



## National Transportation Safety Board

NTSB Investigations Subchapter M MITAGS-September 2019 Morgan Turrell, Deputy Director Office of Marine Safety, NTSB



### Agenda

- Introduction
- NTSB Office of Marine Safety Overview
- Towing vessel accidents 2016-2018
- NTSB Safety Recommendations to Towing industry
- Current investigations and NTSB developments
- Summary



## **NTSB Mission in Marine Safety**

- Investigate major marine casualties
  - Within US waters
  - US casualties anywhere in world
  - Public/non-public accidents
  - Assist other nations when US interests are impacted by maritime accidents
- Make findings
- Determine probable cause
- Make recommendations



### Investigations

- Loss of self-propelled vessel of 100gt or more
- Damage originally estimated as \$500k or more
- Loss of six or more lives
- A serious threat to life, property or environment
- Accidents involving US Government vessels
  Navy, USCG, USACOE, NOAA, CBP
- Substantially Interested States
  - Provide technical assistance to the USCG



#### NTSB towing cases 2015-2018

- 2015 7 out of 29 accidents were towing vessels (24%)
- 2016 14 out of 40 accidents were towing vessels (35%)
- 2017 14 out of 45 accidents were towing vessels (31%)
- 2018 13 out of 31 cases were towing vessels (42%)



### NTSB Towing Cases 2015-2018

- Collision, 18 out of 48 cases, 38%
- Allision or contact 13 out of 48 cases, 27%
- Capsizing, Sinking or flooding, 8 out of 48 cases, 17%
- Fire and explosion 6 out of 48 cases, 12%
- Grounding or Pipeline contact, 3 out of 48 cases, 6%



