



**NTSB** National Transportation Safety Board

*Office of Marine Safety*

# Chesapeake Area Professional Captains Association

April 28, 2014  
Annapolis, Maryland

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Office of Marine Safety, NTSB

# Brief History of the NTSB

- 1967- *NTSB* established under Department of Transportation, as an “independent” agency
- 1974- Independent Safety Board Act

# Purpose of NTSB investigations

- 49 CFR 831.4

Accident and incident investigations are conducted by the Board to determine the facts, conditions, and circumstances relating to an accident or incident and the probable cause(s) thereof.

# NTSB Organizational Information

- \$102.4 million budget in FY 2013
- Approximately 400 full time employees
- Board is comprised of 5 Members appointed by the President and confirmed by the Senate for 5 year terms
- 5 separate modal investigative offices



Chairman  
Hersman



Vice Chairman  
Hart



Member Rosekind



Member Sumwalt



Member Weener

# NTSB Modes

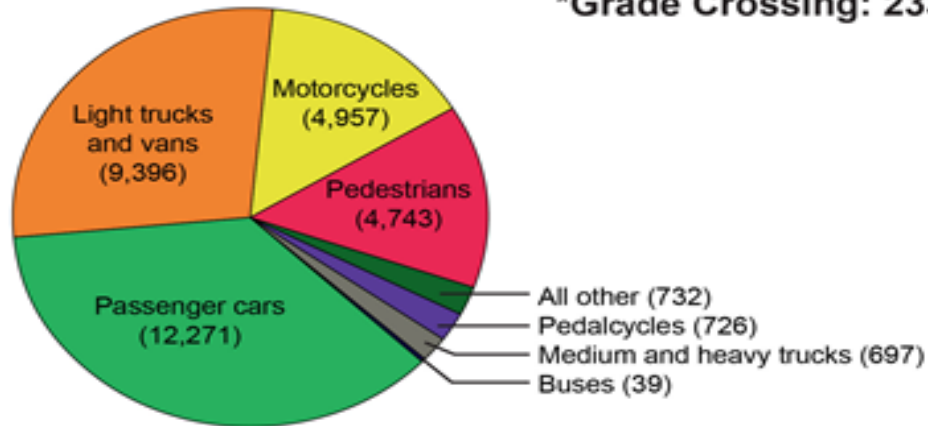
- Aviation
- Marine
- Rail
- Highway
- Pipeline / Hazmat



