



National Transportation Safety Board

Fire On Board Small Passenger Vessel *Island Lady*
Pithlachascotee River Near Port Richey, Florida
January 14, 2018

Brian Young, IIC
Office of Marine Safety

Investigation Team

- Brian Young, Investigator In Charge, MS-10
- Nancy McAtee, Fire/Explosion Investigator, RE-50
- Monica Mitchell, Report Writer/Editor, MS-20

Staff Who Supported Investigation Team

- Dr. Mary Pat McKay, RE-1
- Bob Dodd, SRC-50
- Christy Spangler, SRC-60
- James Anderson, SRC-60
- Elias Kontanis, SRC-40

Parties to the Investigation

- US Coast Guard
- Tropical Breeze Casino Cruz
- Ring Power Corporation

Island Lady

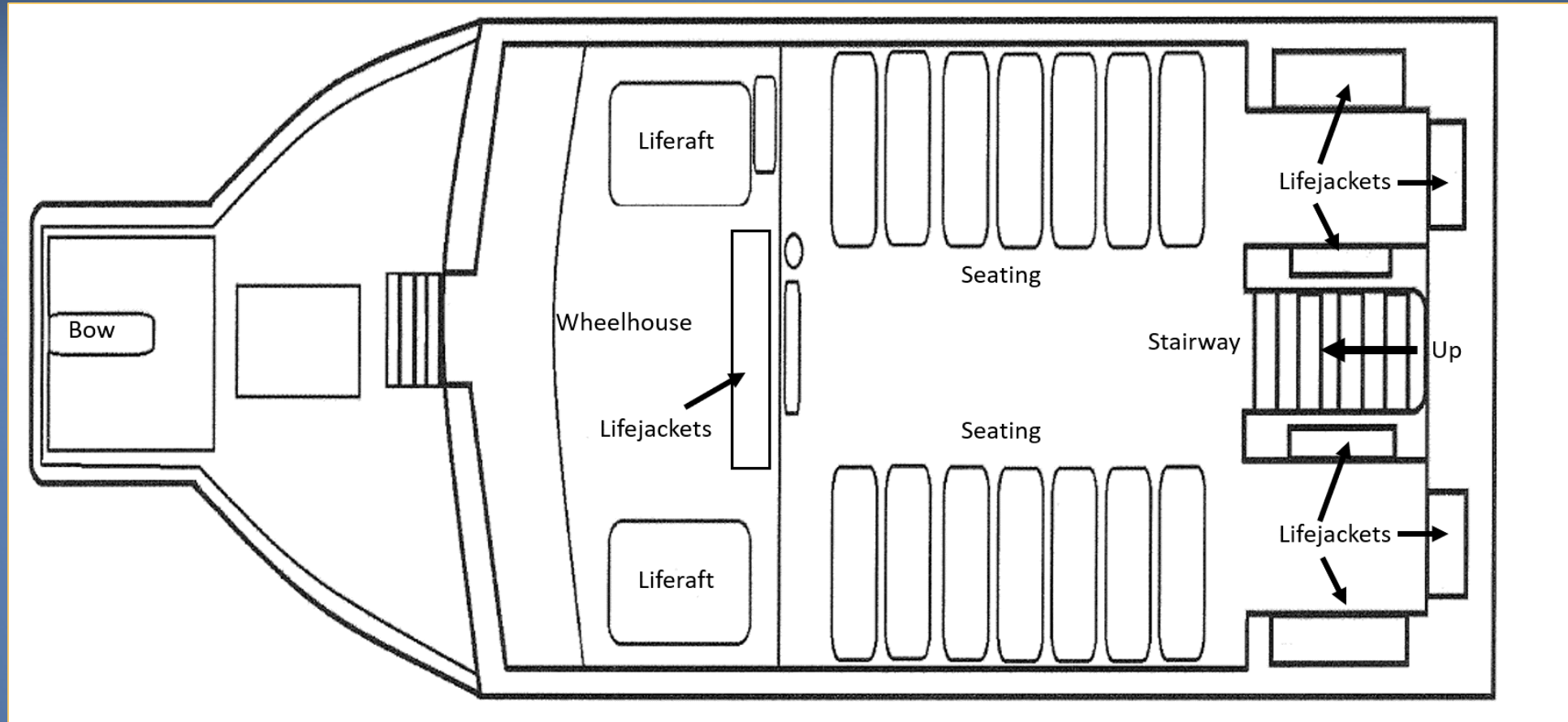


Photo by previous owner

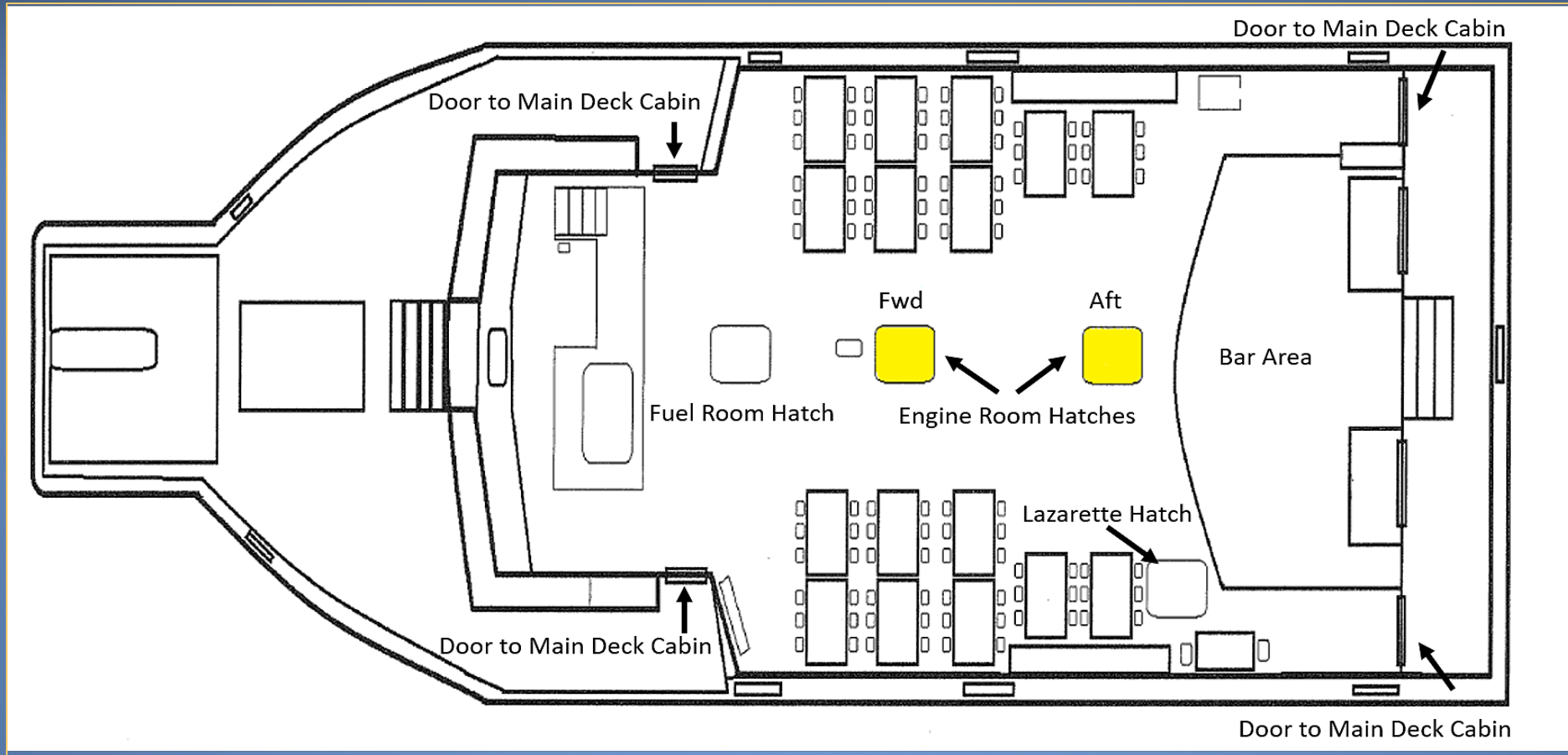