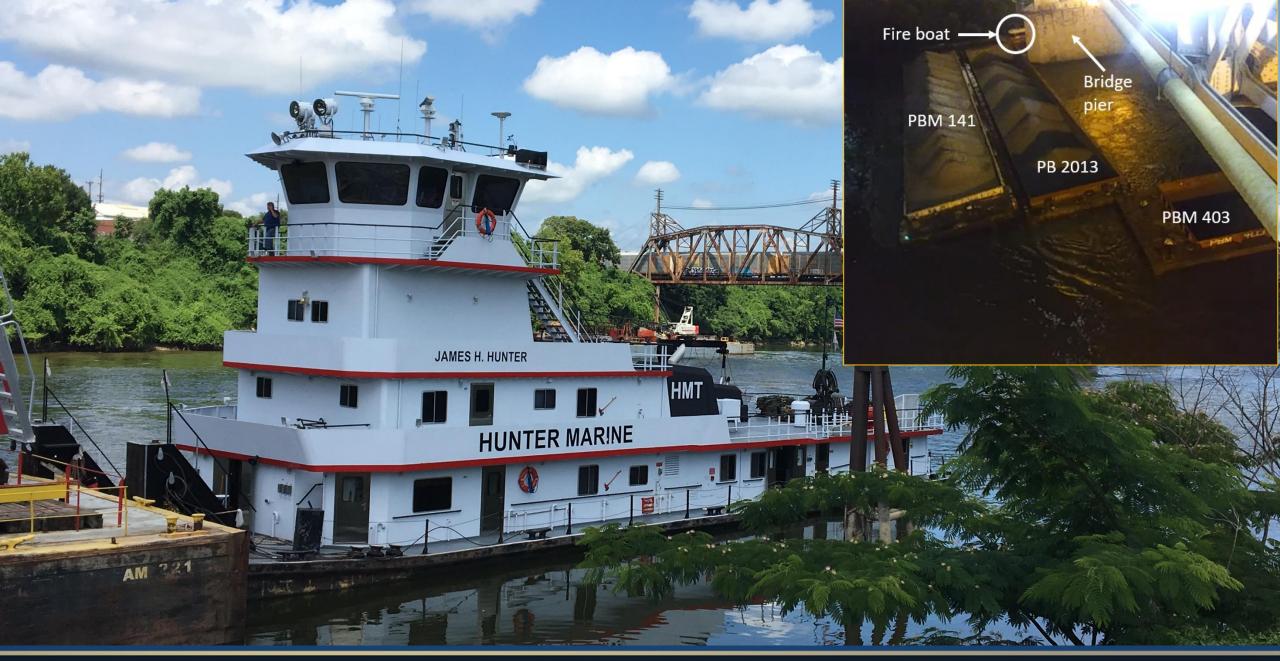


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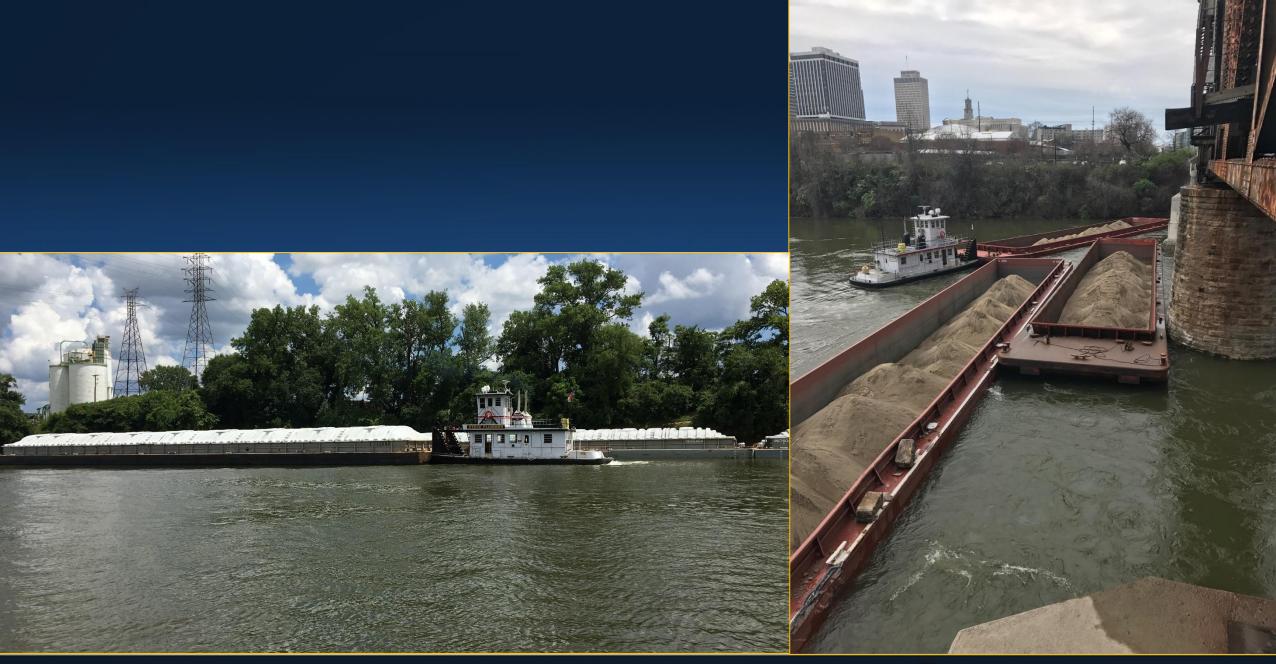


