to increase barge fleeting/staging areas
- In conjunction with NavOps, hosted a Terminal/Refinery Manager Symposium for senior management level manager with ~75 attendees



Growth Challenge

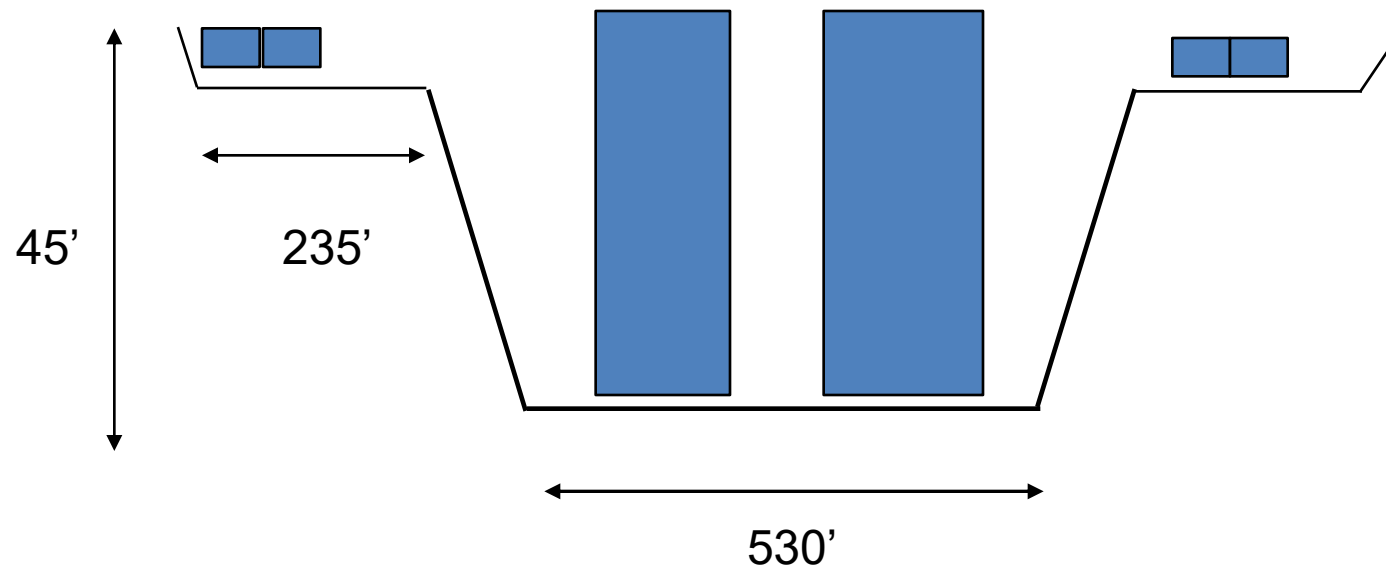
- ✓ Our challenge is the *Growth on the HSC*
 - Industry expanding
 - Existing terminals adding new berths
 - New plants & terminals are being built
 - Ships are getting larger (i.e. New Panamax)
 - More product moving in/out of the area
 - ***One thing that isn't growing at the same pace is - The Channel!***



Present Channel – Bolivar Roads to Bayport



Afra & Suezmax tankships – 2-way traffic





Challenges We Face Today

- ✓ As business increases, managing the growth is critical
 - Challenge is to reduce all unnecessary channel vessel movements
 - Increase the staging/fleeting areas for brown water vessels
 - Identify additional inshore anchorage areas for blue water vessels for inspections such as COC

- ✓ Growth challenges (Houston Ship Channel)
 - Potential increase in risk of collision incidents
 - Potential increase in delays Post-Incident - Recovery may be longer, harder and more complicated



“We” Do Have Control

- ✓ Decisions could lead to *unintended* consequences
 - Moving or Shifting of risk, while not actually reducing risk
 - Decisions that lead to increased unnecessary vessel movements
 - An overall lack of planning/coordination
- ✓ Examples
 - Vessels required to arrive pre-inspected and/or inerted
 - Arbitrary tendering locations requiring unnecessary HSC transits
 - Refusal to allow Certificate of Compliance (COC) inspections at berths
 - Load/Discharge orders not in place upon vessel arrival as a result of poor planning



The Choice...

