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16732

DEC 1 4 2012

COLLISION BETWEEN THE T/V TINTOMARA AND BARGE DM932 BEING PUSHED BY THE MEL OLIVER AT MILE MARKER 99 OF THE LOWER MISSISSIPPI RIVER ON JULY 23, 2008

ACTION BY THE COMMANDANT

The record and the report of the Formal Investigation convened to investigate the subject casualty have been reviewed. The record and the report, including the findings of fact, analysis, conclusions, and recommendations are approved subject to the following comments.

COMMENTS ON THE LIST OF SPECIALIZED TERMS / DEFINITIONS

The definition of the term "Trip Boat" indicates that two licensed masters are required on board. This is incorrect. One Master and one Mate (Pilot) would be sufficient and in compliance with regulations.

COMMENTS ON SECTION III: FINDINGS OF FACT

Facts 1.C(2)(e)-(f), 5.D(25)-(26)

C(2)(e) According to testimony from various pilots and captains over the course of this investigation it is noted that, contrary to the "Rules of the Road," it has become customary practice for vessels operating in LMR to forgo passing arrangements under certain circumstances. Accordingly, during the reading of the timeline, some vessels will obviously pass one another without audible passing arrangements. Pilot [redacted] of the TINTOMARA detailed the custom as follows:

> C(2)(f) When asked when would passing arrangements be made, he answered "If it's called for." Question: "And when is it called for?" [redacted] answered, "If you're in doubt of the vessel's position, what their intentions are, you call and make an agreement." Question: "And if you're not in doubt, you don't have to do it?" [redacted] "You continue on your course, stay in your lane." Question: "Where did you learn that rule?" [redacted] replies, "Working out on the river. If you were to call every tow, every boat that worked out on the river, no one would ever get a word in on the radio because of the amount of traffic, small tows, light boats, things working in the fleet. It's impossible to talk to or it just doesn't make any sense to talk to every boat that is on the river. If someone ahead of me is having a problem and there's a situation occurring, they can't get in because you're talking to them and blasting them off the radio waves. They can't get a word in. So when it becomes apparently obvious or you're coming down on a bend where you can't see around the corner and you hear somebody coming up, then you go ahead and you make that agreement, depending on where you're at and what your situation is." ([redacted] pgs 135-136).

Comment: While not specifically stated in this report of investigation, it is concerning that contrary to Title 33 United States Code (USC), Subchapter I: Rules, also known informally as the "Rules of the Road," it has become a common industry practice on the Lower Mississippi River not to follow Rule 9, with regard to proposing the manner and place of passage and initiating the maneuvering signal prescribed by Rule 34(a)(i). The dangers in the beliefs leading to the practice, as enunciated in paragraph C(2)(f) is that one assumes they know the intentions of the other vessels and also assumes that the other vessels are fully aware of their locations and intentions and will follow the same local practice. As this incident shows, that is not the case.

Fact 5.B (8)
B(8) The MEL OLIVER and its predecessor, the PAM D, were both operated as trip boats or dedicated boats, that is, the vessel worked a specific run. ([redacted] pg 152, lines 9-21). DRD was aware that when a vessel runs more than 12 hours in a day, the crew complement shall include two licensed captains. ([redacted]1, pgs 265-266) (see also, 46 CFR 15.705 (d) & 46 USC 8104(h) & 8904(c)). Again, this was not always the case with the MEL OLIVER. (see IO exhibit 69).

Comment: I concur that the evidence indicates that the MEL OLIVER was frequently not properly manned, however, 46 CFR 15.705 does not require two licensed captains on board a vessel that runs more than 12 hours in a day. One licensed Captain and one Mate (Pilot) would have been sufficient.

COMMENTS ON SECTION IV: CAUSAL ANALYSIS

With the exception of any statements regarding a "partially jammed steering system" I concur with the analysis.

COMMENTS ON SECTION V: CONCLUSIONS

Conclusion 1: The initiating event of this marine casualty was the turn to port brought on by the complete loss of situational awareness by Steersman [redacted] the operator of the towing vessel MEL OLIVER.

Comment: I concur that the initiating event of the marine casualty was the MEL OLIVER's turn to port; however, the causal factors that lead to the turn cannot be solely blamed on the Steersman's loss of situational awareness. Evidence indicates that the causal factors that led to the MEL OLIVER turning to port was either the unintentional movement of the steering sticks by the Steersman or the un-noticed affect that the current was having on the MEL OLIVER's course, or a combination of the two. The Steersman's loss of situational awareness allowed the MEL OLIVER's turn to continue unchecked until it was too late to prevent the collision.

Conclusion 3: Contributing to the cause of this casualty was [redacted] excessive delay in or total lack of exercising evasive actions. When he was unable to steer the MEL OLIVER out of the path of the on-coming TINTOMARA, he delayed in reversing his engines until 16 seconds

prior to the collision. Likewise he failed to answer radio calls or otherwise notify on-coming traffic of his intentions or of any mechanical issues with the vessel.

Comment: I concur with this conclusion, however feel that specific emphasis should be made regarding the fact that the operator of both vessels failed to follow Rule 9. According to facts D.5(25)-(26) the first attempted communications between the two vessels occurred only after the Pilot of the TINTOMARA first became concerned about the MEL OLIVER's movement and even then, because he was unaware of the identity of the MEL OLIVER, his attempt was only addressed to "this tow." In this particular marine casualty, had the two vessels communicated early in accordance with Rule 9, it is conceivable that: 1) the TINTOMARA Pilot would have known the identity of the MEL OLIVER, which would have improved the chances that the MEL OLIVER would have responded to subsequent radio calls before the vessels were in extremis and 2) the early communications would have resulted in drawing the attention of the MEL OLIVER pilot back to his responsibilities to safely navigate his tow rather than remain fixated on the radar or otherwise distracted.

Conclusion 4: There is evidence to support the possibility that at some point prior to the casualty a loose item of debris partially jammed the primary steering linkage on the MEL OLIVER.

Comment: I do not concur with this conclusion. Witness statements indicate that following the MEL OLIVER's turn to port, the Steersman could not maneuver the vessel to starboard. However, there is no evidence that supports the assertion that a metal electrical box travelled across the deck, positioned itself under the steering linkage, and impeded the movement of the linkage, thus impeding movement of the rudder.

Conclusion 13: The Coast Guard lacks a comprehensive program for actively monitoring the operations of towing vessels and/or towing companies. While there are numerous active regulations applicable to towing vessels, there is no regulatory program to inspect either the towing vessels or the towing operating companies to ensure compliance with regulatory and safety requirements.

Comment: I partially concur with this conclusion. The Coast Guard and Maritime Transportation Act of 2004 added towing vessels as a class of inspected vessels. Since the time of this incident significant progress has been made to develop a regulatory program to inspect towing vessels. 46 CFR Subchapter M has been drafted and details inspection standards for towing vessels. Until the regulation is finalized, the Coast Guard has established a Towing Vessel Bridging Program to ease the transition and ensure that both the Coast Guard and the towing vessel industry are informed and prepared to meet the new requirements to be finalized in Subchapter M. This goal is being accomplished by enhancing, improving, and increasing Coast Guard interactions with the towing vessel industry, and by acclimating all involved with the procedures, policy, requirements and administration of existing and, as implementation draws closer, new Subchapter M regulations. To further these ends, during this period of transition the Coast Guard is conducting extensive industry outreach, training towing vessel inspectors, and is examining every uninspected towing vessel (UTV) that will be inspected under Subchapter M.

16732
DEC 1 4 2012

COMMENTS ON SECTION VI: ENFORCEMENTS

Comment: With specific regard that this was an investigation into the circumstances surrounding a collision with nationally significant consequences, there is a general concern that neither the Pilot or Master of the TINTOMARA, nor the Steersman of the MEL OLIVER were cited for violating the "Rules of the Road." All were in violation of Rule 9, the Pilot and Master of the TINTOMARA were in violation of Rule 34, and the Steersman of the MEL OLIVER was in violation of Rules 5, 7, and 8.

Action: Because of the apparent lack of training or understanding on enforcement policy for violation of these regulations, I direct CG-INV to work with Coast Guard Training Center Yorktown to address the training gap.

ACTION ON SECTION VII: RECOMMENDATIONS

Recommendation 1: Recommend the Commandant of the Coast Guard issue a safety alert regarding possible hazards associated with storing loose items in void spaces where open steering linkage systems are present.

Action: I concur with the intent of this recommendation. Though I do not concur with the foundational facts, analysis, and conclusions that led to this recommendation, the safety message is sound. I direct CG-INV to draft and release a safety alert addressing this issue.

Recommendation 2: Recommend the Commandant of the Coast Guard seek regulatory change to require the installation of a safety cage or other shielding device designed to protect open steering linkage systems from possible jamming due to lose debris.

Action: I concur with the intent of this recommendation. While it may be prudent to design protection into an open steering linkage system, there is not enough casualty data to support a regulatory change. The actions indicated in recommendation 1 are sufficient to address this concern. No further action will be taken on this recommendation.

Recommendation 3: Recommend the Commandant of the Coast Guard seek regulatory change to require all crew members of commercial vessels to be licensed or documented.

Action: I do not concur with this recommendation. There is no latent unsafe condition identified in the investigation that supports this recommendation. The fact that some personnel on board were undocumented mariners had no bearing on the casualty. The unsafe condition identified was that the vessel was under the direction of someone who did not hold the proper license to do so. There is already a requirement that towing vessels be under the direction and control of a properly licensed individual at all times and regulations allow undocumented crewmembers in other positions. No further action will be taken on this recommendation.

Recommendation 4: Recommend the National Maritime Center create a national "good standing" database for employer to check validity of mariner credentials.

Action: I partially concur with this recommendation. The National Maritime Center (NMC) already has a world wide web accessible feature to check the validity of merchant mariner credentials via the NMC web site and Coast Guard Portal Homeport called Merchant Mariner Credential Verification (MMCV). The tool can be used to check the validity of a mariners professional credentials and the qualifications they possess. The NMC cannot publish whether a mariner has any outstanding issues or is in "good standing" status. The credentials are either valid or not. No further action will be taken on this recommendation.

Recommendation 5: Recommend the Commandant of the Coast Guard promulgate Coast Guard regulations creating a comprehensive towing vessel oversight system to include inspection of towing vessels, with direct Coast Guard oversight.

Action: I concur with the intent of this recommendation. A regulatory project that will implement a towing vessel inspection regime has been developed and is in the final phases of implementation. No additional action is directed.

Recommendation 6: Recommend the Commandant of the Coast Guard seek regulatory change to require written logs for all towing vessel which include an entry of the Captain's name at the beginning of each wheelhouse watch.

Action: I concur with the intent of this recommendation. This matter is being addressed in the forthcoming towing vessel inspection rulemaking in regards to a requirement to include service requirement hours in the official logbook. No further action will be taken on this recommendation.

Recommendation 7: Recommend the Commandant of the Coast Guard seek regulatory change to include penalties for violations of the testing, inspection and reporting requirements of 33 CFR 164 et al.

Action: I do not concur with this recommendation. 33 USC 1232 – Enforcement Provisions, already has several enforcement options for the violation of 33 CFR 164 to include civil penalties. No further action will be taken on this recommendation.

Recommendation 8: Recommend the Commandant of the Coast Guard seek regulatory change to 18 USC 2197 to include operation of a vessel without a license, operating beyond the scope of the issued license and those employing such individuals.

Action: I concur with the intent of this recommendation. While operation of a towing vessel without a license already has civil penalty provisions in 46 USC 8906, there is no provision for imprisonment. I direct CG-INV to coordinate with CG-094 to evaluate the possibility of a change to the law.

Recommendation 9: Recommend the Commandant of the Coast Guard re-evaluate the current drug testing policies and seek regulatory change to require drug testing beyond the current 5-panel test.

Action: I concur with the intent of this recommendation. Currently Public law passed in 1987 restricts testing to drugs listed in Schedules I and II of the Controlled Substances Act. Commandant (INV) will engage with DHHS and DOT to propose changing the current Public Law to include the testing for more drug schedules.

Recommendation 10: Recommend the Towing Vessel Advisory Committee evaluate towing vessel charter agreements, specifically as to the level of responsibility therein, and make regulatory recommendations and changes as necessary.

Action: I concur with the intent of this recommendation. Charter agreements are not a concern of the Towing Vessel Advisory Committee as their focus is specific to matters relating to shallow-draft inland and coastal waterway navigation and towing safety. This report will be provided to American Waterway Operators (AWO) who may take this recommendation under consideration.

Recommendation 11: Recommend the AWO initiate actions to actively report audit failures of all industry members listed as Responsible Carriers; to specifically include items related to vessel safety.

Action: I concur with this recommendation. Since this investigation, AWO has already begun to identify status of member companies and this information is available on their internet website. We will provide a copy of this report to AWO for their evaluation.

Recommendation 12: Recommend the NOBRA Pilots Association, along with all other Mississippi River Pilot Associations, conduct refresher training regarding appropriate Captain-to-Pilot turn over procedures and the importance of completing the associated paperwork related thereto.

Action: I concur with this recommendation. A copy of this report will be provided to the NOBRA Pilots association for their evaluation.

Recommendation 13: Recommend a copy of this report be provided to the TINTOMARA flag state of Liberia through its representative Captain [redacted]

Action: I concur with this recommendation. A copy of this report will be provided.

Recommendation 14: Recommend a copy of this report be provided to the IMO.

Action: I concur with this recommendation. A copy of this report will be provided.

Recommendation 15: Recommend a copy of this report be provided to the NTSB.

Action: I concur with this recommendation. A copy of this report will be provided.

16732
DEC 1 4 2012

Recommendation 16: Recommend a copy of this report be provided to the six parties-in-interest through the appropriate process: TV TINTOMARA, American Commercial Lines, DRD Towing, [redacted] Terry Carver, and [redacted]

Action: I concur with this recommendation. A copy of this report will be provided.

[redacted]
P. F. Thomas, CAPT [redacted]
Director of Inspections & Compliance

U.S. Department of Homeland Security

United States Coast Guard

Commander
Eighth Coast Guard District

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16732
10 Feb 2010

Report of Investigation into the Circumstances Surrounding the Collision Between the T/V TINTOMARA (IMO # 9234599) and the T/B DM932 (VIN # 546058) on 23 July 2008 at or near MM 99 of the Lower Mississippi River

ENDORSEMENT ACTION BY THE DISTRICT COMMANDER

The record and the report of the investigation convened to investigate the subject casualty have been reviewed. My endorsement actions regarding the recommendations included therein are as follows:

1. Recommend the Commandant of the Coast Guard issue a safety alert regarding possible hazards associated with storing loose items in void spaces where open steering linkage systems are present.

   District Endorsement: Concur. Although the electrical box was never sighted under the steering yolk, clearly the investigation showed it was possible, even if unlikely, for the event to happen.

2. Recommend the Commandant of the Coast Guard seek regulatory change to require the installation of a safety cage or other shielding device designed to protect open steering linkage systems from possible jamming due to loose debris.

   District Endorsement: Do not concur. Although the electrical box was shown to have possibly jammed the steering system, the box was never sighted under the steering yolk. Moreover, good housekeeping along with the testing requirements of 33 CFR§164.80 would have mitigated any risk of a steering system jam.

3. Recommend the Commandant of the Coast Guard seek regulatory change to require all crew members of commercial vessels to be licensed or documented.

   District Endorsement: Concur with the thrust of the recommendation, which is to hold unlicensed/undocumented individuals accountable for acts of misconduct, negligence, or incompetence. However, I think it unlikely we would license or document all workers. Perhaps there is a middle ground; such as including a "not currently eligible" category to the database recommended in #4 below, specifically for those with failed drug screens prior to issuance of a credential.

4. Recommend the National Maritime Center create a national "good standing" database for employers to check validity of mariner credentials.

   District Endorsement: Concur. Industry is eager for a means to verify mariner credentials.

5. Recommend the Commandant of the Coast Guard promulgate Coast Guard regulations creating a comprehensive towing vessel oversight system, to include inspection of towing vessels, with direct Coast Guard oversight.

   District Endorsement: Concur.

6. Recommend the Commandant of the Coast Guard seek regulatory change to require written logs for all towing vessels, which include an entry of the Captain's name at the beginning of each wheelhouse watch.

   District Endorsement: Concur.

7. Recommend the Commandant of the Coast Guard seek regulatory change to include penalties for violations of the testing, inspection and reporting requirements of 33 CFR §164 et el.

   District Endorsement: Concur.

8. Recommend the Commandant of the Coast Guard seek regulatory change to 18 USC §2197 include operation of a vessel without a license, operating beyond the scope of the issued license, and those employing such individuals.

   District Endorsement: Concur.

9. Recommend the Commandant of the Coast Guard re-evaluate the current drug testing policies and seek regulatory change to require drug testing beyond the current 5-panel test.

   District Endorsement: Concur.

10. Recommend the Towing Vessel Advisory Committee evaluate towing vessel charter agreements, specifically as to the level of responsibility therein, and make regulatory recommendations and changes as necessary.

    District Endorsement: Concur.

11. Recommend the AWO initiate actions to actively report audit failures of all industry members listed as Responsible Carriers; to specifieally include items related to vessel safety.

District Endorsement: Concur.

12. Recommend the NOBRA Pilots Association, along with all other Mississippi River Pilot Associations, conduct refresher training regarding appropriate Captain-to-Pilot turn over procedures and the importance of completing the associated paperwork related thereto.

District Endorsement: Concur.

13. Recommend a copy of this report be provided to the TINTOMARA flag-state of Liberia through its representative Captain [redacted]

District Endorsement: Concur.

14. Recommend a copy of this report be provided to the IMO.

District Endorsement: Concur.

15. Recommend a copy of this report be provided to the NTSB.

District Endorsement: Concur.

16. Recommend a copy of this report be provided to the six parties-in-interest through the appropriate process: TV TINTOMARA, American Commercial Lines, DRD Towing, [redacted] Terry Carver, and [redacted]

District Endorsement: Concur.

I have no additional recommendations than those addressed above.

[redacted]
M. E. Landry
Commander, Eighth Coast Guard District

UNITED STATES COAST GUARD

REPORT OF INVESTIGATION INTO THE CIRCUMSTANCES SURROUNDING THE THE COLLISION BETWEEN THE T/V TINTOMARA AND THE BARGE DM932

ON 07/23/2008

MISLE ACTIVITY NUMBER: 3227543
ORIGINATING UNIT: SECTOR NEW ORLEANS

Table of Contents

List of Figures, Pictures and Tables..... 4

List of Acronyms Used..... 5

List of Specialized Terms / Definitions..... 6-7

UTV Personnel Licensing & Watchstanding Requirements..... 8

Notes of Special Interest..... 9-10

I. Incident Brief..... 11

II. U. S. Coast Guard Formal Hearing..... 12-13

III. Findings of Fact

1. Environmental and Navigational Conditions..... 14-16
2. TV TINTOMARA..... 17-18
3. TB DM932..... 19
4. UTV MEL OLIVER..... 20-22
5. Pre-Casualty Conditions, Actions, and Events
   - A. DRD Operations..... 23
   - B. Vessel Manning..... 23-27
   - C. [redacted] Hours of Operation..... 27
   - D. Actions and Events Pre-Collision..... 27-31
6. Collision
   - A. Event Timeline..... 32-37
   - B. Actions of Pilot [redacted]..... 37-38
   - C. Actions of Steersman [redacted]..... 38-40
7. Post-Casualty Actions and Events
   - A. Casualty Notifications..... 41
   - B. On-Scene Response Timeline..... 41-42
   - C. Drug and Alcohol Testing Information..... 42-43
   - D. Operational Hours and Fatigue..... 43-46
   - E. Mechanical, Electrical and/or Equipment Failures..... 46-54
   - F. Post-Casualty Damage Surveys..... 55-56
   - G. Environmental Damage..... 57
   - H. Actions of DRD Towing Post-Casualty..... 57-59
   - I. Actions of ACL Post-Casualty..... 59-60
8. Non-Causal Actions, Events, and Conditions
   - A. AWO Certification / Responsible Carrier Program..... 61-68

B. Coast Guard Regulatory Oversight of Towing Vessels..... 68-69

IV. Causal Analysis

1. Marine Casualty Causal Analysis..... 70-73
2. Human Error Causal Analysis..... 73

V. Conclusions..... 74-78

VI. Enforcements..... 79-82

VII. Recommendations..... 83-84

Appendix:
Exhibit Listing..... 85-90
Writ of Error Coram Norbis..... 91-94

List of Figures, Pictures, and Tables

List of Figures

Figure 1: Aerial map of MM 99 LMR.....page 14
Figure 2: Sketch of MEL OLIVER / DM 932 Configuration.....page 21
Figure 3: IO Exhibit165.....page 48
Figure 4: IO Exhibit 130.....page 57
Figure 5: IO Exhibit 143.....page 58
Figure 6: Excerpt from ACL subpoena dated 19 August 2008.....page 59
Figure 7: IO Exhibit 100 (in part).....page 62
Figure 8: IO Exhibit 102 (in part).....page 63
Figure 9: IO Exhibit 103 (in part).....page 63
Figure 10: IO Exhibit 104 (in part).....page 63
Figure 11: IO Exhibit 104 (in part).....page 64
Figure 12: IO Exhibit 205 (in part).....page 65
Figure 13: IO Exhibit 108 (in part).....page 66
Figure 14: IO Exhibit 114 (in part).....page 66
Figure 15: ACL Corporate Profile (posted on the internet).....page 71

List of Pictures

Photo 1: IO Exhibit #139-3.....page 47
Photo 2: IO Exhibit #139-8.....page 47
Photo 3: IO Exhibit #139-9.....page 47
Photo 4: IO Exhibit #139-3B.....page 48
Photo 5: IO Exhibit #156.....page 49
Photo 6: IO Exhibit #139-5.....page 49
Photo 7: ACL Exhibit R.....page 49
Photo 8: IO Exhibit #164.....page 50
Photo 9: IO Exhibit #160.....page 50
Photo 10: IO Exhibit #162.....page 51
Photo 11: Port Side – TV TINTOMARA (post casualty).....page 55
Photo 12: Starboard Side – TV TINTOMARA (post casualty).....page 55
Photo 13: Bulbous Bow TINTOMARA (side view) (post casualty).....page 55
Photo 14: Bulbous Bow TINTOMARA (front view) (post casualty).....page 55
Photo 15: Port side MEL OLIVER 2d deck railing (post casualty).....page 56
Photo 16: Bow rake, forward half of salvaged barge DM932;
- approximately 70' in length (post casualty).....page 56
Photo 17: Port Side DM932 at location of impact (post casualty).....page 56

List of Tables

Table 1: Vessel particulars – TINTOMARA.....page 17
Table 2: Vessel particulars –DM932.....page 19
Table 3: Vessel particulars – MEL OLIVER.....page 20
Table 4: [redacted] evasive actions.....page 38
Table 5: [redacted] Hours 15 Jul 08 – 23 Jul 08.....page 45

List of Acronyms Used

2/E	Second Engineer
2/O	Second Officer
AB	Able Bodied Seaman
ACL	American Commercial Lines
AHP	Above Head of Passes (MM 0 and above on the LMR)
AIS	Automatic Identification System
AWO	American Waterways Operators
CBD	Central Business District
CBP	Customs and Border Protection
C/E	Chief Engineer
COC	Certificate of Compliance
COD	Certificate of Documentation
COTP	USCG Captain of the Port
DH	Deck Hand
DRD	DRD Towing Company
GMT	Greenwich Mean Time
GT	Gross Tons
ISPS	International Ship and Port Facility Security Code
Kts	Knots
LMR	Lower Mississippi River
LUC	Latent Unsafe Condition
MM	Mile Marker
MSB	Marine Safety Bulletin
MSD	Marine Sanitation Device
MV	Motor Vessel
NOBRA	New Orleans and Baton Rouge Pilots Association
NTSB	National Transportation Safety Board
OCMI	USCG Officer-in-Charge Marine Inspection
OS	Ordinary Seaman
RCP	Responsible Carrier Program
SOG	Speed Over Ground
TB	Tank Barge
TV	Tank Vessel
USACOE	U.S. Army Corps of Engineers
UTV	Uninspected Towing Vessel
USCG	United States Coast Guard
VDR	Voyage Data Recorder
VTC	Vessel Traffic Center
VTS	Vessel Traffic Service

List of Specialized Terms / Definitions

"back down" or "back on it" – means to pull the engine throttle from a forward position to a reverse position in order to reverse the engines.

"**East Bank" or "West Bank**" – references respectively the East or West Bank of the Mississippi River as it flows from north to south; not the immediate direction of a particular bend in the river or its location respective to the geographical east or west.

Greenwich Mean Time (GMT) - The mean (average) solar time as measured from the meridian of Greenwich. The navigational time reference point.

Knot - Unit of speed equivalent to 1 nautical mile (6,076 feet) per hour.
Conversion: 1 knot = 1 nautical mile per hour = 1.151 statute miles per hour

Nautical Mile - Length of 1 minute of arc of the great circle of the earth; 6,076 feet compared to 5,280 feet of a statute mile.

"tater box" – is an old nautical term referencing the box located on the stern of a sea-going vessel which was used to store the ship's potatoes (or taters for short). Present day use of the phrase "looking at the tater box" means one is directly behind another vessel and looking directly at the rear of that vessel.

"**Northbound**" or **"Up-Bound"** – two terms used to indicate the directional indicator that a vessel is traveling up the Mississippi River toward its source.

"Red-flag barge" – a term used to describe a barge containing a bulk or hazardous cargo. The term comes from the display of a red flag, usually metallic, used to notify others of the hazardous nature of the cargo being transferred or carried.

"Rules of the Road" – means the Navigational Rules as detailed in the U.S. Coast Guard Commandant Instruction COMDTINST M16672.2D. This regulation sets forth navigational rules for all vessels operating on international or inland waters as prescribed in International Regulations for Prevention of Collisions at Sea (COLREGS) and U.S. Inland Navigation Rules.

"**Southbound**" or **"Down-Bound"** – two terms used to indicate the directional indicator that a vessel is traveling down the Mississippi River to its head.

"Trip Boat" – term used to describe a dedicated boat – that is, the vessel works a specific run or dedicated "trip". These types of vessels are live-on boats, meaning the vessel is equipped with living quarters and crew remains on the boat from the beginning of their shift until crew-change, usually 7-14 days later. Being that the vessel is manned 24-7, the vessel and crew are available for full operation 24-hours a day, 7 days a week, even when not working their dedicated trip or during lay-over time in-between trips. Due to 12-hour work restrictions of 46 CFR §15705(d) (see Watchstanding, next page), 24-hour boats require two (2) licensed masters onboard. (Note: The MEL OLIVER and its predecessor the PAM D were both operated as trip boats.)

"Writ of Error Coram Nobis" - a Latin term used in the practice of law meaning "In our presence; before us." The term "coram nobis" meaning "our court." It is a legal procedural tool whose purpose is to correct errors of fact only, and its function is to bring before the court rendering the judgment matters of fact, which, if known at the time the judgment was rendered, would have prevented or altered its rendering. Given that evidence was presented after the hearing record was closed, this writ was necessary to include this evidence.

UTV Personnel Licensing & Watchstanding Requirements

Licensing

46 USC §8904(a): "A towing vessel that is at least 26 feet in length measured from end to end over the deck (excluding sheer), shall be operated by an individual licensed by the Secretary to operate that type of vessel in the particular geographic area, under prescribed regulations."

46 CFR §15.401: "A person may not employ or engage an individual, and an individual may not serve, in a position in which the individual is required by law or regulation to hold a license, certificate of registry, or merchant mariner's document, unless the individual holds a valid license, certificate of registry, or merchant mariner's document, as appropriate, authorizing service in the capacity in which the individual is engaged or employed and the individual serves within any restrictions placed on the license, certificate of registry, or merchant mariner's document."

Apprentice Mate (Steersman) of a towing vessel means a mariner qualified to perform watchkeeping on the bridge, aboard a towing vessel, while in training under the direct supervision of a licensed master or mate (pilot) of towing vessels. (46 CFR §10.104).

Watchstanding

Towing vessels operating more than 12 hours in any 24-hour period require a second officer holding a license of master or mate of towing vessels. Watches may be divided, regardless of the length of the voyage, but no licensed operator shall work more than 12 hours in a 24-hour period, except in an emergency. (46 CFR §15.705(d) & 46 USC §8104(h) & §8904(c)).

Applicable United States Code Sections:

46 USC §8906: "An owner, charterer, managing operator, agent, master, or individual in charge of a vessel operated in violation of this chapter or a regulation prescribed under this chapter is liable to the United States Government for a civil penalty of not more than $25,000. The vessel also is liable in rem for the penalty." "This chapter" refers to 46 USC Chapter 89 – Small Vessel Manning. (see also, 46 USC §2106 regarding Liability in rem and 46 USC §2107 regarding civil penalty procedures).

33 USC §1221: Ports and Waterways Safety Act (PWSA), as codified in 33 CFR Part 160: "***Hazardous Condition*** means any condition that may adversely affect the safety of any vessel, bridge, structure, or shore area or the environmental quality of any port, harbor, or navigable waterway of the United States. It may, but need not, involve collision, allision, fire, explosion, grounding, leaking, damage, injury or illness of a person aboard, or manning-shortage." (33 CFR §160.204).

33 USC 1232(b) provides for a class D felony for a willful and knowing violation of the PWSA or any regulation promulgated there under; including 33 CFR §164.11, which mandates that the owner, master, or person in charge of each vessel underway shall ensure that the wheelhouse is constantly manned by persons who can direct and control the movement of the vessel and properly fix the vessel's position; that each person performing such duty is competent to perform that duty; and, shall insure the competent person is in the wheelhouse at all times.

33 USC 1321(b)(3): Clean Water Act for discharge of oil into or upon the navigable waters of the U.S. 33 USC 1319(c)(1) is a misdemeanor for negligent violations. 33 USC 1319(c)(2) is a felony for knowing violations.

Notes of Special Interest

1. The VDR is an electronic data recording system used to collect data from various locations onboard the vessel. The storage unit is a tamper-proof unit designed to withstand extreme heat, impact, pressure, and/or shock associated with marine casualties.

2. All references to VDR contained within this report refer specifically to data downloaded from the MV TINTOMARA following the 23 July 2008 collision.

3. VDR time is on GMT, therefore VDR = GMT. On 23 July 2008 due to daylight savings time, GMT was 5 hours ahead of local time, therefore local time = GMT – 5 hours. As verified during the hearing, the VTS time stamp reads 17 seconds faster than the VDR, therefore local VTS time equals GMT minus 4 hrs 59 mins 43 secs (VTS = GMT - 4:59:43).