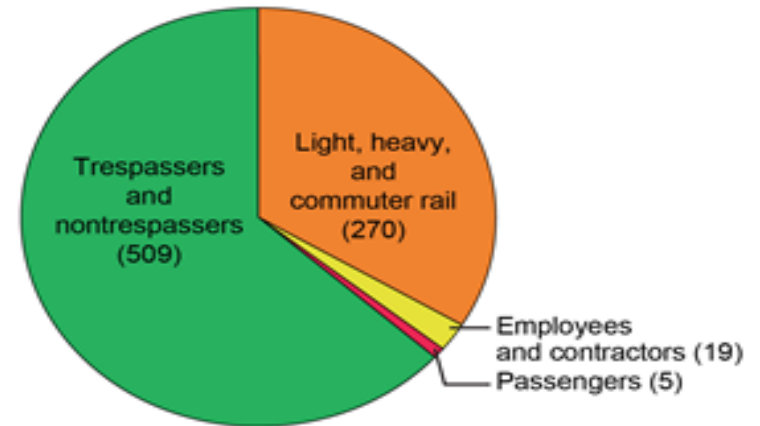
# NATIONAL TRANSPORTATION SAFETY BOARD

## 35,531 Transportation Fatalities In 2012

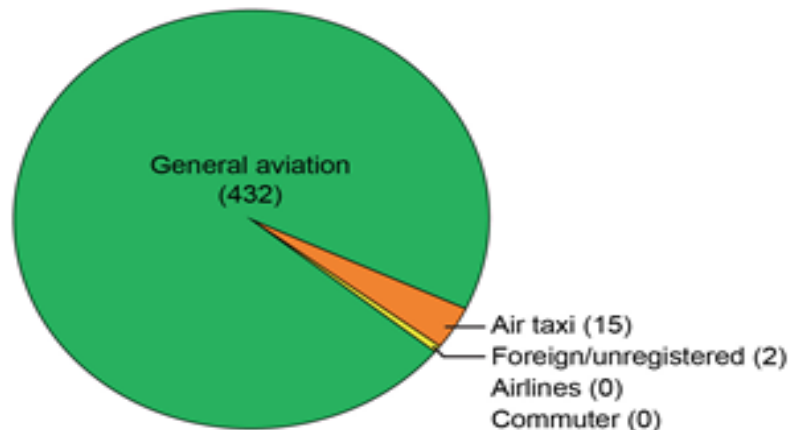
### Highway: 33,561



### Rail: 803

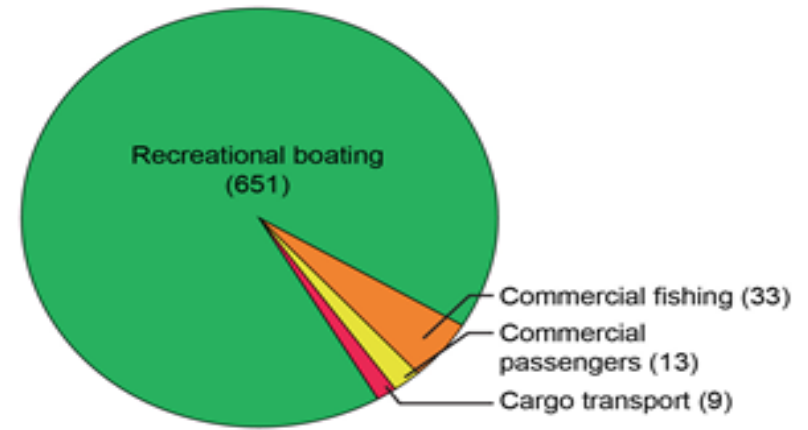


### Aviation: 449



### Pipeline: 12

### Marine: 706



**\*Note:** All data are preliminary estimates. Grade crossing fatalities are not included in the grand total because they were counted in the rail and highway categories, as appropriate. The pie charts are not drawn proportionately to each other. Aviation data are from the NTSB. Marine data are from the Department of Homeland Security. All other data are from the U.S. Department of Transportation.

# Office of Marine Safety Staff

- 12 Investigators
  - 4 Unlimited Masters
  - 4 Unlimited HP Chief Engineers
  - 4 Survival Factors/Human Performance
- 2 teams of 4-5 for major launches
- On standby to launch: On 2 weeks / Off 2 weeks



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# Current Active Marine Investigations

- 3 Cruise Ships
- 6 Commercial Fishing Vessels
- 1 Small Passenger/Ferry
- 12 Towing Vessels
- 2 MODU's
- 1 Research Vessel
- 1 Tank Vessels
- 1 Recreational Vessel
- 2 Freight Vessels
- 2 Public/Non-Public Collisions





## What accidents we investigate- 49 CFR 850

(e) *Major marine casualty* means a casualty involving a vessel, other than a public vessel, that results in—

- (1) The loss of six or more lives;
- (2) The loss of a mechanically propelled vessel of 100 or more gross tons;
- (3) Property damage initially estimated as \$500,000 or more; or
- (4) Serious threat, as determined by the Commandant and concurred in by the Chairman, to life, property, or the environment by hazardous materials.