Island Lady



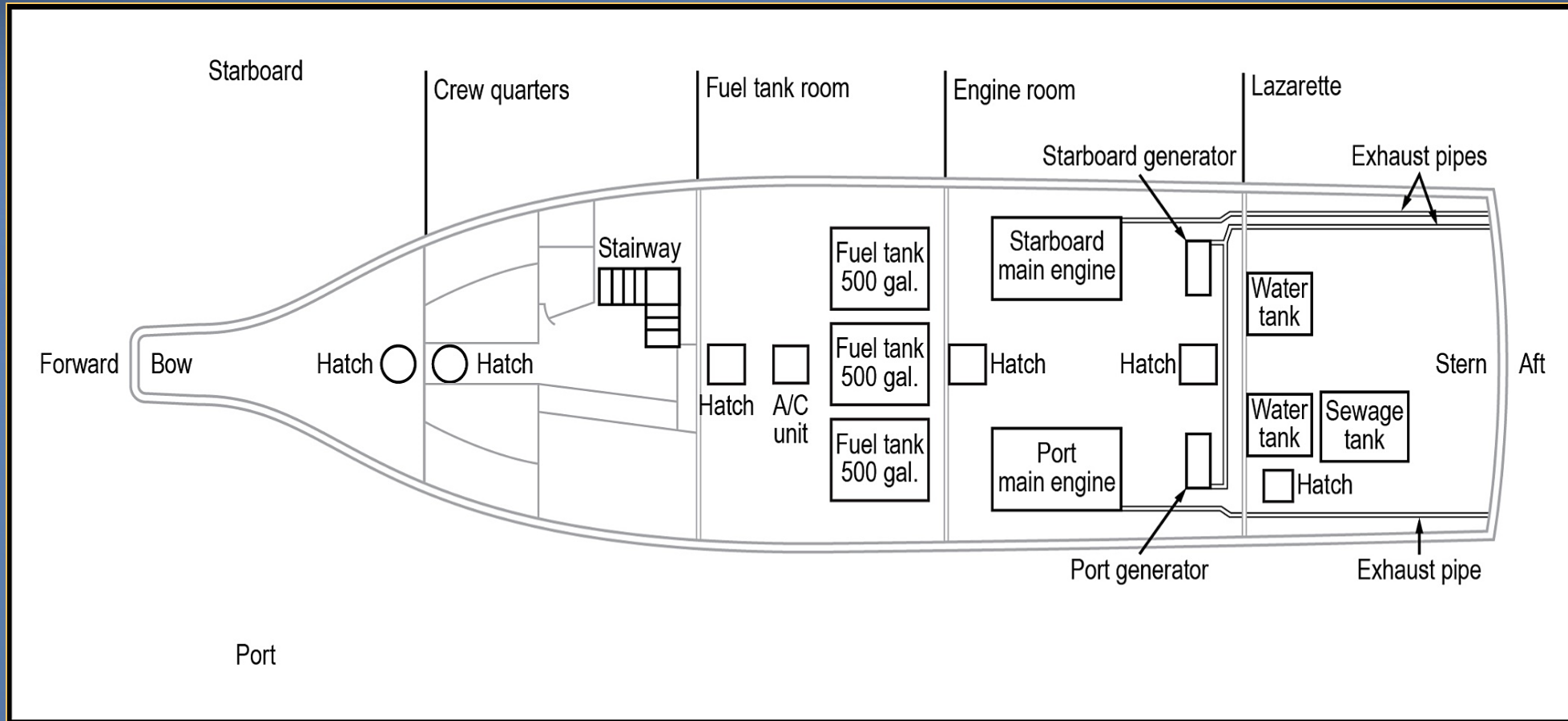
Island Lady Top Deck



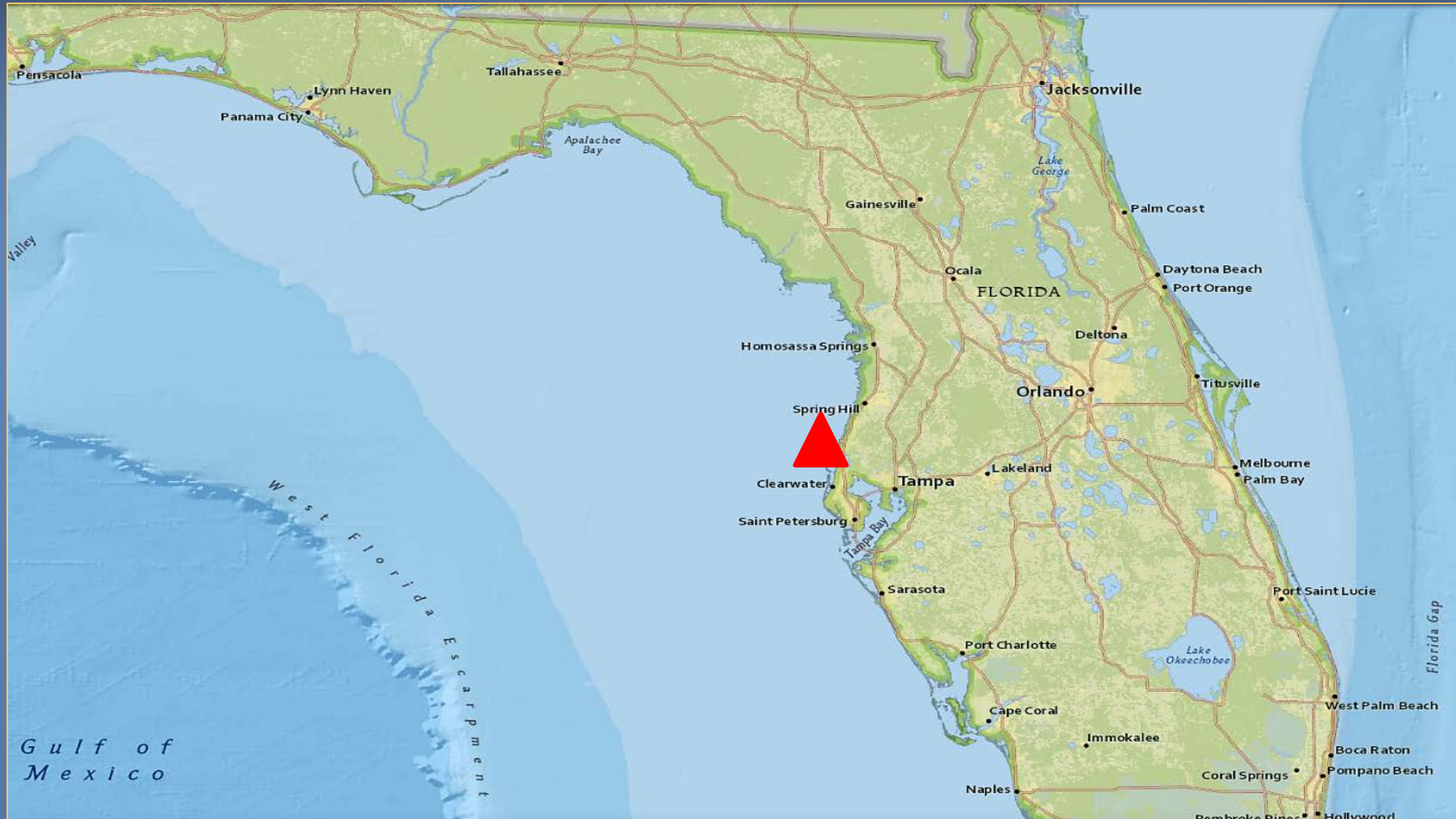
Island Lady Main Deck



Island Lady Machinery Layout



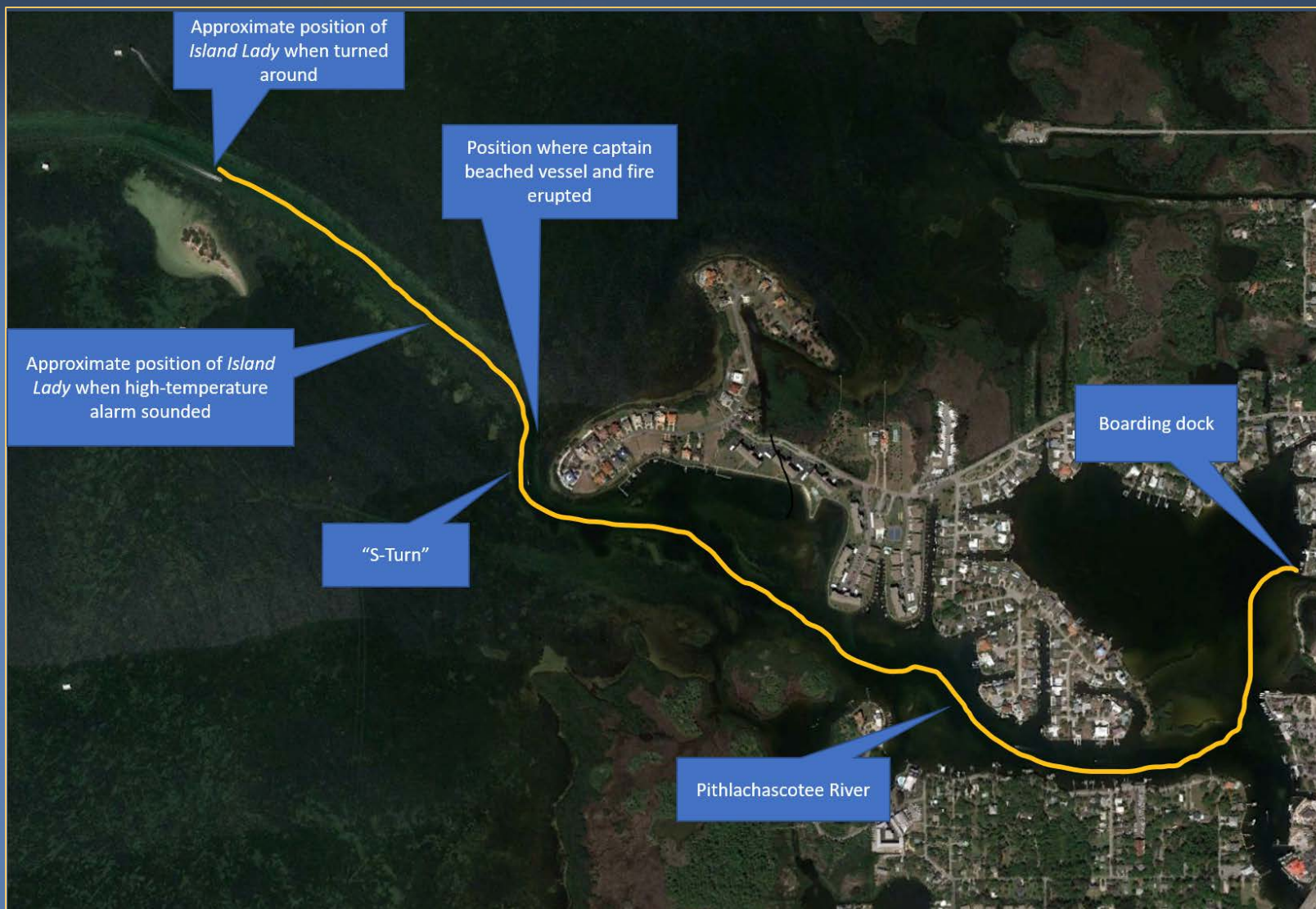
Map of Accident Area



Island Lady on the Day of the Accident:

- 53 people on board:
 - 1 captain
 - 3 deckhands
 - 11 employees
 - 2 pre-hires
 - 36 passengers