4. VDR recordings are regularly used by the maritime industry, the NTSB, and the Coast Guard during marine casualty investigations and are deemed reliable.

5. The VDR playback is included in its entirety as IO Exhibit 218 but cannot be uploaded to the MISLE network; the voice recordings heard on the bridge were fully transcribed and attached as IO Exhibit 6. A copy of the VDR playback software was attached to the VDR data and was made available to the Coast Guard for use during this investigation; however, due to the proprietary nature of the software it cannot be further copied or distributed.

6. When the testimony of a witness is referenced in this report, the citation to the transcript will begin with the initials of the witness, followed by the page and line number where the testimony can be located. For example: A statement made by the Steersman [redacted] will be cited as '[redacted] pg XX" or '[redacted] pg XX, line XX". If the witness testified on more than one day, there will be a "#" after the initials and a number indicating which day of testimony. For example, [redacted] testified on three separate days, therefore reference to his second day of testimony will be cited as: '[redacted]2 pg XX, line XX".

7. A listing of the witness transcript abbreviations are as follows:

=	= (Port Captain)
=	=
=	=
=	=
=	=
= Dr.	=
=	=
=	= from ACL
=	USCG) = from USCG
=	=
= CWO	=
=	=
=	=
=	TC = Terry Carver
=	

8. Transcribed testimony contained herein was taken directly from the electronic transcript in its original font. The varying letter pitch and style have no other meaning.

9. Throughout this report certain time references will be followed by the time remaining pre-collision. The following examples show the time as 1:28:52 with 1 minute 45 seconds pre-collision: 01:28:52 (1m 45sec pc) or 01:28:52 (00:01:45 pc).

10. The Writ of Error Coram Nobis attached hereto was used to notify all parties involved in the formal hearing that additional information had been received, entered into evidence, and was being considered by the investigating officer. This process was necessary because the formal hearing had been adjourned and the record closed. In order to amend the hearing record and allow for additional evidence to be entered, the hearing record had to be reopened and subsequently closed again. The closing of the "hearing record" does not mean a closing of the investigation; it merely refers to the record of the formal hearing.

I. Incident Brief

1. On 23 July 2008 at 01:30:37, the tanker TINTOMARA collided with the tanker barge DM932 at or near Mile Marker (MM) 99 of the Lower Mississippi River (LMR). The DM932 was being pushed by the towing vessel MEL OLIVER. When the MEL OLIVER made an unannounced crossing from the East Bank to the West Bank of the river, the TINTOMARA struck the DM932 about 70' forward of the MEL OLIVER, splitting the tank barge and releasing approximately 282,828 gallons of No.6 Fuel Oil into the Mississippi River.

2. Prior to the collision, there had been no erratic movements or behaviors from either vessel. Each vessel was in its respective channel or travel lane. Then approximately 3 minutes, 4 seconds prior to the collision, the MEL OLIVER began to make a slow 90° turn to port and proceeded to cross the river in front of the down-bound TINTOMARA.

3. At the moment the collision, the face wires separated and the DM932 broke free from the MEL OLIVER. The DM932 wrapped around the bow of the TINTOMARA and was carried some distance down river as the TINTOMARA attempted to stop. The MEL OLIVER remained afloat.

4. Other than paint scrapings and oil residue, the TINTOMARA suffered no physical damage. The MEL OLIVER sustained minimal damage, mainly to surface areas (such as lighting and railings), resulting from the back-lash of the face wires. The DM932 was severed nearly in half roughly 70' behind the bow rake[1].

5. When the DM932 broke free from the TINTOMARA, it was rounded up and sustained by assist tugs. The TINTOMARA turned around in the river and came to anchor facing up-bound near the vicinity of the collision. The MEL OLIVER pushed in to a pier on the West Bank near the vicinity of the collision.

6. No injuries were reported onboard the TINTOMARA. One crewmember of the MEL OLIVER was later taken to the hospital with shoulder injuries.

7. A massive pollution recovery effort was launched. The barge (DM932) was carrying 9,983 barrels (419,286 gallons) of No.6 Fuel Oil at the time of the collision. A total of 3,249 barrels (136,458 gallons) of oil were lightered from the sunken barge and placed in a storage tank. Therefore, the total estimated amount of product discharged during the incident is 6,734 barrels (282,828 gallons).

   More in-depth details of the recovery efforts are not pertinent to the findings of this formal investigation (with the exception of the physical state of the DM932); consequently those efforts will not be detailed herein.

[1] The DM932 was made up bow end to the MEL OLIVER. See page 21 for sketch of configuration.

II. U. S. Coast Guard Formal Hearing

1. At the direction of the Commander Eighth Coast Guard District, a formal investigation was ordered to investigate the cause of the collision. On 12 August 2008, the formal hearing was convened. The hearing consisted of five (5) separate sessions: 12 – 14 August 2008, 9 October – 5 November 2008, 18 December 2008, 9 -10 February 2009 and 11 March 2009. After excluding weekends, Columbus Day, and several administrative days the hearing was not in session, the total number of days of witness testimony was 22. This report is a result of that hearing.

2. A total of six (6) Parties in Interest were designated. They are listed below with respective counsel, if any:

   - Captain [redacted], Pilot aboard the TINTOMARA
     - *Counsel:* [redacted]
   - Captain Terry Carver, Captain assigned to the MEL OLIVER
     - *Counsel:* [redacted] and [redacted][2]
   - Steersman [redacted], Steersman operating the MEL OLIVER
     - *Counsel:* None
   - DRD Towing, Operators of the MEL OLIVER
     - *Counsel:* [redacted] (Waits, Emmett & Popp, LLC)
   - American Commercial Lines, Owners of the tank barge DM932 & Owners of the towing vessel MEL OLIVER
     - *Counsel:* [redacted] and [redacted] (Jones Walker, LLP)
   - Tank Vessel TINTOMARA and her owners
     - *Counsel:* [redacted] and [redacted] (Phelps Dunbar, LLP)

3. Representatives from both the NTSB and the Flag State of Liberia (TINTOMARA) participated during portions of the hearing. Both participated during session one, Days 1-3; the Flag State also participated during session two, Days 4-13 and Days 16-17; neither participated during sessions three or four nor during the depositions.

4. On or about 22 June 2009, after the hearing record was closed, a letter was received by ACL. Attached thereto were 65 pages of documents not previously produced (the remaining pages were duplicates of IO Exhibit 69). After review, it was necessary to reopen the hearing record for insertion of the documents. A Writ of Error Coram Norbis ("Notice of error in the case before us") was issued to accomplish this task. The complete Writ is attached as item #6 in the appendix.

5. Media / Public Interest:
   Interest from both the media (local and national) and the general public was extremely high. At the beginning of the hearing, the media was allowed to pool resources for video and photographic coverage. Coverage did occur during the first day of the hearing. However, due to violations of the rules of coverage issued by the IO under CG policy, the media was not allowed electronic coverage on subsequent days. The media appealed this denial to the Eighth Coast Guard District Commander, RADM Whitehead, who upheld the denial but with concessions. All sessions of the hearing (not including the depositions)

[2] Mr. Carver's counsel assisted him through sessions one and two; Mr. Carver severed ties with his counsel in mid-December 2008 and elected to represent himself.

were recorded, using both video and still photography, by the Eighth Coast Guard District External Affairs Office with daily release to the media. This decision was not further appealed.

All sessions of the hearing were widely attended by media, persons from the local marine industry, agents of foreign-flagged operators, and members of the general public.

III. Findings of Fact

1. Environmental and Navigational Conditions

A. At the time of the collision, the following environmental conditions were observed:

- Temperature: 81°F
- Wind: SE 5-10 kts
- Water Temperature: 84°F
- River Stage: apx 10.5 ft (Carrollton Gage) * **10.62 at 0800 22 Jul & 10.45 at 0800 23 Jul 08**
- Flood Stage is 17'.
- Current: 4 kts

B. Lower Mississippi River

(1) Regulated Navigation Area (RNA)

(a) The LMR below MM 233.9 AHP is a regulated navigation area (RNA) (See 33 CFR §165.810). More particularly, vessels operating in the vicinity of Algiers Point are more strictly regulated when the river stage reaches 8 feet on the Carrollton Gage on a rising stage, and until the gage reads 9 feet on a falling stage. (33 CFR §165.810(c)).

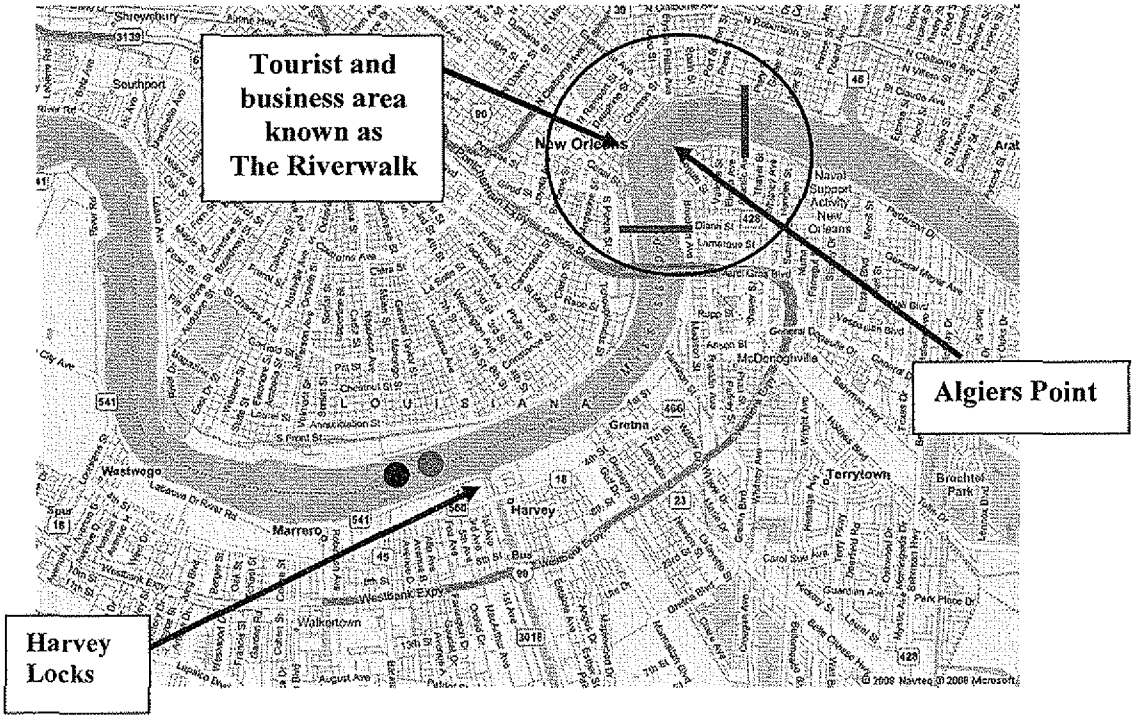

Figure 1: Aerial map of MM 99 LMR

- The **black dot** indicates the approximate location of MM99.
- The **red dot** indicates the approximate location of the collision.
- The two **purple lines** crossing the river on either side of Algiers Point indicate the beginning and ending points of the special restrictions area within the RNA.

(b) A RNA is a water area within a defined boundary for which operating conditions have been established for any vessels operating within the area. The LMR RNA includes operating conditions for Algiers Point and its vicinity. While the collision occurred upriver or north of Algiers Point, as seen in Figure 1, the close proximity to the Point would put special emphasis on the approach from mile 99 of the LMR by any downbound vessel.

C. Communications on the Mississippi River

(1) Radio Communications with Vessel Traffic Center (VTC)

(a) Radio Communication procedures contained in the VTC Standard Operating Procedures (Exhibit 97) required the following vessel contact with the VTC:

- For the TINTOMARA: To check-in first at the Cargill grain elevator (MM 103.1 LMR), then at the Marlex Terminal (MM 99 LMR).
- For the MEL OLIVER: To contact the VTC when getting underway.

(b) Check-ins for both vessels were completed on time and in accordance with the VTC guidelines. (see generally, IO Exhibits 1, 2, 3, 6 & 218).

(c) It is noted that the local VTC acts in an advisory capacity only. Normally a VTC has certain authorities granted under 33 CFR §162, but that is not the case in New Orleans. The regulations for such granting of authority are not yet in effect.

(2) Bridge-to-Bridge communications

(a) Channel 67 is used for bridge-to-bridge communications on the Lower Mississippi River. The Vessel Traffic Service (VTS) in New Orleans records this channel. The VTS duty watchstanders were monitoring and utilizing Channel 67 prior to the collision; call outs from the VTS and replies from various vessels on the LMR are clearly audible and indicate the proper use and function of the system (IO Exhibits 1-5). Channel 67 was in working order and being used by the VTS, TINTOMARA, and MEL OLIVER prior to and during the collision. (IO Exhibits 1-5 and 98).

(b) The TINTOMARA was monitoring and utilizing Channel 67 prior to the collision. The over-air radio calls regarding vessel location, passing-arrangements, warning hails, requests for assistance, etc., can be heard on the VTS recordings up to and following the collision. (IO Exhibits 1-5).

(c) The MEL OLIVER was monitoring and utilizing Channel 67 following its departure from Stone Oil dock and during the beginning of its transit. Steersman [redacted] can be heard at 00:35:36 requesting clearance for the MEL OLIVER to depart from Stone Oil dock. The VTS can be heard acknowledging the MEL OLIVER and advising of a down-bound vessel, the MV PIGEON POINT with NOBRA [redacted] onboard. The MEL OLIVER can then be heard between 00:35:36 - 00:40:22 making passing arrangements with the MV PIGEON POINT prior to crossing over to the East Bank of the river and beginning its northbound transit. (IO Exhibits 1 and 2).

(d) No further radio communications were heard from the MEL OLIVER until roughly 19 minutes following the collision when the UTV JUDY ANN called MEL OLIVER at 01:49:46. JUDY ANN: "Hey, you need to call New Orleans Traffic on 16 and let them know you're on this channel so they could talk to you." MEL OLIVER replied "All right." (IO Exhibit 4, page 16).

(e) According to testimony from various pilots and captains over the course of this investigation it is noted that, contrary to the "Rules of the Road," it has become customary practice for vessels operating in LMR to forgo passing arrangements under certain circumstances. Accordingly, during the reading of the timeline, some vessels will obviously pass one another without audible passing arrangements. Pilot [redacted] of the TINTOMARA detailed the custom as follows:

(f) When asked when would passing arrangements be made, he answered "If it's called for." Question: "And when is it called for?" [redacted] answered, "If you're in doubt of the vessel's position, what their intentions are, you call and make an agreement." Question: "And if you're not in doubt, you don't have to do it?" [redacted] "You continue on your course, stay in your lane." Question: "Where did you learn that rule?" [redacted] replies, "Working out on the river. If you were to call every tow, every boat that worked out on the river, no one would ever get a word in on the radio because of the amount of traffic, small tows, light boats, things working in the fleet. It's impossible to talk to or it just doesn't make any sense to talk to every boat that is on the river. If someone ahead of me is having a problem and there's a situation occurring, they can't get in because you're talking to them and blasting them off the radio waves. They can't get a word in. So when it becomes apparently obvious or you're coming down on a bend where you can't see around the corner and you hear somebody coming up, then you go ahead and you make that agreement, depending on where you're at and what your situation is." ([redacted] pgs 135-136).

2. TINTOMARA

A. Vessel Particulars

(1) The TINTOMARA is a Liberian flagged oil/chemical tank ship. It is equipped with one propeller, right-handed, CPP, four blades, Diameter 19' 08.2" (Ni-Al-Bronze). The TINTOMARA reported no operational deficiencies on the day of the incident. The last ISPS III and COC exams were conducted on 11 April 2008 by Sector New Orleans with no deficiencies noted. The TINTOMARA was in compliance with all regulatory certificates on 23 July 2008. (IO Exhibits 8 & 66). Additionally the vessel was in-class and seaworthy at the time of the collision. (IO Exhibit 26). See the below table for vessel particulars.

Primary VIN	9234599
Call Number	A8AR7
IMO Number	9234599
Flag	Liberia
Service	Oil & Chemical Tank Ship
Gross Tons	26,914
Deadweight Tons	46,764
Class	Det Norske Veritas (DNV)
Length	600' 06"
Breadth	105' 06"
Depth	56' 05"
Propulsion	Diesel Reduction
Ahead Horsepower	10,298
Astern Horsepower	9,500
Date Keel Laid	08 Dec 2001
Date Delivered	20 Feb 2003
Hailing Port	Monrovia, Liberia
AIS Equipped	Yes
Owner	Whitefin Shipping Co., LTD
Operator	Laurin Maritime (America), Inc
Co-Operator	Anglo Atlantic Steamship Company
Master	[redacted]
Pilot	[redacted] NOBRA #[redacted]

Table 1: Vessel particulars - TINTOMARA

B. Personnel Information

(1) The TINTOMARA had a total of 26 crewmembers onboard during the incident; 5 Swedish, 1 Ukrainian, and 20 Filipino (IO Exhibit 28). The licenses and certificates of the TINTOMARA's on-watch crew were valid and appropriate for the positions held, and all required training was current. (IO Exhibits 50, 51, 52, 53, 54 & 55).

(2) The Master of the TINTOMARA was Captain [redacted] Captain [redacted] is of Swedish nationality and holds a current Master's License issued on 6 April 2004. Captain [redacted] has no past history with the Coast Guard.

(3) The Master had a reasonable command of the English language and was able to easily converse with the pilot. The bridge team, including the helmsman, could speak English. Considering the pilot's commands were timely executed and repeated back in English by the helmsman, it is apparent that the commands given were understood. (IO Exhibits 6, 44, 46 and 218). The bridge team can be clearly heard on the VDR recording (IO Exhibit 218) speaking English and exchanging information with the Pilot; therefore, the TINTOMARA crew appears to be in compliance with the language requirements of 46 CFR §15.730.

(4) At the time of the incident four persons were on watch on the bridge: the pilot, [redacted] the master, [redacted] the second officer, [redacted] and the helmsman, OS [redacted] Additionally, one person was on the forecastle deck standing lookout and anchor watch, AB [redacted] ([redacted] pg 33, lines 10-19 and pg 108, line 15 – pg 112, line 16).

C. Pilot Information and Pilotage Requirements

(1) Louisiana State Law mandates that all foreign-flagged seagoing vessels shall utilize a New Orleans and Baton Rouge Steamship Pilot (NOBRA) while transiting between the port of New Orleans and the port of Baton Rouge (Louisiana State Law RS 34:1043).

(2) The pilot for the TINTOMARA was [redacted] (NOBRA Pilot [redacted]). Pilot [redacted] holds Merchant Marine Officer License # [redacted] It authorizes him to serve as, among other things, Master of Steam or Motor Vessels of not more than 100 Gross Registered Tons (Domestic) Upon Inland Waters and also as a First Class Pilot of Any Gross Tons Upon the Lower Mississippi River Between Mile 88.0 AHP and Mile 234.0 AHP. Pilot [redacted] also holds a State Pilot's License and is a member of the NOBRA Pilots' Association. [redacted] NOBRA # [redacted] is a practiced pilot with over four (4) years commissioned experience handling vessels the size of the TINTOMARA along the LMR. ([redacted] pg 31, beginning line 14).

3. DM932

A. Vessel Particulars

(1) The DM932 was a single-skin, bulk liquid cargo barge. Its last Certificate of Inspection examination was completed 18 October 2007 by Marine Safety Unit Pittsburgh with no deficiencies noted. The last drydock, cargo tank internal, and internal structure exams were completed 18 October 2007 by Marine Safety Unit Pittsburgh with no deficiencies noted. The DM932 was in compliance with all regulatory certificates on 23 July 2008 (IO Exhibit 67). See the below table for vessel particulars.

Primary VIN	546058
Flag	US
Service	Bulk Liquid Cargo
Gross Tons	798
Length	195 feet
Hull type	Single Skin/Steel
Hailing Port	New Orleans, Louisiana (USA)
Date Delivered	01 January 1973
Owner	American Commercial Lines
Operator	American Commercial Lines
Cargo Capacity	10,550 barrels

Table 2: Vessel particulars –DM932

4. MEL OLIVER

A. Vessel Particulars

(1) The MEL OLIVER's Coast Guard Certificate of Documentation was issued on 30 June 2008. The MEL OLIVER was in compliance with all regulatory certificates on 23 July 2008 (IO Exhibit 65). See the below table for vessel particulars.

Primary VIN	614387
Call Number	WDC6510
Flag	US
Service	Towing Vessel
Gross Tons	162
Length	61.2 feet
Propulsion	Diesel Reduction
Ahead Horsepower	1,200
Hailing Port	New Orleans, Louisiana (USA)
AID Equipped	Yes
Owner	American Commercial Lines
Operator	DRD Towing
Master	Terry Carver-Captain
Steersman	[redacted] Steersman

Table 3: Vessel particulars – MEL OLIVER

(2) The MEL OLIVER was pushing one red-flag barge, the DM932, with the barge made up to the bow rake end (see sketch). The expected course was up-bound along the East Bank; however, at the time of collision, the tug and tow were traveling across the LMR (East Bank to West Bank). This particular tug and tow configuration placed the starboard side of the MEL OLIVER and the port side of the DM932 on the side of the collision impact. This configuration explains why the port side of the DM932 rather than the starboard side was struck by the TINTOMARA.

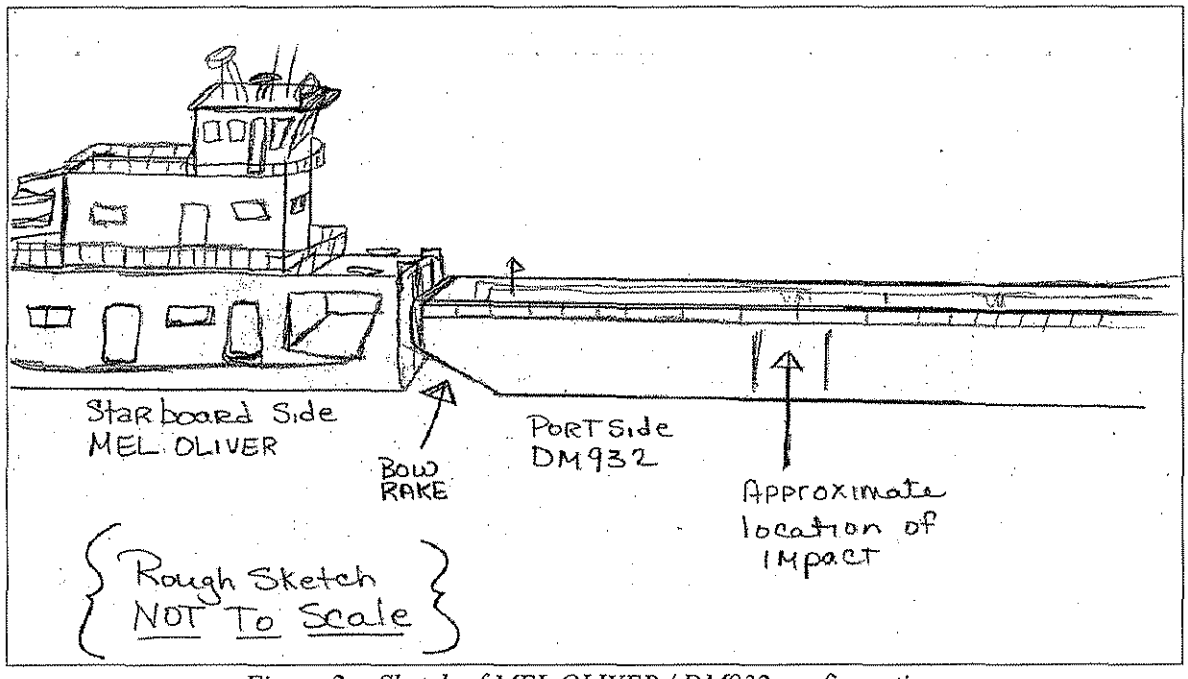

Figure 2: Sketch of MEL OLIVER / DM932 configuration

B. Personnel Information

(1) On 23 July 2008, the MEL OLIVER had only three (3) persons onboard, although four (4) persons were assigned as crew members: the captain, the steersman apprentice, and two deck hands. Terry Carver, the captain assigned to the MEL OLIVER, had departed the vessel nearly three days earlier without authorization to do so.

(2) On 23 July 2008, Terry Carver was the Captain assigned to MEL OLIVER. Carver is the holder of United States Coast Guard issued Merchant Mariner License # [redacted], issue # 3, which was issued on 21 April 2005 and has an expiration date of 20 May 2010. The license authorizes him to serve as, among other things, Master of Steam or Motor Vessels of not more than 100 registered gross tons (Domestic Tonnage) upon inland waterways and as a Master of Towing Vessels upon inland waters and western rivers.

(3) Carver had been assigned to the MEL OLIVER since its substitution for the dry docked PAM D in June 2008 (TC pg 28, beginning line 4) and began his current 14-day hitch on 15 July 2008 (IO Exhibit 69). Captain Carver reports the following history with the Coast Guard (TC pg 26, beginning line 2) (see also MISLE database):

- 3 May 2008: Collision while serving as Captain onboard the UTV PAM D. This investigation is still open; no enforcement activity has been initiated as of the date of this report.
- 1995: Vessel termination while serving as Captain. Vessel maintenance issues; no enforcement action taken against Captain Carver.
- 1995 – 1996: Fourteen-month suspension of his MML due to a [redacted] drug test; completed settlement agreement and cure; MML returned.

(4) The operator of the MEL OLIVER at the time of the collision was [redacted] He holds CG Merchant Marine License #[redacted] issue # 1, which was issued on 12 January 2007. It authorizes him, among other things, to serve as Apprentice Mate (Steersman) of Towing Vessels upon Great Lakes, Inland Waters and Western Rivers. The license of Steersman [redacted] was valid but was not proper for operating a towing vessel without the direct supervision of a licensed master. (IO Exhibit 150, 46 CFR §10.104 & §15.601). He has worked off-and-on towboats for about 15 years. ([redacted]1 pg 18). He had been assigned to the MEL OLIVER since its substitution of the PAM D in June 2008. He began his current 14-day hitch on 15 July 2008. (IO Exhibit 69). Steersman [redacted] has no prior history with the Coast Guard.

(5) The senior deck hand onboard was [redacted] Mr. [redacted] is an unlicensed and undocumented deck hand. He does not possess either a MML or MMD. He has worked off-and-on as a deck hand since 1993 ([redacted]1 pg 276, beginning line 9) and began his current 14-day hitch on 22 July 2008. (IO Exhibit 69, [redacted]1 pg 305 and [redacted]2 pg 44). Mr. [redacted] has no prior history with the Coast Guard.

(6) The second deck hand onboard was [redacted] Mr. [redacted] is an unlicensed and undocumented deck hand. He does not possess either a MML or MMD. He has roughly two years of experience as a deckhand ([redacted] pg 159) and began his current hitch on 15 July 2008 (IO Exhibit 69). Mr. [redacted] had no history with the Coast Guard prior to 23 July 2008.

5. Pre-Casualty Conditions, Actions, and Events

A. DRD Operations

(1) DRD Towing is a family-owned towing company founded by [redacted] and his wife, with co-ownership held by their two sons, [redacted] and [redacted] (aka '[redacted] Their two daughters, [redacted] and [redacted] also worked at the company doing office and payroll duties. Over the past couple of years, Mr. [redacted] and his wife turned over day-to-day operation of the company to [redacted] and [redacted] ran the vessel operations, [redacted] worked customer relations and [redacted] managed the office, including the payroll. (see generally testimony of [redacted]

(2) As part of customer relations, [redacted] negotiated and signed charter agreements with various companies, including American Commercial Lines (ACL), the owner of the MEL OLIVER. As office manager, [redacted] often witnessed these agreements. (ACL Exhibits B-G, and U).

(3) [redacted] managed the vessel operations, including manning the wheelhouse. That is, he maintained sole authority to assign the Captain(s) to each towing vessel, including placement of [redacted] Although [redacted] was aware that [redacted] held only an Apprentice or Steersman's License, he authorized [redacted] to be placed in the rotation as a "captain" holding his own watch. ([redacted] pgs 310- 311, [redacted] pgs 56 – 58 & 60, and [redacted]2 pgs 155-157 & 197).

(4) [redacted] served as Captain onboard several vessels owned by ACL and operated by DRD Towing over an extended period of time prior to 23 July 2008. While operating those various vessels, [redacted] was paid a Captain's rate of pay. (IO Exhibits 126 – 130, 142, and 143) (see also TC pg 58, [redacted]2 pgs 31- 34 and [redacted]1 pgs 27, 38, & 39).

(5) [redacted] knew his Steersman License did not qualify him to operate as a captain of a towing vessel without direct supervision but did so anyway. [redacted]1 pg 147 lines 22-23; [redacted]2 pg 155 line 12 - pg 156, line 13).

B. Vessel Manning

(1) While there was admission during the testimony of both [redacted] and Carver[4] that there was no notification made to DRD Towing regarding Carver's departure three days earlier on 19 July 2008. Several witnesses[5] testified that [redacted] had been holding his own watch for some time with the knowledge of DRD.

(2) On the very first page of the MEL OLIVER'S logbook (IO Exhibit 69), dated 19 June 2008, the crew is listed; Terry Carver's signature (verified by him during testimony) is seen next to the title "CAPT" and [redacted] signature (verified by him during testimony) is seen next to the title "Pilot".

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[3] See [redacted]1 pg 91 line 23 – pg 92 line 1; also pg 94 lines 2 – 5.
[4] See TC pg 54 lines 19 – 22.
[5] Terry Carver, [redacted] and [redacted] – additionally pay records show [redacted] being paid a Captain's rate on more than one occasion prior to this collision.

(3) This same pattern continues through page 10 (dated 30 June 2008) of the exhibit, in addition to the 15 July – 22 July 2008 period related to the casualty (see pgs 25 – 32)[6].

(4) Further review of Exhibit 69 provides evidence of manning problems beyond the Carver-[redacted] crew. On 1 July 2008, a new "wheelhouse" crew takes over the MEL OLIVER with [redacted] name appearing as "Capt." (IO Exhibit 69, pgs 11 – 16). Of importance here is the fact that only three (3) crew members are onboard this trip boat[7] – Captain [redacted] and [redacted] The log shows the vessel was in an underway status more than 12 hours on some days. The first three pages are a good example; calculating the underway hours it shows the vessel was operated for 18 hours, 40 minutes in a 24-hour period with only one licensed master onboard.

(5) While it can certainly be argued that the captain could have turned over the wheel to the pilot, Steersman [redacted], for some of the time this vessel was underway, the Captain would still have been required to remain in the wheelhouse in a supervisory position over the steersman (see 46 CFR §10.104).