- The HSC growth will be dealt with
 - If industry does not solve the issues, we will potentially see regulatory solutions
 - USCG
 - NTSB
- Stakeholders and Regulators agree that we should solve the issues ourselves, whenever possible
- Need collective industry and stakeholder involvement to solve the issues



Barge Push In/Fleeting Action Tracker

STATUS/ CATEGORY	Recommended Action	Item Details	
RECOMMENDATIONS	As originally intended the Bolivar Roads Inbound Alternate Route to be utilized only by I/B tow traffic.	<p>Test in simulator removal of shoaling at Lt. 26 to the west side of the BRIAR in order to allow for inbound and eastbound traffic.</p> <p>Once it is determined via risk assessment it is prudent to do so, will pursue with USACOE via LSHSC</p>	<p>Successfully tested in simulator.</p> <p>Letter sent from LSHSC to USCG and USCG has indicated their support of proposal. Will prepare documentation to support and justify project and send to PHA as proposal. Marvin Reed/Paul Caruselle have lead</p>
		<p>Test in simulator mark of inbound channel at marker 25 H.S.C.so inbound tows can enter the channel as they do the Bolivar Alt. Route. This will eliminate having to entering the Channel at the intersection. Once it is determined via risk assessment it is prudent to do so, will pursue with USCG via LSHSC</p>	<p> </p>
	<p>Extend VTS area of coverage in the GIWW, this will give tows a safe place to stop/ hold to let traffic clear the intersection. (also reference</p>	<p>Overall agreement that VTS should review and determine if the check into VTS should be moved to mile marker 340 to the east and 365 to the West to allow tows ample time to know if they need to hold up etc.</p>	<p>Letter approved by LSHSC and sent to USCG for consideration. USCG responded that they have authority and will implement on temporary as needed basis. USCG may consider issuing MSIB for broader distribution</p>



Barge Push In/Fleeting Action Tracker

STATUS/ CATEGORY	Recommended Action	Item Details	Notes
COMPLETED	As originally intended the Bolivar Roads Inbound Alternate Route to be utilized only by I/B tow traffic.	VTS immediately broadcast and endorse I/B traffic ONLY for BRIAR	
COMPLETED	As originally intended, discourage the use of Government Moorings as fleeting areas and encourage the tended use for transiting tows to safely hold up for inclement conditions.	Utilize local towing industry association to ensure self- policing of these moorings for their intended use. Also need to send out info to stop barge push-in's in Bayport due to new containerships	Protocols updated and sent to brown water operators by GICA. Need to work on process for self-regulation and enforcement by industry to ensure proper use of moorings; Use brown-blue water university and symposium to re-enforce
COMPLETED	Possible traffic separation at Bolivar Buoy Line	VTS to immediately broadcast and endorse the verbiage as per chart: <i>"Houston-Galveston recommends west bound tows avoid meeting east bound tows between Bolivar Peninsula Buoy 15 and Buoy 20 due to strong currents and shoaling at the entrance to Bolivar"</i> . Consider if Risk Assessment is needed.	Fully implemented; VTS now enforcing no meeting or overtaking in the Bolivar Buoy Line. Now in coast Pilot
COMPLETED	San Jacinto River – Mud Bank push in	Industry to work with USCG on determining best practice for tows pushing into San Jacinto Mud Bank in order to not embarrass navigation	COTP HOUSTON GALVESTON ISSUED MSIB 09-16
COMPLETED	Develop plan to maintain dialogue	Look at ITOL model and develop potential process to review near misses and lessons learned	Ongoing – use brown-blue water symposiums and meetings between majors and the towboat industry