Accident Overview



Tropical Breeze I



Surveillance Video Clip: Outbound Transit Departing Harbor



Surveillance Video Clip: Outbound Transit at Increased Speed



Surveillance Video Clip: Stop and Turn



Surveillance Video Clip: Astern Motion and Turn Toward Shore



Surveillance Video Clip: Return Trip



Witness Video Clip: Beaching the *Island Lady*



Video by Bakr Jandali

Witness Video Clip: Start of Evacuation



Video by Bakr Jandali

Witness Video Clip: Loading Door Removed



Video by Bakr Jandali

Witness Video Clip: Fire Breaks Out



Video by Bakr Jandali

Witness Video Clip: Fire Engulfing Main Deck



Video by Bakr Jandali

Previous Accident: *Express Shuttle II* - 2004



Wreckage



Fire-Damaged Engines



Engine Inspection



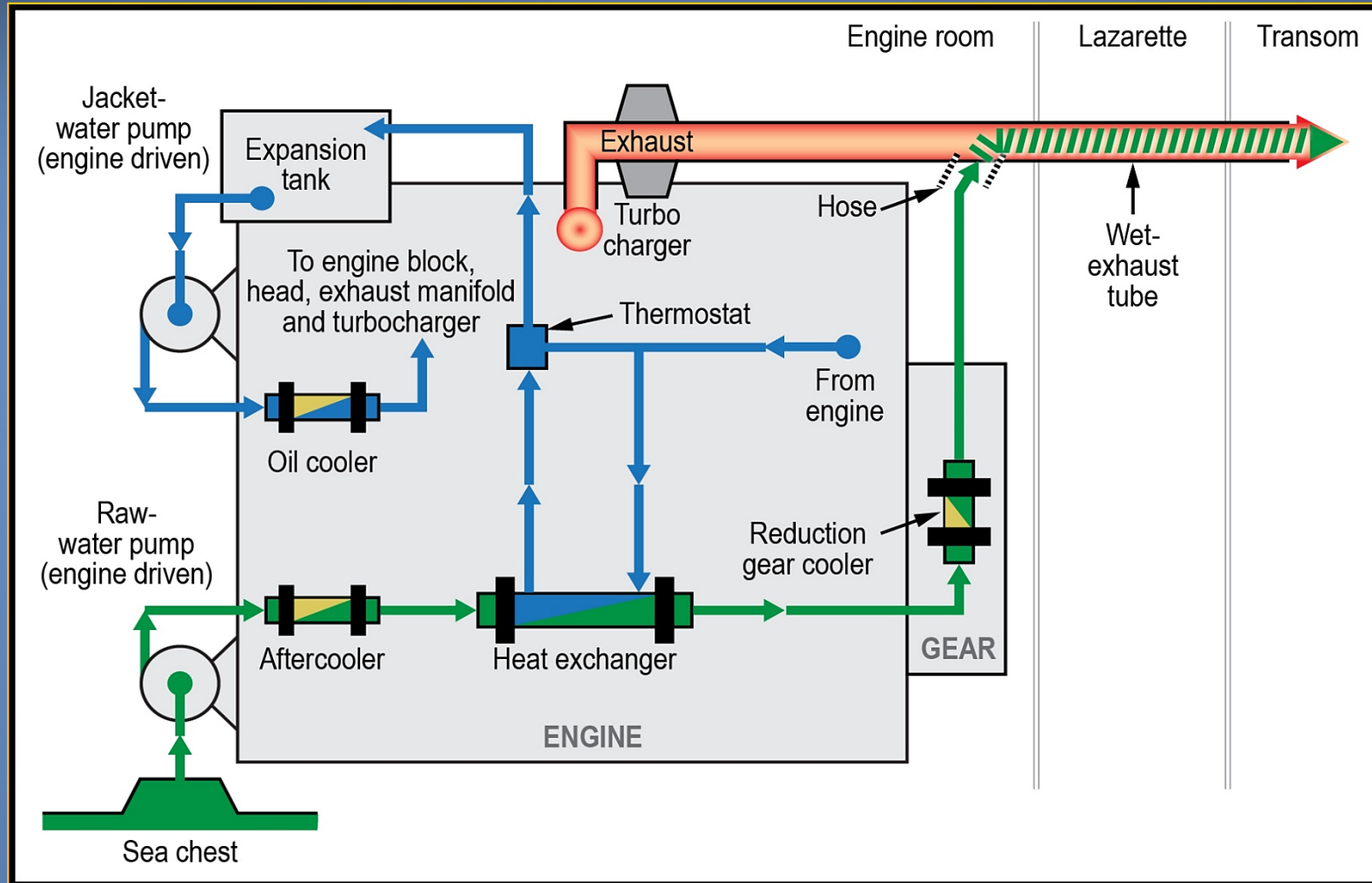
Safety Issues

- Lack of company guidance regarding engine high-temperature alarms
- Lack of fire detection in unmanned spaces with exhaust tubing
- Insufficient preventive maintenance
- Insufficient crew training and documentation
- Inappropriate material and design of fuel tank level-indicator system