(6) The MEL OLIVER is owned by ACL and operated by DRD Towing under a Bareboat Charter / Fully Found Charter agreement (ACL Exhibits B, D and F). ACL maintains an electronic logging system for its various vessels, including the MEL OLIVER (See ACL Exhibit L - "BTOR0011 – BOAT ORDERS – Boat Log"). During the course of the investigation, it was determined that the MEL OLIVER did not have an ACL-supplied computer onboard for the electronic sending or uploading of boat orders, logs or locations into the ACL database, as was the case with the PAM D. Therefore ACL received copies (by means of photocopy, scan or fax) of the MEL OLVER logbook pages for billing purposes and/or entry into their in-house database.[9] DRD would fax these log records (as indicated by the fax data string in either the upper left or lower right of each page) to ACL (see ACL Exhibit M).

(7) In comparing the original logbook pages (IO Exhibit 69) with the copies supplied by ACL (ACL Exhibit M), it is also apparent that someone reviewed the data as evidenced by various hand-written annotations seen on various pages of the ACL version. In addition to receiving the logbooks indicating who was operating their vessels, [redacted] acknowledged that ACL had been made aware of issues with DRD manning. Particularly, he testified that ACL was notified that one of its DRD-operated boats had an improperly licensed "captain" in the wheelhouse. ACL went to the vessel and found the captain was just completing his underway hitch (i.e., the crew was in the middle of crew-change), which suggests strongly that the "captain" had been operating the vessel for more than one day, more likely for the entire 7-day or 14-day regular hitch cycle. The ACL rep waited until a properly licensed captain arrived but, other than verbal admonishment to DRD, no further action was taken – no additional vetting process, no further checking of mariners' licenses on its other vessels, no personnel records

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[6] Note: the casualty occurred in the early morning of 23 July; the lower section of that page (page 33) was later completed by a replacement crew following the collision therefore the names of Carver and [redacted] are absent.

[7] See page 7 for definition of "trip boat."

[8] [redacted] was issued Apprentice License # [redacted] on 23 April 2008 which reads "APPRENTICE MATE (STEERSMAN) OF TOWING VESSELS UPON INLAND WATERS AND WESTERN RIVERS."

[9] ACL used the entries on the logbook sheets to bill their clients for movement of barges and/or goods in addition to tracking the movement of their own barges and/or goods.

inspections, etc. ([redacted] pg 89, line 4 – pg 94 line 25). Additionally, there is no evidence to suggest that this "captain" was re-checked when returning to work or boarding another ACL vessel.

(8) The MEL OLIVER and its predecessor, the PAM D, were both operated as trip boats or dedicated boats, that is, the vessel worked a specific run. [redacted] pg 152, lines 9-21). DRD was aware that when a vessel runs more than 12 hours in a day, the crew complement shall include two licensed captains. ([redacted], pgs 265–266) (see also, 46 CFR §15.705(d) & 46 USC §8104(h) & §8904(c)). Again, this was not always the case with the MEL OLIVER. (see IO Exhibit 69).

(9) As seen in the paragraphs below, a review of the logbook records of the PAM D[10] dating back to 19 January 2008 (IO Exhibit 219[11]), show that the required crew-complement was often ignored and that the use of 3-man crews, under-licensed operators, and non-licensed wheelmen did not occur only on the MEL OLIVER.

(10) The very first page of IO Exhibit 219, dated "1/19/08", shows the use of a 3-man crew yet the vessel was underway more than 12 hours. Additionally, pages 4 and 5 show the same crew compliment.

(11) Pages covering the period of time spanning 30 January – 13 April 2008 are missing. However, beginning 14 April 2008 (page 11) the crew of [redacted] and [redacted] took over. [redacted] continued on shift until at least 19 April (what should be pages for 20 April and 21 April are blank) when Terry Carver took over as Captain. (IO Exhibit 219).

(12) On 14 April 2008, the vessel was underway for 18 hours and 30 minutes with one licensed Captain and one Steersman Apprentice. Whether [redacted] (the captain) operated the vessel or was supervising [redacted] (the steersman), he clearly worked more than 12 hours in this 24-hour period; the only other alternative is [redacted] turned over control of the vessel to an improperly licensed operator. Testimony of [redacted] along with IO Exhibits 124-130, 133, 142, 143, 145, 147 and 219, suggest it was the latter.

(13) This pattern continues,

(a) On 16 April 2008, the vessel is underway **17 hours, 15 minutes** with Captain [redacted] and Steersman [redacted] (IO Exhibit 219, page 13);

(b) On 18 April 2008, the vessel is underway **16 hours, 15 minutes** with Captain [redacted] and Steersman [redacted] (IO Exhibit 219, page 15);

(c) On 19 April 2008, the vessel is underway **13 hours, 25 minutes** with Captain [redacted] and Steersman [redacted] (IO Exhibit 219, page 16);

(d) On 7 May 2008, the vessel is underway 11 hours 30 minutes with Captain [redacted] and Steersman [redacted] (IO Exhibit 219, page 32), which in and of itself is not a violation, however, the vessel had been underway for the previous 8

[10] The PAM D blew an engine and was substituted with the MEL OLIVER on 19 June 2008 (see IO Exhibit 69 page 1).

[11] Following the completion and closing of the original record, additional documents were received by ACL on or about 22 June 2009. Attached thereto were 65 pages of documents not previously produced that were subsequently entered into the record as IO Exhibit 219.

hours making it a continuous **19 hours, 30 minutes** underway. (IO Exhibit 219, page 31);

(e) On 8 May 2008, the vessel is underway **19 hours, 20 minutes** with Captain [redacted] and Steersman [redacted]. (IO Exhibit 219, page 33);

(f) On 9 May 2008, the vessel is underway **18 hours, 30 minutes** with Captain [redacted] and Steersman [redacted]. (IO Exhibit 219, page 34);

(g) On 11 June 2008, the vessel is underway **15 hours, 35 minutes** with Captain [redacted] and Steersman [redacted]. (IO Exhibit 219, page 59); and,

(h) On 15 June 2008, the vessel is underway **16 hours, 30 minutes** with Captain [redacted] and Steersman [redacted]. (IO Exhibit 219, page 63).

(14) As noted on page 8, Title 46 of the CFR clearly defines work hours for towing vessels:

> " Towing vessels operating more than 12 hours in any 24-hour period require a second officer holding a license of master or mate of towing vessels. Watches may be divided, regardless of the length of the voyage, but no licensed operator shall work more than 12 hours in a 24-hour period, except in an emergency." (46 CFR §15.705(d) & 46 USC §8104(h) & §8904(c)).

(15) Between 11 May and 14 May 2008, [redacted] was the only licensed individual onboard the PAM D. (IO Exhibit 219 pages 36 – 39).

(16) Between 22 May 08 and 25 May 2008, Captain Carver was the only licensed captain onboard the PAM D; the listed "pilot" is [redacted] who, at the time, was an unlicensed crew member[12]. (IO Exhibit 219 pages 42-44).

(17) Between 4 June and 9 June 2008, Captain [redacted] is the only licensed operator onboard. The Pilot is listed as [redacted] however, [redacted] did not receive his apprentice (Steersman) license until 2 July 08[13]. Until then, he was an unlicensed, undocumented crewmember. Therefore, [redacted] either allowed [redacted] to operate the vessel without a license or was the only operator on a fully engaged towing vessel for a 5-day period. (IO Exhibit 219 pages 52 – 57).

(18) According to the logbook entries in IO Exhibit 219, the Carver [redacted] crew had the following underway times:

(a) On 23 April 2008 the vessel is underway **14 hours** with Captain Carver and Steersman [redacted] (IO Exhibit 219, page 20);

(b) On 24 April 2008, the vessel is underway **13 hours, 45 minutes** with Captain Carver and Steersman [redacted] (IO Exhibit 219, page 21);

(c) On 26 April 2008, the vessel is underway **16 hours, 30 Minutes** with Captain Carver and Steersman [redacted] (IO Exhibit 219, page 23);

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[12] According to MISLE, [redacted] was issued his original Apprentice (Steersman) license [redacted] on 23 Oct 08

[13] Apprentice license # [redacted], original issue dated 2 July 2008; information received via MISLE.

(d) On 27 April 2008, the vessel is underway **16 hours, 35 minutes** with Captain Carver and Steersman [redacted] (IO Exhibit 219, page 24);

(e) On 20 May 2008, the vessel is underway **17 hours, 25 minutes** with Captain Carver and Steersman [redacted] (IO Exhibit 219, page 40);

(f) On 21 May 2008, the vessel is underway **19 hours, 30 minutes** with Captain Carver and Steersman [redacted] (IO Exhibit 219, page 41);

(g) On 29 May 2008, the vessel is underway **13 hours, 45 minutes** with Captain Carver and Steersman [redacted] (IO Exhibit 219, page 47);

(h) On 30 May 2008, the vessel is underway **13 hours, 45 minutes** with Captain Carver and Steersman [redacted] (IO Exhibit 219, page 48); and,

(i) On 2 June 2008, the vessel is underway **14 hours, 20 minutes** with Captain Carver and Steersman [redacted] (IO Exhibit 219, page 51).

(19) Just as with Captain [redacted] regardless of whether Captain Carver was operating the vessel or supervising Steersman [redacted] or some other "wheelman," he was working more than 12 hours in a 24-hour period, unless of course, he turned over control of the vessel to an inappropriately licensed individual. Carver did testify that [redacted] always held his own watch and others who were not properly licensed often held their own, including [redacted] (TC pgs 140-141).

(20) The logbook pages of the MEL OLIVER from 1 July – 6 July, and again from 10 July – 14 July show [redacted] as the only licensed captain onboard.

C. Steersman [redacted] Hours of Operation

(1) During the current shift of Carver and [redacted] (15 July – 23 July), the MEL OLIVER was in an underway status 193 hours and 30 minutes. During the first 138 hours, prior to Carver's departure, [redacted] operated the MEL OLIVER a total of 48 hours. (IO Exhibit 69).

(2) After the departure of Carver, [redacted] acted as the sole operator of the MEL OLIVER. During the 55 hours, 30 minutes (about 1800, 20 July through 0130, 23 July) Carver was absent from the vessel, the MEL OLIVER was underway a total of 22 hours, 50 minutes or about 40% of the time. (IO Exhibits 69 and 216).

(3) In the 25 hours, 30 minutes (00:00 22 July – 01:30 23 July) prior to collision, the MEL OLIVER was in an underway status 7 hours, 35 minutes or about 29% of the time.

D. Actions and Events Pre-Collision

(1) On 15 July 2008, MEL OLIVER had a crew-change. [redacted] and Terry Carver replaced [redacted] and [redacted] in the wheelhouse[14]. (IO Exhibit 69).

[14] The wheelhouse crew and the deckhands alternated crew-change to avoid a complete crew turn-over.

(2) Terry Carver was due to arrive that morning but was late. The current Captain, [redacted] departed the vessel prior to Carver's arrival, leaving [redacted] as the only operator in the wheelhouse. [redacted]1, pgs 63-64).

(3) Carver had called [redacted] the Port Captain for DRD, that morning to let [redacted] know that he was going to be late. (TC, pgs 40-41).

(4) Prior to the arrival of Carver, the MEL OLIVER received an operation order by the ACL dispatcher. [redacted] got underway without Terry Carver. [redacted]2, pg 70).

(5) While waiting to enter the Harvey Locks, [redacted] received a phone call from [redacted] asking where the MEL OLIVER was heading and if Carver had arrived onboard yet. [redacted] responded he was on his way to pick-up a barge but Carver had not gotten onboard yet, to which [redacted] replied "just be careful." [redacted] knew that [redacted] was operating the MEL OLIVER by himself, without supervision by the Captain, but did nothing to correct the manning issue. (IO Exhibits 132 and 180, [redacted]1, pgs 74-76).

(6) Terry Carver met up with the MEL OLIVER later that afternoon at the ACL Harahan dock. The crew onboard was [redacted] and two deckhands, [redacted] and [redacted] (TC, pg 42).

(7) Several days later, on 20 July 2008, Carver received a phone call that his girlfriend in Illinois was seen with another man. Carver then told [redacted] that he needed to "go home" for a couple of days to handle some personal business and [redacted] agreed it was okay. Carver called his friend [redacted] another DRD Captain, and asked if he could come and pick him up at the Reserve Ferry Landing, to which [redacted] agreed. (TC pgs 47-50).

(8) The MEL OLIVER was about half to two-thirds the way from its transit to the ACL Harahan fleet with a loaded red-flag barge when it came to the Reserve Ferry Landing. [redacted] took over in the wheelhouse for Carver and slowed the vessel down in the river but did not pull into the dock. [redacted] took Carver to the landing dock in the "skiff" (flat-bottom boat), dropped him off, and returned to the MEL OLIVER. Carver departed with [redacted] and left the vessel under the control of the Steersman, knowing that the MEL OLIVER would have a manning shortage and [redacted] would be the sole operator until his return. (TC pgs 51-55). At no time following Carver's departure did [redacted] call DRD to report Carver's absence. [redacted]1 pg 91).

(9) Carver and [redacted] drove to the parking lot at ACL Harahan where Carver's car was parked. Carver took [redacted] truck, left his car for [redacted] to use[15] and headed up to Illinois. (TC pg 52, see also TVT Exhibits 7 & 8).

(10) While he was gone, Carver called [redacted] several times onboard the MEL OLIVER to check-in. From his discussions with [redacted] he knew that the MEL OLIVER was working and not stationary at a dock or facility. At no time during Carver's absence did he call DRD to tell DRD he was off the boat. (TC pg 53-54).

[15] Carver wanted to take [redacted] truck because his girlfriend would not recognize it.

(11) Around 2200 on 22 July 2008, Carver called to the MEL OLIVER and spoke with [redacted]. Carver had previously told [redacted] that he would be back on 22 July but called the boat to let [redacted] know that he would not be heading back until the next morning. (TC pgs 59-60).

(12) [redacted] informed Carver that the MEL OLIVER was at Stone Fuel Dock and [redacted] had gone to bed a couple of hours earlier and was still sleeping. Carver asked [redacted] to let [redacted] know he would be back in the morning[17]. (TC pgs 60-62).

(13) On 22 July 2008 at 2230, [redacted] Nobra Pilot #[redacted], arrived onboard the TINTOMARA. Although Pilot [redacted] and Captain [redacted] had a proper pilot/master exchange, Pilot [redacted] failed to sign the Pilot Card when he took control of the TINTOMARA[18]. (IO Exhibit 9).

(14) Pilot [redacted] testified that he did not sign the Pilot Card when he completed his exchange with the Master, Captain [redacted] because, in his experience, the crew would tend to take the card after signing, and he wanted to keep the card for possible reference until he departed. ([redacted] pg 66, lines 1-23).

(15) At 2359, the TINTOMARA got underway and pulled away from the dock. (IO Exhibit 20). During the transit, Pilot [redacted] remained on the bridge and give navigational instructions to the TINTOMARA bridge crew as they proceeded down-bound on the LMR. (IO Exhibit 6). As required by Vessel Traffic Service New Orleans procedure, Pilot [redacted] radioed the VTC to check-in at the Cargill Grain Facility at or near MM 103 LMR. (IO Exhibits 1, 3, 6, and 218).

(16) At about 0041 on 23 July 2008, the MEL OLIVER pulled away from the Stone Oil dock following radio communications with a down-bound vessel. (IO Exhibits 1 & 2).

(17) During the transit from Stone Oil, [redacted] spilt a drink in the wheelhouse and called for the deckhand, [redacted] to bring him a mop. He brought the mop to [redacted] who instructed him to just leave it and he'd clean up the spill himself. [redacted] estimated that it was somewhere in the middle of the transit[19], guessing "not more than 30 minutes" after they got underway. ([redacted] pgs 170-171 and 200-202).

(18) [redacted] testified that when he took the mop up to the wheelhouse [redacted] appeared normal. [redacted] said "he seemed like he was okay." ([redacted] pg 209, lines 22-24).

(19) Viewing the VTS playback there had been no erratic movements by the MEL OLIVER during its transit from Stone Oil with the exception of some wavering movements just before the turn to port. (IO Exhibit 1). Further, the VTS watchstander testified that the MEL OLIVER had made no erratic movements or any other deviation from its intended course and "according to the course he was running, he was well out of the way. It was no concern." ([redacted] pgs 49-51).

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[16] [redacted] had replaced [redacted] Arabie as deckhand that morning.

[17] Evidence produced at the hearing verified these phone calls. Nonetheless [redacted] testified that he did not know Carver was absent from the vessel.

[18] "Each licensed, registered, or certificated individual must become familiar with the relevant characteristics of the vessel on which engaged prior to assuming his or her duties." (46 CFR §15.405).

[19] Meaning between the time the vessel left Stone Oil until the time of the collision.

(20) When asked what the wavering movements were caused by, [redacted] testified that he was adjusting the winches to tighten up the tow. He further testified that while he was tightening the winches, the power surged and caused the radar to go out. [redacted]1 pgs 100-101).

(21) [redacted] testified that although he did not remember any surge that night, it was not uncommon for the power to surge down when the generators were turned on and the winches were being used. "I don't remember if it happened or not. That's something I wouldn't have paid attention to because it's normal for it to happen." ([redacted] pgs 206-207).

(22) [redacted] testified that when the radar went out, he started manipulating the radar trying to reset it and get the sweep to come back on. [redacted]1 pgs 100-101, 111-114) (see also, [redacted]2 generally).

(23) At 01:27:12, as required by Vessel Traffic Service New Orleans procedure, Pilot [redacted] radioed VTC New Orleans to complete a second required check-in, stating, "Sixteen to the Governor. Coming down on Marlex, looking at [redacted]s tater box.[20]" (IO Exhibits 1, 3, 6 & 218). At this point, the TINTOMARA was the second of three deep draft vessels proceeding southbound on the LMR. The TINTOMARA was maintaining a 1- 1½ mile distance between it and the vessel in front being piloted by NOBRA [redacted] ([redacted] pg 51).

(24) VTS data shows that the MEL OLIVER began a slow turn to port at 01:27:33 (3min, 4sec pc). (IO Exhibit 1). According to testimony from [redacted] the deckhand from the nearby JUDY ANN, and depicted in drawings by both [redacted] and AB [redacted] the forward lookout on the TINTOMARA, the MEL OLIVER's port turn was a slow arching turn. ([redacted] pg 224, and IO Exhibits 61 & 136).

(25) At 01:28:29 (56 seconds later and 2min, 8sec pc), Pilot [redacted] calls out to an unknown tow "Sixteen to this tow. Looks like you got one barge right across from DC Harvey." (IO Exhibits 1, 3, 6 & 218).

(26) At 01:28:49, the VTC notifies Pilot [redacted] that the vessel he is calling is the MEL OLIVER. Pilot [redacted] in turn calls "MEL OLIVER" in an effort to hail the towing vessel. (IO Exhibits 1, 3, 6 & 218).

(27) [redacted] testified that he was unaware that the vessel had begun to turn to port because he was preoccupied with radar. He heard the previous radio call but was unaware that the TINTOMARA was attempting to hail him until he heard "MEL OLIVER' on the radio. He looked up and became aware that his vessel had turned into the river. [redacted]1 pgs 101-102).

(28) [redacted] testified that he attempted to steer the MEL OLIVER out of the path of the TINTOTMARA but he could not because "it was jamming for some reason." [redacted]1 pgs 103-104). [redacted] was using the primary steering. At no time did he attempt to use the flanking rudders. [redacted]1 pg 104).

[20] See page 7 for definition.

(29) At 1:28:52 (1m 45sec pc), Pilot [redacted] ordered the Master of the TINTOMARA to blow the ship's whistle. At 1:29:06, 14 seconds later, the ship's whistle sounds. (IO Exhibit 218).

(30) Between the MEL OLIVER's turn to port and the collision, both Pilot [redacted] and the VTC attempted to hail the MEL OLIVER on numerous occasions without success. (IO Exhibits 1, 3, 6, & 218)

(31) At 1:29:48 (49 sec pc) Pilot [redacted] orders "Full Astern" (IO Exhibits 6 & 218).

(32) From 01:28:49 when he first heard "MEL OLIVER" over the radio, [redacted] testified that he had steadily been attempting to steer the MEL OLIVER, he never attempted to use the flanking rudders or attempt a turn to port when the steering would not go to starboard. He did not back down or reverse the throttle in an attempt to slow or stop the MEL OLVIER until he heard someone on the radio say "back on it". [redacted]1 pg 176).

(33) VTS data shows the MEL OLIVER slow from 4.3 kts to 3.4 kts at 1:30:27 (10 sec pc). The MEL OLIVER is equipped with an air clutch. After initiation, the air clutch takes roughly 6-7 seconds to engage, therefore it would have been roughly 1:30:21 (16 sec pc) when [redacted] reversed throttle on the MEL OLIVER. (IO Exhibit 218 and [redacted]1 pg 126).

(34) Pilot [redacted] told the MEL OLIVER to back the engines at 01:29:38, and the VTC told the MEL OLIVER to back at 01:30:06. Based on the reaction times of the air clutch, the MEL OLIVER was not backed at 01:29:38, the first mention of the need to reverse engines. (IO Exhibits 1, 3, 6, & 218).

(35) At the time of the collision the TINTOMARA had slowed from 14.3 kts to 12.9 kts[21]. (IO Exhibit 218).

[21] The TINTOMARA was proceeding down-bound and being carried by a 4-kt current.

6. Collision

A. Event timeline

NOTES:

- **This timeline reflects vessel activities recorded by VTS and VDR; including radio calls, positioning, speed, etc., but is not all inclusive. It reflects significant events leading up to the collision it is intended to place a timestamp on those events only. It does not go into in-depth detail or discussion. Detailed discussion can be found in the Pre- and Post-Collision sections.**

- In the timeline there are two times listed. The first time is the local time the event happened. The second time in **(red)** followed by "pc" equals the countdown in time "pre-casualty"

  Example: 00:35:31 = time of event that is currently happening
  (00:54:29 pc) = time remaining prior to collision

- Time stamp reflects VTS recorded time with comparison/validation to VDR recorded time.

- The time of the collision is **01:30:37** (Central Standard Time). (see note 11, page 10).

Date	Time	Who	Event
07/23/2008	00:15:00 (01:15:37 pc)	MEL OLIVER / DM932	"Finish loading DM-932 Stone Gretna" (IO Exhibit 69 - MEL OLIVER log entry)
	00:35:31 (00:55:06 pc)	MEL OLIVER – [redacted]	Radio transmission to hail VTC (IO Exhibits 1 & 2)
	0:35:34 (00:55:03 pc)	VTC	Radio transmission to acknowledge MEL OLIVER (IO Exhibits 1 & 2)
	0:35:36 (00:55:01 pc)	MEL OLIVER – [redacted]	Radio transmission to VTC: "I'd like to depart here at Stone, one load, head north to ACL Harahan." (IO Exhibits 1 & 2)
	0:35:43 (00:54:54 pc)	VTC	Radio transmission to MEL OLIVER: "Roger that, Cap. No problem. You got NOBRA[redacted] southbound just above[redacted]." (IO Exhibits 1 & 2)
	0:35:49 (00:54:48 pc)	MEL OLIVER – [redacted]	Radio transmission to VTC: "Yeah. I see him. Thank you. Appreciate it." (IO Exhibits 1 & 2)
	0:35:52 (00:54:45 pc)	VTC	Radio transmission to MEL OLIVER: "Have a good one, Captain." (IO Exhibits 1 & 2)
	0:38:23 (00:52:14 pc)	MEL OLIVER	Pushes away from the dock at Stone Fuel Gretna (IO Exhibit 1)

Date	Time	Who	Event
07/23/2008	00:38:42 (00:51:55 pc)	MEL OLIVER	Holds steady near the dock at Stone Fuel Gretna (IO Exhibit 1)
	00:40:18 (00:50:19 pc)	MEL OLIVER – [redacted]	Radio transmission to T/V PIGEON POINT (NOBRA [redacted]): "MEL OLIVER, [redacted]" (IO Exhibits 1 & 2)
	00:40:19 (00:50:18 pc)	T/V PIGEON POINT (NOBRA [redacted])	Radio transmission to MEL OLIVER: "Go ahead MEL OLIVER" (IO Exhibits 1 & 2)
	00:40:22 (00:50:15 pc)	MEL OLIVER [redacted]	Radio transmission to T/V PIGEON POINT (NOBRA [redacted]): "Yeah. I'm departing just above Gretna Light right here. I'm going to keep it over here for the two for you." (IO Exhibits 1 & 2)
	00:40:23 (00:50:14 pc)	T/V PIGEON POINT (NOBRA [redacted]	Radio transmission to MEL OLIVER: "All right, dude. Sounds good." (IO Exhibits 1 & 2)
	00:40:29 (00:50:08 pc)	MEL OLIVER – [redacted]	Radio transmission to T/V PIGEON POINT (NOBRA [redacted]): "Okay, buddy." (IO Exhibits 1 & 2)
	00:40:50 (00:49:47 pc)	MEL OLIVER	Begins moving away from dock at Stone Fuel Gretna (IO Exhibit 1)
	00:41:51 (00:48:46 pc)	MEL OLIVER	Moving slowly across river, headed directly to the East Bank (IO Exhibit 1)
	00:44:18 (00:46:19 pc)	MEL OLIVER	Passes astern of the T/V PIGEON POINT (IO Exhibit 1)
	00:50:32 (00:40:05 pc)	MEL OLIVER	Moving northbound along the East Bank at 2.2 kts (IO Exhibit 1)
	1:25:03 (00:05:34 pc)	MEL OLIVER	Speed at 2.6 kts (IO Exhibit 1)
	1:25:41 (00:04:56 pc)	MEL OLIVER	Passing port side TV PAC ALKAID (IO Exhibit 1) (there were no passing arrangements made between MEL OLIVER and PAC ALKAID as is customary practice in this area (see note 10, page 10 of this report)).
	1:25:45 (00:04:52 pc)	TINTOMARA (NOBRA [redacted]	Radio transmission: "Hey, Captain [redacted] I haven't met anybody below the point. Got one northbound way down there running tight on the East Bank but he looks small." (IO Exhibits 1, 3, 6 & 218)
	1:26:00 (00:04:37 pc)	Unknown speaker	Radio transmission: "Roger, [redacted]." (IO Exhibits 1, 3, 6 & 218)
		TINTOMARA	Vessel speed is 14.0 kts (IO Exhibit 1)
		MEL OLIVER	Vessel speed is 3.0 kts (IO Exhibit 1)

Date	Time	Who	Event
07/23/08	1:26:33 (00:04:04 pc)	MEL OLIVER	Speed varies up and down between 2.9 kts and 2.5 kts and vessel makes wavering movements. Steersman [redacted] testified that at this time he was making adjustments to the tow wires using the winches. He alternated port and starboard independently to tighten the lines then tightened down on both winches simultaneously to cinch up the tow. [redacted] testified he took this action after he had noticed some slack in the tow during transit. [redacted]1 and #2 generally)
	1:26:36 (00:04:01 pc)	MEL OLIVER	
	1:26:54 (00:03:43 pc)	MEL OLIVER	
	1:26:59 (00:03:38 pc)	MEL OLIVER	
	1:27:03 (00:03:34 pc)	MEL OLIVER	
	1:27:12 (00:03:25 pc)	TINTOMARA (NOBRA [redacted]	Radio transmission to VTC: "Sixteen to the Governor. Coming down on Marlex, looking at [redacted]s tater box." (IO Exhibits 1, 3, 6 & 218)
		TINTOMARA	Vessel speed is 14 kts (IO Exhibit 1)
	1:27:20 (00:03:17 pc)	VTC	Radio transmission: "Keep her coming." (IO Exhibits 1, 3, 6 & 218)
	1:27:22 (00:03:15 pc)	TINTOMARA (NOBRA [redacted]	Radio transmission: "Keep her coming, roger. Thank you." (IO Exhibits 1, 3, 6 & 218)
	01:27:33 (00:03:04 pc)	MEL OLIVER	Vessel speed is 2.3 kts, and MEL OLIVER begins a turn to Port. (IO Exhibit 1)
		[redacted]	[redacted] testified that the radar had gone out and he was attempting to reset it; he did not realize that the vessel was turning. [redacted]1 pgs 100-101, 111-114) (see also, [redacted]2 generally)
	1:28:29 (00:02:08 pc)	TINTOMARA (NOBRA [redacted]	Radio transmission: "Sixteen to this tow. Looks like you got one barge right across from DC Harvey." (IO Exhibits 1, 3, 6 & 218)
		TINTOMARA	Vessel speed is 14.7 kts (IO Exhibit 218)
		MEL OLIVER	Begins to cross river from East Bank to West Bank. Vessel speed is 3.1 kts (IO Exhibits 1 & 218)
	1:28:31 (00:02:06 pc)	TINTOMARA (NOBRA [redacted]	Bridge coms, Pilot to Helmsman, "Steady"; Helmsman replies "Steady" (IO Exhibits 6 & 218)
		TINTOMARA	Vessel speed is 14.7 kts (IO Exhibit 218)

Date	Time	Who	Event
07/23/08	1:28:49 (00:01:48 pc)	VTC	Radio transmission: "Sixteen, that's the MEL OLIVER." (IO Exhibits 1, 3, 6 & 218)
		[redacted]	[redacted] testified that while he could hear the radio calls for a tow, he was unaware that the calls were to him until he heard "MEL OLIVER" on the radio. When he heard "MEL OLIVER" he looked up and became aware of the fact that his tow had turned out into the river. [redacted] 1 pgs 101-102)
	1:28:52 (00:01:45 pc)	TINTOMARA (NOBRA [redacted]	Radio transmission: "Sixteen, MEL OLIVER. Come in." (IO Exhibits 1, 3, 6 & 218) Bridge coms: Pilot, "Blow the whistle, Cap. Where's the whistle?" Capt. [redacted] replies "The whistle is over here." Pilot, "Blow the whistle." (IO Exhibits 6 & 218)
		[redacted] / MEL OLIVER	[redacted] testified that he didn't answer the radio calls because he was attempting to steer MEL OLIVER, but the steering wouldn't respond, "…it was jamming for some reason." [redacted] 1 pgs 103-104)
	1:29:00 (00:01:37 pc)	MEL OLIVER	Vessel stops its turn to port and continues directly across the river at 3.3 kts. (IO Exhibit 1)
	1:29:03 (00:01:34 pc)	VTC	Radio transmission: "MEL OLIVER." (IO Exhibits 1, 3, 6 & 218)
	1:29:06 (00:01:31 pc)	TINTOMARA (NOBRA [redacted]	Radio transmission: "Sixteen, MEL OLIVER. Come in." (IO Exhibits 1, 3, 6 & 218)
		TINTOMARA	Ship's whistle sounds (audible on VDR, IO Exhibit 218)
		TINTOMARA	Vessel speed is 14.4 kts (IO Exhibit 218)
	1:29:11 (00:01:26 pc)	TINTOMARA (NOBRA [redacted]	Bridge coms: Pilot to Helmsman, "Starboard 10." Helmsman replies "Starboard 10." (IO Exhibits 6 & 218)
	1:29:17 (00:01:20 pc)	TINTOMARA (NOBRA [redacted]	Bridge coms: Pilot to Helmsman, "Stop engine." Helmsman replies "Stop engine." (IO Exhibits 6 & 218)
		TINTOMARA	Vessel speed is 14.4 kts (IO Exhibit 218)
	1:29:19 (00:01:18 pc)	TINTOMARA (NOBRA [redacted]	Radio transmission: "NOBRA [redacted] MEL OLIVER. Come in, Cap." (IO Exhibits 1, 3, 6 & 218)
		MEL OLIVER	Vessel speed is 3.8 kts (IO Exhibit 218)
		[redacted]	Testified that he hears radio call but does not respond. [redacted] 1 and #2 generally)