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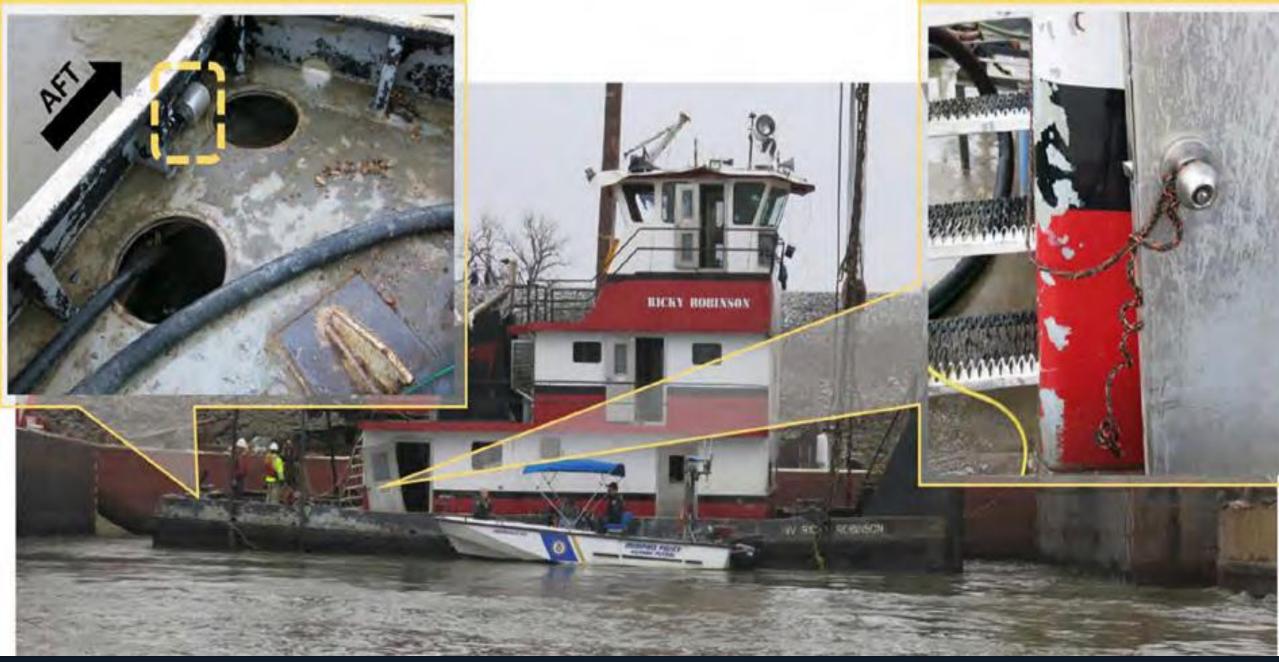