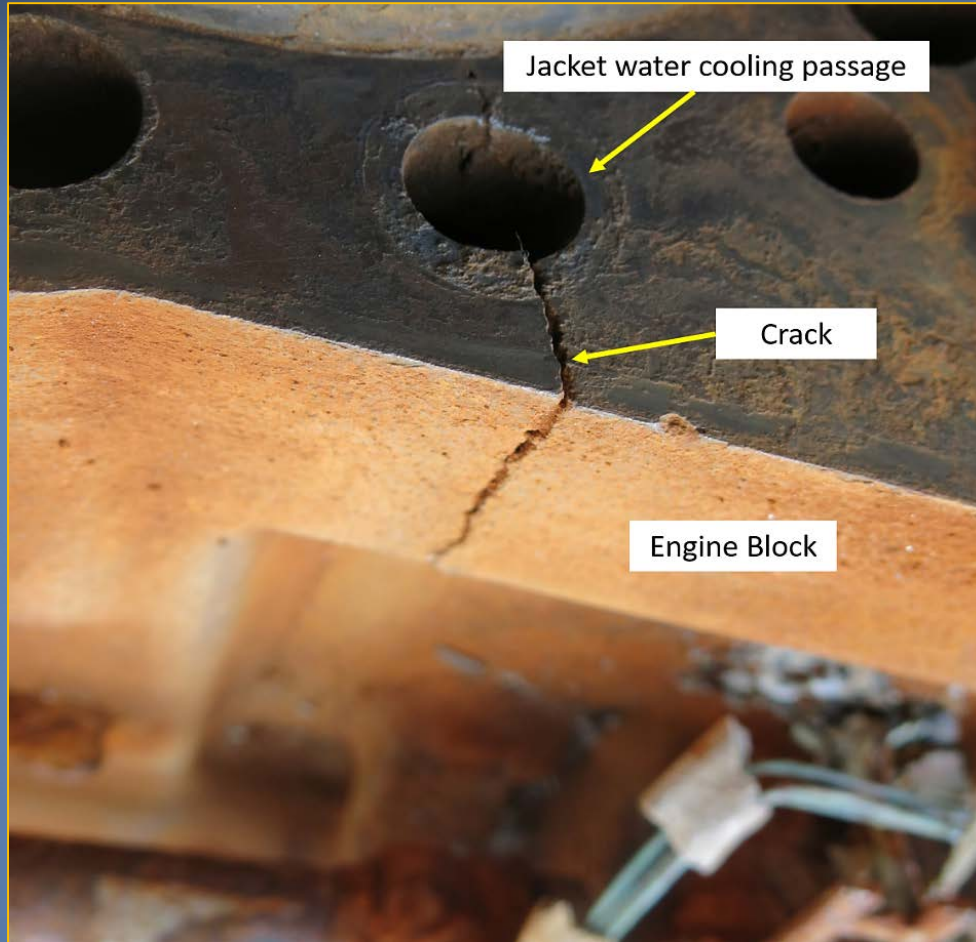
Exclusions

- Weather
- Fatigue
- Impairment due to alcohol and other drugs

Engine Cooling Water System