Date	Time	Who	Event
07/23/08	1:29:25 (00:01:12 pc)	TINTOMARA (NOBRA [redacted]	Bridge coms: Pilot to Helmsman, "Midship." Helmsman replies "Midship." (IO Exhibits 6 & 218)
		TINTOMARA	Vessel speed is 14.4 kts (IO Exhibit 218)
		MEL OLIVER	Vessel speed is 3.8 kts (IO Exhibit 218)
	1:29:31 (00:01:06 pc)	VTC	Radio transmission – "Traffic, MEL OLIVER. Come in, cap. You're crossing the bow of a ship coming at you." (IO Exhibits 1, 3, 6 & 218)
		TINTOMARA	Vessel speed is 14.3 kts (IO Exhibit 218)
		[redacted]	Testified that he could hear the radio calls but did not respond because the mike had fallen onto the floor and he was trying to steer the boat. [redacted]1 pg 104 and [redacted]2 various)
	1:29:37 (00:01:00 pc)	TINTOMARA (NOBRA [redacted]	Bridge coms: Pilot to Helmsman, "Steady." Helmsman replies "Steady." (IO Exhibits 6 & 218)
	1:29:38 (00:00:59 pc)	TINTOMARA (NOBRA [redacted]	Radio transmission: "Come in, MEL OLIVER. Back that son of a bitch. I'm going to run right over the tow, cap." (IO Exhibits 1, 3, 6 & 218)
		TINTOMARA	Vessel speed is 14.3 kts (IO Exhibit 218)
		MEL OLIVER	Vessel speed is 4.0 kts (IO Exhibit 218)
	1:29:48 (00:00:49 pc)	TINTOMARA (NOBRA [redacted]	Bridge coms: Pilot to Helmsman, "Full Astern." Helmsman replies "Full Astern." (IO Exhibits 6 & 218)
	1:29:57 (00:00:40 pc)	TINTOMARA (NOBRA [redacted]	Radio transmission: "Sixteen to [redacted] We're going to slam this tow. We're backing hard on the ship. He's not answering and I'm blowing the whistle." (IO Exhibits 1, 3, 6 & 218)
	1:30:02 (00:00:35 pc)	TINTOMARA (NOBRA [redacted]	Bridge coms: Pilot to Helmsman, "Full Astern." Helmsman replies "I am full astern." (IO Exhibits 6 & 218)
		TINTOMARA	Vessel speed is 13.8 kts (IO Exhibit 218)
		MEL OLIVER	Vessel speed is 4.5 kts (IO Exhibit 218)
	1:30:06 (00:00:31 pc)	VTC	Radio transmission: "MEL OLIVER. MEL OLIVER. Back down, Captain. You're crossing the bow of a ship." (IO Exhibits 1, 3, 6 & 218)
	1:30:09 (00:00:28 pc)		Bridge coms: Pilot, "Back on it. Back on it." (IO Exhibits 6 & 218)
		TINTOMARA (NOBRA [redacted]	Radio transmission: "[redacted] this ain't good, man. We're going… I'm coming right at him. We're backing hard on the ship." (IO Exhibits 1, 3, 6 & 218)
		TINTOMARA	Vessel speed is 13.4 kts (IO Exhibit 218)
		MEL OLIVER	Vessel speed is 4.3 kts (IO Exhibit 218)

Date	Time	Who	Event
07/23/08	1:30:21 (00:00:16 pc)	MEL OLIVER – [redacted]	[redacted] testified that when he "heard someone say to back on it," he backed down on throttle of the MEL OLIVER. [redacted] 1 pg 176)
	1:30:27 (00:00:10 pc)	TINTOMARA (NOBRA [redacted]	Bridge coms: Pilot, "Come on, girl." (IO Exhibits 6 & 218)
		[redacted] (Deckhand – MEL OLIVER)	Testified that after he continued to hear a ship's whistle, he steps outside via the galley hatch and sees the TINTOMARA just before impact. [redacted] pg 172)
		[redacted] (Deckhand on MEL OLIVER)	Testified that after he was awakened by a ship's whistle, he stepped outside through the second deck port door and sees the TINTOMARA just before impact. [redacted] #1 pgs 319-320 and [redacted] #2 pg 48-49)
		MEL OLIVER	Vessel speed slows from 4.3 kts to 3.4 kts (IO Exhibit 218)
	1:30:36 (00:00:01 pc)	TINTOMARA	Vessel speed is 12.9 kts (IO Exhibit 218)
	1:30:37	TINTOMARA / DM932	**COLLISION.** TINTOMARA collides with the TB DM932. (IO Exhibits 1 & 218)
		MEL OLIVER / DM932	Face wires break separating MEL OLIVER from its tow, the DM932. [redacted] #1 pgs 320- 321)
		TINTOMARA / DM932	DM932 wraps around the bow of the TINTOMARA. [redacted] generally; IO Exhibits 1, 3, 6, & 218; [redacted] #1 pg 319 and [redacted] #2 pg 49)
		MEL OLIVER	Rocks violently from side-to-side then spins around but stays afloat [redacted] pg 237; [redacted] #1 pgs 320– 321)

B. Actions of Pilot [redacted]

(1) Pilot [redacted] can be heard providing rudder commands to the helmsman and properly answering various radio calls. From these, it is apparent that he had situational awareness prior to encountering or becoming alarmed by the actions of the MEL OLIVER. (IO Exhibits 1 – 6).

(2) After the MEL OLIVER failed to answer his call, Pilot [redacted] took the following actions:

Time of event	Time remaining until collision	Evasive action to avoid collision
01:28:52	1 min 45 sec	Pilot orders "Blow the whistle"
01:29:06	1 min 31 sec	Whistle sounds (audible on VDR)
01:29:11	1 min 26 sec	Pilot orders "Starboard 10"
01:29:17	1 min 20 sec	Pilot orders "Stop engines"
01:29:25	1 min 12 sec	Pilot orders "Midship"
01:29:37	1 min 0 sec	Pilot orders "Steady"
01:29:48	0 min 49 sec	Pilot orders "Full astern"

Table 4: [redacted] evasive actions (IO Exhibits 6 and 218)

(3) Pilot [redacted] reversed the throttle of the TINTOMARA at 01:29:48 (49 seconds pre-collision), however there was neither enough time nor stopping distance to prevent the collision. (IO Exhibits 1 – 6 and 214).

(4) Even if Pilot [redacted] had ordered "full astern" at the first moment of alarm, that is when MEL OLIVER failed to answer his call at 1:28:29 (2 min 8 sec pre-collision), crash test data suggests that the TINTOMARA would have slowed by only 3.6 kts or to roughly 10.7 kts prior to its impact with the MEL OLIVER. (IO Exhibit 214).

(5) This is further supported by the VDR data that shows the TINTOMARA slowed from 14.3 kts to 12.9 kts or a total of 1.4 kts in the timeframe of 48 seconds[22] following the order to full astern. (IO Exhibit 218).

(6) The TINTOMARA was traveling at 14.3 kts in a "train" of three deep-draft vessels prior to the collision. (IO Exhibit 218). There were three (3) marine safety bulletins issued prior to 23 July 2008 regarding the high-water conditions in the LMR; none of which issued speed limits for the LMR or in the special navigation areas discussed in section 4 above. Notwithstanding, Rule 6 of the Inland Navigation Rules clearly states that "Every vessel shall at all times proceed at a safe speed so that she can take proper and effective action to avoid collision and be stopped within a distance appropriate to the prevailing circumstances and conditions." (COMDTINST M16672.2C).

(7) Safe speed is left to the discretion of the Pilot and the bare-steerage requirements of the vessel under his or her command. In reviewing the speed of other like-sized vessels transiting down-bound (IO Exhibit 1), the speed taken by the TINTOMARA cannot be considered as negligent or excessive.

C. Actions of Steersman [redacted]

(1) Steersman [redacted] was heard checking in with the VTC and making appropriate passing arrangements 50-51 minutes pre-collision. Roughly 25 minutes[23] pre-collision

[22] From 01:29:48 when the throttle was ordered to full astern until one second prior to collision at 01:30:36

[23] Deckhand [redacted] testified he went to the wheelhouse "somewhere in the middle of the transit" but "not more than 30 minutes" after they got underway. The MEL OLIVER was under way roughly 50 minutes prior to collision.

he was visited in the wheelhouse by the deckhand who testified that "he seemed like he was okay". ([redacted] pgs 170-171 and 200-202).

(2) The VTC watchstander testified that the MEL OLIVER was in its correct lane and showed no erratic movements during its transit until the point it began the turn to port. ([redacted] pgs 49-51). This is verified by IO Exhibit 1.

(3) The MEL OLIVER passed several docks and vessels tied up to the docks during the transit northbound. In interviews following the collision, [redacted] was able to describe what types of vessels they were and where they were located, including one just prior to the MEL OLIVER's turn to port. He again recalled these during his testimony. ([redacted]2 pgs 172–173). These vessels can be seen on the VTS data replay; the "General" is at the pier around 1st street and the "Arneborg" is on the East Bank just north of the Harvey Locks. The MEL OLIVER passed the "General" at approximately 01:06:00 (24m 37sec pc) and passed the "Arneborg" at 01:25:24 (5m 13sec pc) (IO Exhibit 1).

(4) From items 1-3 above, it is apparent that [redacted] had situational awareness from the time he left Stone Oil until at least 5 minutes, 13 seconds pre-collision.

(5) The VDR data from the TINTOMARA shows the MEL OLIVER slow at 01:30:27, therefore [redacted] would have reversed the throttle at approximately 01:30:21[24] indicating that [redacted] had situational awareness at least 16 seconds pre-collision. (IO Exhibit 218).

(6) The unknown area is the 4 minutes, 57 seconds in between 01:25:24 and 01:30:21.

(7) As seen in the VTS recording (IO Exhibit 1), the MEL OLIVER was traveling up-bound, near the East Bank; it slowed, wavered, then began to turn to port at 01:27:33 (3m 4sec pc). [redacted] testimony as to what happened during this time is as follows:

A. The radar had went out. I lost the radar and I was trying to get the radar to come back on.

Q. And what were you doing with the radar?

A. I was resetting it. I was trying to get it -- the scanner -- the scanner come on, but it wasn't picking up any targets. I was trying to get the radar back.

([redacted] #1, pg 100, line 24 – pg 101, line 13)

[24] The air clutch on the MEL OLIVER takes roughly 6-7 seconds to engage.

(8) Throughout the investigation, [redacted] stated that he did not initiate the turn to port, instead he was distracted by the radar and when he looked up the vessel had turned to port and was headed into the river.

(9) The deckhand from the nearby JUDY ANN testified that the MEL OLIVER made a slow arching turn to port rather than a quick turn out. ([redacted] pg 208 and IO Exhibit 136).

(10) It is clear that at 01:27:33 (3min 4sec pc) [redacted] had lost situational awareness.

(11) The MEL OLIVER was up-bound near the East Bank. This is a normal area of travel for up-bound towing vessels. The MEL OLIVER's tow (the DM932) was made up to the rake end (see figure 3, page 21), the result of which places the more of the blunt end of the barge facing forward.[25]

(12) [redacted] further testified that when he became aware of his vessel's position (01:28:49), he attempted to steer the vessel starboard to swing the head of the tow back toward the bank; however, he was unable to do so because the steering "was jamming." [redacted]1 pgs 103 –104).

(13) He continued his attempt to steer the vessel by applying starboard rudder for another 1 min, 32 sec until 16 seconds prior to the collision when he reversed the throttle. (see #5 above). He stated he tried no other actions.

[25] It is not unusual for towing vessels to make their tow in this fashion depending on the requirements of the various pumping facilities and the location of the inlet/outlet tubes on the barge.

7. Post-Casualty Actions and Events

A. Casualty Notifications

(1) Vessel Traffic Service (VTS) Lower Mississippi watch standers immediately made call-outs for assist vessels and coordinated vessel movements after the collision (IO Exhibits 1, 3, 98 and [redacted] pg 55-58). The VTS Watch Supervisor instructed another tug in the area, UTV MR [redacted] to check on the MEL OLIVER. (IO Exhibit 98 and [redacted] pgs 60-62). The Sector New Orleans Command Center was notified of the collision at 0141 on 23 July 2008. The Sector New Orleans Command Center notified the Duty Inspector and Duty Investigator of the casualty at 0158. (MISLE Incident Management Activity 3276488)

B. On-Scene Response Timeline

(1) Immediately following the collision, deckhand [redacted] of the MEL OLIVER proceeded to the bridge of the vessel. He confronted [redacted] who was initially unresponsive to questioning. After additional questioning as to what happened, [redacted] responded that "it didn't steer right." ([redacted] pg 262).

(2) After maintaining a position in the vicinity of collision, [redacted] piloted the MEL OLIVER to the Milan Street Wharf at or about mile marker 99 of the LMR. The MEL OLIVER arrived at the dock about 30-45 minutes after the collision. During the transit, [redacted] contacted VTS Lower Mississippi and DRD Towing port captain [redacted] ([redacted] pgs 177-189, see also IO Exhibit 1).

(3) [redacted] contacted DRD port captain [redacted] who immediately departed his home to attend the MEL OLIVER. [redacted] arrived on-board the vessel at approximately 0315. ([redacted] pg 103). When he arrived, all three crewmembers were sitting in the galley of the MEL OLIVER. At this time, [redacted] determined Terry Carver was not on-board the vessel. ([redacted] pg 42). Shortly after Mr. [redacted] arrival, collectors showed up at the vessel to administer drug tests and alcohol screenings. ([redacted] pg 45).

(4) [redacted] questioned [redacted] regarding the collision. [redacted] stated that when he asked [redacted] what happened [redacted] recounted the story differently over various evolutions. [redacted] accounts mentioned factors such as a radio malfunction, generator failure, and steering and radar problems. While testifying, Mr. [redacted] stated that different accounts were provided, but each account focused on the steering and the radar. ([redacted] pg 50 ln 7-25, pg 51 ln 1-18).

(5) The Coast Guard Duty Investigator (DIO) and Duty Marine Inspectors (DMI) met at the Sector New Orleans office at approximately 0330 and departed at approximately 0400 together to the scene of the collision. They arrived at the riverfront area where the DM 932 was located adjacent to the Crescent Connection Bridge at or about 0415. While initially on-scene, the DIO requested another Investigating Officer (IO) meet the team to assist in conducting the initial casualty investigation. The team also met with Coast Guard pollution response personnel on-site. The DIO made calls to determine the exact location of the MEL OLIVER and her crew and confirm drug and alcohol testing was occurring. The requested IO arrived on-scene and the DIO and IO parted ways with the inspector at or about 0545 and proceeded to the MEL OLIVER. They arrived on-board the MEL OLIVER at 0612. The first interview conducted was that of [redacted] Deckhand [redacted] was interviewed second.

(6) Following the interview with [redacted] and based upon the information acquired during the interview, the DIO requested the Coast Guard DMI to come out to the vessel to inspect the steering system and radar.

(7) The DMI attended the MEL OLIVER at or about 0700. The Duty Inspector conducted operational tests of the steering and radar of the MEL OLIVER with satisfactory results. (IO Exhibit 94).

C. Drug and Alcohol Testing Information

TINTOMARA

(1) The on-watch crew, including the Master, Bridge Crew, Chief Engineer and forward look-out, had drug and alcohol testing completed within the required regulatory time period[26], all with [redacted] results (IO Exhibits 14, 15, 16 and 24, and TVT Exhibits 3 and 4).

(2) Following the collision, swab testing was conducted by 2/0[redacted]. All tests were determined to be [redacted]. Later, while securing the alcohol test packages, he noticed that the expiration date on each packet was already expired. He retrieved the testing strip box and realized that the box and all test packages therein were also expired. He took a black magic marker and blackened out the expiration dates (See IO Exhibit 13). He then printed a sticker on the computer printer and placed it over the expiration date on the box. He did not report the expiration to the Captain, the crew, or the Coast Guard. The packets were turned over to the Coast Guard as evidence of proper testing. (IO Exhibit 13, and TVT Exhibits 1, 2 and 5).

(3) While reviewing the evidence in Coast Guard custody, the blackened marks were discovered and analyzed. An inquiry was made to the manufacturer as to the expiration date of the lot number printed on the box and each of the packets. The manufacturer responded, stating the tests were invalid due to an expiration date of 1 November 2007, more than eight (8) months prior to their current use. The manufacturer also noted that the active ingredient, Alcohol Oxidase, is an enzyme that has a limited lifespan and therefore could not guarantee the performance parameters if used beyond the expiration date. (See IO Exhibit 13A).

(4) Following the collision, in addition to the saliva testing, Captain [redacted] took it upon himself to conduct alcohol breathalyzer testing. This testing was conducted and documented in the ship's log by Captain [redacted]. All tests were determined to be [redacted] (TVT Exhibits 1 & 3). Calibration of the testing unit was completed by the manufacturer and a certification report issued validating the correctness of the calibration. (TVT Exhibit 4).

(5) Federal regulations (46 CFR 4.06 & 16.240) mandate chemical testing for individuals directly involved in a serious marine incident (SMI) or any incident likely to become a SMI. Furthermore, 46 CFR 4.06-3(a)(i) requires alcohol testing be performed within two hours unless precluded by safety concerns but if so, as soon thereafter as possible (46 CFR 4.06-3(a)(ii). Paragraph 2 of this same CFR section addresses alcohol-testing devices but does not mandate a particular brand or type. It

[26] Alcohol testing is required within 2 hours per 46 CFR 4.06-15(3)

merely directs use "according to the procedures specified by the manufacturer…" Therefore, even taking into consideration that the swab tests were later invalidated, the TINTOMARA on-watch crew was properly tested IAW regulation by use of the breathalyzer.

(6) The Pilot, [redacted] (NOBRA [redacted] had drug and alcohol testing completed following the collision in accordance with 46 CFR 4.06 et al. A urine specimen was collected on 23 July at 0300 and alcohol testing was conducted at 0320; both with [redacted] results. (IO Exhibit 217).

MEL OLIVER

(7) The crew of the MEL OLIVER was alcohol and drug tested in accordance with federal regulations. Drug and alcohol screening began at 0543 and was concluded at 0610 (46 USC 2303a, 46 CFR 4.06 et al, and IO Exhibits 167, 168, & 169). Immediately following the casualty, the MEL OLIVER maneuvered in the vicinity of the casualty in an attempt to locate the barge and assess the situation. Once [redacted] was notified of the casualty, he arranged for drug and alcohol testing, which met the MEL OLIVER when it pulled into the Milian Street Wharf. The on-watch deckhand, [redacted] tested [redacted] for dangerous drugs (IO Exhibit 169). All other members of the crew, Apprentice Mate (Steersman) [redacted] and deckhand [redacted] had [redacted] results (IO Exhibits 167 & 168).

(8) Following initial drug testing, and based upon statements from the deckhands that [redacted] "was non-responsive" immediately after the collision, the testing lab was contacted and a request made for additional testing above the normal 5-panel drug test. The lab stated that additional testing was impossible because [redacted] specimens are discarded following the initial screen. [redacted] initial test was [redacted] therefore his sample had been discarded.

Vessel Traffic Center

(9) The Coast Guard VTS Watch Supervisor and Operator On-watch were both drug tested at 0630 on 23 July. Both tests were [redacted] (IO Exhibit 68). At the time of the incident, two Coast Guard civilian employees were manning the VTC. Per Coast Guard policy, civilian employees are only administered drug tests vice drug and alcohol screens.

D. Operational Hours and Fatigue

(1) At some point prior to the collision, [redacted] lost situational awareness. The deck crew of the MEL OLIVER testified that Steersman [redacted] was in a non-responsive state following the collision. ([redacted] pg 323 lines 10-18 and DL pg 178 lines 5-8).

(2) During the current duty rotation[27] a total of 193 hrs and 30 minutes passed between the morning of crew change (15 July 2008) and the time of the collision (01:30:37 on 23 July 2008). (IO Exhibit 69).

[27] The duty rotation of the MEL OLIVER was 14 days on – 14 days off for the wheelhouse crew – the deck hands often worked differing schedules but that matter is irrelevant to the findings of this investigation.

(3) According to the testimony of Terry Carver, he left the vessel on 20 July 08 around 1800 during transit down the LMR from Giesmar, LA. (TC pg 54 beginning line 19).

(4) Steersman [redacted] wheelhouse time began at 1800 on 20 July 08 and is inclusive of all the time until the time of the collision; or about 55 hours, 30 minutes.

(5) Of that time, the log book indicates the vessel was in an underway status 22 hours, 50 minutes. According to crew testimony after Terry Carver's departure, [redacted] would rest in his stateroom during periods of loading /offloading of cargo, during periods at dock or at other times when the vessel was not underway. Without further evidence to support actual "sleep" hours, the remaining 32 hours, 40 minutes can be considered non-operational time.

(See Table 5 for breakdown)

Bavaret Hours 15 Jul 08 - 23 Jul 08

Date	Underway hours		Non-movement hours		cumulative movement hours	cumulative non-movement
15 Jul 08 - 19-Jul-08						
120 hrs		48:00		72:00	**48:00**	**72:00**
20-Jul-08			00:00 - 18:00	18:00	(Terry Carver departs at 1800)	
24 hrs	18:00 - 22:15	4:15	22:15 - 24:00	1:45		
		4:15		**19:45**	**52:15**	**91:45**
21-Jul-08			00:00 - 3:00	3:00		
24 hrs	03:00 - 14:00	11:00				
			14:00 - 24:00	10:00		
		11:00		**13:00**	**63:15**	**104:45**
22-Jul-08			00:00 - 02:30	2:30		
24 hrs	02:30 - 05:30	3:00	05:30 - 12:20	6:50		
	12:20 - 16:00	3:40	16:00 - 24:00	8:00		
		6:40		**17:20**	**69:55**	**122:05**
23-Jul-08			00:00 - 00:35	0:35		
1.5 hrs	00:35 - 01:30	0:55				
		0:55		0:35	**70:50**	**122:40**

	Underway hours	Non-movement hours
193.5 hrs (8 days + 1.5 hrs)	**70 hrs 50 mins** 37%	**122 hrs 40 mins** 63%
last 55.5 hrs 18:00 20 Jul thru 01:30 23 Jul	**22 hrs 50 mins** 40%	**32 hrs 40 mins** 60%
last 25.5 hrs 00:00 22 Jul thru 01:30 23 Jul	**7 hrs 35 min** 29%	**16 hrs 25 mins** 71%

Underway hours equals the time the MEL OLIVER was away from the dock and moving in an underway status. Non-movement hours equals ALL OTHER time. [redacted] was the sole operator from 1800 on 20 July until the collision at 01:30 on 23 July therefore it is necessarily true that he was awake and operating the vessel during all underway hours. Nonetheless, it is impossible to break down the "non-movement" hours into sleep hours and awake hours.

Table 5: [redacted] Hours 15 Jul 08 – 23 Jul 08 (taken from MEL OLIVER logbook)[28]

(6) The MEL OLIVER arrived at the Stone Oil dock at 1400 on 23 Jul, then "spotted barge on dock st/by to load" at 1600, and "start" at 1900 (IO Exhibit 69). Since Steersman [redacted] was the only operator onboard at the time, it can safely be concluded that he was in the wheelhouse during the transit to the Stone Oil facility.

[28] Note: The time on 23 July had been adjusted to equal VTS data; that is, [redacted] is heard requesting departure from Stone Oil at 00:35 in contrast to the logbook that shows departure at "0100."

The transfer record indicates the transfer lasted roughly 3 hours, 40 minutes (from 1920 – 2300) in contrast to the logbook which indicates "start" at 1900 and "finish loading DM-932 Stone Gretna" at 0015, which would be roughly 5 hours, 15 minutes. It should be noted that additional time is needed following actual transfer to disconnect the transfer hoses and secure the barge.

(7) Steersman [redacted] and deck hand [redacted] both testified that [redacted] was asleep during the on-loading transfer period. ([redacted] #1 pg 317 and [redacted] #1 pgs 98–99)[29]. As such, [redacted] would have received somewhere between four and five hours of sleep prior to getting underway. When [redacted] was asked about this period of sleep, he testified that he wasn't tired because "I slept about four hours." He went on to add, "I felt fine when I got up." ([redacted] #1 pg 158, lines 1-5)

(8) Steersman [redacted] was the sole operator of the MEL OLIVER during the prior 55+ hours since Carver's departure; hours which were sporadic in nature with both long and short periods of "down-time" (IO Exhibit 69). Dr. [redacted], a licensed psychiatrist and Clinical Professor in the Department of Clinical Psychiatry and Neurology at Tulane University, stated that while not sleep deprived, [redacted] may have suffered from a changing of sleep rhythm from such a varied sleep and rest pattern. This resulted in fatigue and reduced performance. ([redacted] pgs 47–48).

(9) [redacted] repeatedly testified that he lost situational awareness because he was attempting to reset the radar.

E. Mechanical, Electrical and/or Equipment Failures

(1) Steering:

(a) Several weeks following the collision, the investigating officer attended the MEL OLIVER to view the void space under the wheelhouse and examine the mechanical steering linkage partially contained therein[30]. The duty marine inspector (DMI) who attended the MEL OLIVER the morning of the collision and another investigating officer came along for assistance. Upon arrival, it was noted that the area had been cleaned following the collision. The following is a descriptive account of the examination.

(b) Under the wheelhouse of the MEL OLIVER is a void space. This "void space" is a small room identical in footprint as the wheelhouse above it. It is roughly 4 feet in height and open, meaning there are no dividing walls or partitions. The space provides access to various hoses, wires, pipes, and systems running from the wheelhouse down into the engine room. Included in this space is the steering linkage system.

(c) The steering linkage is an open mechanical system consisting of rods and various yokes running from the steering-sticks in the wheelhouse through the void space then though a

[29] Terry Carver also testified that when he called the boat during that time, [redacted] told him that [redacted] was asleep.

[30] This examination and testing was deemed necessary following [redacted]'s insistence that the steering system had "jammed" the night of the collision. Following the collision, his first words to the deckhand were that the steering didn't work. This story remained consistent with each person he spoke to following the collision, including the DRD Safety Manager, NTSB personnel and USCG investigators.

passage in the deck plate and finally connecting to the hydraulic pumps in the engine room. These hydraulic pumps operate the steering rams which in turn operate the rudders. The majority of the linkage system is located in the void space below the wheelhouse.

(d) The void space under the wheelhouse on the MEL OLIVER was also used as a storage area for discarded parts, excess equipment and various supplies. Immediately following the collision, the DMI found this area to be cluttered and unkempt. In addition to a tremendous number of loose items, there was a substantial amount of oily liquid residue on the deck plating. (See photos below) (also reference generally [redacted]2).

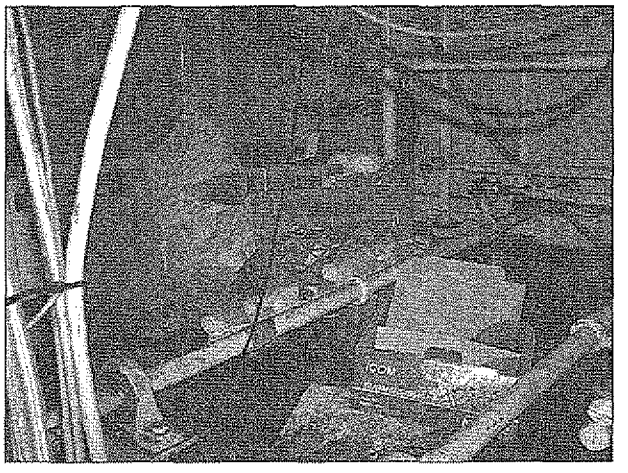


Photo 1 - IO Exhibit 139-3

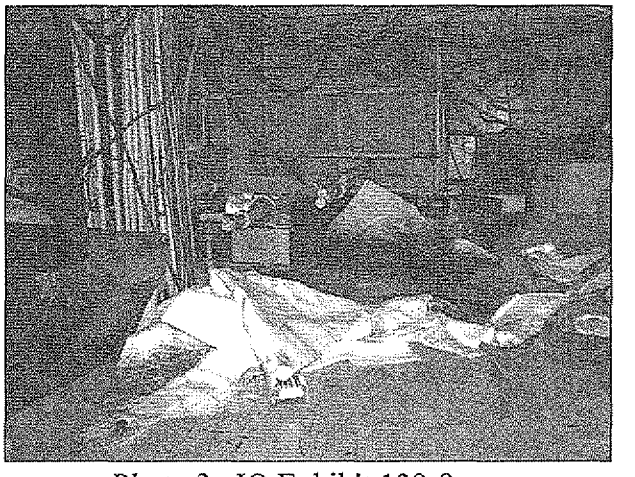


Photo 2 - IO Exhibit 139-8

(e) The fluid appeared to be coming from a leaking hose that extended into the wheelhouse, which was wrapped in an oily rag (see photo below). According to the DMI, it appeared to have been an ongoing problem because the entire starboard side of the area was oily and covered with absorbent cloth. ([redacted]2 pgs 32– 34) (see also, IO Exhibit 94, pg 2 line item 8).

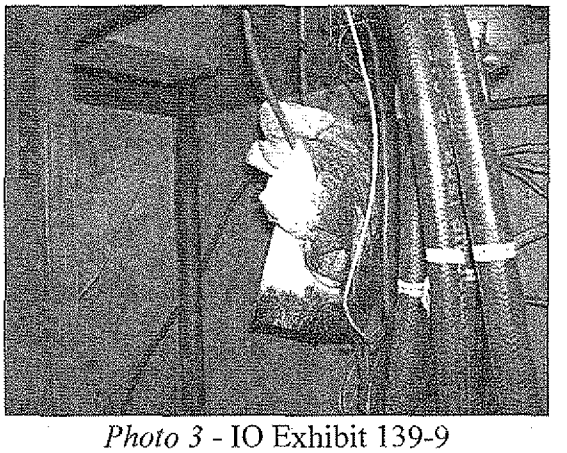


Photo 3 - IO Exhibit 139-9

(f) As seen in the photo to the right, the steering linkage is exposed.