LSHSC Commitment To Enhance Navigation Safety At Bolivar Roads Intersection



Background

- In 1995 the TWOA Navigation Committee and USCG recognized the need to improve safe navigation at the Bolivar Roads Intersection.
- The committee focused on two main areas:
 1. designing an alternate route for barge traffic in and out of Port Bolivar.
 2. improving barge traffic navigation for tows exiting and entering the Ship Channel heading to or from the west
 - The second area was easily remedied due to the natural deep water between channel marker 25 and Texas City Dike. This route is highly utilized by both westbound and inbound tows.
- The Navigation Committee also knew there was natural deep water on the east side of marker 26 that would support one way barge traffic out of Port Bolivar that was heading into Houston. However, at that time there was no effective way to prove how this route would change the traffic scheme, and as a result the committee found it difficult to justify to the USACE and USCG to make this a federal project.
- In 2001, in conjunction with the Seaman's Church Institute, and by utilizing the Institute's new simulator technology, the project found a path forward.
- In 2003, with all stakeholders present, the simulator testing proved that the proposed alternate route enhanced navigation safety (BRIAR – Bolivar Roads Alternate Inbound Route).
- As a result, in 2003, given the results of the simulator study the USACE and USCG gave there full support by conducting a water depth survey and marking the alternate route, for inbound barge traffic only.
 - Full results of the simulator study was presented to HOGANSAC, but the group was not successful in obtaining the funding from the PHA to dredge the BRIAR spoil area to 15'.
 - The BRIAR, as it currently exists, is still highly utilized by tows turning out of Bolivar that are inbound for Houston

LSHSC Commitment To Enhance Navigation Safety At Bolivar Roads Intersection



Current LSHSC Effort

- Following up on the 2003 effort, the LSHSC Navigation Operations Barge Push In & Fleeting Workgroup, in 2016, convened a panel of brown water operators, blue water operators, the Houston Pilots, the USCG and other key stakeholders to revitalize the effort started in 2003, which was to dredge the BRIAR spoil area to 15'.
 - This effort was also in response to the March 2014, Bolivar Roads intersection incident
- A new simulation was conducted at the Seaman's Center, utilizing the latest simulator technology, with the above noted stakeholders representing over 100 years of navigating experience in this area, to demonstrate/justify whether the dredging of the BRIAR spoil area would enhance navigation safety.
 - For this simulation the controllers "deepened" the BRIAR to 15' and created difficult meeting and overtaking situations
 - Simulator testing showed enhanced separation, maneuverability and improved navigation safety for tows maneuvering into and out of the HSC. The testing also showed a significant enhancement in navigation safety for deep draft vessels based on the improved approaches that a tow would take into and out of the channel
- Multiple simulator tests proved conclusively that the dredging of the spoil area to 15', would result in a substantial increase to navigation safety by reducing risk, and allowing two way traffic in and out of Port Bolivar.
 - The dredging would eliminate the need for outbound/eastbound tows to have to exit the Channel at the intersection by allowing a smoother and less difficult transition out of the HSC, similar to what they do in the inbound Bolivar alternate channel, thereby reducing their immediate interaction with ship traffic.
 - This project is heavily supported by all stakeholders who were involved in the simulation
- Basis the above positive results, and with the full support of all stakeholders, the LSHSC sent a recommendation letter to USCG Sector Houston Galveston proposing the dredging of the spoil area,
 - The Committee received full USCG support of this proposal to enhance navigation safety and to proceed with this proposal by seeking the appropriate approvals and support by the Port of Houston Authority (Port Houston), etc.