# NTSB Marine Investigative authority

- **Shall** investigate any **Major Marine Casualty (MMC)** involving a foreign vessel which occurs in U. S. waters
- **Shall** investigate any **major marine casualty** involving a U.S. ship anywhere in the world
- **May** investigate other marine accidents of a recurring nature
- **Shall** investigate any collision between a public and a non-public vessel

# Public/Nonpublic- 49 CFR 850

(2) The casualty involves a public and a nonpublic vessel and at least one fatality or \$75,000 in property damage; or

# CG 33118- Sea Ray Collision, San Diego



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# Memorandum of Understanding

Current MOU signed in 2008:

- Clarifies when NTSB will lead investigation vs. USCG



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# NTSB Marine Report Types

- Limited investigation reports
- Major investigation reports
- International / IMO Investigation reports

# Limited Investigations



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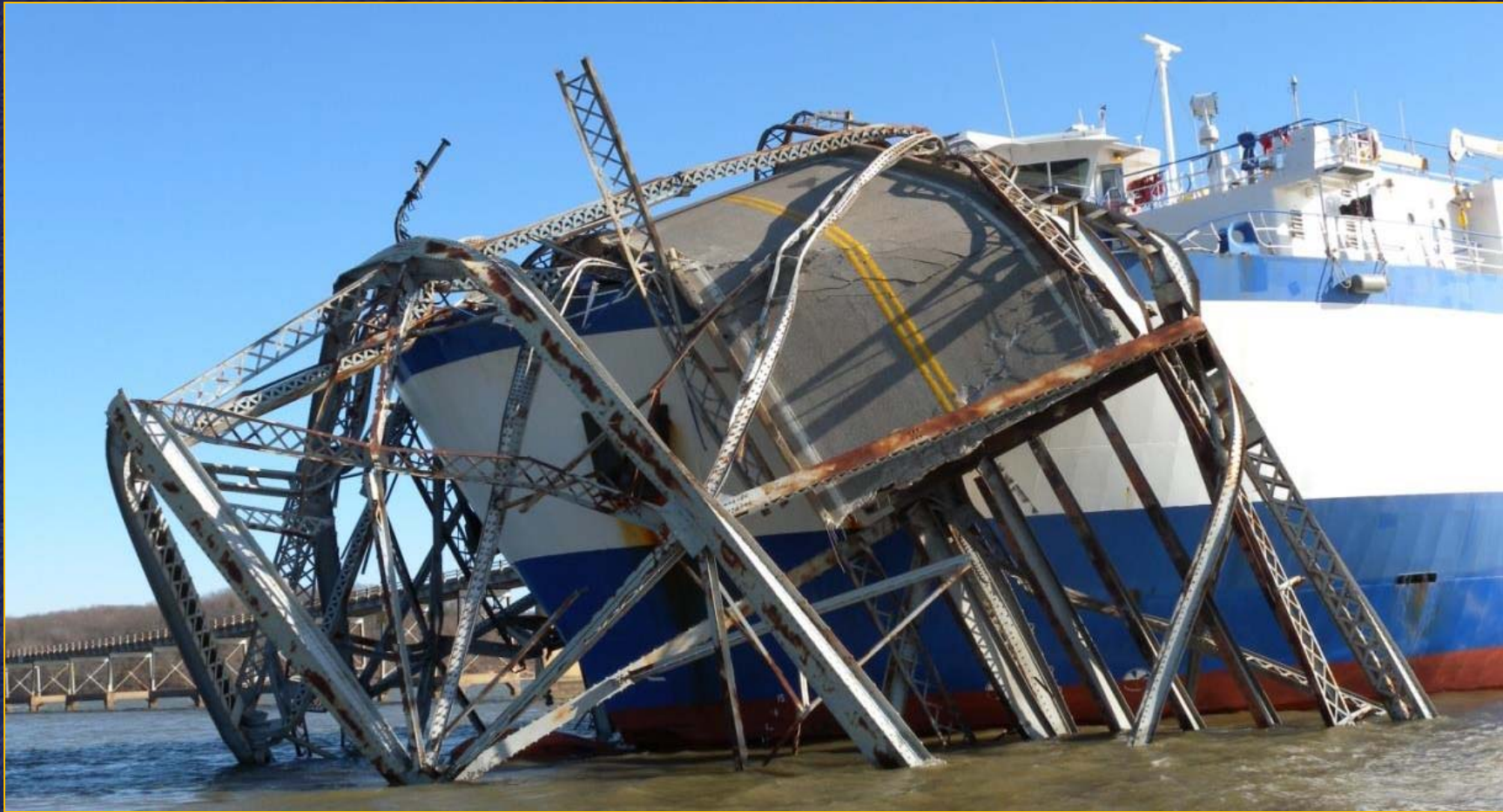