(g) Each steering rod has a set of counter weights welded along the side to assist with movement when the steering-stick in the wheelhouse is manipulated or moved from side-to-side (steering from port to starboard and vice versa). ([redacted]2 pg 25 line18 – pg 27 line 22).

Note: photo marked by Marine Inspector, CWO [redacted] during testimony

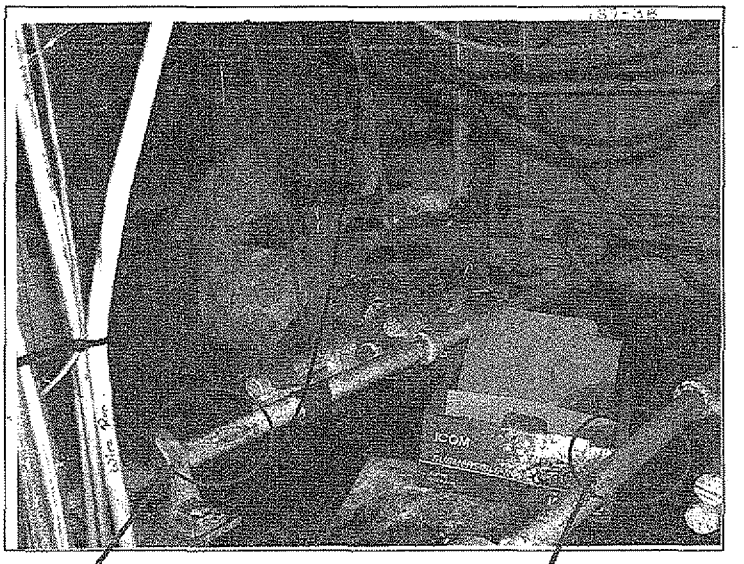


Photo 4: IO Exhibit # 139-3B

The steering system seen on the left side of the photo is for the main, or primary, steering system.

The steering linkage seen on the right side of the photo moves the flanking rudder.

(h) The system was roughly sketched to record various measurements such as distances and rotational movement. Clearance measurements were noted such as the distance at the rod ends when the steering-sticks were pushed from port to starboard.

The rotational movement of the linkage counter weights measured at 7⅛ inches to Hard Starboard and 3⅛ inches Hard Port.

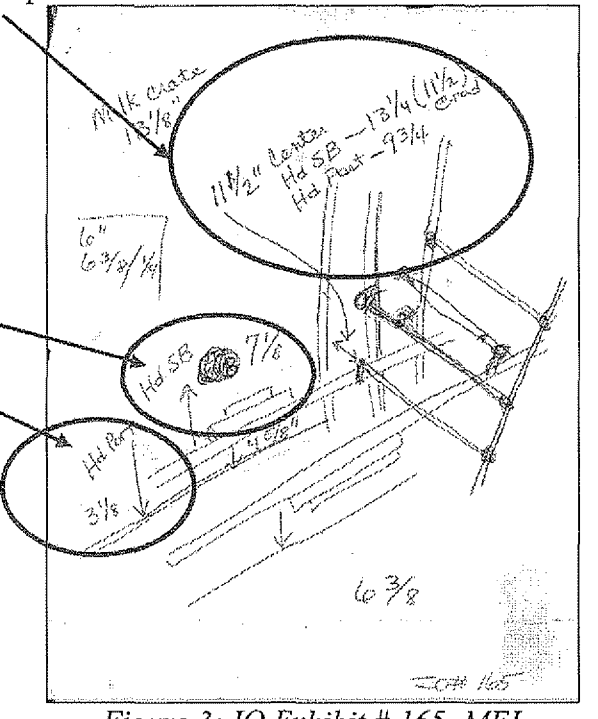


Figure 3: IO Exhibit # 165, MEL OLIVER Mechanical Linkage – hand-drawn depiction w/ measurements

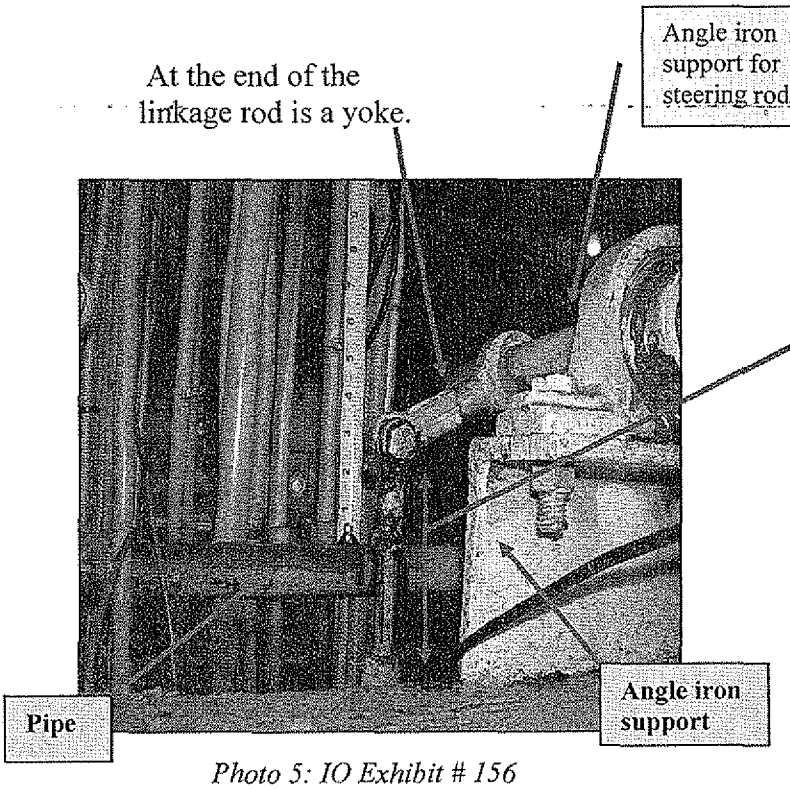
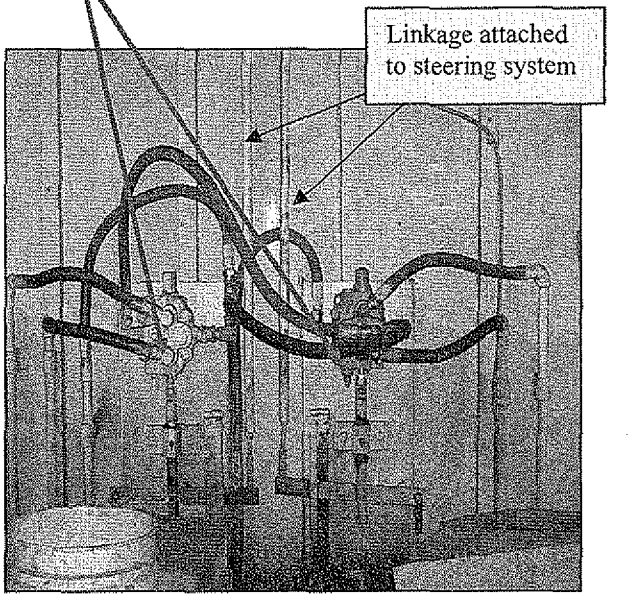


Photo 5: IO Exhibit # 156
MEL OLIVER Mechanical Linkage (without witness markings)

The yoke pivots up and down to manipulate the arms on the hydraulic pump(s) below the deck. ([redacted]2 pg 30 lines 13-17)



(j) The hydraulic pumps provide pressure to the steering rams that move the rudder(s). There are two separate pumps, one for the main, or primary, steering system and one for the flanking system.

(k) The area was cleaned at some point following the collision and prior to this visit. All items were stacked neatly along the sides of the bulkhead, the deckplate (floor) was wiped clean and the dripping line had been repaired. (see ACL photo to right).

(l) Comparing the photos of this space from the day of the collision, an inventory was done and all but two items were located (a small metal wire rack on the far right side and an empty box). The items on the left side of the space as seen in the original photos remained on the left side and visa versa. ([redacted]2 pg 38 line 16 – pg 39 line 20).

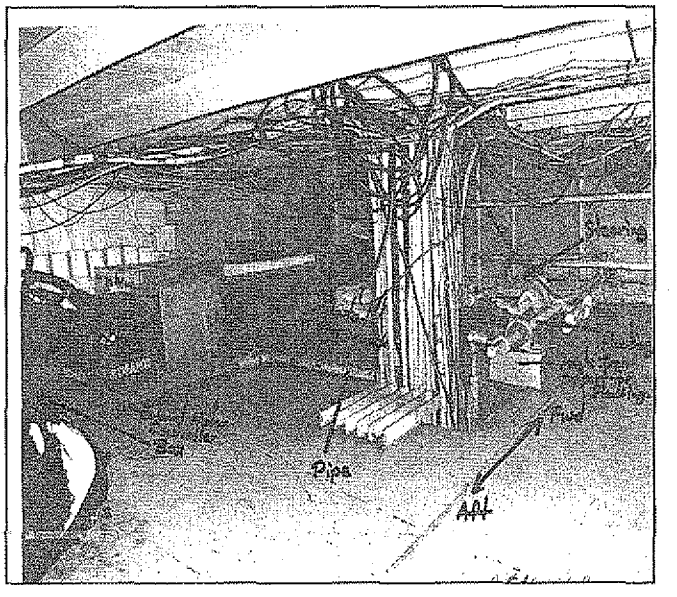


Photo 7: ACL Exhibit R
(annotated by CWO[redacted] during testimony)

(m) During the course of the examination the steering system[31] was inspected to determine if any of the loosely strewn objects in the space could have become lodged in the open linkage, thereby jamming the system. The examination began at the vertical rods which extended down from the wheelhouse along the bulkhead. Various items such as the loose milk crate were placed in between and around the linkage. The assistant IO was positioned in the wheelhouse and manipulated the steering sticks to rotate the system linkage from starboard to port positions. No jamming occurred.

(n) The examination then continued down the linkage rod and like testing was done around the counter weights. Again, no jamming occurred. Finally, the examination led to the end of the rod and the yoke. (see photo 5, previous page). This yoke is the "elbow" of the rod between the horizontal section in the void space and the vertical section passing through the deckplate into the engine room where it attaches to the hydraulic pump.

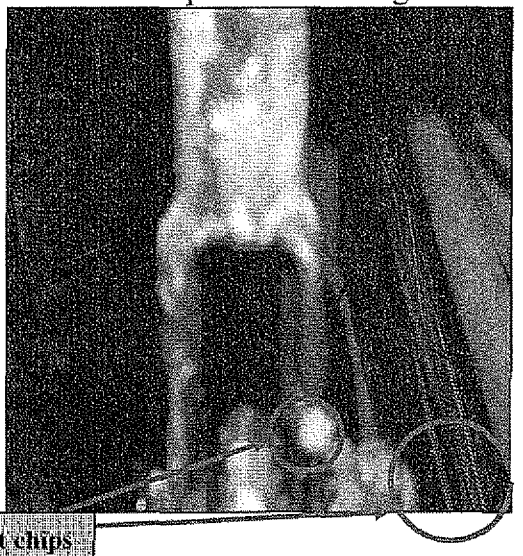


Photo 8: IO Exhibit 164 steering yoke with chips

Under side of the same yoke seen in Photo 9 below

(o) The yoke was examined for any signs that it had been stressed, impacted, gouged, etc. When the underside of the yoke was inspected two flakes of cream-colored paint were found imbedded into the lubricating grease. That is, the flakes were not just resting on, or otherwise sticking on the grease, they were pressed in an upward fashion into the grease on the underside of the yoke. The chips were removed and sealed

(p) Looking around the area near the yoke, a loose metal electrical box was found[32]. Along the edge of the box was a cream-colored paint that appeared to be the same color as the chips found under the yoke. The box was located on the same side of the "room" as the yoke and was of a size that it was reasonable to believe that it would fit under the yoke.

(q) The box was slid under the yoke. The box moved easily under the yoke and the area on the box painted with the cream-colored paint met up exactly with the spot under the yoke where the paint chips were found. (see photo right).

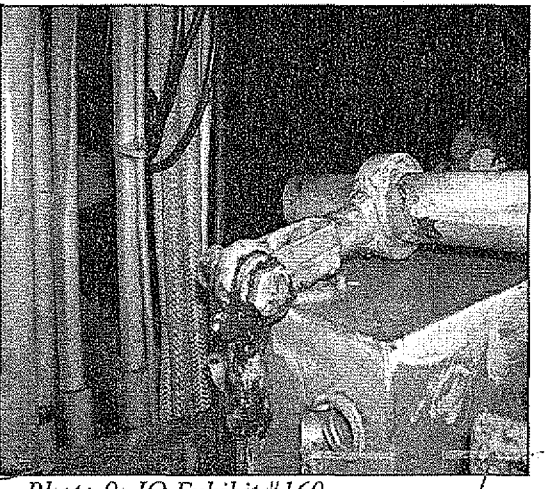


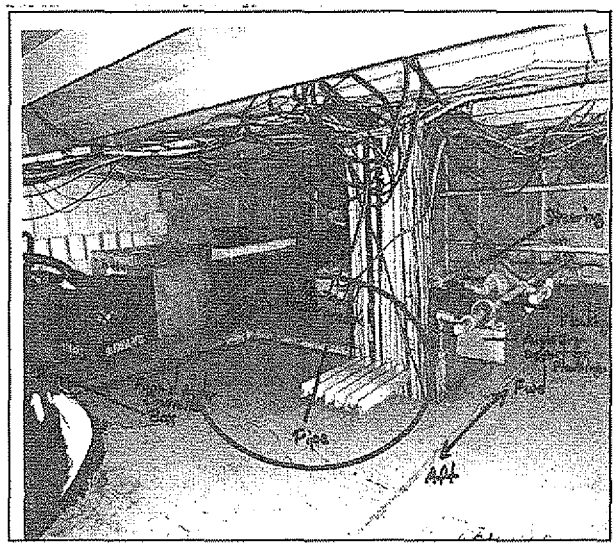
Photo 9: IO Exhibit #160

[31] Due to [redacted] admission that he never used or attempted to use the flanking rudders, only the main steering system was examined and tested.

[32] Other than the milk crate previously mentioned, the box was the only other loose item having areas covered in the cream paint. The space itself was also painted in the same color, but nothing of that color was near where the paint chips were found in the yoke.

(r) In an attempt to determine how the box could have worked its way under the yoke, a survey of the layout surrounding the yoke was done. Note again ACL Exhibit R (right).

In addition to the angle iron support for the steering rod on one side (as seen in photo 5, page 50, photo 9, previous page and photo 10 below), a pipe runs across the deckplate. The position of the pipe and the position of the angle iron created a "channel" leading directly to the yoke; the angle iron on one side, the pipe on the other and the yoke at the end. Notice how far the pipe extends toward the side wall where all the loose materials are stored.



(Duplicate *Photo 8): ACL Exhibit R*
(annotated by CWO [redacted] during testimony)

Considering the oily nature of the deckplate, coupled with the natural vibration of the towboat, it is possible that the loose box worked its way into the "channel" leading to the yoke and eventually under the yoke. (see placement of box between pipe and angle iron in photo 10 below).

(s) Several tests were conducted on the steering linkage. An IO was in the wheel house of the MEL OLIVER and asked to turn the stick to starboard. Measurements were taken with the box under the yoke and without the box; the difference in the travel distance was roughly ⅞ of an inch (4 ⅜ vs 3 ½). ([redacted]2 pg 53 line 16 – pg 57 line 17). This test was conducted numerous times with the IO using both hands in an attempt to get the sticks to move to starboard; all without success. Additional tests were conducted turning the steering-sticks to port. The box did not impede the rotation of the steering to the port.

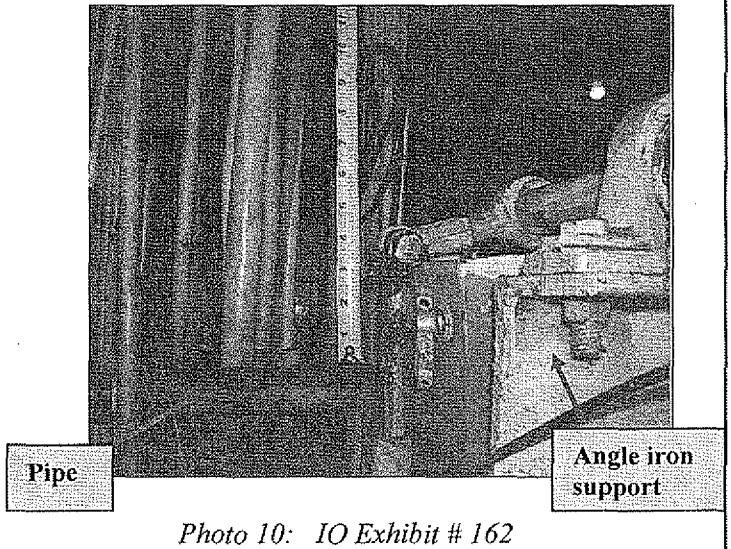


Photo 10: IO Exhibit # 162

(t) In addition to the measurements taken of the linkage and yoke under the wheelhouse, measurements were also taken at the rudder. The testing was done with the engines energized and the hydraulic systems pressurized. CWO [redacted] described the testing conducted with the assistance of ACL port engineers: the steering system was brought online and "actually checked the swing of the rudders with the box under the linkage and with the box clearing the linkage." A measurement of the linkage clear of any obstruction was taken first using the "installed pointer as a point of reference and dropped a mark on the deck just below that. We had 11 inches of travel with the linkage free… roughly it's going to be about 35 degrees at hard over rudder." Afterwards, the box was placed under the linkage and "we again shifted to starboard using the same point of reference to drop a pen mark on the deck and we got 7

inches." CWO [redacted] stated that collectively he and the ACL port engineer, Mr. [redacted], concluded that the rudder only had 20 degrees of travel. [redacted] 2 pg 58 line 14 – pg 60 line 5).

(u) The difference in the movement of the rudder was 15 degrees. This measurement is significant considering full unobstructed rudder measures 35 degrees. The electrical box did not totally "jam" the steering system but it did severely impede the movement of the linkage which, in turn, severely impeded the movement of the rudder; in fact the rudder was impeded by 15 degrees or roughly 43% its full movement.

(v) The paint chips and electrical box were sent off to be tested at Acadiana Criminalistics Laboratory in New Iberia, Louisiana (see IO Exhibit 215, DE #1 for certification). The evidence was received and later examined by Mr. [redacted] a certified forensic chemist (IO Exhibit 215, DE #2). The results of the laboratory examination are as follows:

> "The cream colored question paint chip from steering linkage under wheel house, item 02, was examined and determined to be microscopically and chemically (Pyrolysis Gas Chromatography / Fourier Transform Infrared Spectroscopy (FTIR)) indistinguishable from the cream paint present on the gray electrical box, item 01, and therefore could have originated from the same source."
> (IO Exhibit 211 pg 1).

Mr. [redacted] attempted to fracture match the question cream paint chips with the electrical box but no such match could be made. When asked the question "Does lack of a fracture match mean that the box cannot be the source?" (IO Exhibit 211 pg 2). Mr. [redacted] supplemented his original report stating the following:

> "The lack of a fracture match between the question cream colored paint chips from the linkage under the wheel house, item 02, and the electrical box, item 01, does not eliminate the possibility of the question paint chips, item 02, as coming from the electrical box." (IO Exhibit 211 pg 3).

Mr. [redacted] supported his report with testimony using various testing reports and printouts. (IO Exhibit 215 w/DE#3). Mr. [redacted] reached the conclusion that the paint chips found on the underside of the yoke and the paint on the electrical box were "indistinguishable" [redacted] pg 45) and "chemically the same." [redacted] pg 176).

(w) Although the box was used to conduct the steering tests, no damage was noted to the electrical box. Because the steering linkage system is mechanical, there is not enough force to crimp, bend, dent, or otherwise damage the box.

(x) Steersman [redacted] testified that after realizing the MEL OLIVER was in the path of the oncoming TINTOMARA he attempted to steer the vessel out of the way but could not because the steering would not respond...

```
15          A.   ...I was trying to steer out of
16               it at first.
17          Q.   So you just -- when you say "steer out
18               of it" you maneuvered the sticks?
19          A.   Yes.  I was using both hands because
```

they didn't want to steer. It was jamming for some reason.

Q. So you were using both hands pushing on it?

A. Yes.

Q. And you said it wouldn't move. It just stayed in the course?

A. Yes.

[redacted]1 transcript, pg 103, line 15 – pg 104, line 2)

(y) Prior to the collision, the MEL OLIVER had been moving in a straight northerly direction for nearly 50 minutes. The only turn made after leaving the Stone Oil dock was the port turn when reaching the East Bank and the slow turn to port when the MEL OLIVER turned out into the river prior to the collision. Had something been jammed under the yolk, its presence could have gone unnoticed since at no time was a starboard turn calling for full rudder executed. (IO Exhibit 1).

(z) Other than the two turns to port and the wavering movement prior to the turn, the only other movement of the MEL OLIVER was the violent rocking and turn-around that followed the collision. (IO Exhibit 1). According to the testimony of the deckhands onboard, as well as the deckhand onboard the JUDY ANN who witnessed the collision, the MEL OLIVER rocked violently to the port when struck by the TINTOMARA. [redacted] pg 237; [redacted]1 pgs 320-321).

(2) Radar:

(a) The morning following the collision the USCG marine inspector went to the MEL OLIVER at the request of the investigating officer to conduct tests on the steering system and radar. According to the marine inspector's report the testing was requested because "it was mentioned by the 'steersman' to the IO's that these systems may have been malfunctioning." (IO Exhibit 94, inspection report by CWO[redacted] *grammar original*).

(b) Initial inspection of the radar system was performed by the USCG marine inspector with no deficiencies noted (IO Exhibit 94). Due to the limited extent of the inspection, an independent marine surveyor was brought in to conduct an in-depth inspection of the MEL OLIVER's mechanical and electrical systems. Various testing was conducted by the marine surveyor (IO Exhibit 70) followed by more extensive testing on the electrical and radar systems by a qualified radar technician (IO Exhibit 71) and certified electrician. (IO Exhibit 95).

(c) Notwithstanding these various tests, the problems reported by Steersman[redacted] could not be duplicated. (see generally testimony of[redacted], and[redacted]). However, the radar technician did find the following:

> Radar: Found keypad worn, slow to respond and tune function appears inoperable. Adjustment of the tune knob does not appear to change target depiction on display. Heading alignment checks satisfactory. Found no visual change in radar during winch operations, with winch under simulated heavy loading. However, on day of testing, we were unable to see an approx. 400 foot tow traveling from starboard to port just aft of the vessel. Main Bang

suppression (distance around vessel where no targets can be seen, normally 100 feet approx.) appears excessive causing the elimination of targets within a 1/4 mile radius, leaving half of the river unable to be seen by radar (approx. distance of river crossing = .5 statute miles.)

(IO Exhibit 71).

(d) During repeated interviews, [redacted] maintained his story that the radar went out when he tightened up both wenches simultaneously thereby placing a heavy load on the electrical system. He was attempting to reset the system for over one minute and did not realize the vessel was beginning to turn.

(e) After review of the testing results provided from the initial, non-specific testing, the marine surveyor, electrician and radar tech were brought back to the MEL OLIVER to conduct specific tests to duplicate the fact-scenario presented by [redacted] ([redacted] pgs 239-243) ([redacted] pgs 140 – 142). The report provided, "No change in radar operations were seen during testing. System appears fully functional." (IO Exhibit 72).

(f) Notwithstanding the written report, during testimony the radar technician testified that a reboot of the radar system did occur when the electrical system was heavily bogged and voltage dropped below a certain level. He recalled that "when it finally got to a certain point, I believe the radar turned off and you had to turn it right back on again. It put it into standby is what it did. You lost your targets and it actually showed kind of like rebooting your computer is what it did." ([redacted] pg 142). He qualified his written report by saying although the system rebooted, it was otherwise functional; therefore, it was annotated as such. ([redacted] pg 143).

(g) Additional information regarding the functionality of the radar system on the night of the collision was provided by Captain [redacted] master of the towing vessel JUDY ANN. Captain [redacted] pulled his vessel the JUDY ANN along side the MEL OLIVER within minutes of the collision (IO Exhibits 1, 206 & 207). During an interview, he noted that the radar caught his attention when he pulled alongside the MEL OLIVER because it was the same type as the one he had, and he thought it odd that the center was blank. Captain [redacted] was underway out of the local area[33] and unavailable for oral testimony; however, in his written statement provided following the in-person interview, he noted "when I pulled up to the MEL OLIVER @ Napolian Ave. on his port side, I seen the radar (MEL OLIVER) was dark with green around the side." (IO Exhibit 207).

(h) [redacted] went on to testify at the hearing that he was not very familiar with the radar on the MEL OLIVER; it was older than the one on the PAM D and he did not know how to get it reset following the reboot. ([redacted] #1 pg 113).

During his testimony, [redacted] (DRD Safety Manager) stated that immediately after the collision, [redacted] offered different accounts of what happened. [redacted] stated that the radar, steering, and radio had problems. [redacted] tested the radar, steering, radio, and generator and could not find a problem. ([redacted] pgs 49-50, 125, 132)

[33] Captain [redacted] does not normally work the LMR area . He is originally homeported off the Mississippi Coast but happened to be doing a dredging job in the area the night of the collision.

F. Post-Casualty Damage Surveys (Vessels Only)

(1) Total damage

Post casualty damage surveys were completed on both vessels and the tank barge.

Total cost of damage =	$	361,000	
TINTOMARA =	$	210,000	(reported by party-in-interest)
MEL OLIVER =	$	1,000	(reported by party-in-interest)
DM932 =	$	150,000	(barge was a total loss and scrapped; insurance proceed amount)

(2) Individual Vessel Damages

TINTOMARA

The TINTOMARA sustained cosmetic damage only. Paint scrapings were noted on both the port and starboard sides of the vessel.

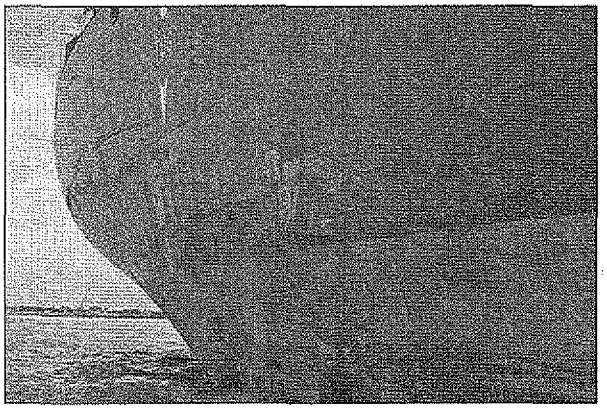


Photo 11: Port side TINTOMARA (post casualty)

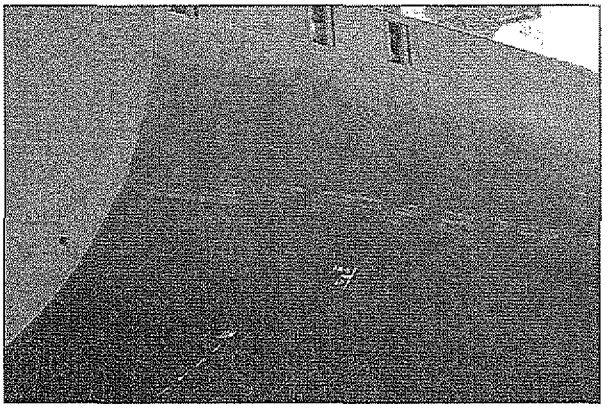


Photo 12. Starboard side - TINTOMARA (post casualty)

In addition, the TINTOMARA had a sufficient residual amount of oil remaining on her bulbous bow as shown in the following photo. Of significant note, the bulbous bow is of a unique shape. Unlike the common rounded tip, the tip here has a sharp, almost knife-like edge. This edge cut into the tank barge (DM932) nearly severing it in half. (see Photos 17 &18 page 55 below).

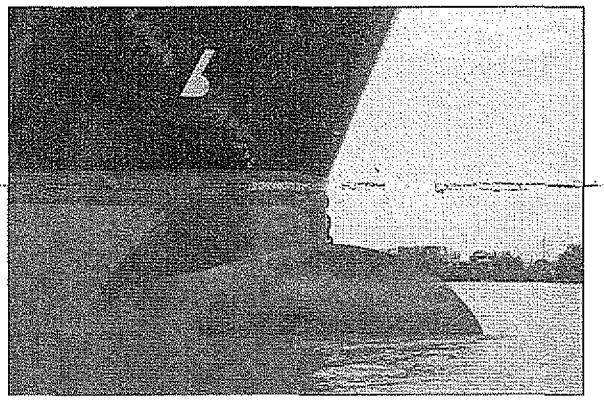


Photo 13. Bulbous Bow TINTOMARA (side view) *(post casualty)*

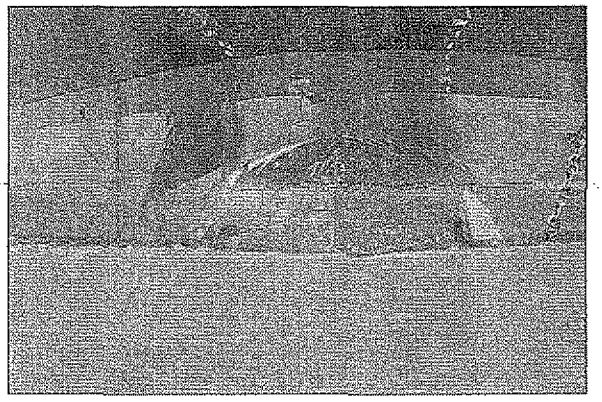


Photo 14: Bulbous Bow TINTOMARA (front view) *(post casualty)*

MEL OLIVER

The MEL OLIVER sustained minimal damage, mainly to surface areas (such as lighting and railings) resulting from the back-lash of the face wires.