Overheated Engine and Exhaust System

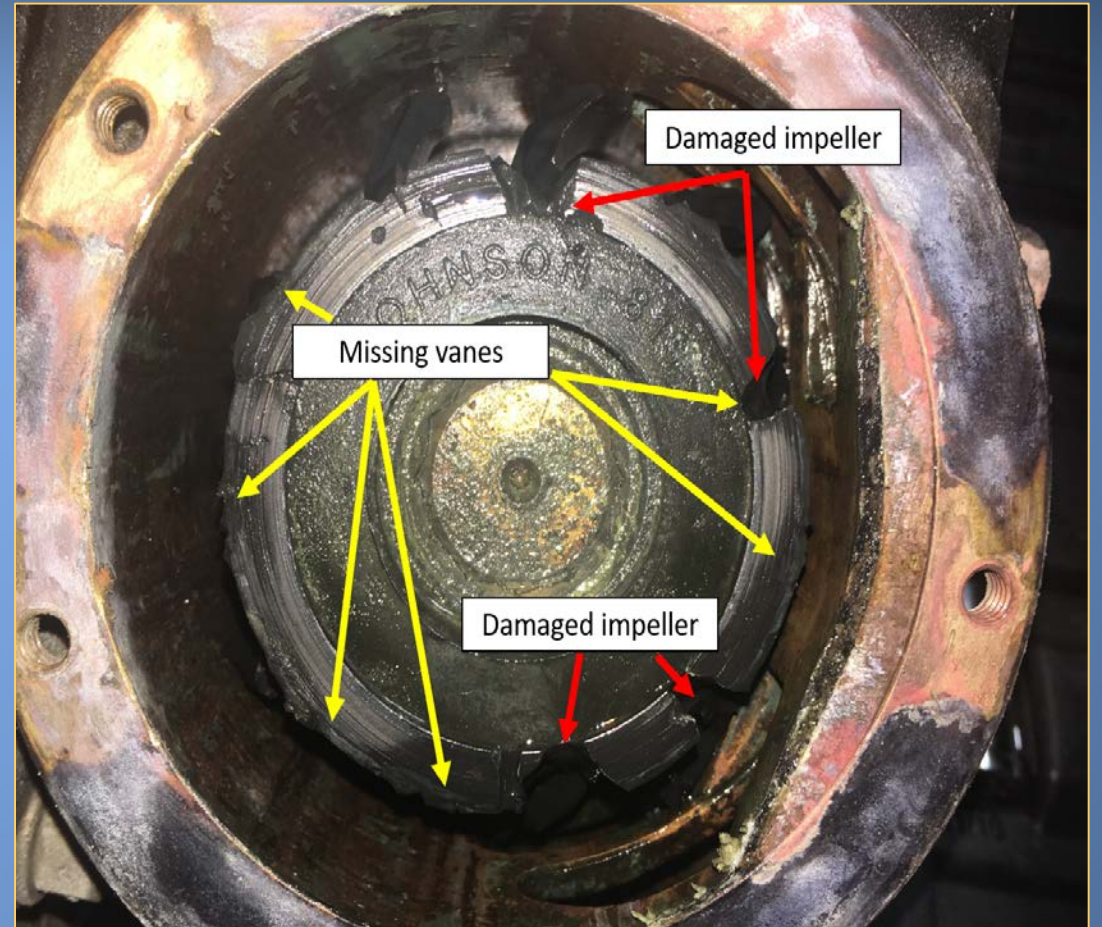
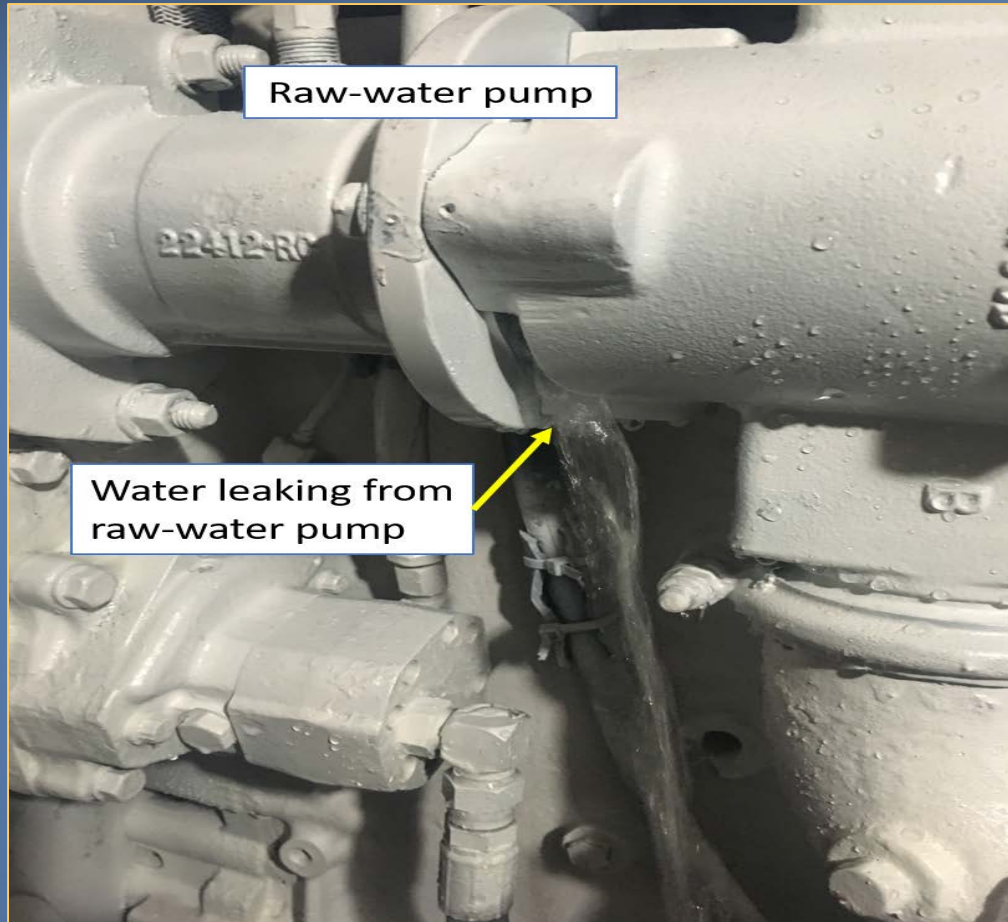