Recommendation

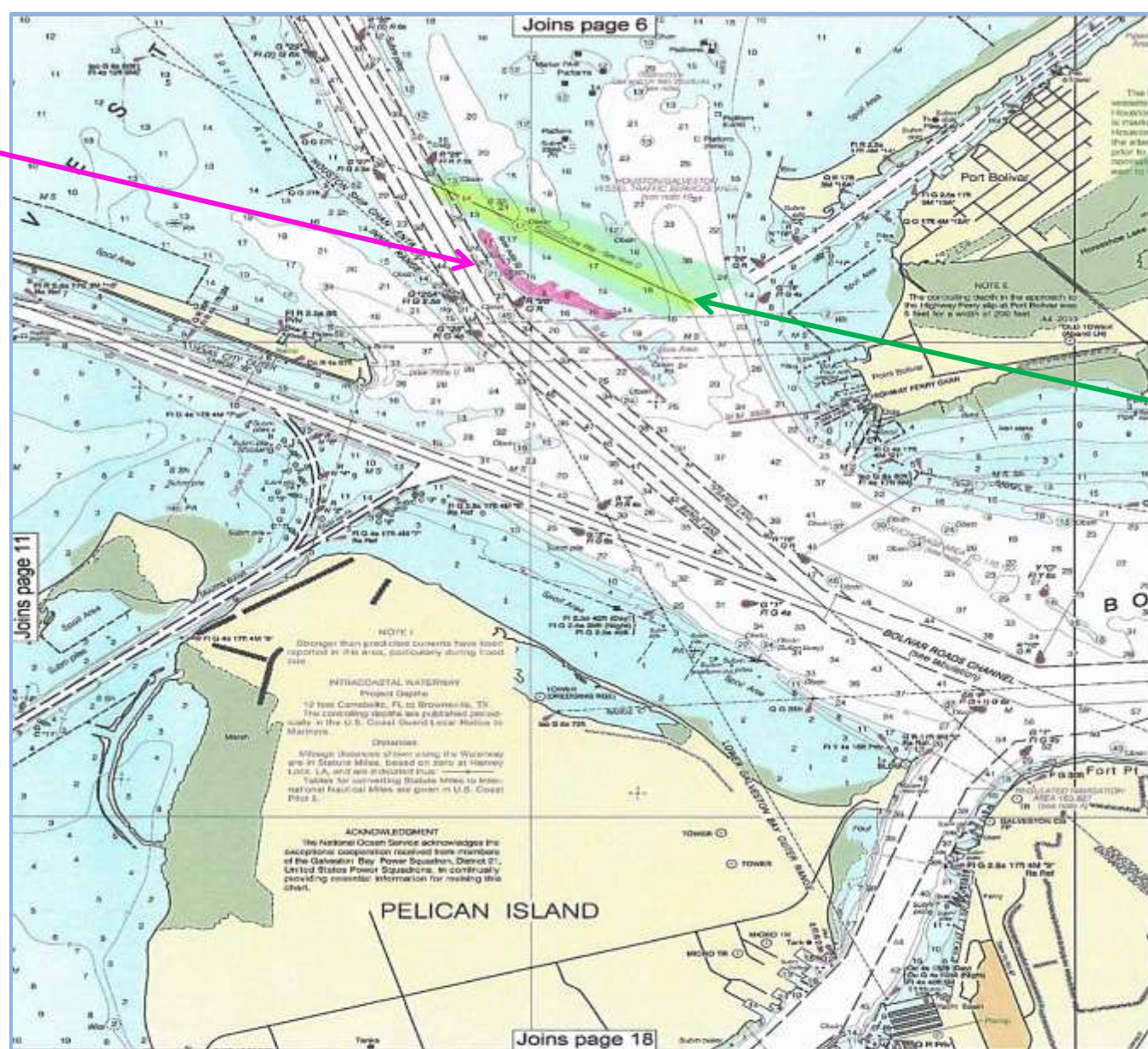
In our effort to enhance navigation safety on the HSC at the Bolivar intersection, the LSHSC recommends that the Port Of Houston Authority review and authorize the funding of a project to dredge the spoil area at HSC LT 26 to 15'.



Area highlighted in pink marks the spoil area to be dredged to 15' which would allow outbound /eastbound barge traffic to safely exit the ship channel at marker # 28.

See Attached Note D Page for information published by USCG for navigating the existing BRAIR.

Area highlighted in green marks the sailing line for the exiting BRAIR.

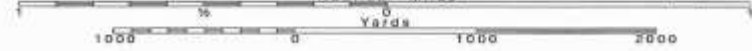


12

Note: Chart grid lines are aligned with true north.

Chart # 11324

Printed at reduced scale. SCALE 1:25,000 See Note on page 5.



(Note D) as Worded on Navigation Chart # 11324

The US Coast Guard has established an alternate route for vessels transiting inbound from the Intracoastal Waterway to the Houston Ship Channel. The alternate route showing in green tint is marked with a 300' T head range and is in naturally deep water. Houston Traffic directs that all vessels proceeding northbound in the alternate route conduct a security broadcast of their intentions prior to entering the Houston Ship Channel. Outbound tows normally proceed south to the Houston Ship Channel Buoy 26 then east to Point Bolivar.





QUESTIONS/DISCUSSION

Thank You For Your Time