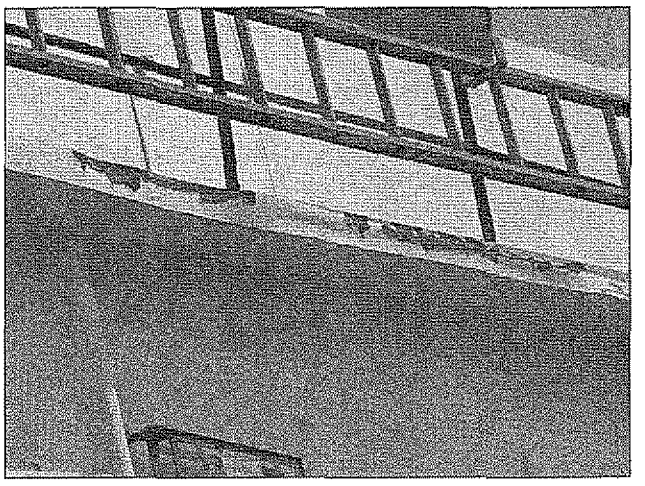


Photo 15: Port side MEL OLIVER *2d deck railing(post casualty)*

DM932

NOTE: *All photos below are post-salvage; the two halves remained connected by a solid portion along the Starboard side following the collision. The two halves were severed from one another to facilitate salvage.*

The DM932 was severed nearly in half roughly 70' behind the bow rake.

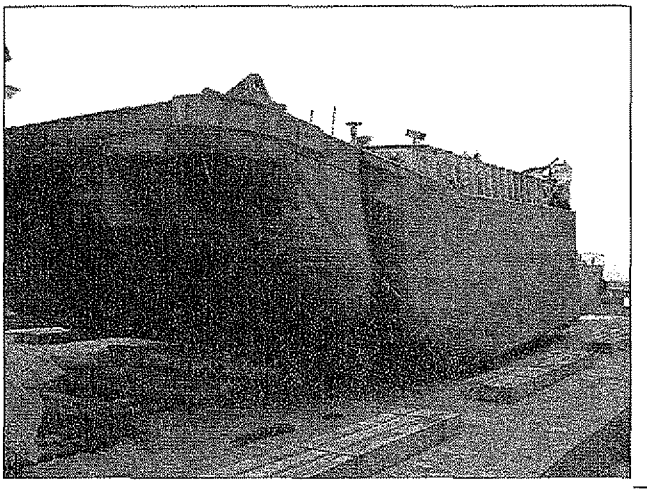


Photo 16.: Bow rake, forward half of salvaged barge DM932; *about 70' in length (post casualty)*

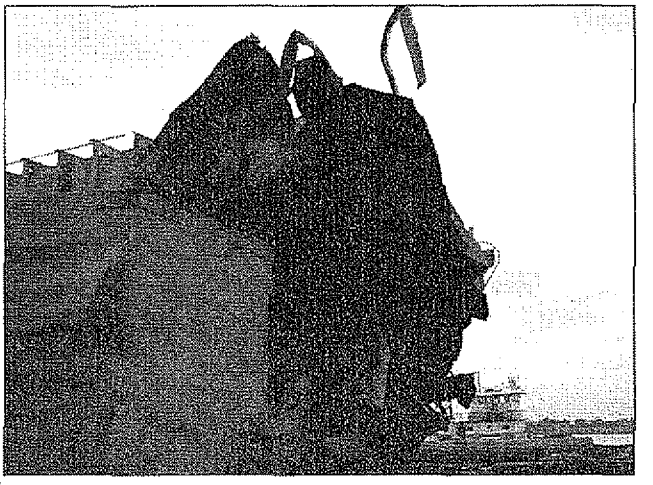


Photo 17: Port Side DM932 *at location of impact (post casualty)*

G. Environmental Damage

(1) The barge (DM932) was carrying 9,983 barrels (419,286 gallons) of No.6 Fuel Oil at the time of the collision. A total of 3,249 barrels (136,458 gallons) of oil were lightered from the sunken barge and placed in a storage tank. Therefore, the total estimated amount of product discharged during the incident is 6,734 barrels. (282,828 gallons).

(2) Over 100 miles of the Lower Mississippi River were affected by the spill, closing the river for a week to commercial vessel traffic. Three major ports, four navigational locks, over 200 regulated waterfront facilities, and over one thousand vessels were affected.

H. Actions of DRD Towing Post-Casualty

(1) [redacted] the office manager and payroll supervisor at DRD was asked to produce the payroll records of DRD for the period 1 February 2008 to 31 July 2008, to which she produced a computer generated listing consisting of 712 pages. This payroll register was then compared to the original paystubs provided by [redacted] (IO Exhibits 127 – 130). Ms. [redacted] was then asked for the original paystubs held by DRD for Terry Carver and [redacted] for the month of July 2008.

(2) In lieu of the original stubs, Ms. [redacted] printed a current listing off the computer payroll system (IO Exhibits 144 & 145), which in turn was compared to the original paystubs provided by [redacted] (IO Exhibits 127-130). During this comparison, it was found that the computer database used to track the payroll of DRD employees had been manually changed; the pay rate for [redacted] was changed to a standard rate of $275 for all vessels previously worked on in stark contradiction to the original paystubs that reflected rates from $275 to $450; below is one example:

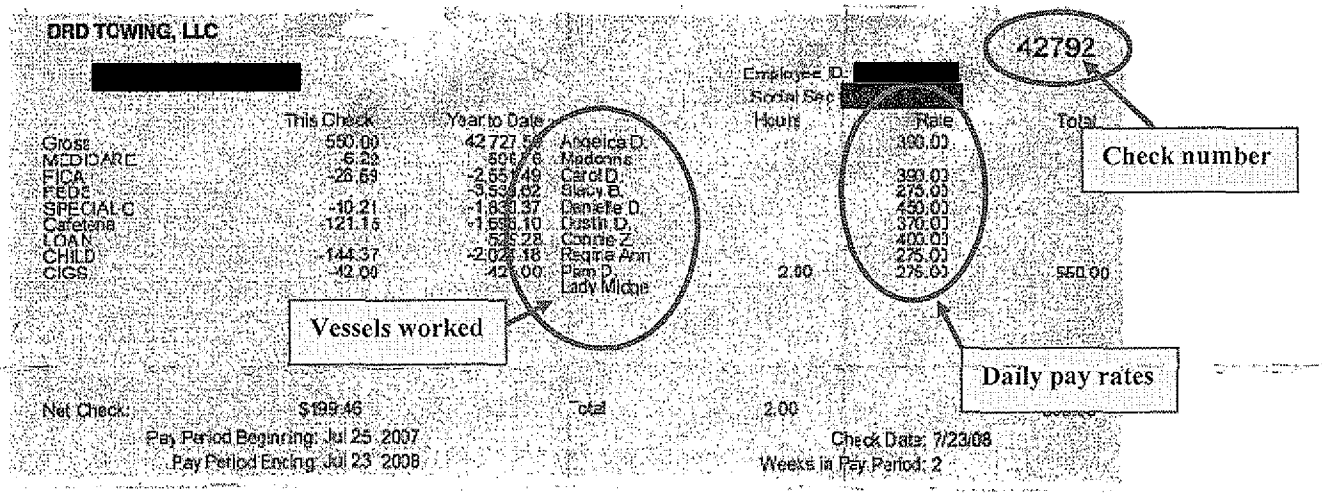


Figure 4: (IO Exhibit 130) *(Note: the social security number has been blacked out for privacy reasons)*

The original check stub #42792 was compared to the computer-printed paystub #42792:

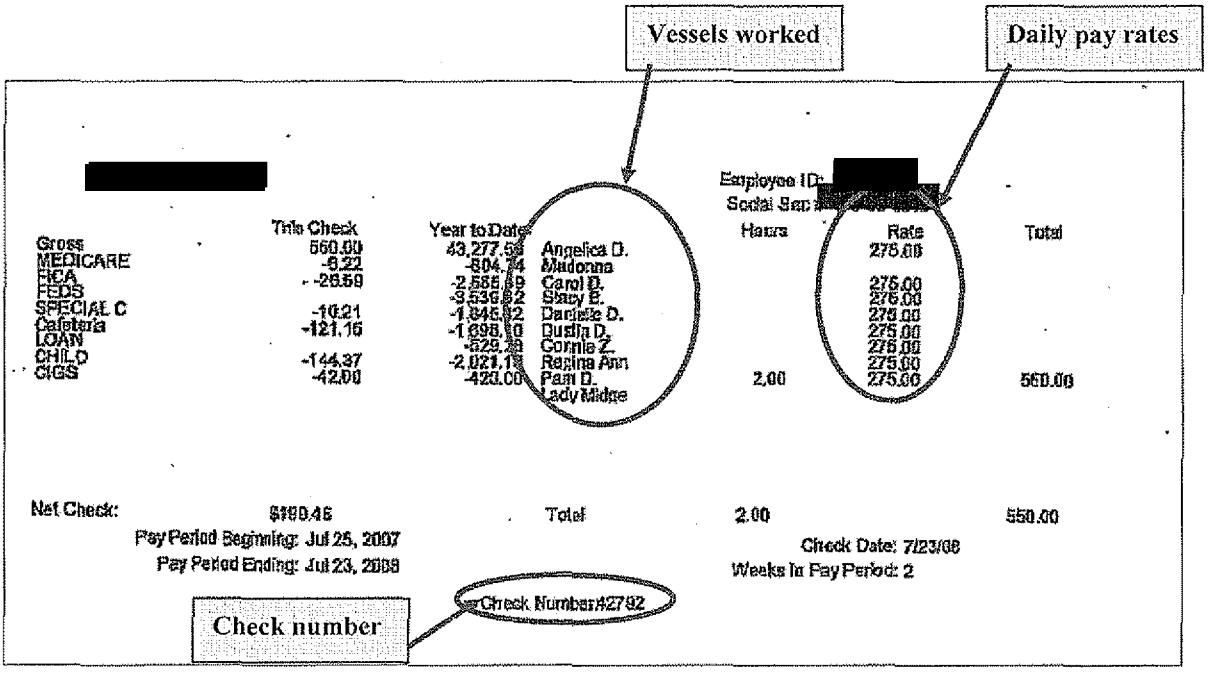


Figure 5: (IO Exhibit 143) *(Note: the social security number has been blacked out for privacy reasons)*

(3) When asked about the original paystubs, [redacted] stated that she could not produce the original stubs because they were missing from the DRD files ([redacted] pg 67). As of the date of her testimony, the stubs still could not be located. ([redacted] pg 67).

(4) [redacted] DRD Port Captain, also maintained payroll-related information on his laptop computer. In the days following the collision, [redacted] was asked by [redacted] to delete payroll items from his laptop computer:

18 A. I remember [redacted] asking for it to be
19 deleted, and I told him that I didn't feel
20 comfortable deleting it, and he said, Don't
21 worry about it, we'll take care of it.
22 Q. And when did this conversation take
23 place?
24 A. Several days after the MEL OLIVER
25 incident.

([redacted] pg 323)

(5) [redacted] also testified that, in addition to the computer files, paper documents came up missing in the days following the collision; when asked what happened to the documents, [redacted] replied "my guess was that they were destroyed" because "a few days after the incident the shredder was in a different place, it was in the backroom instead of in [redacted] office, and there was a lot of confetti around it." [redacted] went on

to state that the back room "was [redacted] office." ([redacted]1 pgs 324–325) (see also [redacted]2 pgs 241–244).

(6) [redacted] further testified that the movement of the shredder, coupled with the amount of confetti on the floor, indicated to him that records were being shredded. ([redacted]2, pg 150 lines 3-6).

(7) In addition to information regarding activities occurring at the DRD offices, [redacted] testified that [redacted] contacted him following the collision and expressed concerns over what he might say to the Coast Guard regarding the use of unlicensed or improperly licensed individuals. ([redacted]2 pgs 94–95 and pgs 97–100). [redacted] stated [redacted] was "concerned how I might word things and who it might – and what the implications of that might be." ([redacted]2 pg 98). [redacted] was asked "Did she ask you not to say certain things?" Answer: "She was kind of hinting to be careful at how I would word things, yes." ([redacted]2 pg 98).

(8) Following [redacted]s testimony, [redacted] was recalled to the witness stand. [redacted] invoked her 5th Amendments rights and refused to testify further.

I. Actions of ACL Post-Casualty

(1) During the course of the investigation thirty-eight written subpoenas[34] were issued for both witness appearance and for production of documents. Of those, six were issued to ACL for various documents, including the subpoena of 19 August 2008 requesting, among other things:

> A complete copy of all documents related to DRD Towing, including but not limited to lease records, lease contracts, training records, drug tests, surveys, log books, log records of any kind, maintenance records, and/or tasking sheets for the period covering 1 August 2007 – 1 August 2008.

Figure 6: Excerpt from ACL subpoena dated 19 August 2008

(2) On 11 September 2008, counsel for ACL made a return on the subpoena, part of that return included logbook pages from the MEL OLIVER.

(3) During the course of the formal hearing, the request for documents outlined in the 19 August subpoena was reiterated to counsel for ACL; yet no further documents were produced.

(4) At some time following the marine casualty, ACL received a Federal Grand Jury Subpoena wherein the same documents were requested and subsequently produced.

(5) On or about 22 June 2009, following the closing of the investigation, a letter was received from ACL referencing the Grand Jury Subpoena. Attached thereto were 65 pages of documents not previously produced (the remaining pages were duplicates to IO Exhibit 69).

[34] There were also a number of verbal requests for production of documents given to various Parties-in-Interest during the formal hearing process.

(6) Upon receipt of the additional evidentiary documents on 22 June 2009 and a subsequent review thereof, it was necessary to reopen the record for insertion of the documents and to make a determination on the record regarding the newly submitted evidence. A Writ of Error Coram Nobis[35] was issued to accomplish this task. The complete Writ is included in the appendix for review.

(7) In light of the above, it is readily apparent that ACL did not fully comply with a federal subpoena issued by the United States Coast Guard for documentary evidence related to this investigation.

8. Non-Causal Actions, Events, and Conditions

A. AWO Certification / Responsible Carrier Program

(1) "The AWO is the national trade association that represents the domestic tug and barge industry. We have 300 members nationwide. We represent their interests in Congress, with the Coast Guard, and with the public." is how [redacted] Vice President of Safety describes the American Waterways Operators. ([redacted] pg 19). Mr. [redacted] has been with AWO since 1996 and has been involved with the Responsible Carrier Program (RCP) from the beginning of his employment. ([redacted] pg 22).

(2) According to Mr. [redacted] AWO has "two classes of members. We have carrier members, and we have affiliate members. Carrier members are the folks that are actually moving cargo. Affiliate members are companies that are associated with our industry; legal firms, sales corporations, things of that nature. But 244 of the members are actual carrier members. Those are the folks that are transporting cargo, operating tugboats on these waterways of the United States." ([redacted] pgs 23–24). Every member must go through the application process and pay the yearly membership fee of $4,000. In addition there is an assessment fee based on horsepower and on tonnage. For the payment of these fees, the company or "member" gets the AWO News Letter, regulatory advocacy, congressional and state advocacy, and the service of the AWO safety department. (see generally [redacted] pgs 26-28).

(3) "The Responsible Carrier Program is a safety management system," says Mr. [redacted] where members develop policies and procedures in three areas of their operation: management and administration, vessel equipment, and human factors. Once these are in place, it is a 3-step process: 1. Begin to do the training that's required, 2. insure that vessels are equipped according to the requirements of the Responsible Carrier Program, and 3. prove what you do by undergoing a third-party audit. ([redacted] pgs 29-30).

(4) Once a company joins AWO, they are expected to undergo an initial audit within one year. They must have their policies and procedures in place and they have to at least begun to accomplish the training and conduct the safety meetings as required by the program. During that first year new members are expected to "at least make a good start." ([redacted] pg 31).

(5) According to Mr. [redacted] once this first audit is done, the member has a 3-year window before they are audited again. During this next periodic audit, the member company "better do better than that." ([redacted] pg 31 line 24). The member needs to be able to show completion of safety meetings and training, in addition to crew members being tested on-site with drills showing competency in the areas of training; such as fire drills and equipment stowage. ([redacted] pgs 31-32). There is also completion of a check list for the management and administration section of the program. These check lists provide guidance for adherence with federal regulations (ie., CFRs) along with references to RCP requirements. ([redacted] pg 23).

(6) DRD Towing became a member of the AWO on 21 Nov 2003 (IO Exhibit 83) and had its first audit on 17 Feb 2005,[36] for which an auditor letter of compliance was sent to AWO and received on 4 March 2005. On that same day, a letter was sent to DRD from [redacted] stating DRD would be "be entered into our database of fully certified Responsible Carriers and published periodically in the *AWO Letter*." On 16 March 2005, a congratulations letter was sent to DRD from [redacted] President & CEO, for "successful implementation of the Responsible Carrier Program and completion of a third-party audit by an AWO-certified auditor." (IO Exhibit 149). These letters came after first audit was passed.

(7) The next audit of DRD was scheduled for 17 Feb 2008, three years from its initial audit. During the three-year period leading up to this second audit, DRD was listed in the AWO database as a "fully certified Responsible Carrier" although it had not been checked for compliance with any of the safety requirements of the program.

(8) On 12 Feb 2008, the first in a series of e-mails would be sent regarding DRD and its RCP audit[37]. The 12 Feb e-mail was from [redacted] to [redacted] both AWO Auditors[38], where [redacted] addresses several issues with DRD:[39]

> Attached is the itemized list of non-conformities that DRD Towing needs to address to meet the AWO RCP requirements. There are 52 of them but a few of the maintenance NC's may be covered in a maintenance manual if they have it. I can't verify alarms, guages etc. anywhere in the Operations Manual. The book is very disorganized and not very user-friendly. There are lots of items included that I do not believe DRD needs to address as I do not think they do them. Numerous pages on cargo transfers, vapor recovery, etc.
>
> They definitely need some expert guidance to get where they need to be. I have not reviewed their Security Plan yet but will get it completed by Monday. This will give [redacted] and [redacted] enough to do until I do get it reviewed. I'm headed to Pittsburgh tomorrow AM but will be back noon on Friday. I decided not to contact DRD after we talked as I do not want to chance putting you in a precarious position with them. I will do the complete audit as long as everyone is happy with that. Just let me know what you need.

Figure 7: IO Exhibit 100 (in part)

(9) Following up on the 12 Feb 2008 [redacted] e-mail, Mr. [redacted] sent a letter to the safety manager at DRD, [redacted][40] In that letter, [redacted] forwards the list of the 52 deficiencies noted by [redacted] (IO Exhibit 122).

(10) On 3 March 2008, [redacted] sent another e-mail to [redacted] in reference to the DRD audit and noted the fact that he was creating, completing or editing various DRD manuals required to pass the current audit. (IO Exhibit 101).

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[36] According to the membership date of 21 Nov 2003, DRD should have undergone its first audit on 21 Nov 2004 however under an old rule when DRD applied allowed for two years ([redacted] pg 56 line 25 – pg 57 line 2).

[37] A review of each e-mail, while time consuming, is necessary to fully understand what the state of affairs were at DRD and the on-going issues since being certified a "Responsible Carrier" – it also demonstrates the level of oversight by ACL, the owners of several DRD-operated vessels.

[38] The list of AWO Certified Auditors is included in evidence as IO Exhibit 91.

[39] The "list of non-conformities" mentioned in the e-mail are included in evidence as IO Exhibit 104A.

[40] "[redacted]" is a shortened nick-name for [redacted]

(11) [redacted] sent a follow-up to [redacted] on 10 March 2008 stating that the DRD manuals were coming along but there were significant issues beyond that. He had been to visit three of the DRD vessels and none of them met the minimum requirements to pass the audit.

> Now the vessels are a different story [redacted] I looked at three (ACBL Fleet boat, Kirby fleet boat and a Kirby dedicated Canal boat) and none of the three meet mimimum requirements. Most fire extinguishers were expired or unacceptable on all three boats with some being expired as long as 10 months. The B-V's on all three boats have been expired since last June or longer. Smoke alarms disabled and/or not operating, emergency lighting not operating, fire stations not properly maintained and/or functioning and observed evidence indicates smoking in bed on two of the vessels just to name a few. One boat advises they had a fire drill "sometime last year." Fall arrest protection is not onboard as required.
>
> I had the opportunity to see the M/V Anjelica D from the M/V Demi D while conducting their audit and visual observation indicates this vessel is in about the same condition as the three I've looked at. Fire hoses was not connected on the port side nor was the station marked for starters.
> Suggest we either look at a few more boats or return to these for a second look before signing off on them. Would not want my name on the audit after a "serious marine incident" until improvemnets are completed.

Figure 8: IO Exhibit 102 (in part)

(12) On 10 April 2008 [redacted] sent another e-mail to [redacted] regarding follow-up visits to several DRD-operated vessels[41]:

> I looked at 2 more DRD vessels (M/V Anjelica D and the M/V Carol D) and went back to the M/V Demi D to check status of corrective actions needed from initial audit. The Demi D is in the same shape as it was when I first looked at it. None of the NC's have been addressed except the B-V extinguisher has been inspected. Vessel still has expired extinguishers in wheelhouse, galley and engine room. The M/V Carol D does not have the first extinguisher that is acceptable; the B-V inspection tag expired 9/07 and the only one in the engine room expired 9/07 as well. The Carol D has a plastic holding tank on the 2nd deck that is FULL of slop oil, no containment around it and has a unprotected valve with a short piece of garden hose connected and hanging over the handrail.
>
> I'll get the Audit Tools completed on the 2 vessels I visited today and sent to you ASAP. It appears that the entire DRD fleet is in this condition. I have audited 5 vessels and all 5 have basically the same serious safety issues.

Figure 9: IO Exhibit 103 (in part)

Of particular concern in this e-mail is the last sentence in the first paragraph; "The Carol D has a plastic holding tank on the 2nd deck that is FULL of slop oil, no containment around it and has a unprotected valve with a short piece of garden hose connected and hanging over the handrail." *(spelling and grammar original).*

(13) On 13 April 2008, [redacted] sent an e-mail message to [redacted]

> [redacted] You did not do anything but hold DRD to the line that we expect. I gave you this job / I knew that they would rely on our friendship to try and skate by, but i told them from the git go that we would hold them to a higher standard. I thank you for the job that you always do for me./ Keep it up. We have several more audits to complete together. [redacted]

Figure 10: IO Exhibit 104 (in part)

[41] The three vessels mentioned CAROL D, DEMI D, and ANJELICA D are all vessels that ACL reported as having Vender Vessel Audits on "11.06.07," "3.12.08," and "3.12.08" respectively. (see IO Exhibits 202, 204 and 205). Notice the first [redacted] AWO audit visit to the DEMI D and ANJELICA D was two days prior to and less than one month following the ACL Vessel Audit. (These audits are addressed further later in this report)

(14) To which [redacted] replied: (reply dated 15 April 08)

> Attached is the itemized list you requested yesterday. As I advised while at your house, they have no training to speak of. All but the M/V Daniel Sr. have no documentation of require safety drills and/or meetings. Crew members I talked with could not tell me when they last had a fire drill [redacted] could not verify training and/or drills during the Management audit. Their new manual address all requirements of the RCP. I spoke to [redacted] (previous Safety Coordinator now wheelman on the Demi D) during the re-visit to the M/V Demi D last Thursday and was advised he left the office due to not being able to correct problems. First thing he was asked was"how much will this cost?" [redacted] advised me he was dealing with the same. The will still need a written Respiratory Protection Program and most likely a written Benzene Monitoring Program for the tankermen they have onboard. I gave [redacted] a copy of both for review but he never got back with me. (Both are lagniappe for him at this time.) I also made a copy of numerous training video's he requested but have not given to him as of yet. They will also need to revisit their hiring procedures as the Federal Marshal passed by while I was in the office looking for 2 wheelmen inparticular. During this, I discovered they did not have copies of at leats one of these men's license. Houston...we have a problem.

Figure 11: IO Exhibit 104 (in part) (the list mentioned is IO Exhibit 104A)

(15) When asked about the comments in [redacted] 13 April 2008 e-mail above (Figure 11), [redacted] testified that "[redacted] was concerned that I would pass DRD because they were personal friends of mine." ([redacted]1 pg 64 lines 4-6). Later on during [redacted] testimony, there was further discussion regarding the [redacted] and [redacted] friendship and the comments made during the 13 April 2008 e-mail, and [redacted] went on to say: "[redacted] knows they're my friends and we do business and it's a double-edge sword, you want to certify the guys, but if you don't, there's obviously business repercussions." ([redacted]2 pg 49 lines 18-22).

(16) [redacted] commented in his 10 April 2008 e-mail (Figure 10) that the entire DRD fleet appears to be in the same condition; notwithstanding this assertion, during the past year alone, ACL reports that it conducted vessel audits on the following:[42]

PINTO	7.18.07	(IO Exhibit 194)
MADONNA	7.18.07	(IO Exhibit 195)
DEMI D	7.18.07	(IO Exhibit 196)
ANGELICA D	7.18.07	(IO Exhibit 197)
PAM D	8.09.07	(IO Exhibit 198)
CELEST MCKINNEY	9.05.07	(IO Exhibit 199)
KATE L	10.04.07	(IO Exhibit 200)
REGINA ANNE	11.06.07	(IO Exhibit 201)
CAROL D	11.06.07	(IO Exhibit 202)
PINTO	2.28.08	(IO Exhibit 203)
ANGELICA D	03.12.08	(IO Exhibit 204)
DEMI D	3.12.08	(IO Exhibit 205)

(17) In looking at the 12 March 2008 ACL audit on the DEMI D (two days after [redacted] 10 March e-mail[43]), the following items are noted and are in stark contrast to the inspection done by [redacted]

[42] Dates in list appear as written on original forms

[43] [redacted] reports issues with fire extinguishers, smoke alarms, fire stations, emergency lighting etc.

#	Yes	No	
17	X		Are good housekeeping practices being followed on this vessel?
18		X	Were any Safety Rule violations observed during the audit?
30	X		Fire extinguishers properly mounted; inspection tags mounted and current.
31	X		All alarms operable and loud enough to be effective?
61	X		Are all the fire hoses and nozzles free of debris and operable?
69	X		Are all fire extinguishers properly mounted with current inspection tag?
70	X		Are all flammable materials properly stored?
71	X		Smoke alarms and emergency lighting operational?

NOTES

The vessel is being well maintained and in compliance with ACL and RCP requirements. No deficiencies were noted and no action items are issued on this vessel at this audit.

Figure 12: IO Exhibit 205 (in part) - 12 March 08 – ACL Vessel Audit report

(18) [redacted] returned to the DEMI D less than a month after the ACL audit and sent his 10 April 2008 e-mail to [redacted] which reported the vessel "in the same shape." (IO Exhibit 103) (see Figure 10 above).

(19) At some point, following [redacted] return visit, he was removed from DRD's AWO audit. [redacted] testified that [redacted] was removed from the DRD audit because DRD "thought he was too tough on them." ([redacted]1 pg 62 and pg 67).

(20) Following this series of events, [redacted] sent another letter to DRD on 13 May 2008 regarding the AWO audit. In that letter, he stated there were still outstanding deficiencies and he was recommending a 3-year probation period "while you restructure your program." (IO Exhibit 121). There were several attachments, the first of which was the Management Questionnaire for the AWO, which showed complete compliance (IO Exhibit 115) (Note: [redacted] rewrote the entire management manual for DRD). The remaining attachments were AWO RCP vessel audit checklists for CAROL D, DEMI D, ODILE D, ANGELICA D, and DANIEL SR. These reports are "prepared by [redacted] and note deficiencies with the various vessels. (IO Exhibits 116 –120). [redacted] issued an invoice to DRD for the AWO audit on the same date as the letter. (IO Exhibit 111).

(21) On 21 May 2008, [redacted] sent a letter to [redacted] at AWO requesting probationary status and stating that DRD was striving toward a 100% audit in September. (IO Exhibit 85).

(22) Looking at the AWO Addendum B., Audit Recertification Protocol, probationary status means:

> **A. Probationary status is a designation that is internal to AWO. If probationary status is granted (see requirements of and procedures for requesting this status below), a valid RCP certificate will be issued to the company by AWO. A company in "probationary status" will receive all rights and privileges accorded to AWO member companies in full RCP-compliant status, such as publishing the company name on a list of valid third-party audited RCP-compliant companies.**

Figure 13: IO Exhibit 108 (in part)

Note: [redacted] *did qualify this by saying the yearly audits are limited in nature; that is they look only at those areas found deficient in the original audit. (*[redacted] *pg 64 line 22 – pg 65 line 8).*

(23) Mr. [redacted] acknowledged receipt of the letter in a 5 June 2008 e-mail to '[redacted]'[44] and stated that in order to complete the request for probation he needed a letter, fax or e-mail from DRD stating they would undergo annual audits until 2011, the first of which would be due on 17 Feb 2009. (IO Exhibit 87).

(24) On 2 July 2008, [redacted] issued a letter of compliance to [redacted] at DRD "TO CERTIFY that on July 1, 2008 the undersigned AWO/RCP Certified Auditor found the following vessels to be in full compliance with all AWO/RCP requirements: 1. "ANGELICA D. 2. CAROL D. 3. DEMI D. 4. DANIEL SR. 5. ODILE D." (IO Exhibit 114)

(25) On 23 July 2008, the incident involving the TINTOMARA and MEL OLIVER/DM932 occurred. On 30 July 2008, [redacted] sent an e-mail to the AWO Accreditation Board following a morning phone conference noting that the Board "recommended that DRD's membership be immediately withdrawn" because "under current protocol, DRD could undergo a new audit, and return to AWO and not be required to undergo an audit for three years." Nonetheless the Board "is prepared to grant Probationary status as it believes that this provides the best means for AWO to monitor this company's safety efforts and future compliance." (IO Exhibit 88, *grammar original*).

(26) Less than a week later, on 5 August 2008, [redacted] sent a follow-up e-mail to the Accreditation Board, with copy to [redacted] which reads in part:

> To recap this afternoon's decision on DRD, the Accreditation Board decided unanimously that it is unable to consider DRD's request for probation since it failed to meet the requirements set forth in the Responsible Carrier Program, Addendum B. Audit Recertification Protocol. Specifically, despite an email on June 5th, and a telephone call with DRD owner [redacted] on July 30, DRD failed to provide the required "letter from the President or Chief Executive Officer of the member company stating that his or her company will undergo an annual recertification audit of its Responsible Carrier Program in the area(s) found to be deficient." As such, this company has failed to complete its recertification audit and is no longer eligible for AWO membership.

Figure 14: IO Exhibit 89 (in part)

[44] [redacted] is the shorten nick-name for [redacted]

NOTE: The correspondence mentions "DRD owner [redacted] From what this investigation could determine, [redacted] a former ACL executive and holds ownership shares in at least one vessel operated by DRD but is not listed with the Secretary of State as an owner of DRD Towing.

(27) On 6 August 2008, following [redacted] 5 August e-mail, [redacted] sent a letter to [redacted] informing [redacted] that DRD's membership in AWO was terminated. (IO Exhibit 90).