# Major Board Investigations



# Delta Mariner allision- Jan. 2012



# International / IMO Investigations



# How we investigate accidents



## Before we launch...

- Ensure preservation of electronically recorded data (ECDIS, VDR, etc.)
- Ensure toxicology testing completed



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# Preservation of casualty scene

- Keep personnel out of affected space(s)
- Prohibit initiation of repairs



# Arriving onscene





# NTSB Investigations Team Makeup

- NTSB Investigator In Charge
- 4 Investigative Groups
  - Deck Operations
  - Engineering Operations
  - Survival Factors
  - Human Factors

# NTSB Parties to Investigations

- Party rules found at 49 CFR Part 831
  - Parties are those who can bring technical expertise and knowledge to the investigation
    - Typically not individuals, but company representatives
    - Party representatives cannot:
      - Occupy a legal position
      - Represent claimants or insurers

# Typical NTSB Group Team

- NTSB investigator
- CG investigator
- Owner/operator representative
- Equipment manufacturers



# Onscene data types

- Electronic / recorded data
- Media / witness recordings of the event
- Key personnel interviews
- Wreckage documentation
- Vessel maintenance records
- Company personnel records
- Regulatory records



# Recorded data

- VDR
- Alarm logging devices
- Bell logger
- Data from system or component self- recording devices
- Vessel computers / hard-drives.

# Interviews

- Typically recorded
- Entitled to representation



# Personnel typically interviewed

- Relevant crew
- Crew on watch at time of event
- Other department crewmembers involved in the incident
- Outside vendors
- Port captains/engineer(s)
- CG inspecting officer(s)

# Wreckage documentation





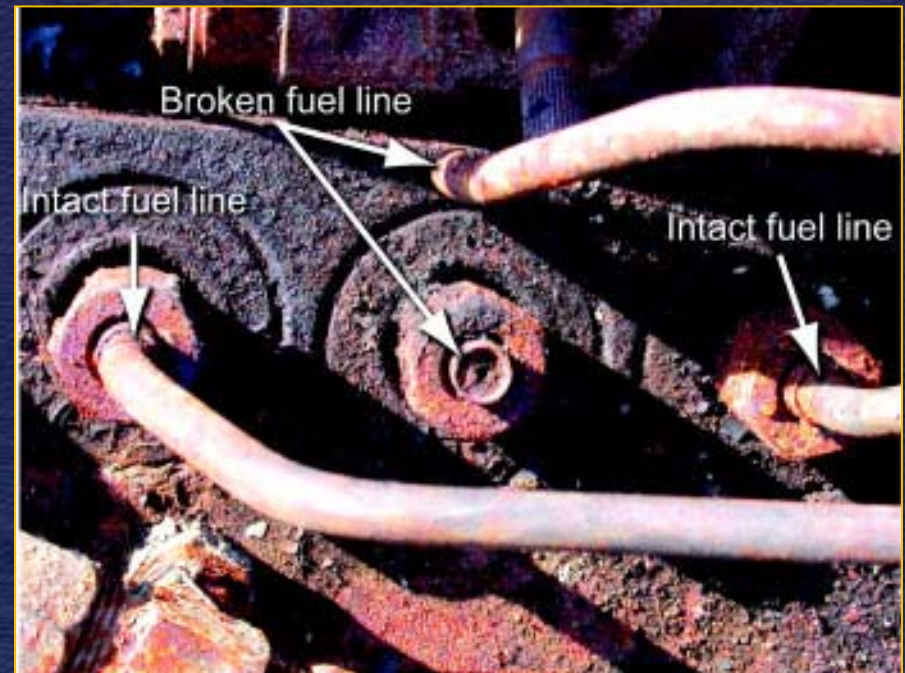
# Wreckage documentation

- Determine need for other investigative disciplines
- Identify and Dimension affected space(s) boundaries
- Thoroughly photograph
- Secure all liquid samples for testing
- Identify components for further testing

# Express Shuttle II Fire



# Broken Fuel Line



# Document Collection

- Vessel
- Operating company
- Regulatory agencies
- Vendor/manufacturer
- Local media

# Vessel records

- Relevant log pages (D&E)
- Logs-crew notebooks
- Relevant equipment specs/operating manuals
- SMS audit records
- Maintenance records of relevant components or systems
- Master & C/E Standing and night orders.