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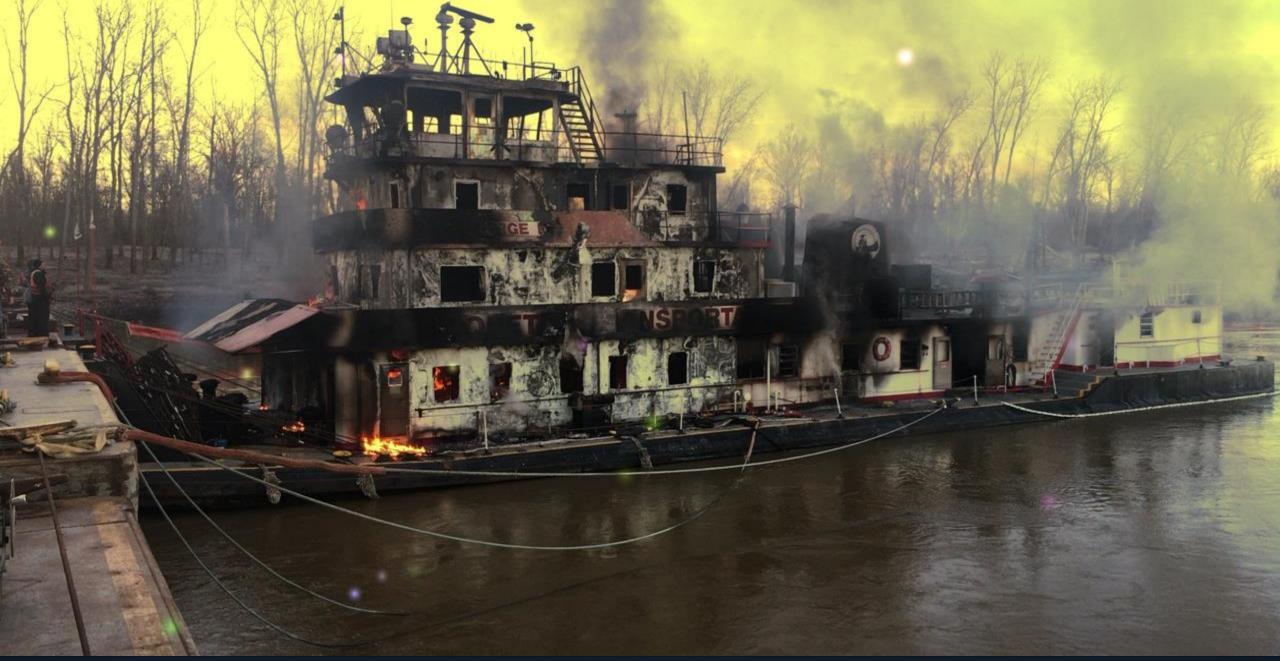
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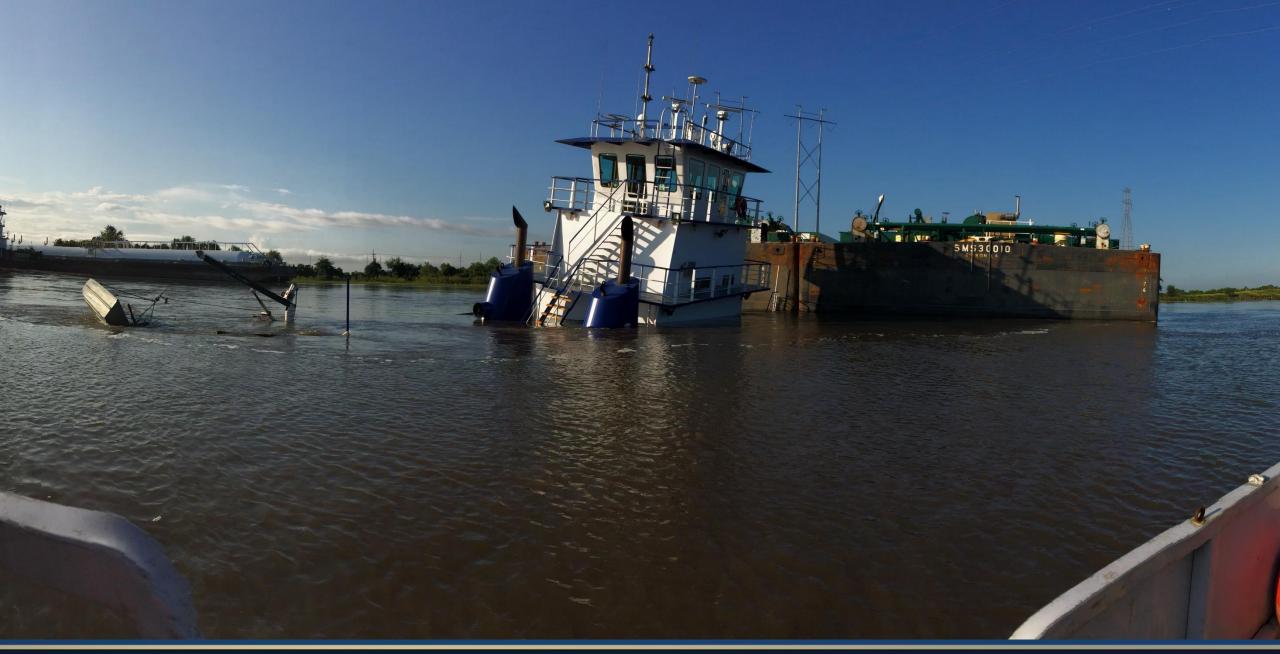


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#### Lessons Learned

- High-Water/High-Current Conditions
- Watertight Integrity
- Training for Emergencies
- Remote Emergency Shutdowns
- Reporting of maintenance issues
- Identifying Navigation Hazards
- Fixed ventilation openings
- Recognizing Metal Fatigue in Propeller Shafting



### Current NTSB recommendations for towing industry

- Need for direct-reading air monitoring equipment to identify atmospheric contaminants, oxygen level
- Benefits of mariner representation on the VTS watch floor
- Need to broadcast accurate vessel configurations on AIS
- Address the placement and securement of crane booms on barges for transit to and from construction sites