(28) When questioned if AWO reports when a member of the Responsible Carrier Program fails an audit or is otherwise found to be unsafe, [redacted] replied "We do not. This is a private certification program, and we do not today report to the Coast Guard." ([redacted] pg 48 lines 12-14). When asked why [redacted] replied, "Well, the only way that I know how to respond to that is that we are not cops. That is not our role... We wanted to help you, but we didn't want to police you." ([redacted] pg 50 lines 22-24).

(29) On their website AWO provides a list of members. When a company wants to move a load of cargo it can go to the website and find an AWO member. And, says [redacted] "If they are listed as members, they are assumed to be in compliance with the Responsible Carrier Program." ([redacted] pg 92 lines 7-9). Nevertheless, when a member fails an audit, that information is not listed on the website. ([redacted] pgs 93-95).

(30) Moreover, other than the passing or failing of an audit, no information regarding the member is ever passed to AWO. When asked when or how AWO becomes aware of major casualties involving an AWO/RCP member, [redacted] replied "we wouldn't learn about it... the only thing we get from our members is a copy of the certification letter. Their safety record...accidents...injuries...are not reported to AWO." When asked if he thought this was a loophole in the RCP program, [redacted] responded "No, I don't think so." ([redacted] pgs 117-118).

(31) In fact, according to [redacted] AWO does not even receive a copy of the various audits conducted by their own certified auditors in furtherance of their RCP program. There is nothing sent to inform AWO of the level of scrutiny placed on the member being audited other than a copy of "the company letter saying that they were in full compliance with the Responsible Carrier Program." ([redacted] pg 128).

(32) In the RCP audit system the auditor does not report any safety failure whatsoever to the AWO, consequently no one other than the company with the deficient vessel is aware of the unsafe condition. The company is left to its own standards to repair the problem or allow the vessel to sail in an unsafe condition. ([redacted] pgs 195-196 generally).

(33) As to its auditors, [redacted] says that the company being audited is responsible for choosing their own auditor. AWO does not monitor whether or not there is a conflict of interest ([redacted] pg 145) even a good number of the "certified auditors" work directly for AWO members. (IO Exhibit 91).

(34) [redacted] had previously stated that there is no system to check on the quality of the audit conducted. When later asked about the selection process and the chance of a quid-pro-quo type of relationship, Mr. [redacted] read from the program guide which clearly states that reciprocal audits between two members are not permitted. ([redacted] pg 182 lines 3-10).

However, when asked if it becomes a three-person rotation verses just two [redacted] responded, "It is possible to cheat." ([redacted] pg 182).

(35) According to the summary below, the level of AWO oversight is limited:

Q. Mr. [redacted] there are no audit records kept. You don't even get the audits. There are no safety records required for any type of casualties?

A. That's correct.

Q. The website lists the members as responsible carriers even if they're on probation?

A. Yes.

Q. There's no report to the Coast Guard or any other person or entity of a bad or rejected company or member?

A. Currently, that is correct.

([redacted] pg 189 line 17 – 190 line 4).

B. Coast Guard Regulatory Oversight of Towing Vessels

(1) At the time of the collision, the Coast Guard had in place an "Uninspected Towing Vessel Examination Program." The program was described during the hearing by [redacted] a civilian worker based at the Eighth Coast Guard District (D8) in New Orleans, LA, who oversees the towing vessel program for the entire Eighth District, which includes the LMR. According to his testimony, the program was voluntary and was predicated on the owner or operator of a vessel requesting the Coast Guard to visit the vessel and do a safety examination. If the examination resulted in items which were non-compliant with current regulations, a "work list" was left with the responsible party for correction. This program was developed with the assistance of, and in conjunction with, the towing industry. ([redacted] pgs 33-35).

(2) [redacted] opined that program was initiated following the bridge/railcar accident that occurred in the mid-90s where 47 people died.[45] The program was developed with the assistance of, and in conjunction with, the towing industry[46]. ([redacted] pgs 36–37).

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[45] [redacted] testified that this same accident was the catalyst for the development of the Responsible Carrier Program. ([redacted] pg 19, line12 – pg 21, line 1).

[46] Despite the existence of this program, [redacted] testified that not one towing company has requested an inspection in the last two years. ([redacted] pg 47 lines 23-25).

Originally an Eighth District program, it was recently expanded to include the Atlantic Area[47] and LANTAREAINST 16710.1 Enclosure 1 was published. [redacted] pg 38 and IO Exhibit 209). This publication included an exam sheet to be used during the course of underway enforcement boardings by Coast Guard boarding officers. [redacted] pg 39 lines 5-19).

(3) The Coast Guard is currently in the process of promulgating regulations that will lead to full inspection and certification for towing vessels. According to Mr. [redacted] testimony, the new regulations are being developed in conjunction the Towing Safety Advisory Committee (TSAC), which includes members from AWO and members of industry such as ACL and Kirby. This committee has held numerous public and non-public meetings to bring together ideas of how the regulations should read. [redacted] pg 43-pg 44).

(4) Under the current examination program, only the vessels are inspected; that is, there is no requirement for inspection of licenses, personnel training records, safety records, or other associated policies and procedures. Because of this, there have been suggestions made to make the RCP program or some other "Safety Management System" part of the regulations. [redacted] pg 45) .

(5) Mr. [redacted] testified that in the Eighth Coast Guard District alone there are roughly 3,500 towing vessels that would fall under the new regulatory scheme. For assistance in meeting the increased manning burden, the 2009 Coast Guard budget added funding for an additional 150 or so manned positions but fell short of the roughly 176 needed for D8 alone. [redacted] pg 59-61).

(6) It should be noted that while there is no current "inspection" program for towing vessels, the towing industry has not been left without regulatory guidance or oversight. There are a large number of regulations that apply to towing vessels (see IO exhibit 209) and promulgated throughout various CFRs with enforcement and oversight directed to the Coast Guard.

[47] The Atlantic Area encompasses the First, Fifth, Seventh, Eighth Coast and Ninth Guard Districts.

IV. Causal Analysis

A. Marine Casualty Causal Analysis

Maritime transportation is a production system, and all accidents occurring therein are failures of the system, not just simply the human or equipment directly involved. Human errors alone (apart from intentional actions) do not cause accidents in the system unless the system allows it.

The process of improving the system involves making fallible decisions harmless by putting into place a series of defenses aimed at transforming a bad decision into a less risky or even safe activity. The whole point of a marine casualty investigation is to improve the system and prevent reoccurrence.

Breaking down the system:

Decision makers set goals for the system by weighing the opportunities and demands, followed by directing strategic steps to accomplish those goals.

In this marine casualty, there are several layers of organizational decision makers: regulatory oversight (CG regulations), managerial oversight (AWO RCP Certification), and asset ownership management and oversight (ACL).

Below the organization structure is the workplace, where the operational functions of personnel, equipment and vessels are managed. For purposes of this analysis, the workplace decision makers are the owners of DRD Towing: [redacted] and [redacted] (hence DRD).

There must be a reliable supply of the right kind of equipment, manned by skilled and properly trained individuals with the appropriate attitudes and motivation. These are the preconditions that make the system ready to function properly. When one of these preconditions is missing or faulty it creates a Latent Unsafe Condition (LUC).

The failure of the workplace decision maker, DRD Towing, is readily apparent from the evidence gathered during the investigation and hearing (IO Exhibit 219). Above the workplace is the organizational structure, consisting of regulatory oversight (CG regulations), managerial oversight (AWO RCP Certification), and asset ownership management and oversight (ACL).

ACL is one of the largest towing companies in the country. As seen by the corporate profile (below) published on the internet:

Corporate Profile

ACL is one of the largest and most diversified marine transportation and service companies in the United States, providing barge transportation and related services on the inland waterways since 1915.

ACL owns and, through its American Commercial Lines LLC subsidiary, operates approximately 2700 barges and 125 towboats, with 23 additional towboats operated by others exclusively for us. We transport a vast array of cargos, like grain, coal, steel, chemicals, petroleum products, edible oils, fertilizers, and construction materials, on the 15,000 miles of U.S. inland waterways.

ACL, through its Jeffboat LLC subsidiary, operates the second-largest manufacturer of dry cargo, tank barges, and special vessels in the United States. The facility, on 86 acres with 5600 feet of waterfront, is the largest single-site manufacturing facility for vessels in the United States. We offer technically advanced marine design and manufacturing capabilities for both inland and ocean service vessels.

ACL, through its ACL Transportation Services subsidiary, owns and operates a significant rail-to-barge coal storage and transloading terminal in St. Louis Missouri, and a liquid storage and transfer terminal in Memphis, Tennessee. Additionally ACL Transportation Services LLC operates facilities throughout the inland waterway system that provide fleeting, shifting, cleaning and repair services for both barges and towboats for itself and for third-party customers. Locations include: Lemont, Illinois; St. Louis, Missouri; Cairo, Illinois; Louisville, Kentucky; Baton Rouge, Louisiana; Armant, Louisiana; Harahan, Louisiana; Marrero, Louisiana; and Houston, Texas.

ACL also owns, though its subsidiary ACL Professional Services Inc., Elliott Bay Design Group LLC, a leading naval architecture firm based in Seattle, Washington, and an interest in Summit Contracting LLC, an environmental and civil engineering services company based in Evansville, Indiana.

ACL is publicly traded on NASDAQ under the symbol ACLI.

Figure 15: ACL Corporate Profile (posted on internet)

ACL's main operating facility in New Orleans is located at Harahan (see TVT Exhibits 7 and 8 for aerial view). This is the facility referred to repeatedly during the hearing process as the location that DRD-ACL vessels frequent – picking up or delivering barges, stand-by period, fleeting, etc. Although not clear from its corporate profile listed above (Figure 16), ACL undoubtedly has a large number of employees and vessels located at the local Harahan facility.

[redacted] a mariner for over two decades, stated that in recent years there has been a shortage of good, licensed captains--a shortage attributable in part to the change in the testing and training program implemented by the Coast Guard around 2006 ([redacted]2 pg 121) and compounded by the loss of persons in the local area following Hurricane Katrina. His assertion is supported by [redacted] pg 62, pg 66, and pg 198).

ACL entered into several agreements with DRD Towing that placed responsibility of manning the wheel house on DRD (ACL Exhibits B – G). According to these contracts, a vessel is "bareboat chartered" from ACL to DRD for a rate of $1 dollar per day. The same vessel is then chartered back from DRD to ACL for a much larger rate of (as with the PAM D) $2,740 dollars per day. (ACL Exhibit D, page 11). Under this contract, ACL becomes the "Charterer" and DRD becomes the "Owner." (see ACL Exhibit D).

While daily maintenance is the responsibility of DRD, the majority of expenditures remain with ACL, including insurance, major repairs, and the like. The two key terms found in the contract are as follows: 1) The owner (here DRD) shall "man, maintain, operate, victual, navigate and supply the vessel" (ACL Exhibit D, page 4, paragraph 8.(a)) and, 2) Charterer (here ACL) "shall have the full use of the vessel(s)…(ACL Exhibit D, page 5, paragraph 8.(d)). In other words, DRD crews and operates the vessel, but ACL has full control over where it goes, what it picks up, what it delivers, what route it is dedicated to, etc. The decision to enter into this agreement was a decision equally shared by both the corporate entity (ACL) and the workplace decision maker (DRD).

In relation, ACL made a corporate decision to allow DRD to operate ACL-owned vessels under the veil of a contract that controls all aspects of the operation of the vessel yet reduces liability for the manning of the vessel.

This created latent unsafe conditions. DRD manned the wheelhouse, but even after notice of improper manning actions by DRD, ACL continued to use and direct DRD-operated and manned vessels to move hazardous cargo with ACL-owned vessels.

While it has been stressed that regulatory and system oversight is mandatory, the key LUCs found in this analysis are: 1) DRD's continued decision to use improperly licensed individuals to operate their vessels, and 2) the bare-boat / fully-found charter agreements between ACL and DRD.

System Failures:

In any system, there are two types of failures: active failures and latent unsafe conditions (LUC). Active failures are actions or decisions committed during the presence of a hazard. In contrast, latent unsafe conditions (LUC) are conditions in the system itself arising from a fallible decision or action, rather than the decision or action itself. Unfortunately, when bad decisions (active failures) are made under bad, preexisting conditions (LUCs), marine casualties occur.

LUCs - conditions in the system itself arising from a fallible decision or action, rather than the decision or action itself

Limited regulatory scheme (still "uninspected") by USCG
Poor "self oversight and certification" by AWO
Poor vetting and oversight by ACL
Bare-boat / fully-found charter agreements between ACL and DRD
Placing improperly licensed individuals in wheelhouse by DRD
Non-reporting of DRD activity by Port Captains and other workers
Lack of requirement for guard-rail system around steering linkage by USCG
Poor housekeeping coupled with loose item storage in area of open steering linkage by ACL & DRD
Departure of Terry Carver during transit
Failure to report Carver's departure by MEL OLIVER crew
Nearly three days of vessel operation by [redacted] with sporadic sleep and rest periods

Active Failures - actions or decisions committed during the presence of a hazard[48].

Loss of situational awareness by Steersman [redacted]
Loose debris that could partially jam the steering system onboard the MEL OLIVER

B. Human Error Causal Analysis

As previously discussed in the timeline of events, there is a period 4 minutes, 57 seconds, from immediately before the vessel begins its turn to port and until the vessel throttle is reversed, where it is not known for certain what occurred.

Per [redacted] account, once he realized the MEL OLIVER had turned to port, his response was solely to steer to starboard, even when this action failed to produce the desired result. His preoccupation with this failed action was so complete that he failed to exercise any alternative until he heard the command to "back down" (IO Exhibit 1, 3, 6, and 218). Unfortunately, by the time he reversed engines, that action was fruitless.

[redacted] account does not fully explain some of his statements immediately after the collision (e.g., that the radio didn't work when it was shown it did), but the absence of any stronger evidence leaves only the unsatisfactory explanation that there was a complete loss of situational awareness possibly complicated by a jammed steering system.

Regarding that loss of situational awareness, [redacted] actively chose to continue to operate the MEL OLIVER and spent 2 ½ days as its sole wheelman, operating on a haphazard schedule with varying degrees of work vs. rest periods. This is an active failure that placed an improperly qualified operator in the wheelhouse.

[48] The "hazard" present would be the nearly three days of vessel operation by one person with sporadic sleep/rest periods.

V. Conclusions

1. The initiating event of this marine casualty was the turn to port brought on by the complete loss of situational awareness by Steersman [redacted] the operator of the towing vessel MEL OLIVER.

   There is no evidence to fully explain what caused [redacted] loss of situational awareness. During the course of the investigation, several possible causes were explored. Per the evidence adduced during the investigation, the two most likely contributing factors are fatigue and inattention. Consequently, the loss of situational awareness was so complete that, whether [redacted] unintentionally moved the steering sticks or the tow was simply acted upon by river currents, he unintentionally caused the vessel to turn to port.

   Findings 5.C. in entirety, 5.D.(20), 5.D.(21), 5.D.(22), 6.C.in entirety, and 7.E.(2)(a)-(h)

2. Contributing significantly to the cause of this casualty is the excess fatigue of [redacted] resulting from nearly 3 days of 24-hour operational duty following the unauthorized departure of Captain Terry Carver.

   Findings 5.C.(2), 5.C.(3), 6.C. in entirety, and 7.D. in entirety

3. Contributing to the cause of this casualty was [redacted] excessive delay in or total lack of exercising evasive actions. When he was unable to steer the MEL OLIVER out of the path of the on-coming TINTOMARA, he delayed in reversing his engines until 16 seconds prior to the collision. Likewise he failed to answer radio calls or otherwise notify on-coming traffic of his intentions or of any mechanical issues with the vessel.

   Findings 5.D.(27), 5.D.(28), 5.D. (30), 5.D. (32), 6.A., 6.C.(7), 6.C.12 and 6.C. (13)

4. There is evidence to support the possibility that at some point prior to the casualty a loose item of debris partially jammed the primary steering linkage on the MEL OLIVER.

   This finding leads to the conclusion that an open linkage steering system, especially when sharing the void space with unkempt, unsecured items, is susceptible to becoming jammed, lodged, or otherwise blocked. Contributing to that susceptibility is the lack of a protective guardrail around the open mechanical linkage system.

   Finding 7.E. in entirety

5. While holding only a Steersman's license, [redacted] served as a Captain, holding his own watch, onboard several vessels owned by ACL and operated by DRD Towing over an extended period of time without supervision or oversight by a properly licensed Captain.

   Currently, 18 USC §2197 imposes both civil and criminal penalties for those operating with suspended, revoked, or fraudulent licenses, but it fails to address those operating without a license, those operating on an improper license, or those employing such individuals.

Clear language should be established and incorporated directly into the criminal code placing both employers and mariners on notice that employing, placing in the wheel house, accepting employment for, or otherwise engaging in vessel operation by an unlicensed, under-licensed, or otherwise improperly licensed individual shall result in civil penalties, suspension and revocation action, and/or criminal prosecution.

Moreover, all employers should be able to check the validity of each mariner's credential prior to hiring and/or placing the mariner into credentialed positions. This process ensures the validity of the presented credential and the status regarding suspended or revoked licenses. The check of the credential should show the type of credential held, credential number, endorsements (if any), and current status (i.e., valid, suspended, or revoked). Additionally, a definition of each type of license should be readily accessible.

Findings 5.A.(3), 5.A.(4), 5.B.(1), 5.B.(6), 5.B.(7), 5.B.(13), 5.B.(14), 5.B.(19), 5.D.(5), and 7.H.(2)

6. There is substantial evidence to conclude that Terry Carver departed the MEL OLIVER on 19 July 2008 without the knowledge of DRD owner's or supervisors.

Findings 5.D.(8), 5.D.(9), and 5.D.(10)

7. There is evidence to conclude that ACL as the owner of the MEL OLIVER knew, or should have known, of the inadequate operations of its sublet DRD Towing.

Findings 5.B.(6), 5.B. (7), and 5.B. (8)

8. There is evidence to conclude that ACL failed to produce all documents related to its sublet DRD Towing. The direct results of which both violated a subpoena issued by the investigating officer during the course of this investigation and impeded the ability of the investigating officer to further explore the manning practices onboard ACL-owned and DRD-operated vessels.

Findings 7.I.(1), 7.I.(2), 7.I.(3), 7.I.(4) and 7.I.(5)

9. There is evidence to conclude that the owners and/or employees of DRD Towing attempted to impede this investigation by altering, destroying or causing to be destroyed, electronic and documentary evidence following the 23 July 08 marine casualty.

Findings 7.H.(1), 7.H.(2), 7.H.(3), 7.H.(4), 7.H.(5) and 7.H.(6)

10. There is evidence to conclude that unbeknownst to the captain or owners of the TINTOMARA, Second [redacted] supplied false information to the United States Coast Guard during the course of this investigation. It is noted however, that [redacted] had full understanding of the false information prior to providing it to the investigating officer.

After realizing the alcohol test swabs used for initial testing of the TINTOMARA crew were expired, [redacted] knowingly and willfully blacked-out the expiration date with a black marker, altered the packaging by affixing a label with a current expiration date,

changed data in the computer system and then subsequently provided the altered swab tests to the United States Coast Guard.

Finding 7.C.(2) and 7.C.(3)

11. There is evidence to conclude that on 23 July 2008 the Vessel Traffic Service (VTS) New Orleans was manned by competent watchstanders and that the traffic monitoring equipment was operating properly.

The watchstander on duty was attentive to the river traffic and responded immediately when the Pilot of the TINTOMARA attempted to contact an unknown towing vessel with which he appeared to have concern. The watchstander analyzed the VTS data display and immediately reported the name of the towing vessel (MEL OLIVER) to the TINTOMARA. After failed attempts by the TINTOMARA to hail the MEL OLIVER, the VTS watchstander began to hail the MEL OLIVER and issue warnings regarding its current path. Following the collision, the watchstander (Mr. [redacted]) maintained a calm composure and immediately began issuing calls for assist tugs and directing marine traffic. Mr. [redacted] actions are commendable.

Following the collision, all on-duty VTC personnel were drug tested in accordance with Coast Guard policy.

Findings 1.C.(1), 1.C.(2)(a), 5.D.(19), 5.D.(23), 5.D.(26), 5.D.(30), 6.A., and 7.C.(9)

12. Oversight of towing vessels by the AWO is limited in nature. The RCP is not a regulatory system and therefore it should not be relied upon as the sole monitoring scheme for the operations of towing vessels and/or towing companies.

Finding 8.A. in entirety

13. The Coast Guard lacks a comprehensive program for actively monitoring the operations of towing vessels and/or towing companies. While there are numerous active regulations applicable to towing vessels, there is no regulatory program to inspect either the towing vessels or the towing operating companies to ensure compliance with regulatory and safety requirements.

Finding 8.B. in entirety

14. One or more vessels owned by ACL and operated by DRD were, on more than one occasion, operated in violation of current regulatory requirements. At least two vessels, the MEL OLIVER and the PAM D, were operated with improperly licensed individuals and in violation of the 12-hour rule. Inadequate manning onboard each of these vessels independently created a hazardous condition.

The handwritten logbooks obtained from the PAM D and the MEL OLIVER show that Captain Terry Carver and Captain [redacted] and Steersman [redacted] all operated in excess of 12 hours in a 24-hour period.

Findings 5.B.(11), 5.B.(13), 5.B.(14), 5.B.(17), 5.B.(18), 5.B.(19), 5.B.(20), and 5.B.(21)

15. There is substantial evidence to conclude that on more than one occasion [redacted] knowingly manned the wheelhouse of ACL owned / DRD operated vessels with improperly licensed individuals and that he allowed licensed individuals (Terry Carver and [redacted] to operate in excess of 12 hours in a 24-hour period. This practice helped create a culture where Captain Terry Carver felt it was acceptable to leave the MEL OLIVER under the control of Steersman [redacted]

Findings 5.A.(3), 5.B.(13), 5.B.(14), 5.B.(16), 5.B.(18), 5.B.(19), 5.B.(20), and 5.B.(21)

16. Based upon the findings of this investigation, it is concluded that hand-written logs are necessary to properly determine crew complement and who was operating a vessel at any given time.

Computer generated logs do not provide the safeguards of handwritten logs. As found in this case, the computer logs show where the vessel went and when, but fails to show crew names or allow for the captain's signature. Computer logs can be entered by any person with access to the computer; consequently, they provide no guarantee that the Captain is maintaining the log, entering the information, or even onboard the vessel. Handwritten signatures are necessary for individual accountability. While handwritten logs do not in themselves validate who was operating the vessel, handwritten logs, as evidenced by the facts of this case, can validate who was actually on the vessel and who was documenting the movements of the vessel. In addition, regulation should clearly state that placement of the Captain's signature on the daily log certifies the entries are true and correct; false information should be subject to prosecution under 18 USC§ 1001.

Finding 5.B. in entirety

17. Based solely upon the current 5-panel drug screen, it is concluded that Steersman [redacted] a dangerous drug at the time of the collision.

Notwithstanding, it should be clearly noted that during the course of this investigation various individuals discussed [redacted] non-responsive state following the collision. While the required drug testing returned [redacted] results, it is imperative for safety of life and property at sea that mariners be tested for all substances, particularly following a major marine casualty. Many mariners interviewed described the wide-spread use of various drugs, prescription and non-prescription, known not to show up on the standard 5-panel test.

Findings 7.C.(7) and 7.C.(8)

18. Based upon drug test results, it is concluded that an unlicensed and undocumented deckhand onboard the MEL OLIVER [redacted] a dangerous drug at the time of the collision. Notwithstanding the [redacted] drug screen, there is no evidence to suggest that any action the deckhand took before, during, or after the collision contributed in any way to the casualty itself.

Currently there is no regulatory penalty for unlicensed and/or undocumented individuals who fail drug tests. Their failure is recorded in the NMC database (when

reported); however, if they never apply for a credential, they are never held accountable. These mariners can simply go to another company and remain on the waterways.

Finding7.C. in entirety

VI. Enforcements

A. Suspension & Revocation

46 USC §7703 –Bases for suspension or revocation. "A license, certificate of registry, or merchant mariner's document issued by the Secretary may be suspended or revoked if the holder –

(1) when acting under the authority of that license, certificate of registry, or document -

(A) has violated or fails to comply with this subtitle, a regulation prescribed under this subtitle, or any other law or regulation intended to promote marine safety or to protect navigable waters; or

(B) has committed an act of incompetence, misconduct, or negligence;" (remainder non-applicable hereto).

(1) Terry Carver – Leaving the MEL OLIVER without permission; Leaving the MEL OLIVER under the control of an improperly licensed operator; departing the MEL OLIVER in transit while pushing a red-flag barge; and, violation of the twelve-hour rule as defined by 46 CFR §15.705(d).

(2) [redacted] – Loss of situational awareness resulting in a major marine casualty; and operating beyond the scope of his license.

(3) [redacted] – Violation of the twelve-hour rule as defined by 46 CFR §15.705(d); Leaving a towing vessel under the control of an improperly licensed operator.

B. Civil Penalty

(1) There is evidence to suggest that DRD Towing, more specifically co-owner [redacted] knowingly allowed [redacted] II to operate various towing vessels outside the scope of his Coast Guard issued MML. As a potential violation of 46 U.S.C. § 8904(a), this matter should be turned over to the cognizant civil penalty authority for consideration.

(2) There is evidence to suggest that DRD Towing and/or owners thereof, willfully and knowingly created a hazardous condition in violation of 33 USC Chapter 25 – Ports and Waterways Safety Program, the results of which, among other things, adversely effected the safety of two vessels and the environmental quality of the Lower Mississippi River south of mile marker 99. As a potential violation of 33 U.S.C. Chapter 25 and 33 CFR Subpart C, this matter should be turned over to the cognizant civil penalty authority for consideration.

(3) There is evidence to suggest that DRD Towing and/or owners thereof, willfully and knowingly allowed vessels under its operational control to be operated in violation of the 12-hour rule. As a potential violation of 46 CFR §15.705(d), 46 U.S.C. §8104(h), and/or 46 U.S.C. §8904(c), this matter should be turned over to the cognizant civil penalty authority for consideration.

(4) There is evidence to suggest that ACL willfully and knowingly created a hazardous condition in violation of 33 USC Chapter 25 – Ports and Waterways Safety Program, the results of which, among other things, adversely effected the safety of two vessels and the environmental quality of the Lower Mississippi River south of mile marker 99. As a potential violation of 33 U.S.C. Chapter 25 and 33 CFR Subpart C, this matter should be turned over to the cognizant civil penalty authority for consideration.

(5) There is evidence to suggest that ACL knew improperly licensed individuals were operating, or had operated, ACL-owned vessels. As a potential violation of 46 U.S.C. § 8904(a), this matter should be turned over to the cognizant civil penalty authority for consideration.

(6) There is evidence to suggest that vessels owned by ACL were operated in violation of the 12-hour rule. As a potential violation of 46 CFR §15.705(d), 46 U.S.C. §8104(h), and/or 46 U.S.C. §8904(c), this matter shouldl be turned over to the cognizant civil penalty authority for consideration under 46 U.S.C. §2106 and §2107.

C. Referral for Criminal Prosecution

46 CFR §4.23-1 Evidence of criminal liability. "If, as a result of any investigation or other proceeding conducted hereunder, evidence of criminal liability on the part of any licensed officer or certificated person or any other person is found, such evidence shall be referred to the U.S. Attorney General." (emphasis added).

(1) There is evidence that DRD Towing, owners and/or employees thereof, willfully concealed, altered, and/or destroyed documents (electronic and/or paper) on or after 23 July 2008 in violation of 18 USC §1001(a)(1), the results of which potentially interfered with this investigation. Consequently, this matter should be referred to the United States Attorney's Office by the Eighth District Legal Officer for further investigation and potential prosecution under federal law.

(2) There is evidence that DRD Towing and/or owners thereof, willfully and knowingly created a hazardous condition in violation of 33 USC Chapter 25 – Ports and Waterways Safety Program, the results of which, among other things, adversely effected the safety of two vessels and the environmental quality of the Lower Mississippi River south of mile marker 99. Consequently, this matter should be referred to the United States Attorney's Office by the Eighth District Legal Officer for further investigation and potential prosecution under federal law.

(3) There is evidence that [redacted] attempted to influence the future testimony of [redacted] in violation of 46 USC §6306; the results of which potentially interfered with this investigation. Consequently, this should be referred to the United States Attorney's Office by the Eighth District Legal Officer for further investigation and potential prosecution under federal law.

(4) There is evidence that ACL failed to properly answer a federally issued subpoena in violation of 46 USC §6304(b), the results of which potentially interfered with this investigation. Consequently, this matter should be referred to the United States Attorney's Office by the Eighth District Legal Officer for further investigation and potential prosecution under federal law.

(5) There is evidence that ACL willfully and knowingly created a hazardous condition in violation of 33 USC Chapter 25 – Ports and Waterways Safety Program, the results of which, among other things, adversely effected the safety of two vessels and the environmental quality of the Lower Mississippi River south of mile marker 99. Consequently, this matter should be referred to the United States Attorney's Office by the Eighth District Legal Officer for further investigation and potential prosecution under federal law.

(6) There is evidence that Terry Carver willfully and knowingly created a hazardous condition in violation of 33 USC Chapter 25 – Ports and Waterways Safety Program, the results of which, among other things, adversely effected the safety of two vessels and the environmental quality of the Lower Mississippi River south of mile marker 99. Consequently, this matter should be referred to the United States Attorney's Office by the Eighth District Legal Officer for further investigation and potential prosecution under federal law.

(7) There is evidence that [redacted] II willfully and knowingly created a hazardous condition in violation of 33 USC Chapter 25 – Ports and Waterways Safety Program, the results of which, among other things, adversely effected the safety of two vessels and the environmental quality of the Lower Mississippi River south of mile marker 99. Consequently, this matter should be referred to the United States Attorney's Office by the Eighth District Legal Officer for further investigation and potential prosecution under federal law.

(8) There is evidence that [redacted] committed perjury while testifying under oath in violation of 18 USC § 1001. Consequently, this matter should be referred to the United States Attorney's Office by the Eighth District Legal Officer for further investigation and potential prosecution under federal law.

(9) There is evidence that [redacted] the 2d Officer (2/O) onboard the TINTOMARA, knowingly supplied false information to the United States Coast Guard in violation of 18 USC § 1001. Consequently, this matter should be referred to the United States Attorney's Office by the Eighth District Legal Officer for further investigation and potential prosecution under federal law.

(10) There is evidence that [redacted] willfully and knowingly created a hazardous condition in violation of 33 USC Chapter 25 – Ports and Waterways Safety Program, the results of which, among other things, adversely effected the safety of vessels operating on, and the environmental quality of, the Lower Mississippi River. Consequently, this matter should be referred to the United States Attorney's Office by the Eighth District Legal Officer for further investigation and potential prosecution under federal law.