# Company records

- Safety Management System (SMS)
- Relevant period logbooks
- Previous 2692 reports
- Personnel records
- Relevant PR's & invoices
- Email comm's. between office & Vsl.
- Thermography/oil analysis reports
- Vessel drawings.

# Regulatory documents

- Radio event logs
- Inspection summaries
- 2692's for vessel
- Critical profile
- MISLE (Marine information safety & law enforcement) data
- Surveillance video (VTS)

# Vendor/manufacturer documents

- Purchase req's./invoices
- Contracts
- Service rep. qualifications
- Service rep. training
- Operational/maintenance manuals
- Equipment spec's.
- Fuel/lube product spec's.



# Investigation and Report Process



# Current Marine Issues

- Distracted operating
- VDR Carriage requirements
- Written operational policies/procedures (Safety Management Systems)
- Survival craft carriage requirements

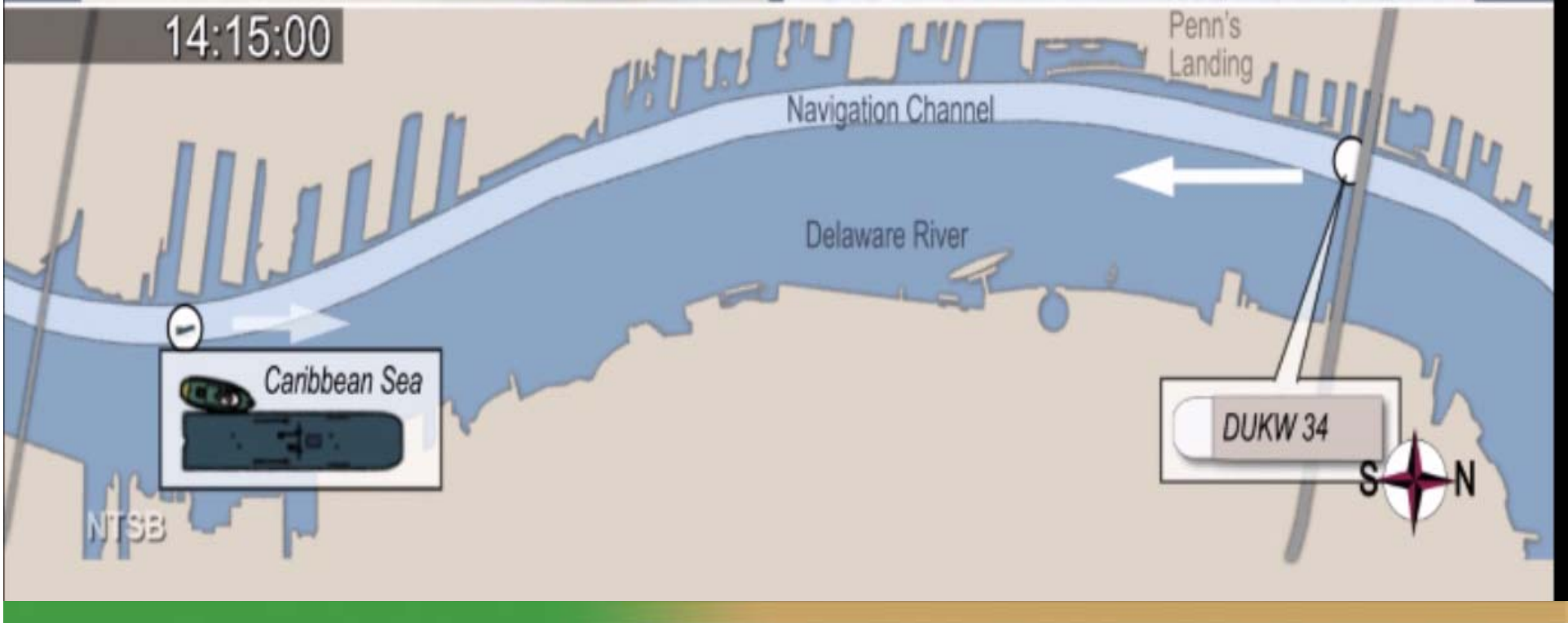
# *DUKW 34 and the barge Resource*



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# DUKW Amphibious Vehicle





# What Happened on *DUKW 34*

- *DUKW 34* engine overheated, the captain anchored in the navigational channel to await assistance from company
- Coast Guard not notified
- Deckhand sent to the bow to set anchor, serve as a lookout
- Deckhand engaged in texting session with his girlfriend while on the bow
- His last text within 1 minute of collision

# Deckhand Engaged in Texting



# What Happened on *Caribbean Sea*

- The mate was operating the tug/barge
- Shortly before the voyage he learned that his son had experienced a medical emergency
- He made numerous calls, and used the company laptop to access the internet to learn about his son's condition
- Moved from the upper to lower wheelhouse for a quieter environment



# Closeup of upper wheelhouse



# Caribbean Sea Wheelhouse



# NTSB Marine Investigations website

Home > Accident Investigations > Reports > Marine

## MARINE ACCIDENT REPORTS

The NTSB issues an accident report following the investigation. These reports are available online for reports issued since 1996, with older reports coming online soon.