Vessel Beached Close to Shore



Photo by Titan Marine & Environmental

Maintenance of Raw Water Pump



Preventive Maintenance Schedule

Island Lady Monthly Maintenance Report

DATE: October 2017

Name: William Engineer

Starboard S#9WR01393 3406E Caterpillar Mains Port S#9WR01392

24 volt Dual d8		24 volt Dual d8	
08/25/17	Flush	08/25/17	Flush
09/04/2017	Oil Changed	09/04/2017	Oil Changed
10/13/17	Fuel Filter	10/13/17	Fuel Filter
08/25/17	Heat Exchanger	08/25/17	Heat Exchanger
04-21-17	AirFilter	04-21-17	AirFilter
12/08/2016	Transmission Fluid Change	12/08/2016	Transmission Fluid Change
08/25/17	Thermostat	08/25/17	Thermostat
07/17/17	Belts	10/05/2016	Belts
7/17/17	Battery Water	7/17/17	Battery Water
5-17-17	Impeller	05-25-17	

Starboard Kubota Gen		Generators	
M/S#V1902-B-115106		12volt	
17KW			
09/15/2016	Flush		
09/04/2017	Oil Changed		
09/04/2017	Fuel Filter		
07/17/17	Heat Exchanger		
06-20-17	AirFilter		
none	Thermostat		
07/17/17	Belts		
09/04/2017	Battery Water		
07/17/17	Impeller		

Notes: Replaced ladder and floor back of engine room, Sanded, Stal around Vessel. 3 gallons lucas fuel treatment 10/13/17 and biobc No oil changes this month. Emptied a/c condensation stern a/c. Re Replaced h2o Filter.



Operation and Maintenance Manual

3406E and C15 Marine Engines

Maintenance Interval Schedule (Prime Power)

SMCS Code: 1000; 4450; 7500

Ensure that all safety information, warnings, and instructions are read and understood before any operation or any maintenance procedures are performed.

The user is responsible for the performance of maintenance, including all adjustments, the use of proper lubricants, fluids, filters, and the replacement of components due to normal wear and aging. Failure to adhere to proper maintenance intervals and procedures may result in diminished performance of the product and/or accelerated wear of components.

106146996

"Fuel System Primary Filter/Water Separator - Drain"	88
"Walk-Around Inspection"	98

Every 50 Service Hours or Weekly

"Aftercooler Condensate Drain Valve - Inspect/Clean"	65
"Sea Water Strainer - Clean/Inspect"	97
"Zinc Rods - Inspect/Replace"	100

Initial 500 Hours (for New Systems, Refilled Systems, and Converted Systems)

"Coolant Sample (Level 2) - Obtain"	74
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Every 500 Service Hours

"Coolant Sample (Level 1) - Obtain"	73
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Every Year

"Coolant Sample (Level 2) - Obtain"	74
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Every 6000 Service Hours or 6 Years

"Cooler Core - Replace"	66
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At 14 400 L (3750 US gal) of Fuel or 250 Service Hours

"Fuel Valve Lash - Check"	85
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"Fuel Valve Rotators - Inspect"	85
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"Fuel Injector - Check"	86
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At 14 400 L (3750 US gal) of Fuel or 250 Service Hours or 1 Year