D. Other -

(1) [redacted] – Data entry into the MISLE network and the notice to the National Maritime Center of a failed drug screen. Lock record to restrict future issuance of MMC.

VII. Recommendation

1. Recommend the Commandant of the Coast Guard issue a safety alert regarding possible hazards associated with storing loose items in void spaces where open steering linkage systems are present.

2. Recommend the Commandant of the Coast Guard seek regulatory change to require the installation of a safety cage or other shielding device designed to protect open steering linkage systems from possible jamming due to loose debris.

3. Recommend the Commandant of the Coast Guard seek regulatory change to require all crew members of commercial vessels to be licensed or documented.

4. Recommend the National Maritime Center create a national "good standing" database for employers to check validity of mariner credentials.

5. Recommend the Commandant of the Coast Guard promulgate Coast Guard regulations creating a comprehensive towing vessel oversight system, to include inspection of towing vessels, with direct Coast Guard oversight.

6. Recommend the Commandant of the Coast Guard seek regulatory change to require written logs for all towing vessels, which include an entry of the Captain's name at the beginning of each wheelhouse watch.

7. Recommend the Commandant of the Coast Guard seek regulatory change to include penalties for violations of the testing, inspection and reporting requirements of 33 CFR §164 et el.

8. Recommend the Commandant of the Coast Guard seek regulatory change to 18 USC §2197 include operation of a vessel without a license, operating beyond the scope of the issued license, and those employing such individuals.

9. Recommend the Commandant of the Coast Guard re-evaluate the current drug testing policies and seek regulatory change to require drug testing beyond the current 5-panel test.

10. Recommend the Towing Vessel Advisory Committee evaluate towing vessel charter agreements, specifically as to the level of responsibility therein, and make regulatory recommendations and changes as necessary.

11. Recommend the AWO initiate actions to actively report audit failures of all industry members listed as Responsible Carriers; to specifically include items related to vessel safety.

12. Recommend the NOBRA Pilots Association, along with all other Mississippi River Pilot Associations, conduct refresher training regarding appropriate Captain-to-Pilot turn over procedures and the importance of completing the associated paperwork related thereto.

13. Recommend a copy of this report be provided to the TINTOMARA flag-state of Liberia through its representative Captain [redacted].

14. Recommend a copy of this report be provided to the IMO.

15. Recommend a copy of this report be provided to the NTSB.

16. Recommend a copy of this report be provided to the six parties-in-interest through the appropriate process: TV TINTOMARA, American Commercial Lines, DRD Towing, [redacted] Terry Carver, and [redacted].

Appendix

EXHIBIT LISTING

1. ACL Exhibits

ACL EXHIBIT 1)	Bridge Team Management
ACL EXHIBIT A)	Subpoena Response Letter
ACL EXHIBIT B)	Bareboat Charter-PAM D, REGINA ANN, CELESTE McKINNEY
ACL EXHIBIT C)	Bareboat Charter - PINTO
ACL EXHIBIT D)	Fully Found Charter - PAM D, REGINA ANN, CELESTE McKINNEY
ACL EXHIBIT E)	Fully Found Charter - PINTO
ACL EXHIBIT F)	Letter dated 19 June 08 Sub MEL OLIVER for PAM D
ACL EXHIBIT G)	Fully Found Charter-ANGELICA D, CAROL D, DEMI D, MADONNA DaNEL
ACL EXHIBIT H)	PAM D Repair Report (Started June 25, 2008 – Completed August 18, 2008)
ACL EXHIBIT I)	MEL OLIVER Repair Reports
ACL EXHIBIT J)	MEL OLIVER On Charter Survey
ACL EXHIBIT K)	MEL OLIVER Off Charter Survey
ACL EXHIBIT L)	MEL OLIVER ACL Boat Orders Log
ACL EXHIBIT M)	MEL OLIVER logbook pages 01 July – 23 July 08
ACL EXHIBIT N)	PAM D ACL Boat Orders Logs 08/06/2007 – 08/31/2007 09/01/2007 – 09/30/2007 10/01/2007 – 10/31/2007 11/01/2007 – 11/30/2007 12/01/2007 – 12/31/2007 01/01/2008 – 01/31/2008 02/01/2008 – 02/29/2008 03/01/2008 – 03/31/2008 04/01/2008 – 04/30/2008 05/01/2008 – 05/31/2008 06/01/2008 – 06/19/2008
ACL EXHIBIT O)	Vessel Check List – MEL OLIVER dated 31 July 2008
ACL EXHIBIT P)	33 CFR §161.13
ACL EXHIBIT Q)	ACL Photo of void space under wheelhouse of MEL OLIVER
ACL EXHIBIT R)	Area under wheelhouse, MEL OLIVER – annotated by CWO [redacted] (photo)
ACL EXHIBIT S)	(unintentionally skipped)
ACL EXHIBIT T)	(unintentionally skipped)
ACL EXHIBIT U)	Fully Found Charter – KATE L

2. DRD Exhibits

DRD Exhibit 1)	Letter dated July 2, 2008 from [redacted] to [redacted]
DRD Exhibit 2)	DRD Vessel Operations Manual (pre-AWO audit) pages 26, 27, 34, 49 and 64

3. [redacted] Exhibits

CG Exhibit 1)	VTS Screen Shot @ 01:27:13
CG Exhibit 2)	VTS Screen Shot @ 01:28:29 with "First call" sticker
CG Exhibit 3)	VTS Screen Shot @ 01:28:45 with "Second call" sticker
CG Exhibit 4)	VTS Screen Shot @ 01:28:51 with "Third call" sticker
CG Exhibit 5)	ECDIS Screen Shot (smaller version of IO Exhibit 31)
CG Exhibit 6)	Chart – (same as IO Exhibit 42) – with markings
CG Exhibit 7)	Chart excerpt – New Orleans Harbor – with markings

4. TINTOMARA Exhibits

TVT Exhibit 1)	Statement of TINTOMARA Master, [redacted], dated 26 September 2008
TVT Exhibit 2)	Declaration of TINTOMARA second officer, [redacted], dated 3 November 2008
TVT Exhibit 3)	TINTOMARA Deck Log Alcohol Test entry dated 23 July 2008
TVT Exhibit 4)	Calibration Report, issued by Lion Laboratories, Ltd, re: TINTOMARA's Lion Alcometer 500 Breathalyzer, dated 4 November 2008
TVT Exhibit 5)	Forensic Analysis Report and Supplemental Report, issued by Dr. [redacted], re: TINTOMARA's Alco Screen II Saliva Test Swabs, original report dated 5 November 2008, and supplement report dated November 6th, 2008
TVT Exhibit 6)	Highlighted page 3 from ACL Exhibit "N"
TVT Exhibit 7)	Aerial / Satellite image of ACL Harahan facilities with markings
TVT Exhibit 8)	Aerial / Satellite image of ACL Harahan facilities (zoomed) with markings

5. IO Exhibits:

IO EXHIBIT 1)	VTS Data Recording 2 CDs
IO EXHIBIT 2)	Transcript-VTS-23 July 2008 0030-0100
IO EXHIBIT 3)	Transcript-VTS-23 July 2008 0100-0140
IO EXHIBIT 4)	Transcript-VTS-23 July 2008 0140-0210
IO EXHIBIT 5)	Transcript-VTS-23 July 2008 0210-0230
IO EXHIBIT 6)	Transcript- VDR (TINTOMARA)
IO EXHIBIT 7)	S-VDR Data Chart- TINTOMARA
IO EXHIBIT 8)	Classification Certificate-TINTOMARA
IO EXHIBIT 9)	Pilot Card check-sheet-TINTOMARA
IO EXHIBIT 10)	Maneuvering Trials-TARANTELLA
IO EXHIBIT 11)	SMS Management Manual-Ship Book
IO EXHIBIT 12)	SMS Management Manual-Main Book
IO EXHIBIT 13)	Alcohol testing of Crewmembers of T/V TINTOMARA
IO EXHIBIT 13A)	Chematics Letter dtd 8 Oct 08 re: use of strip past expiration
IO EXHIBIT 14)	Drug testing results, [redacted] Master T/V TINTOMARA
IO EXHIBIT 15)	Drug testing results, [redacted] C/Engineer T/V TINTOMARA
IO EXHIBIT 16)	Drug testing results, [redacted] AB T/V TINTOMARA
IO EXHIBIT 17)	CG-2692- TINTOMARA
IO EXHIBIT 18)	T/V TINTOMARA Vessel Particulars
IO EXHIBIT 19)	Port Log dtd 27 May-24 July 2008 TINTOMARA
IO EXHIBIT 20)	Deck Log dtd 01 June-24 July 2008 TINTOMARA
IO EXHIBIT 21)	Engine Logs, for month of June 2008 TINTOMARA

IO EXHIBIT 22) Engine Logs, for month of July 2008 TINTOMARA
IO EXHIBIT 23) T/V TINTOMARA Notice of Arrival Information
IO EXHIBIT 24) T/V/ TINTOMARA Crewmembers Drug Test Results
IO EXHIBIT 25) Cylinder breakdown dtd 10 July 2008- TINTOMARA
IO EXHIBIT 26) TINTOMARA class status Rpt dtd 21 July 2008
IO EXHIBIT 27) Loading Plan of T/V TINTOMARA
IO EXHIBIT 28) T/V TINTOMARA Crew Muster List
IO EXHIBIT 29) Vessel Data Recorder Screen Shots- TINTOMARA
IO EXHIBIT 30) Vessel Traffic Center Screen Shots
IO EXHIBIT 31) ECDIS Chart-TINTOMARA
IO EXHIBIT 32) Engineering Maintenance History Details 30 June-16 July 2008- TINTOMARA
IO EXHIBIT 33) DNV Class Hull Survey dtd 23 July 2008-TINTOMARA
IO EXHIBIT 34) Casualty Report to Maritime Affairs R.L. dtd 24 July 2008-TINTOMARA
IO EXHIBIT 35) T/V TINTOMARA Bridge Checklist
IO EXHIBIT 36) Soundings Report dtd 23 July 2008
IO EXHIBIT 37) Machinery Alarm System - beginning 21 July 2008-TINTOMARA
IO EXHIBIT 38) Ships Survey of Equipment-TINTOMARA
IO EXHIBIT 39) Port State Control Report of Inspection-Form A
IO EXHIBIT 40) Port State Control Report of Inspection-Form B
IO EXHIBIT 41) Copy of Relevant Chart Section of Port of New Orleans
IO EXHIBIT 42) Electronic Chart Printout
IO EXHIBIT 43) KIM Voyage Recorder EOT/Pitch Printout
IO EXHIBIT 44) Course Recorder Printout-TINTOMARA
IO EXHIBIT 45) Test Engine Order Tape Printout-TINTOMARA
IO EXHIBIT 46) Engine Order Tape Time Delay Test-TINTOMARA
IO EXHIBIT 47) Shell Expansion Diagram Printout-TINTOMARA
IO EXHIBIT 48) Capacity Plan Printout-TINTOMARA
IO EXHIBIT 49) General Arrangement Plan-TINTOMARA
IO EXHIBIT 50) Ordinary Seaman [redacted] Credentials & Training
IO EXHIBIT 51) Able Seaman [redacted] Credentials & Training
IO EXHIBIT 52) Third Engineer [redacted] Officer Credentials & Training
IO EXHIBIT 53) Chief Engineer [redacted] Olson Credentials & Training
IO EXHIBIT 54) Second Mate [redacted] Credentials & Training
IO EXHIBIT 55) Master Jan [redacted] Credentials & Training
IO EXHIBIT 56) Voyage Data Recorder Commissioning Form-TINTOMARA
IO EXHIBIT 57) VDR/S-VDR Initial Survey Checklist dtd 25 February 2008-TINTOMARA
IO EXHIBIT 58) Maneuvering Trial Results for TINTOMARA
IO EXHIBIT 59) Excerpt IO #43, page with marks
IO EXHIBIT 60) Bridge Layout written by [redacted]
IO EXHIBIT 61) Drawing by AB [redacted]
IO EXHIBIT 62) Chief Engineer [redacted] TINTOMARA Compilation Table of IO #43
IO EXHIBIT 63) TINTOMARA-VDR 0000-0135
IO EXHIBIT 64) TINTOMARA-VDR 0110-0135
IO EXHIBIT 65) Vessel Critical Profile MEL OLIVER
IO EXHIBIT 66) Vessel Critical Profile TINTOMARA
IO EXHIBIT 67) Vessel Critical Profile DM932
IO EXHIBIT 68) VTS – LMR Dailysmooth Log 12-hour 1730 22 Jul 08
IO EXHIBIT 69) Logbook MEL OLIVER 19 Jun – 25 Jul 08
IO EXHIBIT 70) Survey 08-0238 MEL OLIVER by [redacted]
IO EXHIBIT 71) MEL OLIVER Survey of 29 Jul 08 Sea-Trac – [redacted]

IO EXHIBIT 72) MEL OLIVER Survey updated 12 Aug 08 Sea-Trac –
IO EXHIBIT 73) Witness Statement from UTV MR
IO EXHIBIT 74) Transcript VTS 23 Jul 08, 0030-0100
IO EXHIBIT 75) Transcript VTS 23 Jul 08, 0100-0140
IO EXHIBIT 76) Transcript VTS 23 Jul 08, 0140-0210
IO EXHIBIT 77) Transcript VTS 23 Jul 08, 0210-0230
IO EXHIBIT 78) Transcript VDR TINTOMARA – southbound – – 23 Jul 08
IO EXHIBIT 79) Affidavit of ACL – AWO Board
IO EXHIBIT 80) List of DRD Boats – drafted by Mr. DRD
IO EXHIBIT 81) 2692 for MEL OLIVER
IO EXHIBIT 82) TV TINTOMARA Bridge layout detailed by
IO EXHIBIT 83) Electronic Application from DRD to AWO
IO EXHIBIT 84) 29 Aug 08 Letter from – AWO to - DRD
IO EXHIBIT 85) 21 May 08 Letter from – AWO to - DRD
IO EXHIBIT 86) Fax Cover w/ltr-dtd 6/5/08 to re:DRD Audit
IO EXHIBIT 87) 5 Jun 08 E-Mail from to
IO EXHIBIT 88) 30 July 08 E-Mail to AWO Accreditation Board from
IO EXHIBIT 89) 5 Aug 08 E-Mail to AWO Accreditation Board from
IO EXHIBIT 90) 6 Aug 08 Letter to re:DRD
IO EXHIBIT 91) Listing of AWO Certified Responsible Carrier Program Auditors
IO EXHIBIT 92) AWO Responsible Carrier Program Booklet dtd 2006
IO EXHIBIT 93) Coast Guard Barge Inspection-CWO
IO EXHIBIT 94) Coast Guard Mel Oliver Inspection-CWO
IO EXHIBIT 95) Muts Electric Report dtd 30 July 08
IO EXHIBIT 96) ACL-Vendor Vessel Audit Check List
IO EXHIBIT 97) VTS-SOP for MM 99 LMR
IO EXHIBIT 98) Statement -VTS
IO EXHIBIT 99) Beebe Survey Report-Mel Oliver dtd 18Jun08- Beebe File
IO EXHIBIT 100) Email between & -Re:DRD Audit dtd 12 Feb08
IO EXHIBIT 101) Email between & -Re:DRD Audit dtd 03Mar08
IO EXHIBIT 102) Email between & -Re:DRD Audit dtd 10Mar08
IO EXHIBIT 103) Email between & -Re:DRD Audit dtd 10Apr08
IO EXHIBIT 104) Email between & -Re:DRD Audit dtd 15Apr08
IO EXHIBIT 104A) Attachment List for #104
IO EXHIBIT 105) Email between & -ReDRD Audit dtd 16May08
IO EXHIBIT 106) Handwritten notes from DRD AWO file
IO EXHIBIT 107) note to Mo at DRD file
IO EXHIBIT 108) Addendum B. Audit Recertification Protocol file
IO EXHIBIT 109) DRD Vsl Safety Meeting Report Form file
IO EXHIBIT 110) TJ Hawks Invoice to Re:DRD Audit dtd 3-17-08
IO EXHIBIT 111) Invoice to DRD for AWO Audit dtd 13May08 file
IO EXHIBIT 112) fax coversheet to dtd 05Jun08 file
IO EXHIBIT 113) dtd 02Jul08- file
IO EXHIBIT 114) letter to dtd 02Jul08 file
IO EXHIBIT 115) AWO Responsible Carrier Program Audit Checklist Management
IO EXHIBIT 116) AWO Responsible Carrier Program Audit Checklist Carol D
IO EXHIBIT 117) AWO Responsible Carrier Program Audit Checklist Demi D
IO EXHIBIT 118) AWO Responsible Carrier Program Audit Checklist Odile D
IO EXHIBIT 119) AWO Responsible Carrier Program Audit Checklist Angelica D
IO EXHIBIT 120) AWO Responsible Carrier Program Audit Checklist Daniel Sr.

IO EXHIBIT 121) [redacted] Ltr to [redacted] dtd May 13, 2008
IO EXHIBIT 122) [redacted] Ltr to [redacted] dtd 18 Feb 2008
IO EXHIBIT 123) [redacted] Photos
IO EXHIBIT 124) CONNIE Z logbook dtd 6.14.08 – [redacted] Captain
IO EXHIBIT 125) CONNIE Z logbook dtd 6.15.08 – [redacted] Captain
IO EXHIBIT 126) [redacted] D logbook dtd 2.22/23.08
IO EXHIBIT 127) [redacted] pay stub #42162 dtd 30Jun08
IO EXHIBIT 128) [redacted] pay stub #42652 dtd 16 Jul 08
IO EXHIBIT 129) [redacted] pay stub #42688 dtd 21 Jul 08
IO EXHIBIT 130) [redacted] pay stub #42792 dtd 23 Jul 08
IO EXHIBIT 131) MEL OLIVER Vessel Check List 31 Jul 08
IO EXHIBIT 132) MEL OLIVER cell phone record 12-31 Jul 08
IO EXHIBIT 133) DRD Monthly Vessel Check List MEL OLIVER 9 Jul 08
IO EXHIBIT 134) MEL OLIVER phone record for #504-495-9681 12 Jul-11 Aug 08
IO EXHIBIT 135) DRD Personnel File – [redacted] (in pertinent part)
IO EXHIBIT 136) [redacted] hand-drawn diagram
IO EXHIBIT 137) NTSB Photos MEL OLIVER dtd 26 Jul 08
IO EXHIBIT 138) USCG Photo MEL OLIVER skiff dtd 23 Jul 08
IO EXHIBIT 139) USCG Photos MEL OLIVER dtd 23 Jul 08
IO EXHIBIT 140) USCG Photo MEL OLIVER drydock
IO EXHIBIT 141) Stone Oil transfer Record 22 Jul 08 re: DM932
IO EXHIBIT 142) DRD Payroll register – pages 31, 86, 509, 512, 540, 544 & 635
IO EXHIBIT 143) DRD Paystubs – DRD Records – [redacted] Jan-Jun 08
IO EXHIBIT 144) [redacted] letter dtd 1 Oct 08 re: July paystubs
IO EXHIBIT 145) DRD Computer paystubs Carver [redacted] Jul 08
IO EXHIBIT 146) DRD Payroll Register page 625
IO EXHIBIT 147) DRD Towing Company Payroll sheets – PAM D / MEL OLIVER1Jan-21 Jul 08
IO EXHIBIT 148) ACL Maintenance records MEL OLIVER 23-31 Jul 08
IO EXHIBIT 149) DRD 2005 AWO Audit – provided by [redacted]
IO EXHIBIT 150) [redacted] DRD Employee file (relevant part)
IO EXHIBIT 151) DRD Maintenance Supplies – MEL OLIVER 19 Jun – 22 Jul 08
IO EXHIBIT 152) DRD Towing Boat Maintenance Log MEL OLIVER 19 Jun-17 Jul 08
IO EXHIBIT 153) MEL OLIVER Port side view – 7.26.08 USCG photo
IO EXHIBIT 154) MEL OLIVER Starboard side view – 7.26.08 USCG photo
IO EXHIBIT 155) MEL OLIVER Mast – Antenna view – 7.26.08 USCG photo
IO EXHIBIT 156) MEL OLIVER Mechanical linkage #1 – 10.27.08 USCG photo
IO EXHIBIT 157) MEL OLIVER Mechanical linkage w/ paint chips – 10.27.08 USCG photo
IO EXHIBIT 158) MEL OLIVER Mechanical linkage w/box photo #1 – 10.27.08 USCG photo
IO EXHIBIT 159) MEL OLIVER Mechanical linkage w/box photo #2 – 10.27.08 USCG photo
IO EXHIBIT 160) MEL OLIVER Mechanical linkage w/box photo #3 – 10.27.08 USCG photo
IO EXHIBIT 161) MEL OLIVER Mechanical linkage w/box photo #4 – 10.27.08 USCG photo
IO EXHIBIT 162) MEL OLIVER Mechanical linkage w/box photo #5 – 10.27.08 USCG photo
IO EXHIBIT 163) MEL OLIVER Mechanical linkage w/box photo #6 – 10.27.08 USCG photo
IO EXHIBIT 164) MEL OLIVER Mechanical linkage yoke w/paint chips– 10.27.08 USCG photo
IO EXHIBIT 165) MEL OLIVER Mechanical linkage – hand-drawn depiction w/ measurements
IO EXHIBIT 166) DRD Incident Investigation & 2692 re: PAM D Casualty of 3 May 08
IO EXHIBIT 167) Drug Test Report – [redacted] – 23 Jul 08
IO EXHIBIT 168) Drug Test Report – [redacted] – 23 Jul 08
IO EXHIBIT 169) Drug Test Report – [redacted] – 23 Jul 08
IO EXHIBIT 170) Prescription for Terry Carver – 26 Nov 2007

IO EXHIBIT 171) DRD Vessel Checklists July 2008
IO EXHIBIT 172) DRD Vessel Checklists June 2008
IO EXHIBIT 173) DRD Vessel Checklists May 2008
IO EXHIBIT 174) DRD Vessel Checklists April 2008
IO EXHIBIT 175) DRD Vessel Checklists March 2008
IO EXHIBIT 176) DRD Vessel Checklists February 2008
IO EXHIBIT 177) DRD Vessel Checklists January 2008
IO EXHIBIT 178) DRD Vessel Checklists December 2007
IO EXHIBIT 179) DRD Vessel Checklists November 2007
IO EXHIBIT 180) Cell phone record – [redacted] 8 Jul – 7 Aug 08 # ending 8960
IO EXHIBIT 181) Cell phone record – [redacted] 8 Jul – 7 Aug 08 # ending 0183
IO EXHIBIT 182) Cell phone record – [redacted] 8 Jul – 7 Aug 08 # ending 0979
IO EXHIBIT 183) Cell Number Listing of DRD Vessels
IO EXHIBIT 184) Carver Phone Records 17 Jun-16 Jul 08 subpoena from Verizon
IO EXHIBIT 185) Carver Phone Records 17 Jul-6 Aug 08 subpoena from Carver
IO EXHIBIT 186) ACBL Towing Vessel Certification - DRD - December 05
IO EXHIBIT 187) ACBL Towing Vessel Certification - DRD - January 2006
IO EXHIBIT 188) ACBL Towing Vessel Certification - DRD - February 2006
IO EXHIBIT 189) ACBL Towing Vessel Certification - DRD – April (no year given)
IO EXHIBIT 190) ACBL Towing Vessel Certification - DRD – September (no year given)
IO EXHIBIT 191) ACBL Towing Vessel Certification - DRD – October (no year given)
IO EXHIBIT 192) ACBL Towing Vessel Certification - DRD – November (no year given)
IO EXHIBIT 193) ACL - 90-day Review Summary - DRD - May, June, July 2004
IO EXHIBIT 194) ACL Vendor Vessel Audit - PINTO - 7.18.07
IO EXHIBIT 195) ACL Vendor Vessel Audit - MADONNA - 7.18.07
IO EXHIBIT 196) ACL Vendor Vessel Audit - DEMI D - 7.18.07
IO EXHIBIT 197) ACL Vendor Vessel Audit - ANGELICA D - 7.18.07
IO EXHIBIT 198) ACL Vendor Vessel Audit - PAM D - 8.09.07
IO EXHIBIT 199) ACL Vendor Vessel Audit - CELEST MCKINNEY - 9.05.07
IO EXHIBIT 200) ACL Vendor Vessel Audit - KATE L - 10.04.07
IO EXHIBIT 201) ACL Vendor Vessel Audit - REGINA ANNE - 11.06.07
IO EXHIBIT 202) ACL Vendor Vessel Audit - CAROL D - 11.06.07
IO EXHIBIT 203) ACL Vendor Vessel Audit - PINTO - 2.28.08
IO EXHIBIT 204) ACL Vendor Vessel Audit - ANGELICA D - 03.12.08
IO EXHIBIT 205) ACL Vendor Vessel Audit - DEMI D - DRD - 3.12.08
IO EXHIBIT 206) Statement Captain [redacted] MV JUDY ANN - (TINTOMARA)
IO EXHIBIT 207) Statement #2 Captain [redacted] MV JUDY ANN (USCG)
IO EXHIBIT 208) [redacted] Affidavit 11.4.08 re IO Exhibit #134
IO EXHIBIT 209) Requirements for Uninspected Towing Vessels (LANTAREAINST 16710.1)
IO EXHIBIT 210) Affidavit of Captain [redacted] re: IO Exhibits 74 & 75
IO EXHIBIT 211) Lab Report - Acadiana Criminalistics Laboratory
IO EXHIBIT 212) Report – Dr. [redacted]
IO EXHIBIT 213) DRD Crew Sheet – Highlighted
IO EXHIBIT 214) Crash Stop Test Report – TINTOMARA conducted 11 Feb 2009
IO EXHIBIT 215) Deposition Transcript of [redacted] with attached exhibits
IO EXHIBIT 216) Deposition Transcript of Dr. [redacted] with attached exhibits
IO EXHIBIT 217) Drug and Alcohol test results – [redacted]
IO EXHIBIT 218) TINTOMARA VDR Data disk
IO EXHIBIT 219) Logbook Records – PAM D for the period 19 Jan -18 Jun 2008 (generally, some pages/dates are missing)

UNITED STATES OF AMERICA

DEPARTMENT OF HOMELAND SECURITY
UNITED STATES COAST GUARD

IN THE MATTER OF THE COLLISION BETWEEN THE TANK VESSEL TINTOMARA AND THE TANKER BARGE DM932 BEING PUSHED BY THE TOWING VESSEL MEL OLIVER, WHICH OCCURRED ON 23 JULY 2008

Writ of Error Coram Nobis

Dated: 7 July 2009

Issued by: LCDR [redacted] Lead Investigating Officer

At the direction of the Commander Eighth Coast Guard District a formal hearing was ordered to investigate the cause of the collision. On 12 August 2008 the formal hearing was convened. The hearing consisted of four (4) sessions covering a total of 21 days; 12 – 14 August 2008, 9 October – 5 November 2008, 18 December 2008, and 9 -10 February 2009. There was also one (1) day devoted to depositions, 11 March 2009. The official closing of the record occurred on 30 April 2009. The record was administratively re-opened and re-closed on 19 May 2009 for the sole purpose of entering IO Exhibits 217 & 218 - both of which were used during the hearing process but inadvertently failed to be numbered as exhibits.

During the course of these proceedings several subpoenas were issued, including both written and oral. For specific mention, a written subpoena was issued to American Commercial Lines (ACL) on 19 August 2008 requesting, among other things, "A complete copy of all documents related to DRD Towing, including but not limited to lease records, lease contracts, training records, drug tests, surveys, log books, log records of any kind, maintenance records, and/or tasking sheets for the period covering 1 August 2007 – 1 August 2008." A reply responsive to this particular section of the subpoena was received from ACL on or about 11 September 2008 resulting in ACL Exhibits A – N.

Supplemental thereto, on or about 22 June 2009 the undersigned received an additional response from ACL consisting of log book page entries from the UTV PAM D and the UTV MEL OLIVER for the period 19 Jan – 18 Jun 2008 (generally, some dates are missing).

Having previously closed the hearing record, it is necessary to re-open the record for insertion of the above-mentioned documents. To that end it is hereby ordered by the undersigned that the record be opened and the following exhibit be entered:

IO Exhibit 219 – Log Book Records – PAM D for the period 19 Jan – 18 Jun 2008 (generally, some dates are missing) consisting of 65 pages

Additionally submitted were 27 pages of log book records from the MEL OLIVER; however these documents are duplicative to those entered in IO Exhibit 69 so they will not garner an additional exhibit number.

With the record open it is also necessary to enter a determination as to the relevance and/or importance of these additional documents to the findings of this investigation. After careful review and consideration, the undersigned has made the following findings:

1. At a minimum four other individuals would have been called as material witnesses:
   a. [redacted]
   b.
   c.
   d.
2. Additional questioning would have been pursued regarding entries that tend to show only one licensed captain onboard during hours of transit;
3. Additional questioning would have been pursued regarding entries that tend to show continuous operation of the vessel by the same individual for periods lasting more than 12 hours;
4. Additional questioning would have been pursued regarding entries that tend to show Steersman [redacted] holding his own watch without direct oversight;
5. Additional questioning would have been pursued regarding entries that tend to show vessel operation by individuals who do not hold a valid Captain license;
6. Additional questioning would have been pursued regarding entries that tend to show unlicensed or improperly licensed individuals holding their own watch without direct oversight;
7. Additional questioning would have been pursued regarding processing of these log book records, to wit: who received originals, copies of originals (whether via fax, e-mail or photocopy), storage of completed books, use and review of information contained thereon; etc.

Notwithstanding the relevancy and substantial importance of these new documents to the investigation, the undersigned finds it unnecessary to re-open oral testimony. Any information that would have been obtained during oral testimony would likely have strengthened the findings and conclusions already adduced during the course of the hearing however, it is extremely unlikely that such information would have prompted new or additional safety recommendations. For that reason, the documents will be entered and will stand on face value; to that end, IO Exhibit 219 can and will be addressed in the Formal Report of Investigation inasmuch as they address or strengthen findings or conclusions already made.

Having been entered into the record, IO Exhibit 219 will be enclosed with this notice and forwarded to all parities-in-interest, the representative of the Flag State of Liberia, and to the National Transportation Safety Board.

Having nothing further, it is ordered that the record be closed.

Done and dated this 7th day of July 2009,
Eighth Coast Guard District, New Orleans, Louisiana

[redacted]
LCDR
Lead Investigating Officer
United States Coast Guard

Enclosure 1: ACL letter dated June 12, 2009
Enclosure 2: IO Exhibit 219