### Current NTSB recommendations for towing industry

- Navigation areas for Pittsburgh for fleeting areas and detailed requirements for barge moorings during high water and ice conditions
- Fleeting area permittees should submit waterfront facility operations guides and ensure proper maintenance and procedures for high water and ice conditions



### Notable investigations and NTSB developments

- Currently, 2 Board vacancies
- Approximately 50 open investigations
- Implementation of SAFTI
- Kristin Alexis contact with Sunshine Bridge, LA
- Genesis River collision with Voyager/ 2 barges, Houston
- USS John S McCain report issued, USS Fitzgerald pending
- Stretch-Duck 7, Branson, MO
- Dive Boat Conception, Santa Barbara, CA
- RO/RO Golden Ray, Brunswick, GA





## National Transportation Safety Board

#### **BACKUP SLIDES WITH ADDITIONAL INFO**



### **NTSB** Mission

The NTSB is an **independent** federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—marine, railroad, highway, and pipeline.

The NTSB determines the **probable cause** of the accidents and issues **safety recommendations** aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and **coordinates the resources** of the federal government and other organizations to **provide assistance to victims and their family members impacted by major transportation disasters**.



### **NTSB** Authorities

- Independent Safety Board Act of 1974
- 49 CFR Part 831
- 49 CFR Part 850
- 2008 MOU NTSB/USCG
- IMO MSC/84/24 Add. 1
  - Casualty Investigation Code



### Office of Marine Safety Products

- Marine Accident Brief
  - 10-20 pages
  - Probable Cause signed by Office Director
    - Except if public vessel involved, then the Board adopts
  - No Recommendations
  - Lessons Learned
- Marine Accident Report
  - Adopted by the Board
  - May involve a public meeting
  - May include Safety Recommendations



### Other products

- Annual Safer Seas Digest
- Special Investigative Report
  - Several accidents to support safety issue conclusions and recommendations
  - Parasailing
- Safety Studies
  - Completed by Research and Engineering
  - Assisted by modal offices, including Marine Safety
  - Vessel Traffic System
- Safety Alerts
- Safety Videos



- 2015 7 out of 29 accidents were towing vessels (24%)
  - Cory Michael, Allision
  - Dennis Hendrix, Fire
  - Jim Marko, Sinking
  - Nalani, Sinking
  - Barge Nash, Sinking
  - Riley Elizabeth tow and USACE barge plant, Collision
  - Valiant and Barge Everglades, Pipeline Damage



- 2016 14 out of 40 accidents were towing vessels (35%)
  - Captain Shorty Sea, Collision
  - Dewey R, Collision
  - Barge Gayle Force, Allision
  - Jackie, Collision
  - Lucia/Caribbean, Collision with William S
  - Barge Margaret, Flooding
  - Margaret Ann, Collision
  - Miss Natalie, Collision



- 2016 continued
  - P.B. Shaw, Collision
  - San Gabriel, Fire
  - Simone, Allision
  - Texas, Collision
  - William E Strait, Collision
  - William S, Collision



- 2017 14 out of 45 accidents were towing vessels (31%)
  - Amy Frances, Allision
  - Cerro Santiago, Collision
  - TV Crimson Gem, Collision
  - Jaxon Aaron, Fire & Explosion
  - Kodiak, Allision
  - Matachin, Collision
  - Michael G Morris, Allision
  - Nathan E Stewart, Grounding



- 2017 continued
  - Peter Gellatly, Allision
  - Ricky J LeBoeuf, Capsizing
  - Specialist, Collision
  - Spence, Collision
  - Admiral, Collision
  - Thomas Dann, Fire & Explosion



- 2018 13 out of 31 cases were towing vessels (42%)
  - Atlantic Raider, Flooding
  - Cooperative Venture, Allision
  - Eric Haney, Grounding
  - George King, Fire and Explosion
  - Gracie Claire, Capsizing
  - JW Herron, Fire and Explosion
  - James Hunter, Allision
  - Marguerite L Terral, Allision



#### • 2018 continued

- Ricky Robinson, Capsizing
- Savage Ingenuity, Flooding
- Steve Plummer, Allision
- Todd Brown, Collision
- Troy McKinney, Contact (Allision)