"Fuel Filter Water Pump (Rubber Impeller) - Inspect"	86
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"Fuel System Electrolyte Level - Check"	86
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"Fuel System Electrolyte Level - Check"	86
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"Fuel System Electrolyte Level - Check"	86
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"Cooling System Supplemental Coolant Additive (SCA) - Test/Add"	75
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"Engine - Clean"	77
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"Engine Air Cleaner Element (Single Element) - Inspect/Clean/Replace"	77
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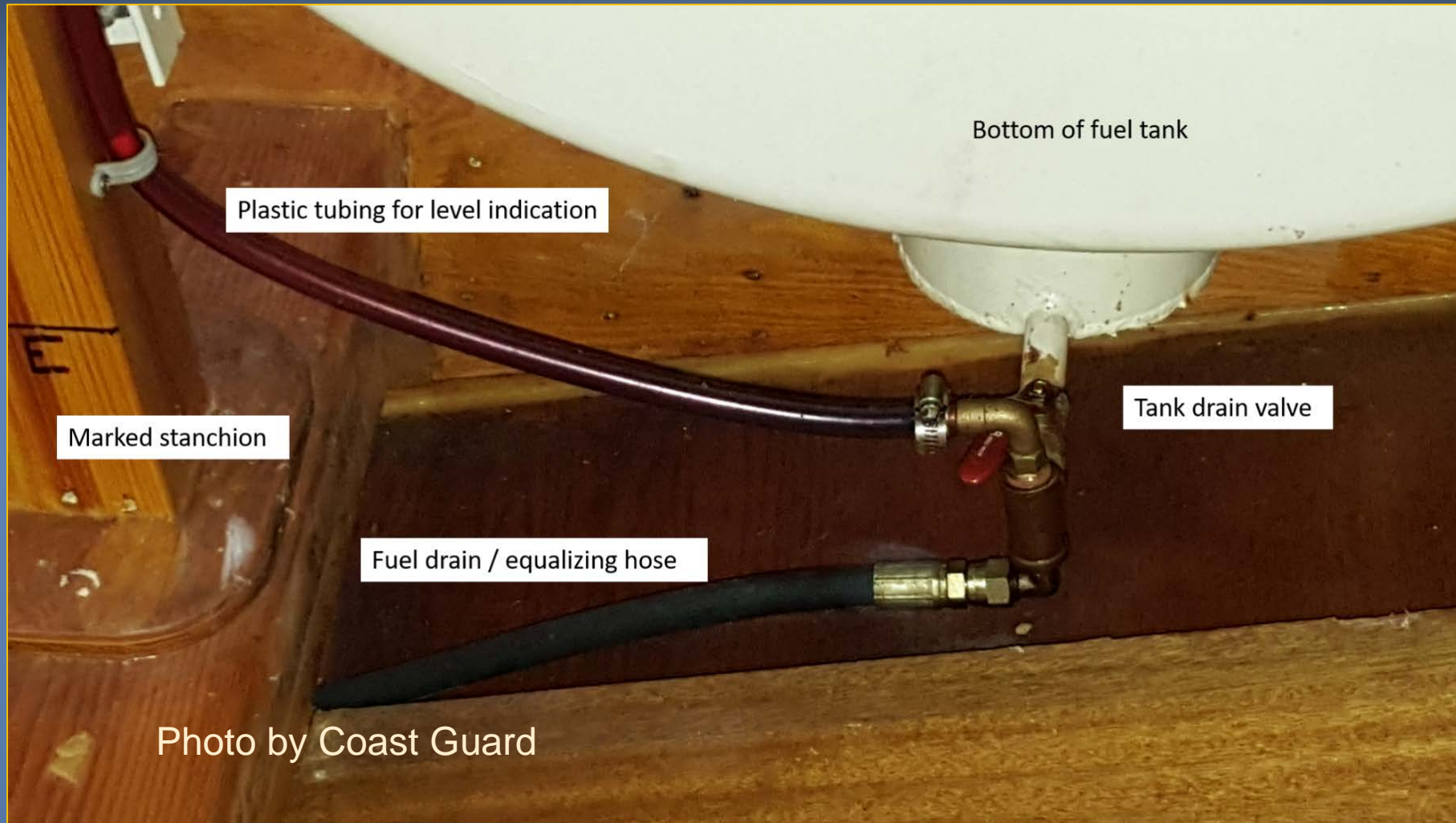
Daily

"Coolant Level - Check"	72
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"Engine Air Cleaner Service Indicator - Inspect"	78
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"Engine Oil Level - Check"	80
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Fuel Tank Level-Indicating System





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Cause of Fire and Related Findings

Nancy B. McAtee

Group Chairman – Fire Investigation

Overview

- Fire initiation and propagation
- Automatic fire detection
- Firefighting training and response

Fire Initiation and Propagation

- Fire originated in exhaust tubing in lazarette
 - Loss of raw water
 - Elevated exhaust temperatures, leading to degradation of exhaust tube materials and ignition
- Fire spread to surrounding wood supports

Automatic Fire Detection

- Detection required only for engine room
- Detection not heard by captain
- Detection not required for lazarette
 - Space not equipped with detection
 - Space unmanned



Automatic Fire Detection

- Early detection critical
- Detection for unmanned spaces
 - Earlier detection
 - Swifter response

Firefighting Efforts

- High-temperature alarm in engine room
 - Multiple hatch openings and entries into space
 - Hatch possibly left open
- Doors on main deck opened

Firefighting Efforts

- Crew did not receive sufficient training or drills
- Previous recommendation to develop crew training program
- Crew demonstrated lack of proper marine firefighting skills



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