The reports listing is sortable by the **event date**, **report date**, **city**, and **state**. Click on any of those headings to sort the data.

« < 1 2 3 4 5 6 7 > »

Title	Event date	Report date	City	State	NTSB #	NTIS #		
Grounding and Loss of the F/V <i>Chevellé</i>	3/10/2012	7/18/2013	Newport	OR	MAB-13-15		PDF	Summary
Fire On Board and Sinking of Liftboat <i>Mako</i>	1/16/2012	7/16/2013	Atlantic Ocean, Gulf of Guinea	Nigeria	MAB-13-14		PDF	Summary
Fire on Board Passenger Vessel <i>Safari Spirit</i>	4/27/2012	7/3/2013	Seattle	WA	MAB-13-12		PDF	Summary
Sinking of Fishing Vessel <i>Viking II</i> , Atlantic Ocean	10/7/2012	6/14/2013	75 nautical miles (nm) southeast off Cape May	NJ	MAB-13-11		PDF	Summary
Engine Room Fire On Board Towing Vessel <i>Patrice McAllister</i>	3/27/2012	6/6/2013	4 miles southeast of Point Petre, near Prince Edward Point	ON	MAB-13-10		PDF	Summary
Allision of the Cargo Vessel <i>Delta Mariner</i> with Egner's Ferry Bridge, Tennessee River	01/26/2012	5/14/2013	near Aurora	KY	MAR-13-02	PB2013-106636	PDF	Summary
Collision of Canadian Bulk Carrier <i>John D. Leitch</i> with Law Enforcement Vessel	10/3/2012	5/28/2013	Black River, Section E, Lorain	OH	MAB-13-09		PDF	Summary
Sinking of Uninspected Fishing Vessel <i>Plan B</i>	2/21/2012	5/28/2013	10 nautical miles southeast of Kennebunkport	ME	MAB-13-08		PDF	Summary
Allision of Container Vessel <i>Rickmers Tokyo</i> with Pier 11 at Port Richmond	12/23/2011	5/28/2013	Philadelphia	PA	MAB-13-07		PDF	Summary
Fire on Board Uninspected Towing Vessel <i>Ivory Coast</i>	10/10/2011	5/16/2013	Baltimore	MD	MAB-13-06		PDF	Summary

« < 1 2 3 4 5 6 7 > »

[www.nts.gov/investigations/reports\\_marine.html](http://www.nts.gov/investigations/reports_marine.html)



# Questions?

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[www.nts.gov/investigations/reports\\_marine.html](http://www.nts.gov/investigations/reports_marine.html)



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